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

PREQUALIFICATION

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

REQUESTS FOR AUTHORIZATION TO BID

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

WHO CAN BID ?

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

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

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

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

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

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

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

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

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

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

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

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

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

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

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

Proposal Submitted By

1	0	4
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Name

Address

City

Letting June 15, 2007

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction. (SEE INSTRUCTIONS ON THE INSIDE OF COVER)

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



Springfield, Illinois 62764

Contract No. 62895 WILL County Section 99(1&2)WRS District 1 Construction Funds Route FAI 55

PLEASE MARK THE APPROPRIATE BOX BELOW:

A <u>Bid Bond</u> is included.

A Cashier's Check or a Certified Check is included.

Prepared	by	

Checked by Printed by authority of the State of Illinois

S

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

INSTRUCTIONS

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

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

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

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

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

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

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

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) ______a

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

Contract No. 62895 WILL County Section 99(1&2)WRS Route FAI 55 District 1 Construction Funds

Widening and resurfacing along 4.10 miles of I-55 to provide a third lane in both northbound and southbound directions beginning at I-80 and continuing to Black Road in or near Shorewood and Joliet.

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.

BD 353A (Rev. 12/2005)

- 3. ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER. The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.
- 4. EXECUTION OF CONTRACT AND CONTRACT BOND. The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
- 5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

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

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

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

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

	Attach Cashier's	Check or Certified	Check Here
--	------------------	--------------------	------------

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

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

Item _____

Section No. _____

County _____

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

BD 354 (Rev. 11/2001)

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		Combination B	id
No.	Sections Included in Combination	Dollars	Cents

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

C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -

99(1&2)WRS

Section Number -

Project Number * DELETED

* REVISED : MAY 31, 2007

Route

FAI 55

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
XX002870	AGGREGATE SHLDS B SPL	SQ YD	11,102.000				
XX003988	TEMP CONC BARRIER REM	FOOT	268.000				
XX005472	DRAINAGE STRUCTURE SP	EACH	4.000				
XX006937	GROUND ROD 5/8 X 10	EACH	7.000				
X0322256	TEMP INFO SIGNING	SQ FT	1,126.000				
X0322323	WEED CONTROL TEASEL	GALLON	2.500				
X0322729	MATL TRANSFER DEVICE	TON	47,610.000				
X0322936	REMOV EX FLAR END SEC	EACH	20.000				
X0323426	SED CONT DR ST INL CL	EACH	272.000				
X0323574	MAINTAIN LIGHTING SYS	CAL MO	15.000				
X0323879	SERVICE PATROL	CAL DA	330.000				
X0323973	SED CONT SILT FENCE	FOOT	2,268.000				
X0323974	SED CONT SILT FN MAIN	FOOT	1,973.000				
X0323988	TEMP SOIL RETEN SYSTM	SQ FT	382.000				
X0324045	SED CON STAB CON EN R	EACH	8.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -1 - -District -

99(1&2)WRS

Section Number -

Project Number * DELETED

* REVISED : MAY 31, 2007

Route

FAI 55

Item		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
X0324685	TEST STRIP SMA	EACH	2.000				
X0324774	SED CON STAB CONST EN	SQ YD	1,864.000				
X0324775	SED CON STAB CON EN M	SQ YD	1,864.000				
X0325733	TEMP ASPHALT WEDGE	SQ YD	2,147.000				
X0325740	UD 3#2#4GEPRRHW 1 1/2	FOOT	1,635.000				
X0325741	RC PIPE ELBOW S30 R19	EACH	4.000				
X0484300	MEDIAN INLET BOX REM	EACH	8.000				
X4066580	POL HMA SC SMA N80	TON	25,991.000				
X4066685	POL HMA BC SMA N80	TON	21,619.000				
* X4421000	PARTIAL DEPTH PATCH	TON	109.000				
* X4422025	PARTIAL DEPTH REM 2	SQ YD	970.000				
X6370920	CONC BAR 1F 42HT	FOOT	519.000				
X6370940	CONC BAR 2F 42HT	FOOT	19,259.000				
X7011015	TR C-PROT EXPRESSWAYS	L SUM	1.000				
X7013820	TR CONT SURVEIL EXPWY	CAL DA	330.000				
Z0001050	AGG SUBGRADE 12	SQ YD	99,436.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
			* REVISED : MAY 31, 2007				

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* DELETED

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Section Number -99(1&2)WRS

Project Number

Route

FAI 55

Item		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
Z0018500	DRAINAGE STR CLEANED	EACH	5.000				
Z0030150	IMPACT ATTEN NRD TL3	EACH	1.000				
Z0030260	IMP ATTN TEMP FRN TL3	EACH	9.000				
Z0030330	IMP ATTN REL FRD TL3	EACH	6.000				
Z0056220	SAND MOD IMP ATT REM	EACH	4.000				
Z0068400	STEEL CASINGS 42	FOOT	40.000				
* DELETED							
20100110	TREE REMOV 6-15	UNIT	97.000				
20100210	TREE REMOV OVER 15	UNIT	170.000				
20101000	TEMPORARY FENCE	FOOT	1,312.000				
20200100	EARTH EXCAVATION	CU YD	29,571.000				
20201200	REM & DISP UNS MATL	CU YD	22,614.000				
20700420	POROUS GRAN EMB SUBGR	CU YD	5,851.000				
20800150	TRENCH BACKFILL	CU YD	3,694.000				
21001000	GEOTECH FAB F/GR STAB	SQ YD	21,618.000				
			* REVISED : MAY 31, 2007				

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Section Number -99(1&2)WRS Route

FAI 55

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
21101625	TOPSOIL F & P 6	SQ YD	7,924.000				
21101815	COMPOST F & P 4	SQ YD	24,941.000				
25000210	SEEDING CL 2A	ACRE	1.670				
25000310	SEEDING CL 4	ACRE	4.510				
25000400	NITROGEN FERT NUTR	POUND	150.000				
25000500	PHOSPHORUS FERT NUTR	POUND	150.000				
25000600	POTASSIUM FERT NUTR	POUND	150.000				
25002024	SEEDING CL 4B MOD	ACRE	0.640				
25100115	MULCH METHOD 2	ACRE	7.570				
25100630	EROSION CONTR BLANKET	SQ YD	29,927.000				
28000250	TEMP EROS CONTR SEED	POUND	693.000				
28000300	TEMP DITCH CHECKS	EACH	31.000				
28000500	INLET & PIPE PROTECT	EACH	4.000				
28000510	INLET FILTERS	EACH	272.000				
28100105	STONE RIPRAP CL A3	SQ YD	156.000				

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FAI 55

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
28100107	STONE RIPRAP CL A4	SQ YD	132.000				
28200200	FILTER FABRIC	SQ YD	132.000				
31101400	SUB GRAN MAT B 6	SQ YD	3,522.000				
35501288	HMA BASE CSE 2 1/2	SQ YD	89,656.000				
35501316	HMA BASE CSE 8	SQ YD	89,656.000				
35501330	HMA BASE CSE 11 1/2	SQ YD	3,262.000				
40600200	BIT MATLS PR CT	TON	196.000				
40600300	AGG PR CT	TON	144.000				
40600400	MIX CR JTS FLANGEWYS	TON	49.800				
40600895	CONSTRUC TEST STRIP	EACH	6.000				
40600982	HMA SURF REM BUTT JT	SQ YD	1,893.000				
40601005	HMA REPL OVER PATCH	TON	741.000				
40603340	HMA SC "D" N70	TON	4,079.000				
42001300	PROTECTIVE COAT	SQ YD	2,657.000				
44000100	PAVEMENT REM	SQ YD	389.000				

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1-74984-0300

99(1&2)WRS

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Project Number * DELETED

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Route

FAI 55

Section Number -99(1&2)WRS

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	x	Unit Price	=	Total Price
44000163	HMA SURF REM 3 1/2	SQ YD	126,313.000				
44000198	HMA SURF REM VAR DP	SQ YD	38,472.000				
44000920	BIT CONC SHLD REM	SQ YD	30,472.000				
44002214	HMA RM OV PATCH 3 1/2	SQ YD	3,779.000				
44004510	PCC SHOULDER REMOVAL	SQ YD	644.000				
44201761	CL D PATCH T1 10	SQ YD	687.000				
44201765	CL D PATCH T2 10	SQ YD	2,171.000				
44201769	CL D PATCH T3 10	SQ YD	325.000				
44201771	CL D PATCH T4 10	SQ YD	44.000				
44300200	STRIP REF CR CON TR	FOOT	126,935.000				
48101600	AGGREGATE SHLDS B 8	SQ YD	1,662.000				
50105220	PIPE CULVERT REMOV	FOOT	576.000				
50200100	STRUCTURE EXCAVATION	CU YD	103.000				
50300225	CONC STRUCT	CU YD	91.700				
50800105	REINFORCEMENT BARS	POUND	10,460.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 WILL--County Name -Code -197 - -District -1 - -

51603000 DRILLED SHAFT IN SOIL

51604000 DRILLED SHAFT IN ROCK

54213657 PRC FLAR END SEC 12

54213663 PRC FLAR END SEC 18

54213669 PRC FLAR END SEC 24

54213681 PRC FLAR END SEC 36 54214509 PRC FL END S EQ RS 24

54215979 R C PIPE ELBOW 24

54247130 GRATING-C FL END S 24

54247170 GRATING-C FL END S 36

54248130 GRT-C FL END S EQV 24

55019600 SS 1 RCP CL 4 15

Section Number -

ltem

Number

Project Number

* DELETED

* REVISED : MAY 31, 2007

38.800

3.000

4.000

5.000

7.000

2.000

4.000

18.000 3.000

1.000

3.000

486.000

Route **FAI 55**

99(1&2)WRS Unit of Measure Pay Item Description Quantity 50800205 REINF BARS, EPOXY CTD POUND 21,930.00 51500100 NAME PLATES EACH 1.00 FOOT 51602000 PERMANENT CASING 63.000

CU YD

CU YD

EACH

EACH

EACH

EACH

EACH

EACH

EACH

EACH

EACH

FOOT

	x	Unit Price	I	Total Price
0				
0				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -

99(1&2)WRS

Section Number -

Project Number * DELETED

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Route

FAI 55

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
55019700	SS 1 RCP CL 4 18	FOOT	135.000				
55020500	SS 1 RCP CL 2 48	FOOT	9.000				
55021600	SS 2 RCP CL 3 12	FOOT	2,027.000				
55021700	SS 2 RCP CL 3 15	FOOT	4,936.000				
55021800	SS 2 RCP CL 3 18	FOOT	5,073.000				
55021900	SS 2 RCP CL 3 21	FOOT	856.000				
55022000	SS 2 RCP CL 3 24	FOOT	2,360.000				
55022100	SS 2 RCP CL 3 27	FOOT	148.000				
55022200	SS 2 RCP CL 3 30	FOOT	81.000				
55022400	SS 2 RCP CL 3 36	FOOT	299.000				
55034200	SS 1 RCEP S23 R14	FOOT	164.000				
55034300	SS 1 RCEP S30 R19	FOOT	245.000				
55035400	SS 2 RCEP S30 R19	FOOT	2,219.000				
55035600	SS 2 RCEP S38 R24	FOOT	805.000				
55039700	SS CLEANED	FOOT	2,031.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -

Project Number * DELETED

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Route

FAI 55

Section Number -99(1&2)WRS

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	х	Unit Price	=	Total Price
55100500	STORM SEWER REM 12	FOOT	16.000				
55100700	STORM SEWER REM 15	FOOT	29.000				
55100900	STORM SEWER REM 18	FOOT	392.000				
55101200	STORM SEWER REM 24	FOOT	249.000				
552A0900	SS JKD CL A 24	FOOT	73.000				
58600100	SAND BACKFILL	CU YD	105.000				
58700300	CONCRETE SEALER	SQ FT	2,354.000				
60100060	CONC HDWL FOR P DRAIN	EACH	1.000				
60107700	PIPE UNDERDRAINS 6	FOOT	30,991.000				
60108200	PIPE UNDERDRAIN 6 SP	FOOT	423.000				
60200905	CB TA 4 DIA T9F&G	EACH	4.000				
60201310	CB TA 4 DIA T20F&G	EACH	196.000				
60201320	CB TA 4 DIA T21F&G	EACH	12.000				
60205010	CB TA 5 DIA T20F&G	EACH	41.000				
60205020	CB TA 5 DIA T21F&G	EACH	11.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -

99(1&2)WRS

Section Number -

Project Number * DELETED

* REVISED : MAY 31, 2007

Route

FAI 55

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60219000	MAN TA 4 DIA T8G	FACH	1.000				
60221100	MAN TA 5 DIA T1F CI	FACH	2 000				
60221700		FACH	1 000				
60224035	MAN TA 6 DIA T20F&G	EACH	3 000				
60300105	FR & GRATES ADJUST	FACH	270.000				
60500040		FACH	23 000				
60600605		FOOT	120,000				
60602200	CONC GUTTER	FOOT	28.196.000				
60618320	CONC MEDIAN SURF 6	SQ FT	687.000				
60621600	CONC MED TSM	SQ FT	761.000				
6300000	SPBGR TY A	FOOT	1,050.000				
63100085	TRAF BAR TERM T6	EACH	3.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	5.000				
63200310	GUARDRAIL REMOV	FOOT	15,503.000				
63301210	REM RE-E SPBGR TY A	FOOT	125.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -

Section Number -99(1&2)WRS

Project Number

* REVISED : MAY 31, 2007

* DELETED

Route

FAI 55

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
63500105	DELINEATORS	EACH	130.000				
63700805	CONC BAR TRANS	FOOT	1,558.000				
63700900	CONC BARRIER BASE	FOOT	21,336.000				
64200105	SHOULDER RUMBLE STRIP	FOOT	75,472.000				
67100100	MOBILIZATION	L SUM	1.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	54.000				
70300520	PAVT MARK TAPE T3 4	FOOT	237,148.000				
70300530	PAVT MARK TAPE T3 5	FOOT	29,036.000				
70300550	PAVT MARK TAPE T3 8	FOOT	36,160.000				
70300560	PAVT MARK TAPE T3 12	FOOT	2,357.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	84,411.000				
70400100	TEMP CONC BARRIER	FOOT	43,852.000				
72000100	SIGN PANEL T1	SQ FT	17.000				
72000200	SIGN PANEL T2	SQ FT	383.000				
72000300	SIGN PANEL T3	SQ FT	2,503.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -1 - -District -

99(1&2)WRS

Section Number -

Project Number * DELETED

* REVISED : MAY 31, 2007

Route

FAI 55

ltem Number	Day Itom Description	Unit of	Quantitu		Unit Price	_	Total Price
number	Pay item Description	Weasure	Quantity	X	Unit Price	=	Total Price
72400100	REMOV SIN PAN ASSY TA	EACH	9.000				
72400200	REMOV SIN PAN ASSY TB	EACH	33.000				
72400330	REMOV SIGN PANEL T3	SQ FT	2,018.000				
72400600	RELOC SIN PAN ASSY TB	EACH	1.000				
72600100	MILEPOST MKR ASSEMBLY	EACH	5.000				
72700100	STR STL SIN SUP BA	POUND	257.000				
73000100	WOOD SIN SUPPORT	FOOT	786.000				
73400100	CONC FOUNDATION	CU YD	1.400				
73700100	REM GR-MT SIN SUPPORT	EACH	2.000				
73700200	REM CONC FDN-GR MT	EACH	2.000				
* 78000200	THPL PVT MK LINE 4	FOOT	77,547.000				
78000500	THPL PVT MK LINE 8	FOOT	22,325.000				
78000600	THPL PVT MK LINE 12	FOOT	4,246.000				
78003110	PREF PL PM TB LINE 4	FOOT	467.000				
78003120	PREF PL PM TB LINE 5	FOOT	22,081.000				
			* REVISED : MAY 31, 2007				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -Section Number -99(1&2)WRS

Project Number

* DELETED

* REVISED : MAY 31, 2007

Route

FAI 55

ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	x	Unit Price	=	Total Price
78005110	EPOXY PVT MK LINE 4	FOOT	53,266.000				
78005120	EPOXY PVT MK LINE 5	FOOT	34,599.000				
78005140	EPOXY PVT MK LINE 8	FOOT	2,502.000				
78005150	EPOXY PVT MK LINE 12	FOOT	3,135.000				
78008210	POLYUREA PM T1 LN 4	FOOT	14,955.000				
78008220	POLYUREA PM T1 LN 5	FOOT	2,488.000				
78100100	RAISED REFL PAVT MKR	EACH	2,567.000				
78100300	REPLACEMENT REFLECTOR	EACH	2,474.000				
78200100	MONODIR PRIS BAR REFL	EACH	8,639.000				
78200410	GUARDRAIL MKR TYPE A	EACH	22.000				
78200530	BAR WALL MKR TYPE C	EACH	526.000				
78201000	TERMINAL MARKER - DA	EACH	4.000				
78300100	PAVT MARKING REMOVAL	SQ FT	31,262.000				
78300200	RAISED REF PVT MK REM	EACH	1,081.000				
81900200	TR & BKEIL F FLFCT WK	FOOT	1.635.000				

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C-91-093-05 State Job # -PPS NBR -1-74984-0300 County Name -WILL--Code -197 - -District -1 - -Section Number -99(1&2)WRS

Project Number * DELETED

* REVISED : MAY 31, 2007

Route FAI 55

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
82102400	LUM SV HOR MT 400W	EACH	1.000				
83050810	LT P A 47.5MH 15MA	EACH	1.000				
83600200	LIGHT POLE FDN 24D	FOOT	66.500				
83800505	BKWY DEV COU AL SKIRT	EACH	4.000				
84200800	POLE FOUNDATION RM	EACH	6.000				
84400105	RELOC EX LT UNIT	EACH	6.000				

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CONTRACT NUMBER

62895

THIS IS THE TOTAL BID \$

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

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

I. GENERAL

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

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

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

II. ASSURANCES

A. The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

B. Felons

1. The Illinois Procurement Code provides:

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

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

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

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

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

E. Inducements

1. The Illinois Procurement Code provides:

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

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

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

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

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

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

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

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

H. Confidentiality

1. The Illinois Procurement Code provides:

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

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

I. Insider Information

1. The Illinois Procurement Act provides:

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

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

III. CERTIFICATIONS

A. The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

(b) Businesses. No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

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

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

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

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

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

C. Educational Loan

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

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

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

D. Bid-Rigging/Bid Rotating

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

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

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

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

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

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

E. International Anti-Boycott

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

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

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

F. Drug Free Workplace

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

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

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

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

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

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

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

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

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

G. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

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

I. Addenda

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

J. Section 42 of the Environmental Protection Act

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

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

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.

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

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

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

TO BE RETURNED WITH BID

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

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

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

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

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

C. Disclosure Form Instructions

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

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

CERTIFICATION STATEMENT

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

(Bidding Company)

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative

Date

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

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

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$90,420.00? YES ____ NO____
- Does anyone in your organization receive more than \$90,420.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ____ NO ___
- 4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$90,420.00? YES ____ NO ___

(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

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

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

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

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

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

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

D. Bidders Submitting More Than One Bid

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

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

RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)
L Disclosure of the information cor (30 ILCS 500). Vendors desiring and potential conflict of interest i the publicly available contract fil ended contracts. A publicly t satisfaction of the requirement	ntained in this Form is required b to enter into a contract with the s nformation as specified in this Dis e. This Form A must be comple raded company may submit a	y the Section 50-35 of the Illinois Procurement Code State of Illinois must disclose the financial information sclosure Form. This information shall become part of eted for bids in excess of \$10,000, and for all open- a 10K disclosure (or equivalent if applicable) in closure Form Instructions
satisfaction of the requirement	DISCLOSURE OF FINANCI	AL INFORMATION
1. Disclosure of Financial Inf terms of ownership or distributiv \$90,420.00 (60% of the Govern separate Disclosure Form A f	ormation. The individual named ve income share in excess of 5%, or's salary as of 7/1/01). (Make c or each individual meeting thes	below has an interest in the BIDDER (or its parent) in or an interest which has a value of more than opies of this form as necessary and attach a se requirements)
FOR INDIVIDUAL (type or pr	int information)	
NAME:		
ADDRESS		
Type of ownership/distril	outable income share:	
stock sole p % or \$ value of ownership/	proprietorship Partne distributable income share:	ership other: (explain on separate sheet):

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

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___No ___

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___
- Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State agency for which you are employed and your annual salary.

RETURN WITH BID/OFFER

- If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ____No ___
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ____No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes <u>No</u>

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60 % of the Governor's salary as of 7/1/01) provide the name of 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 \$90,420.00, (60% of the salary of the Governor as of 7/1/01) are you entitled to receive (i) more then 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or 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 2 times the salary of the Governor?

Yes No

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

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

- (e) Appointive office; the holding of any appointive government office of the State of Illinois, the United 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 <u>No</u>

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

RETURN WITH BID/OFFER

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes No
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes No ____

APPLICABLE STATEMENT This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Completed by: Name of Authorized Representative (type or print) Completed by: Title of Authorized Representative (type or print) Completed by: Signature of Individual or Authorized Representative Date NOT APPLICABLE STATEMENT I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A. This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page. Name of Authorized Representative (type or print) Title of Authorized Representative (type or print) Signature of Authorized Representative Date

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Procurement Related Information Disclosure

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

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

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE SIGNED

Name of Authorized Representative (type or prin	nt)
 Title of Authorized Representative (type or prin	t)
 Signature of Authorized Representative	

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.



Contract No. 62895 WILL County Section 99(1&2)WRS Route FAI 55 District 1 Construction Funds

PART I. IDENTIFICATION

Dept. Human Rights #___

_____ Duration of Project: ___

Name of Bidder:

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract: TABLE A TABLE B

TOTAL Workforce Projection for Contract									1	CURRENT EMPLOYEES								
						TRAINIEEO					TO BE ASSIGNED							
								IRAINEES										
JUB		OVEES							APPREN-		ON THE JOB							
CATEGORIES	EMPL		BL/		HISPANIC		WIINOR.							EMPLOYEES			EMPLOYEES	
	IVI	F	IVI	F	IVI	F	IVI	F	IVI	F	IVI	Г		IVI	F		IVI	F
(MANAGERS)																		
																	-	
SUPERVISORS																		
FOREMEN																		
CLERICAL																		
EQUIPMENT																		
OPERATORS																		
MECHANICO																		
MECHANICS							-											
TRUCK DRIVERS																		
IRONWORKERS																		
CARPENTERS																		
																	-	
CEMENT MASONS																		
ELECTRICIANS																		
PIPEFITTERS,																1		
PLUMBERS																		
PAINTERS																		
LABORERS, SEMI-SKILLED																		
LABORERS, UNSKILLED																		
TOTAL																		

TABLE C

TOTAL Training Projection for Contract												
EMPLOYEES	TO	TAL					*OTHER					
IN	EMPLO	OYEES	BLA	CK	HISP	ANIC	MINOR.					
TRAINING	M F		М	F	M F		М	F				
APPRENTICES												
ON THE JOB TRAINEES												

*Other minorities are defined as Asians (A) or Native Americans (N).

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

Note: See instructions on the next page

FOR DEPARTMENT USE ONLY

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Contract No. 62895 WILL County Section 99(1&2)WRS Route FAI 55 **District 1 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

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

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

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company _____

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: _____

Telephone Number _____

All tables must include subcontractor personnel in addition to prime contractor personnel. Instructions:

- 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.
- Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees Table B currently employed.
- Table C -Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

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Contract No. 62895 WILL County Section 99(1&2)WRS Route FAI 55 District 1 Construction Funds

PROPOSAL SIGNATURE SHEET

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

	Firm Name	
(IF AN INDIVIDUAL)	Signature of Owner	
	Business Address	
	Firm Name	
	Ву	
(IF A CO-PARTNERSHIP)	Business Address	
		Name and Address of All Members of the Firm:
_		
-		
	Corporate Name	
	Ву	Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
(IF A CORPORATION)	Attest	
(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE		Signature
SECOND PARTY SHOULD SIGN BELOW)	Business Address	
	Corporato Namo	
	Ву	Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
(Attest	Signatura
		Signature
	DUSINESS ADDRESS	
If more than two parties are in the joint venture	e, please attach an ac	dditional signature sheet.





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

Item No.

Letting Date

KNOW ALL MEN BY THESE PRESENTS, That We

as PRINCIPAL, and

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 Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

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

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

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

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

PRINCIPAL	SURETY
(Company Name)	(Company Name)
By:	By:
(Signature & Title)	(Signature of Attorney-in-Fact)
STATE OF ILLINOIS, COUNTY OF	Notary Certification for Principal and Surety
I,	, a Notary Public in and for said County, do hereby certify that
	_and
(Insert names	f individuals signing on behalf of PRINCIPAL & SURETY)
who are each personally known to me to be the s PRINCIPAL and SURETY, appeared before me th instrument as their free and voluntary act for the u	me persons whose names are subscribed to the foregoing instrument on behalf of s day in person and acknowledged respectively, that they signed and delivered said ses and purposes therein set forth.
Given under my hand and notarial seal this	day of, A.D
My commission expires	

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

Electronic Bid Bond ID#

Signature and Title

PROPOSAL ENVELOPE



PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

lame:	
Address:	
Phone No.	

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

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

NOTICE

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

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

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

Contract No. 62895 WILL County Section 99(1&2)WRS Route FAI 55 District 1 Construction Funds





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., June 15, 2007. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 62895 WILL County Section 99(1&2)WRS Route FAI 55 District 1 Construction Funds

Widening and resurfacing along 4.10 miles of I-55 to provide a third lane in both northbound and southbound directions beginning at I-80 and continuing to Black Road in or near Shorewood and Joliet.

- 3. INSTRUCTIONS TO BIDDERS. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.
 - (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the Illinois Department of Transportation

Milton R. Sees, Acting Secretary

BD 351 (Rev. 01/2003)

INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2007

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

SUPPLEMENTAL SPECIFICATIONS

Std. Spec. Sec.

Page No.

No Supplemental Specifications this year.

RECURRING SPECIAL PROVISIONS

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

CHEC	CK S	SHEET #	AGE NO.
1		Additional State Requirements For Federal-Aid Construction Contracts	
		(Eff. 2-1-69) (Rev. 1-1-07)	1
2		Subletting of Contracts (Federal-Aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	3
3	Х	EEO (Eff. 7-21-78) (Rev. 11-18-80)	4
4	Х	Specific Equal Employment Opportunity Responsibilities	
		Non Federal-Aid Contracts (Eff. 3-20-69) (Rev. 1-1-94)	14
5	Х	Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 1-1-07)	19
6		Reserved	24
7	Х	National Pollutant Discharge Elimination System Permit (Eff. 7-1-94) (Rev. 1-1-03)	25
8		Haul Road Stream Crossings, Other Temporary Stream Crossings, and	
		In-Stream Work Pads (Eff. 1-2-92) (Rev. 1-1-98)	26
9		Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-07)	27
10	Х	Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-07)	30
11		Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	33
12		Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 1-1-07)	35
13		Hot-Mix Asphalt Surface Removal (Cold Milling) (Eff. 11-1-87) (Rev. 1-1-07)	39
14	Х	Pavement and Shoulder Resurfacing (Eff. 2-1-00) (Rev. 1-1-07)	41
15		PCC Partial Depth Hot-Mix Asphalt Patching (Eff. 1-1-98) (Rev. 1-1-07)	42
16	Х	Patching with Hot-Mix Asphalt Overlay Removal (Eff. 10-1-95) (Rev. 1-1-07)	44
17		Polymer Concrete (Eff. 8-1-95) (Rev. 3-1-05)	45
18		PVC Pipeliner (Eff. 4-1-04) (Rev. 1-1-07)	47
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Revise	ed 06/01/2007

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2007, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures 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 FAI Route 55, Section 99 (1&2) WRS, in Will County, Illinois, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

F.A.I. Route 55 Widening and Resurfacing From F.A.I. Route 80 to Black Road SECTION 99 (1&2) WRS WILL COUNTY, ILLINOIS

LOCATION OF PROJECT

Interstate 55 is a major interstate freeway linking downtown Chicago with the southwest suburbs. The project begins at a point on the centerline of the southbound lanes of existing F.A.I. Route 55, approximately 0.45 miles south of the centerline of F.A.I. Route 80 in Will County and extends approximately 4.10 miles to the south end of the center pier for the Black Road Bridge over F.A.I. Route 55.

DESCRIPTION OF PROJECT

The project consists of the widening and resurfacing of F.A.I. 55 to provide a third lane in both the north bound (NB) and south bound (SB) directions of travel, construction of accident investigation sites at the interchange with U.S. Route 52, and construction of a pier near IL 59.

The work to be performed under this contract shall include, but not be limited to, pavement and shoulder removal, hot-mix asphalt surface removal, and removal of other miscellaneous items; bridge crash wall modification, hot-mix asphalt patching, hot-mix asphalt resurfacing, hot-mix asphalt pavement widening, hot-mix asphalt shoulders with shoulder rumble strips, concrete median barrier, storm sewers and appurtenances, culverts, pipe underdrains, landscaping, lighting, ground mounted signs (note that the signing work begins at the I&M Canal, approximately 0.8 miles south of the project limits), pavement markings, and all incidental and collateral work necessary to complete the project as shown on the plans and as described herein.

Revised 06/01/2007

WORK RESTRICTIONS

The Contractor shall not proceed with any construction operations, which would require permanent (24 hour per day) lane closures, lane shifts, and / or shoulder closures on the expressway, arterial routes and local streets prior to August 4, 2007.

The Engineer's written approval shall be obtained by the Contractor before proceeding with any work that interferes with traffic prior to the above date. Off-road work may proceed prior to the above date if approved by the Engineer.

COMPLETION DATE FOR STAGE I 2007 CONSTRUCTION SEASON

The Contractor shall complete all work shown on the plans for the Typical Section for Stage I 2007 Construction Season and shall transfer traffic into the configuration shown on the plans for the Typical Section for Winter Shutdown by 11:59 p.m. on November 15, 2007.

The Contractor may elect to complete all work shown on the plans for the Typical Section for Stage I 2007 Construction Season for an additional or different section or sections than shown on the plans. The additional or different section or sections shall have a minimum total length of 1,000 feet, and the Contractor shall complete all work shown on the plans for the Typical Section for Stage I 2007 Construction Season and shall transfer traffic into the configuration shown on the plans for the Typical Section for Winter Shutdown for the additional or different section or sections by 11:59 p.m. on November 15, 2007. The Engineer's written approval of the proposed additional or different section or sections shall be obtained by the Contractor before proceeding with any work that interferes with traffic within these sections.

Lane closures, lane shifts, narrow lanes, and / or permanent shoulder closures will not be permitted on I-55 beginning November 16, 2007 through March1, 2008. During this period, the Contractor shall maintain traffic in the configuration shown on the plans for the Typical Section for Winter Shutdown.

The cost of any additional traffic control and protection or temporary drainage due to the above requirements will not be paid for separately but shall be included in the contract unit price for Traffic Control and Protection (Expressways).

Temporary concrete barrier will be measured and paid for according to Section 704.

Temporary impact attenuators will be measured and paid for according to the special provision for Impact Attenuators, Temporary (BDE).

Pavement marking and work zone pavement marking removal will be measured and paid for according to the applicable portions of Sections 704 and 780.

FAILURE TO COMPLETE THE WORK ON TIME STAGE 1 2007 CONSTRUCTION SEASON

Effective: September 30, 1985

Revised: January 1, 2007

Should the Contractor fail to complete the work on or before the completion date as specified in the Special Provision for "Completion Date For stage 1 2007 Construction Season", or within such extended time as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of \$2,550.00, not as a penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of use of the roadway if the project is delayed in completion. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

COMPLETION DATE PLUS WORKING DAYS (FINAL)

Effective: September 30, 1985

Revised: January 1, 2007

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on October 31, 2008 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within 15 working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for clean up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for "Failure to Complete the Work on Time", if included in this contract, shall apply to both the completion date and the number of working days.

FAILURE TO COMPLETE THE WORK ON TIME (FINAL)

Effective: September 30, 1985

Revised: January 1, 2007

Should the Contractor fail to complete the work on or before the completion date as specified in the Special Provision for "Completion Date Plus Working Days", or within such extended time as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of <u>\$8,000</u>, not as a penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of use of the roadway if the project is delayed in completion. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

COOPERATIVE INCENTIVE PAYMENT PLAN

Effective: October 1, 1995

Revised: January 1, 2007

The Contractor shall be entitled to only cooperative incentive payment for completing all contract items and safely opening all roadways to traffic in accordance with the requirements of the special provision "Completion Date Plus Working Days (Final)".

The Contractor and the Department recognize that the prosecution of work by other contractors may not be effectively under the control of the Contractor; however, it is also recognized and agreed that the nature of the project is such that use of the highway cannot safely and efficiently begin until all sections are completed.

Should work under this contract, as described above, and all work on the Department Contracts,

Section 99 (1 & 2) WRS Contract No. 62895 County: Will

Section 99 (1 & 2) WRS-2 Contract No. 60B46 County: Will

Section 99 (1&2) WRS-1 Contract No. 62896 Will County

FAI-55 Section 99 (1 & 2) WRS Contract No. 62895 County: Will

Section 99 (1&2) WRS-3 Contract No. 60B47 Will County

be completed, the Contractor shall be entitled to \$8,000 as a cooperative incentive payment for each calendar day of completion prior to October 31, 2008. No cooperative incentive payment will be made solely because the Contractor has finished early and no cooperative incentive payment will begin to accrue until the date of completion of work under this contract, as described above, and until the date of completion of all work on the Department Contracts,

Section 99 (1 & 2) WRS Contract No. 62895 County: Will

Section 99 (1 & 2) WRS-2 Contract No. 60B46 County: Will

Section 99 (1&2) WRS-1 Contract No. 62896 Will County

Section 99 (1&2) WRS-3 Contract No. 60B47 Will County

Should the Contractor be delayed in the commencement, prosecution or completion of the work for any reason, there shall be no extension of the cooperative incentive payment completion date even though there may be granted an extension of time for completion of the work. No cooperative incentive will be paid if the Contractor fails to complete the work before the specified completion date. Failure by the Contractor to complete all work as specified above before (2) <u>October 31, 2008</u> shall release and discharge the State, the Department and all of its officers, agents and employees from any and all claims and demands for payment of any incentive amount or damages arising from the refusal to pay an incentive amount. Cooperative incentive payments shall in no event be paid for more than 25 calendar days.

The cooperative incentive payment shall be paid at the rate of <u>\$8,000</u> per calendar day for completion of work, as specified above, each day prior to the completion date, as indicated in TABLE A. The maximum payment under this cooperative incentive plan will be limited to <u>25</u> calendar days.

TABLE A

Date Completed	cooperative Incentive	Date Completed	Disincentive Deduction
(1)			
October 6, 2008	\$200,000	October 31, 2008	0
October 7, 2008	\$192,000	November 1, 2008	\$8,000
October 8, 2008	\$184,000	November 2, 2008	\$16,000
October 9, 2008	\$176,000	November 3, 2008	\$24,000
October 10, 2008	\$168,000	November 4, 2008	\$32,000
October 11, 2008	\$160,000	November 5, 2008	\$40,000
October 12, 2008	\$152,000	November 6, 2008	\$48,000
October 13, 2008	\$144,000	November 7, 2008	\$56,000
October 14, 2008	\$136,000	November 8, 2008	\$64,000
October 15, 2008	\$128,000	November 9, 2008	\$72,000
October 16, 2008	\$120,000	November 10, 2008	\$80,000
October 17, 2008	\$112,000	November 11, 2008	\$88,000
October 18, 2008	\$104,000	November 12, 2008	\$94,000
October 19, 2008	\$96,000	November 13, 2008	\$104,000
October 20, 2008	\$88,000	November 14, 2008	\$112,000
October 21, 2008	\$80,000	November 15, 2008	\$120,000
October 22, 2008	\$72,000	November 16, 2008	\$128,000
October 23, 2008	\$64,000	November 17, 2008	\$136,000
October 24, 2008	\$56,000	November 18, 2008	\$144,000
October 25, 2008	\$48,000	November 19, 2008	\$152,000
October 26, 2008	\$40,000	November 20, 2008	\$160,000
October 27, 2008	\$32,000	November 21, 2008	\$168,000
October 28, 2008	\$24,000	November 22, 2008	\$176,000
October 29, 2008	\$16,000	November 23, 2008	\$184,000
October 30, 2008	\$8,000	November 24, 2008	\$192,000
October 31, 2008	\$0*	November 25, 2008	\$200,000
		November 26, 2008	**

* The completion date specified in the contract.

**The disincentive deduction shall be charged until work in completed.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends the following 12:00 midnight, twenty-four hours later.

RESTRICTION ON GUARANTEED WORKING DAYS

All temporary lane closures during the period governed by guaranteed working days shall follow the requirements in the Special Provision, "Keeping the Expressway Open to Traffic".

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs shall be taken down within one-half (1/2) hour after the closure is removed

COMPLETION DATE FOR ILLINOIS ROUTE 59 BRIDGE PIER

The construction of the center pier near Sta. 270+50 for the future IL Route 59 over I-55 (S.N. 099-4642) is a critical work item that affects the future staging of traffic and the timely completion of the future Contract #60363. The Contractor shall complete the construction of this pier, the removal of sheet piling associated with the construction this pier, and the installation of the storm sewer from Station 270+18 to Station 270+83 by June 30, 2008.

As shown on the plans, this work is to be completed during Stage I – 2008. If the Contractor chooses to complete this work during Stage I – 2007, then the Contractor shall complete a section with a minimum total length of 1,000 feet adjoining the pier according to the requirements described in the special provision "Completion Date for Stage I 2007 Construction Season."

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

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

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

MAINTENANCE OF ROADWAYS FOR TRAFFIC STAGING

Beginning on the date that the proposed shoulders and pavement constructed within the median are opened to traffic as shown on Stage II of the plans, the Contractor shall assume responsibility for normal maintenance of these shoulders and pavement. This normal maintenance shall include all repair work deemed necessary by the Engineer. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

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

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: July 1, 1994

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

FAI-55 Section 99 (1 & 2) WRS Contract No. 62895 County: Will

Name of Utility	<u>Type</u>	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
AT&T 225 W. Randolph Street Floor 11A Chicago, IL 60606 Contract: Mr. Robert Upton, IDOT Manager			No Conflicts Anticipated
City of Joliet 921 East Washington Street Joliet, IL 60431 Contact: Mr. Dennis Duffield, Director of Public Works			No Conflicts Anticipated
Comcast Cable Communications, Inc. Right-Of-Way Department 688 Industrial Drive Elmhurst, IL 60126 Contact: Mrs. Martha Gieras			No Conflicts Anticipated
Commonwealth Edison Three Lincoln Center Fourth Floor Oakbrook Terrace, IL 60181-4260 Contact: Mr. John Pribich, Program Manager, Public Relocation			No Conflicts Anticipated
Kinder Morgan, Inc. 370 Van Gordon Street P.O. Box 281304 Lakewood, CO 80228-8304 Contact: Mr. Greg Smith, Project Engineer			No Conflicts Anticipated

Level (3) Communications 100 South Cincinnati Avenue Tulsa, Oklahoma 74103 Contact: Ms. Marsha Kidd, Operations-Relocations	No Conflicts Anticipated
Nicor Gas Engineering Department 1844 Ferry Road Naperville, IL 60563-9600 Contact: Mr. Scott Stogsdill, Utility Consultant	No Conflicts Anticipated
Troy Township 25358 Bieth Road Joliet, IL 60431 Contact: Mr. Daniel R. Ward, Highway Commissioner	No Conflicts Anticipated
Village of Channahon 24555 South Navajo Drive Plainfield, IL 60410-3334 Contact: Mr. Edward Dolezal, Director of Public Works	No Conflicts Anticipated
Village of Shorewood 903 West Jefferson Shorewood, IL 60431 Contact: Mr. Roger Barrowman, Superintendent of Public Works	No Conflicts Anticipated

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

ADVANCED PUBLIC NOTIFICATION

Description.

This work shall consist of furnishing, installing, maintaining, relocating for various stages of construction, and eventually removing the advanced signing.

General.

The Contractor shall provide notice to the public a minimum of 14 days in advance of any work that requires the closure of lanes or ramps through the use of a changeable message sign or temporary information signing.

Method of Measurement.

Temporary information signs will be measured for payment in place and the surface area of the front of the sign computed in square feet. The surface area is determined by calculating the area of the smallest rectangle, measured from edge-to-edge (horizontally and vertically), that will circumscribe an individual sign.

Basis of Payment.

This work will be paid for at the contract unit price per calendar month for each sign for CHANGEABLE MESSAGE SIGN: or at the contract unit price per square foot for TEMPORARY INFORMATION SIGN.

CHANGEABLE MESSAGE SIGNS

This item shall be according to the applicable portions of Section 701 of the Standard Specifications. In addition to the portable changeable message signs shown on the plans and Standards, seven (7) signs will be required for this contract at the following locations.

- NB I-55 b/f I-80
- EB I-80 to NB I-55
- WB I-80 to NB I-55
- US 52 to NB I-55
- US 52 to SB I-55
- IL 59 to SB I-55
- SB I-55 b/f I-80 (Prior to and during closure of SB I-55 ramp to EB I-80)

The Portable Changeable Message Signs shall be placed at locations as directed by the Engineer.

FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC

Rev. 2-09-05

Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified under the Special Provisions for "Keeping the Expressway Open to Traffic", the Contractor shall be liable to the Department for the amount of:

One lane or ramp blocked = \$ 3,000 per 15 minutes

Not as a penalty but as liquidated and ascertained damages for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. Such damages may be deducted by the Department from any monies due the Contractor. These damages shall apply during the contract time and during any extensions of the contract time.

KEEPING THE EXPRESSWAY OPEN TO TRAFFIC

Whenever work is in progress on or adjacent to an expressway, the Contractor shall provide the necessary traffic control devices to warn the public and to delineate the work zone as required in these Special Provisions, the Standard Specifications, the State Standards, and the District Freeway Details. All Contractor's personnel shall be limited to these barricaded work zones and shall not cross the expressway.

The Contractor shall request and gain approval from the Illinois Department of Transportation's Expressway Traffic Operations Engineer (847-705-4151) twenty-four (24) hours in advance of all daily lane, ramp and shoulder closures and seventy-two (72) hours in advance of all permanent and weekend closures on all Freeways and/or Expressways in District One. This advance notification is calculated based on a work week of Monday through Friday and shall not include weekends or Holidays.

WEEK NIGHT		TYPE OF CLOSUR	ALLOWABLE LANE CLOSURE HOURS					
		E						
			INBOUND)		OUTBOUN	ID	
Sunday Thursday	thru	One Lane	9:00 PM	to	5:00 AM	10:00 PM	to	7:00 AM
Friday		One Lane	10:00 PM	to	9:00 AM (Sat)	11:00 PM	to	9:00 AM (Sat)
Saturday		One Lane	9:00 PM	to	10:00 AM (Sun)	10:00 PM	to	11:00 AM (Sun)

LOCATION: I-55 from I&M Canal to Weber Road (Before 3rd lane is built):

LOCATION: I-55 from I&M Canal to Weber Road (After surface course completed and all three permanent lanes in each direction opened to traffic):

WEEK NIGHT		TYPE OF CLOSUR E	ALLOWABLE LANE CLOSURE HOURS							
			INBOUND			OUTBOUND				
Sunday Thursday	thru	One Lane	8:00 PM	to	5:00 AM		9:00 PM	to	8:00 AM	
		Two Lanes	9:00 PM	to	5:00 AM		10:00 PM	to	7:00 AM	
Friday		One Lane	9:00 PM	to	11:00 AN	√l (Sat)	9:00 PM	to	11:00 (Sat)	AM
		Two Lanes	10:00 PM	to	9:00 AM	(Sat)	11:00 PM	to	9:00 AM ((Sat)
Saturday		One Lane	8:00 PM	to	11:00 (Sun)	AM	9:00 PM	to	11:00 (Sun)	ÂM
		Two Lanes	9:00 PM	to	10:00 (Sun)	AM	10:00 PM	to	10:00 (Sun)	AM

In addition to the hours noted above, temporary shoulder and partial ramp closures are allowed weekdays between 9:00 AM and 3:00 PM.

Narrow lanes and permanent shoulder closures will not be allowed between November 16th and March 1st.

Full Expressway Closures will only be permitted for a maximum of 15 minutes at a time during the low traffic volume hours of 1:00a.m. to 5:00 a.m. Monday thru Friday and from 1:00 a.m. to 7:00 a.m. on Sunday. During Full Expressway Closures, the Contractor will be required to close off all lanes except one, using Freeway Standard Closures. Police forces should be notified and requested to close off the remaining lane at which time the work item may be removed or set in place. The District One Traffic Operations Department shall be notified (847-705-4151) and a Maintenance of Traffic plan submitted and approved at least 3 working days (weekends and holidays DO NOT count into this 72 hours notification) in advance of the proposed road closure and will coordinate the closure operations with police forces.

Temporary ramp closures will only be permitted at night during the restricted hours listed for temporary one-lane closures within the project limits. However, no two (2) adjacent entrance and exit ramps in one direction of the expressway shall be closed at the same time.

Interstate-to-Interstate ramp closures are only permitted for a maximum of two (2) hours between the hours of 11:00 p.m. and 5:00 a.m. on Monday thru Friday

between the hours of 12:01 a.m. and 6:00 a.m. on Saturday, and

between the hours of 12:01 a.m. and 7:00 a.m. on Sunday. The Contractor shall furnish and install large (48" X 48") "DETOUR with arrow" signs as directed by the Engineer for all interstate ramp closures. The cost of these signs (6 signs maximum per closure) shall be included in the contract unit price for Traffic Control and Protection (Expressways).

The I-55 SB exit ramp to I-80 EB may be closed for the entire period of permitted hours specified above for Interstate-to-Interstate ramp closures during construction on this ramp. The Contractor shall furnish and install detour signing as shown on the plans for these closures. The cost of these signs shall be included in the contract unit price for Traffic Control and Protection (Expressways). Portable Changeable Message Signs shall be paid for as specified in the Special Provision for "Portable Changeable Message Signs."

Should the Contractor fail to completely open, and keep open, the ramps to traffic in accordance with the above limitations, the Contractor shall be liable to the Department for liquidated damages as noted under the Special Provision, "Failure to Open Traffic Lanes to Traffic".

All stage changes requiring the stopping and/or the pacing of traffic shall take place during the allowable hours for Full Expressway Closures and shall be approved by the Department.

All daily lane closures shall be removed during adverse weather conditions such as rain, snow, and/or fog and as determined by the Engineer.

Additional lane closure hour restrictions may have to be imposed to facilitate the flow of traffic to and from major sporting events and/or other events.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

The Contractor will be required to cooperate with all other contractors when erecting lane closures on the expressway. All lane closures (includes the taper lengths) without a three (3) mile gap between each other, in one direction of the expressway, shall be on the same side of the pavement. Lane closures on the same side of the pavement with a half (1/2) mile or less gap between the end of one work zone and the start of taper of next work zone should be connected. The maximum length of any lane closure on the project and combined with any adjacent projects shall be three (3) miles. Gaps between successive permanent lane closures shall be no less than two (2) miles in length.

Private vehicles shall not be parked in the work zone. Contractor's equipment and/or vehicles shall not be parked on the shoulders or in the median during non-working hours. The parking of equipment and/or vehicles on State right-of-way will only be permitted at the locations approved by the Engineer.

TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996

Revised: January 2, 2007

Description.

This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels, which cover portions of existing signs.

Materials.

Materials shall be according to the following Articles of Section 1000 - Materials:

	<u>ltem</u>	Article/Section
a.)	Sign Base (Notes 1 & 2)	1090
b.)	Sign Face (Note 3)	1091
c.)	Sign Legends	1092
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 4)	1090.02

- Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
- Note 2. Type A sheeting can be used on the plywood base.
- Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1106.01.
- Note 4. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIREMENTS

Installation.

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs, which are placed along the roadway and/or within the construction zone, shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Signs, which are placed on overhead bridge structures, shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

Method Of Measurement.

This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

Basis Of Payment.

This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)

This work shall include furnishing, installing, maintaining, replacing, relocating, and removing all traffic control devices used for the purpose of regulating, warning, or directing traffic. Traffic

control and protection shall be provided as called for in the plans, applicable Highway Standards, District One Expressway details, Standards and Supplemental Specifications, these Special Provisions, or as directed by the Engineer.

<u>General</u>.

The governing factor in the execution and staging of work for this project is to provide the motoring public with the safest possible travel conditions on the expressway through the construction zone. The Contractor shall arrange his operations to keep the closing of lanes and/or ramps to a minimum.

The Contractor shall be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to existing warning signs and overhead guide signs during all construction operations. Warning signs and existing guide signs with down arrows shall be kept consistent with the barricade placement at all times. The Contractor shall immediately remove, completely cover, or turn from the motorist's view all signs, which are inconsistent with lane assignment patterns.

The Contractor shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor shall remove all traffic control devices that were furnished, installed, or maintained by him under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

<u>Signs.</u>

Prior to the beginning of construction operations, the Contractor will be provided a sign log of all existing signs within the limits of the construction zone. The Contractor is responsible for verifying the accuracy of the sign log. Throughout the duration of this project, all existing traffic signs shall be maintained by the Contractor. All provisions of Article 107.25 of the Standard Specifications shall apply except the third paragraph shall be revised to read: "The Contractor shall maintain, furnish, and replace at his own expense, any traffic sign or post which has been damaged or lost by the Contractor or a third party. The Contractor will not be held liable for third party damage to large freeway guide signs".

Exit Gore Signs

The exit gore signs as shown in Standard 701411 shall be a minimum size of 48 inch by 48 inch with 12-inch capital letters and a 20-inch arrow.

Rough Grooved Surface Signs

The Contractor shall furnish and erect "Rough Grooved Surface" signs (W8-1107) on both sides of the expressway, 1000' in advance of any milled area. These signs shall be erected on all ramps that enter the milled area. All signs shall be mounted at a minimum clearance height of 5'.

Drums/Barricades.

Check barricades shall be placed in work areas perpendicular to traffic every 1000', one per lane and per shoulder, to prevent motorists from using work areas as a traveled way. Check barricades shall also be placed in advance of each open patch, or excavation, or any other

hazard in the work area, the first at the edge of the open traffic lane and the second centered in the closed lane. Check barricades, either Type I or II, or drums shall be equipped with the flashing light.

To provide sufficient lane widths (10' minimum) for traffic and also working room, the Contractor shall furnish and install vertical barricades with steady burn lights, in lieu of Type II or drums, along the cold milling and asphalt paving operations. The vertical barricades shall be placed at the same spacing as the drums.

Vertical Barricades.

Vertical barricades shall not be used in lane closure tapers, lane shifts, and exit ramp gores. Also, vertical barricades shall not be used as patch barricades or check barricades. Special attention shall be given, and ballast provided per manufacture's specification, to maintain the vertical barricades in an upright position and in proper alignment.

Temporary Concrete Barrier Wall.

Prismatic barrier wall reflectors Type C shall be installed on both the face of the wall next to traffic, and the top of all sections of the temporary concrete barrier wall. These reflectors shall be placed at 10 foot centers on New Jersey faced barrier wall and 12.5' spacing on F-shape barrier wall. The color of these reflectors shall match the color of the edgelines (yellow on the left and crystal or white on the right). If the base of the temporary concrete barrier wall also have a 6-inch wide temporary pavement marking edgeline (yellow on the left and white on the right).

Method of Measurement.

This item of work will be measured on a lump sum basis for furnishing, installing, maintaining, replacing, relocating, and removing traffic control devices required in the plans and these Special Provisions. Traffic control and protection required under Standards 701101, 701400, 701401, 701411, 701426, 701446 and District details TC-8, TC-9, TC-17, TC-18 and TC-25 will be included with this item.

Basis of Payment.

a) This work will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS). This price shall be payment in full for all labor, materials, transportation, handling, and incidental work necessary to furnish, install, maintain, replace, relocate, and remove all Expressway traffic control devices required in the plans and specifications.

In the event the sum total value of all the work items for which traffic control and protection is required is increased or decreased by more than ten percent (10%), the contract bid price for Traffic Control and Protection will be adjusted as follows:

Adjusted contract price = .25P + .75P [1+(X-0.1)]

Where "P" is the bid unit price for Traffic Control and Protection:

Difference between original and final sum total
value of all work items for which trafficWhere "X" =control and protection is required.
Original sum total value of all work items for which
traffic control and protection is required.

The value of the work items used in calculating the increase and decrease will include only items that have been added to or deducted from the contract under Article 104.02 of the Standard Specifications and only items which require use of Traffic Control and Protection.

- b) The Engineer may require additional traffic control be installed in accordance with standards and/or designs other than those included in the plans. In such cases, the standards and/or designs will be made available to the Contractor at least one week in advance of the change in traffic control. Payment for any additional traffic control required will be in accordance with Article 109.04 of the Standard Specifications.
- c) Revisions in the phasing of construction or maintenance operations, requested by the Contractor, may require traffic control to be installed in accordance with standards and/or designs other than those included in the plans. Revisions or modifications to the traffic control shown in the contract shall be submitted by the Contractor for approval by the Engineer. No additional payment will be made for a Contractor requested modification.
- d) Temporary concrete barrier wall will be measured and paid for according to Section 704.

Impact attenuators, temporary bridge rail, and temporary rumble strips will be paid for separately.

All temporary pavement markings will be measured and paid for according to Section 703 and Section 780.

All pavements marking removal will be measured and paid for according to Section 703 or Section 783.

Temporary pavement marking on the lower slope of the temporary concrete barrier wall will be measured and paid for as TEMPORARY PAVEMENT MARKING, 6".

All prismatic barrier wall reflectors will be measured and paid for according to Section 782.

TRAFFIC CONTROL FOR WORK ZONE AREAS

Effective: 9/14/95

Revised: 1/1/07

Work zone entry and exit openings shall be established daily by the Contractor with the approval of the Engineer. All vehicles including cars and pickup trucks shall exit the work zone at the exit openings. All trucks shall enter the work zone at the entry openings. These openings shall be signed in accordance with the details shown elsewhere in the plans and shall be under flagger control during working hours.

The Contractor shall plan his trucking operations into and out of the work zone as well as on to and off the expressway to maintain adequate merging distance. Merging distances to cross all lanes of traffic shall be no less than 1/2 mile. This distance is the length from where the trucks enter the expressway to where the trucks enter the work zone. It is also the length from where the trucks exit the work zone to where the trucks exit the expressway. The stopping of expressway traffic to allow trucks to change lanes and/or cross the expressway is prohibited.

Failure to comply with the above requirements will result in a Traffic Control Deficiency charge. The deficiency charge will be calculated as outlined in Article 105.03 of the Standard Specifications. The Contractor will be assessed this daily charge for each day a deficiency is documented by the Engineer.

TRAFFIC CONTROL PLAN

Effective: September 30, 1985

Revised: January 1, 2007

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

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

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

STANDARDS:

701101, 701106, 701201, 701400, 701401, 701402, 701411, 701446, 702001, 704001

DETAILS:

STAGING AND TRAFFIC CONTROL PLANSTC08TC09TC12TC17

SPECIAL PROVISIONS:

COMPLETION DATE PLUS GUARANTEED WORKING DAYS FAILURE TO COMPLETE THE WORK ON TIME STATUS OF UTILITIES TO BE ADJUSTED WORK RESTRICTIONS FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC KEEPING THE EXPRESSWAY OPEN TO TRAFFIC MAINTENANCE OF ROADWAYS TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) TEMPORARY INFORMATION SIGNING TRAFFIC CONTROL FOR WORK ZONE AREAS TRAFFIC CONTROL PLAN TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS)

TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS)

Effective: 10/25/95

Revised: 1/09/98

The contractor shall provide a person with a vehicle to survey, inspect and maintain all temporary traffic control devices when a lane is closed to traffic and when hazards are present adjacent to or within 10 foot of the edge of pavement for more than 24 hours.

The surveillance person is required to drive through the project, to inspect all temporary traffic control devices, to correct all traffic control deficiencies, if possible, or immediately contact someone else to make corrections and to assist with directing traffic until such corrections are made, at intervals not to exceed 4 hours. This person shall list every inspection on an inspection form, furnished by the Engineer, and shall return a completed form on the first working day after the inspections are made.

The Contractor shall supply a telephone staffed on a 24-hour-a-day basis to receive any notification of any deficiencies regarding traffic control and protection or receive any request for improving, correcting or modifying traffic control, installations or devices, including pavement markings. The Contractor shall dispatch additional men, materials and equipment as necessary to begin to correct, improve or modify the traffic control as directed, within one hour of notification by this surveillance person or by the Department. Upon completion of such corrections and/or revisions, the Contractor shall notify the Department's Communication Center at (847) 705-4612.

Method Of Measurement. Traffic Control Surveillance will be measured on calendar day basis. One calendar day is equal to a minimum of six (6) inspections. The inspections shall start within 4 hours after the lane is closed to traffic or a hazard exists within 10 foot from the edge of pavement and shall end when the lane closure or hazard is removed.

Basis Of Payment. Surveillance will be paid for at the contract unit price per calendar day or fraction thereof for TRAFFIC CONTROL SURVEILLANCE (EXPRESSWAYS). The price shall include all labor and equipment necessary to provide the required inspection and maintenance on the expressway and on all cross streets, which are included in the project. The cost of the materials for the maintenance of traffic control devices shall be included in the traffic control pay items.

SERVICE PATROLS

<u>Description</u>: The Contractor shall provide vehicles and personnel to patrol the expressway, to relocate incidents and stalls from the traveled lanes up to and including loaded semi trucks, to clean up debris from the incidents and, in general, to increase safety, reduce delays, and provide assistance to motorists.

<u>Patrolling Requirements:</u> Service patrols shall be provided to cover the entire I-55 Widening and Resurfacing Project in accordance with the following requirements:

- Dates: Start 12:01 AM no later than ten days after the execution of the contract by the Department.
 - End 11:59 PM on October 31, 2008 or as directed by the Engineer
- Times: 24 hours per day, 7 days per week
- Service Patrols will not be used during the winter shut-down period.
- Patrol Limits: From U.S. Route 6 to the north bridge approach pavement of the I-55 bridge over U.S. Route 30 including all ramps in the I-55 interchanges at I-80, Illinois Route 59, and U.S. Route 52, the I-55 NB exit ramp to U.S. Route 30, and the I-55 SB entrance ramp from U.S. Route 30.
- Number of Patrols: One service patrol unit

<u>Patrol Vehicle Requirements:</u> The service patrol vehicle shall be a "medium duty" tow vehicle with a minimum Gross Vehicle Weight Rating (GVWR) chassis of twenty nine thousand (29,000) pounds, dual wheel chassis and ten ton recovery equipment rating. Tow body shall have adequate storage for items listed in this special provision. All vehicles used on this project shall be less than two years old and have less than twenty-four thousand (24,000) miles on an individual Vehicle's odometer, engine, transmission and chassis at the beginning of the project. The use of "flat bed" type recovery vehicles is prohibited.

Within one (1) week of the start of the project and before initiating any patrol activities, the Contractor along with the Engineer shall inspect each patrol vehicle and its associated equipment, accessories and parts to ensure that they meet all specifications and requirements contained herein. The Contractor shall perform basic similar inspections, at least once per month, throughout the duration of this project. The Contractor shall fully document all inspections and all actions taken a result of such inspections, and submit them to the Department. The format of such documentation shall be submitted by the Contractor and approved by the Department before initiating service patrols.

All Service Patrol Vehicles shall be marked with logos and letters on 2-foot-by-2-foot magnetic signs (each side of the vehicle). No other Logos, letters, and numbers shall be visible while on patrol. The wording on the magnetic signs will be as specified by the Department. "Service Free" stickers (3-inch capital letters) shall also be posted on both sides of the vehicle. All identification markings shall be maintained in a clean and readable condition throughout this contract. All wording and logos shall be removed or covered when vehicles are not patrolling.

Each Service Patrol Vehicle shall be equipped with the following:

- A. Hydraulically operated, wheel lift-towing equipment, with a minimum lift rating of ten thousand (10,000) pounds retracted, eight thousand (8,000) pounds extended. All tow equipment shall include proper nylon webbed safety straps. The wheel lift shall accommodate tire sizes of both automobiles and medium duty trucks. Towing capacity of wheel lift shall be 32,000 pounds minimum.
- B. Hydraulically operated tow boom with a minimum static rating of twenty thousand (20,000) pounds, which shall be capable of towing up to an 80,000 pound loaded tractor-trailer.

- C. Winch Cable one hundred feet of ½" diameter, 6x19 with working limit of ten thousand pounds.
- D. Accessory truck tow bar shall be rated at eighty thousand pounds minimum
- E. Two 12 foot 3/8 inch alloy tow chains, with grab hooks on each end.
- F. A rubber face push bumper.
- G. Spot light capable of directing a three hundred foot beam centered in any direction.
- H. Power outlets (hot boxes), front and rear-mounted, with outlets compatible to twelve volt booster cables.
- I. Heavy duty, 145+amps charged battery.
- J. A trailer hitch capable of handling a 1.875-inch and/or a 2-inch ball.
- K. Motorcycle transporting capability.
- L. Rear work lights.
- M. Safety chain D-ring or eyelet mounted on rear of vehicle.
- N. A truck mounted flashing Type B arrowboard with in cab controls capable of folding by means of electrical hydraulic controls. Manually operated, fold up/fold down types are not acceptable.
- O. Amber warning lights or strobes with front and rear directional flashing capability.

The vehicle shall also contain the following equipment, accessories and parts:

- A. Tool Kit
- B. 2 gallons of Diesel Fuel.
- C. 2 gallons of Unleaded gasoline in approved safety can.
- D. 2 3/8 inch safety chains, minimum of 5 feet in length, grab hooks on both ends.
- E. One First Aid kit.
- F. One Fire extinguisher, twenty-pound minimum, chemical ABC
- G. One pry bar, minimum 36 inches long
- H. 5 gallons of water.
- I. 2 wood blocks, 4-inch x 4-inch x 12-inch.
- J. A 24-inch wide street broom.
- K. A square-end shovel.
- L. 36 highway flares of 15-minute burn.
- M. 16 twenty-eight inch high-reflectorized cones.
- N. A two ton, minimum, Hydraulic floor jack.
- O. Lug wrenches for standard and metric
- P. One set of booster cables, 25 feet in length.
- Q. Multipurpose funnel with flexible spout.
- R. Dolly, "pop-up"-type", for removing otherwise untowable vehicles.
- S. 5 gallon can filled with oil absorbent material.
- T. One 5-gallon trash can for debris collection.
- U. One lock out set.
- V. One container of "plug-in-dike", to plug diesel fuel leaks.

<u>Requirements for Vehicle Operators:</u> Service Patrol Vehicle Operators shall be licensed in accordance with the Illinois Vehicle Code for the vehicles to be used under this contract. Any change in drivers and vehicles as presented under this Contract must be approved in writing, in advance, by the Resident Engineer. Termination of the employee may occur for noncompliance. All operators must have a current Class A or B Commercial Driver's License with endorsements, if applicable, and be certified in CPR and basic first aid.

Operators shall be competent and trained in the tasks of tow truck operators and provide safe and proper discharge of their service responsibilities. The Contractor shall provide resumes of the proposed operators to the Department before assigning them to patrol vehicles. Potential operators shall be subjected to driving record and criminal background checks by the Illinois State Police. The Department reserves the right to not approve a driver based on any information obtained by the Department or information contained in the background checks.

The Service Patrol Vehicle Operator shall:

- 1. Follow all the policies and procedures set forth in the I-55 Service Patrol Manual, which will be given to the Contractor at the start of the project.
- 2. Work closely with the Illinois State Police, the Indiana State Police, local fire
- departments, local police departments, and the Department's Emergency Traffic Patrol rendering assistance as needed.
- 3. Attend Incident Management Meetings for this project. There will be approximately twelve meetings.
- 4. Wear nametags with photo identification that are visible to the motorists.
- 5. Maintain "Service Patrol Logs" which will be completed daily and made available to the Department at all times. These Service Patrol Logs shall contain all items, which will be listed in the I-55 Service Patrol Manual.
- 6. The Contractor shall provide 10,000 first-class postage paid I-55 Service Patrol Post Cards bearing the following return address I-55 Service Patrol, Illinois Department Of Transportation, Bureau of Traffic, 201 west Center Ct, Schaumburg, IL., 60196. The format of the post card shall be approved by the Engineer. The Contractor shall be responsible for ensuring an adequate number of post cards are available in each service patrol vehicle throughout the duration of this project. Operator shall distribute the post card to each motorist that they assist.
- 7. Not accept gratuities, gifts, or compensation in cash, kind or any form from the motorists under any circumstances. Not ask any motorist/passenger encountered for any personal information such as Name, Address or Phone number. VIOLATION OF THIS REQUIREMENT SHALL CONSTITUTE GROUNDS FOR IMMEDIATE DISMISSAL.
- 8. Not tow any vehicle to any location other than shoulders or drop locations.
- Not recommend any specific secondary towing service, or repair shop. VIOLATION OF THIS REQUIREMENT SHALL CONSTITUTE GROUNDS FOR IMMEDIATE DISMISSAL.

<u>Communication Equipment Requirements:</u> Each Service Patrol Vehicle shall be equipped with a licensed cellular, two-way radio/telephone. The Contractor shall provide the Department with 3 additional radio/telephones. These cellular radio/telephones shall have two-way capabilities for talking directly to IDOT representatives and the project supervisor. The Contractor shall maintain the radio/phones and all necessary licenses throughout the contract.

Each vehicle shall also be equipped with an external speaker and public address system with one hundred watts output. The PA system shall be used while assisting motorists or as directed by the Department. The Contractor is expected to use PA system in a professional manner.

<u>Method of Measurement:</u> Service Patrols shall be measured for payment in calendar days for each vehicle and operator. A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends the following 12:00 midnight, twenty-four hours later.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per calendar day or fraction thereof for SERVICE PATROL. This price shall include an operator, the vehicle and all materials, supplies, and equipment necessary to reduce traffic delays by providing assistance to motorists and by relocating stalled and disabled vehicles in an expeditious manner.

WORK ZONE SPEED LIMIT SIGNING

Work zone speed limit signing shall be according to Article 701.14 of the Standard Specifications except as revised herein for construction Stages I and II.

During construction Stages I and II, the speed limit shall be reduced to 55 mph adjacent to and before the work areas. 55 mph work zone speed limit sign assemblies shall be provided and erected on both sides of the travel lanes during Stage I and on the right side of the travel lanes during Stage II at the same spacing as the permanent speed limit signs (two additional assemblies shall be provided and erected as required to provide a maximum spacing of 3 miles). Two additional assemblies shall be provided and erected and erected on both sides of the travel lanes during Stage I and on the right side of the travel lanes during Stage I and on the right side of the travel lanes during Stage I and on the right side of the travel lanes during Stage II at the following locations: one mile in advance of the work area, approximately 800 feet in advance of the work area, and 500 feet beyond the last entrance ramp for each interchange. "Speed Zone Ahead" signs (R2-5a, 48" x 60") with three 18" x 18" orange flags as shown on Standard 702001 shall be erected ½ mile in advance of the first work zone speed limit sign assemblies. All permanent "SPEED LIMIT" signs located within the work zone shall be removed or covered. This work shall be coordinated with the implementation of traffic control.

During construction Stages I and II, when worker(s) are present and are not located behind a concrete barrier wall, the speed limit shall be reduced to 45 mph. Work zone speed limit sign assemblies shall be provided and located as shown on Standard 701401 (Lane Closure, Freeway/Expressway) on the plans. Two additional assemblies shall be placed 150 m (500 ft) beyond the last entrance ramp for each interchange. All conflicting 55 mph speed limit signs located within the work area shall be promptly removed or covered.

A reduced posted 45 mph speed zone shall be promptly established when the workers are present and are not located behind a concrete barrier wall, and the posted 55 mph speed zone shall be promptly reinstated when the workers are not present.

The 45 mph work zone speed limit signs shall only be used when workers are present in the work area; at all other times, the signs shall be promptly removed or covered. These sign assemblies will not be required when the worker(s) are located behind a concrete barrier wall.

The individual signs that make up an assembly may be combined on a single panel. The sheeting for the signs shall be reflective and conform to the requirements of Article 1084.02.

If the Contractor fails to comply with these requirements, the Contractor shall be liable to the Department as specified in the special provision for Traffic Control Deficiency Deduction (BDE).

This work will not be paid for separately but shall be included in the contract unit price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

AGGREGATE SHOULDERS, TYPE B (SPECIAL)

Description. This work shall consist of the furnishing, placing, shaping, and compacting aggregate on a prepared subgrade adjacent to the outside bituminous shoulders as shown in the plans, details, and the applicable portions of Section 481 of the Standard Specifications.

General. The Engineer shall determine the appropriate aggregate placement in sections where the existing shoulder and side slope conditions do not accommodate the plan details.

Method of Measurement. Aggregate Shoulders, Type B (Special) will be measured for payment in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for AGGREGATE SHOULDERS, TYPE B (SPECIAL), including all work associated with the existing subgrade and aggregate material.

AGGREGATE SUBGRADE, 12" (300 MM)

Effective: May 1, 1990

Revised: January 1, 2007

This work shall be done in accordance with the applicable portions of Section 207. The material shall conform to Article 1004.04 except as follows:

1. Crushed Stone, Crushed Blast Furnace Slag, and Crushed Concrete will be permitted. Steel slag and other expansive materials as determined through testing by the Department will not be permitted.

<u>Sieve Size</u>	Percent Passing
6 in. (150 mm)	97 ± 3
4 in. (100 mm)	90 ± 10
2 in. (50 mm)	45 ± 25
No. 200 (75 μm)	5 ± 5

2. Gravel, Crushed Gravel, and Pit Run Gravel

<u>Sieve Size</u>	Percent Passing
6 in. (150 mm)	97 ± 3
4 in. (100 mm)	90 ± 10
2 in. (50 mm)	55 ± 25
No. 4 (4.75 mm)	30 ± 20
No. 200 (75 μm)	5 ± 5

3. Crushed Concrete with Bituminous Materials**

<u>Sieve Size</u>	Percent Passing		
6 in. (150 mm)	97 ± 3		
4 in. (100 mm)	90 ± 10		
2 in. (50 mm)	45 ± 25		
No. 4 (4.75 mm)	20 ± 20		
No. 200 (75 μm)	5 ± 5		

**The Bituminous material shall be separated and mechanically blended with the crushed concrete so that the bituminous material does not exceed 40% of the final products. The top size of the bituminous material in the final product shall be less than 4 inches (100 mm) and shall not contain more than 10.0% steel slag RAP or any material that is considered expansive by the Department.

The Aggregate subgrade shall be placed in two lifts consisting of a 9 inch (225 mm) and variable nominal thickness lower lift and a 3 inch (75 mm) nominal thickness top lift of capping aggregate having a gradation of CA 6. The CA 6 may be blended as follows. The bituminous materials shall be separated and mechanically blended with interlocking feeders with crushed concrete or natural aggregate, in a manner that the bituminous material does not exceed 40% of the final product. This process shall be approved by the engineer prior to start of production. The top side of the bituminous material in the final products shall be less than 1 ½ inches (37.5 mm) and shall not contain any material considered expansive by the department. Reclaimed Asphalt Pavement (RAP) (having a maximum of 10% steel slag RAP) meeting the requirements

of Article 1004.07 and having 100% passing the 3-inch (75 mm) sieve and well graded down through fines may also be used as capping aggregate. IDOT testing of the RAP material will be used in determining the percent of steel slag or Expansive Material. When the contract specifies that an aggregate subbase is to be placed on the Aggregate Subgrade, the 3 inches (75 mm) of capping aggregate will be eliminated. A vibratory roller meeting the requirements of Article 1101.01(g) shall be used to roll each lift of material to obtain the desired keying or interlock and necessary compaction. The Engineer will verify that adequate keying has been obtained.

When a recommended remedial treatment for unstable subgrades is included in the contract, the lower lift of Aggregate Subgrade may be placed simultaneously with the material for Porous Granular Embankment, Subgrade when the total thickness to be placed is 2 feet (600 mm) or less.

Method of Measurement.

Contract Quantities. Contract quantities shall be in accordance with Article 202.07.

Measured Quantities. Aggregate subgrade will be measured in place and the area computed in square yards (square meters).

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE, 12" (AGGREGATE SUBGRADE, 300 mm).

BITUMINOUS CONCRETE SHOULDER REMOVAL

<u>Description</u>. This item shall consist of the removal and satisfactory disposal of existing 10" thick bituminous concrete shoulders in accordance with the applicable portions of Section 440 of the Standard Specifications.

<u>Method of Measurement</u>. This work will be measured for payment in place and the area computed in square yards.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square yard for BITUMINOUS CONCRETE SHOULDER REMOVAL, which price shall be payment in full for all labor, equipment and materials necessary to complete the work.

CLASS D PATCHES

<u>Description</u>. This work shall consist of the removal and satisfactory disposal of the existing portland cement concrete base course, the necessary excavation and the replacement with the type of patch specified.

<u>General</u>. After the bituminous surface has been removed as shown on the plans and in accordance with the special provisions for Hot-Mix Asphalt Surface Removal (Variable Depth) and Patching with Hot-Mix Asphalt Overlay Removal, the Engineer will determine the locations
where patching is necessary. Areas requiring patching shall be patched in accordance with the details shown in the plans and the applicable portions of Section 442 of the Standard Specifications.

<u>Method of Measurement</u>. Class D Patches of the type specified will be measured for payment in place in accordance with Article 442.10 of the Standard Specifications and the area computed in square yards. The thickness of the patch will be determined by computing the average of the depths measured at the edges of the patch nearest to and farthest from the traffic lane after the completion of Hot-Mix Asphalt Surface Removal (Variable Depth).

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square yard for CLASS D PATCHES of the type of patch specified.

The removal of the bituminous surface shall be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL (VARIABLE DEPTH) and HOT-MIX ASPHALT REMOVAL OVER PATCHES.

CONCRETE BARRIER

Add the following paragraph to Article 637.02 of the Standard Specifications:

"The coarse aggregate to be used in the concrete barrier walls shall conform to the requirement for coarse aggregate used in Class BS concrete according to Article 1004.01(b), paragraph 2."

Where "barrier base" is referred to in the plans, it shall be constructed and will be measured according to Section 637 of the Standard Specifications and will be paid for at the contract unit price per foot for CONCRETE BARRIER BASE.

CONCRETE MEDIAN SURFACE, 6 INCH

<u>Description</u>. This item shall consist of constructing concrete median surface with a thickness of 6" according to the applicable portions of Section 606 of the Standard Specifications.

<u>Method of Measurement</u>. This work will be measured for payment in place and the area computed in square yards.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square yard for CONCRETE MEDIAN SURFACE, 6 INCH.

EMBANKMENT

Effective:

<u>Description</u>. This work shall be according to Section 205 of the Standard Specifications except for the following.

<u>Material</u>. All material shall be approved by the District Geotechnical Engineer. The proposed material must meet the following requirements.

- a) The laboratory Standard Dry Density shall be a minimum of 1450 kg/cu m (90 lb/cu ft) when determined in accordance with AASHTO T 99.
- b) The organic content shall be less than ten percent determined in accordance with AASHTO designation T 194 (Wet Combustion).
- c) Soils which demonstrate the following properties should be restricted to the interior of the embankment and shall be covered on both the sides and top of the embankment by a minimum of 900 mm (3 ft) of soil not considered detrimental in terms of erosion potential or excess volume change.
 - 1) A grain size distribution with less than 35 percent passing the number 75 um (#200) sieve.
 - 2) A plasticity index (PI) of less than 11.
 - 3) A liquid limit (LL) in excess of 45.
- d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.

CONSTRUCTION REQUIREMENTS

<u>Samples</u>. Embankment material shall be sampled, tested, and approved before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for approval and compaction can be performed. Embankment material placement cannot begin until tests are completed and approval given.

<u>Placing Material</u>. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 150 mm (6 in.) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum of 600 mm (24 in.) diameter blade.

<u>Compaction</u>. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

- a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.
- e) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

EPOXY COATING ON REINFORCEMENT (DISTRICT ONE)

Effective: January 1, 2007

For work outside the limits of bridge approach pavement, all references in the Highway Standards and Standard Specifications for reinforcement, dowel bars, tie bars and chair supports for pavement, shoulders, curb, gutter, combination curb and gutter and median shall be epoxy coated, unless noted on the plan.

GENERAL REQUIREMENTS FOR WEED CONTROL SPRAYING

Experience:

The Contractor shall have previous experience with the use of weed control chemicals. He/she shall have had at least one (1) season's experience in the use of their chemicals in spraying highway right-of-way or at least three (3) season's experience in their use in farm or custom spraying. The Contractor shall observe and comply with all sections of the Illinois Custom Spray Law, including licensing.

Equipment:

The equipment used shall consist of a vehicle-mounted tank, pump, spray bar and handgun, plus any other accessories needed to complete the specified work. Spraying shall be done through multiple low-pressure flooding or broad jet nozzles mounted on spray bars operated not more than 36" above the ground. If different sizes or types of nozzles are used to make up the spray pattern, the pressure, sizes and capacities shall be adjusted to provide a uniform rate of application for each segment of the spray pattern. Hand spray guns may be used for spraying areas around traffic control devices, lighting standard and similar inaccessible areas. Maximum speed of the spray vehicle during application of chemical shall be five (5) miles per hour.

Pumps used shall have a volume and pressure capacity range sufficient to deliver the mixture at a pressure to provide the required coverage and to keep the spray pattern full and steady without pulsation or excessive pressure as to cause fogging. Maximum pressure for application shall be 15 PSI. Quick acting shut-off valves and spring-loaded ball check valves shall be provided to stop the spray pattern with a minimum of nozzle drip. In areas where the spray vehicle must traverse the right-of-way, a four-wheel drive vehicle with flotation tires will be required to minimize damage to the ground surface.

Prior to beginning work, the Contractor shall obtain approval from the Engineer of the spraying equipment proposed for completing this work. The proposed equipment shall be in an operational condition and available for inspection by the Engineer at least two (2) weeks prior to the proposed starting time. If requested by the Engineer, the Contractor shall demonstrate the calibration of the equipment.

The equipment must provide consistently uniform coverage and keep the spray mixture sufficiently agitated or the work will be suspended until the equipment is repaired or replaced.

Spraying Areas:

This work includes roadsides and other types of right-of-way of various widths and gradients. Spray areas often extend more than thirty (30) feet from the edge of the roadway, requiring both spray bar and hand gun applications.

When the description of work requires weed control of a stated species, such as teasel, the chemical shall be applied only to locations where the stated species is present. When the description of work requires general weed control within a bed or area, such as broadleaf weed control in turf, then the chemical shall be applied to the entire bed or area.

Exclusion of Spraying Areas:

Areas where weed control spraying is inappropriate or detrimental to the environment, desirable planting, or private property shall be excluded from the spray area.

Spraying will not be permitted over any drainage swales or waterways, or other areas where the chemical label prohibits application. Spraying within 150 feet of a natural area or site where endangered or threatened species occur.

Responsibility for Prevention of Damage to Private Property:

The Contractor shall, at all times, exercise extreme caution to prevent damage to residential plantings, flower or vegetable gardens, vegetable crops, farm crops, orchard or desirable plants adjacent to the roadside.

If the Contractor or Department receives a complaint, the Contractor shall contact the complainant within ten (10) days after receiving a claim for damages, either in person or by letter. The Contractor, or his authorized representative, shall make a personal contact with the complainant within twenty (20) days. The Engineer shall also be notified by the Contractor of all claims for damage he received and shall keep the Engineer informed as to the progress in arriving at a settlement for such claims.

Communication with the Engineer:

The Contractor is required to communicate with the Engineer to receive all required approvals in a timely way and to assure that the Engineer can accurately document the work performed.

It shall be the Contractor's responsibility to assure that all chemical containers are opened and added to the spray mixture in the presence of the Engineer.

The Contractor shall obtain approval from the Engineer to proceed with spraying at each location 24 hours prior to the proposed spray operations.

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

<u>Description</u>. This work shall consist of the removal and satisfactory disposal of hot-mix asphalt surfaces in preparation for subsequent resurfacing in accordance with the details shown in the plans and the applicable portions of Section 440 of the Standard Specifications.

<u>Method of Measurement</u>. Hot-Mix Asphalt Surface Removal, Variable Depth will be measured for payment in place and the area computed in square yards.

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

POROUS GRANULAR EMBANKMENT, SUBGRADE

Effective: September 30, 1985

Revised: January 1, 2007

This work consists of furnishing, placing, and compacting porous granular material to the lines and grades shown on the plans or as directed by the Engineer in accordance with applicable portions of Section 207. The material shall be used as a bridging layer over soft, pumpy, loose soil and for placing under water and shall conform with Article 1004.04 except the gradation shall be as follows:

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

<u>Sieve Size</u>	Percent Passing
*6 in. (150 mm)	97 ± 3
*4 in. (100 mm)	90 ± 10
2 in. (50 mm)	45 ± 25
No. 200 (75 μm)	5 ± 5

2. Gravel, Crushed Gravel and Pit Run Gravel

Sieve Size	Percent Passing
*6 in. (150 mm)	97 ± 3
*4 in. (100 mm)	90 ± 10
2 in. (50 mm)	55 ± 25
No. 4 (4.75 mm)	30 ± 20
No. 200 (75 μm)	5 ± 5

*For undercut greater than 18 inches (450 mm) the percent passing the 6 inch (150 mm) sieve may be 90 ± 10 and the 4 inch (100 mm) sieve requirements eliminated.

The porous granular material shall be placed in one lift when the total thickness to be placed is 2 feet (600 mm) or less or as directed by the Engineer. Each lift of the porous granular material shall be rolled with a vibratory roller meeting the requirements of Article 1101.01(g) to obtain the desired keying or interlock and compaction. The Engineer shall verify that adequate keying has been obtained.

A 3-inch (75 mm) nominal thickness top lift of capping aggregate having a gradation of CA 6 will be required when Aggregate Subgrade is not specified in the contract and Porous Granular Embankment, Subgrade will be used under the pavement and shoulders. Capping aggregate will not be required when embankment meeting the requirements of Section 207 or granular subbase is placed on top of the porous granular material.

Construction equipment not necessary for the completion of the replacement material will not be allowed on the undercut areas until completion of the recommended thickness of the porous granular embankment subgrade.

Full depth subgrade undercut should occur at limits determined by the Engineer. A transition slope to the full depth of undercut shall be made outside of the undercut limits at a taper of 1 foot (300 mm) longitudinal per 1-inch (25 mm) depth below the proposed subgrade or bottom of the proposed aggregate subgrade when included in the contract.

<u>Method of Measurement</u>. This work will be measured for payment in accordance with Article 207.04. When specified on the contract, the theoretical elevation of the bottom of the aggregate subgrade shall be used to determine the upper limit of Porous Granular Embankment, Subgrade. The volume will be computed by the method of average end areas.

<u>Basis of Payment</u>. This work shall be paid for at the contract unit price per cubic yard (cubic meter) for POROUS GRANULAR EMBANKMENT, SUBGRADE which price shall include the capping aggregate, when required.

The Porous Granular Embankment, Subgrade shall be used as field conditions warrant at the time of construction. No adjustment in unit price will be allowed for an increase or decrease in quantities from the estimated quantities shown on the plans.

PORTLAND CEMENT CONCRETE SHOULDER REMOVAL

Description. This item shall consist of the removal and satisfactory disposal of existing portland cement concrete shoulder pavements in accordance with the applicable portions of Section 440 of the Standard Specifications.

Method of Measurement. This work will be measured for payment in place and the area computed in square yards.

Basis of payment. This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE SHOULDER REMOVAL, which price shall be payment in full for all labor, equipment and materials necessary to complete the work.

RECLAIMED ASPHALT PAVEMENT FOR NON-POROUS EMBANKMENT AND BACKFILL

Effective: April 1, 2001

Revised: January 1, 2007

Add the following sentence to Article 1004.05 (a) of the Standard Specifications:

"Reclaimed Asphalt Pavement (RAP) may be used as aggregate in Non-porous Granular Embankment and Backfill. The Rap material shall be reclaimed asphalt pavement material resulting from the cold milling or crushing of an existing hot-mix bituminous concrete pavement structure, including shoulders. RAP containing contaminants such as earth, brick, concrete, sheet asphalt, sand, or other materials identified by the Department will be unacceptable until the contaminants are thoroughly removed.

Add the following sentence to Article 1004.05 (c)(2) of the Standard Specifications:

"One hundred percent of the RAP when used shall pass the 3 inch (75 mm) sieve. The RAP shall be well graded from coarse to fine. RAP that is gap-graded or single-sized will not be accepted."

RESURFACING OF MILLED SURFACES

Add the following paragraph to the beginning of Article 440.03 of the Standard Specifications:

"The Contractor shall resurface milled pavement within four calendar days."

RETROREFLECTIVE SHEETING, NONREFLECTIVE SHEETING, AND TRANSLUCENT OVERLAY FILM FOR HIGHWAY SIGNS

Type III sign panels with green and yellow sheeting or translucent overlay on white signs shall be according to the special provision "Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, And Translucent Overlay Film For Highway Signs (BDE)".

Retroflective sheeting, nonreflective sheeting, and translucent overlay film for all other signs shall be according to BDE special provision "Retroreflective Sheeting, Nonreflective Sheeting, And Translucent Overlay Film For Highway Signs (BDE)".

SAND BACKFILL

<u>Description</u>: This work shall consist of furnishing, transporting and placing a sand backfill between concrete barriers in accordance with Section 586 of the Standard Specifications and as indicated on the Plans.

<u>Method of Measurement</u>: Sand backfill will be measured for payment as specified in Article 586.04 of the Standard Specifications.

<u>Basis of Payment</u>: This work will be paid for at the contract unit price per cubic meter for SAND BACKFILL which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

SAND MODULE IMPACT ATTENUATOR TO BE REMOVED

<u>Description</u>: This work shall consist of the removal and satisfactory disposal of the existing sand module impact attenuators at locations shown on the plans. A sand module impact attenuator is considered to be made of three parts: 1) barrel, 2) lid and 3) insert(s).

At the discretion of the Engineer, all reusable barrels, lids and inserts are to be transported to:

I-55 Bolingbrook Maintenance Yard 151 E. South Frontage Road Bolingbrook, IL 60440

The Contractor shall contact the I-55 Bolingbrook Maintenance Yard at (630) 739-5641 at least two (2) working days prior to transporting the above mentioned items. The contractor shall arrive at the IDOT I-55 Bolingbrook Maintenance Yard with all equipment and labor needed to unload the barrels, lids and inserts. The allowable time to deliver items to the I-55 Bolingbrook Maintenance Yard is 7:30 a.m. to 3:30 p.m., inclusive, Monday through Friday, Excluding holidays.

All barrels, lids and inserts that are not transported to the I-55 Bolingbrook Yard shall be disposed of in accordance with Article 202.03 of the Standard Specifications. Surplus material including sand fill in the existing barrels and inserts shall be disposed of in accordance with Article 202.03 of the Standard Specifications. Anti-freeze, when present, shall be disposed of/recycled according to local ordinances.

Method of Measurement: This work shall be measured per each array for each location.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per each array for SAND MODULE IMPACT ATTENUATOR TO BE REMOVED, which price shall include the removal the barrels and sand, salvage, and transport of the salvaged material, and all labor and equipment needed to complete this work as specified herein.

SEEDING, CLASS 4B (MODIFIED)

Effective: August 12, 1998

Revised:

All work, materials and equipment shall conform to Section 250 and 1081 of the Standard Specifications except as modified herein.

The Class 4B (Modified) seed mix shall be supplied in pounds of Pure Live Seed. All native species will be local genotypes and will be from a radius of 150 miles from the site. The Class 4B (Modified) seed mix shall be supplied with the appropriate inoculants. Fertilizer is not required.

Article 250.07 – Seeding Mixtures. Add the following to Table 1:

Seeding Class 4B Modified – Wetland Grass and Forb Mixture

<u>tare</u>	(Lb/Acre)
30.0	(25.0),
30.0	(25.0),
0.5	(0.5),
1.0	(1.0),
1.0	(1.0),
0.5	(0.5),
0.5	(0.5),
0.5	(0.5),
0.5	(0.5),
0.5	(0.5),
0.5	(0.5),
	tare 30.0 30.0 0.5 1.0 1.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5

Article 250.09 – Add Seeding, Class 4B Modified Article 250.10 – Add Seeding, Class 4B Modified

STONE MATRIX ASPHALT (SMA)

Effective: April 1, 1997

Revised: January 1, 2007

<u>Description.</u> This Special Provision establishes and describes the responsibilities of the Contractor in producing and constructing Polymerized Hot Mix Asphalt Binder Course, Stone Matrix Asphalt, N 80, or Polymerized Hot Mix Asphalt Surface Course, Stone Matrix Asphalt, N 80. The work shall be according to Sections 406, 1030, and 1032 of the Standard Specifications except as modified herein.

Materials.

- (a) Aggregates.
 - (1) Coarse Aggregate. No individual coarse aggregate gradation is specified. The coarse aggregate gradation(s) used shall be capable of being combined with FA 20 stone sand and mineral filler to meet the approved mix design and the mix requirements noted herein.

For surface course, coarse aggregate shall be Class B Quality crushed steel slag.

For binder course, coarse aggregate shall be Class B Quality crushed stone (dolomite only) or crushed sandstone.

The coarse crushed stone, crushed steel slag and crushed sandstone aggregate for both courses shall meet the following additional requirement:

Water Absorption — 2.0 % maximum

- (2) Fine Aggregate. Fine aggregate shall be Class B Quality stone sand meeting gradation FA 20.
- (3) Mineral Filler. Mineral filler shall be commercially manufactured mineral filler meeting Article 1011.01 with the following additional requirement:

Additional minus No. 200 (minus 75- μ m) material required by the mix design shall be mineral filler.

(b) Fiber Additive. A fiber additive shall be included in the SMA mixture. Typical ranges of dosage rates are shown but the actual dosage rate will be determined by the Engineer.

A stabilizer such as cellulose fiber or Mineral fibers shall be added to the mixture. The dosage rate for cellulose shall be approximately 0.4% by total mixtures mass and sufficient to prevent draindown. Cellulose used in SMA mixtures shall conform to the properties outlined in Table 1. For mineral fiber, the dosage rate shall be approximately 0.5% by total mixture mass and sufficient to prevent draindown. Mineral fibers used in SMA mixtures shall conform to the properties outlined in SMA mixtures shall conform to the properties outlined in SMA mixture mass and sufficient to prevent draindown. Mineral fibers used in SMA mixtures shall conform to the properties outlined in table 2.

Property	Requirement
Sieve Analysis	
Method A – Alpine Sieve ^{1/} Analysis Fiber Length	0.25 in. (6 mm) maximum 70 ± 10%
Passing No. 100 (0.015 mm) sieve	
Method B – Mesh Screen ^{2/} Analysis	0.25 in (6 mm) maximum
Fiber Length	85 ± 10%
Passing No. 20 (850 µm) sieve	65 ± 10%
No. 40 (425 µm) sieve	30 ± 10%
No. 140 (106 µm) sieve	18 ± 5% NON VOLATILES
Ash Content ^{3/}	7.5 + 1.0
pH ^{4/}	5.0 ± 1.0 (Times fiber mass)
Oil Absorption ^{5/}	Less than 5% (by mass)
Moisture Content ^{6/}	

- 1/ Method A Alpine Sieve Analysis. This test is performed using an Alpine Air Jet Sieve (Type 200 LS). A representative five-gram sample of fiber is sieved for 14 minutes at a controlled vacuum of 11 psi (75 kPa) of water. The portion remaining on the screen is weighed.
- 2/ Method B Mesh Screen Analysis. This test is performed using standard No. 20, No. 40, No. 60, No. 80, No. 100 and No. 140 (850 µm, 425 µm, 250 µm, 180 µm, 150 µm and 106 µm) sieves, nylon brushed and a shaker. A representative 0.35 oz (10 g) sample of fiber is sieved, using a shaker and two nylon brushes on each screen. The amount retained in each sieve is weighed and the percentage passing calculated. Repeatability of this method is suspect and needs to be verified.

- 3/ Ash Content. A representative 0.07 to 0.11 oz (2 to 3 g) sample of fiber is placed in a tared crucible and heated between 1100 and 1200 °F (595 and 650 °C) for not less than 2 hours. The crucible and ash are cooled in a desiccator and weighed.
- 4/ pH Test. A representative 0.176 oz (5 g) of fiber is added to 0.10 quarts (100 mL) of distilled water, stirred and let sit for 30 minutes. The pH is determined with a probe calibrated with pH 7.0 buffer.
- 5/ Oil Absorption Test. A representative 0.176 oz (5 g) of fiber is accurately weighed and suspended in an excess of mineral spirits for not less than 5 minutes to ensure total saturation. It is then placed in a screen mesh strainer (approximately 0.0008 sq in. (0.5 sq mm) opening size) and shaken on a wrist action shaker for 10 minutes [approximately 1 1/4 in. (32 mm) motion at 240 shakes per minute]. The shaken mass is then transferred without touching to a tared container and weighed. Results are reported as the amount (number or times its own weight) the fibers are able to absorb.
- 6/ Moisture content. A representative 0.35 oz. (10 g) of fiber is weighed and placed in a 250 °F (121 °C) forced air oven for 2 hours. The sample is then reweighed immediately upon removal from the oven.

Property	Requirements
Sieve Analysis	
Fiber Length ^{1/}	0.25 in. (6 mm) Maximum mean test value
Thickness ^{2/}	0.0002 in (0.005 mm) Maximum mean test value
Shot Content ^{3/}	
Passing No. 230 (63 µm) Sieve	70 ± 10%

Table 2.	Mineral Fiber	Quality	Rec	juirements
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- 1/ The fiber length is determined according to the Bauer McNett Fractionation.
- 2/ The fiber diameter is determined by measuring at least 200 fibers in a phase contrast microscope.
- 3/ Shot content is a measure of non-fibrous material. The shot content is determined on vibration sieves. Two sieves, No. 60 and No. 230 (250 μm and 63 μm), are typically utilized.

Prior to approval and use of the mineral fiber, the Contractor shall submit a notarized certification by the producer of these materials, stating they meet these requirements.

- (c) Reclaimed Asphalt Pavement (RAP). RAP use will not be permitted.
- (d) Asphalt Binder (AB)

At the contractor's option, the asphalt binder shall be SBS/SBR PG 76-22 or SBS/SBR PG 76-28 meeting the requirements Article 1032.05(b). The elastic recovery of the Asphalt Binder used shall be a minimum of 80.

Plant Requirements.

- (a) Asphalt Cement. The polymer modified asphalt cement shall be shipped, maintained and stored at the mix plant according to the manufacturer's requirements. Polymer asphalt cement shall be placed in an empty tank and not blended with other asphalt cements.
- (b) Mineral Filler System. The mineral filler system shall accurately proportion the large amounts of mineral filler required for the mixture. Alteration or adjustment of the current system may be required.

Mineral filler shall not be stored in the same silo as collected dust. As an option, collected baghouse dust may be used in lieu of manufactured mineral filler, provided; 1) there is enough is available for the production of the SMA mix for the entire project and 2) a mix design was prepared with collected bag-house dust.

- (c) Mineral Fiber Additive. Adequate dry storage shall be provided for the fiber additive. A separate feed system shall be provided to proportion the fiber into the mixture uniformly and in desired quantities. The feed system shall be interlocked with the aggregate feed or weigh system to maintain the correct proportions for all rates of production and batch sizes. The proportion of fibers shall be controlled accurately to within \pm 10% of the amount of fibers required. Flow indicators or sensing devices for the fiber system shall be interrupted and interlocked with plant controls so mix production shall be interrupted if fiber introduction fails.
 - (1) Batch Plant. Loose fiber shall be pneumatically added through a separate inlet directly into the weigh hopper above the pugmill. The addition of fiber shall be timed to occur during the hot aggregate charging of the hopper. Adequate mixing time will be required to ensure proper blending of the aggregate and fiber additive. Both the wet and dry mixing times shall each be increased a minimum of 5 seconds. The actual mixing time increase shall be determined by the Engineer based on individual plant characteristics. The batch size shall not exceed 75% of pugmill size as rated by the Department.
 - (2) Drum Mix Plant. Loose fiber shall be introduced using specialized equipment, which mixes asphalt cement with the loose fiber at the time of introduction into the drum mixer. This equipment shall be approved by the Engineer. Care shall be taken to ensure the loose fiber does not become entrained in the exhaust system of the drier or plant.
 - (3) Fiber Supply System: When fiber stabilizing additives are required as an ingredient of the mixture, a separate feed system shall be utilized to accurately proportion by weight the required quantity into the mixture in

such a manner that uniform distribution will be obtained. The fiber system shall be interlocked with the aggregate feed or weigh system so as to maintain the correct proportions for all rates of production and batch sizes. The proportion of fibers shall be controlled accurately to within plus or minus 10 percent of the amount of fibers required and the fiber system shall automatically adjust the feed rate to maintain the material within this tolerance at all times. The fiber system shall provide in-process monitoring consisting of either a digital display or output or a printout of feed rate, in pounds per minute to verify feed rate. Flow indicators or sensing devices for the fiber system shall be provided and interlocked with plant controls so that mixture production will be interrupted if introduction of the fiber fails, or if the output rate is not within the tolerances given above.

When a batch type plant is used, the fiber shall be added to the aggregate in the weigh hopper or as approved and directed by the Engineer. The fibers are to be uniformly distributed prior to the injection of asphalt cement into the mixes.

When a continuous or drier-drum type plant is used, the fiber shall be added to the aggregate and uniformly dispersed prior to the injection of asphalt cement. The fiber shall be added in such a manner that it will not become entrained in the exhaust system of the drier or plant.

- (d) Hot-mix Storage. The mixture shall not be stored more than four hours without the approval of the Engineer. The engineer will assess the draindown of the mix in making this determination.
- Mix Design. Add the following to the list of Illinois Modified AASHTO references in Article 1030.04 of the Standard Specifications:

AASHTO T 305 Method for determining draindown from the loose mixture.

The draindown shall be determined at the JMF AB content at the mixing temperature plus 30 F.

Each specific SMA mixture design shall be submitted to and verified by the Department as detailed in the Department's current "Bituminous Mixture Design Verification Procedure". The Contractor shall submit samples of all appropriate materials to the Department at least four weeks prior to production for mixture design verification.

The polymer asphalt supplier shall provide the Contractor with the temperature viscosity curves.

The Contractor shall supply the average gradation and the gradation ranges (including the Master Band on the critical sieve, if required) for each aggregate designated for use in the mixture. This information shall be used to judge whether the aggregates are compatible to produce an acceptable mix.

The mix design shall meet the following Gyratory Design (80-Gyration) parameters:

Design Air Voids	3.50 % @ 80 Gyrations
VFA	75-85
VMA (Surface Mixtures)	17 minimum
VMA (Binder Mixtures)	16 minimum
Draindown (%)	0.3 maximum

The surface and binder mixture gradation shall be according to the requirements in Table 5 for the mixture specified on the plans.

Mixture Gradation		
Target Value Range		
Sieve	Percent Passing	
3/4 in. (19.0 mm)	100	
1/2 in. (12.5 mm)	82 – 100	
3/8 in. (9.5 mm)	65 max	
No. 4 (4.75 mm)	20 – 30	
No. 8 (2.36 mm)	16 – 24	
No. 30 (600 μm)	12 - 16	
No. 50 (300 μm)	10 – 15	
No. 200 (75μm)	8 - 10	

Table 5 Stone Matrix Asphalt Gradation

<u>Weather Requirements.</u> The mixtures shall be placed on a dry surface when the temperature of the roadbed is above 60 °F (15 °C).

<u>Hauling/Laydown Equipment.</u> The Contractor shall provide a release agent that minimizes sticking to equipment and is acceptable to the Engineer. The Contractor shall furnish a laborer to ensure that all truck beds are clean and no excess release agent is used prior to being loaded. All trucks shall be insulated and tarped when hauling the mixture to the paver.

The Contractor shall provide two steel-wheeled tandem rollers for breakdown (T $_{b}$) meeting the requirements of Article 406.07(a), except one of the tandems shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm). Also one finish steel-wheeled roller meeting the requirements of Article 1101.01(e). Pneumatic-tired rollers will not be allowed.

<u>Mix Placement.</u> The mixture shall be placed at a minimum mixture temperature recommended by the polymer asphalt supplier and approved by the Engineer. The mixture temperature shall be measured in the truck just prior to placement in the paver.

The paver speed shall not exceed 20 ft/min (7 m/min) during placement.

Compaction shall commence immediately after the mixture has been placed. The breakdown rollers shall maintain an effective rolling distance of not more than 100 ft. (38 m) behind the paver. Rollers shall move at a uniform speed not to exceed 3 mph (5 km/h) with the drive roll nearest the paver.

Compaction shall continue until the required density range has been achieved. The required density range shall be 94% to 97% of theoretical maximum specific gravity (G_{mm}). Care shall be taken to avoid excessive aggregate breakage.

<u>Mix Production.</u> The mixtures shall be produced at a temperature range recommended by the polymer asphalt supplier and approved by the Engineer to allow adequate compaction. The actual production temperature will be selected from the range by the Engineer based on individual plant characteristics and modifier used in the mixtures.

A manufacturer's representative from the polymer asphalt cement producer shall be present to during each polymer mixture start-up and shall be available at all times during production and lay-down of the mix. A manufacturer's representative for the supplier/manufacture of the fibers and the equipment to introduce fibers into the mixture shall be present for calibration and first day of production (test strip).

A QC/QA mixture Test Strip will be required. The Test Strip shall be constructed at a location approved by the Engineer to determine the mix properties, density, and laydown characteristics. These test results and visual inspections on the mixture shall be used to make corrective adjustments if necessary.

Prior to the start of mix production and placement, The Engineer will review and approve all test strip results and rolling pattern.

The Test Strip performed as follows:

- (a) Team Members. The start-up team, if required, shall consist of the following:
 - (1) Resident Engineer
 - (2) District Materials Mixtures Control Engineer, or representative
 - (3) District Nuclear Density Gauge Specialist
 - (4) Contractor's QC Manager
 - (5) Contractor's Density Tester
 - (6) AB Supplier representative
 - (7) Fiber Supplier representative

- (b) Communication. The Contractor shall advise the team members of the anticipated start time of production for the test strip. The QC Manager shall direct the activities of the test strip team. A Department-appointed representative from the start-up team will act as spokesperson for the Department.
- (c) The Test Strip shall consist of approximately 400 tons (375 metric tons). It shall contain two growth curves, which shall be compacted by a static steel-wheeled roller and tested as outlined herein.
 - (1) Mix Information. On the day of construction of the Test strip, the Contractor shall provide the start-up team documentation of test data showing the combined hot-bin or the combined aggregate belt sample and mineral filler at a drier-drum plant.
 - (2) Mix and Gradation Test Strip Samples. The first and second sets of mixture and gradation samples shall be taken by the Contractor at such times as to represent the mixture between the two growth curves and the rolling pattern area, respectively. All test strip samples shall be processed by the Contractor for determination of mix composition and Hot-Mix Asphalt properties including air voids. This shall include washed gradation tests. This information shall then be compared to the JMF and required design criteria.
 - (3) Compaction Equipment. It shall be the responsibility of the start-up team to verify roller compliance before commencement of growth curve construction.

All paving and rolling equipment intended for use on a project shall be utilized on the test strip.

- (4) Constructing of the Test Strip. After the Contractor has produced the mix, transported the mix, and placed approximately 100 to 150 tons (90 to 140 metric tons) of mix, placement of the mix shall stop, and a growth curve shall be constructed. After completion of the first growth curve, paving shall resume for 50 to 100 tons (45 to 90 metric tons) of mix, placement shall stop, and the second growth curve shall be constructed within this area. Additional growth curves may be required if an adjustment/plant change is made during the test strip. The Contractor shall use the specified rolling procedures for all portions of the test strip except for the growth curve areas, which shall be compacted as directed by the Engineer.
- (5) Location of Test Strip. The test strip shall be located on a pavement type similar to the contract pavement and acceptable to the Engineer. It shall be on a relatively flat portion of the roadway. Descending/Ascending grades or ramps shall be avoided.

- (6) Compaction Temperature. In order to make an accurate analysis of the density potential of the mixture, the temperature of the mixture on the pavement at the beginning of the growth curve shall be 325 °F (152 °C).
- (7) Compaction and Testing. The Engineer will specify the roller(s) speed and number of passes required to obtain a completed growth curve. The nuclear gauge shall be placed near the center of the hot mat and the position marked for future reference. With the bottom of the nuclear gauge and the source rod clean, a 15 seconds nuclear reading (without mineral filler) shall be taken after each pass of the roller. Rolling shall continue until the maximum density is achieved and three consecutive passes show no appreciable increase in density or no evidence of destruction of the mat. The growth curve shall be plotted. No testing of initial passes shall be taken until the fourth pass is completed.
- (8) Final Testing. After the growth curve information is obtained, a final oneminute nuclear reading, using mineral filler to eliminate surface voids, shall be taken at the marked position. This reading is used to adjust the maximum density reading obtained during the growth curve.
- (9) Evaluation of Growth Curves. Mixtures which exhibit density potential less than 94 percent or greater than 97 percent of the maximum theoretical density (D) shall be considered as sufficient cause for mix adjustment. If a mix adjustment is made, an additional test strip may be constructed. The Department will pay half the cost of the contract unit price for a test strip if additional one is required. The information shall then be compared to the AJMF and required design criteria.

If the nuclear density potential of the mixture does not exceed 91 percent, the operation will cease until all test data is analyzed or a new mix design is produced.

In addition, other aspects of the mixture, such as appearance, segregation, texture, or other evidence of mix problems, should be noted and corrective action taken at this time.

- (d) Documentation. The Test Strip and rolling pattern information (including growth curves) will be tabulated by the contractor with copies provided to each team member, and the original submitted to the Engineer. Any change to the rolling pattern shall be approved by the Engineer.
- (e) Density. The density of the finished SMA binder course shall be measured either by nuclear test methods or from cores obtained by the contractor at random locations. For the SMA surface course, only the core method will be accepted.

<u>Control Charts/Limits.</u> Control charts/limits shall be according to QC/QA requirements except density and air voids shall be plotted on the control charts within the following control limits:

Parameter	Individual Test	Moving Average
Density	94 % - 97 %	
Air Voids	± 1.0 % (of design)	± 0.80 % (of design)

Basis of Payment. This work will be measured and paid for according to Article 406.14 at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, N 80 or POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N 80.

The test strip will be paid for at the contract unit price each for TEST STRIP (STONE MATRIX ASPHALT), which price shall not include the 400 tons (360 metric tons) of mix, as well as the appropriate testing, which will be paid for at the unit price in the contract for the item being placed.

TEMPORARY ASPHALT WEDGE

Description. This work shall consist of constructing, maintaining, and removing a temporary asphalt wedge.

Construction Requirements. Prior to shifting traffic into the lane configuration shown on the plans for the plans for the winter shutdown period, the temporary asphalt wedge shall be constructed on a prepared base in accordance with Section 406 of the Standard Specifications and as shown on the plans. The contractor shall maintain the temporary asphalt wedge until directed to remove it by the Engineer. When directed by the Engineer, the temporary asphalt wedge shall be wedge shall be removed in accordance with Section 440 of the Standard Specifications.

Method of Measurement. Temporary Asphalt Wedge will be measured for payment in place and the area computed in square yards. The width of measurement shall be as shown on the plans or as directed by the Engineer.

Basis of payment. This work will be paid for at the contract unit price per square yard for TEMPORARY ASPHALT WEDGE.

TEMPORARY CONCRETE BARRIER REMOVAL

<u>Description</u>. This item shall consist of the removal and satisfactory disposal of existing precast barrier units in accordance with the applicable portions of Section 501 of the Standard Specifications.

<u>Method of Measurement</u>. This work will be measured for payment in place along the centerline of the barrier including terminal sections.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot for TEMPORARY CONCRETE BARRIER REMOVAL, which price shall be payment in full for all labor, equipment and materials necessary to complete the work.

WEED CONTROL, TEASEL

<u>Description</u>: This work shall consist of the application of a broadleaf herbicide (Transline or equal) along highway roadsides for control of teasel and thistle.

<u>Materials</u>: The broadleaf herbicide (Transline or equal) shall have the following formulation:

A.	Active Ingredient Clopyralid: 3,6-dichloro-2-pyridinecarboxylic ac monoethanolamine salt	id,	40.9%
В.	Inert Ingredients	-	<u>59.1%</u>
	то	TAL 1	00.00%

The Contractor shall submit a certificate, including the following, prior to starting work:

- 1. The chemical names of the compound and the percentage by weight of the ingredients which must match the above specified formulation.
- 2. A statement that the material is in a solution which will form a satisfactory emulsion for use when diluted with water for normal spraying conditions.
- 3. A statement that the Transline or equal, when mixed with water, will be completely soluble and dispersible and remain in suspension with continuous agitation.
- 4. A statement describing the products proposed for use when the manufacturer of Transline or equal requires that surfactants, drift control agents, or other additives be used with the product. These tank mix additives shall be used as specified by the manufacture. Required additives will not be paid for separately.

All material shall be brought to the spray area in the original, unopened containers supplied by the manufacturer.

<u>Schedule</u>: Spraying will not be allowed when temperatures exceed 90° F or under 45° F, when wind velocities exceed fifteen (15) miles per hour, when foliage is wet or rain is eminent, when visibility is poor or during legal holiday periods.

<u>Application Rate</u>: The Transline or equal broadleaf herbicide shall be applied at the rate of one (1) pint per acre (1.2 liters per hectare).

One (1) gallon (one-half (0.5) liter) of Transline or equal formulation shall be diluted with a minimum of forty (40) gallons (one hundred fifty (150) liters) of water and applied as a mixture. Water for dilution of the mixture will not be paid for separately.

<u>Method of Measurement</u>: Weed Control, Teasel will be measured for payment in gallons (liters) of undiluted Transline or equal applied as specified. The gallons (liters) for payment will be determined based on the gallons (liters) specified on the label attached to the original container supplied by the manufacturer.

<u>Basis of Payment</u>: Weed Control, Teasel will be paid for at the contract unit price per gallon (liters) for WEED CONTROL, TEASEL. Water for dilution of the mixture and additives required for application will not be paid for as separate items, but the costs shall be considered as included in the contract unit price for Weed Control, Teasel, and no additional compensation will be allowed.

BACKFILLING STORM SEWER UNDER ROADWAY

Effective: September 30, 1985

Revised: July 2, 1994

For storm sewer constructed under the roadway, backfilling methods two and three authorized under the provisions of Article 550.07 will not be allowed.

CLEANING EXISTING DRAINAGE STRUCTURES

Effective: September 30, 1985

Revised: January 1, 2007

All existing storm sewers, pipe culverts, manholes, catch basins and inlets shall be considered as drainage structures insofar as the interpretation of this Special Provision is concerned. When specified for payment, the location of drainage structures to be cleaned will be shown on the plans.

All existing drainage structures which are to be adjusted or reconstructed shall be cleaned in accordance with Article 602.15. This work will be paid for in accordance with Article 602.16.

All other existing drainage structures which are specified to be cleaned on the plans will be cleaned according to Article 602.15.

Basis of Payment. This work will be paid for at the contract unit price each for DRAINAGE STRUCTURES TO BE CLEANED, and at the contract unit price per foot (meter) for STORM SEWERS TO BE CLEANED.

DRAINAGE STRUCTURE SPECIAL

Description: This item shall consist of constructing Drainage Structure Special, with one type 22 frame and grate as shown on the plans and in accordance with the applicable portions of Sections 602 and 604 of the Standard Specification. Each drainage structure shall have existing and proposed pipes incorporated into the structure as shown on the plans.

Partial removal of existing culverts at the structure shall be included with this work.

Basis of Payment. This work will be paid for at the contract unit price each for DRAINAGE STRUCTURE SPECIAL which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

GRATING FOR CONCRETE FLARED END SECTION EQUIVALENT ROUND SIZE 24"

Description: This item shall consist of furnishing and installing gratings on elliptical concrete flared end sections at the locations shown on the plans, in accordance with the applicable portions of Sections 542 and 1006 of the Standard Specification, and as directed by the Engineer.

Method of Measurement: Gratings for elliptical concrete flared end sections will be measured for payment in units of each at the location designated on the plans.

Basis of Payment: This work will be paid for at the contract unit price each for GRATING FOR CONCRETE FLARED END SECTION of the equivalent round size specified, which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

MEDIAN INLET BOX REMOVAL

Description: This item shall consist of the removal and disposal of median inlet boxes at locations shown on the plans, in accordance with the applicable portions of Sections 440 and 605 of the Standard Specification, and as directed by the Engineer.

Method of Measurement: Removal of median inlet boxes will be measured for payment in units of each at the location designated on the plans.

Basis of Payment: This work will be paid for at the contract unit price each for MEDIAN INLET BOX REMOVAL, which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

REMOVE EXISTING FLARED END SECTION

Description: This work shall consist of the removal and disposal of flared end sections at locations shown on the plans, in accordance with the applicable portions of Section 551 of the Standard Specification, and as directed by the Engineer.

Method of Measurement: Removal of existing flared end sections will be measured for payment in units of each at the location designated on the plans.

Basis of Payment: This work will be paid for at the contract unit price per each for REMOVE EXISTING FLARED END SECTION, which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

STEEL CASINGS

Description: This work shall consist of furnishing all labor, equipment, and materials for the installation of steel casing as shown on the plans, specified herein and/or directed by the Engineer. This work shall be constructed according to Section 550 of the Standard Specifications. The Contractor shall coordinate requirements for casing cathodic protection and coating with the Engineer and Kinder Morgan, Inc.

Material: The steel casing shall be according to ASTM A252 Grade 2.

Method of Measurement: Steel Casing shall be measured for payment in place in feet.

Basis of Payment: This work will be paid for at the contract unit price per foot for STEEL CASINGS of the diameter specified.

EROSION AND SEDIMENT CONTROLS

This Special Provision revises Section 280 (Temporary Erosion Control) of the Standard Specifications for Road and Bridge Construction.

Add the following as the third paragraph of Article 280.01:

"This work shall also include implementation and management of the approved Erosion and Sediment Control Schedules, method of operation weekly co-inspections, inspection following rainfalls, and preparation and adherence to the Erosion and Sediment Control Schedule. Removal of erosion and sediment control items will be by others in the future where shown on the Plans or as directed by the Engineer."

Revise Article 280.02(f) to read:

"(f)	Silt Fence	Article 1080.02"
Add	the following to Article 280.02:	
"(I)	Course Aggregate, Gradation CA-3	Article 1004.04
(m)	Geotextile Fabric, Filter Fabric	Article 1080.02; 1080.03
(n)	Seeding Class 2A	Article 250.07 & 1081.04
(0)	Excelsior Blanket	Article 1081.10 (a)
(p)	Riprap, Gradation RR3	Article 1005.01
(q)	Cellular Confinement Grid	Article 1080.06"

Revise Article 280.04(b) to read:

"(b) Sediment Control, Silt Fence. This system consists of furnishing all equipment, labor and materials necessary for the installation and removal of a continuous silt fence adjacent to an area of construction to intercept sheet flow of water borne silt and sediment, and prevent it from leaving the area of construction. Silt fence designated not to be removed by the Plans or the Engineer shall remain in place and become the property of the Department.

The silt fence shall be supported on hardwood posts spaced on a maximum of 2.4 m (8 ft) centers. The bottom of the fabric shall be installed in a backfilled and compacted trench a minimum of 150 mm (6 in) deep, and securely attached to the hardwood post by a method approved by the Engineer. The minimum height above ground for all silt fence shall be 760 mm (30 in)."

Add the following to Article 280.04:

"(h) Sediment Control, Stabilized Construction Entrance. This system consists of furnishing of all equipment, labor, and materials necessary for the installation of the stabilized construction entrances as shown on the Plans or as directed by the Engineer. Construction entrances shall be used in conjunction with the stabilization of construction roads and other exposed areas to reduce or eliminate the tracking of sediment onto public right-of-ways or streets.

Topsoil shall be removed, geotextile fabric furnished and installed, and the cellular confinement grid furnished, installed, and staked according to the manufacturer's recommendations. Stabilized construction entrances shall be built to the lines and dimensions shown in the details or as directed by the Engineer. The cells shall be filled with course aggregate. The course aggregate shall be furnished and placed within the cellular confinement grid using the methods and equipment recommended by the manufacturer. The course aggregate shall be placed in accordance with the applicable portions for Section 351 of the Standard Specifications. All surface water flowing or diverted toward the construction entrance shall be accounted for either by installation of a pipe culvert under the entrance, or if piping is impractical, a mountable berm will be permitted.

Sediment Control, Stabilized Construction Entrance Removal. This work shall consist of the removal of a stabilized construction entrance and the items included in the original construction of a stabilized construction entrance. This includes pipe culverts or course aggregate for a mountable berm, and any course aggregate abutting cellular confinement grids. All methods of removal shall be approved by the Engineer. Material shall be removed and disposed of according to Article 202.03, or as directed by the Engineer.

(i) Erosion Control, Temporary Pipe Slope Drain. This system consists of furnishing all equipment, labor, and materials necessary for the installation, maintenance and removal of pipe, anchor devices, filter fabric, and flared end sections to convey surface runoff down the face of un-stabilized slopes to minimize erosion on the slope face. Temporary Pipe

Slope Drain shall be used in conjunction with temporary berms that direct runoff into the temporary pipe slope drain flared end section located at the top of the embankment, for the length of the embankment.

The temporary pipe slope drain shall be constructed as shown in the plans and shall outlet into a sediment trap or basin, or a stable conveyance system that leads to a sedimentation device, as approved by the Engineer. The temporary pipe slope drain, inlet, and outlet shall be securely anchored to the slope in such a manner to prevent any movement laterally and vertically. All methods of anchoring shall be approved by the Engineer. All connections are to be watertight. A flared end section shall be attached to the inlet end of the pipe and shall be relocated each time the pipe is extended. The height of the temporary berm at the location of the temporary pipe slope drain shall be at least 2 times the diameter of the pipe. To prevent erosion around the flared end section, geotextile fabric will be placed under the flared end section and shall extend 2 meters (6 feet) in front of it and up the front face of the temporary berm. This work shall be installed as shown in the Plans or as approved by the Engineer.

At the end of each construction day, temporary berms at the top edge of the embankment shall be constructed and each temporary pipe slope drain will be extended and the inlet reinstalled. These temporary berms shall be constructed as shown on the Plans or as directed by the Engineer.

(j) Erosion Control, Temporary Channel Diversion. This system consists of the furnishing of all equipment, labor, and materials required to install, maintain and remove the temporary channel diversion needed to carry the existing stream flow through or around a construction site while the permanent drainage structure is being installed. The temporary channel diversion will be stabilized as shown on the drawings and will be removed/filled once the permanent drainage structure is in place and stabilized.

All surfaces to be protected shall be graded and compacted. Prepared surfaces that become crusted shall be reworked to an acceptable condition prior to placing the geotextile fabric.

Geotextile Fabric Installation In-Stream. Geotextile fabric shall be applied with the length of roll laid parallel to the flow of the water. Start the installation with the initial strip placed in the center of the ditch to avoid an overlap in the center of the ditch. Where more than one width is required, lap joints shall be limited to one every 3 meters (10 feet) of width.

An anchor slot shall be placed at the upslope and downslope ends of the geotextile fabric perpendicular to the flow of water. At least 30 cm (12 in) of the end of the geotextile fabric shall be buried vertically in the anchor slot. The geotextile fabric shall be secured in the anchor slot by pins at 1 meter (3 feet) or less on center prior to burying. The soil shall be firmly compacted against the geotextile fabric in the anchor slot. This shall be accomplished by placing the geotextile fabric into the slot, folding it over to expose the underside, pinning the fabric through both layers, backfilling the anchor slot, and compacting the soil.

Pins shall be a 5 mm diameter x 450 mm (3/16 in x 18 in) long wire with a 40 mm (1.5 in) washer attached and shall be driven flush to geotextile fabric surface.

Successive lengths of geotextile fabric shall be overlapped at least 1 meter (3 feet) with the upstream length on top. Pin the overlap by placing 3 pins evenly spaced across the upslope end, center, and downslope end of the overlap, totaling 9 pins for each overlap. Check slots, oriented perpendicular to the flow of water, shall be constructed by placing a tight fold at least 20 cm (8 in) vertically into the soil spaced no more than 8 meters (27 feet) on center. Pin the geotextile fabric in the check slot at each edge overlap and in the center of the geotextile fabric.

Side edges of temporary diversion channel geotextile fabric shall terminate on horizontal shelves running parallel to the flow of water for the full length of the ditch. Edges of the geotextile fabric shall be pinned at 1 meter (3 feet) on center and buried in the Sediment Control, Silt Fence trench.

The Contractor shall maintain the temporary diversion channel until all work on the contract has been completed and accepted. Maintenance shall consist of the repair of areas damaged by any cause.

Restoration of the Temporary channel shall include cleaning any sediment from the channel and backfilling it with approved embankment.

The location of the temporary channel diversion shall be as shown in the plans, or as directed by the Engineer. Water shall not be diverted through the diversion channel until it is adequately protected with geotextile fabric.

(k) Same-Day Stabilization. This system is to be implemented after the initial perimeter controls are in place and placed concurrently with the Contractor's daily operations. These critical areas shall be designated for Same-Day Stabilization as shown on the Plans.

Same-Day Stabilization may consist of either temporary erosion control measures or the permanent landscaping as indicated on the Plans. The permanent landscaping shall be implemented for the Same-Day Stabilization whenever possible. The placing of permanent landscaping intended to be removed at a later date shall receive prior approval by the Engineer. The Contractor shall stage his work so that portions of the slopes and ditches can be brought to finish grade, topsoil placed, and landscaped prior to the end of the workday, whenever possible.

In either case, the work must be left in such condition that the disturbed areas are stabilized. Temporary erosion control measures consist of tarps sufficiently staked to the ground or other erosion controls approved by the Engineer. Measures shall be taken to control sediment -laden water and on-site runoff into dewatering or sedimentation devices on a daily basis.

The Contractor shall be responsible for coordinating his operations with the work of any subcontractors, to insure that stabilization is performed the same day that the disturbance

occurs. The performance of Same-Day Stabilization is also subject to the penalties of the Erosion and Sediment Control Deficiency Deduction described herein.

(I) Erosion Control, Diversion Dike and Temporary Ditch. This system consists of the construction and maintenance of a temporary ridge of compacted soil, located to intercept and divert runoff to a stabilized outlet or to intercept sediment-laden water and divert it to a sediment-trapping device. Diversion Dikes or Temporary Ditches shall be constructed to the lines and dimensions shown on the plans or as directed by the Engineer.

The diversion dike shall be stabilized through the use of Erosion Control Blanket and Temporary Erosion Control Seeding. Diversion dikes intended for use longer than one construction season may be seeded with Seeding Class 2A, or as directed by the Engineer. Excelsior Blanket shall be installed in the manner described for placement in ditches, with the direction of water flow being parallel to the length of the diversion dike.

The embankment used to construct the diversion dike shall be placed along an alignment which all trees, brush, stumps, and other obstructions have been removed that would interfere with the proper functioning of the diversion dike. The embankment shall be constructed by applicable portions for Section 205 of the Standard Specification.

(m) Sediment Control, Dewatering Basins. This system consists of the construction, maintenance, and removal or filling and compacting of the dewatering basins. A dewatering basin shall be installed wherever the Contractor is removing and discharging water from excavated areas on the construction site and the water is not being routed through an adequately sized sediment trap or sediment basin, as determined by the Engineer. The purpose of the basin is to temporarily store the discharged water and to release it in a manner that causes the sediment-laden water to be filtered prior to release into a natural drainage way or stabilized conveyance. Dewatering basins shall be located above the water table whenever possible. Whenever possible the excavated material shall be placed in ring around the dewatering basin. An aggregate spillway consisting of class 3 riprap shall be constructed as shown in the plan detail and lined with geotextile fabric.

The volume required to be stored is dependent upon the pumping rate and the amount of sediment in the water. Locations of the dewatering basins are as shown on the Plans or as approved by the Engineer. All methods of placing embankment must be approved by the Engineer.

Dewatering Basins shall be filled in or removed by a method approved by the Engineer. Whenever possible, the material excavated from the dewatering basin shall be the material returned to the dewatering basin. Final dewatering shall not be made directly into a stream or channel. All other fill materials shall require the approval of the Engineer. Material shall be removed and disposed of according to Article 202.03, or as directed by the Engineer.

(n) Sediment Control, Stone Outlet Structure Sediment Trap. This system consists of the installation and maintenance of a stone outlet structure sediment trap, as shown on the Details in the Plans, or as directed by the Engineer. Riprap, placed over filter fabric, shall be used to construct the stone outlet structure." Add the following to Article 280.05:

"Sediment Control, Silt Fence Maintenance shall consist of maintaining silt fence that has fallen down or become ineffective as a result of natural forces. This work shall include the removal of sediment buildup from behind the silt fence when the sediment has reached a level of half the above ground height of the fence, or as directed by the Engineer. Silt fence damaged by the Contractor's operations or negligence shall be repaired at the Contractor's expense, or as directed by the Engineer.

Sediment Control, Stabilized Construction Entrance Maintenance shall consist of maintaining stabilized construction entrances that have become ineffective as a result of standard operations and natural forces. This work shall include the removal and proper disposal of sediment filled aggregate and the furnishing and placing of coarse aggregate in the manner described herein for Sediment Control, Stabilized Construction Entrance.

Sediment Control, Drainage Structure Inlet Filter Cleaning shall consist of cleaning sediment out of a drainage structure inlet filter when directed by the Engineer. This cleaning work is to be periodically performed as directed by the Engineer, for the duration of the use of each drainage structure inlet filter assembly. The Engineer will be the sole judge of the need for cleaning, based on the rate that debris and silt is collected at each inlet filter location.

Cleaning of the inlet filter shall consist of inspecting, cleaning (includes removal and proper disposal of debris and silt that has accumulated in the filter fabric bag), by vactoring, removing and dumping, or any other method approved by the Engineer."

280.06 Method of Measurement. Revise Article 280.07(a) to read:

"(a) Excavation for Sediment and Dewatering Basins, Temporary Ditches, and Diversion Dikes. The volume of excavation for sediment and dewatering basins, temporary ditches, and diversions dikes will be measured for payment in place and the volume computed in cubic meters (cubic yards)."

Revise Article 280.07(c) to read:

"(c) Sediment Control, Silt Fence. This work, including silt fence designated not to be removed by the Plans or the Engineer, will be measured for payment in meters (feet) in place

Sediment Control, Silt Fence Maintenance. This work will be measured for payment in meters (feet) for each occurrence that silt fence is cleaned, re-erected, or otherwise maintained."

Add the following to Article 280.07:

"(h) Sediment Control, Stabilized Construction Entrance. This work will be measured for payment in place based on the outside dimensions of the cellular confinement grid and the area computed in square meters (square yards).

Sediment Control, Stabilized Construction Entrance Maintenance. This work will be measured for payment in place based on the outside dimensions of the material removed and the area computed in square meters (square yards).

Sediment Control, Stabilized Construction Entrance Removal. This work will be measured for payment for each stabilized construction entrance removed.

- (i) Erosion Control, Temporary Pipe Slope Drains. This work will be measured for payment by each complete system installed and maintained, regardless of pipe diameter and length. This work will be measured only once per location installed.
- (j) Erosion Control, Temporary Channel Diversion. This work will be measured for payment along the centerline of the channel in meters (feet) of temporary channel diversion installed, maintained, and removed.
- (k) Same-Day Stabilization. This work will not be measured for payment.
- (I) Sediment Control, Stone Outlet Structure Sediment Trap. This work will not be measured for payment.
- (m) Sediment Control, Drainage Structure Inlet Filter Cleaning. This work will be measured for payment each time that the cleaning work is performed at each of the drainage structure inlet filter locations. "

Revise Article 280.08 (a) to read:

"(a) Excavation for Sediment and Dewatering Basins, Temporary Ditches, and Diversion Dikes. This work will be paid for at the contract unit price per cubic meter (cubic yard) for EARTH EXCAVATION FOR EROSION CONTROL. The various required linings shall be paid for at the contract unit price for the various items of work as detailed on the plans."

Revise Article 280.08 (c) to read:

"(c) Sediment Control, Silt Fence. This work will be paid for at the contract unit price per meter (foot) for SEDIMENT CONTROL, SILT FENCE.

Sediment Control, Silt Fence Maintenance. This work will be paid for at the contract unit price per meter (foot) for SEDIMENT CONTROL, SILT FENCE MAINTENANCE."

Revise Article 280.08 (h) to read:

"(h) Maintenance. Maintenance of temporary erosion and sediment control systems, including repair of the various systems, removal of entrapped sediment and cleaning of any silt filter fabric will be paid for according to Article 109.04, unless otherwise specified. The sediment shall be removed as directed by the Engineer during the contract period and disposed of according to Article 202.03."

Add the following as Article 280.08:

"(i) Sediment Control, Stabilized Construction Entrance. This work will be paid for at the contract unit price per square meter (square yard) for SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE. The cost of all grading, excavation, and embankment necessary to construct the entrance, including the additional course aggregate required to transition from the cellular confinement grid to the existing ground, will not be paid for separately, but shall be included in the contract unit price for Sediment Control, Stabilized Construction Entrance. Temporary Pipe Culverts required to maintain existing drainage, when specified on the plans or directed by the Engineer, will be paid for in accordance with Article 542.11 of the Standard Specifications.

Sediment Control, Stabilized Construction Entrance Maintenance. This work will be paid for at the contract unit price per square meter (square yard) for SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE MAINTENANCE. The cost of all excavation and grading necessary to remove sediment filled aggregate and the furnishing and placing of replacement course aggregate will not paid for separately, but shall be included in the contract unit price for Sediment Control, Stabilized Construction Entrance Maintenance.

Sediment Control, Stabilized Construction Entrance Removal. This work will be paid for at the contract unit price each for SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE REMOVAL. The cost of removal of temporary pipe culverts will not be paid for separately, but shall be included in the contract unit price for Sediment Control, Stabilized Construction Entrance Removal.

- (j) Erosion Control, Temporary Pipe Slope Drains. This work will be paid for at the contract unit price each for EROSION CONTROL, TEMPORARY PIPE SLOPE DRAINS. The cost of all connections, anchors, extensions, geotextile materials, and temporary berms used to install, reinstall, or operate the temporary pipe slope drains will not be paid for separately, but shall be included in the contract unit price for Erosion Control, Temporary Pipe Slope Drains.
- (k) Erosion Control, Temporary Channel Diversion. This work will be paid for at the contract unit price, per meter (foot) for EROSION CONTROL, TEMPORARY CHANNEL DIVERSION. The cost of earth excavation, earth plug, riprap, geotextile materials for channel lining, and backfill will not be paid for separately, but shall be included in contract unit price for Erosion Control, Temporary Channel Diversion. Sediment Control, Silt Fence will be paid for separately.
- (I) Same-Day Stabilization. Same-Day Stabilization will not be paid for separately. The cost of the Same-Day Stabilization shown on the plans shall be included in the contract unit price for the various items of work performed and no additional compensation will be allowed.
- (m) Sediment Control, Stone Outlet Structure Sediment Trap. Sediment Control, Stone Outlet Structure Sediment Trap will not be paid separately. The various items of work required to construct the Sediment Control, Stone Outlet Structure Sediment Trap shown in the details in the Plans will be measured and paid for separately. Riprap will be measured and paid

for according to Section 281. Earth Excavation for Erosion Control will be measured and paid for according to Section 280. Filter Fabric will be measured and paid for according to Section 282.

(n) Sediment Control, Drainage Structure Inlet Filter Cleaning. This work will be paid for at the contract unit price each for SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING."

EROSION AND SEDIMENT CONTROL CALL OUT

This work shall consist of the short notice mobilization of a work crew for the purpose of maintaining and repairing critical erosion and sediment control items when required to respond to unpredictable events beyond the Contractor's control. Upon receipt of a written notification of a Request for Erosion and Sediment Control Call Out (RESCCO) from the Engineer, the Contractor shall have until the end of the next Working Day to perform the required work.

If the required work is not performed by the end of the next Working Day, the Request for Erosion and Sediment Control Call Out will also be considered the warning for an Erosion and Sediment Control Deficiency Deduction (ESCDD). The Erosion and Sediment Control Deficiency Deduction will be dated 2 Working Days after the date on the Request for Erosion and Sediment Control Call Out. The Erosion and Sediment Control Deficiency Deduction will be enforced as described herein.

Contractor Action	Department Action
Receipt of RESCCO end of Day One.	Deliver RESCCO on Day One
Finish required Work end of Day Two.	Department measures work performed according to Erosion and Sediment Control Call Out Method of Measurement.
Finish required Work end of Day Three.	Department pays only standard pay items and does not apply to Erosion and Sediment Control Call Out Method of Measurement.
Finish required Work end of Day Four or later.	Department invokes ESCDD prior to Work Day Three, pays only standard work pay items, and does not apply to Erosion and Sediment Control Call Out Method of Measurement.

Any individual RESCCO will not be applied towards work whose contract prices total more than \$10,000 (ten thousand dollars) before the application of Article 280.07.

Method of Measurement: Erosion and Sediment Control Call Out will not be measured for payment. The various items of work required to be performed when indicated in a Request for Erosion and Sediment Control Call Out will be measured according to Sections 280, 281, and 282 and the Engineer will increase the quantities by 10%.

Basis of Payment: Erosion and Sediment Control Call Out will not be paid for separately. The various items of work required to be performed when indicated in a Request for Erosion and Sediment Control Call Out will be measured according to Sections 280, 281, and 282.

EROSION AND SEDIMENT CONTROL SCHEDULE

This Special Provision revises Section 108 (Prosecution and Progress) of the Standard Specifications for Road and Bridge Construction, creating a requirement that erosion and sediment control work items be included in the overall Progress Schedule.

Add the following to the end of the first paragraph of Article 108.02:

The Progress Schedule shall also include the following listed items. The erosion and sediment control components of the Progress Schedule shall be referred to as the Erosion and Sediment Control Schedule.

The Erosion and Sediment Control Schedule shall include the following:

- (a) Clearing of areas necessary for installation of perimeter controls specified in the Contract Documents.
- (b) Construction of perimeter controls specified in the Contract Documents.
- (c) Remaining clearing.
- (d) Roadway grading (including off-site work).
- (e) Structural Stabilization devices listed in the Storm Water Pollution Prevention Plan (SWPPP).
- (f) Winter shutdown date and probable days lost to inclement weather.
- (g) Seeding dates.
- (h) If applicable, utility installation and whether storm drains shall be used or blocked after construction.
- (i) Final grading, landscaping, and stabilization.
- (j) Removal of perimeter controls as required by plans.

GEOTEXTILE FABRIC MATERIALS

This Special Provision revises Section 1080 (Fabric Materials) of the Standard Specifications for Road and Bridge Construction to create a new material specifications for silt fence and stabilized construction entrances.

Add the following to Article 1080.02:

Sediment Control, Silt Fence fabric shall conform to the specifications of AASHTO M288-00 for Temporary Silt Fence, < 50% elongation, unsupported. This fabric shall be 90 cm (36 in) in width.

Certification. The manufacturer shall furnish a certification with each shipment of silt fence material, stating the amount of product furnished, and that the material complies with these requirements.

Sediment Control, Silt Fence support posts shall be of 5x5 cm (2x2 inch) nominal hardwood, a minimum of 1.2 m (4.0 ft) long.

Add the following Article to Section 1080:

1080.06 Cellular Confinement Grid.

Geotextile Fabric	AASHTO M288-00,	Class 3 Separation, \geq 5	0% elongation
Cellular Confinement Grid:			-

Maximum Cell Length	
Maximum Cell Width	
Cell Depth	
Nominal Cell Area	
Cells per m ²	

Certification. The manufacturer shall furnish a certification with each shipment of cellular confinement grid, stating the amount of product furnished, and that the material complies with these requirements.

NATIONAL POLLUTANT DISCHARGE ELIMINATION PERMIT

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities NPDES Permit No. ILR400493.

SURFACE ROUGHENING

This Special Provision revises Section 250 (Seeding) of the Standard Specifications for Road and Bridge Construction, creating a requirement that steep slopes be surface roughened as part of the seed bed preparation.

After the first paragraph of Article 250.05 add the following paragraph:

All slopes 1:3 (vertical to horizontal) and steeper shall be surface roughened by tracking with tracked machinery. The machinery shall be operated up and down the slope to leave horizontal depressions in the prepared seed bed. Back-blading shall not be permitted during the final grading operation. The number of machinery passes shall be limited to minimize soil compaction.

After the third paragraph of Article 250.10 add the following paragraph:

Surface roughening will not be paid separately, but is included in the cost of Seeding, of the type specified.

GENERAL ELECTRICAL REQUIREMENTS

Effective: January 1, 2007

Add the following to Article 801 of the Standard Specifications:

"Maintenance transfer and Preconstruction Inspection:

<u>General.</u> Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall request a maintenance transfer and preconstruction site inspection, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting and/or traffic control systems which may be affected by the work. The request for the maintenance transfer and preconstruction shall be made no less than seven (7) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction shall:

Establish the procedures for formal transfer of maintenance responsibility required for the construction period.

Establish the approximate location and operating condition of lighting and/or traffic control systems which may be affected by the work

Marking of Existing Cable Systems. The party responsible for maintenance of any existing lighting and/or traffic control systems at the project site will, at the Contractor's request, mark and/or stake, once per location, all underground cable routes owned or maintained by the State. A project may involve multiple "locations" where separated electrical systems are involved (i.e. different controllers). The markings shall be taken to have a horizontal tolerance of at least 304.8 mm (one (1) foot) to either side.. The request for the cable locations and marking shall be made at the same time the request for the maintenance transfer and preconstruction inspection is made. The Contractor shall exercise extreme caution where existing buried cable runs are involved. The markings of existing systems are made strictly for assistance to the Contractor and this does not relieve the Contractor of responsibility for the repair or replacement of any cable run damaged in the course of his work, as specified elsewhere herein. Note that the contractor shall be entitled to only one request for location marking of existing systems and that multiple requests may only be honored at the contractor's expense. No locates will be made after maintenance is transferred, unless it is at the contractor's expense.

<u>Condition of Existing Systems</u>. The Contractor shall conduct an inventory of all existing electrical system equipment within the project limits, which may be affected by the work, making note of any parts which are found broken or missing, defective or malfunctioning. Megger and load readings shall be taken for all existing circuits which will remain in place or be modified. If a circuit is to be taken out in its entirety, then readings do not have to be taken. The inventory and test data shall be reviewed with and approved by the Engineer and a record of the inventory shall be submitted to the Engineer for the record. Without such a record, all systems transferred to the Contractor for maintenance during construction shall be returned at the end of construction in complete, fully operating condition."

Delete Articles 801.11 and 801.12 of the Standard Specifications.

Revise the 6th paragraph of Article 801.05(a) of the Standard Specifications to read:

<u>"Resubmittals</u>. All submitted items reviewed and marked 'APPROVED AS NOTED', or 'DISAPPROVED' are to be resubmitted in their entirety with a disposition of previous comments to verify contract compliance at no additional cost to the state unless otherwise indicated within the submittal comments."

Revise Article 801.11(a) of the Standard Specifications to read:

"Lighting Operation and Maintenance Responsibility. The scope of work shall include the assumption of responsibility for the continuing operation and maintenance the of existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein."

Add the following to Section 801.11(a) of the Standard Specifications:

<u>"Energy and Demand Charges.</u> The payment of basic energy and demand charges by the electric utility for existing lighting which remains in service will continue as a responsibility of the Owner, unless otherwise indicated. Unless otherwise indicated or required by the Engineer duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously at the Owner's expense and lighting systems shall not be kept in operation during long daytime periods at the Owner's expense. Upon written authorization from the Engineer to place a proposed new lighting system in service, whether the system has passed final acceptance or not, (such as to allow temporary lighting to be removed), the Owner will accept responsibility for energy and demand charges for such lighting, effective the date of authorization. All other energy and demand payments to the utility shall be the responsibility of the Contractor until final acceptance."

Add the following to Section 801 of the Standard Specifications:

<u>"Lighting Cable Identification</u>. Each wire installed shall be identified with its complete circuit number at each termination, splice, junction box or other location where the wire is accessible."

<u>"Lighting Cable Fuse Installation</u>. Standard fuse holders shall be used on non-frangible (non-breakaway) light pole installations and quick-disconnect fuse holders shall be used on frangible (breakaway) light pole installations. Wires shall be carefully stripped only as far as needed for connection to the device. Over-stripping shall be avoided. An oxide inhibiting lubricant shall be applied to the wire for minimum connection resistance before the terminals are crimped-on. Crimping shall be performed in accordance with the fuse holder manufacturer's recommendations. The exposed metal connecting portion of the assembly shall be taped with two half-lapped wraps of electrical tape and then covered by the specified insulating boot. The fuse holder shall be installed such that the fuse side is connected to the pole wire (load side) and the receptacle side of the holder is connected to the line side." Revise the 2nd and 3rd sentences of the second paragraph of Article 801.02 of the Standard Specifications to read:

"Unless otherwise indicated, materials and equipment shall bear the UL label, or an approved equivalent, whenever such labeling is available for the type of material or equipment being furnished."

GROUND ROD

Effective: January 1, 2007

Description. This item shall consist of furnishing, installing and connecting ground rods for the grounding of service neutral conductors and for supplementing the equipment grounding system via connection at poles or other equipment throughout the system. All materials and work shall be in accordance with Article 250 of the NEC.

Materials. Materials shall be according to the following Articles of Section 1000 - Materials

	Item	Article/Section
(a)	Ground Rod	.1087.01(b)
(b)	Copper Ground Wire	.1087.01(a)
(c)	Access Well	1087.01(c)

CONSTRUCTION REQUIREMENTS

<u>General.</u> All connections to ground rods, structural steel or fencing shall be made with exothermic welds. Where such connections are made to insulated conductors, the connection shall be wrapped with at least 4 layers of electrical tape extended 152.4 mm (six inches) onto the conductor insulation.

Ground rods shall be driven so that the tops of the rod are 609.6 mm (24 inches) below finished grade. Where indicated, ground wells shall be included to permit access to the rod connections.

Where indicated, ground rods shall be installed through concrete foundations.

Where ground conditions, such as rock, preclude the installation of the ground rod, the ground rod may be deleted with the approval of the Engineer.

Where a ground field of "made" electrodes is provided, such as at control cabinets, the exact locations of the rods shall be documented by dimensioned drawings as part of the Record Drawings.

Ground rod connection shall be made by exothermic welds. Ground wire for connection to foundation steel or as otherwise indicated shall be stranded uncoated bare copper in accordance the applicable requirements of ASTM Designation B-3 and ASTM Designation B-8 and shall be included in this item. Unless otherwise indicated, the wire shall not be less than No. 2 AWG.

Where connections are made to epoxy coated reinforcing steel, the epoxy coating shall be sufficiently removed to facilitate the exothermic weld.

<u>Method Of Measurement.</u> Ground rods shall be counted, each. Ground wires and connection of ground rods at poles shall be included in this pay item.

<u>Basis Of Payment.</u> This item shall be paid at the contract unit price each for **GROUND ROD**, of the diameter and length indicated which shall be payment in full for the material and work described herein.

LUMINAIRE

Effective: January 1, 2007

Add the following to first paragraph of Article 1067(c) of the Standard Specifications:

"The reflector shall not be altered by paint or other opaque coatings which would cover or coat the reflecting surface. Control of the light distribution by any method other than the reflecting material and the aforementioned clear protective coating that will alter the reflective properties of the reflecting surface is unacceptable"

Add the following to Article 1067(e) of the Standard Specifications:

"The ballast shall be a High Pressure Sodium, high power factor, constant wattage auto-regulator, lead type (CWA) for operation on a nominal 240 volt system."

Revise Article 1067(e)(1) of the Standard Specifications to read:

"The high pressure sodium, auto-regulator, lead type (CWA) ballast shall be designed to ANSI Standards and shall be designed and rated for operation on a nominal 240 volt system. The ballast shall provide positive lamp ignition at the input voltage of 216 volts. It shall operate the lamp over a range of input voltages from 216 to 264 volts without damage to the ballast. It shall provide lamp operation within lamp specifications for rated lamp life at input design voltage range. Operating characteristics shall produce output regulation not exceeding the following values:

Nominal Ballast Wattage	Maximum Ballast Regulation
750	25%
400	26%
310	26%
250	26%
150	24%
70	18%
For this measure, regulation shall be defined as the ratio of the lamp watt difference between the upper and lower operating curves to the nominal lamp watts; with the lamp watt difference taken within the ANSI trapezoid at the nominal lamp operating voltage point parallel to the minimum lamp volt line:





where:

 W_{LampH} = lamp watts at +10% line voltage when Lamp voltage = LV_H W_{LampL} = lamp watts at - 10% line voltage when lamp voltage = LV_L W_{lampN} = lamp watts at nominal lamp operating voltage = LV_N

	Nominal		
Wattage	Lamp Voltage, LV _N	LV_L	LV _H
750	120v	115v	125v
400	100v	95v	105v
310	100v	95v	105v
250	100v	95v	105v
150	55v	50v	60v
70	52v	47v	57v

Ballast losses, based on cold bench tests, shall not exceed the following values:

Nominal Ballast Wattage	Maximum Ballast Losses
750	14.0%
400	17.0%
310	19.0%
250	19.0%
150	26.0%
70	34.0%

Ballast losses shall be calculated based on input watts and lamp watts at nominal system voltage as indicated in the following equation:

Ballast Losses =
$$\frac{W_{Line} - W_{Lamp}}{W_{Lamp}} \times 100$$

where:

 W_{line} = line watts at nominal system voltage W_{lamp} = lamp watts at nominal system voltage

Ballast output to lamp. At nominal system voltage and nominal lamp voltage, the ballast shall deliver lamp wattage with the variation specified in the following table. Example: For a 400w luminaire, the ballast shall deliver 400 watts $\pm 2.5\%$ at a lamp voltage of 100v for the nominal system voltage of 240v which is the range of 390w to 410w.

Nominal Ballast Wattage	Output to lamp variation
750	± 2.0%
400	± 2.5%
310	± 2.5%
250	± 4.0%
150	± 4.0%
70	± 4.0%

Ballast output over lamp life. Over the life of the lamp the ballast shall produce average output wattage of the nominal lamp rating as specified in the following table. Lamp wattage readings shall be taken at 5-volt increments throughout the ballast trapezoid. Reading shall begin at the lamp voltage (L_V) specified in the table and continue at 5 volt increments until the right side of the trapezoid is reached. The lamp wattage values shall then be averaged and shall be within the specified value of the nominal ballast rating. Submittal documents shall include a tabulation of the lamp wattage vs. lamp voltage readings. Example: For a 400w luminaire, the averaged lamp wattage reading shall not exceed the range of $\pm 3\%$ which is 388 to 412 watts"

Nominal Ballast	LV	Maximum Wattage
Wattage	Readings begin at	Variation
750	110v	± 3%
400	90v	± 3%
310	90v	± 3%
250	90v	± 4%
150	50v	± 4%
70	45v	± 5%

Add the following to Article 1067(f) of the Standard Specifications:

"Independent Testing. Independent testing of luminaires shall be required whenever the quantity of luminaires of a given wattage and distribution, as indicated on the plans, is 50 or more. For each luminaire type to be so tested, one luminaire plus one luminaire for each 50 luminaires shall be tested. Example: A plan quantity of 75 luminaires would dictate that 2 to be tested; 135 luminaires would dictate that three be tested." If the luminaire performance table is missing from the contract documents, the luminaire(s) shall be tested and the test results shall be evaluated against the manufacturer's published data. The test luminaire(s) results shall be equal to or better than the published data. If the test results indicated performance not meeting the published data, the test luminaire will be designated, as failed and corrective action as described herein shall be performed.

The Contractor shall be responsible for all costs associated with the specified testing, including but not limited to shipping, travel and lodging costs as well as the costs of the tests themselves, all as part of the bid unit price for this item. Travel, lodging and other associated costs for travel by the Engineer shall be direct-billed to or shall be pre-paid by the Contractor, requiring no direct reimbursement to the Engineer or the independent witness, as applicable"

The Contractor shall select one of the following options for the required testing with the Engineer's approval:

- a. Engineer Factory Selection for Independent Lab: The Contractor may select this option if the luminaire manufacturing facility is within the state of Illinois. The Contractor shall propose an independent test laboratory for approval by the Engineer. The selected luminaires shall be marked by the Engineer and shipped to the independent laboratory for tests.
- b. Engineer Witness of Independent Lab Test: The Contractor may select this option if the independent testing laboratory is within the state of Illinois. The Engineer shall select, from the project luminaires at the manufacturer's facility or at the Contractor's storage facility, luminaires for testing by the independent laboratory.
- c. Independent Witness of Manufacturer Testing: The independent witness shall select from the project luminaires at the manufacturers facility or at the Contractor's storage facility, the luminaires for testing. The Contractor shall propose a qualified independent agent, familiar with the luminaire requirements and test procedures, for approval by the Engineer, to witness the required tests as performed by the luminaire manufacturer.

The independent witness shall as a minimum meet the following requirements:

- Have been involved with roadway lighting design for at least 15 years.
- Not have been the employee of a luminaire or ballast manufacturer within the last 5 years.
- Not associated in any way (plan preparation, construction or supply) with the particular project being tested.
- Be a member of IESNA in good standing.
- Provide a list of professional references.

This list is not an all inclusive list and the Engineer will make the final determination as to the acceptability of the proposed independent witness.

d. Engineer Factory Selection and Witness of Manufacturer Testing: The Contractor may select this option if the luminaire manufacturing facility is within the state of Illinois. At the Manufacturer's facility, the Engineer shall select the luminaires to be tested and shall be present during the testing process. The Contractor shall schedule travel by the Engineer to and from the Manufacturer's laboratory to witness the performance of the required tests."

Add the following to Article 1067.02(a)(1) of the Standard Specifications:

"The beam of maximum candlepower for luminaires specified or shown to have a 'medium' distribution shall be at 70 degrees from the horizontal \pm 2.5 degrees. Submittal information shall identify the angle."

Revise Article 1067.06(a)(1) of the Standard Specifications to read:

"The lamps shall be of the clear type and shall have a color of 1900° to 2200° Kelvin."

Revise Article 1067.06(a)(4) of the Standard Specifications to read:

Lamp	Initial	Mean	Rated Life	Lamp
Wattage	Lumens	Lumens	(Hours)	Voltage
50	4,000	3,600	24,000	52
70	6,300	5,450	24,000	52
100	9,400	8,000	24,000	55
150	15,800	13,800	24,000	55
200	21,400	19,260	24,000	100
250	27,000	24,300	24,000	100
310	37,000	33,300	24,000	100
400	50,000	45,000	24,000	100
750	105,000	94,500	24,000	120

Add the following table(s) to Article 1067 of the Standard Specifications:

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	GIVEN CONDITIONS					
Roadway Data	Pavement Width Number of Lanes I.E.S. Surface Classification Q-Zero Value	(ft) R3 .07				
LIGHT POLE DATA	Mounting Height Mast Arm Length Pole Set-Back From Edge of Pavement	(ft) (ft) (ft)				
LUMINAIRE DATA	Lamp Type Lamp Lumens I.E.S. Vertical Distribution I.E.S. Control Of Distribution I.E.S. Lateral Distribution Total Light Loss Factor	HPS Medium Cutoff Type I				
LAYOUT DATA	Spacing Configuration Luminaire Overhang over edge of pavement	(ft) Single Sided (ft)				

IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION	Ave. Horizontal Illumination, E _{AVE}	Lux
	Uniformity Ratio, E_{AVE}/E_{MIN}	(Max)
LUMINANCE	Average Luminance, L _{Ave}	Cd/m ²
	Uniformity Ratio, L _{AVE} /L _{MIN}	(Max)
	Uniformity Ratio, L _{MAX} /L _{MIN}	(Max)
	Veiling Luminance Ratio, L _V /L _{AVE}	(Max)

MAINTENANCE OF LIGHTING SYSTEMS

Effective: January 1, 2007

Replace Article 801.11 and 801.12 of the Standard Specifications with the following:

Effective the date the Contractor's activities (electrical or otherwise) at the job site begin, the Contractor shall be responsible for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by the work until final acceptance or as otherwise determined by the Engineer.

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. The request for the maintenance preconstruction inspection shall be made no less than seven (7) calendar days prior to the desired inspection date.

Existing lighting systems, when depicted on the plans, are intended only to indicate the general equipment installation of the systems involved and shall not be construed as an exact representation of the field conditions. It remains the Contractor's responsibility to visit the site to confirm and ascertain the exact condition of the electrical equipment and systems to be maintained.

Maintenance of Existing Lighting Systems

Existing lighting systems. Existing lighting systems shall be defined as any lighting system or part of a lighting system in service prior to this contract. The contract drawings indicate the general extent of any existing lighting, but whether indicated or not, it remains the Contractor's responsibility to ascertain the extent of effort required for compliance with these specifications and failure to do so will not be justification for extra payment or reduced responsibilities.

Extent of Maintenance.

Partial Maintenance. Unless otherwise 'indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work, the Contractor needs only to maintain the affected circuits. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the Contractor shall maintain the entire controller and all associated circuits.

Maintenance of Proposed Lighting Systems

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system which is to be constructed under this contract.

The Contractor shall be fully responsible for maintenance of all items installed under this contract. Maintenance shall include, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, Contractor operations, or other means. The potential cost of replacing or repairing any malfunctioning or damaged equipment shall be included in the bid price of this item and will not be paid for separately.

Lighting System Maintenance Operations

The Contractor's responsibility shall include all applicable responsibilities of the Electrical Maintenance Contract, State of Illinois, Department of Transportation, Division of Highways, District One. These responsibilities shall include the maintenance of lighting units (including sign lighting), cable runs and lighting controls. In the case of a pole knockdown or sign light damage caused by normal vehicular traffic, the Contractor shall promptly clear the lighting unit and circuit discontinuity and restore the system to service.

Responsibilities shall also include weekly night-time patrol of the lighting system, with patrol reports filed immediately with the Engineer and with deficiencies corrected within 24 hours of the patrol. Patrol reports shall be presented on standard forms as designated by the Engineer. Uncorrected deficiencies may be designated by the Engineer as necessitating emergency repairs as described elsewhere herein.

The following chart lists the maximum response, service restoration, and permanent repair time the Contractor will be allowed to perform corrective action on specific lighting system equipment.

INCIDENT OR PROBLEM	SERVICE RESPON SE TIME	SERVICE RESTORATI ON TIME	PERMANE NT REPAIR TIME
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	na	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	na

INCIDENT OR	SERVICE RESPON SE	SERVICE RESTORATI ON	PERMANE NT REPAIR
PROBLEM	TIME	TIME	TIME
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	na
Outage of 75% of lights on one tower	1 hour	4 hours	na
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	na
Outage (single or multiple) found on night outage survey or reported to EMC	na	na	7 Calendar days
Navigation light outage	na	na	24 hours

- Service Response Time -- amount of time from the initial notification to the Contractor until a patrolman physically arrives at the location.
- Service Restoration Time amount of time from the initial notification to the Contractor until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)
- **Permanent Repair Time** amount of time from initial notification to the Contractor until the time permanent repairs are made if the Contractor was required to make temporary repairs to meet the service restoration requirement.

Failure to provide this service will result in liquidated damages of \$500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of \$500 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. Repeated failures and/or a gross failure of maintenance shall result in the State's Electrical Maintenance Contractor being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

Operation of Lighting

The lighting shall be operational every night, dusk to dawn. Duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously. Lighting systems shall not be kept in operation during long daytime periods. The contractor shall demonstrate to the satisfaction of the Engineer that the lighting system is fully operational prior to submitting a pay request. Failure to do so will be grounds for denying the pay request.

Basis of Payment. Maintenance of lighting systems shall be paid for at the contract unit price per calendar month or fraction thereof for **MAINTENANCE OF LIGHTING SYSTEM**, which shall include all work as described herein.

POLE FOUNDATION, REMOVED

<u>Description</u>. This work shall consist of the removal and disposal of foundations for existing lighting units in accordance with the applicable portions of Section 842 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per each for POLE FOUNDATION, REMOVED.

TRENCH AND BACKFILL FOR ELECTRICAL WORK

Effective: January 1, 2007

Revise the first sentence of Article 819.03(a) of the Standard Specifications to read:

"Trench. Trenches shall have a minimum depth of 30 in. (760 mm) or as otherwise indicated on the plans, and shall not exceed 12 in. (300 mm) in width without prior approval of the Engineer."

UNDERGROUND RACEWAYS

Effective: January 1, 2007

Revise Article 810.03 of the Standard Specifications to read:

"Installation. All underground conduit shall have a minimum depth of 30-inches (700 mm) below the finished grade."

Add the following to Article 810.03 of the Standard Specifications:

"All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans."

Add the following to Article 810.03 of the Standard Specifications:

"All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum or 300 mm (12") or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped. The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap. The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125") thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring."

Add the following to Article 810.03(c) of the Standard Specifications:

"Coilable non-metallic conduit shall be machine straightened to remove the longitudinal curvature caused by coiling the conduit onto reels prior to installing in trench, encasing in concrete or embedding in structure. The straightening shall not deform the cross-section of the conduit such that any two measured outside diameters, each from any location and at any orientation around the longitudinal axis along the conduit differ by more than 6 mm (0.25")." The longitudinal axis of the straightened conduit shall not deviate by more than 20 mm per meter (0.25" per foot" from a straight line. The HDPE and straightening mechanism manufacturer operating temperatures shall be followed.

WIRE AND CABLE

Effective: January 1, 2007

Revise the second sentence of the first paragraph of Article 1066.02(a) to read:

"The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals."

Revise the second paragraph of Article 1066.02(b) to read:

"Uncoated conductors shall be according to ASTM B3, ICEA S-95-658/NEMA WC70, and UL Standard 44. Coated conductors shall be according to ASTM B 33, ASTM B 8, ICEA S-95-658/NEMA WC70 and UL Standard 44."

Revise the third paragraph of Article 1066.02(b) to read:

"All conductors shall be stranded. Stranding meeting ASTM B 8, ICEA S-95-658/NEMA WC70 and UL Standard 44. Uncoated conductors meeting ASTM B 3, ICEA S-95-658/NEMA WC70 and UL Standard 44."

Revise the first sentence of Article 1066.03(a)(1) to read:

Revised 06/01/2007

"General. Cable insulation designated as XLP shall incorporate cross-linked polyethylene (XLP) insulation as specified and shall meet or exceed the requirements of ICEA S-95-658, NEMA WC70, U.L. Standard 44."

Add the following to Article 1066.03(a)(1) of the Standard Specifications:

"The cable shall be rated 600 volts and shall be UL Listed Type RHH/RHW/USE."

Revise the Aerial Electric Cable Properties table of Article 1066.03(a)(3) to read:

	, 10110		00010	110001100	
Pha	Phase Conductor N			Messenger v	vire
Size	Stranding	Ave	rage	Minimum	Stranding
AWG	0	Insu	lation	Size	0
		Thickness		AWG	
		mm	mils		
6	7	1.1	(45)	6	6/1
4	7	1.1	(45)	4	6/1
2	7	1.1	(45)	2	6/1
1/0	19	1.5	(60)	1/0	6/1
2/0	19	1.5	(60)	2/0	6/1
3/0	19	1.5	(60)	3/0	6/1
4/0	19	1.5	(60)	4/0	6/1

Aerial Electric Cable Properties

Revise the first paragraph of Article 1066.03(b) to read:

"EPR Insulation. Cable insulation shall incorporate ethylene propylene rubber (EPR) as specified and the insulation shall meet or exceed the requirements of ICEA S-95-658, NEMA Standard Publication No. WC70, and U.L. Standard 44, as applicable."

Add the following to Article 1066.03(b) of the Standard Specifications:

"Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE."

Revise Article 1066.04 to read:

"Aerial Cable Assembly. The aerial cable shall be an assembly of insulated aluminum conductors according to Section 1066.02 and 1066.03. Unless otherwise indicated, the cable assembly shall be composed of three insulated conductors and a steel reinforced bare aluminum conductor (ACSR) to be used as the ground conductor. Unless otherwise indicated, the code word designation of this cable assembly is "Palomino". The steel reinforced aluminum conductor shall conform to ASTM B-232. The cable shall be assembled according to ANSI/ICEA S-76-474."

Revised 06/01/2007

Revise the second paragraph of Article 1066.05 to read:

"The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing."

Revise Article 1066.08 to read:

"Electrical Tape. Electrical tape shall be all weather vinyl plastic tape resistant to abrasion, puncture, flame, oil, acids, alkalies, and weathering, conforming to Federal Specification MIL-I-24391, ASTM D1000 and shall be listed under UL 510 Standard. Thickness shall not be less than 0.215 mm (8.5 mils) and width shall not be less than 20 mm (3/4-inch)."

MATERIAL TRANSFER DEVICE (BDE)

Effective Date: June 15, 1999

Revised Date: January 1, 2007

<u>Description</u>. This work shall consist of placing <u>polymerized hot-mix asphalt (HMA) surface and</u> <u>binder course mixtures according to the special provision for Stone Matrix Asphalt (SMA)</u>, except that these materials shall be placed using a material transfer device.

<u>Materials and Equipment</u>. 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.

(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

<u>General</u>. The material transfer device shall be used for the placement of <u>all polymerized HMA</u> <u>surface and binder course mixtures placed with a bituminous paver including ramps but</u> <u>excluding shoulders</u>. The material transfer device speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

The material transfer device will be permitted on partially completed segments of full-depth HMA pavement if the thickness of binder in place is 10 in. (250 mm) or greater.

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

Revised 06/01/2007

(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.

<u>Method of Measurement</u>. This work will be measured for payment in tons (metric tons) for <u>all</u> <u>polymerized HMA concrete surface and binder course</u> materials placed with a material transfer device.

Basis of Payment. This work will be paid for at the contract unit price per ton (metric ton) for MATERIAL TRANSFER DEVICE.

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.

HOT MIX ASPHALT (HMA) LONGITUDINAL JOINT DENSITY MODIFIED (BMPR)

Effective: January 1, 2007

<u>Description</u>: This work shall consist of testing HMA longitudinal joints for density acceptance criteria. This work shall be according to Sections 406, 407, and 1030 of the Standard Specifications except as follows.

Definitions:

Density Test Location: The station location used for density testing.

Density Test Site: Individual test site where a single joint density value is determined.

Joint Density Value: The density determined at a given density test site from the average of two or potentially three readings.

Quality Control / Quality Assurance (QC/QA)

1030.05(d)(3) Add the following paragraphs: Longitudinal joint density testing shall be performed at each quality control density test location. Longitudinal joint testing shall be located at two inches off each pavement edge. It shall be documented as to whether the joint was confined or unconfined.

The joint density value shall be determined using either a correlated nuclear gauge or cores. When using a correlated nuclear gauge, two one-minute density readings shall be taken at the given density test site. The gauge shall be rotated 180 degrees between readings. If the two readings are not within 1.5 lb/cu ft (23 kg/cu m) then one additional reading shall be taken.

Additional density readings taken at a given site shall not be allowed to replace the original density readings unless an obvious error has occurred (i.e. the nuclear gauge was sitting on a rock).

1030.05(d) (4) Add following to density control limits:

Mixture / Parameter	Joint Density Value
All HMA Mixtures	≥ 90.0%

ALKALI - SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)

Effective March 1, 2007

The material specification is intended to reduce the risk of deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The specification shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The specification shall not apply to precast products or precast prestressed products.

AGGREGATE GROUP NUMBER

The Engineer will test each coarse and fine aggregate for alkali reaction according to ASTM C 1260, and will assign each aggregate an expansion value. The test shall be performed with Type I or II cement, and the cement will have a total equivalent ($Na_2O + 0.658K_2O$) alkali content of 0.90% or greater. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors when assigning an expansion value. The Engineer will assign an expansion value of 0.05% to limestone or dolomite coarse aggregate

AGGREGATE GROUP NUMBER					
Coarse Aggregate	Fine Aggregate				
or		or			
Coarse Aggregate Blend	Fine Aggregate Blend				
ASTM C 1260 Expansion	ASTM C 1260 Expansion				
	≤0.16%	>0.16% - 0.27%	>0.27%		
≤0.16%	I	II			
>0.16% - 0.27%	II	II	III		
>0.27%	111		IV		

and 0.03% to limestone or dolomite fine aggregate (manufactured stone sand), but reserves the right to perform the ASTM C 1260 test.

The following Aggregate Group Number table shall be used to determine a group number for the mixture. Select the aggregate group number at the point where the coarse aggregate and fine aggregate ranges intersect.

MIXTURE OPTIONS FOR AGGREGATE GROUP

Group I – Any cement or finely divided mineral may be used. Group II – Mixture options 1, 2, 3, 4, or 5 shall be used. Group III – Mixture options 1, 2 and 3 combined, 4, or 5 shall be used. Group IV – Mixture options 1, 2 and 4 combined, or 5 shall be used.

For Class PP-3 concrete, any cement may be used. In addition, the Engineer may prohibit a mixture option if field performance shows deleterious alkali-silica reaction or Department testing indicates the mixture may experience deleterious alkali-silica reaction.

Mixture Option 1: Blend aggregates to place the material in a Group that will allow the selected cement or finely divided minerals to be used.

When blended aggregate is used, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

Weighted Expansion Value = $(a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$

Where:

a, b, c... = percent of aggregate blend;

A, B, C...= aggregate expansion.

Mixture Option 2: Select a finely divided mineral, and option a), b), c), or d) shall be used. However, a finely divided mineral that is determined to contribute to the occurrence of deleterious alkali-silica reaction shall not be used.

a) The following requirements shall apply to Class PV, BS, MS, DS, SC, and SI concrete: Class F fly ash shall replace 15% of the portland cement at a minimum 1.5:1 replacement ratio.

b) The following requirements shall apply to Class PV, MS, SC, and SI concrete: Class C fly ash with 18% to less than 26.5% calcium oxide content and less than 2.0% loss on ignition, shall replace 20% of the portland cement at a minimum 1:1 replacement ratio, or at a minimum 1:1.25 replacement ratio if the loss on ignition is 2.0% or greater. Class C fly ash with less than 18% calcium oxide content shall replace 20% of the portland cement at a minimum 1:1.25 replacement ratio.

The following requirements shall apply to Class PP-1, RR, BS, and DS concrete: Class C fly ash with less than 26.5% calcium oxide content shall replace 15% of the portland cement at a minimum 1:1.5 replacement ratio.

c) The following requirements shall apply to Class PV, BS, MS, SI, DS, and SC concrete: Ground granulated blast-furnace slag shall replace 25% of the portland cement at a minimum 1:1 replacement ratio.

The following requirements shall apply to Class PP-1 and RR concrete: Ground granulated blast-furnace slag shall replace 15% of the portland cement at a minimum 1:1.5 replacement ratio.

The following requirements shall apply to Class PP-2: Ground granulated blast-furnace slag shall replace 25% to 30% of the portland cement at a minimum 1:1 replacement ratio.

d) Microsilica solids minimum 25 lbs./yd.³ (15 kg/m³) or High Reactivity Metakaolin minimum 27 lbs./yd.³ (16 kg/m³) shall be added to the mixture.

Mixture Option 3: Maximum cement total equivalent (Na₂O + $0.658K_2O$) alkali content of 0.60%.

Mixture Option 4: Maximum cement total equivalent (Na₂O + 0.658K $_2$ O) alkali content of 0.45%.

Mixture Option 5: The cement or finely divided mineral may be used if the ASTM C 1567 expansion value is $\leq 0.16\%$ when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. 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% 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 (Na₂O + $0.658K_2O$) alkali content, a new ASTM C 1567 test will not be required.

<u>TESTING</u>

If an individual aggregate has an ASTM C 1260 expansion >0.16%, ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement, and the interior vertical wall of the bucket shall be half covered with blotter paper. If the expansion is less than 0.040% after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08% that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result, and not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall be accredited for Hydraulic Cement – Physical Tests by the Cement and Concrete Reference Laboratory (CCRL), and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be accredited for Portland Cement Concrete by CCRL, and shall be approved by the Department.

MENTOR-PROTÉGÉ PROGRAM (BDE)

Effective: June 1, 2007

<u>Eligibility</u>. This contract is eligible for the Department's Mentor-Protégé Program for those bidders with an approved Mentor-Protégé Development Plan.

In order for a Mentor-Protégé relationship to be recognized as part of this contract, the Protégé shall be used as a subcontractor and a Mentor-Protégé Agreement for Contract Assistance and Training shall be fully executed and approved. The Mentor-Protégé Agreement for Contract Assistance and Training shall be completed on the form provided by the Department and submitted with the DBE Utilization Plan for approval by the Department. If approved, the Mentor-Protégé Agreement for Contract Assistance and Training shall be completed on the form provided by the Department and submitted with the DBE Utilization Plan for approval by the Department. If approved, the Contract. In the event the Mentor-Protégé Agreement for Contract Assistance and Training is not approved, the contract shall be performed in accordance with the DBE Utilization Plan exclusive of the Agreement.

<u>DBE Goal Reduction</u>. The DBE participation goal set for this contract may, at the discretion of the Department, be reduced according to the Mentor-Protégé Program Guidelines when the Protégé is used as a subcontractor. When submitting the DBE Utilization Plan, the bidder shall indicate whether the Protégé will be used as a subcontractor and to what extent.

<u>Reimbursement of Mentor Expenses</u>. The direct and indirect expenses of the Mentor, as detailed in the approved Mentor-Protégé Agreement for Contract Assistance and Training will be reimbursed by the Department.

TEMPORARY SOIL RETENTION SYSTEM

Effective: December 30, 2002

Revised:: January 1, 2007

<u>Description:</u> 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.

<u>General:</u> 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.

<u>Construction:</u> 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.

<u>Method of Measurement</u>: 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.

Any temporary soil retention system cut off, left in place, or 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.

CEMENT (BDE)

Effective: January 1, 2007

Revise Section 1001 of the Standard Specifications to read:

"SECTION 1001. CEMENT

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

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

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

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

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

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

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

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

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

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

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

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

- (d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.
 - (1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.
 - (2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.
 - (3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.
 - (4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.
 - (5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to Illinois Modified AASHTO T 161, Procedure B. At 100 cycles, the specimens are measured and weighed at 73 °F (23 °C).
- (e) Calcium Aluminate Cement. Calcium aluminate cement shall be used when specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide (Al₂O₃), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO₃), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

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

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

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

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: January 1, 2007

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

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

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

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

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

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting

opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 20.0% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

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

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

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

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

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

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

<u>CALCULATING DBE PARTICIPATION</u>. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a

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

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

<u>GOOD FAITH EFFORT PROCEDURES</u>. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of

efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

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

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to

extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain

substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

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

DOWEL BARS (BDE)

Effective: April 1, 2007

Revise the fifth sentence of Article 1006.11(b) of the Standard Specifications to read:

"The bars shall be epoxy coated according to AASHTO M 284, except the thickness of the epoxy shall be 7 to 12 mils (0.18 to 0.30 mm)."

EPOXY PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.04(a) of the Standard Specifications to read:

"(a) The epoxy marking material shall consist of a 100 percent solid two part system formulated and designed to provide a simple volumetric mixing ratio of two components (must be two volumes of Part A and one volume of Part B). No volatile solvents or fillers will be allowed. Total solids shall not be less than 99 percent when determined, on the mixed material, according to ASTM D 2369, excluding the solvent dispersion."

Revise Article 1095.04(d) of the Standard Specifications to read:

"(d) Composition by Weight of Component A as Determined by Low Temperature Ashing. A 0.5 gram sample of component A shall be dispersed with a paperclip on the bottom of an aluminum dish, weighed and then heated in a muffle furnace at 1000 °F (538 °C) for one hour and weighed again. No solvents shall be used for dispersion. The difference in the weights shall be calculated and meet the following.

Pigment*	White	Yellow
Titanium Dioxide ASTM D 476 Type II	21-24%	
Organic Yellow, Titanium Dioxide, Other		± 2%**
Epoxy Resin	76-79%	± 2%**

* No extender pigments are permitted.

** From the pigment and epoxy resin content determined on qualification samples."

Revise Article 1095.04(f) of the Standard Specifications to read:

"(f) The daylight directional reflectance of the paint (without glass spheres) applied at 14 to 16 mils (0.35 to 0.41 mm) shall meet the following requirements when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

White:	Daylight Reflectance	80 % min.
Yellow:*	Daylight Reflectance	50 % min.

*Shall meet the coordinates of the following color tolerance chart.

х	0.490	0.475	0.485	0.530
у	0.470	0.438	0.425	0.456"

Revise Article 1095.04(h) of the Standard Specifications to read:

"(h) The epoxy pavement marking material, when mixed in the proper mix ratio and tested according to ASTM D 7234 shall have a degree of adhesion which results in a 100 percent concrete failure in the performance of this test."

Revise Article 1095.04(n) of the Standard Specifications to read:

"(n) The epoxy paint shall be applied to an aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 14 to 16 mils (0.35 to 0.41 mm) and allowed to cure for 72 hours at room temperature. Subject the coated panel for 75 hours to accelerated weathering using the light and water exposure apparatus (fluorescent UV - condensation type) as specified in ASTM G 53 (equipped with UVB-313 lamps).

The cycle shall consist of four hours UV exposure at 122 °F (50 °C) followed by four hours of condensation at 104 °F (40 °C). UVB 313 bulbs shall be used. At the end of the exposure period, the panel shall show no more than 10 Hunter Lab Delta E units or substantial change in gloss from the original, non-exposed paint."

EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2007

Revise Article 105.03(a) of the Standard Specifications to read:

"(a) Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 1 week based on the urgency of the situation and the nature of the deficiency. The Engineer will be the sole judge.

A deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit for Construction Site Activities. A deficiency may also be applied to situations where corrective action is not an option such as the failure to participate in a jobsite inspection of the project, failure to install required measures prior to initiating earth moving operations, disregard of concrete washout requirements, or other disregard of the NPDES permit.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1000.00 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day."

ERRATA FOR THE 2007 STANDARD SPECIFICATIONS (BDE)

Effective: January 1, 2007

Revised: April 1, 2007

Page 60 Article 109.07(a). In the second line of the first paragraph change "amount" to "quantity".

- Page 207 Article 406.14. In the second line of the second paragraph change "MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS, of the mixture composition specified;" to "MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS;".
- Page 345 Article 505.08(I). In the third line of the first paragraph change "1/8 mm" to "1/8 in.".
- Page 345 Article 505.08(I). In the nineteenth line of the first paragraph change "is" to "in".
- Page 383 Article 516.04(b)(1). In the fifth line of the first paragraph change "drillingpouring" to "pouring".
- Page 390 Article 520.02(h). Change "1027.021" to "1027.01".
- Page 398 Article 540.07(b). Add the following two paragraphs after the third paragraph:

"Excavation in rock will be measured for payment according to Article 502.12.

Removal and disposal of unstable and/or unsuitable material below plan bedding grade will be measured for payment according to Article 202.07."

Page 398 Article 540.08. Add the following two paragraphs after the fifth paragraph:

"Excavation in rock will be paid for according to Article 502.13.

Removal and disposal of unstable and/or unsuitable material below plan bedding grade will be paid for according to Article 202.08."

- Page 435 Article 542.04(b). Delete the last sentence of the last paragraph.
- Page 465 Article 551.06. In the second line of the first paragraph change "or" to "and/or".
- Page 585 Article 701.19(a). Add "701400" to the second line of the first paragraph.
- Page 586 Article 701.19(c). Delete "701400" from the second line of the first paragraph.
- Page 586 Article 701.19. Add the following subparagraph to this Article:
 - "(f) Removal of existing pavement markings and raised reflective pavement markers will be measured for payment according to Article 783.05."
- Page 587 Article 701.20(b). Delete "TRAFFIC CONTROL AND PROTECTION 701400;" from the first paragraph.
- Page 588 Article 701.20. Add the following subparagraph to this Article.
 - "(j) Removal of existing pavement markings and raised reflective pavement markers will be paid for according to Article 783.06."

- Page 762 Article 1020.04. In Table 1 Classes of Portland Cement Concrete and Mix Design Criteria, add to the minimum cement factor for Class PC Concrete "5.65 (TY III)", and add to the maximum cement factor for Class PC Concrete "7.05 (TY III)".
- Page 765 Article 1020.04. In Table 1 Classes of Portland Cement Concrete and Mix Design Criteria (metric), add to the minimum cement factor for Class PC Concrete "335 (TY III)", and add to the maximum cement factor for Class PC Concrete "418 (TY III)".
- Page 800 Article 1030.05(a)(12). Revise "Dust Collection Factor" to "Dust Correction Factor".
- Page 800 Article 1030.05(a)(14). Revise the first occurrence of Article 1030.05(a)(14) to Article 1030.05(a)(13).
- Page 809 Article 1030.05. Revise the subparagraph "(a) Quality Assurance by the Engineer." to read "(e) Quality Assurance by the Engineer.".
- Page 946 Article 1080.03(a)(1). In the third line of the first paragraph revise "(300 μ m)" to "(600 μ m)".
- Page 963 Article 1083.02(b). In the second line of the first paragraph revise "ASTM D 4894" to "ASTM D 4895".
- Page 1076 In the Index of Pay Items delete the pay item "BITUMINOUS SURFACE REMOVAL BUTT JOINT".

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

Effective: January 1, 2005

Revised: January 1, 2007

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

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

HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE) Effective: April 1, 2007

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

	Frequency of Tests	Frequency of Tests	Test Method
"Parameter			See Manual of Test
	High ESAL Mixture	All Other Mixtures	Procedures for Materials
	Low ESAL Mixture		
VMA	1 per half day of	1 per day	Illinois-Modified
	production for first		AASHTO R 35
	2 days and 1 per day		
	thereafter (first sample		
Note 5.	of the day)		

Note 5. 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."

Add the following to the Control Limits table in Article 1030.05(d)(4) of the Standard Specifications:

"CONTROL LIMITS			
Parameter	High ESAL Low ESAL Individual	High ESAL Low ESAL Moving Avg. of 4	All Other
	lest		lest
VMA	-0.7 % ^{2/}	-0.5 % ^{2/}	N/A

2/ Allowable limit below minimum design VMA requirement"

Add the following to the table in Article 1030.05(d)(5) of the Standard Specifications:

"CONTROL CHART REQUIREMENTS	High ESAL Low ESAL	All Other
	VMA"	

Revise the heading of Article 1030.05(d)(6)a.1. of the Standard Specifications to read:

"1. Voids, VMA, and Asphalt Binder Content."

Revise the first sentence of the first paragraph of Article 1030.05(d)(6)a.1.(a.) of the Standard Specifications to read:

"If the retest for voids, VMA, or asphalt binder content exceeds control limits, HMA production shall cease and immediate corrective action shall be instituted by the Contractor."

Revise the table in Article 1030.05(e) of the Standard Specifications to read:

"Test Parameter	Acceptable Limits of Precision
% Passing: 1/	
1/2 in. (12.5 mm)	5.0 %
No. 4 (4.75 mm)	5.0 %
No. 8 (2.36 mm)	3.0 %
No. 30 (600 μm)	2.0 %
Total Dust Content	2.2.%
No. 200 (75 μm) ^{1/}	2.2 /0
Asphalt Binder Content	0.3 %
Maximum Specific	0.026
Gravity of Mixture	0.020
Bulk Specific Gravity	0.030
VMA	1.4 %
Density (% Compaction)	1.0 % (Correlated)

1/ Based on washed ignition."

IMPACT ATTENUATORS (BDE)

Effective: November 1, 2003

Revised: January 1, 2007

<u>Description</u>. This work shall consist of furnishing and installing impact attenuators of the category and test level specified.

<u>Materials</u>. Materials shall meet the requirements of the impact attenuator manufacturer and the following:

Item	Article/Section
(a) Fine Aggregate (Note 1)	
(b) Steel Posts, Structural Shapes, and Plates	
(c) Rail Elements, End Section Plates, and Splice Plate	s1006.25
(d) Bolts, Nuts, Washers and Hardware	
(e) Hollow Structural Tubing	
(f) Wood Posts and Wood Blockouts	
(g) Preservative Treatment	

Note 1. Fine aggregate shall be FA 1 or FA 2, Class A quality. The sand shall be unbagged and shall have a maximum moisture content of five percent.

CONSTRUCTION REQUIREMENTS

<u>General</u>. Impact attenuators shall meet the testing criteria contained in National Cooperative Highway Research Program (NCHRP) Report 350 for the test level specified and shall be on the Department's approved list. Fully redirective and partially redirective attenuators shall also be designed for bi-directional impacts.
Installation. Regrading of slopes or approaches for the installation shall be as shown on the plans.

Attenuator bases, when required by the manufacturer, shall be constructed on a prepared subgrade according to the manufacturer's specifications. The surface of the base shall be slightly sloped or crowned to facilitate drainage. For sand modules, the perimeter of each module and the specified weight (mass) of sand in each module shall be painted on the surface of the base.

Impact attenuators shall be installed according to the manufacturer's specifications and include all necessary transitions between the impact attenuator and the item to which it is attached.

<u>Method of Measurement</u>. This work will be measured for payment as each, where each is defined as one complete installation.

Basis of Payment. This work, will be paid for at the contract unit price per each for IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW); IMPACT ATTENUATORS (FULLY REDIRECTIVE, WIDE); IMPACT ATTENUATORS (FULLY REDIRECTIVE, RESETTABLE); IMPACT ATTENUATORS (SEVERE USE, NARROW); IMPACT ATTENUATORS (SEVERE USE, WIDE); IMPACT ATTENUATORS (PARTIALLY REDIRECTIVE); or IMPACT ATTENUATORS (NON-REDIRECTIVE), of the test level specified.

Regrading of slopes or approaches will be paid for according to Section 202 and/or Section 204 of the Standard Specifications.

IMPACT ATTENUATORS, TEMPORARY (BDE)

Effective: November 1, 2003

Revised: January 1, 2007

<u>Description</u>. This work shall consist of furnishing, installing, maintaining, and removing temporary impact attenuators of the category and test level specified.

<u>Materials</u>. Materials shall meet the requirements of the impact attenuator manufacturer and the following:

Item	Article/Section
(a) Fine Aggregate (Note 1)	
(b) Steel Posts, Structural Shapes, and Plates	
(c) Rail Elements, End Section Plates, and Splice Plates	
(d) Bolts, Nuts, Washers and Hardware	
(e) Hollow Structural Tubing	
(f) Wood Posts and Wood Blockouts	1007.01, 1007.02, 1007.06
(g) Preservative Treatment	
(h) Packaged Rapid Hardening Mortar	

Note 1. Fine aggregate shall be FA 1 or FA 2, Class A quality. The sand shall be unbagged and shall have a maximum moisture content of five percent.

CONSTRUCTION REQUIREMENTS

<u>General</u>. Impact Attenuators shall meet the testing criteria contained in National Cooperative Highway Research Program (NCHRP) Report 350 for the test level specified and shall be on the Department's approved list.

<u>Installation</u>. Regrading of slopes or approaches for the installation shall be as shown on the plans.

Attenuator bases, when required by the manufacturer, shall be constructed on a prepared subgrade according to the manufacturer's specifications. The surface of the base shall be slightly sloped or crowned to facilitate drainage.

Impact attenuators shall be installed according to the manufacturer's specifications and include all necessary transitions between the impact attenuator and the item to which it is attached.

When water filled attenuators are used between November 1 and April 15, they shall contain anti-freeze according to the manufacturer's recommendations.

<u>Markings</u>. Sand module impact attenuators shall be striped with alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes. There shall be at least two of each stripe on each module.

Other types of impact attenuators shall have a terminal marker applied to their nose and reflectors along their sides.

<u>Maintenance</u>. All maintenance of the impact attenuators shall be the responsibility of the Contractor until removal is directed by the Engineer.

<u>Relocate</u>. When relocation of temporary impact attenuators is specified, they shall be removed, relocated and reinstalled at the new location. The reinstallation requirements shall be the same as those for a new installation.

<u>Removal</u>. When the Engineer determines the temporary impact attenuators are no longer required, the installation shall be dismantled with all hardware becoming the property of the Contractor.

Surplus material shall be disposed of according to Article 202.03. Anti-freeze, when present, shall be disposed of/recycled according to local ordinances.

When impact attenuators have been anchored to the pavement, the anchor holes shall be repaired with rapid set mortar Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

<u>Method of Measurement</u>. This work will be measured for payment as each, where each is defined as one complete installation.

Basis of Payment. This work will be paid for at the contract unit price per each for IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW); IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, WIDE); IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, RESETTABLE); IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW); IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, WIDE); or IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) of the test level specified.

Relocation of the devices will be paid for at the contract unit price per each for IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE); IMPACT ATTENUATORS, RELOCATE (SEVERE USE); or IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE); of the test level specified.

Regrading of slopes or approaches will be paid for according to Section 202 and/or Section 204 of the Standard Specifications.

MULTILANE PAVEMENT PATCHING (BDE)

Effective: November 1, 2002

Pavement broken and holes opened for patching shall be completed prior to weekend or holiday periods. Should delays of any type or for any reason prevent the completion of the work, temporary patches shall be constructed. Material able to support the average daily traffic and meeting the approval of the Engineer shall be used for the temporary patches. The cost of furnishing, placing, maintaining, removing and disposing of the temporary work, including traffic control, shall be the responsibility of the Contractor.

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.

PLASTIC BLOCKOUTS FOR GUARDRAIL (BDE)

Effective: November 1, 2004

Revised: January 1, 2007

Add the following to Article 630.02 of the Standard Specifications:

"(g) Plastic Blockouts (Note 1.)

Note 1. Plastic blockouts may be used in lieu of wood blockouts for steel plate beam guardrail. The plastic blockouts shall be the minimum dimensions shown on the plans and shall be on the Department's approved list."

POLYUREA PAVEMENT MARKING (BDE)

Effective: April 1, 2004

Revised: January 1, 2007

Description. This work shall consist of furnishing and applying pavement marking lines.

The type of polyurea pavement marking applied will be determined by the type of reflective media used. Polyurea Pavement Marking Type I shall use glass beads as a reflective media. Polyurea Pavement Marking Type II shall use a combination of composite reflective elements and glass beads as a reflective media.

Polyurea-based liquid pavement markings shall only be applied by Contractors on the list of Approved Polyurea Contractors maintained by the Engineer of Operations and in effect on the date of advertisement for bids.

Materials. Materials shall meet the following requirements:

- (a) Polyurea Pavement Marking. The polyurea pavement marking material shall consist of 100 percent solid two part system formulated and designed to provide a simple volumetric mixing ratio of two components (must be two or three volumes of Part A to one volume of Part B). No volatile or polluting solvents or fillers will be allowed.
- (b) Pigmentation. The pigment content by weight (mass) of component A shall be determined by low temperature ashing according to ASTM D 3723. The pigment content shall not vary more than ± 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 an Organic Yellow and contain no heavy metals.

- (c) Environmental. Upon heating to application temperature, the material shall not exude fumes which are toxic or injurious to persons or property.
- (d) Daylight Reflectance. The daylight directional reflectance of the cured polyurea 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 degrees 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 polyurea shall visually match Color Number 33538 of Federal Standard 595a with chromaticity limits as follows:

Х	0.490	0.475	0.485	0.539
Y	0.470	0.438	0.425	0.456

(e) Weathering Resistance. The polyurea marking material, 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.

- (f) Dry Time. The polyurea pavement marking 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 reflective media, shall exhibit a no-tracking time of ten minutes or less when tested according to ASTM D 711.
- (g) Adhesion. The catalyzed polyurea 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 3500 psi (24,100 kPa). A 2 in. (50 mm) square film of the mixed polyurea shall be applied to the brushed surface and allowed to cure for 72 hours at room temperature. A 2 in. (50 mm) square cube shall be affixed to the surface of the polyurea by means of an epoxy glue. After the glue has cured for 24 hours, the polyurea 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 polyurea surface) is attached to the dynamometer head. Direct upward pressure shall be slowly applied until the polyurea system fails. The location of the break and the amount of concrete failure shall be recorded.

- (h) Hardness. The polyurea pavement marking materials when tested according to ASTM D 2240, shall have a shore D hardness of between 70 and 100. 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.
- (i) 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 the test shall be 1,000 cycles. The loss shall be calculated by difference and be less than 120 mgs. The tests shall be run on cured samples of polyurea material which have been applied at a film thickness of 14 to 16 mils (0.35 to 0.41 mm) 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.
- (j) Reflective Media. The reflective media shall meet the following requirements:
 - (1) Type I The glass beads shall meet the requirements of Article 1095.07 of the Standard Specifications and the following requirements:
 - a. First Drop Glass Beads. The first drop glass beads shall be tested by the standard visual method of large glass spheres adopted by the Department. The beads shall have a silane coating and meet the following sieve requirements:

U.S. Standard	Sieve	% Passing
Sieve Number	Size	By Weight (mass)
12	1.70 mm	95-100
14	1.40 mm	75-95
16	1.18 mm	10-47
18	1.00 mm	0-7
20	850 µm	0-5

b. Second Drop Glass Beads. The second drop glass beads shall meet the requirements of Article 1095.07 of the Standard Specifications for Type B.

- (2) Type II The combination of microcrystalline ceramic elements and glass beads shall meet the following requirements:
- a. First Drop Glass Beads. The first drop glass beads shall meet the following requirements:
 - 1. Composition. The elements shall be composed of a titania opacified ceramic core having clear and or yellow tinted microcrystalline ceramic beads embedded to the outer surface.
 - 2. Index of Refraction. All microcrystalline reflective elements embedded to the outer surface shall have an index of refraction of 1.8 when tested by the immersion method.
 - 3. Acid Resistance. A sample of microcrystalline ceramic beads supplied by the manufacturer, shall show resistance to corrosion of their surface after exposure to a one percent solution (by weight (mass)) of sulfuric acid. Adding 0.2 oz (5.7 ml) of concentrated acid into the water shall make the one percent acid solution. This test shall be performed by taking a 1 x 2 in. (25 x 50 mm) sample and adhering it to the bottom of a glass tray and placing just enough acid solution to completely immerse the sample. The tray shall be covered with a piece of glass to prevent evaporation and allow the sample to be exposed for 24 hours under these conditions. The acid solution shall be decanted (do not rinse, touch, or otherwise disturb the bead surfaces) and the sample dried while adhered to the glass tray in a 150 °F (66 °C) oven for approximately 15 minutes. Microscope examination (20X) shall show no white (corroded) layer on the entire surface.
 - b. Second Drop Glass Beads. The second drop glass beads shall meet the requirements of Article 1095.07 of the Standard Specifications for Type B or the following manufacturer's specification:

U.S. Standard	Sieve	% Passing
Sieve Number	Size	By Weight (mass)
20	850 μm	100
30	600 μm	75-95

300 µm

150 μm

50

100

1. Sieve Analysis. The glass beads shall meet the following sieve requirements:

The manufacturer of the glass beads shall certify that the treatment of the glass beads meets the requirements of the polyurea manufacturer.

15-35

0-5

2. Imperfections. The surface of the glass beads shall be free of pits and scratches. The glass beads shall be spherical in shape and shall contain a

maximum of 20 percent by weight (mass) of irregular shapes when tested by the standard method using a vibratile inclined glass plate as adopted by the Department.

- 3. Index of Refraction. The index of refraction of the glass beads shall be a minimum of 1.50 when tested by the immersion method at 77 °F (25 °C).
- (k) Packaging. Microcrystalline ceramic reflective elements and glass beads shall be delivered in approved moisture proof bags or weather resistant bulk boxes. Each carton shall be legibly marked with the manufacturer, specifications and type, lot number, and the month and year the microcrystalline ceramic reflective elements and/or glass beads were packaged. The letters and numbers used in the stencils shall be a minimum of 1/2 in. (12.7 mm) in height.
 - (1) Moisture Proof Bags. Moisture proof bags shall consist of at least five ply paper construction unless otherwise specified. Each bag shall contain 50 lb (22.7 kg) net.
 - (2) Bulk Weather Resistance Boxes. Bulk weather resistance boxes shall conform to Federal Specification PPP-8-640D Class II or latest revision. Boxes are to be weather resistant, triple wall, fluted, corrugated-fiber board. Cartons shall be strapped with two metal straps. Straps shall surround the outside perimeter of the carton. The first strap shall be located approximately 2 in. (50 mm) from the bottom of the carton and the second strap shall be placed approximately in the middle of the carton. All cartons shall be shrink wrapped for protection from moisture. Cartons shall be lined with a minimum 4 mil polyester bag and meet Interstate Commerce Commission requirements. Cartons shall be approximately 38 x 38 in. (1 x 1 m), contain 2000 lb (910 kg) of microcrystalline ceramic reflective elements and/or glass beads and be supported on a wooden pallet with fiber straps.
- (I) Packaging. The material shall be shipped to the job site 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 polyurea 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 polyurea and date of manufacture. The certification shall be accompanied by one 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 polyurea 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. All costs of testing (other than tests conducted by the Department) shall be borne by the manufacturer.

(n) Acceptance samples. Acceptance samples shall consist of one 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 Department. The polyurea 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.

Equipment. The polyurea pavement marking compounds shall be applied through equipment specifically designed to apply two component liquid materials, glass beads and/or reflective elements in a continuous and skip-line pattern. The two-component liquid materials shall be applied after being accurately metered and then mixed with a static mix tube or airless impingement mixing guns. The static mixing tube or impingement mixing guns shall accommodate plural component material systems that have a volumetric ratio of 2 to 1 or 3 to 1. This equipment shall produce the required amount of heat at the mixing head and gun tip and maintain those temperatures within the tolerances specified. The guns shall have the capacity to deliver materials from approximately 1.5 to 3 gal/min (5.7 to 11.4 L/min) to compensate for a typical range of application speeds of 6 to 8 mph (10 to 13 km/h). The accessories such as spray tip, mix chamber, and rod diameter shall be selected according to the manufacturer's specifications to achieve proper mixing and an acceptable spray pattern. The application equipment shall be maneuverable to the extent that straight lines can be followed and normal curves can be made in a true arc. This 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 making application.

The equipment shall be capable of spraying both yellow and white polyurea, 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 polyurea tanks each of 110 gal (415 L) minimum capacity and be equipped with hydraulic systems and agitators. 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 the appropriate reflective media according to manufacturer's recommendations. All guns shall be in full view of operations 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 polyurea application techniques. Certification of equipment shall be provided at the pre-construction conference.

The mobile applicator shall include the following features:

- (a) Material Reservoirs. The applicator shall provide individual material reservoirs, or space for the storage of Part A and Part B of the resin composition.
- (b) Heating Equipment. The applicator shall be equipped with heating equipment of sufficient capacity to maintain the individual resin components at the manufacturer's recommended temperature of ±5 °F (±2.8 °C) for spray application.
- (c) Dispensing Equipment. The applicator shall be equipped with glass bead and/or reflective element dispensing equipment. The applicator shall be capable of applying the glass beads and/or reflective elements at a rate and combination indicated by the manufacturer.

- (d) Volumetric Usage. The applicator shall be equipped with metering devices or pressure gauges on the proportioning pumps as well as stroke counters to monitor volumetric usage. Metering devices or pressure gauges and stroke counters shall be visible to the Engineer.
- (e) Pavement Marking Placement. The applicator shall be equipped with all the necessary spray equipment, mixers, compressors and other appurtenances to allow for the placement of reflectorized pavement markings in a simultaneous sequence of operations.

The Contractor shall provide an accurate temperature-measuring device(s) that shall be capable of measuring the pavement temperature prior to application of the material, the material temperature at the gun tip and the material temperature prior to mixing.

CONSTRUCTION REQUIREMENTS

<u>General</u>. The pavement shall be cleaned by a method approved by the Engineer to remove all dirt, grease, glaze, or any other material that would reduce the adhesion of the markings with minimum or no damage to the pavement surface. New portland cement concrete pavements shall be air-blast-cleaned to remove all latents.

Widths, lengths, and shapes of the cleaned surface shall be of sufficient size to include the full area of the specified pavement marking to be placed.

The cleaning operation shall be a continuous moving operation process with minimum interruption to traffic.

Markings shall be applied to the cleaned surfaces on the same calendar day. If this cannot be accomplished, the surface shall be re-cleaned prior to applying the markings. No markings shall be applied until the Engineer approves the cleaning.

The pavement markings shall be applied to the cleaned road surface, during conditions of dry weather and subsequently dry pavement surfaces at a minimum uniform wet thickness of 15 mils (0.4 mm) according to the manufacturer's installation instructions. On new hot-mix asphalt (HMA) surfaces the pavement markings shall be applied at a minimum uniform wet thickness of 20 mils (0.5 mm). The application of 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 and the ambient temperature shall be above 40 °F (4 °C) and rising. The pavement markings shall not be applied if the pavement shows any visible signs of moisture or it is anticipated that damage causing moisture, such as rain showers, may occur during the installation and set periods. The Engineer will determine the atmospheric conditions and pavement surface conditions that produce satisfactory results.

Using the application equipment, the pavement markings shall be applied in the following manner, as a simultaneous operation:

- (a) The surface shall be air-blasted to remove any dirt and residue.
- (b) The resin shall be mixed and heated according to manufacturer's recommendations and sprayed onto the pavement surface.

The edge of the center line or lane line shall be offset a minimum distance of 2 in. (50 mm) from a longitudinal crack or joint. Edge lines shall be approximately 2 in. (50 mm) from the edge of pavement. The finished center and lane lines shall be straight, with the lateral deviation of any 10 ft (3 m) line not to exceed 1 in. (25 mm).

<u>Notification</u>. The Contractor shall notify the Engineer 72 hours prior to the placement of the markings in order that he/she can be present during the operation. At the time of notification, the Contractor shall provide the Engineer the manufacturer and lot numbers of polyurea and reflective media that will be used.

<u>Inspection</u>. The polyurea pavement markings will be inspected following installation according to Article 780.10 of the Standard Specifications, except, no later than December 15, and inspected following a winter performance period that extends 180 days from December 15.

<u>Method of Measurement</u>. This work will be measured for payment in place, in feet (meters). Double yellow lines will be measured as two separate lines.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot (meter) for POLYUREA PAVEMENT MARKING TYPE I – LINE of the line width specified or for POLYUREA PAVEMENT MARKING TYPE II – LINE of the line width specified.

PRECAST CONCRETE HANDLING HOLES (BDE)

Effective: January 1, 2007

Add the following to Article 540.02 of the Standard Specifications:

"(g) Handling Hole Plugs......1042.16"

Add the following paragraph after the sixth paragraph of Article 540.06 of the Standard Specifications:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar, or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Article 542.02 of the Standard Specifications:

Revise the fifth paragraph of Article 542.04(d) of the Standard Specifications to read:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 550.02 of the Standard Specifications:

"(o) Handling Hole Plugs......1042.16"

Replace the fourth sentence of the fifth paragraph of Article 550.06 of the Standard Specifications with the following:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 602.02 of the Standard Specifications:

"(p) Handling Hole Plugs...... 1042.16(a)"

Replace the fifth sentence of the first paragraph of Article 602.07 of the Standard Specifications with the following:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Section 1042 of the Standard Specifications:

"**1042.16 Handling Hole Plugs.** Plugs for handling holes in precast concrete products shall be as follows.

- (a) Precast Concrete Plug. The precast concrete plug shall have a tapered shape and shall have a minimum compressive strength of 3000 psi (20,700 kPa) at 28 days.
- (b) Polyethylene Plug. The polyethylene plug shall have a "mushroom" shape with a flat round top and a stem with three different size ribs. The plug shall fit snuggly and cover the handling hole.

The plug shall be according to the following.

Mechanical Properties	Test Method	Value (min.)
Flexural Modulus	ASTM D 790	3300 psi (22,750 kPa)
Tensile Strength (Break)	ASTM D 638	1600 psi (11,030 kPa)
Tensile Strength (Yield)	ASTM D 638	1200 psi (8270 kPa)

Thermal Properties	Test Method	Value (min.)
Brittle Temperature	ASTM D 746	-49 °F (-45 °C)
Vicat Softening Point	ASTM D 1525	194 °F (90 °C)"

RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)

Effective: January 1, 2007

Revised: April 1, 2007

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

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT

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

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

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

- (a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent:
 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag);
 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (b) Conglomerate 5/8. Conglomerate 5/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 5/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate 5/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (c) Conglomerate 3/8. Conglomerate 3/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 3/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 3/8 in. (9.5 mm) or smaller screen. Conglomerate 3/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (d) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at

least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

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

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

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

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

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

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

- (a) Testing Conglomerate 3/8. In addition to the requirements above, conglomerate 3/8 RAP shall be tested for maximum theoretical specific gravity (G_{mm}) at a frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
- (b) Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

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

- 1/ The tolerance for conglomerate 3/8 shall be \pm 0.3 %.
- 2/ Applies only to conglomerate 3/8. When variation of the G_{mm} exceeds the \pm 0.02 % tolerance, a new conglomerate 3/8 stockpile shall be created which will also require an additional mix design.

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

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

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

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

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

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

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

Max RAP Percentage

- 1/ For HMA Shoulder and Stabilized Sub-Base (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.
- 2/ Value of Max % RAP if 3/8 RAP is utilized.
- 3/ When RAP exceeds 20%, the high & low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25% RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

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

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

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

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

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design. When producing mixtures containing conglomerate 3/8 RAP, a positive dust control system shall be utilized.

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

- (a) Dryer Drum Plants.
 - (1) Date, month, year, and time to the nearest minute for each print.
 - (2) HMA mix number assigned by the Department.
 - (3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - (4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - (5) Accumualted mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
 - (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
 - (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.
 - (8) Aggregate and RAP moisture compensators in percent as set on the control panel. (Requied when accumulated or individual aggregate and RAP are printed in wet condition.)

- (b) Batch Plants.
 - (1) Date, month, year, and time to the nearest minute for each print.
 - (2) HMA mix number assigned by the Department.
 - (3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
 - (4) Mineral filler weight to the nearest pound (kilogram).
 - (5) RAP weight to the nearest pound (kilogram).
 - (6) Virgin asphalt binder weight to the nearest pound (kilogram).
 - (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Other". The testing requirements of Article 1031.03 shall not apply.
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

REFLECTIVE CRACK CONTROL TREATMENT (BDE)

Effective: April 1, 2006

Revised: January 1, 2007

Revise the third sentence of the first paragraph of Article 443.01 of the Standard Specifications to read:

"Strip reflective crack control treatment shall be either System A, B, C, or D at the option of the Contractor."

Add the following to Article 443.02 of the Standard Specifications:

Revise Article 443.09 of the Standard Specifications to Article 443.10.

Revise Article 443.10 of the Standard Specifications to Article 443.11.

Add the following Article to the Standard Specifications:

"Article 443.09 Reflective Crack Control System D. The stress relief membrane shall be applied when the surface temperature is a minimum of 50 °F (10 °C) and rising.

- (a) Tack Coat Placement for Membrane. The tack coat shall be applied to the existing surface using one of the following methods.
 - (1) A hand held wand with a nozzle that produces a fan shaped spray to apply the tack coat evenly according to the rate specified by the manufacturer.
 - (2) A hand held wand without a spray nozzle. The tack coat shall be spread with a squeegee according to the rate specified by the manufacturer.
 - (3) A distributor bar attached to a distributor truck, for longitudinal applications only. The distributor bar nozzles shall be set at 20 degrees to the axis of the bar and the tack coat shall be applied according to the rate specified by the manufacturer. Application of the tack coat directly from a distributor bar attached to a distributor truck will not be permitted for transverse applications.

The maximum width of the tack coat application shall be such that the tack coat extends a maximum 1 1/2 in. (40 mm) on both sides of the stress relief membrane strip.

The use of emulsified asphalts and/or cutbacks is prohibited for use as a tack to bond the stress relief membrane to the existing pavement surface.

(b) Stress Relief Membrane Placement. The open grid woven polyester side of the material shall be placed up with the nonwoven side placed into the tack. The stress relief membrane shall be centered over the crack or joint on the existing surface and with a minimum of 6 in. (150 mm) of the membrane extending beyond the edges of the joint.

The material shall be laid smooth with no uplifted edges. The stress relief membrane shall be placed and rolled immediately with a riding static drum roller or a rubber tire roller. A maximum of three minutes shall pass between the first and second rolling efforts.

The stress relief membrane shall be butted where transverse and longitudinal joints meet or where two rolls must be joined. When required, the stress relief membrane shall be cut with a razor knife from the woven polyester side.

The stress relief membrane shall be placed at least two hours in advance of paving operations. If application must immediately precede the paving operation, hot-poured joint sealer may be required as a tack coat to bond the stress relief membrane to the existing surface.

- (c) Traffic Exposure. Exposing the membrane to traffic shall be minimized. Small amounts of washed sand may be used to blot excess asphalt cement tack coat when necessary to facilitate movement of traffic or construction equipment over the membrane prior to placement of the overlay. Damaged membranes shall be removed and replaced.
- (d) Paving Tack Coat/Paving. Paving operations shall only begin when the membrane is thoroughly bonded to the existing surface. The membrane may be exposed to moisture and rain prior to the application of the overlay, however, the stress relief membrane must be dry at the time the overlay is placed.

A slow-set emulsified asphalt paving tack coat (such as SS-1, SS-1h, CSS-1, or CSS-1h) shall be applied prior to paving over the membrane. Cutback asphalts shall not be used. Hot-mix asphalt or dry washed sand may be placed ahead of the paver if the membrane is sticking to the tires of the paving equipment. The minimum asphalt overlay thickness (total) shall be 2 in. (50 mm) compacted.

When using a vibratory roller for compaction, it shall be set to the lowest amplitude and highest frequency settings."

Add the following Article to the Standard Specifications:

"**1062.04 Reflective Crack Control System D.** The stress relief membrane shall be 36 in. (900 mm) wide and 0.15 in. (4 mm) thick and shall be a system of materials manufactured in a composite three layer fashion with the following properties.

Stress Relief Membrane				
Property	Value	Test Method		
Cold Flex	No cracking or separation	ASTM D 146 (modified)		
	of fabric			
Tensile Strength (Peak)	4,000 psi (700 N/mm) min.	ASTM D 412 (modified)		
Elongation (at Peak Tensile)	10% min.	ASTM D 412 (modified)		
Weight	0.76 lbs/sq ft (3.7 kg/sq m)			
Density (mastic)	69 lbs/cu ft (1100 kg/cu m)	ASTM D 70		
	min.			
Thickness	0.15 in. (4 mm)	ASTM E 154-93 Subsection 10.0		
		ASTM D 1790		
Absorption (mastic)	1 % max.	ASTM D 517		
Brittleness	Passes	ASTM D 517		
Softening Point (mastic)	220 °F (104 °C)	ASTM D 36		

The bottom layer of the composite shall be a low strength, nonwoven, geotextile and shall be according to AASHTO M 288-92. The bottom geotextile shall be designed to fully bond with the existing pavement with the help of a tack coat. It shall be capable of accommodating sufficiently large stresses at the joint/crack without breaking its bond with the slab. The middle layer of the composite shall be a viscoelastic membrane designed to prevent water entry into the pavement through the cracks and/or joints in the pavement. It also acts as a stress absorbing member interlayer between the overlay and the underlying pavement. The top layer

shall be a high strength woven geotextile with a tensile strength of 4,000 psi (700 N/mm) at five percent strain according to ASTM D 4595. The top geotextile shall be designed to fully bond with the overlay and provide high stiffness and reinforcement to the overlay.

The stress relief membrane shall be stored in an inside enclosure with temperatures not exceeding 120 °F (49 °C). Any material that becomes wet prior to installation shall be removed from the jobsite and discarded.

The grade of asphalt binder tack coat shall be PG 64-22, PG 58-28, or PG 52-28 and shall meet the requirements of Article 1032.05.

Emulsified asphalt for tack coat shall be SS-1, SS-1h, CSS-1, CSS-1h, CSS1hP, or SS-1hP and shall meet the requirements of Article 1032.06.

The manufacturer shall furnish a certification with each shipment of stress relief membrane, stating the amount of product furnished, and that the material complies with these requirements."

REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE)

Effective: April 1, 2007

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

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

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

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

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

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

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

REINFORCEMENT BARS (BDE)

Effective: November 1, 2005

Revised: January 1, 2007

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

- "(a) Reinforcement Bars. Reinforcement bars will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reinforcement Bar and Dowel Bar Plant Certification Procedure". The Department will maintain an approved list of producers.
 - (1) Reinforcement Bars (Non-Coated). Reinforcement bars shall be according to ASTM A 706 (A 706M), Grade 60 (420) for deformed bars and the following.
 - a. Chemical Composition. The chemical composition of the bars shall be according to the following table.

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

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

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

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

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

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

RETROREFLECTIVE SHEETING, NONREFLECTIVE SHEETING, AND TRANSLUCENT OVERLAY FILM FOR HIGHWAY SIGNS (BDE)

Effective: April 1, 2007

<u>General</u>. This special provision covers retroreflective sheeting and translucent overlay films intended for application on new or refurbished aluminum. The sheeting serves as the reflectorized background for sign messages and as cutout legends and symbols applied to the reflectorized background. Messages may be applied in opaque black or transparent colors.

This special provision also covers nonreflective sheeting for application on new or refurbished aluminum, and as material for cutout legends and symbols applied to the reflectorized background.

All material furnished under this specification shall have been manufactured within 18 months of the delivery date. All material shall be supplied by the same manufacturer.

<u>Retroreflective Sheeting Properties</u>. Retroreflective sheeting shall consist of a flexible, colored, prismatic, or glass lens elements adhered to a synthetic resin, encapsulated by a flexible, transparent plastic having a smooth outer surface and shall meet the following requirements.

Only suppliers whose products have been tested and approved in the Department's periodic Sheeting Study will be eligible to supply material. All individual batches and or lots of material shall be tested and approved by the Department. The Department reserves the right to sample and test delivered materials according to Federal Specification LS-300.

- (a) Adhesive. The sheeting shall have a Class 1, pre-coated, pressure sensitive adhesive according to ASTM D 4956. The adhesive shall have a protective liner that is easily removed when tested according to ASTM D 4956. The adhesive shall be capable of being applied to new or refurbished aluminum and reflectorized backgrounds without additional adhesive.
- (b) Color. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration and to the daytime and nighttime color requirements of ASTM D 4956. Sheeting used for side by side overlay applications shall have a Hunter Lab Delta E of less than 3.
- (c) Coefficient of Retroreflection. When tested according to ASTM E 810, without averaging, the sheeting shall have a minimum coefficient of retroreflection as shown in the following tables. The brightness of the sheeting when totally wet shall be a minimum of 90 percent of the values shown when tested according to the standard rainfall test specified in Section 7.10.1 of AASHTO M 268-84.

Туре А								
Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Orange	Red	Green	Blue	Brown
0.2	-4	250	170	100	45	45	20	12
0.2	+30	150	100	60	25	25	12	8.5
0.5	-4	95	65	30	15	15	8	5
0.5	+30	75	50	25	10	10	5	3.5

Type A Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AA Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

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Observation	Entrance						
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FO
0.2	-4	800	660	215	80	43	200
0.2	+30	400	340	100	35	20	120
0.5	-4	200	160	45	20	9.8	80
0.5	+30	100	85	26	10	5.0	50

Type AA (0 and 90 degree rotation)

Observation	Entrance							
Angle (deg.)	Angle (deg.)	Yellow	FO					
0.2	-4	550	165					
0.2	+30	130	45					
0.5	-4	145	70					
0.5	+30	70	40					

Type AA (45 degree rotation)

Type AP Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AP

Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	Brown	FO
0.2	-4	550	425	100	75	50	30	275
0.2	+30	200	150	40	35	25	15	90
0.5	-4	300	250	60	35	25	20	150
0.5	+30	100	70	20	20	10	5	50

Type AZ Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AZ (0 degree rotation)

Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY
0.2	-4	430	350	110	45	20	325	240
0.2	+30	235	140	60	24	11	200	150
0.5	-4	250	200	60	25	10	235	165
0.5	+30	170	135	40	19	7	105	75
1.0	-4	70	45	10	10	4	70	30
1.0	+30	30	20	7	5	2.5	45	15

Type AZ (90 degree rotation)

Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY
0.2	-4	320	250	100	45	20	300	220
0.2	+30	235	140	40	24	11	200	150
0.5	-4	240	200	60	25	10	235	165
0.5	+30	100	85	20	10	7	80	75
1.0	-4	30	30	7	5	4	65	20
1.0	+30	15	15	5	2	2	30	10

(d) Gloss. The sheeting surface shall exhibit a minimum 85 degree gloss-meter rating of 50 when tested according to ASTM D 523.

(e) Durability. When processed and applied, the sheeting shall be weather resistant.

Accelerated weathering testing will be performed for 1000 hours (300 hours for orange/FO) according to ASTM G 151. The testing cycle will consist of 8 hours of light at 140 °F (60 °C), followed by 4 hours of condensation at 104 °F (40 °C). Following accelerated weathering, the sheeting shall exhibit a minimum of 80 percent of its initial minimum coefficient of retroreflection as listed in the previous tables.

Outdoor weathering will entail an annual evaluation of material placed in an outdoor rack with a 45 degree angle and a southern sun exposure. The sheeting will be evaluated for five years. Following weathering, the test specimens will be cleaned by immersing them in a five percent hydrochloric acid solution for 45 seconds, then rinsed with water and blotted dry with a soft clean cloth. Following cleaning, the applied sheeting shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change. The sheeting shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

- (f) Shrinkage. When tested according to ASTM D 4956, the sheeting shall not shrink in any dimension more than 1/32 in. (0.8 mm) in ten minutes and not more than 1/8 in. (3 mm) in 24 hours.
- (g) Workability. The sheeting shall show no cracking, scaling, pitting, blistering, edge lifting, inter-film splitting, curling, or discoloration when processed and applied using mutually acceptable processing and application procedures.
- (h) Splices. A single roll of sheeting shall contain a maximum of four splices per 50 yd (45 m) length. The sheeting shall be overlapped a minimum of 3/16 in. (5 mm) at each splice.
- (i) Adhesive Bond. The sheeting shall form a durable bond to smooth, corrosion and weather-resistant surfaces and adhere securely when tested according to ASTM D 4956.
- (j) Positionability. Sheeting, with ASTM D 4956 Class 3 adhesive, used for manufacturing cutout legends and borders shall provide sufficient positionability during the fabrication process to permit removal and reapplication without damage to either the legend or sign background and shall have a plastic liner suitable for use on bed cutting machines. Thereafter, all other adhesive and bond requirements contained in the specification shall apply.

Positionablility shall be verified by cutting 4 in. (100 mm) letters E, I, K, M, S, W, and Y out of the positionable material. The letters shall then be applied to a sheeted aluminum blank using a single pass of a two pound roller. The letters shall sit for five minutes and then a putty knife shall be used to lift a corner. The thumb and fore finger shall be used to slowly pull the lifted corner to lift letters away from the sheeted aluminum. The letters shall not tear or distort when removed.

(k) Thickness. The thickness of the sheeting without the protective liner shall be less than or equal to 0.015 in. (0.4 mm), or 0.025 in. (0.6 mm) for prismatic material.

(I) Processing. The sheeting shall permit cutting and color processing according to the sheeting manufacturer's specifications at temperatures of 60 to 100 °F (15 to 38 °C) and within a relative humidity range of 20 to 80 percent. The sheeting shall be heat resistant and permit forced curing without staining the applied or unapplied sheeting at temperatures recommended by the manufacturer. The sheeting shall be solvent resistant and capable of being cleaned with VM&P naptha, mineral spirits, and turpentine.

Transparent color and opaque black inks shall be single component and low odor. The inks shall dry within eight hours and not require clear coating. After color processing on white sheeting, the sheeting shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change when tested for durability (e). The ink on the weathered, prepared panel shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

Transparent color electronic cutting films shall be acrylic. After application to white sheeting, the films shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change when tested for durability (e). The films on the weathered, prepared panel shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

Transparent colors screened, or transparent acrylic electronic cutting films, on white sheeting, shall have a minimum initial coefficient of retroreflection values of 50 percent for yellow and red, and a minimum 70 percent for green, blue, and brown of the 0.2 degree observation angle/-4.0 degree entrance angle values as listed in the previous tables for the color being applied. After durability testing, the colors shall retain a minimum 80 percent of the initial coefficient of retroreflection.

- (m) Identification. The sheeting shall have a distinctive overall pattern in the sheeting unique to the manufacturer. If material orientation is required for optimum retroreflectivity, permanent orientation marks shall be incorporated into the face of the sheeting. Neither the overall pattern nor the orientation marks shall interfere with the reflectivity of the sheeting.
- (n) Packaging. Both ends of each box shall be clearly labeled with the sheeting type, color, adhesive type, manufacturer's lot number, date of manufacture, and supplier's name. Material Safety Data Sheets and technical bulletins for all materials shall be furnished to the Department with each shipment.

<u>Nonreflective Sheeting Properties</u>. Nonreflective sheeting shall consist of a flexible, pigmented cast vinyl film having a smooth, flat outer surface and shall meet the following requirements.

The Department reserves the right to sample and test delivered materials according to Federal Specification LS-300.

(a) Adhesive. The sheeting shall have a Class 1, pre-coated, pressure sensitive adhesive according to ASTM D 4956. The adhesive shall have a protective liner that is easily removed when tested according to ASTM D 4956. The adhesive shall be capable of being applied to new or refurbished aluminum and reflectorized backgrounds without additional adhesive.

- (b) Color. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll.
- (c) Gloss. The sheeting shall exhibit a minimum 85 degree gloss-meter rating of 40 when tested according to ASTM D 523.
- (d) Durability. Applied sheeting that has been vertically exposed to the elements for seven years shall show no appreciable discoloration, cracking, crazing, blistering, delamination, or loss of adhesion. A slight amount of chalking is permitted but the sheeting shall not support fungus growth.
- (e) Testing. Test panels shall be prepared by applying the sheeting to 6 1/2 x 6 1/2 in. (165 x 165 mm) pieces of aluminum according to the manufacturer's specifications. The edges of the panel shall be trimmed evenly and aged 48 hours at 70 to 90 °F (21 to 32 °C). Shrinkage and immersion testing shall be as follows.
 - (1) Shrinkage. The sheeting shall not shrink more then 1/64 in. (0.4 mm) from any panel edge when subjected to a temperature of 150 °F (66 °C) for 48 hours and shall be sufficiently heat resistant to retain adhesion after one week at 150 °F (66 °C).
 - (2) Immersion Testing. The sheeting shall show no appreciable decrease in adhesion, color, or general appearance when examined one hour after being immersed to a depth of 2 or 3 in. (50 or 75 mm) in the following solutions at 70 to 90 °F (21 to 32 °C) for specified times.

Solution	Immersion Time (hours)
Reference Fuel (M I L-F-8799A) (15 parts xylol and 85 parts mineral spirits by weight)	1
Distilled Water	24
SAE No. 20 Motor Oil	24
Antifreeze (1/2 ethylene glycol, 1/2 distilled water)	24

- (f) Adhesive Bond: The sheeting shall form a durable bond to smooth, corrosion and weather-resistant surfaces and adhere securely when tested according to ASTM D 4956.
- (g) Thickness. The thickness of the sheeting without the protective liner shall be a maximum of 0.005 in. (0.13 mm).
- (h) Cutting. Material used on bed cutting machines shall have a smooth plastic liner.
- (i) Identification. The sheeting shall have a distinctive overall pattern in the sheeting unique to the manufacturer. If material orientation is required for optimum retroreflectivity, permanent orientation marks shall be incorporated into the face of the sheeting. Neither the overall pattern nor the orientation marks shall interfere with the reflectivity of the sheeting.

(j) Packaging. Both ends of each box shall be clearly labeled with the sheeting type, color, adhesive type, manufacturer's lot number, date of manufacture, and supplier's name. Material Safety Data Sheets and technical bulletins for all materials shall be furnished to the Department with each shipment.

SEEDING (BDE)

Effective: July 1, 2004

Revised: January 1, 2007

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

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

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

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

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

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

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

Effective: November 1, 2005

Revised: January 1, 2007

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

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

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

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

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

- (i) The column segregation index shall be a maximum 15 percent.
- (j) The hardened visual stability index shall be a maximum of 1.

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

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

A J-ring value shall be submitted if a lower mix design maximum will apply. An L-box blocking ratio shall be submitted if a higher mix design minimum will apply. The Contractor shall also indicate applicable construction items for the mix design.

Trial mixture information will be required by the Engineer. A trial mixture is a batch of concrete tested by the Contractor to verify the Contractor's mix design will meet specification requirements. Trial mixture information shall include test results as specified in the "Portland Cement Concrete Level III Technician" course manual. Test results shall also include slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index. For the trial mixture, the slump flow shall be near the midpoint of the proposed slump flow target range.

<u>Trial Batch</u>. A minimum 2 cu yd (1.5 cu m) trial batch shall be produced, and the selfconsolidating concrete admixture dosage proposed by the Contractor shall be used. The slump flow shall be within 1.0 in. (25 mm) of the maximum slump flow range specified by the Contractor, and the air content shall be within the top half of the allowable specification range.

The trial batch shall be scheduled a minimum of 21 calendar days prior to anticipated use and shall be performed in the presence of the Engineer.

The Contractor shall provide the labor, equipment, and materials to test the concrete. The mixture will be evaluated by the Engineer for strength, air content, slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index.

Upon review of the test data from the trial batch, the Engineer will verify or deny the use of the mix design and notify the Contractor. Verification by the Engineer will include the Contractor's target slump flow range. If applicable, the Engineer will verify the Contractor's maximum J-ring value and minimum L-box blocking ratio.

A new trial batch will be required whenever there is a change in the source of any component material, proportions beyond normal field adjustments, dosage of the self-consolidating concrete admixture, batch sequence, mixing speed, mixing time, or as determined by the Engineer. The testing criteria for the new trial batch will be determined by the Engineer.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

<u>Mixing Portland Cement Concrete</u>. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

<u>Falsework and Forms</u>. In addition to Articles 503.05 and 503.06 of the Standard Specifications, the Contractor shall consider the fluid nature of the concrete for designing the falsework and forms. Forms shall be tight to prevent leakage of fluid concrete.

<u>Placing and Consolidating</u>. Concrete placement and consolidation shall be according to Article 503.07 of the Standard Specifications, except as follows:

Revise the third paragraph of Article 503.07 of the Standard Specifications to read:

"Open troughs and chutes shall extend as nearly as practicable to the point of deposit. The drop distance of concrete shall not exceed 5 ft (1.5 m). If necessary, a tremie shall be used to meet this requirement. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer. For drilled shafts, free fall placement will not be permitted."

Delete the seventh, eighth, ninth, and tenth paragraphs of Article 503.07 of the Standard Specifications.

Add to the end of the eleventh paragraph of Article 503.07 of the Standard Specifications the following:

"Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer."

<u>Quality Control by Contractor at Plant</u>. The specified test frequencies for aggregate gradation, aggregate moisture, air content, unit weight/yield, and temperature shall be performed as indicated in the contract plans.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed as needed to control production. The column segregation index test and hardened visual stability index test will not be required to be performed at the plant.

<u>Quality Control by Contractor at Jobsite</u>. The specified test frequencies for air content, strength, and temperature shall be performed as indicated in the contract plans.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed on the first two truck deliveries of the day, and every 50 cu yd (40 cu m) thereafter. The Contractor shall select either the J-ring or L-box test for jobsite testing.

The column segregation index test will not be required to be performed at the jobsite. The hardened visual stability index test shall be performed on the first truck delivery of the day, and every 300 cu yd (230 cu m) thereafter. Slump flow, visual stability index, J-ring value or L-box blocking ratio, air content, and concrete temperature shall be recorded for each hardened visual stability index test.

The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

If mix foaming or other potential detrimental material is observed during placement or at the completion of the pour, the material shall be removed while the concrete is still plastic.

<u>Quality Assurance by Engineer at Plant</u>. For air content and aggregate gradation, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract plans.

For slump flow, visual stability index, and J-ring or L-box tests, quality assurance independent sample testing and split sample testing will be performed as determined by the Engineer.

<u>Quality Assurance by Engineer at Jobsite</u>. For air content and strength, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract plans.

For slump flow, visual stability index, J-ring or L-box, and hardened visual stability index tests, quality assurance independent sample testing will be performed as determined by the Engineer.

For slump flow and visual stability index quality assurance split sample testing, the Engineer will perform tests at the beginning of the project on the first three tests performed by the Contractor. Thereafter, a minimum of ten percent of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. The acceptable limit of precision will be 1.5 in. (40 mm) for slump flow and a limit of precision will not apply to the visual stability index.

For the J-ring or the L-box quality assurance split sample testing, a minimum of 80 percent of the total tests required of the Contractor will be witnessed by the Engineer per plant, which will include a minimum of one witnessed test per mix design. The Engineer reserves the right to conduct quality assurance split sample testing. The acceptable limit of precision will be 1.5 in. (40 mm) for the J-ring value and ten percent for the L-box blocking ratio.

For each hardened visual stability index test performed by the Contractor, the cut cylinders shall be presented to the Engineer for determination of the rating. The Engineer reserves the right to conduct quality assurance split sample testing. A limit of precision will not apply to the hardened visual stability index.

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

Revised: January 1, 2007

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

<u>Usage</u>. Self-consolidating concrete may be used for precast concrete products.

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

Mix Design Criteria. The mix design criteria shall be as follows:

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

<u>Placing and Consolidating</u>. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

<u>Mix Design Approval</u>. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

STEEL PLATE BEAM GUARDRAIL (BDE)

Effective: November 1, 2005

Revised: January 1, 2007

Revise the first paragraph of Article 1006.25 of the Standard Specifications to read:

"1006.25 Steel Plate Beam Guardrail. Steel plate beam guardrail, including bolts, nuts, and washers, shall be according to AASHTO M 180. Guardrails shall be Class A, with Type II coatings. The weight (mass) of the galvanized coating for each side of the guardrail shall be at least 2.00 oz/sq ft (610 g/sq m). The overall combined weight (mass) of the coating on both sides shall meet or exceed 4.00 oz/sq ft (1220 g/sq m). The thickness of the zinc or zinc alloy will be determined for each side using the average of at least three non-destructive test readings taken on that side of the guardrail. The minimum average thickness for each side shall be 3.1 mils (79 μ m)."

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

SURFACE TESTING OF PAVEMENTS (BDE) Effective: April 1, 2002

Revised: January 1, 2007

Hot-Mix Asphalt (HMA) Overlays

Revise Article 406.03(h) of the Standard Specifications to read:

Revise Article 406.11 of the Standard Specifications to read:

"406.11 Surface Tests. The finished surface of the pavement shall be tested for smoothness within three days of paving. Testing shall be performed in the presence of the Engineer.

Prior to testing, a copy of the approval letter and recorded settings from the Profile Equipment Verification (PEV) Program shall be submitted to the Engineer; and all objects and debris shall be removed from the pavement.

- (a) Test Sections/Equipment.
 - (1) High-Speed Mainline Pavement. High-speed mainline pavement shall consist of pavements, ramps, and loops with a posted speed greater than 45 mph. These sections shall be tested using a profile testing device.
 - (2) Low-Speed Mainline Pavement. Low-speed mainline pavement shall consist of pavements, ramps, and loops with a posted speed of 45 mph or less. These sections shall be tested using a profile testing device.
 - (3) Miscellaneous Pavement. Miscellaneous pavement shall consist of:
 - a. pavement on horizontal curves with a centerline radius of curvature of less than or equal to 1000 ft (300 m) and pavement within the superelevation transition of such curves;
 - b. pavement on vertical curves having a length of less than or equal to 200 ft (60 m) in combination with an algebraic change in tangent grades greater than or equal to three percent, as may occur on urban ramps or other constricted-space facilities;
 - c. the first or last 15 ft (4.5 m) of a pavement section where the Contractor is not responsible for the adjoining surface;
 - d. intersections;
 - e. variable width pavements;
 - f. side street returns;
 - g. crossovers;
 - h. connector pavement from mainline pavement expansion joint to the bridge approach pavement;
- i. bridge approach pavement; and
- j. other miscellaneous pavement surfaces (i.e. a turn lane) as determined by the Engineer.

Miscellaneous pavement shall be tested using a 16 ft (5 m) straightedge set to a 3/8 in. (10 mm) tolerance.

- (b) Lots/Sublots. Mainline pavement test sections will be divided into lots and sublots.
 - (1) Lots. A lot will be defined as a continuous strip of pavement 1 mile (1600 m) long and one lane wide. When the length of a continuous strip of pavement is less than 1 mile (1600 m), that pavement will be included in an adjacent lot. Structures will be omitted when measuring pavement length.
 - (2) Sublots. Lots will be divided into 0.1 mile (160 m) sublots. A partial sublot greater than or equal to 250 ft (76 m) resulting from an interruption in the pavement will be subject to the same evaluation as a whole sublot. Partial sublots less than 250 ft (76 m) shall be included with the previous sublot for evaluation purposes.
- (c) Testing Procedure. One wheel track shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to the edge of the lane away from traffic. A guide shall be used to maintain the proper distance.

The profile trace generated 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 data was collected, and the device operator name(s). The top portion of the Department supplied form, "Profile Report of Pavement Smoothness" shall be completed and secured around the trace roll.

Although surface testing of intermediate lifts will not be required, they may be performed at the Contractor's option. When this option is chosen, the testing shall be performed and the profile traces shall be generated as described above.

The Engineer may perform his/her own testing at any time for monitoring and comparison purposes.

(d) 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 of each sublot in in./mile (mm/km) and indicate any high points (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 profile index of each track, average profile index of each sublot, average profile index of the lot and locations of bumps shall be recorded on the form.

All traces and 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.

The Engineer will use the results of the testing to evaluate paving methods and equipment. If the average profile index of a lot exceeds 40.0 in./mile (635 mm/km) for high-speed mainline pavement or 65.0 in./mile (1025 mm/km) for low-speed mainline pavement, the paving operation will be suspended until corrective action is taken by the Contractor.

- (e) Corrective Work. All bumps in excess of 0.30 in. (8 mm) in a length of 25 ft (8 m) or less shall be corrected. If the bump is greater than 0.50 in. (13 mm), the pavement shall be removed and replaced. The minimum length of pavement to be removed shall be 3 ft (900 mm).
 - (1) High-Speed Mainline Pavement. Any sublot having a profile index within the range of, greater than 30.0 to 40.0 in./mile (475 to 635 mm/km) including bumps, shall be corrected to reduce the profile index to 30.0 in./mile (475 mm/km) or less on each trace. Any sublot having a profile index greater than 40.0 in./mile (635 mm/km) including bumps, shall be corrected to reduce the profile index to 30.0 in./mile (475 mm/km) or less on each trace, or replaced at the Contractor's option.
 - (2) Low-Speed Mainline Pavement. Any sublot having a profile index within the range of, greater than 45.0 to 65.0 in./mile (710 to 1025 mm/km) including bumps, shall be corrected to reduce the profile index to 45.0 in./mile (710 mm/km) or less on each trace. Any sublot having a profile index greater than 65.0 in./mile (1025 mm/km) including bumps, shall be corrected to reduce the profile index to 45.0 in./mile (710 mm/km) or less on each trace, or replaced at the Contractor's option.
 - (3) Miscellaneous Pavement. Surface variations which exceed the 3/8 in. (10 mm) tolerance will be marked by the Engineer and shall be corrected by the Contractor.

Corrective work shall be completed using either an approved grinding device consisting of multiple saws or by removing and replacing the pavement. Corrective work shall be applied to the full lane width. When completed, the corrected area shall have uniform texture and appearance, with the beginning and ending of the corrected area squared normal to the centerline of the paved surface.

Upon completion of the corrective work, the surface of the sublot(s) shall be retested. The Contractor shall furnish the profile tracing(s) and the completed form(s) to the Engineer within two working days after corrections are made. If the profile index and/or bumps still do not meet the requirements, additional corrective work shall be performed.

Corrective work shall be at no additional cost to the Department.

(f) Smoothness Assessments. Assessments will be paid to or deducted from the Contractor for each sublot of mainline pavement, per the Smoothness Assessment Schedule. Assessments will be based on the average profile index of each sublot prior to performing any corrective work unless the Contractor has chosen to remove and replace the sublot. For sublots that are replaced, assessments will be based on the profile index determined after replacement.

Assessments will not be paid or deducted until all other contract requirements for the pavement are satisfied. Pavement that is corrected or replaced for reasons other than smoothness, shall be retested as stated herein.

SMOOTHNESS ASSESSMENT SCHEDULE (HMA Overlays)				
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot		
6.0 (95) or less	15.0 (240) or less	+\$150.00		
>6.0 (95) to 10.0 (160)	>15.0 (240) to 25.0 (400)	+\$80.00		
>10.0 (160) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00		
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00		
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$300.00		

Smoothness assessments will not be applied to miscellaneous pavement sections."

Hot-Mix Asphalt (HMA) Pavement (Full-Depth)

Revise Article 407.09 of the Standard Specifications to read:

"**407.09 Surface Tests.** The finished surface of the pavement shall be tested for smoothness according to Article 406.11, except as follows:

Two wheel tracks shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to each lane edge.

SMOOTHNESS ASSESSMENT SCHEDULE (Full-Depth HMA)					
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot			
6.0 (95) or less		+\$800.00			
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$550.00			
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$350.00			
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00			
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00			
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$500.00"			

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

Portland Cement Concrete Pavement

Revise Article 420.10 of the Standard Specifications to read:

"**420.10 Surface Tests.** The finished surface of the pavement shall be tested for smoothness according to Article 406.11, except as follows:

The finished surface of the pavement shall be tested for smoothness once the pavement has attained a flexural strength of 550 psi (3800 kPa) or a compressive strength of 3000 psi (20,700 kPa).

Two wheel tracks shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to each lane edge.

Membrane curing damaged during testing shall be repaired as directed by the Engineer at no additional cost to the Department.

No further texturing for skid resistance will be required for areas corrected by grinding. Protective coat shall be reapplied to ground areas according to Article 420.18 at no additional cost to the Department.

For pavement that is corrected by removal and replacement, the minimum length to be removed shall meet the requirements of either Class A or Class B patching.

SMOOTHNESS ASSESSMENT SCHEDULE (PCC)					
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot			
6.0 (95) or less		+\$1200.00			
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$950.00			
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$600.00			
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00			
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00			
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$750.00"			

Delete the fourth paragraph of Article 420.20 of the Standard Specifications.

Testing Equipment

Revise Article 1101.10 of the Standard Specifications to read:

"**1101.10 Pavement Surface Test Equipment.** Required surface testing and analysis equipment and their jobsite transportation shall be provided by the Contractor.

- (a) 16 ft (5 m) Straightedge. The 16 ft (5 m) straightedge shall consist of a metal I-beam mounted between two wheels spaced 16 ft (5 m) between the axles. Scratcher bolts which can be easily and accurately adjusted, shall be set at the 1/4, 1/2, and 3/4 points between the axles. A handle suitable for pushing and guiding shall be attached to the straightedge.
- (b) Profile Testing Device. The profile testing device shall have a decal displayed to indicate it has been tested through the Profile Equipment Verification (PEV) Program administered by the Department.
 - (1) 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.

(2) 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 section of finished pavement surface. 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 pavement 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.

The Engineer may retest the pavement at any time to verify the accuracy of the equipment."

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revised: January 1, 2007

Revise the second sentence of the first paragraph of Article 280.04(a) of the Standard Specifications to read:

"Temporary ditch checks shall be constructed with rolled excelsior, products from the Department's approved list, or with aggregate when specified."

Revise Article 1081.15(f) of the Standard Specifications to read:

"(f) Rolled Excelsior. Rolled excelsior shall consist of an excelsior fiber filling totally encased inside netting and sealed with metal clips or knotted at the ends. Each roll shall be a minimum of 20 in. (500 mm) in diameter and a minimum of 10 ft (3 m) in length. Each 10 ft (3 m) roll shall have a minimum weight (mass) of 30 lbs (13.6 kg). The excelsior fiber filling shall be weed free. At least 80 percent of the fibers shall be a minimum of 6 in. (150 mm) in length. The fiber density shall be a minimum of 1.38 lb/cu ft (22 kg/cu m). The netting shall be composed of a polyester or polypropylene material which retains 70 percent of its strength after 500 hours of exposure to sunlight. The maximum opening of the net shall be 1 x 1 in. (25 x 25 mm)."

THERMOPLASTIC PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.01(a)(2) of the Standard Specifications to read:

"(2) Pigment. The pigment used for the white thermoplastic compound shall be a highgrade pure (minimum 93 percent) titanium dioxide (Ti0₂). The white pigment content shall be a minimum of ten percent by weight and shall be uniformly distributed throughout the thermoplastic compound.

The pigments used for the yellow thermoplastic compound shall not contain any hazardous materials listed in the Environmental Protection Agency Code of Federal Regulations (CFR) 40, Section 261.24, Table 1. The combined total of RCRA listed heavy metals shall not exceed 100 ppm when tested by X-ray fluorescence spectroscopy. The pigments shall also be heat resistant, UV stable and color-fast yellows, golds, and oranges, which shall produce a compound which shall match Federal Standard 595 Color No. 33538. The pigment shall be uniformly distributed throughout the thermoplastic compound."

Revise Article 1095.01(b)(1)e. of the Standard Specifications to read:

"e. Daylight Reflectance and Color. The thermoplastic compound after heating for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) and cooled at 77 °F (25 °C) shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

White:Daylight Reflectance75 percent min.*Yellow:Daylight Reflectance45 percent min.

*Shall meet the coordinates of the following color tolerance chart.

х	0.490	0.475	0.485	0.530
у	0.470	0.438	0.425	0.456"

Revise Article 1095.01(b)(1)k. of the Standard Specifications to read:

"k. Accelerated Weathering. After heating the thermoplastic for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) the thermoplastic shall be applied to a steel wool abraded aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 30 mils (0.70 mm) and allowed to cool for 24 hours at room temperature. The coated panel shall be subjected to accelerated weathering using the light and water exposure apparatus (fluorescent UV - condensation type) for 75 hours according to ASTM G 53 (equipped with UVB-313 lamps).

The cycle shall consist of four hours UV exposure at 122 °F (50 °C) followed by four hours of condensation at 104 °F (40 °C). UVB 313 bulbs shall be used. At the end of the exposure period, the panel shall not exceed 10 Hunter Lab Delta E units from the original material."

TRAINING SPECIAL PROVISIONS

This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 8. In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the

reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

<u>METHOD OF MEASUREMENT</u> The unit of measurement is in hours.

<u>BASIS OF PAYMENT</u> This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

TYPE ZZ RETROREFLECTIVE SHEETING, NONREFLECTIVE SHEETING, AND TRANSLUCENT OVERLAY FILM FOR HIGHWAY SIGNS (BDE)

Effective: April 1, 2007

<u>General</u>. This special provision covers Type ZZ retroreflective sheeting and translucent overlay films intended for application on new or refurbished aluminum. The sheeting serves as the reflectorized background for sign messages and as cutout legends and symbols applied to the reflectorized background. Messages may be applied in opaque black or transparent colors.

This special provision also covers nonreflective sheeting for application on new or refurbished aluminum, and as material for cutout legends and symbols applied to the reflectorized background.

All material furnished under this specification shall have been manufactured within 18 months of the delivery date. All material shall be supplied by the same manufacturer.

<u>Type ZZ Retroreflective Sheeting Properties</u>. Type ZZ retroreflective sheeting shall consist of a flexible, colored, cubed corner prismatic, retroreflective material encapsulated by a flexible, transparent plastic having a smooth outer surface and shall meet the following requirements.

Only suppliers whose products have been tested and approved in the Department's periodic Sheeting Study will be eligible to supply material. All individual batches and or lots of material shall be tested and approved by the Department. The Department reserves the right to sample and test delivered materials according to Federal Specification LS-300.

- (a) Adhesive. The sheeting shall have a Class 1, pre-coated, pressure sensitive adhesive according to ASTM D 4956. The adhesive shall have a protective liner that is easily removed when tested according to ASTM D 4956. The adhesive shall be capable of being applied to new or refurbished aluminum without additional adhesive.
- (b) Color. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration and to the daytime and nighttime color requirements of ASTM D 4956. Sheeting used for side by side overlay applications shall have a Hunter Lab Delta E of less than 3.
- (c) Coefficient of Retroreflection. When tested according to ASTM E 810, the sheeting shall have a minimum coefficient of retroreflection as shown in the following tables. The brightness of the sheeting when totally wet shall be a minimum of 90 percent of the values shown when tested according to the standard rainfall test specified in Section 7.10.1 of AASHTO M 268-84.

Type ZZ Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Observation	Entrance								
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY	FO
0.2	-4	725	545	145	75	35	580	435	255
0.2	+30	300	225	60	30	15	240	180	105
0.5	-4	450	340	90	45	20	360	270	160
0.5	+30	180	135	40	20	10	145	110	65
1.0	-4	130	100	30	15	6	105	80	50
1.0	+30	70	55	15	10	3	60	45	25

Type ZZ (0 degree rotation)

	pe ZZ (90	degree	rotation)
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Observation	Entrance								
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY	FO
0.2	-4	415	305	85	42	17	340	145	85
0.2	+30	80	60	18	14	4.4	64	48	23
0.5	-4	350	260	70	35	16	280	210	80
0.5	+30	75	56	15	12	3.6	60	45	25
1.0	-4	110	80	18	11	4.8	87	64	22
1.0	+30	20	13	3	2	1	12	9	3

- (d) Gloss. The sheeting surface shall exhibit a minimum 85 degree gloss-meter rating of 50 when tested according to ASTM D 523.
- (e) Durability. When processed and applied, the sheeting shall be weather resistant.

Accelerated weathering testing will be performed for 1000 hours (300 hours for orange/FO) according to ASTM G 151. The testing cycle will consist of 8 hours of light at 140 °F (60 °C), followed by 4 hours of condensation at 104 °F (40 °C). Following accelerated weathering, the sheeting shall exhibit a minimum of 80 percent of its initial minimum coefficient of retroreflection as listed in the previous tables.

Outdoor weathering will entail an annual evaluation of material placed in an outdoor rack with a 45 degree angle and a southern sun exposure. The sheeting will be evaluated for five years. Following weathering, the test specimens will be cleaned by immersing them in a five percent hydrochloric acid solution for 45 seconds, then rinsed with water and blotted dry with a soft clean cloth. Following cleaning, the applied sheeting shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change. The sheeting shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

- (f) Shrinkage. When tested according to ASTM D 4956, the sheeting shall not shrink in any dimension more than 1/32 in. (0.8 mm) in ten minutes and not more than 1/8 in. (3 mm) in 24 hours.
- (g) Workability. The sheeting shall show no cracking, scaling, pitting, blistering, edge lifting, inter-film splitting, curling, or discoloration when processed and applied using mutually acceptable processing and application procedures.

- (h) Splices. A single roll of sheeting shall contain a maximum of four splices per 50 yd (45 m) length. The sheeting shall be overlapped a minimum of 3/16 in. (5 mm) at each splice.
- (i) Adhesive Bond. The sheeting shall form a durable bond to smooth, corrosion and weather-resistant surfaces and adhere securely when tested according to ASTM D 4956.
- (j) Positionability. Sheeting, with ASTM D 4956 Class 3 adhesive, used for manufacturing cutout legends and borders shall provide sufficient positionability during the fabrication process to permit removal and reapplication without damage to either the legend or sign background and shall have a plastic liner suitable for use on bed cutting machines. Thereafter, all other adhesive and bond requirements contained in the specification shall apply.

Positionablility shall be verified by cutting 4 in. (100 mm) letters E, I, K, M, S, W, and Y out of the positionable material. The letters shall then be applied to a sheeted aluminum blank using a single pass of a two pound roller. The letters shall sit for five minutes and then a putty knife shall be used to lift a corner. The thumb and fore finger shall be used to slowly pull the lifted corner to lift letters away from the sheeted aluminum. The letters shall not tear or distort when removed.

- (k) Thickness. The thickness of the sheeting without the protective liner shall be less than or equal to 0.025 in. (0.6 mm).
- (I) Processing. The sheeting shall permit cutting and color processing according to the sheeting manufacturer's specifications at temperatures of 60 to 100 °F (15 to 38 °C) and within a relative humidity range of 20 to 80 percent. The sheeting shall be heat resistant and permit forced curing without staining the applied or unapplied sheeting at temperatures recommended by the manufacturer. The sheeting shall be solvent resistant and capable of being cleaned with VM&P naptha, mineral spirits, and turpentine.

Transparent color and opaque black inks shall be single component and low odor. The inks shall dry within eight hours and not require clear coating. After color processing on white sheeting, the sheeting shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change when tested for durability (e). The ink on the weathered, prepared panel shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

Transparent color electronic cutting films shall be acrylic. After application to white sheeting, the films shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change when tested for durability (e). The films on the weathered, prepared panel shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

Transparent colors screened, or transparent acrylic electronic cutting films, on white sheeting, shall have a minimum initial coefficient of retroreflection values of 50 percent for yellow and red, and a minimum 70 percent for green, blue, and brown of the

0.2 degree observation angle/-4.0 degree entrance angle values as listed in the previous tables for the color being applied. After durability testing, the colors shall retain a minimum 80 percent of the initial coefficient of retroreflection.

- (m) Identification. The sheeting shall have a distinctive overall pattern in the sheeting unique to the manufacturer. If material orientation is required for optimum retroreflectivity, permanent orientation marks shall be incorporated into the face of the sheeting. Neither the overall pattern nor the orientation marks shall interfere with the reflectivity of the sheeting.
- (n) Packaging. Both ends of each box shall be clearly labeled with the sheeting type, color, adhesive type, manufacturer's lot number, date of manufacture, and supplier's name. Material Safety Data Sheets and technical bulletins for all materials shall be furnished to the Department with each shipment.

<u>Nonreflective Sheeting Properties</u>. Nonreflective sheeting shall consist of a flexible, pigmented cast vinyl film having a smooth, flat outer surface and shall meet the following requirements.

The Department reserves the right to sample and test delivered materials according to Federal Specification LS-300.

- (a) Adhesive. The sheeting shall have a Class 1, pre-coated, pressure sensitive adhesive according to ASTM D 4956. The adhesive shall have a protective liner that is easily removed when tested according to ASTM D 4956. The adhesive shall be capable of being applied to new or refurbished aluminum and reflectorized backgrounds without additional adhesive.
- (b) Color. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll.
- (c) Gloss. The sheeting shall exhibit a minimum 85 degree gloss-meter rating of 40 when tested according to ASTM D 523.
- (d) Durability. Applied sheeting that has been vertically exposed to the elements for seven years shall show no appreciable discoloration, cracking, crazing, blistering, delamination, or loss of adhesion. A slight amount of chalking is permitted but the sheeting shall not support fungus growth.
- (e) Testing. Test panels shall be prepared by applying the sheeting to 6 1/2 x 6 1/2 in. (165 x 165 mm) pieces of aluminum according to the manufacturer's specifications. The edges of the panel shall be trimmed evenly and aged 48 hours at 70 to 90 °F (21 to 32 °C). Shrinkage and immersion testing shall be as follows.
 - (1) Shrinkage. The sheeting shall not shrink more then 1/64 in. (0.4 mm) from any panel edge when subjected to a temperature of 150 °F (66 °C) for 48 hours and shall be sufficiently heat resistant to retain adhesion after one week at 150 °F (66 °C).

(2) Immersion Testing. The sheeting shall show no appreciable decrease in adhesion, color, or general appearance when examined one hour after being immersed to a depth of 2 or 3 in. (50 or 75 mm) in the following solutions at 70 to 90 °F (21 to 32 °C) for specified times.

Solution	Immersion Time (hours)
Reference Fuel (M I L-F-8799A) (15 parts xylol and 85 parts mineral spirits by weight)	1
Distilled Water	24
SAE No. 20 Motor Oil	24
Antifreeze (1/2 ethylene glycol, 1/2 distilled water)	24

- (f) Adhesive Bond. The sheeting shall form a durable bond to smooth, corrosion and weather-resistant surfaces and adhere securely when tested according to ASTM D 4956.
- (g) Thickness. The thickness of the sheeting without the protective liner shall be a maximum of 0.005 in. (0.13 mm).
- (h) Cutting. Material used on bed cutting machines shall have a smooth plastic liner.
- (i) Identification. The sheeting shall have a distinctive overall pattern in the sheeting unique to the manufacturer. If material orientation is required for optimum retroreflectivity, permanent orientation marks shall be incorporated into the face of the sheeting. Neither the overall pattern nor the orientation marks shall interfere with the reflectivity of the sheeting.
- (j) Packaging. Both ends of each box shall be clearly labeled with the sheeting type, color, adhesive type, manufacturer's lot number, date of manufacture, and supplier's name. Material Safety Data Sheets and technical bulletins for all materials shall be furnished to the Department with each shipment.

WATER BLASTER WITH VACUUM RECOVERY (BDE)

Effective: April 1, 2006

Revised: January 1, 2007

Add the following to Article 783.02 of the Standard Specifications.

Revise Article 1101.12 of the Standard Specifications to read.

"**1101.12 Water Blaster with Vacuum Recovery.** The water blaster shall remove the stripe from the pavement using a high pressurized water spray with a vacuum recovery system to provide a clean, almost dry surface, without the use of a secondary cleanup process. The

removal shall be to the satisfaction of the Engineer. The equipment shall contain a storage system that allows for the storage of the wastewater while retaining the debris. The operator shall be in immediate control of the blast head."

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006

Revised: January 2, 2007

<u>Description</u>. For projects with at least 1200 tons (1100 metric tons) of work involving applicable bituminous materials, 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 pavement preservation 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, tons = A x D x ($G_{mb} x 46.8$) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x ($G_{mb} x 24.99$) / 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, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters:	Q, metric tons = V x 1.0 kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq yd (s	q m).
----------------------------------------------	-------

- D = Depth of the HMA mixture, in. (mm).
- G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.
- V = Volume of the bituminous material, gal (L).
- SG = Specific Gravity of bituminous material as shown on the bill of lading.

<u>Basis of Payment</u>. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

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 items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Return With Bid

ILLINOIS DEPARTMENTOPTION FOROF TRANSPORTATIONBITUMINOUS 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 D No D
Signature: ______ Date: ______

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: April 1, 2007

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of steel cost adjustments.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), frames and grates, and other miscellaneous items will be subject to a steel cost adjustment when the pay item they are used in has a contract value of \$10,000 or greater.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) Evidence that increased or decreased steel costs have been passed on to the Contractor.
- (b) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (c) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

- SCA = Q X D
- Where: SCA = steel cost adjustment, in dollars Q = quantity of steel incorporated into the work, in lb (kg) D = price factor, in dollars per lb (kg)

 $D = CBP_M - CBP_L$

Where: $CBP_M =$ The average of the Consumer Buying Price indices for Shredded Auto Scrap (Chicago) and No. 1 Heavy Melt (Chicago) as published by the American Metal Market (AMM) for the day the steel is shipped from the mill. The indices will be converted from dollars per ton to dollars per lb (kg). CBP_L = The average of the Consumer Buying Price indices for Shredded Auto Scrap (Chicago) and No. 1 Heavy Melt (Chicago) as published by the AMM for the day the contract is let. The indices will be converted from dollars per ton 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 CBP_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

<u>Basis of Payment</u>. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the CBP_L and CBP_M in excess of five percent, as calculated by:

Percent Difference = $\{(CBP_L - CBP_M) \div CBP_L\} \times 100$

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 failure to fill out the form completely, shall make this contract exempt of steel 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 plans?
Yes No
Signature: ______ Date: _____

STORM WATER POLLUTION PREVENTION PLAN

(1&2) WRS-2, 99 (1&2) WRS-1, & 99 (1&2)

Illinois Department of Transportation	Storm Water Pollution Prevention Plan		
Route FAI 55	Marked 1-55		
Section 2006-031 BY, 2006-032 BY, 99 (1&2) WRS, 99	Project No. Contract No. 60B85, 60B86, 62895, 60B46,		

Contract No. 60B85, 60B86, 62895, 60B46, Project No. 62896, & 60B47

8/30/06 Date

Will County

WRS-3.

Section

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Site Description 1.

The following is a description of the construction activity which is the subject of this plan (use additional pages, a. as necessary):

The project consists of multiple construction contracts, which are located along the Interstate 55 Corridor between I-80 and Weber Road located in Will County, Illinois. The existing highway consists of two lanes in each direction separated by an open grass median with a drainage swale. Existing frontage roads and ditches are located along the outside of the I-55 pavement. The proposed construction will eliminate the existing grass median and drainage swales. The existing Frontage Roads and ditches will remain the same. The proposed construction includes inside lane widening and pavement resurfacing, along with the construction of a concrete median barrier, enclosed main drain system, outside auxiliary lanes at interchanges, and other related work items. The CSX Railroad , Sunnyland Drain, US 30, EJ&E, Mink Creek, and the Materials Service Rallroad Bridges will be widened to the inside. Outside widening will also ocurr on some of the bridges. The LIIy Cache Slough Bridge will be replaced with a triple box culvert.

The following is a description of the intended sequence of major activities which will disturb soils for major b. portions of the construction site, such as grubbing, excavation and grading (use additional pages, as necessary):

Page 1 of 12

The project will consist of pre-stage construction, two major stages, and subsequent sub-stages to accommodate specific construction activities. Pre-Stage construction will consist of storm sewer lateral and bridge sub-structure work. Stage 1 construction will primarily consist of median main drain storm sewer installation, and inside lane and shoulder work. Stage 2 construction will primarily consist of outside lane widening, and shoulder work. Subsequent sub-stages will be needed to accommodate additional bridge and culvert work. Other major construction activities to be included within the first two stages consist of erosion control, lighting unit relocations at the US 30 and Weber Road Interchanges, detention pond grading, accident investigation site construction, ramp reconstruction, and cantilevered sign installations. Earth excavation and other grading activities will be an integral part of the Stage 1 median and the Stage 2 outside widening work. The Contractor is expected to assess the site and existing water conditions prior to starting the staging operations.

The total area of the construction site is estimated to be 176 acres.

This area includes approximately ROW to ROW along the project corridor.

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The total area of the site that it is estimated will be disturbed by excavation, grading or other activities is _37.5_ acres.

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- d. The estimated runoff coefficients for various areas within the project site will change from the original conditions based on the addition of new pavement along the median. Also, runoff coefficients will be affected by the additional pavement constructed along the outside widened pavement areas. The average runoff coefficient for the project is between 0.70 and 0.95. The runoff coefficients can be found in the project drainage study which is hereby incorporated by reference in this plan. Existing soil conditions north of US 30 primarily consist of black organic clay (A7-6) at the surface and silty clay (A-6) within 10 to 20 feet of the ground surface. No ground water was encountered during drilling operations. Other Information describing the soils at the site is contained in the Soils Reports for the project, which are hereby incorporated by reference.
- e. The design/project report, hydraulic report, or plan documents, hereby incorporated by reference, contain site map(s) indicating drainage patterns and approximate slopes anticipated after major grading activities, areas of major soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands), and locations where storm water is discharged to a surface water.

A watershed map for the project area is attached as part of this plan. The following is a list of outfall locations, which will be monitored and controlled by the contractor throughout the duration of the project:

Outfall	Side	Construction Activity	Controls and/or Actions
Location	(Left/		
(±Station)	Right)		Ditch Chasks Tomporary Seeding Silt
145+00	Left	Ditch grading (widened embankment to inside median)	Fence.
177+00	Left	Ditch grading (widened embankment to inside median), new storm sewer, replace existing culvert under Frontage Road	Temporary Seeding, Silt Fence, Riprap, and Inlet and Pipe Protection.
181+00	Left	Ditch grading (widened embankment to inside median), new storm sewer, replace existing culvert under Frontage Road	Riprap, and Inlet and Pipe Protection.
224+00	Left	None	N/A
226+00	Right	New storm sewer under center median to replace existing ditch, replace existing culvert under Frontage Road	Protection.
259+00	Left	New storm sewer under center median to replace existing ditch.	Temporary Erosion Control Seeding, Silt Fence, Riprap, and Inlet and Pipe Protection.
285+00	Left	New storm sewer under center median to replace existing ditch.	N/A
295+00	Left	Construction of detention pond In infield of IL Route 59 interchange	Temporary Erosion Control Seeding, Ditch Checks, Silt Fence and inlet and Pipe Protection
301+00	Left	New storm sewer under center median to replace existing ditch.	Silt Fence, Ditch Check, and Inlet and Pipe Protection.
310+00	Left	None	Silt Fence, Ditch Check, and Inlet and Pipe Protection.
331+00	Right	New storm sewer under center median to replace existing ditch. Construction detention pond in southeast quadrant infield of US Route 52 Interchange	Temporary Erosion Control Seeding, Ditch Checks, Riprap, Silt Fence and inlet and Pipe Protection
357+00	Left	New storm sewer under center median to replace existing ditch. Construction detention pond in northwest quadrant infield of US Route 52 interchange	Temporary Erosion Control Seeding, Ditch Checks, Riprap, Silt Fence and Inlet and Pipe Protection
363+25	Left	New storm sewer under center median to replace existing ditch.	Slit Fence, ditch check and inlet and Pipe Protection.
396+00	Left	New storm sewer under center median to replace existing ditch.	Temporary Erosion Control Seeding, Silt Fence, Riprap and Inlet and Pipe Protection.

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Outfall	Pido	Construction Activity	Controls and/or Actions
Outrail	Side	Construction Activity	
Location	(Leiv		
(±Station)	Right)	New stars sever under center median	Temporary Frosion Control Seeding.
403+50	Left	New storm sewer under certer modian	Silt Fence and lolet and Pipe
		to replace existing ofich.	Brotection
		the second se	Silt Eanon Rinran and Inlet and Pine
471+00	Left	New storm sewer under median to	Bratestian permanent sedimentation
		replace existing ditch	Protection, permanent sedimentation
			Dasin.
477+00	Left	New storm sewer under median to	Silt Fence, Thiet and Pipe Protection.
		replace existing ditch	and Block and Block Destaction
492+00	Left	New storm sewer under median to	Silt Fence, inlet and Pipe Protection
		replace existing ditch	Plan and blat and Plan
511+00	Left	New storm sewer under center median	Silt Fence, Riprap, and inlet and Pipe
		to replace existing ditch.	Protection.
580+00	Right	New storm sewer under center median	Temporary Erosion Control Seeding,
000.00	1,	to replace existing ditch. Construction	Ditch Checks, Silt Fence and inlet and
	1	detention pond in southeast quadrant	Pipe Protection.
		infield of US Route 30 interchange	
994 (115 30)	Loft	Construct detention pond between	Temporary Erosion Control Seeding,
004 (03 50)	Lon	southbound exit ramp and frontage	Ditch Checks, Silt Fence and Inlet and
		road	Pipe Protection
000 (110 20)	Loft	None	N/A
906 (05 30)	Dicht	None	N/A
911 (05 30)	Right	Rottally remove and widen both	Temporary Erosion Control Seeding,
629+00	Lett	Partially remove and widon pour	Ditch Checks, Silt Fence, Riprap
	1	normbound and southbound approach	Slopewall and Inlet and Pipe Protection
	1	pavements to the inside medical	
	1	Widen nonnoound and southoodid	
	1	bridges (Mink Creek) to the miside	
		median.	Inlet and Pipe Protection, Ditch Check
642+75	Len	New storn sewer under center modal	and Riprap
		to replace existing ditch.	Inlet and Pipe Protection, Ditch Check
668+20	Left	New storm sewer under center median	and Riprap
		to replace existing ditch.	Inlet and Pipe Protection and Riprap
693+80	Left	Remove and Replace Storm Sewer	Inter and the transmission and the t
		Lateral and Flared End Section	Inlet and Rine Protection and Riprap
693+80	Right	Remove and Replace Plared Ellu	Inter and the treasure and the
		Section	Inlet and Pine Protection and Silt Fence
701+55	Left	New storm sewer under center median	met and Fipe Protection and out rolled
		to replace existing ditch.	Inlat and Rine Protection and Silt Fence
710+00	Left	None	Intel and Pipe Protection and One of or
721+55	Left	Remove Concrete Headwall, New	Intet and Pipe Protection, Silt Pence
economi 2	1	storm sewer under center median to	and Riprap
		replace existing ditch.	Index and Dine Distriction and Distron
726+50	Left	Remove and Replace Storm Sewer	Inlet and Pipe Protection and Riprap
	in the second seco	Lateral, New storm sewer under center	
8.5	0.000	median to replace existing ditch.	
755+00	Left	None	N/A
764+00	Right	None	N/A
766+55	Left	Remove headwall, remove and	Inlet and Pipe Protection and Riprap
100.00		replace storm sewer lateral, New	
1		storm sewer under center median to	
1		replace existing ditch.	
770+14 7 4	left	Replace Lily Cache Bridge with triple	Temporary Erosion Control Seeding,
772.06.6	Lon	box culvert	Silt Fence, Temporary Ditch Checks
//3490.0	1.04	Remove headwall remove and	Inlet and Pipe Protection, Riprap and
782+00	Leit	roplace starm sewer lateral. New	Ditch Checks
		storm sewer under center median to	
		storing seven under control modal to	
		Teplace existing diton.	

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Outfail Location (+Station)	Side (Left/ Right)	Construction Activity	Controls and/or Actions
809+60	Right	New storm sewer under center median to replace existing ditch.	Inlet and Pipe Protection
842+00	Right	New storm sewer under center median to replace existing ditch.	Inlet and Pipe Protection and Riprap
848+80	Right	New storm sewer under center median to replace existing ditch.	Inlet and Pipe Protection and Riprap
880+00	Right	New storm sewer under center median to replace existing ditch.	Inlet and Pipe Protection
898+00	Right	New storm sewer under center median to replace existing ditch.	Temporary Erosion Control Seeding, Silt Fence, Inlet and Pipe Protection
929+00	Right	Grade ditch between frontage road and northbound highway to provide detention	Temporary Erosion Control Seeding, Ditch Checks and Inlet and Pipe Protection
938+00	Left	Remove flared end sections and grade ditch between frontage road and southbound highway to provide detention	Temporary Erosion Control Seeding, Ditch Checks and Inlet and Pipe Protection

f. The names of receiving water(s) and areal extent of wetland acreage at the site are in the design/project report or plan documents which are incorporated by reference as a part of this plan.

The following is a list of receiving waters located throughout the project limits that will be monitored and controlled by the contractor throughout the duration of the project:

- Sunnyland Drain
- > 1&M Canal
- > DuPage River
- > Mink Creek
- > Lily Cache Slough

g. During major storm events, it is expected that some locations within the work zone may become saturated. These saturated areas are expected near Mink Creek, I-55 over MS (Abandoned) Railroad, I-55 over EJ&E Railroad, the ramps at US Route 30, Lily Cache Slough, and the areas near culverts. Care has been taken to prepare the Erosion Control Plan in order to limit erosion and the ponding of water in the work zone.

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Controls

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b. above. For each measure discussed, the contractor that will be responsible for its implementation is indicated. Each such contractor has signed the required certification on forms which are attached to, and a part of, this plan:

a. Erosion and Sediment Controls

- (I) Stabilization Practices. Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided in 2.a.(i).(A) and 2.b., stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased on all disturbed portions of the site where construction activity will not occur for a period of 21 or more calendar days.
 - (A) where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

Description of Stabilization Practices (use additional pages, as necessary):

- Temporary Erosion Control Seeding shall be applied in accordance with the Special Provision. Seed mixture will depend on the time of year it is applied. Oats will be applied from January 1 to
- 31 and hard Red Winter Wheat from August 1 to December 31.2. Stone Riprap Class A3 and A4 stone riprap with filter fabric will be used as protection at the
- Stone Riprap Class A3 and A4 stone riprap with filter fabric will be used as protection at the discharge end of most storm sewer and culvert end sections to prevent scouring at the end of pipes and to prevent downstream erosion.
- 3. Permanent Stabilization All areas disturbed by construction will be stabilized as soon as permitted with permanent seeding (Class 2A, 4, and 4B) following the finished grading, but always within seven days with Temporary Erosion Control Seeding. Erosion blankets will be installed over fill slopes, which have been brought to final grade and have been seeded to protect slopes from rill and gully erosion and allow seeds to germinate property.
- 4. Erosion Control Blankets and Mulching Erosion control blankets will be installed over fill slopes and in high velocity areas that have been brought to final grade and seeded to protect slopes from erosion and allow seeds to germinate. Mulch will be applied in relatively flat areas to prevent further erosion.
- 5. Erosion Control Blankets and Mulching Erosion control blankets will be Installed over fill slopes and in high velocity areas that have been brought to final grade and seeded to protect slopes from erosion and allow seeds to germinate. Mulch will be applied in relatively flat areas to prevent further erosion.

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Structural Practices. Provided below is a description of structural practices that will be implemented, to the (ii) degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soll retaining systems, gablons and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

Description of Structural Practices (use additional pages, as necessary):

- 1. Sediment Control, Stabilized Construction Access Coarse aggregate overlaying a geotextile fabric will be placed in locations necessary for contractor access. The aggregate surface of the access points will capture soil debris, reducing the amount of soil deposits placed on to the roadway by vehicles leaving the work zones.
- 2. Inlet Filters Inlet and Pipe Protection will be provided for storm sewers. These filters will be placed in every inlet, catch basin or manhole with an open lid, which will drain water during at least a 10-year storm event. The Erosion Control Plan will identify the structures requiring inlet filters.
- Sediment Control, Silt Fence A silt fence will be placed adjacent to the areas of construction to intercept waterborne silt and prevent it from leaving the site. These areas are marked on the Erosion Control Plans.
- 4. Sediment Control, Temporary Ditch Checks Rolled excelsior ditch checks will be placed in swales at the rate of one for every foot in vertical drop, or as directed by the Engineer, in order to prevent downstream erosion.
- 5. Sediment Control, Temporary Stream Crossing Coarse aggregate overlaying a geotextile fabric will be placed in locations necessary for contractor access over water channels. The aggregate surface of the crossing will reduce the amount of soil disturbance in the streams.
- Sediment Control, Temporary Pipe Slope Drain This item consists of a pipe with flared end sections, placed daily, along with anchor devices in conjunction with temporary berm that direct runoff down and 6. unstabilized slope.
- Stone riprap will be provided at several storm and culvert outlets as a measure for erosion and 7. sediment control where needed during and after the project.
- Bridges will be designed to reduce the potential for scouring. 8,
- Underdrains will be used to minimize potential erosion caused by surface water flows by reducing the 9.
- subsurface water which can cause failed pavement, unstable shoulders and other disturbed areas.
- 10. Covers will be placed on open ends of pipes in trenches.

Storm Water Management b.

Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- Such practices may include: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; (I)infiltration of runoff on site; and sequential systems (which combine several practices). The practices selected for implementation were determined on the basis of the technical guidance in Section 10-300 (Design Considerations) in Chapter 10 (Erosion and Sedimentation Control) of the Illinois Department of Transportation Drainage Manual. If practices other than those discussed in Section 10-300 are selected for implementation or if practices are applied to situations different from those covered in Section 10-300, the technical basis for such decisions will be explained below.
- (II)

Velocity dissipation devices will be placed at discharge locations and along the length of any outfail channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of Storm Water Management Controls (use additional pages, as necessary):

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- Detention ponds in the northwest and southeast quadrants of the I55 and US Route 30 interchange will provide additional storm water detention.
- Proposed oversized pipes at Outlets 842, 849 and 880 will provide additional storm water detention.
- Ditch checks will be utilized in order to aid in pollutant filtering.
- Permanent measures for storm water management controls will be placed as soon as possible during construction.
 - All ditches will be vegetated, where feasible, which will provide a buffering effect for runoff contaminants.
 - Ditches should receive permanent seeding after the final grading and topsoll have been placed.
 - c. In turf areas where low maintenance seeding is required, native prairie grasses should be used in the final landscaping design.
 - d. Wet bottom ditches will be employed before outfalls. The ditches will be oversized to contribute to detention, where feasible. If wet bottom ditches are not feasible, the ditches will be lined with riprap.

c. Other Controls

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- (i) Waste Disposal. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.
- (ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

d. Approved State or Local Plans

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 1995. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans or site permits or storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

3. Maintenance

1

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan (use additional pages, as necessary):

Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution runoff in compliance with environmental law and EPA Water Quality Regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site. The construction field engineer on a weekly basis shall inspect the project to determine that erosion control efforts are in place and effective and if other controls are necessary. Sediment collected during construction by the various temporary erosion systems shall be disposed on the site on a regular basin as directed by the Engineer.

All erosion and sediment control measures will be checked weekly and after each significant rainfall (0,5 in (13mm) or

Page 8 of 12

greater in a 24 hour period). The following items will be checked:

- Seeding all erodable bare earth areas will be temporarily seeded and inspected on a weekly basis to minimized the amount of erodable surface within the contract limits.
- 2. Silt Filter Fence, all types
- 3. Erosion Control Blanket
- 4. Tree Protection
- 5. Ditch Checks
- 6. Temporary slope drains
 - 7. Sediment/dewatering basins
 - . 8. Stabilized construction entrances

All maintenance of the erosion control systems will be the responsibility of the contractor. All locations where vehicles enter and exit the construction site and all other areas subject to erosion should also be inspected periodically. Inspection of these areas shall be made at least once every seven days and within 24 hours of the end of each 0.5 inch (13 mm) or greater rainfall, or an equivalent snowfall.

4. Inspections

Qualified personnel shall inspect disturbed areas of the construction site which have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

- a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sedIment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sedIment tracking.
- b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the Inspection.
- c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.
- d. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance. All reports of detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

Page 9 of 12

The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Compliance Assurance Section 1021 North Grand East Post Office Box 19276 Springfield, Illinois 62794-9276

5. Non-Storm Water Discharges

1

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the Industrial activity addressed in this plan must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge. (Use additional pages as necessary to describe non-storm water discharges and applicable pollution control measures).

Page 10 of 12

Dewatering activities for footing and pier construction of retaining walls and bridges will be a source of non-storm water discharge during construction. Contractors should discharge dewatering activities to a temporary settling basin surround by silt fence.

The cutting of joints in PCC pavements or bridge deck grooving will result in slurry. This slurry must be contained on the deck/pavement and cleaned up.

An additional source of non-storm water discharge during construction is the slurry from washing out redi-mix concrete trucks. Redi-mix concrete trucks should wash out in designated areas surrounded by silt fence. After all PC items have been constructed, the dried concrete wash material should be cleaned up and properly disposed of. It will be the contractor's responsibility to secure these designated areas for the duration of their use. The Engineer must approve the locations.

On site maintenance of equipment must be performed in accordance with environmental law, such as proper storage and no dumping of old engine oil or other fluids.

Good Housekeeping

- 1. An effort will be made to store only enough products required to do the job.
- 2. All materials stored on site will be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure.
- 3. Products will be kept in their original containers with the original manufacturer's label.
- 4. Substances will not be mixed with the one another unless recommended by the manufacturer.
- 5. The site superintendent will inspect daily to ensure proper use and disposal of material on the site.
- 6. Whenever possible, all of a product will be used up before disposing of the container.
- 7. Follow manufacturer's recommended practices for use and disposal.

Page 11 of 12










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Contractor Certification Statement

This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR10, issued by the Illinois Environmental Protection Agency on May 14, 1998.

Project	Information:	
Route	FAI 55	Marked 1-55
Section		Project No.
County	Will	

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with Industrial activity from the construction site identified as part of this certification.

	Signature			 Date	
	Title				
	Name of Firm				
	Street Address		5. (55) d	55	4 11 11
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Zip Code					
	Telephone Number				
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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY NOTICE OF INTENT (NOI) GENERAL PERMIT TO DISCHARGE STORM WATER CONSTRUCTION SITE ACTIVITIES

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INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Please adhere to the following instructions:

Submit original, photocopy or facsimile copies. Facsimile and/or photo copies should be followed-up with an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the lower right hand corner.

···· Submit completed forms to:

Illinois Environmental Protection Agency Division of Water Pollution Control Permit Section Post Office Box 19276 Springfield, Illinois 62794-9276 or call (217)782-0610 www.epa.state.il.us

- ···· Reports must be typed or printed legibly and signed.
- •••• Any facility that is not presently covered by the ILR10 Construction Activity Storm Water Discharge General Permit is considered a new facility.
- •••• If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line.
- •••• NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.
- ···· Use the formats given in the following examples for correct form completion.

	Example	Format
SECTION	12	1 or 2 numerical digits
TOWNSHIP	12N	1 or 2 numerical digits followed by "N" or "S"
RANGE	12W	1 or 2 numerical digits followed by "E" or "W"

- •••• For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."
- •••• Submit a fee of \$500 prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits.

FAI-55 Widening and Resurfacing From F.A.I. Route 80 to Black Road Section 99 (1 & 2) WRS Contract No. 62895 County: Will

ADVANCE WORK PARTIAL DEPTH HOT- MIX ASPHALT PATCHING

Description. This work shall consist of partial depth removal of the existing bituminous concrete pavement overlay and replacement with hot-mix asphalt (HMA). This item shall be used for joint repairs between lanes 1 & 2 and between lane 2 and the outside shoulder.

<u>Materials.</u> Materials shall be according to the following Articles/Sections of the Standard Specifications.

Iter	n	Article/Section
(a)	Bituminous Material for Prime Coat	406.02
(b)	Hot-Mix Asphalt (Note 1)	1030

Note 1. The HMA for partial depth patches shall be Hot Mix Asphalt Surface Course, Mix D, (IL-9.5mm).

Equipment. Equipment shall be according to the following Articles/Sections of the Standard Specifications.

Iter	m	Article/Section
(a)	Self-Propelled Milling Machine	
(b)	Concrete Saw	
(c)	Wheel Saw	
(d)	Rollers	
(e)	Mechanical Sweeper	
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(f) Air Equipment (Note 1)

Note 1. The air equipment shall be capable of supplying compressed air at a minimum pressure of 100 psi (690 kPA) and shall have sufficient flow rate to remove all disturbed pavement debris. The equipment shall also be according to ASTM D 4285.

CONSTRUCTION REQUIREMENTS

<u>General.</u> The work must be performed prior to starting stage 1 work during the allowable lane closure hours (before 3rd lane is built) as indicated in the special provision for KEEPING THE EXPRESSWAY OPEN TO TRAFFIC.

Disposal of waste materials shall be according to Article 202.03 of the Standard Specifications.

Partial depth removal of the pavement shall be accomplished by the use of a milling machine and/or the wheel saw. The partial depth patch shall be 2 foot in width by 2 inches in depth unless otherwise directed by the Engineer. Debris from the milling or wheel saw operation shall be removed from the patch area by air equipment or mechanical sweeper and shall remove all disturbed pavement debris and any loose and/or unsound concrete.

Added 06/01/2007

A bituminous prime coat shall be applied according to Article 406.05(b) of the Standard Specifications.

The prepared patch shall be filled with HMA surface course in a single lift. The HMA shall be compacted to the satisfaction of the Engineer.

Patches opened to traffic which are high or become rough by rutting, shoving, or heaving shall be corrected by trimming off high areas and/or filling depressions. Filled areas shall be rolled again.

<u>Method of Measurement.</u> Partial depth removal of the bituminous surface will be measured for payment in place and the area computed in square yards.

HMA for partial depth patching will be measured for payment in tons according to Article 406.13 of the Standard Specifications.

<u>Basis of Payment.</u> Partial depth removal of the bituminous surface will be paid for at the contract unit price per square yard for PARTIAL DEPTH REMOVAL 2".

Partial depth patching will be paid for at the contract unit price per ton for PARTIAL DEPTH PATCHING.

Added 06/01/2007

ILLINOIS DEPARTMENT OF LABOR

PREVAILING WAGES FOR WILL COUNTY EFFECTIVE MAY 2007

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at http://www.state.il.us/agency/idol/ or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

Will County Prevailing Wage for May 2007

Trade Name	RG	TYP	С	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
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ASBESTOS ABT-GEN		ALL		31.550	32.300	1.5	1.5	2.0	7.460	4.840	0.000	0.170
ASBESTOS ABT-MEC		BLD		23.300	24.800) 1.5	1.5	2.0	7.860	4.910	0.000	0.000
BOILERMAKER		BLD		38.540	42.000	2.0	2.0	2.0	6.720	7.440	0.000	0.300
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CEMENI MASON		АЦЦ		35.500	37.500	2.0	2.0	2.0	0.400	0.030	0.000	0.100
CERAMIC TILE FINSHER		RLD		28.520	0.000	2.0	1.5	2.0	5.650	5.750	0.000	0.330
COMMUNICATION TECH		BLD		30.110	31.610) 1.5	1.5	2.0	8.270	8.700	0.000	0.300
ELECTRIC PWR EQMT OP		ALL		36.050	42.000) 1.5	1.5	2.0	7.870	9.730	0.000	0.270
ELECTRIC PWR GRNDMAN		ALL		28.120	42.000) 1.5	1.5	2.0	6.140	7.600	0.000	0.210
ELECTRIC PWR LINEMAN		ALL		36.050	42.000) 1.5	1.5	2.0	7.870	9.730	0.000	0.270
ELECTRICIAN		BLD		34.500	37.610	1.5	1.5	2.0	7.920	10.53	0.000	0.350
ELEVATOR CONSTRUCTOR		BLD		42.045	47.300	2.0	2.0	2.0	8.275	6.060	2.520	0.550
GLAZIER		BLD		31.400	32.400	1.5	2.0	2.0	6.490	9.050	0.000	0.500
HT/FROST INSULATOR		BLD		33.300	35.050) 1.5	1.5	2.0	7.860	8.610	0.000	0.310
TRON WORKER		AT.T.		32 000	33 000	2.0	2 0	2 0	8 040	13 92	0 000	0 550
LABORER		AT.T.		31 550	32 300) 1 5	1 5	2.0	7 460	4 840	0 000	0 170
		лтт		36 050	20 650) 1 5	1 5	2.0	6 950	a 910	0.000	0.100
		АЦЦ		30.050) <u>1.</u> 5	1.5	2.0	4 200	9.010		0.490
MACHINIST		вгр		36.890	38.890	2.0	2.0	2.0	4.380	5.650	2.550	0.000
MARBLE FINISHERS		ALL		25.750	0.000) 1.5	1.5	2.0	6.070	7.020	0.000	0.580
MARBLE MASON		BLD		34.850	38.340) 1.5	1.5	2.0	7.050	7.870	0.000	0.490
MATERIAL TESTER 1		ALL		21.550	0.000) 1.5	1.5	2.0	7.460	4.840	0.000	0.170
MATERIALS TESTER II		ALL		26.550	0.000) 1.5	1.5	2.0	7.460	4.840	0.000	0.170
MILLWRIGHT		ALL		36.050	39.650) 1.5	1.5	2.0	6.850	9.810	0.000	0.490
OPERATING ENGINEER		BLD	1	41.550	45.550	2.0	2.0	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		BLD	2	40.250	45.550	2.0	2.0	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		BLD	3	37.700	45.550	2.0	2.0	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		BLD	4	35,950	45.550	2.0	2.0	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		T.IT	1	47 250	47 250) 1 5	1 5	2 0	6 850	5 600	1 900	0 000
OPERATING ENGINEER		FL.T	2	45 750	47 250) 1 5	1 5	2.0	6 850	5 600	1 900	0 000
ODEDATING ENGINEER		г ш т Бт т	2	10.700	17.250) 1 5	1 5	2.0	6 950	5 600	1 000	0.000
OPERATING ENGINEER		F LI I	1	22 050	47 250) 1.J	1 5	2.0	6 950	5.000	1 000	0.000
OPERATING ENGINEER		ГЦІ	4	33.050	47.250	1 1 5	1.5	2.0	0.050	5.000	1.900	0.000
OPERATING ENGINEER		HWY	T	39.750	43.750) 1.5	1.5	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		HWY	2	39.200	43.750) 1.5	1.5	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		HWY	3	37.150	43.750) 1.5	1.5	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		HWY	4	35.750	43.750) 1.5	1.5	2.0	6.850	5.600	1.900	0.700
OPERATING ENGINEER		HWY	5	34.550	43.750	1.5	1.5	2.0	6.850	5.600	1.900	0.700
PAINTER		ALL		34.400	38.700	1.5	1.5	2.0	6.200	6.400	0.000	0.390
PAINTER SIGNS		BLD		28.970	32.520	1.5	1.5	1.5	2.600	2.310	0.000	0.000
PILEDRIVER		ALL		36.050	39.650	1.5	1.5	2.0	6.850	9.810	0.000	0.490
PIPEFITTER		BLD		37.600	39.600	1.5	1.5	2.0	8.660	6.900	0.000	0.940
PLASTERER		BLD		33.850	35.350) 1.5	1.5	2.0	6.740	7.100	0.000	0.400
PLUMBER		BLD		37 500	39 500) 1 5	1 5	2 0	7 050	8 500	0 000	0 760
POOFFP		BLD		33 650	35 650) 1 5	1 5	2.0	6 460	3 310	0.000	0.730
CUFFTMETAI WORKED		ם זם סבום		36 510	28 510) 1 5	1 5	2.0	6 990	8 020	0.000	0.550
CDDINKIED EITTED				30.JIU	10 E00) 1.J	1 5	2.0	0.090	6 100	0.000	0.040
SPRINKLER FILLER		вгр		30.500	40.500	1 1.5	1.5	2.0	0.250	0.100	0.000	0.500
STONE MASON		BLD		33.250	36.580	1.5	1.5	2.0	6.450	7.020	0.000	0.440
TERRAZZO FINISHER		BLD		29.290	0.000) 1.5	1.5	2.0	5.650	6.940	0.000	0.270
TERRAZZO MASON		BLD		33.650	36.650) 1.5	1.5	2.0	5.650	8.610	0.000	0.300
TILE MASON		BLD		34.600	38.600	2.0	1.5	2.0	5.650	7.000	0.000	0.460
TRAFFIC SAFETY WRKR		HWY		22.800	24.400	1.5	1.5	2.0	3.078	1.875	0.000	0.000
TRUCK DRIVER		ALL	1	33.040	33.590	1.5	1.5	2.0	5.500	3.875	0.000	0.000
TRUCK DRIVER		ALL	2	33.190	33.590	1.5	1.5	2.0	5.500	3.875	0.000	0.000
TRUCK DRIVER		ALL	3	33.390	33.590	1.5	1.5	2.0	5.500	3.875	0.000	0.000
TRUCK DRIVER		ALL	4	33.590	33.590	1.5	1.5	2.0	5.500	3.875	0.000	0.000
TUCKPOINTER		BLD		34.500	35.500) 1.5	1.5	2.0	4.710	6.340	0.000	0.400
									0			

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

WILL COUNTY

IRONWORKERS (SOUTH) - That part of the county South of a diagonal line through Braidwood and Goodenow.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice, sound and vision production and reproduction, telephone and telephone interconnect, facsimile, equipment and appliances used for domestic, commercial, educational and entertainment purposes, pulling of wire through conduit but not the installation of conduit.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all mateiral that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installatin of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and experiors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and experior which sare installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs. TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yeards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

OPERATING ENGINEERS - BUILDING

Class 1. Mechanic; Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson attachment; Batch Plant; Benoto; Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, one, two and three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes; Squeeze Cretes-screw Type Pumps; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklist Trucks; Greaser Engineer; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, inside Freight Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (self-propelled); Rock Drill (truck mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination - Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators - (Rheostat Manual Controlled); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 small Electric Drill Winches; Bobcat (up to and including 3/4 cu. yd.).

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

OPERATING ENGINEERS - FLOATING

Class 1. Craft foreman (Master Mechanic), diver/wet tender, engineer (hydraulic dredge).

Class 2. Crane/backhoe operator, mechanic/welder, assistant engineer (hydraulic dredge), leverman (hydraulic dredge), and diver tender.

Class 3. Deck equipment operator (machineryman), maintenance of crane (over 50 ton capacity) or backhoe (96,000 pounds or more), tug/launch operator, loader, dozer and like equipment on barge, breakwater wall, slip/dock or scow, deck machinery, etc.

Class 4. Deck equipment operator (machineryman/fireman), (4 equipment units or more) and crane maintenance 50 ton capacity and under or backhoe weighing 96,000 pounds or less, assistant tug operator.

OPERATING ENGINEERS - HEAVY AND HIGHWAY CONSTRUCTION Class 1. Craft Foreman; Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted): Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Hammerhead, Linden, Peco & Machines of a like nature; Crete Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell machine with Air Compressor; Dredges; Field Mechanic-Welder; Formless Curb and Gutter Machine; Gradall and Machines of a like nature; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole; Drills (Tunnel Shaft); Underground Boring and/or Mining Machines; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine -Concrete; Greaser Engineer; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Pump Cretes; Squeeze Cretes-Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotory Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip -Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper - Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro-Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 618/993-7271 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.