

Bid Submittal Guidelines and Checklist

In effort to eliminate confusion and to standardize the bid submission process the Contracts Unit of the Division of Highways has created the following standard guidelines and checklist for submitting bids at all IDOT lettings.

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

Questions: pre-letting up to execution of the contract

Contractor/Subcontractor pre-qualification	217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE)	217-785-4611
Contracts, Bids, Letting process or Internet downloads	217-785-0230
Estimates Unit	217-785-3483

Questions: following contract execution

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

Standard Guidelines for Submitting Bids

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

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

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

If you are the apparent low-bidder, there is nothing further for you to do until the contract is officially awarded to your company. If your bid is not within the engineer's estimate it does not mean that the bid will be rejected. The award or rejection of the bids that are not within the engineer's estimate will be determined at the Awards Meeting. The Awards Meeting is usually held approximately two weeks after the letting. The responsive and responsible low-bidders of those contracts recommended for award will be notified by mail.

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

- Cover page followed by the Pay Items.** If you are using special software or CBID to generate your schedule of prices, do not include the blank schedule of prices.
- Page 4 (Item 9)** – Check “Yes” if you will use a subcontractor. Include the subcontractor name, address and the dollar amount (if over \$25,000). If you will use subcontractor(s) but are uncertain who or the dollar amount; check “Yes” but leave the lines blank.
- After page 4,** insert your Cost Adjustments for Steel, Bituminous and Fuel (if applicable), and your State Board of Elections Business Registration (if applicable).
- Page 10 (Paragraph J)** – Check Yes or No whether your company has any business in Iran.
- Page 10 (Paragraph K)** – List the Union Local Name and number or certified training programs that you have in place. Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.
- Page 11 (Paragraph L)** - Insert a copy of your State Board of Elections Business Registration after page 4 of the bid proposal. Only include the page that has the date stamp on it. Do not include any other certificates or forms showing that you are an Illinois business.
- Page 11 (Paragraph M)** – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.
- Page 12 (Paragraph C)** – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each Form A that is filled out.
- Pages 14-17 (Form A)** – One Form A (4 pages) is required for each applicable person in your company. Copies of the Forms can be used and only need to be changed when the financial information changes. The certification signature and date must be original for each letting. Do not staple the forms together.

If you answered NO to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.
- Page 18 (Form B)** - If you check YES to having other current or pending contracts it is acceptable to use the phrase, “See Affidavit of Availability on file”.
- Page 20 (Workforce Projection)** – Be sure to include the Duration of the Project. It is acceptable to use the phrase “Per Contract Specifications”.
- Bid Bond** – Submit your bid bond using the current Bid Bond Form provided in the proposal package. The Power of Attorney page should be stapled to the Bid Bond. If you are using an electronic bond, include your bid bond number on the form and attach the Proof of Insurance printed from the Surety 2000 Web Site.
- Disadvantaged Business Utilization plan and/or Good Faith Effort** – The last item in your bid should be the DBE Utilization Plan (SBE 2026), DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation for a Good Faith Effort, it should follow the SBE Forms.

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

PREQUALIFICATION

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

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) and the ORIGINAL "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date. This does not apply to Small Business Set-Asides.

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. This does not apply to Small Business Set-Asides.

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

ABOUT AUTHORIZATION TO BID: Firms that have not received an authorization 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 bidders check IDOT's website at <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda Questions may be directed to the Plans and 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 Timothy.Garman@illinois.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

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

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

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RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting September 23, 2011

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

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction. This does not apply to Small Business Set-Asides.

(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

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



**Illinois Department
of Transportation**

Springfield, Illinois 62764

Contract No. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Route GREAT WESTERN TRAIL
Project M-9003(548)
District 1 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

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

Prepared by	
Checked by	F

(Printed by authority of the State of Illinois)

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond. In addition, this proposal contains new statutory requirements applicable to the use of subcontractors and, in particular, includes the State Required Ethical Standards Governing Subcontractors to be signed and incorporated into all subcontracts.

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

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "**Authorization to Bid or Not for Bid**" form, 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 **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Authorization to Bid or Not for Bid Report**, 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

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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

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____

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

**Contract No. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Project M-9003(548)
Route GREAT WESTERN TRAIL
District 1 Construction Funds**

Project consists of the construction of three bridges and a pedestrian path and the project is located along the Old Great Western Trail Railroad between Grace Street and St. Charles Road in the village of Lombard.

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

RETURN WITH BID

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

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

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

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

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

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

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

Check box Yes
 Check box No

For known subcontractors with subcontracts with an annual value of more than \$25,000, the contract shall include their name, address, and the dollar allocation for each subcontractor.

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

STATE JOB # - C-91-289-10
PPS NBR - 1-21106-0000

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 1
RUN DATE - 08/24/11
RUN TIME - 190106

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
DUPAGE	043	01	06-00151-00-BR (LOWBARD)	M-9003/548/000	GREAT WESTERN TRAIL

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE
				DOLLARS	CENTS	
XX006490	LETTERING	L SUM	1.000	=		
XX008003	FORM LINER TEX SUR SP	SQ FT	19,429.000	=		
XX008403	CONC SUP-STR SPL	CU YD	92.700	=		
XX008575	AGG COLUMN GRND IM L1	L SUM	1.000	=		
XX008576	AGG COLUMN GRND IM L2	L SUM	1.000	=		
XX008577	AGG COLUMN GRND IM L3	L SUM	1.000	=		
XX008578	GEOSYNTHET REINF SOIL	SQ FT	4,440.000	=		
XX008579	REINF SOIL FOUNDATION	FOOT	327.000	=		
XX008580	GRS BACKFILL MATERIAL	CU YD	1,093.000	=		
XX008582	PRECAST MODULAR BLOCK	SQ FT	4,440.000	=		
X0321865	ANTI-GRAFFITI PROT SYS	SQ FT	27,158.000	=		
X0322936	REMOV EX FLAR END SEC	EACH	2.000	=		
X0323697	RUSTIC RAIL FEN REM	FOOT	72.000	=		
X2070304	POROUS GRAN EMB SPEC	CU YD	51.000	=		
X5121800	PERM STEEL SHT PILING	SQ FT	8,435.000	=		

GREAT
06-00151-00-BR (LOWBARD)
DUPLICATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECWR003 PAGE 2
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
X6640200	TEMP CH LK FENCE	FOOT	2,099.000	=			
X6640300	CH LK FENCE REMOV	FOOT	141.000	=			
X7010216	TRAF CONT & PROT SPL	L SUM	1.000	=			
X8250500	LIGHTING UNIT COMP SP	EACH	27.000	=			
X8250505	LIGHT CONTROLLER SPL	EACH	1.000	=			
Z0013797	STAB CONSTR ENTRANCE	SQ YD	1,755.000	=			
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000	=			
Z0030850	TEMP INFO SIGNING	SQ FT	168.000	=			
Z0034210	MECH ST EARTH RET WL	SQ FT	17,348.000	=			
Z0048665	RR PROT LIABILITY INS	L SUM	1.000	=			
Z0056608	STORM SEW WM REQ 12	FOOT	26.000	=			
Z0076600	TRAINEES	FOOT	1,500.000	=	0.80	1,200.00	
Z0077900	WD POST & RAIL FENCE	FOOT	96.000	=			
20100110	TREE REMOV 6-15	UNIT	426.000	=			
20100210	TREE REMOV OVER 15	UNIT	203.000	=			

GREAT
06-00151-00-BR (LOMBARD)
DUPLICATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 3
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
20100500	TREE REMOV ACRES	ACRE	3.000	=			
20101100	TREE TRUNK PROTECTION	EACH	29.000	=			
20200100	EARTH EXCAVATION	CU YD	2,980.000	=			
20201200	REM & DISP UNS MATL	CU YD	3,660.000	=			
20400100	BORROW EXCAVATION	CU YD	6,900.000	=			
20400800	FURNISHED EXCAVATION	CU YD	10,505.000	=			
20800150	TRENCH BACKFILL	CU YD	65.000	=			
21101615	TOPSOIL F & P 4	SQ YD	11,350.000	=			
25000200	SEEDING CL 2	ACRE	3.000	=			
25000312	SEEDING CL 4A	ACRE	2.500	=			
25000400	NITROGEN FERT NUTR	POUND	270.000	=			
25000500	PHOSPHORUS FERT NUTR	POUND	270.000	=			
25000600	POTASSIUM FERT NUTR	POUND	270.000	=			
25100630	EROSION CONTR BLANKET	SQ YD	13,750.000	=			
25100635	HD ERDS CONTR BLANKET	SQ YD	12,000.000	=			

GREAT
06-00151-00-BR (LOWBARD)
DUPLICATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 4
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
25200100	SODDING	SQ YD	435.000	=			
25200200	SUPPLE WATERING	UNIT	4.500	=			
28000250	TEMP. EROS CONTR SEED	POUND	800.000	=			
28000400	PERIMETER EROS BAR	FOOT	7,611.000	=			
28000510	INLET FILTERS	EACH	17.000	=			
28100101	STONE RIPRAP CL A1	SQ YD	163.000	=			
28200200	FILTER FABRIC	SQ YD	163.000	=			
31101400	SUB GRAN MAT B 6	SQ YD	1,906.000	=			
40200900	AGG SURF CSE B	CU YD	93.000	=			
40600200	BIT MATLS PR CT	TON	3.800	=			
40600300	AGG PR CT	TON	3.800	=			
40603310	HMA SC "C" N50	TON	301.000	=			
42001300	PROTECTIVE COAT	SQ YD	250.000	=			
42001430	BR APPR PVT CON (FLX)	SQ YD	22.000	=			
42400100	PC CONC SIDEWALK 4	SQ FT	1,591.000	=			

GREAT
06-00151-00-BR (LOMBARD)
DUPLICATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 5
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE
				DOLLARS	CENTS	
42400800	DETECTABLE WARNINGS	SQ FT	20.000	=		
44000100	PAVEMENT REM	SQ YD	377.000	=		
44000500	COMB CURB GUTTER REM	FOOT	90.000	=		
44000600	SIDEWALK REM	SQ FT	780.000	=		
48101500	AGGREGATE SHLDS B 6	SQ YD	660.000	=		
50157300	PROTECTIVE SHIELD	SQ YD	172.000	=		
50200100	STRUCTURE EXCAVATION	CU YD	3,470.000	=		
50300225	CONC STRUCT	CU YD	132.000	=		
50300255	CONC SUP-STR	CU YD	304.700	=		
50300300	PROTECTIVE COAT	SQ YD	743.000	=		
50400745	F&E PPC BULB T-BM 72	FOOT	415.500	=		
50401005	F & E P P CON I-BM 48	FOOT	782.000	=		
50800205	REINF BARS, EPOXY CTD	POUND	78,910.000	=		
50800515	BAR SPLICERS	EACH	76.000	=		
50901730	BRIDGE FENCE RAILING	FOOT	283.900	=		

GREAT
06-00151-00-BR (LOMBARD)
DUPAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECWR003 PAGE 6
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
50901750	PARAPET RAILING	FOOT	667.100	=			
51201610	FUR STL PILE HP12X63	FOOT	1,400.000	=			
51202305	DRIVING PILES	FOOT	1,400.000	=			
51203610	TEST PILE ST HP12X63	EACH	4.000	=			
51204650	PILE SHOES	EACH	24.000	=			
51500100	NAME PLATES	EACH	6.000	=			
52000110	PREF JT STRIP SEAL	FOOT	40.000	=			
52100010	ELAST BEARING ASSY T1	EACH	3.000	=			
52100400	STEEL BEARING ASSEMBLY	EACH	3.000	=			
54213657	PRC FLAR END SEC 12	EACH	7.000	=			
550A0340	STORM SEW CL A 2 12	FOOT	349.000	=			
55100500	STORM SEWER REM 12	FOOT	33.000	=			
58700300	CONCRETE SEALER	SQ FT	580.000	=			
59100100	GEOCOMPOSITE WALL DR	SQ YD	30.000	=			
60200105	CB TA 4 DIA T1F OL	EACH	1.000	=			

GREAT
06-00151-00-BR (LOMBARD)
DUPLICATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 7
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60235700	INLETS TA T3F&G	EACH	4.000				
60240220	INLETS TB T3F&G	EACH	5.000				
60240301	INLETS TB T8G	EACH	2.000				
60500050	REMOV CATCH BAS	EACH	1.000				
60602800	CONC GUTTER TB	FOOT	1,024.000				
60603800	COMB CC&G TB6.12	FOOT	90.000				
60605000	COMB CC&G TB6.24	FOOT	158.000				
63301000	REM & REERECT SPBGR	FOOT	42.000				
66400205	CH LK FENCE 5	FOOT	1,500.000				
67000400	ENGR FIELD OFFICE A	CAL MO	10.000				
67100100	MOBILIZATION	L SUM	1.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	6.000				
80400100	ELECT SERV INSTALL	EACH	1.000				
80400200	ELECT UTIL SERV CONN	L SUM	1.000				
81000600	CON T 2 GALVS	FOOT	59.000				

#2,000

#2,000

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GREAT
06-00151-00-BR (LOMBARD)
DUPAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 8
RUN DATE - 08/24/11
RUN TIME - 190106

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
81001000	CON T 4 GALVS	FOOT	12.000	=			
81018500	CON P 2 GALVS	FOOT	50.000	=			
81019000	CON P 5 GALVS	FOOT	52.000	=			
81200240	CON EMB STR 2.5 PVC	FOOT	884.000	=			
81304700	JUN BOX EM S 18X18X6	EACH	13.000	=			
81400700	HANDHOLE PCC	EACH	4.000	=			
81603040	UD 2#6 #8G XLP USE 1	FOOT	3,221.000	=			
81702120	EC C XLP USE 1C 8	FOOT	996.000	=			
81702130	EC C XLP USE 1C 6	FOOT	1,992.000	=			
81702150	EC C XLP USE 1C 2	FOOT	177.000	=			
81900200	TR & BKFIL F ELECT WK	FOOT	2,071.000	=			

TOTAL \$

NOTE:
*** PLEASE TURN PAGE FOR IMPORTANT NOTES ***

GREAT
06-00151-00-BR (LOMBARD)
DUPAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63568

ECMS002 DTGECM03 ECMR003 PAGE 9
RUN DATE - 08/24/11
RUN TIME - 190106

NOTE:

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

RETURN WITH BID

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

I. GENERAL

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the chief procurement officer to void the contract, or subcontract, and may result in the suspension or debarment of the bidder or subcontractor.

II. ASSURANCES

The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

A. Conflicts of Interest

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

RETURN WITH BID

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

B. 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.

C. 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.

D. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

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

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

E. Reporting Anticompetitive Practices

1. The 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.

F. Confidentiality

1. The Illinois Procurement Code provides:

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

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

RETURN WITH BID

G. 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

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

A. Bribery

1. The 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, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

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

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

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

- (d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

B. Felons

1. The 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, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

3. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH BID

C. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

D. Prohibited Bidders, Contractors and Subcontractors

1. The Illinois Procurement Code provides:

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

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

F. Educational Loan

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

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

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

G. Bid-Rigging/Bid Rotating

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

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

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

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

RETURN WITH BID

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

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

H. International Anti-Boycott

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

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

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

I. Drug Free Workplace

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

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

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

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

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

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

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

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

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

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J. Disclosure of Business Operations in Iran

Section 50-36 of the Illinois Procurement Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

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

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

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

Check the appropriate statement:

Company has no business operations in Iran to disclose.

Company has business operations in Iran as disclosed the attached document.

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

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

NA-FEDERAL

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

RETURN WITH BID

L. Political Contributions and Registration with the State Board of Elections

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

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

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. A copy of the certificate of registration shall be submitted with the bid. The bidder is cautioned that the Department will not award a contract without submission of the certificate of registration.

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

M. Lobbyist Disclosure

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

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

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

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

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

Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person: _____

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

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

The chief procurement officer may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Procurement Code. Furthermore, the chief procurement officer may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Procurement Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

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

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

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. 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.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

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

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

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

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

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

RETURN WITH BID

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

Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

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

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

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

RETURN WITH BID

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**Form A
Financial Information &
Potential Conflicts of Interest
Disclosure**

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$25,000, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

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

DISCLOSURE OF FINANCIAL INFORMATION

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

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

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

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

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

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

RETURN WITH BID

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes ___ No ___
4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ___ No ___

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

Yes ___ No ___

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

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___ No ___
2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
-
3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess 100% of the annual salary of the Governor? Yes ___ No ___
4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ___ No ___

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

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

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

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

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

RETURN WITH BID

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

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

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

3. Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH BID

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

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

NOT APPLICABLE STATEMENT

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

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

_____ Date _____
Signature of Authorized Representative

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

RETURN WITH BID

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

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

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

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

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

<input type="checkbox"/>	_____	_____
	Signature of Authorized Representative	Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

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

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

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



RETURN WITH BID

Contract No. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Project M-9003(548)
Route GREAT WESTERN TRAIL
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												
JOB CATEGORIES	TOTAL EMPLOYEES		MINORITY EMPLOYEES						TRAINEES			
			BLACK		HISPANIC		*OTHER MINOR.		APPRENTICES		ON THE JOB TRAINEES	
	M	F	M	F	M	F	M	F	M	F	M	F
OFFICIALS (MANAGERS)												
SUPERVISORS												
FOREMEN												
CLERICAL												
EQUIPMENT OPERATORS												
MECHANICS												
TRUCK DRIVERS												
IRONWORKERS												
CARPENTERS												
CEMENT MASONS												
ELECTRICIANS												
PIPEFITTERS, PLUMBERS												
PAINTERS												
LABORERS, SEMI-SKILLED												
LABORERS, UNSKILLED												
TOTAL												

CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
TOTAL EMPLOYEES		MINORITY EMPLOYEES	
M	F	M	F

TABLE C

TOTAL Training Projection for Contract								
EMPLOYEES IN TRAINING	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.	
	M	F	M	F	M	F	M	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.

FOR DEPARTMENT USE ONLY

Note: See instructions on page 2

RETURN WITH BID

**Contract No. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Project M-9003(548)
Route GREAT WESTERN TRAIL
District 1 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

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

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

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

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

Signature: _____ Title: _____ Date: _____

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

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

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

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

RETURN WITH BID

**Contract No. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Project M-9003(548)
Route GREAT WESTERN TRAIL
District 1 Construction Funds**

PROPOSAL SIGNATURE SHEET

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

(IF AN INDIVIDUAL)

Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP)

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

(IF A CORPORATION)

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____
Attest _____
Signature _____
(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)
Business Address _____

(IF A JOINT VENTURE)

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

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



Return with Bid

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

Item No. _____

Letting Date _____

KNOW ALL MEN BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

_____ 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 _____
(Signature & Title)

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

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
County of _____

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

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

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

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

My commission expires _____

Notary Public

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

Electronic Bid Bond ID#

Company / Bidder Name



Signature and Title



(1) Policy

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

(2) Obligation

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

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

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

(4) Assurance

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

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

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

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

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

_____ Company

By _____

Title _____

Date _____

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

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

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

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



**Illinois Department
of Transportation**

DBE Participation Statement

Subcontractor Registration _____

Letting _____

Participation Statement

Item No. _____

(1) Instructions

Contract _____

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form.. If additional space is needed complete an additional form for the firm.

(2) Work

Pay Item No.	Description	Quantity	Unit Price	Total
Total				

(3) Partial Payment Items

For any of the above items which are partial pay items, specifically describe the work and subcontract dollar amount:

(4) Commitment

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.

Signature for Prime Contractor

Signature for DBE Firm

Title _____

Title _____

Date _____

Date _____

Contact _____

Contact Person _____

Phone _____

Phone _____

Firm Name _____

Firm Name _____

Address _____

Address _____

City/State/Zip _____

City/State/Zip _____

E _____

WC _____

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

PROPOSAL ENVELOPE



PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

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

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

NOTICE

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

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

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

**Contract No. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Project M-9003(548)
Route GREAT WESTERN TRAIL
District 1 Construction Funds**



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795 and 96-0920, enacted substantial changes to the provisions of the Illinois Procurement Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Chief Procurement Officer within 20 calendar days after execution of the subcontract.

The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Illinois Procurement Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled State Required Ethical Standards Governing Subcontractors.

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the 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.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The chief procurement officer may terminate or void the subcontract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification.

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

A. Bribery

1. The 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, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

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

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

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

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

B. Felons

1. The 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, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

D. Prohibited Bidders, Contractors and Subcontractors

1. The Illinois Procurement Code provides:

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction.. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the chief procurement officer shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

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

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

Name of Subcontracting Company

Authorized Officer

Date

RETURN WITH SUBCONTRACT
SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all subcontracts with a total value of \$25,000 or more, from subcontractors identified in Section 20-120 of the Illinois Procurement Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

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

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

2. **Disclosure Forms.** Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. 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.

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the **NOT APPLICABLE STATEMENT** on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES ___ NO ___

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

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

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

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

RETURN WITH SUBCONTRACT

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

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

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

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$25,000 or more, from subcontractors identified in Section 20-120 of the Illinois Procurement Code, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

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

DISCLOSURE OF FINANCIAL INFORMATION

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

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

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

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

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

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

RETURN WITH SUBCONTRACT

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

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

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

Yes ___ No ___

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

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

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

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

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

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

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

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

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

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

RETURN WITH SUBCONTRACT

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

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

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

3. Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

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

NOT APPLICABLE STATEMENT

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

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

_____ Date _____
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT
OF TRANSPORTATION

Form B
Subcontractor: Other Contracts &
Procurement Related Information
Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of \$25,000 or more, from subcontractors identified in Section 20-120 of the Illinois Procurement Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

<input type="checkbox"/>	_____	_____
	Signature of Authorized Officer	Date



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., September 23, 2011. 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. 63568
DUPAGE County
Section 06-00151-00-BR (Lombard)
Project M-9003(548)
Route GREAT WESTERN TRAIL
District 1 Construction Funds**

Project consists of the construction of three bridges and a pedestrian path and the project is located along the Old Great Western Trail Railroad between Grace Street and St. Charles Road in the village of Lombard.

- 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

Gary Hannig,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2011

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-07) (Revised 1-1-11)

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RECURRING SPECIAL PROVISIONS

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

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LR SD 12		<input type="checkbox"/> Slab Movement Detection Device	Nov. 11, 1984	Jan. 1, 2007
LR SD 13		<input type="checkbox"/> Required Cold Milled Surface Texture	Nov. 1, 1987	Jan. 1, 2007
LR SD406		<input type="checkbox"/> Safety Edge	April 1, 2011	
LR 105	156	<input checked="" type="checkbox"/> Cooperation with Utilities	Jan. 1, 1999	Jan. 1, 2007
LR 107-2		<input type="checkbox"/> Railroad Protective Liability Insurance for Local Lettings	Mar. 1, 2005	Jan. 1, 2006
LR 107-4	159	<input checked="" type="checkbox"/> Insurance	Feb. 1, 2007	Aug. 1, 2007
LR 107-6		<input type="checkbox"/> Selection of Labor	Aug. 1, 2010	
LR 108		<input type="checkbox"/> Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 212		<input type="checkbox"/> Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1		<input type="checkbox"/> Asphalt Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2		<input type="checkbox"/> Asphalt Stabilized Base Course, Plant Mix	Feb. 20, 1963	Jan. 1, 2007
LR 400-1		<input type="checkbox"/> Bituminous Treated Earth Surface	Jan. 1, 2007	Jan. 1, 2008
LR 400-2		<input type="checkbox"/> Bituminous Surface Mixture (Class B)	Jan. 1, 2008	
LR 402		<input type="checkbox"/> Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-2		<input type="checkbox"/> Bituminous Hot Mix Sand Seal Coat	Aug. 1, 1969	Jan. 1, 2007
LR 406		<input type="checkbox"/> Filling HMA Core Holes with Non-shrink Grout	Jan. 1, 2008	
LR 420		<input type="checkbox"/> PCC Pavement (Special)	May 12, 1964	Jan. 2, 2007
LR 442		<input type="checkbox"/> Bituminous Patching Mixtures for Maintenance Use	Jan. 1, 2004	Jun. 1, 2007
LR 451		<input type="checkbox"/> Crack Filling Bituminous Pavement with Fiber-Asphalt	Oct. 1, 1991	Jan. 1, 2007
LR 503-1		<input type="checkbox"/> Furnishing Class SI Concrete	Oct. 1, 1973	Jan. 1, 2002
LR 503-2		<input type="checkbox"/> Furnishing Class SI Concrete (Short Load)	Jan. 1, 1989	Jan. 1, 2002
LR 542		<input type="checkbox"/> Pipe Culverts, Type _____ (Furnished)	Sep. 1, 1964	Jan. 1, 2007
LR 663		<input type="checkbox"/> Calcium Chloride Applied	Jun. 1, 1958	Jan. 1, 2007
LR 702	160	<input checked="" type="checkbox"/> Construction and Maintenance Signs	Jan. 1, 2004	Jun. 1, 2007
LR 1004		<input type="checkbox"/> Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1030		<input type="checkbox"/> Growth Curve	Mar. 1, 2008	Jan. 1, 2010
LR 1032-1		<input type="checkbox"/> Emulsified Asphalts	Jan. 1, 2007	Feb. 7, 2008
LR 1032-2		<input type="checkbox"/> Multigrade Cold Mix Asphalt	Jan. 1, 2007	Feb. 1, 2007
LR 1095		<input type="checkbox"/> Fast-Dry Pavement Marking Paint Black (Lead Free Waterborne Type)	April 1, 2011	
LR 1102		<input type="checkbox"/> Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	

BDE SPECIAL PROVISIONS
For the August 5 and September 23, 2011 Lettings

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

<u>File Name</u>	<u>Pg #</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80240		Above Grade Inlet Protection	July 1, 2009	
80099		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
80186	161	X Alkali-Silica Reaction for Cast-in-Place Concrete	Aug. 1, 2007	Jan. 1, 2009
80213	164	X Alkali-Silica Reaction for Precast and Precast Prestressed Concrete	Jan. 1, 2009	
80207	167	X Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas (NOTE: This special provision was previously named "Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders".)	Nov. 1, 2008	Nov. 1, 2010
80192		Automated Flagger Assistance Device	Jan. 1, 2008	
80173		Bituminous Materials Cost Adjustments	Nov. 2, 2006	April 1, 2009
80241		Bridge Demolition Debris	July 1, 2009	
50261		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80166	168	X Cement	Jan. 1, 2007	April 1, 2011
80260	171	X Certification of Metal Fabricator	July 1, 2010	
80198		Completion Date (via calendar days)	April 1, 2008	
80199		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80094	172	X Concrete Admixtures	Jan. 1, 2003	April 1, 2009
80215	176	X Concrete Joint Sealer	Jan. 1, 2009	
80226		Concrete Mix Designs	April 1, 2009	
80261	178	X Construction Air Quality – Diesel Retrofit	June 1, 2010	
80237	181	X Construction Air Quality – Diesel Vehicle Emissions Control	April 1, 2009	July 1, 2009
80239	183	X Construction Air Quality – Idling Restrictions	April 1, 2009	
80227		Determination of Thickness	April 1, 2009	
80177		Digital Terrain Modeling for Earthwork Calculations	April 1, 2007	
* 80029	185	X Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Aug. 2, 2011
80177		Drainage and Inlet Protection Under Traffic	April 1, 2011	
80179	195	X Engineer's Field Office Type A	April 1, 2007	Jan. 1, 2011
80205		Engineer's Field Office Type B	Aug. 1, 2008	Jan. 1, 2011
80189	198	X Equipment Rental Rates	Aug. 2, 2007	Jan. 2, 2008
80228		Flagger at Side Roads and Entrances	April 1, 2009	
80249		Frames and Grates	Jan. 1, 2010	
80265	200	X Friction Aggregate	Jan. 1, 2011	
80229	204	X Fuel Cost Adjustment	April 1, 2009	July 1, 2009
80169		High Tension Cable Median Barrier	Jan. 1, 2007	April 1, 2009
80194		HMA – Hauling on Partially Completed Full-Depth Pavement	Jan. 1, 2008	
80245	208	X Hot-Mix Asphalt – Anti-Stripping Additive	Nov. 1, 2009	
80246	209	X Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	
80250	210	X Hot-Mix Asphalt – Drop-Offs	Jan. 1, 2010	
80259		Hot-Mix Asphalt – Fine Aggregate	April 1, 2010	
80109		Impact Attenuators	Nov. 1, 2003	Nov. 1, 2008
80110		Impact Attenuators, Temporary	Nov. 1, 2003	Jan. 1, 2007
80252	211	X Improved Subgrade	Jan. 1, 2010	
80266		Lane Closure, Multilane, Intermittent or Moving Operation, for Speeds ≤ 40 MPH	Jan. 1, 2011	Jan. 2, 2011
80230	214	X Liquidated Damages	April 1, 2009	April 1, 2011
80267		Long-Span Guardrail over Culvert	Jan. 1, 2011	
80045		Material Transfer Device	June 15, 1999	Jan. 1, 2009
80203	215	X Metal Hardware Cast into Concrete	April 1, 2008	April 1, 2009
80165		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010

80253			Movable Traffic Barrier (NOTE: This Special Provision was previously named "Moveable Traffic Barrier System".)	Jan. 1, 2010	Jan. 1, 2011
80262	216	X	Mulch and Erosion Control Blankets (Note: the Special Provision was previously named "Mulch")	Nov. 1, 2010	April 1, 2011
80180	220	X	National Pollutant Discharge Elimination System / Erosion and Sediment Control Deficiency Deduction	April 1, 2007	Nov. 1, 2009
80208			Nighttime Work Zone Lighting	Nov. 1, 2008	
80231			Pavement Marking Removal	April 1, 2009	
80254			Pavement Patching	Jan. 1, 2010	
80022	222	X	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
80232			Pipe Culverts	April 1, 2009	April 1, 2010
80263			Planting Perennial Plants	Jan. 1, 2011	
80210			Portland Cement Concrete Inlay or Overlay	Nov. 1, 2008	
80217			Post Clips for Extruded Aluminum Signs	Jan. 1, 2009	
80268	224	X	Post Mounting of Signs	Jan. 1, 2011	
80171	225	X	Precast Handling Holes	Jan. 1, 2007	
80218			Preventive Maintenance – Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2009
* 80219			Preventive Maintenance – Cape Seal	Jan. 1, 2009	Aug. 1, 2011
* 80220			Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	Aug. 1, 2011
80221			Preventive Maintenance – Slurry Seal	Jan. 1, 2009	
80015			Public Convenience and Safety	Jan. 1, 2000	
34261			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157	227	X	Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80247			Raised Reflective Pavement Markers	Nov. 1, 2009	April 1, 2010
80172			Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	Jan. 1, 2011
80224			Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	
80271			Safety Edge	April 1, 2011	
80131	229	X	Seeding	July 1, 2004	July 1, 2010
80264			Selection of Labor	July 2, 2010	
80152			Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	July 1, 2010
80132	232	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	July 1, 2010
80127	234	X	Steel Cost Adjustment	April 2, 2004	April 1, 2009
* 80255			Stone Matrix Asphalt	Jan. 1, 2010	Aug. 1, 2011
80234			Storm Sewers	April 1, 2009	April 1, 2010
80143	238	X	Subcontractor Mobilization Payments	April 2, 2005	April 1, 2011
80075			Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
80087	239	X	Temporary Erosion Control	Nov. 1, 2002	Jan. 1, 2011
80225			Temporary Raised Pavement Marker	Jan. 1, 2009	
80256			Temporary Water Filled Barrier (NOTE: This special provision was previously named "Temporary Longitudinal Traffic Barrier System".)	Jan. 1, 2010	Jan. 1, 2011
80257			Traffic Barrier Terminal, Type 6	Jan. 1, 2010	
* 80273	243	X	Traffic Control Deficiency Deduction	Aug. 1, 2011	
80269			Traffic Control Surveillance	Jan. 1, 2011	
20338	244	X	Training Special Provisions	Oct. 15, 1975	
80258			Truck Mounted/Trailer Mounted Attenuators	Jan. 1, 2010	
80270			Utility Coordination and Conflicts	April 1, 2011	
80071			Working Days	Jan. 1, 2002	

The following special provisions have been deleted from use:

- 80243 American Recovery and Reinvestment Act Provisions
- 80236 American Recovery and Reinvestment Act Signing
- 81238 Monthly Employment Report

The following special provisions are in the 2011 Supplemental Specifications and Recurring Special Provisions:

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80214	Concrete Gutter, Type A	Article 606.07	Jan. 1, 2009	
80178	Dowel Bars	Article 1006.11	April 1, 2007	Jan. 1, 2008
80201	Hot-Mix Asphalt – Plant Test Frequency	Article 1030.05	April 1, 2008	Jan. 1, 2010
80251	Hot-Mix Asphalt – QC/QA Acceptance Criteria	Article 1030.05	Jan. 1, 2010	
80202	Hot-Mix Asphalt – Transportation	Article 1030.08	April 1, 2008	
80196	Mast Arm Assembly and Pole	Article 1077.03	Jan. 1, 2008	Jan. 1, 2009
80182	Notification of Reduced Width	Article 701.06	April 1, 2007	
80069	Organic Zinc-Rich Paint System	Article 1008.05	Nov. 1, 2001	Jan. 1, 2010
80216	Partial Exit Ramp Closure for Freeway/Expressway	Section 701	Jan. 1, 2009	
80209	Personal Protective Equipment	Article 701.12	Nov. 1, 2008	
80119	Polyurea Pavement Marking	Sections 780, 1095 and 1105	April 1, 2004	Jan. 1, 2009
80170	Portland Cement Concrete Plants	Article 1020.11	Jan. 1, 2007	
80211	Prismatic Curb Reflectors	Articles 782.03 and 1097.04	Nov. 1, 2008	
80223	Ramp Closure for Freeway/Expressway	Section 701	Jan. 1, 2009	
80183	Reflective Sheeting on Channelizing Devices	Article 1106.02	April 1, 2007	Nov. 1, 2008
80206	Reinforcement Bars – Storage and Protection	Article 508.03	Aug. 1, 2008	April 1, 2009
80176	Thermoplastic Pavement Marking	Article 1095.01	Jan. 1, 2007	

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

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

GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET

Effective as of the: August 5, 2011 Letting

Pg #	√	File Name	Title	Effective	Revised
		GBSP4	Polymer Modified Portland Cement Mortar	June 7, 1994	June 1, 2007
247	X	GBSP11	Permanent Steel Sheet Piling	Dec 15, 1993	Jan 1, 2007
		GBSP12	Drainage System	June 10, 1994	Jan 1, 2007
		GBSP13	High-Load Multi-Rotational Bearings	Oct 13, 1988	Oct 4, 2010
		GBSP14	Jack and Remove Existing Bearings	April 20, 1994	Jan 1, 2007
		GBSP15	Three Sided Precast Concrete Structure	July 12, 1994	Jan 18, 2011
		GBSP16	Jacking Existing Superstructure	Jan 11, 1993	Jan 1, 2007
		GBSP17	Bonded Preformed Joint Seal	July 12, 1994	Jan 1, 2007
		GBSP18	Modular Expansion Joint	May 19, 1994	Jan 1, 2007
		GBSP21	Cleaning and Painting Contact Surface Areas of Existing Steel Structures	June 30, 2003	May 18, 2011
		GBSP22	Cleaning and Painting New Metal Structures	Sept 13, 1994	May 18, 2011
		GBSP25	Cleaning and Painting Existing Steel Structures	Oct 2, 2001	May 18, 2011
		GBSP26	Containment and Disposal of Lead Paint Cleaning Residues	Oct 2, 2001	April 30, 2010
		GBSP28	Deck Slab Repair	May 15, 1995	Jan 18, 2011
		GBSP29	Bridge Deck Microsilica Concrete Overlay	May 15, 1995	Jan 18, 2011
		GBSP30	Bridge Deck Latex Concrete Overlay	May 15, 1995	Jan 18, 2011
		GBSP31	Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay	Jan 21, 2000	Jan 18, 2011
		GBSP32	Temporary Sheet Piling	Sept 2, 1994	Jan 1, 2007
		GBSP33	Pedestrian Truss Superstructure	Jan 13, 1998	Oct 4, 2010
		GBSP34	Concrete Wearing Surface	June 23, 1994	Jan 12, 2009
		GBSP35	Silicone Bridge Joint Sealer	Aug 1, 1995	Oct 4, 2010
		GBSP36	Surface Preparation and Painting Req. for Weathering Steel	Nov 21, 1997	May 11, 2009
		GBSP37	Underwater Structure Excavation Protection	April 1, 1995	Mar 6, 2009
249	X	GBSP38	Mechanically Stabilized Earth Retaining Walls	Feb 3, 1999	May 18, 2011
		GBSP42	Drilled Soldier Pile Retaining Wall	Sept 20, 2001	May 18, 2011
		GBSP43	Driven Soldier Pile Retaining Wall	Nov 13, 2002	Oct 9, 2009
		GBSP44	Temporary Soil Retention System	Dec 30, 2002	May 11, 2009
		GBSP45	Bridge Deck Thin Polymer Overlay	May 7, 1997	Jan 1, 2007
		GBSP46	Geotextile Retaining Walls	Sept 19, 2003	Oct 9, 2009
		GBSP47	High Performance Concrete Structures	Aug 5, 2002	Jan 1, 2007
		GBSP50	Removal of Existing Non-composite Bridge Decks	June 21, 2004	Jan 1, 2007
		GBSP51	Pipe Underdrain for Structures	May 17, 2000	Jan 22, 2010
258	X	GBSP52	Porous Granular Embankment (Special)	Sept 28, 2005	Nov 14, 2008
		GBSP53	Structural Repair of Concrete	Mar 15, 2006	Jan 22, 2010
		GBSP55	Erection of Curved Steel Structures	June 1, 2007	
		GBSP56	Setting Piles in Rock	Nov 14, 1996	Jan 1, 2007
		GBSP57	Temporary Mechanically Stabilized Earth Retaining Walls	Jan 6, 2003	Oct 4, 2010
		GBSP58	Mechanical Splicers	Sep 21, 1995	May 11, 2009
		GBSP59	Diamond Grinding and Surface Testing Bridge Sections	Dec 6, 2004	July 9, 2008
		GBSP60	Containment and Disposal of Non-Lead Pain Cleaning Residues	Nov 25, 2004	Mar 6, 2009
		GBSP61	Slipform Parapet	June 1, 2007	Jan 12, 2009
		GBSP62	Concrete Deck Beams	June 13, 2008	Oct 9, 2009
		GBSP63	Demolition Plans for Removal of Existing Structures	Sept 5, 2007	
		GBSP64	Segmental Concrete Block Wall	Jan 7, 1999	Oct 4, 2010

		GBSP65	Precast Modular Retaining Walls	Mar 19, 2001	Oct 4, 2010
		GBSP66	Wave Equation Analysis of Piles	Nov 14, 2008	
		GBSP67	Structural Assessment Reports for Contractor's Means and Methods	Mar 6, 2009	
259	X	GBSP68	Piling	May 11, 2009	Jan 22, 2010
262	X	GBSP69	Freeze-Thaw Aggregates for Concrete Superstructures Poured on Grade	April 30, 2010	
		GBSP70	Braced Excavation	Aug 9, 1995	May 18, 2011
		GBSP71	Aggregate Column Ground Improvement	Jan 15, 2009	Oct 4, 2010
		GBSP72	Bridge Deck Fly Ash or GGBF Slag Concrete Overlay	Jan 18, 2011	

LIST ANY ADDITIONAL SPECIAL PROVISIONS BELOW

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2007, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplement Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the Contract No. 63568 construction of the Great Western Trail Section 06-00151-00-BR Project No. M-9003 (548) and Job No. C-91-289-10 in DuPage County and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

The project is located along the old Great Western Trail Railroad between Grace Street and St. Charles Road in the Village of Lombard. The property is owned by DuPage County and the bike path will be constructed approximately in the same location as the old railbed in those limits. It will connect to the existing bike path on both sides. The gross and net length is 2,300 feet (0.436 miles).

DESCRIPTION OF WORK

The work consists of furnishing all labor, materials, equipment and other incidentals necessary for the completion of the construction of three bridges, bike path, and other incidental and miscellaneous items of work in accordance with the Plans, Standard Specifications, and these Special Provisions.

RAILROAD COORDINATION WITH THE UNION PACIFIC RAILROAD

There will be some work within the Union Pacific Railroad (UPRR) right of way on this project, namely construction of the bridge over the tracks. In order to prosecute this work, the following items MUST be coordinated with the Union Pacific Railroad prior to commencement of the work.

The Contractor shall contact the UPRR prior to commencement of work to coordinate the following items:

RIGHT OF ENTRY PERMIT

The Contractor must enter into a Right of Entry Permit Agreement with the Union Pacific Railroad (UPRR) prior to any work commencing. This permit may take from 30 to 45 days to obtain from the UPRR. Contact Kandice Miller at the UPRR at (312) 496-4738.

TRAINING

Computer based training for all employees and subcontractors shall be obtained and certificates of completion must be kept on site for each worker. The computer based training may be obtained through the National Ready Mixed Concrete Association at their website at NRMCA.ORG.

UTILITY LOCATES

Contractor shall call Kandice Miller at the UPRR at (312) 496-4738 at least 72 hours in advance to schedule utility locates in the Railroad Right of Way.

WORKING HOURS

The working hours in the railroad right of way will be from 9:00 am to 3:30 pm Monday through Friday. This is the only work window during the week. If weekend work is required, it must be approved with the Local Maintenance Supervisor.

MINIMUM SAFETY REQUIREMENTS

Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work pursuant to this agreement. As reinforcement and in furtherance of overall safety measures to be observed by the contractor (and not by way of limitation), the following special safety rules shall be followed:

- A. The contractor shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job. The contractor shall have proper firstaid supplies available on the job site so that prompt firstaid services can be provided to any person that may be injured on the job site. The contractor shall promptly notify the railroad of any U.S. Occupational Safety and Health Administration reportable injuries occurring to any person that may arise during the work performed on the job site. The contractor shall have a nondelegable duty to control its employees, while they are on the job site or any other property of the railroad, to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage or illegally obtained drug, narcotic or other substance.
- B. The employee of the contractor shall be suitably dressed to perform their duties safety and in a manner that will not interfere with their vision, hearing, or free use of their hands or feet. Only waist length shirts with sleeves and trousers that cover the entire leg are to be worn. If flarelegged trousers are worn, the trouser bottoms must be tied to prevent catching. The employees should wear sturdy and protective footwear. Employees shall not wear boots (other than work boots), sandals, canvas type shoes, or other shoes that have thin soles or heels that are higher than normal. In addition, the contractor shall require its employees to wear personal protective equipment as specified by railroad rules, regulations, or railroad officials overlooking the work at the job site. In particular, the protective equipment to be worn shall be:
 1. Protective head gear that meets American National Standard Z89. 1 – latest revision. It is suggested that all hard hats be affixed with contractor's or subcontractor's company logo or name.
 2. Eye protection that meets American National Standard for occupational and educational eye and face protection, Z87. 1 – latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, burning, etc.
 3. Hearing protection which affords enough attenuation to give protection from noise levels that will be occurring on the job site.
- C. All heavy equipment provided or leased by the contractor shall be equipped with audible backup warning devices.
- D. If in the opinion of the railroad representative any of contractor's or any of its subcontractor's equipment is unsafe for use on the railroad's right of way, the contractor, at the request of the railroad representative, shall remove such equipment from the railroad's right of way.
- E. If the railroad representative has given the contractor permission to use certain equipment on any trackage at the job site, contractor shall ensure that each and all of its employees responsible for operating any motive power including, without limitation, any tryrail equipment (such equipment hereafter being referred to as "motive power") on any trackage of railroad will

be trained to know and understand, and will comply with railroad's operating rules applicable to the operation and use of such motive power.

In the event contractor's employees use any such motive power to move any rail cars or other railbound equipment equipped with air brakes, contractor shall further ensure that the employees are trained to know and understand and will comply with railroad's rules for handling such motive power, cars and equipment, and that contractor's employees perform all required tests of the operating systems of any motive power, cars and other equipment before and after movement. Contractor acknowledges receipt of railroad's applicable rules governing:

1. operation and use of motive power, cars and other equipment, and
 2. the movement of such motive power, cars and equipment by rail.
- F. In live track operations, a distance of 20 feet from track must be maintained unless the contract necessitates working in close proximity to the track. When doing so, your employees and equipment must first have authorization of Union Pacific Railroad. When so authorized where work is in close proximity to tracks, a Union Pacific Railroad flagman must be present.

Your employees must be familiar with procedures to clear men and equipment from track area for approaching trains. In addition, the following safety procedures shall be adhered to by all of your employees:

1. Always be on the alert for moving equipment while working near any railroad tracks or facilities.
2. Do not step or walk on the top of the rail, frog, switches, guard rails or other track components.
3. In passing around ends of standing cars, engines, railroad machinery, and other ontrack equipment, leave at least one rail car length (50 feet) between yourself and the end of the equipment.
4. Avoid walking or standing on track at any time.
5. When it is necessary to walk or work on track, always keep a sharp lookout in both directions for approaching trains.
6. Before stepping or crossing tracks, look in both directions first. The same is true when walking around machinery and equipment on and about the tracks.
7. Do not sit on, lie under, or cross between cars except as required in performance of your duty, and only when track and equipment are under proper protection.
8. In multiple track territory, do not stand on one track while a train is passing on another.

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.

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:

<u>Name of Utility</u>	<u>Contact</u>	<u>Type</u>	<u>Location</u>	<u>Estimated Dates for Start and Completion of Relocation or Adjustments</u>
Commonwealth Edison 1 N 423 Swift Rd. Lombard, IL 60148	Scott Netko 630.424.5707	Electric	north side of proposed trail	Sept 2011-Nov 2011
Village of Lombard 255 E. Wilson Ave. Lombard, IL 60148	Kent Hilgers 630.620.5971	Storm and sanitary sewers, water mains	Throughout project	no conflict
DuPage Water Commission	Mike Schweizer 630.834.0100	Water transmission	south side of project right of way	no conflict
Nicor 1844 Ferry Road Naperville, IL 60563	Constance Lane 630.388.3830	Gas	Grace Street in the right of way	no conflict
AT&T 255 E. Chicago St. Elgin, IL 60120	Earl Fleming 630.212.9747	Phone	west side of Grace Street and north side of St. Charles	no conflict
Comcast 688 Industrial Drive Elmhurst, IL 60126	Thomas Mulnar 630.600.6316	Cable	west side of Grace Street	no conflict
SPRINT 2278 Scott Road Aurora, IL 60502	Rick Higganboltham 847.477.9319	Fiber optic	south side of UP railroad	no conflict

The above represents the best information available to the Village 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.

ANTI-GRAFFITI PROTECTION SYSTEM

Description of Work:

This work shall consist of the furnishing and application of an anti-graffiti protection system to exposed concrete surfaces as scheduled in the plans.

General Requirements:

The anti-graffiti protection system shall consist of a permanent, color stable, UV, stain, chemical and abrasion resistant coating. The removal of graffiti from the protected surfaces shall be accomplished by applying a separate removal agent as recommended by the manufacturer of the permanent coating. The removal agent shall have the capability of completely removing all types of paints and stains. After graffiti removal there shall be no damage to the anti-graffiti coating or the surface to which it is applied. Additionally there shall be no evidence of ghosting, shadowing, or staining of the protected surface.

Qualifications:

The anti-graffiti protection system shall be a product that has been commercially available for a period of at least five (5) years. Samples of the proposed material shall be supplied to the Engineer for testing. The Contractor shall apply the material to a test patch following the manufacturer's recommendation. After the manufacturer's recommended curing period, the Engineer will apply various types of graffiti materials to the coating. After three (3) days the removal agent shall be used to remove the graffiti. If after graffiti removal the anti-graffiti coating is clean and undamaged, with no evidence of ghosting, shadowing or staining, then the anti-graffiti coating is approved for use.

Surface Preparation:

Prior to application of the anti-graffiti protection system, all designated surfaces shall be cleaned of all loose debris, previous coatings and all foreign matter by a method as recommended by the coating manufacturer and approved by the Engineer. All surfaces shall be thoroughly clean, dry and free of dust that might prevent penetration of the coating. New concrete should be thoroughly cured before application of the coating. Concrete surfaces shall be properly sealed according to the manufacturer's recommendations so the application of the system does not produce any noticeable long-term change in the color of the surfaces being treated. A technical representative of the manufacturer shall be present to approve surface preparation and application of the anti-graffiti protection system.

Weather Conditions:

Coatings shall not be applied in the rain, snow, fog or mist, nor shall they be applied if these conditions are expected within twelve (12) hours of application. Coatings shall not be applied when surface or air temperatures are less than 40° F nor greater than 100° F, or is expected to exceed these temperatures within twelve (12) hours of application.

Application:

The manufacturer's product data sheets and application guides shall be submitted to the Engineer prior to coating application. All information contained in the data sheets and application guides shall be

strictly followed. All coatings shall be applied in the presence of the Engineer. The wet film thickness will be measured by the Engineer and shall be according to the manufacturer's recommendation. Application of the clear protective coating shall take place after the application and curing of the CONCRETE SEALER, FORM LINER TEXTURED SURFACE, SPECIAL or ARCHITECTURAL LETTERING items as appropriate for the surface to be treated.

In a contrasting color of the same anti-graffiti system, the name of the system used and the date of application shall be stenciled in letters not to exceed 2 inches high. The location of the stencil shall be near one end of the work at the bottom of the surface to be protected. For projects greater than 3,000 sq. ft. near the bottom at the locations designated by the Engineer.

Cleaning Agent:

The Contractor shall supply the Engineer with an initial quantity of the removal agent and written instructions for its use, as recommended by the manufacturer for graffiti removal. The amount shall be furnished at the quantity of one (1) gallon per 81 yd² of treated surface.

Method of Measurement:

This work will be measured in place per square feet of surface area upon which the anti-graffiti protection system has been applied and accepted by the Engineer. No surface area will be measured for payment for areas below final grade.

Basis of Payment:

This work will be paid for at the contract unit price per square feet for ANTI-GRAFFITI PROTECTION SYSTEM which price shall be payment in full for the cleaning of designated surfaces, the application of the anti-graffiti coating, supplying the manufacturer's technical representative and supplying the initial quantity of cleaning agent.

ARCHITECTURAL LETTERING

Description:

This work shall consist of the construction of architectural lettering and symbols and colored formed concrete surface using simulated molds and color stain system designated to duplicate closely the appearance described herein and as shown on the plans.

General:

Form liners shall be used for the architectural lettering and symbols specified on the parapets as shown in the plans and shall be installed as approved by the Engineer and the Village. Form liners shall be in conformance with this special provision as well as section 503.06(a) of the Standard Specifications. Form liners shall leave crisp, sharp definition of the architectural lettering and symbol surface.

Adhesives shall be compatible with the form liner material and with concrete. Adhesives shall not cause swelling of the form liner material.

Contractor shall submit the type of form ties to the Engineer for approval prior to use in this work. Place form ties at thinnest points of molds. Any patching of parapets shall match the integrally colored concrete. Ties shall not be visible after coloring the concrete surface.

Releasing Form Liners:

Release agents shall not cause swelling of the form liner material or delamination of the form liner. Release agents shall not stain the concrete or react with the form liner material. Release agent shall coat form liner with a thin film. Following application of release agent, the form liner surface shall be cleaned of excess amounts of release agent using compressed air. Buildup of release agent caused by reuse of a form liner shall be removed at least every 5 uses.

Form liners shall release without leaving particles or pieces of form liner material on concrete and without pulling or breaking concrete from the textured surface. The concrete and textured surfaces exposed by removing form liners shall be protected from damage. Form stripping and related construction shall avoid creating defects in the concrete. All concrete shall be cured in conformance with the Standard Specifications.

Coloration:

Concrete surface shall be cleaned prior to applying color stain materials to assure that surface is free of latency, dirt, dust, grease, efflorescence, paint, or other foreign material, following manufacturer's instructions for surface preparation. Do not sandblast. Preferred method to remove latency is pressure washing with water, minimum 3,000 psi (a rate of three to four gallons per minute), using a fan nozzle perpendicular to and at a distance of one or two feet from surface. Completed surface shall be free of blemishes, discoloration, surface voids, and unnatural form marks.

Color stain shall create a surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, acid, alkali, fungi, sunlight, and weathering. Stain mix shall be a waterborne, low V.O.C. material, less than 180 grams / liter. All simulated surfaces that are to be stained shall be at least 30 days old. Apply color stain when ambient temperature is between 50 and 100 degrees F. Consult manufacturer and Engineer if conditions differ from this requirement. The color stain shall be as shown on the plans.

Test samples of the stain on concrete shall be submitted for acceptance to the owner and the Engineer before any staining is to start on the structure. The stains shall contain an integral silane or siloxane penetrating concrete sealer.

The following products or approved equal may be used to stain the concrete surface:

Tri-Sheen Pigmented Stain
XL 70 Bridge Cote with Silane by Texcote
Custom Rock Stain. by CRI

Submittals:

Within 30 days of receiving the general contract, contractor shall submit to the Engineer for approval the following: Proposed forming method for lettering and symbols. Submit a 2' x 2' sample of the simulated finish which demonstrates the finishes, colors, and textures specified. Submittal shall include treatment for applying stain over integrally colored concrete.

Thirty days prior to starting construction of any form lined surface, provide a mock-up to remain on the site as a basis for comparison of the work constructed on the project. Duplicate in form and appearance (texture, joint dimension, and coloration) all work constructed on the project matching the sample panel. Remove any sample rejected by the Engineer from the project and submit a new sample at no

additional expense. The mock-up shall be 2'-4" x 10' x 6" and shall include color staining and be constructed using the project's integrally colored concrete.

Shop drawing plan, elevation, and details to show overall pattern, joint locations, form tie locations, and end, edge, as well as other special conditions.

Quality Assurance:

Manufacturer of custom coloring system shall have a minimum of five years of experience making molds and color stains to create formed concrete surfaces to match required shapes, surface textures, and colors.

Formed concrete construction shall require five years experience pouring vertically formed architectural concrete. Manufacturer or manufacturer's authorized representative shall perform the color stain system application.

Method of Measurement:

This work will be measured for payment in lump sum. Payment shall be made in 0.5 increments of the lump sum after construction of each bridge. Measurement will include all costs associated with providing the aesthetic treatment including furnishing, installing, stripping and reusing the custom made form liner as well as all costs for furnishing and applying the color stain system.

Basis of Payment: The work will be paid for at the contract unit price lump sum for LETTERING.

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 of the Standard Specifications will not be allowed.

CHAIN LINK FENCE REMOVAL

This work shall consist of the removal of existing CHAIN LINK FENCE at the locations shown on the plans and as directed by the Engineer. Existing CHAIN LINK FENCE shall be removed so that all CHAIN LINK FENCE considered suitable by the Engineer for reuse shall be salvaged. All work shall otherwise conform to applicable articles of Section 664.

This work shall be paid for at the contract unit price per each for CHAIN LINK FENCE, regardless of size and material.

CONCRETE SUPERSTRUCTURE, SPECIAL

Description:

This work consists of constructing an integrally colored Concrete Superstructure in accordance with Section 503 of the Standard Specifications and at the locations shown in the plans. The color of the integrally colored concrete shall be tan or an approved color per submittals requirement below.

Submittals:

- A. Product Data: For each product indicated.
- B. Mix Designs: For each type of integrally-colored concrete mix required.
- C. Samples for Initial Selection: Manufacturer's color charts.
- D. Qualification Data: For Installer and manufacturer specified in Quality Assurance Article, including names and addresses of completed projects, architects, and owners.
- E. Material Test Reports: From testing agency indicating compliance of concrete materials, reinforcing materials, admixtures, and similar items with requirements.

Quality Assurance:

- A. Installer Qualifications: Two year's experience with projects of similar scope and quality.
- B. Manufacturer's Qualifications: Three year's experience manufacturing products required.
- C. Source Limitations: Obtain products from same source throughout Project.
- D. Field Samples: Locate at site and obtain approval before start of final work. Field samples shall be minimum 4 by 4 feet by full thickness.
 - 1. Demonstrate range of finishes and workmanship, including curing procedures.
 - 2. Approved field samples set quality standards for comparison with remaining work.

Delivery, Storage, and Handling:

- E. Deliver materials in original packaging with labels intact.
- F. Store in clean, dry and protected location, according to manufacturer's requirements.

Color Materials:

- G. Integral Concrete Colorant: ASTM C 979, factory-measured powdered mix in self-dissolving packaging, consisting of non-fading finely-ground synthetic mineral-oxide coloring pigments and water reducing wetting agent.
 - 1. Product: As approved by the Engineer.
 - 2. Color: As approved by the Engineer.

Admixtures:

- H. Do not use calcium chloride or admixtures containing calcium chloride.

Curing and Sealing Materials:

- I. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 309, non-yellowing, VOC-compliant, high-gloss, clear liquid.
 - 1. Product: As approved by the Engineer.
 - a. Color to match integrally-colored concrete.

Curing and Sealing:

- J. Protect concrete from prematurely drying and excessive cold or hot temperatures.
- K. Cure concrete according to manufacturer's instructions.

- L. Curing and Sealing Compound: Apply uniformly in continuous operation by sprayer or short nap roller according to manufacturer's instructions. After initial application is dry and tack free, apply a second coat.
 - 1. Do not over apply or apply in a single heavy coat.
- M. Do not cover concrete with plastic sheeting.

Measurement and Payment:

This work shall be measured and paid for in place and the volume computed in cubic yards for the actual concrete volume poured. Field samples will not be measured for payment but included in the cubic yard price for this item. Required adjustments or corrections needed to address field sample comments and the cost of additional field samples, if required, will not be paid for separately, but shall be included in the cubic yard price of this item.

Basis of Payment:

Concrete Superstructure, integrally colored, will be paid for at the contract unit price per cubic yard for CONCRETE SUPERSTRUCTURE, SPECIAL. The unit bid price shall include all labor and material costs to complete the work according to the requirements included herein.

ELECTRIC UTILITY SERVICE CONNECTION (COMED)

Effective: January 1, 2002

Revised February 1, 2005

Description. This item shall consist of payment for work performed by ComEd in providing or modifying electric service as indicated. THIS MAY INVOLVE WORK AT MORE THAN ONE ELECTRIC SERVICE. For summary of the Electrical Service Drop Locations see the schedule contained elsewhere herein.

General. It shall be the Contractor's responsibility to contact ComEd. The Contractor shall coordinate his work fully with the ComEd both as to the work required and the timing of the installation. No additional compensation will be granted under this or any other item for extra work caused by failure to meet this requirement. Please contact ComEd, New Business Center Call Center, at 866 NEW ELECTRIC (1-866-639-3532) to begin the service connection process. The Call Center Representatives will create a work order for the service connection. The representative will ask the requestor for information specific to the request. The representative will assign the request based upon the location of project.

The Contractor should make particular note of the need for the earliest attention to arrangements with ComEd for service. In the event of delay by ComEd, no extension of time will be considered applicable for the delay unless the Contractor can produce written evidence of a request for electric service within 30 days of execution.

Method Of Payment. The Contractor will be reimbursed to the exact amount of money as billed by ComEd for its services. Work provided by the Contractor for electric service will be paid separately as described under ELECTRIC SERVICE INSTALLATION. No extra compensation shall be paid to the Contractor for any incidental materials and labor required to fulfill the requirements as shown on the plans and specified herein.

For bidding purposes, this item shall be estimated as \$2,000.00

Basis Of Payment. This work will be paid for at the contract lump sum price for ELECTRIC UTILITY SERVICE CONNECTION which shall be reimbursement in full for electric utility service charges.

EMBANKMENT I

Effective: March 1, 2011

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

Material. 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 90 lb/cu ft (1450 kg/cu m) when determined according to AASHTO T 99 (Method C).
- b) The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).
- c) Soils which demonstrate the following properties shall 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 3 ft (900 mm) 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 12.
 - 3) A liquid limit (LL) in excess of 50.
- d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.

CONSTRUCTION REQUIREMENTS

Samples. 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.

Placing Material. 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 6 inches (150 mm) 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 blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the engineer.

Compaction. 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.
- b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

Stability. The requirement for embankment stability in Article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

Basis of Payment. This work will not be paid separately but will be considered as included in the various items of excavation.

FORM LINER TEXTURED SURFACE, SPECIAL

Description. This work shall consist of designing, developing, furnishing and installing form liners and forming concrete using reusable, high strength urethane form liners to achieve the various concrete treatments as shown in the drawings and specifications. This item also consists of providing and applying concrete stains to the textured surface to replicate actual stone masonry. Form lined surfaces shall include exposed areas of parapets, walls, wall panels and other locations as shown in details in the plans. Work shall be performed in accordance with applicable portions of section 503 of the IDOT Standard Specifications, the special provision Architectural Lettering, and as specified herein.

General.

The following form liner manufacturers have been pre-approved to provide linear cut ashlar form liners.

Fitzgerald Formliners
Santa Ana CA, 92701
(800) 547-7760

Pattern #17027-Linear Cut Ashlar

} or Approved Equal

Concrete facing patterns shall consist of a linear cut ashlar finish and a maximum relief of 3/4".

All manufacturers of form liners shall adhere to the provisions listed herein and in the plans.

Contractor shall submit the type of form ties to the Engineer for approval prior to use in this work. Place form ties at thinnest points of molds. Any patching of parapets shall match the integrally colored concrete. Ties shall not be visible after coloring the concrete surface.

Submittals. Shop drawings of the concrete facing patterns shall be submitted for each area of textured concrete. Shop drawing submittals shall include:

- (1) Individual form liner pattern descriptions, dimensions, and sequencing of form liner sections. Include details showing typical cross sections, joints, corners, step footings, stone relief, stone size, pitch/working line, mortar joint and bed depths, joint locations, edge treatments, and any other special conditions.
- (2) Elevation views of the form liner panel layouts for the linear cut ashlar texture showing the full length and height of the structures with each form liner panel outlined. The arrangement of the form liner panels shall provide a continuous pattern of desired textures and colors with no interruption of the pattern made at the panel joints.
- (3) Color samples for stain color selection by the Engineer.
- (4) It is recommended that contractor provide photographs of work which is similar to the goals of this project.

To minimize the possibility of preparing an unsatisfactory Cast Concrete Mockup as described herein, the Contractor may elect to provide shop drawings for the Mockups.

Materials. Form liners shall be of high quality, highly reusable and capable of withstanding anticipated concrete pour pressures without causing leakage or causing physical defects. Form liners shall attach easily to pour-in-place forms and be removable without causing concrete surface damage or weakness in the substrate. Liners used for the stone texture shall be made from high-strength elastomeric urethane material which shall not compress more than 0.02 feet when poured at a rate of 10 vertical feet per hour. Form release agents shall be non-staining, non-residual, non-reactive and shall not contribute to the degradation of the form liner material. Forms for smooth faced surfaces shall be plastic coated or metal to provide a smooth surface free of any impression or pattern.

Stain. Deliver materials in original and sealed containers, clearly marked with the manufacturer's name, brand name, type of material, batch number, and date of manufacture.

Store concrete stain materials in an area where temperatures will not be less than 50°F (10°C) or more than 100°F (38°C) and in accordance with OSHA and local Fire Code Requirements.

If the contractor elects to use form ties for concrete forming, only fiberglass form ties will be permitted. Use of the removable metallic form ties will not be allowed.

Qualifications of Contractor. The concrete stain applicator shall have a minimum of five (5) years demonstrated experience in applying stains to simulate rock. The contractor shall submit evidence of appropriate experience, job listings, and project photographs from previous work.

Cast Concrete Mockup. The Contractor shall provide a cast concrete mockup containing the linear cut ashlar form liner surface. The form liner manufacturer's technical representative shall be on-site for technical supervision during the installation and removal operations.

Purpose of the mockup is to select and verify the masonry pattern and concrete stains to be used.

- (1) Locate mockup on site as directed by the Engineer.
- (2) The mockup shall be a minimum 10ft long x 2'-4" high x 6 in. thick.
- (3) Apply the concrete stains to one side of the mock-up wall located on the jobsite. Stains shall be of a type and color which will be used on actual walls. Application procedures and absorption rates shall be as hereinafter specified, unless otherwise recommended by the manufacturer in writing to achieve color uniformity. Approval by the Engineer shall serve as a standard of comparison with respect to color and overall appearance. General application to actual surfaces on the bridge elements and walls shall not proceed until jobsite mockup has been approved in writing by the Engineer.
- (4) Include examples of each condition required for construction i.e. liner joints, construction joints, expansion joints, steps, corners, and special conditions due to topography or manmade elements, etc. Verify compatibility of anti-graffiti protection system with concrete stain manufacturer. Apply anti-graffiti protection system to mockup to ensure that finished surface treatment meets the specific architectural results specified within this section.
- (5) Upon receipt of comments from inspection of the mockup, adjustments or corrections shall be made to the molds where imperfections are found. If required, additional mockups shall be prepared when the initial mockup is found to be unsatisfactory.
- (6) After concrete work on mockup is completed and cured for a minimum of 28 days, and after surface is determined to be acceptable for coloring, apply color stain system.
- (7) After coloring is determined to be acceptable by the Engineer, construction of project may proceed, using mockup as quality standard.

Concrete Stain. Special penetrating stain mixes as provided by manufacturer, shall achieve color variations present in the natural stone being simulated for this project, as required by the Engineer. Submit manufacturer's literature, certificates and color samples to the Engineer. The stain colors for the project shall be selected by the Engineer from the stain manufacturer's standard colors after viewing the mockups.

Number of stain colors required is as follows:

Bridge Parapets:

Minimum of two different stain colors for color variation.

MSE Walls, Precast Modular Block Walls and Bridge Wingwalls:

One uniformly applied stain color that matches the integrally colored concrete on the bridge parapets.

Minimum of two additional different stain colors for color variation.

Bridge parapets will be constructed using integrally colored concrete. See special provision Concrete Superstructure, Special.

Stain shall create a surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, acid, alkali, fungi, sunlight or weathering. Stain mix shall be a water borne, low V.O.C. material, less than 1.5 lbs./gal, and shall meet requirements for weathering resistance of 2000 hours accelerated exposure.

Installation. Form liners shall be installed in accordance with the manufacturers' recommendations to achieve the highest quality concrete appearance possible. Form liners shall withstand concrete placement pressures without leakage causing physical or visual defects. A form release agent shall be applied to all surfaces of the liner which will come in contact with concrete as per the manufacturer's recommendations. After each use, liners shall be cleaned and made free of build-up prior to the next placement, and visually inspected for blemishes or tears. If necessary, the form liners shall be repaired in accordance with the manufacturer's recommendations. All form liner panels that will not perform as intended or are no longer repairable shall be replaced. An on-site inventory of each panel type shall be established based on the approved form liner shop drawings and anticipated useful life for each liner type.

The liner shall be securely attached to the forms according to the manufacturer's recommendations. Liners shall be attached to each other with flush seams and seams filled as necessary to eliminate visible evidence of seams in cast concrete. Liner butt joints shall be blended into the pattern so as to create no visible or horizontal seams or conspicuous form butt joint marks. Liner joints must fall within pattern joints or reveals. Finished textures shall be continuous without visual disruption and properly aligned over adjacent and multiple liner panels. Continuous or single liner panels shall be used where liner joints may interrupt the intended pattern. Panel remnants shall not be pieced together.

The Contractor shall coordinate concrete pours to prevent visible differences between individual pours or batches. Concrete pours shall be continuous between construction or expansion joints. Cold joints shall not occur within continuous form liner pattern fields. Wall ties shall be coordinated with the liner and form to achieve the least visible result. Liners shall be stripped between 12 and 24 hours as recommended by the manufacturer. Curing methods shall be compatible with the desired aesthetic result. Use of curing compounds will not be allowed. Concrete slump requirements shall be the form liner manufacturers' recommendations for optimizing the concrete finish, as well as IDOT's material specifications.

With the use of standard Portland cement concrete mixtures, the Contractor shall employ proper consolidation methods to ensure the highest quality finish. Internal vibration shall be achieved with a vibrator of appropriate size, the highest frequency and low to moderate amplitude. Concrete placement shall be in lifts not to exceed 1.5 feet. Internal vibrator operation shall be at appropriate intervals and depths and withdrawn slowly enough to assure a minimal amount of surface air voids and the best possible finish without causing segregation. External form vibrators may be required to assure the proper results. Any use of external form vibrators must be approved by the form liner manufacturer and the Engineer. The use of internal or external vibratory action shall not be allowed with the use of self consolidating concrete mixtures. It is the intention of this specification that no rubbing of flat areas or other repairs shall be required after form removal. The finished exposed formed concrete surfaces shall

be free of visible vertical seams, horizontal seams, and butt joint marks. Grinding and chipping of finished formed surfaces shall be avoided.

The concrete staining work described herein shall be performed after the grading is finished. Final coloration of cast stone concrete surface shall accurately simulate the appearance of real stone including the multiple colors, shades, flecking and veining that is apparent in real stone. It shall also demonstrate the colors that may be apparent from aging, such as staining from oxidation, rusting and/or organic staining from soil and/or vegetation.

Applying Color Stains. Clean surface prior to application of stain materials to assure that surface is free of latency, dirt, dust, grease, efflorescence, paint or other foreign material, following manufacturer's instructions for surface preparation. Do not sandblast. Preferred method to remove latency is pressure washing with water, minimum 3000 psi (a rate of three to four gallons per minute), using fan nozzle perpendicular to and at a distance of one or two feet from surface. Completed surface shall be free of blemishes, discoloration, surface voids and unnatural form marks.

Surfaces to receive stain shall be structurally sound, clean, dry, fully cured, and free from dust, curing agents or form release agents, efflorescence, scale or other foreign materials. Methods and materials used for cleaning of substrate shall be as recommended by the manufacturer of the water-repellant stain. Concrete shall be at least 30 days old prior to concrete stain application. Curing agents must be removed a minimum of 14 days prior to coating to allow the concrete to dry out.

The stain shall be thoroughly mixed in accordance with the manufacturer's directions using an air-driven or other explosion-proof power mixer. Mix all containers thoroughly prior to application. Do not thin the material.

The preferred method of application for color variation is spraying.

Materials shall be applied at the rate as recommended by the manufacturer. Absorption rates could be increased or decreased depending upon surface texture and porosity of the substrate so as to achieve even staining.

Temperature and relative humidity conditions during time of concrete stain application shall be per manufacturer's application instructions. Do not apply materials under rainy conditions or within three (3) days after surfaces become wet from rainfall or other moisture. Do not apply when weather is foggy or overcast. Take precaution to ensure that workmen and work areas are adequately protected from fire and health hazards resulting from handling, mixing and application of materials. Furnish all the necessary equipment to complete the work. Provide drop clothes and other forms of protection necessary to protect all adjoining work and surfaces to render them completely free of overspray and splash from the concrete stain work. Any surfaces, which have been damaged or splattered, shall be cleaned, restored, or replaced to the satisfaction of the Engineer.

Avoid staining the "mortar joints" by providing suitable protection over the joints during the staining process.

Where exposed soil or pavement is adjacent which may spatter dirt or soil from rainfall, or where surface may be subject to over-spray from other processes, provide temporary cover of completed

work.

Guidelines for the use of Form Liners. Form liners are being used on this project to achieve very specific architectural results. The Contractor shall not deviate from the guidelines contained herein unless authorized by the Engineer in writing.

Method of Measurement. This work shall be measured and paid for in place and the area computed in square feet of actual concrete surface area formed with concrete form liners and colored as specified herein.

Cast concrete form liner mockups will not be measured for payment but included in the square feet price for this item. Required adjustments or corrections needed to address mockup comments and the cost of additional mockups, if required, will not be paid for separately, but shall be included in the square feet price for this item.

Basis of Payment. Linear cut ashlar form lined surfaces will be paid for at the contract unit price per square feet for FORM LINER TEXTURED SURFACE, SPECIAL. The unit price bid shall include all labor and material costs associated with forming, pouring, surface coloring and disposal of forms, including a satisfactory cast concrete mockup panel to the requirements included herein.

Precast modular blocks will be stained in accordance with the applicable requirements of the special provision Form Liner Textured Surface, Special. Payment for staining precast modular blocks will be included in the unit price bid for Precast Modular Blocks.

LIGHTING CONTROLLER, SPECIAL

This item shall conform to Section 825 of the Standard Specifications except as shown in the contract plans or stated below.

The cabinet shall be painted green.

Basis of Payment. This work shall be paid for at the contract unit price per each for LIGHTING CONTROLLER, SPECIAL, which price shall include all necessary excavation, backfilling, concrete foundation, ground rods, materials and labor necessary to complete the work in place.

LIGHTING UNIT COMPLETE, SPECIAL

Description. This work shall consist of furnishing and installing street light standards with luminaries in accordance with Sections 821 and 830 of the Standard Specifications with the following alterations.

Materials. Materials shall meet the requirements of Sections 1065, 1066 and 1067 and the following. Poles shall be precast, prestressed spun concrete. Spiral reinforcement shall not be less than 13 gauge. Pitch shall be no more than 4 in. The reinforcement shall continue from the top of the pole over its entire length, and be secured to the longitudinal reinforcement by an approved automatic caging method. The proportions of water to cement shall produce concrete after steam curing, having a minimum compressive 3,500 psi before transfer of prestressing force. A minimum 28 day compressive strength of 7,000 psi after atmospheric curing shall be required for concrete with an appearance code of #113 natural exposed aggregate. The 18 ft light pole shall be octagonal tapered (6 3/8" x 3 1/2" nominally). Poles shall be

equipped with a 1 5/8" 6' handhole with vandal resistant cover and a 3 in. cast aluminum pole top tenon. Finish shall be natural exposed aggregate with gray color finish. Sample shall be submitted to the Engineer for approval prior to manufacture. Interior cables shall be type 600 volt, THHN insulation, No. 10 AWG stranded copper conductors. Color coding of the pole wire shall be via solid insulation color. Neutral wires shall be white and phase conductors shall be as shown on the drawings to match the associated branch circuit conductors. Cable identification marking shall be visible in a contrasting color. Each post-mounted luminaire shall consist of heavy wall die-cast aluminum housing, vandal resistant one-piece clear acrylic lens panels and cast aluminum removable roof assembly with optimized heat sinks. The die-cast housing shall slip fit onto a 3 in. O.D. or SCC tenon and be secured by three stainless steel, serrated cone point tamper-resistant set screws. Luminaires shall be equipped with 66W, 120V, LED lamps and shall have Type III distribution with lamp back shields where indicated. The housing shall contain LED arrays that are built in series – parallel circuits to maintain overall light output in the event of single LED lamp failures. Light source shall be 3ARC30T3-CSA as manufactured by Sternberg Lighting or approved equal. The electronic driver shall be UL listed, have overload and short circuit protections, have minimum efficiency of 90% shall be rated at full load with THD<2% and a power factor of greater than 0.90 and have universal 120 thru 277 AC input range. The removable hood assembly shall be secured to the die-cast ribs by two captive corrosion-resistant nuts and held for servicing by a captive stainless steel cable. Top of hood shall be finished with decorative spike. Each luminaire shall have a black powder coated finish. Luminaires shall be UL approved.

Manufacturers.

The light poles shall be Centrecon model SEO-4.3 Octagonal or approved equal.

Light poles to be mounted on bridge parapet shall be Centrecon model SEO-4 Octagonal or approved equal.

Light poles to be equipped with GFI outlets shall be Centrecon model SEO-4.3-CK or approved equal.

Luminaires shall be Sternberg model MS805BLED 66 Watt, Type III cutoff, 3000K LED with clear acrylic lens or approved equal. Finish shall be black.

Construction Requirements.

The light standards shall be installed to a depth of 39 in. below proposed, finished grade. They shall be set plumb and backfilled with FA-6 placed and compacted in 9 in. lifts to a depth of 4 in. below finished grade. The pole shall be placed so that the access hole is opposite to the street-side of the pole.

The light standards mounted on bridge parapet shall be installed with manufacturer's slotted base plate. The pole shall be placed so that the access hole is street side of the pole.

Basis of Payment. Light poles will be paid for at the contract unit price each for LIGHTING UNIT COMPLETE, SPECIAL, which price shall include all labor, equipment, excavation and materials including luminaires and back shields as required, ground rods as required, GFI as required, backfilling and compacting removal of spoil required to complete the work as specified herein.

PERMANENT MSE WALL STEEL SHEET PILING

Description:

This work shall conform to all the applicable requirements of the IDOT Guide Bridge Special Provisions for PERMANENT STEEL SHEET PILING, except as modified herein. Minimum effective section modulus required for sheet pile walls is as shown on the plans.

The existing water transmission main and all appurtenances shall be field verified prior construction/excavation activities. The water transmission main shall be physically located at the locations shown on the plans where clearance is approximately 5 feet and other locations as needed to the satisfaction of the DuPage Water Commission in conformance to the Note 1 on Sheets 108 and 139. During the field verification, the clearance between the water main and the proposed sheet piling shall be verified. The contractor shall submit documentation of the field verification and survey to the DuPage Water Commission prior to driving sheeting.

The tie rods shall conform to the requirements of AASHTO M183 and be installed directional or by self drilling.

Walers shall conform to the requirements of AASHTO M270 Grade 36.

High strength steel bolts, nuts and washers shall conform to the requirements of AASHTO M164.

Steel sheet piling shall be installed using vibratory hammers, impact hammers will not be allowed, except as approved by the Engineer.

Vibration Limitation and Recordings:

The Contractor shall furnish, install, calibrate, maintain and operate instrumentation for measuring and recording vibrations. The recording instruments shall be a velocity seismograph. Additional instruments shall be provided as necessary to evaluate propagation of vibrations. At least one instrument shall be available at each structure. All instruments shall be periodically checked for proper calibration and shall be maintained in first-class working order. Instruments shall be replaced, repaired or re-calibrated when needed or when directed by the Engineer.

The recordings shall be taken under the supervision of a qualified seismologist and registered geotechnical engineer. In addition, the engineer shall interpret the readings and shall establish the vibration limitations at the various locations, but under no circumstances shall the limit exceed the value as discussed below, or such lesser limit as established by ordinance or regulation.

Prior to commencement of pile driving operations, the Contractor shall submit in writing for approval of the Engineer, his plan for monitoring his operations to assure compliance with the vibration limitation.

As a minimum, this plan shall provide for the following:

- a. Recommended vibration limitation at each site based on survey establishing proximity of structures, type of structure, and condition of structure. Structure is defined as at grade structures and underground water transmission main field verified locations of water transmission mains and other utilities.
- b. Vibrations shall be recorded by the seismograph equipment at each DuPage Water Commission underground structure (locations of field verified water transmission main and other utilities) where pile driving operation is taking place.

- c. Trained personnel shall be provided to operate the equipment and interpret the recordings. Names and resumes of personnel to be provided shall be furnished.
- d. All pile driving operation shall be done in such a manner as to reduce vibrations which reach adjacent structures and facilities to or below acceptable limits as established by the Contractor, but which shall not exceed the limits as specified below.

Acceptable limits determined by the qualified seismologist and registered geotechnical engineer are defined as follows:

- a. 0.2 inch per second at a frequency 1 Hertz.
- b. 0.5 inch per second at frequencies between 2.6 Hertz and 40 Hertz.
- c. Velocities less than that defined by a straight line variation between 1 Hertz and 2.6 Hertz, per (a) and (b) above.
- d. 0.75 inch per second at frequencies above 40 Hertz.
- e. Before proceeding with the sheet piling installation the contractor shall submit, for information only to the DuPage Water Commission, his plan and sheeting design calculations, drawings, and all details, including documentation that sheet installation will not impose additional loads on the existing water transmission main based on soil borings and input from a geotechnical engineer. These calculations, drawings and documentation shall be sealed and signed by a Structural Engineer licensed in the State of Illinois.

A qualified seismologist and registered geotechnical engineer shall be provided by the Contractor. This person's responsibilities shall include the following:

- a. Supervise establishment of the program and initial operation of the equipment.
- b. Visit the job at regular intervals, more often if requested by DuPage Water Commission.
- c. Inspect the recording program and interpretation of records, check the operations and recalibrate the equipment if necessary.
- d. Provide DuPage Water Commission with a comprehensive written report of the vibration measuring program and an analysis of the impact recordings within 7 days after completion of the pile driving operations.

In the event any recordings indicate a caution or danger classification is being approached, all pile driving operation shall be suspended immediately, and a report shall be made immediately to DuPage Water Commission. The Contractor shall reduce the efforts for driving the piles, or otherwise cause appropriate measures to be taken to reduce the resulting vibrations to the "safe limits" as determined by the qualified seismologist and registered geotechnical engineer.

Submittals:

In addition to the submittals noted above, the contractor shall submit complete shop drawings for anchored sheeting including all details and layout.

Basis of Payment:

The cost of shop drawings, walers, concrete deadmen, tie rods, sleeves, turnbuckles, plates, shims, nuts & bolts etc. necessary for anchor wall assembly including excavation, backfill and cutting holes in sheet piling for tie rods and all work required to complete the anchored sheet piling walls is included in the contract unit price per square foot for Permanent Steel Sheet Piling and no additional compensation will be made for their installation.

PRECAST MODULAR BLOCKS

Description. This work shall consist of preparing the design and furnishing the materials, to serve as a block facing for a Geosynthetic Reinforced Soil – Integrated Bridge System (GRS-IBS) to the lines, grades and dimensions shown in the contract plans, in the approved shop drawings and as directed by the Engineer. This work includes determining or adjusting the GRS-IBS stepped footing elevations for the blocks supplied. The minimum lengths of the geosynthetic reinforcement and the size of the reinforced soil foundation (RSF) are indicated on the plans. This work includes coordination with the Contractor for construction of the GRS-IBS and for the construction of Aggregate Column Ground Improvement. This item also consists of providing and field applying concrete stains to the textured surface to replicate actual stone masonry.

General. The precast modular wall shall consist of precast concrete modules. The precast concrete modules shall be sized to have sufficient external stability resistance at each module course to satisfy the design criteria. The material, fabrication and construction shall comply with this Special Provision and the plans.

The precast modular blocks shall be from the following pre-approved wall systems, as modified by this special provision and the contract plans:

Redi-Rock Wall Redi-Rock International, LLC – 28 Inch Series Blocks (46" L x 18" H) – LedgeStone Texture

Stone Strong Stone Strong, LLC – 6 SF Series Blocks (48" L x 18" H) – Texture Specified Herein

Submittals. The wall system supplier shall submit complete shop drawings to the Engineer according to Article 1042.03(b) of the Standard Specifications no later than 90 days prior to beginning construction of the wall. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer. All submittals shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

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

- (3) A listing of the summary of quantities shall be provided on the elevation sheet of each wall.
 - (4) Typical cross section(s) showing the precast modules, foundation, right-of-way limits, and elevation relationship between existing ground conditions and the finished grade line.
 - (5) All general notes required for constructing the wall as well as the locations of lifting devices and/or support points in the precast modules shall be indicated.
- (b) The foundations shall be as shown on the plans or approved by the Engineer.
 - (c) All module types shall be detailed. The details shall show all dimensions necessary to cast and construct each type of module, all reinforcing steel in the module, and the location of any shear key or connection devices.
 - (d) All details of the wall module placement around all appurtenances located behind, on top of, or passing through the wall modules and select fill such as traffic barriers, coping, foundations, and utilities etc. shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular system shall also be submitted.
 - (e) When specified on the contract plans, all details of architectural treatment for the exposed surfaces of the module, including color, texture and form liners shall be shown.
 - (f) The details of bearing pads, joint filler or other materials used to prevent concrete to concrete contact on the front face as well as any pins, groves or other alignment mechanisms shall be indicated.

The initial submittal shall include three sets of shop drawings. One set of drawings will be returned to the Contractor with any corrections indicated. After approval, the Contractor shall furnish the Engineer with eight sets of corrected prints and one mylar set for distribution by the Department. No work or ordering of materials for the structure shall be done until the submittal has been approved by the Engineer.

Materials. The precast modular blocks shall conform to the supplier's standards as previously approved by the Department and modified herein and on the plans, AASHTO Specifications for prefabricated modular walls and the following:

- (a) Steel connection hardware shall be galvanized according to AASHTO M 232 or AASHTO M 111 as applicable.
- (b) All precast modules shall be manufactured with Class PC concrete according to Section 504, Article 1042.02, Article 1042.03, and the following requirements:
 - (1) The minimum panel thickness shall be 3 1/2 in. (90 mm).
 - (2) The minimum reinforcement bar cover shall be 1 1/2 in. (38 mm).

- (3) The panel reinforcement shall be epoxy coated according to Article 1006.10 (a)(2).
- (5) All dimensions shall be within 3/16 in. (5 mm).
- (6) Angular distortion with regard to the height of the panel shall not exceed 0.2 in. (5 mm) in 5 ft. (1.5 m).
- (7) Surface defects on formed surfaces measured on a length of 5 ft. (1.5 m) shall not be more than 0.1 in. (2.5 mm).
- (8) The maximum thickness (height) of the precast blocks shall 18 inches.

Concrete surfaces exposed to view in the completed wall shall be finished according to Article 503.15(a) of the Standard Specifications.

- (c) Reinforcing steel shall be according to Article 1006.10(a). Welded steel wire fabric for concrete reinforcement shall be according to Article 1006.10(b)(1).
- (d) The geotextile filter material used across the module joints shall be either non-woven needle punch polyester or polypropylene or a woven monofilament polypropylene.
- (e) The bearing pads shall be rubber, neoprene, polyvinyl chloride, or polyethylene material of the type and grade as recommended by the wall supplier. Other material recommended by the wall supplier may be used if approved by the Engineer.

Block Texturing and Coloration. Final texturing and coloration of exposed surfaces shall accurately simulate the appearance of real stone including the multiple colors, shades, flecking and veining that is apparent in real stone. It shall also demonstrate the colors that may be apparent from aging, such as staining from oxidation, rusting and/or organic staining from vegetation. The wall system supplier shall provide a sample block or suitable samples that accurately depict the texturing of the exposed block surface for approval. After surface is determined to be acceptable by the Engineer, casting of blocks may begin with approved sample to be used as quality standard.

Field staining of the concrete block shall be as specified in the special provision FORM LINER TEXTURED SURFACE, SPECIAL, except the cost of staining the blocks shall be included in the Precast Modular Blocks item. This includes providing a mockup.

Texturing and coloration are being used on the project to achieve very specific architectural results. The contractor shall not deviate from these guidelines contained herein unless authorized by the Engineer in writing.

A typical block area of approximately 48 inches long by 18 inches high shall have multiple simulated stones within that block area, a minimum of three (3) individual simulated stones per face of this size. Variable stone layouts shall be provided for individual blocks and the variation and form liner to be used for the project shall be clearly shown on the shop drawings and are subject approval for compatibility with project architectural requirements.

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

The modules may not be loaded or shipped to the project site until they have obtained a minimum compressive strength of 3500 psi (24 MPa) and no sooner than seven days after casting. Precast modules shall be lifted and supported at the points indicated on the shop plans. They shall be stored off the ground. Stacked modules shall be separated by battens across the full width of each bearing point as recommended by the supplier to prevent concrete to concrete contact.

The first course of modules is to be placed on reinforced soil foundation (RSF) detailed on the approved shop drawings or as approved by the Engineer and must be erected with particular care and adjustment as required to correct the vertical, horizontal and transverse alignment. Poor alignment of the base course will magnify tolerance problems in upper modules and require dismantling and re-erection of the wall. A ¼ in. (6 mm) minimum and ¾ in. (18 mm) maximum joint separation shall be provided between adjacent modules at the face to prevent direct concrete to concrete contact. Vertical tolerances and horizontal alignment tolerances shall not exceed ¾ in. (19 mm) when measured along a 10 ft. (3 m) straight edge. The overall vertical tolerance of the wall, (plumbness from top to bottom) shall not exceed 1/2 in. per 10 ft. (13 mm per 3 m) of wall height.

The rear face of all vertical and horizontal module joints shall be covered by a geotextile filter fabric, attached to the modules with a suitable adhesive. No adhesive will be allowed on this material directly over the joints to maintain fabric permeability. The minimum fabric width shall be 12 in. (300 mm) and where laps must be used; a non-sewn lap of 6 in. (150 mm) shall be used as a minimum.

The fill placement shall closely follow the erection of each lift of modules. The maximum lift thickness shall be as shown on the plans.

Method of Measurement. Precast Modular Blocks will be measured for payment in square feet. The retaining wall will be measured from the "top of precast cap line" to the top of foundation line for the length of the wall as shown on the contract plans.

Basis of Payment. This work, including furnishing and placement of the precast modules, surface staining, joint separation material, geotextile and other accessories will be paid for at the contract unit price per square foot for PRECAST MODULAR BLOCKS.

The cost of additional formliner, form modifications and non-standard details to meet the requirements of the contract plans and specification is included in the Precast Modular Blocks item.

The geosynthetic reinforcement, GRS backfill material and RSF will be measured and paid for separately.

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."

REMOVE EXISTING FLARED END SECTION

This work shall consist of the removal of existing Flared End Section (FES) at the locations shown on the plans and as directed by the Engineer. Existing FES shall be removed so that all FES considered suitable by the Engineer for reuse shall be salvaged. All work shall otherwise conform to applicable articles of Section 551.

This work shall be paid for at the contract unit price per each for REMOVE EXISTING FLARED END SECTION, regardless of size and material.

RUSTIC RAIL FENCE REMOVAL

This work shall consist of the removal of existing RUSTIC RAIL FENCE at the locations shown on the plans and as directed by the Engineer. Existing RUSTIC RAIL FENCE shall be removed so that all RUSTIC RAIL FENCE considered suitable by the Engineer for reuse shall be salvaged. All work shall otherwise conform to applicable articles of Section 664.

This work shall be paid for at the contract unit price per each for RUSTIC RAIL FENCE, regardless of size and material.

SETTLEMENT WAITING PERIOD

A waiting period of two months is required between the completion of embankment construction and the beginning of paving operations from Station 13+40 to Station 14+70 (approximate limits of GRS-IBS at Grace Street). At all other locations along the project a waiting period of 5 months will be required between the completion of embankment construction and paving operations. The contractor shall stage

this work accordingly and all work necessary to adhere to this contract requirement is included in the items necessary for embankment construction and placement of sub-base. Any Contractor remobilization will not be grounds for additional payment.

STABILIZED CONSTRUCTION ENTRANCE

Description:

This work consists of constructing a stabilized pad of coarse aggregate underlain with geotechnical fabric at the locations where construction traffic will be entering or leaving the work zone. Also included is the removal and satisfactory disposal of the stabilized construction entrance when no longer required. This work shall be performed in accordance with the applicable portions of Sections 202, 210, 1004 and 1080 of the Standard Specifications, the details in the plans and as directed by the Engineer.

Materials:

Aggregate shall consist of coarse aggregate gradations CA-1, CA-2, CA-3, or CA-4 meeting the requirements of Article 1004.04. Aggregate thickness shall be 9 inches to 10 inches as directed by the engineer. The minimum width shall be 12 ft as directed by the engineer.

Geotechnical fabric shall meet the requirements of Article 1080.02.

General:

Excess or unsuitable excavated materials shall be disposed of in accordance with Article 202.03

The coarse aggregate surface shall be compacted to the satisfaction of the Engineer.

Method of Measurement:

The stabilized construction entrance will be measured 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 STABILIZED CONSTRUCTION ENTRANCE, which price shall be payment in full for all excavation, except excavation in rock; removal and disposal of excavated materials; geotechnical fabric; furnishing, placing, compacting and disposing of coarse aggregate; and for all labor, tools and equipment necessary to construct the work as specified.

STORM SEWER ADJACENT TO OR CROSSING WATER MAIN

Effective: February 1, 1996

Revised: January 1, 2007

This work consists of constructing storm sewer adjacent to or crossing a water main, at the locations shown on the plans. The material and installation requirements shall be according to the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and the applicable portions of Section 550 of the Standard Specifications; which may include concrete collars and encasing pipe with seals if required.

Pipe materials shall meet the requirements of Sections 40 and 41-2.01 of the "Standard Specifications for Water and Sewer Main Construction in Illinois", except PVC pipe will not be allowed. Ductile-Iron pipe shall meet the minimum requirements for Thickness Class 50.

Encasing of standard type storm sewer, according to the details for "Water and Sewer Separation Requirements (Vertical Separation)" in the "STANDARD DRAWINGS" Division of the "Standard Specifications for Water and Sewer Main Construction in Illinois", may be used for storm sewers crossing water mains.

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

TEMPORARY CHAIN LINK FENCE

This item shall include all material, labor and equipment necessary to furnish, install, relocate during construction, maintain, remove and dispose of outside the right-of-way Temporary Chain Link Fence at the locations as directed by the engineer.

The Temporary Chain Link Fence shall be six (6) foot in height and shall be constructed in accordance with Section 664 of the Standard Specifications in a manner satisfactory to the engineer.

This work shall be paid for at the contract unit price per FOOT for TEMPORARY CHAIN LINK FENCE, which price shall be payment in full for all materials, labor and equipment necessary to furnish, install, relocate during construction, maintain, remove and dispose Temporary Chain Link Fence.

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>Item</u>	<u>Article/Section</u>
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 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:

- 701101-02 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701502-04 URBAN LANE CLOSURE, 2L, 2W WITH BIDIRECTIONAL LEFT TURN LANE
- 701606-07 URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
- 701901-01 TRAFFIC CONTROL DEVICES

DETAILS:

- Detour Plan
- Traffic Control and Protection for Side Roads, Intersections and Driveways
- District One Typical Pavement Marking Details
- Arterial Road Information Sign

SPECIAL PROVISIONS:

- Maintenance of Roadways
- Temporary Information Signing
- Work Zone Traffic Control
- Flaggers in Work Zones

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)

Effective: February 1, 1996

Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement:

All traffic control (except Traffic Control and Protection (Expressways)) and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment:

All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL). Temporary pavement markings will be paid for separately unless shown on a Standard.

WOOD POST AND RAIL FENCE

Description:

This work shall consist of furnishing and installing a wood post and rail fence in accordance with applicable portions of Sections 507 and 641 of the Standard Specifications, as per the details shown on the plans and as directed by the Engineer.

The posts and rails shall comply with the requirements of Section 1007 of the Standard Specifications for No. 1 Dense SR 1550 F for southern pine or No. 1 Dense 1400 F for Douglas fir. All lumber shall be sound and free from excessive splitting or deterioration. Dimensions shown on the plans are for surfaced (S4S) lumber. All wood used for posts and rails shall be treated with ACA or CCA according to Article 1007.12, Miscellaneous Lumber for Human Contact. After erection of the fence, the Contractor shall apply two (2) coats of a commercially available water seal for treated lumber meeting the approval of the Engineer.

Hardware shall include all necessary fasteners and appurtenances for construction of the fence and shall be according to Article 1006.17.

Wooden fence construction shall conform to the applicable portions of Sections 507 and 641 of the Standard Specifications. The backfill for posts shall be CA 6, CA 10, or CA 12 aggregate according to Article 1004.01. Backfill shall be thoroughly compacted, meeting the approval of the Engineer.

The wood posts and rail fence will be measured for payment in feet along the top of the fence from center to center of end posts.

Basis of Payment:

This work shall be paid for at the contract unit price, per foot, for WOOD POST AND RAIL FENCE, of the type and size indicated on the plans which price shall include all equipment and labor required to complete the work as specified.

COMPLETION DATE PLUS WORKING DAYS (DISTRICT ONE)

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, November 15, 2012 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within 10 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.

EPOXY COATING ON REINFORCEMENT (DISTRICT ONE)

Effective: January 1, 2007
Revised: July 20, 2010

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

FINE AGGREGATE FOR HOT- MIX ASPHALT (HMA) (DISTRICT ONE)

Effective: May 1, 2007
Revised: January 15, 2010

Add the following to the gradation tables of Article 1003.01(c) of the Standard Specifications:

FINE AGGREGATE GRADATIONS					
Grad No.	Sieve Size and Percent Passing				
	3/8	No. 4	No. 8	No. 16	No. 200
FA 22	100	6/	6/	8±8	2±2

FINE AGGREGATE GRADATIONS (metric)					
Grad No.	Sieve Size and Percent Passing				
	9.5 mm	4.75 mm	2.36 mm	1.16 mm	75 µm
FA 22	100	6/	6/	8±8	2±2

6/ For the fine aggregate gradations FA 22, the aggregate producer shall set the midpoint percent passing, and the Department will apply a range of ± ten percent. The midpoint shall not be changed without Department approval.

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

"(a) Description. Fine aggregate for HMA shall consist of sand, stone sand, chats, slag sand, or steel slag sand. For gradation FA 22, uncrushed material will not be permitted."

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

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, FA 21 or FA 22. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

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

GENERAL ELECTRICAL REQUIREMENTS

Effective: January 1, 2007

Add the following to Article 801 of the Standard Specifications:

"Maintenance transfer and Preconstruction Inspection:

General. 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 inspection shall be made no less than seven (7) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction inspection 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.

Condition of Existing Systems. 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."

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

"Resubmittals. 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 of existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein. Maintenance of lighting systems will be paid for separately"

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

"Energy and Demand Charges. 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:

"Lighting Cable Identification. 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."

"Lighting Cable Fuse Installation. 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."

RECLAIMED ASPHALT PAVEMENT (RAP) (BMPR)

Effective: January 1, 2007

Revised: March 1, 2011

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) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass one sieve size larger than the maximum sieve size specified for the mix the RAP will be used in.
- (b) 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.

- (c) Conglomerate. Conglomerate 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 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag 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/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

1031.03 Testing. When used in HMA, the RAP/FRAP 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/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample 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.

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	FRAP/Homogeneous /Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % ^{1/}	± 0.5 %
G_{mm}	± 0.03	

1/ The tolerance for FRAP shall be ± 0.3 %.

If more than 20 percent of the individual sieves 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/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

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

1031.04 Quality Designation of Aggregate in RAP/FRAP.

(a) The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

- (1) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL), or HMA (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
- (2) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
- (3) 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.
- (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

(b) The aggregate quality of FRAP shall be determined as follows.

- (1) If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer. If the quality is not known, the quality shall be determined according to Article 1031.04(b)(2).
- (2) Fractionated stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5000 tons (4500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.”

1031.05 Use of RAP/FRAP in HMA. The use of RAP/FRAP shall be a Contractor’s option when constructing HMA in all contracts. The use of RAP/FRAP 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/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP shall be considered equivalent to Limestone for frictional considerations unless produced/screened to minus 3/8 inch.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
- (f) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table below for a given N Design.

Max RAP Percentage

HMA Mixtures ^{1/, 3/}	Maximum % RAP		
	Binder/Leveling Binder	Surface	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

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the amount of RAP shall not exceed 50% of the mixture.
- 2/ Value of Max % RAP if homogeneous RAP stockpile of IL-9.5 RAP is utilized.
- 3/ When RAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP exceeds 25 percent (i.e. 26 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28)..
- (g) When the Contractor chooses the FRAP option, the percentage of FRAP shall not exceed the amounts indicated in the tables below for a given N Design.

(1) Level 1 Max FRAP Percentage

HMA Mixtures ^{1/, 2/}	Level 1 - Maximum % FRAP		
	Binder/Leveling Binder	Surface	Polymer ^{3/, 4/} Modified
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the amount of FRAP shall not exceed 50 percent of the mixture.

2/ When FRAP exceeds 20 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP exceeds 25 percent (i.e. 26 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ For SMA the maximum FRAP shall be 20 percent. When the FRAP usage in SMA exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

4/ For IL-4.75 mix the amount of minus #4 fine fraction FRAP shall not exceed 20 percent. When the FRAP usage in IL-4.75 exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

(2) Level 2 Max FRAP Percentage

HMA Mixtures ^{1/, 2/}	Level 2 - Maximum % FRAP		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30	40	40	10
50	40	30	10
70	30	20	10
90	30	20	10
105	30	15	10

1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the amount of FRAP shall not exceed 50 percent of the mixture.

2/ When FRAP exceeds 20 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP exceeds 25 percent (i.e. 26 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ For SMA the maximum FRAP shall be 20 percent. When the FRAP usage in SMA exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

4/ For IL-4.75 mix the amount of minus #4 fine fraction FRAP shall not exceed 30 percent. When the FRAP usage in IL-4.75 exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

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

FRAP mix designs exceeding the Level 1 FRAP percentages shall be tested prior to submittal for verification, according to Illinois Modified AASHTO T324 (Hamburg Wheel) and shall meet the following requirements:

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG76-XX	20,000	12.5
PG70-XX	15,000	12.5
PG64-XX	10,000	12.5
PG58-XX	10,000	12.5

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

1031.07 HMA Production. Mixture production where the FRAP percentage exceeds the Level 1 limits shall be sampled within the first 500 tons on the first day of production with a split reserved for the Department. The mix sample shall be tested according to Illinois Modified AASHTO T324 and shall meet the requirements specified herein. FRAP mix production shall not exceed 1,500 tons or one days production, which ever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced FRAP mixture conformance is demonstrated prior to start of mix production for the contract.

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

If the RAP/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

HMA plants utilizing RAP/FRAP 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/FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

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

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.08 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 "Non-Quality" and "FRAP". 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."

RECLAIMED ASPHALT SHINGLES (RAS) (BMPR)

Effective: March 1, 2011

Description. Reclaimed asphalt shingles (RAS) meeting Type 1 or Type 2 requirements will be permitted in all HMA mixtures as specified herein for overlay applications only. RAS shall not be used in full depth HMA pavement. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable materials, as defined in Bureau of Materials and Physical Research Policy (BMPR) Memorandum *Reclaimed Asphalt Shingle (RAS) Sources*, by weight of RAS. All RAS used shall come from a BMPR approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. sieve and 93 percent passing the #4 sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein.

Definitions. RAS shall meet either Type 1 or Type 2 requirements as specified herein.

- (a) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
- (b) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise approved by the Engineer, mechanically blending manufactured sand (FM20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of 3 years.

Testing. RAS shall be sampled and tested during stockpiling.

For testing during stockpiling, washed extraction, and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five tests are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton, five-test stockpile has been established it shall be sealed. Additional incoming RAS shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

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

Evaluation of Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content, and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 μm)	± 4%
No. 200 (75 μm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content, or if the percent unacceptable materials exceeds 0.5 percent by weight of material retained on the #4 sieve, the RAS shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

Use of RAS in HMA. Type 1 or Type 2 RAS may be used alone or in conjunction with Reclaimed Asphalt Pavement (RAP) in all HMA mixtures up to a maximum of 5.0 percent by weight of total mix.

Level 1 asphalt binder replacement. The maximum Level 1 RAS or RAS/RAP blend usage will be dictated by the Level 1 - Maximum Asphalt Binder Replacement (MABR) table listed below.

HMA Mixtures ^{1/, 2/}	Level 1 - Maximum Asphalt Binder Replacement		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

- 1/ For HMA shoulder and stabilized subbase (HMA "All Other") N-30, the maximum binder replacement shall be 50 percent.
- 2/ When the asphalt binder replacement exceeds 20 percent for all mixtures, except for SMA and IL-4.75, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 25 percent asphalt binder replacement would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the maximum asphalt binder replacement shall be 20 percent. When the binder replacement exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

- 4/ For IL-4.75 mix the maximum asphalt binder replacement shall not exceed 20 percent. When the asphalt binder replacement exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

Level 2 asphalt binder replacement. The maximum Level 2 RAS or RAS/RAP blend usage will be dictated by the Level 2 - MABR table listed below.

HMA Mixtures ^{1/, 2/}	Level 2 - Maximum Asphalt Binder Replacement		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30	40	40	10
50	40	30	10
70	30	20	10
90	30	20	10
105	30	15	10

- 1/ For HMA shoulder and stabilized subbase (HMA "All Other") N-30, the maximum binder replacement shall be 50 percent.
- 2/ When the asphalt binder replacement exceeds 20 percent for all mixtures, except for SMA and IL-4.75, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 25 percent asphalt binder replacement would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the maximum asphalt binder replacement shall be 20 percent. When the binder replacement exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).
- 4/ For IL-4.75 mix the maximum asphalt binder replacement shall not exceed 30 percent. When the asphalt binder replacement exceeds 10 percent, the high and low virgin asphalt binder grade shall each be reduced by one grade (i.e. 15 percent asphalt binder replacement would require a virgin asphalt binder grade of PG76-22 to be reduced to a PG70-28).

HMA Mix Designs. RAS and RAS/RAP designs shall be submitted for volumetric verification. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

RAS and RAS/RAP mix designs with asphalt binder replacements exceeding the Level 1 – MABR limits specified herein, shall be tested prior to submittal for verification, according to Illinois Modified AASHTO T324 (Hamburg Wheel). RAS and RAS/RAP mixtures exceeding the Level 1 MABR limits shall meet the following requirements:

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
----------------------	---------------	--------------------

PG76-XX	20,000	12.5
PG70-XX	15,000	12.5
PG64-XX	10,000	12.5
PG58-XX	10,000	12.5

HMA Production. Mixture production, where the RAS and RAS/RAP asphalt binder replacement exceeds the Level 1 MABR, shall be sampled within the first 500 tons on the first day of production with a split reserved for the Department. The mix sample shall be tested according to Illinois Modified AASHTO T324 and shall meet the requirements specified herein. RAS and RAS/RAP mix production shall not exceed 1,500 tons or one days production, which ever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the RAS and RAS/RAP plant produced mixture conformance is demonstrated prior to start of mix production for a State contract.

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

When producing HMA containing RAS, a positive dust control system shall be utilized.

HMA plants utilizing RAS 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 RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- (5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- (7) Residual asphalt binder in the RAS material as a percent of the total mix to the nearest 0.1 percent.
- (8) Aggregate and RAS moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS 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) RAS weight to the nearest pound (kilogram).
- (6) Virgin asphalt binder weight to the nearest pound (kilogram).
- (7) Residual asphalt binder in the RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

TEMPERATURE CONTROL FOR CONCRETE PLACEMENT (DISTRICT ONE)

Effective: May 1, 2007

Delete the second and third sentences of the second paragraph of Article 1020.14(a) of the Standard Specifications.

AGGREGATE COLUMN GROUND IMPROVEMENT

Description. This work shall consist of furnishing design calculations, shop drawings, materials, and labor necessary to construct aggregate column ground improvements, over the approximate horizontal limits and below the elevation specified on the contract plans, or as modified by the Contractor's approved design.

Submittals. No later than thirty (30) days prior to beginning work, the Contractor shall submit to the Engineer for approval the following information:

- (a) Evidence of the selected subcontractor's successful installation of their aggregate column system on five projects under similar site conditions using the same installation technique. The documentation to be submitted shall include a description of the project, aggregate column installation technique, soil conditions and name and phone number of contracting authority.
- (b) Evidence that the proposed project superintendent for the ground improvement installation has a minimum of three years of method specific experience.
- (c) Shop Drawings sealed by an Illinois Licensed Professional Engineer showing aggregate column horizontal limits, locations, pattern, spacing, diameters, top and bottom elevations, and identification numbers. If an aggregate drainage layer is specified on the plans or a working platform proposed by the Contractor, the thickness, aggregate gradation, and plan dimensions shall be shown in addition to any other details needed to describe the work.
- (d) A description of the equipment, installation technique and construction procedures to be used, including a plan to address any water or spoils.
- (e) The source and gradation of the aggregate proposed for the aggregate columns.
- (f) Design computations, sealed by an Illinois Licensed Professional Engineer, demonstrating the proposed ground improvement plan satisfies the minimum global stability, settlement, and bearing capacity performance requirements stated in the Contract Plans and those contained in this Special Provision.
- (g) The proposed verification program methods to monitor and verify the aggregate column installation is satisfying the design and performance requirements. Also required is a sample of the daily report form to be used by the Contractor to documents the adequacy of that day's work.

Materials. The aggregate used in the columns shall be Class A quality crushed stone or crushed concrete satisfying the requirements of Section 1004 of the standard specifications. The aggregate for any drainage layer specified in the plans shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 15, according to Sections 1003 and 1004 of the Standard Specifications. Any fine or coarse aggregate requested by the Contractor to be used as either a drainage layer or working platform shall be approved by the Engineer.

Design Criteria. The subcontractor selected shall provide an aggregate column ground improvement plan with shop drawings, and design computations, using an Allowable Stress Design that meets the performance requirements shown on the Contract Plans. These requirements normally include the global stability factor of safety, tolerable settlement amounts at various times and in the case of walls or structure footings, the equivalent uniform service bearing pressure applied at various locations and the factor of safety required. In the absence of performance requirements shown on the plans, the following Allowable Stress minimum performance requirements shall be used:

- (a) A factor of safety of 1.5 against global slope stability failure.
- (b) A factor of safety of 2.5 against equivalent uniform service bearing pressure failure.
- (c) Total settlement not to exceed 4 inches (100 mm) and settlement after completing wall or pavement construction not to exceed 1 inch (25 mm).

The design shall use short term strength parameters for the soil, obtained from the soil boring logs and any geotechnical laboratory testing data provided in the Contract Plans and specifications for stability and bearing capacity analyses. Settlement shall be assessed using appropriate soil parameters. Any additional subsurface information needed to design the aggregate columns shall be the responsibility of the Contractor.

The aggregate column ground improvement design need not consider seismic loadings unless otherwise required as part of the performance requirements shown on the plans.

Construction. The construction procedures shall be determined by the aggregate column installer and submitted for approval with the shop drawings. The following are the minimum requirements that the Contractor will be expected to follow unless otherwise approved in the shop drawings submittal.

- (a) The site shall be graded as needed for proper installation of the aggregate column system. Any grading and excavation below the improvement limits shown on the plans shall be incidental to aggregate column installation.
- (b) Any granular base drainage layer or working platform shall be considered incidental to the improvement. Contractor requested drainage layers or working platforms will only be allowed if approved as part of the shop drawings.
- (c) The aggregate column material shall be placed in a manner that allows measurement of the tonnage or quantity of aggregate placed down the hole.
- (d) Columns shall be installed in a sequence that will minimize ground heave. Any heaving shall be re-compacted or excavated as directed by the Engineer prior to wall or embankment construction and be considered incidental to aggregate column improvement.
- (e) The Contractor shall provide a full-time qualified representative to verify all installation procedures and provide the verification program.
- (f) Disposal of any spoils generated shall be according to Article 202.03.

(g) If an obstruction is encountered that cannot be penetrated with reasonable effort, the Contractor shall construct the element from the depth of obstruction to its design top elevation. Depending on the depth of the completed column, column location, and design requirements, the Engineer may require the construction of a replacement aggregate column at an adjacent location. Construction of additional columns will be considered extra work and paid for according to Article 109.04.

(h) Specific Requirements for Vibrator Compacted Aggregate Columns:

- i. Vibrator compacted aggregate columns shall be constructed with a down-hole vibrator, probe and follower tubes of sufficient size to install the columns to the diameter and bottom elevation(s) shown on the approved shop drawings. Pre-boring is permitted if approved as part of the shop drawing submittal.
- ii. The probe and follower tubes shall have visible markings at regular increments to enable measurement of penetration and re-penetration depths.
- iii. Provide methods for supplying to the tip of the probe a sufficient quantity of air or water to widen the probe hole to allow adequate space for aggregate placement around the probe.
- iv. The vibrator shall be withdrawn in 12 to 36 inch (300 to 900 mm) increments, to allow placement of the aggregate.
- v. Lift thickness shall not exceed 4 ft (1.2 m). After penetration to the treatment depth, slowly retrieve the vibrator in 12 to 18 inch (300 to 450 mm) increments to allow aggregate placement.
- vi. Compact the aggregate in each lift by re-penetrating it as needed with the vibrating probe to densify and force the aggregate radially into the surrounding soil. Re-penetrate the aggregate in each increment a sufficient number of times to construct the columns as specified in the approved shop drawings and to meet the verification program requirements.

(i) Specific Requirements for Tamper Compacted (Rammed) Aggregate Columns:

- i. Tamper compacted (rammed) aggregate columns shall be installed by either drilling or displacement methods, capable of constructing columns to the diameters and bottom elevation(s) shown on the approved shop drawings.
- ii. If temporary casing is needed to limit the sloughing of subsurface soils, the casing should be inserted to at least 2 ft (600 mm) beyond any sloughing strata. Upon extraction, the bottom of the casing shall be maintained at not more than 2 feet (600 mm) above the level of aggregate.
- iii. Aggregate placement shall closely follow the excavation of each column. The aggregate shall be placed in 1 to 2 ft (300 to 600 mm) thick lifts. Each lift should be rammed with a high-energy impact tamper as specified in the approved shop drawings and to meet the verification program requirements.

Construction Tolerances. The aggregate columns shall be constructed to the following tolerances:

- (a) The horizontal limits and center of each constructed aggregate column shall be within 8 inches (190 mm) of the location specified on the approved the shop drawings.
- (b) The axis of the constructed aggregate columns shall not be inclined more than 1.67 percent from vertical.
- (c) The installed diameter of any aggregate column shall not be more than 10 percent below the effective diameter indicated on the approved shop drawings.
- (d) The average effective diameter of any group of 50 consecutively installed aggregate columns shall not be less than the effective diameter indicated on approved shop drawings.
- (e) The top of the aggregate column ground improvement shall be located within 8 inches (200 mm) of the top elevation shown on the approved shop drawings. When supporting MSE walls, the top elevation may need to be adjusted to the base of the MSE reinforced mass elevation as shown on the approved MSE shop drawings.
- (f) Except where obstructions, hard or very dense soils are encountered, the aggregate column shall be advanced to at least the treatment depth elevation shown on the approved in the Shop Drawings.

Any aggregate column installation not meeting the above stated tolerances, or otherwise deemed unsatisfactory by the Engineer, may require installation of a replacement aggregate column(s) at the discretion of the Engineer and at the Contractor's expense. The Contractor shall submit to the Engineer revised plans and procedures to bring installations in those areas into tolerance.

Verification Program. The Contractor shall develop and maintain a monitoring and documentation procedure during the installation of all aggregate columns to verify they satisfy the design and performance requirements. The Contractor shall provide qualified personnel to continuously observe and record the required data. The program shall include, as a minimum, the following:

- (a) Quality control procedures to allow verification that each aggregate column is being installed according to the designer's specifications and the requirements in this Special Provision. This will typically include observations of items such as electrical current or hydraulic pressure, number of high-energy impact tamps, aggregate quantity, etc. that must be obtained to achieve the performance requirements.
- (b) Monitoring methods to evaluate the performance of the global aggregate column improvement system after construction of the overlying embankment or wall. This will typically include installation of settlement plates and may also include monitoring points, inclinometers, piezometers or other instrumentation.

- (c) Proposed means and methods for verification that the installed aggregate columns meet the strength and/or stiffness criteria required by the design. This may include modulus or load tests on individual elements and/or groups, soil borings, and other methods.
- (d) A daily report form shall be completed by the Contactor and provided to the Engineer to document the work performed each day and the adequacy of each aggregate column. The form shall be signed by the Contractor's qualified personnel and include as a minimum the following:
 - i. Aggregate columns installed (identified by location number).
 - ii. Date constructed.
 - iii. Elevation of top and bottom of each aggregate column.
 - iv. Average lift thickness.
 - v. Results of quality control testing such as average power consumption or tamping energy obtained during aggregate column installation.
 - vi. Jetting pressure (air or water) if applicable.
 - vii. Description of soil and groundwater conditions.
 - viii. Details of obstructions, delays and any unusual issues.
 - ix. Amount of water used per aggregate column if applicable.
 - x. Estimated weight or volume of aggregate backfill placed in each column.
 - xi. Average installed diameter of each column.

Basis of Payment. This work will be paid at the contract Lump Sum price for AGGREGATE COLUMN GROUND IMPROVEMENT at the locations specified. Any temporary casing, excavation, disposal of water or spoils, drainage layers or working platforms will not be paid for separately, but shall be considered to be included with this work.



Route Great Western Trail
Section 06-00151-00 BR
County DuPage

Marked Rte. Great Western Trail
Project No. C-91-289-10
Contract No. 63568

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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David A. Dratnol, PE
Print Name
Village Engineer
Title
Village of Lombard
Agency

David A. Dratnol
Signature
6/29/2011
Date

I. Site Description:

A. The following is a description of the project location:

The proposed improvements are on the existing Great Western Trail Bikeway in Section 5, Township 39 North, Range 11 East in the Village of Lombard, DuPage County, Illinois. Improvements begin approximately 400' west of Grace Street and continue to approximately 750' east of St. Charles Road. The Great Western Trail Bikeway runs along the abandoned Chicago Great Western Railroad ROW. There are also two approved borrow excavation areas called Finley Pond on Finley Road north of Charles Lane on the east side of the street and Morris Pond on Morris Avenue just west of Main Street (location map in engineering plans).

B. The following is a description of the construction activity which is the subject of this plan:

The improvements associated with this project include the construction of three pedestrian/bikepath bridges on the Great Western Trail Bikeway and the construction/reconstruction of the bikeway approaching and between the bridges. The proposed bridges will span St. Charles Road, the Union Pacific Railway, and Grace Street. Construction activities include site grading, construction of block retaining wall, construction of bridges and abutments, construction/reconstruction of bikeway, storm drain installation at select locations, and landscaping/restoration. There are two borrow locations in the Village limits which will also be disturbed in order to excavate materials. These are existing stormwater facilities called Morris Pond and Finley Pond. They are in the engineering plans but are not contiguous to the trail portion of the project.

C. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading:

The project erosion control systems will be installed. Site grading and embankment placement will be performed in conjunction with the construction of the retaining walls and the abutments. Embankment will be added on the west side of Grace Street to provide an access to the bikeway. The bikeway approaching the bridges and between the bridges will be constructed/reconstructed. Disturbed areas will be seeded and stabilized. Temporary erosion control measures will be removed upon establishment of permanent ground cover.

- D. The total area of the construction site is estimated to be 7.85 acres.

The total area of the site that is estimated will be disturbed by excavation, grading or other activities is 7.85 acres.

- E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

0.40

- F. The following is a description of the soil types found at the project site followed by information regarding their erosivity:

330A Peotone Silty Clay Loam - Low erosivity
531B Markham Silt Loam-moderate erosivity
805B Orthents, Clayey, undulating- moderate erosivity
854B Markham, Ashkum, Beecher Complex- moderate erosivity

- G. The following is a description of potentially erosive areas associated with this project:

Embankments created to match proposed bridges and bridge abutments, 2:1 side slope. Swales created in areas where proposed embankment meets existing embankment. The embankment will be stabilized in a timely manner following final grading.

- H. The following is a description of soil disturbing activities, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

The nature of the proposed improvements, where the existing bikeway is located on the abandoned railroad embankment, requires that embankment be placed to meet the proposed bridges which span the roadways and railroad ROW. The proposed embankment has a 2:1 side slope in many areas due to ROW constraints.

The main soil type (98%) 805B Orthents is a clayey fill typical of built up, urban areas. The minor soil type (2%) 854B Markham, Ashkum, Beecher Complex is typically found on the project limits where little work is being proposed. The steepness and length of the embankment side slopes are erosive factors. Collection of surface water is proposed where runoff will channelize and erosion control measures are proposed throughout the improvements.

The work at the ponds will be graded at no steeper than 4:1 side slopes on the banks.

- I. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

- J. The following is a list of receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site. The location of the receiving waters can be found on the erosion and sediment control plans:

The proposed improvements drain to the existing stormwater conveyance system which consists of a combination of storm sewers and swales. Detention is not required per local ordinance and detention is not provided. Runoff from the proposed improvements is ultimately tributary to the East Branch of the DuPage River and to Salt Creek.

- K. The following pollutants of concern will be associated with this construction project:

Soil Sediment

Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Concrete | <input checked="" type="checkbox"/> Antifreeze / Coolants |
| <input checked="" type="checkbox"/> Concrete Truck Waste | <input checked="" type="checkbox"/> Waste water from cleaning construction equipment |
| <input checked="" type="checkbox"/> Concrete Curing Compounds | <input type="checkbox"/> Other (specify) |
| <input checked="" type="checkbox"/> Solid Waste Debris | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Paints | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Solvents | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Fertilizers / Pesticides | <input type="checkbox"/> Other (specify) |

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the contractor will be responsible for its implementation as indicated. The contractor shall provide to the resident engineer a plan for the implementation of the measures indicated. The contractor, and subcontractors, will notify the resident engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the permit. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. Erosion and Sediment Controls

- 1. Stabilized Practices:** Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), 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 7 days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of 14 or more calendar days.
- a. Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following Stabilization Practices will be used for this project:

- | | |
|---|--|
| <input type="checkbox"/> Preservation of Mature Vegetation | <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching |
| <input type="checkbox"/> Vegetated Buffer Strips | <input type="checkbox"/> Sodding |
| <input checked="" type="checkbox"/> Protection of Trees | <input type="checkbox"/> Geotextiles |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input checked="" type="checkbox"/> Other (specify) Dust Control |
| <input type="checkbox"/> Temporary Turf (Seeding, Class 7) | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Temporary Mulching | <input type="checkbox"/> Other (specify) |
| <input checked="" type="checkbox"/> Permanent Seeding | <input type="checkbox"/> Other (specify) |

Describe how the Stabilization Practices listed above will be utilized:

Protection of Trees: All trees designated to be saved, or outside the limits of construction, shall be protected prior to beginning any clearing or removal work and shall remain protected during subsequent construction work. Protection of trees shall be as shown on the plans or directed by the Engineer and in accordance with Article 201.05 of the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction, current edition

Temporary Erosion Control Seeding: This item will be applied to all bare areas and soil stockpile areas that will remain undisturbed for 15 days or more to minimize the amount of exposed surface areas. Temporary Erosion Control Seeding shall consist of areas as shown on the plans, areas disturbed during the removal of Soil and Erosion control measures, or as directed by the Engineer and in accordance with the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction, current edition.

Permanent Seeding: Permanent Seeding will be applied to all soil areas exposed by the proposed improvements. All disturbed areas, identified to receive seeding, will be stabilized via seeding immediately following finished grading. Embankment side slopes shall receive native seeding.

Erosion Control Blanket: Erosion Control Blanket will be used within 24 hours after seeding operations that have been completed, in ditches/swales and sloped areas that require protection from erosion. Erosion control blankets shall be installed over fill slopes, high velocity areas and slopes steeper than 3:1 that have been brought to final grade. Erosion Control Blanket will be installed in accordance to IDOT Specification Article 251.04.

Dust Control: Supplemental Watering for dust control shall be applied as necessary and as directed by the engineer to control sediment discharge resulting from dry, windy conditions.

- 2. Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following Structural Practices will be used for this project:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Perimeter Erosion Barrier | <input type="checkbox"/> Rock Outlet Protection |
| <input type="checkbox"/> Temporary Ditch Check | <input checked="" type="checkbox"/> Riprap |
| <input checked="" type="checkbox"/> Storm Drain Inlet Protection | <input type="checkbox"/> Gabions |
| <input type="checkbox"/> Sediment Trap | <input type="checkbox"/> Slope Mattress |
| <input type="checkbox"/> Temporary Pipe Slope Drain | <input checked="" type="checkbox"/> Retaining Walls |
| <input type="checkbox"/> Temporary Sediment Basin | <input type="checkbox"/> Slope Walls |
| <input type="checkbox"/> Temporary Stream Crossing | <input type="checkbox"/> Concrete Revetment Mats |
| <input checked="" type="checkbox"/> Stabilized Construction Exits | <input type="checkbox"/> Level Spreaders |
| <input type="checkbox"/> Turf Reinforcement Mats | <input checked="" type="checkbox"/> Other (specify) Street Sweeping |
| <input type="checkbox"/> Permanent Check Dams | <input checked="" type="checkbox"/> Other (specify) Morris Pond Dewatering |
| <input type="checkbox"/> Permanent Sediment Basin | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Aggregate Ditch | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Paved Ditch | <input type="checkbox"/> Other (specify) |

Describe how the Structural Practices listed above will be utilized:

Perimeter Erosion Barrier: Perimeter Erosion Barrier will be used to demarcate the perimeter of the project location and for the prevention of silt/sediment from leaving the site. Perimeter erosion barrier will be modified as necessary to accommodate the phasing of construction and repaired/replaced as necessary. Perimeter erosion barrier will remain in place until all remaining items of the project have been completed.

Storm Drain Inlet Protection: Inlet Protection/Inlet filters will be utilized at all manholes, catch basins and inlets with open grates. Inlet filters will be installed directly on the drainage structure or under the grate of the drainage structure resting on the lip of the frame. Inlet filters will be checked on a periodic basis and any sediment/debris will be removed to maintain inlet protection. Storm Drain Inlet Protection will be done in accordance with Article 280.04 of the Illinois Department of Transportation Specifications.

Rip-Rap: Rip-Rap will be provided on the downstream sections of the flared end sections as shown on the erosion control plan. Rip-Rap is provided to prevent scour erosion at the outlet, protect the outlet structure and minimize the potential for downstream erosion by reducing the velocity and energy of concentrated flows.

Retaining Walls: Retaining walls will be used in embankment areas where ROW is limited.

Stabilized Construction Exits: Stabilized construction exits will be used to access the work zone from public roadways to minimize the amount of material deposited on adjacent roadways due to construction operations. Stabilized Construction Exits will be installed and maintained as detailed and described in the

NRCS Urban Manual. Stabilized Construction Exits will be removed upon completion of proposed improvements and the areas disturbed will be restored.

Street Sweeping: Selective street sweeping shall be used as directed by the engineer to collect any material deposited on adjacent roadways as a result of construction operations.

Pond dewatering: Morris Pond will be pumped down to elevation 711.00 to the west storm drain in order excavate below the normal pool elevation of 714.30. Water shall be pumped from the surface of the pond to avoid sediment uptake in the pumping operations. Discharge from the pumping operation shall be filtered prior to entering the Village of Lombard storm sewers on Morris Avenue west of the pond.

3. Storm Water Management: 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.

a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined on the basis of the technical guidance in Section 59-8 (Erosion and Sediment Control) in Chapter 59 (Landscape Design and Erosion Control) of the Illinois Department of Transportation Bureau of Design and Environment Manual. If practices other than those discussed in Section 59-8 are selected for implementation or if practices are applied to situations different from those covered in Section 59-8, the technical basis for such decisions will be explained below.

b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of Storm Water Management Controls.

Local ordinance does not require stormwater detention for this project. Existing drainage patterns will be maintained. inlets, catch basins, and storm sewers are proposed at the ends of the bridge approaches to collect concentrated flows from the bridges. The flows will be collected and directed down the embankment. The proposed storm sewer outlets will be protected with geotextile fabric and Rip-Rap.

4. Other Controls:

a. Vehicle Entrances and Exits – Stabilized construction entrances and exits must be constructed to prevent tracking of sediments onto roadways.

The contractor will provide the resident engineer with a written plan identifying the location of stabilized entrances and exits and the procedures (s)he will use to construct and maintain them.

b. Material Delivery, Storage, and Use – The following BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use:

- All products delivered to the project site must be properly labeled.
- Water tight shipping containers and/or semi trailers shall be used to store hand tools, small parts, and most construction materials that can be carried by hand, such as paint cans, solvents, and grease.
- A storage/containment facility should be chosen for larger items such as drums and items shipped or stored on pallets. Such material is to be covered by a tin roof or large sheets of plastic to prevent precipitation from coming in contact with the products being stored.
- Large items such as light stands, framing materials and lumber shall be stored in the open in a general storage area. Such material shall be elevated with wood blocks to minimize contact with storm water runoff.

- Spill clean-up materials, material safety data sheets, an inventory of materials, and emergency contact numbers shall be maintained and stored in one designated area and each Contractor is to inform his/her employees and the resident engineer of this location.
- c. Stockpile Management – BMPs shall be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as but not limited to portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub base, and pre-mixed aggregate. The following BMPs may be considered:
- Perimeter Erosion Barrier
 - Temporary Seeding
 - Temporary Mulch
 - Plastic Covers
 - Soil Binders
 - Storm Drain Inlet Protection

The contractor will provide the resident engineer with a written plan of the procedures (s)he will use on the project and how they will be maintained.

- d. Waste Disposal. No materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.
- e. The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
- f. The contractor shall provide a written and graphic plan to the resident engineer identifying where each of the above areas will be located and how they are to be managed.

5. Approved State or Local Laws

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 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, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under 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:

No additional requirements in addition to the IDOT and IEPA as shown in this document.

III. Maintenance:

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. The resident engineer will provide maintenance guides to the contractor for the practices associated with this project.

- * Erosion Control Blanket shall be placed on seeded areas.
- * Perimeter Erosion Barrier shall be inspected periodically and repaired/replaced as needed.
- * Perimeter Erosion Barrier shall have sediment removed upon reaching half the height or capacity of the device.
- * Exposed bare areas and wash-outs will be repaired via re-seeding.
- * Any protective measures installed for Protection of Trees which is damaged or removed will be repaired/replaced immediately.

- * Dust Control shall be performed as needed by spraying water on dry areas of the site. The use of oils and other petroleum based toxic liquids for dust suppression is prohibited.
- * Vegetative growth of temporary and permanent seeding shall be maintained on a continual basis with adequate watering and fertilizer. The vegetative cover shall be removed and re-seeded/replaced as necessary until germination or until bare earth areas support vegetation.
- * All maintenance measures described herein shall be inspected periodically and maintained on a continual basis.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site. 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, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites 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. Discharge locations or points that are accessible, 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 I above and pollution prevention measures identified in section II 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 ½ hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.
- 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 IV(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 shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within 24 hours of the incident. The resident Engineer shall then complete and submit an "Incidence of Noncompliance" (ION) report for the identified violation within 5 days of the incident. The resident engineer 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, and a statement 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.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 Attn: Compliance Assurance Section
 1021 North Grand East
 Post Office Box 19276
 Springfield, Illinois 62794-9276

V. Non-Storm Water Discharges:

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.

- A. Spill Prevention and Control – BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.
- B. Concrete Residuals and Washout Wastes – The following BMPs shall be implemented to control residual concrete, concrete sediments, and rinse water:
- Temporary Concrete Washout Facilities shall be constructed for rinsing out concrete trucks. Signs shall be installed directing concrete truck drivers where designated washout facilities are located.
 - The contractor shall have the location of temporary concrete washout facilities approved by the resident engineer.
 - All temporary concrete washout facilities are to be inspected by the contractor after each use and all spills must be reported to the resident engineer and cleaned up immediately.
 - Concrete waste solids/liquids shall be disposed of properly.
- C. Litter Management – A proper number of dumpsters shall be provided on site to handle debris and litter associated with the project. The Contractor is responsible for ensuring his/her employees place all litter including marking paint cans, soda cans, food wrappers, wood lathe, marking ribbon, construction string, and all other construction related litter in the proper dumpsters.
- D. Vehicle and Equipment Cleaning – Vehicles and equipment are to be cleaned in designated areas only, preferably off site.
- E. Vehicle and Equipment Fueling – A variety of BMPs can be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:
- Containment
 - Spill Prevention and Control
 - Use of Drip Pans and Absorbents
 - Automatic Shut-Off Nozzles
 - Topping Off Restrictions
 - Leak Inspection and Repair
- F. Vehicle and Equipment Maintenance – On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site.

VI. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the contractor and/or penalties under the NPDES permit which could be passed onto the contractor.



Contractor Certification Statement

The Resident Engineer is to make copies of this form and every contractor and sub-contractor will be required to complete their own separate form.

Route Great Western Trail Marked Rt. Great Western Trail
Section 06-00151-00 BR Project No. C-91-289-10
County DuPage Contract No. -

This certification statement is part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the 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.

In addition, I have read and understand all of the information and requirements stated in the Storm Water Pollution Prevention Plan for the above mentioned project; I have provided all documentation required to be in compliance with the ILR10 and Storm Water Pollution Prevention Plan and will provide timely updates to these documents as necessary.

Contractor checkbox

Sub-Contractor checkbox

Print Name
Title
Name of Firm
Street Address

Signature
Date
Telephone
City/State/ZIP

Report of Soils Exploration

Great Western Trail Bridges

Village Project No. M-06-03

Lombard, Illinois

**Village of Lombard -
Public Works**

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July 1, 2010

L-73,695A

FINAL GEOTECHNICAL REPORT
GREAT WESTERN TRAIL
BRIDGES AND RETAINING WALLS
VILLAGE PROJECT NO. M-06-03
LOMBARD, ILLINOIS

PREPARED FOR:
VILLAGE OF LOMBARD
DEPARTMENT OF PUBLIC WORKS
1051 SOUTH HAMMERSCHMIDT AVENUE
LOMBARD, ILLINOIS 60148

PREPARED BY
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July 1, 2010

L-73,695A

FINAL GEOTECHNICAL REPORT
GREAT WESTERN TRAIL
BRIDGES AND RETAINING WALLS
VILLAGE PROJECT NO. M-06-03
LOMBARD, ILLINOIS

1.0 INTRODUCTION

This final geotechnical report has been prepared in connection with Bridges and Retaining Walls along the Great Western Trail alignment in Lombard, Illinois. These geotechnical services have been provided in accordance with TSC Proposal No. 43,272 (Revised) dated June 30, 2009. Previous soils explorations were performed at the subject site under TSC Project Nos. L-65,946 and L-72,921, the results of which are incorporated herein. This report was revised in accordance with the Illinois Department of Transportation Geotechnical review comments and recommendations dated April 19, 2010.

The project includes several improvements to the Great Western Trail (GWT), from west of Grace Street (Sta. 10+00) to east of St. Charles Road (Sta. 25+00). They include construction of three (3) new single-span pedestrian bridges. The bridge structures at Grace Street, the Union Pacific Railroad (UPRR) and St. Charles Road will have overall lengths of approximately 90', 140' and 97', respectively. They will all have a width of approximately 16 feet out-to-out. The vertical elevation for the pedestrian bridges will be approximately 33.5 feet above the proposed top of rail of the UPRR, 22 feet above Grace Street and St. Charles Road. It is understood that all three bridges will be supported on pile-type foundations.



Improvements also include various retaining walls at the bridge abutments as well as along the Great Western Trail alignment. They will most likely consist of mechanically stabilized earth (MSE) and/or modular block walls. Current plans for the retaining walls were provided by Bollinger, Lach & Associates, Inc. Preliminary design information for the retaining walls including station limits are summarized in the following table:

General Location	Station		Total Length (feet)	Retaining Wall	
	From	To		Exposed Height (ft)*	Leveling Pad Elevation*
West of Grace St, Along South side of GWT	12+75	13+65	90	2 - 12.0	711.5 - 721.0
Along the west side of Grace Street	13+65		80	0 - 12.0	708.0 - 711.5
Along the east side of Grace Street	14+45		76	0 - 14.0	709.0 - 710.0
East of Grace St, Along South side of GWT (MSE Portion)	14+45	15+50	105	2.0 - 14.0	710.0 - 724.5
Between Grace St. and UPRR, Along South side of GWT (Modular Block Portion)	15+50	19+15	365	3.5 - 7.0	722.0 - 729.0
Between Grace St. and UPRR , North of GWT	N/A		190	0.5 - 11.5	709.0 - 710.0
Along the northwest side of UPRR	20+65		170	0.5 - 28.0	709.0 - 715.5
Along southeast side of UPRR, North of GWT	21+90	24+23	255	1.0 - 25.0	713.0 - 716.5
Southeast side of UPRR, Along South side of GWT	21+90	23+25	150	1.5 - 25.0	713.0 - 736.0
Along the northwest side of St. Charles Rd	24+30		145	0 - 16.0	711.5 - 713.0
Along the southeast side of St. Charles Rd	25+25		80	1.0 - 14.0	710.0 - 711.5
East of St. Charles Rd, Along South side of GWT	25+15	26+90	175	3.0 - 14.0	710.0 - 723.5

* Range of exposed retaining wall height and leveling pad elevation; rounded to the nearest 0.5 foot.

2.0 SITE GEOLOGY AND PEDOLOGY

The project site is located in east-central DuPage County within the City of Lombard. The proposed Great Western Trail Bridges will cross over Grace Street, the U.P. Railroad and St. Charles Road in



the southern half of Section 5 in York Township (T 39 N, R 11 E). The proposed approaches to the bridges will typically be at approximate 1.5 to 2 percent inclines. The existing grade between the proposed bridges consists rolling weed and tree covered areas which are occasionally steeply sloping. Appended to this report is a project location map of the surrounding area.

Geologically the project site lies within the Wheaton Moraine of the Valparaiso Morainic System. These soils typically consist of silty clayey fill which usually exhibit moderate to high shear strengths at relatively moderate moisture contents. Uppermost soils across many portions of this area consist of wind-blown loess which has been weathered, decomposed and otherwise modified such that it presently consists of a silty clay of relatively high plasticity. Peat, organic clay and/or soft slopewash deposits may also be found in relatively low-lying areas. Dolomitic limestone bedrock of Silurian age is expected to be overlain by about 75 feet of overburden in the site vicinity.

Included in the Appendix is the Pedological Soil Map for the site as prepared by the Natural Resources Conservation Service. A review of this map indicates all areas along the immediate vicinity of the trail are classified as the following soils.

805B Orthents, Clayey, Undulating

854B Markham-Ashkum-Beecher Complex, 1 to 6 percent slopes

The Natural Resources Conservation Service rates these soils as Poor road fill material with a "very limited" rating for local roads and streets due to wetness, low strength, frost action and shrink/swell tendencies. There were no areas of organic "muck" type deposits within close proximity to the project.

3.0 PRECIPITATION SUMMARY

Preliminary Borings 1-8 were drilled between June 20 and July 12, 2006, Borings 101-112 drilled between February 16 and 20, 2009 and Borings 201-214 drilled on July 14 and 15, 2009.

Observations made of precipitation during the five to six months preceding our field work are summarized in the following table. These observations were obtained at the Wheaton weather station located about 5.0 miles southwest of the project site.



Precipitation Data (in inches) - Borings 1-8		
Month	Total (inches)	Departure From 30yr Avg
January, 2006	3.1	+1.2
February, 2006	1.7	+0.1
March, 2006	2.5	-0.2
April, 2006	3.8	-
May, 2006	4.8	+0.9
June, 2006	6.6	+2.7

Precipitation Data (in inches) - Borings 101-112		
Month	Total (inches)	Departure From 30yr Avg
August, 2008	2.8	-1.9
September, 2008	10.7	+7.3
October, 2008	2.7	+0.1
November, 2008	1.4	-1.8
December, 2008	7.1	+4.7
January, 2009	1.3	-0.6

Precipitation Data (in inches) - Borings 201-114		
Month	Total (inches)	Departure From 30yr Avg
January, 2009	1.3	-0.6
February, 2009	4.1	+2.5
March, 2009	5.4	+2.8
April, 2009	5.1	+1.4
May, 2009	5.0	+1.0
June, 2009	3.5	-0.4

Based on the above data, it is anticipated that groundwater levels and soil moisture were probably above normal seasonal conditions.



4.0 FIELD WORK AND LABORATORY TESTING

A total of thirty-four (34) soil borings (1-8, 101-112 and 201-214) were performed for the Great Western Trail bridges and retaining walls. The majority of the borings were extended 10 to 30 feet below existing grade, with Borings 1-7, 105, 108 and 109 (10 total) made 70 to 80 feet deep. They were staked and ground surface elevations at them determined by TSC. Reference is made to the attached Boring Location Plan.

Most of the borings were performed using an ATV truck mounted drill rig, with Borings 8 and 107 advanced using hand auger methods. Soil sampling was performed at 2½-foot intervals to 30 feet and at no greater than 5-foot intervals thereafter. Samples from Borings 101-106, 108-112 and 201-214 were taken in conjunction with the Standard Penetration Test, for which driving resistance to a 2" split-spoon sampler (N-value in blows per foot) provides an indication of the relative density of granular materials and consistency of cohesive soils. Unconfined compressive strength values were determined while drilling using a hand cranked modified Rimac machine. These tests were performed by either a soils technician or geologist from TSC. Thin-walled tube samples were also collected of relatively soft and/or very moist clay deposits. Samples from Borings 8 and 107 were taken by driving a split-spoon sampler with a sledgehammer (no N-values). Water level readings were taken during and following completion of hand-auger and drilling operations.

All soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with the AASHTO Classification System and the Illinois Department of Transportation Classification Chart. Laboratory testing included moisture content determinations for all cohesive and intermediate (silt or loamy) soil types. An estimate of unconfined compressive strength was obtained for all cohesive samples using a calibrated pocket penetrometer, with actual measurements of unconfined compressive strength being performed by Rimac methods. For classification purposes and to verify field identifications, four (4) Atterberg limit tests and four (4) grain-size analyzes were performed on representative subgrade samples. Results of these tests are summarized in a separate table in the Appendix.

Reference is made to the boring logs in the Appendix of this report which indicate subsurface stratigraphy and soil descriptions, results of field and laboratory tests, as well as water level observations. Definitions of descriptive terminology are also included. While strata changes are

shown as a definite line on the logs, the actual transition between soil layers will probably be more gradual.

5.0 DISCUSSION OF TEST DATA

Surficial Topsoil (Fill and native) was 6 to 13 inches thick at the majority of the boring locations, being 2 to 3 feet deep at Borings 4, 103 and 105. Clayey Topsoil materials were apparently absent from Borings 101-104, 110-112, 201-203, 205 and 206 (12 total). The thicker Topsoil materials revealed moisture contents ranging from 17 to 33 percent.

Granular Fill materials were typically encountered surficially at Borings 3, 5, 7, 102, 110-112 and 203 (9 total) extending approximately 3 to 6 feet below existing grade, up to 10+ feet deep in Boring 204. They consisted of Sand, Gravel and Sandy/Silty Loam, with occasional cinders and/or asphalt pieces encountered in Borings 102, 110 and 112.

At most of the remaining boring locations, cohesive Fill materials were otherwise found surficially, below the topsoil layer and/or below granular Fill materials. They consisted of Clay and Clay Loam type materials with wood pieces found in Boring 6. They typically extended 8 to 18 feet below existing grade, only 3 to 6 feet deep in Borings 1, 104, 106, 201-203, 212 and 213 (8 total). Samples of the cohesive Fill exhibited unconfined compressive strengths typically ranging from 1.5 to 4.5 tons per square foot (tsf), as low as 0.7 in Borings 2, 101, 107 and 112. Moisture contents varied from 14 to 26 percent, as high as 36 percent in Borings 1, 2, 5, 7, 101, 102, 112 and 205 (8 total).

Buried Clayey Topsoil materials were found below the Fill materials in Boring 7 and 202. The samples of buried Topsoil exhibited moisture contents on the order of 26 to 38 percent. Organic Clay soils were found directly underlying the Fill materials or a stiffer clay crust in Borings 1, 2, 101 and 102, extending 10 to 20 feet below existing grade. They exhibited relatively high moisture contents ranging from 32 to 63 percent.

Stiff to hard native Clay, Clay Loam and Silty Clay Loam soils otherwise predominated in the upper 50 feet of the borings. They had unconfined compressive strengths typically ranging from 1.0 to 4.5+ tons per square foot (tsf), occasionally lower in Borings 2, 3, 7, 101, 203, and 214 (7 total). Moisture contents usually varied from 11 to 25 percent, being as high as 40 percent in Borings 1, 7, 102, 104, 105, 112, 203, 212 and 214 (9 total).

Loose to firm Sand, Gravel, Sandy/Silty Loam and Sandy Silt deposits were found interbedded within the upper cohesive soil mass in Borings 2, 5, 104, 108, 109 and 204 (6 total). They had N-values of 6 to 25 blows per foot (bpf). The granular and intermediate materials typically predominated below a depth of 50 feet in Borings 1-7, 108 and 109 (9 total). They were in a medium dense to very dense condition, having N-values usually ranging from 10 to 60 bpf, up to 100 blows for 0 inches at Borings 4, 5, 105, 108, 109

Free water was initially encountered at between 3 and 32 feet in the majority of borings. Borings 1-7 had drilling mud and/or gel introduced into the boreholes. Upon completion of drilling operations, the water levels had generally remained within 5 feet of initial readings. Borings 8, 102, 107, 110, 111, 201, 205-208, 212 and 214 (12 total) were "dry" both during and following completion of drilling operations.

6.0 ANALYSIS AND RECOMMENDATIONS

6.1 Pile Foundations - Bridge

The improvements to the Great Western Trail (GWT) includes construction of three (3) new single-span pedestrian bridges at Grace Street, the Union Pacific Railroad (UPRR) and St. Charles Road. They will all have a width of approximately 16 feet out-to-out. Grace Street, UPRR and St. Charles Road bridges will have overall lengths of approximately 90', 140' and 97', respectively. The vertical elevation for the pedestrian bridges will be approximately 33.5 feet above the proposed top of rail of the UPRR, 22 feet above Grace Street and St. Charles Road.

It is understood that integral and/or stub type abutments planned for the Great Western Trail bridges will be supported on a pile type foundations. The bridge abutments at Grace Street and St. Charles Road are to consist of integral type abutments, with the bridge abutments at the UPRR consisting of stub type abutments. It is recommended that the piles be driven as friction piles.

It should be noted that unsuitable/compressible Organic Clay soils were encountered on the east and west sides of Grace Street which extended 10 to 20 feet below existing grade. Remedial measures and recommendations are discussed in greater detail under Sections 6.3 and 6.4 (i.e. Remedial Measures at Grace Street and Southeast Side of UPRR).



The bridge abutments are to be supported by either steel H-piles or metal shell piles. Three (3) pile sections have been evaluated in connection with structure support: HP 12x63, HP 12x74 and 14" metal shell. Summarized in the following table are the estimated tip elevations and pile lengths for steel H-piles and/or metal shell piles for three (3) Nominal Required Bearings, i.e. 270, 360 and 450 kips. The estimated pile length includes 2.0 foot embedment into pile cap. They have been prepared in connection with Design Guide 3.10.1, LRFD Geotechnical Pile Design Procedure.

Estimated Pile Lengths and Tip Elevations

Boring No.	General Location	Existing Grade	Bottom of Pile Cap*	Nominal Req. Bearing 270 kips			Nominal Req. Bearing 360 kips			Nominal Req. Bearing 450 kips		
				HP 12x63	HP 14x73	14" Shell	HP 12x63	HP 14x73	14" Shell	HP 12x63	HP 14x73	14" Shell
Grace Street Bridge												
1	W. Abutment	720.6	727	61 ft (668)	58 ft (671)	61 ft (668)	81 ft (648)	71 ft (658)	64 ft (665)	NA	90 ft (639)	71 ft (658)
2	E. Abutment	719.2	727	76 ft (653)	72 ft (657)	62 ft (667)	90 ft (639)	82 ft (647)	72 ft (657)	NA	NA	77 ft (652)
Union Pacific Railroad Bridge												
4	NE. Abutment	716.7	734	52 ft (684)	49 ft (687)	55 ft (681)	67 ft (669)	60 ft (676)	67 ft (669)	77 ft (659)	67 ft (669)	77 ft (659)
105	SE. Abutment	716.0	734	62 ft (674)	53 ft (683)	62 ft (674)	67 ft (669)	64 ft (672)	62 ft (674)	70 ft (666)	67 ft (669)	62 ft (674)
St. Charles Road Bridge												
108	NE. Abutment	715.1	729	63 ft (668)	56 ft (675)	50 ft (681)	79 ft (652)	72 ft (659)	73 ft (658)	85 ft (646)	82 ft (649)	74 ft (657)
109	SE. Abutment	715.7	729	52 ft (679)	47 ft (684)	48 ft (683)	64 ft (667)	62 ft (668)	48 ft (683)	69 ft (662)	66 ft (665)	63 ft (668)

* Bottom of pile cap elevation rounded to the nearest foot.

The above estimated pile lengths are being provided for contract estimates. The actual pile lengths should be determined during installation based on resistance to driving criteria. It is recommended that at least one test pile be driven at each substructure prior to ordering piles for production driving. The test piles are normally driven to 110 percent of the Nominal Required Bearing shown on the plans. It is



recommended that the steel H-piles be provided with metal pile shoes (pile points) due to the possible presence of cobbles and boulders which may be encountered during pile driving.

It is recommended that the 14" MS piles have a minimum wall thickness of 0.312" so that they can be adequately driven to the minimum required capacity. In this regard, the driving equipment should be selected so that the piles can be driven to the required capacity (Nominal Required Bearing) at an adequate final penetration resistance and without inducing pile stresses that exceed allowable values.

Factored Resistance Available should be computed using a geotechnical resistance factor of 0.5. It should be noted that no geotechnical losses were needed to be taken into account for downdrag, scour or liquefaction. Normally the organic and/or soft layers (compressible soils) found at Grace Street would warrant downdrag to be taken into account; however, these materials should be improved prior to pile installation as recommended in Sections 6.3 and 6.4.

6.2 Proposed Retaining Walls

Current plans call for the construction of various mechanically stabilized earth (MSE) and modular block retaining along portions of the Great Western Trail and/or for bridge structures. The MSE walls will likely have maximum exposed heights of approximately 10 to 30 feet with embankment slopes most likely extending down directly in front of the walls in most areas. Grade along the new path alignment is to be raised by a few up to about 30 feet. Plans show that in areas where the proposed Great Western Trail grade will be raised the new side slopes for the trail would be at an approximate 2H:1V and occasionally at 3H:1V or flatter.

Summarized in the following table are the net allowable soil bearing pressures and corresponding depth/elevations of suitable bearing soils at approximate retaining wall leveling pad. It is recommended that the top of the leveling pads for the retaining walls be a minimum 3.5 feet below finished grade for frost protection. The ground surface elevation and the depth of existing fill/topsoil materials at the boring locations are also shown. Also included is the approximate leveling pad elevation nearest to the boring and the total wall height, measured from bottom of the top of the leveling pad to top of retaining wall.

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Boring No.	Approx. Station	Existing Grade	Depth of Topsoil/Fill (ft)	Leveling Pad Elev.	Suitable Bearing Soils*		Net Allowable Bearing Stress (psf)	Total Wall Height**
					Depth (ft)	Elevation		
West of Grace Street, Sta. 12+75 to 13+65								
1	13+26	720.6	5.5 F	716.0	10.5 #	710.0	#	9.5
201	13+65	715.7	5.5 F	711.5	4.5 M	711.0	3000	10.5
202	13+65	716.0	5.0 F	712.0	5.0 U	711.0	4000	16.0
East of Grace Street, Sta. 14+45 to 15+50 (MSE Portion)								
203	14+45	714.0	3.5 F	710.0	8.0 UM	706.0	2000	14.0
204	14+45	712.7	2.0 F	710.0	3.0 M	709.5	2500	18.0
2	14+82	719.2	8.0 F	713.5	20.5 #	698.5	#	16.0
102	15+52	731.2	15.5 F	725.0	20.0 #	710.5	#	14.0
East of Grace Street, Sta. 15+50 to 19+15 (Modular Block Portion)								
205	16+26	732.3	15.5 F	725.5	7.5 M	725.0	3000	6.0
206	17+02	731.8	15.5 F	726.0	6.5 M	725.5	3000	6.5
207	17+77	732.9	10.5 F	728.0	5.5 M	727.5	3000	6.5
3	18+46	732.8	18.0 F	729.0	4.5 M	728.5	2500	7.5
Between Grace St. and UPRR, North of GWT								
209	N/A	715.0	1.0	710.5	5.0	710.0	6000	10.5
210	N/A	714.8	1.1	710.5	5.0	710.0	5000	18.5
211	N/A	713.7	1.0	709.5	4.5	709.0	6000	10.0
Northwest Side of Union Pacific Railroad, Sta. 20+65								
103	20+25	716.5	3.0 F	715.5	1.5 M	715.0	2000	9.0
4	20+44	716.7	3.0 F	710.5	7.0	710.0	6000	32.0
104	20+55	716.3	3.0 F	709.5	7.5	709.0	6000	3.5
Southeast Side of Union Pacific Railroad, Sta. 21+90 to 24+23								
105	21+90	716.0	2.5	714.0	13.0 #	703.0	#	28.5
107	22+40	729.5	15.0+ F	720.5	15+ #	714.5	#	23.0 - 21.5
5	23+53	717.6	8.0 F	714.5	10.5 #	707.0	#	20.0
212	24+00	716.2	5.5 F	714.0	3.0 M	713.5	3000	3.5



Boring No.	Approx. Station	Existing Grade	Depth of Topsoil/Fill (ft)	Leveling Pad Elev.	Suitable Bearing Soils*		Net Allowable Bearing Stress (psf)	Total Wall Height**
					Depth (ft)	Elevation		
Northwest Side of St. Charles Road, Sta. 24+30								
6	24+30	715.1	13.0 F	712.5	2.0 M	713.0	2500	9.5
108	24+30	715.1	0.7 F	712.0	3.5	711.5	6000	20.0
212	24+00	716.2	5.5 F	712.5	4.0 M	712.0	3000	10.0
Southeast of St. Charles Road, Sta. 25+15 to 26+90								
213	25+15	714.9	2.5 F	711.5	4.0	711.0	5000	6.0
109	25+20	715.7	0.5	712.0	4.0	711.5	6000	17.5
214	25+52	722.0	10.5 F	717.0	5.5	716.5	6000	14.0
110	26+80	730.3	13.0 F	724.0	7.0 M	723.5	3000	6.0

- * Suitable bearing soils depth/elevation; rounded to the nearest 0.5 foot.
- ** Total wall height, measured from the top of the leveling pad to top of retaining wall; rounded to the nearest 0.5 foot.
- # Remedial measures recommended at this location due to depth of unsuitable soils.
- F Existing Fill materials encountered to depth indicated.
- M Existing Fill materials considered marginally suitable as bearing material for fill placement and/or retaining wall support.
- U Undercut depth to suitable (or marginally suitable) bearing soils measured from existing grade.

At most of the borings drilled for the retaining walls, native and fill materials encountered at approximate leveling pad grades are considered capable (or marginally capable) of supporting a net allowable bearing pressure of between 2000 to 6000 pounds per square foot (psf). They consisted of native cohesive soils exhibiting unconfined compressive strengths of 1.5 tsf or greater, 1.0 to 1.5 tsf and/or exhibiting relatively high moisture contents in the case of marginal bearing native soils. Suitable bearing cohesive Fill materials had unconfined compressive strengths of 2.5 tsf or greater, and 1.0 to 2.5 tsf in case of marginal bearing Fill materials. The 2000 to 6000 psf bearing values are generally satisfactory for retaining wall construction, with a maximum settlement of about an 1 inch. However, it should be noted that remedial measures are recommended for the taller walls at Grace Street as well as the southeast side of Union Pacific Railroad as discussed in greater detail below.



Marginal bearing soils for fill placement and/or retaining wall support were encountered in Borings 3, 6, 103, 110, 201, 203-207, 212 (10 total). They typically consisted of Clay Fill materials having relatively high moisture contents in excess of about 25 percent and/or unconfined compressive strengths of 2.0 tsf or less. If relatively low strength or unstable soils are exposed at footing grade, they should be removed and replaced with structural backfill. Undercuts of 1 to 2 feet are typically required based on field observations. Foundation overexcavations are typically backfilled and footings constructed at design elevations in accordance with the following recommended procedures.

Structural backfill suitable for placement beneath the retaining wall leveling pad may consist of a well-graded crushed stone or crushed gravel meeting the IDOT CA-6 gradation. These materials must be placed in maximum 8 inch lifts and compacted to at least 95 percent of Modified Proctor density (ASTM D 1557). In addition, the limits of structural Fill should extend at least 1.0 foot beyond the limits of the bottom edge of footing and then down at a 1V:1H slope until suitable bearing soils are encountered. The limits of excavation behind the face of the wall should extend for the full length of any MSE retaining wall reinforcement.

Borings occasionally encountered existing Fill with deleterious materials such as Cinders, asphalt or brick fragments, broken concrete and pieces of wood, considered unsuitable for foundation support. The worst areas seem to be Borings 102, 110 and 112, typically found in the upper 3 feet. These materials should be removed and replaced if encountered at footing grade and in fill areas exceeding 10+ feet. Also, some of the materials present in the Fill may require environmental restrictions for disposal of them.

6.3 Remedial Measures at Grace Street

Borings 1, 2, 101, 102 and 201-204 were drilled on the east and west sides of Grace Street. Borings 1, 2, 101 and 102 encountered Fill materials overlying potentially compressible Organic Clay and relatively soft Clay soils which extended 10 to 20 feet below existing grade. The cohesive Fill materials are characterized as having high moisture contents usually exceeding 20 percent and relatively low strength values. The relatively soft Clay and Organic Clay soils found below the Fill had moisture contents between 30 and 60 percent.

The existing Fill materials and underlying soft Clay soils at Grace Street are unsuitable for support of gravity bearing retaining walls and new embankment fill. If left in-place, consolidation of them could



lead to significant settlements causing distress to the retaining wall and foundations constructed thereupon. Settlement problems in connection with the Grace Street bridge approach slabs would also be expected. It is estimated that 8 to 12 inches of total settlement could be expected from the placement of approximately 15 to 20 feet of new embankment fill in the area of Borings 1 and 2.

Organic Clay soils were apparently absent from Borings 201-204, i.e. those drilled closest to Grace Street. However, the borings encountered cohesive and granular Fill materials extending 3 to 10+ feet below existing grade. Borings 202 and 203 encountered buried clayey Topsoil and relatively soft/very moist native Clay soils extending 5 to 8 feet deep. These Fill materials and relatively soft and very moist native Clay soils are considered marginally suitable for fill placement and/or retaining wall support. Therefore, remedial measures will need to be performed in this area in order to provide adequate bearing capacity for the retaining walls, minimize settlement and provide an adequate factor of safety for global stability.

Complete Removal and Replacement: One option would be to completely remove and replace the unsuitable soil types at the base of the MSE walls as part of grading activities. Removal and replacement would have to extend down to suitable bearing soils (as indicated in the above table) from approximate Station 12+75 to 13+65 along the western side of Grace Street and from Station 14+45 to 15+90 along the eastern side of Grace Street.

The limits of excavation behind the face of the wall would have to extend for the full length of MSE reinforcement zone, in order to minimize settlement and to provide an adequate factor of safety for global stability. The excavation in front of the retaining wall should extend at least 1.0 foot beyond the limits of the bottom edge of retaining wall leveling pad and then down at a 1V:1H slope until suitable bearing soils are encountered.

Aggregate Columns: Consideration may also be given to the use of aggregate columns to improve the existing fill and buried soft soils east and west of Grace Street, i.e. from approximate Station 12+75 to 13+65 and Station 14+45 to 15+90, respectively. The aggregate column specialty contractor will provide their own specific design spacing for the aggregate columns as well as installation procedures. The following minimum design requirements should be met by aggregate column ground improvement.

The aggregate column ground improvement area behind the face of the wall should extend for the full length of MSE reinforcement zone. This would provide adequate bearing for retaining walls (i.e. 4 feet



below existing grade/frost depth) as well as the reinforced zone. The aggregate columns should also be engineered to provide an adequate factor of safety for global stability as well as minimize settlement at the bridge approach slabs. The aggregate columns should be extended through the existing fill and soft clay layers, to typically penetrate the medium stiff to very stiff native Clay soils typically found 10 to 20 feet deep. Shallow footings constructed on aggregate columns improved ground should be able to be designed for a net allowable bearing pressure in the range of 3000 to 5000 psf and a maximum settlement of 1 inch (0.6 inch differential settlement).

Lightweight Concrete Fill: Another option would be to use lightweight backfill such as foamed concrete or geofoam as a remedial measure to minimize settlement and provide sufficient bearing. Complete removal and replacement of the soft and/or organic clay soils would have to extend down to suitable bearing soils (as indicated in the above table) from approximate Station 12+75 to 13+65 and Station 14+45 to 15+90 along the western and eastern sides of Grace Street, respectively. This would also include excavating behind the face of the wall for the full length of MSE reinforcement zone, in order to minimize settlement and to provide an adequate factor of safety for global stability. The excavation in front of the retaining wall should extend at least 1.0 foot beyond the limits of the bottom edge of retaining wall leveling pad and then down at a 1V:1H slope until suitable bearing soils are encountered.

Steel Piles: Steel Piles are not considered to be a viable ground improvement option for the east and west sides of Grace Street. While the piles may provide suitable bearing for the face of the retaining wall, they do not take care of the ground improvement needed to provide adequate bearing within the MSE reinforcement zone. Therefore, the potential would exist for excessive differential settlement between the face of the wall and the reinforcement zone. Also, the piles would not provide the ground improvement needed to create an adequate factor of safety for global stability.

6.4 Remedial Measures at Southeast Side of UPRR

Borings 5, 105-107 and 212 were drilled for the retaining wall on the southeast side of Union Pacific Railroad. The borings typically encountered Fill materials and/or native clay soils in the upper 5 to 10 feet. Samples of the cohesive Fill materials in Borings 5, 106 and 107 are characterized as having moderate to high moisture contents usually exceeding 20 percent and low to moderate pocket penetrometer values of 1.0 to 3.0 tsf. The Sandy Loam Fill materials also found in Boring 5 were in a relatively loose condition. The upper native Clay materials in Borings 105 had relatively high moisture contents exceeding 20 percent and relatively low strength values of 1.0 to 1.5 tsf. These Fill materials



and/or native soils typically revealed in the upper 5 to 10 feet are considered unsuitable for gravity bearing retaining wall with total wall heights of 15 to 29 feet. Remedial measures will need to be preformed in order to minimize settlement and to provided adequate bearing capacity for the retaining walls having total wall heights exceeding 15 feet. It is estimated that settlement of 4 to 10 inches would be expected behind the face of the wall, being the greatest near the bridge abutment where fill is the highest.

Complete Removal and Replacement: One option would be to remove and replace the unsuitable soil types at the base of the MSE walls as part of grading activities. Removal and replacement along the south side of the MSE wall would have to extend down to suitable bearing soils (as indicated in the above table) from approximate Station 21+90 to 23+10 and from Station 21+90 to 24+10 along the north portion of the MSE wall and should extend down to suitable bearing soils as indicated in the table above.

The limits of excavation behind the face of the wall would have to extend for the full length of MSE reinforcement zone, in order to minimize settlement and to provide an adequate factor of safety for global stability. The excavation in front of the retaining wall should extend at least 1.0 foot beyond the limits of the bottom edge of retaining wall leveling pad and then down at a 1V:1H slope until suitable bearing soils are encountered. This option would be most viable where suitable bearing soils are encountered within 5 to 8 feet below existing grade.

Aggregate Columns: Consideration may also be given to the use of aggregate columns to improve the existing fill and/or relatively low strength native materials on the southeast side of the UPRR. The aggregate column ground improvements should extend from approximate Station 21+90 to 23+10 along the south side of the MSE wall and from Station 21+90 to 24+10 along the north portion of the MSE wall. The aggregate column specialty contractor will provide their own specific design spacing for the aggregate columns as well as installation procedures. The following minimum design requirements should be met by aggregate column ground improvement.

The aggregate column ground improvement area behind the face of the wall should extend for the full length of MSE reinforcement zone. This would provide adequate bearing for retaining walls (i.e. 4 feet below existing grade/frost depth). The aggregate columns should be engineered to provide an adequate factor of safety for global stability as well as minimize settlement at the bridge approach slabs. The aggregate columns should be extended through the existing fill and soft clay layers, to



typically penetrate the very stiff native Clay soils generally found 8 to 15 feet deep. Shallow footings constructed on aggregate columns improved ground should be able to be designed for a net allowable bearing pressure in the range of 4000 to 5000 psf and a maximum settlement of 1 inch (0.6 inch differential settlement).

Lightweight Concrete Fill: Another option would be to use lightweight backfill such as foamed concrete or geofoam as a remedial measure to minimize settlement and provide sufficient bearing. Removal and replacement with lightweight backfill would have to extend down to suitable bearing soils (as indicated in the above table) from approximate Station 21+90 to 24+10 and Station 21+90 to 23+10 along the north and south sides of southeast side of the UPRR, respectively. This would include excavating behind the face of the wall for the full length of MSE reinforcement zone, in order to minimize settlement and to provide an adequate factor of safety for global stability. While the excavation in front of the retaining wall should extend at least 1.0 foot beyond the limits of the bottom edge of retaining wall leveling pad and then down at a 1V:1H slope until suitable bearing soils are encountered.

Steel Piles: Steel Piles are not considered to be a viable ground improvement option for the southeast side of UPRR. While the piles may provided suitable bearing for the face of the retaining wall, they do not take care of the ground improvement needed to provide adequate bearing within the MSE reinforcement zone. Therefore, the potential would exist for excessive differential settlement between the face of the wall and the reinforcement.

6.5 Global Stability

Global stability analyses were previous performed under TSC Job No. 72,921 dated May 19, 2009. The retaining walls at that time were performed without soil reinforcement. Factors of safety determined by these stability analyses ranged from 1.1 to 1.9 for the short term cases and ranged from 0.9 to 1.3 for long term cases. For the most part the global stability analyses performed for the unreinforced retaining walls failed to meet minimum requirements set by the IDOT Geotechnical Manual of 1.5.

Current plans show all the MSE retaining walls with soil reinforcement. Preliminary designs indicate that the soil reinforcement will have lengths of 0.7 x Total Wall Height or a minimum of 8 feet. At the time this report was written, the type of reinforcement as well as the spacing have not be determined.



In order to account for the soil reinforcement, it is understood that the global stability analyses should be performed using a reinforced soil mass. This approach assumes the soil reinforcement will force the critical global slope failure to fall outside the entire reinforced soil zone. In this regard, this approach is considered relatively unconservative and it is recommended that additional slope stability analyses be performed once the soil reinforcement portion of the retaining walls has been designed.

Global stability analyses were performed for representative retaining wall cross-sections located at seven (7) separate locations (AA thru GG) as indicated on the Boring Location Plan. The stability analyses were run using SLIDE 5.0 computer program by Rocscience Inc. The Spencer method (i.e. non-circular failures) was utilized for the proposed retaining walls sections. Both short term (end of construction) and long term conditions were run for the retaining walls which provided the lowest factor of safety.

For the analyses it was assumed that the MSE retaining wall designer (i.e. Structural Engineer) would be responsible for the internal stability of the wall as well as other external stability failure modes so that a failure can not occur through the wall. Therefore, all failure surfaces were forced to extend below the retaining wall located 4.0 feet below finished grade (frost depth) as well as out side the reinforced soil mass. The slope stability cross sections were created using drawings provided by Bollinger, Lach and Associates, Inc. Results are summarized in the following table, i.e. computed factors of safety (FOS) for the different cross sections and conditions:

General Location	Cross Section	Figure	Condition	Factor of Safety
Along East Side of Grace Street	AA	1	Short-Term	1.97
		2	Long-Term	1.66
Along West Side of Grace Street	BB	3	Short-Term	1.65
		4	Long-Term	1.56
North of GWT, Between Grace St. and UPRR	CC	5	Short-Term	2.52
		6	Long-Term	1.58
Along Northwest Side of UPRR	DD	7	Short-Term	2.48
		8	Long-Term	1.80
Along Southeast Side of UPRR	EE	9	Short-Term	2.72
		10	Long-Term	1.82



General Location	Cross Section	Figure	Condition	Factor of Safety
Along the Northwest Side of St. Charles Road	FF	11	Short-Term	2.12
		12	Long-Term	1.74
Along the Southeast Side of St. Charles Road	GG	13	Short-Term	1.87
		14	Long-Term	1.69

The results of the global stability analyses can also be seen on the computer-generated figures included in the Appendix. These figures show the geometry of the slope, soil stratigraphy, material properties and the ten (10) most critical slip surfaces and associated factors of safety. In connection with material properties, total stress parameters were used for the short-term case, i.e. unconfined compressive strength for cohesive soil types. Effective stress parameters were used for the long-term case, based on our experience running consolidated-undrained triaxial compression tests on similar cohesive soil types in the area and published correlations with SPT-N values for granular soils. In this regard, we have assumed that new fill will consist of cohesive soil types which are compacted to at least 90 percent of Modified Proctor density (ASTM D1557).

Factors of safety determined by the stability analyses for the reinforced retaining walls ranged from 1.7 to 2.7 for the short term cases and ranged from 1.6 to 1.8 for long term cases. The global stability analyses performed for the reinforced retaining walls meet the minimum requirements set by the IDOT Geotechnical Manual of 1.5. However, as previously stated above, in order to account for the soil reinforcement the global stability analyses were performed assuming a reinforced soil mass. This approach assumes that the soil reinforcement will force the critical global slope failure to fall outside the reinforced soil zone. In this regard, it is recommended that additional slope stability analyses be performed once the type of soil reinforcement as well as the spacing has been designed for the retaining walls.

6.6 Seismic Considerations

The project site is located within east-central DuPage County within the City of Lombard. The following summarizes seismic design data and site classification. In accordance with Appendix 3.15.A of the IDOT Bridge Manual and the AASHTO-LRFD Code the following is a summary of seismic design data and site classification.



Seismic Performance Zone (SPZ): 1
 Design Spectral Acceleration at 1.0 sec (SD1): 0.087
 Design Spectral Acceleration at 0.2 sec (SDS): 0.154
 Soil Site Classification : D

Based on the site stratigraphy, the relatively low seismic design loads will not have a significant impact on geotechnical issues such as liquefaction, settlement or bearing capacity.

6.7 Lateral Earth Pressures

Lateral earth pressures for permanent underground structures will be dependent on the type of backfill used, whether it is in a drained or undrained state, as well as loading conditions. Equivalent fluid pressures (EFP) given below for cohesive and granular backfills assuming active (Ka) and passive (Kp) earth pressures. The values shown represent the increase in lateral pressure over a 1.0 foot distance measured in pounds per square foot (psf/ft).

<u>BACKFILL</u> <u>TYPE</u>	<u>EQUIVALENT FLUID PRESSURE (PSF/FT)</u>			
	<u>ACTIVE CONDITION</u>		<u>PASSIVE STATE</u>	
	<u>DRAINED</u>	<u>UNDRAINED</u>	<u>DRAINED</u>	<u>UNDRAINED</u>
GRANULAR	35	80	400	250
COHESIVE	50	85	350	250

The active condition applies to retaining walls which are free to rotate at their top. The passive state is induced in soil which is resisting lateral movement or displacement.

The values shown above are nominal, i.e. are based on average soil conditions. They also assume a level backfill height behind the walls; sloping backfill will increase lateral earth pressures and should be analyzed on an individual basis. It should be noted that for the EFP values given for granular soils be valid, the wedge of granular materials should extend a minimum distance at the top of the wall (or ground surface) equal to the height of the wall.



An appropriate surcharge load should be applied at the top of below grade walls in computing lateral earth pressures; 100 to 200 psf is normally used for sidewalks and/or bike paths. Finally, the height of free-standing retaining walls with clay backfill should be limited to approximately 6 feet, to avoid excessive deflections.

Backfill placed against retaining walls should be compacted to between 90 and 95 percent of Modified Proctor density. Compaction in excess of 95 percent is not desirable, since it can result in higher lateral earth pressures than recommended for design. Also, heavy compaction equipment should not be used on the high side of the wall within a horizontal distance equal to the height of backfilling, as this may result in over-stressing of the wall and excessive deflection.

6.8 Embankment Construction

In several areas relatively large increases in grade (15 to 30 feet) are planned along the Great Western Trail. Settlements of the newly placed fill may be of concern. Long-term settlement of the newly placed fill is estimated to consist of approximately ½ to 1 percent of the total fill height (i.e. up to 2 to 4 inches).

Prior to the placement of the engineered fill, it is recommended that all the exposed subgrade soils be proof-rolled, in order to detect the presence of unsuitable soil types. The proof-roll should be performed using a loaded dump truck or other approved piece of heavy rubber-tired construction equipment. All soft or unstable materials determined by proof-rolling should be removed and replaced to a minimum depth of one foot. If stable subgrade soils are not encountered at the undercut depth, it is recommended that a maximum one foot additional undercut be performed.

All imported Fill will be subject to approval by the Geotechnical Engineer. As a general guideline, it should consist of inorganic silty clays of medium plasticity or approved granular materials. It is recommended that compaction for embankment be to a minimum of 90 percent of maximum dry density, as determined by the Modified Proctor test (ASTM D 1557). The fill should be placed in approximate 9 inch lifts loose measure for cohesive soils and up to 12 inches for granular materials, each lift to be compacted to the specified density prior to the placement of additional fill.

Moisture control is important in the compaction of most soil types, and it is recommended that the water content of new fill be within 1 percentage point on the low side and 3 percentage points on the



high side of optimum moisture as established by its laboratory compaction curve. If the soil is too dry, it will have an apparent stability which may be lost if it later becomes saturated. If the soil is too wet, the Contractor will not be able to achieve proper compaction.

6.9 Groundwater Management

Serious groundwater problems are not anticipated at the site, due in large part to the predominantly cohesive nature of upper subsurface soils. However, the accumulation of run-off water or seepage at the base of the excavations should still be expected to occur during retaining wall construction and site work. The Contractor should be prepared to implement dewatering/unwatering procedures on an as needed basis, as a minimum to include pumping from strategically placed sumps.

7.0 CLOSURE

It is recommended that full-time technician services be provided by Testing Service Corporation personnel to observe and monitor undercuts and placement of new fill materials. It should be confirmed that all areas beneath the MSE wall sections have reached soils capable of the design bearing stress as discussed above or otherwise noted on the plans. In addition, adequacy of building materials, stripping and undercutting, as well as fill placement and compaction should be monitored for compliance with the recommended procedures and specifications.

The analysis and recommendations submitted in this report are based upon the data obtained from the thirty-four (34) soil borings, performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings, the nature and extent of which may not become evident until during the course of construction.

We are available to review this report with you at your convenience.

Timothy R. Peceniak, P.E.
Project Engineer
Registered Professional Engineer
Illinois No. 062-061269

Michael V. Machalinski, P.E.
Vice President



TESTING SERVICE CORPORATION

GENERAL CONDITIONS

Geotechnical and Construction Services

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom the Client transmits any report prepared by TSC. Unless otherwise expressly assumed in writing, TSC shall have no duty to any third party, and in no event shall TSC have any duty or obligation other than those duties and obligations expressly set forth in this Agreement. Ordering services from TSC shall constitute acceptance of these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this agreement.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C. § 6901, et seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to perform same shall

not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. SAMPLE DISPOSAL: Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

8. TERMINATION: This Agreement may be terminated by either party upon seven days prior written notice. In the event of termination, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses.

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to \$50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.

In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on

damages shall be increased to \$500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claims; (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence. These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Should litigation be necessary, the parties consent to jurisdiction and venue in an appropriate Illinois State Court in and for the County of DuPage, Wheaton, Illinois or the Federal District Court for the Northern District of Illinois. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

REV 06/05

APPENDIX

PEDOLOGICAL SOIL MAP

SOIL TEST DATA

AASHTO CLASSIFICATION CHART

LEGEND FOR BORING LOGS

BORING LOGS (1-8)

BORING LOGS (101-112)

GLOBAL STABILITY ANALYSES (10)

BORING LOCATION PLAN

Soil Map—DuPage County, Illinois
(GREAT WESTERN TRAIL BRIDGES)

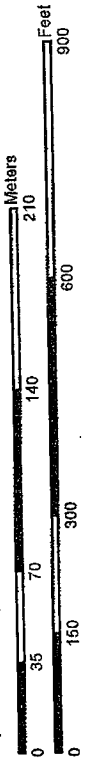
41° 53' 31"



41° 53' 31"

41° 53' 18"

Map Scale: 1:2,860 if printed on A size (8.5" x 11") sheet.



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MAP INFORMATION

Map Scale: 1:2,860 if printed on A size (8.5" x 11") sheet.
The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 16N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: DuPage County, Illinois
Survey Area Data: Version 5, Sep 8, 2006

Date(s) aerial images were photographed: 7/21/2007

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Soils		Wet Spot
	Soil Map Units		Other
	Special Point Features		Special Line Features
	Blowout		Gully
	Borrow Pit		Short Steep Slope
	Clay Spot		Other
	Closed Depression		Political Features
	Gravel Pit		Cities
	Gravelly Spot		Water Features
	Landfill		Oceans
	Lava Flow		Streams and Canals
	Marsh or swamp		Transportation
	Mine or Quarry		Rails
	Miscellaneous Water		Interstate Highways
	Perennial Water		US Routes
	Rock Outcrop		Major Roads
	Saline Spot		Local Roads
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		
	Spill Area		
	Stony Spot		

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Map Unit Legend

DuPage County, Illinois (IL043)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
146A	Elliott silt loam, 0 to 2 percent slopes	0.3	1.2%
232A	Ashkum silty clay loam, 0 to 2 percent slopes	0.1	0.4%
805B	Orthents, clayey, undulating	20.3	71.9%
854B	Markham-Ashkum-Beecher complex, 1 to 6 percent slopes	7.5	26.5%
Totals for Area of Interest		28.2	100.0%

TESTING SERVICE CORPORATION
 457 East Gundersen Drive
 Carol Stream, Illinois

TSC Job No. L - 73,695
 May 19, 2009

Client:

Village of Lombard
 Department of Public Works
 1051 S. Hammerschmidt Ave.
 Lombard, IL 60148

Project:

Great Western Trail
 Bridges and Retaining Walls
 Grace Street to St. Charles Road
 Lombard, Illinois

SOIL TEST DATA

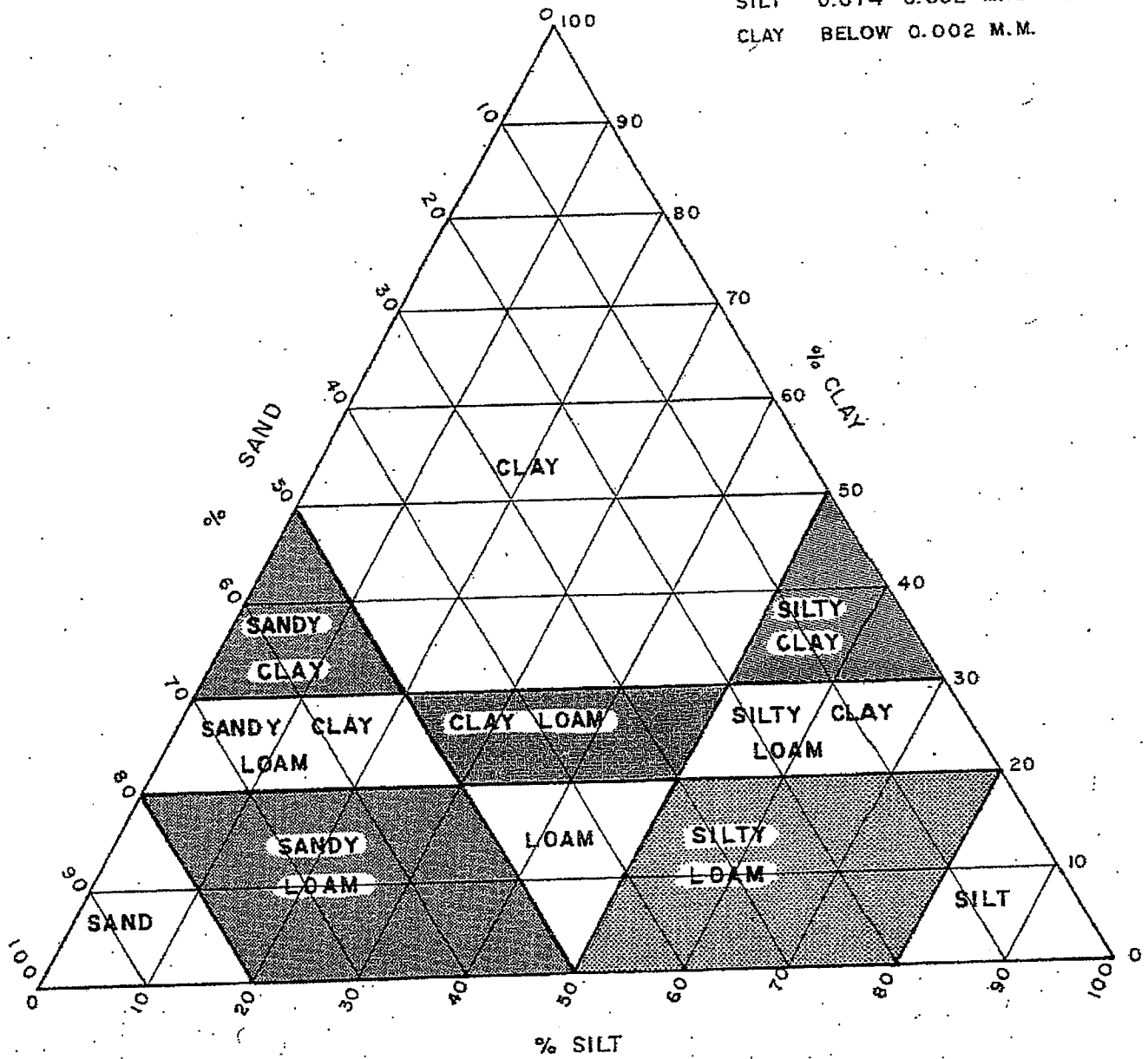
BORING NUMBER	101	102	104	105	108	112
SAMPLE NUMBER	7	8	7	15	10	5
DEPTH IN FEET	16-17½	19½ -20	16-17½	½-2	2-3½	11-12½
AASHTO CLASSIFICATION	A-6	A-7-5	A-4	A-1-a	A-4	A-7-6
UNIFIED CLASSIFICATION	CL	OH	CL	GP	CL	CL
GRADATION - PASSING 1 ½" SIEVE %	-	100	100	100	100	-
GRADATION - PASSING 1" SIEVE %	-	100	100	72	100	-
GRADATION - PASSING ¾" SIEVE %	-	100	100	61	100	-
GRADATION - PASSING 3/8" SIEVE %	-	99	100	46	100	-
GRADATION - PASSING # 4 SIEVE %	-	99	100	38	99	-
GRADATION - PASSING # 10 SIEVE %	-	99	100	30	98	-
GRADATION - PASSING # 40 SIEVE %	-	97	99	18	94	-
GRADATION - PASSING # 100 SIEVE %	-	89	79	14	79	-
GRADATION - PASSING # 200 SIEVE %	-	86	72	12	69	-
GRAVEL%	-	1	0	62	1	-
SAND %	-	13	28	26	30	-
SILT %	-	57	56	9	51	-
CLAY %	-	29	16	3	18	-
LIQUID LIMIT %	28	54	21	-	-	45
PLASTIC LIMIT %	15	31	11	-	-	24
PLASTICITY INDEX %	13	23	10	-	-	21
ORGANIC CONTENT	L-O-I %	-	-	-	-	-
	WET COMBUSTION %	-	-	-	-	-

TESTING SERVICE CORPORATION

I DH TEXTURAL CLASSIFICATION CHART

SIZE LIMITS

SAND	2.0 - 0.074	M.M.
SILT	0.074 - 0.002	M.M.
CLAY	BELOW 0.002	M.M.



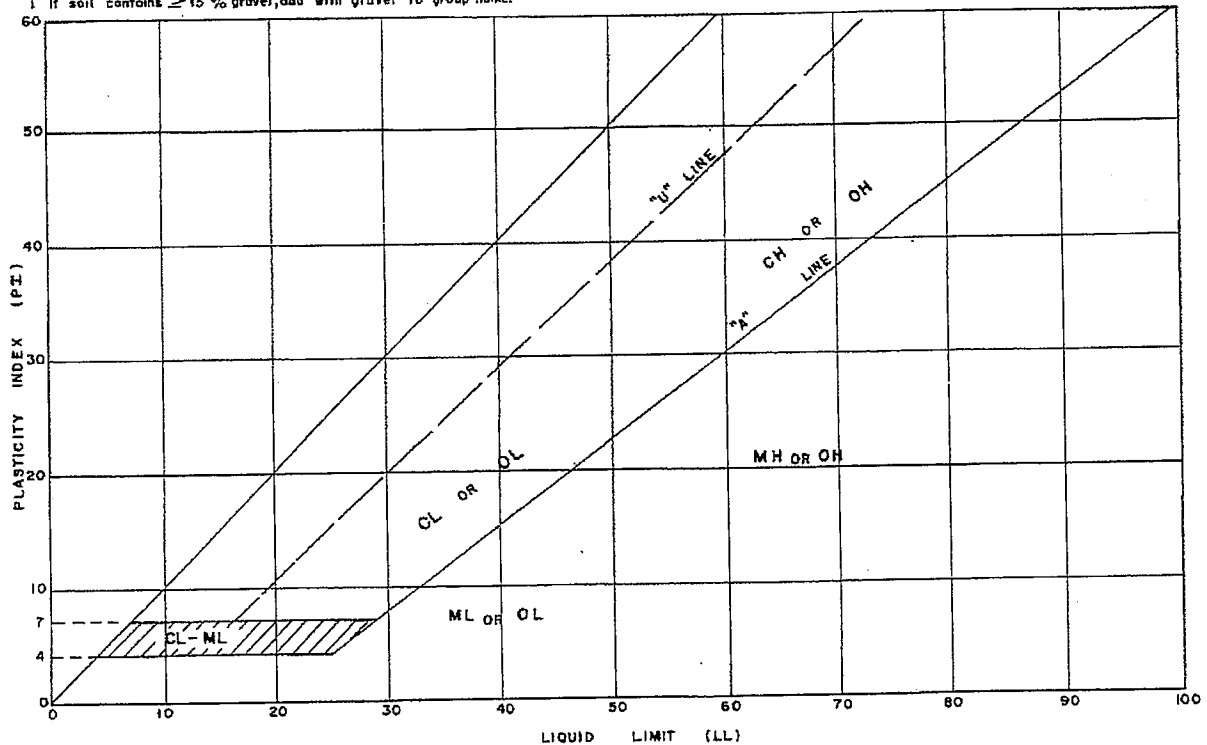
**TESTING SERVICE CORPORATION
UNIFIED CLASSIFICATION CHART**

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS ^a				SOIL CLASSIFICATION		
				GROUP SYMBOL	GROUP NAME ^b	
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines ^c	$C_u \geq 4$ and $1 \leq C_c \leq 3$ ^e	GW	Well graded gravel ^f	
			$C_u < 4$ and/or $1 > C_c > 3$ ^e	GP	Poorly graded gravel ^f	
		GRAVELS WITH FINES More than 12% fines ^c	Fines classify as ML or MH	GM	Silty gravel ^{f,g,h}	
			Fines classify as CL or CH	GC	Clayey gravel ^{f,g,h}	
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS Less than 5% fines ^d	$C_u \geq 6$ and $1 \leq C_c \leq 3$ ^e	SW	Well-graded sand ⁱ	
			$C_u < 6$ and/or $1 > C_c > 3$ ^e	SP	Poorly graded sand ⁱ	
		SANDS WITH FINES More than 12% fines ^d	Fines classify as ML or MH	SM	Silty sand ^{g,h,i}	
			Fines classify as CL or CH	SC	Clayey sand ^{g,h,i}	
FINE-GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS & CLAYS Liquid limit less than 50%	Inorganic	PI > 7 and plots on or above "A" line ^j	CL	Lean clay ^{k,l,m}	
			PI < 4 or plots below "A" line ^j	ML	Silt ^{k,l,m}	
		Organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}} < 0.75$		OL	Organic clay ^{k,l,m,p} Organic silt ^{k,l,m,q}
			PI plots on or above "A" line		CH	Fat clay ^{k,l,m}
	SILTS & CLAYS Liquid limit 50% or more	Inorganic	PI plots below "A" line	MH	Elastic silt ^{k,l,m}	
			$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}} < 0.75$		OH	Organic clay ^{k,l,m,p} Organic silt ^{k,l,m,q}
		Organic	PI plots on or above "A" line		PT	Peat
			PI plots below "A" line			
Highly organic soils		Primarily organic matter, dark in color, and organic odor				

- a. Based on the material passing the 3-in (75-mm) sieve.
 b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name.
 c. Gravels with 5 to 12% fines require dual symbols
 GW-GM well graded gravel with silt
 GW-GC well graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay
 d. Sands with 5% to 12% fines require dual symbols
 SW-SM well graded sand with silt
 SW-SC well graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay

- j. If Atterberg Limits plot in hatched area, soil is a CL-ML, silty clay.
 k. If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
 l. If soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
 m. If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.
 n. PI ≥ 4 and plots on or above "A" line.
 o. PI < 4 or plots below "A" line.
 p. PI plots on or above "A" line.
 q. PI plots below "A" line.

- e. $C_u = D_{60}/D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
 f. If soil contains $\geq 15\%$ sand, add "with sand" to group name.
 g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM.
 h. If fines are organic, add "with organic fines" to group name.
 i. If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.



TESTING SERVICE CORPORATION
LEGEND FOR BORING LOGS
(FPS Units)

SAMPLE TYPE:

SS = Split Spoon
ST = Thin-Walled Tube
A = Auger

FIELD AND LABORATORY TEST DATA:

BLOWS = Standard Penetration Resistance in Blows per 6 inches
W% = In-Situ Water Content in percent
Qu = Unconfined Compressive Strength in tons per square foot (tsf)
* = Hand Penetrometer Measurement; Max. Reading = 4.5+ tsf

SOIL DESCRIPTION:

<u>MATERIAL</u>	<u>PARTICLE SIZE RANGE</u>
BOULDER	Over 12 inch
COBBLE	12 - 3 inch
Coarse GRAVEL	3 - 3/4 inch
Small GRAVEL	3/4 inch to No. 10 Sieve
Coarse SAND	No. 10 Sieve to No. 40 Sieve
Fine SAND	No. 40 Sieve to No. 200 Sieve
SILT and CLAY	Passing No. 200 Sieve

<u>COHESIVE SOILS</u>	
<u>CONSISTENCY</u>	<u>Qu (tsf)</u>
Very Soft	Less than 0.3
Soft	0.3 to 0.6
Medium Stiff	0.6 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	4.0 and over

<u>COHESIONLESS SOILS</u>	
<u>RELATIVE DENSITY</u>	<u>N</u>
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	50 and over

MODIFYING TERM

Trace
Little
Some

PERCENT BY WEIGHT

1 - 10
10 - 20
20 - 35

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/20/06

Date Completed 6/20/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65,946

COUNTY DuPage LOCATION West of Grace Street S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>1</u>	DEPTH	BLOWS	Qu tsf	W %	Surface Water Elev. _____ Groundwater Elev.: _____ when drilling <u>Dry to 10.0'</u> at Completion <u>Wash</u> after <u>48</u> Hrs. <u>709.6</u>	DEPTH	BLOWS	Qu tsf	W %
Surface Elev. <u>720.64</u> ft									
FILL - Black clayey Topsoil	720.14				Stiff gray SILTY CLAY LOAM, occasional sand seams, trace gravel, moist A-6				
		2	B				3	B	
		2	1.8	24.3			4	1.3	18.1
		5	15%				6	15%	
FILL - Brown, gray and black CLAY, trace gravel, moist to very moist A-6/A-7-6					692.64				
		2	B				3	B	
		3	1.3	29.5			6	2.2	18.7
		4	15%				7	15%	
	715.14								
		2	P		Very stiff gray CLAY, trace gravel, moist A-6/A-7-6				
		3	1.25	43.5					
		4							
Stiff to soft black ORGANIC CLAY, very moist A-7-6									
		2	B				7	B	
		3	0.4	44.3			9	3.8	22.1
		3	15%				8	15%	
(Qp = 0.75 tsf)	710.14								
		1	B		Stiff brown and gray CLAY, very moist to moist A-7-6				
		2	1.4	28.5					
		2	15%						
	683.64								
Stiff gray CLAY, trace gravel, moist A-6									
		2	B		Stiff gray CLAY, trace gravel, moist A-6				
		3	1.9	27.4				3	B
		5	15%				5	1.1	17.2
	705.14						7	15%	
		5	P		Stiff gray CLAY LOAM, little gravel, occasional sand seams, moist A-6				
		7	1.75	15.2					
		10							
	678.64								
Stiff gray CLAY, trace gravel, moist A-6									
		4	B		Very stiff gray CLAY, trace gravel, moist A-6				
		5	1.8	14.5				12	B
		7	15%				8	3.3	13.6
	702.64						8	15%	
		3	B		Stiff gray CLAY, trace gravel, moist A-6				
		5	1.2	18.3					
		7	15%						
	673.64								
Medium stiff to stiff gray CLAY, trace gravel, moist A-6									
		3	B						
		5	1.7	19.2				3	B
		5	15%				4	1.0	16.0
	695.64						5	15%	

ILDOT BORING 65946.GPJ IDOT.GDT 5/14/06

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. 1
 Station _____
 Offset _____ ft
 Elevation 670.64 ft

Elevation 645.64 ft

Description	DEPTH	BLOWS	Qu	W	Elevation	DEPTH	BLOWS	Qu	W
	H	S	tsf	%	ft	H	S	tsf	%
Medium stiff to stiff gray CLAY, trace gravel, moist A-6	668.64								
Med. dense gray SAND and GRAVEL, saturated A-1-a	-55	12 11 13		11.3		-80			
	663.64								
Stiff gray CLAY, little gravel, moist A-6	-60	11 9 11	B 1.5 15%	12.3		-85			
	658.64								
Very dense gray SAND, trace gravel, saturated A-1-b	-65	13 26 27		18.5		-90			
	653.64								
Dense gray SILT, moist A-4	-70	17 21 23		20.1		-95			
	648.64								
Med. dense gray SILTY LOAM, occasional sand seams, moist A-4	-75	4 8 6		21.9		-100			
	645.64								

CME 750 ATV Drill Rig (#275)
 CME Automatic Hammer

Rotary Wash Drill

End of Boring at 75.0'

ILDOT BORING 65946.GPJ IDOT.GDT 5/14/06

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/22/06

Date Completed 6/23/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65.946

COUNTY DuPage LOCATION East of Grace Street S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>2</u>	DEPTH	BLOW	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	Qu	W
Station _____					Groundwater Elev.: _____				
Offset _____ ft					when drilling <u>Dry to 10.0'</u>				
Surface Elev. <u>719.15</u> ft.					at Completion _____				
					after _____ Hrs. _____				
FILL - Black clayey Topsoil	718.65								
		4	P				4	B	
		5	4.5	15.9			7	1.8	18.0
		6					8	15%	
FILL - Dark brown and brown CLAY, trace gravel, moist A-6/A-7-6		2	P				4	B	
		2	2.5	21.0			5	2.2	16.3
		2					8	15%	
	713.65								
FILL - Dark brown and black CLAY, very moist A-6/A-7-6 (Qp = 1.5 tsf)		4	B						
		5	0.7	28.8					
		6	15%						
	711.15								
Medium stiff black ORGANIC CLAY, very moist A-7-6 (Qp = 1.0 tsf)		2	B				5	B	
		3	0.6	31.9			7	3.1	17.3
		4	15%				11	15%	
	708.65								
Soft brown and gray CLAY with organic seams, very moist A-7-6 (Disturbed Sample)		2	P						
		2	0.5	50.4					
		3							
	706.15								
Soft brown SANDY LOAM, trace gravel, moist A-4		2	B	14.9			4	B	
		2	0.4				3	1.6	14.7
		3	15%	19.3			6	15%	
	704.65								
Loose gray clayey SAND, very moist A-2-4		2	B						
		2	0.8	18.2					
		2	15%						
	703.65								
Medium stiff gray CLAY LOAM, trace gravel, moist A-6/A-4		2	B				6	B	
		3	0.8	18.6			8	1.1	8.2
		5	15%				13	15%	
	698.65								
Very stiff to stiff gray CLAY, trace gravel, moist A-6		4	B						
		7	2.4	15.8					
		11	15%						
	694.15								
		3	B				9	B	
		5	2.0	17.6			8	0.9	13.8
		6	15%				10	15%	
	669.15								

ILDOT BORING 65946.GPJ IDOT.GDT 5/14/05

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/22/06

Date Completed 6/23/06

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. 2
 Station _____
 Offset _____ ft
 Elevation 669.15 ft

Elevation 644.15 ft

	D E P T H	B L O W S	Qu tsf	W %		D E P T H	B L O W S	Qu tsf	W %
Stiff to medium stiff gray CLAY LOAM, trace gravel, moist A-6/A-4	667.15								
	-55	15 17 17		20.3		-80			
Dense gray SILTY LOAM, trace to little gravel, moist A-4									
	-60	18 13 14	S 2.4 15%	14.7		-85			
	657.15								
Dense gray fine to medium SAND, little gravel, saturated A-1-b									
	-65	16 17 20		16.1		-90			
	652.15								
Dense to very dense gray fine SAND, trace gravel, saturated A-3									
	-70	18 21 28		20.5		-95			
	644.15								
	-75	19 25 25		20.9		-100			

CME 750 ATV Drill Rig (#275)
 CME Automatic Hammer
 Rotary Wash Drill

End of Boring at 75.0'

ILDOT BORING 85946.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/23/06

Date Completed 6/23/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65.946

COUNTY DuPage LOCATION North of U.P. Railroad S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>3</u>	DEPTH	BLOW	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	Qu	W
Station _____					Groundwater Elev.: _____				
Offset _____ ft					when drilling <u>Dry to 30.0'</u>				
Surface Elev. <u>732.83</u> ft					at Completion _____				
					after _____ Hrs. _____				
FILL - Black clayey Topsoil	732.33								
FILL - Brown SAND and GRAVEL, damp A-1	729.83	8 5 6		5.0			6 7 9	B 3.8 15%	16.3
					Very stiff brownish-gray CLAY, trace gravel, moist A-6				
		2 3 4	P 2.0	21.3			4 6 7	S 2.5 12%	18.9
FILL - Brown and black CLAY, trace gravel, moist A-6/A-7-6									
		3 3 4	P 2.5	19.4					
		3 4 5	P 3.5	20.2			3 5 6	B 1.5 15%	17.8
FILL - Brown and black CLAY LOAM, little gravel, moist A-6	719.83	4 5 6	P 2.5	16.1					
FILL - Black SANDY LOAM, some gravel, damp A-1/A-2	717.33	3 4 6		6.1			4 8 15	B 3.0 15%	16.4
FILL - Brown and dark gray CLAY, trace organic, moist A-6 (Qp = 3.25 tsf)	714.83	4 7 9	S 2.0 10%	18.9					
Very stiff brown and gray CLAY, trace organic, moist A-6/A-7-6	712.33	2 2 4	B 2.9 15%	22.7			7 7 10	B 2.5 15%	16.7
Very stiff brown and gray CLAY, trace gravel, moist A-6	707.83	4 5 7	B 3.5 15%	16.1					
		5 7 11	B 3.8 15%	15.6			4 7 8	B 0.8 15%	14.6

Stiff to very stiff gray CLAY, trace gravel, moist A-6

Qp = 2.0 tsf

ILDOT BORING 669/46.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/23/06

Date Completed 6/23/06

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. <u>3</u>	DEPTH	BLOWS	Qu tsf	W %	Elevation <u>657.83</u> ft	DEPTH	BLOWS	Qu tsf	W %
Stiff to very stiff gray CLAY, trace gravel, moist A-6	680.83								
		7 13 8	B 1.4 15%	10.7			8 10 13		18.7
	-55					652.83	-80		
Stiff to very stiff gray CLAY LOAM, trace gravel, moist A-4/A-6									
		7 8 10	B 3.0 15%	14.5					
	-60						-85		
	670.83								
Stiff gray CLAY, trace gravel, moist A-6									
		19 14 9	B 1.4 15%	23.5					
	-65						-90		
(Sample pound on large gravel)	665.83								
Stiff gray SILTY CLAY LOAM, occasional silt seams, moist A-6									
		9 12 9	B 1.5 15%	20.6					
	-70						-95		
	660.83								
Dense to medium dense gray SANDY LOAM, trace gravel, moist A-1									
		12 16 21		12.2					
	-75						-100		
	657.83								

ILDOT BORING 65946.GPJ IDOT.GDT 5/14/09
 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

ROUTE _____ DESCRIPTION Great Western Trail Bridges
 SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65.946
 COUNTY DuPage LOCATION North of U.P. Railroad S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>4</u>	DEPTH	BLOW	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	Qu	W
Station _____					Groundwater Elev.: _____				
Offset <u>ft</u>					when drilling <u>Dry to 6.0'</u>				
Surface Elev. <u>716.74</u> ft					at Completion <u>Wash</u>				
					after <u>24</u> Hrs. <u>691.7</u>				
FILL - Black and brown CLAY LOAM (topsoil), moist A-6		2 2 2	P 2.5	16.6	Very stiff gray CLAY, moist A-6		3 5 8	B 2.7 15%	17.3
713.74									
Very stiff brown and black CLAY LOAM, trace root seams, moist A-6		2 2 3	P 3.0	18.5	Med. dense gray SILTY LOAM, occasional sand seams, moist A-4		4 8 10	B 3.4 15%	16.5
711.24									
		4 5 8	S 5.2 10%	16.0					
706.24					684.74				
Hard brown and gray SILTY CLAY LOAM, trace to little gravel, moist A-6/A-4		7 8 6	P 4.5	11.8	Very stiff brownish-gray SILTY CLAY LOAM, moist A-6		3 6 10	S 1.7 12%	15.1
703.74									
Very stiff brown and gray CLAY LOAM, occasional sand seams, moist A-6		4 7 9	S 3.2 13%	19.4					
698.74					679.74				
Hard gray CLAY, trace gravel, moist A-6		4 7 8	B 4.8 15%	15.1	Very stiff to stiff gray CLAY LOAM, little gravel, moist A-6 (Pound on large gravel)		5 7 8	B 3.1 15%	15.8
693.74									
Very stiff brownish-gray CLAY, moist A-6		3 5 7	B 4.2 15%	15.5	Med. dense gray sandy SILT, moist A-4		9 6 7	B 1.4 15%	15.3
691.74									
Very stiff gray CLAY, moist A-6		4 6 8	B 3.4 15%	18.2			10 9 11		17.4
689.74									

IL DOT BORING 66946.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

STRUCTURE NO. _____
ROUTE _____
SECTION _____
COUNTY DuPage

STRUCTURE NO. _____
ROUTE _____
SECTION _____
COUNTY DuPage

Boring No. <u>4</u>	DEPTH	BLOWS	Qu tsf	W %	Elevation <u>641.74</u> ft	DEPTH	BLOWS	Qu tsf	W %
Med. dense gray sandy SILT, moist A-4	664.74								
Very stiff gray SILTY CLAY LOAM, moist A-6/A-4 (Qp = 3.25 tsf)	659.74	5 7 7	B 2.3 15%	11.5		-80			
Med. dense gray small to medium GRAVEL, trace silt and clay, saturated A-1-a	654.74	10 4 24		11.1		-85			
Dense gray SAND and GRAVEL, saturated A-1-a	649.74	14 25 21		13.2		-90			
Very dense gray fine SAND, trace gravel, saturated A-1-b	644.74	20 30 43		19.7		-95			
Probable Rock surface, hard drilling	643.24								
Auger Refusal at 73.5'	-75					-100			

CME 750 ATV Drill Rig (#275)
CME Automatic Hammer
Rotary Wash Drill

ILDOT BORING 65946.CPJ IDOT.GDT 5/14/08

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/29/06

Date Completed 6/29/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65,946

COUNTY DuPage LOCATION South of U.P. Railroad S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>5</u>	DEPTH	BLOWS	Qu	W	Surface Water Elev. _____ Groundwater Elev.: _____ when drilling <u>709.6</u> at Completion <u>Wash</u> after _____ Hrs. _____	DEPTH	BLOWS	Qu	W
Station _____ Offset _____ ft			tsf	%				tsf	%
Surface Elev. <u>717.60</u> ft									
FILL - Black clayey Topsoil	717.10								
FILL - Brown, gray and black SANDY LOAM, trace bricks, moist A-1/A-2	714.60	3 3 3		16.4	689.60		4 6 9	B 2.9	18.5
FILL - Black SANDY LOAM (topsoil), moist A-2-4/A-4	712.10	2 2 3		20.7			8 7 7		19.4
FILL - Brown and black CLAY, trace root seams, very moist A-7-6	709.60	1 2 2	B 1.3	35.5	685.60				
Loose brown and gray SILTY LOAM, moist A-4	707.10	2 3 5	B 1.7	17.7			6 9 12		9.0
Hard brown and gray CLAY, moist A-6	704.60	4 5 8	B 4.3	16.2	680.60				
Very stiff gray SILTY CLAY LOAM, little gravel, moist A-6	699.60	5 8 10	B 2.7	13.3			11 12 20	B 3.1	14.4
	699.60	4 6 10	B 3.1	14.3	675.60				
Very stiff to stiff brownish-gray CLAY, trace gravel, moist A-6	694.60	2 4 5	B 3.1	16.3			6 7 7	B 1.2	10.5
	694.60	4 5 7	B 1.6	15.9	670.60				
	692.60	5 7 8	B 3.5	16.0			5 9 8	B 2.2	15.3

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/29/06

Date Completed 6/29/06

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. <u>5</u>	DEPTH	BLOW	Qu	W	Elevation <u>642.60</u> ft	DEPTH	BLOW	Qu	W
Station _____			tsf	%				tsf	%
Offset <u>ft</u>									
Elevation <u>667.60</u> ft									
Med. dense gray SILTY LOAM, moist A-4	665.60								
Very stiff gray CLAY LOAM, occasional sand seams, little gravel, moist A-6	-55	11 5 10	B 2.1	12.9		-80			
	660.60								
Med. dense gray clayey SAND, some gravel, very moist A-1	-60	12 15 13		14.1		-85			
	655.60								
Med. dense gray silty SAND, some gravel, wet A-1	-65	12 11 15		11.2		-90			
	650.60								
	-70	15 12 10		11.4		-95			
Med. dense gray clayey SAND, some gravel, very moist A-1	644.10								
Auger Refusal at 73.5' on possible bedrock or boulder	-75								

CME 750 ATV Drill Rig (#275)
 CME Automatic Hammer
 4.5" (114 mm) SFA to 10.0'
 Rotary Wash Drill below 10.0'

ILDOT BORING 65948.GPJ IDOT.GDT 5/14/05

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/30/06

Date Completed 6/30/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65.946

COUNTY DuPage LOCATION North of St. Charles Road S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>6</u>	DEPTH	BLOW	S	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	S	Qu	W
Station _____						Groundwater Elev.: _____					
Offset <u>ft</u>						when drilling <u>Dry to 10.0'</u>					
Surface Elev. <u>715.13</u> ft						at Completion <u>Wash</u>					
						after _____ Hrs. _____					
FILL - Black clayey Topsoil	714.43										
		5	P					4	B		
FILL - Black and brown CLAY LOAM, moist A-6		5	3.0	20.1				5	1.8	14.1	
	712.13	4						8	15%		
FILL - Brown and gray CLAY, trace black topsoil, trace gravel, moist A-6		1	B					3	B		
		3	1.5	18.3				7	2.6	16.1	
		5	15%					10	15%		
(Creosote type odor)											
	707.13	3	B								
		5	3.7	18.2							
		6	15%								
FILL - Brown CLAY, trace wood, moist A-6 (Creosote type odor)		4	B					3	B		
		6	4.9	17.1				7	1.5	13.3	
		8	15%					9	15%		
	704.63										
FILL - Gray CLAY with wood pieces, moist (Creosote type odor, disturbed sample)		6									
		8		22.3							
	702.13										
Very stiff to hard gray CLAY, moist A-6		7	B					4	B		
		8	3.9	15.6				8	2.8	14.8	
		10	15%					11	15%		
	699.63										
		2	B								
		3	1.8	16.3							
		5	15%								
Stiff to very stiff gray CLAY, trace gravel, moist A-6											
		2	B								
		3	2.1	16.6				9	B		
		5	15%					7	4.9	13.7	
	694.63							8	15%		
Very stiff gray CLAY, trace gravel, moist A-6		4	B								
		7	3.4	20.2							
		10	15%								
	692.13										
Hard gray CLAY LOAM, moist A-6		7	B					3	B		
		9	4.9	12.8				5	2.5	15.5	
		11	15%					7	15%		
	690.13										

IDOT BORING 65946.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 6/30/06

Date Completed 6/30/06

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. <u>6</u>	D E P T H	B L O W S	Qu tsf	W %	Elevation <u>640.13</u> ft	D E P T H	B L O W S	Qu tsf	W %
Med. dense gray SILTY LOAM, moist A-4	663.13								
Very stiff gray CLAY LOAM, occasional silt and sand seams, trace gravel, moist A-6	-55	5 7 17	B 2.3 15%	17.9		-80			
Med. dense gray SANDY LOAM and GRAVEL, saturated A-1	-60	25 15 10		8.1		-85			
Med. dense gray sandy SILT, little gravel, moist A-4	-65	8 5 6		11.3		-90			
Dense gray SILT, trace sand and gravel, moist A-4	-70	16 22 19		13.9		-95			
Auger Refusal at 71.0' on probable rock surface	-75					-100			
					CME 750 ATV Drill Rig (#275) CME Automatic Hammer 4.5" (114 mm) SFA to 10.0' Rotary Wash Drill below 10.0'				

I.D.O.T. BORING 85846.GPJ I.D.O.T.GDT 5/14/08

I.D.O.T. SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/6/06

Date Completed 7/6/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65,946

COUNTY DuPage LOCATION South of St. Charles Road S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>7</u>	DEPTH	BLOW	S	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	S	Qu	W
Station _____				tsf	%	Groundwater Elev.: _____				tsf	%
Offset <u>ft</u>						when drilling <u>Dry to 10.0'</u>					
Surface Elev. <u>729.38</u> ft						at Completion <u>Wash</u>					
						after _____ Hrs. _____					
FILL - Black clayey Topsoil											
728.28		4	P					3	B		
FILL - Black, brown and gray SILTY LOAM, moist A-4		3	2.5	13.5				5	2.3	17.9	
726.38		4						6	15%		
FILL - Brown, gray and black CLAY, moist A-7-6		2	P					2	B		
723.88		3	2.75	24.7		(Qp = 2.75 tsf)		3	4.5	16.2	
		4						7	15%		
FILL - Brown and gray CLAY, little black clay, moist A-6/A-7-6		2	B								
718.88		3	2.6	21.4		Very stiff to hard gray CLAY, trace gravel, moist A-6					
		5	15%								
		2	B					4	B		
716.38		3	2.6	25.2				7	2.9	15.8	
		5	15%					10	15%		
FILL - Black and brown CLAY, moist to very moist A-7-6		2	P								
713.88		3	2.0	29.4							
		4	8%								
Stiff black SILTY CLAY (topsoil), very moist A-7-6		2	B					3	B		
711.38		3	1.1	37.8				5	2.6	17.0	
		2	15%					8	15%		
Very stiff gray and brown CLAY, moist A-7-6		3	B								
708.88		4	2.9	21.3							
		6	15%								
Medium stiff brown and gray CLAY, very moist A-7-6		2	B					3	B		
706.38		1	0.8	41.0		Stiff gray CLAY, moist A-6		6	1.9	18.8	
		2	15%					8	15%		
Very stiff brown CLAY, moist A-6		3	B								
704.38		6	3.9	18.8							
		8	15%								
Very stiff brown and gray CLAY, moist A-6		4	B					73	B		
702.38		5	2.3	16.6		Stiff gray CLAY LOAM with Gravel, occasional Cobbles, moist A-4		12	1.2	14.4	
		6	15%					5	15%		

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/6/06

Date Completed 7/6/06

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. <u>7</u>	D E P T H	B L O W S	Qu tsf	W %	Elevation <u>654.38</u> ft	D E P T H	B L O W S	Qu tsf	W %
Stiff gray CLAY LOAM with Gravel, occasional Cobbles, moist A-4					<u>677.38</u>				
		6 6 7	B 1.0 15%	13.3					
	-55					-80			
Stiff gray CLAY LOAM, trace to little gravel, moist A-4/A-6									
(Disturbed Sample, poor recovery)		8 10 12		15.0					
	-60					-85			
					<u>667.38</u>				
		22 22 23		11.5					
	-65					-90			
Dense to med. dense gray SAND and GRAVEL, trace clay, saturated A-1									
		21 11 10		13.4					
	-70					-95			
					<u>657.38</u>				
Stiff gray CLAY LOAM, some gravel, moist A-4					<u>655.38</u>				
Dense SAND and GRAVEL		5 18 16	P 1.5	12.8 8.9	<u>654.38</u>				
	-75					-100			

CME 750 ATV Drill Rig (#275)
 CME Automatic Hammer
 4.5" (114 mm) SFA to 10.0'
 Rotary Wash Drill below 10.0'
 End of Boring at 75.0'

LDOT_BORING 66948.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/12/06

Date Completed 7/12/06

ROUTE _____ DESCRIPTION Great Western Trail Bridges
 SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-65,946
 COUNTY DuPage LOCATION North of St. Charles Road S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>8</u>	D	B	W	Qu	W
Station _____	E	L	O	tsf	%
Offset <u>ft</u>					
Surface Elev. <u>728.42</u> ft	H	S			
FILL - Black clayey Topsoil	727.72			P 4.5+	17.4
FILL - Brown CLAY, trace gravel, trace root seams, moist A-6	-5			P 4.5+	16.4
	722.92			P 4.5+	15.1
FILL - Black and dark brown CLAY and CLAY LOAM, trace organic, trace gravel, moist A-6	-10			P 4.5+	13.8
	717.92			P 2.75	19.6
FILL - Dark brown CLAY, some black clay, moist A-6	715.42			P 4.25	21.8
FILL - Black CLAY, little brown clay, moist A-7-6	713.92			P 4.25	25.8
Hard brown, gray and black CLAY, moist A-7-6	-15			B 2.6	21.6
	712.92			B 2.6	15%
Very stiff brown and gray CLAY, trace gravel, moist A-6	-20			B 2.6	16.3
	708.42			B 2.6	15%
End of Boring at 20.0'	-25				
Boring performed by hand auger methods					

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling _____ Dry
 at Completion _____ Dry
 after _____ Hrs. _____

ILDOT_BORING 65946.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/16/09

Date Completed 2/16/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>101</u>	D E P T H	B L O W S	Qu tsf	W %
Station _____				
Offset <u>ft</u>				
Surface Elev. <u>723.50</u> ft				
FILL - Dark brown CLAY, trace gravel, little organic, moist (CL)				
A-7-6		2 3 5	P 2.0	25.1
<u>720.50</u>				
FILL - Black CLAY, trace to little organic, very moist (CL/CH)				
A-7-6		3 4 5	P 1.0/3.0	36.1 18.8
<u>719.50</u>				
FILL - Brown CLAY, trace gravel, moist (CL)				
A-6		3 3 4	P 2.0	17.7
<u>713.00</u>				
Stiff brown ORGANIC CLAY, very moist (OL/OH)				
A-7-6		3 3 4	P 1.5	62.5
<u>710.50</u>				
Medium stiff brown and gray CLAY, trace gravel, moist (CL)				
A-7-6		2 2 2	P 0.75	24.6
<u>708.00</u>				
Stiff to very stiff brown and gray CLAY, little gravel, occasional sand seams, very moist to moist (CL)				
A-6		3 4 6	P 1.25	18.4
<u>703.50</u>				
		4 5 6	P 2.5	14.5
<u>703.50</u>				
End of Boring at 20.0'				
Diedrich D-50 Track ATV Rig (#314)				
CME Automatic Hammer				
<u>-25</u>				

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 707.5
 at Completion 707.5
 after _____ Hrs. _____

ILDOT_BORING 72921.GPJ IDOT\GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/17/09

Date Completed 2/17/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>102</u>	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev. _____ Groundwater Elev.: _____ when drilling _____ <u>Dry</u> at Completion _____ <u>Dry</u> after _____ Hrs. _____	D E P T H	B L O W S	Qu tsf	W %
Surface Elev. <u>731.20</u> ft					705.70				
FILL - Brown CLAY, trace gravel, moist (CL) A-6					Very stiff to hard gray CLAY, little gravel, moist (CL) A-6				
FILL - Black Asphalt Pieces		7					6	P	
		7					6	3.0	15.6
		9					7		
728.20									
FILL - Dark brown SAND and GRAVEL, trace clay, moist (SP) A-1		6		9.1			5	P	
		5					7	4.5	11.2
		5					9		
725.70					701.20				
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-7-6					End of Boring at 30.0' Diedrich D-50 Track ATV Rig (#314) CME Automatic Hammer				
		3	P	28.9					
		4	2.5						
		6							
		2	P	22.2					
		3	2.0						
		4							
720.70									
FILL - Brown CLAY, trace gravel, moist (CL) A-7-6		4	P	24.6					
		5	2.5						
		7							
		5	P	24.2					
		5	3.25						
		9							
715.70									
Very stiff dark gray CLAY, trace organic, moist (CL/CH)		3	P	35.2					
		4	2.0						
		6							
713.20									
Stiff black ORGANIC CLAY, very moist (OL/OH) A-7-6		3	P	61.0					
		5	1.5						
		5							
711.20									
Very stiff brown and gray CLAY, little gravel, moist (CL) A-7-6		5	P	18.3					
		6	2.75						
		8							
		3	P	17.2					
		5	2.25						
		6							
		3	P	17.2					
		5	2.25						
		6							

ILDOT BORING 72921.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/20/09

Date Completed 2/20/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>103</u>	D	B	L	O	W	Surface Water Elev. _____	D	B	L	O	W	S	Qu	W
Station _____	E P T H	L O W S	O	W	S	Groundwater Elev.: _____	E P T H	B L O W S					tsf	%
Offset _____ ft						when drilling _____								
Surface Elev. <u>716.50</u> ft														
FILL - Brown CLAY, little gravel and black clayey TOPSOIL, moist (CL/OL) A-7-6			5										P	21.1
713.50			3										P	25.2
Very stiff to stiff brown CLAY, trace gravel, trace organic, moist to very moist (CL) A-7-6			3										2.0	25.2
			3											
			4											
708.50			2										P	23.1
			2										1.5	23.1
			2											
Very stiff to hard brown and gray CLAY, little gravel, moist (CL) A-7-6			3										P	17.7
			3										3.0	17.7
			6											
703.50			4										P	15.6
			5										4.0	15.6
			6											
Very stiff gray CLAY, little gravel, moist (CL) A-6			4										P	16.4
			6										3.5	16.4
			8											
691.50			5										P	18.1
			5										2.75	18.1
			7											
			5										P	18.3
			6										2.25	18.3
			8											
End of Boring at 25.0'			6										P	16.9
			6										3.0	16.9
			7											
			6										P	16.5
			8										3.0	16.5
			9											
-50														

End of Boring at 25.0'
 Diedrich D-50 Track ATV Rig (#314)
 CME Automatic Hammer

ILDOT BORING 72921.GPJ IDOT.GDT 5/14/08

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet



Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/19/09

Date Completed 2/19/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>104</u>	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev. _____ Groundwater Elev.: _____ when drilling <u>699.8</u> at Completion <u>699.8</u> after _____ Hrs. _____	D E P T H	B L O W S	Qu tsf	W %
FILL - Black and brown CLAY, trace gravel, trace organic, moist (CL) A-7-6		3 4 4	P 3.25	20.4					
713.30									
Very stiff black CLAY, trace to little organic, moist (CL/CH) A-7-6		3 5 5	P 2.25	28.1					
711.30	-5					-30			
Very stiff brown and gray CLAY, trace gravel, moist (CL) A-6		5 5 5	P 3.0	22.7					
		4 4 5	P 3.0	16.3					
	-10					-35			
		5 5 5	P 3.5	14.5					
703.30									
Med. dense brown and gray SILTY LOAM, moist to very moist (ML) A-4		4 6 6	P	15.0					
	-15					-40			
		5 5 5	P	13.3					
698.30									
Med. dense gray SANDY LOAM, wet (SM) A-4		4 5 5	P	15.4					
	-20					-45			
695.80									
Very stiff gray CLAY, little gravel, moist (CL) A-6		4 6 6	P 2.75	16.9					
		3 5 7	P 2.75	15.1					
691.30	-25					-50			

End of Boring at 25.0'

Diedrich D-50 Track ATV Rig
(#314)
CME Automatic Hammer

ILDOT BORING 72821.GPJ IDOT\GDT 5/14/09

SPT, (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 2/17/09

Date Completed 2/17/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges
 SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921
 COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No.	Station	Offset	Surface Elev.	DEPTH	BLOWS	Qu	W	Surface Water Elev.	Groundwater Elev. when drilling	Groundwater Elev. at Completion	DEPTH	BLOWS	Qu	W						
_____	_____	_____	_____	_____	_____	tsf	%	_____	_____	_____	_____	_____	tsf	%						
Black CLAY (topsoil), very moist (OL) A-7-6	713.50		716.00 ft	5	B	33.4		Very stiff to stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6	703.0	700.0	6	B	3.4	14.4						
				7							8	15%								
				8							12	15%								
				3	B	23.4					5	B	2.2	15.4						
				4	1.4						8	15%								
				5	15%															
				2	P	27.0														
				3																
				3																
				3	B	28.1					3	B	2.0	16.6						
4	1.7	5	2.0	15%																
5	15%																			
3	B	23.8																		
3	1.9																			
4	B	16.5																		
6	3.2			5	P	1.5	16.7													
6	15%			10																
4	B	15.2																		
6	3.0																			
8	15%																			
4	B	15.9																		
5	2.9			14																
6	15%			32																
6	B	17.1																		
8	2.3			26																
12	15%																			
5	B	16.3																		
5	2.0																			
7	15%																			

Very dense gray SAND and GRAVEL, occasional Cobbles and Boulders, saturated (GP)
A-1

Auger Refusal at 47.2'
Diedrich D-50 Track ATV Rig (#314)
CME Automatic Hammer

I:\DOT_BORING 72921.GPJ IDOT.GDT 5/1/08

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/17/09

Date Completed 2/17/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5-SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>106</u>	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev. _____	D E P T H	B L O W S	Qu tsf	W %
Station _____					Groundwater Elev.: when drilling _____				
Offset _____ ft					<u>702.6</u>				
Surface Elev. <u>716.10</u> ft					<u>703.1</u>				
					_____ Hrs.				
FILL - Black CLAY (topsoil) (OL) A-7-6	715.30								
FILL - Brown and gray CLAY, trace gravel, moist (CL) A-6		4 5 6	P 3.0	18.8					
	713.10								
FILL - Black and brown CLAY, trace gravel, trace organic, moist (CL) A-7-6		3 3 3	P 2.5	26.5		-30			
	710.60								
Very stiff to stiff brown and gray CLAY, trace gravel, moist to very moist (CL) A-7-6		3 3 4	P 2.75	25.3					
	705.60								
Hard to very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6		2 2 2	P 1.5	20.9		-35			
	705.60								
Hard to very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6		4 5 8	P 4.0	15.3					
		5 5 7	P 3.0	15.9		-40			
		4 7 8	P 3.0	15.0					
		4 7 9	P 2.5	16.6		-45			
		5 8 8	P 3.0	16.8					
	693.10								
Stiff gray CLAY, trace gravel, moist (CL) A-6		6 9 10	P 1.25	18.2		-50			
	691.10								

End of Boring at 25.0'

Diedrich D-50 Track ATV Rig
(#314)
CME Automatic Hammer

ILDOT BORING 72921.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 2/16/09

Date Completed 2/16/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>107</u>	D	B	L	O	W	S	Qu	W	Surface Water Elev. _____
Station _____	E	B	L	O	W	S	tsf	%	Groundwater Elev.: _____
Offset <u>ft</u>	P								when drilling _____
Surface Elev. <u>729.50</u> ft	H								at Completion <u>Dry</u>
									after _____ Hrs. _____

Description	Depth (ft)	Blows	Penetration (P)	Shear (S)	Bulge (B)	Sum (Qu)	Water (%)
FILL - Black CLAY (topsoil) (OL) A-7-6	728.90						
FILL - Brown and black CLAY, trace gravel, trace organic, trace Brick Pieces, moist (CL)		HA	P				15.9
A-6		HA	P			1.75	19.8
	-5						
		HA	P			4.0	15.1
	721.50						
FILL - Brown and black CLAY, trace gravel, trace to little organic, moist (CL)		HA	P			1.0	18.8
A-7-6	-10						
		HA	P			1.5	19.2
		HA	P			1.0	26.1
	714.50	-15					
End of Hand Auger Boring at 15.0'							
Diedrich D-50 Track ATV Rig (#314) CME Automatic Hammer							
	-20						
	-25						

ILDOT BORING 72821.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/19/09

Date Completed 2/19/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>108</u>	DEPTH	BLOW	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	Qu	W
Station _____					Groundwater Elev.: _____				
Offset _____ ft					when drilling <u>700.1</u>				
Surface Elev. <u>715.10</u> ft					at Completion <u>695.1</u>				
					after _____ Hrs. _____				
FILL - Black CLAY (topsoil) (OL) A-7-6	714.40				689.60				
Stiff brown and gray CLAY, trace gravel, trace organic, moist (CL) A-7-6		3 4 4	P 1.75	22.3	Very stiff gray CLAY, little gravel, moist (CL) A-6		7 8 9	B 2.6 15%	14.1
Very stiff brown and gray CLAY, little gravel, moist (CL) A-6	712.10								
		3 4 4	P 3.75	16.0			5 6 10	B 3.0 15%	17.9
		3 5 4	B 3.2 15%	17.1	683.10				
Very stiff gray CLAY, little gravel, moist (CL) A-6	707.10				Med. dense gray fine SAND, trace silt, saturated (SP-SM) A-3		4 5 7		17.4
		5 7 7	B 3.0 15%	14.4					
Med. dense brown and gray SANDY LOAM, very moist to wet (SM) A-4	703.60				678.10				
		5 9 11	P 3.5	23.4	Stiff gray CLAY LOAM, little gravel, moist (CL-ML) A-4		5 5 6	B 1.5 15%	24.6
		5 6 5		22.1					
Very stiff brown and gray CLAY, little gravel, moist (CL) A-6	699.60				673.10				
		4 5 7	B 3.1 15%	16.9	Stiff to very stiff brown CLAY, little gravel, moist (CL) A-6		5 6 7	B 1.9 15%	12.5
		7 8 12	B 3.2 15%	15.9					
Stiff gray CLAY, trace gravel, moist (CL) A-6	694.60				668.10				
		5 9 11	P 1.5	17.6	Med. dense gray SAND and GRAVEL, saturated (SP/GP) A-1		10 8 6		
Loose gray SILTY LOAM, very moist (ML) A-4	692.10								
		4 4 5		12.1					

ILDOT_BORING 72921.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

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Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/20/09

Date Completed 2/20/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>109</u>	DEPTH	BLOW	Qu	W	Surface Water Elev. _____	DEPTH	BLOW	Qu	W
Station _____					Groundwater Elev.: _____				
Offset _____ ft					when drilling <u>683.7</u>				
Surface Elev. <u>715.70</u> ft					at Completion <u>684.7</u>				
					after _____ Hrs. _____				
Black CLAY (topsoil) (OL) <u>715.20</u> A-7-6					Very stiff gray CLAY, little gravel, moist (CL) A-6				
Very stiff brown CLAY, trace to little gravel, moist (CL) A-6		3 3 5	B 3.9 15%	21.5			4 6 8	B 2.4 15%	15.9
		3 5 7	B 3.0 15%	16.9		5 8 10	B 2.2 15%	16.0	
		4 6 7	B 2.4 15%	18.6	683.70				
					Med. dense gray SANDY LOAM, wet (SC/GC) A-2-4				
<u>707.70</u> Very stiff gray CLAY, little gravel, moist (CL) A-6		5 6 8	B 2.7 15%	14.2		7 11 14		9.9	
					679.70				
<u>704.20</u> Med. dense gray SANDY LOAM, moist (SC) A-2-4		3 5 6	P 3.0 12.7	14.4					
<u>702.70</u> Very stiff gray CLAY, little gravel, moist (CL) A-6		5 6 6	B 2.4 15%	15.4	676.70	14 12 10	P 2.0	12.4 14.5	
		3 5 6	B 2.2 15%	16.1					
		3 5 5	B 2.0 15%	17.2		5 7 8	B 1.6 15%	14.4	
		4 5 7	B 2.7 15%	16.0	668.70				
					Very dense to med. dense gray SAND, little gravel, occasional Cobbles and Boulders, saturated (SP) A-1				
		5 5 7	B 2.8 15%	16.5		7 32 22			

ILDOT_BORING 72921.GPJ IDOT.GDT 5/14/09
 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/20/09

Date Completed 2/20/09

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

STRUCTURE NO. _____
 ROUTE _____
 SECTION _____
 COUNTY DuPage

Boring No. 109
 Station _____
 Offset _____ ft
 Elevation 665.70 ft

Elevation 640.70 ft
 DEPTH
 B L O W S
 Qu tsf
 W %

Very dense to med. dense
 gray SAND, little gravel,
 occasional Cobbles and
 Boulders, saturated (SP)
 A-1

75/6"
-55
4 4 6
-60

653.70

Dense to very dense gray
 SAND and GRAVEL,
 numerous Cobbles and
 Boulders, saturated (SP/GP)
 A-1-a

22 24 25
-65

23/6" 50/2"
-70

End of Boring at 75.0'

Diedrich D-50 Track ATV Rig
 (#314)
 CME Automatic Hammer

640.70 -75

-100

ILDOT BORING 72921.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/16/09

Date Completed 2/16/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72,921

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>110</u>	D E P T H	B L O W S		Qu tsf	W %	Surface Water Elev. _____
Station _____						Groundwater Elev.: _____
Offset <u>ft</u>						when drilling _____ <u>Dry</u>
Surface Elev. <u>730.30</u> ft						at Completion _____ <u>Dry</u>
						after _____ Hrs. _____

Description	Depth (ft)	Blow Count	Penetration (P)	Qu (tsf)	W (%)
FILL - Brown and black Sand and Cinders, moist A-1	3 2 3			10.4	
<u>727.30</u>					
FILL - Brown and gray CLAY, trace gravel, moist (CL) A-6	4 5 6 -5		P 2.25	23.2	
	4 6 8		P 4.5	20.5	
	4 6 8 -10		P 4.5	20.5	
	5 6 8		P 4.5	23.7	
<u>717.30</u>					
Hard dark brown CLAY, trace gravel, trace organic, moist (CL) A-7-6	7 8 9 -15		P 4.5	25.1	
<u>714.80</u>					
Hard brown and gray CLAY, trace gravel, moist (CL) A-6	4 6 7		P 4.5	18.2	
	5 6 9		P 4.5	17.8	
<u>710.30</u>	-20				
End of Boring at 20.0'					
Diedrich D-50 Track ATV Rig (#314)					
CME Automatic Hammer					
	-25				

ILDOT BORING 72921.GPJ IDOT.GDT 5/14/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 2/16/09

Date Completed 2/16/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-72.921

COUNTY DuPage LOCATION _____ S. 5-SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>112</u>	D	B	L	O	W	Qu	W
Station _____	E	L	O	W	S	tsf	%
Offset _____ ft	P						
Surface Elev. <u>729.10</u> ft	H						
FILL - Brown and black SAND, little gravel, little cinders, moist (SP) A-1-a			4				7.4
<u>726.10</u>			5				
FILL - Brown and black CLAY, trace gravel, little organic, moist (CL) A-7-6			2			P	
			3			1.75	26.9
<u>723.60</u>			4				
FILL - Brown CLAY, trace gravel, moist (CL) A-7-6			3			P	
			3			0.75	29.4
<u>718.60</u>			4				
Stiff black CLAY, trace gravel, trace to little organic, moist (CL/CH) A-7-6			2			P	
			3			1.0	26.0
<u>716.10</u>			5				
Very stiff brown and gray CLAY, trace gravel, occasional sand seams, moist (CL) A-6			4			P	
			4			2.0	21.3
<u>709.10</u>			5				
			4			P	
			5			3.5	19.6
			6				
			5			P	
			6			2.5	18.8
			6				

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 711.6
 at Completion 711.1
 after _____ Hrs. _____

End of Boring at 20.0'
 Diedrich D-50 Track ATV Rig (#314)
 CME Automatic Hammer

ILDOT_BORING 72921.GPJ IDOT.GDT 5/14/09

ILDOT_SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>201</u>	DEPTH	BLOW	Qu tsf	W %
Station _____				
Offset <u>ft</u>				
Surface Elev. <u>715.70</u> ft				
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-7-6	3		P	
	2		3.0	26.1
	4			
	3		P	
	3		3.0	18.5
	5			
710.20				
Very stiff brown and gray CLAY, trace gravel, moist (CL) A-7-6	2		P	
	3		2.5	22.7
	3			
707.70				
Stiff brown and gray CLAY, little gravel, moist (CL) A-6	ST		B	21.4
		1.47		
705.20				
Stiff to very stiff gray CLAY, little gravel, moist (CL) A-6	2		B	
	2		1.82	19.2
	2		15%	
	ST		B	15.4
		3.25		
-15				
	5		B	
	7		1.93	18.6
	7		15%	
	5		P	
	5		2.0	16.9
	6			
695.70				
-20				
End of Boring at 20.0'				
-25				

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling Dry
 at Completion Dry
 after _____ Hrs. _____

ILDOT_BORING 73885.GPJ IDOT.GDT 10/19/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No.	Station	Offset	DEPTH	BLOWS	Qu tsf	W %
202		ft				
Surface Elev. <u>716.00</u> ft						
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-6						
	713.00		4	P		
			6	4.5+		15.0
			8			
Black clayey TOPSOIL, moist (OL) A-7-6						
	711.00		5			
			7			25.9
			7			
Very stiff brown and gray CLAY, little gravel, moist (CL) A-6						
	708.00		ST	B	2.25	19.2
Very stiff to stiff gray CLAY, little gravel, occasional silt seams, moist (CL) A-6						
			ST	B	2.21	18.2
			4			
			5	P	2.25	15.5
			6			
			4	B	1.82	17.0
			5	15%		
			5			
			4	P	2.75	16.6
			5			
			4	B	1.89	17.7
			6	15%		
			8			
	696.00					
End of Boring at 20.0'						

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 708.0
 at Completion 703.0
 after _____ Hrs. _____

ILDOT_BORING 73895.GPJ IDOT.GDT 10/18/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>203</u>	D	B	L	Q _u	W
Station _____	E	L		tsf	%
Offset _____ ft	P	O			
Surface Elev. <u>714.00</u> ft	T	W			
	H	S			
FILL - Brown and black CLAY, trace gravel, moist (CL) A-7-6					
712.50		4			18.4
FILL - Brown SAND, little gravel, moist (SP) A-2-4		5			
710.50		5			
Very stiff dark brown CLAY, trace organic, moist (CL/CH) A-7-6		3	P	2.0	30.7
708.50		4			
		5			
Soft brown and gray CLAY, trace gravel, very moist (CL) A-7-6			B	0.5	25.2
706.00		ST			
Med. stiff to stiff gray CLAY, little gravel, very moist (CL) A-6		2	P	1.25	19.1
-10		3			
		4			
		3	B	0.96	17.9
-15		3			
		5		15%	
		2	P	1.0	17.4
698.50		3			
Very stiff gray CLAY, little gravel, moist (CL) A-6		5	B	2.15	15.9
-20		6		15%	
		5	P	2.5	15.9
694.00		7			
		9			
End of Boring at 20.0'					
-25					

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 708.5
 at Completion 705.0
 after _____ Hrs. _____

ILDOT BORING 73695.GPJ IDOT.GDT 10/19/09

SPT. (N) = Sum of last two blow values in sample. (Q_u) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

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Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>204</u>	D E P T H	B L O W S	Qu tsf	W %
Station _____				
Offset _____ ft				
Surface Elev. <u>712.70</u> ft				
FILL - Black clayey TOPSOIL (OL)	711.90			
FILL - Brn SANDY LOAM, tr Asphalt, moist (SC/GC) A-2-4	710.70	10 14 17		7.4 4.9
FILL - Brn SAND, little gravel, moist to wet (SP)	709.70			
FILL - Brn SAND and GRAVEL, saturated (SP/GP) A-2-4	-5	7 6 7		10.4
		4 3 3		12.7
		1 4 2		13.9
	702.70	-10		
End of Boring at 10.0'				
	-15			
	-20			
	-25			

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 709.7
 at Completion 708.7
 after _____ Hrs. _____

ILDOT_BORING 73885.GPJ IDOT.GDT 10/19/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/14/09

Date Completed 7/14/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>205</u>	DEPTH	BLOW	Qu tsf	W %
Station _____				
Offset <u>ft</u>				
Surface Elev. <u>732.30</u> ft				
FILL - Brown and dark brown CLAY, little gravel, moist (CL) A-6	5 7 7	P 3.5	14.2	
	4 7 7	P 4.5+	18.2	
	4 5 7	P 3.5	18.9	
	4 6 9	P 3.5	16.9	
721.80				
FILL - Black CLAY, trace organic, moist (CL/CH) A-7-6	5 7 10	P 3.5	30.0	
719.30				
FILL - Brown CLAY, trace gravel, moist (CL) A-6	5 7 13	P 4.5+	20.5	
716.80				
Very stiff dark brown CLAY, trace gravel, trace organic, moist (CL) A-7-6	9 9 14	P 3.5	20.7	
714.30				
Hard brown CLAY, little gravel, moist (CL) A-6	5 8 11	B 5.19 15%	14.5	
712.30				
End of Boring at 20.0'	-20			
	-25			

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling _____ Dry
 at Completion _____ Dry
 after _____ Hrs. _____

ILDOT BORING 73695.GPJ IDOT.GBT 10/19/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

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Testing Service Corporation

STRUCTURE BORING LOG

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>206</u>	D	B			Surface Water Elev. _____
Station _____	E	L			Groundwater Elev.: _____
Offset _____ ft	P	O			when drilling _____
Surface Elev. <u>731.80</u> ft	T	W	Qu	W	at Completion _____
	H.	S	tsf	%	after _____ Hrs.

Description	Depth (ft)	Penetration (P)	Blow Count (B)	Soil Type	W (%)	Qu (tsf)
FILL - Brown CLAY, little gravel, moist (CL) A-6	6.34		2.75	P	17.4	
	5.77		4.5+	P	18.6	
	4.58		4.5+	P	18.3	
723.80						
FILL - Brown and dark brown CLAY, trace gravel, trace organic, moist (CL) A-7-6	4.57		4.0	P	23.4	
	5.99		3.0	P	22.6	
	3.68		2.5	P	25.3	
716.30						
Very stiff black CLAY, trace gravel, trace organic, moist (CL) A-7-6	4.55		2.5	P	25.5	
713.80						
Hard brown CLAY, little gravel, moist (CL) A-6	6.811		4.5+	P	16.2	
711.80						
End of Boring at 20.0'						
-25						

ILDOT BORING 73695.GPJ IDOT.GDT 10/19/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/14/09

Date Completed 7/14/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. 207
 Station _____
 Offset ft
 Surface Elev. 732.90 ft

DEPTH	BLOW	QU	W
H	S	tsf	%
3	P		
4	4.5+	16.3	
5			
4	P		
5	3.25	20.0	
6			
-5			
3	P		
6	2.5	20.9	
7			
4	P		
6	3.25	17.9	
8			
-10			
4	P		
6	3.0	17.0	
7			
3	B		
6	1.75	17.2	
8	15%		
-15			
-20			
-25			

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling _____ Dry
 at Completion _____ Dry
 after _____ Hrs. _____

FILL - Blk clayey TOPSOIL (OL) 732.40

FILL - Brown and dark brown CLAY, trace gravel, moist (CL) A-6

722.40

Very stiff to stiff brown CLAY, little gravel, moist (CL) A-6

717.90

End of Boring at 15.0'

ILDOT BORING 73695.GPJ IDOT.GDT 10/19/08

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 7/14/09

Date Completed 7/14/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>209</u>	DEPTH	BLOW	Qu tsf	W %
Station _____				
Offset _____ ft				
Surface Elev. <u>714.90</u> ft				
Black clayey TOPSOIL (OL) A-7-6	713.90			
Very stiff brown CLAY, little gravel, moist (CL) A-6	3	P	2.25	15.6
	3			
	5			
	4	P	3.5	17.3
	4			
	5			
	5	P	3.75	17.2
	6			
	8			
Very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6	706.90			
	4	B	3.0	15.7
	6			
	6			
	5	P	3.0	16.2
	7			
	7			
End of Boring at 12.5'	702.40			
	-15			
	-20			
	-25			

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 706.9
 at Completion 706.9
 after _____ Hrs. _____

ILDOT_BORING 73695.GPJ IBDOT.GDT 10/19/08

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/14/09

Date Completed 7/14/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73,695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4, TWP. 39N, RNG. 11E

Boring No. <u>210</u>	D	B				Surface Water Elev. _____
Station _____	E	L				Groundwater Elev.: _____
Offset _____ ft	P	O				when drilling <u>704.3</u>
Surface Elev. <u>714.80</u> ft	H	W	Qu	W		at Completion <u>704.8</u>
		S	tsf	%		after _____ Hrs. _____

Description	Depth (ft)	Blows (N)	Penetration (P)	Bulge (B)	Shear (S)
Black clayey TOPSOIL (OL) A-7-6	713.70				
Very stiff brown CLAY, little gravel, moist (CL) A-6		3 3 4	P 2.75	B 19.6	S 21.1
		4 5 6	B 1.95 15%	19.6	
	-5				
		3 6 7	P 3.25	22.1	
	706.80				
Very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6		6 6 7	P 2.75	16.9	
	-10				
		4 5 8	B 2.22 15%	16.2	
		5 5 6	P 3.25	16.6	
	699.80	-15			
End of Boring at 15.0'					
	-20				
	-25				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

ILDOT BORING 73695.GPJ IDOT.GDT 10/19/09

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/14/09

Date Completed 7/14/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>211</u>	D	B	Qu	W
Station _____	P	L	tsf	%
Offset <u>ft</u>	T	O		
Surface Elev. <u>713.70</u> ft	H	W		
	S	S		
Black clayey TOPSOIL (OL) A-7-6 712.70				
Very stiff brown CLAY, trace gravel, moist (CL) A-7-6 710.70		2 3 4	P 2.75	23.9
Very stiff to hard brown and gray CLAY, little gravel, moist (CL) A-6 705.70		3 4 6	P 3.5	16.3
Very stiff gray CLAY, little gravel, occasional sand seams, moist (CL) A-6 701.20		4 7 9	P 4.5+	15.4
End of Boring at 12.5'		5 5 7	P 3.25	14.0
		4 6 8	P 3.0	17.0

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling 705.7
 at Completion 706.7
 after _____ Hrs. _____

ILDOT BORING 73695.GPJ IDOT.GDT 10/19/08
 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>212</u>	D E P T H	B L O W S	Qu tsf	W %	
Station _____					
Offset _____ ft					
Surface Elev. <u>716.20</u> ft					
FILL - Blk clayey TOPSOIL (OL) A-7-6	715.90				
FILL - Brown and black CLAY, little gravel, trace organic, moist (CL) A-6	714.20	3 2 4	P 3.5	14.4	
FILL - Drk brn SANDY LOAM, tr gravel, tr organic, moist (SC) A-4	710.70	5 8 7	P 4.5+	14.8	
Very stiff brown and gray CLAY, tr gravel, trace organic, moist (CL) A-7-6	708.20	4 5 6	P 2.0	26.9	
Very stiff brown and gray CLAY, little gravel, moist (CL) A-6	706.20	4 9 6	P 3.25	18.0	
End of Boring at 10.0'	-10				
	-15				
	-20				
	-25				

Surface Water Elev. _____
 Groundwater Elev.: _____
 when drilling _____ Dry
 at Completion _____ Dry
 after _____ Hrs. _____

ILDOT_BORING 73695.CPJ IDOT.GDT 10/19/09

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 7/15/09

Date Completed 7/15/09

ROUTE _____ DESCRIPTION Great Western Trail Bridges and Retaining Walls

SECT. _____ STRUCT. NO. _____ DRILLED BY TSC L-73.695

COUNTY DuPage LOCATION _____ S. 5 - SE 1/4 , TWP. 39N , RNG. 11E

Boring No. <u>214</u>	D	B			Surface Water Elev. _____
Station _____	E	L			Groundwater Elev.: _____
Offset _____ ft	P	O			when drilling _____ <u>Dry</u>
	T	W	Qu	W	at Completion _____ <u>Dry</u>
Surface Elev. <u>722.00</u> ft	H	S	tsf	%	after _____ Hrs. _____

Description	Depth (ft)	Blows	Penetration (P)	SPT (W)
FILL - Black clayey TOPSOIL (OL)	721.80			
FILL - Brown SANDY LOAM, little gravel, moist (SC) A-4	719.50	4 4 8	P 4.5+	17.3
FILL - Brown and black CLAY, trace gravel, trace organic, moist (CL) A-7-6		6 7 10	P 3.5	19.5
	-5			
		9 4 6	P 4.5+	22.6
		7 9 10	P 4.0	22.7
	-10			
	711.50			
Med. stiff brown and gray CLAY, very moist (CL/CH) A-7-6		2 3 3	P 0.75	30.1
	709.00			
Very stiff gray CLAY, little gravel, moist (CL) A-7-6		9 8 12	P 3.5	16.0
	707.00	-15		
End of Boring at 15.0'				
	-20			
	-25			

ILDOT_BORING 73895.GPJ IDOT.GDT 10/19/09
 SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 5, 2009

TSC Job No. L-73,695
 Great Western Trail
 Grace Street
 Lombard, Illinois

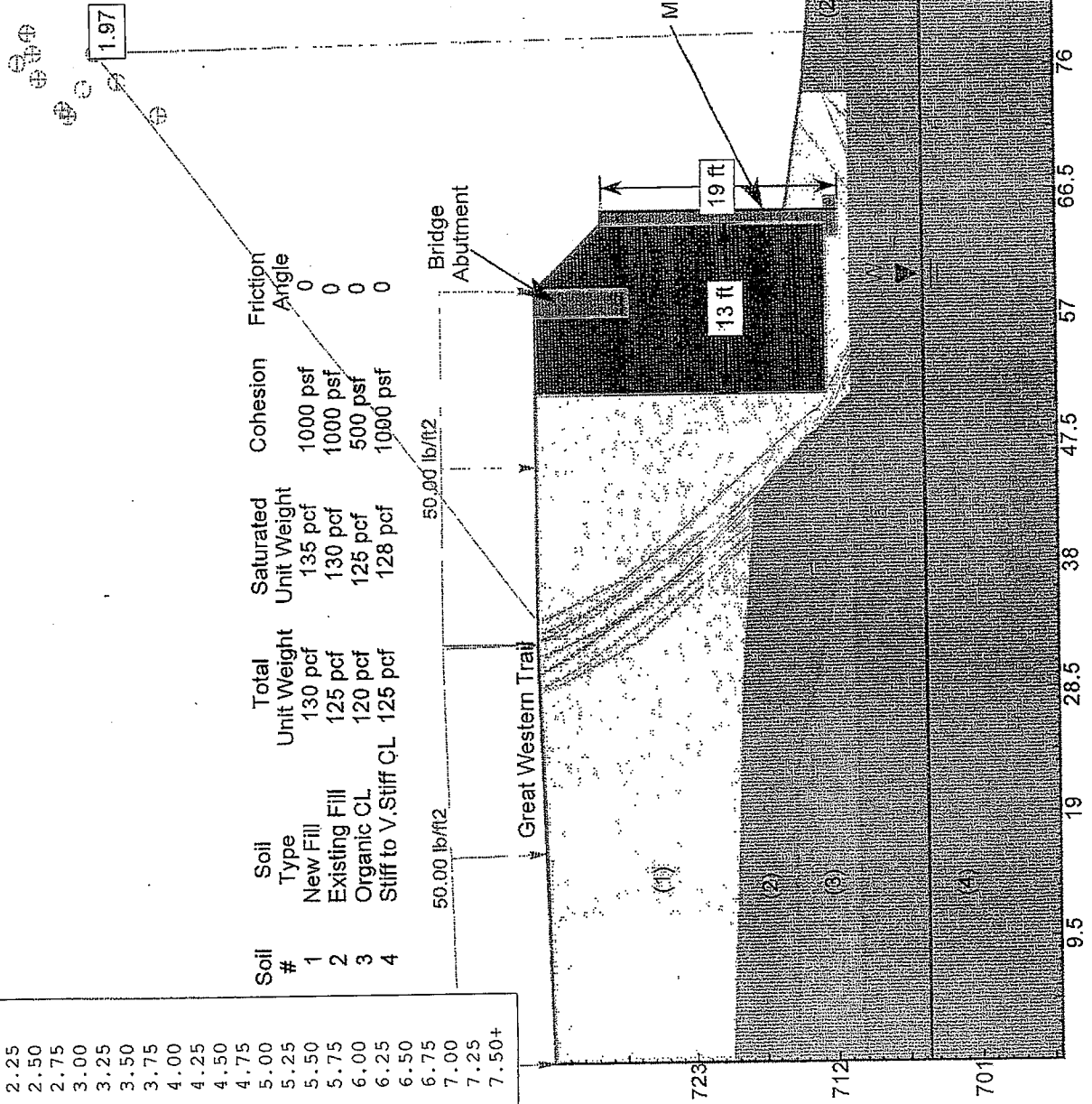
Global Stability Analysis
 Method: Spencer
 Non-Circular

Cross Section thru
 Borings 1 and 201

Figure 1
Short-Term

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	1000 psf	0
2	Existing Fill	125 pcf	130 pcf	1000 psf	0
3	Organic CL	120 pcf	125 pcf	500 psf	0
4	Stiff to V. Stiff CL	125 pcf	128 pcf	1000 psf	0



Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 5, 2009

TSC Job No. L-73,695
 Great Western Trail
 Grace Street
 Lombard, Illinois

Global Stability Analysis
 Method: Spencer
 Non-Circular

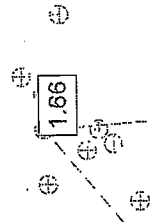
Cross Section thru
 Borings 1 and 201

Figure 2 Long-Term

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	100 psf	28
2	Existing Fill	125 pcf	130 pcf	50 psf	26
3	Organic CL	120 pcf	125 pcf	50 psf	24
4	Stiff to V. Stiff CL	125 pcf	128 pcf	100 psf	28

1.66



Bridge Abutment

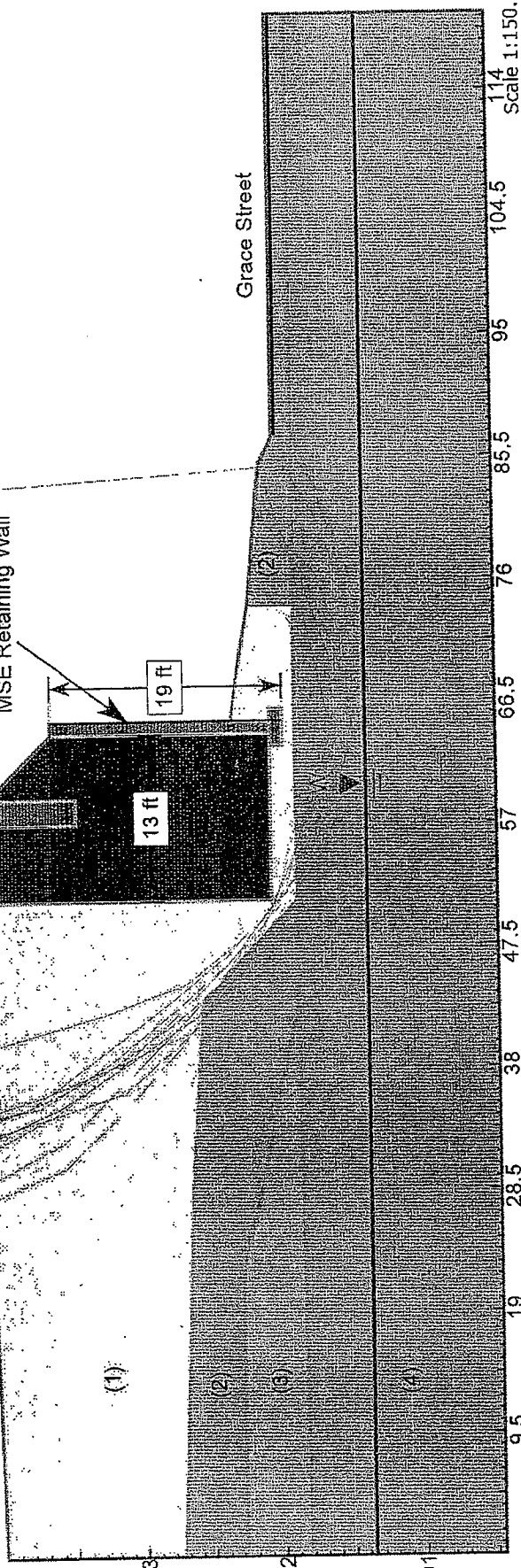
MSE Retaining Wall

19 ft

13 ft

Great Western Trail

Grace Street



Scale 1:150.0

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 5, 2009

TSC Job No. L-73,695
 Great Western Trail
 Grace Street
 Lombard, Illinois

Global Stability Analysis
 Method: Spencer
 Non-Circular

Cross Section thru
 Borings 2 and 203

Figure 3 Short-Term

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	1000 psf	0
2	Existing Fill	125 pcf	130 pcf	1000 psf	0
3	Organic CL	120 pcf	125 pcf	500 psf	0
4	Stiff CL	125 pcf	128 pcf	1000 psf	0
5	V.Stiff CL	130 pcf	135 pcf	2000 psf	0

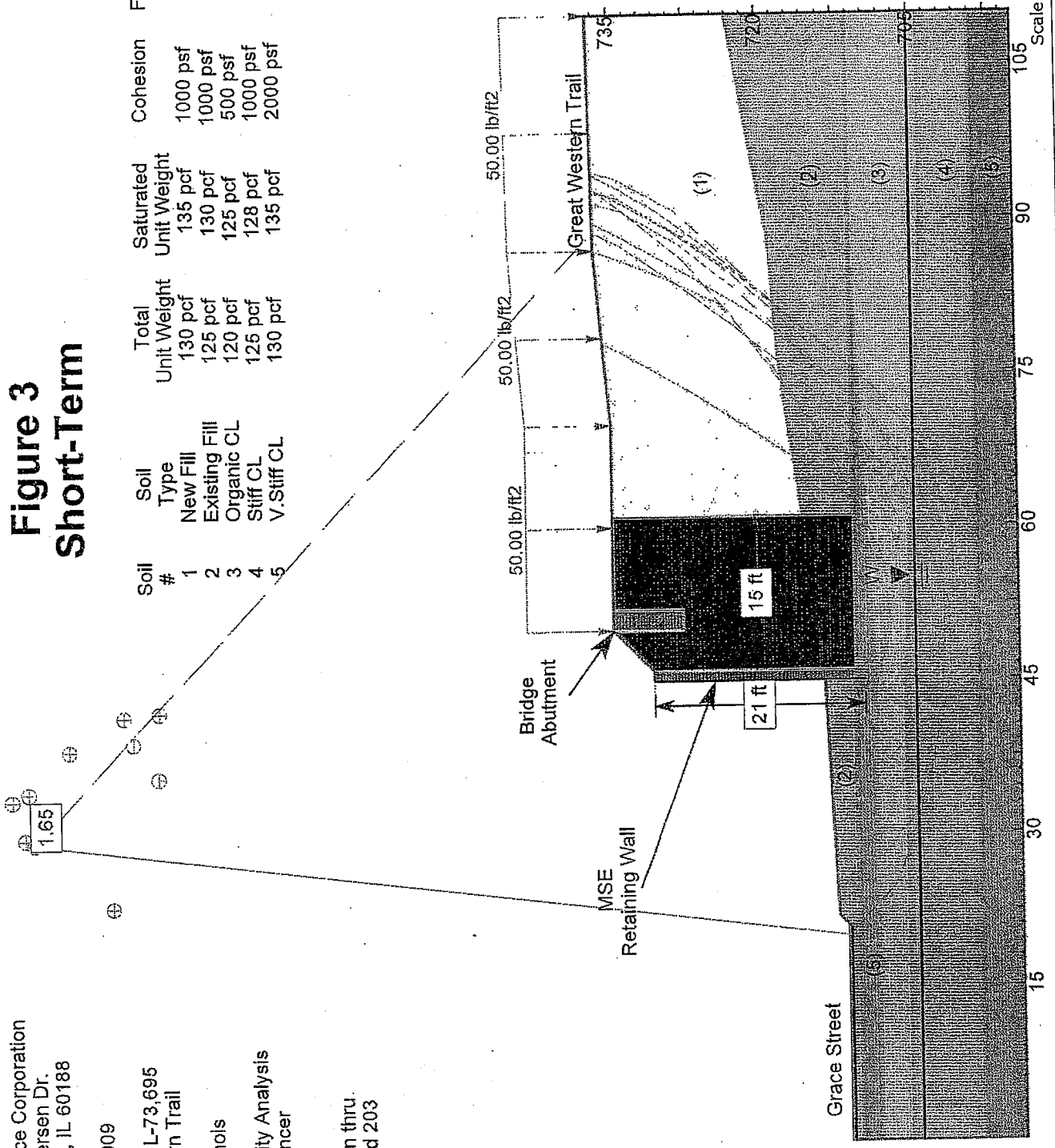


Figure 4 Long-Term

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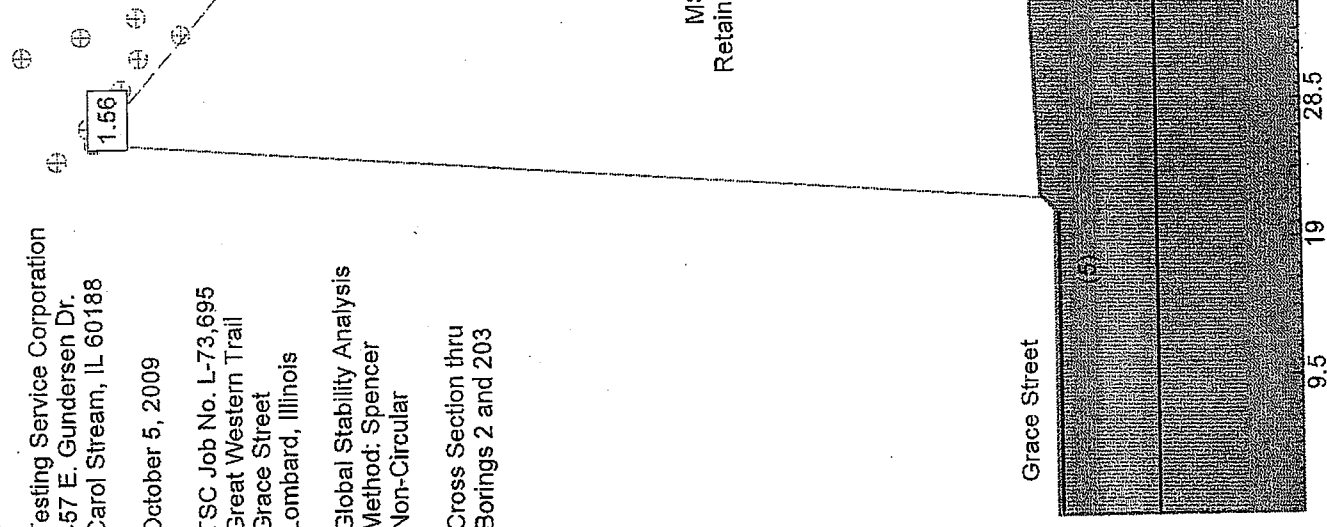
October 5, 2009

TSC Job No. L-73,695
Great Western Trail
Grace Street
Lombard, Illinois

Global Stability Analysis
Method: Spencer
Non-Circular

Cross Section thru
Borings 2 and 203

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	100 psf	28
2	Existing Fill	125 pcf	130 pcf	50 psf	26
3	Organic CL	120 pcf	125 pcf	50 psf	24
4	Stiff CL	125 pcf	128 pcf	100 psf	28
5	V. Stiff CL	130 pcf	135 pcf	150 psf	28



Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Figure 5 Short-Term

Testing Service Corporation
457 E. Gundersen Dr.
Carol Stream, IL 60188

October 5, 2009

TSC Job No. L-73,695
Great Western Trail
North of GWT,
Between Grace St. and UPRR
Lombard, Illinois

Global Stability Analysis
Method: Spencer
Non-Circular

Cross Section thru
Boring 210

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	1000 psf	0
2	Very Stiff CL	125 pcf	128 pcf	2000 psf	0

2.52

①
②
③

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

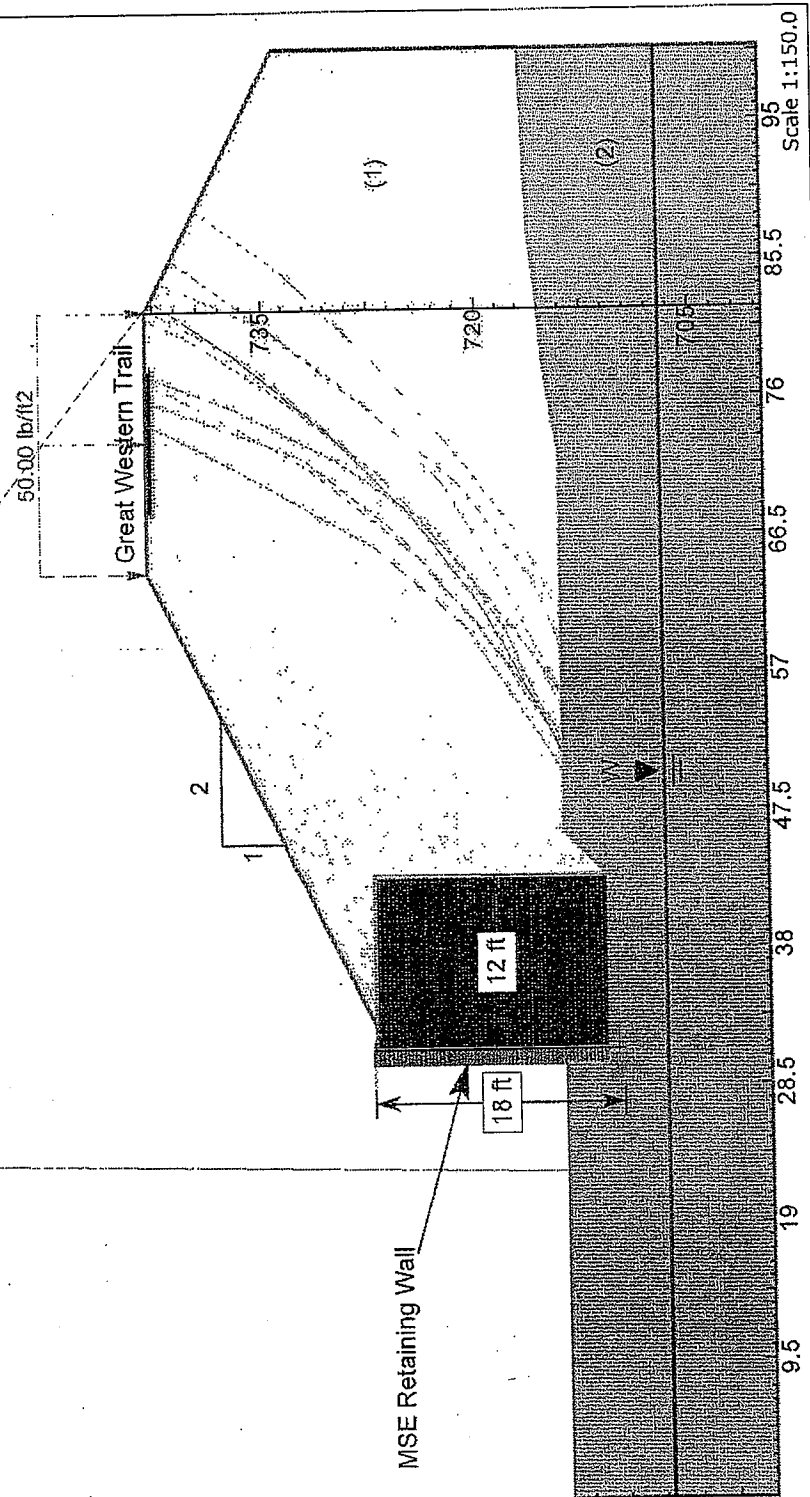


Figure 6 Long-Term

Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 5, 2009

TSC Job No. L-73,696
 Great Western Trail
 North of GWTL,
 Between Grace St. and UPRR
 Lombard, Illinois

Global Stability Analysis
 Method: Spencer
 Non-Circular

Cross Section thru
 Boring 210

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	100 psf	28
2	Very Stiff CL	125 pcf	128 pcf	150 psf	28

1.58

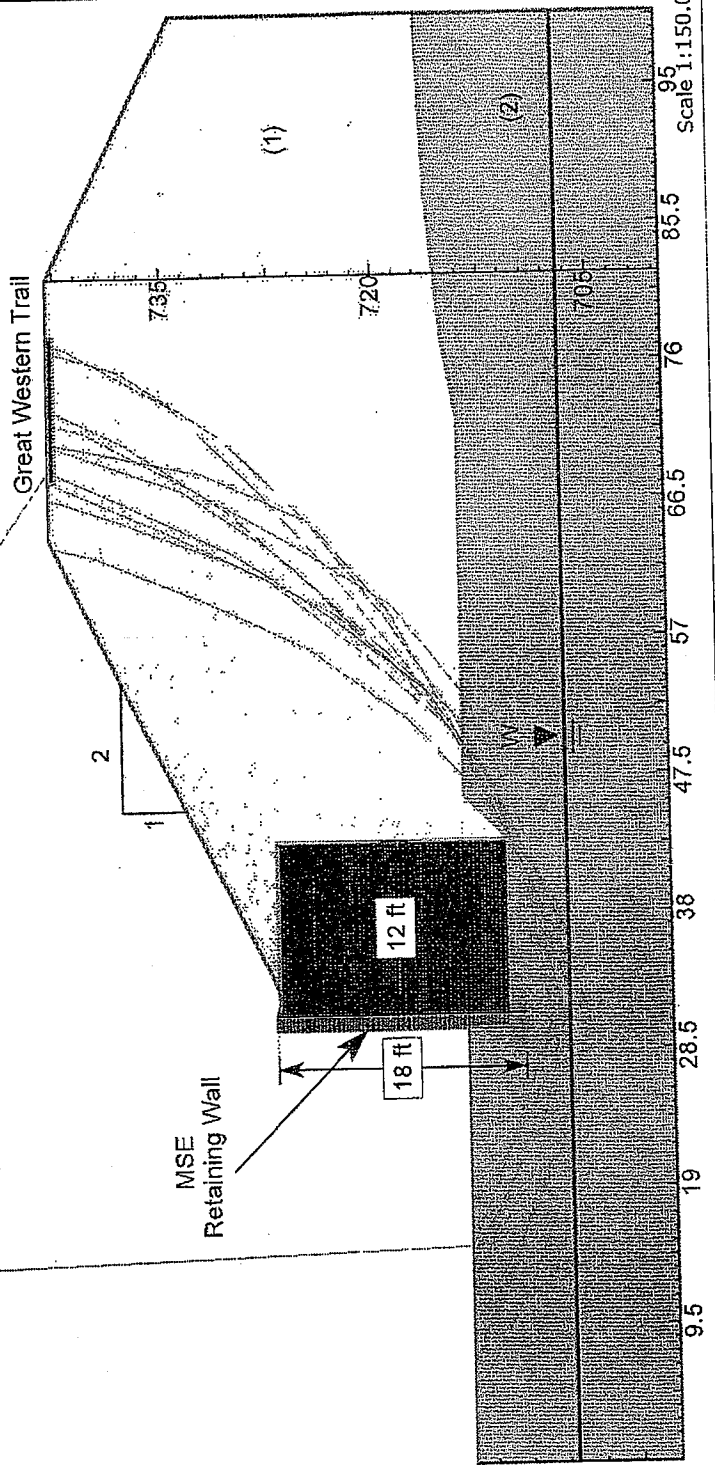


Figure 7 Short-Term

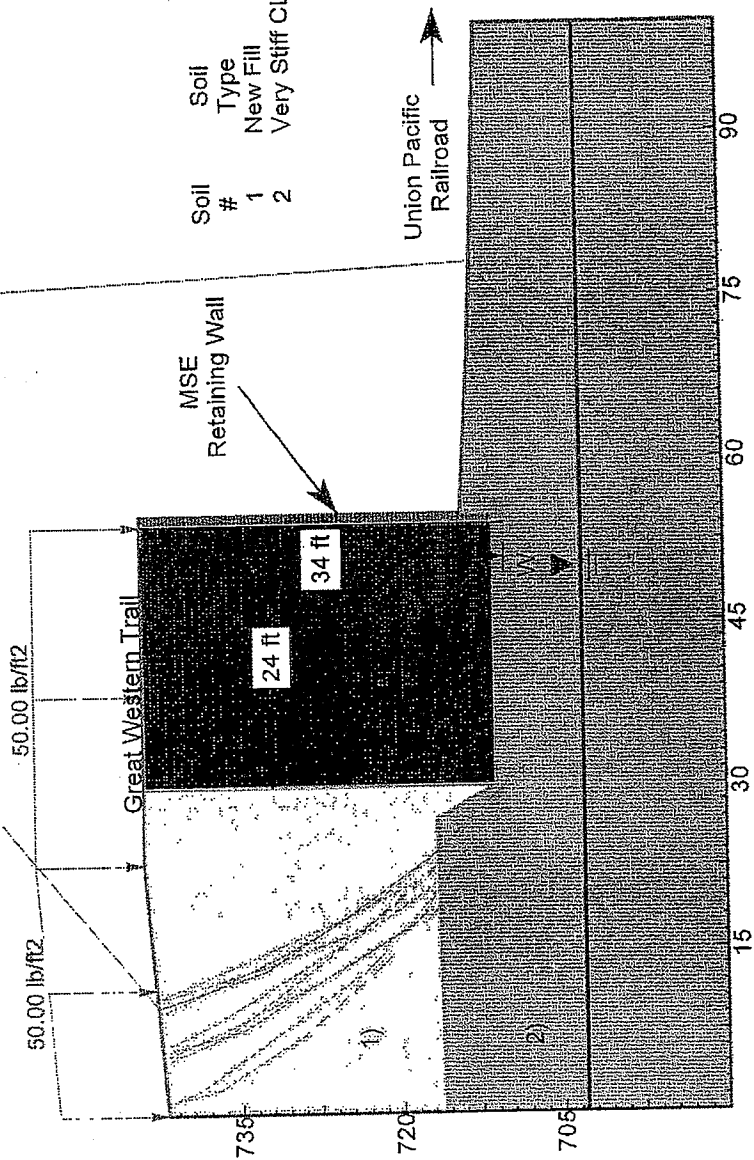
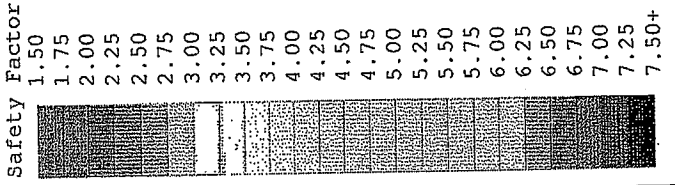
Testing Service Corporation
457 E. Gundersen Dr.
Carol Stream, IL 60188

October 5, 2009

TSC Job No. L-73,695
Great Western Trail
Grace Street
Lombard, Illinois

Global Stability Analysis
Method: Spencer
Non-Circular

Cross Section thru
Boring 4



Soil #	1	2
Soil Type	New Fill	Very Stiff CL
Total Unit Weight	130 pcf	130 pcf
Saturated Unit Weight	135 pcf	135 pcf
Cohesion	1000 psf	2500 psf
Friction Angle	0	0

Scale 1:200.0

Figure 8 Long-Term

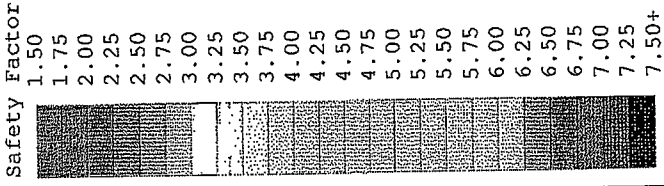
Testing Service Corporation
457 E. Gundersen Dr.
Carol Stream, IL 60188

October 5, 2009

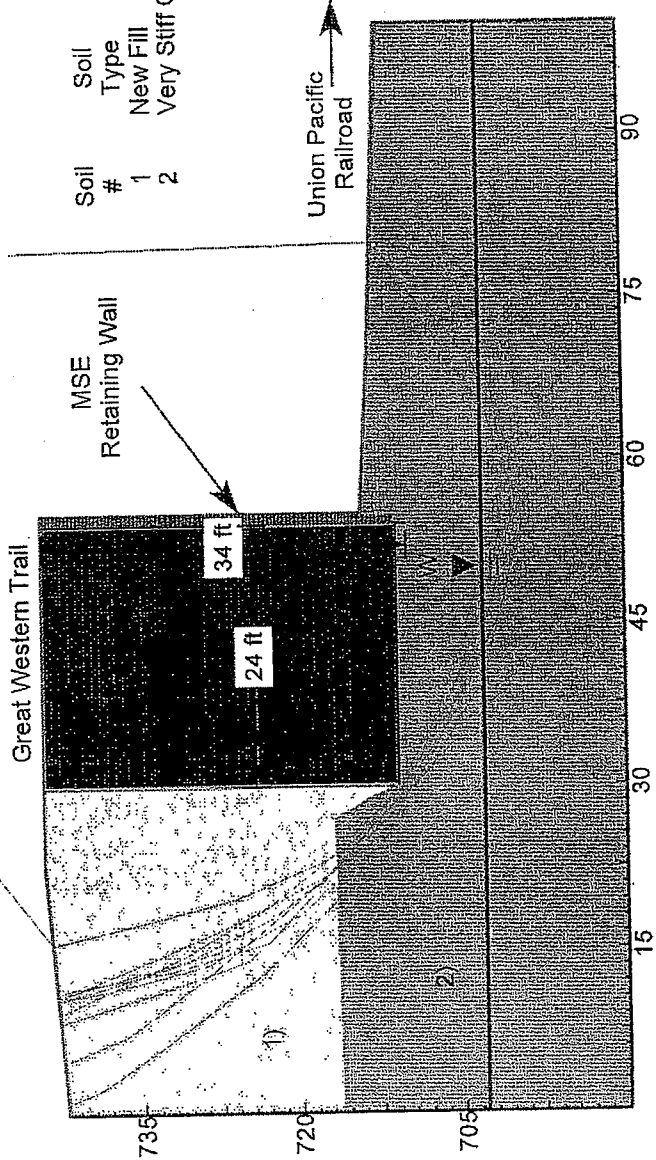
TSC Job No. L-73,695
Great Western Trail
Grace Street
Lombard, Illinois

Global Stability Analysis
Method: Spencer
Non-Circular

Cross Section thru
Boring 4



1.80



Scale 1:200.0

Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 14, 2009

TSC Job No. L-73,695
 Great Western Trail
 Grace Street
 Lombard, Illinois

Global Stability Analysis
 Method: Spencer
 Non-Circular

Cross Section thru
 Borings 106 and 8

Figure 9 Short-Term

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	1000 psf	0
2	Existing Fill	130 pcf	135 pcf	1000 psf	0
3	Very Stiff CL	130 pcf	135 pcf	2500 psf	0

2.72

4

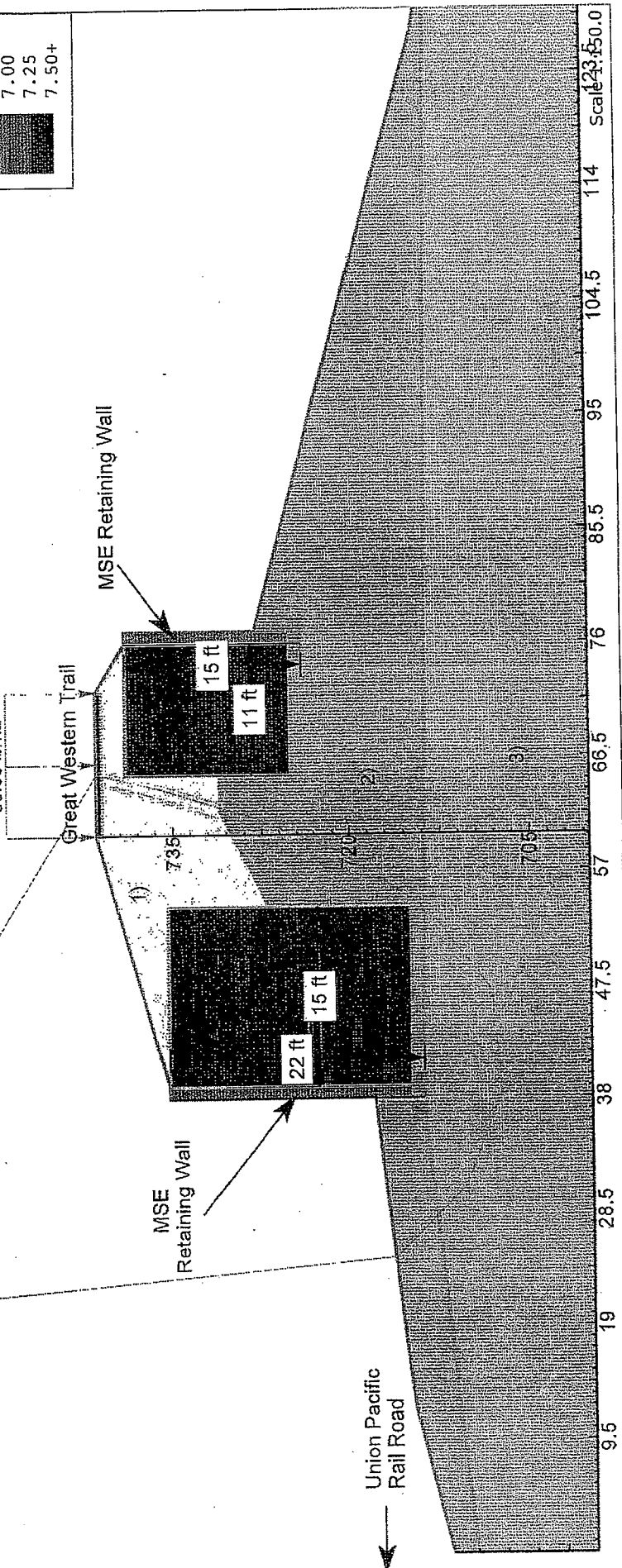
50.00 lb/ft²

Great Western Trail

MSE Retaining Wall

MSE Retaining Wall

Union Pacific
 Rail Road



Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 14, 2009

TSC Job No. L-73,695
 Great Western Trail
 Grace Street
 Lombard, Illinois

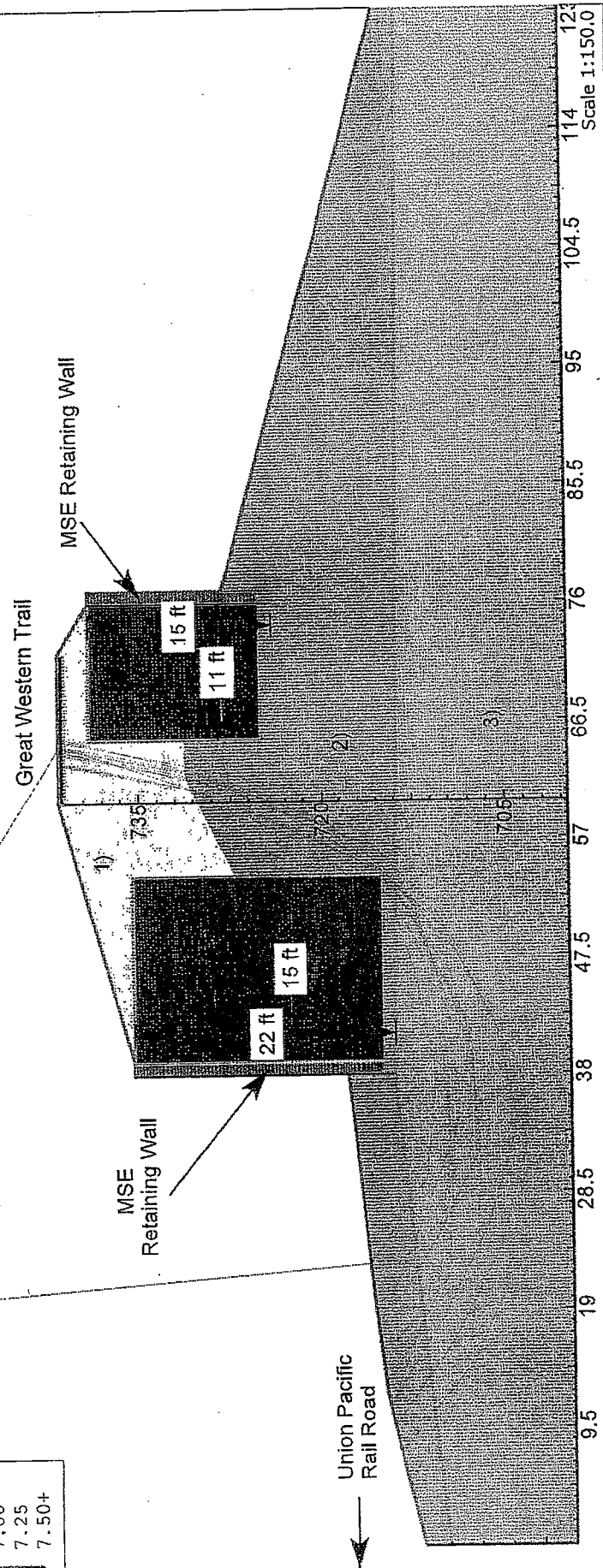
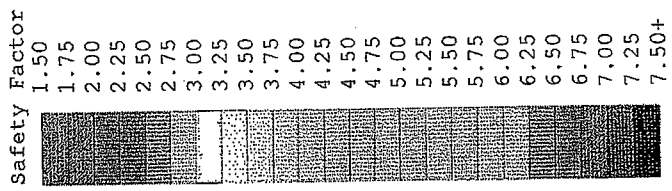
Global Stability Analysis
 Method: Spencer
 Non-Circular

Cross Section thru
 Borings 106 and 8

Figure 10 Long-Term

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	100 psf	28
2	Existing Fill	130 pcf	135 pcf	100 psf	28
3	Very Stiff CL	130 pcf	135 pcf	150 psf	28

1.82



Safety Factor

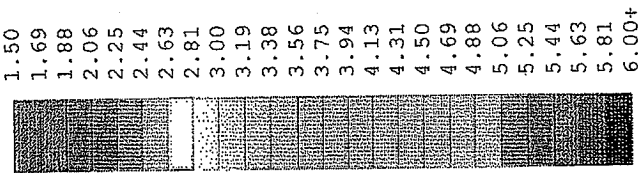


Figure 11 Short-Term

Testing Service Corporation
457 E. Gundersen Dr.
Carol Stream, IL 60188

October 5, 2009

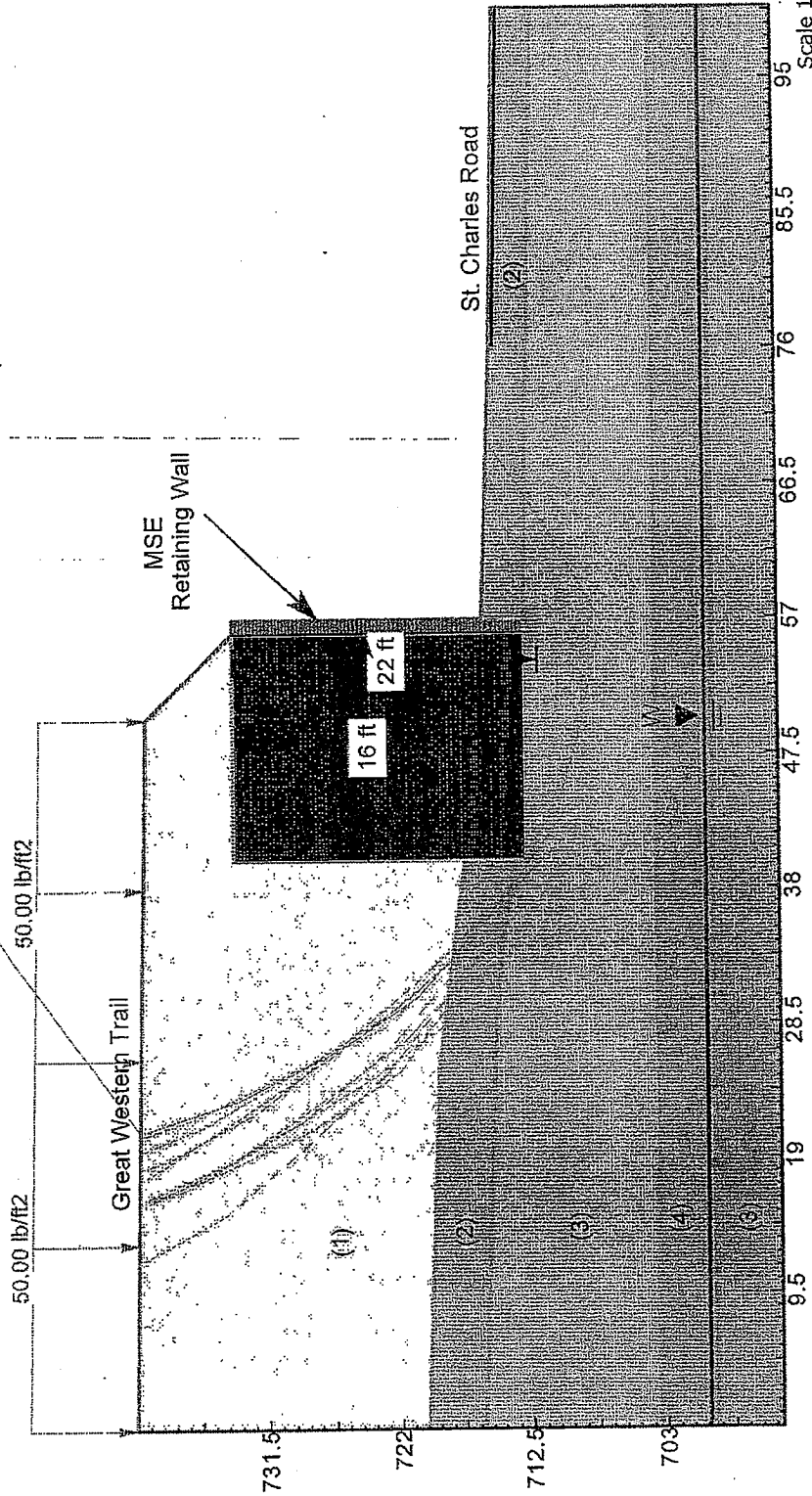
TSC Job No. L-73,695
Great Western Trail
St. Charles Road
Lombard, Illinois

Global Stability Analysis
Method: Spencer
Non-Circular

Cross Section thru
Borings 108

2.12

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	1000 psf	0
2	Stiff CL	125 pcf	128 pcf	1000 psf	0
3	V. Stiff CL	130 pcf	135 pcf	2000 psf	0
4	Firm Sandy Loam	120 pcf	125 pcf	0 psf	30



Scale 1:150.0

Safety Factor
1.50
1.75
2.00
2.25
2.50
2.75
3.00
3.25
3.50
3.75
4.00
4.25
4.50
4.75
5.00
5.25
5.50
5.75
6.00
6.25
6.50
6.75
7.00
7.25
7.50+

Figure 12 Long-Term

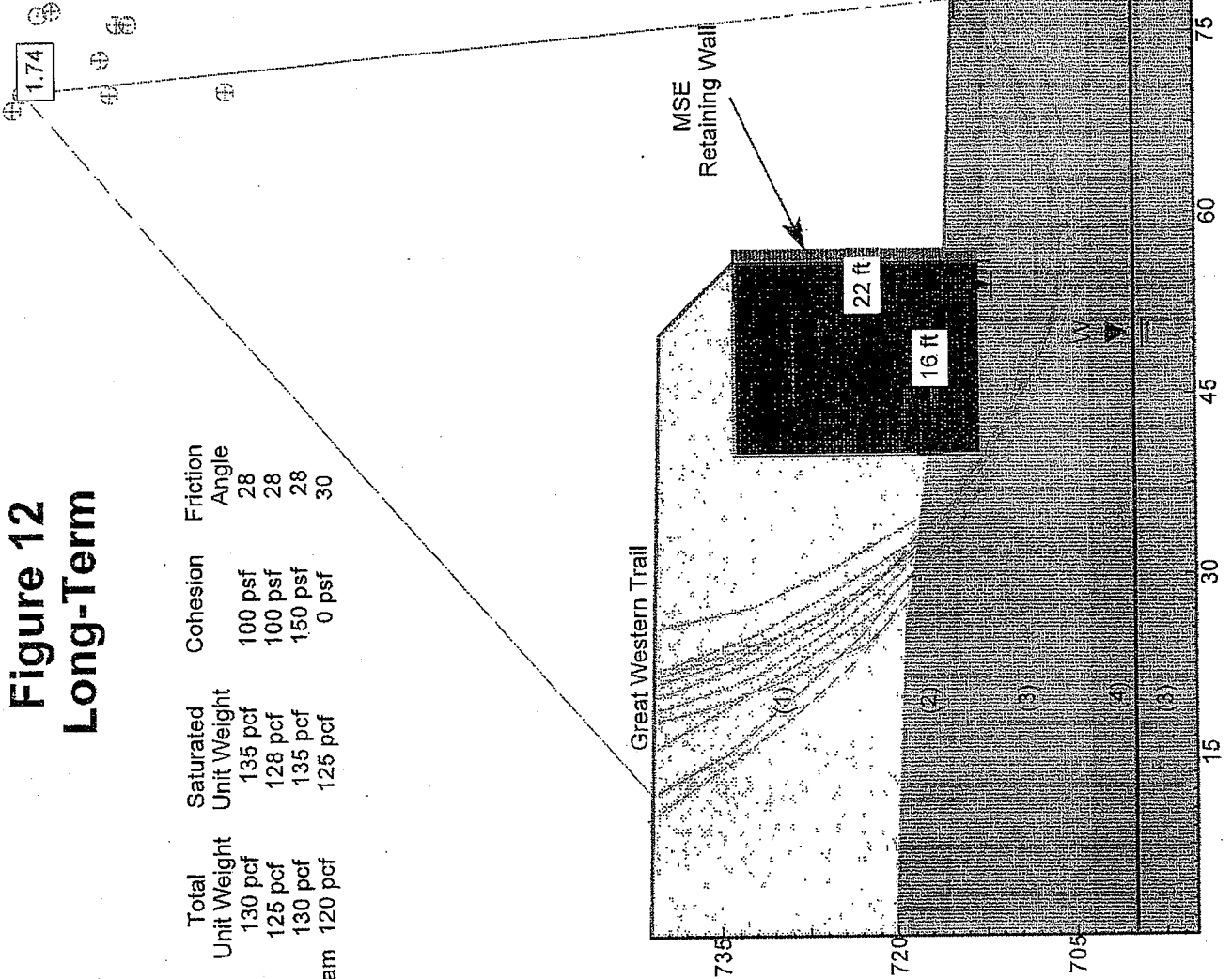
Testing Service Corporation
457 E. Gundersen Dr.
Carol Stream, IL 60188
October 5, 2009

TSC Job No. L-73,695
Great Western Trail
St. Charles Road
Lombard, Illinois

Global Stability Analysis
Method: Spencer
Non-Circular

Cross Section thru
Borings 108

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	100 psf	28
2	Stiff CL	125 pcf	128 pcf	100 psf	28
3	V. Stiff CL	130 pcf	135 pcf	150 psf	28
4	Firm Sandy Loam	120 pcf	125 pcf	0 psf	30



Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

October 15, 2009

TSC Job No. L-73,695
 Great Western Trail
 St. Charles Road
 Lombard, Illinois

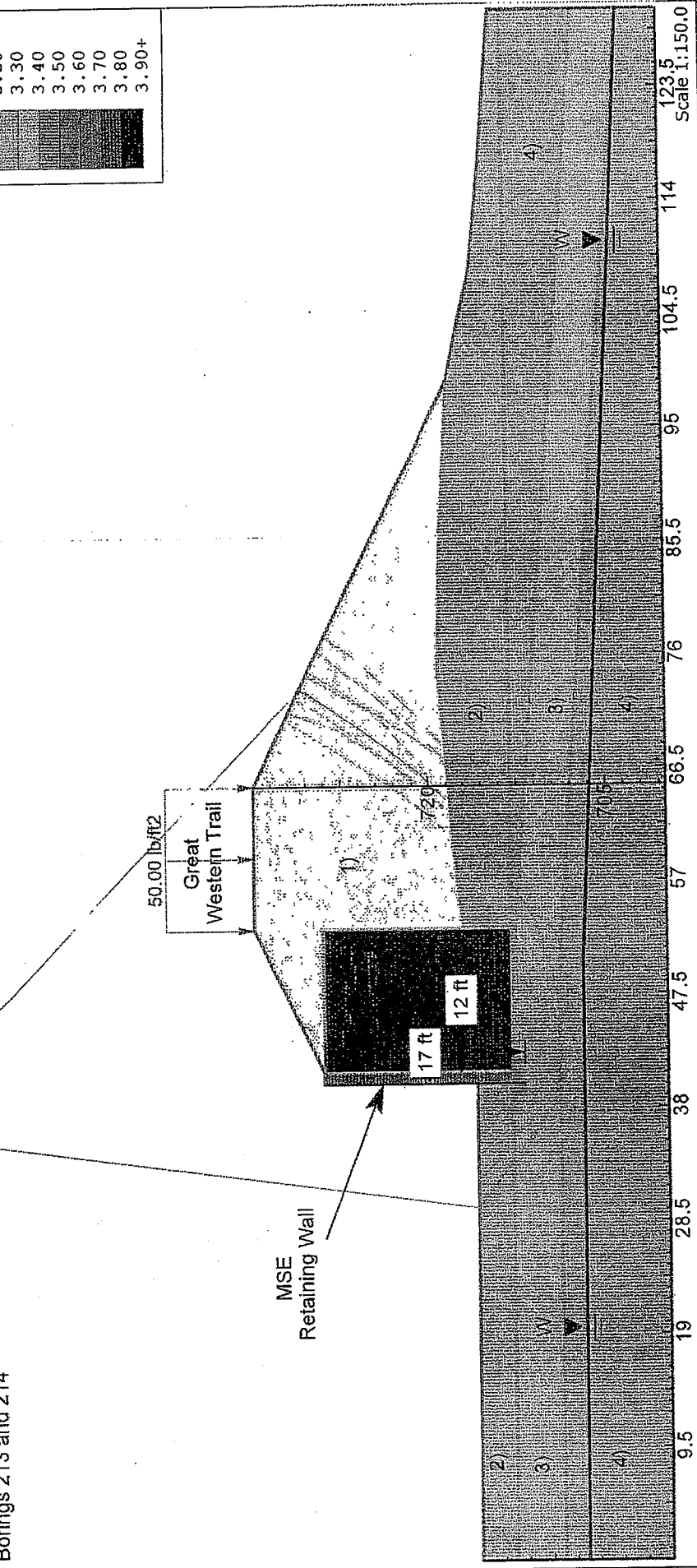
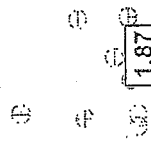
Global Stability Analysis
 Method: Spencer
 Non-Circular

Cross Section thru
 Borings 213 and 214

Figure 13 Short-Term

Safety Factor
1.50
1.60
1.70
1.80
1.90
2.00
2.10
2.20
2.30
2.40
2.50
2.60
2.70
2.80
2.90
3.00
3.10
3.20
3.30
3.40
3.50
3.60
3.70
3.80
3.90+

Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	1000 psf	0
2	Existing Fill	125 pcf	130 pcf	750 psf	0
3	Stiff CL	125 pcf	128 pcf	750 psf	0
4	V.Stiff CL	130 pcf	135 pcf	2000 psf	0



Testing Service Corporation
 457 E. Gundersen Dr.
 Carol Stream, IL 60188

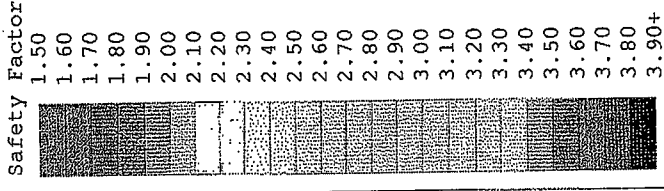
October 15, 2009

TSC Job No. L-73,695
 Great Western Trail
 St. Charles Road
 Lombard, Illinois

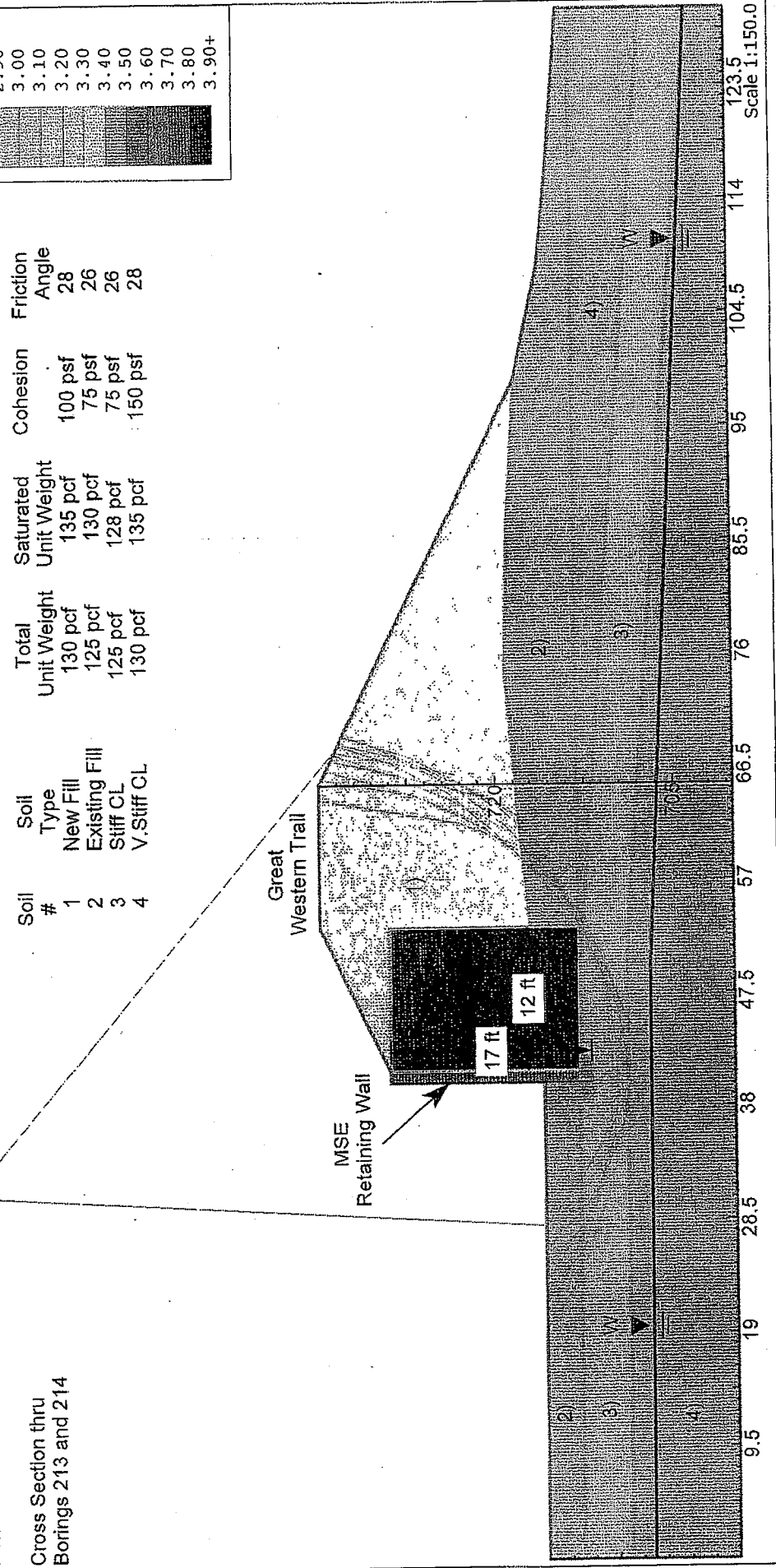
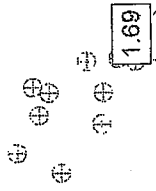
Global Stability Analysis
 Method: Spencer
 Non-Circular

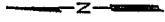
Cross Section thru
 Borings 213 and 214

Figure 14 Long-Term

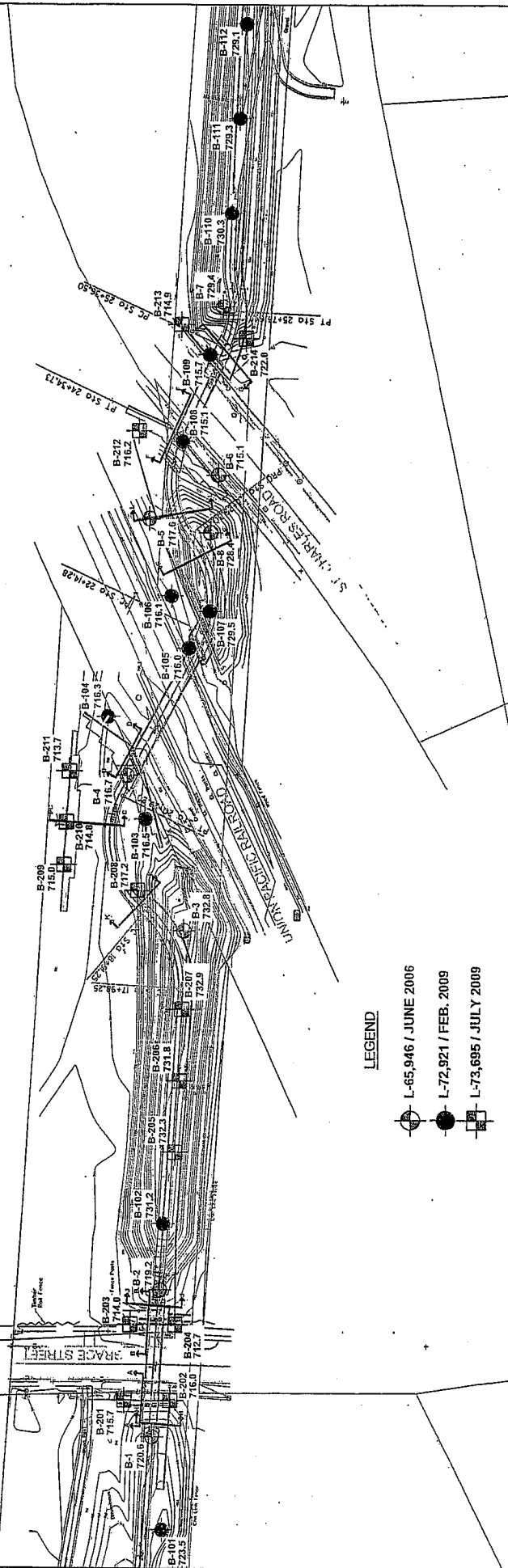


Soil #	Soil Type	Total Unit Weight	Saturated Unit Weight	Cohesion	Friction Angle
1	New Fill	130 pcf	135 pcf	100 psf	28
2	Existing Fill	125 pcf	130 pcf	75 psf	26
3	Stiff CL	125 pcf	128 pcf	75 psf	26
4	V.Stiff CL	130 pcf	135 pcf	150 psf	28








SCALE 1" = 100'



LEGEND

-  L-65,946 / JUNE 2006
-  L-72,921 / FEB. 2009
-  L-73,695 / JULY 2009

BORING LOCATION PLAN
 GREAT WESTERN TRAIL
 BRIDGES AND RETAINING WALLS
 GRACE STREET TO ST. CHARLES ROAD
 LOMBARD, ILLINOIS

DRAWN BY: TRP
 CHECKED BY: MVM
 JOB NO.: L-73,695B
 DATE: 03-08-11

TSC
 TESTING SERVICE CORPORATION
 457 EAST GUNDERSEN DRIVE
 CAROL STREAM, ILLINOIS 60188

PAGE NO.
 1 OF 1



20 Danada Square West, Unit 285
Wheaton, IL 60187
Tel. 630.665.8585 - Fax 630.665.8586
www.geopier.com

EMAIL LETTER

June 14, 2010

Mr. Tim Peceniak
Testing Service Corporation
trp@tsccorp.com

Re: Geopier® Soil Reinforcement
Great Western Trail
MSE Walls
Lombard, Illinois

Dear Mr. Peceniak:

Thank-you for requesting a Rammed Aggregate Pier® (RAP) budget design for the above referenced project. Based on our review, it appears that *Geopier*® soil reinforcement technology can be used to improve the existing soil conditions for support of the proposed MSE Walls. Our review of project drawings and subsurface conditions indicates that Rammed Aggregate Pier (RAP) elements will provide settlement control and increase in the factors of safety for both bearing capacity and global stability for the project. This preliminary design has been reviewed by or under the direction of Mr. Mike Pockoski, P.E., Lead Engineer with Geopier Foundation Company (GFC).

PROJECT DESCRIPTION

Based on a review of the project drawings and geotechnical report prepared for the project, ground improvement was recommended for three MSE Wall locations. The wall locations identified as requiring soil reinforcement, including the corresponding station designations, lengths and maximum wall heights are summarized in the following table:

MSE Wall Location	Stations of MSE Wall Footprint	Wall Length (feet)	Maximum Height (feet)
West of Grace Street	12+75 to 13+65	160	19
East of Grace Street	14+45 to 15+50	172	21
SE side of Union Pacific Railroad	21+90 + 24+23	392	29

SUBSURFACE CONDITIONS

A subsurface soils exploration was performed and geotechnical report prepared for the project by Testing Service Corporation. Borings 1, 201 and 202 were drilled for the MSE Wall on the west side of Grace Street, Borings 2, 203 and 204 for the wall on the east side of Grace Street and Borings 8, 105 and 107 for the wall on the east side of the Union Pacific railroad tracks. The soil conditions below the leveling pad elevation consist of up to 6 feet of soft or organic clay soils or sand fill materials. Underlying native soils consisted predominantly of silty clay soils with silt, sand and gravel deposits encountered at greater depths.

TYPICAL RAMMED AGGREGATE PIER® CONSTRUCTION

Rammed Aggregate Pier elements are installed by drilling 30-inch diameter holes and ramming thin lifts of open-graded aggregate within the holes to form very stiff, high-density aggregate piers. The drilled holes typically extend from 7 to 25 feet below grade. The first lift of aggregate forms a bulb below the bottoms of the piers, thereby pre-stressing and pre-straining the soils to a depth equal to at least one pier diameter below drill depths. Subsequent lifts are typically about 12 to 24 inches in thickness. Ramming takes place with a high-energy beveled tamper that both densifies the aggregate and forces the aggregate laterally into the sidewalls of the hole. This action increases the lateral stress in surrounding soil; thereby further stiffening the stabilized composite soil mass. The result of rammed aggregate pier installation is significant strengthening and stiffening of subsurface soils that then support MSE walls and embankments.

Rammed Aggregate Pier elements exhibit high angles of internal friction as a result of the high density achieved during the ramming process. Friction angles ranging between 48 and 52 degrees have been measured in direct shear tests and triaxial tests (Fox and Cowell 1998, White et al. 2002). The high friction angle provides increases in the composite shear strength of the reinforced matrix soil. The increased composite shear strength affords greater factors of safety against bearing capacity instability and global instability beneath retaining walls.

Rammed Aggregate Pier elements constructed using open-graded stone act as vertical drains that provide rapid dissipation of excess pore-water pressure induced in matrix soils as a result of embankment and MSE retaining wall construction through radial drainage to the piers. The use of radial drainage within the aggregate pier-reinforced zone provides significant reductions in settlement duration.

A Geopier modulus test will be performed as part of construction to confirm the modulus of the Geopier elements. The tested Geopier will be constructed in a manner similar to production Geopier elements. In addition to the modulus load test, the licensed Geopier installer's internal QC program is designed to verify that each element is installed correctly.

EXPERIENCE

Geopier elements have been used to support over 3000 structures since 1989. We have developed a database of over 1500 modulus load tests that confirm our design parameter values. We have recently completed installations for the following facilities, which have similar characteristics to the referenced project.

- Route 5 Retaining Wall, Clinton, Maryland – The use of Geopier soil reinforcement was approved by the Maryland State Highway Administration (MDSHA) for support of a 500-foot long retaining wall to meet the grade separation requirement and right-of-way limits on the Maryland Route 5 widening project. Wall heights varied from 5 to 13 feet. The MDSHA reported a cost savings of over \$250,000 over other stabilization techniques.
- 50th Street/I-235 MSE Wall, West Des Moines, Iowa – Geopier soil reinforcing was selected to support up to 28 foot high tall MSE walls for the construction of two interchange (entrance and exit) ramps along Interstate 235. Soft to medium stiff silty clay extended 18 feet below construction grades.
- Box Culvert Support, Iowa Highway 191, and Neola, Iowa – Geopier soil reinforcement was used beneath the new foundations to support a new, large box culvert replacing an existing highway bridge. In addition, Geopier elements were used to reduce excessive settlement from the new fill, reduce down drag on the existing bridge piles and reduce settlement under the new box culvert.
- Union Pacific Track Support, Cedar Rapids, Iowa – Soft abutment soils supporting an existing railroad line at the Cedar River Bridge crossing was causing significant deflections of the track under railroad live loading. During the construction of a new railroad bridge and subsequent relocation of track for a double-tracking operation, Geopier soil reinforcing elements were installed in soft clay fill soils to reinforce and stiffen the foundation soils and to support the new tracks.
- Railroad Spur Embankment Support, Southeastern Iowa – Geopier soil reinforcing elements were selected as a cost effective alternative to support the new construction of railroad embankments of up to 34 feet in height along 1,200 feet of alignment.

PRELIMINARY DESIGN RECOMMENDATIONS

Since we were not provided with project specific design criteria, we have assumed the following criteria to develop the preliminary Geopier solution:

- Bearing Capacity Factor of Safety ≥ 2.5
- Overall Slope Stability (Drained and Undrained) ≥ 1.5
- Post Construction settlement of $< 1"$

The use of Geopier[®] soil reinforcement will provide significant reinforcing within the soft silty and organic clay deposits to support placement of the new engineered fill and MSE retaining walls. Our preliminary design solutions features one row of Geopier elements under the face of the wall with an additional one to two rows of piers installed behind the face of the wall. Pier spacings along the face of the wall vary from from 6 to 8 feet on-center, with spacings of 8 to 12 feet on-center proposed behind the wall. It is recommended that the RAP elements be constructed with open-graded stone in order to promote radial drainage to the piers to accelerate the consolidation times in the Geopier reinforced zone. Also, all RAP elements should extend through the existing soft and organic clay soils to "tag" the underlying native clay soils. Drill depths of between about 10 and 15 feet below the leveling pad are anticipated.

The installation of Geopier elements constructed with open-graded aggregate will afford radial drainage to the elements and significantly reduce the time required for the majority of settlement to take place within the reinforced zone. Our settlement estimates indicate total settlement of about 2 to 4 inches for the maximum MSE wall height of 29 feet. Because of the stiffening effect of the RAP elements and the improved settlement rate resulting from radial drainage, the majority of the settlement is expected to occur during construction. Our calculations indicated that post-construction settlement (after 60 days) will be 1 inch or less.

BUDGET ESTIMATE

Based on information provided by Testing Service Corporation, we have prepared a preliminary Geopier soil reinforcement design for the project. Our licensed union contractor, Foundation Service Corporation (FSC), has estimated that the cost for completing this work will be about \$180,000 to \$200,000. Of that total, approximately half of the cost would be to support the two MSE Walls adjacent to Grace Street and half to support the MSE wall adjacent to the Union Pacific railroad tracks. These prices include mobilization, a modulus load test, installation of compression elements as well as the cost of the Geopier design and preparation of Geopier design documents. The price does not include traffic control, Geopier survey/layout, spoil removal and constructing the granular leveling pad beneath the walls.

We appreciate the opportunity to work with you to provide a soil reinforcement solution for this project. We consider our engineering efforts proprietary and appreciate your willingness to keep our proposed methods and costs confidential. If the Geopier® soil reinforcement solution described above appears to be an economical solution for this project, we would be happy to complete a detailed analysis and final design. At that time a formal proposal will be prepared. If the design and proposal are approved, all contracts will be with FSC.

If you have any questions, or if I can be of further assistance, please call.

Sincerely,
GEOPIER® Foundation Company

Fran Miller, P.E.
Regional Engineer

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

SPECIAL PROVISION
FOR
COOPERATION WITH UTILITIES

Effective: January 1, 1999
Revised: January 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

Replace Article 105.07 of the Standard Specifications with the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

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

Village of Lombard

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets
SPECIAL PROVISION
FOR
CONSTRUCTION AND MAINTENANCE SIGNS

Effective: January 1, 2004
Revised: June 1, 2007

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

701.14. Signs. Add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 1200 mm x 1200 mm (48" x 48") and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, Type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

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

Effective: August 1, 2007

Revised: January 1, 2009

Description. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to precast products or precast prestressed products.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

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

Mixture Options. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.

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 the mixture options are not applicable, and any cement may be used with the specified finely divided minerals.

- a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

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

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

Where: a, b, c... = percentage of aggregate in the blend;
A, B, C... = expansion value for that aggregate.

- b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".

- 1) Class F Fly Ash. For Class PV, BS, MS, DS, SC, and SI concrete and cement aggregate mixture II (CAM II), Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

- 2) Class C Fly Ash. For Class PV, MS, SC, and SI Concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

For Class PP-1, RR, BS, and DS concrete and CAM II, Class C fly ash with less than 26.5 percent calcium oxide content shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

- 3) Ground Granulated Blast-Furnace Slag. For Class PV, BS, MS, SI, DS, and SC concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

For Class PP-1 and RR concrete, ground granulated blast-furnace slag shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

For Class PP-2, ground granulated blast-furnace slag shall replace 25 to 30 percent of the portland cement at a minimum replacement ratio of 1:1.

- 4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.
- c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.
- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.
- e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. For latex concrete, the ASTM C 1567 test shall be performed without the latex. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$), a new ASTM C 1567 test will not be required.

Testing. If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an 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 having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will 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 either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement Concrete or Aggregate; or shall be inspected 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 inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

80186

ALKALI-SILICA REACTION FOR PRECAST AND PRECAST PRESTRESSED CONCRETE (BDE)

Effective: January 1, 2009

Description. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in precast and precast prestressed concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to cast-in-place concrete.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

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

Mixture Options. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

- Group I - Mixture options are not applicable. Use any cement or finely divided mineral.
- 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.

- a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

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

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

Where: a, b, c... = percentage of aggregate in the blend;
A, B, C... = expansion value for that aggregate.

- b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".
- 1) Class F Fly Ash. For Class PC concrete, precast products, and PS concrete, Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.
 - 2) Class C Fly Ash. For Class PC Concrete, precast products, and Class PS concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.
 - 3) Ground Granulated Blast-Furnace Slag. For Class PC concrete, precast products, and Class PS concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.
 - 4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.
- c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.
- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.
- e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in

the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$), a new ASTM C 1567 test will not be required.

Testing. If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an 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 having a total equivalent alkali content ($\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will 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 either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement or Aggregate; or shall be inspected 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 inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

80213

**APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS
(BDE)**

Effective: November 1, 2008

Revised: November 1, 2010

Replace the first paragraph of Article 107.22 of the Standard Specifications with the following:

“All proposed borrow areas, including commercial borrow areas; use areas, including, but not limited to temporary access roads, detours, runarounds, plant sites, and staging and storage areas; and/or waste areas are to be designated by the Contractor to the Engineer and approved prior to their use. Such areas outside the State of Illinois shall be evaluated, at no additional cost to the Department, according to the requirements of the state in which the area lies; and approval by the authority within that state having jurisdiction for such areas shall be forwarded to the Engineer. Such areas within Illinois shall be evaluated as described herein.

A location map delineating the proposed borrow area, use area, and/or waste area shall be submitted to the Engineer for approval along with an agreement from the property owner granting the Department permission to enter the property and conduct cultural and biological resource reconnaissance surveys of the site for archaeological resources, threatened or endangered species or their designated essential habitat, wetlands, prairies, and savannahs. The type of location map submitted shall be a topographic map, a plat map, or a 7.5 minute quadrangle map. Submittals shall include the intended use of the site and provide sufficient detail for the Engineer to determine the extent of impacts to the site. The Engineer will initiate cultural and biological resource reconnaissance surveys of the site, as necessary, at no cost to the Contractor. The Engineer will advise the Contractor of the expected time required to complete all surveys. If the proposed area is within 150 ft (45 m) of the highway right-of-way, a topographic map of the proposed site will be required as specified in Article 204.02.”

80207

CEMENT (BDE)

Effective: January 1, 2007

Revised: April 1, 2011

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 AASHTO M 85, and shall meet the standard physical and chemical requirements. The Contractor has the option to use any type of portland cement listed in AASHTO M 85 unless a specific cement is specified for a construction item. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C or F fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust.

- (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 AASHTO M 240 and shall meet the standard physical and chemical requirements. The Contractor has the option to use portland-pozzolan cement unless a specific cement is specified for a construction item. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C or F fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust. The pozzolan constituent for Type IP using Class F fly ash shall be a maximum of 25 percent of the weight (mass) of the portland-pozzolan cement. The pozzolan constituent for Type IP using Class C fly ash shall be a maximum of 30 percent of the weight (mass) of the portland-pozzolan cement. The pozzolan constituent for Type IP using microsilica or high-reactivity metakaolin shall be a maximum of ten percent. The pozzolan constituent for Type IP using other materials shall have the approval of the Engineer.

Portland-pozzolan cement may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.

- (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 AASHTO M 240 and shall meet the standard physical and chemical requirements. The Contractor has the option to use portland blast-furnace slag cement unless a specific cement is specified for a construction item. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C or F fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust. The blast-furnace slag constituent for Type IS shall be a maximum of 35 percent of the weight (mass) of the portland blast-furnace slag cement.

Portland blast-furnace slag cement may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.

(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 AASHTO T 131.

(2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, 3200 psi (22,100 kPa) at 6.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified AASHTO T 106.

(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.

(e) Calcium Aluminate Cement. Calcium aluminate cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to AASHTO M 85, except the time of setting shall not apply. The chemical requirements shall be determined according to AASHTO T 105 and shall be as follows: minimum 38 percent aluminum oxide (Al_2O_3), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide

(MgO), maximum 0.4 percent sulfur trioxide (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."

80166

CERTIFICATION OF METAL FABRICATOR (BDE)

Effective: July 1, 2010

Revise Article 106.08 of the Standard Specifications to read:

"106.08 Certification of Metal Fabricator. All fabricators performing work on metal components of structures shall be certified under the appropriate category of the AISC Quality Certification Program as follows.

- (a) Fabricators of the main load carrying steel components of welded plate girder, box girder, truss, and arch structures shall be certified under Category MBr (Major Steel Bridges).
- (b) Fabricators of the main load carrying steel components of rolled beam structures, either simple span or continuous, and overhead sign structures shall be certified under Category SBr (Simple Steel Bridges).

Fabricators of steel or other non-ferrous metal components of structures not certified under (a) or (b) above shall be certified under the program for Bridge and Highway Metal Component Manufacturers."

80260

CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003

Revised: April 1, 2009

Replace the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

“(b) Admixtures. The use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted when approved by the Engineer. Admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(12). The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted when determining an admixture dosage from this list. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources(s) and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlayer pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays.”

Revise Section 1021 of the Standard Specifications to read:

“SECTION 1021. CONCRETE ADMIXTURES

1021.01 General. Admixtures shall be furnished in liquid form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable as to manufacturer and trade name of the material they contain.

Corrosion inhibitors will be maintained on the Department's Approved List of Corrosion Inhibitors. All other concrete admixture products will be maintained on the Department's

Approved List of Concrete Admixtures. For the admixture submittal, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, for corrosion inhibitors the ASTM G 109 test information specified in ASTM C 1582 is not required to be from an independent lab. All other information in ASTM C 1582 shall be from an independent lab.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 5.65 cwt/cu yd (335 kg/cu m). Compressive strength test results for six months and one year will not be required.

Prior to the approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to AASHTO T 161, Procedure B. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

The manufacturer shall include in the submittal the following admixture information: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and the manufacturing range for pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM C 494. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to ASTM C 260.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, and 1021.07, the pH allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to ASTM C 494.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by AASHTO.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass).

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.

1021.02 Air-Entraining Admixtures. Air-entraining admixtures shall be according to AASHTO M 154.

1021.03 Retarding and Water-Reducing Admixtures. The admixture shall be according to the following.

- (a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall be according to AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

1021.04 Accelerating Admixtures. The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

1021.05 Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

1021.06 Rheology-Controlling Admixture. The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).

1021.07 Corrosion Inhibitor. The corrosion inhibitor shall be according to one of the following.

- (a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).
- (b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582."

80094

CONCRETE JOINT SEALER (BDE)

Effective: January 1, 2009

Add the following to the end of the second paragraph of Article 503.19 of the Standard Specifications:

"After the surface is clean and before applying protective coat, joints being sealed according to Section 588 shall be covered with a masking tape."

Revise Section 588 of the Standard Specifications to read:

"SECTION 588. CONCRETE JOINT SEALER

588.01 Description. This work shall consist of sealing the transverse joint in the bridge roadway slab.

588.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Hot-Poured Joint Sealer	1050.02
(b) Preformed Flexible Foam Expansion Joint Filler.....	1051.09

CONSTRUCTION REQUIREMENTS

588.03 General. The faces of all joints to be sealed shall be free of foreign matter, curing compound, oils, grease, dirt, free water, and laitance. Concrete joints to be sealed shall be free of cracked or spalled areas. Any cracked areas shall be chipped back to sound concrete before placing joint sealer.

The hot-poured joint sealer shall be placed when the air temperature in the shade is 40 °F (5 °C) or higher, unless approved by the Engineer.

A continuous length of expansion joint filler of the size designated on the plans, shall be placed in the joint opening at the depth below the finished surface of the joint shown on the plans. Hot-poured joint sealer shall be stirred during heating to prevent localized overheating. The sealing material shall be applied to each joint opening according to the details shown on the plans or as directed by the Engineer, without spilling on the exposed concrete surfaces.

All bridge joints shall be filled to 1/4 in. (6 mm) below the finished surface of the joint. This is to be interpreted to mean that the surface of the sealant shall be level and the point of its contact with the sidewalls of the joint shall be 1/4 in. (6 mm) below the finished surface of the joint.

Any sealing compound that is not bonded to the joint wall or face 24 hours after placing shall be removed and the joint shall be cleaned and resealed.

588.04 Basis of Payment. This work will not be paid for as a separate item, but shall be considered as included in the unit price bid for the major item of construction involved."

80215

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

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

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

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

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

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

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

- a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (<http://www.epa.gov/otaq/retrofit/verif-list.htm>), or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verde/verdev.htm>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)

Effective: April 1, 2009

Revised: July 1, 2009

Diesel Vehicle Emissions Control. The reduction of construction air emissions shall be accomplished by using cleaner burning diesel fuel. The term "equipment" refers to any and all diesel fuel powered devices rated at 50 hp and above, to be used on the project site in excess of seven calendar days over the course of the construction period on the project site (including any "rental" equipment).

All equipment on the jobsite, with engine ratings of 50 hp and above, shall be required to: use Ultra Low Sulfur Diesel fuel (ULSD) exclusively (15 ppm sulfur content or less).

Diesel powered equipment in non-compliance will not be allowed to be used on the project site, and is also subject to a notice of non-compliance as outlined below.

The Contractor shall submit copies of monthly summary reports and include certified copies of the ULSD diesel fuel delivery slips for diesel fuel delivered to the jobsite for the reporting time period, noting the quantity of diesel fuel used.

If any diesel powered equipment is found to be in non-compliance with any portion of this specification, the Engineer will issue the Contractor a notice of non-compliance and identify an appropriate period of time, as outlined below under environmental deficiency deduction, in which to bring the equipment into compliance or remove it from the project site.

Any costs associated with bringing any diesel powered equipment into compliance with these diesel vehicle emissions controls shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall also not be grounds for a claim.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time period. The specified time-period, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, based on the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge regarding the time period.

The deficiency will be based on lack of repair, maintenance and diesel vehicle emissions control.

If the Contractor fails to correct the deficiency within the specified time frame, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end

with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

If a Contractor or subcontractor accumulates three environmental deficiency deductions in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of contract time, waiver of penalties, or be grounds for any claim.

80237

CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)

Effective: April 1, 2009

Idling Restrictions. The Contractor shall establish truck-staging areas for all diesel powered vehicles that are waiting to load or unload material at the jobsite. Staging areas shall be located where the diesel emissions from the equipment will have a minimum impact on adjacent sensitive receptors. The Department will review the selection of staging areas, whether within or outside the existing highway right-of-way, to avoid locations near sensitive areas or populations to the extent possible. Sensitive receptors include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, elderly housing and convalescent facilities. Diesel powered engines shall also be located as far away as possible from fresh air intakes, air conditioners, and windows. The Engineer will approve staging areas before implementation.

Diesel powered vehicle operators may not cause or allow the motor vehicle, when it is not in motion, to idle for more than a total of 10 minutes within any 60 minute period, except under any of the following circumstances:

- 1) The motor vehicle has a gross vehicle weight rating of less than 8000 lb (3630 kg).
- 2) The motor vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.
- 3) The motor vehicle idles when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency.
- 4) A police, fire, ambulance, public safety, other emergency or law enforcement motor vehicle, or any motor vehicle used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
- 5) The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.
- 6) A motor vehicle idles as part of a government inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.
- 7) When idling of the motor vehicle is required to operate auxiliary equipment to accomplish the intended use of the vehicle (such as loading, unloading, mixing, or processing cargo; controlling cargo temperature; construction operations, lumbering operations; oil or gas well servicing; or farming operations), provided that this exemption does not apply when the vehicle is idling solely for cabin comfort or to operate non-essential equipment such as air conditioning, heating, microwave ovens, or televisions.
- 8) When the motor vehicle idles due to mechanical difficulties over which the operator has no control.
- 9) The outdoor temperature is less than 32 °F (0 °C) or greater than 80 °F (26 °C).

When the outdoor temperature is greater than or equal to 32 °F (0 °C) or less than or equal to 80 °F (26 °C), a person who operates a motor vehicle operating on diesel fuel shall not cause or allow the motor vehicle to idle for a period greater than 30 minutes in any 60 minute period while waiting to weigh, load, or unload cargo or freight, unless the vehicle is in a line of vehicles that regularly and periodically moves forward.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idling the main engine of a motor vehicle operating on diesel fuel.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists based on non-compliance with the idling restrictions, he/she will notify the Contractor, and direct the Contractor to correct the deficiency.

If the Contractor fails to correct the deficiency a monetary deduction will be imposed. The monetary deduction will be \$1,000.00 for each deficiency identified.

80239

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: August 2, 2011

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

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

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

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

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

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

based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 17.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

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

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

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

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The names and addresses of DBE firms that will participate in the contract;

- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) if the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

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

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for consideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is

generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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

- (a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217)785-4611. Telefax number (217)785-1524.
- (b) TERMINATION OR REPLACEMENT. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in the Special Provision.
- (c) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
- (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
- (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

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

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

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;

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

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal.

- (f) PAYMENT RECORDS. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the BDE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative

| reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.

| (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

| (h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

80029

ENGINEER'S FIELD OFFICE TYPE A (BDE)

Effective: April 1, 2007

Revised: January 1, 2011

Revise Article 670.02 of the Standard Specifications to read:

670.02 Engineer's Field Office Type A. Type A field offices shall have a minimum ceiling height of 7 ft (2 m) and a minimum floor space 450 sq ft (42 sq m). The office shall be provided with sufficient heat, natural and artificial light, and air conditioning.

The office shall have an electronic security system that will respond to any breach of exterior doors and windows. Doors and windows shall be equipped with locks. Doors shall also be equipped with dead bolt locks or other secondary locking device.

Windows shall be equipped with exterior screens to allow adequate ventilation. All windows shall be equipped with interior shades, curtains, or blinds. Adequate all-weather parking space shall be available to accommodate a minimum of ten vehicles.

Suitable on-site sanitary facilities meeting Federal, State, and local health department requirements shall be provided, maintained clean and in good working condition, and shall be stocked with lavatory and sanitary supplies at all times.

Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. Solid waste disposal consisting of two waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

In addition, the following furniture and equipment shall be furnished.

- (a) Four desks with minimum working surface 42 x 30 in. (1.1 m x 750 mm) each and five non-folding chairs with upholstered seats and backs.
- (b) One desk with minimum working surface 48 x 72 in. (1.2 x 1.8 m) with height adjustment of 23 to 30 in. (585 to 750 mm).
- (c) One four-post drafting table with minimum top size of 37 1/2 x 48 in. (950 mm x 1.2 m). The top shall be basswood or equivalent and capable of being tilted through an angle of 50 degrees. An adjustable height drafting stool with upholstered seat and back shall also be provided.
- (d) Two free standing four drawer legal size file cabinet with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.
- (e) One 6 ft (1.8 m) folding table with six folding chairs.

- (f) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed in such a manner as to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office in a manner to prevent theft of the entire cabinet.
- (g) One refrigerator with a minimum size of 16 cu ft (0.45 cu m) with a freezer unit.
- (h) One electric desk type tape printing calculator.
- (i) A minimum of two communication paths. The configuration shall include:
 - (1) Internet Connection. An internet service connection using telephone DSL, cable broadband, or CDMA wireless technology. Additionally, an 802.11g/N wireless router shall be provided, which will allow connection by the Engineer and up to four Department staff.
 - (2) Telephone Lines. Three separate telephone lines.
- (j) One plain paper copy machine capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray capable of storing 30 sheets of paper. Letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided.
- (k) One plain paper fax machine with paper.
- (l) Two telephones, with touch tone, where available, and a digital telephone answering machine, for exclusive use by the Engineer.
- (m) One electric water cooler dispenser.
- (n) One first-aid cabinet fully equipped.
- (o) One microwave oven, 1 cu ft (0.03 cu m) minimum capacity.
- (p) One fire-proof safe, 0.5 cu ft (0.01 cu m) minimum capacity.
- (q) One electric paper shredder.
- (r) One post mounted rain gauge, located on the project site for each 5 miles (8 km) of project length."

Revise the first sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

“The building or buildings fully equipped as specified will be paid for on a monthly basis until the building or buildings are released by the Engineer.”

Revise the last sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

“This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which become the property of the Contractor after release by the Engineer, except that the Department will pay that portion of the monthly long distance and monthly local telephone bills that, when combined, exceed \$150.”

80179

EQUIPMENT RENTAL RATES (BDE)

Effective: August 2, 2007

Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

“Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).”

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

“(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.

- a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the “Equipment Watch Rental Rate Blue Book” (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

$$\text{FHWA hourly rate} = (\text{monthly rate}/176) \times (\text{model year adj.}) \times (\text{Illinois adj.}) + \text{EOC}$$

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate: $0.5 \times (\text{FHWA hourly rate} - \text{EOC})$.

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

- b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used.”

80189

FRICITION AGGREGATE (BDE)

Effective: January 1, 2011

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

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

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

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

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

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete
HMA All Other	Stabilized Subbase or Shoulders	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{1/} Crushed Concrete

Use	Mixture	Aggregates Allowed								
HMA High ESAL Low ESAL	Binder IL-25.0, IL-19.0, or IL-19.0L SMA Binder	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete ^{3/}								
HMA High ESAL Low ESAL	C Surface and Leveling Binder IL-12.5, IL-9.5, or IL-9.5L SMA Ndesign 50 Surface	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/}								
HMA High ESAL	D Surface and Leveling Binder IL-12.5 or IL-9.5 SMA Ndesign 50 Surface	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone (other than Limestone) ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{4/ 5/} Crushed Concrete ^{3/}								
		<u>Other Combinations Allowed:</u>								
		<table border="1"> <thead> <tr> <th>Up to...</th> <th>With...</th> </tr> </thead> <tbody> <tr> <td>25% Limestone</td> <td>Dolomite</td> </tr> <tr> <td>50% Limestone</td> <td>Any Mixture D aggregate other than Dolomite</td> </tr> <tr> <td>75% Limestone</td> <td>Crushed Slag (ACBF)^{5/} or Crushed Sandstone</td> </tr> </tbody> </table>	Up to...	With...	25% Limestone	Dolomite	50% Limestone	Any Mixture D aggregate other than Dolomite	75% Limestone	Crushed Slag (ACBF) ^{5/} or Crushed Sandstone
Up to...	With...									
25% Limestone	Dolomite									
50% Limestone	Any Mixture D aggregate other than Dolomite									
75% Limestone	Crushed Slag (ACBF) ^{5/} or Crushed Sandstone									

Use	Mixture	Aggregates Allowed	
HMA High ESAL	E Surface IL-12.5 or IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination:</u> Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{5/} Crushed Concrete ^{3/} No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		50% Dolomite ^{2/}	Any Mixture E aggregate
		75% Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF) ^{5/} , Crushed Steel Slag ^{5/} , or Crystalline Crushed Stone
75% Crushed Gravel or Crushed Concrete ^{3/}	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF) ^{5/} , or Crushed Steel Slag ^{5/}		
HMA High ESAL	F Surface IL-12.5 or IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination:</u> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{5/} No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>

Use	Mixture	Aggregates Allowed	
		50% Crushed Gravel, Crushed Concrete ^{3/} , or Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF) ^{5/} , Crushed Steel Slag ^{5/} , or Crystalline Crushed Stone

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

80265

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2009

Description. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name and sign and date the form shall make this contract exempt of fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and work added by adjusted unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Added work paid for by time and materials will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.
- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

(b) Fuel Usage Factors.

English Units Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B - Subbase and Aggregate Base courses	0.62	gal / ton
C - HMA Bases, Pavements and Shoulders	1.05	gal / ton
D - PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E - Structures	8.00	gal / \$1000

Metric Units Category	Factor	Units
A - Earthwork	1.68	liters / cu m
B - Subbase and Aggregate Base courses	2.58	liters / metric ton
C - HMA Bases, Pavements and Shoulders	4.37	liters / metric ton
D - PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E - Structures	30.28	liters / \$1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

$$| CA = (FPI_P - FPI_L) \times FUF \times Q$$

Where: CA = Cost Adjustment, \$
FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting, \$/gal (\$/liter)
FUF = Fuel Usage Factor in the pay item(s) being adjusted
Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

Progress Payments. Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Final Quantities. Upon completion of the work and determination of final pay quantities, an adjustment will be prepared to reconcile any differences between estimated quantities previously paid and the final quantities. The value for the balancing adjustment will be based on a weighted average of FPI_P and Q only for those months requiring the cost adjustment. The cost adjustment will be applicable to the final measured quantities of all applicable pay items.

Basis of Payment. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI_L and FPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(FPI_L - FPI_P) \div FPI_L\} \times 100$$

Return With Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
FUEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of fuel cost adjustments in all categories. Failure to indicate "Yes" for any category of work at the time of bid will make that category of work exempt from fuel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following categories of work?

- | | | |
|--|-----|--------------------------|
| Category A Earthwork. | Yes | <input type="checkbox"/> |
| Category B Subbases and Aggregate Base Courses | Yes | <input type="checkbox"/> |
| Category C HMA Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category D PCC Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category E Structures | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

80229

HOT-MIX ASPHALT – ANTI-STRIPPING ADDITIVE (BDE)

Effective: November 1, 2009

Revise the first and second paragraphs of Article 1030.04(c) of the Standard Specifications to read:

“(c) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified AASHTO T 283. To be considered acceptable by the Department as a mixture not susceptible to stripping, the conditioned to unconditioned split tensile strength ratio (TSR) shall be equal to or greater than 0.85 for 6 in. (150 mm) specimens. Mixtures, either with or without an additive, with TSRs less than 0.85 for 6 in. (150 mm) specimens will be considered unacceptable. Also, the conditioned tensile strength for mixtures containing an anti-strip additive shall not be lower than the original conditioned tensile strength determined for the same mixture without the anti-strip additive.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option.”

80245

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

Effective: January 1, 2010

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

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

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

“Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 2 in. (50 mm), from each pavement edge. (i.e. for a 4 in. (100 mm) lift the near edge of the density gauge or core barrel shall be within 4 in. (100 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

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

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

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

80246

HOT-MIX ASPHALT – DROP-OFFS (BDE)

Effective: January 1, 2010

Revise the third paragraph of Article 701.07 of the Standard Specifications to read:

“At locations where construction operations result in a differential in elevation exceeding 3 in. (75 mm) between the edge of pavement or edge of shoulder within 3 ft (900 mm) of the edge of the pavement and the earth or aggregate shoulders, Type I or II barricades or vertical panels shall be placed at 100 ft (30 m) centers on roadways where the posted speed limit is 45 mph or greater and at 50 ft (15 m) centers on roadways where the posted speed limit is less than 45 mph.”

80250

IMPROVED SUBGRADE (BDE)

Effective: January 1, 2010

Revise the second paragraph of Article 302.04 of the Standard Specifications to read:

“The quantity of modified soil constructed shall be limited to that which can be covered by the full thickness of portland cement concrete pavement or HMA binder during the same construction season.”

Revise the first paragraph of Article 302.07 of the Standard Specifications to read:

“**302.07 Application of Modifier.** The modifier shall be applied uniformly on the soil. The application of modifier shall be limited to that amount which can be mixed with the soil within the same working day.”

Revise the first paragraph of Article 302.08 of the Standard Specifications to read:

“**302.08 Mixing.** The modifier, soil, and water shall be thoroughly mixed. Mixing shall continue until a homogenous layer of the required thickness has been obtained and a minimum of 75 percent of the mixture is smaller than 1 in. (25 mm). The moisture content of the modified soil shall be above optimum moisture content with a maximum of three percent above optimum.”

Revise Article 302.10 of the Standard Specifications to read:

“**302.10 Finishing and Curing.** When multiple lifts are used to construct the modified soil layer, the top lift shall be a minimum of 6 in. (150 mm) thick when compacted.

Construction of pipe underdrains shall follow the requirements of Article 407.07. The surface of the modified soil shall be kept drained according to Article 301.09 and shall maintain moisture content not exceeding three percent above optimum prior to pavement construction.

When compaction of the modified soil is nearing completion, the surface shall be shaped to the required lines, grades, and cross section shown on the plans. For HMA base course and pavement (full-depth) and portland cement concrete base course and pavement, the surface of the modified soil shall be brought to true shape and correct elevation according to Article 301.07, except well compacted earth shall not be used to fill low areas.

The modified soil shall be cured for a minimum of 24 hours. The ambient air temperature shall be above 45 °F (7 °C) during curing.

During the curing period, the moisture content of the modified soil shall be maintained at optimum by sprinkling with water, use of plastic sheeting, or applying bituminous materials according to Article 312.14. During this period, no equipment or traffic will be permitted on the completed work beyond that required for maintenance of curing.

Equipment of such weight, or used in such a way as to cause a rut depth of 1/2 in. (13 mm) or more in the finished modified soil, shall be removed, or the rutting otherwise prevented, as directed by the Engineer.”

Revise the first paragraph of Article 302.11 of the Standard Specifications to read:

“**302.11 Subgrade Stability.** Following curing, the Engineer will determine the stability of the modified soil in terms of the immediate bearing value (IBV), according to Illinois Test Procedure 501. The IBV shall be a minimum of 10.0 measured within 10 calendar days prior to pavement construction.”

Revise the second paragraph of Article 310.04 of the Standard Specifications to read:

“The quantity of lime stabilized soil mixture constructed shall be limited to that which can be covered by the full thickness of portland cement concrete pavement or HMA binder during the same construction season.”

Revise the first paragraph of Article 310.08(a) of the Standard Specifications to read:

“(a) Initial Mixing. The lime, soil, and water shall be thoroughly mixed until a uniform mixture throughout the required depth and width is obtained. All clods and lumps shall be reduced to a maximum size of 2 in. (50 mm). The moisture content of the stabilized soil shall be above optimum moisture content with a maximum of three percent above optimum.”

Insert the following paragraph after the first paragraph of Article 310.10 of the Standard Specifications:

“Construction of pipe underdrains shall follow the requirements of Article 407.07. The surface of the lime stabilized soil shall be kept drained according to Article 301.09 and shall maintain a maximum moisture content of three percent above optimum prior to pavement construction.”

Revise the first paragraph of Article 310.11 of the Standard Specifications to read:

“**310.11 Subgrade Stability.** Following curing, the Engineer will determine the stability of the lime stabilized soil mixture in terms of the immediate bearing value (IBV) according to Illinois Test Procedure 501. The IBV shall be a minimum of 23.0 measured within 10 calendar days prior to pavement construction.”

Revise the second paragraph of Article 311.05 of the Standard Specifications to read:

“The granular material shall be placed and compacted at least three days prior to the placement of pavement or base course. Except where required for temporary access, the quantity of subbase granular material Types A or B to be placed shall be limited to that which can be covered by the full thickness of PCC pavement or HMA binder during the same

construction season.”

80252

LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2009

Revised: April 1, 2011

Revise the table in Article 108.09 of the Standard Specifications to read:

"Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
\$ 0	\$ 100,000	\$ 475	\$ 675
100,000	500,000	750	1,050
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,275	1,725
3,000,000	6,000,000	1,425	2,000
6,000,000	12,000,000	2,300	3,450
12,000,000	And over	5,800	8,125"

80230

METAL HARDWARE CAST INTO CONCRETE (BDE)

Effective: April 1, 2008
Revised: April 1, 2009

Add the following to Article 503.02 of the Standard Specifications:

"(g) Metal Hardware Cast into Concrete..... 1006.13"

Add the following to Article 504.02 of the Standard Specifications:

"(j) Metal Hardware Cast into Concrete..... 1006.13"

Revise Article 1006.13 of the Standard Specifications to read:

"1006.13 Metal Hardware Cast into Concrete. Unless otherwise noted, all steel hardware cast into concrete, such as inserts, brackets, cable clamps, metal casings for formed holes, and other miscellaneous items, shall be galvanized according to AASHTO M 232 or AASHTO M 111. Aluminum inserts will not be allowed. Zinc alloy inserts shall be according to ASTM B 86, Alloys 3, 5, or 7.

The inserts shall be UNC threaded type anchorages having the following minimum certified proof load.

Insert Diameter	Proof Load
5/8 in. (16 mm)	6600 lb (29.4 kN)
3/4 in. (19 mm)	6600 lb (29.4 kN)
1 in. (25 mm)	9240 lb (41.1 kN)"

80203

MULCH AND EROSION CONTROL BLANKETS (BDE)

Effective: November 1, 2010

Revised: April 1, 2011

Revise the first sentence of Article 251.03 of the Standard Specifications to read:

“Within 24 hours of seed placement, mulch by one of the following methods shall be placed on the areas specified.”

Revise Article 251.03(b)(2) of the Standard Specifications to read:

“(2) Procedure 2. This procedure shall consist of stabilizing the straw with an approved mulch blower followed immediately by an overspray application of light-duty hydraulic mulch. The hydraulic mulch shall be according to Article 251.03(c) except that it shall be applied as a slurry of 900 lb (1020 kg) of mulch and 1000 gal (9500 L) of water per acre (hectare) using a hydraulic mulch applicator. The light-duty hydraulic mulch shall be agitated a minimum of five minutes before application and shall be agitated during application. The light-duty hydraulic mulch shall be applied from opposing directions to ensure even coverage.”

Revise Article 251.03(c) of the Standard Specification to read:

“(c) Method 3. This method shall consist of the machine application of a light-duty hydraulic mulch. Seeding shall be conducted as a separate operation and shall not be added to the hydraulic mulch slurry. Hydraulic mulch shall not be applied when the ambient temperature is at or below freezing. To achieve full and even coverage, the hydraulic mulch shall be applied from two opposing directions. Mixing and application rates shall be according to the manufacturer’s recommendations and meet the minimum application rates set in Article 1081.06(a)(2).”

Revise Article 251.03(d) of the Standard Specifications to read:

“(d) Method 3A. This method shall consist of the machine application of a heavy-duty hydraulic mulch. Seeding shall be conducted as a separate operation and shall not be added to the hydraulic mulch slurry. The hydraulic mulch shall not be applied when the ambient temperature is at or below freezing. To achieve full and even coverage, the hydraulic mulch shall be applied from two opposing directions. Mixing and application rates shall be according to the manufacturer’s recommendations and meet the minimum application rates set in Article 1081.06(a)(2). The heavy-duty hydraulic mulch shall be applied using a mechanically agitated hydraulic mulching machine.”

Add the following to Article 251.03 of the Standard Specifications:

“(e) Method 4. This method shall consist of applying compost combined with a performance additive designed to bind/stabilize the compost. The compost/performance additive

mixture shall be applied to the surface of the slope using a pneumatic blower at a depth of 2 in. (50 mm)."

Revise Article 251.04 of the Standard Specifications to read:

"251.04 Erosion Control Blanket. Erosion control blanket may be placed using either excelsior blanket or knitted straw blanket. Within 24 hours of seed placement, blanket shall be placed on the areas specified. Prior to placing the blanket, the areas to be covered shall be relatively free of rocks or clods over 1 1/2 in. (40 mm) in diameter, and sticks or other foreign material which will prevent the close contact of the blanket with the seed bed. If, as a result of rain, the prepared seed bed becomes crusted or eroded, or if eroded places, ruts, or depressions exist for any reason, the Contractor shall rework the soil until it is smooth and reseed such areas which are reworked.

After the area has been properly shaped, fertilized, and seeded, the blanket shall be laid out flat, evenly, and smoothly, without stretching the material. The excelsior and knitted straw blankets shall be placed so that the netting is on the top and the fibers are in contact with the soil. The heavy duty blankets shall be placed so that the heavy duty extruded plastic mesh is on the bottom.

For placement in ditches, the erosion control blanket shall be applied parallel to the centerline of the ditch so that there are no longitudinal seams within 2 ft (600 mm) of the bottom centerline of the ditch. The blanket shall be toed in on the upslope edge and shingled or overlapped with the flow.

On slopes, the blanket shall be applied either horizontally or vertically to the contour, toed in on the upslope edge, and shingled or overlapped with the flow.

When placed adjacent to the roadway, blankets shall be toed in along the edge of shoulder.

Anchoring the blankets shall be according to the manufacturer's specifications."

Revise Article 251.06(b) of the Supplemental Specifications to read:

"(b) Measured Quantities. Mulch Methods 1, 2, 3, 3A and 4 will be measured for payment in place in acres (hectares) of surface area mulched. Erosion control blanket, heavy duty erosion control blanket, and turf reinforcement mat will be measured for payment in place in square yards (square meters)."

Revise Article 251.07 of the Supplemental Specifications to read:

"251.07 Basis of Payment. This work will be paid for at the contract unit price per acre (hectare) for MULCH, METHOD 1; MULCH, METHOD 2; MULCH, METHOD 3; MULCH, METHOD 3A; MULCH, METHOD 4; and at the contract unit price per square yard (square meter) for EROSION CONTROL BLANKET, HEAVY DUTY EROSION CONTROL BLANKET, or TURF REINFORCEMENT MAT."

Revise Article 1081.06(a)(2) of the Standard Specifications to read:

“(2) Hydraulic Mulch. The mulch component shall be comprised of a minimum of 70 percent biodegradable material such as wood cellulose, paper fibers, straw or cotton and shall contain no growth or germination inhibiting factors. The remainder of the components shall consist of the manufacturer’s choice of tackifiers and/or strengthening fibers needed to meet the performance specifications. Tackifiers shall be non-toxic and LC 50 test results shall be provided along with the manufacturer’s certification. Hydraulic mulch shall disperse evenly and rapidly and remain in slurry when agitated with water. When uniformly applied, the slurry shall form an absorbent cover allowing percolation of water to the underlying surface. Hydraulic mulch shall be packaged in UV and moisture resistant factory labeled packages or bags with the net quantity of the packaged material plainly shown on each package. The biodegradable material shall be relatively free of glossy papers and shall not be water soluble. The hydraulic mulches shall be according to the following.

Light-Duty Hydraulic Mulch	
Property ^{1/}	Value
Functional Longevity ^{2/}	3 months
Minimum Application Rates	2000 lb/acre (2240 kg/ha)
Typical Maximum Slope Gradient (V:H)	≤ 1:3
Maximum Uninterrupted Slope Length	50 ft (15 m)
Maximum C Factor	0.15
Minimum Vegetation Establishment ^{5/}	200 %

Heavy-Duty Hydraulic Mulch	
Property ^{1/}	Value
Functional Longevity ^{2/}	12 months
Minimum Application Rates	3000 lb/acre (3360 kg/ha)
Typical Maximum Slope Gradient (V:H)	≤ 1:2
Maximum Uninterrupted Slope Length	100 ft (30 m)
Maximum C Factor ^{3/ 4/}	0.02
Minimum Vegetation Establishment ⁵	400 %

1/ This table sets minimum requirements only. Refer to manufacturer recommendations for application rates, instructions, gradients, maximum continuous slope lengths and other site specific recommendations.

2/ Manufacturer’s estimated time period, based upon field observations, that a material can be anticipated to provide erosion control as influenced by its composition and site-specific conditions.

- 3/ "C" Factor calculated as ratio of soil loss from HECP protected slope (tested at specified or greater gradient, h:v) to ratio of soil loss from unprotected (control) plot based on large-scale testing.
- 4/ Large-scale test methods shall be according to ASTM D 6459.
- 5/ Minimum vegetation establishment shall be calculated according to ASTM D 7322.

The manufacturer shall furnish a certification with each shipment of hydraulic mulch stating the number of packages or bags furnished and that the material complies with these requirements."

80262

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2007

Revised: November 1, 2009

Revise Article 105.03(a) of the Standard Specifications to read:

“(a) National Pollutant Discharge Elimination System (NPDES) / Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, or the Contractor’s activities represents a violation of the Department’s NPDES permits, the Engineer 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 work effort required. 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 Department’s NPDES permits. 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 portion of a calendar day until the deficiency is corrected to the satisfaction of the Engineer. The calendar day(s) will begin with notification to the Contractor and end with the Engineer’s acceptance of the correction. The base value of the daily monetary deduction is \$1000.00 and will be applied to each location for which a deficiency exists. The value of the deficiency deduction assessed for each infraction will be determined by multiplying the base value by a Gravity Adjustment Factor provided in Table A. Except for failure to participate in a required jobsite inspection of the project prior to initiating earthmoving operations which will be based on the total acreage of planned disturbance at the following multipliers: <5 Acres: 1; 5-10 Acres: 2; >10-25 Acres: 3; >25 Acres: 5. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day multiplied by a Gravity Adjustment Factor.

Table A Deficiency Deduction Gravity Adjustment Factors				
Types of Violations	Soil Disturbed and Not Permanently Stabilized At Time of Violation			
	< 5 Acres	5 - 10 Acres	>10 - 25 Acres	> 25 Acres
Failure to Install or Properly Maintain BMP	0.1 - 0.5	0.2 - 1.0	0.5 - 2.5	1.0 - 5
Careless Destruction of BMP	0.2 - 1	0.5 - 2.5	1.0 - 5.	1.0 - 5
Intrusion into Protected Resource	1.0 - 5	1.0 - 5	2.0 - 10	2.0 - 10
Failure to properly manage Chemicals, Concrete Washouts or Residuals, Litter or other Wastes	0.2 - 1	0.2 - 1	0.5 - 2.5	1.0 - 5
Improper Vehicle and Equipment Maintenance, Fueling or Cleaning	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5
Failure to Provide or Update Written or Graphic Plans Required by SWPPP	0.2 - 1	0.5 - 2.5	1.0 - 5	1.0 - 5
Failure to comply with Other Provisions of the NPDES Permit	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5"

80180

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: January 1, 2006

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

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

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

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

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

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

80022

POST MOUNTING OF SIGNS (BDE)

Effective: January 1, 2011

Revise the second paragraph of Article 701.14 of the Standard Specifications to read:

“Post mounted signs shall be a breakaway design. The sign shall be within five degrees of vertical. Two posts shall be used for signs greater than 16 sq ft (1.5 sq m) in area or where the height between the sign and the ground exceeds 7 ft (2.1 m).”

80268

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:

“(ee) Handling Hole Plugs 1042.16”

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 snugly 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)”

80171

RAILROAD PROTECTIVE LIABILITY INSURANCE (5 and 10) (BDE)

Effective: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications, except the limits shall be a minimum of \$5,000,000 combined single limit per occurrence for bodily injury liability and property damage liability with an aggregate limit of \$10,000,000 over the life of the policy. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
Union Pacific Railroad 1400 Douglas Street, Stop 1870 Omaha, NE 68179-1870	51 @ 70 MPH	66 @ 70 MPH
DOT/AAR No.: Near 174 939A RR Division: Northern	RR Mile Post: 19.30 RR Sub-Division: Geneva Sub	
For Freight/Passenger Information Contact: Tom Andryuk For Insurance Information Contact: David Pincock		Phone: 312/496-4726 Phone: 402/544-2154

DOT/AAR No.:
RR Division:
For Freight/Passenger Information Contact:
For Insurance Information Contact:

RR Mile Post:
RR Sub-Division:
Phone:
Phone:

Approval of Insurance. The original and one certified copy of each required policy shall be submitted to the following address for approval:

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

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

80157

SEEDING (BDE)

Effective: July 1, 2004

Revised: July 1, 2010

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)
1A Salt Tolerant Lawn Mixture 7/	Bluegrass Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 20 (20) 20 (20) 60 (70)
2 Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Creeping Red Fescue Red Top	100 (110) 50 (55) 40 (50) 10 (10)
2A Salt Tolerant Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 30 (20) 30 (20) 60 (70)
3 Northern Illinois Slope Mixture 7/	Elymus Canadensis (Canada Wild Rye) Perennial Ryegrass Alsike Cover 2/ Desmanthus Illinoensis (Illinois Bundleflower) 2/, 5/ Andropogon Scoparius (Little Bluestem) 5/ Bouteloua Curtipendula (Side-Oats Grama) Fults Salt Grass 1/ or Salty Alkaligrass Oats, Spring Slender Wheat Grass 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5) 20 (20) 5 (5) 2 (2) 12 (12) 10 (10) 30 (35) 50 (55) 15 (15) 5 (5)

"Table 1 - SEEDING MIXTURES			
6A	Salt Tolerant Conservation Mixture	Andropogon Scoparius (Little Bluestem) 5/	5 (5)
		Elymus Canadensis (Canada Wild Rye) 5/	2 (2)
		Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5)
		Vernal Alfalfa 2/	15 (15)
		Oats, Spring	48 (55)
		Fults Salt Grass 1/ or Salty Alkaligrass	20 (20)"

Revise Note 7 of Table 1 – Seeding Mixtures of Article 250.07 of the Standard Specifications to read:

"7/ In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent uniform growth over the entire seeded area(s) after a period of establishment. Inspection dates for the period of establishment will be as follows: Seeding conducted in Districts 1 through 6 between June 16 and July 31 will be inspected after April 15 and seeding conducted between November 2 and March 31 will be inspected after September 15. Seeding conducted in Districts 7 through 9 between June 2 and July 31 will be inspected after April 15 and seeding conducted between November 16 and February 28 will be inspected after September 15. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department."

Revise the first paragraph of Article 1081.04(a) of the Standard Specifications to read:

"(a) Sampling and Testing. Each lot of seed furnished shall be tested by a State Agriculture Department (including other States) or by land grant college or university agricultural sections or by a Registered Seed Technologist. Germination testing of seed shall be accomplished within the 12 months prior to the seed being installed on the project."

Delete the last sentence of the first paragraph of Article 1081.04(c)(2) of the Standard Specifications.

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

TABLE II						
Variety of Seeds	Hard Seed %	Purity %	Pure Live Seed %	Weed %	Secondary * No. per oz (kg)	Notes
	Max.	Min.	Min.	Max.	Max. Permitted	
Alfalfa	20	92	89	0.50	6 (211)	1/

TABLE II						
Variety of Seeds	Hard Seed %	Purity %	Pure Live Seed %	Weed %	Secondary * Noxious Weeds No. per oz (kg)	Notes
	Max.	Min.	Min.	Max.	Max. Permitted	
Clover, Alsike	15	92	87	0.30	6 (211)	2/
Red Fescue, Audubon	0	97	82	0.10	3 (105)	-
Red Fescue, Creeping	-	97	82	1.00	6 (211)	-
Red Fescue, Epic	-	98	83	0.05	1 (35)	-
Red Fescue, Sea Link	-	98	83	0.10	3 (105)	-
Tall Fescue, Blade Runner	-	98	83	0.10	2 (70)	-
Tall Fescue, Falcon IV	-	98	83	0.05	1 (35)	-
Tall Fescue, Inferno	0	98	83	0.10	2 (70)	-
Tall Fescue, Tarheel II	-	97	82	1.00	6 (211)	-
Tall Fescue, Quest	0	98	83	0.10	2 (70)	-
Fults Salt Grass	0	98	85	0.10	2 (70)	-
Salty Alkaligrass	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/
Hard Fescue, Reliant IV	-	98	83	0.05	1 (35)	-
Hard Fescue, Rescue 911	0	97	82	0.10	3 (105)	-
Hard Fescue, Spartan II	-	98	83	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 (70)	3/

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

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

80131

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

Revised: July 1, 2010

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

Usage. Self-consolidating concrete may be used for precast concrete products.

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

Mix Design Criteria. The mix design criteria shall be as follows:

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

Mixing Portland Cement Concrete. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer

performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

Placing and Consolidating. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

Mix Design Approval. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

80132

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: April 1, 2009

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in has a contract value of \$10,000 or greater.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$$SCA = Q \times D$$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$$D = MPI_M - MPI_L$$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

$MPI_L =$ The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the MPI_L and MPI_M in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 - 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 - 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 - 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 - 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 - 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 - 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 - 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

Return With Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
STEEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following items of work?

- | | | |
|--|-----|--------------------------|
| Metal Piling | Yes | <input type="checkbox"/> |
| Structural Steel | Yes | <input type="checkbox"/> |
| Reinforcing Steel | Yes | <input type="checkbox"/> |
| Dowel Bars, Tie Bars and Mesh Reinforcement | Yes | <input type="checkbox"/> |
| Guardrail | Yes | <input type="checkbox"/> |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms | Yes | <input type="checkbox"/> |
| Metal Railings (excluding wire fence) | Yes | <input type="checkbox"/> |
| Frames and Grates | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

80127

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

Revised: April 1, 2011

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting according to Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

The mobilization payment to the subcontractor is an advance payment of the reported amount of the subcontract and is not a payment in addition to the amount of the subcontract; therefore, the amount of the advance payment will be deducted from future progress payments.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

80143

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revised: January 1, 2011

Add the following to Article 280.02 of the Standard Specifications to read:

- “(k) Filter Fabric 1080.03
- “(l) Urethane Foam/Geotextile 1081.15(i)”

Revise the third paragraph of Article 280.03 of the Standard Specifications to read:

“Erosion control systems shall be installed prior to beginning any activities which will potentially create erodible conditions. Erosion control systems for areas outside the limits of construction such as storage sites, plant sites, waste sites, haul roads, and Contractor furnished borrow sites shall be installed prior to beginning soil disturbing activities at each area. These offsite systems shall be designed by the Contractor and be subject to the approval of the Engineer.”

Add the following paragraph after the third paragraph of Article 280.03 of the Standard Specifications:

“The temporary erosion and sediment control systems shown on the plans represent the minimum systems anticipated for the project. Conditions created by the Contractor’s operations, or for the Contractor’s convenience, which are not covered by the plans, shall be protected as directed by the Engineer at no additional cost to the Department. Revisions or modifications of the erosion and sediment control systems shall have the Engineer’s written approval.”

Revise Article 280.04(a) of the Standard Specifications to read:

“(a) Temporary Ditch Checks. This system consists of the construction of temporary ditch checks to prevent siltation, erosion, or scour of ditches and drainage ways. Temporary ditch checks shall be constructed with products from the Department’s approved list, rolled excelsior, or with aggregate placed on filter fabric when specified. Filter fabric shall be installed according to the requirements of Section 282. Riprap shall be placed according to Article 281.04. Manufactured ditch checks shall be installed according to the manufacturer’s specifications. Spacing of ditch checks shall be such that the low point in the center of one ditch check is at the same elevation as the base of the ditch check immediately upstream. Temporary ditch checks shall be sufficiently long enough that the top of the device in the middle of the ditch is 6 in. (150 mm) lower than the bottom of the terminating ends of the ditch side slopes.

When rolled excelsior is used, each ditch check shall be installed and maintained such that the device is no less than 10 in. (250 mm) high at the point of overflow. Units installed at a spacing requiring a height greater than 10 in. (250 mm) shall be maintained at the height for the spacing at which they were originally installed.”

Revise the last sentence of the first paragraph Article 280.04(b) of the Standard Specifications to read:

“The barrier shall be constructed with rolled excelsior, silt filter fence, or urethane foam/geotextiles.”

Revise the last sentence of the first paragraph of Article 280.04(g) of the Standard Specifications to read:

“The temporary mulch cover shall be installed according to Article 251.03 except for any reference to seeding.”

Add the following to Article 280.04 of the Standard Specifications:

- (h) Temporary Erosion Control Blanket. This system consists of temporarily installing erosion control blanket or heavy duty erosion control blanket over areas that are to be reworked during a later construction phase. Work shall be according to Article 251.04 except references to seeding and fertilizer shall not apply. When an area is to be reworked more than once, the blanket shall be carefully removed, properly stored, and then reinstalled over the same area.”

Revise Article 280.07(b) of the Standard Specifications to read:

- “(b) Temporary Ditch Checks. This work will be measured for payment along the long axis of the device in place in feet (meters) except for aggregate ditch checks which will be measured for payment in tons (metric tons). Payment will not be made for aggregate in excess of 108 percent of the amount specified by the Engineer.”

Revise Article 280.07(f) of the Standard Specifications to read:

- “(f) Temporary Mulch. This work will be measured for payment according to Article 251.05(b).”

Add the following to Article 280.07 of the Standard Specifications:

- “(g) Temporary Erosion Control Blanket. This work will be measured for payment in place in square yards (square meters) of actual surface covered.

Add the following paragraph after the ninth paragraph of Article 280.07 of the Standard Specifications:

“Temporary or permanent erosion control systems required for areas outside the limits of construction will not be measured for payment.”

Revise Article 280.08(b) of the Standard Specifications to read:

“(b) Temporary Ditch Checks. This work will be paid for at the contract unit price per foot (meter) for TEMPORARY DITCH CHECKS except for aggregate ditch checks which will be paid for at the contract unit price per ton (metric ton) for AGGREGATE DITCH CHECKS.”

Revise Article 280.08(f) of the Standard Specifications to read:

“(f) Temporary Mulch. Temporary Mulch will be paid for according to Article 251.06.”

Add the following to Article 280.08 of the Standard Specifications:

“(g) Temporary Erosion Control Blanket. Temporary Erosion Control Blanket will be paid for at the contract unit price per square yard (square meter) for TEMPORARY EROSION CONTROL BLANKET or TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET.

The work of removing, storing, and reinstalling the blanket over areas to be reworked more than once will not be paid for separately but shall be included in the cost of the temporary erosion control blanket or temporary heavy duty erosion control blanket.”

Delete the tenth (last) paragraph of Article 280.08 of the Standard Specifications.

Revise the second sentence of the first paragraph of Article 1081.15(e) of the Standard Specifications to read:

“The upstream facing of the aggregate ditch check shall be constructed of gradation CA 3. The remainder of the ditch check shall be constructed of gradation RR 3.”

Revise Article 1081.15(f) of the Supplemental 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. The fiber density shall be a minimum of 1.24 lb/cu ft (20 kg/cu m) based on a moisture content of 22 percent at manufacturing. 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).”

Add the following to Article 1081.15 of the Standard Specifications:

“(i) Urethane Foam/Geotextile. Urethane foam/geotextile shall be triangular shaped having a minimum height of 10 in. (250 mm) in the center with equal sides and a minimum 20 in. (500 mm) base. The triangular shaped inner material shall be a low density urethane foam. The outer cover shall be a woven geotextile fabric placed around the inner material and allowed to extend beyond both sides of the triangle a minimum of 18 in. (450 mm).

(1) The geotextile shall meet the following properties:

Property	Value	Test Method
Grab Tensile Strength lb (N) (min.)	124 (550) min.	ASTM D 4632
Grab Elongation @ Brake (percent)	15 min.	ASTM D 4632
Burst Strength psi (kPa)	280 (1930) min.	ASTM D 3786
AOS (Sieve No.)	30 min.	ASTM D 4751
UV Resistance (500 hours) (percent)	80 min.	ASTM D 4355

(2) The urethane foam shall meet the following properties:

Property	Value	Test Method
Density lb/cu ft (kg/cu m)	1.0 ± 0.1 (16.0 ± 1.6)	ASTM D 3574
Tensile Strength psi (kPa)	10 (70) min.	ASTM D 3574
Elongation (percent)	125 min.	ASTM D 3574
Tear Resistance lb/in. (N/mm)	1.25 (0.22)	ASTM D 3574"

80087

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: August 1, 2011

Revise the third sentence of the third paragraph of Article 105.03(b) of the Standard Specifications to read:

“The daily monetary deduction will be \$2,500.”

80273

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 3 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

PERMANENT STEEL SHEET PILING

Effective: December 15, 1993

Revised: January 1, 2007

Description. This work shall consist of furnishing and installing the permanent sheet piling to the limits and tolerances shown on the plans according to Section 512 of the Standard Specifications.

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

The Contractor shall select from the following table, a sheet pile section to be used for each wall section with an "effective section modulus" equal to or larger than that specified on the plans.

SHEET PILE SECTION DESIGNATION	EFFECTIVE SECTION MODULUS * in ³ /ft. (10 ³ mm ³ /m)	SHEET PILE SECTION DESIGNATION	EFFECTIVE SECTION MODULUS * in ³ /ft. (10 ³ mm ³ /m)
SZ-10	3.5 (189)	SZ-22	13.5 (728)
SZ-11	4.0 (216)	SPZ-23.5	13.6 (729)
SZ-12	5.1 (277)	PZ-22	15.3 (823)
SZ-14	6.2 (331)	SZ-222	18.0 (968)
CZ-67	6.5 (349)	SZ-24	19.9 (1072)
SZ-15	6.6 (356)	CZ-114RD	20.1 (1082)
CZ-72	7.3 (393)	PZC-13	20.4 (1098)
SZ-14.5	8.3 (445)	SZ-25	20.5 (1105)
SPZ-16	8.4 (452)	PLZ-23	20.7 (1113)
CZ-84	8.9 (480)	SPZ-23	21.4 (1153)
CZ-95RD	10.2 (550)	CZ-114	21.7 (1165)
CZ-95	10.5 (566)	SZ-27	22.4 (1206)
SZ-18	10.9 (588)	PLZ-25	23.0 (1236)
SPZ-19.5	11.2 (604)	SPZ-26	24.4 (1311)
CZ-101	11.3 (609)	CZ-128	24.8 (1332)
SZ-20	12.0 (648)	PZ-27	25.5 (1371)
CZ-107	12.1 (653)	CZ-141	27.9 (1497)
SZ-21	12.5 (674)	PZC-18	28.3 (1520)
SPZ-22	12.7 (682)	CZ-148	29.4 (1581)
CZ-113	12.9 (695)	PZ-35	43.6 (2344)
		PZ-40	54.6 (2932)

* Effective Section Modulus is computed by taking the effects of corrosion loss allowances and the Hartman reduction factor.

The selection of the sheet pile section shall not relieve the Contractor of the responsibility to satisfy all details including minimum clearances, cover, embedments, reinforcement, shear stud locations,

interlocking, and field cutting. Any modifications of the plans to accommodate the Contractor's selection shall be paid for by the Contractor and subject to the approval of the Engineer.

Construction. The Contractor shall verify locations of all underground utilities before driving any sheet piling. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The Contractor shall be responsible for determining the appropriate equipment necessary to drive the sheeting to the tip elevation(s) specified on the plans or according to the Contractor's approved design. The sheet piling shall be driven, as a minimum, to the tip elevation(s) specified, prior to commencing any related construction. If unable to reach the minimum tip elevation, the adequacy of the sheet piling design will require re-evaluation by the Department prior to allowing construction adjacent to the sheet piling in question.

Method of Measurement. This work will be measured in place in square feet (square meters). Sheet piling associated with other work in this contract or for permanent sheet piling that is cut off or driven beyond those dimensions shown on the plans will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for PERMANENT STEEL SHEET PILING at the location shown on the plans.

MECHANICALLY STABILIZED EARTH RETAINING WALLS

Effective: February 3, 1999

Revised: May 18, 2011

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

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

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

ARES Wall: Tensar Earth Technologies

Stabilized Earth: T&B Structural Systems

MSE Plus: SSL Construction Products

Reinforced Earth: The Reinforced Earth Company

Retained Earth: The Reinforced Earth Company

Strengthened Soil: Shaw Technologies

Tricon Retained Soil: Tricon Precast

GeoMega System: The Reinforced Earth Company

Sine Wall: Sine Wall, LLC

Sanders MSE Wall: Sanders Pre-Cast Concrete Systems Company

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

Submittals. The wall system supplier shall submit complete design calculations and shop drawings to the Engineer according to Article 1042.03(b) of the Standard Specifications no later than 90 days prior to beginning construction of the wall. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer. All submittals shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

- (a) Plan, elevation and cross section sheet(s) for each wall showing the following:
 - (1) A plan view of the wall indicating the offsets from the construction centerline to the face of the wall at all changes in horizontal alignment. The plan view shall show the limits of soil reinforcement and stations where changes in length and/or size of reinforcement occur. The centerline shall be shown for all drainage structures or pipes behind or passing through and/or under the wall.

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

- (g) The details for the connection between concrete panels, embed devices, and soil reinforcement shall be shown.

The initial submittal shall include three sets of shop drawings and one set of calculations. One set of drawings will be returned to the Contractor with any corrections indicated. After approval, the Contractor shall furnish the Engineer with ten (10) sets of corrected plan prints for distribution by the Department. No work or ordering of materials for the structure shall be done until the submittal has been approved by the Engineer.

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

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

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

Mesh and Loop Panel Embeds	AASHTO M 32 /M 32M and M 55/M 55M
Strips	ASTM A 572 Grade 65 (450)
Tie Strip Panel Embeds	AASHTO M 270/M 270M Grade 50 (345) or ASTM A1011 HSLAS Grade 50 (345) Class 2

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

<u>Property for Geosynthetic Reinforcement</u>	<u>Value</u>	<u>Test</u>
Minimum Tensile Strength	**	ASTM 6637

** as specified in the approved design calculations and shown on the shop drawings.

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

<u>Property for HTPET</u>	<u>Value</u>	<u>Test</u>
Carboxyl End Group (max) (mmol/kg)	<30	GRI-GG7
Molecular Weight (Mn)	>25,000	GRI-GG8

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

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

<u>Property for Polypropylene</u>	<u>Value</u>	<u>Test</u>
Melt Flow Rate (g/cm)	0.060 - 0.150	ASTM D 1238, Procedure B
Density (g/cu m)	0.88 - 0.92	ASTM D 792

(b) The select fill, defined as the material placed in the reinforced volume behind the wall, shall be according to Sections 1003 and 1004 of the Standard Specifications and the following:

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

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

(2) Select Fill Quality. The coarse or fine aggregate shall be Class B quality or better, except that a maximum of 15 percent of the material may be finer than the #200 (75 µm) sieve.

(3) Select Fill Internal Friction Angle. The effective internal friction angle for the coarse or fine aggregate shall be a minimum 34 degrees according to AASHTO T 236 on samples compacted to 95 percent density according to Illinois Modified AASHTO T 99. The AASHTO T 296 test with pore pressure measurement may be used in lieu of AASHTO T 236. If the vendor's design uses a friction angle higher than 34 degrees, as indicated on the approved shop drawings, this higher value shall be taken as the minimum required.

(4) Select Fill and Steel Reinforcing. When steel reinforcing is used, the select fill shall meet the following requirements.

- a. The pH shall be 5.0 to 10.0 according to AASHTO T 289.
- b. The resistivity shall be greater than 3000 ohm centimeters according to AASHTO T 288.
- c. The chlorides shall be less than 100 parts per million according to AASHTO T 291 or ASTM D 4327. For either test, the sample shall be prepared according to AASHTO T 291.

- d. The sulfates shall be less than 200 parts per million according to AASHTO T 290 or ASTM D 4327. For either test, the sample shall be prepared according to AASHTO T 290.
 - e. The organic content shall be a maximum 1.0 percent according to AASHTO T 267.
- (5) Select Fill and Geosynthetic Reinforcing. When geosynthetic reinforcing is used, the select fill pH shall be 4.5 to 9.0 according to AASHTO T 289.
- (6) Test Frequency. Prior to start of construction, the Contractor shall provide internal friction angle, pH, to show the select fill material meets the specification requirements. In addition, resistivity, chlorides, sulfates, and organic content test results will be required if steel reinforcing is used. All test results shall not be older than 12 months. In addition, a sample of select fill material will be obtained for testing and approval by the Department. Thereafter, the minimum frequency of sampling and testing at the jobsite will be one per 20,000 cubic yards (15,500 cubic meters) of select fill material.
- (c) The embankment material behind the select fill shall be according to Section 202 and/or Section 204. An embankment unit weight of 120 lbs/cubic foot (1921 kg/cubic meter) and an effective friction angle of 30 degrees shall be used in the wall system design, unless otherwise indicated on the plans.
- (d) The geosynthetic filter material used across the panel joints shall be either a non-woven needle punch polyester or polypropylene or a woven monofilament polypropylene with a minimum width of 12 in. (300 mm) and a minimum non-sewn lap of 6 in. (150 mm) where necessary.
- (e) The bearing pads shall be rubber, neoprene, polyvinyl chloride, or polyethylene of the type and grade as recommended by the wall supplier.
- (f) All precast panels shall be manufactured with Class PC concrete according to Section 504, Article 1042.02, Article 1042.03, and the following requirements:
- (1) The minimum panel thickness shall be 5 1/2 in. (140 mm).
 - (2) The minimum reinforcement bar cover shall be 1 1/2 in. (38 mm).
 - (3) The panels shall have a ship lap or tongue and groove system of overlapping joints between panels designed to conceal joints and bearing pads.
 - (4) The panel reinforcement shall be according to Article 1006.10 (a)(2).
 - (5) All dimensions shall be within 3/16 in. (5 mm).
 - (6) Angular distortion with regard to the height of the panel shall not exceed 0.2 inches in 5 ft (5 mm in 1.5 m).

- (7) Surface defects on formed surfaces measured on a length of 5 ft. (1.5 m) shall not be more than 0.1 in. (2.5 mm).
- (8) The panel embed/connection devices shall be cast into the facing panels with a tolerance not to exceed 1 in. (25 mm) from the locations specified on the approved shop drawings.

Unless specified otherwise, concrete surfaces exposed to view in the completed wall shall be finished according to Article 503.15(a). The back face of the panel shall be roughly screeded to eliminate open pockets of aggregate and surface distortions in excess of 1/4 in. (6 mm).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

As select fill material is placed behind a panel, the panel shall be maintained in its proper inclined position according to the supplier specifications and as approved by the Engineer. Vertical tolerances and horizontal alignment tolerances shall not exceed 3/4 in. (19 mm) when measured along a 10 ft. (3 m) straight edge. The maximum allowable offset in any panel joint shall be 3/4 in. (19 mm). The overall vertical tolerance of the wall, (plumbness from top to

bottom) shall not exceed 1/2 in. per 10 ft. (13 mm per 3 m) of wall height. The precast face panels shall be erected to insure that they are located within 1 in. (25 mm) from the contract plan offset at any location to insure proper wall location at the top of the wall. Failure to meet this tolerance may cause the Engineer to require the Contractor to disassemble and re-erect the affected portions of the wall. A 3/4 in. (19 mm) joint separation shall be provided between all adjacent face panels to prevent direct concrete to concrete contact. This gap shall be maintained by the use of bearing pads and/or alignment pins.

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

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

At the end of each day's operations, the Contractor shall shape the last level of select fill to permit runoff of rainwater away from the wall face. Select fill shall be compacted according to the project specifications for embankment except the minimum required compaction shall be 95 percent of maximum density as determined by AASHTO T 99. Select fill compaction shall be accomplished without disturbance or distortion of soil reinforcing system and panels. Compaction in a strip 3 ft. (1 m) wide adjacent to the backside of the panels shall be achieved using a minimum of 3 passes of a light weight mechanical tamper, roller or vibratory system. The Engineer will perform one density test per 5000 cu yd (3800 cu m) and not less than one test per 2 ft (0.6 m) of lift.

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

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

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

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

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

POROUS GRANULAR EMBANKMENT, SPECIAL

Effective: September 28, 2005

Revised: November 14, 2008

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

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

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

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

PILING

Effective: May 11, 2009

Revised: January 22, 2010

Revise Article 512.04(a) of the Standard Specifications to read:

“(a) Splicing. Splicing of metal shell piles shall be as follows.

- (1) Planned Splices. Planned field or shop splices may be used when allowed per Article 512.10 or when the lengths specified in Article 512.16 exceed the estimated lengths specified in the contract plans by at least 10 ft (3 m). The location of planned splices shall be approved by the Engineer and located to minimize the chance they will occur within the 10 ft (3 m) below the base of the footing, abutment, or pier.
- (2) Unplanned Splices. Unplanned field splices shall be used as required to furnish lengths beyond those specified in Article 512.16. The length of additional segments shall be specified by the Engineer.”

Revise Article 512.05(a) of the Standard Specifications to read:

“(a) Splicing. Splicing of steel piles shall be as follows.

- (1) Planned Splices. Planned field or shop splices may be used when allowed per Article 512.10 or when the lengths specified in Article 512.16 exceed the estimated lengths specified in the contract plans by at least 10 ft (3 m). The location of planned splices shall be approved by the Engineer and located to minimize the chance they will occur within the 10 ft (3 m) below the base of the footing, abutment, or pier.
- (2) Unplanned Splices. Unplanned field splices shall be used as required to furnish lengths beyond those specified in Article 512.16. The length of additional segments shall be specified by the Engineer.”

Revise the first three paragraphs of Article 512.10 of the Standard Specifications to read:

“**512.10 Driving Equipment.** The equipment for driving piles shall be adequate for driving piles at least 10 ft (3 m) longer than the longest estimated pile length specified in the contract plans without splicing, unless the estimated pile length exceeds 55 ft (17 m) or prevented by vertical clearance restrictions. The use of shorter length equipment or the use of preplanned splices (necessitated by estimated pile lengths exceeding 55 ft (17 m) or vertical clearance restrictions) shall meet the approval of the Engineer. The equipment for driving piles shall be according to the following.

- (a) Hammers. Piles shall be driven with an impact hammer such as a drop, steam/air, hydraulic, or diesel. The driving system selected by the Contractor shall not result in damage to the pile. The impact hammer shall be capable of being operated at an energy which will maintain a pile penetration rate between 1 and 10 blows per 1 in. (25 mm) when the nominal driven bearing of the pile approaches the nominal required bearing.

For hammer selection purposes, the minimum and maximum hammer energy necessary to achieve these penetrations may be estimated as follows.

$$E \geq \frac{32.90 R_N}{F_{eff}} \quad (\text{English})$$

$$E \leq \frac{65.80 R_N}{F_{eff}} \quad (\text{English})$$

$$E \geq \frac{10.00 R_N}{F_{eff}} \quad (\text{metric})$$

$$E \leq \frac{20.00 R_N}{F_{eff}} \quad (\text{metric})$$

Where:

- R_N = Nominal required bearing in kips (kN)
- E = Energy developed by the hammer per blow in ft lb (J)
- F_{eff} = Hammer efficiency factor according to Article 512.14."

Add the following sentence to the beginning of the fourth paragraph of Article 512.11 of the Standard Specifications:

"Except as required to satisfy the minimum tip elevations required in 512.11(b) above, piles are not required to be driven more than one additional foot (300 mm) after the nominal driven bearing equals or exceeds the nominal required bearing; more than three additional inches (75 mm) after the nominal driven bearing exceeds 110 percent of the nominal required bearing; or more than one additional inch (25 mm) after the nominal driven bearing exceeds 150 percent of the nominal required bearing."

Revise the first paragraph of Article 512.14 of the Standard Specifications to read:

512.14 Determination of Nominal Driven Bearing. The nominal driven bearing of each pile shall be determined by the WSDOT formula as follows.

$$R_{NDB} = \frac{6.6 F_{eff} E L_n (10N_b)}{1000} \quad (\text{English})$$

$$R_{NDB} = \frac{21.7 F_{eff} E L_n (10N_b)}{1000} \quad (\text{metric})$$

Where:

- R_{NDB} = Nominal driven bearing of the pile in kips (kN)
- N_b = Number of hammer blows per inch (25 mm) of pile penetration
- E = Energy developed by the hammer per blow in ft lb (J)
- F_{eff} = Hammer efficiency factor taken as:
 - 0.55 for air/steam hammers
 - 0.47 for open-ended diesel hammers and steel piles or metal shell piles

0.37 for open-ended diesel hammers and concrete or timber piles
0.35 for closed-ended diesel hammers
0.28 for drop hammers”

Add the following to Article 512.18 of the Standard Specifications.

“(h) When the lengths specified in Article 512.16 exceed the estimated lengths specified in the contract plans by at least 10 ft (3m), additional field splices (for metal shell and steel piles) required to provide the lengths specified in Article 512.16 will be paid for according to Article 109.04.”

FREEZE-THAW AGGREGATES FOR CONCRETE SUPERSTRUCTURES POURED ON GRADE

Effective: April 30, 2010

Revise the first sentence of Article 1004.029(f) to read as follows.

“When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement, driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch, concrete superstructures on grade such as bridge approach slabs, or their repair using concrete, the gradation permitted will be determined from the results of the Department’s Freeze-Thaw Test (Illinois Modified AASHTO T161).”

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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ATTACHMENTS

**A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)**

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4 and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

- a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

- b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

- a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
- b. The contractor will accept as his operating policy the following statement: "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees,

applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be

in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA

personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training,

qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of

DBE subcontractors or subcontractors with meaningful minority and

female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located

on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the

contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advised the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any

employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid

the full amount of fringe benefits listed on the wage determination

for the applicable classification. If the Administrator for the Wage

and Hour Division determines that a different practice prevails for

the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration

withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or

permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
- b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.
- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely

all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for submitting payroll copies of all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
- (2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
- (3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

- a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
- b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
- c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data

required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractors' own organization (23 CFR 635).

- a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in

surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

“Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.”

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more).

By submission of this bid or the execution of this contract, or

subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
- d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal

is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions

and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

2. Where the prospective primary participant is unable to certify

**Certification Regarding Debarment, Suspension, Ineligibility And
Voluntary Exclusion-Lower Tier Covered Transactions:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR
LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**MINIMUM WAGES FOR FEDERAL AND FEDERALLY
ASSISTED CONSTRUCTION CONTRACTS**

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.state.il.us/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.state.il.us/desenv/subsc.html>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.