

RETURN WITH BID

State of _____)
) ss.
County of _____)

AFFIDAVIT

_____, of _____,
(name of affiant) *(bidder)*

being first duly sworn upon oath, states as follows:

1. That I am the _____ of _____
(Officer or position) *(Bidder)*
and have personal knowledge of the facts herein stated.
2. That, if selected under this bid proposal, _____ will
(Bidder)
maintain a business office in the State of Illinois which will be located in _____
County, Illinois.
3. That this business office will serve as the primary place of employment for any persons
employed in the construction contemplated by this bid proposal.
4. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of
the Illinois Procurement Code.

(Signature)

(Printed name of Affiant)

This instrument was signed and attested before me on the _____ day of _____, 20 ____

by _____.
(Notary Public Name)

(Notary Public Signature)

(NOTARY SEAL)

BID PROPOSAL INSTRUCTIONS

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

PREQUALIFICATION

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

WHO CAN BID ?

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

REQUESTS FOR AUTHORIZATION TO BID

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

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

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

ABOUT AUTHORIZATION TO BID

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS

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

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

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

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

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

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

STANDARD GUIDELINES FOR SUBMITTING BIDS

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

BID SUBMITTAL CHECKLIST

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

Proposal Bid Bond – (Insert after the proposal signature page) Submit your proposal Proposal Bid Bond (if applicable) using the current Proposal Bid Bond form provided in the proposal package. The Power of Attorney page should be stapled to the Proposal Bid Bond. If you are using an electronic bond, include your bid bond number on the Proposal Bid Bond and attach the Proof of Insurance printed from the Surety’s Web Site.

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

The Bid Letting is now available in streaming Audio/Video from the IDOT 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 10:30 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 Web page for the current letting.

QUESTIONS: pre-letting up to execution of the contract

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

QUESTIONS: following contract execution

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

RETURN WITH BID

151

Proposal Submitted By
Name
Address
City

REVISED

Letting April 25, 2014

NOTICE TO PROSPECTIVE BIDDERS

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

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

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



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 60R19
COOK County
Section 11-Y-A
Route FAP 353
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.
- An Annual Bid Bond is included or is on file with IDOT.

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)

Page intentionally left blank

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____ a

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

**Contract No. 60R19
COOK County
Section 11-Y-A
Route FAP 353
District 1 Construction Funds**

Grade separation and roadway reconstruction on US 30 (Lincoln Highway) at the Canadian National/Wisconsin Central and It's Parents Railroad, located in Lynwood.

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

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned bidder 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 contract 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 will govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
8. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.
9. **EXECUTION OF CONTRACT:** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.

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

Check box Yes
 Check box No

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2002366	T-BETULA NIGRA CL 6'	EACH	18.000				
A2002916	T-CELTIS OCCID 2	EACH	13.000				
A2005556	T-NYSSA SYLVAT CL 6'	EACH	4.000				
A2005616	T-OSTRYA VIRG 2	EACH	5.000				
A2006516	T-QUERCUS BICOL 2	EACH	11.000				
A2006716	T-QUERCUS MACR 2	EACH	11.000				
A2006816	T-QUERCUS MEUH 2	EACH	13.000				
A2008468	T-ULMUS AMER PRINC 2	EACH	12.000				
B2000766	T-AMEL X GF AB SF 6'	EACH	15.000				
B2001164	T-CERCIS CAN CL 5'	EACH	24.000				
B2001616	T-CRAT CRU-I TF 2	EACH	28.000				
B2001664	T-CRATAE CRU-I SF 5'	EACH	22.000				
B2003316	T-MALUS DW TF 2	EACH	23.000				
B2003416	T-MALUS FLOR TF 2	EACH	15.000				
B2004002	T-MALUS OC OCC TF 2	EACH	17.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
B2006116	T-SYRG PEK M TF 2	EACH	13.000				
B2006316	T-SYRG RT IS TF 2	EACH	26.000				
B2006366	T-SYRG RET IS CL 6'	EACH	10.000				
C2000660	S-ARONIA MELN MRT 2.5	EACH	8.000				
K0029634	WEED CONTR PRE-EM GRN	POUND	20.000				
XX008001	AGGREGATE PATH 8	SQ YD	509.000				
XZ127900	RETAINING WALL REMOV	FOOT	101.000				
X0321309	CONCRETE PAD	SQ YD	38.000				
X0324085	EM VEH P S LSC 20 3C	FOOT	828.000				
X2130010	EXPLOR TRENCH SPL	FOOT	500.000				
X2502014	SEEDING CL 4A MOD	ACRE	2.500				
X2502024	SEEDING CL 4B MOD	ACRE	1.250				
X4020800	AGG SURF CSE B 12	SQ YD	199.000				
X4021000	TEMP ACCESS- PRIV ENT	EACH	5.000				
X4022000	TEMP ACCESS- COM ENT	EACH	16.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK- -

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X4060110	BIT MATLS PR CT	POUND	30,161.000				
X4403800	MEDIAN SURF REMOVAL	SQ FT	12,207.000				
X5510124	STORM SEWER REM 24 SP	FOOT	161.000				
X5510127	STORM SEWER REM 27 SP	FOOT	169.000				
X5510130	STORM SEWER REM 30 SP	FOOT	576.000				
X5510136	STORM SEWER REM 36 SP	FOOT	646.000				
X5510142	STORM SEWER REM 42 SP	FOOT	787.000				
X6020096	MH TA 6D W/2 T1FCL RP	EACH	3.000				
X6020293	MH TA 8D W/2 T1FCL RP	EACH	1.000				
X6028050	TEMPORARY MANHOLE	EACH	1.000				
X6050500	REMOV FR & GR SPL	EACH	16.000				
X6060200	CONC MED TSB6.24 MOD	SQ FT	6,120.000				
X6060714	CONC MEDIAN SPL	SQ FT	113.000				
X6700410	ENGR FLD OFF A SPL	CAL MO	36.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

State Job # - C-91-046-12

60R19

Project Number

Route

County Name - COOK- -

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X7010240	TR CONT SURVEILL SPL	CAL DA	744.000				
X7250004	OBJECT MARKER T4	EACH	2.000				
X8620200	UNINTER POWER SUP SPL	EACH	1.000				
Z0004514	HMA DRIVEWAY PAVT 4	SQ YD	299.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0022800	FENCE REMOVAL	FOOT	523.000				
Z0026407	TEMP SHT PILING	SQ FT	675.000				
Z0030850	TEMP INFO SIGNING	SQ FT	985.000				
Z0034210	MECH ST EARTH RET WL	SQ FT	50,046.000				
Z0038141	3-SIDED PCC STR 36X10	EACH	75.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
Z0062456	TEMP PAVEMENT	SQ YD	7,721.000				
Z0073345	SLEEPER SLAB	FOOT	238.000				
Z0073510	TEMP TR SIGNAL TIMING	EACH	1.000				
Z0076604	TRAINEES TPG	HOOR	3,000.000		15.000		45,000.000

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
20100110	TREE REMOV 6-15	UNIT	195.000				
20100210	TREE REMOV OVER 15	UNIT	197.000				
20101000	TEMPORARY FENCE	FOOT	1,891.000				
20101200	TREE ROOT PRUNING	EACH	10.000				
20101300	TREE PRUN 1-10	EACH	10.000				
20101350	TREE PRUN OVER 10	EACH	10.000				
20101700	SUPPLE WATERING	UNIT	100.000				
20200100	EARTH EXCAVATION	CU YD	11,664.000				
20201200	REM & DISP UNS MATL	CU YD	16,655.000				
20400800	FURNISHED EXCAVATION	CU YD	23,260.000				
20700220	POROUS GRAN EMBANK	CU YD	42,902.000				
20800150	TRENCH BACKFILL	CU YD	4,379.000				
21001000	GEOTECH FAB F/GR STAB	SQ YD	8,013.000				
21101625	TOPSOIL F & P 6	SQ YD	43,985.000				
21101630	TOPSOIL F & P 8	SQ YD	1,274.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

State Job # - C-91-046-12

60R19

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
25000110	SEEDING CL 1A	ACRE	1.270				
25000210	SEEDING CL 2A	ACRE	2.500				
25000400	NITROGEN FERT NUTR	POUND	678.000				
25000600	POTASSIUM FERT NUTR	POUND	678.000				
25000775	SELECT MOWING STAKES	EACH	50.000				
25100115	MULCH METHOD 2	ACRE	11.000				
25100135	MULCH METHOD 4	ACRE	1.500				
25100630	EROSION CONTR BLANKET	SQ YD	36,155.000				
25200110	SODDING SALT TOLERANT	SQ YD	8,830.000				
28000250	TEMP EROS CONTR SEED	POUND	1,775.000				
28000400	PERIMETER EROS BAR	FOOT	21,791.000				
28000500	INLET & PIPE PROTECT	EACH	30.000				
28000510	INLET FILTERS	EACH	189.000				
28001100	TEMP EROS CONTR BLANK	SQ YD	45,287.000				
28100105	STONE RIPRAP CL A3	SQ YD	6.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

State Job # - C-91-046-12

60R19

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
28200200	FILTER FABRIC	SQ YD	6.000				
30300001	AGG SUBGRADE IMPROVE	CU YD	8,969.000				
30300112	AGG SUBGRADE IMPR 12	SQ YD	43,928.000				
31101400	SUB GRAN MAT B 6	SQ YD	3,723.000				
31101810	SUB GRAN MAT B 12	SQ YD	1,451.000				
35101598	AGG BASE CSE B 3	SQ YD	991.000				
35101600	AGG BASE CSE B 4	SQ YD	7,904.000				
35300500	PCC BSE CSE 10	SQ YD	249.000				
35400500	PCC BASE CSE W 10	SQ YD	60.000				
35501316	HMA BASE CSE 8	SQ YD	1,445.000				
40600895	CONSTRUC TEST STRIP	EACH	2.000				
40600982	HMA SURF REM BUTT JT	SQ YD	133.000				
40603085	HMA BC IL-19.0 N70	TON	2,812.000				
40603335	HMA SC "D" N50	TON	827.000				
40603340	HMA SC "D" N70	TON	75.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
40701861	HMA PAVT FD 9	SQ YD	8,305.000				
42000411	PCC PVT 9 1/2 JOINTD	SQ YD	3,590.000				
42000501	PCC PVT 10 JOINTED	SQ YD	22,560.000				
42001300	PROTECTIVE COAT	SQ YD	10,847.000				
42001420	BR APPR PVT CON (PCC)	SQ YD	800.000				
42300200	PCC DRIVEWAY PAVT 6	SQ YD	426.000				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	1,623.000				
42400200	PC CONC SIDEWALK 5	SQ FT	9,352.000				
42400800	DETECTABLE WARNINGS	SQ FT	293.000				
44000100	PAVEMENT REM	SQ YD	24,554.000				
44000200	DRIVE PAVEMENT REM	SQ YD	14,932.000				
44000300	CURB REM	FOOT	801.000				
44000500	COMB CURB GUTTER REM	FOOT	12,311.000				
44000600	SIDEWALK REM	SQ FT	124.000				
44003100	MEDIAN REMOVAL	SQ FT	2,162.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

State Job # - C-91-046-12

60R19

Project Number

Route

County Name - COOK- -

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44004250	PAVED SHLD REMOVAL	SQ YD	175.000				
44201771	CL D PATCH T4 10	SQ YD	75.000				
44300200	STRIP REF CR CON TR	FOOT	330.000				
48101500	AGGREGATE SHLDS B 6	SQ YD	180.000				
48203021	HMA SHOULDERS 6	SQ YD	199.000				
50102400	CONC REM	CU YD	818.000				
50105220	PIPE CULVERT REMOV	FOOT	111.000				
50200100	STRUCTURE EXCAVATION	CU YD	18,447.000				
50200450	REM/DISP UNS MATL-STR	CU YD	1,882.000				
50300225	CONC STRUCT	CU YD	1,270.900				
50300255	CONC SUP-STR	CU YD	770.800				
50300260	BR DECK GROOVING	SQ YD	1,146.000				
50300300	PROTECTIVE COAT	SQ YD	4,789.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	6,435.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
50800205	REINF BARS, EPOXY CTD	POUND	338,340.000				
50800515	BAR SPLICERS	EACH	158.000				
50901720	BICYCLE RAILING	FOOT	524.000				
50901735	BR FEN RAIL (SDWALK)	FOOT	98.000				
50901750	PARAPET RAILING	FOOT	1,117.000				
51200958	FUR M S PILE 14X0.250	FOOT	4,798.000				
51202305	DRIVING PILES	FOOT	4,798.000				
51203200	TEST PILE MET SHELLS	EACH	4.000				
51500100	NAME PLATES	EACH	4.000				
52000110	PREF JT STRIP SEAL	FOOT	162.000				
52100010	ELAST BEARING ASSY T1	EACH	26.000				
52100520	ANCHOR BOLTS 1	EACH	78.000				
54213657	PRC FLAR END SEC 12	EACH	2.000				
54213660	PRC FLAR END SEC 15	EACH	1.000				
54213669	PRC FLAR END SEC 24	EACH	4.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
54213675	PRC FLAR END SEC 30	EACH	1.000				
550A0340	STORM SEW CL A 2 12	FOOT	3,181.000				
550A0360	STORM SEW CL A 2 15	FOOT	216.000				
550A0380	STORM SEW CL A 2 18	FOOT	448.000				
550A0410	STORM SEW CL A 2 24	FOOT	1,599.000				
550A0430	STORM SEW CL A 2 30	FOOT	204.000				
550A0450	STORM SEW CL A 2 36	FOOT	985.000				
550A0470	STORM SEW CL A 2 42	FOOT	13.000				
550A0480	STORM SEW CL A 2 48	FOOT	199.000				
550A0490	STORM SEW CL A 2 54	FOOT	440.000				
550A0710	STORM SEW CL A 3 24	FOOT	13.000				
550A4710	SS CL A 1 EQRS 48	FOOT	405.000				
550A4720	SS CL A 1 EQRS 54	FOOT	204.000				
550A5100	SS CL A 2 EQRS 30	FOOT	81.000				
55100100	STORM SEWER REM 4	FOOT	26.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
55100500	STORM SEWER REM 12	FOOT	1,984.000				
55100900	STORM SEWER REM 18	FOOT	161.000				
55101100	STORM SEWER REM 21	FOOT	145.000				
58700300	CONCRETE SEALER	SQ FT	1,332.000				
60107600	PIPE UNDERDRAINS 4	FOOT	4,870.000				
60201105	CB TA 4 DIA T11F&G	EACH	2.000				
60201310	CB TA 4 DIA T20F&G	EACH	3.000				
60201340	CB TA 4 DIA T24F&G	EACH	26.000				
60205040	CB TA 5 DIA T24F&G	EACH	9.000				
60205310	CB TA 6 DIA T24F&G	EACH	2.000				
60206600	CB TB T7G	EACH	5.000				
60208210	CB TC T20F&G	EACH	4.000				
60208240	CB TC T24F&G	EACH	8.000				
60218400	MAN TA 4 DIA T1F CL	EACH	9.000				
60219300	MAN TA 4 DIA T11F&G	EACH	1.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60221100	MAN TA 5 DIA T1F CL	EACH	17.000				
60223800	MAN TA 6 DIA T1F CL	EACH	4.000				
60224446	MAN TA 7 DIA T1F CL	EACH	6.000				
60224449	MAN TA 7 DIA T24F&G	EACH	1.000				
60224456	MAN TA 8 DIA T24F&G	EACH	2.000				
60224459	MAN TA 8 DIA T1F CL	EACH	6.000				
60224469	MAN TA 9 DIA T1F CL	EACH	2.000				
60224476	MAN TA 9 DIA T24F&G	EACH	2.000				
60236800	INLETS TA T11F&G	EACH	4.000				
60237420	INLETS TA T20F&G	EACH	1.000				
60237470	INLETS TA T24F&G	EACH	40.000				
60250200	CB ADJUST	EACH	5.000				
60255500	MAN ADJUST	EACH	7.000				
60404800	FR & GRATES T11	EACH	1.000				
60406000	FR & LIDS T1 OL	EACH	17.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK - -

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60500040	REMOV MANHOLES	EACH	23.000				
60500050	REMOV CATCH BAS	EACH	10.000				
60500060	REMOV INLETS	EACH	49.000				
60600605	CONC CURB TB	FOOT	938.000				
60603800	COMB CC&G TB6.12	FOOT	4,538.000				
60605000	COMB CC&G TB6.24	FOOT	8,868.000				
60605500	COMB CC&G TB6.24 VWGF	FOOT	772.000				
60608600	COMB CC&G TM6.06	FOOT	248.000				
60610400	COMB CC&G TM6.24	FOOT	315.000				
60618320	CONC MEDIAN SURF 6	SQ FT	12,499.000				
60619600	CONC MED TSB6.12	SQ FT	2,554.000				
60620000	CONC MED TSB6.24	SQ FT	5,188.000				
60624600	CORRUGATED MED	SQ FT	768.000				
63100085	TRAF BAR TERM T6	EACH	2.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	2.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
63100169	TR BAR TRM T1 SPL FLR	EACH	1.000				
66400305	CH LK FENCE 6	FOOT	52.000				
66407500	CH LK GATES 6X10 DBL	EACH	2.000				
66900200	NON SPL WASTE DISPOSL	CU YD	7,003.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	10.000				
67100100	MOBILIZATION	L SUM	1.000				
67201100	SEAL ABAN MONIT WELLS	EACH	8.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	90.000				
70300510	PAVT MARK TAPE T3 L&S	SQ FT	206.000				
70300520	PAVT MARK TAPE T3 4	FOOT	25,977.000				
70300540	PAVT MARK TAPE T3 6	FOOT	921.000				
70300560	PAVT MARK TAPE T3 12	FOOT	40.000				
70300570	PAVT MARK TAPE T3 24	FOOT	277.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	58,427.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70400100	TEMP CONC BARRIER	FOOT	1,440.000				
70600255	IMP ATTN TEMP FRN TL2	EACH	4.000				
72000100	SIGN PANEL T1	SQ FT	305.000				
72000200	SIGN PANEL T2	SQ FT	15.000				
72300100	INSTALL EX SIGN PANEL	SQ FT	113.000				
72400100	REMOV SIN PAN ASSY TA	EACH	44.000				
72400200	REMOV SIN PAN ASSY TB	EACH	2.000				
72400310	REMOV SIGN PANEL T1	SQ FT	45.000				
72900100	METAL POST TY A	FOOT	504.000				
72900200	METAL POST TY B	FOOT	54.000				
78000200	THPL PVT MK LINE 4	FOOT	705.000				
78000400	THPL PVT MK LINE 6	FOOT	38.000				
78000500	THPL PVT MK LINE 8	FOOT	31.000				
78004100	PREF PL PM TC LTR-SYM	SQ FT	74.000				
78004110	PREF PL PM TC LINE 4	FOOT	730.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78004130	PREF PL PM TC LINE 6	FOOT	228.000				
78005100	EPOXY PVT MK LTR-SYM	SQ FT	286.000				
78005110	EPOXY PVT MK LINE 4	FOOT	24,400.000				
78005130	EPOXY PVT MK LINE 6	FOOT	288.000				
78005150	EPOXY PVT MK LINE 12	FOOT	74.000				
78005180	EPOXY PVT MK LINE 24	FOOT	195.000				
78008200	POLYUREA PM T1 LTR-SY	SQ FT	248.000				
78008210	POLYUREA PM T1 LN 4	FOOT	16,386.000				
78008230	POLYUREA PM T1 LN 6	FOOT	2,583.000				
78008240	POLYUREA PM T1 LN 8	FOOT	965.000				
78008250	POLYUREA PM T1 LN 12	FOOT	7,794.000				
78008270	POLYUREA PM T1 LN 24	FOOT	182.000				
78100100	RAISED REFL PAVT MKR	EACH	316.000				
78100105	RAISED REF PVT MKR BR	EACH	10.000				
78200410	GUARDRAIL MKR TYPE A	EACH	12.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78201000	TERMINAL MARKER - DA	EACH	3.000				
78300100	PAVT MARKING REMOVAL	SQ FT	10,955.000				
80500020	SERV INSTALL POLE MT	EACH	1.000				
81028200	UNDRGRD C GALVS 2	FOOT	973.000				
81028210	UNDRGRD C GALVS 2 1/2	FOOT	211.000				
81028220	UNDRGRD C GALVS 3	FOOT	60.000				
81028240	UNDRGRD C GALVS 4	FOOT	538.000				
81400100	HANDHOLE	EACH	7.000				
81400200	HD HANDHOLE	EACH	3.000				
81400300	DBL HANDHOLE	EACH	2.000				
85700200	FAC T4 CAB	EACH	1.000				
87301215	ELCBL C SIGNAL 14 2C	FOOT	731.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	1,854.000				
87301245	ELCBL C SIGNAL 14 5C	FOOT	3,284.000				
87301305	ELCBL C LEAD 14 1PR	FOOT	2,619.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK--

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
87301805	ELCBL C SERV 6 2C	FOOT	335.000				
87301900	ELCBL C EGRDC 6 1C	FOOT	1,012.000				
87502440	TS POST GALVS 10	EACH	1.000				
87502480	TS POST GALVS 14	EACH	5.000				
87502520	TS POST GALVS 18	EACH	1.000				
87700290	S MAA & P 50	EACH	1.000				
87702310	S MAA & P DMA 24 & 36	EACH	1.000				
87800100	CONC FDN TY A	FOOT	28.000				
87800150	CONC FDN TY C	FOOT	4.000				
87800415	CONC FDN TY E 36D	FOOT	27.000				
88030012	SH LED 1F 1S BM	EACH	1.000				
88030020	SH LED 1F 3S MAM	EACH	7.000				
88030050	SH LED 1F 3S BM	EACH	3.000				
88030210	SH LED 2F 3S BM	EACH	2.000				
88102717	PED SH LED 1F BM CDT	EACH	4.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60R19

State Job # - C-91-046-12

Project Number

Route

County Name - COOK- -

FAP 353

Code - 31 - -

District - 1 - -

Section Number - 11-Y-A

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
88200210	TS BACKPLATE LOU ALUM	EACH	7.000				
88500100	INDUCTIVE LOOP DETECT	EACH	8.000				
88600700	PREFORM DETECT LOOP	FOOT	430.000				
88700200	LIGHT DETECTOR	EACH	3.000				
88700300	LIGHT DETECTOR AMP	EACH	1.000				
88800100	PED PUSH-BUTTON	EACH	4.000				
89000100	TEMP TR SIG INSTALL	EACH	1.000				
89502375	REMOV EX TS EQUIP	EACH	1.000				
89502380	REMOV EX HANDHOLE	EACH	5.000				
89502382	REMOV EX DBL HANDHOLE	EACH	1.000				
89502385	REMOV EX CONC FDN	EACH	9.000				

CONTRACT NUMBER

60R19

THIS IS THE TOTAL BID

\$ _____

NOTES:

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

RETURN WITH BID

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

I. GENERAL

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

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

A. **Conflicts of Interest**

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

B. Negotiations

Section 50-15. Negotiations.

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

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

C. Inducements

Section 50-25. Inducement.

Any person who offers or pays any money or other valuable thing to any person to induce him or her not to 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.

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

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

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

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

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the CPO.

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

F. Confidentiality

Section 50-45. Confidentiality.

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

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

RETURN WITH BID

G. Insider Information

Section 50-50. Insider information.

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

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

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

III. CERTIFICATIONS

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

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

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

B. Felons

Section 50-10. Felons.

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

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

RETURN WITH BID

C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

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

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act provides 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.

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

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012 provides:

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

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

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

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.

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

H. International Anti-Boycott

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

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

I. Drug Free Workplace

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

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

J. Disclosure of Business Operations in Iran

Section 50-36 of the Code, 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 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.

RETURN WITH BID

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

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

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.

TO BE RETURNED WITH BID

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

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

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

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

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

M. Lobbyist Disclosure

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

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

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

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

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

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

Or

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

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

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

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

B. Financial Interests and Conflicts of Interest

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

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

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

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

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

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

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

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

(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 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.

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

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

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

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

DISCLOSURE OF FINANCIAL INFORMATION

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

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

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

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

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

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

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

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 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 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 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 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 Code.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Financial Related Information Disclosure

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

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

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

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

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

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

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

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

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

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

RETURN WITH BID

**Contract No. 60R19
COOK County
Section 11-Y-A
Route FAP 353
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 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
Contract No. 60R19
COOK County
Section 11-Y-A
Route FAP 353
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)
(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)

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

(IF A JOINT VENTURE)

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

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



This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on _____ and shall be valid until _____ 11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

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

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; 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 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 has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

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

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

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



Item No. _____

Letting Date _____

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

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

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

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; 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 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 has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____.

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)
by _____
(Name of Notary Public)

Signed and attested before me on _____ (date)
by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

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

Section _____

Project _____

County _____

Letting Date _____

Contract No. _____

Letting Item No. _____

Total Bid _____

Contract DBE Goal _____ (Percent) _____ (Dollar Amount)

(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
2300 South Dirksen Parkway
Springfield, Illinois 62764

Local Let Projects
Submit forms to the
Local Agency

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. 60R19
COOK County
Section 11-Y-A
Route FAP 353
District 1 Construction Funds**



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

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

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

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

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

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

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

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

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

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

B. Felons

Section 50-10. Felons.

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.

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

RETURN WITH SUBCONTRACT

C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

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

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

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

Name of Subcontracting Company		
Authorized Officer		Date

RETURN WITH SUBCONTRACT
SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

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

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

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

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

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

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

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

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

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

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

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

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

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

RETURN WITH SUBCONTRACT

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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form.

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.

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 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, as of 7/1/07) are you entitled to receive (i) more then 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 annual salary of the Governor?
Yes ___ No ___

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

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

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

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

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

RETURN WITH SUBCONTRACT

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

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

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

3 Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

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

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

NOT APPLICABLE STATEMENT

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

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

_____ Date _____
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Subcontractor: Other Contracts & Financial Related Information Disclosure

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

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

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields: Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

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

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

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



NOTICE TO BIDDERS

1. TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation. Electronic bids are to be submitted to the electronic bidding system (icx-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m. April 25, 2014. 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. 60R19
COOK County
Section 11-Y-A
Route FAP 353
District 1 Construction Funds**

Grade separation and roadway reconstruction on US 30 (Lincoln Highway) at the Canadian National/Wisconsin Central and It's Parents Railroad, located in Lynwood.

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

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. AWARD CRITERIA AND REJECTION OF BIDS. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Ann L. Schneider,
Secretary

INDEX
 FOR
 SUPPLEMENTAL SPECIFICATIONS
 AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2014

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-14)

SUPPLEMENTAL SPECIFICATIONS

Std. Spec. Sec.	Page No.
101 Definition of Terms	1
102 Advertisement, Bidding, Award, and Contract Execution	2
105 Control of Work	3
106 Control of Materials	5
107 Legal Regulations and Responsibility to Public	6
108 Prosecution and Progress	14
109 Measurement and Payment	15
202 Earth and Rock Excavation	17
211 Topsoil and Compost	18
253 Planting Woody Plants	19
280 Temporary Erosion and Sediment Control	21
312 Stabilized Subbase	22
406 Hot-Mix Asphalt Binder and Surface Course	23
407 Hot-Mix Asphalt Pavement (Full-Depth)	26
420 Portland Cement Concrete Pavement	30
424 Portland Cement Concrete Sidewalk	32
440 Removal of Existing Pavement and Appurtenances	33
503 Concrete Structures	34
504 Precast Concrete Structures	37
506 Cleaning and Painting New Steel Structures	38
512 Piling	39
516 Drilled Shafts	40
521 Bearings	41
540 Box Culverts	42
588 Bridge Relief Joint System	43
589 Elastic Joint Sealer	45
602 Catch Basin, Manhole, Inlet, Drainage Structure, and Valve Vault Construction, Adjustment, and Reconstruction	46
603 Adjusting Frames and Grates of Drainage and Utility Structures	47
606 Concrete Gutter, Curb, Median, and Paved Ditch	49
610 Shoulder Inlets with Curb	50
639 Precast Prestressed Concrete Sight Screen	51
642 Shoulder Rumble Strips	52
643 Impact Attenuators	53
644 High Tension Cable Median Barrier	55
701 Work Zone Traffic Control and Protection	57
706 Impact Attenuators, Temporary	60
707 Movable Traffic Barrier	63
708 Temporary Water Filled Barrier	65
730 Wood Sign Support	67
780 Pavement Striping	68
860 Master Controller	73
1001 Cement	74
1003 Fine Aggregates	75
1004 Coarse Aggregates	77
1006 Metals	81
1011 Mineral Filler	83
1017 Packaged, Dry, Combined Materials for Mortar	84

FAP Route 353 (US 30)
Section 11-Y-A
Cook County
Contract 60R19

1018 Packaged Rapid Hardening Mortar or Concrete 85
1019 Controlled Low-Strength Material 86
1020 Portland Cement Concrete 87
1024 Grout and Nonshrink Grout 126
1030 Hot-Mix Asphalt 127
1040 Drain Pipe, Tile, Drainage Mat, and Wall Drain 132
1042 Precast Concrete Products 133
1070 Foundation and Breakaway Devices 134
1073 Controller 135
1081 Materials for Planting 136
1082 Preformed Bearing Pads 137
1083 Elastomeric Bearings 138
1095 Pavement Markings 139
1101 General Equipment 142
1102 Hot-Mix Asphalt Equipment 144
1105 Pavement Marking Equipment 146
1106 Work Zone Traffic Control Devices 147

RECURRING SPECIAL PROVISIONS

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

<u>CHECK SHEET #</u>	<u>PAGE NO.</u>
1	149
2	152
3 X	153
4 X	163
5 X	168
6	173
7	174
8	175
9	176
10 X	179
11	182
12	184
13	188
14	190
15	191
16	193
17	194
18	196
19 X	197
20 X	198
21	202
22	204
23	206
24	208
25	209
26	210
27	211
28	212
29	213
30	216
31 x	224
32	240
33 X	242
34	243
35	249
36	264
37	275
38	285
39	286

TABLE OF CONTENTS

LOCATION OF PROJECT 1
DESCRIPTION OF PROJECT 1
MAINTENANCE OF ROADWAYS 1
RAILROAD PROTECTIVE LIABILITY INSURANCE – CN RR 2
RAILROAD PROTECTIVE LIABILITY INSURANCE – NS RR 3
STATUS OF UTILITIES TO BE ADJUSTED 4
COMPLETION DATE PLUS WORKING DAYS 7
FAILURE TO COMPLETE THE WORK ON TIME 7
AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS 8
EFFECTIVE: APRIL 1, 2001 8
REVISED: JANUARY 2, 2007 8
AGGREGATE FOR CONCRETE BARRIER (DISTRICT ONE) 9
TRAFFIC CONTROL AND PROTECTION (ARTERIALS) 9
TRAFFIC CONTROL PLAN 10
CONCRETE MEDIAN SURFACE, 6 INCH 11
ADJUSTMENTS AND RECONSTRUCTIONS 11
AGGREGATE SUBGRADE IMPROVEMENT (D-1) 13
DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1) 15
EMBANKMENT I 16
FRICTION SURFACE AGGREGATE (D1) 18
BITUMINOUS PRIME COAT FOR HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) (D-1) 21
FINE AGGREGATE FOR HOT- MIX ASPHALT (HMA) (D-1) 21
HMA MIXTURE DESIGN REQUIREMENTS (D-1) 22
PUBLIC CONVENIENCE AND SAFETY (DIST 1) 27
RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1) 27
TEMPORARY PAVEMENT 37
TRAFFIC CONTROL SURVEILLANCE (SPECIAL) 37
TEMPORARY INFORMATION SIGNING 38
GENERAL CONSTRUCTION REQUIRMENTS 39
TRAFFIC SIGNAL SPECIFICATIONS 40
MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAMES, CLOSED LID, RESTRICTOR
PLATE 97

MANHOLES, TYPE A, 8'-DIAMETER, WITH 2 TYPE 1 FRAMES, CLOSED LID, RESTRICTOR
 PLATE..... 97

CONCRETE MEDIAN (SPECIAL) 97

CONCRETE MEDIAN, TYPE SB-6.24 (MODIFIED)..... 98

AGGREGATE SURFACE COURSE, TYPE B, 12" 98

SLEEPER SLAB 98

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (VARIABLE WIDTH
 GUTTER FLAG)..... 99

STORM SEWER REMOVAL (SPECIAL)..... 99

FENCE REMOVAL 99

MEDIAN SURFACE REMOVAL 100

RETAINING WALL REMOVAL 100

REMOVE FRAME AND GRATE, SPECIAL..... 101

TEMPORARY MANHOLE 101

PIPE CULVERT REMOVAL 101

EXPLORATION TRENCH, SPECIAL 102

CONCRETE PAD 102

EROSION CONTROL BLANKET 102

PLANTING SEDGE MEADOW PLUGS..... 103

PLANTING WETLAND PLUGS 103

PROTECTION OF EXISTING TREES..... 105

SEEDING, CLASS 4A (MODIFIED) – LOW PROFILE NATIVE GRASS..... 109

SEEDING, CLASS 4B (MODIFIED) – ROADSIDE DRAINAGE SWALE..... 110

SELECTIVE MOWING STAKES 112

SUPPLEMENTAL WATERING..... 113

WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE 114

TREE, QUERCUS MACROCARPA (BURR OAK), 8' HEIGHT, CLUMP FORM, BALLED AND
 BURLAPPED 115

AGGREGATE PATH, 8" 115

HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4" 115

ENGINEER'S FIELD OFFICE TYPE A (SPECIAL) 116

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1) 118

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES..... 119

CABLE GATE 129

THREE SIDED PRECAST CONCRETE STRUCTURE 129

MECHANICALLY STABILIZED EARTH RETAINING WALLS..... 132

RAILROAD FLAGGING (WCL RR) 140

COORDINATION WITH ADJACENT AND/OR OVERLAPPING CONTRACTS..... 141

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE) 142

HOT-MIX ASPHALT – PRIME COAT (BMPR) 142

RECLAIMED WATER (D-1)..... 145

HOT MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (BMPR) 147

HEAT OF HYDRATION CONTROL FOR CONCRETE STRUCTURES (D-1)..... 151

BRIDGE DECK CONSTRUCTION 151

TEMPORARY SHEET PILING 156

MONITORING WELL ABANDONMENT 158

RIGHT OF ENTRY LICENSE AGREEMENT 160

CN SPECIAL PROVISIONS FOR WORK ON RR PROPERTY 164

ENBRIDGE TYPICAL CROSSING REQUIREMENTS 174

BUCKEYE PARTNERS RIGHT-OF WAY USE RESTRICTIONS SPECIFICATION 180

GUIDELINES FOR DESIGN AND CONSTRUCTION NEAR KINDER MORGAN OPERATED FACILITIES 214

COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE) 247

CONCRETE END SECTIONS FOR PIPE CULVERTS (BDE) 247

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE) 249

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE) 250

CONTRACT CLAIMS (BDE)..... 252

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)..... 253

GRANULAR MATERIALS (BDE)..... 263

LRFD STORM SEWER BURIAL TABLES (BDE)..... 264

PAVEMENT PATCHING (BDE)..... 273

PAYROLLS AND PAYROLL RECORDS (BDE) 274

PORTLAND CEMENT CONCRETE – CURING OF ABUTMENTS AND PIERS (BDE)..... 276

PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)..... 276

PROGRESS PAYMENTS (BDE) 276

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)..... 277

REINFORCEMENT BARS (BDE) 278

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)..... 279

TRACKING THE USE OF PESTICIDES (BDE)..... 280

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION
(TPG) 280
WARM MIX ASPHALT (BDE) 283
WEEKLY DBE TRUCKING REPORTS (BDE) 287
BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID) 288
FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) 291
STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) 295
SWPPP 299
PROJECT LABOR AGREEMENT - QUARTERLY EMPLOYMENT REPORT 308
PROJECT LABOR AGREEMENT 309

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of US Route 30 (Lincoln Highway) at CN Railroad, Section No. 11-Y-A, Job No. C-12-046-12, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

FAP 353 (US 30)
Section: 11-Y-A
Cook County, Illinois
Contract No. 60R19

LOCATION OF PROJECT

The project is located in southeastern Cook County in the Village of Lynwood. The improvements extend along U.S. Route 30 from south of Lansing Ditch southeast to the Illinois-Indiana state line. The improvement extends 3,501 ft along U.S. Route 30 and 715 ft on Sauk Trail west of US Route 30.

DESCRIPTION OF PROJECT

This is a roadway reconstruction and grade separation project, and the work performed under this contract consists of earth excavation, furnished excavation, bridge construction, mechanically-stabilized earth retaining wall construction, 3-sided precast structure, storm sewers and drainage structures, Portland cement concrete pavement, hot-mix asphalt pavement, combination concrete curb and gutter, Portland cement concrete driveway construction, hot-mix asphalt bike path, Portland cement concrete sidewalks, guardrail, traffic signals, landscaping, striping, signing and all incidental and collateral work necessary to complete the improvements as shown in the plans and as described herein.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

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

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

RAILROAD PROTECTIVE LIABILITY INSURANCE – CN RR

Revised: 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
U.S. Route 30 at CN Railroad, Lynwood, IL	-0-	34 trains/day@40 mph

“Wisconsin Central Ltd” and its Parents
 17641 S. Ashland Ave.
 Homewood, IL 60430

DOT/AAR No.: 260 651D
 RR Division: Joliet

RR Mile Post: 30.69
 RR Sub-Division: Eastern Sub

For Freight/Passenger Information Contact:	Patrick Jones	Phone: 708-332-3184
For Insurance Information Contact:	Rob Glass	Phone: 708-332-6673

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.

RAILROAD PROTECTIVE LIABILITY INSURANCE – NS RR

Effective: December 1, 1986

Revised: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
U.S. Route 30 at CN Railroad, Lynwood, IL	-0-	-0-
Norfolk Southern Railway Company Three Commercial Place Norfolk, VA 23510-2191		
DOT/AAR No.: 522 096J RR Division: Western	RR Mile Post: 15.84 RR Sub-Division: Chicago	
For Freight/Passenger Information Contact:	Daniel Parker	Phone: 404-529-1256
For Insurance Information Contact:	Scott Dickerson	Phone: 757-629-2364

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.

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: January 24, 2013

Utilities companies involved in this project have provided the following estimated durations:

Name of Utility	Type	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
NICOR Gas	Underground Lines Valve Valve Valve Underground Lines	US Rte 30 – STA 260+ 39 to STA 298+02 US Rte 30 – STA 267+00, 44' RT US Rte 30 – STA 269+75, 40' RT US RTE 30 – STA 270+99, 46' RT US Rte 30 – STA 270+56, 59' LT US Rte 30 – STA 271+58, 29' LT US Rte 30 – STA 272+29, 40' LT US Rte 30 - STA 276+91, 0' LT US Rte 30 - STA 276+91, 45' LT US Rte 30 – STA 288+34, 157' RT to 288+54, 70' RT US Rte 30 – STA 289+27, 67' RT US Rte 30 – STA 292+12, 42' RT US Rte 30 – STA 293+23, 16' RT US Rte 30 – STA 293+76, 4' RT W Frontage – STA 100+40 to STA 113+25 W Frontage – STA 106+20, 22' RT W Frontage – STA 106+67.72, 13' RT W Frontage – STA 107+94, 20' RT W Frontage – STA 109+20, 23' RT W Frontage – STA 112+80, 10' RT W Frontage – STA 401+07 to 409+50 W Frontage – STA 402+00, 17; RT W Frontage – STA 407+25, 30' LT, 13' RT & 12' LT	120 DAYS

<p>ComED</p>	<p>Overhead Transmission Lines Pole Pole Underground lines/boxes pole pole Splice box Splice box Splice box poles Poles poles Overhead lines pole Pole Junction box Pole Pole pole Pole Pole Splice box Overhead lines Poles poles</p>	<p>US Rte 30 – STA 260+ 39 to STA 298+02 US Rte 30 - STA 267+85, 49' RT US Rte 30 – Sta 267+98, 51' LT Alpine Village STA 266+97, 240' LT to 273+51, 19' LT Relocated Alpine Village Entrance – STA 501+55, 15' LT US Rte 30 – STA 269+17, 48' RT US Rte 30 – STA 271+06, 42' LT US Rte 30 – STA 271+50, 42' LT US Rte 30 – 276+61, 44' LT US Rte 30 - STA 281+09, 12' RT US Rte 30 - STA 281+22, 18' LT US Rte 30 - STA 282+45, 18' LT W Frontage – STA 401+07 to 409+50 W Frontage Rd - STA 102+84, 7' RT W Frontage Rd - STA 103+84, 14' LT W Frontage Rd - STA 104+53, 8' RT W Frontage Rd - STA 105+01, 3' RT W Frontage Road – 105+08, 15' LT W Frontage Rd - STA 106+15, 19' RT W Frontage Rd - STA 107+04, 18' RT W Frontage Rd - STA 108+73, 34' RT W Frontage Rd - STA 109+06, 41' RT W Frontage – STA 401+21 to 409+50 W Frontage Rd - STA 401+21, 37' RT W Frontage Rd - STA 401+81, 30' RT</p>	<p>90 DAYS</p>
<p>Comcast</p>	<p>Splice box, underground lines Underground lines Underground lines</p>	<p>Relocated Alpine Village Entrance - STA 502+00, LT and RT US Rte 30 - STA 270+28 LT to STA 272+48 LT W Frontage Rd – STA 105+00, 5' RT, STA 106+15, 20' RT, 108+75, 35' RT</p>	<p>90 DAYS</p>

	Underground lines, splice boxes	US Rte 30 - STA 270+20 to STA 271+85, LT	
AT&T	Overhead Lines Overhead Lines Overhead Lines Overhead Lines Underground Lines Pedestal	W Frontage Rd - STA 108+73, 10' RT to STA 113+50, 36' RT US Rte 30 - STA 281+22, 282+30 W Frontage – 100+47 to 113+50 W Frontage – 401+21 & 401+81 US Rte 30 – STA 271+68, LT US Rte 30 – STA 271+68	90 DAYS
Level 3	Underground fiber optic	NS ROW – 20' south of track CL US 30 STA 278+15.07, 45' LT (east retaining wall)	20 DAYS
Level 3	Underground fiber optic	US 30 STA 278+17, 30' RT (west retaining wall)	
T Cubed	Underground fiber optic	NS ROW – 20' south of track CL US 30 STA 278+15.07, 45' LT (east retaining wall)	20 DAYS In addition to the 70' casing pipe extension, unsuitable soils have been identified in the area. The contractor will need to coordinate with T-Cubed while the Contractor is excavating the unsuitable soil around the T-Cubed Facilities. The Contractor will be responsible for supporting the existing duct to the satisfaction of the Engineer.
T Cubed	Underground fiber optic	US 30 STA 278+17, 30' RT (west retaining wall)	

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

In accordance with 605 ILCS 5/9-113 of the Illinois Compiled Statutes, utility companies have 90 days to complete the relocation of their facilities after receipt of written notice from the Department. The 90-day written notice will be sent to the utility companies after the following occurs:

Proposed right of way is clear for contract award.

Final plans have been sent to and received by the utility company.

Utility permit is received by the Department and the Department is ready to issue said permit.

If a permit has not been submitted, a 15 day letter is sent to the utility company notifying them they have 15 days to provide their permit application. After allowing 15 days for submission of the permit the 90 day notice is sent to the utility company.

Any time within the 90 day relocation period the utility company may request a waiver for additional time to complete their relocation. The Department has 10 days to review and respond to a waiver request.

COMPLETION DATE PLUS WORKING DAYS

Effective: September 30, 1985

Revised: January 1, 2007

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

"When a final 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, June 15, 2016, 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.

FAILURE TO COMPLETE THE WORK ON TIME

Effective: September 30, 1985

Revised: January 1, 2007

Should the Contractor fail to complete the work on or before the completion date as specified in the Special Provision for "Completion Date Plus Working Days", or within such extended time as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of \$5,800, not as a penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

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

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

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS

Effective: April 1, 2001

Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

“402.10 For Temporary Access. The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.

Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or re-grading the aggregate surface course for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.”

Add the following to Article 402.12 of the Standard Specifications:

“Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified.”

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

“Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access.”

AGGREGATE FOR CONCRETE BARRIER (DISTRICT ONE)

Effective: February 11, 2004

Revised: January 1, 2007

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

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

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.

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:

780001-03 – Typical Pavement Markings

701101-03 – Off-Road Operations, Multilane, 15' (4.5m) to 24" (600mm) from Pavement Edge

701106-02 – Off-Road operations, multilane, more than 15' away

701427-01 -- Lane Closure, Multilane, Intermittent or Moving Operations, for Speeds ≤ 40 MPH

701602-06 – Urban Lane Closure, Multilane, 2W with Bidirectional Left Turn Lane

701606-08 – Urban Lane Closure, Multilane, 2W with Mountable Median

701701-08 – Urban Lane Closure, Multilane Intersection

701901-02 – Traffic Control Devices

DETAILS:

TC10 – Traffic Control and Protection for Side Roads, Intersections and Driveways

TC11 - Typical Applications Raised Reflective Pavement Markers (Snow-Plow Resistant)

TC14 – Traffic Control and Protection at Turn Bays (To Remain Open To Traffic)

TC13 – District One Typical Pavement Markers

TC16 – Pavement Marking Letters and Symbols for Traffic Staging

TC18 – Signing for Flagging Operations at Work Zone Openings

TC22 – Arterial Road Information Signing

TC23 – Typical Supplemental Signing and Pavement Marking Treatment For Railroad Crossings

TC26 – Driveway Entrance Signing

SPECIAL PROVISIONS:

Traffic Control and Protection (Arterials)
Traffic Control Plan
Aggregate Surface Course for Temporary Access
Type III Temporary Tape for Wet Conditions
Public Convenience and Safety (District-1)
Traffic Control Deficiency Deduction (BDE)
Maintenance of Roadways
Temporary Information Signing
Pavement Patching (BDE)
Pavement Marking Removal (BDE)
Temporary Raised Pavement Markers
Flagger at Side Roads and Entrances

Add the following to Article 720.02 of the Standard Specifications:

Signs attached to poles or posts (such as mast arm signs) shall have mounting brackets and sign channels which are equal to and completely interchangeable with those used by the District Sign Shops. Sign fix Aluminum Channel Framing System is currently recommended, but other brands of mounting hardware are acceptable based upon the Department's approval.

CONCRETE MEDIAN SURFACE, 6 INCH

Revise the first sentence of the second paragraph of Article 606.15, Basis of Payment as follows:

Concrete median will be paid for at the contract unit price per square foot (square meter) for CORRUGATED MEDIAN; CONCRETE MEDIAN SURFACE, 4 INCH; CONCRETE MEDIAN SURFACE, 6 INCH; or CONCRETE MEDIAN, of the type specified. For solid concrete median the unit price will also include concrete curb and gutter.

ADJUSTMENTS AND RECONSTRUCTIONS

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

“602.04 Concrete. Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020.”

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

“Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.05 to read:

“603.05 Replacement of Existing Flexible Pavement. After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.06 to read:

“603.06 Replacement of Existing Rigid Pavement. After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface.”

Revise the first sentence of Article 603.07 to read:

“603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b

AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012

Revised: November 1, 2013

Add the following Section to the Standard Specifications:

“SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

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

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a).....	Course Aggregate 1004
(b).....	Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3) 1031

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

.. Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, May be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01 or CS 02 are used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

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

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

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

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CS 01 or CS 02 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate subgrade improvement is used as a cubic yard pay item for undercut applications. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

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

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

“ **1004.06 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.

Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

Gradation.

(1)The coarse aggregate gradation for total subgrade thicknesses of 12 in. (300 mm) or greater shall be CS 01 or CS 02.

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

COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)					
Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	± 15	

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10.

(3) Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)

Effective: April 1, 2011
 Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

- (i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1)1030
- (j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)''

Revise Article 603.07 of the Standard Specifications to read:

“603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

- (a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting \pm 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

EMBANKMENT I

Effective: March 1, 2011

Revised: November 1, 2013

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.

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).

The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).

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.

Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.

The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

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.

FRICTION SURFACE AGGREGATE (D1)

Effective: January 1, 2011

Revised: November 1, 2013

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 revisions.

(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	Shoulders	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} Crushed Concrete		
HMA High ESAL Low ESAL	C Surface IL-12.5,IL-9.5, or IL-9.5L	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} Crushed Concrete		
HMA High ESAL	D Surface IL-12.5 or IL-9.5	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone (other than Limestone) Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} Crushed Concrete		
		<u>Other Combinations Allowed:</u>		
		<table border="1"> <tr> <td><i>Up to...</i></td> <td><i>With...</i></td> </tr> <tr> <td>25% Limestone</td> <td>Dolomite</td> </tr> </table>	<i>Up to...</i>	<i>With...</i>
<i>Up to...</i>	<i>With...</i>			
25% Limestone	Dolomite			

Use	Mixture	Aggregates Allowed			
		50% Limestone	Any Mixture D aggregate other than Dolomite		
		75% Limestone	Crushed Slag (ACBF) ^{1/} or Crushed Sandstone		
HMA High ESAL	F Surface IL-12.5 or IL-9.5	<u>Allowed Alone or in Combination:</u> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} No Limestone or no Crushed Gravel alone.			
		<u>Other Combinations Allowed:</u> <table border="1"> <tr> <td><i>Up to...</i></td> <td><i>With...</i></td> </tr> </table>		<i>Up to...</i>	<i>With...</i>
<i>Up to...</i>	<i>With...</i>				
		50% Crushed Gravel, or Dolomite	Crushed Sandstone, Crushed Slag (ACBF) ^{1/} , Crushed Steel Slag ^{1/} , or Crystalline Crushed Stone		
HMA High ESAL	SMA Ndesign 80 Surface	Crystalline Crushed Stone Crushed Sandstone Crushed Steel Slag			

When either slag is used, the blend percentages listed shall be by volume.

Add the following to Article 1004.03 (b):

“When using Crushed Concrete, the quality shall be determined as follows. The Contractor shall obtain a representative sample from the stockpile, witnessed by the Engineer, at a frequency of 2500 tons (2300 metric tons). The sample shall be a minimum of 50 lb (25 kg). The Contractor shall submit the sample to the District Office. The District will forward the sample to the BMRP Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent by weight will be applied for acceptance. The stockpile shall be sealed until test results are complete and found to meet the specifications above.”

BITUMINOUS PRIME COAT FOR HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) (D-1)

Effective: May 1, 2007

Revised: January 24, 2014

Revised: February 11, 2014

Revise the second paragraph of Article 407.12 of the Standard Specifications to read:

“Prime Coat will be paid for at the contract unit price per pound for BITUMINOUS MATERIALS (PRIME COAT).”

FINE AGGREGATE FOR HOT- MIX ASPHALT (HMA) (D-1)

Effective: May 1, 2007

Revised: January 1, 2012

“ (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.”

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013

Revised: November 1, 2013

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

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

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

“(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF, the mixture shall be removed. Removal will be paid in accordance to Article 109.04 of the Standard Specifications. This initial mixture and test strip will be paid for at the contract unit prices. The additional mixture will be paid for at the contract unit price, and any additional test strips will be paid for at one half the unit price of each test strip.”

1) Design Composition and Volumetric Requirements

Revise the following table in Article 1030.01 of the Standard Specifications to read.

High ESAL	IL-25.0 binder; IL-19.0 binder; IL-12.5 surface; IL-9.5 surface; IL-4.75, SMA
-----------	----------------------------------------------------------------------------------

Revise the following table in Article 1030.04(a)(1):

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

High ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/}														
Sieve Size	IL-25.0 mm		IL-19.0 mm		IL-12.5 mm		IL-9.5 mm		IL-4.75 mm		SMA ^{4/} IL-12.5 mm		SMA ^{4/} IL-9.5 mm	
	Min	max	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in. (37.5 mm)		100												
1 in. (25 mm)	90	100		100										
3/4 in. (19 mm)		90	82	100		100						100		
1/2 in. (12.5 mm)	45	75	50	85	90	100		100		100	80	100		100
3/8 in. (9.5 mm)						89	90	100		100		65	90	100
#4 (4.75 mm)	24	42 ^{2/}	24	50 ^{2/}	28	65	2832	6569	90	100	20	30	36	50
#8 (2.36 mm)	16	31	20	36	28	48 ^{3/}	32	52 ^{3/}	70	90	16	24 ^{5/}	16	32
#16 (1.18 mm)	10	22	10	25	10	32	10	32	50	65				
#30 (600 μm)											12	16	12	18
#50 (300 μm)	4	12	4	12	4	15	4	15	15	30				
#100 (150 μm)	3	9	3	9	3	10	3	10	10	18				
#200 (75 μm)	3	6	3	6	4	6	4	6	7	9 ^{6/}	7.0	9.0 ^{6/}	7.5	9.5 ^{6/}
Ratio Dust/Asphalt Binder		1.0		1.0		1.0		1.0		1.0		1.5		1.5

Based on percent of total aggregate weight.

The mixture composition shall not exceed 40 percent passing the #4 (4.75 mm) sieve for binder courses with Ndesign ≥ 90.

The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign ≥ 90.

The maximum percent passing the 20 μm sieve shall be ≤ 3 percent.

When establishing the Adjusted Job Mix Formula (AJMF) the #8 (2.36mm) sieve shall not be adjusted above 24 percent.

Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.”

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

Revise Article 1030.04(b)(1) of the Standard Specifications to read.

“(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

VOLUMETRIC REQUIREMENTS High ESAL						
Ndesign	Voids in the Mineral Aggregate (VMA), % minimum					Voids Filled with Asphalt Binder (VFA), %
	IL-25.0	IL-19.0	IL-12.5	IL-9.5	IL-4.75 ^{1/}	
50	12.0	13.0	14.0	15.0	18.5	65 – 78 ^{2/}
70					65 - 75	
90						
105						

Maximum Drain down for IL-4.75 shall be 0.3%

VFA for IL-4.75 shall be 72-85%”

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

Revise table in Article 1030.04(b)(5) as follows:

“(5) SMA Mixtures.

Volumetric Requirements SMA ^{1/}			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 ^{4/}	3.5	17 ^{2/}	75 - 83
		16 ^{3/}	

Maximum Drain down shall be 0.3%.

Applies when specific gravity of coarse aggregate is ≥ 2.760 .

Applies when specific gravity of coarse aggregate is < 2.760 .

For surface course, coarse aggregate shall be Class B Quality; the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone.*

For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.*

*Blending of different types of aggregate will not be permitted.

2) Design Verification and Production

Description. The following states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production.

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

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

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

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification meeting the following requirements:

(1)Hamburg Wheel Test criteria.

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions. For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 415 kPa (60 psi) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 1380 kPa (200 psi).”

Production Testing.

Revise first paragraph of Article 1030.06(a) to read:

“(a) High ESAL and IL-4.75 Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for IL -4.75 it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials “Hot Mix Asphalt Test Strip Procedures”.”

Delete second paragraph of Article 1030.06 (a).

Revise first sentence in fourth paragraph of Article 1030.06 (a) to read:

“Before constructing the test strip, target values shall be determined by applying Gradation correction factors to the JMF when applicable.”

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

Add the following to Article 1030.06 of the Standard Specifications:

“(c) Hamburg Wheel Test. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day’s production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria”

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

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

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

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

PUBLIC CONVENIENCE AND SAFETY (DIST 1)

Effective: May 1, 2012

Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

“If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply.”

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

“The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After”

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

“On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical.”

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)

Effective: November 1, 2012

Revise: November 1, 2013

Revise Section 1031 of the Standard Specifications to read:

SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve. RAS shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

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

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc...).

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave HMA (High and Low 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 processed prior to testing and sized into 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 the maximum sieve size specified for the mix the FRAP will be used in.

(2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low 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 (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(4) Conglomerate “D” Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. 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.

(5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as “Non-Quality”.

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

RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer’s written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be “B Quality” or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

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

1031.03 Testing. FRAP and RAS testing shall be according to the following.

RAP/FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.

During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.

After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restock piling. 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 of FRAP, 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.

RAS Testing. RAS shall be sampled and tested during stockpiling according to Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.

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 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be 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.

Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

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 procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm} . A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	RAP or FRAP
No. 4 (4.75 mm)	± 6 %
No. 8 (2.36 mm)	± 5 %
No. 30 (600 μm)	± 5 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder	± 0.3 %
G_{mm}	± 0.03 ^{1/}

For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, “Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity”.

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

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)” or Illinois Modified AASHTO T-164-11, Test Method A.

Evaluation of RAS 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. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, 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)	± 2.5 %
Asphalt Binder Content	± 2.0 %

any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Limits of Precision	
	FRAP	RAS
% Passing: ^{1/}		
1 / 2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	3.0%
No. 200	2.2%	2.5%
Asphalt Binder Content	0.3%	1.0%
G _{mm}	0.030	

Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

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

(1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.

(3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

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

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

(a) FRAP. The use of FRAP in HMA shall be as follows.

(1) Coarse Aggregate Size (after extraction). The coarse aggregate in all FRAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(2) Steel Slag Stockpiles. FRAP 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) mixtures regardless of lift or mix type.

(3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.

RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

When FRAP, RAS or FRAP in conjunction with RAS is used, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

Asphalt Binder Replacement for FRAP with RAS Combination
 Table 3

HMA Mixtures ^{1/ 2/ 4/}	Maximum % ABR		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/}
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
4.75 mm N-50			40
SMA N-80			30

For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

When the binder replacement exceeds 15 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 binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

When the ABR for SMA or IL-4.75 is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.

When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10%.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original design at the percent previously verified.

RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

8 HMA Production. HMA production utilizing FRAP and/or RAS shall be as follows.

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 RAS and FRAP 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.

FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

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

HMA Plant Requirements. HMA plants utilizing FRAP and/or RAS shall be capable of automatically recording and printing the following information.

- (1) Dryer Drum Plants.
 - a. Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
 - d. Accumulated dry weight of RAS and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

- e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
 - f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
 - g. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - h. Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)
 - i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.
 - j. Accumulated mixture tonnage.
 - k. Dust Removed (accumulated to the nearest 0.1 ton)
- (2) Batch Plants.
- a. Date, month, year, and time to the nearest minute for each print.
 - b. HMA mix number assigned by the Department.
 - c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
 - d. Mineral filler weight to the nearest pound (kilogram).
 - f. RAS and FRAP weight to the nearest pound (kilogram).
 - g. Virgin asphalt binder weight to the nearest pound (kilogram).
 - h. Residual asphalt binder in the RAS and 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.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

And Testing. RAP stockpiles may be any of those listed in Article 1031.02, except “Non-Quality” and “FRAP”. The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research’s Policy Memorandum, “Reclaimed Asphalt Pavement (RAP) for Aggregate Applications”

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders.”

TEMPORARY PAVEMENT

Effective: March 1, 2003

Revised: April 10, 2008

Description. This work shall consist of constructing a temporary pavement at the locations shown on the plans or as directed by the engineer.

The contractor shall use either Portland cement concrete according to Sections 353 and 354 of the Standard Specifications or HMA according to Sections 355, 356, 406 of the Standard Specifications, and other applicable HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the plans. The thickness of the Temporary Pavement shall be as described in the plans. The contractor shall have the option of constructing either material type if both Portland cement concrete and HMA are shown in the plans.

Articles 355.08 and 406.11 of the Standard Specifications shall not apply.

The removal of the Temporary Pavement, if required, shall conform to Section 440 of the Standard Specification.

Method of Measurement. Temporary pavement will be measured in place and the area computed in square yards (square meters).

Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for TEMPORARY PAVEMENT and TEMPORARY PAVEMENT (INTERSTATE).

Removal of temporary pavement will be paid for at the contract unit price per square yard (square meter) for PAVEMENT REMOVAL.

TRAFFIC CONTROL SURVEILLANCE (SPECIAL)

Effective: 10/25/95

Revised: 1/1/07

Description. The Contractor shall provide a person with a ¾ ton truck equipped with a two-way radio to survey, inspect and maintain all traffic control devices on a continuous 24-hour-a-day basis.

The truck shall be equipped with at least two flashing or revolving amber lights and a Type B arrow board. The Type B arrow board shall conform to Article 1103.02 (h) of the Standard Specifications and shall be attached to the truck at a minimum height of 7 feet above the pavement. The light and arrow board shall be mounted so that no portions are blocked by a part to the truck or its equipment. This truck shall also be equipped with a sign reading, "DO NOT FOLLOW". This sign shall be black and white, reflectorized, with an 8-inch legend. It shall be minimum of 48" X 48" in size and mounted on the back of the truck as directed by the Engineer. This truck shall carry an adequate supply of barricades, drums, lights, and all necessary devices to handle the Contractor's Maintenance responsibilities.

The surveillance person is required to drive through the project, to inspect all temporary traffic control devices, to correct all traffic control deficiencies, if possible, or immediately contact someone else to make corrections and to assist with directing traffic until such corrections are made on a continuous 24-hour basis. This person shall list every inspection on an inspection form, furnished by the Engineer and shall return a completed form on the first working day after the inspection is made.

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

Basis of Payment.

This work will be paid at the contract unit price per calendar day or fraction thereof for TRAFFIC CONTROL SURVEILLANCE (SPECIAL). This price shall include all labor and equipment necessary to provide the required inspection and maintenance on the expressway and on all cross streets which are included in the project.

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.

EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

This work shall consist of furnishing and installing all electric cable in conduit, signal, no. 20 3/C, twisted, shielded per applicable portions of Section 817 and Section 873 of the Standard Specifications. The cable shall be as recommended by the equipment manufacturer and approved by the Engineer. No cable splices will be permitted.

Basis of Payment. This work shall be paid for at the contract unit price per foot for EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

TRAFFIC SIGNAL SPECIFICATIONS

Effective: May 22, 2002

Revised: January 1, 2012

These Traffic Signal Special Provisions and the "District One Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction." The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations. All material furnished shall be new. The locations and the details of all installations shall be as indicated on the Plans or as directed by the Engineer. Traffic signal construction and maintenance work shall be performed by personnel holding IMSA Traffic Signal Technician Level II certification. The work to be done under this contract consists of furnishing and installing all traffic signal work as specified in the Plans and as specified herein in a manner acceptable and approved by the Engineer.

SECTION 720 SIGNING

MAST ARM SIGN PANELS

Add the following to Article 720.02 of the Standard Specifications:

Signs attached to poles or posts (such as mast arm signs) shall have mounting brackets and sign channels which are equal to and completely interchangeable with those used by the District Sign Shops. Signfix Aluminum Channel Framing System is currently recommended, but other brands of mounting hardware are acceptable based upon the Department's approval.

DIVISION 800 ELECTRICAL

SUBMITTALS.

Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted in accordance with the District's current Electrical Product Data and Documentation Submittal Guidelines. General requirements include:

Material approval requests shall be made at the preconstruction meeting, including major traffic signal items listed in the table in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.

Product data and shop drawings shall be assembled by pay item and separated from of other pay item submittals. Only the top sheet of each pay item submittal will be stamped by the Department with the review status, except shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.

Partial or incomplete submittals will be returned without review.

Certain non-standard mast arm poles and structures will require additional review from IDOT's Central Office. Examples include ornamental/decorative and non-standard length mast arm pole assemblies. The Contractor shall account for the additional review time in his schedule.

The contract number or permit number, project location/limits and corresponding pay code number must be on each sheet of correspondence,, catalog cuts and mast arm poles and assemblies drawings.

Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections, and/or tests of material shall be complete with all test data, dates, and times.

After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with contract and specification requirements.

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

Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.

INSPECTION OF ELECTRICAL SYSTEMS.

Add the following to Article 801.10 of the Standard Specifications:

(c) All cabinets including temporary traffic signal cabinets shall be assembled by an approved equipment supplier in District One. The Department reserves the right to request any controller and cabinet to be tested at the equipment supplier facilities prior to field installation, at no extra cost to this contract.

MAINTENANCE AND RESPONSIBILITY.

Revise Article 801.11 of the Standard Specifications to read:

Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, County, Private Developer, or the Municipality in which they are located. Once the Contractor has begun any work on any portion of the project, all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," shall become the full responsibility of the Contractor. Automatic Traffic Enforcement equipment is not owned by the State and the Contractor shall not be responsible for maintaining it during construction. The Contractor shall supply the Engineer, Area Traffic Signal Maintenance and Operations Engineer, IDOT ComCenter and the Department's Electrical Maintenance Contractor with two 24-hour emergency contact names and telephone numbers.

When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify both the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.

Contracts such as pavement grinding or patching which result in the destruction of traffic signal loops do not require maintenance transfer, but require a notification of intent to work and an inspection. A minimum of seven (7) working days prior to the loop removal, the Contractor shall notify the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, at which time arrangements will be made to adjust the traffic controller timing to compensate for the absence of detection. Damaged Automatic Traffic Enforcement equipment, including cameras, detectors, or other peripheral equipment, shall be replaced by others, per Permit agreement, at no cost to the contract. See additional requirements in these specifications under Inductive Loop Detector.

The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shutdown the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals. Any inquiry, complaint or request by the Department, the Department's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to provide this service will result in liquidated damages of \$500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of \$500 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. The District's Electrical Maintenance Contractor may inspect any signalizing device on the Department's highway system at any time without notification.

Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

DAMAGE TO TRAFFIC SIGNAL SYSTEM.

Add the following to Article 801.12(b) of the Standard Specifications to read:

Any traffic signal control equipment damaged or not operating properly from any cause whatsoever shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause whatsoever, shall be the responsibility of the municipality or the Automatic Traffic Enforcement Company per Permit agreement.

TRAFFIC SIGNAL INSPECTION (TURN-ON).

Revise Article 801.15(b) of the Standard Specifications to read:

It is the intent to have all electric work completed and equipment field tested by the vendor prior to the Department's "turn-on" field inspection. If in the event the Engineer determines work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected.

When the road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will not grant a field inspection until notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Department's facsimile number is (847) 705-4089. The Contractor must invite local fire department personnel to the turn-on when Emergency Vehicle Preemption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the Contractor must notify the SCAT Consultant of the turn-on/detour implementation schedule, as well as stage changes and phase changes during construction.

The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a police officer to direct traffic at the time of testing.

The Contractor shall provide a representative from the control equipment vendor's office to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons. Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

The District requires the following from the Contractor at traffic signal turn-ons.

One set of signal plans of record with field revisions marked in red ink.

Written notification from the Contractor and the equipment vendor of satisfactory field testing.

A knowledgeable representative of the controller equipment supplier shall be required at the traffic signal turn-on. The representative shall be knowledgeable of the cabinet design and controller functions.

A copy of the approved material letter.

One (1) copy of the operation and service manuals of the signal controller and associated control equipment.

Five (5) copies 11" x 17" (280 mm X 430 mm) of the cabinet wiring diagrams.

The controller manufacturer shall supply a printed form, not to exceed 11" x 17" (280 mm X 430 mm) for recording the traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The form shall include a location, date, manufacturer's name, and controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.

All manufacturer and contractor warranties and guarantees required by Article 801.14.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on." If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of \$500 per month per incident.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements shall be subject to removal and disposal at the Contractor's expense.

RECORD DRAWINGS

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

“When the work is complete, and seven days before the request for a final inspection, the full-size set of contract drawings. Stamped “RECORD DRAWINGS”, shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor’s supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval.

In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible.”

Additional requirements are listed in the District’s Electrical Product Data and Documentation Guidelines.

Add the following to Article 801.16 of the Standard Specifications:

“In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by this contract:

- All Mast Arm Poles and Posts
- Handholes
- Conduit roadway crossings
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV Camera installations
- Fiber Optic Splice Locations

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

- Description of item
- Designation or approximate station if the item is undesignated
- Latitude
- Longitude

Examples:

Description	Designation	Latitude	Longitude
Mast Arm Pole Assembly (dual, combo, etc)	MP (SW, NW, SE or NE corner)	41.580493	-87.793378
FO mainline splice handhole	HHL-ST31	41.558532	-87.792571
Handhole	HH	41.765532	-87.543571
Electric Service	Elec Srv	41.602248	-87.794053
Conduit crossing	SB IL83 to EB I290 ramp SIDE A	41.584593	-87.793378
PTZ Camera	PTZ	41.584600	-87.793432
Signal Post	Post	41.558532	-87.792571
Controller Cabinet	CC	41.651848	-87.762053
Master Controller Cabinet	MCC	41.580493	-87.793378
Communication Cabinet	ComC	41.558532	-87.789771
Fiber splice connection	Toll Plaza34	41.606928	-87.794053

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 100 feet. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 5 meter accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years.”

Delete the last sentence of the 3rd paragraph of Article 801.16.

LOCATING UNDERGROUND FACILITIES.

Revise Section 803 to the Standard Specifications to read:

If this Contract requires the services of an Electrical Contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT electrical facilities prior to performing any work. If this Contract does not require the services of an Electrical Contractor, the Contractor may request one free locate for existing IDOT electrical facilities from the District One Electrical Maintenance Contractor prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted: in the City of Chicago contact Digger at (312) 744-7000 and for all other locations contact J.U.L.I.E. at 1-800-892-0123 or 811.

RESTORATION OF WORK AREA.

Add the following article to Section 801 of the Standard Specifications:

801.17 Restoration of work area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, trench and backfill, underground raceways, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer. Restoration of the work area shall be included in the contract without any extra compensation allowed to the Contractor.

ELECTRIC SERVICE INSTALLATION.

Revise Section 805 of the Standard Specifications to read:

Description.

This work shall consist of all materials and labor required to install, modify, or extend the electric service installation. All installations shall meet the requirements of the details in the "District One Standard Traffic Signal Design Details" and applicable portions of the Specifications.

General.

The electric service installation shall be the electric service disconnecting means and it shall be identified as suitable for use as service equipment.

The electric utility contact information is noted on the plans and represents the current information at the time of contract preparation. The Contractor must request in writing for service and/or service modification within 10 days of contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The Contractor shall forward copies of all correspondence between the contractor and utility company to the Engineer and Area Traffic Signal Maintenance and Operations Engineer. The service agreement and sketch shall be submitted for signature to the IDOT's Traffic Operations Programs Engineer.

Materials.

General. The completed control panel shall be constructed in accordance with UL Std. 508A, Industrial Control Panel, and carry the UL label. Wire terminations shall be UL listed.

Enclosures.

Pole Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 4X, unfinished single door design, fabricated from minimum 0.080-inch (2.03 mm) thick Type 5052 H-32 aluminum. Seams shall be continuous welded and ground smooth. Stainless steel screws and clamps shall secure the cover and assure a watertight seal. The cover shall be removable by pulling the continuous stainless steel hinge pin. The cabinet shall have an oil-resistant gasket and a lock kit shall be provided with an internal O-ring in the locking mechanism assuring a watertight and dust-tight seal. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 14-inches (350 mm) high, 9-inches (225 mm) wide and 8-inches (200 mm) in depth is required. The cabinet shall be channel mounted to a wooden utility pole using assemblies recommended by the manufacturer.

Ground Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 3R unfinished single door design with back panel. The cabinet shall be fabricated from Type 5052 H-32 aluminum with the frame and door 0.125-inch (3.175 mm) thick, the top 0.250-inch (6.350 mm) thick and the bottom 0.500-inch (12.70 mm) thick. Seams shall be continuous welded and ground smooth. The door and door opening shall be double flanged. The door shall be approximately 80% of the front surface, with a full length tamperproof stainless steel .075-inch (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylocks nuts. The locking mechanism shall be slam-latch type with a keyhole cover. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 40-inches (1000 mm) high, 16-inches (400 mm) wide and 15-inches (375 mm) in depth is required. The cabinet shall be mounted upon a square Type A concrete foundation as indicated on the plans. The foundation is paid for separately.

Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <5n seconds and operate within a range of -40C to +85C. The surge protector shall be UL 1449 Listed.

Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermal-magnetic bolt-on type circuit breakers with trip free indicating handles. 120 volt circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.

Fuses, Fuseholders and Power Indicating Light. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 V AC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage. The power indicating light shall be LED type with a green colored lens and shall be energized when electric utility power is present.

Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.

Utility Services Connection. The Contractor shall notify the Utility Company marketing representative a minimum of 30 working days prior to the anticipated date of hook-up. This 30 day advance notification will begin only after the Utility Company marketing representative has received service charge payments from the Contractor. Prior to contacting the Utility Company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the Utility Company.

Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 feet (3.0m) in length, and 3/4 inch (20mm) in diameter. Ground rod resistance measurements to ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the contract.

Installation.

General. The Contractor shall confirm the orientation of the traffic service installation and its door side with the engineer, prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.

Pole Mounted. Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.

Ground Mounted. The service installation shall be mounted plumb and level on the foundation and fastened to the anchor bolts with hot-dipped galvanized or stainless steel nuts and washers. The space between the bottom of the enclosure and the top of the foundation shall be caulked at the base with silicone.

Basis of Payment.

The service installation shall be paid for at the contract unit price each for SERVICE INSTALLATION of the type specified which shall be payment in full for furnishing and installing the service installation complete. The CONCRETE FOUNDATION, TYPE A, which includes the ground rod, shall be paid for separately. SERVICE INSTALLATION, POLE MOUNTED shall include the 3/4 inch (20mm) grounding conduit, ground rod, and pole mount assembly. Any charges by the utility companies shall be approved by the engineer and paid for as an addition to the contract according to Article 109.05 of the Standard Specifications.

GROUNDING OF TRAFFIC SIGNAL SYSTEMS.

Revise Section 806 of the Standard Specifications to read:

General.

All traffic signal systems, equipment and appurtenances shall be properly grounded in strict conformance with the NEC. See IDOT District One Traffic Signal detail plan sheets for additional information.

The grounding electrode system shall include a ground rod installed with each traffic signal controller concrete foundation and all mast arm and post concrete foundations. An additional ground rod will be required at locations where measured resistance exceeds 25 ohms. Ground rods are included in the applicable concrete foundation or service installation pay item and will not be paid for separately.

Testing shall be according to Article 801.13 (a) (4) and (5).

The grounded conductor (neutral conductor) shall be white color coded. This conductor shall be bonded to the equipment grounding conductor only at the Electric Service Installation. All power cables shall include one neutral conductor of the same size.

The equipment grounding conductor shall be green color coded. The following is in addition to Article 801.04 of the Standard Specifications.

Equipment grounding conductors shall be bonded to the grounded conductor (neutral conductor) only at the Electric Service Installation. The equipment grounding conductor is paid for separately and shall be continuous. The Earth shall not be used as the equipment grounding conductor.

Equipment grounding conductors shall be bonded, using a Listed grounding connector, to all traffic signal mast arm poles, traffic signal posts, pedestrian posts, pull boxes, handhole frames and covers, conduits, and other metallic enclosures throughout the traffic signal wiring system, except where noted herein. Bonding shall be made with a splice and pigtail connection, using a sized compression type copper sleeve, sealant tape, and heat-shrinkable cap. A Listed electrical joint compound shall be applied to all conductors' terminations, connector threads and contact points. Conduit grounding bushings shall be installed at all conduit terminations.

All metallic and non-metallic raceways containing traffic signal circuit runs shall have a continuous equipment grounding conductor, except raceways containing only detector loop lead-in circuits, circuits under 50 volts and/or fiber optic cable will not be required to include an equipment grounding conductor.

4. Individual conductor splices in handholes shall be soldered and sealed with heat shrink. When necessary to maintain effective equipment grounding, a full cable heat shrink shall be provided over individual conductor heat shrinks.

The grounding electrode conductor shall be similar to the equipment grounding conductor in color coding (green) and size. The grounding electrode conductor is used to connect the ground rod to the equipment grounding conductor and is bonded to ground rods via exothermic welding, listed pressure connectors, listed clamps or other approved listed means.

GROUNDING EXISTING HANDHOLE FRAME AND COVER.

Description.

This work shall consist of all materials and labor required to bond the equipment grounding conductor to the existing handhole frame and handhole cover. All installations shall meet the requirements of the details in the "District One Standard Traffic Signal Design Details," and applicable portions of the Standard Specifications and these specifications.

The equipment grounding conductor shall be bonded to the handhole frame and to the handhole cover. Two (2) ½-inch diameter x 1 ¼-inch long hex-head stainless steel bolts, spaced 1.75-inches apart center-to-center shall be fully welded to the frame and to the cover to accommodate a heavy duty Listed grounding compression terminal (Burndy type YGHA or approved equal). The grounding compression terminal shall be secured to the bolts with stainless steel split-lock washers and nylon-insert locknuts.

Welding preparation for the stainless steel bolt hex-head to the frame and to the cover shall include thoroughly cleaning the contact and weldment area of all rust, dirt and contaminants. The Contractor shall assure a solid strong weld. The welds shall be smooth and thoroughly cleaned of flux and spatter. The grounding installation shall not affect the proper seating of the cover when closed.

The grounding cable shall be paid for separately.

Method of Measurement.

Units measured for payment will be counted on a per handhole basis, regardless of the type of handhole and its location.

Basis of Payment.

This work shall be paid for at the contract unit price each for GROUNDING EXISTING HANDHOLE FRAME AND COVER which shall be payment in full for grounding the handhole complete.

COILABLE NON-METALLIC CONDUIT.

Description.

This work shall consist of furnishing and installing empty coilable non-metallic conduit (CNC) for detector loop raceways.

General.

The CNC installation shall be in accordance with Sections 810 and 811 of the Standard Specifications except for the following:

Add the following to Article 810.03 of the Standard Specifications:

CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways to the handholes.

Add the following to Article 811.03 of the Standard Specifications:

On temporary traffic signal installations with detector loops, CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways from the saw-cut to 10 feet (3m) up the wood pole, unless otherwise shown on the plans

Basis of Payment.

All installations of CNC for loop detection shall be included in the contract and not paid for separately.

HANDHOLES.

Add the following to Section 814 of the Standard Specifications:

All handholes shall be concrete, poured in place, with inside dimensions of 21-1/2 inches (549mm) minimum. Frames and lid openings shall match this dimension. The cover of the handhole frame shall be labeled "Traffic Signals" with legible raised letters.

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (15.875mm) diameter stainless bolt cast into the frame. The covers shall have a stainless steel threaded stint extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 12 inches (300mm).

All conduits shall enter the handhole at a depth of 30 inches (760mm) except for the conduits for detector loops when the handhole is less than 5 feet (1.52 m) from the detector loop. All conduit ends should be sealed with a waterproof sealant to prevent the entrance of contaminants into the handhole.

Steel cable hooks shall be coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (12.7 mm) diameter with two 90 degree bends and extend into the handhole at least 6 inches (150 mm). Hooks shall be placed a minimum of 12 inches (300 mm) below the lid or lower if additional space is required.

GROUNDING CABLE.

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.02 (b) of the Standard Specifications:

Unless otherwise noted on the Plans, traffic signal grounding conductor shall be one conductor, #6 gauge copper, with a green color coded XLP jacket.

The traffic signal grounding conductor shall be bonded, using a Listed grounding connector (Burndy type KC/K2C, as applicable, or approved equal), to all proposed and existing traffic signal mast arm poles and traffic/pedestrian signal posts, including push button posts. The grounding conductor shall be bonded to all proposed and existing pull boxes, handhole frames and covers and other metallic enclosures throughout the traffic signal wiring system and noted herein and detailed on the plans. The grounding conductor shall be bonded to conduit terminations using rated grounding bushings. Bonding to existing handhole frames and covers shall be paid for separately.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.

Grounding cable shall be measured in place for payment in foot (meter). Payment shall be at the contract unit price for ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1C, which price includes all associated labor and material including grounding clamps, splicing, exothermic welds, grounding connectors, conduit grounding bushings, and other hardware.

RAILROAD INTERCONNECT CABLE.

The cable shall meet the requirements of Section 873 of the Standard Specifications, except for the following:

Add to Article 873.02 of the Standard Specifications:

The railroad interconnect cable shall be three conductor stranded #14 copper cable in a clear polyester binder, shielded with #36 AWG tinned copper braid with 85% coverage, and insulated with .016" polyethylene (black, blue, red). The jacket shall be black 0.045 PVC or polyethylene.

Add the following to Article 873.05 of the Standard Specifications:

Basis of Payment.

This work shall be paid for at the contract unit price per foot (meter) for ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C, which price shall be payment in full for furnishing, installing, and making all electrical connections in the traffic signal controller cabinet. Connections in the railroad controller cabinet shall be performed by railroad personnel.

FIBER OPTIC TRACER CABLE.

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.03 of the Standard Specifications:

In order to trace the fiber optic cable after installation, the tracer cable shall be installed in the same conduit as the fiber optic cable in locations shown on the plans. The tracer cable shall be continuous, extended into the controller cabinet and terminated on a barrier type terminal strip mounted on the side wall of the controller cabinet. The barrier type terminal strip and tracer cable shall be clearly marked and identified. All tracer cable splices shall be kept to a minimum and shall incorporate maximum lengths of cable supplied by the manufacturer. The tracer cable will be allowed to be spliced at handholes only. The tracer cable splice shall use a Western Union Splice soldered with resin core flux and shall be soldered using a soldering iron. Blow torches or other devices which oxidize copper cable shall not be allowed for soldering operations. All exposed surfaces of the solder shall be smooth. The splice shall be covered with a black shrink tube meeting UL 224 guidelines, Type V and rated 600v, minimum length 4 inches (100 mm) and with a minimum 1 inch (25 mm) coverage over the XLP insulation, underwater grade.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.

The tracer cable shall be paid for separately as ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C per foot (meter), which price shall include all associated labor and material for installation.

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

Revise Articles 850.02 and 850.03 of the Standard Specifications to read:

Procedure.

The energy charges for the operation of the traffic signal installation shall be paid for by others. Full maintenance responsibility shall start as soon as the Contractor begins any physical work on the Contract or any portion thereof.

The Contractor shall have electricians with IMSA Level II certification on staff to provide signal maintenance.

This item shall include maintenance of all traffic signal equipment at the intersection, including emergency vehicle pre-emption equipment, master controllers, uninterruptible power supply (UPS and batteries), telephone service installations, communication cables, conduits to adjacent intersections, and other traffic signal equipment, but shall not include Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, or peripheral equipment, not owned by the State.

Maintenance.

The maintenance shall be according to MAINTENANCE AND RESPONSIBILITY in Division 800 of these specifications and the following:

The Contractor shall check all controllers every two (2) weeks, which will include visually inspecting all timing intervals, relays, detectors, and pre-emption equipment to ensure that they are functioning properly. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. The Contractor shall maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs.

The Contractor shall provide immediate corrective action when any part or parts of the system fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation on flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

The Contractor shall provide the Engineer with a 24 hour telephone number for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

The Contractor shall respond to all emergency calls from the Department or others within one hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge to the contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the State's Electrical Maintenance Contractor perform the maintenance work required. The State's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

TRAFFIC ACTUATED CONTROLLER.

Add the following to Article 857.02 of the Standard Specifications:

Controllers shall be NTCIP compliant NEMA TS2 Type 1, Econolite ASC/3S-1000 or Eagle/Siemens M50 unless specified otherwise on the plans or elsewhere on these specifications. Only controllers supplied by one of the District One approved closed loop equipment manufacturers will be allowed. The controller shall be the most recent model and software version supplied by the manufacturer at the time of the approval and include the standard data key. The traffic signal controller shall provide features to inhibit simultaneous display of a circular yellow ball and a yellow arrow display. Individual load switches shall be provided for each vehicle, pedestrian, and right turn over lap phase. The controller shall prevent phases from being skipped during program changes and after all preemption events.

Add the following to Article 857.03 of the Standard Specifications:

The Contractor shall arrange to install a standard voice-grade dial-up telephone line to the RAILROAD, FULL-ACTUATED CONTROLLER AND CABINET as called for on the traffic signal installation plans. If the traffic signal installation is part of a traffic signal system, a telephone line is usually not required, unless a telephone line is called for on the traffic signal plans. The Contractor shall follow the requirements for the telephone service installation as contained in the current District One Traffic Signal Special Provisions under Master Controller.

MASTER CONTROLLER.

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

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

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

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

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

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

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

The Contractor shall arrange to install a standard voice-grade dial-up telephone line to the master controller. This shall be accomplished through the following process utilizing District One staff. This telephone line may be coupled with a DSL line and a phone filter to isolate the dial-up line. An E911 address is required.

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

Full duplex communication between the master and its local controllers is recommended, but at this time not required. The data rate shall be 1200 baud minimum and shall be capable of speeds to 38,400 or above as technology allows. The controller, when installed in an Ethernet topology, may operate non-serial communications.

The cabinet shall be equipped with a 9600 baud, auto dial/auto answer modem. It shall be a US robotics 33.6K baud rate or equal.

As soon as practical or within one week after the contract has been awarded, the Contractor shall contact (via phone) the Administrative Support Manager in the District One Business Services Section at (847) 705-4011 to request a phone line installation.

A follow-up fax transmittal to the Administrative Support Manager (847-705-4712) with all required information pertaining to the phone installation is required from the Contractor as soon as possible or within one week after the initial request has been made. A copy of this fax transmittal must also be faxed by the Contractor to the Traffic Signal Systems Engineer at (847) 705-4089. The required information to be supplied on the fax shall include (but not limited to): A street address for the new traffic signal controller (or nearby address); a nearby existing telephone number; what type of telephone service is needed; the name and number of the Contractor's employee for the telephone company to contact regarding site work and questions.

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

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

All costs associated with the telephone line installation and activation (not including the Contract specified conduit installation between the point of telephone service and the traffic signal controller cabinet) shall be paid for by the District One Business Services Section (i.e., this will be an IDOT phone number not a Contractor phone number).

UNINTERRUPTIBLE POWER SUPPLY.

Add the following to Article 862.01 of the Standard Specifications:

The UPS shall have the power capacity to provide normal operation of a signalized intersection that utilizes all LED type signal head optics, for a minimum of six hours.

Add the following to Article 862.02 of the Standard Specifications:

Materials shall be according to Article 1074.04 as modified in UNINTERRUPTIBLE POWER SUPPLY in Division 1000 of these specifications.

Add the following to Article 862.03 of the Standard Specifications:

The UPS shall additionally include, but not be limited to, a battery cabinet. The UPS shall provide reliable emergency power to the traffic signals in the event of a power failure or interruption.

Revise Article 862.04 of the Standard Specifications to read:

Installation.

When a UPS is installed at an existing traffic signal cabinet, the UPS cabinet shall partially rest on the lip of the existing controller cabinet foundation and be secured to the existing controller cabinet by means of at least four (4) stainless steel bolts. The UPS cabinet shall be completely enclosed with the bottom and back constructed of the same material as the cabinet.

When a UPS is installed at a new signal cabinet and foundation, it shall be mounted as shown on the plans.

At locations where UPS is installed and Emergency Vehicle Priority System is in use, any existing incandescent confirmation beacons shall be replaced with LED lamps in accordance with the District One Emergency Vehicle Priority System specification at no additional cost to the contract. A concrete apron 67 in. x 50 in. x 5 in. (1702mm x 1270mm x 130mm) shall be provided on the side of the existing Type D Foundation, where the UPS cabinet is located. The concrete apron shall follow the District 1 Standard Traffic Signal Design Detail, Type D for Ground Mounted Controller Cabinet and UPS Battery Cabinet. The concrete apron shall follow Articles 424 and 202 of the Standard Specifications.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the UPS.

Revise Article 862.05 of the Standard Specifications to read:

Basis of Payment.

This work will be paid for at the contract unit price per each for UNINTERRUPTIBLE POWER SUPPLY SPECIAL. Replacement of Emergency Vehicle Priority System confirmation beacons and any required modifications to the traffic signal controller shall be included in the cost of the UNINTERRUPTIBLE POWER SUPPLY SPECIAL item. The concrete apron and earth excavation required shall be included in the cost of the UNINTERRUPTIBLE POWER SUPPLY SPECIAL item.

FIBER OPTIC CABLE.

Add the following to Article 871.01 of the Standard Specifications:

The Fiber Optic cable shall be installed in conduit or as specified on the plans.

Add the following to Article 872.02 of the Standard Specifications:

The control cabinet distribution enclosure shall be CSC FTWO12KST-W/O 12 Port Fiber Wall Enclosure or an approved equivalent. The fiber optic cable shall provide six fibers per tube for the amount of fibers called for in the Fiber Optic Cable pay item in the Contract. Fiber Optic cable may be gel filled or have an approved water blocking tape.

Add the following to Article 871.04 of the Standard Specifications:

A minimum of six multimode fibers from each cable shall be terminated with approved mechanical connectors at the distribution enclosure. Fibers not being used shall be labeled "spare." Fibers not attached to the distribution enclosure shall be capped and sealed. A minimum of 13.0 feet (4m) of extra cable length shall be provided for controller cabinets. The controller cabinet extra cable length shall be stored as directed by the Engineer.

Add the following to Article 871.06 of the Standard Specifications:

The distribution enclosure and all connectors will be included in the cost of the fiber optic cable.

MAST ARM ASSEMBLY AND POLE.

Revise Article 877.01 of the Standard Specifications to read:

Description.

This work shall consist of furnishing and installing a steel mast arm assembly and pole and a galvanized steel or extruded aluminum shroud for protection of the base plate.

Revise Article 877.03 of the Standard Specifications:

Mast arm assembly and pole shall be as follows.

(a) Steel Mast Arm Assembly and Pole and Steel Combination Mast Arm Assembly and Pole. The steel mast arm assembly and pole and steel combination mast arm assembly and pole shall consist of a traffic signal mast arm, a luminaire mast arm or davit (for combination pole only), a pole, and a base, together with anchor rods and other appurtenances. The configuration of the mast arm assembly, pole, and base shall be according to the details shown on the plans.

(1) Loading. The mast arm assembly and pole, and combination mast arm assembly and pole shall be designed for the loading shown on the Highway Standards or elsewhere on the plans, whichever is greater. The design shall be according to AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 1994 Edition for 80 mph (130 km/hr) wind velocity. However, the arm-to-pole connection for tapered signal and luminaire arms shall be according to the "ring plate" detail as shown in Figure 11-1(f) of the 2002 Interim, to the AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 2001 4th Edition.

Structural Steel Grade. The mast arm and pole shall be fabricated according to ASTM A 595, Grade A or B, ASTM A 572 Grade 55, or ASTM A 1011 Grade 55 HSLAS Class 2. The base and flange plates shall be of structural steel according to AASHTO M 270 Grade 50 (M 270M Grade 345). Luminaire arms and trussed arms 15 ft (4.5 m) or less shall be fabricated from one steel pipe or tube size according to ASTM A 53 Grade B or ASTM A 500 Grade B or C. All mast arm assemblies, poles, and bases shall be galvanized according to AASHTO M 111.

Fabrication. The design and fabrication of the mast arm assembly, pole, and base shall be according to the requirements of the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals published by AASHTO. The mast arm and pole may be of single length or sectional design. If section design is used, the overlap shall be at least 150 percent of the maximum diameter of the overlapping section and shall be assembled in the factory.

The manufacturer will be allowed to slot the base plate in which other bolt circles may fit, providing that these slots do not offset the integrity of the pole. Circumferential welds of tapered arms and poles to base plates shall be full penetration welds.

(4) Shop Drawing Approval. The Contractor shall submit detailed drawings showing design materials, thickness of sections, weld sizes, and anchor rods to the Engineer for approval prior to fabrication. These drawings shall be at least 11 x 17 in. (275 x 425 mm) in size and of adequate quality for microfilming. All product data and shop drawings shall be submitted in electronic form on CD-ROM

(b) Anchor Rods. The anchor rods shall be ASTM F 1554 Grade 105, coated by the hot-dip galvanizing process according to AASHTO M 232, and shall be threaded a minimum of 7 1/2 in. (185 mm) at one end and have a bend at the other end. The first 12 in. (300 mm) at the threaded end shall be galvanized. Two nuts, one lock washer, and one flat washer shall be furnished with each anchor rod. All nuts and washers shall be galvanized.

(c) The galvanized steel or extruded aluminum shroud shall have dimensions similar to those detailed in the "District One Standard Traffic Signal Design Details." The shroud shall be installed such that it allow air to circulate throughout the mast arm but not allow infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet.

Add the following to Article 877.04 of the Standard Specifications:

The shroud shall not be paid for separately but shall be included in the cost of the mast arm assembly and pole.

CONCRETE FOUNDATIONS.

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. (300 mm) from the threaded end.

Concrete Foundations, Type "A" for Traffic Signal Posts shall provide anchor bolts with the bolt pattern specified within the "District One Standard Traffic Signal Design Details." All Type "A" foundations shall be a minimum depth of 48 inches (1220 mm).

Concrete Foundations, Type "C" for Traffic Signal Cabinets with Uninterruptible Power Supply (UPS) cabinet installations shall be a minimum of 72 inches (1830 mm) long and 31 inches (790 mm) wide. All Type "C" foundations shall be a minimum depth of 48 inches (1220 mm). The concrete apron in front of the Type IV or V cabinet shall be 36 in. x 48 in. x 5 in. (915 mm X 1220 mm X 130 mm). The concrete apron in front of the UPS cabinet shall be 36 in. x 67 in. x 5 in. (915 mm X 1700 mm X 130 mm). Anchor bolts shall provide bolt spacing as required by the manufacturer.

Concrete Foundations, Type "D" for Traffic Signal Cabinets shall be a minimum of 48 inches (1220 mm) long and 31 inches (790 mm) wide. All Type "D" foundations shall be a minimum depth of 48 inches (1220 mm). The concrete apron shall be 36 in. x 48 in. x 5 in. (910 mm X 1220 mm X 130 mm). Anchor bolts shall provide bolt spacing as required by the manufacturer.

Concrete Foundations, Type "E" for Mast Arm and Combination Mast Arm Poles shall meet the current requirements listed in the Highway Standards.

Foundations used for Combination Mast Arm Poles shall provide an extra 2-1/2 inch (65 mm) raceway.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

LIGHT EMITTING DIODE (LED) SIGNAL HEAD AND OPTICALLY PROGRAMMED LED SIGNAL HEAD.

Add the following to the first paragraph of Article 880.04 of the Standard Specifications:

Basis of Payment.

The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.

LIGHT EMITTING DIODE (LED), SIGNAL HEAD, RETROFIT

Description.

This work shall consist of retrofitting an existing polycarbonate traffic signal head with a traffic signal module, pedestrian signal module, and pedestrian countdown signal module, with light emitting diodes (LEDs) as specified in the plans.

Materials.

Materials shall be according to LIGHT EMITTING DIODE (LED) AND OPTICALLY PROGRAMMED LED SIGNAL HEAD, AND LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD in Divisions 880, 881 and 1000 of these specifications.

Add the following to Article 880.04 of the Standard Specifications:

Basis of Payment.

This item shall be paid for at the contract unit price each for SIGNAL HEAD, LED, RETROFIT, or PEDESTRIAN SIGNAL HEAD, LED, RETROFIT, for the type and number of polycarbonate signal heads, faces, and sections specified, which price shall be payment in full for furnishing the equipment described above including LED modules, all mounting hardware, and installing them in satisfactory operating condition. The type specified will indicate the number of faces and the method of mounting.

LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD

Add the following to the third paragraph of Article 881.03 of the Standard Specifications:

No mixing of different types of pedestrian traffic signals or displays will be permitted.

Add the following to Article 881.03 of the Standard Specifications:

(a) Pedestrian Countdown Signal Heads.

(1) Pedestrian Countdown Signal Heads shall not be installed at signalized intersections where traffic signals and railroad warning devices are interconnected.

(2) Pedestrian Countdown Signal Heads shall be 16 inch (406mm) x 18 inch (457mm), for single units with the housings glossy black polycarbonate. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on.

(3) Each pedestrian signal LED module shall be fully MUTCD compliant and shall consist of double overlay message combining full LED symbols of an Upraised Hand and a Walking Person. "Egg Crate" type sun shields are not permitted. Numerals shall measure 9 inches (229mm) in height and easily identified from a distance of 120 feet (36.6m).

Add the following to Article 881.04 of the Standard Specifications:

Basis of Payment.

The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.

DETECTOR LOOP.

Revise Section 886 of the Standard Specifications to read:

Description.

This work shall consist of furnishing and installing a detector loop in the pavement.

Procedure.

A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the Area Traffic Signal Maintenance and Operations Engineer (847) 705-4424 to inspect and approve the layout. When preformed detector loops are installed, the Contractor shall have them inspected and approved prior to the pouring of the Portland cement concrete surface, using the same notification process as above.

Installation.

Loop detectors shall be installed according to the requirements of the "District One Standard Traffic Signal Design Details." Saw-cuts (homeruns on preformed detector loops) from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw-cut (homerun on preformed detector loops) unless directed otherwise by the Engineer or as shown on the plan.

The detector loop cable insulation shall be labeled with the cable specifications.

Each loop detector lead-in wire shall be labeled in the handhole using a Panduit PLFIM water proof tag, or an approved equal, secured to each wire with nylon ties.

Resistance to ground shall be a minimum of 100 mega-ohms under any conditions of weather or moisture. Inductance shall be more than 50 and less than 700 microhenries. Quality readings shall be more than 5.

Type I. All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement, curb and handhole shall be cut with a 1/4 inch (6.3 mm) deep x 4 inches (100 mm) saw cut to mark location of each loop lead-in.

Loop sealant shall be a two-component thixotropic chemically cured polyurethane either Chemque Q-Seal 295, Percol Elastic Cement AC Grade or an approved equal. The sealant shall be installed 1/8 inch (3 mm) below the pavement surface, if installed above the surface the overlap shall be removed immediately.

Detector loop measurements shall include the saw cut and the length of the loop lead-in to the edge of pavement. The lead-in wire, including all necessary connections for proper operations, from the edge of pavement to the handhole, shall be included in the price of the detector loop. Unit duct, trench and backfill, and drilling of pavement or handholes shall be included in detector loop quantities.

Preformed. This work shall consist of furnishing and installing a rubberized or cross-linked polyethylene heat resistant preformed traffic signal loop in accordance with the Standard Specifications, except for the following:

Preformed detector loops shall be installed in new pavement constructed of Portland cement concrete using mounting chairs or tied to re-bar or the preformed detector loops may be placed in the sub-base. Loop lead-ins shall be extended to a temporary protective enclosure near the proposed handhole location. The protective enclosure shall provide sufficient protection from other construction activities and may be buried for additional protection.

Handholes shall be placed next to the shoulder or back of curb when preformed detector loops enter the handhole. Non-metallic coilable duct, included in this pay item, shall be used to protect the preformed lead-ins from back of curb to the handhole.

Preformed detector loops shall be factory assembled with ends capped and sealed against moisture and other contaminants. Homeruns and interconnects shall be pre-wired and shall be an integral part of the loop assembly. The loop configurations and homerun lengths shall be assembled for the specific application. The loop and homerun shall be constructed using 11/16 inch (17.2 mm) outside diameter (minimum), 3/8 inch (9.5 mm) inside diameter (minimum) Class A oil resistant synthetic cord reinforced hydraulic hose with 250 psi (1,720 kPa) internal pressure rating or a similarly sized XLPE cable jacket. Hose for the loop and homerun assembly shall be one continuous piece. No joints or splices shall be allowed in the hose except where necessary to connect homeruns or interconnects to the loops. This will provide maximum wire protection and loop system strength. Hose tee connections shall be heavy duty high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking. For XLPE jacketed preformed loops, all splice connections shall be soldered, sealed, and tested before being sealed in a high impact glass impregnated plastic splice enclosure. The wire used shall be #16 THWN stranded copper. The number of turns in the loop shall be application specific. Homerun wire pairs shall be twisted a minimum of four turns per foot. No wire splices will be allowed in the preformed loop assembly. The loop and homeruns shall be filled and sealed with a flexible sealant to insure complete moisture blockage and further protect the wire. The preformed loops shall be constructed to allow a minimum of 6.5 feet of extra cable in the handhole.

Method of Measurement.

This work will be measured for payment in feet (meters) in place. Type I detector loop will be measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of the wire. Preformed detector loops will be measured along the detector loop and lead-in embedded in the pavement, rather than the actual length of the wire.

Basis of Payment.

This work shall be paid for at the contract unit price per foot (meter) for DETECTOR LOOP, TYPE I or PREFORMED DETECTOR LOOP as specified in the plans, which price shall be payment in full for furnishing and installing the detector loop and all related connections for proper operation.

EMERGENCY VEHICLE PRIORITY SYSTEM.

Revise Section 887 of the Standard Specifications to read:

It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle pre-emption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency.

All new installations shall be equipped with Confirmation Beacons as shown on the "District One Standard Traffic Signal Design Details." The Confirmation Beacon shall consist of a 6 watt Par 38 LED flood lamp with a 30 degree light spread, maximum 6 watt energy consumption at 120V, and a 2,000 hour warranty for each direction of pre-emption. The lamp shall have an adjustable mount with a weatherproof enclosure for cable splicing. All hardware shall be cast aluminum or stainless steel. Holes drilled into signal poles, mast arms, or posts shall require rubber grommets. In order to maintain uniformity between communities, the confirmation beacons shall indicate when the control equipment receives the pre-emption signal. The pre-emption movement shall be signaled by a flashing indication at the rate specified by Section 4L.01 of the "Manual on Uniform Traffic Control Devices," and other applicable sections of future editions. The stopped pre-empted movements shall be signaled by a continuous indication.

All light operated systems shall include security and transit preemption software and operate at a uniform rate of 14.035 Hz \pm 0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the EMERGENCY VEHICLE PRIORITY SYSTEM.

Basis of Payment.

The work shall be paid for at the contract unit price each for furnishing and installing LIGHT DETECTOR and LIGHT DETECTOR AMPLIFIER. Furnishing and installing the confirmation beacon shall be included in the cost of the Light Detector. Any required modifications to the traffic signal controller shall be included in the cost of the LIGHT DETECTOR AMPLIFIER. The preemption detector amplifier shall be paid for on a basis of (1) one each per intersection controller and shall provide operation for all movements required in the pre-emption phase sequence.

TEMPORARY TRAFFIC SIGNAL INSTALLATION.

Revise Section 890 of the Standard Specifications to read:

Description.

This work shall consist of furnishing, installing, maintaining, and removing a temporary traffic signal installation as shown on the plans, including but not limited to temporary signal heads, emergency vehicle priority systems, interconnect, vehicle detectors, uninterruptible power supply, and signing. Temporary traffic signal controllers and cabinets interconnected to railroad traffic control devices shall be new. When temporary traffic signals will be operating within a county or local agency Traffic Management System, the equipment must be NTCIP compliant and compatible with the current operating requirements of the Traffic Management System.

General.

Only an approved equipment vendor will be allowed to assemble the temporary traffic signal cabinet. Also, an approved equipment vendor shall assemble and test a temporary railroad traffic signal cabinet. (Refer to the "Inspection of Controller and Cabinet" specification). A representative of the approved control equipment vendor shall be present at the temporary traffic signal turn-on inspection.

Construction Requirements.

(a) Controllers.

1. Only controllers supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary signal locations. All controllers used for temporary traffic signals shall be fully actuated NEMA microprocessor based with RS232 data entry ports compatible with existing monitoring software approved by IDOT District 1, installed in NEMA TS2 cabinets with 8 phase back panels, capable of supplying 255 seconds of cycle length and individual phase length settings up to 99 seconds. On projects with one lane open and two way traffic flow, such as bridge deck repairs, the temporary signal controller shall be capable of providing an adjustable all red clearance setting of up to 30 seconds in length. All controllers used for temporary traffic signals shall meet or exceed the requirements of Section 857 of the Standard Specifications with regards to internal time base coordination and preemption. All railroad interconnected temporary controllers and cabinets shall be new and shall satisfy the requirements of Article 857.02 of the Standard Specifications as modified herein.

2. Only control equipment, including controller cabinet and peripheral equipment, supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary traffic signal locations. All control equipment for the temporary traffic signal(s) shall be furnished by the Contractor unless otherwise stated in the plans. On projects with multiple temporary traffic signal installations, all controllers shall be the same manufacturer brand and model number with current software installed.

(b) Cabinets. All temporary traffic signal cabinets shall have a closed bottom made of aluminum alloy. The bottom shall be sealed along the entire perimeter of the cabinet base to ensure a water, dust and insect-proof seal. The bottom shall provide a minimum of two (2) 4 inch (100 mm) diameter holes to run the electric cables through. The 4 inch (100 mm) diameter holes shall have a bushing installed to protect the electric cables and shall be sealed after the electric cables are installed.

(c) Grounding. Grounding shall be provided for the temporary traffic signal cabinet meeting or exceeding the applicable portions of the National Electrical Code, Section 806 of the Standard Specifications and shall meet the requirements of the District 1 Traffic Signal Specifications for "Grounding of Traffic Signal Systems."

(d) Traffic Signal Heads. All traffic signal sections and pedestrian signal sections shall be 12 inches (300 mm). Traffic signal sections shall be LED with expandable view, unless otherwise approved by the Engineer. Pedestrian signal heads shall be Light Emitting Diode (LED) Pedestrian Countdown Signal Heads except when a temporary traffic signal is installed at an intersection interconnected with a railroad grade crossing. When a temporary traffic signal is installed at an intersection interconnected with a railroad grade crossing, Light Emitting Diode (LED) Pedestrian Signal Heads shall be furnished. The temporary traffic signal heads shall be placed as indicated on the temporary traffic signal plan or as directed by the Engineer. The Contractor shall furnish enough extra cable length to relocate heads to any position on the span wire or at locations illustrated on the plans for construction staging. The temporary traffic signal shall remain in operation during all signal head relocations. Each temporary traffic signal head shall have its own cable from the controller cabinet to the signal head.

(e) Interconnect.

1. Temporary traffic signal interconnect shall be provided using fiber optic cable or wireless interconnect technology as specified in the plans. The Contractor may request, in writing, to substitute the fiber optic temporary interconnect indicated in the contract documents with a wireless interconnect. The Contractor must provide assurances that the radio device will operate properly at all times and during all construction staging. If approved for use by the Engineer, the Contractor shall submit marked-up traffic signal plans indicating locations of radios and antennas and installation details. If wireless interconnect is used, and in the opinion of the engineer, it is not viable, or if it fails during testing or operations, the Contractor shall be responsible for installing all necessary poles, fiber optic cable, and other infrastructure for providing temporary fiber optic interconnect at no cost to the contract.

2. The existing system interconnects and phone lines are to be maintained as part of the Temporary Traffic Signal Installation specified for on the plan. The interconnect shall be installed into the temporary controller cabinet as per the notes or details on the plans. All labor and equipment required to install and maintain the existing interconnect as part of the Temporary Traffic Signal Installation shall be included in the item Temporary Traffic Signal Installation. When shown in the plans, temporary traffic signal interconnect equipment shall be furnished and installed. The temporary traffic signal interconnect shall maintain interconnect communications throughout the entire signal system for the duration of the project.

3. Temporary wireless interconnect, complete. The radio interconnect system shall be compatible with Eagle or Econolite controller closed loop systems. This item shall include all temporary wireless interconnect components, complete, at the adjacent existing traffic signal(s) to provide a completely operational closed loop system. This item shall include all materials, labor and testing to provide the completely operational closed loop system as shown on the plans. The radio interconnects system shall include the following components:

- a. Rack or Shelf Mounted RS-232 Frequency Hopping Spread Spectrum (FHSS) Radio
- b. Software for Radio Configuration (Configure Frequency and Hopping Patterns)
- c. Antennas (Omni Directional or Yagi Directional)
- d. Antenna Cables, LMR400, Low Loss. Max. 100-ft from controller cabinet to antenna
- e. Brackets, Mounting Hardware, and Accessories Required for Installation
- f. RS232 Data Cable for Connection from the radio to the local or master controller
- g. All other components required for a fully functional radio interconnect system

All controller cabinet modifications and other modifications to existing equipment that are required for the installation of the radio interconnect system components shall be included in this item.

The radio interconnect system may operate at 900Mhz (902-928) or 2.4 Ghz depending on the results of a site survey. The telemetry shall have an acceptable rate of transmission errors, time outs, etc. comparable to that of a hardwire system.

The proposed master controller and telemetry module shall be configured for use with the radio interconnects at a minimum rate of 9600 baud.

The radio interconnect system shall include all other components required for a complete and fully functional telemetry system and shall be installed in accordance to the manufacturers recommendations.

The following radio equipment is currently approved for use in Region One/District One: Encom Model 5100 and Intercom Communicator II.

(f) Emergency Vehicle Pre-Emption. All emergency vehicle preemption equipment (light detectors, light detector amplifiers, confirmation beacons, etc.) as shown on the temporary traffic signal plans shall be provided by the Contractor. It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle preemption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency. All light operated systems shall operate at a uniform rate of 14.035 hz \pm 0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District. All labor and material required to install and maintain the Emergency Vehicle Preemption installation shall be included in the item Temporary Traffic Signal Installation.

(g) Vehicle Detection. All temporary traffic signal installations shall have vehicular detection installed as shown on the plans or as directed by the Engineer. Pedestrian push buttons shall be provided for all pedestrian signal heads/phases as shown on the plans or as directed by the Engineer. All approaches shall have vehicular detection provided by vehicle detection system as shown on the plans or as directed by the Engineer. Microwave vehicle sensors or video vehicle detection system shall be approved by IDOT prior to Contractor furnishing and installing. The Contractor shall install, wire, and adjust the alignment of the microwave vehicle sensor or video vehicle detection system in accordance to the manufacturer's recommendations and requirements. The Contractor shall be responsible for adjusting the alignment of the microwave vehicle sensor or video vehicle detection system for all construction staging changes and for maintaining proper alignment throughout the project. A representative of the approved control equipment vendor shall be present and assist the contractor in setting up and maintaining the microwave vehicle sensor or video vehicle detection system. An in-cabinet video monitor shall be provided with all video vehicle detection systems and shall be included in the item Temporary Traffic Signal Installation.

(h) Uninterruptible Power Supply. All temporary traffic signal installations shall have Uninterruptible Power Supply (UPS). The UPS cabinet shall be mounted to the temporary traffic signal cabinet and meet the requirements of Uninterruptible Power Supply in Divisions 800 and 1000 of these specifications.

(i) Signs. All existing street name and intersection regulatory signs shall be removed from existing poles and relocated to the temporary signal span wire. If new mast arm assembly and pole(s) and posts are specified for the permanent signals, the signs shall be relocated to the new equipment at no extra cost. Any intersection regulatory signs that are required for the temporary traffic signal shall be provided as shown on the plans or as directed by the Engineer. Relocation, removing, bagging and installing the regulatory signs for the various construction stages shall be provided as shown on the plans or as directed by the Engineer.

(j) Energy Charges. The electrical utility energy charges for the operation of the temporary traffic signal installation shall be paid for by others if the installation replaces an existing signal. Otherwise charges shall be paid for under 109.05 of the Standard Specifications.

(k) Maintenance. Maintenance shall meet the requirements of the Standard Specifications and MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION in Division 800 of these specifications. Maintenance of temporary signals and of the existing signals shall be included in the cost of the TEMPORARY TRAFFIC SIGNAL INSTALLATION pay item. When temporary traffic signals are to be installed at locations where existing signals are presently operating, the Contractor shall be fully responsible for the maintenance of the existing signal installation as soon as he begins any physical work on the Contract or any portion thereof. In addition, a minimum of seven (7) days prior to assuming maintenance of the existing traffic signal installation(s) under this Contract, the Contractor shall request that the Resident Engineer contact the Bureau of Traffic Operations (847) 705-4424 for an inspection of the installation(s).

(l) Temporary Traffic Signals for Bridge Projects. Temporary Traffic Signals for bridge projects shall follow the State Standards, Standard Specifications, District One Traffic Signal Specifications and any plans for Bridge Temporary Traffic Signals included in the plans. The installation shall meet the Standard Specifications and all other requirements in this TEMPORARY TRAFFIC SIGNAL INSTALLATION specification. In addition all electric cable shall be aerially suspended, at a minimum height of 18 feet (5.5m) on temporary wood poles (Class 5 or better) of 45 feet (13.7 m) minimum height. The signal heads shall be span wire mounted or bracket mounted to the wood pole or as directed by the Engineer. The Controller cabinet shall be mounted to the wood pole as shown in the plans, or as directed by the Engineer. Microwave vehicle sensors or video vehicle detection system may be used in place of detector loops as approved by the Engineer.

(m) Temporary Portable Traffic Signal for Bridge Projects.

1. Unless otherwise directed by the Engineer, temporary portable traffic signals shall be restricted to use on roadways of less than 8000 ADT that have limited access to electric utility service, shall not be installed on projects where the estimated need exceeds ten (10) weeks, and shall not be in operation during the period of November through March. The Contractor shall replace the temporary portable traffic signals with temporary span wire traffic signals noted herein at no cost to the contract if the bridge project or Engineer requires temporary traffic signals to remain in operation into any part of period of November through March. If, in the opinion of the engineer, the reliability and safety of the temporary portable traffic signal is not similar to that of a temporary span wire traffic signal installation, the Contractor shall replace the temporary portable traffic signals with temporary span wire traffic signals noted herein at no cost to the contract.

2. The controller and LED signal displays shall meet the Standard Specifications and all other requirements in this TEMPORARY TRAFFIC SIGNAL INSTALLATION specification.

3. Work shall be according to Article 701.18(b) of the Standard Specifications except as noted herein.

4. General.

a. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

b. All signal heads located over the travel lane shall be mounted at a minimum height of 17 feet (5m) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 8 feet (2.5m) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

c. The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

d. As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation.

e. All portable traffic signal units shall be interconnected using hardwire communication cable. Radio communication equipment may be used only with the approval of the Engineer. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.

f. The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV and other applicable portions of the currently adopted version of the Manual on Uniform Traffic Control Devices (MUTCD) and the Illinois MUTCD. The signal system shall be designed to continuously operate over an ambient temperature range between -30 °F (-34 °C) and 120 °F (48 °C). When not being utilized to inform and direct traffic, portable signals shall be treated as non-operating equipment according to Article 701.11.

g. Basis of Payment. This work will be paid for according to Article 701.20(c).

Basis of Payment.

This work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL INSTALLATION, TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION, or TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION, the price of which shall include all costs for the modifications required for traffic staging, changes in signal phasing as required in the Contract plans, microwave vehicle sensors, video vehicle detection system, any maintenance or adjustment to the microwave vehicle sensors/video vehicle detection system, the temporary wireless interconnect system complete, temporary fiber optic interconnect system complete, all material required, the installation and complete removal of the temporary traffic signal. Each intersection will be paid for separately.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

Add the following to Article 895.05 of the Standard Specifications:

The traffic signal equipment which is to be removed and is to become the property of the Contractor shall be disposed of outside the right-of-way at the Contractor's expense.

All equipment to be returned to the State shall be delivered by the Contractor to the State's Traffic Signal Maintenance Contractor's main facility. The Contractor shall contact the State's Electrical Maintenance Contractor to schedule an appointment to deliver the equipment. No equipment will be accepted without a prior appointment. All equipment shall be delivered within 30 days of removing it from the traffic signal installation. The Contractor shall provide 5 copies of a list of equipment that is to remain the property of the State, including model and serial numbers, where applicable. The Contractor shall also provide a copy of the Contract plan or special provision showing the quantities and type of equipment. Controllers and peripheral equipment from the same location shall be boxed together (equipment from different locations may not be mixed) and all boxes and controller cabinets shall be clearly marked or labeled with the location from which they were removed. If equipment is not returned with these requirements, it will be rejected by the State's Electrical Maintenance Contractor. The Contractor shall be responsible for the condition of the traffic signal equipment from the time Contractor takes maintenance of the signal installation until the acceptance of a receipt drawn by the State's Electrical Maintenance Contractor indicating the items have been returned in good condition.

The Contractor shall safely store and arrange for pick up or delivery of all equipment to be returned to agencies other than the State. The Contractor shall package the equipment and provide all necessary documentation as stated above.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of these Specifications at no cost to the contract.

TRAFFIC SIGNAL PAINTING.

Description.

This work shall include surface preparation, powder type painted finish application and packaging of new galvanized steel traffic signal mast arm poles and posts assemblies. All work associated with applying the painted finish shall be performed at the manufacturing facility for the pole assembly or post or at a painting facility approved by the Engineer. Traffic signal mast arm shrouds and post bases shall also be painted the same color as the pole assemblies and posts.

Surface Preparation.

All weld flux and other contaminates shall be mechanically removed. The traffic mast arms and post assemblies shall be degreased, cleaned, and air dried to assure all moisture is removed.

Painted Finish.

All galvanized exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a dry film thickness of 2.0 mils. Prior to application, the surface shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 450 °F for a minimum one (1) hour. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 400 °F.

The finish paint color shall be one of the manufacturer's standard colors and shall be as selected by the local agency responsible for paint costs. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer and a copy of the approval shall be included in the material catalog submittal.

Painting of traffic signal heads, pedestrian signal heads and controller cabinets is not included in this pay item.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method recommended by the manufacturer and approved by the Engineer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied at no cost to the contract.

Warranty.

The Contractor shall furnish in writing to the Engineer, the paint manufacturer's standard warranty and certification that the paint system has been properly applied.

Packaging.

Prior to shipping, the poles and posts shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

Basis of Payment.

This work shall be paid for at the contract unit price each for PAINT NEW MAST ARM AND POLE, UNDER 40 FEET (12.19 METER), PAINT NEW MAST ARM AND POLE, 40 FEET (12.19 METER) AND OVER, PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FEET (12.19 METER), PAINT NEW COMBINATION MAST ARM AND POLE, 40 FEET (12.19 METER) AND OVER, or PAINT NEW TRAFFIC SIGNAL POST of the length specified, which shall be payment in full for painting and packaging the traffic signal mast arm poles and posts described above including all shrouds, bases and appurtenances.

ILLUMINATED STREET NAME SIGN

Description.

This work shall consist of furnishing and installing a LED internally illuminated street name sign.

Materials.

Materials shall be in accordance with ILLUMINATED STREET NAME SIGN in Division 1000 of these specifications.

Installation.

The sign can be mounted on most steel mast arm poles. Mounting on aluminum mast arm pole requires supporting structural calculations. Some older or special designed steel mast arm poles may require structural evaluation to assure that construction of the mast arm pole is adequate for the proposed additional loading. Structural calculations and other supporting documentation as determined by the Engineer shall be provided by the contractor for review by the Department.

The sign shall be located on a steel traffic signal mast arm no further than 8-feet from the center of the pole to the center of the sign at a height of between 16 to 18-feet above traveled pavement. Mounting hardware shall be Pelco model SE-5015, or approved equal, utilizing stainless steel components.

Signs shall be installed such that they are not energized when traffic signals are powered by an alternate energy source such as a generator or uninterruptible power supply (UPS). The signs shall be connected to the generator or UPS bypass circuitry.

Basis of Payment.

This work will be paid for at the contract unit price each for ILLUMINATED STREET NAME SIGN, of the length specified which shall be payment in full for furnishing and installing the LED internally illuminated street sign, complete with circuitry and mounting hardware including photo cell, circuit breaker, fusing, relay, connections and cabling as shown on the plans for proper operation and installation.

RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM.

Description.

This work shall consist of re-optimizing a closed loop traffic signal system according to the following Levels of work.

LEVEL I applies when improvements are made to an existing signalized intersection within an existing closed loop traffic signal system. The purpose of this work is to integrate the improvements to the subject intersection into the signal system while minimizing the impacts to the existing system operation. This type of work would be commonly associated with the addition of signal phases, pedestrian phases, or improvements that do not affect the capacity at an intersection.

LEVEL II applies when improvements are made to an existing signalized intersection within an existing closed loop traffic signal system and detailed analysis of the intersection operation is desired by the engineer, or when a new signalized or existing signalized intersection is being added to an existing system, but optimization of the entire system is not required. The purpose of this work is to optimize the subject intersection, while integrating it into the existing signal system with limited impact to the system operations. This item also includes an evaluation of the overall system operation, including the traffic responsive program.

For the purposes of re-optimization work, an intersection shall include all traffic movements operated by the subject controller and cabinet.

After the signal improvements are completed, the signal shall be re-optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants. Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank computer disks, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) LEVEL I Re-Optimization

1. The following tasks are associated with LEVEL I Re-Optimization.
 - a. Appropriate signal timings shall be developed for the subject intersection and existing timings shall be utilized for the rest of the intersections in the system.
 - b. Proposed signal timing plan for the new or modified intersection(s) shall be forwarded to IDOT for review prior to implementation.
 - c. Consultant shall conduct on-site implementation of the timings at the turn-on and make fine-tuning adjustments to the timings of the subject intersection in the field to alleviate observed adverse operating conditions and to enhance operations.
2. The following deliverables shall be provided for LEVEL I Re-Optimization.
 - a. Consultant shall furnish to IDOT a cover letter describing the extent of the re-optimization work performed.
 - b. Consultant shall furnish an updated intersection graphic display for the subject intersection to IDOT and to IDOT's Traffic Signal Maintenance Contractor.

(b) LEVEL II Re-Optimization

1. In addition to the requirements described in the LEVEL I Re-Optimization above, the following tasks are associated with LEVEL II Re-Optimization.
 - a. Traffic counts shall be taken at the subject intersection after the traffic signals are approved for operation by the Area Traffic Signal Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday. The turning movement counts shall identify cars, and single-unit, multi-unit heavy vehicles, and transit buses.

b. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.

c. Traffic responsive program operation shall be evaluated to verify proper pattern selection and lack of oscillation and a report of the operation shall be provided to IDOT.

2. The following deliverables shall be provided for LEVEL II Re-Optimization.

a. Consultant shall furnish to IDOT one (1) copy of a technical memorandum for the optimized system. The technical memorandum shall include the following elements:

(1) Brief description of the project

(2) Printed copies of the analysis output from Synchro (or other appropriate, approved optimization software file)

(3) Printed copies of the traffic counts conducted at the subject intersection

b. Consultant shall furnish to IDOT two (2) CDs for the optimized system. The CDs shall include the following elements:

(1) Electronic copy of the technical memorandum in PDF format

(2) Revised Synchro files (or other appropriate, approved optimization software file) including the new signal and the rest of the signals in the closed loop system

(3) Traffic counts conducted at the subject intersection

(4) New or updated intersection graphic display file for the subject intersection

(5) The CD shall be labeled with the IDOT system number and master location, as well as the submittal date and the consultant logo. The CD case shall include a clearly readable label displaying the same information securely affixed to the side and front.

Basis of Payment.

This work shall be paid for at the contract unit price each for RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL I or RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL II, which price shall be payment in full for performing all work described herein per intersection. Following completion of the timings and submittal of specified deliverables, 100 percent of the bid price will be paid. Each intersection will be paid for separately.

OPTIMIZE TRAFFIC SIGNAL SYSTEM.

Description.

This work shall consist of optimizing a closed loop traffic signal system.

OPTIMIZE TRAFFIC SIGNAL SYSTEM applies when a new or existing closed loop traffic signal system is to be optimized and a formal Signal Coordination and Timing (SCAT) Report is to be prepared. The purpose of this work is to improve system performance by optimizing traffic signal timings, developing a time of day program and a traffic responsive program.

After the signal improvements are completed, the signal system shall be optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants. Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank computer disks, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) The following tasks are associated with OPTIMIZE TRAFFIC SIGNAL SYSTEM.

1. Appropriate signal timings and offsets shall be developed for each intersection and appropriate cycle lengths shall be developed for the closed loop signal system.
2. Traffic counts shall be taken at all intersections after the permanent traffic signals are approved for operation by the Area Traffic Signal Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday. The turning movement counts shall identify cars, and single-unit and multi-unit heavy vehicles.
3. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.
4. A traffic responsive program shall be developed, which considers both volume and occupancy. A time-of-day program shall be developed for used as a back-up system.
5. Proposed signal timing plan for the new or modified intersection shall be forwarded to IDOT for review prior to implementation.
6. Consultant shall conduct on-site implementation of the timings and make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.
7. Speed and delay studies shall be conducted during each of the count periods along the system corridor in the field before and after implementation of the proposed timing plans for comparative evaluations. These studies should utilize specialized electronic timing and measuring devices.

(b) The following deliverables shall be provided for OPTIMIZE TRAFFIC SIGNAL SYSTEM.

1. Consultant shall furnish to IDOT one (1) copy of a SCAT Report for the optimized system. The SCAT Report shall include the following elements:

<p>Cover Page in color showing a System Map</p>
<p>Figures</p> <ol style="list-style-type: none"> 1. System overview map – showing system number, system schematic map with numbered system detectors, oversaturated movements, master location, system phone number, cycle lengths, and date of completion. 2. General location map in color – showing signal system location in the metropolitan area. 3. Detail system location map in color – showing cross street names and local controller addresses. 4. Controller sequence – showing controller phase sequence diagrams.
<p>Table of Contents</p>
<p>Tab 1: Final Report</p> <ol style="list-style-type: none"> 1. Project Overview 2. System and Location Description (Project specific) 3. Methodology 4. Data Collection 5. Data Analysis and Timing Plan Development 6. Implementation a. Traffic Responsive Programming (Table of TRP vs. TOD Operation) 7. Evaluation <ol style="list-style-type: none"> a. Speed and Delay runs
<p>Tab 2. Turning Movement Counts</p> <ol style="list-style-type: none"> 1. Turning Movement Counts (Showing turning movement counts in the intersection diagram for each period, including truck percentage)
<p>Tab 3. Synchro Analysis</p> <ol style="list-style-type: none"> 1. AM: Time-Space diagram in color, followed by intersection Synchro report (Timing report) summarizing the implemented timings. 2. Midday: same as AM 3. PM: same as AM
<p>Tab 4: Speed, Delay Studies</p> <ol style="list-style-type: none"> 1. Summary of before and after runs results in two (2) tables showing travel time and delay time. 2. Plot of the before and after runs diagram for each direction and time period.
<p>Tab 5: Environmental Report</p> <ol style="list-style-type: none"> 1. Environmental impact report including gas consumption, NO2, HCCO, improvements.
<p>Tab 6: Electronic Files</p> <ol style="list-style-type: none"> 1. Two (2) CDs for the optimized system. The CDs shall include the following elements: <ol style="list-style-type: none"> a. Electronic copy of the SCAT Report in PDF format b. Copies of the Synchro files for the optimized system c. Traffic counts for the optimized system d. New or updated intersection graphic display files for each of the system intersections and the system graphic display file including system detector locations and addresses.

Basis of Payment.

The work shall be paid for at the contract unit each for OPTIMIZE TRAFFIC SIGNAL SYSTEM, which price shall be payment in full for performing all work described herein for the entire traffic signal system. Following the completion of traffic counts, 25 percent of the bid price will be paid. Following the completion of the Synchro analysis, 25 percent of the bid price will be paid. Following the setup and fine tuning of the timings, the speed-delay study, and the TRP programming, 25 percent of the bid price will be paid. The remaining 25 percent will be paid when the system is working to the satisfaction of the engineer and the report and CD have been submitted.

TEMPORARY TRAFFIC SIGNAL TIMINGS

Description.

This work shall consist of developing and maintaining appropriate traffic signal timings for the specified intersection for the duration of the temporary signalized condition, as well as impact to existing traffic signal timings caused by detours or other temporary conditions.

All timings and adjustments necessary for this work shall be performed by an approved Consultant who has previous experience in optimizing Closed Loop Traffic signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants.

The following tasks are associated with TEMPORARY TRAFFIC SIGNAL TIMINGS.

- (a) Consultant shall attend temporary traffic signal inspection (turn-on) and/or detour meeting and conduct on-site implementation of the traffic signal timings. Make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.
- (b) Consultant shall provide monthly observation of traffic signal operations in the field.
- (c) Consultant shall provide on-site consultation and adjust timings as necessary for construction stage changes, temporary traffic signal phase changes, and any other conditions affecting timing and phasing, including lane closures, detours, and other construction activities.
- (d) Consultant shall make timing adjustments and prepare comment responses as directed by the Area Traffic Signal Operations Engineer.

Basis of Payment.

The work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL TIMINGS, which price shall be payment in full for performing all work described herein per intersection. When the temporary traffic signal installation is turned on and/or detour implemented, 50 percent of the bid price will be paid. The remaining 50 percent of the bid price will be paid following the removal of the temporary traffic signal installation and/or detour.

MODIFYING EXISTING CONTROLLER CABINET.

The work shall consist of modifying an existing controller cabinet as follows:

(a) Uninterruptible Power Supply (UPS). The addition of uninterruptible power supply (UPS) to an existing controller cabinet could require the relocation of the existing controller cabinet items to allow for the installation of the uninterruptible power supply (UPS) components inside the existing controller cabinet as outlined under Sections 862 and 1074.04 of the Standard Specifications.

(b) Light Emitting Diode (LED) Signal Heads, Light Emitting Diode (LED) Optically Programmed Signal Heads and Light Emitting Diode (LED) Pedestrian Signal Heads. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(5)(b)(2) of the Standard Specifications and the recommended load requirements of the light emitting diode (LED) signal heads that are being installed at the existing traffic signal. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.

(c) Light Emitting Diode (LED), Signal Head, Retrofit. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(2) of the Standard Specifications and the recommended load requirements of light emitting diode (LED) traffic signal modules, pedestrian signal modules, and pedestrian countdown signal modules as specified in the plans. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.

Basis of Payment.

Modifying an existing controller cabinet will be paid for at the contract unit price per each for MODIFY EXISTING CONTROLLER CABINET. This shall include all material and labor required to complete the work as described above, the removal and disposal of all items removed from the controller cabinet, as directed by the Engineer. The equipment for the Uninterruptible Power Supply (UPS) and labor to install it in the existing controller cabinet shall be included in the pay item Uninterruptible Power Supply. Modifying an existing controller will be paid for at the contract unit price per each for MODIFY EXISTING CONTROLLER, per Sections 895.04 and 895.08 of the Standard Specifications.

DIVISION 1000 MATERIALS

PEDESTRIAN PUSH-BUTTON.

Revise Article 1074.02(a) of the Standard Specifications to read:

The pedestrian push-button housing shall be constructed of aluminum alloy according to ASTM B 308 6061-T6 and powder coated yellow, unless otherwise noted on the plans. The housing shall be furnished with suitable mounting hardware.

Revise Article 1074-02(e) of the Standard Specifications to read:

Stations shall be designed to be mounted directly to a post, mast arm pole or wood pole. The station shall be aluminum and shall accept a 3 inch (75mm) round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9 x 15 inch sign with arrow(s) for a count-down pedestrian signal. The pedestrian station size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9 x 12 inch sign with arrow(s).

Add the following to Article 1074.02(a) of the Standard Specifications:

(f) Location. Pedestrian push-buttons and stations shall be mounted directly to a post, mast arm pole or wood pole as shown on the plans and shall be fully accessible from a paved or concrete surface. See the District's Detail sheets for orientation and mounting details.

CONTROLLER CABINET AND PERIPHERAL EQUIPMENT.

Add the following to Article 1074.03 of the Standard Specifications:

(a) (6) Cabinets shall be designed for NEMA TS2 Type 1 operation. All cabinets shall be pre-wired for a minimum of eight (8) phases of vehicular, four (4) phases of pedestrian and four (4) phases of overlap operation.

(b) (5) Cabinets – Provide 1/8" (3.2 mm) thick unpainted aluminum alloy 5052-H32. The surface shall be smooth, free of marks and scratches. All external hardware shall be stainless steel.

(b) (6) Controller Harness – Provide a TS2 Type 2 "A" wired harness in addition to the TS2 Type 1 harness.

(b) (7) Surge Protection – Plug-in type EDCO SHA-1250 or Atlantic/Pacific approved equal.

(b) (8) BIU – Containment screw required.

(b) (9) Transfer Relays – Solid state or mechanical flash relays are acceptable.

(b) (10) Switch Guards – All switches shall be guarded.

(b) (11) Heating – One (1) 200 watt, thermostatically-controlled, Hoffman electric heater, or approved equivalent.

(b) (12) Lighting – One (1) LED Panel shall be placed inside the cabinet top panel and one (1) LED Panel shall be placed on each side of the pull-out drawer/shelf assembly located beneath the controller support shelf. The LED Panels shall be controlled by a wall switch. Relume Traffic Control Box LED Panels and power supply or approved equivalent.

(b) (13) the cabinet shall be equipped with a pull-out drawer/shelf assembly. A 1 ½ inch (38mm) deep drawer shall be provided in the cabinet, mounted directly beneath the controller support shelf. The drawer shall have a hinged top cover and shall be capable of accommodating one (1) complete set of cabinet prints and manuals. This drawer shall support 50 lbs. (23 kg) in weight when fully extended. The drawer shall open and close smoothly. Drawer dimensions shall make maximum use of available depth offered by the controller shelf and be a minimum of 24 inches (610mm) wide.

- (b) (14) Plan & Wiring Diagrams – 12” x 16” (3.05mm x 4.06mm) moisture sealed container attached to door.
- (b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle pre-emption and sixteen channels (16) of vehicular operation.
- (b) (16) Field Wiring Labels – All field wiring shall be labeled.
- (b) (17) Field Wiring Termination – Approved channel lugs required.
- (b) (18) Power Panel – Provide a nonconductive shield.
- (b) (19) Circuit Breaker – The circuit breaker shall be sized for the proposed load but shall not be rated less than 30 amps.
- (b) (20) Police Door – Provide wiring and termination for plug in manual phase advance switch.
- (b) (21) Railroad Pre-Emption Test Switch – Eaton 8830K13 SHA 1250 or equivalent.

RAILROAD, FULL-ACTUATED CONTROLLER AND CABINET.

Controller shall comply with Article 1073.01 as amended in these Traffic Signal Special Provisions.

Controller Cabinet and Peripheral Equipment shall comply with Article 1074.03 as amended in these Traffic Signal Special Provisions.

Add the following to Articles 1073.01 (c) (2) and 1074.03 (a) (5) (e) of the Standard Specifications:

Controllers and cabinets shall be new and NEMA TS2 Type 1 design.

A method of monitoring and/or providing redundancy to the railroad preemptor input to the controller shall be included as a component of the Railroad, Full Actuated Controller and Cabinet installation and be verified by the traffic signal equipment supplier prior to installation.

Railroad interconnected controllers and cabinets shall be assembled only by an approved traffic signal equipment supplier. All railroad interconnected (including temporary railroad interconnect) controllers and cabinets shall be new, built, tested and approved by the controller equipment vendor, in the vendor's District One facility, prior to field installation. The vendor shall provide the technical equipment and assistance as required by the Engineer to fully test this equipment.

UNINTERRUPTIBLE POWER SUPPLY (UPS).

Revise Article 1074.04(a)(1) of the Standard Specifications to read:

The UPS shall be line interactive and provide voltage regulation and power conditioning when utilizing utility power. The UPS shall be sized appropriately for the intersection's normal traffic signal operating connected load, plus 20 percent (20%). The total connected traffic signal load shall not exceed the published ratings for the UPS. The UPS shall provide a minimum of six (6) hours of normal operation run-time for signalized intersections with LED type signal head optics at 77 °F (25 °C) (minimum 700 W/1000 VA active output capacity, with 90 percent minimum inverter efficiency).

Revise the first paragraph of Article 1074.04(a)(3) of the Standard Specifications to read:

The UPS shall have a minimum of four (4) sets of normally open (NO) and normally closed (NC) single-pole double-throw (SPDT) relay contact closures, available on a panel mounted terminal block or locking circular connectors, rated at a minimum 120 V/1 A, and labeled so as to identify each contact according to the plans.

Revise Article 1074.04(a)(10) of the Standard Specifications to read:

The UPS shall be compatible with the District's approved traffic controller assemblies utilizing NEMA TS 1 or NEMA TS 2 controllers and cabinet components for full time operation.

Revise Article 1074.04(a)(17) of the Standard Specifications to read:

When the intersection is in battery backup mode, the UPS shall bypass all internal cabinet lights, ventilation fans, cabinet heaters, service receptacles, any lighted street name signs, any automated enforcement equipment and any other devices directed by the Engineer.

Revise Article 1074.04(b)(2)b of the Standard Specifications to read:

Batteries, inverter/charger and power transfer relay shall be housed in a separate NEMA Type 3R cabinet. The cabinet shall be Aluminum alloy, 5052-H32, 0.125-inch thick and have a natural mill finish.

Revise Article 1074.04(b)(2)c of the Standard Specifications to read:

No more than three batteries shall be mounted on individual shelves for a cabinet housing six batteries and no more than four batteries per shelf for a cabinet housing eight batteries.

Revise Article 1074.04(b)(2)e of the Standard Specifications to read:

The battery cabinet housing shall have the following nominal outside dimensions: a width of 25 in. (785 mm), a depth of 16 in. (440 mm), and a height of 41 to 48 in. (1.1 to 1.3 m). Clearance between shelves shall be a minimum of 10 in. (250 mm).

UPS

End of paragraph 1074.04(b) (2)e

The door shall be equipped with a two position doorstop, one a 90° and one at 120°.

Revise Article 1074.04(b)(2)g of the Standard Specifications to read:

The door shall open to the entire cabinet, have a neoprene gasket, an Aluminum continuous piano hinge with stainless steel pin, and a three point locking system. The cabinet shall be provided with a main door lock which shall operate with a traffic industry conventional No. 2 key. Provisions for padlocking the door shall be provided.

Add the following to Article 1074.04(b)(2) of the Standard Specifications:

- j. The battery cabinet shall have provisions for an external generator connection.

Add the following to Article 1074.04(c) of the Standard Specifications:

(8) The UPS shall include a tip or kill switch installed in the battery cabinet, which shall completely disconnect power from the UPS when the switch is manually activated.

(9) The UPS shall incorporate a flanged electric generator inlet for charging the batteries and operating the UPS. The generator connector shall be male type, twist-lock, rated as 15A, 125VAC with a NEMA L5-15P configuration and weatherproof lift cover plate (Hubbell model HBL4716C or approved equal). Access to the generator inlet shall be from a secured weatherproof lift cover plate or behind a locked battery cabinet police panel.

Battery System.

Revise Article 1074.04(d)(3) of the Standard Specifications to read:

All batteries supplied in the UPS shall be either gel cell or AGM type, deep cycle, completely sealed, prismatic lead calcium based, silver alloy, valve regulated lead acid (VRLA) requiring no maintenance. All batteries in a UPS installation shall be the same type; mixing of gel cell and AGM types within a UPS installation is not permitted.

Revise Article 1074.04(d)(4) of the Standard Specifications to read:

Batteries shall be certified by the manufacturer to operate over a temperature range of -13 to 160 °F (-25 to + 71 °C) for gel cell batteries and -40 to 140 °F (-40 to + 60 °C) for AGM type batteries.

Add the following to Article 1074.04(d) of the Standard Specifications:

(9) The UPS shall consist of an even number of batteries that are capable of maintaining normal operation of the signalized intersection for a minimum of six hours. Calculations shall be provided showing the number of batteries of the type supplied that are needed to satisfy this requirement. A minimum of four batteries shall be provided.

Add the following to the Article 1074.04 of the Standard Specifications:

(e) Warranty. The warranty for an uninterruptible power supply (UPS) shall cover a minimum of two years from date the equipment is placed in operation; however, the batteries of the UPS shall be warranted for full replacement for a minimum of five years from the date the traffic signal and UPS are placed into service.

ELECTRIC CABLE.

Delete “or stranded, and No. 12 or” from the last sentence of Article 1076.04 (a) of the Standard Specifications.

Add the following to the Article 1076.04(d) of the Standard Specifications:

Service cable may be single or multiple conductor cable.

TRAFFIC SIGNAL POST.

Add the following to Article 1077.01 (d) of the Standard Specifications:

All posts and bases shall be steel and hot dipped galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with TRAFFIC SIGNAL PAINTING in Division 800 of these specifications.

PEDESTRIAN PUSH-BUTTON POST.

Add the following to Article 1077.02(b) of the Standard Specifications:

All posts and bases shall be steel and hot-dipped galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with Traffic Signal Painting in Division 800 of these specifications.

MAST ARM ASSEMBLY AND POLE.

Add the following to Article 1077.03 (a) of the Standard Specifications:

Traffic signal mast arms shall be one piece construction, unless otherwise approved by the Engineer. All poles shall be galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with TRAFFIC SIGNAL PAINTING in Division 800 of these specifications.

The shroud shall be of sufficient strength to deter pedestrian and vehicular damage. The shroud shall be constructed and designed to allow air to circulate throughout the mast arm but not allow infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet. All mounting hardware shall be stainless steel.

LIGHT EMITTING DIODE (LED) TRAFFIC SIGNAL HEAD.

Add the following to Section 1078 of the Standard Specifications:

General.

All signal and pedestrian heads shall provide 12" (300 mm) displays with glossy yellow or black polycarbonate housings. All head housings shall be the same color (yellow or black) at the intersection. For new signalized intersections and existing signalized intersections where all signal and/or pedestrian heads are being replaced, the proposed head housings shall be black. Where only selected heads are being replaced, the proposed head housing color (yellow or black) shall match existing head housings. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on. Post top mounting collars are required on all posts, and shall be constructed of the same material as the brackets.

Pedestrian signal heads shall be furnished with the international symbolic "Walking Person" and "Upraised Palm" displays. Egg crate sun shields are not permitted.

Signal heads shall be positioned according to the "District One Standard Traffic Signal Design Details."

LED signal heads (All Face and Section Quantities), (All Mounting Types) shall conform fully to the requirements of Articles 1078.01 and 1078.02 of the Standard Specifications amended herein.

1. The LED signal modules shall be replaced or repaired if an LED signal module fails to function as intended due to workmanship or material defects within the first 60 months from the date of delivery. LED signal modules which exhibit luminous intensities less than the minimum values specified in Table 1 of the ITE Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement (June 27, 2005) [VTSCH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants within the first 60 months of the date of delivery shall be replaced or repaired. The manufacturer's written warranty for the LED signal modules shall be dated, signed by an Officer of the company and included in the product submittal to the State.

(a) Physical and Mechanical Requirements

1. Modules can be manufactured under this specification for the following faces:

- a. 12 inch (300 mm) circular, multi-section
- b. 12 inch (300 mm) arrow, multi-section
- c. 12 inch (300 mm) pedestrian, 2 sections

2. The maximum weight of a module shall be 4 lbs. (1.8 kg).

3. Each module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.
4. Material used for the lens and signal module construction shall conform to ASTM specifications for the materials.
5. The lens of the module shall be tinted with a wavelength-matched color to reduce sun phantom effect and enhance on/off contrast. The tinting shall be uniform across the lens face. Polymeric lens shall provide a surface coating or chemical surface treatment applied to provide abrasion resistance. The lens of the module shall be integral to the unit, convex with a smooth outer surface and made of plastic. The lens shall have a textured surface to reduce glare.
6. The use of tinting or other materials to enhance ON/OFF contrasts shall not affect chromaticity and shall be uniform across the face of the lens.
7. Each module shall have a symbol of the type of module (i.e. circle, arrow, etc.) in the color of the module. The symbol shall be 1 inch (25.4 mm) in diameter. Additionally, the color shall be written out in 1/2 inch (12.7mm) letters next to the symbol.

(b) Photometric Requirements

1. The minimum initial luminous intensity values for the modules shall conform to the values in Table 1 of the VTCSH (2005) for circular signal indications, and as stated in Table 3 of these specifications for arrow and pedestrian indications at 25 °C.
2. The modules shall meet or exceed the illumination values stated in Articles 1078.01 and 1078.02 the Standard Specifications for circular signal indications, and Table 3 of these specifications for arrow and pedestrian indications, throughout the useful life based on normal use in a traffic signal operation over the operating temperature range.
3. The measured chromaticity coordinates of the modules shall conform to the chromaticity requirements of Section 4.2 of the VTCSH (2005) or applicable successor ITE specifications.
4. The LEDs utilized in the modules shall be AlInGaP technology for red, yellow, Portland orange (pedestrian) and white (pedestrian) indications, and GaN for green indications, and shall be the ultra-bright type rated for 100,000 hours of continuous operation from -40 °C to +74 °C.

(c) Electrical

1. Maximum power consumption for LED modules is per Table 2.
2. Operating voltage of the modules shall be 120 VAC. All parameters shall be measured at this voltage.
3. The modules shall be operationally compatible with currently used controller assemblies (solid state load switches, flashers, and conflict monitors).

4. When a current of 20 mA AC (or less) is applied to the unit, the voltage read across the two leads shall be 15 VAC or less.

5. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.

6. The individual LEDs shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

(d) Retrofit Traffic Signal Module

1. The following specification requirements apply to the Retrofit module only. All general specifications apply unless specifically superseded in this section.

2. Retrofit modules can be manufactured under this specification for the following faces:

- a. 12 inch (300 mm) circular, multi-section
- b. 12 inch (300 mm) arrow, multi-section
- c. 12 inch (300 mm) pedestrian, 2 sections

3. Each Retrofit module shall be designed to be installed in the doorframe of a standard traffic signal housing. The Retrofit module shall be sealed in the doorframe with a one-piece EPDM (ethylene propylene rubber) gasket.

4. The maximum weight of a Retrofit module shall be 4 lbs. (1.8 kg).

5. Each Retrofit module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.

6. Electrical conductors for modules, including Retrofit modules, shall be 39.4 inches (1m) in length, with quick disconnect terminals attached.

7. The lens of the Retrofit module shall be integral to the unit, shall be convex with a smooth outer surface and made of plastic or of glass.

(e) The following specification requirements apply to the 12 inch (300 mm) arrow module only. All general specifications apply unless specifically superseded in this section.

1. The arrow module shall meet specifications stated in Section 9.01 of the Equipment and Material Standards of the Institute of Transportation Engineers (November 1998) [ITE Standards], Chapter 2 (Vehicle Traffic Control Signal Heads) or applicable successor ITE specifications for arrow indications.

2. The LEDs arrow indication shall be a solid display with a minimum of three (3) outlining rows of LEDs and at least one (1) fill row of LEDs.

(f) The following specification requirement applies to the 12 inch (300 mm) programmed visibility (PV) module only. All general specifications apply unless specifically superseded in this section.

1. The LED module shall be a module designed and constructed to be installed in a programmed visibility (PV) signal housing without modification to the housing.

(g) The following specification requirements apply to the 12 inch (300 mm) Pedestrian module only. All general specifications apply unless specifically superseded in this section.

1. Each pedestrian signal LED module shall provide the ability to actuate the solid upraised hand and the solid walking person on one 12 inch (300mm) section.

2. Two (2) pedestrian sections shall be installed. The top section shall be wired to illuminate only the upraised hand and the bottom section shall be the walking man.

3. "Egg Crate" type sun shields are not permitted. All figures must be a minimum of 9 inches (225mm) in height and easily identified from a distance of 120-feet (36.6m).

LIGHT EMITTING DIODE (LED) PEDESTRIAN COUNTDOWN SIGNAL HEAD.

Add the following to Article 1078.02 of the Standard Specifications:

General.

1. The module shall operate in one mode: Clearance Cycle Countdown Mode Only. The countdown module shall display actual controller programmed clearance cycle and shall start counting when the flashing clearance signal turns on and shall countdown to "0" and turn off when the steady Upraised Hand (symbolizing Don't Walk) signal turns on. Module shall not have user accessible switches or controls for modification of cycle.

2. At power on, the module shall enter a single automatic learning cycle. During the automatic learning cycle, the countdown display shall remain dark.

3. The module shall re-program itself if it detects any increase or decrease of Pedestrian Timing. The counting unit will go blank once a change is detected and then take one complete pedestrian cycle (with no counter during this cycle) to adjust its buffer timer.

4. The module shall allow for consecutive cycles without displaying the steady Upraised Hand.

5. The module shall recognize preemption events and temporarily modify the crossing cycle accordingly.

6. If the controller preempts during the Walking Person (symbolizing Walk), the countdown will follow the controller's directions and will adjust from Walking Person to flashing Upraised Hand. It will start to count down during the flashing Upraised Hand.

7. If the controller preempts during the flashing Upraised Hand, the countdown will continue to count down without interruption.
8. The next cycle, following the preemption event, shall use the correct, initially programmed values.
9. If the controller output displays Upraised Hand steady condition and the unit has not arrived to zero or if both the Upraised Hand and Walking Person are dark for some reason, the unit suspends any timing and the digits will go dark.
10. The digits will go dark for one pedestrian cycle after loss of power of more than 1.5 seconds.
11. The countdown numerals shall be two (2) "7 segment" digits forming the time display utilizing two rows of LEDs.
12. The LED module shall meet the requirements of the Institute of Transportation Engineers (ITE) LED purchase specification, "Pedestrian Traffic Control Signal Indications - Part 2: LED Pedestrian Traffic Signal Modules," or applicable successor ITE specifications, except as modified herein.
13. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.
14. In the event of a power outage, light output from the LED modules shall cease instantaneously.
15. The LEDs utilized in the modules shall be AllnGaP technology for Portland Orange (Countdown Numerals and Upraised Hand) and GaN technology for Lunar White (Walking Person) indications.
16. The individual LEDs shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

Electrical.

1. Maximum power consumption for LED modules is 29 watts.
2. The measured chromaticity shall remain unchanged over the input line voltage range listed of 80 VAC to 135 VAC.

TRAFFIC SIGNAL BACKPLATE.

Delete 1st sentence of Article 1078.03 of the Standard Specifications and add "All backplates shall be aluminum and louvered".

Add the following to the third paragraph of Article 1078.03 of the Standard Specifications. The reflective backplate shall not contain louvers.

Delete second sentence of the fourth paragraph of Article 1078.03 of the Standard Specifications.

Add the following to the fourth paragraph of Article 1078.03 of the Standard Specifications:

When retro reflective sheeting is specified, it shall be Type ZZ sheeting according to Article 1091.03 and applied in preferred orientation for the maximum angularity according to the manufacturer's recommendations. The retro reflective sheeting shall be installed under a controlled environment at the manufacturer/supplier before shipment to the contractor. The aluminum backplate shall be prepared and cleaned, following recommendations of the retro reflective sheeting manufacturer.

INDUCTIVE LOOP DETECTOR.

Add the following to Article 1079.01 of the Standard Specifications:

Contracts requiring new cabinets shall provide for rack mounted detector amplifier cards. Detector amplifiers shall provide LCD displays with loop frequency, inductance, and change of inductance readings.

ILLUMINATED SIGN, LIGHT EMITTING DIODE.

Delete last sentence of Article 1084.01(a) and add "Mounting hardware shall be black polycarbonate or galvanized steel and similar to mounting Signal Head hardware and bracket specified herein and shall provide tool free access to the interior."

Revise the second paragraph of Article 1084.01(a) to read:

The exterior surface of the housing shall be acid-etched and shop painted with one coat of zinc-chromate primer and two coats of exterior enamel. The housing shall be the same color (yellow or black) to match the existing or proposed signal heads. The painting shall be according to Section 851.

Add the following to Article 1084.01 (b) of the Standard Specifications:

The message shall be formed by rows of LEDs. The sign face shall be 24 inches (600 mm) by 24 inches (600 mm).

Add the following to Article 1084.01 of the Standard Specifications:

(e) The light emitting diode (LED) blank out signs shall be manufactured by National Sign & Signal Company, or an approved equal and consist of a weatherproof housing and door, LEDs and transformers.

ILLUMINATED STREET NAME SIGN

The illuminate street name sign shall be as follows.

(a) Description.

The LEDs shall be white in color and utilize InGaN or UV thermally efficient technology. The LED Light Engines shall be designed to fit inside a standard fluorescent illuminated street sign housing in lieu of fluorescent lamps and ballasts or a slim line type housing. The LED internally-illuminated street name sign shall display the designated street name clearly and legibly in the daylight hours without being energized and at night when energized. The sign assembly shall consist of a four-, six-, or eight-foot aluminum housing. White translucent 3M DG³ reflective sheeting sign faces with the street name applied in 3M/Scotchlite Series 1177 or current 3M equivalent transparent green shall be installed in hinged doors on the side of the sign for easy access to perform general cleaning and maintenance operations. Illumination shall occur with LED Light Engine as specified.

(b) Environmental Requirements.

The LED lamp shall be rated for use in the ambient operating temperature range of -40 to +50°C (-40 to +122°F) for storage in the ambient temperature range of -40 to +75°C (-40 to +167°F).

(c) General Construction.

The LED Light Engine shall be a single, self-contained device, for installation in an existing street sign housing. The power supply must be designed to fit and mounted on the inside wall at one end of the street sign housing. The LED Light Engine shall be mounted within the inner top portion of the housing and no components of the light source shall sit between the sign faces.

The assembly and manufacturing processes of the LED Light Engine shall be designed to ensure that all LED and electronic components are adequately supported to withstand mechanical shocks and vibrations in compliance with the specifications of the ANSI, C136.31-2001 standards.

(d) Mechanical Construction.

The sign shall be constructed using a weatherproof, aluminum housing consisting of an extruded aluminum top with a minimum thickness of .140" x 10 3/4" deep (including the drip edge). The extruded aluminum bottom is .094" thick x 5 7/8" deep. The ends of the housing shall be cast aluminum with a minimum thickness of .250". A six-foot sign shall be 72 5/8" long and 22 5/16" tall and not weigh more than 77 pounds. An eight-foot sign shall be 96 5/8" long and 22 5/16" tall and not weigh more than 92 pounds. All corners are continuous TIG (Tungsten Inert Gas) welded to provide a weatherproof seal around the entire housing.

The door shall be constructed of extruded aluminum. Two corners are continuous TIG welded with the other two screwed together to make one side of the door removable for installation of the sign face. The door is fastened to the housing on the bottom by a full length, .040" x 1 1/8" open stainless steel hinge. The door shall be held secure onto a 1" wide by 5/32" thick neoprene gasket by three (six total for two-way sign) quarter-turn fasteners to form a watertight seal between the door and the housing.

The sign face shall be constructed of .125" white translucent polycarbonate. The letters shall be 8" upper case and 6" lower case. The sign face legend background shall consist of 3M/Scotch lite Series 4090T or current equivalent 3M translucent DG³ white VIP (Visual Impact Performance) diamond grade sheeting (ATSM Type 9) and 3M/Scotch lite Series 1177 or current 3M equivalent transparent green acrylic EC (electronic cut-able) film applied to the front of the sign face. The legend shall be framed by a white polycarbonate border. A logo symbol and/or name of the community may be included with approval of the Engineer.

All surfaces of the sign shall be etched and primed in accordance to industry standards before receiving appropriate color coats of industrial enamel.

All fasteners and hardware shall be corrosion resistant stainless steel. No tools are required for routine maintenance.

All wiring shall be secured by insulated wire compression nuts.

A wire entrance junction box shall be supplied with the sign assembly. The box may be supplied mounted to the exterior or interior of the sign and provide a weather tight seal.

A photoelectric switch shall be mounted in the control cabinet to control lighting functions for day and night display. Each sign shall be individually fused.

Brackets and Mounting: LED internally-illuminated street name signs will be factory drilled to accommodate mast arm two-point support assembly mounting brackets.

(e) Electrical.

Photocell shall be rated 105-305V, turn on at 1.5 fcs. with a 3-5 second delay. A manufacturer's warranty of six (6) years shall be provided. Power consumption shall be no greater than 1 watt at 120V.

The LED Light Engine shall operate from a 60 +/- 3 cycle AC line power over a voltage range of 80 to 135 Vac rms. Fluctuations in line voltage over the range of 80 to 135 Vac shall not affect luminous intensity by more than +/- 10%.

Total harmonic distortion induced into the AC power line by the LED Light Engine, operated at a nominal operating voltage and at a temperature of + 25oC (+ 77oF), and shall not exceed 20%.

The LED Light Engine shall be cycled ON and OFF with a photocell as shown on the detail sheet and shall not exceed the following maximum power values:

4-Foot Sign	60 W
6-Foot Sign	90 W
8-Foot Sign	120 W

The signs shall not be energized when traffic signals are powered by an alternate energy source such as a generator or uninterruptible power source (UPS). The signs shall be connected to the generator or UPS bypass circuitry.

(f) Photometric Requirements.

The entire surface of the sign panel shall be evenly illuminated. The average maintained luminous intensity measured across the letters, operating under the conditions defined in Environmental Requirements and Wattage Sections shall be of a minimum value of 100 cd/m².

The manufacturer shall make available independent laboratory test results to verify compliance to Voltage Range and Luminous Intensity Distribution Sections.

Twelve (12) 1.25 watt LED units shall be mounted on 1-inch x 22-inch metal core printed circuit boards (MCPCB). The viewing angle shall be 120 degrees. LED shall have a color temperature of 5200k nominal, CRI of 80 with a life expectancy of 75,000 hrs.

(g) Quality Assurance.

The LED Light Engine shall be manufactured in accordance with a vendor quality assurance (QA) program. The production QA shall include statistically controlled routine tests to ensure minimum performance levels of the LED Light Engine build to meet this specification. QA process and test result documentations shall be kept on file for a minimum period of seven (7) years. The LED Light Engine that does not satisfy the production QA testing performance requirements shall not be labeled, advertised, or sold as conforming to these specifications. Each LED Light Engine shall be identified by a manufacturer's serial number for warranty purposes. LED Light Engines shall be replaced or repaired if they fail to function as intended due to workmanship or material defects within the first sixty (60) months from the date of acceptance. LED Light Engines that exhibit luminous intensities less than the minimum value specified in Photometric Section within the first thirty-six (36) months from the date of acceptance shall be replaced or repaired.

MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAMES, CLOSED LID, RESTRICTOR PLATE

Description. This work shall consist of constructing manholes with two frames and closed lids and restrictor plates in accordance with Section 602 of the Standard Specifications, the details in the plans and as directed by the Engineer.

Material. Materials shall be in accordance with Article 602.02 of the Standard Specifications.

Metal materials shall be in accordance with all applicable portions of Section 1003 of the Standard Specifications.

Basis of Payment. This work shall be paid at the contract unit price per each for MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAMES, CLOSED LID, RESTRICTOR PLATE, which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

MANHOLES, TYPE A, 8'-DIAMETER, WITH 2 TYPE 1 FRAMES, CLOSED LID, RESTRICTOR PLATE

Description. This work shall consist of constructing manholes with two frames and closed lids and restrictor plates in accordance with Section 602 of the Standard Specifications, the details in the plans and as directed by the Engineer.

Material. Materials shall be in accordance with Article 602.02 of the Standard Specifications.

Metal materials shall be in accordance with all applicable portions of Section 1003 of the Standard Specifications.

Basis of Payment. This work shall be paid at the contract unit price per each for MANHOLES, TYPE A, 8'-DIAMETER, WITH 2 TYPE 1 FRAMES, CLOSED LID, RESTRICTOR PLATE, which price shall be payment in full for all labor, equipment and materials necessary to complete the work as specified herein.

CONCRETE MEDIAN (SPECIAL)

Description. This work shall consist of constructing concrete median in accordance with Section 606 of the Standard Specifications, the details in the plans, and as directed by the Engineer. This work will be constructed to the lines, grades and dimensions as defined in Indiana Department of Transportation detail E 605-CNCC-03 for Concrete Center Curb, Type C.

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

Basis of Payment. This work shall be paid at the contract unit price per square foot for CONCRETE MEDIAN (SPECIAL), which price shall include all materials, labor and equipment necessary to perform the work as herein specified.

CONCRETE MEDIAN, TYPE SB-6.24 (MODIFIED)

Description. This work shall consist of constructing concrete medians in accordance with the applicable portions of Section 606 of the Standard Specifications, the applicable portions of Standard 606301, the details shown in the plans and as directed by the Engineer.

Method of Measurement. Concrete medians will be measured for payment in place and the area computed in square feet.

Basis of Payment. This work shall be paid at the contract unit price per square foot for CONCRETE MEDIAN, TYPE SB-6.24 (MODIFIED), which price shall include all materials, labor and equipment necessary to perform the work as herein specified.

AGGREGATE SURFACE COURSE, TYPE B, 12”

Description. This work shall consist of constructing aggregate surface course in accordance with the applicable portions of Section of 402 of the Standard Specifications, the details shown in the plans and as directed by the Engineer.

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

Basis of Payment. This work shall be paid at the contract unit price per square yard for AGGREGATE SURFACE COURSE, TYPE B, 12”, which price shall include all materials, labor and equipment necessary to perform the work as herein specified.

SLEEPER SLAB

Description. This work shall consist of constructing a sleeper slab at the locations shown on the plans or as directed by the Engineer. This work shall be performed in accordance with the applicable portions of Section 420 of the Standard Specifications, the details shown in the plans and as directed by the Engineer.

Materials. Concrete shall be Class SI meeting the requirements of Section 1020. Reinforcement bars shall be Grade 60 meeting the requirements of Section 1006.10.

Method of Measurement. Sleeper slab will be measured for payment in place, and the area computed in feet along the pavement joint. Reinforcement bars, polyethylene bond breaker and preformed joint filler shall not be paid for separately, but shall be included in the unit price for the sleeper slab. Excavation, except excavation in rock, shall be paid as Earth Excavation.

Basis of Payment. This work shall be paid at the contract unit price per foot for SLEEPER SLAB, which price shall be payment in full for all materials, labor, equipment and incidentals necessary to complete the work as specified.

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (VARIABLE WIDTH GUTTER FLAG)

This work consists of the construction of concrete curb and gutter as shown on the plans where the curb and gutter section deviates from a Standard B-6.24 section as shown on the plans.

This work shall be done in accordance with Section 606 of Standard Specifications and Standard 606001.

Basis of Payment. This work shall be paid at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (VARIABLE WIDTH GUTTER FLAG), which price shall be payment in full for all materials, labor, equipment and incidentals necessary to complete the work as specified.

STORM SEWER REMOVAL (SPECIAL)

This work consists of the removal or abandonment of storm sewer, including laterals, for pipe 24 inches in diameter and larger in accordance with Section 551 of the Standard Specifications and the following. Storm sewer shall be removed or abandoned in place at the Contractors option. Should the contractor choose to remove the existing pipe, the method of backfill shall be Method 1 only. Storm sewer must be removed if it will create conflict with other work in this contract.

All pipes to be abandoned and filled shall have both ends plugged with block and mortar to create a watertight seal. The upstream end shall include a fill pipe to receive the fill material and the downstream end shall include an air release port hole. The pipes will then be filled with Controlled Low-Strength Material (CLSM). Care shall be taken so that the pipe is completely filled with CLSM. The Contractor shall provide temporary access points for inspection at approximately one-third from the upstream end to verify the pipe is completely filled if required by the Engineer.

The CLSM shall be placed in accordance with Section 593 of the Standard Specifications. The CLSM material shall meet the requirements of section 1019 of the Standard Specifications.

Method of Measurement. This work will be measured for payment in place in feet. The measurement will be from end to end of existing pipe or end section.

Basis of Payment. This work will be paid for at the contract unit price per foot for STORM SEWER REMOVAL (SPECIAL) of the diameter specified.

FENCE REMOVAL

Description. This work shall consist of complete removal and proper disposal of fencing (regardless of type). The removal shall include post foundations, fittings, gates, posts and accessories. All holes left by the removal of the fence posts and post foundations shall be filled with crushed stone screenings. The furnishing and placing of the screenings shall be included in the cost of FENCE REMOVAL.

This work shall be performed at the locations shown on the plans or as directed by the Engineer. The existing fence shall be carefully removed and delivered to the owners or properly disposed of as directed by the Engineer. Any part of the fence that is damaged that is not called for to be removed, shall be replaced at the Contractor's expense.

Method of Measurement. Fence removal will be measured per lineal foot measured along the top of the fence from center of post to center of post.

Basis of Payment. This work will be paid for at the contract unit price per foot for FENCE REMOVAL.

MEDIAN SURFACE REMOVAL

Description. This work shall be performed in accordance with applicable portions of Section 440 of the Standard Specifications with the following alterations:

440.07 Method of Measurement. In subsection (b), add the following: Median surface removal shall be measured for payment and the area computed in square foot.

440.08 Basis of Payment. Add the following: This work will be paid at the contract unit price per square foot for MEDIAN SURFACE REMOVAL regardless of the depth or type of median surface removed.

RETAINING WALL REMOVAL

Description. This work shall be performed at the locations indicated on the plans and in accordance with applicable portions of Sections 201 and 501 of the Standard Specifications, with the following exceptions:

Under 501.04, Complete Removal of Structures, replace the first paragraph with the following: "Retaining walls and their foundation pads will be removed in their entirety."

Under 501.06, Method of Measurement, add the following:

Existing retaining walls to be removed as indicated on the plans are to be measured in place in feet. The length measured will be the total length along the top of each wall, vertical displacements and gaps between the walls are not included."

Under 501.07, Basis of Payment, add the following:

"Removal of existing retaining walls will be paid for at the contract unit price per foot for RETAINING WALL REMOVAL."

Basis of Payment. This work will be paid for at the contract unit price per foot for RETAINING WALL REMOVAL, which price shall include all materials, labor and equipment necessary to complete the work as specified herein.

REMOVE FRAME AND GRATE, SPECIAL

This work shall consist of removing frame and grate as indicated on the plans and in accordance with Section 602 of the Standard Specifications. This work will include pavement removal, excavation, and removal of existing frame and grate. Any damage to existing manhole or storm sewer pipe caused by the Contractor will be repaired at his/her expense to the satisfaction of the Engineer.

Basis of Payment. This work will be paid at the contract unit price per each for REMOVE FRAME AND GRATE, SPECIAL.

Pavement Patching will be paid for separately in accordance with Section 442 of the Standard Specifications.

Furnishing and installing new frame and grate will be paid for separately in accordance with Section 602 of the Standard Specifications.

TEMPORARY MANHOLE

Description: This work shall consist of constructing and removing manholes of the type and size specified in accordance with the applicable portions of Section 602 and 605 of the Standard Specifications and the details shown on the plans.

Basis of Payment: This work will be paid at the contract unit price per each for TEMPORARY MANHOLE.

PIPE CULVERT REMOVAL

This work consists of removing and disposing the existing pipe culverts at the locations shown on the plans in accordance with the applicable portions of Section 501 of the Standard Specifications. Any other culverts encountered during construction requiring removal shall follow this special provision.

This work will be paid for at the contract unit price per foot for PIPE CULVERT REMOVAL. The price shall be payment in full for all labor equipment and materials necessary to complete the work. The price shall also include the disposal of the removed material and removal of any end sections.

EXPLORATION TRENCH, SPECIAL

Description. This item shall consist of excavating a trench at locations designated by the Engineer for the purpose of locating existing underground drainage facilities or existing utility lines within the limits of the proposed improvement. The trench shall be deep enough to expose the line, and the width of the trench shall be sufficient to allow proper investigation to determine if the line needs to be replaced and to determine conflicts with the proposed improvements.

The exploration trench shall be backfilled with trench backfill meeting the requirements of the Standard Specifications, the cost of which shall be included in the item of Exploration Trench, Special.

An estimated length of exploration trench has been shown in the Summary of Quantities to establish a unit price, and payment shall be based on the actual length of trench explored without a change in unit price because of adjustment of plan quantity.

Method of Measurement: EXPLORATION TRENCH, SPECIAL will be measured in feet of the actual trench.

Basis of Payment: This work will be paid at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of the depth required, and no extra compensation will be allowed for any delays, inconveniences or damages sustained by the Contractor in performing this work.

CONCRETE PAD

Description: Concrete pads shall be constructed for the purpose of protecting existing utility pipeline facilities located within the existing right of way limits at the locations shown in the plans or as directed by the Engineer. The concrete pads shall be constructed of SI Concrete and reinforcement in accordance with the plan details. The construction may be grade formed should the existing soil conditions provide sufficient lateral support without collapsing. The finished surface shall be thoroughly worked during the operations of placing in such a manner as to provide a steel trough finish.

Basis of Payment: This work will be paid at the contract unit price per square yard for CONCRETE PAD.

EROSION CONTROL BLANKET

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Excelsior Blanket for Erosion Control Blanket.

Delete Article 251.04(a) Excelsior Blanket.

PLANTING SEDGE MEADOW PLUGS

PLANTING WETLAND PLUGS

This work shall consist of furnishing and installing sedge meadow and/or wetland plugs and goose grid barrier as shown in the details on the plans and only at locations as directed by the Engineer.

Add the following to Article 254.02 Materials:

All plants shall be healthy, vigorous, and true to species and variety. All materials shall be provided by a certified nursery and shall be free of pests and disease. All plant materials shall comply with State and federal laws with respect to inspection for plant diseases and infestations. Written approval shall be necessary for substitutions.

Plugs shall be obtained as close to possible to the project site. Written approval will be required for substitutions and plant material purchased outside a 150 mile radius of the site.

Delete Article 254.04(b) Planting Time and substitute the following:

Plugs shall only be planted between May 1 and June 15. Approval from the Engineer must be received for all planting dates.

Add the following to Article 254.05 Transporting and Storing Plants:

Each species should be handled and packed in the manner approved for the plant, having regard for the soil climatic conditions at the time and place of digging and delivery, and for the time that will be consumed for transit and delivery.

Plant materials shall be packed to ensure adequate protection against damage during transit. The plants shall be protected with wet material to ensure that the plant materials are delivered in a moist and cool condition. The vehicle should be ventilated to prevent overheating.

Plant materials shall be stored in a shaded area. Watering shall occur to maintain plant vigor during on-site storage.

An on-site inspection will be made prior to the installation of plant material. Any plant material not meeting specification (that being of good health) must be moved off the site.

Delete Article 254.06 Layout of Planting and substitute the following:

When plants are specified to be planted in prepared soil planting beds, the planting bed shall be approved by the Engineer prior to planting. The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. Plant plugs according to planting plan in overlapping zones to provide a natural gradient. Bed limits shall be painted or flagged. Individual plants layout shall be marked prior to installation. The Engineer will contact the Roadside Development Unit at (847) 705- 4171 to approve the layout prior to installation. Allow a minimum of three (3) days prior to installation for approval.

Delete Article 254.07 (b) Planting Procedures and substitute the following:

When planting plugs in areas as shown on the plans or as directed by the Engineer, the following work shall be performed prior to planting:

Permanent Seeding and Erosion Control Blanket must be installed prior to planting plugs to avoid damage to plantings.

Trees and shrubs must be installed first to establish proper layout and to avoid damage to other plantings.

Install plugs through erosion control blanket with planting bar. Planting holes shall be as deep or slightly deeper than the plug roots to allow placing the plant without bending roots. Plant shall be placed flush with the earth surface. Hole shall be filled with soil carefully to avoid damage to roots and to leave no voids and pressed to firm earth surface.

Contractor shall provide and maintain all equipment necessary for planting, including watering equipment, water, and hoses. Immediately after planting, thoroughly water plant beds. Do not wash soil onto crowns of plants. The soil surface should be damp for the first three weeks following planting.

Install Goose Grid Barrier(s) along the perimeters of wetland planting pods (groupings) to prevent geese from uprooting and damaging the native plug plantings. Goose Grid Barrier(s) shall be installed at the time of planting to protect plugs from predation. The Contractor will not be relieved in any way from the responsibility of protecting plugs from geese predation due to lack of proper maintenance of Goose Grid Barriers.

Posts – 1" x 4" x 48" square Oak stakes or metal posts place 7-10' on center

Poultry fence, 24" with ¾" x 1" grid, along the perimeter with cable ties.

Install bailing twine, from post top to post top (to form an "X"), to prevent the geese from entering the enclosure from the air.

Repair as necessary to remain effective for 12 months.

Remove and dispose when directed by the Engineer.

Delete the first sentence of Article 254.08 Mulching and substitute the following:

The plugs are not required to be mulched.

Delete Article 254.09 (b) Period of Establishment and substitute the following:

Plugs must undergo a 30-day period of establishment. Additional watering shall be performed not less than three times a week for four weeks following installation. Water shall be applied at the rate of at least 2 gallons per square foot. Should excess moisture prevail, the Engineer may delete any or all of the additional watering cycles. In severe weather, the Engineer may require additional watering.

A spray nozzle that does not damage small plants must be used when watering native plant plugs. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. The plants to be watered and the method of application will be approved by the Engineer. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the amount of watering.

Add the following to Article 254.10 Method of Measurement:

Disposal of debris (rock, stones, concrete, bottles, plastic bags, Goose Grid Barrier, etc.) removed from the plug plantings as specified in Article 202.03.

Delete Article 253.17 Basis of Payment and substitute the following:

Payment for Goose Grid Barrier shall be included in the contract unit price of the Perennial Plants, Wetland Type Plug and/or Perennial Plants, Sedge Meadow Plug pay item.

The unit price shall include the cost of all materials, equipment, labor, plant care, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

PROTECTION OF EXISTING TREES

The Contractor shall be responsible for taking measures to minimize damage to the tree limbs, tree trunks, and tree roots at each work site. All such measures shall be included in the contract price for other work except that payment will be made for TEMPORARY FENCE, TREE ROOT PRUNING, and TREE PRUNING.

All work, materials and equipment shall conform to Section 201 and 1081 of the Standard Specifications except as modified herein.

A. Earth Saw Cut of Tree Roots (Root Pruning):

1. Whenever proposed excavation falls within a drip-line of a tree, the Contractor shall:

a. Root prune 6-inches behind and parallel to the proposed edge of trench a neat, clean vertical cut to a minimum depth directed by the Engineer through all affected tree roots.

b. Root prune to a maximum width of 4-inches using a "Vermeer" wheel, or other similar machine. Trenching machines will not be permitted.

c. Exercise care not to cut any existing utilities.

d. If during construction it becomes necessary to expose tree roots which have not been pre-cut, the Engineer shall be notified and the Contractor shall provide a clean, vertical cut at the proper root location, nearer the tree trunk, as necessary, by means of hand-digging and trimming with chain saw or hand saw. Ripping, shredding, shearing, chopping or tearing will not be permitted.

e. Top Pruning: When thirty percent (30%) or more of the root zone is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

2. Whenever curb and gutter is removed for replacement, or excavation for removal of or construction of a structure is within the drip line/root zone of a tree, the Contractor shall:

a. Root prunes 6-inches behind the curbing so as to neatly cut the tree roots.

b. Depth of cut shall be 12 inches for curb removal and replacement and 24 inches for structural work. Any roots encountered at a greater depth shall be neatly saw cut at no additional cost.

c. Locations where earth saw cutting of tree roots is required will be marked in the field by the Engineer.

3. All root pruning work is to be performed through the services of a licensed arborist to be approved by the Engineer.

Root pruning will be paid for at the contract unit price each for TREE ROOT PRUNING, which price shall be payment for all labor, materials and equipment.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

B. Temporary Fence:

1. The Contractor shall erect a temporary fence around all trees within the construction area to establish a "tree protection zone" before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored or vehicles driven or parked within the "tree protection zone".
2. The exact location and establishment of the "tree protection zone" fence shall be approved by the Engineer prior to setting the fence.
3. The fence shall be erected on three sides of the tree at the drip-line of the tree or as determined by the Engineer.
4. All work within the "tree protection zone" shall have the Engineer's prior approval. All slopes and other areas not regarded should be avoided so that unnecessary damage is not done to the existing turf, tree root system ground cover.
5. The grade within the "tree protection zone" shall not be changed unless approved by the Engineer prior to making said changes or performing the work.

The fence shall be similar to wood lath snow fence (48 inches high), plastic poly-type or and other type of highly visible barrier approved by the Engineer. This fence shall be properly maintained and shall remain up until final restoration, unless the Engineer directs removal otherwise. Tree fence shall be supported using T-Post style fence posts. **Utilizing re-bar as a fence post will not be permitted.**

Temporary fence will be paid for at the contract unit price per foot for TEMPORARY FENCE, which price shall include furnishing, installing, maintaining, and removing.

C. Tree Limb Pruning:

1. The Contractor shall inspect the work site in advance and arrange with the Roadside Development Unit (847.705.4171) to have any tree limbs pruned that might be damaged by equipment operations at least one week prior to the start of construction. Any tree limbs that are broken by construction equipment after the initial pruning must be pruned correctly within 72 hours.
2. Top Pruning: When thirty percent (30%) or more of the root zone of a tree is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

D. Removal of Driveway Pavement and Sidewalk:

1. In order to minimize the potential damage to the tree root system(s), the Contractor will not be allowed to operate any construction equipment or machinery within the "tree protection zone" located between the curb or edge of pavement and the right-of-way property line.
2. Sidewalk to be removed in the areas adjacent to the "tree protection zones" shall be removed with equipment operated from the street pavement. Removal equipment shall be Grad all (or similar method), or by hand or a combination of these methods. The method of removal shall be approved by the Engineer prior to commencing any work.
3. Any pavement or pavement related work that is removed shall be immediately disposed of from the area and shall not be stockpiled or stored within the parkway area under any circumstances.

E. Backfilling:

1. Prior to placing the topsoil and/or sod, in areas outside the protection zone, the existing ground shall be disked to a depth no greater than one (1"), unless otherwise directed by the Engineer. No grading will be allowed within the drip-line of any tree unless directed by the Engineer.

F. Damages:

1. In the event that a tree not scheduled for removal is injured such that potential irreparable damage may ensure, as determined by the Roadside Development Unit, the Contractor shall be required to remove the damage tree and replace it on a three to one (3:1) basis, at his own expense. The Roadside Development Unit will select replacement trees from the pay items already established in the contract.
2. The Contractor shall place extreme importance upon the protection and care of trees and shrubs which are to remain during all times of this improvement. It is of paramount importance that the trees and shrubs which are to remain are adequately protected by the Contractor and made safe from harm and potential damage from the operations and construction of this improvement. If the Contractor is found to be in violation of storage or operations within the "tree protection zone" or construction activities not approved by the Engineer, a penalty shall be levied against the Contractor with the monies being deducted from the contract. The amount of the penalty shall be two hundred fifty dollars (\$250.00) per occurrence per day.

SEEDING, CLASS 4A (MODIFIED) – LOW PROFILE NATIVE GRASS

This work shall consist of Seeding, Class 4A (Modified) in areas as shown in the plans or a directed by the Engineer.

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

The Class 4A (Modified) seed shall be supplied in separate bags of the two mixture components: Temporary Cover and Permanent Grasses. All native species will be local genotype and will be from a radius of 150 miles from the project location. Fertilizer is not required.

Article 250.07 Seeding Mixtures – Delete sentence 4. Add the following to Table 1 – Seeding Mixtures:

<u>CLASS – TYPE</u>	<u>SEEDS</u>	<u>PURE LIVE SEED LB/ACRE</u>
4A (Modified)	Low Profile Native Grass	
	Andropogon scoparius (Little Bluestem)	5.0
	Bouteloua curtipendula (Side-Oats Grama)	5.0
	Elymus canadensis (Canada Wild Rye)	3.0
	Panicum virgatum (Switch Grass)	1.0
Cover Crop		
	Echinochloa crus-galli (Barnyard Grass)	25.0

Notes:
 The seeding time for this work shall be November 15 to March15. Seeding done outside of this time frame will not be measured for payment.

Each bag shall be labeled. The label shall bear the dealer’s guarantee of mixture and year grown, purity and germination, and date of test. Purity and germination tests no older than six months of the date of sowing must be submitted to verify all bulk seed required to achieve LB PLS specified.

No seed shall be sown until the purity testing has been completed for seeds to be used and shows the seed meets the noxious weed requirements.

Seed, which has become wet, moldy, or otherwise damaged will not be acceptable. Prior to application, the Engineer must approve seed mix in the bags.

The seedbed shall be prepared and approved by the Engineer prior to seeding. The Contractor shall delineate the perimeter of the seedbed with wooden lathe. The wooden lathe shall remain in place.

Temporary cover seed shall be kept separate from the Native Grass seed mixture. It shall be mixed on site under the direction of the Engineer.

In order to eliminate potential introduction of invasive or exotic species, all equipment used on the planting site shall be free of mud and/or plant material. This includes tires, mower decks, undercarriage, etc.

The Cover Crop shall be thoroughly mixed with the Class 4A (Modified) seed mix and seeded using a mechanical seeder that applies the seed uniformly at a depth of 1/4 inch. The seedbed shall be immediately mulched as specified.

If specified seed material is unavailable, the Engineer shall approve the substitutes in writing. Adjustments will be made at no cost to the contract. Approval of substitutes shall in no way waive any requirements of the contract.

Article 250.09 – Add Seeding, Class 4A (Modified)

Article 250.10 – Add Seeding, Class 4A (Modified)

SEEDING, CLASS 4B (MODIFIED) – ROADSIDE DRAINAGE SWALE

This work shall consist of preparing the seed bed, placing the seed, initial watering of the seed bed and other materials required in the seeding operation in areas as shown in the plans.

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

The Class 4B (Modified) seed mixture shall be supplied in pounds of Pure Live Seed. All native seed species will be local genotype and verified that original seed collection source must originate from a radius of 200 miles from the project site. The Class 4B (Modified) seed mix shall be supplied with the appropriate inoculants. Fertilizer is not required.

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

CLASS – TYPE	SEEDS	PURE LIVE SEED LB/ACRE
4B (Modified) Wetland Grass and Sedge Mixture		7.0
	Agrostis alba-palustris (Red Top)	3.0
	Andropogon scoparius (Little Bluestem)	1.0
	Bromus kalmia (Prairie Brome Grass)	0.3
	Carex stipata (Common Sedge Fox)	0.2
	Carex vulpinoidea (Brown Fox Sedge)	0.3
	Deschampsia caespitosa (Tufted Hair Grass)	0.2
	Elocharis palustris (Great Spike Rush)	0.3
	Elymus villosus (Silky Wild Rye)	1.0
	Glyceria striata (Fowl Meadow Grass)	0.3
	Juncus canadensis (Canadian Rush)	0.2
	Juncus torreyi (Torrey’s Rush)	0.2
Temporary Cover		25 (lb/acre)
	Echinochloa crus-galli (Barnyard Grass)	25.0

Notes:

The seeding time for this work shall be from November 1 to May 15. Seeding done outside of this time frame will not be measured for payment.

Purity and germination tests no older than twelve months old must be submitted for all seed supplied to verify quantities of bulk seed required to achieve LB PLS specified.

The seedbed shall be prepared and approved by the Engineer prior to seeding. The Contractor shall delineate the perimeter of the seedbed with wooden lathe. The wooden lathe shall remain in place.

No seed shall be sown during high winds or when the ground is not in proper condition for seeding.

The Engineer must witness the delivery of seed with original labels attached in the field. Provide to the Engineer the seed labels from the bags in which the seed is delivered in.

Temporary cover seed shall be kept separate from the Class 4B (Modified) type mixture. It shall be mixed on site under the direction of the Engineer.

In order to eliminate potential introduction of invasive or exotic species, all equipment used on the planting site shall be free of mud and/or plant material. This includes tires, mower decks, undercarriage, etc.

The Cover Crop shall be thoroughly mixed with the Class 4B (Modified) seed mix and seeded using a mechanical seeder that applies the seed uniformly at a depth of 1/4 inch. The seedbed shall be immediately covered as specified.

If specified seed material is unavailable, the Engineer shall approve the substitutes in writing. Adjustments will be made at no cost to the contract. Approval of substitutes shall in no way waive any requirements of the contract.

Article 250.09 – Add Seeding, Class 4B (Modified)

Article 250.10 – Add Seeding, Class 4B (Modified)

SELECTIVE MOWING STAKES

This work shall be done in accordance with Article 250.08 of the Standard Specifications with the following addition:

On 20% of the selective mowing stakes, as directed by the Engineer, the Contractor shall furnish materials, labor and equipment to attach a 10" x 18" (250 mm x 450 mm) aluminum sign with one of the following texts:

1. Wetland
2. Prairie Plants
3. Wildflowers
4. Seedlings

The text of the sign should be appropriate to the area being delineated with selective mowing stakes. The signs shall be permanently attached to the stakes by a method approved by the Engineer. The signs will be provided by the Department and shall be picked up by the Contractor from the District One Roadside Development Architect in Schaumburg, Illinois. Scheduling the pickup of the signs can be arranged by contacting the District One Roadside Development Unit at (847)705-4171. The cost of picking up and attaching the signs to the selective mowing stakes will not be paid for separately, but shall be included in the contract unit price for SELECTIVE MOWING STAKES.

SUPPLEMENTAL WATERING

Scope: This work will include watering turf, trees, shrubs, vines and perennial plants at the rates specified and as directed by the Engineer.

Schedule: Watering will only begin after the successful completion of all period of establishment requirements. Supplemental watering should be used at any time after initial watering to keep turf, trees, shrubs and perennials in a live healthy condition while it is establishing.

Watering must be completed in a timely manner. When the Engineer directs the Contractor to do supplemental watering, the Contractor must begin the watering operation within 24 hours of notice. A minimum of 10 units of water per day must be applied until the work is complete. Damage to plant material that is a result of the Contractor's failure to water in a timely way must be repaired or replaced at the Contractor's expense.

Source of Water: The Contractor shall notify the Engineer of the source of water used and provide written certification that the water does not contain chemicals harmful to plant growth.

Rate of Application: The normal rates of application for watering are as follows. The Engineer will adjust these rates as needed depending upon weather conditions.

Perennial Plants: 5 gallons per square yard
Trees: 30 gallons per tree
Shrubs: 7 gallons per shrub
Vines: 3 gallons per vine

Method of Application: A spray nozzle that does not damage small plants must be used when watering perennial plants or turf. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. An open hose may be used to water trees, shrubs, and vines if mulch and soil are not displaced by watering. Water shall trickle slowly into soil and completely soak the root zone. The Contractor must supply metering equipment as needed to assure the specified application rate of water.

Method of Measurement: Supplemental watering will be measured in units of 1000 gallons (3,785 liters) of water applied as directed.

Basis of Payment: This work will be paid for at the contract unit price per unit of SUPPLEMENTAL WATERING, measured as specified. Payment will include the cost of all water, equipment and labor needed to complete the work specified herein and to the satisfaction of the Engineer.

WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE

Created: July 29, 2002

Modified: December 3, 2010

Description: This work shall consist of spreading a pre-emergent granular herbicide in place of weed barrier fabric in areas as shown on the plans or as directed by the Engineer. This item will be used in mulched plant beds and mulch rings.

Delete Article 253.11 and substitute the following:

Within 48 hours after planting, mulch shall be placed around all plants in the entire mulched bed or saucer area specified to a depth of 4 inches (100 mm). No weed barrier fabric will be required for tree and shrub planting. Pre-emergent Herbicide will be used instead of weed barrier fabric. The Pre-emergent Herbicide shall be applied prior to mulching. Mulch shall not be in contact with the base of woody stems or trunks.

Materials: The pre-emergent granular herbicide (Snapshot 2.5 TG or equivalent) shall contain the chemicals Trifluralin 2% active ingredient and Isoxaben with 0.5% active ingredient. The herbicide label shall be submitted to the Engineer for approval at least seventy-two (72) hours prior to application.

Method: The pre-emergent granular herbicide shall be used in accordance with the manufacturer's directions on the package. The granules are to be applied prior to mulching.

Apply the granular herbicide using a drop or rotary-type designed to apply granular herbicide or insecticides. Calibrate application equipment to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or crop injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first. Apply the granular herbicide at the rate of 100 lbs./acre (112 kg/ha) or 2.3 lbs./1000 sq. ft. (11.2 kg/1000 sq. meters).

Method of Measurement: Pre-emergent granular herbicide will be measured in place in Pounds (Kilograms) of Pre-emergent Granular Herbicide applied. Areas treated after mulch placement shall not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price per pound (kilogram) of WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE which price shall include all materials, equipment, and labor necessary to complete the work as specified.

TREE, QUERCUS MACROCARPA (BURR OAK), 8' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED

Description: This work shall consist of planting woody plants in accordance with Article 253 of the standard specifications.

Method of Measurement: This work will be measured for final payment, in place, after the period of establishment. Trees will be measured as each individual plant.

Basis of Payment: This work will be paid for at the contract unit price per each for TREE, QUERCUS MACROCARPA, (BURR OAK), 8' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED. Payment will be made in accordance with the schedule in Section 253.17 of the Standard Specifications.

AGGREGATE PATH, 8"

Description: This work shall consist of an aggregate path in accordance with applicable portions of the Standard Specifications and Special Provisions contained herein at locations shown on the plans or as directed by the Engineer.

The path will consist of 6 inches of compacted sub-base granular material, type B, with 2 inches of compacted limestone screenings (FA-5) surface and geotechnical fabric for ground stabilization.

The cost of furnishing and placing aggregate for the path shall include all labor, material, and water required to excavate, place, compact, and backfill the path as specified.

Method of Measurement: This work will be measured for payment in place per square yards.

Basis of Payment: This work will be paid for at the contract unit price per square yard for AGGREGATE PATH, 8", which price shall include all material and labor required to complete the work as herein specified.

HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4"

Description: This work shall consist of the placement of hot-mix asphalt driveway pavement at the locations and thickness specified on the plans, and according to applicable portions of the Standard Specifications. This work will be used at the discretion of the engineer for temporary driveways during construction that will remain in place thru winter.

Construction Requirements: This work shall be performed according to Article 406.06 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 4", which price shall include all material and labor required to complete the work as herein specified.

ENGINEER'S FIELD OFFICE TYPE A (SPECIAL)

Effective: December 1, 2011

Revised: May 1, 2013

Revise the first paragraph of Article 670.02 to read:

670.02 Engineer's Field Office Type A (Special). Type A (Special) field offices shall have a ceiling height of not less than 7 feet and a floor space of not less than 3000 square feet with a minimum of two separate offices. The office shall also have a separate storage room capable of being locked for the storage of the nuclear measuring devices. The office shall be provided with sufficient heat, natural and artificial light, and air conditioning. Doors and windows shall be equipped with locks approved by the Engineer.

Revise the first sentence of the second paragraph of Article 670.02 to read:

An electronic security system that will respond to any breach of exterior doors and windows with an on-site alarm shall be provided.

Revise the last sentence of the third paragraph of Article 670.02 to read:

Adequate all-weather parking space shall be available to accommodate a minimum of twelve vehicles.

Revise the fifth paragraph of Article 670.02 to read:

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 seven waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service. Add the following to the f A weekly cleaning service for the office shall be provided.

Revise subparagraph (a) of Article 670.02 to read:

(a) Twelve desks with minimum working surface 42 inch x 30 inch each and twelve non-folding chairs with upholstered seats and backs.

Revise the first sentence of subparagraph (c) of Article 670.02 to read:

(c) Two four-post drafting tables with minimum top size of 37-½ inch x 48 inch.

Revise subparagraph (d) of Article 670.02 to read:

(d) Eight free standing four-drawer legal size file cabinets with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.

Revise subparagraph (e) of Article 670.02 to read:

(e) Twenty folding chairs and two conference tables with minimum top size of 44 inch x 96 inch.

Revise subparagraph (h) of Article 670.02 to read:

(h) Three electric desk type tape printing calculator and two pocket scientific notation calculators with a 1000 hour battery life or with a portable recharger.

Revise subparagraph (i)(2) of Article 670.02 to read:

(i)(2) Telephones lines. Five separate telephone lines including one line for the fax machine, and two lines for the exclusive use of the Engineer. All telephone lines shall include long distance service and all labor and materials necessary to install the phone lines at the locations directed by the Engineer. The TELCOM company shall configure ROLL/HUNT features as specified by the engineer.

Revise subparagraph (j) of Article 670.02 to read:

(j) Two plain paper network multi-function printer/copier/scanner machines capable of reproducing prints up to 11 inch x 17 inch within automatic feed tray capable of sorting 30 sheets of paper. Letter size and 11 inch x 17 inch paper shall be provided. The contractor shall provide the multi-function machines with IT support for setup and maintenance.

Revise subparagraph (k) of Article 670.02 to read:

(k) One plain paper fax machine including maintenance and supplies.

Revise subparagraph (l) of Article 670.02 to read:

(l) Six four-line telephones, with touch tone, where available, and two digital answering machines, for exclusive use by the Engineer.

Revise subparagraph (m) of Article 670.02 to read:

(m) One electric water cooler dispenser including water service.

Add the following subparagraphs to Article 670.02:

(s) One 4 foot x 6 foot chalkboard or dry erase board.

(t) One 4 foot x 6 foot framed cork board.

Add the following to Article 670.07 Basis of Payment.

The building or buildings, fully equipped, will be paid for at the contract unit price per calendar month or fraction thereof for ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL).

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)

Effective: June 26, 2006

Revised: January 1, 2013

Add the following to the end of article 1032.05 of the Standard Specifications:

“(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa-s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 μm)	95 ± 5
No. 50 (300 μm)	> 20

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

“A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent.”

Revise 1030.02(c) of the Standard Specifications to read:

“(c) RAP Materials (Note 3)1031”

Add the following note to 1030.02 of the Standard Specifications:

Note 3. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

Revise Article 669.01 of the Standard Specifications to read:

“**669.01 Description.** This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.”

Revise Article 669.08 of the Standard Specifications to read:

“**669.08 Contaminated Soil and/or Groundwater Monitoring.** The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.

- (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) **Soil Analytical Results Do Not Exceed Most Stringent MAC.** When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as “uncontaminated soil” according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation for the following reason.
- (1) The pH of the soil is less than 6.25 or greater than 9.0.
 - (2) The soil exhibited elevated photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID) readings.
- (c) **Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed TACO Residential.** When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 IAC 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way or managed and disposed of off-site as “uncontaminated soil” according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.

- (d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.”

Revise Article 669.14 of the Standard Specifications to read:

“669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site assessment (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site assessment (PESA) site number) for special or hazardous waste disposal, and

- (f) Landfill tickets (identified by the preliminary environmental site assessment (PESA) site number) for non-special waste disposal.”

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

“The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.”

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

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

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

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

- Station 260+00 to Station 262+00 0 to 70 feet LT (Commercial Plaza, PESA Site 2034/A-4, 21579-21591 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 261+50 to Station 262+50 0 to 70 feet RT (Tuff Cars Inc., PESA Site 2034/A-3, 21540 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 266+50 to Station 267+50 0 to 100 feet LT (Lynwood Carryout/Vacant Lot, PESA Site 2034/A-8, 21647 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead.

- Station 266+00 to Station 266+50 0 to 70 feet RT (Lightning Motors and Leasing, PESA Site 2034/A-7, 21644 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 267+50 to Station 268+50 180 to 280 feet LT (Alpine Village, PESA Site 2034/A-6, 21755 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 267+50 to Station 269+50 0 to 70 feet LT (Lynwood Carryout/Vacant Lot, PESA Site 2034/A-8, 21647 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 269+50 to Station 270+00 0 to 70 feet RT (Busch Plastics, PESA Site 2034/A-10, 21706 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 103+80 to Station 104+50 (West Frontage Road) 0 to 60 feet RT (Busch Plastics, PESA Site 2034/A-10, 21706 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Arsenic.
- Station 106+00 to Station 107+00 (West Frontage Road) 0 to 30 feet LT/RT (Holiday Boat Sales, PESA Site 2034/A-11, 21740 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 272+40 to Station 273+50 90 to 180 feet LT (Alpine Village, PESA Site 2034/A-6, 21755 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Dibenzo(a,h)Anthracene, and Manganese.
- Station 275+00 to Station 276+70 0 to 70 feet LT (Alpine Village, PESA Site 2034/A-6, 21755 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 110+25 to Station 114+00 (West Frontage Road) 0 to 70 feet RT (Norfolk Southern Railroad, PESA Site 2034/A-12, 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.
- Station 278+70 to Station 281+70 0 to 80 feet RT (Norfolk Southern Railroad, PESA Site 2034/A-14, 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Lead, and Manganese.
- Station 281+70 to Station 282+50 0 to 80 feet RT (EJ&E/CN Railroad, PESA Site 2034/A-16, 21800 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Dibenzo(a,h)Anthracene, Arsenic, Lead, and Manganese.

- Station 282+00 to Station 282+50 0 to 70 feet LT (EJ&E/CN Railroad, PESA Site 2034/A-16, 21800 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Benzo(b)Fluoranthene, Dibenzo(a,h)Anthracene, Arsenic, Lead, and Manganese.
- Station 400+00 to Station 401+40 (West DuPage Road) 0 to 70 feet RT (Vacant Lot/Agricultural Land, PESA Site 2034/A-17, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Lead.
- Station 283+50 to Station 285+30 0 to 80 feet RT (Vacant Lot/Agricultural Land, PESA Site 2034/A-18, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 285+30 to Station 285+70 0 to 30 feet RT (Vacant Lot/Agricultural Land, PESA Site 2034/A-18, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 283+50 to Station 285+70 0 to 70 feet LT (Vacant Lot/Agricultural Land, PESA Site 2034/A-18, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 286+00 to Station 288+00 25 to 100 feet LT (Vacant Lot/Agricultural Land, PESA Site 2034/A-18, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 402+30 to Station 403+20 (West DuPage Road) 0 to 70 feet RT (Al's Tap and Liquors, PESA Site 2034/A-20, 21916 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 403+70 to Station 404+40 (West DuPage Road) 0 to 70 feet RT (Cravers Fried Chicken/Hill ASAP, PESA Site 2034/A-21, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Arsenic.
- Station 287+60 to Station 290+00 0 to 240 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Arsenic, and Manganese.
- Station 290+00 to Station 291+00 0 to 110 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Arsenic, and Manganese.
- Station 291+00 to Station 292+00 0 to 8 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

- Station 290+00 to Station 292+00 0 to 80 feet LT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Lead, and Manganese.
- Station 382+00 to Station 385+30 (Sauk Road) 0 to 80 feet RT (Residences/Vacant Land, PESA Site 2034/A-23, 3535, 3570, and 3500 block of East Sauk Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 385+70 to Station 387+40 (Sauk Road) 0 to 20 feet LT (Residences/Vacant Land, PESA Site 2034/A-23, 3535, 3570, and 3500 block of East Sauk Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Dibenzo(a,h)Anthracene, and Arsenic.
- Station 292+00 to Station 293+20 50 to 160 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Lead.
- Station 294+70 to Station 296+80 0 to 30 feet RT (Plum Creek Forest Preserve, PESA Site 2034/A-25, 3500 block of East Sauk Trail). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 294+70 to Station 296+80 0 to 80 feet LT (Plum Creek Forest Preserve, PESA Site 2034/A-25, 3500 block of East Sauk Trail). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 296+80 to Station 298+00 20 to 80 feet LT (Plum Creek Forest Preserve, PESA Site 2034/A-25, 3500 block of East Sauk Trail). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 300+00 to Station 301+00 0 to 20 feet RT (St. Margaret Mercy Healthcare, PESA Site 2034/A-27, 24 Joliet Street). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 264+00 to Station 265+50 0 to 70 feet LT (Vacant Lot, PESA Site 2034/A-5, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 264+50 to Station 265+50 0 to 70 feet RT (Tuff Cars Inc., PESA Site 2034/A-3, 21540 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 104+50 to Station 105+50 (West Frontage Road) 0 to 60 feet LT (Holiday Boat Sales, PESA Site 2034/A-11, 21740 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.

- Station 279+40 to Station 280+50 0 to 70 feet LT (Vacant Lot, PESA Site 2034/A-14, 21800 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 282+50 to Station 283+50+50 0 to 70 feet LT (Vacant Lot/Agricultural Land, PESA Site 2034/A-18, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 282+50 to Station 283+50+50 0 to 80 feet RT (Vacant Lot/Agricultural Land, PESA Site 2034/A-18, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 406+40 to Station 408+00 (West DuPage Road) 0 to 40 feet LT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 292+00 to Station 293+00 0 to 80 feet LT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 297+00 to Station 299+50 20 to 80 feet RT (Plum Creek Forest Preserve, PESA Site 2034/A-25, 3500 block of East Sauk Trail). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 265+50 to Station 266+50 0 to 70 feet LT (Vacant Lot, PESA Site 2034/A-5, 21600 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 266+50 to Station 267+80 0 to 70 feet RT (Commercial Park, PESA Site 2034/A-9, 21686 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 273+00 to Station 275+00 0 to 80 feet LT (Alpine Village, PESA Site 2034/A-6, 21755 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.
- Station 273+50 to Station 274+00 0 to 50 feet RT (Holiday Boat Sales, PESA Site 2034/A-11, 21740 East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.
- Station 276+70 to Station 278+70 0 to 80 feet RT (Norfolk Southern Railroad, PESA Site 2034/A-12, 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Benzo(b)Fluoranthene, and Dibenzo(a,h)Anthracene.

- Station 277+00 to Station 278+70 60 to 120 feet LT (Norfolk Southern Railroad, PESA Site 2034/A-12, 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluoranthene, and Dibenzo(a,h)Anthracene.
- Station 109+70 to Station 110+25 (West Frontage Road) 0 to 70 feet RT (Norfolk Southern Railroad, PESA Site 2034/A-12, 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 114+00 to Station 400+00 (West Frontage Road) 0 to 70 feet RT (EJ&E/CN Railroad, PESA Site 2034/A-16, 21800 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.
- Station 405+40 to Station 406+50 (West DuPage Road) 0 to 80 feet RT (Commercial/Residential Group, PESA Site 2034/A-22, 21624, 21630, and 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 406+50 to Station 408+00 (West DuPage Road) 0 to 80 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Arsenic.
- Station 405+40 to Station 406+40 (West DuPage Road) 0 to 40 feet LT (Commercial/Residential Group, PESA Site 2034/A-22, 21624, 21630, and 21700 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 408+60 to Station 409+80 (West DuPage Road) 0 to 80 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 384+70 to Station 385+70 (Sauk Road) 0 to 100 feet LT (Residences/Vacant Land, PESA Site 2034/A-23, 3535, 3570, and 3500 block of East Sauk Road). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.
- Station 293+20 to Station 294+70 0 to 160 feet RT (Plum Creek Forest Preserve, PESA Site 2034/A-25, 3500 block of East Sauk Trail). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Arsenic.
- Station 293+00 to Station 294+70 0 to 80 feet LT (Plum Creek Forest Preserve, PESA Site 2034/A-25, 3500 block of East Sauk Trail). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene.

- Station 386+00 to Station 387+40 (Sauk Road) 0 to 220 feet RT (Vacant Land, PESA Site 2034/A-24, 21900 block of East Lincoln Highway). This material meets the criteria of Article 669.09(a)(4) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Anthracene, Benzo(a)Pyrene, Benzo(b)Fluoranthene, and Dibenzo(a,h)Anthracene.

CABLE GATE

This work shall consist of furnishing all materials, equipment, and labor to install proposed cable access control gates, posts, signs, locks, and accessories, as detailed in the plans, in accordance with applicable portions of Section 636 of the Standard Specifications, and as directed by the Engineer.

All locks on the project shall be keyed alike.

Wood post type should be in accordance with Article 1007.05 of the Standard Specifications.

Cable access control fence will be measured for payment on an each basis with one each being considered in place center to center of end posts of the length shown in the plans.

The work will be paid for at the contract unit price each for CABLE GATE.

THREE SIDED PRECAST CONCRETE STRUCTURE

Effective: July 12, 1994

Revised: October 15, 2011

This work shall consist of furnishing and installing the three-sided precast concrete structure according to applicable portions of Sections 503 and 504 of the Standard Specifications. All three-sided precast concrete structures, precast headwalls, precast wingwalls and precast footings shall be produced according to the Department's latest Policy Memorandum "Quality Control/ Quality Assurance Program for Precast Products".

The three-sided concrete structure shall be designed according to the AASHTO LRFD Specifications, shown on the structure plans, and shall include the effects of unyielding foundation conditions for the sequence of construction anticipated.

The Contractor shall be responsible for diverting the water from the construction area using a method meeting the approval of the Engineer. The cost of diverting the water shall be considered as included in the contract unit price bid for the three sided structure being constructed and no additional compensation will be allowed.

For structures over water, 3 in. (75mm) diameter drain openings, spaced at 8 ft (2.4 m) centers, 2 ft (600 mm) above the flow line shall be provided according to Article 503.11.

All joints between segments shall be sealed according to Article 540.06 except nonwoven geotechnical fabric will not be allowed for the external sealing bands. When the minimum fill over the structure, between the edges of the shoulders, is less than or equal to 3 ft. (1 m), the top joints between segments shall also be secured with a previously approved mechanical connection. The mechanical connection shall be used to connect a minimum length of 12 ft. (3.65 m) of exterior segments at each end of the structure. There shall be a minimum of 4 mechanical connections per joint with a maximum spacing of 10 ft. (3 m). All plates, shapes, and hardware shall be galvanized or stainless steel. If the design of the structure also requires grouted shear keys, the keyway shall be cast in the top slab of the segments and grouted according to Article 504.06(e).

Three sided precast concrete structures located in areas with a Seismic Zone greater than 1, as defined in the AASHTO LRFD Specifications Table 3.10.6-1, shall satisfy the following requirements:

The structure shall be connected to the footing/pedestal 2 ft. (600 mm) from the outermost exterior edge of the structure at all four corners with a galvanized rigid mechanical connection subject to the approval of the Engineer. This connection shall be located on the interior face of the segment to allow for future inspection.

All top joints of exterior segments within a length of 12 ft. (3.65 m) at each end of the structure, regardless of the fill cover, shall be mechanically connected as previously described. The mechanical connection is subject to the approval of the Engineer.

Shop drawings for three sided precast concrete structures shall be submitted according to Article 1042.03(b) and Article 105.04 of the Standard Specifications. The supplier selected by the Contractor shall submit complete design calculations and shop drawings, prepared and sealed by an Illinois Licensed Structural Engineer, for approval by the Engineer.

Prior approval by the Department for the structural feasibility and adequacy of proprietary systems will enhance the approval process of the final structure design but in no case shall relieve the Contractor of the design or QC/QA requirements stated herein. The following proprietary systems have been previously approved for the structural feasibility and adequacy only:

- Hy-Span
- Con Span
- REDI-SPAN Bridge System
- BEBO Arch System
- Techspan
- Stronghold
- Eco-Span Arch System
- Precast Forum Arch System

The system chosen by the contractor shall provide a hydraulically equivalent waterway opening to that specified on the plans. Evidence of equivalency shall also be provided in writing to the Engineer for review and approval prior to ordering any materials.

When precast concrete substructure is specified, the Contractor may choose to substitute cast-in-place for precast headwalls, wing walls and footings unless otherwise specified on the plans. No additional compensation for these substitutions will be allowed and the Contractor shall submit complete design calculations and shop drawings, prepared and sealed by an Illinois Licensed Structural Engineer, for approval by the Engineer.

When Cast-in-place concrete substructure is specified, the Contractor may choose to substitute precast for cast-in-place headwalls, wing walls and footings unless otherwise specified on the plans. No additional compensation for these substitutions will be allowed and the Contractor/supplier shall submit complete design calculations and shop drawings prepared and sealed by an Illinois Licensed Structural Engineer, for approval by the Engineer.

If a precast footing is used, it shall be built to the manufacturers specifications and the Contractor shall prepare a 6 in. (150 mm) thick layer of compacted granular material placed below the bottom of the footing. The porous granular material shall be gradation CA 7, CA 11, or CA 18 and shall be placed to extend at least 2 ft. (600 mm) beyond the limits of the precast footing. There shall be no additional compensation for the porous granular bedding material. The excavation and backfill for three sided precast concrete structures shall be according to Section 502 of the Standard Specifications and any additional backfilling requirements based on the precast supplier's design. All construction inspection and material certification necessary to verify these additional backfilling requirements in the field shall be the responsibility of the supplier. The three-sided precast concrete structure shall be placed according to applicable requirements of Article 542.04(d) of the Standard Specifications. When multi-spans are used a 3 in. (75 mm) minimum space shall be left between adjacent sections. After the precast units are in place and the backfill has been placed to midheight on each exterior side of the barrel, the space between adjacent units shall be filled with Class SI concrete. The Class SI concrete shall be according to Section 1020, except the maximum size of the aggregate shall be 3/8 in. (9.5 mm).

Method of Measurement. Three sided precast concrete structures will be measured in feet (meters). The overall length shall be measured from out to out of headwalls along the centerline of each span of the structure. Class SI concrete placed between adjacent spans, grouted keyways or mechanical connections between precast units and mechanical connections between the precast units and the substructure will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for THREE SIDED PRECAST CONCRETE STRUCTURES of the size specified. Rock excavation will be paid for separately according to Article 502.13 of the Standard Specifications.

The cost of specified cast-in-place headwalls, wing walls and footings will not be included in this item but will be paid for separately.

When precast footings, wing walls and headwalls are specified, this work will be paid for at the lump sum price for PRECAST CONCRETE SUBSTRUCTURE.

MECHANICALLY STABILIZED EARTH RETAINING WALLS

Effective: February 3, 1999

Revised: July 26, 2013

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:

Company Name: Wall System

Earth Tec International, LLC: EarthTrac HA

Sanders Pre-Cast Concrete Systems Company: Sanders MSE Wall

Shaw Technologies: Strengthened Soil

Sine Wall, LLC: Sine Wall

SSL Construction Products: MSE Plus

T&B Structural Systems Vist-A-Wall Systems, LLC: Vist-A-Wall

Tensor Earth Technologies : ARES Wall

The Reinforced Earth Company: GeoMega System

The Reinforced Earth Company: Reinforced Earth

The Reinforced Earth Company: Retained Earth

Tricon Precast: Tricon Retained Soil

Tricon Precast: Tri-Web Retained Soil

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 service (unfactored) nominal 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.

- (h) When pile sleeves are specified, the pile sleeve material, shape, and wall thickness shall be submitted to the Engineer for approval. It shall have adequate strength to withstand the select fill pressures without collapse until after completion of the wall settlement. The annulus between the pile and the sleeve shall be as small as possible while still allowing it to be filled with loose dry sand after wall erection.

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, and all connection devices, shall be according to the following:

(1) Inextensible Soil Reinforcement. Steel reinforcement shall be according ASTM A 572 Grade 65 (450), ASTM A 1011 or ASTM A 463 Grade 50 (345). The steel strips shall be either epoxy coated, aluminized Type 2, 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. Aluminized Type 2-100 shall be according to ASTM A 463. Galvanizing shall be according to AASHTO M 111 or ASTM A 653 with touch up of damage according to ASTM A 780.

(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 D 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

(3) Panel Embed/Connection Devices. Panel embeds and connection devices shall be according to the following.

- a. Metallic panel embed/connection devices and connection hardware shall be galvanized according to AASHTO M 232 and shall be according to the following.

Mesh and Loop Embeds ASTM A 706 (A 706M)

Tie Strip Embeds AASHTO M 270/M 270M Grade 50 (345) or
 ASTM A 1011 HSLAS Grade 50 (345) Class 2

- b. Non metallic panel embed/connection devices typically 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 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.
- (2) Select Fill Quality. The coarse or fine aggregate shall have a maximum sodium sulfate (Na₂SO₄) loss of 15 percent according to Illinois Modified AASHTO T 104.
- (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 Illinois Modified AASHTO T 289.
 - b. The resistivity according to Illinois Modified AASHTO T 288 shall be greater than 3000 ohm centimeters for epoxy coated and galvanized reinforcement, and 1500 ohm centimeters for Aluminized Type 2. However, the resistivity requirement is not applicable to CA 7, CA 8, CA 11, CA 13, CA 14, CA 15, and CA 16.
 - c. The chlorides shall be less than 100 parts per million according to Illinois Modified AASHTO T 291 or ASTM D 4327. For either test, the sample shall be prepared according to Illinois Modified AASHTO T 291.
 - d. The sulfates shall be less than 200 parts per million according to Illinois Modified AASHTO T 290 or ASTM D 4327. For either test, the sample shall be prepared according to Illinois Modified AASHTO T 290.
 - e. The organic content shall be a maximum 1.0 percent according to Illinois Modified 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 Illinois Modified AASHTO T 289.
- (6) Test Frequency. Prior to start of construction, the Contractor shall provide internal friction angle and pH test results, 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. The laboratory performing the Illinois Modified AASHTO T 288 test shall be approved by the Department according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Laboratory Requirements for Resistivity Testing". 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 by the department at the jobsite will be one per 40,000 tons (36,300 metric tons) of select fill material. Testing to verify the internal friction angle will be required when the wall design utilizes a minimum effective internal friction angle greater than 34 degrees, or when crushed coarse aggregate is not used.
- (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) or 1006.10(b)(1) except the welded wire fabric shall be epoxy coated according to ASTM A884.
 - (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 one of the following; epoxy coating, galvanizing or aluminizing. The design life for epoxy and aluminizing shall be assumed to 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 Illinois Modified 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.

Fill placed within the foot print of the reinforced soil mass, above the top layer of soil reinforcement and below the bottom of the subgrade or top soil, shall be included in the cost of the MSE wall.

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

RAILROAD FLAGGING (WCL RR)

Description. This work shall be performed as in accordance with Sections 107.12 and 109.05 of the Standard Specifications.

General Requirements. The flagging costs incurred for the work associated at the location of the US Route 30 and the Wisconsin Central Ltd. (WCL) grade crossing will be reimbursed by IDOT in accordance with Section 109.05 of the Standard Specifications. The Contractor is responsible for prepaying the CN in advance for flagging services provided. The Contractor shall deposit the cost of flagging services for thirty (30) days with the CN. If the Contractor uses less than 30 days, then the Contractor will be charged for the days used and the balance will be reimbursed back to the Contractor. The Contractor will then be reimbursed by IDOT for the actual number of flagging days used. The Contractor is required to conduct operations at all times in full compliance with the rules, regulations and requirements of the WCL Special Provisions contained in the Contract Specifications and as described below.

The Contractor shall give thirty (30) days advance written notice to the Engineering Superintendent of the Railroad or his authorized representative prior to commencement of any construction work on the Improvement affecting the railroad property. The Contractor shall notify the Railroad sufficiently in advance of when the protective services are required. The Contractor shall make every effort to notify the Railroad in advance if a previously requested flagger will not be needed for any reason. Any costs for flagging protection provided by the Railroad at the Contractor's request for those days when the Contractor does not work shall be borne by the Contractor.

Basis of Payment. RAILROAD FLAGGING (WCL RR) will be paid for according to Article 109.05 of the Standard Specifications.

COORDINATION WITH ADJACENT AND/OR OVERLAPPING CONTRACTS

This contract abuts and/or overlaps with another concurrent contract listed below. Each contract includes work items requiring close coordination between the various contractors regarding the sequence and timing for execution of work items. This contract also includes critical work items that affect the staging of traffic and the completion dates for the other contract(s). These critical items along with their completion dates are listed after each contract. Indiana Department of Transportation Contract #35341 – Concrete Patching estimated duration from 4/1/14 until 8/31/14.

Critical items affecting the above contract:

All maintenance of traffic operations must be coordinated with Contract 60V61. This contract may be required to extend traffic control to match that of INDOT contract #35341. Gaps between staging's for each contract are prohibited.

Add the following paragraph to the beginning of Article 105.06. "The Contractor shall identify all such work items (including the critical items listed above) at the beginning of the contract and coordinate the sequence and timing for their execution and completion with the other Contractors through the Engineer. All of these work items shall be identified as separate line items in the Contractor's proposed Construction Progress Schedule. Additional compensation or the extension of contract time will not be allowed for the progress of the work items affected by the lack of such coordination by the Contractor."

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)
 Effective: April 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

“ (i) Polyurethane Joint Sealant 1050.04”

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

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

Add the following to Section 1050 of the Standard Specifications:

“1050.04 Polyurethane Joint Sealant. The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25, Use T, according to ASTM C 920.”

HOT-MIX ASPHALT – PRIME COAT (BMPR)
 Effective: February 19, 2013
 Revised: January 1, 2014

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

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

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

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

Add the following to Article 406.03 of the Standard Specifications:

“(i) Regenerative Air Vacuum Sweeper.....1101.19”

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

“(b) Prime Coat. The bituminous material shall be prepared according to Article 403.05 and applied according to Article 403.10. The use of RC-70 shall be limited to air temperatures less than 60 °F (15 °C).”

(1) Brick, Concrete or HMA Bases. The base shall be cleaned of all dust, debris and any substance that will prevent the prime coat from adhering to the base. Cleaning shall be accomplished by sweeping and vacuum sweeping or sweeping and air blasting methods, as approved by the Engineer. Vacuum sweeping shall be accomplished with a regenerative air vacuum sweeper. The base shall be free of standing water at the time of application. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

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

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

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

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

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

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

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

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

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

“Aggregate for covering prime coat will not be measured for payment.”

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

“Prime Coat will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) or NON-TRACKING BITUMINOUS MATERIALS (PRIME COAT).”

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

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

Revise Article 1032.02 of the Standard Specifications to read:

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

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

When emulsion is used, the proportions of emulsion and any water added to the emulsion shall be shown on the Bill of Lading.

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

Add the following to the table in article 1032.04 of the Standard Specifications:

“SS-1vh	160 - 180	70 – 80”
---------	-----------	----------

Add the following to Article 1032.06 of the Standard Specifications:

“(g) Non Tracking Emulsified Asphalt SS-1vh:

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

Revise the last table of Article 1032.06 to read:

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

Add the following to Article 1101 of the Standard Specifications:

“1101.19 Regenerative Air Vacuum Sweeper. The regenerative air vacuum sweeper shall blast re-circulated, filtered air through a vacuum head having a minimum width of 6.0 feet at a minimum rate of 20,000 cubic feet per minute.”

RECLAIMED WATER (D-1)

Effective: December 1, 2013

General. This specification covers the blending, testing, storing, use of and requirements for reclaimed water in Portland cement concrete.

Material. Reclaimed water shall consist of wash out, runoff, and/or storm water that has been combined with water conforming to Article 1002.01. Reclaimed water meeting the quality requirements of this specification shall be evaluated for acceptance by the Department.

Use. Reclaimed water will only be allowed in Class PV and SI concrete mix designs at a maximum of 20.0% total by weight. Reclaimed water is prohibited in all other concrete class mix designs. This material will only be allowed in work without reinforcing steel only. Dowel bars and tie bars are not considered reinforcing steel.

Reclaimed water shall be weighed or metered separately from water conforming to Article 1002.01 and shall be detailed separately on batch sheets used to document concrete batch weights.

Quality. The reclaimed water shall be clean, clear, and free from sugar. Reclaimed water shall be combined at a 1:4 ratio with water conforming to Article 1002.01 and the combination shall be according to Article 1002.02 except for the following:

“(2) Alkalinity -- 0.1 Normal HCl..... 60 ml max.*
*To neutralize 200 ml sample.”

Water Intake. Reclaimed water shall enter a settling pond before being filtered to remove the necessary amount of solids to meet specifications in Article 1002.02. The intake of the pipeline shall be at a minimum height of 2 ft (600 m) above the bottom of the reclaimed water settling pond. A properly labeled tank shall be provided for storage of the reclaimed water. The tank is to be separate from water which has been approved by the Illinois Department of Public Health for drinking or household use. The tank may be heated, however the maximum water temperature of the reclaimed water shall not exceed 150 °F (65 °C).

Quality Control and Quality Assurance (QC/QA).

Quality Control by Contractor. The Contractor shall provide evidence to assure conformance to the standards stated in Article 1002.02 (a) and (b). The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Inability to maintain the reclaimed water within specifications is cause for the Engineer to suspend the use of reclaimed water in concrete until adjustments have been made and the water is within the specifications.

Water samples will be taken on the same date and sampled as follows: three liters from the tank containing water that conforms to Art. 1002.01 and three liters from the filtered tank. Both samples must be submitted to the Department for testing every 4 months and when requested by the Engineer. A state representative must witness the sampling. The results from these samples shall serve as a check to the data provided by the contractor.

One Trial Batch per proposed mix design is required to verify minimum strengths can be achieved as defined in Article 1020.04 of the Standard Provision.

Quality Assurance by the Engineer. The Engineer will conduct independent assurance tests on split samples taken by the Contractor for quality control testing.

Documentation. The Contractor shall be responsible for documenting all test results. Records of testing shall be kept for a minimum of three years. The Contractor shall provide the Engineer full access to all documents.

HOT MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (BMPR)

Effective: January 1, 2012

Revised: December 1, 2013

Description. This special provision describes the procedures for production, placement and payment of hot-mix asphalt (HMA). This work shall be according to the Standard Specifications except as modified herein. This special provision shall apply to HMA mixtures as listed in the following table.

Mixture/Use:	HMA Surf. CSE, Mix D, N70
Location:	Sauk Trail Overlay/Widen
Mixture/Use:	HMA Binder CSE, IL-19.0, N70
Location:	Sauk Trail Overlay/Widen
Mixture/Use:	HMA Surf. CSE, Mix D, N70
Location:	West Frontage Road, entire length
Mixture/Use:	HMA Binder CSE, IL-19.0, N70
Location:	West Frontage Road, entire length

Exceptions may be approved for small tonnage less than 800 (725 metric) tons and miscellaneous mixture applications as defined by the Engineer.

- Delete Articles:
- 406.06(b)(1), 2nd Paragraph (Temperature requirements)
 - 406.06 (e), 3rd Paragraph (Pavers speed requirements)
 - 406.07 (Compaction)
 - 1030.05(a)(4, 5, 9,) (QC/QA Documents)
 - 1030.05(d)(2)a. (Plant Tests)
 - 1030.05(d)(2)b. (Dust-to-Asphalt and Moisture Content)
 - 1030.05(d)(2)d. (Small Tonnage)
 - 1030.05(d)(2)f. (HMA Sampling)
 - 1030.05(d)(3) (Required Field Tests)
 - 1030.05(d)(4) (Control Limits)
 - 1030.05(d)(5) (Control Charts)
 - 1030.05(d)(7) (Corrective Action for Field Tests (Density))
 - 1030.05(e) (Quality Assurance by the Engineer)
 - 1030.05(f) (Acceptance by the Engineer)
 - 1030.06(a), 3rd paragraph (Before start-up...)
 - 1030.06(a), 7th paragraph (After an acceptable...)
 - 1030.06(a), 8th paragraph (If a mixture...)
 - 1030.06(a), 9th paragraph (A nuclear/core...)

Definitions:

Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.

Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.

Pay Parameters: Pay Parameters shall be field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined aggregates bulk specific gravity (G_{sb}) from the mix design.

Mixture Lot. A lot shall begin once an acceptable test strip has been completed and the AJMF has been determined. If the test strip is waived, a subplot shall begin with the start of production. A mixture lot shall consist of four sublots unless it is the last or only lot, in which case it may consist of as few as one subplot

Mixture Sublot. A mixture subplot for field VMA, voids, and Dust/AC will be a maximum of 1000 tons (910 metric tons).

If the remaining quantity is greater than 200 but less than 1000 tons, a subplot will consist of that amount.

If the remaining quantity is less than or equal to 200 tons, the quantity shall be combined with the previous subplot.

Density Interval. Density Intervals shall be every 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm).

Density Sublot. A subplot for density shall be the average of five consecutive Density Intervals. If a Density Interval is less than 200 ft (60 m), it will be combined with the previous Density Intervals.

If one or two Density Intervals remain outside a subplot, they shall be included in the previous subplot.

If three or more Density Intervals remain, they shall be considered a subplot.

Density Test: A density test consists of a core taken at a random longitudinal and random transverse offset within each Density Interval. The HMA maximum theoretical gravity (G_{mm}) will be based on the running average of four Department test results. Initial G_{mm} will be based on the average of the first four test results. If less than four G_{mm} results are available, use an average of all available Department G_{mm} test results.

The random transverse offset excludes a distance from each outer edge equal to the lift thickness or a minimum of 4 in. (100 mm). If a core is located within one foot of an unconfined edge, 2.0 percent density will be added to the density of that core.

Quality Control (QC) by the Contractor:

The Contractor’s QC plan shall include the schedule of testing for both pay parameters and non-pay parameters required to control the product such as asphalt binder content and mixture gradation. The minimum test frequency shall be according to the following table.

Minimum Quality Control Sampling and Testing Requirements

Quality Characteristic		Minimum Test Frequency
Mixture Gradation		1 per subplot
Asphalt Binder Content		
Dust/AC Ratio		
Field VMA		
Voids	G_{mb}	
	G_{mm}	

The Contractor’s splits in conjunction with other quality control tests shall be used to control production.

The Contractor shall submit split jobsite mix sample test results to the Engineer within 48 hours of the time of sampling. All QC testing shall be performed in a qualified laboratory by personnel who have successfully completed the Department’s HMA Level I training.

Quality Assurance (Qa) By The Engineer:

Voids, field VMA and Dust/AC ratio: The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the “PFP Hot-Mix Asphalt Random Jobsite Sampling” procedure.

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

The Engineer will witness and secure all mixture and density samples. The Contractor shall transport the secured sample to a location designated by the Engineer.

The Engineer will test one or all of the randomly selected split samples from each lot for voids, field VMA and dust/AC ratio. The Engineer will test a minimum of one sample per project. The Engineer will test all of the pavement cores for density. All QA testing will be performed in a qualified laboratory by personnel who have successfully completed the Department's HMA Level I training. QA test results will be available to the Contractor within 10 working days from receipt of secured cores and split mixture samples.

The Engineer will maintain a complete record of all Department test results and copies will be provided to the Contractor with each set of subplot results. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

If the QA results do not meet the 100% subplot pay factor limits or do not compare to QC results within the precision limits listed below, the Engineer will test all split mix samples for the lot.

Test Parameter	Limits of Precision
G _{mb}	0.030
G _{mm}	0.026
Field VMA	1.0 %

Acceptance by the Engineer: All of the Department's tests shall be within the acceptable limits listed below:

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

Based on minimum required VMA from mix design

Does not apply to SMA.

Acceptable density limits for IL-9.5FG placed less than 1.25 in. shall be 89.0% - 98.0%

In addition, no visible pavement distresses shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

Basis of Payment: Payment will be based on the calculation of the Composite Pay Factor using QA results for each mix according to the "QCP Payment Calculation" document.

Dust / AC Ratio. A monetary deduction will be made using the pay adjustment table below for dust/AC ratios that deviate from the 0.6 to 1.2 range. If the tested subplot is outside of this range, the Department will test the remaining sublots for Dust / AC pay adjustment.

Dust / AC Pay Adjustment Table^{1/}

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

1/ Does not apply to SMA.

HEAT OF HYDRATION CONTROL FOR CONCRETE STRUCTURES (D-1)

Effective: November 1, 2013

Article 1020.15 shall not apply.

BRIDGE DECK CONSTRUCTION

Effective: October 22, 2013

Revised: February 21, 2014

Revise the Second Paragraph of Article 503.06(b) to read as follows.

“When the Contractor uses cantilever forming brackets on exterior beams or girders, additional requirements shall be as follows.”

Revise Article 503.06(b)(1) to read as follows.

“(1) Bracket Placement. The spacing of brackets shall be per the manufacturer’s published design specifications for the size of the overhang and the construction loads anticipated. The resulting force of the leg brace of the cantilever bracket shall bear on the web within 6 inches (150 mm) of the bottom flange of the beam or girder.”

Revise Article 503.06(b)(2) to read as follows.

“(2) Beam Ties. The top flange of exterior steel beams or girders supporting the cantilever forming brackets shall be tied to the bottom flange of the next interior beam. The top flange of exterior concrete beams supporting the cantilever forming brackets shall be tied to the top flange of the next interior beam. The ties shall be spaced at 4 ft (1.2 m) centers. Permanent cross frames on steel girders may be considered a tie. Ties shall be a minimum of 1/2 inch (13 mm) diameter threaded rod with an adjusting mechanism for drawing the tie taut. The ties shall utilize hanger brackets or clips which hook onto the flange of steel beams. No welding will be permitted to the structural steel or stud shear connectors, or to reinforcement bars of concrete beams, for the installation of the tie bar system. After installation of the ties and blocking, the tie shall be drawn taut until the tie does not vary from a straight line from beam to beam. The tie system shall be approved by the Engineer.”

Revise Article 503.06(b)(3) to read as follows.

“(3) Beam Blocks. Suitable beam blocks of 4 in x 4 in (100 x 100 mm) timbers or metal structural shapes of equivalent strength or better, acceptable to the Engineer, shall be wedged between the webs of the two beams tied together, within 6 inches (150 mm) of the bottom flange at each location where they are tied. When it is not feasible to have the resulting force from the leg brace of the cantilever brackets transmitted to the web within 6 inches (150 mm) of the bottom flange, then additional blocking shall be placed at each bracket to transmit the resulting force to within 6 inches (150 mm) of the bottom flange of the next interior beam or girder.”

Delete the last paragraph of Article 503.06(b).

Revise the third paragraph of Article 503.16 to read as follows.

“Fogging equipment shall be in operation unless the evaporation rate is less than 0.1 lb/sq ft/hour (0.5kg/sq m/hour) and the Engineer gives permission to stop. The evaporation rate shall be determined according to the following formula.

$$E = (T_c^{2.5} - rT_a^{2.5})(1 + 0.4V)x10^{-6} \text{ (English)}$$

$$E = 5[(T_c + 18)^{2.5} - r(T_a + 18)^{2.5}](V + 4)x10^{-6} \text{ (Metric)}$$

Where:

E = Evaporation Rate, lb/ft²/h (kg/sq m/h)

T_c = Concrete Temperature, °F (°C)

T_a = Air Temperature, °F (°C)

r = Relative Humidity in percent/100

V = Wind Velocity, mph (km/h)

The Contractor shall provide temperature, relative humidity, and wind speed measuring equipment. Fogging equipment shall be adequate to reach or cover the entire pour from behind the finishing machine or vibrating screed to the point of curing covering application, and shall be operated in a manner which shall not accumulate water on the deck until the curing covering has been placed."

Revise the third paragraph of Article 503.16(a)(1) to read as follows.

"The Contractor may utilize a vibrating screed in lieu of a finishing machine for superstructures with a pour width less than or equal to 24 ft (7.3 m). After the concrete is placed and consolidated, it shall be struck off with a vibrating screed allowing for camber, if required. The vibrating screed shall be of a type approved by the Engineer. A slight excess of concrete shall be kept in front of the cutting edge at all times during the striking off operation. After screeding, the entire surface shall be finished with hand-operated longitudinal floats having blades not less than 10 ft (3 m) in length and 6 in. (150 mm) in width. Decks so finished need not be straightedge tested as specified in 503.16(a)(2)."

Delete the fifth paragraph of 503.16(a)(1).

Revise Article 503.16(a)(2) to read as follows.

"(2) Straightedge Testing and Surface Correction. After the finishing has been completed and while the concrete is still plastic, the surface shall be tested for trueness with a 10 ft (3 m) straightedge, or a hand-operated longitudinal float having blades not less than 10 ft (3 m) in length and 6 in. (150 mm) in width. The Contractor shall furnish and use an accurate 10 ft (3 m) straightedge or float which has a handle not less than 3 ft (1 m) longer than 1/2 the pour width. The straightedge or float shall be held in contact with the surface and passed gradually from one side of the superstructure to the other. Advance along the surface shall be in successive stages of not more than 1/2 the length of the straightedge or float. Any depressions found shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished."

Replace the second sentence of the first paragraph of Article 1020.13(a)(5) with the following sentences.

"Cotton mats in poor condition will not be allowed. The cotton mats shall be placed in a manner which will not create indentations greater than 1/4 inch (6 mm) in the concrete surface. Minor marring of the surface is tolerable and is secondary to the importance of timely curing."

Revise Article 1020.14(b) to read as follows.

“(b) Concrete in Structures. Concrete may be placed when the air temperature is above 40 °F (4 °C) and rising, and concrete placement shall stop when the falling temperature reaches 45 °F (7 °C) or below, unless otherwise approved by the Engineer.

(1) Bridge Deck Concrete. For concrete in bridge decks, slabs, and bridge approach slabs the Contractor shall schedule placing and finishing of the concrete during hours in which the ambient air temperature is forecast to be lower than 85 °F (30 °C). It shall be understood this may require scheduling the deck pour at night in order to utilize the temperature window available. The temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 85 °F (30 °C).

(2) Non-Bridge Deck Concrete. Except as noted above, the temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C).

If concrete is pumped, the temperature restrictions above shall be considered at point of placement. When insulated forms are used according to Article 1020.13(d)(1), the maximum temperature of the concrete mixture immediately before placement shall be 80 °F (25 °C). When concrete is placed in contact with previously placed concrete, the temperature of the freshly mixed concrete may be increased by the Contractor to offset anticipated heat loss, but in no case shall the maximum concrete temperature be permitted to exceed the limits stated in this Article.”

Revise Article 1103.13(a) to read as follows.

“(a) Bridge Deck. The finishing machine shall be equipped with: (1) a mechanical strike off device; (2) either a rotating cylinder(s) or a longitudinal oscillating screed which transversely finishes the surface of the concrete. The Contractor may attach other equipment to the finishing machine to enhance the final finish when approved by the Engineer. The finishing machine shall produce a deck surface of uniform texture, free from porous areas, and with the required surface smoothness.

The finishing machine shall be operated on rails or other supports that will not deflect under the applied loads. The maximum length of rail segments supported on top of beams and within the pour shall be 10 ft (3 m). The supports shall be adjustable for elevation and shall be completely in place to allow the finishing machine to be used for the full length of the area to be finished. The supports shall be approved by the Engineer before placing of the concrete is started.”

Revise Article 1103.17(k) to read as follows.

“(k) Fogging Equipment. Fogging equipment shall be hand held fogging equipment for humidity control. The equipment shall be capable of atomizing water to produce a fog blanket by the use of pressure 2500 psi minimum (17.24 MPa) and an industrial fire hose fogging nozzle or equivalent. Fogging equipment attached to the finishing machine will not be permitted.”

Revise the third paragraph of Article 503.16 to read as follows.

“Fogging equipment shall be in operation unless the evaporation rate is less than 0.1 lb/sq ft/hour (0.5kg/sq m/hour) and the Engineer gives permission to stop. The evaporation rate shall be determined according to the following formula.

$$E=(T_c^{2.5} - rT_a^{2.5})(1 + 0.4V)x10^{-6} \text{ (English)}$$

$$E=5[(T_c+18)^{2.5} - r(T_a+18)^{2.5}](V+4)x10^{-6} \text{ (Metric)}$$

Where:

E = Evaporation Rate, lb/ft²/h (kg/sq m/h)

T_c = Concrete Temperature, °F (°C)

T_a = Air Temperature, °F (°C)

r = Relative Humidity in percent/100

V = Wind Velocity, mph (km/h)

The Contractor shall provide temperature, relative humidity, and wind speed measuring equipment. Fogging equipment shall be to adequate to reach or cover the entire pour from behind the finishing machine or vibrating screed to the point of curing covering application, and shall be operated in a manner which shall not accumulate water on the deck until the curing covering has been placed.”

Revise the first sentence of the third paragraph of Article 503.16(a)(1) to read as follows.

“At the Contractors option, a vibrating screed may be used in lieu of the finishing machine for superstructures with a pour width less than 24 ft.(7.3 m)”

Delete the fifth paragraph of 503.16(a)(1).

Replace the second sentence of the first paragraph of Article 1020.13(a)(5) with the follows.

“Cotton mats in poor condition will not be allowed. The cotton mats shall be placed in a manner which will not create indentations greater than 1/4 inch (6 mm) in the concrete surface. Minor marring of the surface is tolerable and is secondary to the importance of timely curing.”

Revise the Article 1020.14(b) to read as follows.

“(b) Concrete in Structures. Concrete may be placed when the air temperature is above 40 °F (4 °C) and rising, and concrete placement shall stop when the falling temperature reaches 45 °F (7 °C) or below, unless otherwise approved by the Engineer.

(1) Superstructure Concrete. For concrete in superstructures the Contractor shall schedule placing and finishing of the concrete during hours in which the ambient Air temperature will be lower than 85 °F (30 °C). The temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 85 °F (30 °C).

(2) Non-Superstructure Concrete. The temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C). If concrete is pumped, the temperature of the concrete at point of placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C).

When insulated forms are used according to Article 1020.13(d)(1), the maximum temperature of the concrete mixture immediately before placement shall be 80 °F (25 °C).

When concrete is placed in contact with previously placed concrete, the temperature of the freshly mixed concrete may be increased to 80 °F (25

°C) by the Contractor to offset anticipated heat loss.”

Revise Article 1103.13(a) to read as follows.

“(a) Bridge Deck. The finishing machine shall be equipped with: (1) a mechanical strike off device; (2) either a rotating cylinder(s) or a longitudinal oscillating screed which transversely finishes the surface of the concrete. The Contractor may attach other equipment to the finishing machine to enhance the final finish when approved by the Engineer. The finishing machine shall produce a floor surface of uniform texture, free from porous areas, and with the required surface smoothness.

The finishing machine shall be operated on rails or other supports that will not deflect under the applied loads. The maximum length of rails support on top of existing beams and within the pour shall be 10 ft (3 m). The supports shall be adjustable for elevation and shall be completely in place for the full length of the area to be finished. The supports shall be approved by the Engineer before placing of the concrete is started.”

Revise Article 1103.17(k) to read as follows.

“(k) Fogging Equipment. Fogging equipment shall be hand held fogging equipment for humidity control. The equipment shall be capable of atomizing water to produce a fog blanket by the use of pressure 2500 psi minimum (17.24 MPa) and an industrial fire hose fogging nozzle or equivalent. Fogging equipment attached to the finishing machine will not be permitted.”

TEMPORARY SHEET PILING

Effective: September 2, 1994

Revised: January 31, 2012

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

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

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

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

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

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

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

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

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

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

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

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

MONITORING WELL ABANDONMENT

The Contractor shall hire a licensed water well driller pursuant to the Water Well and Pump Installation Contractor's License Act. All monitoring wells removed shall be abandoned in accordance with the Illinois Water Well Construction Code 77 Illinois Administrative Code Part 920. The Department has determined that eight (8) monitoring wells will be impacted by construction activities.

Method of Measurement. Monitoring well abandonment will be measured for payment assuming each monitoring well is a 2 inch diameter well installed at a maximum depth of 25 feet.

Basis of Payment. Monitoring well abandonment will be paid for at the contract unit price each for MONITORING WELL ABANDONMENT.

IMPORTANT NOTICE

CORPORATIONS

License must be signed by the President or a Vice President of the Corporation or Company, or be accompanied by a certified resolution of the Board of Directors authorizing execution by a lesser official.

PARTNERSHIP

License must be signed by all of the partners.

-1 DP 3rd e

MUNICIPALITIES OR

GOVERNMENTAL AGENCIES

License must be accompanied by a certified resolution authorizing the official signing the License to execute on behalf of the Governmental Body. The resolution should not be certified by the same official who executed the License.

RIGHT OF ENTRY LICENSE AGREEMENT

Wisconsin Central Ltd. (hereinafter called Railroad Company) hereby grants pursuant to this Right of Entry License Agreement (hereinafter called License) to _____ (hereinafter called Licensee) license and permission, at Licensee's sole cost, risk and expense, to enter Railroad Company's property in the vicinity of _____, Railroad Milepost _____,

_____ Subdivision for purposes related to _____ near _____, IL on, over and near Railroad Company's tracks and right-of-way, as generally shown on Location Exhibit, attached hereto and made a part hereof.

Licensee shall pay to Railroad Company upon execution of this License the sum of **\$750.00** for the privileges granted by this License. The aforesaid sum is not refundable in the event Licensee elects not to enter upon Railroad Company's property or in the event Railroad Company elects to terminate this License for any reason whatsoever.

Licensee shall not enter Railroad Company's premises for the purpose as set forth above without having first given Railroad Company's Engineering Manager or their authorized representative at least five (5) working days advance notice of the date Licensee plans to commence the work.

Railroad Company shall have the right, but not the duty, to require Licensee to furnish detailed plans prior to entry upon the premises and to view and inspect any activity or work on or above Railroad Company's property. If in the sole opinion of the authorized representative of Railroad Company any said activity or work is undesirable for any reason, Railroad Company shall have the right to terminate this License at once.

Railroad Company shall have the right, but not the duty, to restrict Licensee's activity on Railroad Company's property in any way that Railroad Company may, in its sole opinion, deem necessary from time to time and shall also have the right, but not the duty, to require Licensee to adopt and take any safety precautions that Railroad Company may, in its sole opinion, deem necessary from time to time. No work shall be performed or equipment located within twenty-five feet (25') of the centerline of the nearest railroad track without the expressed permission of Railroad Company's Engineering Manager or their duly authorized representative and then only when either the track has been removed from service or Railroad Company flag protection is provided.

Railroad Company may, at Licensee's sole cost, risk and expense, furnish whatever protective services it considers necessary, including, but not limited to, flag protection, and inspectors.

Licensee shall at all times conduct its work in accordance with any and all "Special Provisions" which may be appended hereto which, by reference hereto, are hereby made a part hereof.

AS A CONSIDERATION AND AS A CONDITION, WITHOUT WHICH THIS LICENSE WOULD NOT HAVE BEEN GRANTED, LICENSEE AGREES TO INDEMNIFY AND SAVE HARMLESS RAILROAD COMPANY, ITS PARENTS, AFFILIATES, AND THEIR DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS AND TO ASSUME ALL LIABILITY FOR DEATH OR INJURY TO ANY PERSONS, INCLUDING, BUT NOT LIMITED TO, OFFICERS, EMPLOYEES, AGENTS, PATRONS AND LICENSEES OF THE PARTIES HERETO, AND FOR ALL LOSS, DAMAGE OR INJURY TO ANY PROPERTY, INCLUDING, BUT NOT LIMITED TO, THAT BELONGING TO THE PARTIES HERETO, TOGETHER WITH ALL EXPENSES, ATTORNEYS' FEES AND COSTS INCURRED OR SUSTAINED BY RAILROAD COMPANY, WHETHER IN DEFENSE OF ANY SUCH CLAIMS, DEMANDS, ACTIONS AND CAUSES OF ACTION OR IN THE ENFORCEMENT OF THE INDEMNIFICATION RIGHTS HEREBY CONFERRED, IN ANY MANNER OR DEGREE CAUSED BY, ATTRIBUTABLE TO OR RESULTING FROM THE EXERCISE OF THE RIGHTS HEREIN GRANTED, OR THE FAILURE OF LICENSEE TO CONFORM TO CONDITIONS OF THIS LICENSE, WORK PERFORMED BY RAILROAD COMPANY FOR LICENSEE UNDER THE TERMS OF THIS LICENSE OR THE CONSTRUCTION, MAINTENANCE, REPAIR, RENEWAL, ALTERATION, CHANGE, RELOCATION, EXISTENCE, PRESENCE, USE, OPERATION OR REMOVAL OF ANY STRUCTURE INCIDENT THERETO, OR FROM ANY ACTIVITY CONDUCTED ON OR OCCURRENCE ORIGINATING ON THE AREA COVERED BY THIS LICENSE, REGARDLESS OF ANY NEGLIGENCE OF RAILROAD COMPANY, ITS OFFICERS, EMPLOYEES AND AGENTS. SAID LICENSEE AGREES ALSO TO RELEASE, INDEMNIFY AND SAVE HARMLESS RAILROAD COMPANY, ITS OFFICERS, EMPLOYEES AND AGENTS FROM ALL LIABILITY TO LICENSEE, ITS OFFICERS, EMPLOYEES, AGENTS OR PATRONS, RESULTING FROM RAILROAD OPERATIONS AT OR NEAR THE AREA IN WHICH LICENSE IS TO BE EXERCISED, WHETHER OR NOT THE DEATH, INJURY OR DAMAGE RESULTING THEREFROM MAY BE DUE TO WHOLE OR IN PART TO THE NEGLIGENCE OF RAILROAD COMPANY, ITS OFFICERS, EMPLOYEES OR AGENTS. AT THE ELECTION OF RAILROAD COMPANY, LICENSEE, UPON NOTICE TO THAT EFFECT, SHALL ASSUME OR JOIN IN THE DEFENSE OF ANY CLAIM BASED UPON ALLEGATIONS PURPORTING TO BRING SAID CLAIM WITHIN THE COVERAGE OF THIS SECTION.

Before commencing work and until this License shall be terminated, Licensee shall provide and maintain the following insurance in form and amount with companies satisfactory to and as approved by Railroad Company.

- a. Statutory Workers Compensation and Employer's Liability insurance.
- b. Automobile Liability in an amount not less than \$1,000,000 dollars combined single limit.
- c. Comprehensive General Liability (occurrence form) in an amount not less than \$5,000,000 dollars per occurrence, with an aggregate limit of not less than \$10,000,000 dollars. The Policy must name Railroad Company and its Parents as additional insureds in the following form:

Railroad Company name and its Parents Attn: Rob Glass
17641 South Ashland Avenue
Homewood, IL 60430
708.332.6673 (office)
Rob.Glass@cn.ca

If the commercial general liability policy required herein contains any exclusions related to doing business or undertaking construction or demolition on, near, or adjacent to railroad facilities; such exclusion must be removed through issuance of endorsement CG 24 17, or a similar endorsement approved by Railroad Company in its sole discretion prior to the commencement of work hereunder.

- d. In the event the privileges provided herein to Licensee involve any work that could result in the discharge, spillage, disposal, release or escape of any Hazardous Material or petroleum product onto the Railroad Company's property, Licensee shall purchase and maintain in effect at all times during the term of this License a Contractor's Pollution Liability policy in an amount not less than two million dollars (\$2,000,000) combined single limit (and with a deductible not to

exceed \$50,000) insuring Railroad against any and all damages, costs, liabilities and expenses resulting from on- or off-site bodily injury (including death to any person), on or off-site loss, damage or destruction of property (including that belonging to the parties hereto), and on-or off-site cleanup costs (including expenses incurred in the investigation, removal, remediation, neutralization, or immobilization of contaminated soils, surface water, groundwater or any other contamination) growing out of or incidental to any discharge, spillage, disposal, release, or escape of any Hazardous Material or petroleum product arising therefrom. For purposes of this Agreement, the term "Hazardous Material" shall include, without limit, any flammable explosives, radioactive materials, hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601, et seq.), the Hazardous Material Transportation Act, as amended (49 U.S.C. §§ 1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §§ 6901 et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601, et seq.), similar laws or ordinances enacted by any state, county or municipality in which the Property is located, or in the regulations adopted and publications promulgated pursuant to any of the above, as such laws or regulations now exist or may exist in the future.

Licensee is required to advise Railroad Company by thirty (30) day advance written notice when any work to be performed under this License may require Pollution Liability Insurance pursuant to the previous paragraph.

Before commencing work, Licensee shall deliver to Railroad Company a certificate of insurance evidencing the foregoing coverage, and upon request, Licensee shall deliver a certified, true and complete copy of the policy or policies at its sole cost and expense. The policies shall provide for not less than thirty (30) days prior written notice to Railroad Company of cancellation of or any material change in, the policies, and shall contain the waiver of right of subrogation.

It is understood and agreed that the foregoing insurance coverage is not intended to, and shall not, relieve Licensee from or serve to limit Licensee's liability under the indemnity provisions of this License or any applicable agreement.

It is further understood and agreed that, so long as this License shall remain in force or until the Licensee's work is complete and Licensee shall have vacated the Railroad Company's property (whichever shall be later), Railroad Company shall have the right, from time to time, to revise the amount or form of insurance coverage provided as circumstances or changing economic conditions may require. Railroad Company shall give Licensee written notice of any such requested change at least thirty (30) days prior to the date of expiration of the then existing policy or policies; and Licensee agrees to, and shall, thereupon provide Railroad Company with certificates reflecting such revised policy or policies thereof.

If a contractor is to be employed by Licensee, then, before any work is commenced hereunder, Licensee shall establish, to the reasonable satisfaction of Railroad Company, that either (i) the contractor has in place insurance policies covering its own work that comply with the required insurance coverage's, limits and terms applicable to Licensee, or (ii) the contractor is fully covered under Licensee's insurance policies.

Railroad Company's exercise or failure to exercise any rights under this License shall not relieve Licensee of any responsibility under this License, including, but not limited to, the obligation to indemnify Railroad Company as herein provided. Cost and expense for work performed by Railroad Company, as referred to in this License, shall consist of the actual cost of labor, materials, equipment and other plus Railroad Company's standard additives in effect at the time the work is performed.

This License is revocable at the option and discretion of Railroad Company upon notice to Licensee, and shall not be transferred or assigned. Unless sooner revoked by Railroad Company, extended at request of Licensee and granted by Railroad Company in writing, or relinquished by act of Licensee, this License shall terminate on

Upon termination of this License, Licensee shall remove all of its property, leaving Railroad Company's premises in a neat and safe condition satisfactory to Railroad Company's Engineering Manager or their authorized representative, failing which Railroad Company may remove said materials from its premises at Licensee's sole cost, risk and expense, or at its option, may deem such property as abandoned and henceforth owned by Railroad Company, with no compensation for Licensee whatsoever.

WISCONSIN CENTRAL LTD.

By: _____

Print Name: _____ Title:

ACCEPTED:

By: _____

Print Name: _____ Title:

CN SPECIAL PROVISIONS FOR WORK ON RR PROPERTY

RELATIVE TO FLAGGING AND OTHER PROTECTION OF RAILROAD COMPANY TRAFFIC AND FACILITIES DURING CONSTRUCTION ADJACENT AND ABOVE, ON OR ACROSS, THE PROPERTY OF, OR ON, ABOVE AND BENEATH THE TRACKS OF THE WISCONSIN CENTRAL LTD.

The Licensee shall, before entering upon the property of Railroad Company for performance of any work, secure a fully executed right of entry license from Railroad Company's Engineering Manager or their authorized representative for the occupancy and use of Railroad Company's property. Licensee shall confer with Railroad Company relative to requirements for railroad clearances, operation and general safety regulations.

Prior to any entry onto Railroad Company's property, employees and/or contractor(s) of Licensee doing work shall determine by the guidelines hereinafter provided and by the work to be performed the level of safety training to be required.

All employees and/or contractor(s) of Licensee not hired by Railroad Company that will work on CN property are required to have minimum www.contractororientation.com.

a. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or contractor(s) of Licensee hired by Railroad Company which will work on Railroad Company property are required to have minimum CN Safety and Security Awareness training, in addition to undergoing a background check. This training and background check must be obtained through the eRailSafe.com website. If not done before, the contractor must contact CN Special Agent James Conroy at 708-332-5947 or James.Conroy@cn.ca to be issued a vendor number prior to accessing the noted website. Minimum information required of the Licensee and/or their contractor when contacting either Special Agent James Conroy or e-RailSafe is Name, Address, Telephone, Contact Person for State Projects, DOT Contract Number, and the AAR/DOT Number. This training is good for a period of two years.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or contractor(s) of Licensee hired by Railroad Company, whose duties include and who are engaged in the inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, roadway facilities, or roadway machinery that will work foul of or have the potential to foul a live track are considered Roadway Workers under FRA regulations and CN Policy. They must complete the On-Track Safety Training course approved by Railroad Company and provided by R.R. Safety – AMR, P.O. Box 75, Lomira, WI 53048, telephone (920) 517-1677, email rsafetytraining@yahoo.com. This training must be repeated at least once each calendar year.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.
- c. All the employees and/or contractor(s) of Licensee who will operate on-track machinery or those who will provide protection for other employees and/or contractor(s) of Licensee must also be trained on CN US Operating Rules pertaining to their duties. They must take and pass the required examination. This training is good for a period of two years.
- d. "Potential to foul a live track" is considered, at a minimum, to be working within twenty-five feet of the track; or as otherwise to be determined by CN Design & Construction Department.

The employees, contractor(s) , and/or agents of the Licensee and/or its contractor shall qualify for, and make available for inspection to Railroad Company's employees or other authorized personnel at all times while on Railroad Company property, a photo identification issued by www.e-railsafe.com, along with at least one other government-issued form of identification. Licensee and/or their contractor shall bear all costs of compliance with the requirements of this Section. Railroad Company reserves the right to bar any of employees or agents of Licensee and/or their contractor from Railroad Company's property at any time for any reason.

Licensee and/or any contractor engaged on their behalf, shall at all times conduct work in a manner satisfactory to the Engineering Manager of Railroad Company, or their authorized representative, and shall exercise care so as to not damage the property of Railroad Company, or that belonging to any other grantees, licensees, permittees or tenants of Railroad Company, or to interfere with railroad operations.

Engineering Manager of Railroad Company, or their authorized representative, will at all times have jurisdiction over the safety of railroad operations., The decision of the Engineering Manager or their authorized representative as to procedures which may affect the safety of railroad operations shall be final, and Licensee and/or their contractor shall be governed by such decision.

All work shall be conducted in such a manner as will assure the safety of Railroad Company. Railroad Company's authorized representative shall have the right, but not the duty, to require certain procedures to be used or to supervise the work on Railroad Company's property.

Should any damage occur to Railroad Company property as a result of the authorized or unauthorized operations of Licensee and/or their contractor and Railroad Company deems it necessary to repair such damage or perform any work for the protection of its property or operations, the Licensee and/or their contractor, as the case may be, shall promptly reimburse Railroad Company for the actual cost of such repairs or work. For the purpose of these Special Provisions, actual cost shall be deemed to include the direct cost of any labor, materials, equipment, or contract expense plus Railroad Company's current standard additives in each instance.

If the work requires the construction of a temporary grade crossing across the track(s) of Railroad Company, Licensee and/or their contractor shall make the necessary arrangements

and execute Railroad Company's temporary grade crossing agreement for the construction, protection, maintenance, and later removal of such temporary grade crossing. The cost of such temporary grade crossing construction and later removal shall be prepaid to Railroad Company. Additional costs for repairs, maintenance or protection will be paid within thirty (30) days upon receipt of bill(s) therefor.

Licensee and/or their contractor shall at no time cross Railroad Company's property or tracks with vehicles or equipment of any kind or character, except at such temporary grade crossing as may be constructed as outlined herein, or at any existing and open public grade crossing. Operation over such crossing shall be at the direction and method of Railroad Company's Engineering Manager or their authorized representative.

Railroad Company may, at Licensee's and/or their contractor's sole cost, risk and expense, furnish whatever protective services it considers necessary, including, but not limited to, flagger(s), inspector(s), and stand-by personnel. Flagging protection, inspection services, or standby personnel required by Railroad Company for the safety of railroad operations because of work being conducted by Licensee and/or their contractor, or in connection therewith, will be provided by Railroad Company and the cost of Licensee and shall be prepaid to Railroad Company by Licensee and/or their contractor. Flagging protection, inspection services, or standby personnel, necessary or provided in excess of prepayment amounts will be billed at the proper rates and will be promptly paid by overnight delivery.

In the event Railroad Company is unable to furnish protective services at the desired time or on the desired date(s), or if Licensee's prepayment for such services is exhausted and not replenished by Licensee and/or their contractor, Licensee and/or their contractor shall not perform any work on Railroad Company's property until such time and date(s) that appropriate Railroad Company services can be made available and/or appropriate prepayment is received. It is understood that Railroad Company shall not be liable for any delay or increased costs incurred by Licensee and/or their contractor owing to Railroad Company's inability or failure to have appropriate protective services available at the time or on the date requested.

Licensee and/or their contractor shall request and secure flagging protection by written notice to Railroad Company using CN's "Request for Flagging Services" form. This form must be submitted at least ten (10) working days in advance of proposed performance of any work or access to Railroad Company's property.

Flagging protection will be required during any operation involving direct and potential interference with Railroad Company's tracks or traffic. This may include but is not limited to fouling of railroad operating clearances, reasonable proximity of accidental hazard to railroad traffic, work within twenty-five (25) feet horizontally of the nearest centerline of any railroad track, any work over any railroad track, or in any other condition that Railroad Company deems protective services necessary, which may include work on or off Railroad Company's property more than twenty-five (25) feet from the nearest centerline of any railroad track, such as any equipment extension (including but not limited to a crane boom) that will reach or has the potential to reach within twenty-five (25) feet of any track.

Licensee and/or their contractor shall request, prepay, and secure Railroad Company signal facility locates by written notice to Railroad Company along with submission of CN's "Request for Flagging Services" form at least ten (10) working days in advance of proposed performance of any work or access to Railroad Company property. Notice to Railroad Company does not fulfill or satisfy any other notification requirements for utility locates for non-railroad facilities.

Railroad Company may require that prior to digging, trenching, or boring activities on or near Railroad Company property, or beneath any railroad track, an on-site meeting be

conducted with Railroad Company's Signal Department representative. No digging, trenching or boring activities shall be conducted in the proximity of any known buried Railroad Company signal cables without Railroad Company's Signal Department representative being present.

The rate of pay for Railroad Company employees will be the prevailing hourly rate for not less than eight (8) hours for the class of labor at regular rates during regularly assigned work hours, and at overtime rates outside of regular hours and in accordance with Labor Agreements or Schedules plus Railroad Company's current standard additives in each instance.

Wage rates are subject to change, at any time, by law or agreement between Railroad Company and employees, and may be retroactive because of negotiations or a ruling by an authorized Governmental Agent. If the wage rates are changed, Licensee and/or their contractor shall pay on the basis of the new rates and/or additives.

No digging, trenching, or boring on Railroad Company property shall be conducted without Railroad Company's written approval of the plans that were furnished to Railroad Company's Engineering Manager at least thirty (30) in advance of the excavation.

The following temporary clearances are the minimum that must be maintained at all times during any operation on or adjacent to Railroad Company property:

Vertical: 22'-0" (7.00 m) above top of highest rail within 12'-0" (3.81 m) of the centerline of any track

Horizontal: 12'-0" (3.81 m) from centerline of the nearest track, measured at right angles thereto

If lesser clearances than the above are required for any part of the work, Licensee and/or their contractor shall secure written authorization from Railroad Company's Engineering Manager for such lesser clearances in advance of the start of that portion of the work.

No materials, supplies, or equipment will be stored within twenty-five (25) feet from the centerline of any railroad track, measured at right angles thereto.

Licensee and/or their contractor will be required upon the completion of the work to remove from within the limits of Railroad Company's property all machinery, equipment, surplus materials, false work, rubbish or temporary buildings, and to leave said property in a condition satisfactory to the Engineering Manager of Railroad Company or their authorized representative.

Nothing in these Special Provisions shall be construed to place any responsibility on Railroad Company for the quality or conduct of the work performed by Licensee and/or their contractor hereunder. Any approval given or supervision exercised by Railroad Company hereunder, or failure of Railroad Company to object to any work done, material used, or method of operation shall not be construed to relieve Licensee and/or their contractor of any obligations pursuant hereto or under the License these Special Provisions are appended to.

Accepted: _____

Print Name: _____

Request for flagging services Southern Region

TO: CN
Attn: Mary Ellen Carmody, Audit Officer
2800 Livernois, Suite 220
Troy, Michigan 48083
(248) 740-6227
(248) 740-6036 fax
marvellen.carmody@cn.ca

Date submitted: __

FROM: _____
(Name)

I am requesting a flagman for the following project. All blanks below must be completely filled in before any flagman request will be honored. Proof of Insurance must accompany this form. Flagman will be provided within five (5) business days, at your cost, depending on availability. Direct your calls concerning availability and problems to (248) 740-6227.

Project Location: _____

RR milepost, Street, etc. _____

Company: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Company Phone: _____ Company Fax: _____

**Agreement or Authorization No.: _____ Dated: _____

With: _____

Contractor's Contact Person: _____ Phone: _____

Date(s) Flagging needed: _____

Starting time: _____ Ending Time: _____

Location for flagman to report: _____

Prepayment for WEEKDAY flagman protection is required, and must be submitted by over-night delivery to the address shown at the top of this page. The prepayment amount will be based on the number of weekdays a flagman is required, at the base rate of \$1000.00 per weekday (1-8 hour continuous period). Prepayment for WEEKEND flagman protection will be at the rate of \$150.00 per hour, with an eight hour (8) minimum of \$1,200.00. Any hours in excess of eight (8) continuous hours per flagman on either WEEKDAY or WEEKEND days are to be prepaid at the rate of \$150.00 per hour. Hours of flagman protection provided in excess of prepayment amounts will be billed at the proper rate and will be promptly paid by over-night delivery.

If project will run longer than originally anticipated, MaryEllen Carmody must be contacted in advance, and an additional check for the overrun submitted by over-night delivery.

Cost for a railroad S&C cable locate is \$250.00, and is to be prepaid by over-night delivery.

*** You must have an agreement with CN railroad subsidiary, such as a Right of Entry Permit, Formal Agreement or State, County, City Project Number and proof of insurance before you can enter the property.*

Description of work to be performed: _____

Will you receive State or Federal Funds as reimbursement for this project? Yes ___ No ___

I agree to pay for flagging services as requested: _____
Attach map or other location info and fax completed form with cover letter on your company's letterhead and proof of insurance to MaryEllen Carmody (248) 740-6036.

Patrick Jones Manager Public Works
17641 South Ashland Avenue Homewood, IL 60430



[Email: patrick.jones@cn.ca](mailto:patrick.jones@cn.ca)

T 708.332.3557
F 708.332.3514

Right of Entry (ROE) License Agreement Information

Cost is \$750.00* for application

Railroad Company requires everyone (contractor, consultants, etc.) working on Railroad Company property to have a Right-of-Entry (ROE) License Agreement. ROE license agreement applications are handled by email. Once Railroad Company receives the information requested below, and if application is approved, Railroad Company will draw up a ROE License Agreement, and will forward electronic copy by email for applicant's execution. Applicant must return one (1) executed original copy, a check for \$750.00*, and proof of insurance, together in one package to the address above. Application and ROE License Agreement will be delayed if Railroad Company receives the required documents separately, incomplete, or inaccurate. Railroad Company will return a fully executed digital copy of the ROE License Agreement by email for Applicant's files and records. No work may occur on Railroad Company property nor will flagging protection be provided until ROE License Agreement has been fully executed by both parties and returned. * Fee may be increased for special handling.

Please use this form and return by email to submit application request for a Right of Entry agreement.

Contact name –

Name of Applicant/contractor -

Street Address – City,

State, Zip – Telephone

–

Reason for ROE – Duration of

ROE – Public Agency's Project No.

–

Public agency Easement No. (if known) –

Location of project – FRA/AAR/DOT

Crossing No. –

If unable to locate this number at jobsite, please use following links to obtain:

<http://safetydata.fra.dot.gov/officeofsafety/publicsite/crossing/xingqryloc.aspx>

In Illinois

<http://www.icc.illinois.gov/railroad/advanced.aspx?>

If project job site does not have a FRA/AAR/DOT Crossing Number, please attach an aerial snapshot to help identify specific location.

ROE may take up to 4+ weeks to obtain

FAQ

What are the insurance requirements?

Railroad Company allows outside parties to come onto Railroad Company property to perform work, such as survey or inspection work, installation of pipelines and wirelines, and other work for projects necessitating the occupancy of Railroad Company. Before commencing work, and until the license of allowing such occupancy ends or is terminated, outside parties shall provide and maintain the following insurance in form and amount with companies satisfactory to and as approved by Railroad Company.

1. Minimum insurance required of outside party:

- A. Statutory Workers Compensation and Employer's Liability Insurance.
- B. Automobile Liability Insurance in an amount not less than \$1,000,000 combined single limit.
- C. Commercial General Liability Insurance (Occurrence Form) in an amount not less than \$5,000,000 per occurrence, with an aggregate limit of not less than \$10,000,000. The policy must name Railroad Company and its Parents as additional insureds in the following form:

Railroad Company name and its Parents

Attn: Rob Glass
17641 South Ashland Avenue
Homewood, IL 60430 708.332.6673 (office)
Rob.Glass@cn.ca

The policy must remove any provisions excluding coverage for injury, loss or damage arising out of or resulting from doing business or undertaking construction or demolition on, near, or adjacent to railroad track or facilities using endorsement CG 2417 10 01 or equivalent approved by Railroad Company.

- D. When outside party is required by Railroad Company or Governing Authority to purchase Railroad Protective Liability Insurance to cover work on, near or adjacent to railroad track or facilities, and outside party is not being hired for this project by Railroad Company, outside party must procure Railroad Protective Liability Insurance in the following form;

This coverage shall be written on an Occurrence Form with limits of not less than \$5,000,000 per occurrence for Bodily Injury, Personal Injury and Physical Damage to Property, with an aggregate limit of not less than \$10,000,000. The policy must name:

Railroad Company name and its Parents

Attn: Rob Glass
17641 South Ashland Avenue
Homewood, IL 60430 708.332.6673 (office)
Rob.Glass@cn.ca

- E. In the event the privileges provided herein to Applicant involve any work that could result in the discharge, spillage, disposal, release or escape of any Hazardous Material or petroleum product onto the Railroad Company's property, Applicant shall purchase and maintain in effect at all times during the term of this License a Contractor's Pollution Liability policy in an amount not less than two million dollars (\$2,000,000) combined single limit (and with a deductible not to exceed \$50,000) insuring Railroad against any and all damages, costs, liabilities and expenses resulting from on- or off-site bodily injury (including death to any person), on or off-site loss, damage or destruction of property (including that belonging to the parties hereto), and on-or off-site cleanup costs (including expenses incurred in the investigation, removal, remediation, neutralization, or immobilization of contaminated soils, surface water, groundwater or any other contamination) growing out of or incidental to any discharge, spillage, disposal, release, or escape of any Hazardous Material or petroleum

product arising therefrom. For purposes of this Agreement, the term "Hazardous Material" shall include,

without limit, any flammable explosives, radioactive materials, hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601, et seq.), the Hazardous Material Transportation Act, as amended (49 U.S.C. §§ 1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §§ 6901 et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §§ 2601, et seq.), similar laws or ordinances enacted by any state, county or municipality in which the Property is located, or in the regulations adopted and publications promulgated pursuant to any of the above, as such laws or regulations now exist or may exist in the future.

Applicant is required to advise Railroad Company by thirty (30) day advance written notice when any work to be performed under this License may require Pollution Liability Insurance pursuant to the previous paragraph.

F. All policies described above must include description of operations, Railroad Company milepost, highway or street name, city and state of location, project number, and Railroad Company contact person on the certificate.

2. Before commencing work, outside party shall deliver to Railroad Company a certificate of insurance evidencing the foregoing coverages and, if requested by Railroad Company, true and complete copies of the policies described above. If the policy is being issued in conjunction with, or as a result of, a city, county or state contract, the policy should be initially submitted to the respective city, county or state agency that will review it first and then forward it to Railroad Company.

3. Common Policy Provisions. Each policy described in paragraph 1, parts A through E above, must include the following provisions:

- A. Each policy shall include a waiver by the insurer of any right of subrogation against any recovery by or on behalf of any insured.
- B. Each policy shall provide for not less than thirty (30) days prior written notice to Railroad Company at the address listed above of cancellation of or any material change in that policy.

4. It is understood and agreed that the foregoing insurance coverage requirements, and outside party's compliance with those requirements, is not intended to, and shall not, relieve outside party from, or serve to limit, outside party's liability and indemnity obligations under the provisions herein.

5. Railroad Company shall have the right, from time to time, to revise the amount or form of insurance coverage required as circumstances or changing economic conditions may require. Railroad Company shall give outside party written notice of any such requested change at least thirty (30) days before the date of expiration of the then-existing policy or policies, outside party agrees to, and shall, thereupon provide Railroad Company with such revised policy or policies.

6. Insurance required of SUBCONTRACTOR:

- A. If a SUBCONTRACTOR is to be employed by outside party to perform work on Railroad Company under or by the permission for occupancy granted to outside party by Railroad Company, before commencing work, the SUBCONTRACTOR shall provide and thereafter maintain all of the insurance described in paragraph 1, parts A through E, above, in the same forms and amounts as provided for above and subject to the other terms and conditions provided for in paragraphs 2 through 4 above.
- B. In the alternative, before the SUBCONTRACTOR commences work for outside party on Railroad Company, outside party may provide and thereafter maintain all of the insurance described in paragraph 1, parts A through E, above, in the same forms and amounts as provided for above and subject to the other terms and conditions provided for in paragraphs 2 through 5 above, provided that all such insurance names SUBCONTRACTOR as an additional insured and all such insurance provides coverage to all additional insureds, including Railroad Company, for any liability arising out of work performed by all other additional insureds, including SUBCONTRACTOR.

Is safety training required?

Prior to any entry onto Railroad Company's property, the employees and/or subcontractors of a Contractor,

Grantee, Licensee, or Permittee shall determine by the guidelines hereinafter provided and by the work to be performed the level of safety training to be required.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee not hired by Railroad Company that will work on CN property are required to have minimum www.contractororientation.com.

a. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee hired by Railroad Company which will work on Railroad Company property are required to have minimum CN Safety and Security Awareness training, in addition to undergoing a background check. This training and background check must be obtained through the eRailSafe.com website. If not done before, the contractor must contact CN Special Agent James Conroy at 708-332-5947 or James.Conroy@cn.ca to be issued a vendor number prior to accessing the noted website. Minimum information required of a Contractor, Grantee, Licensee, or Permittee and/or their contractor when contacting either Special Agent James Conroy or e-RailSafe is Name, Address, Telephone, Contact Person for State Projects, DOT Contract Number, and the AAR/DOT Number. This training is good for a period of two years.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

All employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee hired by Railroad Company, whose duties include and who are engaged in the inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, roadway facilities, or roadway machinery that will work foul of or have the potential to foul a live track are considered Roadway Workers under FRA regulations and CN Policy. They must complete the On-Track Safety Training course approved by Railroad Company and provided by R.R. Safety – AMR, P.O. Box 75, Lomira, WI 53048, telephone (920) 517-1677, email rrsafetytraining@yahoo.com. This training must be repeated at least once each calendar year.

- a. EXCEPTION: Railroad Company has exempted those employees of contractors providing paving services at a road crossing under construction or repair from this requirement.
- b. EXCEPTION: Railroad Company has exempted those it classifies as "Delivery Persons" from this training. This will include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.
- c. All the employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee who will operate on-track machinery or those who will provide protection for other employees and/or subcontractors of a Contractor, Grantee, Licensee, or Permittee must also be trained on CN US Operating Rules pertaining to their duties. They must take and pass the required examination. This training is good for a period of two years.
- d. "Potential to foul a live track" is considered, at a minimum, to be working within twenty-five (25) feet of the track; or as otherwise to be determined by CN Design & Construction Department.

The employees, subcontractors, and/or agents of the Licensee and/or its contractor shall qualify for, and make available for inspection to Railroad Company's employees or other authorized personnel at all times while on Railroad Company property, a photo identification issued by www.e-railsafe.com, along with at least one other government-issued form of identification. Licensee and/or their contractor shall bear all costs of compliance with the requirements of this Section. Railroad Company reserves the right to bar any of employees or agents of a Contractor, Grantee, Licensee, or Permittee and/or their contractor from Railroad Company's property at any time for any reason.

What are the flagging protection rates?

Flagging protection Rates:

Basic rate - 8 hour minimum = \$1,000.00 – Monday thru Friday regular business hours Overtime rate - hours in excess of 8 hours = \$150.00/hr non regular business hours Weekend or holiday rate = \$150.00 per hour with a 8 hour minimum or \$1,200.00

Email the above back to patrick.jones@cn.ca

Revised 03-15-2013

ENBRIDGE TYPICAL CROSSING REQUIREMENTS



TYPICAL CROSSING REQUIREMENTS

A formal agreement is required before any foreign line, road, subdivision, or other facility crosses or encroaches upon an Enbridge operated pipeline right-of-way; including Enbridge Pipelines (Lakehead) L.L.C., Vector Pipeline, CCPS and Enbridge Midcoast Systems (hereinafter collectively, "Enbridge"). This document is not to be considered a formal agreement.

Definition A foreign crossing is a facility (owned by others) crossing Enbridge's right-of-way or property. Facility includes:

1. "Highway/roadway", which includes any public road, private road, road allowance, street, lane, driveway, parking lot or any other public way.
2. "Utility", which includes any railway, irrigation ditch, drain, drainage ditch, sewer, dike, line for the transmission of hydrocarbons or any other substance, buried or aerial communication and electrical power lines.
3. "Structure", which is constructed or installed over, across, along, upon or under any pipe or within the right-of-way.
4. "Other Activity" such as excavation, regrading, heavy equipment crossings, seismic and blasting or any other operation which would require pipeline locating and monitoring.

I. APPROVAL AND NOTIFICATION

CONSTRUCTION APPROVAL: Written approval must be obtained prior to the start of any work within the pipeline easement. A complete set of drawings must be sent for review and approval prior to the start of any work to:

**Enbridge - Chicago Region
Right of Way Department
1500 W. Main Street
Griffith, IN 46319**

Right of Way Contacts:

Wisconsin, Illinois, and Indiana: Michael Price
Ph: (219) 922-7015
Michigan, Ohio, and New York: Shelly Iliff

Ph: (219) 922-7036

Drawings must show the horizontal and vertical location (plan and profile) of the pipeline, relative placement of the proposed crossing, cathodic utility bonds (if required) and adhere to these requirements:

ONE CALL NOTIFICATION: Many states in which Enbridge operates provide “One-Call” notification services which must be called prior to any excavating activities.

Wisconsin	Diggers Hotline	800-242-8511
Illinois	J.U.L.I.E.	800-892-0123
Indiana	I.U.P.P.S.	800-382-5544
Michigan	MISS DIG	800-482-7171
Ohio	O.U.P.S	800-362-2764
New York	Dig Safely	800-962-7962

CONSTRUCTION NOTIFICATION: Enbridge Crossing Coordinator, who will be notified via the One Call process, should receive a minimum of 72 hours notice from the applicant or informing organization prior to commencing any work within the Enbridge easement.

II. UTILITY AND FOREIGN LINE CROSSINGS

NEW UTILITY CROSSING: The FACILITY OWNER shall be responsible for obtaining a minimum* of one (1) surveyed pipeline depth for each Enbridge pipeline crossed prior to submittal of engineering plans for approval. The minimum required number of depths shall be as follows:

- 1. At point of crossing
- * Additional depths may be required as Enbridge deems necessary.

Enbridge must approve in writing any utility crossings which for practical reasons must cross above an Enbridge pipeline. Examples of utilities that require approval to cross above Enbridge pipelines include (but not limited to) gravity water mains, pressurized water mains, communication mains, gas mains and drain tile. The organization seeking to install utility crossings above Enbridge pipeline facilities must submit detailed plan and profile drawings showing the exact placement of the facility in relation to the Enbridge pipeline(s). Enbridge reserves the right to reject any utility crossing if it interferes with pipeline maintenance activities or minimum design standards are not met.

MINIMUM CLEARANCE: A minimum clearance of 24 inches is required between Enbridge's pipeline and any installed lines or appurtenances. All new utilities shall cross below Enbridge's pipeline. Exceptions to these requirements must be approved in writing by Enbridge.

CROSSING ANGLE: All utilities must cross Enbridge's pipeline at a 90 degree angle to minimize interference. Exceptions to this requirement must be approved in writing by Enbridge.

PARALLEL UTILITIES: A minimum clearance of 20 feet on-center is required between Enbridge's pipeline and a parallel utility. Exceptions to this requirement must be approved in writing by Enbridge.

III. SUBDIVISION REQUIREMENTS

NEW ROAD CROSSING: The FACILITY OWNER shall be responsible for obtaining a minimum* of three (3) surveyed pipeline depths for each Enbridge pipeline crossed prior to submittal of engineering plans for approval. The location of the minimum required depths to be obtained shall be as follows:

1. Edge of road right-of-way
2. Edge of road right-of-way
3. Centerline of road right-of-way

* Additional depths may be required as Enbridge deems necessary.

INFORMING PURCHASERS: In order to protect the existing pipeline, deter encroachment by commercial and residential development onto the right-of-way, and promote public safety, the developer/owner agrees to inform purchasers of property encumbered with the right-of-way about the existence of the pipeline facilities and pipeline right-of-way. This can be achieved by incorporating the pipeline and pipeline right-of-way on all plot plans of subdivisions.

SILT FENCE: The developer, under Enbridge's supervision, shall place silt fence parallel to and on each side of the pipeline for the entire length of the developer's subdivision encumbered by the right-of-way.

MARKING SIGNS: Enbridge shall place pipeline marker signs on all developer's lots encumbered by the right-of-way.

IV. GENERAL REQUIREMENTS

DEPTH OF COVER: Permitted development over Enbridge's pipeline must be maintained at a minimum of five feet of cover. Changes in existing topography of the right-of-way must be approved in writing by Enbridge.

HEAVY EQUIPMENT CROSSING: Heavy equipment is defined as any equipment that can cause "rutting" or poses a risk to the integrity of the pipelines as determined by Enbridge. To ensure that total circumferential pipe stress does not exceed specified limits, it may be necessary to install temporary ramps over the pipeline.

BACKFILLING: If a utility is installed across Enbridge's pipeline by open-cut methods, appropriate measures shall be taken to prevent trench/pipe settlement. This will be accomplished by backfilling the excavation in lifts not-to-exceed 1 foot and compaction of each lift to 95% of the Standard Proctor Density.

CONSTRUCTION INSPECTION: Any facility or utility that approaches or crosses the pipeline must be installed with an Enbridge representative on site. If, for any reason, the Enbridge representative:

1. is required to leave the work site,
2. has concern for pipeline integrity,
3. has a concern for damage to Company equipment or facilities;

The representative shall instruct the third party to "STOP WORK". The activity shall not recommence until the representative returns or the situation in question has been resolved.

"AS-BUILT DRAWINGS": Upon completion of the construction of the utility, foreign crossing, roadway, or subdivision, hereinafter called the FOREIGN FACILITY, an "As Built" drawing of the FOREIGN FACILITY shall be forwarded to Enbridge (as indicated in Section I).

FACILITY ALTERATIONS: Any improvements or changes to the FOREIGN FACILITY upon Enbridge's right-of-way shall require the prior written approval of Enbridge.

COSTS: The developer/owner of the FOREIGN FACILITY, hereinafter called the FACILITY OWNER, shall bear all expenses incurred in connection with the construction, operation, and maintenance of the FOREIGN FACILITY.

REGULATORY COMPLIANCE: The FACILITY OWNER shall conduct activity upon Enbridge's right-of-way in compliance with all applicable Federal, State, and Local statutes, rules, and regulations and shall obtain all permits necessary for compliance with said statutes, rules, and regulations.

RIGHT-OF-WAY ACTIVITY: The FACILITY OWNER shall conduct activity upon Enbridge's right-of-way in a manner which will not interfere with the rights of Enbridge in the use and enjoyment of its right-of-way grant or endanger the integrity of Enbridge's pipeline facilities and such activity shall be conducted in a neat and workmanlike manner.

LIABILITY: The FACILITY OWNER agrees to assume all risk or liability for damages to any of Enbridge's property or facilities resulting from the FACILITY OWNER's activity upon Enbridge's right-of-way. The FACILITY OWNER further agrees to indemnify and hold Enbridge harmless for any and all damages to property of third parties or any injury to or death of any person resulting from the FACILITY OWNER's activities upon Enbridge's right-of-way unless such damage, injury, or death results from Enbridge's negligence.

CHANGES IN LAND USE: A change in land use over the pipeline (i.e. farmland to a road) may require Enbridge to upgrade their facilities. The cost associated with performing this upgrade shall be entirely borne by the FACILITY OWNER.

FUTURE ENBRIDGE WORK: Enbridge shall not be responsible for any costs incurred to remove, repair, replace, or improve the FOREIGN FACILITY in the event that Enbridge finds it necessary or desirable to conduct repairs or maintenance of its facilities or construct additional facilities, including, but not limited to, additional pipelines, in the future upon the right-of-way which result in damage or disruption to the FOREIGN FACILITY. Further, Enbridge does not warrant that repairs or maintenance of its existing facilities or construction of additional facilities upon the right-of-way will not be conducted in the future.

INSURANCE REQUIREMENTS: Prior to commencement of construction, the Facility Owner shall provide proof of comprehensive general liability insurance providing coverage of no less than Two Million Dollars (\$2,000,000) for property damage and injury to or death of any person. Such insurance coverage shall be maintained until completion of construction of the Foreign Facility

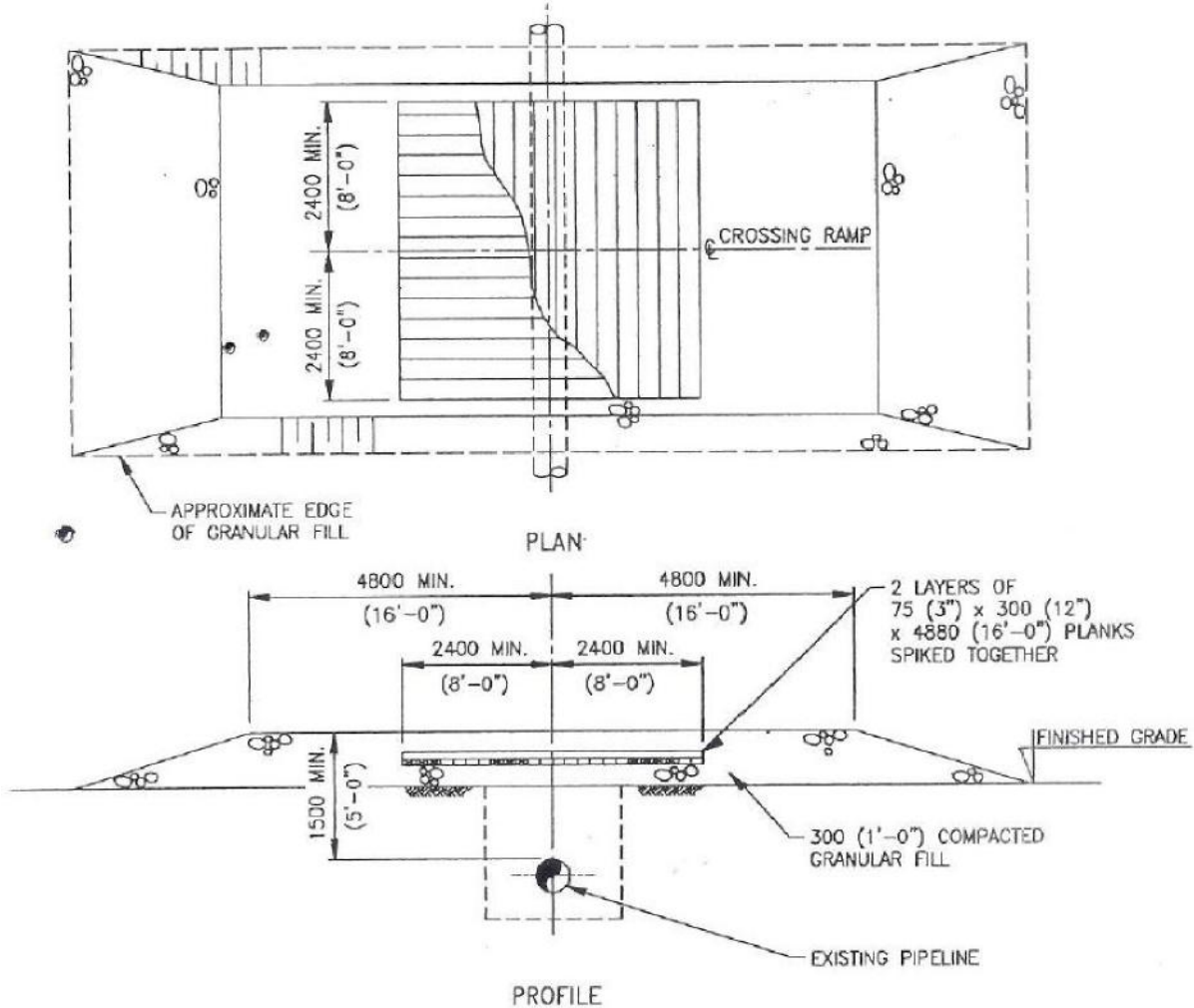
V. EXPLOSION/VIBRATION IMPACT

PEAK PARTICLE VELOCITY: The maximum peak particle velocity (ppv) that the pipeline should be subjected to is 4 inches/second.

PILE DRIVING: As a general rule, pile driving should not be undertaken within 50 feet of the pipeline. In any case, the peak particle velocity specified above must not be exceeded.

BLASTING: Any blasting must be approved in writing by Enbridge.

TYPICAL TEMPORARY CROSSING RAMP



NOTES:

1. ON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL REMOVE COMPLETE RAMP AND RESTORE AREA TO ORIGINAL CONDITION.
2. IN ROCK TERRAIN PIPES SHALL BE EXPOSED AND DITCH BACKFILLED WITH COMPACTED SAND OR SELECTED FILL.
3. TO CROSS MORE THAN ONE EXISTING PIPELINE, ONE CONTINUOUS RAMP SHALL BE CONSTRUCTED ACROSS THESE LINES.
4. LENGTH OF RAMP TO VARY IN ACCORDANCE WITH CROSSING ANGLE.

BUCKEYE PARTNERS RIGHT-OF WAY USE RESTRICTIONS SPECIFICATION

BUCKEYE PARTNERS, L.P. AND AFFILIATES
Five TEK Park, 9999 Hamilton Boulevard
Breinigsville, PA 18031



Right-of-Way Use Restrictions Specification
Revision 3.3

Table of Contents

<u>SECTION</u>	<u>PAGE NO.</u>
Purpose and Scope	2
1.0 General Guidelines	2
2.0 Excavation and Construction Restrictions	3
3.0 Specific Guidelines	4
3.1 Cover, Grading, and Drainage	4
3.1.1 Cover and Grading	4
3.1.2 Drainage	5
3.2 Aboveground and Underground Structures	5
3.2.1 General Requirements	5
3.2.2 Gardening and Landscaping	5
3.2.3 Fences and Walls	5
3.3 Roads, Driveways, Sidewalks, and Parking Areas	6
3.3.1 General Requirements	6
3.4 Foreign Utility Crossings	6
3.4.1 General Requirements	6
3.4.2 Metallic Utilities	6
3.4.3 Non-Metallic Utilities	7
3.5 Electrical, Fiber-Optic, and Communications Cables	7
3.5.1 General Requirements	7
3.5.2 Buried Cables	7
3.5.3 Aboveground Cables	7
3.6 Temporary Access Roads and Heavy/Construction Vehicle Crossings	8
3.7 Railroad Crossings	8
3.8 Farming and Field Tile	8
3.9 Construction-Induced Vibrations	8
3.10 Blasting Operations	9
3.11 Seismic Vibrating Operations	10
4.0 Deviations and Exceptions	11
5.0 Additional Information and Buckeye Contacts	11
 <u>ATTACHMENTS</u>	
1 Buckeye Facility Locations and Phone Numbers -----	12
2 Right of Way and Engineering Contacts -----	13
3 State One Call Systems -----	14
4 Requirements for Submission of Design Plans -----	15
5 Reinforced-Concrete Slab Detail -----	18
6 Earthen Ramp Detail -----	19
7 Blasting Plan Submission Form -----	20
8 Excavation Safety Checklist -----	21



Buckeye Partners, L.P. and Affiliates
Right-of-Way Use Restrictions Specification
Revision 3.3

Purpose and Scope

This Right-of-Way Use Restrictions Specification (hereinafter called "Specification") has been developed by Buckeye Partners, L.P. and Affiliates (hereinafter called "Buckeye") and is intended for landowners, utility owners, general contractors and their sub-contractors, pipeline/utility contractors, real estate developers, brokers and agents, lending officers and title underwriters, engineers, architects, surveyors, and local / governmental elected staffs (hereinafter called "Crossing Party") as a guideline for the design and construction of proposed land development.

Buckeye appreciates this opportunity to work with you in the planning stages of your development (or construction activity), and we look forward to working with you proactively. Buckeye's primary concern when activities are taking place near our pipeline is public safety and environmental protection. The intent of this Specification is to provide a clear and consistent set of requirements that will: (1) reduce the risk of damage to our pipeline and related facilities; (2) ensure unencumbered access to our right-of-way and pipeline facilities and the availability of adequate workspace for routine maintenance, future inspection, and/or repair work on our pipeline; and (3) enable the effective corrosion protection of our pipeline.

All such activities and projects that are performed near Buckeye's pipeline facilities are subject to formal review by Buckeye prior to issuance of final written approval. Depending on the scope of the project and its impact on Buckeye's pipeline facilities, additional engineering requirements and protective measures may apply. The following requirements are not only the policy of Buckeye, but comply with regulations set forth by the United States Department of Transportation, Safety Regulations, 49 CFR, Parts 192 and 195.

We want to be a good neighbor, but to do so requires us to act responsibly in protecting our right-of-way and preventing damage to the pipeline system. While we want to make every effort to accommodate your desired use of your property, our responsibility for public safety is paramount. Through proper planning and communications, we can ensure the safety and integrity of our pipeline system and the welfare of our neighbors.

The transmittal of this Specification does not constitute Buckeye's approval or permission for the Crossing Party to begin construction or work within or across the pipeline right-of-way. Work may not commence until written authorization approving such work has been issued by Buckeye.

1.0 General Guidelines

1.1 The safety of the pipeline must be considered at all times. No attempt to probe for or engage in any construction activities which might damage the pipeline is permitted.

1.2 Before any preliminary field work or construction begins in the vicinity of Buckeye's pipeline, a determination of the exact location and elevation of the pipeline must be made. To coordinate this procedure, please contact our local Field Operations Manager at the Buckeye facility nearest to your proposed project (see Attachment 1 for a listing of Buckeye's facilities and telephone numbers).

1.3 All proposed drawings/plans must be submitted to Buckeye's Right of Way Department for review to determine to what extent, if any, the pipeline or right-of-way will be affected by the proposed construction and/or development. These drawings/plans must be prepared in strict compliance to Attachment 4, "Requirements for Submission of Design Plans".

1.4 When any construction activity is conducted in or around our pipeline right-of-way, Buckeye's On-Site Inspector must be present at all times. **NO WORK SHALL TAKE PLACE WITHOUT A BUCKEYE ON-SITE INSPECTOR PRESENT.** For this free-of-charge service, contact our local Field Operations Manager at the Buckeye facility nearest to your proposed project.

1.5 The Crossing Party shall contact Buckeye for re-marking of a pipeline if the existing markers are inadequate for any reason, including disturbance due to construction activities.

Note: Federal law prohibits the removal of pipeline markers.

1.6 The Crossing Party shall not burn trash, brush, or other items or substances within 50 feet of the pipeline.

1.7 The Crossing Party shall not store any equipment or materials on the right-of-way.

1.8 During routine or emergency maintenance on the pipeline, the cost to restore approved surface improvements (e.g., pavement, landscaping, sidewalks, etc.) shall be the responsibility of the Crossing Party.

2.0 Excavation and Construction Restrictions

2.1 Excavation operations shall be performed in accordance with appropriate State "One-Call" utility locating system requirements. As a matter of State law, anyone undertaking excavation work is required to call three (3) working days before excavating in MA, ME, MI, MO, NJ, PA, TN and WI; two (2) working days in all other states (see Attachment 3 for State One-Call numbers).

2.2 The Crossing Party will conduct "white-lining" of any proposed excavation areas. Buckeye will erect temporary pipeline markers/flags (yellow) identifying the location of the pipeline within the work area, and will provide information on how to respond should the pipeline be damaged or a commodity release occur. All personnel operating equipment over or around the pipeline must be made aware of its location and what to do if they make contact with the pipeline.

2.3 When a Crossing Party excavates near Buckeye's pipeline, a Buckeye representative must locate the pipeline and determine the depth of cover before the Crossing Party begins excavation. The Buckeye representative and the excavator must review and complete an Excavation Safety Checklist (Attachment 8). The Crossing Party shall not perform any excavation, crossing, backfilling, or construction operations until Buckeye's On-Site Inspector has reviewed the proposed work on site and given approval for work to proceed. Buckeye's On-Site Inspector shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner.

2.4 No equipment shall work directly over the pipeline. The Crossing Party shall install temporary fencing along Buckeye's right-of-way boundaries so that equipment will not inadvertently pass over the pipeline at locations other than those established for crossing (see Section 3.6).

2.5 When excavating within the right-of-way, the Crossing Party's backhoe shall have a plate welded over the teeth of the backhoe bucket, and the side cutters must be removed prior to

excavation. However, if within 24 inches of the outer edge of the pipe (this "tolerance zone" extends on all sides of the pipe), only hand excavation, air cutting, and vacuum excavation are permitted.

2.6 No excavations shall be made on land adjacent to the pipeline that will in any way impair, withdraw lateral support, cause subsidence, create the accumulation of water, or cause damage to the pipeline or right-of-way.

2.7 The Crossing Party shall ensure all excavation work complies with OSHA's excavation standards outlined in 29 CFR 1926 and correct any noncompliant excavation site before Buckeye's On-Site Inspector or the Crossing Party enters the site to perform work.

2.8 If conditions require, the Crossing Party shall be directed by Buckeye to install sand or cement bags or other suitable insulating materials to maintain proper vertical clearance from the pipeline.

2.9 At any location where the pipeline is exposed, the Crossing Party shall provide Buckeye the opportunity to inspect the pipeline condition, install cathodic protection test leads, and/or install underground warning mesh.

2.10 The maximum unsupported exposed length of pipe shall be 20 feet for 4-inch-diameter pipe, 25 feet for 6-inch- to 10-inch-diameter pipe, and 35 feet for 12-inch- to 24-inch-diameter pipe. When required, the pipeline shall be supported with grout and sand bags or padded skids. At no time shall the pipeline be used as a brace to support equipment or sheeting/shoring materials.

Note: The Crossing Party shall submit a support plan for Buckeye's review and approval.

2.11 No buried pipeline may be left exposed for any duration of time without concurrence of Buckeye's On-Site Inspector.

2.12 Backfill and compaction shall be performed to the satisfaction and in the presence of Buckeye's On-Site Inspector. At least 6 inches of fine, loose earth or sand with no sharp gravel, rock, hard clods, vegetation, or other debris shall be placed on all sides of any pipeline, and remaining backfill shall be placed so as not to disturb this padding material or damage the pipeline. Backfill over the pipe shall be compacted by hand until 18 inches of cover is achieved. The disturbed ground shall be compacted to the same degree of compaction of surrounding areas. The Crossing Party shall restore the site to its original condition except for items that are part of the Buckeye approved change.

3.0 Specific Guidelines

3.1 Cover, Grading, and Drainage

3.1.1 Cover and Grading:

- a. The existing cover over the pipeline shall not be modified without Buckeye's written approval.
 - b. The final grading shall net a minimum cover of 36 inches over the pipeline.
 - c. In areas where buildings are proposed within 50 feet of the pipeline or due to other surface improvements and/or in areas determined by Buckeye, final grading shall net a minimum cover of 48 inches over the pipeline.
 - d. The maximum allowable cover/soil shall not exceed six (6) feet without Buckeye's written approval.
-

Use of vibratory equipment larger than walk-behind units is not permitted within 25 feet of the pipeline.

3.1.2 Drainage:

- a. Detention ponds, lakes, structures or any type of impoundment of water, temporary or permanent. are prohibited within the right-of-way.
- b. Culverts are not permitted within the right-of-way.
- c. Any modifications to an existing drainage pattern shall be designed such that the erosion of the pipeline cover is controlled.
- d. For streams, drainage channels, and ditches, a minimum of cover of 60 inches is required between the pipeline and the bottom of the drainage canal or ditch (see Section 3.3.1.f for road drainage ditches).

3.2 Aboveground and Underground Structures

3.2.1 General Requirements:

- a. Buildings or other structures, including, but without limitation, overhanging balconies, patios, decks, swimming pools, wells, walls, septic systems, propane tanks, transformer pads, or the storage of materials which creates an obstruction or prevents the inspection of the right-of-way by air or foot, shall not be erected within the right-of-way.
- b. The Crossing Party shall not develop or build retaining walls, drive piling or sheeting, or install an engineered structure that develops or controls overburden loads that will impact the pipeline (see Section 3.9).
- c. Deep foundations which include piers, caissons, drilled shafts, bored piles, and cast-in-situ piles located within 500 feet of the pipeline shall be installed/drilled using an auger.
- d. Occupied structures shall not be located within 50 feet of the pipeline unless a minimum cover of 48 inches is provided above the top of the pipeline.
- e. Any deviation for aboveground and underground structures will be reviewed by Buckeye on a *case-by-case basis*.

3.2.2 Gardening and Landscaping:

- a. Trees or large shrubs and bushes are not permitted within the right-of-way. Trees planted outside of the right-of-way should be placed so branches and limbs will not overhang the pipeline right-of-way as the tree matures. Buckeye may trim/remove overhanging branches and limbs that encroach into the right-of-way.
- b. Flowerbeds, vegetable gardens, lawns, and low shrubbery not exceeding 30 inches are permitted within the right-of-way. Buckeye is not responsible for replacing any plantings located within the right-of-way.

3.2.3 Fences and Walls:

- a. Privacy fences or fences that prevent access to the right-of-way are not permitted.

- b. All other fence installations within the right-of-way will be reviewed for approval by Buckeye on a *case-by-case basis*. Upon Buckeye's written approval, fences shall be constructed with a 14-foot gate or removable sections across the right-of-way.
- c. Fence posts shall not be installed within 5 feet of the pipeline and must be equidistant if crossing the pipeline.
- d. No fence shall cross the right-of-way at less than a 60-degree angle.
- e. Fences that run parallel to the pipeline shall be installed outside the right-of-way.
- ~~f. Masonry, brick, or stone walls are not permitted on the right-of-way.~~

3.3 Roads, Driveways, Sidewalks, and Parking Areas

3.3.1 **General Requirements:**

- a. Roads, driveways, sidewalks, or parking areas shall not be constructed across the right-of-way without Buckeye's written approval. Upon Buckeye's approval, roads, driveways, and sidewalks shall cross perpendicular to the pipeline.
- b. The maximum allowable cover shall not exceed six (6) feet without Buckeye's written approval.
- c. Use of vibratory equipment larger than walk-behind units is not permitted within 25 feet of the pipeline.
- d. Roads or driveways shall not be installed longitudinally within the right-of-way.
- e. For roads and driveways, a minimum cover of 48 inches with a net cover of 36 inches of undisturbed soil is required above the pipeline.
- f. A minimum cover of 36 inches over the pipeline is required at road drainage ditches. Upon Buckeye's approval, this cover can be reduced to 24 inches if ditch is rock/rip-rap lined and 12 inches if ditch is concrete lined.
- g. For asphalt parking lots and sidewalks, a minimum cover of 36 inches with a net cover of 24 inches of undisturbed soil is required above the pipeline. Additional cover may be required by Buckeye based upon specific site conditions.

3.4 Foreign Utility Crossings

3.4.1 **General Requirements:**

- a. Utilities shall cross perpendicular to the pipeline.
- b. Utilities are required to cross beneath the pipeline with a minimum clearance of 24 inches. Exceptions to Buckeye's clearance requirements for underground service entrances to single family dwellings will be reviewed on a *case-by-case basis*.
- c. Sand or select fill shall be placed between the pipeline and utility (see Section 2.8).
- d. Utilities installed parallel to the pipeline shall be reviewed by Buckeye on a *caseby-case basis*. If approved, the utility shall be no closer than 15 feet from the pipeline.
- e. Warning tape, in accordance with A.P.W.A. Uniform Color Code, shall be placed above utility, 12 inches below ground, for a distance of 25 feet on either side of crossing.
- f. Signage shall be placed at crossing as determined appropriate by Buckeye.

g. Trenchless Excavations:

- [1] Utilities installed by a trenchless excavation method (directional drilling, jacking, slick boring, etc.) shall be reviewed by Buckeye on a *case-by-case basis*.
- [2] Buckeye reserves the right to select the method of crossing for the proposed utility.
- [3] A minimum clearance of 60 inches (5 feet) below the pipeline is required.
- [4] For directional drilling operations, a surface wire tracking system is required to verify the exact location of the drill head.
- [5] A 4 feet by 4 feet excavation window, 24 inches below the pipeline is required for visual inspection of the pipeline to ensure the drill (or bore) does not impact the pipeline.
- [6] Blind boring is not permitted within Buckeye's right-of-way.

3.4.2 Metallic Utilities:

- a. Bonds and test leads shall be installed at the expense of and by the Crossing Party where Buckeye deems necessary.
 - b. Utilities shall be coated with a non-conductive coating for a distance of 50 feet on either side of the pipeline crossing.
-

- c. Ductile water pipe shall include nitrile gaskets within 50 feet of the pipeline crossing or anywhere within 25 feet of horizontal offset locations.

3.4.3 Non-Metallic Utilities:

- a. Utilities shall be wrapped with tracer wire within the width of the right-of-way.
- b. Natural gas (or other industrial gases) lines shall be encased in a 6-inch envelope of yellow 2,000 psi concrete across the right-of-way.
- c. PVC water pipe shall include nitrile gaskets within 50 feet of the pipeline crossing or anywhere within 25 feet of horizontal offset locations.

3.5 Electrical, Fiber-Optic, and Communications Cables

3.5.1 General Requirements:

- a. Cables shall cross perpendicular to the pipeline.
- b. Cables installed parallel to the pipeline shall be reviewed by Buckeye on a *case-by-case basis*. If approved, the cable shall be no closer than 15 feet from the pipeline.
- c. Splice boxes, service risers, energized equipment, etc., are not permitted within the right-of-way.

3.5.2 Buried Cables:

- a. Cables are required to cross beneath the pipeline with a minimum clearance of 24 inches. Exceptions to Buckeye's clearance requirements for underground service entrances to single family dwellings will be reviewed on a *case-by-case basis*.
- b. Sand or select fill shall be placed between the pipeline and cable (see Section 2.8).
- c. All cables shall be installed in Schedule 80 PVC pipe and encased in a 6-inch envelope of red 2,000 psi concrete (orange for fiber) across the right-of-way.
- d. Warning tape, in accordance with A.P.W.A. Uniform Color Code, shall be placed above the utility, 12 inches below ground, for a distance of 25 feet on either side of the crossing.
- e. Signage for the crossing shall be placed as determined appropriate by Buckeye.

f. Trenchless Excavations:

[1] Utilities installed by a trenchless excavation method (directional drilling, jacking, slick boring, etc.) shall be reviewed by Buckeye on a *case-by-case basis*.

[2] Buckeye reserves the right to select the method of crossing for the proposed utility.

[3] A minimum clearance of 60 inches (5 feet) below the pipeline is required.

- [4] For directional drilling operations, a surface wire tracking system is required to verify the exact location of the drill head.
- [5] A 4 feet by 4 feet excavation window, 24 inches below the pipeline is required for visual inspection of the pipeline to ensure the drill (or bore) does not impact the pipeline.
- [6] Blind boring is not permitted within Buckeye's right-of-way.

3.5.3 Aboveground Cables:

- a. A minimum of 20 feet of above-grade clearance for a distance of 25 feet on each side of the pipeline is required.
 - b. Mechanical supports and service drops including poles, towers, guy wires, ground rods, anchors, etc., are not permitted within 25 feet of the pipeline.
-

3.6 Temporary Access Roads and Heavy/Construction Vehicle Crossings

3.6.1 **General Requirements:**

- a. Trucks carrying a maximum axle load up to 15,000 pounds may cross the right-of-way after Buckeye has confirmed a minimum cover of 48 inches over the pipeline.
- b. For all other cases, earthen ramps (see Attachment 6), swamp mats, reinforced-concrete slabs (see Attachment 5), or steel plates may be required. Loading conditions and protection measures will be evaluated and dictated by Buckeye's Engineering Department.
- c. During the use of an approved temporary construction road, Buckeye may require that the Crossing Party provide additional protective measures deemed necessary to prevent damage to the pipeline.
- d. Buckeye will limit the number of temporary construction roads constructed by the Crossing Party.

3.7 Railroad Crossings

3.7.1 **General Requirements:**

- a. A minimum clearance of 72 inches is required between railroad tracks and the pipeline.
- b. A minimum cover of 36 inches is required between the bottom of drainage ditches on either side of a railroad and the pipeline.
- c. For railroad main lines, the pipeline crossing must comply with local railroad guidelines that delineate the requirements for carrier pipe, casing pipe, and clearances. Buckeye shall be consulted for the review of any State submittals.
- d. For private spur crossings, Buckeye will determine the railroad entity having jurisdictional authority to dictate crossing requirements.

3.8 Farming and Field Tile

3.8.1 **General Requirements:**

- a. Field tile running parallel to the pipeline shall be spaced 10 feet from the centerline of the pipeline.
- b. Field tile shall cross the pipeline perpendicularly with a clearance of 12 inches above or below the pipeline.
- c. Buckeye will approve the total number of crossings of the pipeline on a *case-by-case basis*.
- d. Deep plowing or "ripping" operations shall be approved by and coordinated with Buckeye.

3.9 Construction-Induced Vibrations

3.9.1 **General Requirements:**

- a. Construction activities that generate ground vibrations, including, but without limitation, pile driving, sheet driving, soil compaction work, jackhammering, or ramming, shall be reviewed by Buckeye on a *case-by-case basis*.
 - b. If the Crossing Party anticipates such an activity within 300 feet of the pipeline, then continuous testing monitored by a seismograph located directly over the pipeline at its closest point to the activity must be conducted. The Crossing Party shall provide, at their expense, the monitoring service which must be approved by Buckeye.
-

- c. The particle velocity of any one component of a three-component seismograph must not exceed 2.0 inches per second as recorded on the seismograph placed directly over the pipeline.

3.10 Blasting Operations

3.10.1 **Blasting within 500 feet of the pipeline right-of-way:**

- a. The Crossing Party must submit a blast plan to Buckeye for review and approval. Verbal and written notice will be given 14 and 21 days respectively.
- b. Blasting plans must include the following information:
 - Dates blasting to occur
 - Explosives type
 - Maximum shot hole depth and diameter
 - Number of holes and spacing
 - Delay pattern
 - Delay types and intervals
 - Depth of overburden
 - Depth of blast area
 - Maximum charge per hole, per delay
 - Show drilling/blasting pattern plan and profile in relation to Buckeye facilities
 - Calculated radiant peak particle velocity (PPV) at varying distances from the pipeline and at the pipeline itself
 - State permit (copy)
 - Blasting contractor qualifications and insurance certificate (copy)
 - Blasting Safety Plan (copy)

The Crossing Party shall complete Attachment 7, "Blasting Plan Submission Form", and include this form with their submission to Buckeye.

- c. The Crossing Party shall make arrangements for a Buckeye On-site Inspector to be present to witness the blasting operation.

3.10.2 **Blasting within 300 feet of the pipeline right-of-way:** (Adds to or replaces items **in Section 3.10.1**)

- a. Blasting shall be monitored by a seismograph located directly over the pipeline at its closest point to the blast hole(s). The Crossing Party shall provide, at their expense, the monitoring service which must be approved by Buckeye.
- b. The particle velocity of any one component of a three-component seismograph must not exceed 2.0 inches per second as recorded on the seismograph placed on the ground directly over the pipeline.
- c. For blast testing, an initial test blast using a maximum charge of one pound shall be performed. The Crossing party shall detonate the first test blast with all necessary monitoring equipment in place to observe the results of the proposed blast design. Each subsequent test blast may be set and detonated only after the seismograph reading from the previous test blast indicates that further blasting can be safely conducted.

- d. Routine production blasting may be initiated after completion of a successful test blast, with allowable charge based on the seismographic vibration recordings of test blasts. However, all blasting must be continuously monitored by a seismograph. The velocity recorded must not exceed the 2.0 inches per second limit noted above.
-

3.10.3 Blasting within 50 feet of the pipeline right-of-way: (Adds to or replaces items in Section 3.10.2)

- a. The Crossing Party shall hire a consulting firm that specializes in underground blasting to conduct the seismograph survey and certify the results.
- b. Buckeye will approve the Crossing Party's selection of consulting firms that will conduct the seismographic surveys before starting any blasting operation.

3.10.4 Special Requirements:

- a. For multiple-delay blasting, the Crossing Party shall begin the blasting sequence at the charge closest to the pipeline and progress away from the pipeline.
- b. If seismographic readings above the limit stated in item 3.10.2.d of this section are recorded, the pipeline must be exposed and inspected for possible damage and/or product release. The Crossing Party conducting blasting operations is responsible for all expenses related to the exposure and any subsequent repairs necessitated by the operation.
- c. At Buckeye's request, the Crossing Party shall install sheet piling, open trench channels, and/or matting to protect the pipeline during blasting operations.

3.11 Seismic Vibrating Operations

3.11.1 Seismic vibrating within 500 feet of the pipeline right-of-way:

- a. The Crossing Party must submit a seismic vibrating plan to Buckeye for review and approval. Verbal and written notice will be given 14 and 21 days respectively.
- b. Seismic vibrating plans, when using Vibroseis System Vibrators to radiate ground vibrations, must include information on soil conditions and depth of exploration, the anticipated number and type of vibrations, type and weight of vehicle, and peak force of equipment.
- c. The peak force by vehicle weight shall not exceed 45,000 pounds.
- d. The Crossing Party shall also make arrangements for a Buckeye On-Site Inspector to be present to witness the seismic vibrating operation.

3.11.2 Seismic vibrating within 100 feet of the pipeline right-of-way:

- a. Vibration shall be monitored by a seismograph located directly over the pipeline at its closest point to the vibrator(s). The Crossing Party shall provide, at their expense, the monitoring service which must be approved by Buckeye.
- b. The Crossing party shall determine and limit the maximum peak force allowed under continuous seismographic vibration monitoring such that the peak particle velocity will not exceed 2.0 inches per second.
- c. Seismic vibration surveys shall not be conducted closer than 100 feet to the pipeline.

3.11.3 Special Requirements:

- a. If seismographic readings above the limit stated in item 3.11.2.b of this section are recorded, the pipeline must be exposed and inspected for possible damage and/or product release. The Crossing Party conducting seismic vibrating operations is responsible for all expenses related to the exposure and any subsequent repairs necessitated by the operation.
 - b. At Buckeye's request, the Crossing Party shall install sheet piling and/or open trench channels to protect the pipeline during seismic vibrating operations.
-

4.0 Deviations and Exceptions

4.1 When and where special circumstances dictate, deviation from these requirements must be formally approved by Buckeye in writing prior to commencement of any excavation or other construction activity that may impact the pipeline. Any such deviations must be explained and documented and provided to Buckeye for review and approval.

5.0 Additional Information and Buckeye Contacts

5.1 Should you have any questions regarding pipeline rights-of-way or your specific easement, contact Buckeye's Right of Way Department at the applicable phone number listed in Attachment 2.

5.2 Should you have any questions regarding Buckeye's engineering requirements, contact Buckeye's Encroachment Design Reviewer at the phone number also listed in Attachment 2.

Attachment 1: Buckeye Facility Locations and Phone Numbers

Alabama	Birmingham	(205) 369-0179
	Montgomery	(334) 309-4710
California	Lodi	(209) 368-9277
	San Diego	(714) 269-9028
Connecticut & Massachusetts	Wethersfield	
	New Haven	(203) 469-3479
Florida	Port Everglades	(954) 522-8464
Georgia	Birmingham (AL)	(205) 369-0179
Illinois	Argo	(708) 259-1352
	Lemont (West Shore)	(708) 227-0962
	Mazon	(815) 448-2491
	Hartford	(618) 255-1102
Indiana	Hammond	(219) 989-8601
	Hammond (West Shore)	(708) 227-0962
	Huntington	(260) 356-5802
Iowa	Cedar Rapids	(708) 259-1352
	Council Bluffs	(765) 516-3404
Louisiana	Liberty (TX)	(936) 336-5773
Maine	South Portland	(207) 767-2672
Michigan	Wayne	(734) 721-8834
Missouri	St. Louis	(618) 225-1102
	Milan	(708) 259-1352
	Liberty	(765) 516-3404
Nevada	Reno	(760) 802-1535
New Jersey	Linden	(908) 374-5301
New York	Auburn	(315) 253-5395
	New York City	(718) 656-5746
North Carolina	Goldsboro	(919) 778-2712
Ohio	Lima	(419) 993-8025
	Mantua	(330) 274-2234
	Toledo	(419) 698-8190
Pennsylvania	Boothwyn	(610) 459-3441
	Coraopolis	(412) 264-7432
	Duncansville	(814) 695-4852
	Mechanicsburg	(717) 766-7633
	Malvern	(610) 695-8000
	Macungie	(484) 232-4218
Tennessee	Memphis	(901) 395-0122
Texas	Liberty	(936) 336-5773
Wisconsin	Milwaukee (West Shore)	(708) 227-0962
	Madison (West Shore)	(815) 964-3727

Attachment 2: Right of Way & Engineering Contacts

Name	Responsibility	Phone / Address / Email
David Boone	Manager, Right of Way, Permits & One Call	(610) 904-4401 5 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 DBoone@buckeye.com
Chris McPike	Sr. Specialist, Right of Way <i>Central District:</i> Eastern Ohio, Pennsylvania (Central & Western)	(412) 299-7019 469 Moon Clinton Road Coraopolis, PA 15108 CMcPike@buckeye.com
Marty White	Sr. Specialist, Right of Way <i>West/Central District:</i> Michigan, Ohio (except for Eastern Ohio), Indiana (except for Northwestern Indiana)	(419) 993-8008 940 Buckeye Road Lima, OH 45804 M
Michael Norris	Sr. Specialist, Right of Way <i>West District:</i> Northern Illinois, Northwestern Indiana, Wisconsin	(219) 397-3656 EX.2118 3823 Indianapolis Blvd. East Chicago, IN 46312 MRNorris@buckeye.com
Wesley Pekarek	Specialist, Right of Way <i>West District:</i> Iowa, Missouri, Central & Southern Illinois	(816) 836-6096 1315 N. Sterling Ave. Sugar Creek, MO 64054 WPekarek@buckeye.com
Ronald Bates	Sr. Specialist, Right of Way <i>East District:</i> Northeastern Pennsylvania, New York, New Jersey, Connecticut, Maine, Massachusetts	(484) 232-4482 5002 Buckeye Road Emmaus, PA 18049 RBates@buckeye.com
Daniel Mangum	Sr. Specialist, Right of Way & Development <i>Gulf Coast District:</i> Texas, Louisiana, Tennessee, Alabama, Georgia, California, Nevada, Florida, North Carolina	(832) 325-1626 One Greenway Plaza, Suite 600 Houston, Texas 77046 DMagnum@buckeye.com
Beth Auman	Sr. Specialist, Right of Way <i>Encroachment Design Review:</i> East, Central, and West Districts <i>East District:</i> Southeastern Pennsylvania	(610) 904-4409 5 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 Bauman@buckeye.com
Teriann Williams Jeannette Fluke	Right of Way Coordinators <i>Easements and Records:</i> Supporting East, Central, and West Districts	(610) 904-4418 (610) 904-4404 5 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 TEWilliams@buckeye.com JFluke@buckeye.com

Attachment 3: State One Call Systems (National One Call System - Dial 811)

State	One Call Program	Phone No.	Website
Alabama	Alabama 811	(800) 292-8525	www.al811.com
California - North	USA North of Central / Northern California & Nevada	(800) 227-2600	www.usanorth.org
- South	Dig Alert & Underground Service Alert South	(800) 422-4133	www.digalert.org
Connecticut	Call Before You Dig	(800) 922-4455	www.cbyd.com
Florida	Sunshine State One Call	(800) 432-4770	www.callsunshine.com
Georgia	Georgia 811	(800) 282-7411	www.georgia811.com
Illinois - Non-Chicago	Julie, Inc.	(800) 892-0123	www.illinois1call.com
- Chicago	DIGGER - Chicago Utility Alert Network	(312) 744-7000	www.cityofchicago.org/transportation
Indiana	Indiana 811	(800) 382-5544	www.indiana811.org
Iowa	Iowa One Call	(800) 292-8989	www.iowaonecall.com
Louisiana	Louisiana One Call System, Inc.	(800) 272-3020	www.laonecall.com
Maine	Dig Safe System Inc.	(888) 344-7233	www.digsafe.com
Massachusetts	Dig Safe System Inc.	(888) 344-7233	www.digsafe.com
Michigan	MISS Dig System, Inc.	(800) 482-7171	www.missdig.net
Missouri	Missouri One Call System, Inc.	(800) 344-7483	www.mo1call.com
Nevada	USA North of Central / Northern California & Nevada	(800) 227-2600	www.usanorth.org
New Jersey	New Jersey One Call	(800) 272-1000	www.nj1-call.org
New York	Dig Safely New York	(800) 962-7962	www.digsafelynewyork.com
New York City & Long Island	New York 811, Inc.	(800) 272-4480	www.newyork-811.com
North Carolina	North Carolina 811	(800) 632-4949	www.nc811.org
Ohio	Ohio Utilities Protection Service	(800) 362-2764	www.oups.org
Pennsylvania	Pennsylvania One Call System, Inc.	(800) 242-1776	www.pa1call.org
Tennessee	Tennessee 811	(800) 351-1111	www.tnonecall.com OR www.tennessee811.com
Texas	Texas 811 OR Lone Star Notification Center	(800) 344-8377 (800) 669-8344	www.texas811.org www.lsnconecall.com
Wisconsin	Wisconsin Diggers Hotline	(800) 242-8511	www.diggershotline.com





Attachment 4:

**Requirements for Submission of Design Plans
Buckeye Partners, L.P. and Affiliates**

1. Contact Buckeye's local Field Operations Manager to arrange for a field determination by probe hole(s) of the vertical and horizontal locations of the pipeline(s). Arrange for your Surveyor to meet with Buckeye's Field Representative on-site in order to record this information for incorporation into your design plans. This locating service can be scheduled by contacting the Buckeye facility near your location (see Attachment 1).

Note: At Buckeye's request, you will be required to provide excavation equipment (at your expense) in order to assist Buckeye's Field Representative in accurately locating the pipeline.

2. The location of each probe hole along with the corresponding depth of the pipeline(s) shall be recorded by your Surveyor. Buckeye's local Field Representative will consider site conditions and pipeline(s) location to determine the number of and distance between probe holes. As a minimum, the pipeline(s) shall be located at each proposed road or utility crossing, drainage channel or ditch, and other areas of proposed grade change within the pipeline right-of-way.
3. Using the probe hole data, accurately show Buckeye's pipeline(s) on your design plans. Include all reference and location information for each probe hole on your design plan, including the date and name of Buckeye's Field Representative who performed the field work.
4. The pipeline and probe hole data must be shown on individual drawings depicting the existing site conditions and the proposed site conditions. Highlight the pipeline(s) in yellow. In your plan transmittal letter, identify/list all of the drawing sheets that show the pipeline(s).
5. Buckeye's pipeline shall be indicated on all applicable plan sheets by pipe diameter and labeled, "High Pressure Petroleum Products Pipeline".
6. Add Buckeye to the Utilities List and include the Buckeye ROW Agent's name and phone number on the plans.

7. Indicate the following information on your design plans: [1] ground disturbances (blasting, seismic testing, pile driving, jackhammering, etc.) within 1,500 feet of the pipeline(s); [2] proposed location(s) where construction equipment will cross the pipeline right-of-way; [3] structure setback distances from the pipeline right-of-way; [4] proposed landscaping within 25 feet of either side of the pipeline(s); and [5] any permanent fencing that will limit/encumber Buckeye's access to the pipeline right-of-way.

8. If the drainage pattern of the existing site will be altered in any way that impacts the pipeline right-of-way because of your project, submit a drainage plan that specifically identifies new flow paths and all inlet/outfall/collection points.

9. Include/incorporate Buckeye's Right-of-Way Use Restrictions specifications (attached hereto) as a part of your final design plans. This can be done by adding a drawing sheet to your plans and appending (cut and paste) the Specification onto this sheet.

10. For property improvements that involve grade/pavement alterations, road work (new construction or improvements of existing), utility crossings (buried and overhead), or other subsurface or on-surface structure installations within Buckeye's right-of-way:

- a. Prepare a separate plan and profile drawing of Buckeye's pipeline(s) for the existing and the proposed conditions for your project.
- b. Include subgrade details that show materials and the thickness of each layer/course.
- c. Indicate the amount of existing cover that will be removed from the pipeline(s). Indicate the amount of cover that will be added over the pipeline(s). Indicate the proposed finished/final grade amount of cover over the pipeline(s).
- d. Show the clearances between Buckeye's pipeline(s) and any existing and new buried or overhead utilities that cross the pipeline right-of-way.
- e. Show the clearances between Buckeye's pipeline(s) and each proposed substructure at the two closest reference points.
- f. For any utility to be installed via boring, drilling, or tunneling, include a detailed procedure of this work with your design plans. Note: "Blind" boring is not permitted. Buckeye's pipeline(s) must be exposed during the bore operation to ensure that the bore head crosses safely underneath the pipeline(s).

Indicate any areas of disturbance or other work that will require Buckeye's pipeline(s) to be exposed in order to perform your work.

11. Complete the following "Design Plans Submission Checklist", sign, date, and include with your design plans submittal. Mail **three full sized sets** of design plans to Beth Auman, Senior Specialist, Right-of-Way (see Attachment 2).

**DESIGN PLANS
SUBMISSION CHECKLIST**

BUCKEYEPARTNERS, L.P.

Project Name: _____

Project Location: _____

*Latitude: _____ *Longitude: _____

Developer's Name: _____

Address: _____

Our project involves the following impacts to Buckeye's facilities:

- Cover, grading, and drainage pattern changes
- Aboveground and/or underground structures
- Road, driveway, sidewalks, and parking areas
- Utility crossings including gas, water (**steam**), sewer (storm & sanitary)
- Electrical, fiber-optic, and communications cables
- Temporary access roads for the crossing of heavy/construction equipment
- Railroad crossings
- Farming and field tile
- Construction-induced vibrations
- Blasting operations (attach **BLASTING PLAN**)
- Seismic vibrating operations (attach **SEISMIC VIBRATING PLAN**)
- Exposure of the pipeline (attach **SUPPORT PLAN**)
- Boring, drilling, or tunneling near the pipeline (attach **DRILL PLAN**)
- Other:

Buckeye pipeline location performed by:

Name of Buckeye Employee _____ Date of Pipeline Locating Activity

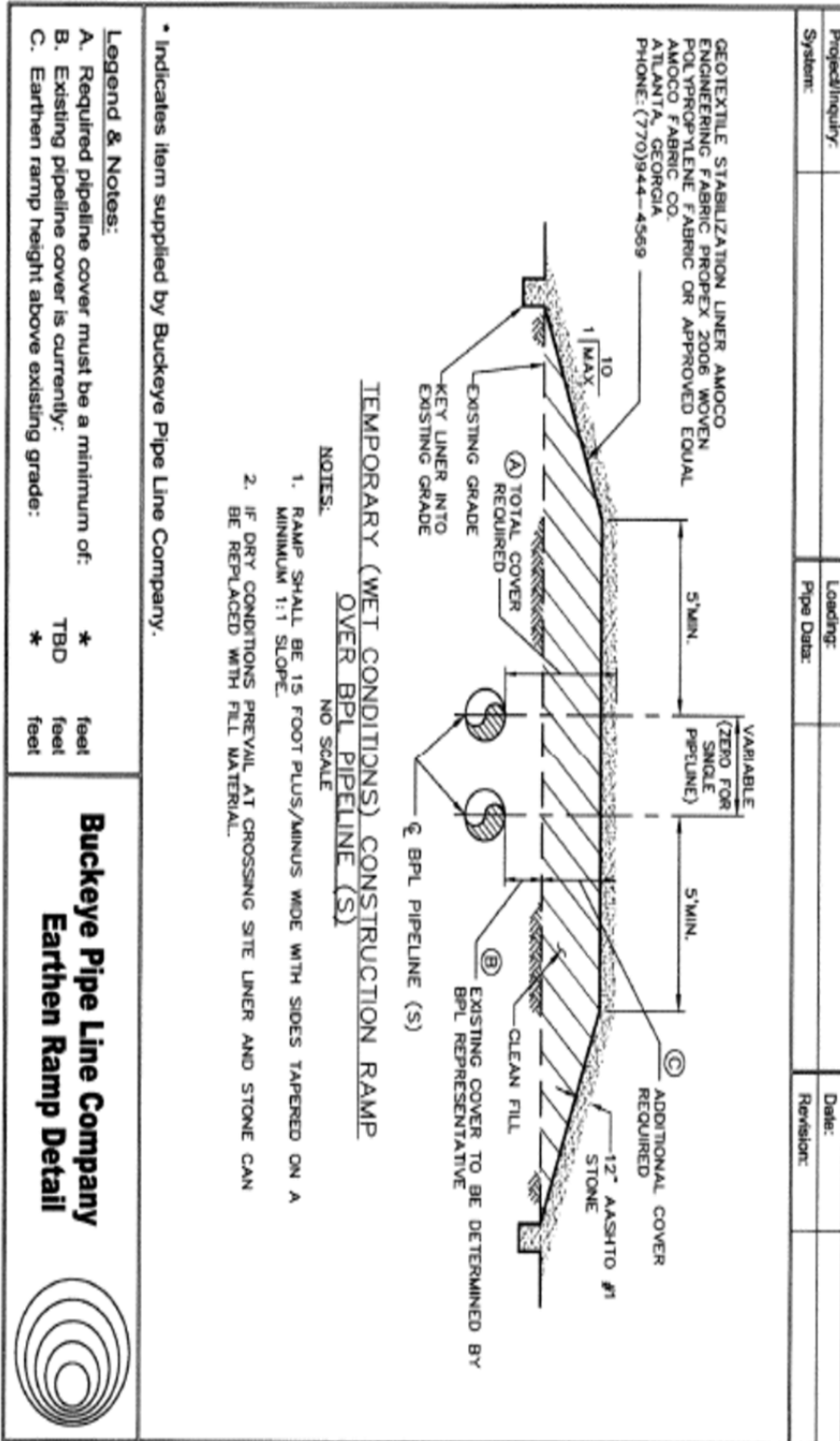
Attach a copy of the field data provided by Buckeye's Representative _____

OMMISSION OF ANY INFORMATION REQUESTED ABOVE WILL DELAY YOUR DESIGN PLAN REVIEW
Buckeye requires a minimum of 60 days for technical review upon receipt of complete and accurate design plans

Signature:
PRINT NAME:
Title:
Email:
Date:

OFFICIAL USE ONLY	
DATE RECD:	_____
REVIEW NO.:	_____
SYSTEM NO.:	_____
ATLAS PAGE	_____
RIW NO.:	_____
<input type="checkbox"/> APPROVE	<input type="checkbox"/> REJECT

Attachment 6: Earthen Ramp Detail



Attachment 7: Blasting Plan Submission Form

INFORMATION SECTION

Blasting Contractor- _____ Contracted by - _____
Company Name: _____ Company Name: _____
Phone: _____ Address: _____
Email Address: _____
Contact Person: _____ Contact Person: _____
Project Name: _____
Address: _____
*Latitude: _____
*Longitude: _____
Location and Distance (in feet) to Nearest Buckeye Pipeline: _____

Date of Blasting: _____

EXPLOSIVES SECTION

Type of Explosives: _____
Max. Charge / Hole (lbs): _____
Charge Delay (ms): _____
Charge Weight / Delay (lbs): _____
Max. Depth of Charge (ft): _____
Max. Diameter of Charge (in): _____

Calculated Particle Velocity at a point

Depth of Blast Area (ft): _____ 300 feet from pipeline (in/sec): _____
Depth of Overburden (ft): _____ 200 feet from pipeline (in/sec): _____
Type of Rock to be Blasted: _____ 100 feet from pipeline (in/sec): _____

ATTACHMENT CHECKLIST

- Drilling/Blasting Pattern Sketch - include all depths, measurements, and delay patterns relative to Buckeye facility involved and each charge.
- State Approval Letter
- Blasting Contractor's Qualifications
- Blasting Contractor's Insurance Certificate

Blasting Contractor's Safety Plan

OMMISSION OF ANY INFORMATION REQUESTED ABOVE WILL DELAY YOUR BLASTING PLAN REVIEW

Attachment 8: Excavation Safety Checklist
195 F-09, FORM A - EXCAVATION SAFETY CHECKLIST

The information noted on this form is intended to communicate general information about our pipeline(s) and is not intended to be solely relied upon by any party for use of excavation or any similar purpose.

By law, to ensure utilities time to mark their facilities, the One Call Center in your state requires notification by calling 811 prior to any excavation. L.P. is a member of this One Call enterprise and will automatically be notified through this system. In addition, a Buckeye inspector will inspect the form and/or review with the excavator representative the applicable checklist items below.

Pipeline Locate Activity:

- If plans are available, requested a copy of the written project plans and drawings for review with the excavator and/or engineer. Had the excavator and/or engineer explain the extent of the work area, location and depth of the excavation, type of proposed utilities, location of proposed utilities, number of utility crossings, etc.
- Established the pipeline(s) location and marked the line(s) per state One Call requirements throughout the entire work area.
- Photographed all established pipeline markings throughout the work area.

Communication with the Excavator and/or Engineer:

- The excavator and/or engineer was advised that a Buckeye inspector must:
 - Monitor the excavation site daily when work is performed within 25 feet of a Buckeye pipeline.
 - Observe continuously all excavation and backfill activity performed within 10 feet of a Buckeye pipeline or during the installation of any utility across a Buckeye pipeline facility.
 - In addition, the excavator was instructed to call 800-331-4115 if they were ready to excavate within either above distance of a Buckeye pipeline and a Buckeye inspector was not present. When called a Buckeye inspector will be sent to perform the inspection, which is free of charge.
- The excavator was advised that only backhoes or trackhoes with a steel plate welded across the teeth of the bucket are permitted to be used during excavation work around a Buckeye pipeline.
- The excavator was advised that the Buckeye inspector is required by law to perform an external inspection of any Buckeye pipeline exposed during excavation activity. The excavator understands that he/she is responsible to provide an OSHA compliant excavation, allowing the Buckeye inspector safe ingress and egress to examine our exposed pipeline.
- Walked through the work area with the excavator and communicated the locations of all Buckeye pipelines in the planned work area.
- Discussed the number of pipelines, pipe size(s), approximate pressures, approximate depths, excavation tolerance zones, hand digging requirements, and the hazards and characteristics of product(s) in the pipeline system(s) located in the planned work area.

1:1 The excavator was advised to call the One Call Center 811 or contact Buckeye, if the Buckeye markings are destroyed or need to be refreshed in the planned work area. This service is provided free of charge.

- The excavator was advised that before any exposed Buckeye pipeline can be backfilled, the Buckeye inspector will direct the placement of an orange warning mesh over the pipeline.

[1] The excavator was advised that any contact with the pipeline, pipeline coating, test station wiring, or anode beds must be reported to Buckeye prior to backfilling the excavation to permit further inspection of the damage to assure continued safe pipeline operations.

Ell The excavator was advised that failure to comply with the conditions outlined above would result in Buckeye requiring the excavator to expose the pipeline again to allow an examination of the pipeline at the excavator's expense. If damage to the pipeline is discovered, Buckeye may seek monetary compensation for all repair costs. Buckeye may also report this activity to all concerned parties (State One Call Center, Regulatory Agencies, Principal Contractor, Excavator's Insurance Company, etc.).

If you are unable to reach the representative designated below, or in case of an emergency, request assistance as follows: For excavation activities in CT, FL, IL, IA, IN, MA, ME, MI, MO, NJ, NY, OH, PA, and WI, please call 1-800-331-4115. For excavation activities in LA, NV, TN, TX, AL, GA, NC, and Southern California, please call 1-866-514-8380. For excavation activities in Northern California, please call 1-800-307-1107.

One Call Ticket:		Line Segments:		
Work Order:		Mile Posts:		
Nearest Street				

Buckeye Information		Property Owner / Excavator /Engineer	
Date:		Name:	

Name:		Phone:	
Cell Phone:		Signature:	



Guidelines for Design and Construction near Kinder Morgan Operated Facilities

Name of Company: Natural Gas Pipeline Company of America, LLC (NGPL)

The list of design, construction and contractor requirements, including but not limited to the following, for the design and installation of foreign utilities or improvements on KM right-of-way (ROW) are not intended nor do they waive or modify any rights KM may have under existing easements or ROW agreements. Reference existing easements and amendments for additional requirements. This list of requirements is applicable for KM facilities on easements only. Encroachments on fee property should be referred to the ROW Department.

Design

- KM shall be provided sufficient prior notice of planned activities involving excavation, blasting, or any type of construction on KM's ROW to determine and resolve any location, grade or encroachment problems and provide protection of our facilities and the public **before** the actual work is to take place.
- Encroaching entity shall provide KM with a set of drawings for review and a set of final construction drawings showing all aspects of the proposed facilities in the vicinity of KM's ROW. The encroaching entity shall also provide a set of as-built drawings showing the proposed facilities in the vicinity of KM's ROW.
- Only facilities shown on drawings reviewed by **NGPL** (Company) will be approved for installation on KM's ROW. All drawing revisions that effect facilities proposed to be placed on KM's ROW must be approved by KM in writing.
- KM shall approve the design of all permanent road crossings.
- Encroaching entity shall, at the discretion of the Kinder Morgan, Inc., incorporate Heath ATI "sniffer" Gas Detection Units in the design of paved areas or "Green Belt" areas of KM ROW. The units shall be installed per KM Standard TYP-V-0100-B010.
- Any repair to surface facilities following future pipeline maintenance or repair work by KM will be at the expense of the developer or landowner.
- The depth of cover over the KM pipelines shall not be reduced nor drainage altered without KM's written approval.
- Construction of any permanent structure, building(s) or obstructions within KM pipeline easement is **not** permitted.
- Planting of shrubs and trees is not permitted on KM pipeline easement.
- Irrigation equipment i.e. backflow prevent devices, meters, valves, valve boxes, etc. shall not be located on KM easement.
- Foreign line, gas, water, electric and sewer lines, etc., may cross perpendicular to KM's pipeline within the ROW, provided that a minimum of two (2) feet of vertical clearance is maintained between KM pipeline(s)

and the foreign pipeline. Constant line elevations must be maintained across KM's entire ROW width, gravity drain lines are the only exception. Foreign line crossings below the KM pipeline must be evaluated by KM to ensure that a significant length of the KM line is not exposed and unsupported during construction. When installing underground utilities, the last line should be placed beneath all existing lines unless it is impractical or unreasonable to do so. Foreign line crossings above the KM pipeline with less than 2 feet of clearance must be evaluated by KM to ensure that additional support is not necessary to prevent settling on top of the KM natural gas pipeline.

- A foreign pipeline shall cross KM facilities at as near a ninety-degree angle as possible. A foreign pipeline shall not run parallel to KM pipeline within KM easement without written permission of KM.
- The foreign utility should be advised that KM maintains cathodic protection on their pipelines. The foreign utility must coordinate their cathodic protection system with KM's. At the request of KM, foreign utilities shall install (or allow to be installed) cathodic protection test leads at all crossings for the purposes of monitoring cathodic protection. The KM Cathodic Protection (CP) technician and the foreign utility CP technician shall perform post construction CP interference testing. Interference issues shall be resolved by mutual agreement between foreign utility and KM. All costs associated with the correction of cathodic protection problems on KM pipeline as a result of the foreign utility crossing shall be borne by the foreign utility for a period of one year from date the foreign utility is put in service.



Guidelines for Design and Construction near Kinder Morgan Operated Facilities

- The metallic foreign line shall be coated with a suitable pipe coating for a distance of at least 10 feet on either side of the crossing unless otherwise requested by the KM CP Technician.
- AC Electrical lines must be installed in conduit and properly insulated.
- DOT approved pipeline markers shall be installed so as to indicate the route of the foreign pipeline across the KM ROW.
- No power poles, light standards, etc. shall be installed on KM easement.

Construction

- Contractors shall be advised of KM's requirements and be contractually obligated to comply.
 - The continued integrity of KM's pipelines and the safety of all individuals in the area of proposed work near KM's facilities are of the utmost importance. Therefore, contractor must meet with KM representatives prior to construction to provide and receive notification listings for appropriate area operations and emergency personnel. **KM's on-site representative will require discontinuation of any work that, in his opinion, endangers the operations or safety of personnel, pipelines or facilities.**
 - The Contractor must expose all KM transmission and distribution lines prior to crossing to determine the exact alignment and depth of the lines. A KM representative must be present. In the event of parallel lines, only one pipeline can be exposed at a time.
 - KM will not allow pipelines to remain exposed overnight without consent of KM designated representative. Contractor may be required to backfill pipelines at the end of each day.
 - A KM representative shall do all line locating. A KM representative shall be present for hydraulic excavation. The use of probing rods for pipeline locating shall be performed by KM representatives only, to prevent unnecessary damage to the pipeline coating.
 - Notification shall be given to KM at least 72 hours before start of construction. A schedule of activities for the duration of the project must be made available at that time to facilitate the scheduling of Kinder Morgan, Inc.'s work site representative. Any Contractor schedule changes shall be provided to Kinder Morgan, Inc. immediately.
 - Heavy equipment will not be allowed to operate directly over KM pipelines or in KM ROW unless written approval is obtained from **NGPL** (Company). Heavy equipment shall only be allowed to cross KM pipelines at locations designated by Kinder Morgan, Inc. Contractor shall comply with all precautionary measures required by KM to protect its pipelines. When inclement weather exists, provisions must be made to compensate for soil displacement due to subsidence of tires.
 - Excavating or grading which might result in erosion or which could render the KM ROW inaccessible shall not be permitted unless the contractor/developer/owner agrees to restore the area to its original condition and provide protection to KM's facility.
 - A KM representative shall be on-site to monitor any construction activities within twenty-five (25) feet of a KM pipeline or aboveground appurtenance. The contractor **shall not** work within this distance without a KM representative being on site. Only hand excavation shall be permitted within a minimum of 18 inches (refer to state specific rules/regulations regarding any additional clearance requirements) of KM pipelines, valves and fittings. However, proceed with extreme caution when within three (3) feet of the pipe.

- Ripping is only allowed when the position of the pipe is known and not within ten (10) feet of KM facility unless company representative is present. .
- Temporary support of any exposed KM pipeline by Contractor may be necessary if required by KM's on-site representative. Backfill below the exposed lines and 12" above the lines shall be replaced with sand or other selected material as approved by KM's on-site representative and thoroughly compacted in 12" lifts to 95% of standard proctor dry density minimum or as approved by KM's on-site representative. This is to adequately protect against stresses that may be caused by the settling of the pipeline.
- No blasting shall be allowed within 1000 feet of KM's facilities unless blasting notification is given to KM including complete Blasting Plan Data. A pre-blast meeting shall be conducted by the organization responsible for blasting.



GUIDELINES FOR DESIGN AND CONSTRUCTION NEAR KINDER MORGAN OPERATED FACILITIES

KM shall be indemnified and held harmless from any loss, cost of liability for personal injuries received, death caused or property damage suffered or sustained by any person resulting from any blasting operations undertaken within 500 feet of its facilities. The organization responsible for blasting shall be liable for any and all damages caused to KM's facilities as a result of their activities whether or not KM representatives are present. KM shall have a signed and executed Blasting Indemnification Agreement before authorized permission to blast can be given.

No blasting shall be allowed within 300 feet of KM's facilities unless blasting notification is given to KM a minimum of one week before blasting. (*note: covered above*) KM shall review and analyze the blasting methods. A written blasting plan shall be provided by the organization responsible for blasting and agreed to in writing by KM in addition to meeting requirements for 500' and 1000' being met above. A written emergency plan shall be provided by the organization responsible for blasting. (*note: covered above*)

- **Any** contact with any KM facility, pipeline, valve set, etc. shall be reported immediately to KM. If repairs to the pipe are necessary, they will be made and inspected before the section is re-coated and the line is back-filled.
 - KM personnel shall install all test leads on KM facilities.
 - Burning of trash, brush, etc. is not permitted within the KM ROW.

Insurance Requirements

- All contractors, and their subcontractors, working on Company easements shall maintain the following types of insurance policies and minimum limits of coverage. All insurance certificates carried by Contractor and Grantee shall include the following statement: "Kinder Morgan and its affiliated or subsidiary companies are named as additional insured on all above policies (except Worker's Compensation) and waiver of subrogation in favor of Kinder Morgan and its affiliated or subsidiary companies, their respective directors, officers, agents and employees applies as required by written contract." **Contractor shall furnish Certificates of Insurance evidencing insurance coverage prior to commencement of work and shall provide thirty (30) days notice prior to the termination or cancellation of any policy.**
1. Statutory Coverage Workers' Compensation Insurance in accordance with the laws of the states where the work is to be performed. If Contractor performs work on the adjacent on navigable waterways Contractor shall furnish a certificate of insurance showing compliance with the provisions of the Federal Longshoreman's and Harbor Workers' Compensation Law.
 2. Employer's Liability Insurance, with limits of not less than **\$1,000,000** per occurrence and **\$1,000,000** disease each employee.
 3. Commercial General Liability Insurance with a combined single limit of not less than **\$2,000,000** per occurrence and in the aggregate. All policies shall include coverage for blanket contractual liability assumed.
 4. Comprehensive Automobile Liability Insurance with a combined single limit of not less than **\$1,000,000**. If necessary, the policy shall be endorsed to provide contractual liability coverage.
 5. If necessary Comprehensive Aircraft Liability Insurance with combined bodily injury, including passengers, and property damage liability single limits of not less than **\$5,000,000** each occurrence.
 6. Contractor's Pollution Liability Insurance this coverage shall be maintained in force for the full period of this agreement with available limits of not less than **\$2,000,000** per occurrence.
 7. Pollution Legal Liability Insurance this coverage must be maintained in a minimum amount of **\$5,000,000** per occurrence.

Table of Contents

1.....	A
pplicability	1
2.....	S
cope.....	1
3.....	C
ore Information and Requirements	1
3.1. Basic Rights	2
3.2. Basic Responsibilities	2
3.3. One-Call Systems.....	2
3.4. Marking Underground Structures (temporary markings)	3
3.5. Surveillance, Awareness and Reporting	6
3.6. Investigating Third Party Construction Activity – Company Not Notified	7
3.7. Inspecting Construction Activity – KM Notified	7
3.8. Excavating Pressurized Lines.....	12
Table 1 – Tolerance Zones by State.....	13
Figure 1 – Minimum Tolerance Zone	14
3.9. Horizontal Distance.....	15
Table 2 - Horizontal Distance from Company Facilities.....	15
3.10. Vertical Facility Clearance	15
Table 3 - Vertical Clearance from Company Facility	16
3.11. Engineering Assessment.....	16
3.12. Heavy Equipment/Vehicle Crossings, Roadways and Parking Lots.....	16
3.13. Directional Drilling	17
3.14. Land Leveling or Improvement – Company Notified	17
3.15. Blasting and Seismographic Activity.....	18
3.16. Buildings near Pipelines.....	18
4.....	T
rainig	18
5.....	D
ocumentation	19
5.1. Company Report Forms.....	19
5.2. Response to Third Party.....	19
5.3. Photographs.....	19
5.4. All Documentation	19
6.....	R
ferences	20
Attachment 1 – One-Call Center and Emergency Phone Numbers.....	21

1. Applicability

- ~ Gathering
- ~ Processing
- ~ Transmission/Regulated Onshore Gathering
- D Kinder Morgan Treating

2. Scope

This procedure applies to all facilities and provides guidance in addressing all construction projects or activities that encroach upon the Company's pipelines, fee owned property, easements, etc. Such encroachments must be evaluated to assure compliance with Company requirements as those requirements are prescribed in this procedure, prevent damage to the pipeline facilities and protect the public and employees.

3. Core Information and Requirements

Third Party activities near pipeline facilities that may require inspection and or assessment including, but are not limited to:

- Blasting
 - Installing foreign pipelines
 - Installing electric cables, telephone or cable TV lines
-
- Drilling holes for poles, posts, anchors or oil, water and gas wells
 - Installing parking lots, driveways, mobile homes, garages, sheds, swimming pools, barns, junkyards or trees
 - Pipeline Crossing by Dredging Operations
 - Foreign Crossing in Wetland/waterbody and Offshore Environments
 - Any other activities that may require excavation
 - Crossing pipelines with heavy vehicles or equipment
 - Permanent or temporary removal of cover from pipelines (e.g., agricultural land leveling, road or highway construction, drainage work)

3.1. Basic Rights

The [Land and Right-of-Way Department](#) enforces Company land rights insofar as or to the extent provided by underlying agreements.

When a third party's activities threaten the safety of Company operated facilities, the Company will request that the third party discontinue such action. If the third party fails to adhere to the request, then assistance from operations management and the [Land and Right-of-Way Department](#) shall be pursued. When a third party damages a pipeline or other Company operated facility, the Company has the right to reimbursement for such damages.

The Company has certain basic land rights through easements, franchises, permits, license agreements, leasehold, fee ownership, etc., that allow for constructing and operating Company facilities. The value and extent of the Company's rights depend upon the underlying agreement's terms and conditions.

The Company has the right to act in accordance with the terms and conditions of the underlying agreement. In cases where the Company owns the property in fee, any encroachment on the property is considered trespassing. The Company is prepared to take any legal action necessary to protect its real and personal property rights and the safety and property of other persons.

3.2. Basic Responsibilities

The Company has the following basic responsibilities in relation to its pipelines:

- When Company pipelines are identified by pipeline markers, stakes or by telling a third party where the line is located, such identifiers must be accurate and comply with the requirements of state One-Call organizations and the Company's procedures whichever is

more stringent.

- Managers and supervisors shall plan accordingly for workload fluctuations, vacations, etc. to ensure notices received are completed in a timely manner.
- Section 4 of the Common Ground Alliance's (CGA) Locating and Marking best practices are incorporated in this procedure and shall be followed.

3.3. One-Call Systems

Every location will participate in a state One-Call system. [Attachment 1 – One-Call Center and Emergency Phone Numbers](#) lists the One-Call center phone numbers, as well as Company control center phone numbers. The One-Call system serves as a means for receiving and recording excavation notification as well as notifying excavators how to identify temporary pipeline markings. In order to maintain the One-Call database; once each calendar year, each Damage Prevention Supervisor shall review the current pipeline assets in their area of responsibility and compare them with the lines in PODS, Geofusion, or One-Call Agency database to ensure that all lines the Company operates are listed and any that were sold or abandoned have been removed. Any changes needed in pipeline location or one-call boundaries will be coordinated through the GIS Department.

Participating in the state One-Call program may meet the following damage prevention requirements:

- If the State One-Call Center maintains a list of excavators who have used the One-Call service, document in local files how to easily access this information when it is needed or store the information in the Public Awareness Database.

- If the State One-Call Center provides notification to excavators explaining the One-Call program and excavation procedures, obtain documentation for local files or store the information in the Public Awareness Database.

3.3.1. Receiving Notices from One-Call Centers

When the field receives a One-Call notice of intended excavation, a response is required per the procedures below and state One-Call Laws.

When the field receives a notice of intended activity, (One-Call) the person receiving the information will determine as to the location of work versus the Company's assets. If Company assets will not be impacted, document in the electronic One-Call system. The documentation must include justification for no physical locate and the individuals name.

When the person receiving the one-call determines there is a question as to whether Company assets will be impacted, a Company representative will contact the excavator for additional clarification. If at this time, it is determined that Company assets will not be impacted, document in the electronic One-Call system. The documentation must include justification for no physical locate, excavator contacted, and the individuals name.

If the pipeline will not be marked, the electronic One-Call System will be used to notify the excavator via e-mail, fax or phone and/or respond back to the one-call center if required.

If the work is within 50-feet of Company assets, or if there is a potential for the work to encroach to within 50-feet of Company assets, Company Personnel will physically mark the asset according to [Subsection 3.4 – Marking Underground Structures](#) below, and document in the electronic One-Call system. [O&M Form OM200-31 – Line Locate Inspection Report](#) shall be completed when meeting with the excavator. If the work area is in a wetland/waterbody or offshore environment, where conventional marking methods are inadequate, a Qualified Company Representative may be used to mark the line.

3.3.2. Design or Planning Notification

When the one-call notification is a request to meet for the purposes of design or planning, the Company Representative is to contact the person designated on the one-call ticket as the contact person to ensure that no excavation is planned in the area noted on the one-call ticket and to schedule a meeting at a mutually agreeable time. If an excavation is planned, which meets the definition of this procedure or the state one-call law then [Subsection 3.3.1 – Receiving Notices from One-Call Centers](#) applies. Also, refer to [Subsection 3.4.3 – Meeting Requirements with Excavator. O&M Form OM200-31 – Line Locate Inspection Report](#) shall be completed when meeting with the excavator and the line has been physically marked.

3.4. Marking Underground Structures (temporary markings)

Company personnel will locate and mark pipelines in areas where excavation activities are observed or will occur as indicated by the One-Call notification. ONLY Company personnel are approved to locate and mark underground structures on upland facilities. If the work area is in a wetland/waterbody or offshore environment, where conventional marking methods are inadequate, a Qualified Company Representative may be used to mark the line.

Exception: Line marking may not be required for routine long-term activities where the depth of cover is known, and it has been established that the activity will not, in any way, affect the integrity of the pipeline. These include activities such as tilling of farmland, and road grading operations. In these cases, a standing procedure may be established with the parties involved that would apply as long as surface conditions and/or activities do not change. All other parts of this procedure do apply.

3.4.1. Locate and mark the pipeline, within 50-feet of the excavation work area, as specified

below.

• Pipelines will be marked within 48 hours of receipt of notification (excluding weekends holidays) or in accordance with local One-Call laws, and before any excavation activities begin. Emergency Notifications will be responded to promptly. It is recognized that there will be circumstances that prohibit marking the pipeline within the allowed time. Examples and **state** include, but are not limited to:

- Weather (blizzards, heavy rain, or flooding)
 - Locations that require marking in roadways where we will be utilizing the contractors traffic control plan which will not be set up within the allowed time
 - When the excavator is requesting a joint meet, which will occur after the allowed time
- Inability to gain access to property for locate (inaccessible fenced properties, threatening pets, etc.)
- There is lack of clear delineation of the proposed area of excavation and the excavator cannot meet with us within the allowed time.
- Wetland/waterbody and offshore areas where scheduling of qualified locating personnel cannot be performed within the allowed time.

If the state law allows it, in these cases delay in marking time is allowed; however, concurrence of the delay in marking shall be received from the applicable ROW Specialist, Supervisor or Manager and the excavator. Facts and circumstances of the delay, name of Kinder Morgan (KM) person concurring and excavator contact who agreed, shall be documented in the ticket Comments section of the electronic One-Call system. Contact the excavator and arrange to meet an authorized representative of the excavator. Discuss provisions in [Subsection 3.4.3 – Meeting Requirements with Excavator](#). Document excavator communications in the electronic One-Call system. [O&M Form OM200-31 – Line Locate Inspection Report](#) shall be completed when meeting with the excavator.

- Locates and markings shall be performed safely. Consideration should be given to items such as, but not limited to; traffic, site conditions, and personal protective equipment (refer to [O&M Procedure 120 – Personal Protective Equipment](#)).
- Available Company records/strip maps/alignment sheets are to be reviewed prior to marking the pipeline(s). Look for taps, both active and abandoned, or any other below grade facilities. The minimum length of pipeline to be marked shall be as required by conditions of the site and job. Any errors or omissions discovered shall be communicated to the Engineering Records Department immediately
- Perform a visual inspection of the locate area to determine if there is evidence of a Company pipeline which is not on any record, map or alignment sheet. Also, be aware of other pipelines that might be in the area that are not on Company drawings.
- When marking the line, the marks must be able to identify where the pipeline is located, the lesser of within 2-feet off the center point, or as required by state One-Call Laws. If this criterion is not possible, then no mark shall be made, but a positive “finding” (pothole) will be necessary.
- Point of Intersection (PI) and other changes of direction shall be marked so that the pipe’s location is clearly delineated.
- When marking upland facilities, the Company is to consider the type of facility being located, the terrain of the land, the type of excavation being done and the method to adequately mark its facility for the excavator. The spacing of the markings shall be 10-feet or less apart. When marking offshore and wetland/waterbody facilities, conventional marking techniques may not be applicable. In these cases the company shall have an encroachment agreement with the excavator.

- Any Kinder Morgan crossings in the area must be marked.
- Any crossing, not shown on the alignment sheet must be reported immediately to the Engineering Records Department for inclusion on as-built drawings.

-
- Temporarily mark the physical location of a pipeline using yellow flags, laths and/or fluorescent yellow paint per the ULCC Color Code Guide. Use the appropriate marking for the existing and expected surface conditions.
 - When feasible, the owner/operator of a facility is identified by the markings at the time the facility is located.
 - Locate and mark any KM operated transmission or gathering facility within 50-feet of the excavation work.
 - Buoys, poles or PVC markers may be used for submerged underwater facilities in areas such as wide commercially navigable waterways, wetland/waterbodies, offshore and bays. Markers should be placed as close as practical over the facilities that are submerged in such a manner without impeding or creating additional hazards.
 - Multiple Company pipelines in the same ROW will be marked individually. Care should be taken at all locations where there are multiple lines in the same ROW (either KM or third party). A sweep of the area should be performed to help identify the intended pipeline as well as any other KM operated lines that may be in the vicinity.
 - If there is doubt concerning the location or depth of the line, either request assistance to locate or use soft digging methods to determine exact location.
 - All marked locations shall be photographed in accordance with [Section 5 – Documentation](#).
 - Treat each updated One-Call ticket as a “new” ticket. Pipeline markings need to be verified or re-marked for each ticket AND new photographs taken. Remarks for each ticket need to be completed in electronic One-Call system. Descriptions and comments need to be completed for each updated ticket, as if it were the only ticket received for the job. Reference to the previous ticket should be noted in comments.
 - All One-Calls must be responded to, via the electronic One-Call system, even if there is no conflict with Company facilities.
 - Additional notification may be made by phone, fax, or email. The date and name of the person contacted should be recorded in the electronic One-Call System.

3.4.2. Line Locating Equipment used in Locating Upland Pipelines for Marking

Conductive locating (direct connection to the pipeline) is the preferred method for locating Company pipelines.

Line locating equipment will be field checked for proper operation prior to initial use, each day that it is used for locating. Documentation of this check will be recorded in the electronic One-Call system. If Inductive locating is used for locating Company pipelines, a direct positive confirmation by a water probe, probe rod, vacuum truck or other methods must be performed.

Hydrographic **surveying techniques may be used to locate facilities in wetland/waterbodies or offshore. When locating offshore and wetland/waterbody facilities, conventional locating techniques may not be applicable. In these cases the company shall have a crossing agreement with the excavator.**

3.4.3. Meeting **Requirements with Excavator**

- Meet with the encroaching party's representative. Obtain the information needed by the Company concerning the type of activity, crossing, drawings, schedules, blasting plans including charge size and location (if applicable), contact information (names, numbers), etc. Use this opportunity to obtain contractor information for Company's damage prevention program and to promote the use of the applicable state One-Call systems and the national 811 number.
- Review with the excavator/encroaching party's supervisor or designated responsible person the requirements of this procedure ([O&M Procedure 204 – Construction Near Company Facilities](#)) such as scope of the job; location of Company facilities; the requirements for crossing Company lines or facilities; and the requirements that a

Company Representative must be on-site whenever work will be done within 25-feet of Company Facilities.

- Required clearance from any underground structure not associated with the pipeline is 24-inches
- Company upland pipelines must be exposed per [Subsection 3.8 – Excavating Pressurized Lines](#) of this procedure.
 - Excavations entered by and performed by Company employees or their representatives must meet the requirements of [O&M Procedure 109 – Excavating, Trenching and Shoring](#)
 - Special provisions are required when working over or near Dresser coupled lines. These provisions are outlined in [O&M Procedure 237 – Dresser-Coupled Pipelines](#)
 - Verify that the information received concerning dates, locations and scope of work is accurate
 - The Company representative assigned to locate a pipeline or monitor excavation activities shall complete [O&M Form OM200-31 – Line Locate Inspection Report](#) and sign when meeting with the excavator and the line has been physically marked.
 - For excavations 25-feet or less from Company assets, contractor should counter sign [O&M Form OM200-31 – Line Locate Inspection Report](#). The original will be given to the third party excavator's representative on the site during the initial meeting and a copy electronically attached to the ticket in the electronic One-Call system.
 - For excavations greater than 25-feet, contractor is not required to counter sign [O&M Form OM200-31 – Line Locate Inspection Report](#). Retain the document for district records
 - The form must be re-issued for changes in activities, including, but not limited to:
 - Changes in the scope of work that could affect the safety of the line

- Changes of affected personnel on the site (excavator, supervisor, etc.)
- Changes to the schedule/work plan, that is, digging faster or moving to another area e.g., across the road.

[O&M Form OM200-31 – Line Locate Inspection Report](#) helps assure communications between the Company representative and the third party excavator regarding the planned or actual date(s) of excavation activities. If applicable, the form should include any observation waivers granted and the basis on which the exception was granted, with instructions to contact the KM Employee if any of the conditions, which was the basis for exception, change. [O&M Form OM200-31 – Line Locate Inspection Report](#) shall be completed when meeting with the excavator. If the excavator refuses to sign, the Company representative will so indicate on the form.

3.5. Surveillance, Awareness and Reporting

Be alert for upcoming projects that may encroach upon or endanger Company operated pipelines or facilities. Construction activity that may involve Company operated pipelines or facilities should be immediately reported to the appropriate supervisor. If the appropriate supervisor cannot be reached, notify the next available supervisor or Gas Control.

The public is often aware of projects, including underground phone, electrical, sewer and water facilities and street construction projects long before work begins. Since rural road construction and land leveling are less publicized, inform area contractors and road crews of Company line locations and the rules regarding construction activity.

Notify Operations Manager or designee of any construction projects that may affect or endanger Company operated facilities. Report any activities on fee owned property to ROW. When construction work is within city or corporate limits or part of a city project, contact city officials and remind them of the Company's rules and policies. Try to attend any city or county planning committee meetings concerning major construction activities that could affect the Company's assets. The necessary provisions can then be written into an ordinance or into the contract under

which the work will be performed.

3.6. Investigating Third Party Construction Activity – Company Not Notified

If a Third Party is seen within 50-feet of, or working over the Company's pipeline, the excavation and construction activities shall immediately be stopped until the Company facilities have been located and investigated for possible damage.

When Third Party construction activity involving a Company pipeline or facility is started without prior approval, notify the operations supervisor immediately. Contact the [Land and Right-ofWay Department](#) to determine the Company's rights. Inspect the premises immediately and take necessary steps to correct or prevent unsafe conditions.

When physical evidence of an unmonitored encroachment over the pipeline is discovered, the area must be investigated to determine if an excavation is required, an informational ERL must be issued and the event documented in the Company incident-tracking database ([STARS](#) or CIRT (Comprehensive Incident Reporting and Tracking System)). If an excavation is required, the pipeline shall be inspected for damage in conformance with existing company procedures. Upon discovery of pipeline damage, an ERL notification shall be initiated and the occurrence treated as an Abnormal Operation in conformance with [O&M Procedure 1902 – Abnormal Operation](#).

High Consequence Areas: When physical evidence of encroachment over the pipeline is discovered in an HCA that was not monitored, the area must be excavated near the encroachment or an above ground survey must be conducted using methods defined in NACE RP-0502-2008.

When land leveling or improvements involving a Company pipeline or facility are started without prior approval, notify the operations supervisor immediately. Contact the [Land and Right-ofWay Department](#) to determine the Company's rights. Inspect the premises immediately and take necessary steps to correct or prevent unsafe conditions.

If excavation or other activities are identified within the Company's pipeline easement that are not allowed

Monitoring and Observation Offshore and in Wetland/Waterbodies - When the construction activity affects a company facility, that is located offshore or in a wetland/waterbody; conventional observation and monitoring methods are not applicable in many respects. To mitigate encroachment issues the company shall use an encroachment agreement. The company, at its discretion will utilize either a OQ qualified company representative to monitor the encroachment activities and communicate with the foreign facility personnel and divers to enforce the terms and conditions of the encroachment agreement.

by the pipeline easement or permit agreement, the activities shall be stopped until an agreement is reached. If excavation activities continue, local management should be advised and the Company's Legal Department and/or local law enforcement authorities may be called for assistance.

3.7. Inspecting Construction Activity – KM Notified

Excavation Monitoring (periodic monitoring) – For excavations between 25-feet and 50-feet from a Company upland facility. A properly trained and OQ qualified Company representative shall periodically monitor the excavation to assure that the work is continuing as planned. Excavations greater than 50-feet from a Company facility should be monitored as necessary.

On-Site Monitoring (mandatory monitoring) – When construction activity is within 25-feet of the Company operated transmission or gathering land pipeline facilities, a properly trained and OQ qualified Company representative shall, unless excepted by [Subsection 3.7.1. – Waiver to On-Site Monitoring](#), be on site.

Excavation Observation – Observation is mandatory when excavation activity is within 10- feet of the upland pipeline. When an excavation is within 10-feet of a Company facility a properly trained and OQ qualified Company representative shall be continuously present during all excavation and backfilling activities to observe compliance with agreed upon design/specification/scope of work and to ensure the excavation and backfilling criteria are being met. If a Company representative is not observing the activities, absolutely no work is to be allowed.

The Company Observer shall be aware of the hazards of operating equipment and shall use audible warning devices to warn equipment operators of impending danger or threat to the safety of personnel or facilities. The audible warning device should be a whistle or other approved device that the equipment operator can hear above normal equipment noise.

If the excavation results in a foreign utility crossing of KM's pipeline, the KM representative shall complete [O&M Form OM200-01 – Foreign Structures Report](#). If the excavation results in a metallic object crossing also complete [O&M Form OM200-03 – Underground Structure Crossing Report](#). If the excavation results in the exposure of a KM pipeline, the KM representative shall complete [O&M Form OM200-02 – Pipeline Examination Report](#). The KM Representative must have the appropriate operator qualifications to perform the duties and complete each form.

A KM representative may give permission for work to be performed over the pipeline without being on site. Prior to giving permission, the KM representative must have marked the pipeline (unless exempted by [Subsection 3.4 – Marking Underground Structures](#)) and assured themselves that there is no risk to the pipeline from grading operations or excavation activities, where the depth of the pipeline is known to be below plow depth. Work is defined as digging or disturbing the soil, moving any heavy equipment over the pipeline with less than the required cover.

In the event of parallel encroachments or other circumstances where the excavation activities will require a Company representative to be present for a long duration, and there is to be no crossing of the Company's pipeline, the contractor's work schedule shall be provided to the Company and a meeting held with Company inspector(s) when necessary to review the schedule. Any deviations to the schedule will require advance Company approval.

Company representatives should be aware of the [O&M Form OM200-29 – Guidelines for Design and Construction near Kinder Morgan Operated Facilities](#) during construction near Company facilities:

When an encroachment by:

1st Party – KM (Company) excavation

2nd Party – Contract Representative doing work for KM

3rd Party – Excavator not affiliated with KM or acting as a representative of KM

involves any one of the following conditions, the Damage Prevention Supervisor, Operations Supervisor or their designee must be contacted to determine if additional precautions need to be taken to protect the Kinder Morgan Pipeline. This discussion will be documented in the electronic one-call system:

- Excavation less than 10-feet
- Foreign line crossing
- Exposed KM pipeline
- Parallel construction within 25-feet

3.7.1. Waiver to On-site Monitoring

When the scope and location of the proposed excavation is greater than 10-feet from the Company's asset and there appears to be no benefit to being continuously present to protect the asset, a waiver to the observation may be granted.

Examples where this may be applicable include, but are not limited to:

- Excavation, such as paving or digging foundation footings on private property when the pipeline is under the city street or on the opposite side of the road.

-
- Replacing utility poles when the utility easement is offset from the pipeline at a distance greater than 10-feet and guy wires will not encroach upon the easement.
 - Excavation on the other side of an immovable barrier or natural demarcation, such as, construction separated from our pipeline by railroad, or stone/concrete fence, etc.
 - Other digging that will not damage the pipeline, i.e. hand digging, shallow/well defined.
 - Concrete Barriers installed between the area of excavation and the KM pipe
 - Permanent or temporary fencing installed between the area of the excavation and the KM pipe
 - Video monitoring
 - Other situations where the activity will not affect the pipeline.

Care should be taken to ensure that the scope of work does not include utility work that could potentially cross the pipeline or that the pipeline is not within the designated excavation area (white lined area).

Note: KM does not have the authority to waive a State One-Call requirement.

When seeking a waiver to continuous monitoring, for construction within 25-feet but greater than 10-feet of the pipeline, the KM Line Locator must contact the Damage Prevention Supervisor, Area Manager or Operations Supervisor to get their concurrence. After approval, the site should be monitored periodically to ensure work remains within the original scope.

- The justification, date and time of the concurrence and the name of the person

granting the exception must be recorded in the notes section of the electronic One-Call system and the “waiver” box checked.

- The person granting the exception must also record the decision and the basis for the decision in their records.

3.7.1.1. Exceptions to Company Personnel Observing/Monitoring Excavation and Backfilling Activities

- Operations Management will decide when it is necessary to use a contract representative to monitor excavation and/or backfilling activities.
- The Damage Prevention Supervisor will follow the appropriate Company procedure(s) for selection and contracting of a contract representative.
- The Damage Prevention Supervisor will coordinate with the Operations Manager to ensure that the contract representative has completed the required training and approve the Operator Qualification (OQ) credentials.
- The Damage Prevention Supervisor must confirm proficiency and knowledge of covered procedures and training for the contract representative.
- OQ Requirements for KM Representatives: As a minimum the contract representative shall be Operator Qualified on one of the following task sets:

OQ Requirements Set ‘A’

- 01.01.01 Abnormal Operations
- 08.02.01 Damage Prevention During Excavation Activities ○ 14.02.01 Backfilling
- 14.05.01 Underground Clearances
- 14.08.01 Cover
- 14.10.01 Line Markers
- 14.13.01 Protection When Minimum Cover Not Met
- 14.09.01 Inspection: Compliance with Procedures & Standards

or,

OQ Requirements Set ‘B’

- 022PIP: Manage/Monitor Encroachment or Excavation
- 050PIP: Observe Machine Excavation
- 047PIP: Backfill Exposed Pipeline Using Heavy Equipment

- 005PIP: Maintain Right of Way Mile Post Markers / Pipeline Markers / Vents ○ 007PIP: Control Right of Way Erosion

- The Damage Prevention Supervisor will be responsible for ensuring that the contract representative has reviewed, understands and provides proper documentation of the following the Company Operating & Maintenance (O&M) Procedures:

- [O&M Procedure 109 – Excavating, Trenching and Shoring](#) ○ [O&M Procedure 159 – Incident Reporting and Investigation](#) ○ [O&M Procedure 166 – Safety Hazard/Near Miss Reporting](#) ○ [O&M Procedure 168 – Safety Orientation](#)
- [O&M Procedure 204 – Construction Near Company Facilities](#) ○ [O&M Procedure 205 – Pipeline Markers and Cover](#)

- [O&M Procedure 214 – Reporting Pipeline Safety-Related Conditions](#)

- The Operations Manager will communicate to the Director of Operations the intent to utilize a contract representative for excavations and/or backfilling activities within their area of responsibility.

- The Director of Operations will review the need to utilize contract inspectors and if deemed necessary will conditionally approve the use per project.

- Final approval to use contract inspectors will not be given until all training is completed.

- The Damage Prevention Supervisor will be responsible for ensuring that the contract representative has reviewed, understands and provides proper documentation of the following the Company Construction Inspection procedures:

- [Construction Inspection Section CON0020 – General Requirements](#)

- [Construction Standard C1010 – Clearing, Grading and Site Preparation](#) ○ [Construction Standard C1100 – Backfilling](#)
- [Construction Standard C1160 – Horizontal Directional Drilling](#)

- The Damage Prevention Supervisor will be responsible for ensuring that the contract representative has reviewed, understands and provides proper documentation of the [Kinder Morgan Contractor Safety Manual](#).

- The Damage Prevention Supervisor will be responsible for providing copies of the training requirements stated above to the Operations Manager for approval, then to the Director of Operations for review and approval before proceeding with the use of contract representatives during excavations and backfilling activities on existing Company right-of-ways and property. Including the following:

- Confirmation of the completion and acceptable scores of the OQ training stated above.
- Copies of O&M Procedures, Construction Inspection Manual and Contractor Safety Manual - signed and dated by the contract representative as well as the project manager or their designee.
- A general summary that identifies the planned excavation and backfilling activities.

- The Director of Operations will:

- Provide confirmation to the Damage Prevention Supervisor and Operations Manager, via email, if they are in agreement that all training requirements have been satisfied and use of the contract representative for monitoring of excavation and/or backfilling activities is approved.

- OR -

-
- Respond to the Damage Prevention Supervisor and Operations Manager, via email, that training requirements are deficient and the use of the contract representative is NOT approved.

3.7.2. Kinder Morgan Initiated Excavation Activities

When excavating, Kinder Morgan (1st Party) and Contractors doing work for Kinder Morgan (2nd Party)

practices that we expect from 3rd party excavators. To that end, the person responsible for excavating on behalf of Kinder Morgan will:

- Make notification to the appropriate one-call center of the intent to excavate the pipeline within the required timelines specified by applicable State One-Call Law.
- If the excavation location cannot be specifically identified by landmark, address, legal description or GPS point, identify the proposed area of excavation using white lining prior to notification of the One-Call center.
- Maintain the ticket number from the one-call center that verifies the locate request was requested.
- If multiple excavators for KM are working at the same site, each will have a separate one-call reference.
- When practical the KM excavator will request a meeting with the other facility locator(s) at the job site prior to the actual marking of facility locations.
- An excavation procedure, plan or job scope must be reviewed and approved by the local Damage Prevention Supervisor, Operations Supervisor or Operations Manager, prior to the excavation. The approval will be documented in the electronic one-call system.
- Soft digging (hydrovac or other) may be required, to expose KM facilities, if deemed necessary during excavation review and planning.
- Depending on the complexity of the job, different types of documentation may be used for the excavation plan. Some examples include: Form OM200-31, The Project Management Excavation Procedure for New Construction, The Project Management Excavation Procedure for Existing Facilities, facility drawings, red lined drawings, or other documents.
- Coordinate work that requires temporary or permanent interruption of a facility's service with the affected facility owner/operator.
- Re-call the one-call center if the facility owner/operator fails to respond to the KM request for a locate (within the timeframe established by the state one-call law).
- Verify that the excavation site is at the correct location as described on the one-

call ticket.

- Verify the locate markings and check for unmarked facilities by conducting an electronic and visual sweep of the site. Perform an “electronic sweep” of the white lined area by using a KM approved locator, set to inductive mode. Visually check for such things as signs, markings, and trenches that might indicate underground utilities are present.
- The excavator should review the location of underground facilities with the facility operator prior to excavation.
- The KM Representative on site should have access to the names and phone numbers of all facility owner/operators contacts and the one-call center.
- Reasonable care will be used to avoid damaging underground facilities. The excavation should be planned to avoid damage and or minimize interference with the underground facilities in or near the work area.
- Protect and preserve the staking, marking or other designations for underground facilities until no longer required for proper and safe excavation. If any facility mark is removed or no longer visible, excavation is to be stopped and the facility owner or one-call center is notified to request a re-mark.

-
- An observer is required to assist the equipment operator when operating excavation equipment around known underground facilities.
 - Mechanical excavation is not allowed within the tolerance zone of the underground facility unless otherwise allowed by this procedure.
 - The facility owner/operator is to be contacted, either directly or through the one-call center if an underground facility is not found where one has been marked or if an unmarked underground facility is found. Following this notification work can be continued, unless otherwise in state law, if the work can be performed without damaging the facility.
 - Exposed pipeline facilities will be supported and protected from damage.
 - The one-call center will be called to refresh the ticket if it is expected that the excavation will continue past the life of the ticket.
 - If an underground facility is damaged or is discovered to be damaged, the owner/operator of the damaged facility will be notified either directly or via the one-call center (unless otherwise specified by state law). All breaks, leaks, nicks, dents, gouges, grooves, or other damages to facility lines conduits, coatings or cathodic protection will be reported.
 - If the damage results in the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health, or property 911 and the facility owner/operator is to be notified immediately. Reasonable measures will be taken to protect those in immediate danger (employees, contractors, public), property and the environment until the facility owner/operator or emergency responders have arrived and completed their assessment.

- In the case of an emergency excavation of a KM pipeline, maintenance or repairs may be made immediately provided the one-call center and impacted facility owner/operators are notified as soon as reasonably possible. This includes situations that involve danger to life, health or property.
- Protect all facilities from damage when backfilling an excavation. Trash, debris or other material that could damage existing facilities or interfere with the accuracy of future locates is not to be buried in the excavation.
- For trenchless excavations (boring, etc.) the KM excavator will adhere to all best practices stated in this section.
- All applicable federal and state safety regulations, which include training as it relates to the protection of underground facilities, will be adhered to.
- High Consequence Areas: An excavation in an HCA shall be evaluated for the potential of stress corrosion cracking (SCC) by reviewing the existing conditions with the SCC criteria (refer to [O&M Procedure 917 – Stress Control Cracking](#))

When a KM pipeline is exposed [O&M Form OM200-02 – Pipeline Examination Report](#) must be completed by a qualified KM Representative.

3.8. Excavating Pressurized Lines

Tolerance Zone – The tolerance zone is a buffer area around the circumference of the pipeline. State law and Company operating procedures determine what types of digging may be done within the tolerance zone. The minimum tolerance zone to be observed is 18-inches or state law whichever is more stringent. Refer to [Table 1 – Tolerance Zones by State](#).

State	Tolerance Zone
Alabama	18"
Arizona	24"
Arkansas	18"
California	24"
Colorado	18"
Connecticut	18"
Florida	24"
Georgia	24"
Illinois	18"
Indiana	24"
Iowa	18"
Kansas	24"
Kentucky	18"
Louisiana	18"
Massachusetts	18"
Mississippi	18"
Missouri	24"
Montana	18"
Nebraska	18"
Nevada	30"
New Hampshire	18"
New Jersey	18"
New Mexico	18"
New York	24"
Ohio	18"
Oklahoma	24"
Oregon	24"
Pennsylvania	18"
Rhode Island	18"
South Carolina	30"
Tennessee	24"
Texas	18" + 1/2 Pipe O.D. **
Utah	24"
West Virginia	24"
Wyoming	24"

Table 1 – Tolerance Zones by State

** In Texas, the qualified onsite KM representative may approve for the excavator to dig up to the 18" tolerance zone (for KM facilities only).

Before excavation by powered equipment, the line must be located with a water probe, probe rod, vacuum truck or exposed by hand or other soft digging methods. Probing shall be done during excavation across the entire ditch. Probe bars shall be used to verify depth and to size the line. Locate the top of pipe and both sides at the point the line is being crossed. When excavating, power equipment shall not dig within the tolerance zone of the pipeline and Probing shall be done during excavation. Pipeline shall be exposed by hand digging, hydrovac, or other soft digging methods only at this point. Be aware of possible side taps and or top taps that have been abandoned or are not reflected on alignments; for known taps additional hand digging may be required.

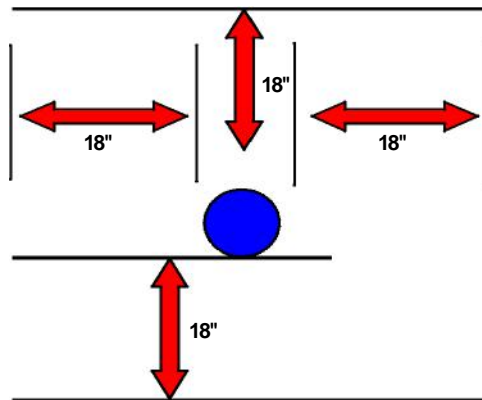


Figure 1 – Minimum Tolerance Zone

If a probe rod must be used, inspecting the coating in the excavated area is required and any damaged areas must be repaired before backfilling. **DO NOT** locate pressurized lines using power equipment.

Power equipment excavation should be done with the equipment positioned parallel to the pipeline unless ROW congestion prevents adequately positioning excavating equipment. Digging across the line with power equipment positioned above the line should be avoided wherever possible.

Care should be used when removing rock adjacent to the pipeline. With any type of rock breaker, the force of the tool should always be directed away from the pipeline. Rock breakers can move in unexpected directions when rock is broken. Use a protective barrier (e.g., wood, rubber) placed between the tool and pipe during this operation. Ensure that the protective barrier is adequate to protect the pipeline integrity should any inadvertent deflection of the tool occur.

If circumstances warrant it a hand held jack hammer or air shovel may be used within the tolerance zone as long as all of the other conditions of this part are met and:

- The tool operator should also exercise caution to avoid placing their body, arms, hands, etc. between the tool and the pipeline in order to avoid “pinch points” if the tool is deflected.
- The pipeline pressure will be reduced as low as operationally acceptable by the system Gas Control
- The excavation meets OSHA requirements with emphasis on the following;
 - Adequate unrestricted work space is provided to allow proper handling and manipulation of the jack hammer, air shovel and other tools
 - An excavation exit plan is available.
 - All other personal protective equipment required for this type of work; gloves, face shield, long sleeves, hard hats, steel-toed shoes, etc. will be utilized.

High Consequence Areas: An excavation in an HCA shall be evaluated for the potential of stress corrosion cracking (SCC) by reviewing the existing conditions with the SCC criteria (refer to [O&M](#)

With Operations Director approval; mechanical excavation can occur within the modified tolerance zone of a depressurized pipeline as follows:

[Procedure 917 – Stress Corrosion Cracking\).](#)

3.8.1. Excavating Depressurized Lines

If the portion of the depressurized line being excavated is going to be removed or replaced, excavation may occur as close as necessary to the pipeline. (this is for pipe that will be abandoned or scrapped, not reused and will be completely depressurized before excavation). Any contact with the

depressurized line that will be abandoned or scrapped is not considered a Line Hit, and does not necessitate following incident

reporting requirements (i.e. issuing of an ERL, reporting to STARS, etc.)

Excavation of depressurized lines shall otherwise comply with all other parts of this procedure.

3.9. Horizontal Distance

When new facility construction parallels the Company's transmission or gathering pipelines, horizontal clearances shall be as defined in [Table 2 – Horizontal Distance from Company Facilities](#) or shall be the extent of the ROW, whichever is less. Establish any horizontal clearance less than that specified in the table by agreement between the Company and the underground facility's owner. Discuss horizontal clearances requested within fee owned property with the [Land and Right-of-Way Department](#).

Third Party Facility	Horizontal Distance from Company Facilities
Buried pipelines	At least 10-feet
Buried telephone cable	At least 10-feet
Overhead telephone cable	At least 25-feet
Buried electric cables 440 VAC or less	At least 10-feet
Buried electric cables 440 VAC to 37.5 KVAC	At least 25-feet
Overhead electric lines 37.5 KVAC or less	At least 25-feet
Buried or overhead electric lines – facilities over 37.5 KV, AC or DC electric cable	Only by agreement between the utility and the Company's Project Manager or designee

Table 2 - Horizontal Distance from Company Facilities 3.10. Vertical Facility Clearance

Follow recommended minimum vertical clearances as shown in [Table 3 – Vertical Clearance from Company Facilities](#) when repairing, installing or constructing pipelines or cables across a Company transmission or gathering pipeline. Maintain underground utility depth to obtain these clearances across the entire easement. The Company must approve any deviation from vertical clearance requirements.

Third Party Facility	Vertical Clearance from Company Facility
New construction	When installing underground utilities, the last line should be placed beneath all existing lines unless it is impossible or unreasonable to do so.
Buried steel pipelines	At least a 24-inch vertical earth separation from a Company pipeline
Buried non-steel pipelines	At least a 24-inch vertical earth separation from a Company pipeline. At least a 24-inch vertical earth separation from a Company pipeline 12-inches or greater in diameter. Install flagging tape above the Company pipeline, approximately 3-feet on each side and directly over the cable or utility line for a distance of at least 15-feet.
Buried telephone and electric cables – 440 VAC or less	At least a 24-inch vertical earth separation from a Company pipeline. The cable must have a nonconductive outer sheath extending at least 10-feet each direction from the Company pipeline. Install flagging tape above the Company pipeline, approximately 3-feet on each side and directly over the cable or utility line for a distance of at least 15-feet.
Fiber optic cables	Efforts should be made to install all fiber optic cable crossings at least 3-feet below Company pipelines. Installing a concrete barrier is recommended but may not be practical when the cable is a direct bore. In that case, the clearance and markings become

	more critical.
Buried electric cables 440 VAC to 37.5 KVAC	At least a 24-inch vertical earth separation from a Company pipeline. The cable shall have a nonconductive outer sheath extending at least 10-feet each direction from the Company pipeline. Install flagging tape above the Company pipeline, approximately 3-feet on each side and directly over the cable or utility line for a distance of at least 15-feet.
Facilities over 37.5 KV	Vertical separation of an electric cable or line operating at more than 37.5 Kilovolts A.C. or D.C. will be established by agreement between the utility involved and the Company Project Manager or designee.

Table 3 - Vertical Clearance from Company Facility 3.11. Engineering Assessment

When an encroachment with the potential to impact a Company facility is identified, an assessment and determination of the impact shall be required. Company representatives will notify the **Project** Manager or designee, who can include local [Land and Right-of-Way Department](#), or division corrosion supervisor, to review information and respond to the third party. Upon notification of an encroachment by a third party, gather pertinent facts, including:

- The exact location, scope, description and schedule of the proposed third party activity
- The exact location and description of the Company facility(s)
- Identify encroaching entity and record contact information.
- Identify local Operations contact.
 - Determine which pipeline(s) or other Company facilities are impacted. Record location and rechain station from inventory sheet, PODS database or Geofusion database.
 - Gather critical pipeline data such as pipe specifications, MAOP, class location, depth and coating type. Depending on the coating type, it may be necessary to take a coating sample and test for asbestos. Refer to [O&M Procedure 1211 – Asbestos](#).
 - Contact designated Land Department representative for ROW information.
 - Fee property or easement, (i.e. year established) (contact the [Land and Right-of-Way Department](#))
 - ROW width, (i.e. special conditions) (contact the [Land and Right-of-Way Department](#))
 - Determine scope of third party project and scope of Company mitigation work.
 - Determine project scheduling.
 - Review Corrosion records prior to approval of a parking lot or other paved/cemented area, to determine if any recoating or other maintenance work is needed.

The Engineering Assessment required by this section must include analysis of the impact of abnormal loads or stresses on the pipeline.

- The pipe must be protected from hazards that may cause the pipe to sustain abnormal loads.
 - Pipe must be of sufficient thickness or adequate protection must be provided to withstand anticipated external pressure and loads.
 - Adequate protection must be provided to prevent damage that might result from the proximity of structures that are within 24-inches of the pipeline.

After conducting the Engineering Assessment, the Project Manager or designee may approve permanent structures to be built with clearance from the pipeline of less than 24-inches but no closer than 12-inches. Variance from the requirements of this procedure for clearance of structures of less than 12-inches must be obtained through [O&M Procedure 001 – Standards Modification](#).

3.12. Heavy Equipment/Vehicle Crossings, Roadways and Parking Lots

Roads, construction equipment crossings and parking lots over steel pipelines shall be evaluated using the Company's stress calculation program, "[PLStress](#)" or other Company approved method for calculating stress for uncased pipelines by Project Manager or designee to determine the total stress on the pipeline. If the total stress exceeds recommended limits, a permanent protective

structure should be considered. For pipelines constructed of material other than steel, contact the Project Manager or designee.

The following information will be required for the stress analysis. This information should then be provided to the Project Manager or designee and used as inputs into the stress calculation for heavy loads crossing uncased pipelines.

- Loaded vehicle axle load (single, tandem) ○ Heaviest construction equipment evaluated at the bottom of the sub-base
- Street legal vehicles such as concrete truck, trash truck, commercial vehicles evaluated at the top of the finished structure
 - Equipment make and model
 - Caterpillar equivalent make and model, if available
 - Depth of cover over pipeline
 - Soil Characteristics
 - Roadway or parking lot material (asphalt, concrete, dirt, gravel, etc).

3.13. Directional Drilling

A Company representative must follow the procedures outlined in this section when a third party, contractor, etc. will perform directional drilling operations parallel to and/or within the minimum specified clearance of the Company's pipeline facilities.

The Company representative can ask a contractor to stop drilling if the operation is deemed unsafe or there is a concern that damage to the pipeline facilities may occur. A contractor is responsible for any damage to the pipeline facilities incurred because of the drilling.

Before starting a job, the contractor will:

- Notify One-Call for a utility locate request
- Contact the Company and advise of the proposed drilling route, expected clearance between the drilling tool and pipeline facilities and construction schedule
- Demonstrate that the boring tool can be accurately positioned
 - The Company representative will periodically measure clearance when practical between the boring tool and pipeline facilities and if necessary, require a viewing window to help determine that the tool will miss the pipeline. A third party's facility must maintain the vertical and horizontal clearances described in [Table 2 – Horizontal Distance from Company Facilities](#) and [Table 3 – Vertical Clearance from Company Facilities](#).

Upon completion of the directional drill, the Company representative will:

- Conduct a leakage survey along the length of the directional drilled path
 - Refer to [O&M Procedure 215 – Patrolling and Leak Detection](#) for leakage survey documentation.

Field personnel will complete applicable OM Buried Facility Reports and develop as-built Company drawings and send to Engineering Mapping/CADD in Lakewood. Drawings should indicate the third party's name, location of its utility line and the measured horizontal and vertical separation

between the third party's and Company's facilities.

3.14. Land Leveling or Improvement – Company Notified

When advance notice of proposed land leveling or improvement is received, field personnel will notify the [Land and Right-of-Way Department](#). Submit requests to reduce pipeline cover or construction over the pipeline to the Project Manager or designee for review.

- Upon notification, determine to what extent the Company pipeline may be affected.
 - Evaluate alternatives for sloping the land or making improvements to avoid relocating Company pipeline or removing soil over a buried line. If possible, the landowner should achieve desired results without jeopardizing or disturbing the Company pipeline.

-
- Conduct a cover survey, profile and mark the pipeline's location.

If the leveling or improvement cannot be accomplished without relocating or modifying the Company pipeline, gather pertinent facts, including:

- The exact location and description of the proposed leveling or improvement
- A description of the required modification to Company pipeline facilities
- Possible alternatives to avoid disturbing Company pipeline
- The **Project** Manager or designee will review the information and determine required modifications.

The Project Manager or designee will provide modification details and costs and will advise what agreements are necessary between the Company and landowner. The [Land and Right-of-Way Department](#) will then contact the landowners and notify them of the portion of the cost for which they are responsible before beginning the project.

3.15. Blasting and Seismographic Activity

Provide the Project Manager or designee the following information when blasting is anticipated:

- Configuration of explosive charges (point, line or grid)
- Number of charges, spacing between charges, types of charges and weights
- Distance between pipeline and nearest charge for each pipeline
 - Angle between pipeline and explosive line or grid (if grid, number of rows and charges per row)
- Pipe description of each pipeline
- Alternatives to blasting that were considered

The Project Manager or designee will prescribe proper blasting procedures and minimum distances to avoid pipeline damage for all blasting within 300-feet of the pipeline. Standoff distances of 100-feet for line or grid configurations containing a total charge weight of greater than 100 pounds are required.

If the Project Manager or designee believes blasting could damage a facility, field personnel must perform leakage surveys per [O&M Procedure 215 – Patrolling and Leak Detection](#), as often as necessary during and after blasting to verify the pipeline's integrity

3.16. Buildings near Pipelines

It is recommended that buildings be a minimum of 25-feet or greater (if required by local ordinances) from any gathering or transmission pipeline or off the pipeline easement, whichever distance is greater. Contact the [Land and Right-of-Way Department](#) to determine the Company's rights.

4. Training

Division management will ensure that individuals involved in tasks required in this procedure are trained in operating locating instruments, appropriate documentation and all other provisions of this procedure.

Persons performing locating functions must meet the requirements of the Company Operator Qualification program. This will be confirmed yearly in the [I&M Program, Procedure I-0266.00](#).

Personnel should review this information as necessary before performing the procedure.

In order to ensure that responses made by a Company representative to an excavation notification is

handled correctly, and that line locating procedures are properly followed, the local supervisor, manager, or director, shall periodically, but at least once each calendar year, accompany the Company Representatives assigned to line locate duties to assess work demands, quality of line marking, and coordination of excavations along the ROW. The yearly reviews will be documented on [O&M Form OM200-34 – Line Locator Review and Report](#). This will be confirmed yearly in the [I&M Program, Procedure I-0266.01](#).

5. Documentation

5.1. Company Report Forms

With the exception of distribution systems, report all foreign crossings, foreign structure retirements and inspection activities on [O&M Form OM200-01 – Foreign Structures Report](#) or the state’s One-Call form. Report the condition of existing underground pipeline [O&M Form OM200-02 – Pipeline Examination Report](#). Report any pipeline damage or any near-miss from third party activities into the Company incident-tracking database as soon as possible.

Report metallic foreign structure crossings on [O&M Form OM200-03 – Underground Structure Crossing Report](#). Use [O&M Form OM200-31 – Line Locate Inspection Report](#) to document on-site communications with contractors or other third parties. Report any pipeline damage or near-miss into the Company incident-tracking database as soon as possible.

Document the annual One-Call pipeline asset review using [I&M Procedure I-0265.00 – Maintaining Pipelines in One-Call System](#).

5.2. Response to Third Party

KM Right-of-Way Department may send a response letter to the third party outlining what impact the encroachment has to our pipeline(s), request additional information, if needed, identify any special requirements and relay our expectations for reimbursement (if adjustment is required).

The Company’s [O&M Form OM200-29 – Guidelines for Design and Construction near Kinder Morgan Operated Facilities](#) should be included, in their entirety, in the response letter.

All correspondence should be sent to the appropriate Operations and Land and Right-of-Way Department / Land and Right-of-Way representative for review/comment prior to sending to the encroaching entity. Consideration should be given as to whether any response should be recorded as a legal document along with the existing easement.

5.3. Photographs

- Photographs shall be taken in sufficient detail to demonstrate the adequacy of marking within the area of proposed excavation.

- Photographs should be re-taken should any changes be made to the markings.

- Photographs shall be readily associated with the One-Call ticket by the use of white boards/cards (or other approved methods) and file name nomenclature. White boards/cards at a minimum should include:

- One-Call Ticket Number
- Location (Lat/Lon or address)
- Compass Bearing
- Time and Date of the Photograph
- Name of Photographer

- Photographs shall be stored in the electronic One-Call system, unless technical difficulties such as bandwidth or download speed creates a problem. The Manager must approve of not storing the photographs in the electronic One-Call system.

- When technical difficulties prevent the storing of the photographs in the electronic One-Call system, the photographs shall be attached to a hard copy of the completed One-Call ticket and maintained in local files where they will be readily identifiable to the location.

- Photographs shall be retained in accordance with applicable state laws for One-Call documentation.

5.4. All Documentation

In the event of litigation, unresolved situations, or as instructed by management, affirmative steps must be taken to preserve all records (whether in electronic or written form) until such time as otherwise directed by a representative of Company's legal department.

6. References

- 49 CFR 192.614 (c)(3), (4) and (6)(ii), 192.929(b)1, 192.935(d)2; 192.935(b)1ii
- Iowa Chapter 479, Section 479A.26
- Common Ground Alliance Best Practices, Section 4
- [O&M Procedure 120 – Personal Protective Equipment](#)
- [O&M Procedure 159 – Emergency Reporting and Investigation](#)
- [O&M Procedure 205 – Pipeline Markers and Cover](#)
- [O&M Procedure 206 – Land and Right-Of-Way](#)
- [O&M Procedure 214 – Reporting Pipeline Safety-Related Conditions](#)
- [O&M Procedure 215 – Patrolling and Leak Detection](#)
- [O&M Procedure 232 – Damage Prevention and Public Awareness](#)
- [O&M Procedure 237 – Dresser-Coupled Pipelines](#)
- [O&M Procedure 903 – External Corrosion Control for Buried or Submerged Pipelines](#)
- [O&M Procedure 917 – Stress Corrosion Cracking](#)
 - [O&M Procedure 1700 – Inspection & Maintenance, I-0265.00 – Maintain Pipelines in One-Call System](#)
 - [O&M Form OM200-01 – Foreign Structures Report](#)
 - [O&M Form OM200-02 – Pipeline Examination Report](#)
 - [O&M Form OM200-03 – Underground Structure Crossing Report](#)
 - [O&M Form OM200-29 – Guidelines for Design and Construction near Kinder Morgan Operated Facilities](#)
 - [O&M Form OM200-31 – Line Locate Inspection Report](#)
 - [O&M Form OM200-34 – Line Locator Review and Report](#)
 - [I&M Procedure I-0266.00 - Operator Qualification Review for Line Locating Personnel](#)
 - [I&M Procedure I-0266.01 - Line Locator Personnel Assessment](#)
 - [Construction Drawing CST-P-1000-A305 – Typical Undercrossing of Tile Drainlines](#)
 - [Construction Drawing CST-P-1000-A325 – Crossing Foreign Pipelines](#)
 - [STARS](#)

- [Pipeline Integrity Management Program](#)
- [PLStress](#) Pipeline Stress Calculation

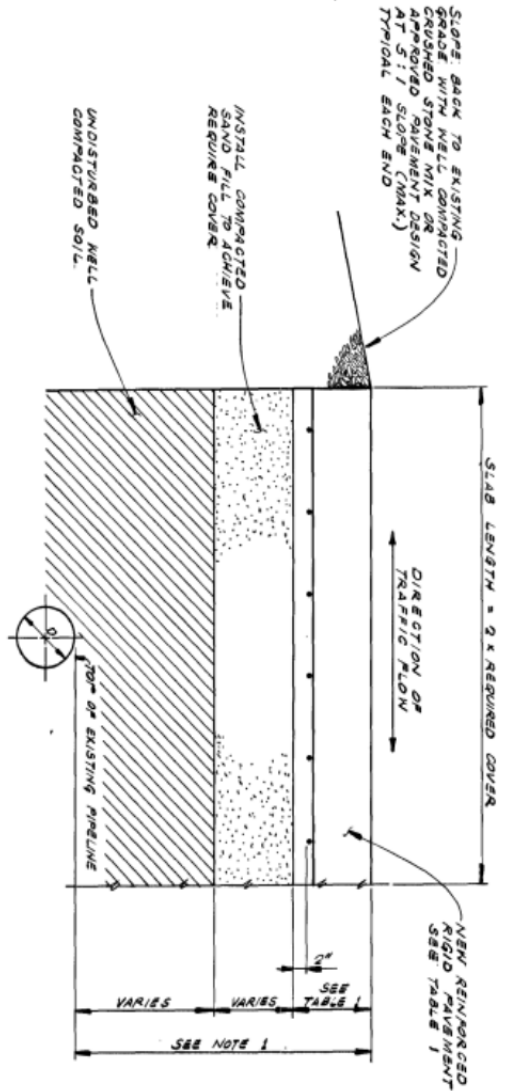
Attachment 1 – One-Call Center and Emergency Phone Numbers

National One Call Number - 811

<u>State</u>	<u>One-Call Center</u>	<u>Telephone Number</u>
Alabama	Alabama One-Call	800-292-8525
Arizona	Arizona Blue Stake, Inc	800-782-5348
Arkansas	Arkansas One-Call System, Inc.	800-482-8998
California	Dig Alert	800-227-2600
Colorado	Utility Notification Center of Colorado	800-922-1987
Connecticut	Call Before You Dig (CBYD)	800-922-4455
Florida	Sunshine 811	800-432-4770
Georgia	Georgia 811	800-282-7411
Illinois	JULIE, Inc.	800-892-0123
Indiana	Indiana Underground Plant Protection Service	800-382-5544
Iowa	Underground Plant Location Service, Inc.	800-292-8989
Kansas	Kansas One-Call System, Inc.	800-344-7233
Kentucky	Kentucky 811	800-752-6007
Louisiana	DOTTIE – Louisiana One-Call System, Inc.	800-272-3020
Massachusetts	811 Dig Safe	888-344-7233
Mississippi	Mississippi One-Call	800-227-6477
Missouri	Missouri One-Call System, Inc.	800-344-7483
Montana	Montana One-Call	800-551-8344
Nebraska	Utilities Underground Locating Center	800-424-5555
Nevada	Diggers Hotline of Nebraska	800-331-5666
Nevada	USA North	800-227-2600
New Hampshire	811 Dig Safe	888-344-7233
New Jersey	New Jersey One-Call	800-272-1000
New Mexico	New Mexico One-Call System, Inc.	800-321-2537
New York (North of 5 Boroughs)	Dig Safely New York	800-962-7962
New York (5 Boroughs & Long Island)	Dig Safely New York	800-272-4480
Ohio	Ohio Utilities Protection Service	800-362-2764
Oklahoma	Oklahoma One-Call System, Inc.	800-522-6543
Oregon	Oregon Utility Notification Center	800-332-2344
Pennsylvania	Pennsylvania 811	800-242-1776
Rhode Island	811 Dig Safe	888-344-7233
South Carolina	South Carolina 811	888-721-7877
Tennessee	Tennessee 811	800-351-1111
Texas	TESS - Texas Excavation Safety System, Inc.	800-344-8377
Texas	Lone Star Notification Center	800-669-8344
Utah	Blue Stakes of Utah	800-662-4111
West Virginia	West Virginia 811	800-245-4848
Wyoming	One-Call of Wyoming	800-849-2476
National	Call 811	811

Company Emergency Control Center Numbers

Entity	Telephone Number
Altamont Gas Plant and Gathering	800-568-7512
Camino Real – Natural Gas	800-568-7512
Camino Real – Products	800-265-6000
Cheyenne Plains Gas Pipeline Company (CP)	877-712-2288
Colorado Interstate Gas (CIG)	877-712-2288
El Paso Natural Gas (EPNG)	800-334-8047
KinderHawk Field Services LLC (KH)	866-775-5784
Kinder Morgan Louisiana Pipeline, LLC (KMLP)	800-733-2490
Kinder Morgan North Texas Pipeline (KMNTTP)	800-633-0184
Kinder Morgan Tejas Pipeline, LLC (TEJAS)	800-568-7512
Kinder Morgan Texas Pipeline, LLC (KMTP)	800-633-0184
Kinder Morgan Treating (Treating)	800-633-0184
Midcontinent Express Pipeline, LLC (MEP)	800-733-2490
Mojave Pipeline (MPC)	800-334-8047
Natural Gas Pipeline Company of America LLC (NGPL)	800-733-2490
Ruby Pipeline (RUBY)	877-712-2288
Southern Natural Gas (SNG)	800-252-5960
Tennessee Gas Pipeline (TGP)	800-231-2800
TransColorado Gas Transmission (TC)	800-944-4817
Wyoming Interstate (WIC)	877-712-2288



NOTES:

1. DEPTH OF REQUIRED COVER TO BE DETERMINED BY PIPELINE DESIGN DEPARTMENT FOR SPECIFIC CONDITIONS AT EACH CROSSING. ANY REQUIRED SAND FILL SHALL BE MECHANICALLY COMPACTED TO 95% PROCTOR OF ADJACENT UNDISTURBED SOIL.
2. REMOVE EXISTING TOP SOIL TO A MINIMUM DEPTH OF 1.5" BELOW GRADE.
3. SLAB WIDTH SHALL BE DETERMINED BY N.G.R.L. FIELD REPRESENTATIVE.
4. SLAB LENGTH SHALL BE A MINIMUM OF TWO TIMES THE REQUIRED COVER OR 4'-0" WHICHEVER IS GREATER, AS DETERMINED BY SPECIFIC CONDITIONS (SEE NOTE 1).
5. SLAB THICKNESS AND REINFORCEMENT REQUIREMENTS SHALL BE DETERMINED BY VEHICLE WEIGHT (SEE TABLE 1).
6. FOR HEAVY EQUIPMENT CROSSINGS OF NEW PIPELINES OR RECENTLY EXCAVATED PIPE-LINES, CONSULT ENGINEERING SERVICES.
7. CONCRETE SHALL REACH A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.

TABLE 1

VEHICLE WEIGHT (LOADED) LBS.	SLAB AND REINFORCEMENT DESCRIPTION
UP TO 100,000	1/2" THICK SLAB WITH 4 #8 REBARS AT 8" ON CENTER EACH WAY
101,000 TO 200,000	1.5" THICK SLAB WITH 4 #7 REBARS AT 8" ON CENTER EACH WAY
201,000 TO 300,000	1.5" THICK SLAB WITH 4 #8 REBARS AT 10" ON CENTER EACH WAY

NO. 1	DATE	BY	REVISIONS	DATE	BY	REVISIONS	DATE	BY	REVISIONS
1	1/11/20	J.M.	ADDED NOTE #7	1/11/20	J.M.	ADDED NOTE #7	1/11/20	J.M.	ADDED NOTE #7
0	1/11/20	J.M.	ISSUED FOR N.G.P.L. SYSTEM WORK USE	1/11/20	J.M.	ISSUED FOR N.G.P.L. SYSTEM WORK USE	1/11/20	J.M.	ISSUED FOR N.G.P.L. SYSTEM WORK USE

NATURAL GAS PIPELINE COMPANY OF AMERICA A MIDCON CORP. COMPANY LOMBARD, ILLINOIS	PROTECTIVE SLAB FOR HEAVY EQUIPMENT CROSSING (EXISTING PIPELINES ONLY) STANDARD DRAWING	DATE: 1/11/20 SCALE: 1/4" = 1'-0" FILE NO.: DATE 5-6-20
PRELIMINARY APPROVED FOR CONSTRUCTION	APPROVED FOR CONSTRUCTION	DATE: 1/11/20 BY: J.M.

COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE)

Effective: April 1, 2012

Revised: April 1, 2013

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

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

Revise the first sentence of the first paragraph of Article 1004.02(f) of the Standard Specifications to read:

“(f) Freeze-Thaw Rating. When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement (including precast), driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch, concrete superstructures on subgrade such as bridge approach slabs (excluding precast), concrete structures on subgrade such as bridge approach footings, or their repair using concrete, the gradation permitted will be determined from the results of the Department’s Freeze-Thaw Test (Illinois Modified AASHTO T 161).”

CONCRETE END SECTIONS FOR PIPE CULVERTS (BDE)

Effective: January 1, 2013

Description. This work shall consist of constructing cast-in-place concrete and precast concrete end sections for pipe culverts. These end sections are shown on the plans as Highway Standard 542001, 542006, 542011, or 542016. This work shall be according to Section 542 of the Standard Specifications except as modified herein.

Materials. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

Item	Article/Section
(a) Portland Cement Concrete (Note 1)	1020
(b) Precast Concrete End Sections (Note 2)	
(c) Coarse Aggregate (Note 3)	1004.05
(d) Structural Steel (Note 4)	1006.04
(e) Anchor Bolts and Rods (Note 5)	1006.09
(f) Reinforcement Bars	1006.10(a)
(g) Nonshrink Grout	1024.02
(h) Chemical Adhesive Resin System	1027
(i) Mastic Joint Sealer for Pipe	1055
(j) Hand Hole Plugs	1042.16

Note 1. Cast-in-place concrete end sections shall be Class SI, except the 14 day mix design shall have a compressive strength of 5000 psi (34,500 kPa) or a flexural strength of (800 psi) 5500 kPa and a minimum cement factor of 6.65 cwt/cu yd (395 kg/cu m).

Note 2. Precast concrete end sections shall be according to Articles 1042.02 and 1042.03(b)(c)(d)(e) of the Standard Specifications. The concrete shall be Class PC according to Section 1020, and shall have a minimum compressive strength of 5000 psi (34,000 kPa) at 28 days.

Joints between precast sections shall be produced with reinforced tongue and groove ends according to the requirements of ASTM C 1577.

Note 3. The granular bedding placed below a precast concrete end section shall be gradation CA 6, CA 9, CA 10, CA 12, CA 17, CA 18, or CA 19.

Note 4. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Note 5. The anchor rods for the culvert ties shall be according to the requirements of ASTM F 1554, Grade 105 (Grade 725).

CONSTRUCTION REQUIREMENTS

The concrete end sections may be precast or cast-in-place construction. Toe walls shall be either precast or cast-in-place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 of the Standard Specifications prior to the installation of the concrete end sections. If soil conditions permit, cast-in-place toe walls may be poured directly against the soil. When poured directly against the soil, the clear cover of the sides and bottom of the toe wall shall be increased to 3 in. (75 mm) by increasing the thickness of the toe wall.

- (a) Cast-In-Place Concrete End Sections. Cast-in-place concrete end sections shall be constructed according to the requirements of Section 503 of the Standard Specifications and as shown on the plans.
- (b) Precast Concrete End Sections. When the concrete end sections will be precast, shop drawings detailing the slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval.

The excavation and backfilling for precast concrete end sections shall be according to the requirements of Section 502 of the Standard Specifications, except a layer of granular bedding at least 6 in. (150 mm) in thickness shall be placed below the elevation of the bottom of the end section. The granular bedding shall extend a minimum of 2 ft (600 mm) beyond each side of the end section.

Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

Method of Measurement. This work will be measured for payment as each, with each end of each culvert being one each.

Basis of Payment. This work will be paid for at the contract unit price per each for CONCRETE END SECTION, STANDARD 542001; CONCRETE END SECTION, STANDARD 542006; CONCRETE END SECTION, 542011; or CONCRETE END SECTION, 542016, of the pipe diameter and slope specified.

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

Effective: April 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

“(i) Polyurethane Joint Sealant 1050.04”

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

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

Add the following to Section 1050 of the Standard Specifications:

“1050.04 Polyurethane Joint Sealant. The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25, Use T, according to ASTM C 920.”

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: January 1, 2014

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/cleandiesel/verification/verif-list.htm>), or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verdev/vt/cvt.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 shut down 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.

CONTRACT CLAIMS (BDE)

Effective: April 1, 2014

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

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

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

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

Level I Engineer of Construction
Level II Chief Engineer/Director of Highways or Designee

- (1) Level I. All claims shall first be submitted at Level I. Two copies each of the claim and supporting documentation shall be submitted simultaneously to the District and the Engineer of Construction. The Engineer of Construction, in consultation with the District, will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt by the Engineer of Construction. Claims not conforming to this Article will be returned without consideration. The Engineer of Construction may schedule a claim presentation meeting if in the Engineer of Construction's judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level I decision is not rendered within 90 days of receipt of the claim, or if the Contractor disputes the decision, an appeal to Level II may be made by the Contractor.

- (2) Level II. An appeal to Level II shall be made in writing to the Engineer of Construction within 45 days after the date of the Level I decision. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level II final decision will be rendered within 90 days of receipt of the written request for appeal.

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

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: 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 **23.00%** 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.

GRANULAR MATERIALS (BDE)

Effective: November 1, 2012

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

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

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

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

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

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

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

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

LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013

Revise Article 550.02 of the Standard Specifications to read as follows:

“Item	Article Section
(a) Clay Sewer Pipe	1040.02
(b) Extra Strength Clay Pipe	1040.02
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe	1040.03
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	1040.07
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(k) Mastic Joint Sealer for Pipe	1055
(l) External Sealing Band	1057
(m) Fine Aggregate (Note 2)	1003.04
(n) Coarse Aggregate (Note 3)	1004.05
(o) Reinforcement Bars and Welded Wire Fabric	1006.10
(p) Handling Hole Plugs	1042.16
(q) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04

Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.

Note 2. The fine aggregate shall be moist.

Note 3. The coarse aggregate shall be wet.”

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	Materials
A	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
B	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with a Smooth Interior"

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 3' and less With 1' minimum cover								Fill Height: Greater than 3' not exceeding 10'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
12	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
15	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
18	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
21	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
24	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
27	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
30	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
33	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	NA	X
42	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
48	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
54	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
60	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
66	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
72	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
78	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
84	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
90	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
96	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
102	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
108	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm drain, and Culvert Pipe
- PVC Polyvinyl Chloride Pipe
- CPVC Corrugated Polyvinyl Chloride Pipe
- ESCP Extra Strength Clay Pipe
- PE Polyethylene Pipe with a Smooth Interior
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene pipe with a Smooth Interior
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use Standard Strength Clay Pipe

STORM SEWERS (Metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 1 m' and less With 300 mm minimum cover								Fill Height: Greater than 1 m not exceeding 3 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
250	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
300	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
375	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
450	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
525	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
600	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
675	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
750	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
825	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	NA	X
1050	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
1200	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
1350	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
1650	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2700	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm drain, and Culvert Pipe
- PVC Polyvinyl Chloride Pipe
- CPVC Corrugated Polyvinyl Chloride Pipe
- ESCP Extra Strength Clay Pipe
- PE Polyethylene Pipe with a Smooth Interior
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene pipe with a Smooth Interior
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use Standard Strength Clay Pipe

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE															
Nominal Diameter in.	Type 3								Type 4						
	Fill Height: Greater than 10' not exceeding 15'								Fill Height: Greater than 15' not exceeding 20'						
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
10	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA
12	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
15	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
18	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
21	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
24	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
27	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
30	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
42	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
48	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
60	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA
102	IV	NA	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA
108	1360	NA	NA	NA	NA	NA	NA	NA	1710	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene pipe with a Smooth Interior

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE															
Nominal Diameter in.	Type 3								Type 4						
	Fill Height: Greater than 3 m not exceeding 4.5 m								Fill Height: Greater than 4.5 m not exceeding 6 m						
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
250	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA
300	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
375	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
450	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
525	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
600	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
675	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
750	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
825	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
1050	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
1200	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
1350	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1500	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2550	IV	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2700	70	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene pipe with a Smooth Interior

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE								
Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
10	NA	X	X	NA	X	X	NA	X
12	IV	X	X	V	X	X	V	X
15	IV	X	X	V	X	X	V	X
18	IV	X	X	V	X	X	V	X
21	IV	X	X	V	X	X	V	X
24	IV	X	X	V	X	X	V	X
27	IV	NA	NA	V	NA	NA	V	NA
30	IV	X	X	V	X	X	V	X
33	IV	NA	NA	V	NA	NA	V	NA
36	IV	X	X	V	X	X	V	X
42	IV	X	NA	V	X	NA	V	NA
48	IV	X	NA	V	X	NA	V	NA
54	IV	NA	NA	V	NA	NA	V	NA
60	IV	NA	NA	V	NA	NA	V	NA
66	IV	NA	NA	V	NA	NA	V	NA
72	V	NA	NA	V	NA	NA	V	NA
78	2020	NA	NA	2370	NA	NA	2730	NA
84	2020	NA	NA	2380	NA	NA	2740	NA
90	2030	NA	NA	2390	NA	NA	2750	NA
96	2040	NA	NA	2400	NA	NA	2750	NA
102	2050	NA	NA	2410	NA	NA	2760	NA
108	2060	NA	NA	2410	NA	NA	2770	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)								
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE								
Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
250	NA	X	X	NA	X	X	NA	X
300	IV	X	X	V	X	X	V	X
375	IV	X	X	V	X	X	V	X
450	IV	X	X	V	X	X	V	X
525	IV	X	X	V	X	X	V	X
600	IV	X	X	V	X	X	V	X
675	IV	NA	NA	V	NA	NA	V	NA
750	IV	X	X	V	X	X	V	X
825	IV	NA	NA	V	NA	NA	V	NA
900	IV	X	X	V	X	X	V	X
1050	IV	X	NA	V	X	NA	V	NA
1200	IV	X	NA	V	X	NA	V	NA
1350	IV	NA	NA	V	NA	NA	V	NA
1500	IV	NA	NA	V	NA	NA	V	NA
1650	IV	NA	NA	V	NA	NA	V	NA
1800	V	NA	NA	V	NA	NA	V	NA
1950	100	NA	NA	110	NA	NA	130	NA
2100	100	NA	NA	110	NA	NA	130	NA
2250	100	NA	NA	110	NA	NA	130	NA
2400	100	NA	NA	120	NA	NA	130	NA
2550	100	NA	NA	120	NA	NA	130	NA
2700	100	NA	NA	120	NA	NA	130	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

“PVC, PE and CPP pipes shall be joined according to the manufacturer’s specifications.”

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

“**550.08 Deflection Testing for Storm Sewers.** All PVC, PE, and CPP storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used.”

Revise the fifth paragraph of Article 550.08 to read as follows.

“The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.”

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

“**1040.03 Polyvinyl Chloride (PVC) Pipe.** Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.”

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

“(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements.”

Add the following to Section 1040 of the Standard Specifications:

“1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

- (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
- (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal.”

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

“In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area.”

PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: January 1, 2014

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

“STATEMENTS AND PAYROLLS

The payroll records shall include the worker’s name, the worker’s address, the worker’s telephone number when available, the worker’s social security number, the worker’s classification or classifications, the worker’s gross and net wages paid in each pay period, the worker’s number of hours worked each day, the worker’s starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker’s hourly wage rate, the worker’s hourly overtime wage rate, the worker’s hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee’s social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department’s form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box (“No Work”, “Suspended”, or “Complete”) checked on the form.”

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

“IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

1. **Prevailing Wages.** All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of five years from the later of the date of final payment under the contract or completion of the contract, records of the wages paid to his/her workers. The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable. Upon seven business days' notice, these records shall be available at a location within the State, during reasonable hours, for inspection by the Department or the Department of Labor; and Federal, State, or local law enforcement agencies and prosecutors.
3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor, or an officer, employee, or officer thereof, which avers that: (i) he or she has examined the records and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class A misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

PORTLAND CEMENT CONCRETE – CURING OF ABUTMENTS AND PIERS (BDE)

Effective: January 1, 2014

Revise Note 7/ of the Index Table of Curing and Protection of Concrete Construction of Article 1020.13 of the Standard Specifications to read:

“7/ Asphalt emulsion for waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18. The top surfaces of abutments and piers shall be cured according to Article 1020.13(a)(3) or (5).”

PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)

Effective: November 1, 2013

Add the following to the first paragraph of Article 1103.03(a)(5) of the Standard Specifications to read:

“As an alternative to a locking key, the start and finish time for mixing may be automatically printed on the batch ticket. The start and finish time shall be reported to the nearest second.”

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

“(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)

Effective: January 1, 2012

Revised: January 1, 2014

Revise Note 7/ of Schedule B of Recurring Special Provision Check Sheet #31 of the Standard Specifications to read:

- 7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of two 6 x 12 in. (150 x 300 mm) cylinder breaks, three 4 x 8 in. (100 x 200 mm) cylinder breaks, or two beam breaks for field tests. Per Illinois Modified AASHTO T 23, cylinders shall be 6 x 12 in. (150 x 300 mm) when the nominal maximum size of the coarse aggregate exceeds 1 in. (25 mm).

REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

Revise the first and second paragraphs of Article 508.05 of the Standard Specifications to read:

“508.05 Placing and Securing. All reinforcement bars shall be placed and tied securely at the locations and in the configuration shown on the plans prior to the placement of concrete. Manual welding of reinforcement may only be permitted on precast concrete products as indicated in the current Bureau of Materials and Physical Research Policy Memorandum “Quality Control / Quality Assurance Program for Precast Concrete Products”, and for precast Prestressed concrete products as indicated in the Department’s current “Manual for Fabrication of Precast Prestressed Concrete Products”. Reinforcement bars shall not be placed by sticking or floating into place or immediately after placement of the concrete.

Bars shall be tied at all intersections, except where the center to center dimension is less than 1 ft. (300 mm) in each direction, in which case alternate intersections shall be tied. Molded plastic clips may be used in lieu of wire to secure bar intersections, but shall not be permitted in horizontal bar mats subject to construction foot traffic or to secure longitudinal bar laps. Plastic clips shall adequately secure the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. Plastic clips may be recycled plastic, and shall meet the approval of the Engineer. The number of ties as specified shall be doubled for lap splices at the stage construction line of concrete bridge decks when traffic is allowed on the first completed stage during the pouring of the second stage.”

Revise the fifth paragraph of Article 508.05 of the Standard Specifications to read:

“Supports for reinforcement in bridge decks shall be metal. For all other concrete construction the supports shall be metal or plastic. Metal bar supports shall be made of cold-drawn wire, or other approved material and shall be either epoxy coated, galvanized or plastic tipped. When the reinforcement bars are epoxy coated, the metal supports shall be epoxy coated. Plastic supports may be recycled plastic. Supports shall be provided in sufficient number and spaced to provide the required clearances. Supports shall adequately support the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. The legs of supports shall be spaced to allow an opening that is a minimum 1.33 times the nominal maximum aggregate size used in the concrete. Nominal maximum aggregate size is defined as the largest sieve which retains any of the aggregate sample particles. All supports shall meet the approval of the Engineer.”

Revise the first sentence of the eighth paragraph of Article 508.05 of the Standard Specifications to read:

“Epoxy coated reinforcement bars shall be tied with plastic coated wire, epoxy coated wire, or molded plastic clips where allowed.”

Add the following sentence to the end of the first paragraph of Article 508.06(c) of the Standard Specifications:

“In addition, the total slip of the bars within the splice sleeve of the connector after loading in tension to 30 ksi (207 MPa) and relaxing to 3 ksi (20.7 MPa) shall not exceed 0.01 in. (254 microns).”

Revise Article 1042.03(d) of the Standard Specifications to read:

“(d) Reinforcement and Accessories: The concrete cover over all reinforcement shall be within $\pm 1/4$ in. (± 6 mm) of the specified cover.

Welded wire fabric shall be accurately bent and tied in place.

Miscellaneous accessories to be cast into the concrete or for forming holes and recesses shall be carefully located and rigidly held in place by bolts, clamps, or other effective means. If paper tubes are used for vertical dowel holes, or other vertical holes which require grouting, they shall be removed before transportation to the construction site.”

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

“202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor’s landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

TRACKING THE USE OF PESTICIDES (BDE)

Effective: August 1, 2012

Add the following paragraph after the first paragraph of Article 107.23 of the Standard Specifications:

"Within 48 hours of the application of pesticides, including but not limited to herbicides, insecticides, algacides, and fungicides, the Contractor shall complete and return to the Engineer, Operations form "OPER 2720"."

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012

Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at \$15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this 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 \$15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price has been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is 6. During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs 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 Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision \$15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012

Revised: November 1, 2013

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Materials.

Add the following to Article 1030.02 of the Standard Specifications.

“(h) Warm Mix Asphalt (WMA) Technologies (Note 3)”

Add the following note to Article 1030.02 of the Standard Specifications.

“Note 3. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, “Warm-Mix Asphalt Technologies.”

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

“**1102.01 Hot-Mix Asphalt Plant.** The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, “Approval of Hot-Mix Asphalt Plants and Equipment”. Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements.”

Add the following to Article 1102.01(a) of the Standard Specifications.

“(13) Equipment for Warm Mix Technologies.

- a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.
- b. Additives. Additives shall be introduced into the plant according to the supplier’s recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes.”

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

“(e) Warm Mix Technologies.

- (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
- (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification.

Production.

Revise the second paragraph of Article 1030.06(a) of the Standard Specifications to read:

“At the start of mix production for HMA, WMA, and HMA using WMA technologies, QC/QA mixture start-up will be required for the following situations; at the beginning of production of a new mixture design, at the beginning of each production season, and at every plant utilized to produce mixtures, regardless of the mix.”

Quality Control/Quality Assurance Testing.

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

Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm) Note 1.	1 washed ignition oven test on the mix per half day of production Note 4.	1 washed ignition oven test on the mix per day of production Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
VMA Note 3.	Day's production ≥ 1200 tons: 1 per half day of production Day's production < 1200 tons: 1 per half day of production for first	N/A	Illinois-Modified AASHTO R 35

Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
	2 days and 1 per day thereafter (first sample of the day)		
Air Voids Bulk Specific Gravity of Gyratory Sample Note 5.	Day's production \geq 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 312
	Day's production $<$ 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		
Maximum Specific Gravity of Mixture	Day's production \geq 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 209
	Day's production $<$ 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

Note 1. The No. 8 (2.36 mm) and No. 30 (600 μ m) sieves are not required for All Other Mixtures.

Note 2. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 3. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 4. The Engineer reserves the right to require additional hot bin gradations for batch

Note 5. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature it shall be reheated to standard HMA compaction temperatures.”

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

“The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C).”

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

The Contractor shall provide a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006

Revised: August 1, 2013

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, or joint filling/sealing.

The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$$

- Where: CA = Cost Adjustment, \$.
- BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
- BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).
- %AC_V = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
- Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 1) / 1000$. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$
For bituminous materials measured in liters: $Q, \text{ metric tons} = V \times 1.0 \text{ kg/L} \times SG / 1000$

Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.
V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) \div BPI_L\} \times 100$$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Return with Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
BITUMINOUS MATERIALS COST ADJUSTMENTS**

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract?

Yes No

Signature: _____ **Date:** _____

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2009

Description. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name and sign and date the form shall make this contract exempt of fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and work added by adjusted unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Added work paid for by time and materials will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

(4) Category D: Portland cements 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

Category B Subbases and Aggregate Base Courses Yes

Category C HMA Bases, Pavements and Shoulders Yes

Category D PCC Bases, Pavements and Shoulders Yes

Category E Structures Yes

Signature: _____ **Date:** _____

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: 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
- Structural Steel Yes
- Reinforcing Steel Yes
- Dowel Bars, Tie Bars and Mesh Reinforcement Yes
- Guardrail Yes
- Steel Traffic Signal and Light Poles, Towers and Mast Arms Yes
- Metal Railings (excluding wire fence) Yes
- Frames and Grates Yes

Signature: _____ **Date:** _____

SWPPP



Storm Water Pollution Prevention Plan

Route	FAP353/US30	Marked Rte.	<u>Lincoln Highway</u>
Section	11-Y-A	Project No.	_____
County	<u>Cook</u>	Contract No.	<u>60R19</u>

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) 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.

 John Fortmann, P.E.
 Print Name
 Deputy Director, Region One Engineer
 Title
 Illinois Department of Transportation
 Agency

John Fortmann
 Signature
 AUGUST 30, 2013
 Date

I. Site Description:

- A. Provide a description of the project location (include latitude and longitude):
 The proposed project is located in the Village of Lynwood and extends approximately 3500 linear feet along US 30 from approximately 200 feet west of Sunnyside Avenue to 500 feet south of Lansing Ditch (41d29'43"N 87d31'42"W).
- B. Provide a description of the construction activity which is the subject of this plan:
 The proposed improvements include the reconstruction of approximately 3500 linear feet of US Route 30. The proposed alignment is adjacent to the existing alignment to the north and east and includes a grade separation over the CN Railroad. The existing alignment will be reconstructed into frontage roads. The construction activity also includes erosion control measures and installation and removal of SESC measures.
- C. Provide the estimated duration of this project:
 3 years
- D. The total area of the construction site is estimated to be 23.2+/- acres.
 The total area of the site estimated to be disturbed by excavation, grading or other activities is 23.2+/- acres.
- E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:
 Pre-Construction = 0.69
 Post-Construction = 0.78
- F. List all soils found within project boundaries. Include map unit name, slope information, and erosivity:
 49A - Wateska Loamy Fine Sand (A/D) 0 to 2 % slopes, K-factor = 0.02
 69A - Milford Silty Clay Loam (C/D) 0 to 2 % slopes, K-factor = 0.20

125A - Selma Loam (B/D) 0 to 2 % slopes, K-factor = 0.24
201A - Gilford Fine Sandy Loam (A/D) 0 to 2% slopes, K-factor =
0.17 741B - Oakville Fine Sand (A) 1 to 6 % slopes, K-factor = 0.02
802B - Orthents, Loamy, undulating (C), K-factor = 0.43

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

- G. Provide an aerial extent of wetland acreage at the site:

Figure 6 Wetland Location Map prepared by Huff & Huff shows all the delineated wetlands within the vicinity of the project that has a total acreage of 1.51. They are as follows;

Site 1 - 0.95 acres, not impacted by work, this is a USACE-jurisdictional wetland. Site 2 - 0.003 acres, this is not a wetland.

Site 3 - 0.12 acres, this is not a wetland.

Site 4 - 0.21 acres, not impacted by work, this is an isolated wetland. Site 5 - 0.01 acres, not impacted by work, this is an isolated wetland. Site 6 - 0.17 acres, not impacted by work, this is an isolated wetland. Site 7 - 0.05 acres, not impacted by work, this is a USACE-jurisdictional wetland.

Annotated Figure 6 shows that only Wetland Sites 1, 2, & 3 are located within the project limits.

- H. Provide a description of potentially erosive areas associated with this project:

Potentially erosive areas are located along the length of the roadway improvements where it ties into the existing grade at the right-of-way or temporary easement, between the main US 30 project and the frontage roads, as well as embankment areas and areas adjacent to wetlands.

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

PreStage – Seeding with erosion control blanket from Sta. 260+30 to 275+38 on the west side of US Route 30 and perimeter erosion barrier along ROW.

Stage 1&2 – Temporary and permanent seeding with erosion control blanket, and mulch method 4 along bridge embankment and east side of US Route 30. Perimeter erosion barrier along ROW.

Stage 3 – Temporary and permanent seeding with erosion control blanket along the east side of Sauk Trail. Perimeter erosion barrier along ROW.

Stage 4A – Temporary and permanent seeding with erosion control blanket on the east and west side of constructed frontage roads. Perimeter erosion barrier along ROW.

Stage 4B – Temporary and permanent seeding with erosion control blanket on the west side of Sauk Trail. Perimeter erosion barrier along ROW.

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

- K. Identify who owns the drainage system (municipality or agency) this project will drain into: IDOT owns the drainage system associated with US Route 30 which ultimately discharges into Lansing Ditch.

- L. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

Stormwater runoff discharges directly to the US Route 30 stormwater drainage system which discharges into Lansing Ditch and ultimately into the Little Calumet River. Lansing Ditch and the Little Calumet River are not identified by the IDNR as "biologically significant streams". The Lansing Ditch is also not identified as impaired on the IEPA's 2012 303(d) List.

- M. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

Wetland Sites 1 & 2 will be protected. Wetland exclusion fencing and "Wetland No Intrusion" signage will be provided at these location

N. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- Floodplain
- Wetland Riparian
- Threatened and Endangered Species
- Historic Preservation
- 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
- Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
- Applicable Federal, Tribal, State or Local Programs
- Other – The Forest Preserve District of Cook County Plum Creek Preserve is located adjacent to the project on the south side of Sauk Trail.

1. 303(d) Listed receiving waters (fill out this section if checked above):

N/A

- a. The name(s) of the listed water body, and identification of all pollutants causing impairment:
- b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:
- c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:
- d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

2. TMDL (fill out this section if checked above)

- a. The name(s) of the listed water body:
- b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:
- c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

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

- | | |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Soil Sediment | <input checked="" type="checkbox"/> 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 checked="" type="checkbox"/> Paints | <input type="checkbox"/> Other (specify) |
| <input checked="" type="checkbox"/> Solvents | <input type="checkbox"/> Other (specify) |
| <input checked="" 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 ILR10. 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 seven (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 fourteen (14) or more calendar days.

Where the initiation of stabilization measures by the seventh 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 checked="" 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 checked="" type="checkbox"/> Geotextiles |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input checked="" type="checkbox"/> Other (specify) Mulch, Method 4 |
| <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 during construction:

Tree and mature vegetation protection will be installed before construction begins. During construction, temporary seeding and erosion control blanket will be placed within 1 working day of temporary or permanent cessation of earth disturbing activities and shall be completed as soon as possible but no later than 14 days from the initiation of stabilization in the work area. Geotextiles will be used under the riprap installed culvert outfalls. Mulch, Method 4 compost should be applied to slopes for temporary stabilization when Temporary Seed will not germinate, for example mid-July and in February.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

All disturbed areas will receive permanent seeding and erosion control blanket immediately following finished grading.

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 checked="" 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) Stabilized flow line |
| <input type="checkbox"/> Permanent Check Dams | <input type="checkbox"/> Other (specify) |

- | | | | |
|--------------------------|--------------------------|--------------------------|-----------------|
| <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 during construction:

Perimeter erosion barrier will be used to demarcate the perimeter of the project area and to prevent sediment from leaving the site. Perimeter erosion barrier will remain in place and be maintained until all construction activities are completed and/or final stabilization is achieved.

Storm drain inlet protection filters will be utilized at all manholes, catchbasins and inlets with open grates. Stabilized construction exits will be used to prevent sediment tracking onto the operational sections of US Route 30, Sauk Trail, and/or final stabilization is achieved. Inlet and Pipe Protection includes temporary ditch checks, temporary seed and erosion control blankets.

Riprap will be placed where storm sewers discharge to the proposed detention facilities to prevent scour. Retaining walls are used to minimize steep slopes and to direct runoff into the stormwater system.

Contractor shall provide to the Resident Engineer a plan to have a stabilized conveyance between upstream and downstream ends of storm sewer under construction when rain is forecasted, so that flow will not erode.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

With the exception of the riprap protection at flared end sections and the retaining walls, all structural practices will be removed at the end of construction and/or once final stabilization is achieved.

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 Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

- 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:

Two detention basins are proposed for this construction project. They are located on the northeast side of the road between Sta. 283+00 and 288+00 and on the southwest side of the road between Sta. 288+00 and 289+80.

Riprap will be placed at the flared end sections for velocity dissipation and scour prevention.

All ESC measures will be maintained in accordance with the IDOT Erosion and Sediment Control Field Guide for Construction Inspection: (<http://www.dot.il.gov/desenv/environmental/IDOT%20Field%20Guide.pdf>) and IDOT's Best Management Practices – Maintenance Guide: (<http://www.dot.state.il.us/desenv/environmental/bestpractices.html>). All maintenance of the ESC systems is the responsibility of the contractor, and should be checked weekly and after each rainfall, 0.5 inches or greater in a 24 hour period, or equivalent snowfall. Additionally during winter months, all measures should be checked after each significant snow melt.

All offsite borrow, waste, and use areas are part of the construction site and are to be inspected according to the language of this section.

4 Approved State or Local Laws: The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

N/A

5 Contractor Required Submittals: Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.

a. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization timeframe
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
 - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
 - Paving, saw-cutting, and any other pavement related operations
 - Major planned stockpiling operations
 - Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
 - Permanent stabilization activities for each area of the project

b. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management – Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- Waste Disposal – Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
- Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and

effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

All ESC measures will be maintained in accordance with IDOT Erosion and Sediment Control Field Guide for Construction Inspection: (<http://www.dot.il.gov/desenv/environmental/IDOT%20Field%20Guide.pdf>) and IDOT's Best Management Practices – Maintenance Guide: : (<http://www.dot.state.il.us/desenv/environmental/bestpractices.html>)
All ESC systems are the responsibility of the contractor. All ESC measures should be checked weekly and after each rainfall, 0.5 inches or greater in a 24 hour period, or equivalent snowfall. Additionally during the winter months, all measures should be checked after each significant snow melt.

All offsite borrow, waste, and use areas are part of the construction site and are to be inspected according to the language of this section.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm that is 0.5 inch or greater or equivalent snowfall.

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 twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

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

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. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.

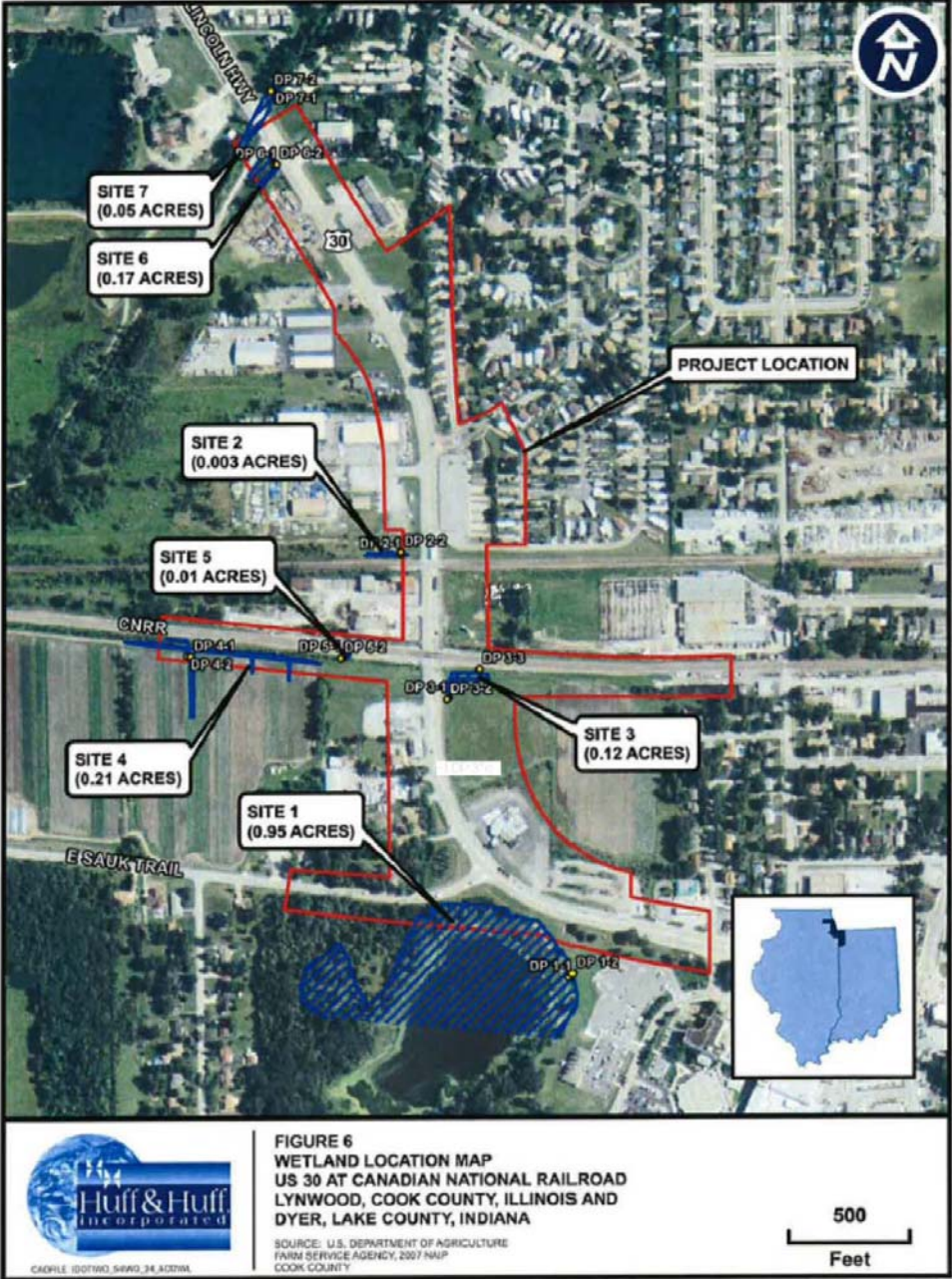


FIGURE 6
WETLAND LOCATION MAP
US 30 AT CANADIAN NATIONAL RAILROAD
LYNWOOD, COOK COUNTY, ILLINOIS AND
DYER, LAKE COUNTY, INDIANA

SOURCE: U.S. DEPARTMENT OF AGRICULTURE
FARM SERVICE AGENCY, 2007 NHP
COOK COUNTY



CADFILE: (001780, SHARD, 34, A0278A)

PROJECT LABOR AGREEMENT - QUARTERLY EMPLOYMENT REPORT

Public Act 97-0199 requires the Department to submit quarterly reports regarding the number of minorities and females employed under Project Labor Agreements. To assist in this reporting effort, the Contractor shall provide a quarterly workforce participation report for all minority and female employees working under the project labor agreement of this contract. The data shall be reported on Construction Form BC 820, Project Labor Agreement (PLA) Workforce Participation Quarterly Reporting Form available on the Department's website <http://www.dot.il.gov/const/conforms.html>.

The report shall be submitted no later than the 15th of the month following the end of each quarter (i.e. April 15 for the January – March reporting period). The form shall be emailed to DOT.PLA.Reporting@illinois.gov or faxed to (217) 524-4922.

Any costs associated with complying with this provision shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

Illinois Department of Transportation
PROJECT LABOR AGREEMENT

This Project Labor Agreement (“PLA” or “Agreement”) is entered into this _____ day of _____, 2014, by and between the Illinois Department of Transportation (“IDOT” or “Department”) in its proprietary capacity, and each relevant Illinois AFL-CIO Building Trades signatory hereto as determined by the Illinois AFL-CIO Statewide Project Labor Agreement Committee on behalf of each of its affiliated members (individually and collectively, the “Unions”). This PLA shall apply to Construction Work (as defined herein) to be performed by IDOT’s Prime Contractor and each of its subcontractors of whatever tier (“Subcontractor” or “Subcontractors”) on Contract No. **60R19** (hereinafter, the “Project”).

ARTICLE 1 - INTENT AND PURPOSES

- 1.1 This PLA is entered into in accordance with the Project Labor Agreement Act (“Act”, 30 ILCS 571). It is mutually understood and agreed that the terms and conditions of this PLA are intended to promote the public interest in obtaining timely and economical completion of the Project by encouraging productive and efficient construction operations; by establishing a spirit of harmony and cooperation among the parties; and by providing for peaceful and prompt settlement of any and all labor grievances or jurisdictional disputes of any kind without strikes, lockouts, slowdowns, delays, or other disruptions to the prosecution of the work. The parties acknowledge the obligations of the Contractors and Subcontractors to comply with the provisions of the Act. The parties will work with the Contractors and Subcontractors within the parameters of other statutory and regulatory requirements to implement the Act’s goals and objectives.
- 1.2 As a condition of the award of the contract for performance of work on the Project, IDOT's Prime Contractor and each of its Subcontractors shall execute a “Contractor Letter of Assent”, in the form attached hereto as Exhibit A, prior to commencing Construction Work on the Project. The Contractor shall submit a Subcontractor’s Contractor Letter of Assent to the Department prior to the Subcontractor’s performance of Construction Work on the Project. Upon request copies of the applicable collective bargaining agreements will be provided by the appropriate signatory labor organization consistent with this Agreement and at the pre-job conference referenced in Article III, Section 3.1.
- 1.3 Each Union affiliate and separate local representing workers engaged in Construction Work on the Project in accordance with this PLA are bound to this agreement by the Illinois AFL-CIO Statewide Project Labor Agreement Committee which is the central committee established with full authority to negotiate and sign PLAs with the State on behalf of all respective crafts. Upon their signing the Contractor Letter of Assent, the Prime Contractor, each Subcontractor, and the individual Unions shall thereafter be deemed a party to this PLA. No party signatory to this PLA shall, contract or subcontract, nor permit any other person, firm, company, or entity to contract or subcontract for the performance of Construction Work for the Project to any person, firm, company, or entity that does not agree in writing to become bound for the term of this Project by the terms of this PLA prior to commencing such work and to the applicable area-wide collective bargaining agreement(s) with the Union(s) signatory hereto.

- 1.4 It is understood that the Prime Contractor(s) and each Subcontractor will be considered and accepted by the Unions as separate employers for the purposes of collective bargaining, and it is further agreed that the employees working under this PLA shall constitute a bargaining unit separate and distinct from all others. The parties hereto also agree that this PLA shall be applicable solely with respect to this Project, and shall have no bearing on the interpretation of any other collective bargaining agreement or as to the recognition of any bargaining unit other than for the specific purposes of this Project.
- 1.5 In the event of a variance or conflict, whether explicit or implicit, between the terms and conditions of this PLA and the provisions of any other applicable national, area, or local collective bargaining agreement, the terms and conditions of this PLA shall supersede and control. For any work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, the National Agreement of the International Union of Elevator Constructors, and for any instrument calibration work and loop checking performed under the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, the preceding sentence shall apply only with respect to Articles I, II, V, VI, and VII.
- 1.6 Subject to the provisions of paragraph 1.5 of this Article, it is the parties' intent to respect the provisions of any other collective bargaining agreements that may now or hereafter pertain, whether between the Prime Contractor and one or more of the Unions or between a Subcontractor and one or more of the Unions. Accordingly, except and to the extent of any contrary provision set forth in this PLA, the Prime Contractor and each of its Subcontractors agrees to be bound and abide by the terms of the following in order of precedence: (a) the applicable collective bargaining agreement between the Prime Contractor and one or more of the Unions made signatory hereto; (b) the applicable collective bargaining agreement between a Subcontractor and one or more of the Unions made signatory hereto; or (c) the current applicable area collective bargaining agreement for the relevant Union that is the agreement certified by the Illinois Department of Labor for purposes of establishing the Prevailing Wage applicable to the Project. The Union will provide copies of the applicable collective bargaining agreements pursuant to part (c) of the preceding sentence to the Prime Contractor. Assignments by the Contractors or Subcontractors amongst the trades shall be consistent with area practices; in the event of unresolved disagreements as to the propriety of such assignments, the provisions of Article VI shall apply.
- 1.7 Subject to the limitations of paragraphs 1.4 to 1.6 of this Article, the terms of each applicable collective bargaining agreement as determined in accordance with paragraph 1.6 are incorporated herein by reference, and the terms of this PLA shall be deemed incorporated into such other applicable collective bargaining agreements only for purposes of their application to the Project.

- 1.8 To the extent necessary to comply with the requirements of any fringe benefit fund to which the Prime Contractor or Subcontractor is required to contribute under the terms of an applicable collective bargaining agreement pursuant to the preceding paragraph, the Prime Contractor or Subcontractor shall execute all "Participation Agreements" as may be reasonably required by the Union to accomplish such purpose; provided, however, that such Participation Agreements shall, when applicable to the Prime Contractor or Subcontractor solely as a result of this PLA, be amended as reasonably necessary to reflect such fact. Upon written notice in the form of a lien of a Contractor's or Subcontractor's delinquency from any applicable fringe benefit fund, IDOT will withhold from the Contractor's periodic pay request an amount sufficient to extinguish any delinquency obligation of the Contractor or Subcontractor arising out of the Project.
- 1.9 In the event that the applicable collective bargaining agreement between a Prime Contractor and the Union or between the Subcontractor and the Union expires prior to the completion of this Project, the expired applicable contract's terms will be maintained until a new applicable collective bargaining agreement is ratified. The wages and fringe benefits included in any new applicable collective bargaining agreement will apply on and after the effective date of the newly negotiated collective bargaining agreement, except to the extent wage and fringe benefit retroactivity is specifically agreed upon by the relevant bargaining parties.

ARTICLE II – APPLICABILITY, RECOGNITION, AND COMMITMENTS

- 2.1 The term Construction Work as used herein shall include all "construction, demolition, rehabilitation, renovation, or repair" work performed by a "laborer or mechanic" at the "site of the work" for the purpose of "building" the specific structures and improvements that constitute the Project. Terms appearing within quotation marks in the preceding sentence shall have the meaning ascribed to them pursuant to 29 CFR Part 5 and Illinois labor laws.
- 2.2 By executing the Letters of Assent, Prime Contractor and each of its Subcontractors recognizes the Unions signatory to this PLA as the sole and exclusive bargaining representatives for their craft employees employed on the jobsite for this Project. Unions who are signatory to this PLA will have recognition on the Project for their craft.
- 2.3 The Prime Contractor and each of its Subcontractors retains and shall be permitted to exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this PLA or by the terms and conditions of the applicable collective bargaining agreement.
- 2.4 Except to the extent contrary to an express provision of the relevant collective bargaining agreement, equipment or materials used in the Project may be pre-assembled or pre-fabricated, and there shall be no refusal by the Union to handle, transport, install, or connect such equipment or materials. Equipment or materials delivered to the job-site will be unloaded and handled promptly without regard to potential jurisdictional disputes; any such disputes shall be handled in accordance with the provisions of this PLA.
- 2.5 The parties are mutually committed to promoting a safe working environment for all personnel at the job-site. It shall be the responsibility of each employer to which this PLA applies to provide and maintain safe working conditions for its employees, and to comply with all applicable federal, state, and local health and safety laws and regulations.

- 2.6 The use or furnishing of alcohol or drugs and the conduct of any other illegal activity at the job-site is strictly prohibited. The parties shall take every practical measure consistent with the terms of applicable collective bargaining agreements to ensure that the job-site is free of alcohol and drugs.
- 2.7 All parties to this PLA agree that they will not discriminate against any employee based on race, creed, religion, color, national origin, union activity, age, gender or sexual orientation and shall comply with all applicable federal, state, and local laws.
- 2.8 In accordance with the Act and to promote diversity in employment, IDOT will establish, in cooperation with the other parties, the apprenticeship hours which are to be performed by minorities and females on the Project. IDOT shall consider the total hours to be performed by these underrepresented groups, as a percentage of the workforce, and create aspirational goals for each Project, based on the level of underutilization for the service area of the Project (together "Project Employment Objectives"). IDOT shall provide a quarterly report regarding the racial and gender composition of the workforce on the Project.

Persons currently lacking qualifications to enter apprenticeship programs will have the opportunity to obtain skills through basic training programs as have been established by the Department. The parties will endeavor to support such training programs to allow participants to obtain the requisite qualifications for the Project Employment Objectives.

The parties agree that all Contractors and Subcontractors working on the Project shall be encouraged to utilize the maximum number of apprentices as permitted under the terms of the applicable collective bargaining agreements to realize the Project Employment Objectives.

The Unions shall assist the Contractor and each Subcontractor in efforts to satisfy Project Employment Objectives. A Contractor or Subcontractor may request from a Union specific categories of workers necessary to satisfy Project Employment Objectives. The application of this section shall be consistent with all local Union collective bargaining agreements, and the hiring hall rules and regulations established for the hiring of personnel, as well as the apprenticeship standards set forth by each individual Union.

- 2.9 The parties hereto agree that engineering/architectural/surveying consultants' materials testing employees are subject to the terms of this PLA for Construction Work performed for a Contractor or Subcontractor on this Project. These workers shall be fully expected to objectively and responsibly perform their duties and obligations owed to the Department without regard to the potential union affiliation of such employees or of other employees on the Project.
- 2.10 This Agreement shall not apply to IDOT employees or employees of any other governmental entity.

ARTICLE III - ADMINISTRATION OF AGREEMENT

- 3.1 In order to assure that all parties have a clear understanding of the PLA, and to promote harmony, at the request of the Unions a post-award pre-job conference will be held among the Prime Contractor, all Subcontractors and Union representatives prior to the start of any Construction Work on the Project. No later than the conclusion of such pre-job conference, the parties shall, among other matters, provide to one another contact information for their respective representatives (including name, address, phone number, facsimile number, e-mail). Nothing herein shall be construed to limit the right of the Department to discuss or explain the purpose and intent of this PLA with prospective bidders or other interested parties prior to or following its award of the job.
- 3.2 Representatives of the Prime Contractor and the Unions shall meet as often as reasonably necessary following award until completion of the Project to assure the effective implementation of this PLA.
- 3.3 Any notice contemplated under Article VI and VII of this Agreement to a signatory labor organization shall be made in writing to the Local Union with copies to the local union's International Representative.

ARTICLE IV - HOURS OF WORK AND GENERAL CONDITIONS

- 4.1 The standard work day and work week for Construction Work on the Project shall be consistent with the respective collective bargaining agreements. In the event Project site or other job conditions dictate a change in the established starting time and/or a staggered lunch period for portions of the Project or for specific crafts, the Prime Contractor, relevant Subcontractors and business managers of the specific crafts involved shall confer and mutually agree to such changes as appropriate. If proposed work schedule changes cannot be mutually agreed upon between the parties, the hours fixed at the time of the pre-job meeting shall prevail.
- 4.2 Shift work may be established and directed by the Prime Contractor or relevant Subcontractor as reasonably necessary or appropriate to fulfill the terms of its contract with the Department. If used, shift hours, rates and conditions shall be as provided in the applicable collective bargaining agreement.
- 4.3 The parties agree that chronic and/or unexcused absenteeism is undesirable and must be controlled in accordance with procedures established by the applicable collective bargaining agreement. Any employee disciplined for absenteeism in accordance with such procedures shall be suspended from all work on the Project for not less than the maximum period permitted under the applicable collective bargaining agreement.
- 4.4 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, employment begins and ends at the Project site; employees shall be at their place of work at the starting time; and employees shall remain at their place of work until quitting time.
- 4.5 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, there shall be no limit on production by workmen, no restrictions on the full use of tools or equipment, and no restrictions on efficient use of manpower or techniques of construction other than as may be required by safety regulations.

- 4.6 The parties recognize that specialized or unusual equipment may be installed on the Project. In such cases, the Union recognizes the right of the Prime Contractor or Subcontractor to involve the equipment supplier or vendor's personnel in supervising the setting up of the equipment, making modifications and final alignment, and performing similar activities that may be reasonably necessary prior to and during the start-up procedure in order to protect factory warranties. The Prime Contractor or Subcontractor shall notify the Union representatives in advance of any work at the job-site by such vendor personnel in order to promote a harmonious relationship between the equipment vendor's personnel and other Project employees.
- 4.7 For the purpose of promoting full and effective implementation of this PLA, authorized Union representatives shall have access to the Project job-site during scheduled work hours. Such access shall be conditioned upon adherence to all reasonable visitor and security rules of general applicability that may be established for the Project site at the pre-job conference or from time to time thereafter.

ARTICLE V – GRIEVANCE PROCEDURES FOR DISPUTES ARISING UNDER A PARTICULAR COLLECTIVE BARGAINING AGREEMENT

- 5.1 In the event a dispute arises under a particular collective bargaining agreement specifically not including jurisdictional disputes referenced in Article VI below, said dispute shall be resolved by the Grievance/Arbitration procedure of the applicable collective bargaining agreement. The resulting determination from this process shall be final and binding on all parties bound to its process.
- 5.2 Employers covered under this Agreement shall have the right to discharge or discipline any employee who violates the provisions of this Agreement. Such discharge or discipline by a contractor or subcontractor shall be subject to Grievance/Arbitration procedure of the applicable collective bargaining agreement only as to the fact of such violation of this agreement. If such fact is established, the penalty imposed shall not be disturbed. Work at the Project site shall continue without disruption or hindrance of any kind as a result of a Grievance/Arbitration procedure under this Article.
- 5.3 In the event there is a deadlock in the foregoing procedure, the parties agree that the matter shall be submitted to arbitration for the selection and decision of an Arbitrator governed under paragraph 6.8.

ARTICLE VI –DISPUTES: GENERAL PRINCIPLES

- 6.1 This Agreement is entered into to prevent strikes, lost time, lockouts and to facilitate the peaceful adjustment of jurisdictional disputes in the building and construction industry and to prevent waste and unnecessary avoidable delays and expense, and for the further purpose of at all times securing for the employer sufficient skilled workers.
- 6.2 A panel of Permanent Arbitrators are attached as addendum (A) to this agreement. By mutual agreement between IDOT and the Unions, the parties can open this section of the agreement as needed to make changes to the list of permanent arbitrators.

- 6.3 The PLA Jurisdictional Dispute Resolution Process (“Process”) sets forth the procedures below to resolve jurisdictional disputes between and among Contractors, Subcontractors, and Unions engaged in the building and construction industry. Further, the Process will be followed for any grievance or dispute arising out of the interpretation or application of this PLA by the parties except for the prohibition on attorneys contained in 6.11. All decisions made through the Process are final and binding upon all parties.

DISPUTE PROCESS

- 6.4 Administrative functions under the Process shall be performed through the offices of the President and/or Secretary-Treasurer of the Illinois State Federation of Labor, or their designated representative, called the Administrator. In no event shall any officer, employee, agent, attorney, or other representative of the Illinois Federation of Labor, AFL-CIO be subject to any subpoena to appear or testify at any jurisdictional dispute hearing.
- 6.5 There shall be no abandonment of work during any case participating in this Process or in violation of the arbitration decision. All parties to this Process release the Illinois State Federation of Labor (“Federation”) from any liability arising from its action or inaction and covenant not to sue the Federation, nor its officers, employees, agents or attorneys.
- 6.6 In the event of a dispute relating to trade or work jurisdiction, all parties, including the employers, Contractors or Subcontractors, agree that a final and binding resolution of the dispute shall be resolved as follows:
- (a) Representatives of the affected trades and the Contractor or Subcontractor shall meet on the job site within two (2) business days after receiving written notice in an effort to resolve the dispute. (In the event there is a dispute between local unions affiliated with the same International Union, the decision of the General President, or his/her designee, as the internal jurisdictional authority of that International Union, shall constitute a final and binding decision and determination as to the jurisdiction of work.)
 - (b) If no settlement is achieved subsequent to the preceding Paragraph, the matter shall be referred to the local area Building & Construction Trades Council, which shall meet with the affected trades within two (2) business days subsequent to receiving written notice. In the event the parties do not wish to avail themselves of the local Building & Construction Trades Council, the parties may elect to invoke the services of their respective International Representatives with no extension of the time limitations. An agreement reached at this Step shall be final and binding upon all parties.

(c) If no settlement agreement is reached during the proceedings contemplated by Paragraphs “a” or “b” above, the matter shall be immediately referred to the Illinois Jurisdictional Dispute Process for final and binding resolution of said dispute. Said referral submission shall be in writing and served upon the Illinois State Federation of Labor, or the Administrator, pursuant to paragraph 6.4 of this agreement. The Administrator shall, within three (3) days, provide for the selection of an available Arbitrator to hear said dispute within this time period. Upon good cause shown and determined by the Administrator, an additional three (3) day extension for said hearing shall be granted at the sole discretion of the Administrator. Only upon mutual agreement of all parties may the Administrator extend the hearing for a period in excess of the time frames contemplated under this Paragraph. Business days are defined as Monday through Friday, excluding contract holidays.

6.7 The primary concern of the Process shall be the adjustment of jurisdictional disputes arising out of the Project. A sufficient number of Arbitrators shall be selected from list of approved Arbitrators as referenced Sec. 6.2 and shall be assigned per Sec. 6.8. Decisions shall be only for the Project and shall become effective immediately upon issuance and complied with by all parties. The authority of the Arbitrator shall be restricted and limited specifically to the terms and provisions of Article VI and generally to this Agreement as a whole.

6.8 The Arbitrator chosen shall be randomly selected based on the list of Arbitrators in Sec. 6.2 and geographical location of the jurisdictional dispute and upon his/her availability, and ability to conduct a Hearing within two (2) business days of said notice. The Arbitrator may issue a “bench” decision immediately following the Hearing or he/she may elect to only issue a written decision, said decision must be issued within two (2) business days subsequent to the completion of the Hearing. Copies of all notices, pleadings, supporting memoranda, decisions, etc. shall be provided to all disputing parties and the Illinois State Federation of Labor.

Any written decision shall be in accordance with this Process and shall be final and binding upon all parties to the dispute and may be a “short form” decision. Fees and costs of the arbitrator shall be divided evenly between the contesting parties except that any party wishing a full opinion and decision beyond the short form decision shall bear the reasonable fees and costs of such full opinion. The decision of the Arbitrator shall be final and binding upon the parties hereto, their members, and affiliates.

In cases of jurisdictional disputes or other disputes between a signatory labor organization and another labor organization, both of which is an affiliate or member of the same International Union, the matter or dispute shall be settled in the manner set forth by their International Constitution and/or as determined by the International Union’s General President whose decision shall be final and binding upon all parties. In no event shall there be an abandonment of work.

6.9 In rendering a decision, the Arbitrator shall determine:

(a) First, whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between National or International Unions to the dispute or agreements between local unions involved in the dispute, governs;

- (b) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider the established trade practice in the industry and prevailing practice in the locality. Where there is a previous decision of record governing the case, the Arbitrator shall give equal weight to such decision of record, unless the prevailing practice in the locality in the past ten years favors one craft. In that case, the Arbitrator shall base his decision on the prevailing practice in the locality. Except, that if the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wages or by the use of vertical agreements, the Arbitrator shall rely on the decision of record and established trade practice in the industry rather than the prevailing practice in the locality; and,
- (c) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interests of the consumer or the past practices of the employer shall not be ignored.
- 6.10 The Arbitrator shall set forth the basis for his/her decision and shall explain his/her findings regarding the applicability of the above criteria. If lower ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the Project. Agreements of Record, for other PLA projects, are applicable only to those parties signatory to such agreements. Decisions of Record are those that were either attested to by the former Impartial Jurisdictional Disputes Board or adopted by the National Arbitration Panel.
- 6.11 All interested parties, as determined by the Arbitrator, shall be entitled to make presentations to the Arbitrator. Any interested labor organization affiliated to the PLA Committee and party present at the Hearing, whether making a presentation or not, by such presence shall be deemed to accept the jurisdiction of the Arbitrator and to agree to be bound by its decision. In addition to the representative of the local labor organization, a representative of the labor organization's International Union may appear on behalf of the parties. Each party is responsible for arranging for its witnesses. In the event an Arbitrator's subpoena is required, the party requiring said subpoena shall prepare the subpoena for the Arbitrator to execute. Service of the subpoena upon any witness shall be the responsibility of the issuing party.

Attorneys shall not be permitted to attend or participate in any portion of a Hearing.

The parties are encouraged to determine, prior to Hearing, documentary evidence which may be presented to the Arbitrator on a joint basis.

- 6.12 The Order of Presentation in all Hearings before an Arbitrator shall be
- I. Identification and Stipulation of the Parties
 - II. Unions(s) claiming the disputed work presents its case
 - III. Union(s) assigned the disputed work presents its case
 - IV. Employer assigning the disputed work presents its case
 - V. Evidence from other interested parties (i.e., general contractor, project manager, owner)
 - VI. Rebuttal by union(s) claiming the disputed work
 - VII. Additional submissions permitted and requested by Arbitrator
 - VIII. Closing arguments by the parties
- 6.13 All parties bound to the provisions of this Process hereby release the Illinois State Federation of Labor and IDOT, their respective officers, agents, employees or designated representatives, specifically including any Arbitrator participating in said Process, from any and all liability or claim, of whatsoever nature, and specifically incorporating the protections provided in the Illinois Arbitration Act, as amended from time to time.
- 6.14 The Process, as an arbitration panel, nor its Administrator, shall have any authority to undertake any action to enforce its decision(s). Rather, it shall be the responsibility of the prevailing party to seek appropriate enforcement of a decision, including findings, orders or awards of the Arbitrator or Administrator determining non-compliance with a prior award or decision.
- 6.15 If at any time there is a question as to the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process, the primary responsibility for any determination of the arbitrability of a dispute and the jurisdiction of the Arbitrator shall be borne by the party requesting the Arbitrator to hear the underlying jurisdictional dispute. The affected party or parties may proceed before the Arbitrator even in the absence or one or more stipulated parties with the issue of jurisdiction as an additional item to be decided by the Arbitrator. The Administrator may participate in proceedings seeking a declaration or determination that the underlying dispute is subject to the jurisdiction and process of the Illinois Jurisdictional Dispute Resolution Process. In any such proceedings, the non-prevailing party and/or the party challenging the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process shall bear all the costs, expenses and attorneys' fees incurred by the Illinois Jurisdictional Dispute Resolution Process and/or its Administrator in establishing its jurisdiction.

ARTICLE VII - WORK STOPPAGES AND LOCKOUTS

- 7.1 During the term of this PLA, no Union or any of its members, officers, stewards, employees, agents or representatives shall instigate, support, sanction, maintain, or participate in any strike, picketing, walkout, work stoppage, slow down or other activity that interferes with the routine and timely prosecution of work at the Project site or at any other contractor's or supplier's facility that is necessary to performance of work at the Project site. Hand billing at the Project site during the designated lunch period and before commencement or following conclusion of the established standard workday shall not, in itself, be deemed an activity that interferes with the routine and timely prosecution of work on the Project.

- 7.2 Should any activity prohibited by paragraph 7.1 of this Article occur, the Union shall undertake all steps reasonably necessary to promptly end such prohibited activities.
- 7.2.A No Union complying with its obligations under this Article shall be liable for acts of employees for which it has no responsibility or for the unauthorized acts of employees it represents. Any employee who participates or encourages any activity prohibited by paragraph 7.1 shall be immediately suspended from all work on the Project for a period equal to the greater of (a) 60 days; or (b) the maximum disciplinary period allowed under the applicable collective bargaining agreement for engaging in comparable unauthorized or prohibited activity.
- 7.2.B Neither the PLA Committee nor its affiliates shall be liable for acts of employees for which it has no responsibility. The principal officer or officers of the PLA Committee will immediately instruct, order and use the best efforts of his office to cause the affiliated union or unions to cease any violations of this Article. The PLA Committee in its compliance with this obligation shall not be liable for acts of its affiliates. The principal officer or officers of any involved affiliate will immediately instruct, order or use the best effort of his office to cause the employees the union represents to cease any violations of this Article. A union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Contractor to exercise its rights in any instance shall not be deemed a waiver of its rights in any other instance.
- During the term of this PLA, the Prime Contractor and its Subcontractors shall not engage in any lockout at the Project site of employees covered by this Agreement.
- 7.3 Upon notification of violations of this Article, the principal officer or officers of the local area Building and Construction Trades Council, and the Illinois AFL-CIO Statewide Project Labor Agreement Committee as appropriate, will immediately instruct, order and use their best efforts to cause the affiliated union or unions to cease any violations of this Article. A Trades Council and the Committee otherwise in compliance with the obligations under this paragraph shall not be liable for unauthorized acts of its affiliates.
- 7.4 In the event that activities in violation of this Article are not immediately halted through the efforts of the parties, any aggrieved party may invoke the special arbitration provisions set forth in paragraph 7.5 of this Article.
- 7.5 Upon written notice to the other involved parties by the most expeditious means available, any aggrieved party may institute the following special arbitration procedure when a breach of this Article is alleged:
- 7.5.A The party invoking this procedure shall notify the individual designated as the Permanent Arbitrator pursuant to paragraph 6.8 of the nature of the alleged violation; such notice shall be by the most expeditious means possible. The initiating party may also furnish such additional factual information as may be reasonably necessary for the Permanent Arbitrator to understand the relevant circumstances. Copies of any written materials provided to the arbitrator shall also be contemporaneously provided by the most expeditious means possible to the party alleged to be in violation and to all other involved parties.

- 7.5.B Upon receipt of said notice the Permanent Arbitrator shall set and hold a hearing within twenty-four (24) hours if it is contended the violation is ongoing, but not before twenty-four (24) hours after the written notice to all parties involved as required above.
- 7.5.C The Permanent Arbitrator shall notify the parties by facsimile or any other effective written means, of the place and time chosen by the Permanent Arbitrator for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Permanent Arbitrator.
- 7.5.D The sole issue at the hearing shall be whether a violation of this Article has, in fact, occurred. An Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Permanent Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.
- 7.5.E Such Award may be enforced by any court of competent jurisdiction upon the filing of the Award and such other relevant documents as may be required. Facsimile or other hardcopy written notice of the filing of such enforcement proceedings shall be given to the other relevant parties. In a proceeding to obtain a temporary order enforcing the Permanent Arbitrator's Award as issued under this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Permanent Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.
- 7.6 Individuals found to have violated the provisions of this Article are subject to immediate termination. In addition, IDOT reserves the right to terminate this PLA as to any party found to have violated the provisions of this Article.
- 7.7 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.
- 7.8 The fees and expenses of the Permanent Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE VIII – TERMS OF AGREEMENT

- 8.1 If any Article or provision of this Agreement shall be declared invalid, inoperative or unenforceable by operation of law or by any of the above mentioned tribunals of competent jurisdiction, the remainder of this Agreement or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.
- 8.2 This Agreement shall be in full force as of and from the date of the Notice of Award until the Project contract is closed.
- 8.3 This PLA may not be changed or modified except by the subsequent written agreement of the parties. All parties represent that they have the full legal authority to enter into this PLA. This PLA may be executed by the parties in one or more counterparts.

- 8.4 Any liability arising out of this PLA shall be several and not joint. IDOT shall not be liable to any person or other party for any violation of this PLA by any other party, and no Contractor or Union shall be liable for any violation of this PLA by any other Contractor or Union.
- 8.5 The failure or refusal of a party to exercise its rights hereunder in one or more instances shall not be deemed a waiver of any such rights in respect of a separate instance of the same or similar nature.

[The Balance of This Page Intentionally Left Blank]

Addendum A

IDOT Slate of Permanent Arbitrators

1. Bruce Feldacker
2. Thomas F. Gibbons
3. Edward J. Harrick
4. Brent L. Motchan
5. Robert Perkovich
6. Byron Yaffee
7. Glenn A. Zipp

Execution Page

Illinois Department of Transportation

Omer Osman, Director of Highways

Matthew Hughes, Director Finance & Administration

Michael A. Forti, Chief Counsel

Ann L. Schneider, Secretary

(Date)

Illinois AFL-CIO Statewide Project Labor Agreement Committee, representing the Unions listed below:

(Date)

List Unions:

****RETURN WITH BID****

Exhibit A - Contractor Letter of Assent

(Date)

To All Parties:

In accordance with the terms and conditions of the contract for Construction Work on [Contract No. 60R19], this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Transportation in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

(Authorized Company Officer)

(Company)

****RETURN WITH BID****

ILLINOIS DEPARTMENT OF LABOR

PREVAILING WAGES FOR 7 CC? COUNTY EFFECTIVE APRIL 2014

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at <http://www.state.il.us/agency/idol/> or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

Cook County Prevailing Wage for April 2014

(See explanation of column headings at bottom of wages)

Trade Name	RG	TYP	C	Base	FRMAN	M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		37.100	37.600	1.5	1.5	2.0	13.38	9.520	0.000	0.500
ASBESTOS ABT-MEC		BLD		35.100	37.600	1.5	1.5	2.0	11.17	10.76	0.000	0.720
BOILERMAKER		BLD		44.240	48.220	2.0	2.0	2.0	6.970	17.54	0.000	0.350
BRICK MASON		BLD		41.580	45.740	1.5	1.5	2.0	9.700	12.80	0.000	1.040
CARPENTER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.75	0.000	0.630
CEMENT MASON		ALL		42.350	44.350	2.0	1.5	2.0	12.16	12.35	0.000	0.430
CERAMIC TILE FNSHER		BLD		34.810	0.000	2.0	1.5	2.0	10.20	7.830	0.000	0.640
COMM. ELECT.		BLD		38.000	40.800	1.5	1.5	2.0	8.420	11.30	1.100	0.700
ELECTRIC PWR EQMT OP		ALL		44.850	49.850	1.5	1.5	2.0	10.63	14.23	0.000	0.450
ELECTRIC PWR GRNDMAN		ALL		34.980	49.850	1.5	1.5	2.0	8.290	11.10	0.000	0.350
ELECTRIC PWR LINEMAN		ALL		44.850	49.850	1.5	1.5	2.0	10.63	14.23	0.000	0.450
ELECTRICIAN		ALL		43.000	46.000	1.5	1.5	2.0	12.83	14.27	0.000	0.750
ELEVATOR CONSTRUCTOR		BLD		49.900	56.140	2.0	2.0	2.0	12.73	13.46	3.990	0.600
FENCE ERECTOR		ALL		34.840	36.840	1.5	1.5	2.0	12.86	10.67	0.000	0.300
GLAZIER		BLD		40.000	41.500	1.5	2.0	2.0	12.49	15.99	0.000	0.940
HT/FROST INSULATOR		BLD		46.950	49.450	1.5	1.5	2.0	11.17	11.96	0.000	0.720
IRON WORKER		ALL		42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350
LABORER		ALL		37.000	37.750	1.5	1.5	2.0	13.38	9.520	0.000	0.500
LATHER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.75	0.000	0.630
MACHINIST		BLD		43.920	46.420	1.5	1.5	2.0	6.760	8.950	1.850	0.000
MARBLE FINISHERS		ALL		30.520	0.000	1.5	1.5	2.0	9.700	12.55	0.000	0.590
MARBLE MASON		BLD		40.780	44.860	1.5	1.5	2.0	9.700	12.71	0.000	0.740
MATERIAL TESTER I		ALL		27.000	0.000	1.5	1.5	2.0	13.38	9.520	0.000	0.500
MATERIALS TESTER II		ALL		32.000	0.000	1.5	1.5	2.0	13.38	9.520	0.000	0.500
MILLWRIGHT		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.75	0.000	0.630
OPERATING ENGINEER		BLD	1	46.100	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	2	44.800	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	3	42.250	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	4	40.500	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	5	49.850	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	6	47.100	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		BLD	7	49.100	50.100	2.0	2.0	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		FLT	1	51.300	51.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		FLT	2	49.800	51.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		FLT	3	44.350	51.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		FLT	4	36.850	51.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		FLT	5	52.800	51.300	1.5	1.5	2.0	15.70	10.55	1.900	1.250
OPERATING ENGINEER		HWY	1	44.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	2	43.750	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	3	41.700	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	4	40.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	5	39.100	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	6	47.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
OPERATING ENGINEER		HWY	7	45.300	48.300	1.5	1.5	2.0	16.60	11.05	1.900	1.250
ORNAMNTL IRON WORKER		ALL		42.900	45.400	2.0	2.0	2.0	13.11	16.40	0.000	0.600
PAINTER		ALL		40.750	45.500	1.5	1.5	1.5	10.75	11.10	0.000	0.770
PAINTER SIGNS		BLD		33.920	38.090	1.5	1.5	1.5	2.600	2.710	0.000	0.000
PILEDRIVER		ALL		42.520	44.520	1.5	1.5	2.0	13.29	12.75	0.000	0.630
PIPEFITTER		BLD		46.000	49.000	1.5	1.5	2.0	9.000	15.85	0.000	1.680
PLASTERER		BLD		41.250	43.730	1.5	1.5	2.0	11.10	11.69	0.000	0.550
PLUMBER		BLD		46.050	48.050	1.5	1.5	2.0	12.53	10.06	0.000	0.880
ROOFER		BLD		39.200	42.200	1.5	1.5	2.0	8.280	9.690	0.000	0.430
SHEETMETAL WORKER		BLD		41.210	44.510	1.5	1.5	2.0	10.48	19.41	0.000	0.660
SIGN HANGER		BLD		30.210	30.710	1.5	1.5	2.0	4.850	3.030	0.000	0.000
SPRINKLER FITTER		BLD		49.200	51.200	1.5	1.5	2.0	10.75	8.850	0.000	0.450
STEEL ERECTOR		ALL		42.070	44.070	2.0	2.0	2.0	13.45	19.59	0.000	0.350

STONE MASON		BLD	41.580	45.740	1.5	1.5	2.0	9.700	12.80	0.000	1.040
SURVEY WORKER		ALL	37.000	37.750	1.5	1.5	2.0	12.97	9.930	0.000	0.500
TERRAZZO FINISHER		BLD	36.040	0.000	1.5	1.5	2.0	10.20	9.900	0.000	0.540
TERRAZZO MASON		BLD	39.880	42.880	1.5	1.5	2.0	10.20	11.25	0.000	0.700
TILE MASON		BLD	41.840	45.840	2.0	1.5	2.0	10.20	9.560	0.000	0.880
TRAFFIC SAFETY WRKR		HWY	28.250	29.850	1.5	1.5	2.0	4.896	4.175	0.000	0.000
TRUCK DRIVER	E	ALL 1	33.850	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	E	ALL 2	34.100	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	E	ALL 3	34.300	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	E	ALL 4	34.500	34.500	1.5	1.5	2.0	8.150	8.500	0.000	0.150
TRUCK DRIVER	W	ALL 1	32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL 2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL 3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL 4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TUCKPOINTER		BLD	41.950	42.950	1.5	1.5	2.0	8.180	11.78	0.000	0.630

Legend: RG (Region)

TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)

C (Class)

Base (Base Wage Rate)

FRMAN (Foreman Rate)

M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.)

OSA (Overtime (OT) is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all

stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled);

Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives,

Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or

machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing

classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".