



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

January 8, 2013

SUBJECT: FAP Route 305 (Willow Raod)
Project ACNHF-0305(999)
Section (1920.01, 1518, 2022 & 1922.4B)R
Cook County
Contract No. 60T35
Item No. 112, January 18, 2013 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Replaced the Schedule of Prices.
2. Revised the Table of Contents to the Special Provisions.
3. Revised pages 2-4, 14-16, 18-29 and 321-325 of the Special Provisions.
4. Added pages 449-465 to the Special Provisions.
5. Revised sheets 1-6, 8-10, 12, 13, 18-20, 20A, 20B, 73, 74, 191, 205, 206, 210, 451-453, 456-458, 460, 461, & 468-473 of the Plans.
6. Added sheet 214B to the Plans.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P. E.
Acting Engineer of Design and Environment

A handwritten signature in black ink, appearing to read 'Ted B. Walschleger P.E.'.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

cc: John Fortmann, Region 1, District 1; Dave Lippert, Mike Renner;
D.Carl Puzey; Estimates
MS/ks

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

60T35

State Job # - C-91-331-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - (1920.01,1518,2022&1922.4B)R

Project Number
 ACNHF-0305/999/

Route
 FAP 305

*REVISED: JANUARY 8, 2013

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2000220	T-ACERX FREM MM 2-1/2	EACH	5.000				
A2000224	T-ACERX FREM MM 3	EACH	12.000				
A2000232	T-ACERX FREM MM 4	EACH	6.000				
A2000324	T-ACER MIY MOR 3	EACH	7.000				
A2000332	T-ACER MIY MOR 4	EACH	5.000				
A2002820	T-CATALPA SPEC 2-1/2	EACH	20.000				
A2002824	T-CATALPA SPEC 3	EACH	16.000				
A2002920	T-CELTIS OCCID 2-1/2	EACH	47.000				
A2004514	T-GINKGO BIL AG 2-1/2	EACH	11.000				
A2004520	T-GINKGO BIL PS 2-1/2	EACH	3.000				
A2004824	T-GLED TRI-I SK 3	EACH	8.000				
A2004832	T-GLED TRI-I SK 4	EACH	7.000				
A2005040	T-GYMNOC DE JFS 2-1/2	EACH	34.000				
A2005042	T-GYMNOC DE JFS 3	EACH	2.000				
A2005960	T-PLAT X ACR MC 2.5	EACH	28.000				

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A2006520	T-QUERCUS BICOL 2-1/2	EACH	24.000				
A2006820	T-QUERCUS MEUH 2-1/2	EACH	16.000				
A2007170	T-QUER WAREI RP 2-1/2	EACH	23.000				
A2007251	T-ROBINIA PSEU CB 2.5	EACH	38.000				
A2007624	T-TAXODIUM DIS 3	EACH	22.000				
A2008100	T-TILIA CORD GLEN 2.5	EACH	16.000				
A2008517	T-ULMUS JAP X WIL 2.5	EACH	33.000				
A2008519	T-ULMUS MRTN G TE 2.5	EACH	14.000				
A2008522	T-ULMUS JAP X WIL 4	EACH	5.000				
A2008618	T-ULMUS MRTN GLSY 3BB	EACH	12.000				
A2008626	T-ULMUS MRTN GLSY 4BB	EACH	16.000				
A2012220	T-AESCUL X CAR FM 2.5	EACH	17.000				
A3005332	T-ZELKOVA SER VG 4	EACH	6.000				
B2000769	T-AMEL X GF AB SF 8'	EACH	28.000				
B2002270	T-CRAT VIR WK CL 8'	EACH	17.000				

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B2004170	T-MALUS PF CL 8'	EACH	10.000				
B2004569	T-MALUS R J CL 8'	EACH	14.000				
B2005389	T-METASEQ GLYPTO 2.5	EACH	13.000				
B2006370	T-SYRG RET IS CL 8'	EACH	17.000				
B2010120	T-CLADRASTIS LUT 2.5	EACH	17.000				
C2C02364	S-DIERVILLA R M 2'C	EACH	88.000				
C2C05824	S-RHUS AROMA GRO 2'C	EACH	246.000				
C2C08524	S-ROSA RUGOSA R 2'C	EACH	220.000				
C2C09784	S-SPIREA BETUL T 2'C	EACH	129.000				
C2011924	S-VIBURN DEN R S 2'	EACH	14.000				
C2011936	S-VIBURN DEN R S 3'	EACH	18.000				
D2001578	E-JUNIP VIRG 8'	EACH	2.000				
D2001580	E-JUNIP VIRG 10'	EACH	2.000				
D2001988	E-PICEA GLAU DEN 8'	EACH	2.000				
D2001990	E-PICEA GLAU DEN 10'	EACH	1.000				

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D2003774	E-THUJA OCC SMARAG 3'	EACH	31.000				
D2015401	E-JUNIP CHIN KC 24	EACH	32.000				
K0012970	PERENNIAL PLNT BULB T	UNIT	51.800				
K0012980	P PL ORNAMENT T QRT P	UNIT	16.000				
K0012990	P PL ORNAMENT T GAL P	UNIT	56.430				
K0026700	TREE CARE	EACH	576.000				
K0026810	SHRUB CARE	EACH	778.000				
K0026850	PERENNIAL PLANT CARE	SQ YD	2,299.000				
K0029618	WEED CONT BROADLF TRF	GALLON	5.000				
K0029634	WEED CONTR PRE-EM GRN	POUND	48.000				
K1001988	IRRIGATION SYSTEM SPL	L SUM	1.000				
*REV XX007023	STAIN CONC STRUCTURES	SQ YD	336.000				
X0322141	REM TEMP WOOD POLE	EACH	7.000				
X0322440	DIG LOOP DET SEN U 2C	EACH	1.000				
X0322442	TONE EQ 3 FRE REC PRG	EACH	4.000				

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X0322443	TONE EQ 3 FREQ TR PRG	EACH	4.000				
X0322444	TONE EQ POWER SUPPLY	EACH	2.000				
X0322445	TONE EQ MOUNT FRAME	EACH	1.000				
X0322446	CAB HOUSING EQU TY 3	EACH	1.000				
X0322727	POLY DUCT 1 1/4	FOOT	185.000				
X0324085	EM VEH P S LSC 20 3C	FOOT	3,589.000				
X0326146	SOIL CONDITIONER	SQ YD	8,042.000				
*ADD X0326358	STORM WATER TRTMT SYS	EACH	1.000				
X0326863	BRICK SIDEWALK	SQ FT	12,456.000				
X0327004	TEMP WP 60 CL 4	EACH	2.000				
X0327303	REM EX SIGN LT UNT NS	EACH	2.000				
X0327349	TEMP WP 40 CL 4	EACH	5.000				
*ADD X0327357	CONSTRN VBRN MONITRNG	L SUM	1.000				
X0327420	SAN SEWER DI 8	FOOT	167.000				
X0327512	SANITARY FORCE MAIN 4	FOOT	3,241.000				

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X0487700	SAN SEW REMOV 10	FOOT	1,768.000				
X0840000	SAN SEW REMOV 8	FOOT	386.000				
X4021000	TEMP ACCESS- PRIV ENT	EACH	19.000				
X4022000	TEMP ACCESS- COM ENT	EACH	10.000				
X4023000	TEMP ACCESS- ROAD	EACH	25.000				
X4200995	HES PCC PVT 9 1/4 J	SQ YD	6,145.000				
X4201015	HES PCC PVT 10 1/4 J	SQ YD	1,564.000				
X4403800	MEDIAN SURF REMOVAL	SQ FT	4,984.000				
X5015225	PIPE CULVERT REM SPL	FOOT	6.000				
X5091755	PARAPET RAILING SPL	FOOT	348.000				
X5537500	SS CLEANED 6	FOOT	40.000				
X5537700	SS CLEANED 10	FOOT	32.000				
X5537800	SS CLEANED 12	FOOT	1,175.000				
X5537900	SS CLEANED 15	FOOT	149.000				
X5538000	SS CLEANED 18	FOOT	617.000				

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X5538100	SS CLEANED 21	FOOT	450.000				
X5538200	SS CLEANED 24	FOOT	1,200.000				
X5538300	SS CLEANED 27	FOOT	316.000				
X5538400	SS CLEANED 30	FOOT	1,870.000				
X5538900	SS CLEANED 54	FOOT	1,368.000				
X5610016	WATER MAIN 16 D BORE	FOOT	430.000				
X5630006	CUT & CAP EX 6 WM	EACH	5.000				
X5630008	CUT & CAP EX 8 WM	EACH	14.000				
X5630012	CUT & CAP EX 12 WM	EACH	3.000				
X5630706	CONN TO EX W MAIN 6	EACH	5.000				
X5630708	CONN TO EX W MAIN 8	EACH	9.000				
X5630712	CONN TO EX W MAIN 12	EACH	2.000				
X5630716	CONN TO EX W MAIN 16	EACH	1.000				
X5631004	CUT & CAP EX 4 FM	EACH	2.000				
X5631104	CONN TO EX F MAIN 4	EACH	2.000				

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X5860110	GRANULAR BACKFILL STR	CU YD	187.000				
X6020084	MANHOLE SPECIAL	EACH	1.000				
X6022810	MAN SAN 4 DIA T1F CL	EACH	41.000				
X6026622	VV REMOVED	EACH	21.000				
X6061310	CONC MEDIAN SURF 4 SP	SQ FT	4,271.000				
X6640550	CH LK FENCE 4 SPL	FOOT	293.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7010218	TRAF CONT & PROT SPL	EACH	1.000				
X7011015	TR C-PROT EXPRESSWAYS	L SUM	1.000				
X7013820	TR CONT SURVEIL EXPWY	CAL DA	30.000				
X7030025	WET REF TEM TP T3 L&S	SQ FT	4,820.000				
X7030030	WET REF TEM TAPE T3 4	FOOT	202,830.000				
X7030035	WET REF TEM TAPE T3 5	FOOT	5,318.000				
X7030040	WET REF TEM TAPE T3 6	FOOT	40,618.000				
X7030045	WET REF TEM TAPE T3 8	FOOT	1,000.000				

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X7030050	WET REF TEM TPE T3 12	FOOT	10,170.000				
X7030055	WET REF TEM TPE T3 24	FOOT	2,936.000				
X7240600	REM RE-ERECT EX SIGN	EACH	3.000				
X7240605	REM RE-E BR MTD SIGN	EACH	1.000				
X7360300	REM OH SIN STR-WLKWAY	FOOT	98.000				
X7830050	RAISD REF PM REFL REM	EACH	584.000				
X7830070	GRV RCSD PVT MRKG 5	FOOT	953.000				
X7830072	GRV RCSD PVT MRKG 6	FOOT	2,615.000				
X8140210	HD HANDHOLE SPL	EACH	2.000				
X8162815	UD 2#23#61#8GXLP 1.5P	FOOT	2,811.000				
X8210005	TEMP LUM HPSV HM 250W	EACH	11.000				
X8212160	LUM MH HM 250W SPL	EACH	21.000				
X8213595	LUM MH SM 100W SPL	EACH	9.000				
X8250090	COMB POLE LTG CONTROL	EACH	4.000				
X8304520	LT P A 30MH 8MA SPL	EACH	21.000				

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X8304798	LT P A 18MH TM SPL	EACH	9.000				
X8360215	LIGHT POLE FDN 24D OS	FOOT	60.000				
X8570226	FAC T4 CAB SPL	EACH	6.000				
X8570231	FAC T5 CAB SPL	EACH	1.000				
X8600105	MASTER CONTROLLER SPL	EACH	1.000				
X8620200	UNINTER POWER SUP SPL	EACH	7.000				
X8710024	FOCC62.5/125 MM12SM24	FOOT	14,777.000				
X8730312	EC C LEAD 18 4C TW SH	FOOT	200.000				
X8752640	TS POST A 10 SPL	EACH	4.000				
X8752680	TS POST A 14 SPL	EACH	2.000				
X8752700	TS POST A 16 SPL	EACH	11.000				
X8752720	TS POST A 18 SPL	EACH	1.000				
X8770123	S C MAA&P 24 SPL	EACH	2.000				
X8770126	S C MAA&P 30 SPL	EACH	1.000				
X8770134	S C MAA&P 34 SPL	EACH	2.000				

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X8770136	S C MAA&P 36 SPL	EACH	2.000				
X8770137	S C MAA&P 38 SPL	EACH	2.000				
X8770139	S C MAA&P 44 SPL	EACH	1.000				
X8770140	S C MAA&P 46 SPL	EACH	1.000				
X8771170	S MAA & P 26 SPL	EACH	1.000				
X8771190	S MAA & P 30 SPL	EACH	1.000				
X8771210	S MAA & P 34 SPL	EACH	1.000				
X8771220	S MAA & P 36 SPL	EACH	1.000				
X8771240	S MAA & P 40 SPL	EACH	1.000				
X8771250	S MAA & P 42 SPL	EACH	3.000				
X8772930	STL COMB MAA&P 40 SPL	EACH	1.000				
X8773060	STL COMB MAA&P 65 SPL	EACH	1.000				
X8774516	S C MAA&P DMA 48&30SP	EACH	1.000				
X8850102	INDUCTION LOOP	FOOT	40.000				
X8950075	REMOV EX LTG CONT SAL	EACH	1.000				

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X8950077	REM REL EXIST LT CONT	EACH	1.000				
X8950130	MOD EX LTG CONTROLLER	EACH	1.000				
Z0001850	ARC PREC CON PANEL	EACH	20.000				
Z0001905	STRUCT STEEL REPAIR	POUND	296.000				
Z0003600	BEAM STRAIGHTENING	L SUM	1.000				
Z0004542	HMA REMOVAL SPL	SQ YD	479.000				
Z0007124	STEEL RAILING SPL	FOOT	537.000				
Z0007430	TEMP SIDEWALK	SQ FT	6,000.000				
Z0012142	BR DECK SCAR 2 1/4	SQ YD	67.000				
Z0012754	STR REP CON DP = < 5	SQ FT	7.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0022800	FENCE REMOVAL	FOOT	307.000				
*REV Z0026407	TEMP SHT PILING	SQ FT	520.000				
Z0030850	TEMP INFO SIGNING	SQ FT	182.000				
Z0033020	LUM SFTY CABLE ASMBLY	EACH	21.000				

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Z0033028	MAINTAIN LIGHTING SYS	CAL MO	12.000				
Z0033040	ELEC SVC DSCNNCT L&TS	EACH	3.000				
Z0033056	OPTIM TRAF SIGNAL SYS	EACH	1.000				
Z0034210	MECH ST EARTH RET WL	SQ FT	2,036.000				
Z0046304	P UNDR FOR STRUCT 4	FOOT	184.000				
Z0056608	STORM SEW WM REQ 12	FOOT	2,657.000				
Z0056610	STORM SEW WM REQ 15	FOOT	104.000				
Z0056612	STORM SEW WM REQ 18	FOOT	114.000				
Z0056620	STORM SEW WM REQ 30	FOOT	40.000				
Z0056622	STORM SEW WM REQ 36	FOOT	25.000				
Z0056624	STORM SEW WM REQ 42	FOOT	111.000				
Z0056900	SAN SEW 8	FOOT	358.000				
Z0057000	SAN SEW 10	FOOT	1,428.000				
Z0057200	SAN SEW 15	FOOT	349.000				
Z0062456	TEMP PAVEMENT	SQ YD	17,849.000				

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Z0062458	TEMP PAVEMT VAR DEPTH	TON	522.000				
*REV Z0073002	TEMP SOIL RETEN SYSTM	SQ FT	405.000				
Z0073346	SLEEPER SLAB	SQ YD	637.000				
Z0073510	TEMP TR SIGNAL TIMING	EACH	7.000				
20100110	TREE REMOV 6-15	UNIT	1,593.000				
20100210	TREE REMOV OVER 15	UNIT	1,318.000				
20101000	TEMPORARY FENCE	FOOT	1,971.000				
20101200	TREE ROOT PRUNING	EACH	219.000				
20101300	TREE PRUN 1-10	EACH	131.000				
20101350	TREE PRUN OVER 10	EACH	88.000				
20200100	EARTH EXCAVATION	CU YD	40,710.000				
20201200	REM & DISP UNS MATL	CU YD	18,229.000				
20300100	CHANNEL EXCAVATION	CU YD	468.000				
20400800	FURNISHED EXCAVATION	CU YD	4,748.000				
*REV 20800150	TRENCH BACKFILL	CU YD	31,558.000				

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21001000	GEOTECH FAB F/GR STAB	SQ YD	5,465.000				
21101625	TOPSOIL F & P 6	SQ YD	46,503.000				
21101695	TOPSOIL F & P 30	SQ YD	8,042.000				
21301052	EXPLOR TRENCH 52	FOOT	1,000.000				
25000210	SEEDING CL 2A	ACRE	2.000				
25000400	NITROGEN FERT NUTR	POUND	733.000				
25000500	PHOSPHORUS FERT NUTR	POUND	733.000				
25000600	POTASSIUM FERT NUTR	POUND	733.000				
25000750	MOWING	ACRE	151.000				
25100630	EROSION CONTR BLANKET	SQ YD	11,745.000				
25200110	SODDING SALT TOLERANT	SQ YD	42,011.000				
25200200	SUPPLE WATERING	UNIT	2,440.000				
28000250	TEMP EROS CONTR SEED	POUND	5,750.000				
28000305	TEMP DITCH CHECKS	FOOT	816.000				
28000400	PERIMETER EROS BAR	FOOT	22,524.000				

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28000510	INLET FILTERS	EACH	456.000				
28001000	AGGREGATE - EROS CONT	TON	100.000				
28100107	STONE RIPRAP CL A4	SQ YD	577.000				
28200200	FILTER FABRIC	SQ YD	926.000				
30300001	AGG SUBGRADE IMPROVE	CU YD	8,304.000				
30300112	AGG SUBGRADE IMPR 12	SQ YD	98,607.000				
*REV 35101500	AGG BASE CSE B	CU YD	216.000				
35101800	AGG BASE CSE B 6	SQ YD	549.000				
35501308	HMA BASE CSE 6	SQ YD	689.000				
35501316	HMA BASE CSE 8	SQ YD	290.000				
40600200	BIT MATLS PR CT	TON	24.000				
40600895	CONSTRUC TEST STRIP	EACH	1.000				
40600982	HMA SURF REM BUTT JT	SQ YD	1,924.000				
40601005	HMA REPL OVER PATCH	TON	162.000				
40603335	HMA SC "D" N50	TON	293.000				

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40603340	HMA SC "D" N70	TON	36.000				
40603595	P HMA SC "F" N90	TON	429.000				
40701871	HMA PAVT FD 9 1/2	SQ YD	332.000				
40701966	HMA PAVT FD 14 1/4	SQ YD	2,965.000				
42000406	PCC PVT 9 1/4 JOINTD	SQ YD	55,304.000				
42000506	PCC PVT 10 1/4 JOINTD	SQ YD	14,074.000				
42001300	PROTECTIVE COAT	SQ YD	31,265.000				
*ADD 42001420	BR APPR PVT CON (PCC)	SQ YD	970.000				
42300200	PCC DRIVEWAY PAVT 6	SQ YD	43.000				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	125.000				
42400200	PC CONC SIDEWALK 5	SQ FT	80,582.000				
42400800	DETECTABLE WARNINGS	SQ FT	1,522.000				
44000100	PAVEMENT REM	SQ YD	72,221.000				
44000155	HMA SURF REM 1 1/2	SQ YD	184.000				
44000156	HMA SURF REM 1 3/4	SQ YD	204.000				
44000200	DRIVE PAVEMENT REM	SQ YD	2,091.000				

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44000300	CURB REM	FOOT	310.000				
44000500	COMB CURB GUTTER REM	FOOT	16,752.000				
44000600	SIDEWALK REM	SQ FT	46,932.000				
44002212	HMA RM OV PATCH 3	SQ YD	218.000				
44002216	HMA RM OV PATCH 4	SQ YD	262.000				
44002220	HMA RM OV PATCH 5	SQ YD	345.000				
44003100	MEDIAN REMOVAL	SQ FT	7,186.000				
44004250	PAVED SHLD REMOVAL	SQ YD	3,526.000				
44201337	CL C PATCH T1 9	SQ YD	3.000				
44201341	CL C PATCH T2 9	SQ YD	141.000				
44201345	CL C PATCH T3 9	SQ YD	212.000				
44201347	CL C PATCH T4 9	SQ YD	311.000				
44201353	CL C PATCH T2 10	SQ YD	13.000				
44201359	CL C PATCH T4 10	SQ YD	57.000				
44201747	CL D PATCH T4 8	SQ YD	103.000				

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48101500	AGGREGATE SHLDS B 6	SQ YD	45.000				
48203021	HMA SHOULDERS 6	SQ YD	151.000				
48203027	HMA SHOULDERS 7 1/2	SQ YD	182.000				
48203046	HMA SHOULDERS 12 1/4	SQ YD	3,372.000				
50100100	REM EXIST STRUCT	EACH	1.000				
50102400	CONC REM	CU YD	68.300				
50104000	BRIDGE RAIL REMOVAL	FOOT	464.000				
50104400	CONC HDWL REM	EACH	3.000				
50157300	PROTECTIVE SHIELD	SQ YD	85.000				
*REV 50200100	STRUCTURE EXCAVATION	CU YD	904.000				
*REV 50300225	CONC STRUCT	CU YD	104.100				
*REV 50300255	CONC SUP-STR	CU YD	778.200				
50300260	BR DECK GROOVING	SQ YD	707.000				
50300285	FORM LINER TEX SURF	SQ FT	4,673.000				
50300300	PROTECTIVE COAT	SQ YD	2,039.000				

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50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	4,191.000				
*REV 50800205	REINF BARS, EPOXY CTD	POUND	162,506.000				
50800515	BAR SPLICERS	EACH	693.000				
50901730	BRIDGE FENCE RAILING	FOOT	464.000				
51200959	FUR M S PILE 14X0.312	FOOT	1,734.000				
51202305	DRIVING PILES	FOOT	1,734.000				
51203200	TEST PILE MET SHELLS	EACH	2.000				
51204650	PILE SHOES	EACH	30.000				
51500100	NAME PLATES	EACH	1.000				
52000110	PREF JT STRIP SEAL	FOOT	20.000				
52100520	ANCHOR BOLTS 1	EACH	44.000				
54001001	BOX CUL END SEC C1	EACH	1.000				
54001002	BOX CUL END SEC C2	EACH	1.000				
54010505	PCBC 5X5	FOOT	56.000				

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54010605	PCBC 6X5	FOOT	56.000				
542A0217	P CUL CL A 1 12	FOOT	47.000				
542A0223	P CUL CL A 1 18	FOOT	33.000				
5421D015	P CUL CL D 1 15 TEMP	FOOT	195.000				
5421D018	P CUL CL D 1 18 TEMP	FOOT	114.000				
54213657	PRC FLAR END SEC 12	EACH	2.000				
54213663	PRC FLAR END SEC 18	EACH	1.000				
54213687	PRC FLAR END SEC 42	EACH	1.000				
54213870	STEEL END SEC 15	EACH	15.000				
54213873	STEEL END SEC 18	EACH	3.000				
54214521	PRC FL END S EQ RS 36	EACH	1.000				
550A0050	STORM SEW CL A 1 12	FOOT	2,636.000				
550A0070	STORM SEW CL A 1 15	FOOT	792.000				
550A0090	STORM SEW CL A 1 18	FOOT	146.000				
550A0120	STORM SEW CL A 1 24	FOOT	61.000				

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550A0220	STORM SEW CL A 1 66	FOOT	746.000				
550A0230	STORM SEW CL A 1 72	FOOT	578.000				
550A0340	STORM SEW CL A 2 12	FOOT	2,280.000				
550A0360	STORM SEW CL A 2 15	FOOT	170.000				
550A0380	STORM SEW CL A 2 18	FOOT	1,037.000				
550A0410	STORM SEW CL A 2 24	FOOT	190.000				
550A0430	STORM SEW CL A 2 30	FOOT	188.000				
550A0470	STORM SEW CL A 2 42	FOOT	550.000				
550A0480	STORM SEW CL A 2 48	FOOT	1,473.000				
550A0500	STORM SEW CL A 2 60	FOOT	1,092.000				
550A0510	STORM SEW CL A 2 66	FOOT	1,398.000				
550A0520	STORM SEW CL A 2 72	FOOT	331.000				
550A2320	SS RG CL A 1 12	FOOT	326.000				
550A2330	SS RG CL A 1 15	FOOT	196.000				
550A2400	SS RG CL A 1 36	FOOT	153.000				

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550A2450	SS RG CL A 1 66	FOOT	100.000				
550A2460	SS RG CL A 1 72	FOOT	99.000				
550A2520	SS RG CL A 2 12	FOOT	621.000				
550A2530	SS RG CL A 2 15	FOOT	150.000				
550A2540	SS RG CL A 2 18	FOOT	49.000				
550A2580	SS RG CL A 2 30	FOOT	6.000				
550A2600	SS RG CL A 2 36	FOOT	58.000				
*REV 550A2610	SS RG CL A 2 42	FOOT	433.000				
550A2620	SS RG CL A 2 48	FOOT	607.000				
550A2640	SS RG CL A 2 60	FOOT	179.000				
550A2650	SS RG CL A 2 66	FOOT	78.000				
550A4300	SS CL A 1 EQRS 30	FOOT	194.000				
550A4500	SS CL A 1 EQRS 36	FOOT	472.000				
550B0040	STORM SEW CL B 1 10	FOOT	5.000				
550B0050	STORM SEW CL B 1 12	FOOT	41.000				

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550B0070	STORM SEW CL B 1 15	FOOT	56.000				
55100200	STORM SEWER REM 6	FOOT	29.000				
55100300	STORM SEWER REM 8	FOOT	352.000				
55100400	STORM SEWER REM 10	FOOT	283.000				
55100500	STORM SEWER REM 12	FOOT	2,070.000				
55100700	STORM SEWER REM 15	FOOT	1,483.000				
55100900	STORM SEWER REM 18	FOOT	941.000				
55101100	STORM SEWER REM 21	FOOT	308.000				
55101200	STORM SEWER REM 24	FOOT	605.000				
55101300	STORM SEWER REM 27	FOOT	72.000				
55101400	STORM SEWER REM 30	FOOT	209.000				
55101600	STORM SEWER REM 36	FOOT	2,246.000				
55101800	STORM SEWER REM 42	FOOT	71.000				
56100600	WATER MAIN 6	FOOT	94.000				
56100700	WATER MAIN 8	FOOT	563.000				

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56100800	WATER MAIN 10	FOOT	630.000				
56100900	WATER MAIN 12	FOOT	15.000				
56101000	WATER MAIN 16	FOOT	5,446.000				
56104900	WATER VALVES 6	EACH	5.000				
56105000	WATER VALVES 8	EACH	9.000				
56105100	WATER VALVES 10	EACH	1.000				
56105300	WATER VALVES 16	EACH	11.000				
56106300	ADJ WATER MAIN 6	FOOT	30.000				
56106400	ADJ WATER MAIN 8	FOOT	30.000				
56106500	ADJ WATER MAIN 10	FOOT	550.000				
56106700	ADJ WATER MAIN 16	FOOT	180.000				
56200500	WATER SERV LINE 1 1/2	FOOT	156.000				
56200700	WATER SERV LINE 2	FOOT	18.000				
56201600	CORP STOPS 1 1/2	EACH	6.000				
56201800	CORP STOPS 2	EACH	1.000				

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56300300	ADJ WATER SERV LINES	FOOT	150.000				
56400300	FIRE HYDNITS TO BE ADJ	EACH	8.000				
56400500	FIRE HYDNITS TO BE REM	EACH	15.000				
56400820	FIRE HYD W/AUX V & VB	EACH	27.000				
56500600	DOM WAT SER BOX ADJ	EACH	5.000				
56500800	DOM WAT SER BOX	EACH	7.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	140.000				
59300100	CONTR LOW-STRENG MATL	CU YD	142.000				
60100060	CONC HDWL FOR P DRAIN	EACH	5.000				
60108100	PIPE UNDERDRAIN 4 SP	FOOT	230.000				
60109510	P UNDR FAB LINE TR 4	FOOT	5,076.000				
60200205	CB TA 4 DIA T1F CL	EACH	3.000				
60200805	CB TA 4 DIA T8G	EACH	11.000				
60201110	CB TA 4 DIA T11V F&G	EACH	25.000				
*REV 60201330	CB TA 4 DIA T23F&G	EACH	94.000				

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60201340	CB TA 4 DIA T24F&G	EACH	11.000				
60204505	CB TA 5 DIA T8G	EACH	4.000				
60205040	CB TA 5 DIA T24F&G	EACH	3.000				
60207605	CB TC T8G	EACH	16.000				
60207915	CB TC T11V F&G	EACH	9.000				
60208230	CB TC T23F&G	EACH	12.000				
60208240	CB TC T24F&G	EACH	9.000				
60218400	MAN TA 4 DIA T1F CL	EACH	16.000				
60219000	MAN TA 4 DIA T8G	EACH	5.000				
*REV 60219530	MAN TA 4 DIA T23F&G	EACH	5.000				
60219540	MAN TA 4 DIA T24F&G	EACH	6.000				
60221100	MAN TA 5 DIA T1F CL	EACH	11.000				
60221700	MAN TA 5 DIA T8G	EACH	3.000				
60223800	MAN TA 6 DIA T1F CL	EACH	39.000				
60224005	MAN TA 6 DIA T8G	EACH	2.000				

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60224038	MAN TA 6 DIA T23F&G	EACH	2.000				
60224439	MAN TA 7 DIA T23F&G	EACH	1.000				
60224446	MAN TA 7 DIA T1F CL	EACH	17.000				
60224448	MAN TA 7 DIA T8G	EACH	1.000				
60224459	MAN TA 8 DIA T1F CL	EACH	21.000				
60224469	MAN TA 9 DIA T1F CL	EACH	8.000				
60236200	INLETS TA T8G	EACH	17.000				
60236825	INLETS TA T11V F&G	EACH	8.000				
60237460	INLETS TA T23F&G	EACH	68.000				
60237470	INLETS TA T24F&G	EACH	16.000				
60248700	VV TA 4 DIA T1F CL	EACH	14.000				
60248900	VV TA 5 DIA T1F CL	EACH	1.000				
60249010	VV TA 6 DIA T1F CL	EACH	11.000				
60250200	CB ADJUST	EACH	10.000				
60250500	CB ADJ NEW T1F CL	EACH	3.000				

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60252800	CB RECONST	EACH	1.000				
60255500	MAN ADJUST	EACH	24.000				
60255800	MAN ADJ NEW T1F CL	EACH	2.000				
60256400	MAN ADJ NEW T8G	EACH	1.000				
60256940	MAN ADJ NEW T24F&G	EACH	1.000				
60257900	MAN RECONST	EACH	2.000				
60260100	INLETS ADJUST	EACH	4.000				
60260300	INLETS ADJ NEW T1F OL	EACH	1.000				
60265700	VV ADJUST	EACH	22.000				
60266100	VV RECONST	EACH	1.000				
60266600	VALVE BOX ADJ	EACH	1.000				
60500040	REMOV MANHOLES	EACH	68.000				
60500050	REMOV CATCH BAS	EACH	61.000				
60500060	REMOV INLETS	EACH	20.000				
60600605	CONC CURB TB	FOOT	241.000				

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60603500	COMB CC&G TB6.06	FOOT	16.000				
60603800	COMB CC&G TB6.12	FOOT	20,452.000				
60605000	COMB CC&G TB6.24	FOOT	8,444.000				
60606200	COMB CC&G TB9.12 MOD	FOOT	8,455.000				
60618300	CONC MEDIAN SURF 4	SQ FT	851.000				
60619200	CONC MED TSB6.06	SQ FT	940.000				
60620800	CONC MED TSB9.12	SQ FT	20,935.000				
60624600	CORRUGATED MED	SQ FT	490.000				
63100085	TRAF BAR TERM T6	EACH	2.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	2.000				
63200310	GUARDRAIL REMOV	FOOT	930.000				
64200108	SHOULDER RUM STRIP 8	FOOT	195.000				
66900200	NON SPL WASTE DISPOS	CU YD	18,900.000				
66900400	SPL WAST GRD WAT DISP	GALLON	4,500.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				

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66900530	SOIL DISPOSAL ANALY	EACH	10.000				
66901000	BACKFILL PLUGS	CU YD	20.000				
67000400	ENGR FIELD OFFICE A	CAL MO	26.000				
67100100	MOBILIZATION	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	730.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	137.000				
70300100	SHORT TERM PAVT MKING	FOOT	1,000.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	1,536.000				
70300220	TEMP PVT MK LINE 4	FOOT	125,090.000				
70300240	TEMP PVT MK LINE 6	FOOT	11,795.000				
70300250	TEMP PVT MK LINE 8	FOOT	1,000.000				
70300260	TEMP PVT MK LINE 12	FOOT	1,170.000				
70300280	TEMP PVT MK LINE 24	FOOT	1,978.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	57,205.000				
70400100	TEMP CONC BARRIER	FOOT	3,680.000				

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*REV 70400200	REL TEMP CONC BARRIER	FOOT	200.000				
70600250	IMP ATTN TEMP NRD TL3	EACH	1.000				
70600255	IMP ATTN TEMP FRN TL2	EACH	3.000				
70600260	IMP ATTN TEMP FRN TL3	EACH	1.000				
70600322	IMP ATTN REL FRN TL2	EACH	2.000				
72000100	SIGN PANEL T1	SQ FT	785.000				
72000200	SIGN PANEL T2	SQ FT	55.000				
72000300	SIGN PANEL T3	SQ FT	1,037.000				
72400100	REMOV SIN PAN ASSY TA	EACH	50.000				
72400200	REMOV SIN PAN ASSY TB	EACH	7.000				
72400310	REMOV SIGN PANEL T1	SQ FT	135.000				
72400320	REMOV SIGN PANEL T2	SQ FT	34.000				
72400330	REMOV SIGN PANEL T3	SQ FT	293.000				
72400500	RELOC SIN PAN ASSY TA	EACH	58.000				
72400600	RELOC SIN PAN ASSY TB	EACH	45.000				

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60T35

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Route
 FAP 305

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - (1920.01,1518,2022&1922.4B)R

*REVISED: JANUARY 8, 2013

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
72400710	RELOC SIGN PANEL T1	SQ FT	34.000				
72400720	RELOC SIGN PANEL T2	SQ FT	13.000				
72700100	STR STL SIN SUP BA	POUND	1,414.000				
72800100	TELES STL SIN SUPPORT	FOOT	511.000				
72900100	METAL POST TY A	FOOT	699.000				
72900200	METAL POST TY B	FOOT	54.000				
73000100	WOOD SIN SUPPORT	FOOT	59.000				
73400200	DRILL SHAFT CONC FDN	CU YD	4.000				
73700100	REM GR MT SIN SUPPORT	EACH	5.000				
73700200	REM CONC FDN-GR MT	EACH	2.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	400.000				
78000200	THPL PVT MK LINE 4	FOOT	15,260.000				
78000400	THPL PVT MK LINE 6	FOOT	1,289.000				
78000500	THPL PVT MK LINE 8	FOOT	5,008.000				
78000600	THPL PVT MK LINE 12	FOOT	565.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78000650	THPL PVT MK LINE 24	FOOT	101.000				
78003110	PREF PL PM TB LINE 4	FOOT	953.000				
78003120	PREF PL PM TB LINE 5	FOOT	2,615.000				
78008200	POLYUREA PM T1 LTR-SY	SQ FT	1,711.000				
*REV 78008210	POLYUREA PM T1 LN 4	FOOT	11,358.000				
78008230	POLYUREA PM T1 LN 6	FOOT	7,244.000				
78008240	POLYUREA PM T1 LN 8	FOOT	1,881.000				
78008250	POLYUREA PM T1 LN 12	FOOT	5,379.000				
78008270	POLYUREA PM T1 LN 24	FOOT	1,024.000				
78100100	RAISED REFL PAVT MKR	EACH	895.000				
78100105	RAISED REF PVT MKR BR	EACH	6.000				
78100200	TEMP RAIS REF PVT MKR	EACH	1,898.000				
78100300	REPLACEMENT REFLECTOR	EACH	584.000				
78200100	MONODIR PRIS BAR REFL	EACH	600.000				
78200410	GUARDRAIL MKR TYPE A	EACH	8.000				

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78200530	BAR WALL MKR TYPE C	EACH	18.000				
78201000	TERMINAL MARKER - DA	EACH	2.000				
78300100	PAVT MARKING REMOVAL	SQ FT	22,117.000				
78300200	RAISED REF PVT MK REM	EACH	716.000				
80400100	ELECT SERV INSTALL	EACH	1.000				
80400200	ELECT UTIL SERV CONN	L SUM	1.000		2,000.000		2,000.000
80500010	SERV INSTALL GRND MT	EACH	2.000				
80500020	SERV INSTALL POLE MT	EACH	5.000				
81028200	UNDRGRD C GALVS 2	FOOT	14,392.000				
81028210	UNDRGRD C GALVS 2 1/2	FOOT	436.000				
81028220	UNDRGRD C GALVS 3	FOOT	2,055.000				
81028240	UNDRGRD C GALVS 4	FOOT	3,433.000				
81100605	CON AT ST 2 PVC GALVS	FOOT	90.000				
81200240	CON EMB STR 2.5 PVC	FOOT	275.000				
81300720	JUN BX SS AS 16X12X8	EACH	2.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
81400100	HANDHOLE	EACH	40.000				
81400200	HD HANDHOLE	EACH	23.000				
81400300	DBL HANDHOLE	EACH	15.000				
81603063	UD 4#10 #10GXLP 1P	FOOT	1,450.000				
81603090	UD 3#4#6GXLP USE 1 1/4	FOOT	3,217.000				
81702400	EC C XLP USE 3-1C 2	FOOT	40.000				
81702417	EC C XLP 3-1C#6 1C#6G	FOOT	315.000				
81702460	EC C XLP USE 3-1C 3/0	FOOT	50.000				
81800320	A CBL 3-1C4 MESS WIRE	FOOT	738.000				
81800330	A CBL 3-1C6 MESS WIRE	FOOT	1,375.000				
82102250	LUM SV HOR MT 250W	EACH	14.000				
82102310	LUM SV HOR MT 310W	EACH	7.000				
82500370	LT CONT BASEM 240V200	EACH	1.000				
83050810	LT P A 47.5MH 15MA	EACH	7.000				
83057225	LT P WD 40 CL4 15MA	EACH	3.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
83600200	LIGHT POLE FDN 24D	FOOT	300.000				
83800205	BKWY DEV TR B 15BC	EACH	7.000				
84100110	REM TEMP LIGHT UNIT	EACH	3.000				
84200600	REM LT U NO SALV	EACH	10.000				
84200804	REM POLE FDN	EACH	12.000				
84400105	RELOC EX LT UNIT	EACH	3.000				
84500130	REMOV LTG CONTR FDN	EACH	1.000				
85000200	MAIN EX TR SIG INSTAL	EACH	2.000				
86400100	TRANSCEIVER - FIB OPT	EACH	7.000				
87300925	ELCBL C TRACER 14 1C	FOOT	14,662.000				
87301215	ELCBL C SIGNAL 14 2C	FOOT	8,954.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	12,894.000				
87301245	ELCBL C SIGNAL 14 5C	FOOT	13,532.000				
87301255	ELCBL C SIGNAL 14 7C	FOOT	9,904.000				
87301305	ELCBL C LEAD 14 1PR	FOOT	18,256.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
87301805	ELCBL C SERV 6 2C	FOOT	749.000				
87301900	ELCBL C EGRDC 6 1C	FOOT	5,418.000				
87502500	TS POST GALVS 16	EACH	4.000				
87700270	S MAA & P 46	EACH	1.000				
87700280	S MAA & P 48	EACH	1.000				
87700290	S MAA & P 50	EACH	1.000				
87700310	S MAA & P 54	EACH	1.000				
87800100	CONC FDN TY A	FOOT	96.000				
87800150	CONC FDN TY C	FOOT	28.000				
87800200	CONC FDN TY D	FOOT	4.000				
87800400	CONC FDN TY E 30D	FOOT	51.000				
87800415	CONC FDN TY E 36D	FOOT	260.000				
87800420	CONC FDN TY E 42D	FOOT	25.000				
87900200	DRILL EX HANDHOLE	EACH	6.000				
88030020	SH LED 1F 3S MAM	EACH	50.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
88030050	SH LED 1F 3S BM	EACH	1.000				
88030100	SH LED 1F 5S BM	EACH	12.000				
88030110	SH LED 1F 5S MAM	EACH	24.000				
88030210	SH LED 2F 3S BM	EACH	2.000				
88030220	SH LED 2F 5S BM	EACH	2.000				
88030240	SH LED 2F 1-3 1-5 BM	EACH	8.000				
88102717	PED SH LED 1F BM CDT	EACH	38.000				
88102747	PED SH LED 2F BM CDT	EACH	4.000				
88200210	TS BACKPLATE LOU ALUM	EACH	74.000				
88500100	INDUCTIVE LOOP DETECT	EACH	68.000				
88600100	DET LOOP T1	FOOT	93.000				
88600700	PREFORM DETECT LOOP	FOOT	5,828.000				
88700200	LIGHT DETECTOR	EACH	17.000				
88700300	LIGHT DETECTOR AMP	EACH	7.000				
88800100	PED PUSH-BUTTON	EACH	50.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
89000100	TEMP TR SIG INSTALL	EACH	7.000				
89500510	CAB HOUSING EQU REMOV	EACH	1.000				
89502300	REM ELCBL FR CON	FOOT	6,542.000				
89502375	REMOV EX TS EQUIP	EACH	6.000				
89502376	REBUILD EX HANDHOLE	EACH	1.000				
89502380	REMOV EX HANDHOLE	EACH	67.000				
89502385	REMOV EX CONC FDN	EACH	56.000				

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Revised 1/9/13

COMPLETION DATE PLUS WORKING DAYS

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

"When a completion date plus working days is specified, the Contractor shall complete all roadway items and safely open all roadways to traffic by **11:59 PM on, October 31, 2014** except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items, including landscape planting items scheduled to be completed in Spring 2015, within **15 working days** after the completion date for opening the roadway to traffic. Under extenuating circumstances, the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for cleanup work, punch list items, and Spring 2015 landscape planting 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.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

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

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

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: July 1, 1994

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

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<u>Name of Utility</u>	<u>Type</u>	<u>Location</u>	<u>Estimated Dates for Start and Completion of Relocation or Adjustments</u>
AT&T Illinois 1000 Commerce Drive, 2 nd Floor Oak Brook, IL 60523 Attn: Mr. Hector Garcia (630) 573-5465	Overhead telephone lines and select underground crossings.	multiple conflicts with all of our cables & ducts that cross Willow Rd, we have a cable attached to the bridge that is coming out; the intersection of Willow & Central is a large manhole at this intersection, cables coming out in all directions, the will be conflicts with storm sewer.	Approximately 90 days plus 120 construction days.
Comcast Cable Communications Right-of-way Department 688 Industrial Drive Elmhurst, IL 60126 Attn: Ms. Martha Gieras (630) 600-6352	Overhead cable TV lines and underground fiber optic crossings.	Along entire project.	Approximately 45 construction days.
Commonwealth Edison Company Two Lincoln Center, 8 th Floor Oak Brook Terrace, IL 60181 Attn: Mr. Mark Tulach (630) 437-2212	Overhead electric lines and select underground crossings; Fiber optic crossings.	Along entire project. relocation of 19 poles, ~700 feet of 9 duct conduit system and cable, ~600 feet of various cable crossings and 120 feet of 36" steel casing and cable.	90 – 120 construction days.
Metropolitan Water Reclamation District of Greater Chicago 100 East Erie Street Chicago, IL 60611 Attn: Mr. Kenneth Kits (312) 751-3236	Underground sanitary sewer and manholes.	Along entire project.	No conflicts anticipated.

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<p>Nicor Gas Engineering Department 1844 Ferry Road Naperville, IL 60563 Attn: Ms. Constance Lane (630) 388-3830</p>	<p>Underground gas main crossings.</p>	<p>Along entire project . 5750' – 18" gas main - MOP 2950' – 16" gas main – MOP total = 8700ft</p> <p>2300' – 8" gas main - Dist 1600' – 8" gas main - dist 2225' – 4" gas main - Dist 3500' – 2" gas main – total = 9625ft</p>	<p>13 months</p>
<p>Qwest / Century Link 13057 South Monitor Avenue Palos Heights, IL 60463 Attn: Mr. Kevin Huff</p>	<p>Underground fiber optic crossing.</p>	<p>West of Central Avenue / Happ Road in abandoned railroad right-of-way.</p>	<p>No required relocation is anticipated.</p>
<p>Sprint Nextel 5600 N. River Road, Suite 300 Rosemont, IL 60018 Attn: Mr. James Burton</p>	<p>Underground fiber optic crossing.</p>	<p>West of Central Avenue / Happ Road.</p>	<p>Need test holes to determine conflict.</p>
<p>Village of Northfield 361 Happ Road Northfield, IL 60093 Attn: Mr. Mike Nystrand (847) 446-9200</p>	<p>Underground water main crossings, fire hydrants, valve vaults, and domestic service lines.</p> <p>Underground sanitary force main.</p>	<p>Along entire project.</p> <p>Along Waukegan Rd. (south of Willow Rd.) and along Willow Rd. from Waukegan Rd. to east of Three Lakes Dr.</p>	<p>TBD</p>

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 relocate 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:

- 1.) Proposed right of way is clear for award.
- 2.) Final plans have been sent to the utility companies.
- 3.) Utility permit is received by the Department and the Department is ready to issue said permit. 4.) If the 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.

Revised 1/9/13

TEMPORARY DITCH CHECKS

Add to Article 280.04 (a), Temporary Ditch Checks: Temporary Ditch Checks shall be at least 3.66 meters (12 feet) or longer in length.

AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012

Revised: January 1, 2013

Add the following Section to the Standard Specifications:

“SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

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

303.02 Materials. Materials shall be according to the following.

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

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).

Revised 1/9/13

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.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.
- (c) Gradation.
 - (1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01 or CS 02.

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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	

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

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

FINE AGGREGATE FOR HOT-MIX ASPHALT

Effective: May 1, 2007

Revised: January 1, 2012

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.

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

Effective: January 1, 2012

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

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

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

Revised 1/9/13

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

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

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

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

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

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

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

Effective: November 1, 2012

Revise: January 1, 2013

Revise Section 1031 of the Standard Specifications to read:

“SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

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

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting by 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.

Revised 1/9/13

(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.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and Processed 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 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 RAP 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.

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- (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 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/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.

- (b) RAS Stockpiles. The Contractor shall construct individual, sealed RAS stockpiles meeting one of the following definitions. No additional RAS shall be added to the pile after the pile has been sealed. 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. RAP/FRAP and RAS testing shall be according to the following.

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during processing or after stockpiling.

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- (1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
- (2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample whether RAP or 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.

- (b) RAS Testing. RAS shall be sampled and tested either during or after stockpiling.

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 stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before 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.

- (a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable (for slag) G_{mm} . Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

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

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

2/ For slag and steel slag

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

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

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

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

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAS shall not be used in Department projects unless the RAS, RAP or FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

1031.05 Quality Designation of Aggregate in RAP/FRAP.

Revised 1/9/13

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

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

(3) RAP from Class I, Superpave (High ESAL)/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 RAS, RAP or FRAP in HMA. The use of RAS, RAP or FRAP shall be a Contractor's option when constructing HMA in all contracts.

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

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

(2) Steel Slag Stockpiles. RAP/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.

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- (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. RAP/FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.
 - (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.
 - (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be RAP, Restricted FRAP, conglomerate, or conglomerate DQ.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

When the Contractor chooses the RAP option, the percentage of the percentage of virgin asphalt binder replaced by the asphalt binder from the RAP shall not exceed the percentages indicated in the table below for a given N Design:

Max Asphalt Binder Replacement RAP Only
 Table 1

HMA Mixtures ^{1/, 2/}	Maximum % Asphalt Binder replacement (ABR)		
	Binder/Leveling Binder	Surface	Polymer Modified
Ndesign			
30L	25	15	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10
4.75 mm N-50			15
SMA N-80			10

- 1/ 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.
- 2/ When the asphalt binder replacement exceeds 15 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement would require a virgin asphalt binder grade of PG64-22 to 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.

Revised 1/9/13

When the Contractor chooses either the RAS or FRAP option, the percent binder replacement shall not exceed the amounts indicated in the tables below for a given N Design.

Max Asphalt Binder Replacement RAS or FRAP
 Table 2

HMA Mixtures ^{1/, 2/}	Level 1 - Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer ^{3/, 4/} Modified
30L	35	30	15
50	30	25	15
70	30	20	15
90	20	15	15
105	20	15	15
4.75 mm N-50			25
SMA N-80			15

1/ 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.

2/ When the asphalt 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 will require a virgin asphalt binder grade of PG64-22 to 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.

3/ When the ABR for SMA is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22.

4/ When the ABR for IL-4.75 mix is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22. When the ABR for the IL-4.75 mix exceeds 15 percent, the virgin asphalt binder grade shall be SBS PG70-28.

When the Contractor chooses the RAS with FRAP combination, the percent asphalt binder replacement shall split equally between the RAS and the FRAP, and the total replacement shall not exceed the amounts indicated in the tables below for a given N Design.

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Max Asphalt Binder Replacement RAS and FRAP Combination
 Table 3

HMA Mixtures ^{1/, 2/}	Level 2 - Maximum % ABR		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
105	40	30	30
4.75 mm N-50			40
SMA N-80			30

1/ 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.

2/ 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 will require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

3/ When the ABR for SMA is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22. When the ABR for SMA exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28.

4/ When the ABR for IL-4.75 mix is 15 percent or less, the required virgin asphalt binder grade shall be SBS PG76-22. When the ABR for the IL-4.75 mix exceeds 15 percent, the virgin asphalt binder grade shall be SBS PG70-28.

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

All HMA mixtures will be required to be tested, prior to submittal for Department verification, according to Illinois Modified AASHTO T324 (Hamburg Wheel) and shall meet the following requirements:

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG76-XX	20,000	12.5
PG70-XX	20,000	12.5
PG64-XX	10,000	12.5
PG58-XX	10,000	12.5
PG52-XX	10,000	12.5
PG46-XX	10,000	12.5

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

1031.08HMA Production. 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.

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, RAP 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.

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

- (a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the maximum size requirement for the HMA mixture being produced.
- (b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.
- (c) RAS, RAP and FRAP. HMA plants utilizing RAS, RAP and FRAP 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, RAP and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

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- 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, RAP and FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - h. Aggregate RAS, RAP and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS, RAP 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, RAP 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, RAP 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.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply.

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- (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.”

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

Effective: May 1, 2007

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) at a rate of 0.02 to 0.05 gal/sq yd (0.1 to 0.2 L/sq m), the exact rate to be determined by the Engineer.”

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 gallon (liter) or per ton (metric ton) for BITUMINOUS MATERIALS (PRIME COAT).”

HOT MIX ASPHALT MIXTURES, EGA MODIFIED PERFORMANCE GRADED (PG) ASPHALT BINDER

Effective: March 16, 2009

Description. This work shall consist of constructing Hot Mix Asphalt (HMA) mixtures containing ethylene-glycidyl-acrylate (EGA) Modified Performance Graded (PG) Asphalt Binder. Work shall be according to Sections 406, 1030, and 1032 of the Standard Specifications, except as modified herein.

The asphalt binder shall meet the following requirements:

EGA Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans. An ethylene-glycidyl-acrylate (EGA) terpolymer with a maximum of 0.3 percent polyphosphoric acid by weight of asphalt binder, shall be added to the base asphalt binder to achieve the specified performance grade. Asphalt modification at hot-mix asphalt plants will not be allowed. The modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in the following table for the grade shown on the plans.

Revised 1/9/13

DRAIN PIPE, TILE, DRAINAGE MAT, AND WALL DRAIN (BDE)

Effective: January 1, 2013

Add the following to Article 101.01 of the Standard Specifications.

“NTPEP National Transportation Product Evaluation Program”

Revise Article 1040.03(f) of the Standard Specifications to read:

“(f) Profile Wall Pipe-304. The manufacturer shall be listed as compliant through the NTPEP program and the pipe shall be according to AASHTO M 304.”

Revise the first sentence of the first paragraph of Article 1040.04(a) of the Standard Specifications to read:

“The manufacturer shall be listed as compliant through the NTPEP program and the pipe shall be according to AASHTO M 252 (nominal size – 3 to 10 in. (75 to 250 mm)).”

Revise Article 1040.04(b) of the Standard Specifications to read:

“(b) Corrugated PE Pipe with a Smooth Interior. The manufacturer shall be listed as compliant through the NTPEP program and the pipe shall be according to AASHTO M 294 (nominal size – 12 to 48 in. (300 to 1200 mm)). The pipe shall be Type S or D.”

Revised 1/9/13

FRICITION SURFACE AGGREGATE (D1)

Effective: January 1, 2011
Revised: November 1, 2012

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.

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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

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		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		25% Limestone	Dolomite
		50% Limestone	Any Mixture D aggregate other than Dolomite
		75% Limestone	Crushed Slag (ACBF) ^{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>	
		<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

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HMA High ESAL	SMA Ndesign 80 Surface	Crystalline Crushed Stone Crushed Sandstone Crushed Steel Slag ^{1/}
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1/ When either slag is used, the blend percentages listed shall be by volume.

Revised 1/9/13

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Added 1/9/13

CLEANING AND PAINTING CONTACT SURFACE AREAS OF EXISTING STEEL STRUCTURES

Effective: June 30, 2003

Revised: May 18, 2011

Description. This work shall consist of the surface preparation and painting of existing steel structures in areas that will be in contact with new steel.

The existing steel at primary connections (faying surfaces) shall be prepared, and primed as specified herein prior to connecting new structural steel to the existing structure.

The existing steel at secondary connections shall be prepared, and if bare metal is exposed, primed as specified herein prior to connecting new structural steel to the existing structure.

General. The existing coatings shall be assumed to contain lead and may also contain other toxic metals. Any plans that may be furnished for the work, and any dimensions or other information given regarding a structure, are only for the purpose of assisting bidders in determining the type and location of steel to be cleaned and painted. It is the responsibility of the Contractor to verify this information and the accuracy of the information provided shall in no way affect the price bid for structural steel.

Materials. The Bureau of Materials and Physical Research has established a list of all products that have met preliminary requirements. Each batch of material must be tested and approved before use.

The paint materials shall meet the requirements of the following articles of the Standard Specification:

<u>Item</u>	<u>Article</u>
a) Organic Zinc Rich Primer	1008.05
b) Aluminum Epoxy Mastic	1008.03

Submittals:

- a) Manufacturer's application instructions and product data sheets. Copies of the paint manufacturer's application instructions and product data sheets shall be furnished to the Engineer at the field site before steel cleaning begins.
- b) Waste Management Plan. The Waste Management Plan shall address all aspects of waste handling, storage, testing, hauling and disposal. Include the names, addresses, and a contact person for the proposed licensed waste haulers and disposal facilities. Submit the name and qualifications of the laboratory proposed for Toxicity Characteristic Leaching Procedure (TCLP) analysis.

Added 1/9/13

- c) Quality Control (QC) Program. The QC Program shall identify the following; the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings.

Construction Requirements. The Contractor shall perform first line, in process QC inspections. The Contractor shall implement the submitted and accepted QC Program to insure that the work accomplished complies with these specifications. The designated Quality Control inspector shall be onsite full time during any operations that affect the quality of the coating system (e.g., surface preparation, coating mixing and application, and evaluations between coats and upon completion of the work). The Contractor shall provide artificial lighting in areas where natural light is inadequate, as determined by the Engineer, to allow proper cleaning, inspection, and painting. Illumination for inspection shall be at least 30 foot candles (325 LUX). Illumination for cleaning and priming, including the working platforms, access, and entryways shall be at least 20 foot candles (215 LUX).

The Contractor shall be responsible for any damage caused to persons, vehicles, or property, except as indemnified by the Response Action Contractor Indemnification Act. Whenever the intended purposes of the protective devices are not being accomplished, as determined by the Engineer, work shall be immediately suspended until corrections are made. Painted surfaces damaged by any Contractor's operation shall be removed and repainted, as directed by the Engineer, at the Contractor's expense.

Weather Conditions. Surfaces to be primed after cleaning shall remain free of moisture and other contaminants. The Contractor shall control his/her operations to insure that dust, dirt, or moisture does not come in contact with surfaces cleaned prior to painting. Surfaces painted shall be protected until the coating is sufficiently cured to protect itself from damage.

Restrictions on ambient conditions shall be as per the coating manufacturer's written specifications.

Surface Preparation: Prior to making connections or painting, all loose abrasives, paint, and residue shall be contained, collected, removed from the surface area and properly disposed of as specified later in this specification.

Soluble Salt Remediation. The Contractor shall implement surface preparation procedures and processes that will remove chloride from the surfaces. Surfaces that may be contaminated with chloride include, but are not limited to, expansion joints and all areas that are subject to roadway splash or runoff such as fascia beams and stringers.

Added 1/9/13

Methods of chloride removal may include, but are not limited to, steam cleaning or pressure washing with or without the addition of a chemical soluble salt remover as approved by the coating manufacturer, and scrubbing before or after initial paint removal. The Contractor may also elect to clean the steel and allow it to rust overnight followed by recleaning, or by utilizing blends of fine and coarse abrasives during blast cleaning, wet abrasive/water jetting methods of preparation, or combinations of the above. If steam or water cleaning methods of chloride removal are utilized over surfaces where the coating has been completely removed, and the water does not contact any lead containing coatings, the water does not have to be collected. The Contractor shall provide the proposed procedures for chloride remediation in the Surface Preparation/Painting Plan.

Upon completion of the chloride remediation steps, the Contractor shall use cell methods of field chloride extraction and test procedures (e.g., silver dichromate) accepted by the Engineer, to test representative surfaces that were previously rusted (e.g., pitted steel) for the presence of remaining chlorides. Remaining chloride levels shall be no greater than $7\mu\text{g}/\text{sq cm}$ as read directly from the surface without any multiplier applied to the results. The testing must be performed, and the results must be acceptable, prior to painting each day.

A minimum of 5 tests per 1000 sq. ft. (93 sq m) or fraction thereof completed in a given day, shall be conducted at project start up. If results greater than $7\mu\text{g}/\text{sq cm}$ are detected, the surfaces shall be recleaned and retested at the same frequency. If acceptable results are achieved on three consecutive days in which testing is conducted, the test frequency may be reduced to 1 test per 1000 sq. ft. (93 sq. m) prepared each day provided the chloride remediation process remains unchanged. If unacceptable results are encountered, or the methods of chloride remediation are changed, the Contractor shall resume testing at a frequency of 5 tests per 1000 sq. ft. (93 sq. m).

Following successful chloride testing the chloride test areas shall be cleaned as specified below.

Painted surfaces of new steel damaged by abrasive blasting or by the Contractor's operations shall be repainted, as directed by the Engineer, at the Contractor's expense.

- a) **Primary Connections.** Primary connections shall be defined as faying (contact) surfaces of high-strength bolted splices in main, load-carrying members, end diaphragms, end cross-frames, and other areas specifically noted in plans (such as cross-frame connections on curved girders, etc.). These will typically occur where existing splices are replaced or new splices are added.

The surfaces of existing steel in all areas that will be in direct contact with new steel shall be prepared according to SSPC-SP15, Commercial Grade Power Tool Cleaning using vacuum-shrouded power tools equipped with HEPA filtration. The surface preparation shall remove all rust, mill scale, and existing paint from the contact surface. At the Contractors option, vacuum blast cleaning according to SSPC-SP6, Commercial Blast Cleaning may be substituted for SSPC-SP15 at no additional cost to the Department. The surface profile for primary connection surfaces shall be 1.5 to 3.5 mils (38 to 90 microns).

Added 1/9/13

- b) **Secondary Connections.** Secondary connections shall be defined as all surface areas of existing members that will be in contact with new steel except as previously defined as primary connections.

These surfaces of existing steel in all areas that will be in direct contact with new steel shall be prepared according to SSPC-SP3, Power Tool Cleaning using vacuum-shrouded power tools equipped with HEPA filtration. The surface preparation shall remove all loose rust, loose mill scale, and loose, checked, alligatored and peeling paint from the contact surface. At the Contractors option, vacuum blast cleaning according to SSPC-SP6, Commercial Blast Cleaning or SSPC-SP15, Commercial Grade Power Tool Cleaning may be substituted for SSPC-SP3 at no additional cost to the Department. The surface profile for abrasive blast cleaning and Commercial Grade Power Tool Cleaning shall be 1.5 to 3.5 mils (38 to 90 microns).

Painting. The manufacturer's written instructions shall be followed for paint storage, mixing, thinning, application, ambient conditions, and drying times between coats. The surface shall be free of dirt, dust, and debris prior to the application of any coat. The coatings shall be applied as a continuous film of uniform thickness free of defects including, but not limited to, runs, sags, overspray, dryspray, pinholes, voids, skips, misses, and shadow-through. Defects such as runs and sags shall be brushed out immediately during application.

The Engineer will approve surface preparation prior to priming.

- a) For Primary connections the surface of the prepared steel cleaned to bare metal shall be primed with an organic zinc rich primer between 3.5 and 5.0 mils (90 and 125 microns) dry film thickness.
- b) For Secondary Connections the surface of the prepared steel cleaned to bare metal shall be painted with one coat of epoxy mastic between 5 and 7 mils (125 microns to 180 microns) in thickness. Areas not cleaned to bare metal need not be painted.

The primer shall cure according to the manufacturers instructions prior to connecting new structural steel to the existing structure.

The surrounding coating at each prepared location shall be feathered for a minimum distance of 1 1/2 in. (40 mm) to achieve a smooth transition between the prepared areas and the existing coating.

Collection, Temporary Storage, Transportation and Disposal of Waste. The Contractor and the Department are considered to be co-generators of the waste.

Added 1/9/13

The Contractor is responsible for all aspects of waste collection, testing and identification, handling, storage, transportation, and disposal according to these specifications and all applicable Federal, State, and Local regulations. The Contractor shall provide for Engineer review and acceptance a Waste Management Plan that addresses all aspects of waste handling, storage, and testing, and provides the names, addresses, and a contact person for the proposed licensed waste haulers and disposal facilities. The Department will not perform any functions relating to the waste other than provide EPA identification numbers, provide the Contractor with the emergency response information, the emergency response telephone number required to be provided on the manifest, and to sign the waste manifest. The Engineer will obtain the identification numbers from the state and federal environmental protection agencies for the bridge(s) to be painted and furnish those to the Contractor.

All surface preparation/paint residues shall be collected daily and deposited in all-weather containers supplied by the Contractor as temporary storage. The storage area shall be secure to prevent unauthorized entry or tampering with the containers. Acceptable measures include storage within a fully enclosed (e.g., fenced in) and locked area, within a temporary building, or implementing other reasonable means to reduce the possibility of vandalism or exposure of the waste to the public or the environment (e.g., securing the lids or covers of waste containers and roll-off boxes). Waste shall not be stored outside of the containers. Waste shall be collected and transferred to bulk containers taking extra precautions as necessary to prevent the suspension of residues in air or contamination of surrounding surfaces. Precautions may include the transfer of the material within a tarpaulin enclosure. Transfer into roll-off boxes shall be planned to minimize the need for workers to enter the roll-off box.

No residues shall remain on uncontained surfaces overnight. Waste materials shall not be removed through floor drains or by throwing them over the side of the bridge. Flammable materials shall not be stored around or under any bridge structures.

The all-weather containers shall meet the requirements for the transportation of hazardous materials and as approved by the Department. Acceptable containers include covered roll-off boxes and 55-gallon drums (17H). The Contractor shall insure that no breaks and no deterioration of these containers occurs and shall maintain a written log of weekly inspections of the condition of the containers. A copy of the log shall be furnished to the Engineer upon request. The containers shall be kept closed and sealed from moisture except during the addition of waste. Each container shall be permanently identified with the date that waste was placed into the container, contract number, hazardous waste name and ID number, and other information required by the IEPA.

The Contractor shall have each waste stream sampled for each project and tested by TCLP and according to EPA and disposal company requirements. The Engineer shall be notified in advance when the samples will be collected. The samples shall be collected and shipped for testing within the first week of the project, with the results due back to the Engineer within 10 days. The costs of testing shall be considered included in this work. Copies of the test results shall be provided to the Engineer prior to shipping the waste.

Added 1/9/13

The existing paint removed, together with the surface preparation media (e.g. abrasive) shall be handled as a hazardous waste, regardless of the TCLP results. The waste shall be transported by a licensed hazardous waste transporter, treated by an IEPA permitted treatment facility to a non-hazardous special waste and disposed of at an IEPA permitted disposal facility in Illinois.

The treatment/disposal facilities shall be approved by the Engineer, and shall hold an IEPA permit for waste disposal and waste stream authorization for this cleaning residue. The IEPA permit and waste stream authorization must be obtained prior to beginning cleaning, except that if necessary, limited paint removal will be permitted in order to obtain samples of the waste for the disposal facilities. The waste shall be shipped to the facility within 90 days of the first accumulation of the waste in the containers. When permitted by the Engineer, waste from multiple bridges in the same contract may be transported by the Contractor to a central waste storage location(s) approved by the Engineer in order to consolidate the material for pick up, and to minimize the storage of waste containers at multiple remote sites after demobilization. Arrangements for the final waste pickup shall be made with the waste hauler by the time blast cleaning operations are completed or as required to meet the 90 day limit stated above.

The Contractor shall submit a waste accumulation inventory table to the Engineer no later than the 5th day of the month. The table shall show the number and size of waste containers filled each day in the preceding month and the amount of waste shipped that month, including the dates of shipments.

The Contractor shall prepare a manifest supplied by the IEPA for off-site treatment and disposal before transporting the hazardous waste off-site. The Contractor shall prepare a land ban notification for the waste to be furnished to the disposal facility. The Contractor shall obtain the handwritten signature of the initial transporter and date of the acceptance of the manifest. The Contractor shall send one copy of the manifest to the IEPA within two working days of transporting the waste off-site. The Contractor shall furnish the generator copy of the manifest and a copy of the land ban notification to the Engineer. The Contractor shall give the transporter the remaining copies of the manifest.

All other project waste shall be removed from the site according to Federal, State and Local regulations, with all waste removed from the site prior to final Contractor demobilization.

The Contractor shall make arrangements to have other hazardous waste, which he/she generates, such as used paint solvent, transported to the Contractor's facility at the end of each day that this waste is generated. These hazardous wastes shall be manifested using the Contractor's own generator number to a treatment or disposal facility from the Contractor's facility. The Contractor shall not combine solvents or other wastes with cleaning residue wastes. All waste streams shall be stored in separate containers.

The Contractor is responsible for the payment of any fines and undertaking any clean up activities mandated by State or federal environmental agencies for improper waste handling, storage, transportation, or disposal.

Added 1/9/13

Contractor personnel shall be trained in the proper handling of hazardous waste, and the necessary notification and clean up requirements in the event of a spill. The Contractor shall maintain a copy of the personnel training records at each bridge site.

It is understood and agreed that the cost of all work outlined above, unless otherwise specified, has been included in the bid, and no extra compensation will be allowed.

Basis of Payment: This work will be considered included in the cost of "Furnishing and Erecting Structural Steel", "Erecting Structural Steel", or "Structural Steel Repair", as applicable, according to the Standard Specifications, unless otherwise specified on the plans.

GRANULAR BACKFILL FOR STRUCTURES

Effective: April 19, 2012

Revised: October 30, 2012

Revise Section 586 of the Standard Specifications to read:

SECTION 586. GRANULAR BACKFILL FOR STRUCTURES

586.01 Description. This work shall consist of furnishing, transporting and placing granular backfill for abutment structures.

586.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Fine Aggregate.....	1003.04
(b) Coarse Aggregates	1004.05

CONSTRUCTION REQUIREMENTS

586.03 General. This work shall be done according to Article 502.10 except as modified below. The backfill volume shall be backfilled, with granular material as specified in Article 586.02, to the required elevation as shown in the contract plans. The backfill volume shall be placed in convenient lifts for the full width to be backfilled. Unless otherwise specified in the contract plans, mechanical compaction will not be required. A deposit of gravel or crushed stone placed behind drain holes shall not be required. All drains not covered by geocomposite wall drains or other devices to prevent loss of backfill material shall be covered by sufficient filter fabric material meeting the requirements of Section 1080 and Section 282 with either 6 or 8 oz/sq yd (200 or 270 g/sq m) material allowed, with free edges overlapping the drain hole by at least 12 in. (300 mm) in all directions.

Added 1/9/13

The granular backfill shall be brought to the finished grade as shown in the contract plans. When concrete is to be cast on top of the granular backfill, the Contractor, subject to approval of the Engineer, may prepare the top surface of the fill to receive the concrete as he/she deems necessary for satisfactory placement at no additional cost to the Department.

586.04 Method of Measurement. This work will be measured for payment as follows.

(a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a).

(b) Measured Quantities. This work will be measured for payment in place and the volume computed in cubic yards (cubic meters). The volume will be determined by the method of average end areas behind the abutment.

586.05 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for GRANULAR BACKFILL FOR STRUCTURES.

CONSTRUCTION VIBRATION MONITORING

The Contractor, under the supervision of the Engineer, shall conduct a pre-construction survey of the existing 21" diameter sanitary sewer within 25 feet of the pile driving operation at SN 016-2844 and shall include location and description of major defects, with photographic or videographic record of the same. A copy of the report shall be submitted to the Engineer and the Water Reclamation District prior to commencement of driving piles and installation of temporary sheet piling or temporary soil retention system.

Vibration Limitation and Recordings. The Contractor shall furnish, install, calibrate, maintain and operate instrumentation for measuring and recording vibrations. The recording instruments shall be a velocity seismograph,. Additional instruments shall be provided as necessary to evaluate propagation of vibrations. At least one instrument shall be available at each structure. All instruments shall be periodically checked for proper calibration and shall be maintained in first-class working order. Instruments shall be replaced, repaired or re-calibrated when needed or when directed by the Engineer. The recordings shall be taken under the supervision of a qualified engineer. In addition, the engineer shall interpret the readings and shall establish the vibration limitations at the various locations, but under no circumstances shall the limit exceed the value as discussed below, or such lesser limit as established by ordinance or regulation.

Prior to commencement of pile driving operations, the Contractor shall submit in writing for approval of the Engineer, his plan for monitoring his operations to assure compliance with the vibration limitation. As a minimum, this plan shall provide for the following:

Added 1/9/13

- a. Recommended vibration limitation at each site based on survey establishing proximity of structures, type of structure, and condition of structure.
- b. Vibrations shall be recorded by the seismograph equipment at each MWRD underground structure where pile driving operation is taking place.
- c. Trained personnel shall be provided to operate the equipment and interpret the recordings. Names and resumes of personnel shall be furnished.
- d. All pile driving operations shall be done in such a manner as to reduce vibrations which reach adjacent structures and facilities to or below acceptable limits as established by the Contractor, but which shall not exceed the limits as specified below.

Acceptable limits are defined as follows:

- a. 0.2 inch per second at a frequency 1 Hertz.
- b. 0.5 inch per second at frequencies between 2.6 Hertz and 40 Hertz.
- c. Velocities less than that defined by a straight line variation between 1 Hertz and 2.6 Hertz, per (a) and (b) above.
- d. 0.75 inch per second at frequencies above 40 Hertz.

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

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

In the event any recordings indicate a caution or danger classification is being approached, all pile driving operations shall be suspended immediately, and a report shall be made immediately to the Engineer. The Contractor shall reduce the efforts for driving the piles, or otherwise cause appropriate measures to be taken to reduce the resulting vibrations to the safe limits.

All materials, labor, and equipment necessary to perform the work as specified herein shall be included in the contract unit price per Lump Sum for CONSTRUCTION VIBRATION MONITORING.

Added 1/9/13

STORM WATER TREATMENT SYSTEM

Description. This work shall consist of furnishing and installing a stormwater treatment system which meets the specifications described herein and in accordance with the manufacturer's instructions and specifications. All work shall be performed in accordance with Section 602 and 604 of the standard specifications where applicable.

The Contractor, and/or manufacturer selected by the Contractor and approved by the Engineer, shall furnish all labor, materials, equipment and incidentals required to install the STORM WATER TREATMENT SYSTEM and appurtenances in accordance with the Drawings and its respective manufacturer's specifications. Complete installation shall include but not be limited to the following: treatment structure, diversion or bypass flow structure or system, additional manholes that may be required, inlet and outlet piping between structures, frames and grates or frames and lids, and all excavation and backfill required

The treatment system shall provide flow partitioned hydrodynamic treatment that removes sediment, free-floating pollutants, and oil particles. The treatment system must include the capability to partition flows, causing all runoff to be diverted into the treatment chamber during low-flow conditions. Flows exceeding the treatment capacity of the unit shall divert the excess flow around the treatment chamber to prevent re-suspension and washout of previously trapped pollutants.

Quality Control Inspection

- A. The quality of materials, the process of manufacture, and the finished sections shall be subject to inspection by the Engineer. Such inspection may be made at the place of manufacture, on the work site after delivery, or at both places, and the sections shall be subject to rejection at any time if material conditions fail to meet any of the specification requirements, even though sample sections may have been accepted as satisfactory at the place of manufacture. Sections rejected after delivery to the site shall be marked for identification and shall be removed from the site at once. All sections which have been damaged beyond repair during delivery will be rejected and, if already installed, shall be repaired to the Engineer's acceptance level, if permitted, or removed and replaced, entirely at the Contractor's expense.
- B. All sections shall be inspected for general appearance, dimensions, soundness, etc. The surface shall be dense, close textured and free of blisters, cracks, roughness and exposure of reinforcement.
- C. Imperfections may be repaired, subject to the acceptance of the Engineer, after demonstration by the manufacturer that strong and permanent repairs result. Repairs shall be carefully inspected before final acceptance. Cement mortar used for repairs shall have a minimum compressive strength of 4,000 psi (28 MPa) at the end of 7 days and 5,000 psi (34 MPa) at the end of 28 days when tested in 3 inch (76 mm) diameter by 6 inch (152 mm) long cylinders stored in the standard manner. Epoxy mortar may be utilized for repairs.

Added 1/9/13

Submittals

A. Shop Drawings

The Contractor shall be provided with dimensional drawings and utilize these drawings as the basis for preparation of shop drawings showing details for construction, reinforcing, joints and any cast-in-place appurtenances. Shop drawings shall be annotated to indicate all materials to be used and all applicable standards for materials, required tests of materials and design assumptions for structural analysis. Shop drawings shall be prepared at a scale of not less than 3/16-inches per foot (1:75). The shop drawings shall consist of plan, elevation, and profile dimensional drawings. Prior to delivery, six (6) hard copies of said shop drawings and design assumptions prepared, stamped, and signed by a licensed Professional Engineer registered in the State of Illinois shall be submitted to the Engineer for review and approval.

Materials and Design

- A. Concrete for precast stormwater treatment systems shall conform to ASTM C 857 and C 858 and meet the following additional requirements:
1. In all cases the wall thickness shall be no less than 6 inches or as shown on the dimensional drawings. In all cases, the wall thickness shall be no less than the minimum thickness necessary to sustain HS20-44 (MS18) loading requirements and applicable soil loads as determined by a Licensed Professional Engineer.
 2. Sections shall have tongue and groove or ship-lap joints with a butyl mastic sealant conforming to ASTM C 990.
 3. Cement shall be Type I, II, or III Portland cement conforming to ASTM C 150.
 4. All sections shall be cured by an approved method. Sections shall not be shipped until the concrete has attained a compressive strength of 4,000 psi (28 MPa) or other designated suitable handling strength.
 5. Pipe openings shall be sized to accept pipes of the specified size(s) and material(s), and shall be sealed by the Contractor with a hydraulic cement conforming to ASTM C 595M
- B. Internal components shall be PVC per ASTM D1785 and aluminum alloy 5052-H32 plate in accordance with ASTM B 209.
- C. Brick or masonry used to build the manhole frame to grade shall conform to ASTM C 32 or ASTM C 139 and shall be installed in conformance with all state and local requirements.

Added 1/9/13

- D. Casting for manhole frames and covers shall be in accordance with ASTM A48, CL.35B and AASHTO M105. The manhole frame and cover shall be equivalent to Campbell Foundry Pattern #1009A custom cast with the Manufacturer logo and the words "Stormwater Treatment System".
- E. A bitumen (butyl mastic) sealant in conformance with ASTM C 990 shall be utilized in affixing the aluminum bays or baffle wall and partitioning chamber as applicable to the concrete vault.
- F. Inlet and outlet piping shall be as indicated in the Plans.

Construction Requirements. The stormwater treatment system shall be handled, stored, and installed in strict accordance with the manufacturer's recommendations and instructions.

Precast base units shall be placed on a level granular backfill subbase with a minimum thickness of 150 mm (6 inches) after compaction or of greater thickness and compaction if specified elsewhere. The granular subbase shall be checked for level prior to setting and the precast base section of the trap shall be checked for level at all four corners after it is set. If the slope from any corner to any other corner exceeds 0.5% the base section shall be removed and the granular subbase material re-leveled.

All lift holes on precast structures shall be filled with a non-shrink grout. All voids at precast structures around inlet and outlet piping shall be filled with a non-shrink grout. Testing and start-up of the stormwater treatment system shall be in accordance with the manufacturer's recommendations.

Where holes must be cut in the precast sections to accommodate pipes, do all cutting before setting the sections in place to prevent any subsequent jarring which may loosen the mortar joints. The Contractor shall make all pipe connections.

Prior to setting subsequent sections place bitumen sealant in conformance with ASTM C 990-91 along the construction joint in the section that is already in place.

After setting the precast roof section of the stormwater treatment system, set precast concrete manhole riser sections, to the height required to bring the cast iron manhole covers to grade, so that the sections are vertical and in true alignment with a ¼-inch (6 mm) maximum tolerance allowed. Backfill in a careful manner, bringing the fill up in 6-inch (152 mm) lifts on all sides and compacting the granular backfill to 95% Standard Proctor Density per ASTM D698. Each layer shall be thoroughly tamped using mechanical tampers and all backfill material shall be approved by the Engineer. If leaks appear, clean the inside joints and caulk with lead wool to the satisfaction of the Engineer. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of Stormwater Treatment Systems shall conform to ASTM specification C 891 "Standard Practice for Installation of Underground Precast Utility Structures". Special care shall be taken to ensure adequate compaction around the inlet and outlet pipes of the structure.

Added 1/9/13

The Contractor shall submit Operation and Maintenance instructions for the stormwater treatment system.

Performance and Manufacturer Requirements.

The stormwater treatment system shall be capable of removing and storing settleable solids, trapping oil and floating contaminants from stormwater runoff, preventing re-suspension of captured particles, and preventing the re-entrainment of trapped oil and floating contaminants into stormwater runoff.

The stormwater treatment system shall be of a hydraulic design that includes flow controls designed and certified by a Professional Engineer registered in the State of Illinois using accepted principles of fluid mechanics, with an elevated water surface inside the structure at a pre-determined level in order to prevent the re-entrainment of trapped floating contaminants.

A water-lock feature shall be incorporated into the design of the stormwater treatment system to prevent the introduction of trapped oil and floatable contaminants to the downstream piping during routine maintenance and to ensure that no oil escapes the system during an ensuing rain event. Direct access shall be provided to the sediment and floatable contaminant storage chambers to facilitate maintenance.

The stormwater treatment system shall be capable of removing 80% of the net annual Total Suspended Solids (TSS). The stormwater treatment system supplier shall provide documentation of net TSS removal and removal efficiency from laboratory testing conducted on the supplier's full size system. The documentation must be submitted and approved prior to delivery of any materials. The documentation shall include TSS removal efficiency versus operating rate for the full operating range of the stormwater treatment system. It shall include testing on graded sediment which is typical of stormwater sediment as defined as follows:

- 27% > 250 micron
- 11% 150-250 micron
- 7% 100-150 micron
- 9% 75-100 micron
- 4% 63-75 micron
- 42% < 63 micron

Additional TSS removal efficiency test data shall be submitted on uniform 50-micron sediment. The stormwater treatment system manufacturer shall base the documentation for 80% net TSS removal on the 50-micron particle size.

The stormwater treatment system supplier shall also submit data on field-testing of a stormwater treatment system similar to the system specified herein which demonstrates at least 80% net annual TSS removal. The system shall be designed such that the pump-out volume is less than 1/2 of the total system volume. The system shall be designed to not allow surcharge of the upstream piping network during dry weather conditions.

Added 1/9/13

The stormwater treatment system shall be capable of achieving the 80% net annual TSS removal based on flows indicated herein or as ordered. The stormwater treatment system shall include a bypass component to enable flows in excess of the design capacity indicated herein to bypass the treatment unit.

The performance objectives of the Stormwater treatment system shall be able to treat the following capacities:

Location	Drainage Area (acres)	Design Flow (cfs) (50-yr)	Maximum Flow (cfs) (100-yr)	Impervious Area (acres)	Treatment Area (acres)	Treatment Volume (ft ³)
East of Middle Fork North Branch Chicago River	10.38	36.59	43.01	5.58	2.48	9,005

Stormwater treatment system inverts shall meet the flow lines of the storm sewer as indicated on the Plans. The stormwater treatment system shall provide direct access to all chambers without removal of components for all maintenance operations.

The stormwater treatment system shall be of a type that has been installed and used successfully for a minimum of 5 years. The manufacturer of said system shall have been regularly engaged in the engineering design and production of systems for the physical treatment of stormwater runoff.

The following manufacturers are capable of supplying a stormwater treatment system that meets the requirements of these specifications:

Manufacturer: BaySaver Technologies, Inc.
 1030 Deer Hollow Drive
 Product: BaySeparator®

Substitutions for the above after award shall be approved by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price each for STORM WATER TREATMENT SYSTEM which shall include payment in full for all labor, materials, and equipment necessary for complete installation.

Added 1/9/13

BRIDGE RELIEF JOINT SEALER (BDE)

Effective: January 1, 2012

Revised: August 1, 2012

Add the following to the end of the second paragraph of Article 503.19 of the Standard Specifications:

“After the surface is clean and before applying protective coat, relief joints being sealed according to Section 588 shall be covered with a masking tape to prevent protective coat from contacting the vertical faces of the joint.”

Revise Section 588 of the Standard Specifications to read:

“SECTION 588. BRIDGE RELIEF JOINT SEALER

588.01 Description. This work shall consist of sealing transverse relief joints in the bridge decks.

588.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Hot-Poured Joint Sealer.....	1050.02

CONSTRUCTION REQUIREMENTS

588.03 General. The relief joint opening shall be formed to produce a reservoir for the sealing material and shall be 1/4 in. (6 mm) wide by 3/4 in. (20 mm) deep. For concrete surfaces the relief joint shall be formed into the concrete. For HMA surfaces the relief joint shall be sawed into the surface. Immediately prior to pouring the sealer the joint opening shall be cleaned with compressed air so that it is free of all foreign and loose material and in a dry condition. The bridge deck relief joints to be sealed shall be free of cracked or spalled areas. Any cracked areas shall be chipped back to sound material before placing joint sealer.

The hot-poured joint sealer shall not be placed when the air temperature in the shade is below 40 °F (5 °C) or when foggy or rainy, unless approved by the Engineer.

Hot-poured joint sealer shall be stirred during heating to prevent localized overheating. The sealing material shall be applied to each joint opening according to the details shown on the plans or as directed by the Engineer, without spilling on the exposed deck surfaces.

All bridge relief joints shall be filled with sufficient sealer compound so that the top of the seal is flush with the top of the finished deck or wearing surface.

Any sealing compound that is not bonded to the relief joint wall or face 24 hours after placing shall be removed and the joint shall be cleaned and resealed.

Added 1/9/13

588.04 Basis of Payment. This work will not be paid for as a separate item, but shall be considered as included in the unit price bid for the major item of construction involved.”

Revise Section 589 of the Standard Specifications to read:

“SECTION 589. Reserved”

Added 1/9/13