

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.I. ROUTE 90 / F.A.I. ROUTE 190
AT CUMBERLAND AVENUE (CUMBERLAND FLYOVER)
SECTION 1517R-1(13)
PROJECT ACNHPP-0090(401)

BRIDGE (NEW), NEW CONSTRUCTION, RECONSTRUCTION, RESURFACING
LIGHTING, RETAINING WALL, SIGN MAINTENANCE, SIGNING (NEW), WATER MAIN

COOK COUNTY

C-91-133-14

*580 + 6 = 586 TOTAL SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	1
ILLINOIS			60X56	

FOR INDEX OF SHEETS, SEE SHEET NO. 3

TRAFFIC DATA

	ADT 2011 / 2040	SPEED DESIGNED / POSTED
I-90	213,380 / 245,000	60 / 55
I-190 EB	29,300 / 38,000	55 / 55
CUMBERLAND FLYOVER	/ 9,440	40 /
EBCD ROADWAY		35-50 / 35-45

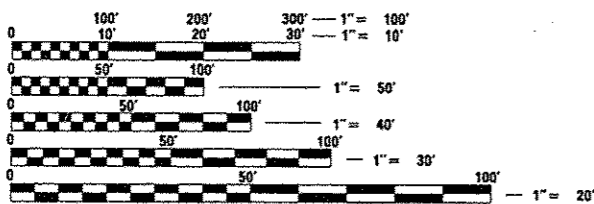
RETAINING WALLS

RETAINING WALL 2 (FLYOVER RAMP)
NW78.70R,EB(R)
STA. 15+85.00 TO STA. 16+29.58, RIGHT | FLYOVER

RETAINING WALL 3 (FLYOVER RAMP)
NW78.80R,EB(R)
STA. 25+40.24 TO STA. 28+70.24, LEFT | FLYOVER

RETAINING WALL 4 (FLYOVER RAMP)
NW78.90R,EB(R)
STA. 25+40.24 TO STA. 30+80.24, RIGHT | FLYOVER

PROJECT LOCATED IN THE
CITY OF CHICAGO



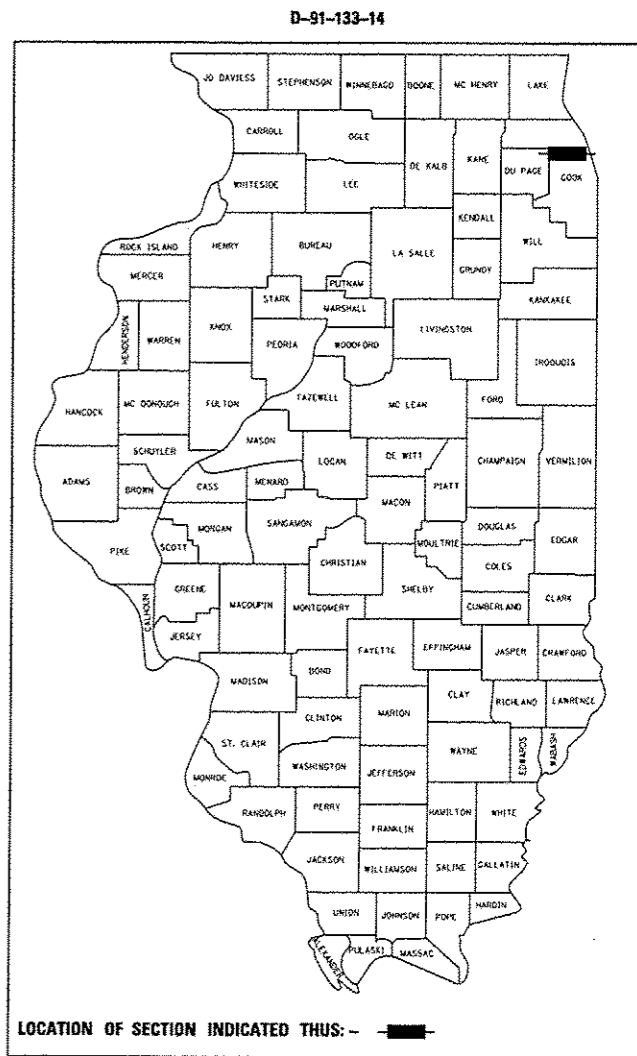
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 OR 811
DIGGER - CHICAGO UTILITY ALERT NETWORK
1-312-744-7000

DISTRICT 1 - DESIGN/CONSULTANT SERVICES SECTION
SERIN KELLER (847)705-4556

CONTRACT NO. 60X56

REVISION 9-1-16

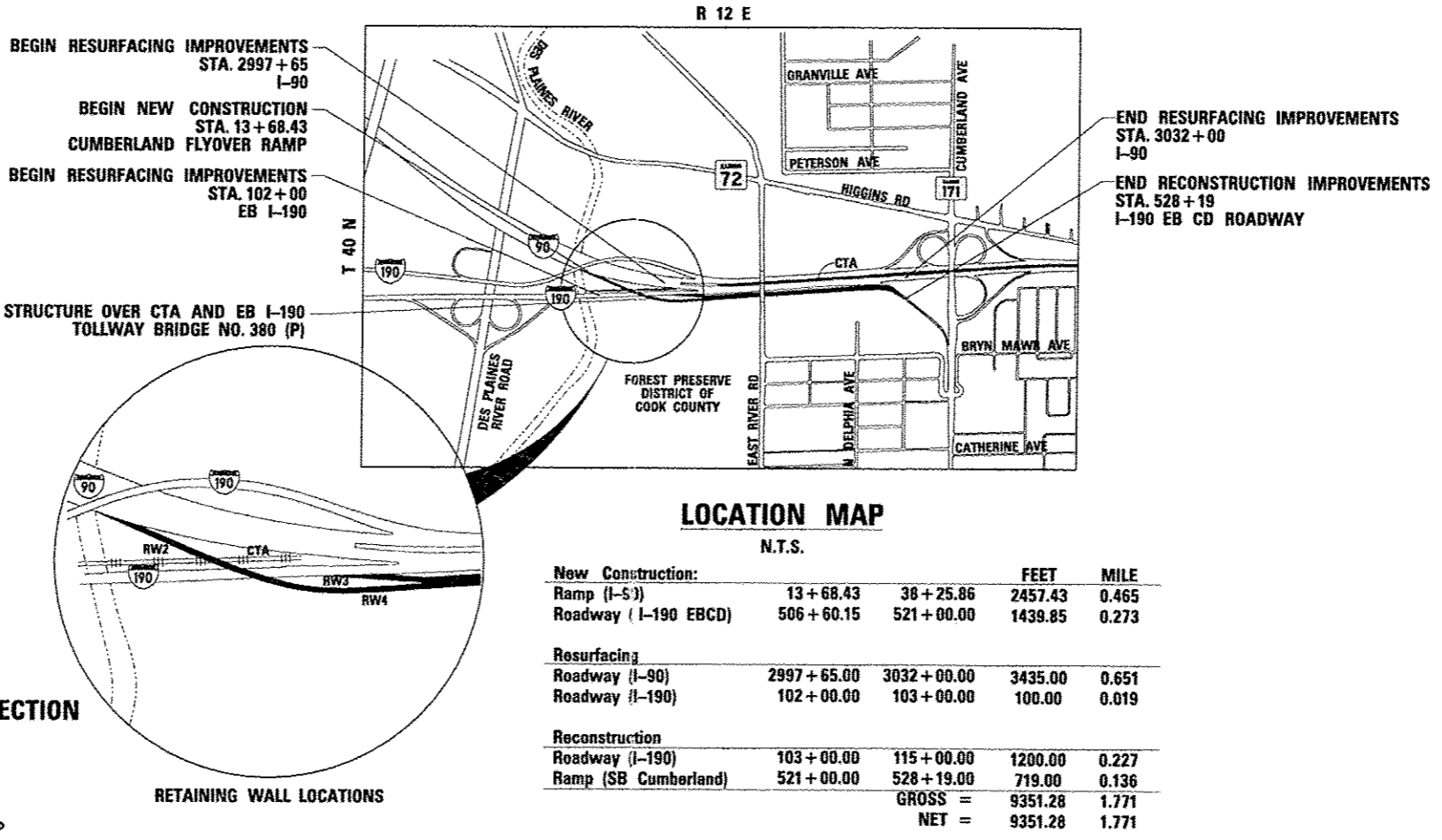


LOCATION OF SECTION INDICATED THUS: - [black bar] -

ONE SOUTH WACKER DRIVE
SUITE 900
CHICAGO, IL 60606
(312) 930-9119
ILLINOIS PROFESSIONAL DESIGN FIRM
REGISTRATION NO. 184.001306

HNTB

FOR SIGNATURES, SEE SHEET NO. 2



LOCATION MAP

N.T.S.

	FEET	MILE
New Construction:		
Ramp (I-53)	13+68.43 38+25.86	2457.43 0.465
Roadway (I-190 EBCD)	506+60.15 521+00.00	1439.85 0.273
Resurfacing		
Roadway (I-90)	2997+65.00 3032+00.00	3435.00 0.651
Roadway (I-190)	102+00.00 103+00.00	100.00 0.019
Reconstruction		
Roadway (I-90)	103+00.00 115+00.00	1200.00 0.227
Ramp (SB Cumberland)	521+00.00 528+19.00	719.00 0.136
	GROSS =	9351.28 1.771
	NET =	9351.28 1.771

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 4 2016
John Fortman DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Aug 12 2016
Maureen M. Addis PE, Esq. ENGINEER OF DESIGN AND ENVIRONMENT
Aug 12 2016
Omer Osman PE, Esq. DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

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* INCLUDES 191A & 193A.

** INCLUDES 431A - 431C.

☐ INCLUDES 86A.



IDOT HIGHWAY STANDARDS

STD. NO.	TITLE
000001 - 06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001 - 02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001 - 07	TEMPORARY EROSION CONTROL SYSTEMS
482001 - 02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001 - 03	NAME PLATE FOR BRIDGES
542301 - 03	PRECAST REINFORCED CONCRETE END SECTION
601001 - 05	PIPE UNDERDRAINS
601101 - 02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602001 - 02	CATCH BASIN TYPE A
602301 - 04	INLET- TYPE A
602306 - 03	INLET- TYPE B
602401 - 03	MANHOLE TYPE A
602406 - 07	MANHOLE TYPE A 6' DIAMETER
602411 - 05	MANHOLE TYPE A 7' DIAMETER
602416 - 05	MANHOLE TYPE A 8' DIAMETER
602421 - 05	MANHOLE TYPE A 9' DIAMETER
602701 - 02	MANHOLE STEPS
604001 - 04	FRAME AND LIDS TYPE 1
604036 - 03	GRATE TYPE 8
604071 - 05	FRAME AND GRATE TYPE 20
606101 - 05	TYPE A GUTTER (INLET, OUTLET AND ENTRANCE)
630001 - 10	STEEL PLATE BEAM GUARDRAIL
630201 - 06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301 - 06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011 - 09	TRAFFIC BARRIER TERMINAL, TYPE 2
631026 - 06	TRAFFIC BARRIER TERMINAL, TYPE 5
631031 - 14	TRAFFIC BARRIER TERMINAL, TYPE 6
631033 - 06	TRAFFIC BARRIER TERMINAL, TYPE 6B
635001 - 02	DELINEATORS
637001 - 05	CONCRETE BARRIER, DOUBLE FACE, 32 IN. HEIGHT
642001 - 02	SHOULDER RUMBLE STRIPS, 16 IN.
664001 - 02	CHAIN LINK FENCE
701101 - 05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106 - 02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701400 - 08	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401 - 09	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411 - 09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
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701446 - 07	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
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720001 - 01	SIGN PANEL MOUNTING DETAILS
720006 - 04	SIGN PANEL ERECTION DETAILS
720011 - 01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
720021 - 02	SIGN PANELS - EXTRUDED ALUMINUM TYPE
725001	OBJECT AND TERMINAL MARKERS
728001 - 01	TELESCOPING STEEL SIGN SUPPORT
729001 - 01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGN MARKERS)
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
731001 - 01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001 - 05	TYPICAL PAVEMENT MARKINGS
781001 - 04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
805001 - 01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001 - 03	HANDHOLES
814006 - 02	DOUBLE HANDHOLES
878001 - 10	CONCRETE FOUNDATION DETAILS

DISTRICT 1 DETAILS

STD. NO.	TITLE
BD-03	OUTLET FOR CONCRETE CURB AND GUTTER
BD-07	STORM SEWER CONNECTION TO EXISTING SEWER
BD-08	FRAMES AND LIDS ADJUSTMENT WITH MILLING; AND FRAMES AND LIDS ADJUSTMENTS WITHOUT MILLING
BD-27	CONCRETE BARRIER TRANSITION, GENERAL DETAILS AND CONCRETE BARRIER BASE
BD-29	CONC. BARRIER WALL & PIER SLOPE WALL PROTECTION DETAIL
BD-32	BUTT JOINTS AND HMA TAPER
BD-34	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.
BD-37	MANHOLE TYPE A 7 FT. DIAMETER
BD-51	BENCHING CONSTRUCTION DETAIL
BE-205	LIGHTING CONTROLLER, BASE MOUNTED, 480 VOLT, 200 AMP (DUAL) RADIO SCADA
BE-301	LIGHT POLE FOUNDATION - 40 TO 47 1/2' M.H. 15' BOLT CIRCLE
BE-400	LIGHT POLE, ALUMINIUM, 40 TO 47 1/2' M.H. 10' MAST ARM
BE-410	DAVIT LIGHT POLE 47 1/2 - 6 1/2 (14.478m) MOUNTING HEIGHT
BE-505	HIGH MAST LIGHT TOWER 120 FT TO 140 FT
BE-506	HIGH MAST LIGHT TOWER 120 FT TO 140 FT FOUNDATION DETAIL
BE-701	LUMINAIRE SAFETY CABLE ASSEMBLY
BE-702	MISC. ELECTRICAL DETAILS - SHEET A
BE-705	COMMUNICATIONS VAULT, COMPOSITE CONCRETE
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TC-09	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE
TC-11	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
TC-12	MULTI-LANE FREEWAY PAVEMENT MARKING (2 SHEETS)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKING
TC-16	PAVEMENT MARKINGS LETTERS AND SYMBOLS FOR TRAFFIC STAGING
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TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-27	MILE POST MARKERS - CORE SIGNS - MAJOR GUIDE SIGN LAYOUT - ARROWS

TOLLWAY STANDARDS

STD. NO.	TITLE
A5-03	J.P.C. PAVEMENT 12" OR LESS
A7-02	PAVEMENT JOINTS
A15-02	JOINTING PLAN EXIT RAMP TERMINAL
B1-07	GUTTER AND CURB DETAILS
B3-06	TYPE G2/G3 GUTTER TRANSITION AT TRAFFIC BARRIER TERMINAL, TYPE T6
B5-03	CONCRETE FLUME DETAILS
B6-06	HEADWALL TYPE III
B8-05	CATCH BASINS TYPES G AND TYPE G MODIFIED, FRAMES AND GRATES TYPE G-2, G-3 & G-3 MODIFIED
B10-08	SLOPED HEADWALLS TYPE III DETAILS
B24-04	PIPE UNDERDRAINS
C1-08	GALVANIZED STEEL PLATE BEAM GUARDRAIL
C3-06	SINGLE FACE REINFORCED CONCRETE BARRIER
C6-08	SHOULDER WIDENING FOR TRAFFIC TERMINAL TYPE T1 (SPECIAL)
C7-07	TRAFFIC BARRIER TERMINAL, TYPE T2
C9-07	TRAFFIC BARRIER TERMINAL TYPE T6
C10-07	TRAFFIC BARRIER TERMINAL, TYPE T6B
C11-06	TRAFFIC BARRIER TERMINAL, TYPE T10
C12-05	SHOULDER WIDENING FOR TRAFFIC BARRIER TERMINAL, TYPE T1-A (SPECIAL)
D4-05	DELINEATORS
D5-06	PERMANENT PAVEMENT MARKING
D6-06	PAVEMENT MARKING AND SHOULDER RUMBLE STRIP DETAILS
D8-02	RAISED PAVEMENT LANE MARKER
E1-05	CONSTRUCTION SIGNS
E2-06	LANE CLOSURE DETAILS
E3-05	SHOULDER CLOSURE DETAILS
E6-02	CONTRACTOR ACCESS TO WORK AREA
F4-07	OVERHEAD SIGN STRUCTURE CANTILEVER TYPE STRUCTURE DETAILS
H1-05	LIGHT STANDARD FOUNDATION
H2-04	LIGHT STANDARD DETAILS
H3-03	BRIDGE CONDUIT DETAILS

△ REV. 9-1-16



USER NAME	1-mhassr
DESIGNED	MMK
DRAWN	MMK
CHECKED	LJS
DATE	05/06/2016

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND HIGHWAY STANDARDS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	3
CONTRACT NO. 60X56			ILLINOIS FED. AID PROJECT	

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	PERCENT AIR VOIDS @ NDES	THICKNESS	QMP
PAVEMENT RESURFACING: I-90 / I-190			
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
PAVEMENT WIDENING: I-190			
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
HMA BASE COURSE (HMA BINDER IL-19mm)	4% @ 70 GYR	7-1/2"	OCP
RECONSTRUCTION: I-190			
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
HMA BASE COURSE (HMA BINDER IL-19mm)	4% @ 70 GYR	7-1/2"	OCP
NEW CONSTRUCTION: I-190 EB CD ROAD			
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, SMA 12.5 N80	3.5% @ 80 GYR	2"	OCP
HMA BASE COURSE (HMA BINDER IL-19mm)	4% @ 70 GYR	7-1/2"	OCP
SHOULDER RECONSTRUCTION / CONSTRUCTION: I-90			
HOT-MIX ASPHALT SHOULDERS, 13 3/4"			
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR	2"	OCP
HMA SHOULDER (HMA BINDER IL-19mm)	4% @ 70 GYR	11-3/4"	OCP
SHOULDER RECONSTRUCTION / CONSTRUCTION: I-190			
HOT-MIX ASPHALT SHOULDERS, 11 1/2"			
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR	2"	OCP
HMA SHOULDER (HMA BINDER IL-19mm)	4% @ 70 GYR	9-1/2"	OCP
SHOULDER CONSTRUCTION: I-190 EB CD ROAD			
HOT-MIX ASPHALT SHOULDERS, 11 1/2"			
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR	2"	OCP
HMA SHOULDER (HMA BINDER IL-19mm)	4% @ 70 GYR	9-1/2"	OCP
SHOULDER RESURFACING: I-90 / I-190			
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR	2"	OCP
HMA BINDER COURSE, IL 19.0, N70	4% @ 70 GYR	2-1/4"	OCP
TEMPORARY PAVEMENT			
HMA SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR	2"	OC/OA
TEMP PVMT (INTERSTATE) (HMA BINDER IL-19mm)	4% @ 70 GYR	9-1/2"	OCP

QMP DESIGNATION: QUALITY CONTROL / QUALITY ASSURANCE (OC/OA); QUALITY CONTROL FOR PERFORMANCE (OCP)

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/50 YD/INCH THICKNESS.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXTURES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.
3. PC CONCRETE TEMPORARY PAVEMENT SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF ART. 1020 OF THE STANDARD SPECIFICATIONS 8 3/4" THICK.
4. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.
5. PLACE STRIP REFLECTIVE CRACK CONTROL TREATMENT OVER THE SMA BINDER MIX AT ALL LONGITUDINAL JOINTS BEFORE SMA SURFACE PAVING OPERATIONS. ONLY FOR RESURFACING ON I-90 EB AND I-190 EB.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS - TOLLWAY

LOCATION	OPERATIONS	PAY ITEM	DESIGNATION	UNIT	AC TYPE	VOIDS	MAX. RAP %	MAX. RAS %	TYPICAL THICKNESS	MIX TYPE	NOTES
AS SHOWN ON THE DRAWINGS	CONSTRUCTION OF NEW WMA SHOULDERS	J1482104	WARM-MIX ASPHALT SHOULDERS (6 IN)	SQ YD	PG 64-22/ 58-22/ 58-28	4% @ 70 GYR	10% RAP, 30% CAT. 2 FRAP, & 35% CAT. 1 FRAP	5	1-3/4"	WARM MIX ASPHALT SURFACE COURSE, MIX D, N70	SEE RAP AND RAS SPECIAL PROVISIONS FOR ASPHALT GRADE REQUIREMENTS AND MAXIMUM BINDER REPLACEMENT PERCENTAGES.
					PG 64-22/ 58-22/ 58-28	4% / 3% @ 50 GYR	30% RAP, 40% CAT. 2 FRAP, & 45% CAT. 1 FRAP	5	4-1/4"	WARM MIX ASPHALT BINDER COURSE, IL-19.0, N50	SEE RAP AND RAS SPECIAL PROVISIONS FOR ASPHALT GRADE REQUIREMENTS AND MAXIMUM BINDER REPLACEMENT PERCENTAGES.
AS SHOWN ON THE DRAWINGS	WMA STABILIZED SUBBASE UNDER NEW PCC PAVEMENT	J1312022	STABILIZED SUBBASE- WMA, 3"	SQ YD	PG 58-22/ 58-28	2% @ 50 GYR	30% RAP, 40% CAT. 2 FRAP, & 45% CAT. 1 FRAP	5	3"	WARM MIX ASPHALT BINDER COURSE, IL-19.0, N50	SEE RAP AND RAS SPECIAL PROVISIONS FOR ASPHALT GRADE REQUIREMENTS AND MAXIMUM BINDER REPLACEMENT PERCENTAGES.

- THE CLASSIFICATIONS FOR FRACTIONATED RECLAIMED ASPHALT PAVEMENT (FRAP) ARE DEFINED WITHIN THE SPECIAL PROVISION FOR RECLAIMED ASPHALT PAVEMENT.
- QUANTITIES ASPHALT MIXES ARE BASED ON THE DENSITY VALUE OF 112.0 LBS/50 YD/IN.

FILE NAME: I:\Users\jrb\OneDrive\Documents\Chicago - Projects\2018 - 1-198 - Cumberland\Drawings\CONTRACT\180529-6600-Sheet\180529-6600-Sheet.dwg



USER NAME: jrb	DESIGNED - MMK	REVISED -	DATE - 05/26/16
DRAWN - MMK	CHECKED - LLS	DATE - 05/06/2016	
PLOT SCALE = 1:8000			
PLOT DATE = 9/1/2016			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE. 190	SECTION 1517R-1(13)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 5
CONTRACT NO. 60X56				G-04

ILLINOIS FED. AID PROJECT

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT
				A	B	C	D	E	F	G	H	I
				0003 URBAN	0003 URBAN	0010 URBAN	0040 URBAN	0040 URBAN	0040 URBAN	0021 URBAN	0021 URBAN	0043 URBAN
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	843	843								
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	224	224								
20101000	TEMPORARY FENCE	FOOT	545	545								
20200100	EARTH EXCAVATION	CU YD	11,184	11,184								
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	4,733	4,733								
20400800	FURNISHED EXCAVATION	CU YD	7,586	7,586								
20800150	TRENCH BACKFILL	CU YD	20,784	20,726	58							
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SO YD	28,541	28,541								
21101625	TOPSOIL FURNISH AND PLACE, 6"	SO YD	37,570	37,570								
25000210	SEEDING, CLASS 2A	ACRE	7.8	7.8								
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	699	699								
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	699	699								
25100115	MULCH, METHOD 2	ACRE	2.0	2.0								
25100630	EROSION CONTROL BLANKET	SO YD	34,399	34,399								

Handwritten circled notes around the 'TOTAL QUANTITY' column for items 20200100, 20201200, and 20400800.

△

△

• SPECIALITY ITEM

△ REV. 9-1-16

- A ROADWAY AND DRAINAGE (IDOT)
- B ROADWAY AND DRAINAGE (TOLLWAY)
- C BRIDGE NO. 380 (TOLLWAY)
- D RETAINING WALL 2 (TOLLWAY)
- E RETAINING WALL 3 (TOLLWAY)
- F RETAINING WALL 4 (TOLLWAY)
- G LIGHTING AND ITS (IDOT)
- H LIGHTING (TOLLWAY)
- I WATER MAIN (IDOT)



USER NAME : mkosir	DESIGNED -	REVISED -
PLOT SCALE : 1/80" = 1'	DRAWN - MMK	REVISED -
PLOT DATE : 6/3/2016	CHECKED - LLS	REVISED -
	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 1 OF 26 SHEETS STA. TO STA.

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

S00-01

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE															
				90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT							
				A	B	C	D	E	F	G	H	I							
				0003 URBAN	0003 URBAN	0010 URBAN	0040 URBAN	0040 URBAN	0040 URBAN	0021 URBAN	0021 URBAN	0043 URBAN							
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	711	711															
28000305	TEMPORARY DITCH CHECKS	FOOT	168	168															
28000400	PERIMETER EROSION BARRIER	FOOT	5,326	5,326															
28000510	INLET FILTERS	EACH	124	124															
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	34,399	34,399															
28100101	STONE RIPRAP, CLASS A1	SQ YD	7	4	3														
28200200	FILTER FABRIC	SQ YD	7	4	3														
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	6,905	6,905															
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	28,541	28,541															
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	2,154	2,154															
35501314	HOT-MIX ASPHALT BASE COURSE, 7 1/2"	SQ YD	15,495	15,495															
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	48,387	47,213	1,174														
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	65	65															
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	591	591															

6,905 6,905



SPECIALITY ITEM

REV. 9-1-16

- A ROADWAY AND DRAINAGE (IDOT)
- B ROADWAY AND DRAINAGE (TOLLWAY)
- C BRIDGE NO. 380 (TOLLWAY)
- D RETAINING WALL 2 (TOLLWAY)
- E RETAINING WALL 3 (TOLLWAY)
- F RETAINING WALL 4 (TOLLWAY)
- G LIGHTING (IDOT)
- H LIGHTING (TOLLWAY)
- I WATER MAIN (IDOT)

S00-02



USER NAME = mksr	DESIGNED -	REVISED -
DRAWN - MMK	CHECKED - LLS	REVISED -
PLOT SCALE = 1/8" = 1'	DATE - 05/06/2016	REVISED -
PLOT DATE = 6/3/2016		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 2 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																
				90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT								
				A	B	C	D	E	F	G	H	I								
				0003 URBAN	0003 URBAN	0010 URBAN	0040 URBAN	0040 URBAN	0040 URBAN	0021 URBAN	0021 URBAN	0043 URBAN								
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	800	800																
42001300	PROTECTIVE COAT	SQ YD	2,609	2,609																
44000100	PAVEMENT REMOVAL	SQ YD	8,312	8,269	43															
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	2,108	2,108																
44000165	HOT-MIX ASPHALT SURFACE REMOVAL, 4"	SQ YD	25,320	25,320																
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	310	310																
44001980	CONCRETE BARRIER REMOVAL	FOOT	392	392																
44004250	PAVED SHOULDER REMOVAL	SQ YD	10,298	10,184	114															
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	2,843	2,843																
48101600	AGGREGATE SHOULDERS, TYPE B 8"	SQ YD	1,943	1,943																
48203043	HOT-MIX ASPHALT SHOULDERS, 11 1/2"	SQ YD	7,486	7,486																
48203052	HOT-MIX ASPHALT SHOULDERS, 13 3/4"	SQ YD	3,576	3,576																
50157300	PROTECTIVE SHIELD	SQ YD	2,228		2,228															
50200100	STRUCTURE EXCAVATION	CU YD	3,539		1,027	194	573	1,745												
50300225	CONCRETE STRUCTURES	CU YD	3,255.0		1,166.0	128.0	673.0	1,288.0												

* SPECIALITY ITEM

△ REV. 9-1-16

- A ROADWAY AND DRAINAGE (IDOT)
- B ROADWAY AND DRAINAGE (TOLLWAY)
- C BRIDGE NO. 380 (TOLLWAY)
- D RETAINING WALL 2 (TOLLWAY)
- E RETAINING WALL 3 (TOLLWAY)
- F RETAINING WALL 4 (TOLLWAY)
- G LIGHTING (IDOT)
- H LIGHTING (TOLLWAY)
- I WATER MAIN (IDOT)

S00-03

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 3 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	8
CONTRACT NO. 60X56			[ILLINOIS] FED. AID PROJECT	



USER NAME - mhk01r	DESIGNED -	REVISED -
PLOT SCALE = 1/8" = 1' IN.	DRAWN - MMK	REVISED -
PLOT DATE = 6/3/2016	CHECKED - LLS	REVISED -
	DATE - 05/06/2016	REVISED -

6/7/2016
FILE NAME: I:\06056\11-500-8456

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE									
				90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT	
				A	B	C	D	E	F	G	H	I	
				0003	0003	0010	0040	0040	0040	0040	0021	0021	0043
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
50300255	CONCRETE SUPERSTRUCTURE	CU YD	415.4			236.4	9.0	64.0	106.0				
50300260	BRIDGE DECK GROOVING	SQ YD	3,361			3,361							
50300300	PROTECTIVE COAT	SQ YD	5,215			4,370	41	305	499				
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1			1							
50500505	STUD SHEAR CONNECTORS	EACH	15,987			15,987							
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	742,751		11,698	466,840	16,404	88,286	159,523				
50800515	BAR SPLICERS	EACH	82			82							
51200956	FURNISHING METAL SHELL PILES 12" X 0.179"	FOOT	17,811				911	7,094	9,806				
51201400	FURNISHING STEEL PILES HP10X42	FOOT	725			725							
51201800	FURNISHING STEEL PILES HP14X73	FOOT	9,595			9,595							
51202305	DRIVING PILES	FOOT	28,131			10,320	911	7,094	9,806				
51203200	TEST PILE METAL SHELLS	EACH	7				1	3	3				
51203400	TEST PILE STEEL HP10X42	EACH	2			2							
51203800	TEST PILE STEEL HP14X73	EACH	5			5							
51204650	PILE SHOES	EACH	12			12							

* SPECIALITY ITEM

Rev. 9-1-16

- A ROADWAY AND DRAINAGE (IDOT)
- B ROADWAY AND DRAINAGE (TOLLWAY)
- C BRIDGE NO. 380 (TOLLWAY)
- D RETAINING WALL 2 (TOLLWAY)
- E RETAINING WALL 3 (TOLLWAY)
- F RETAINING WALL 4 (TOLLWAY)
- G LIGHTING AND ITS (IDOT)
- H LIGHTING (TOLLWAY)
- I WATER MAIN (IDOT)



USER NAME - mhossj	DESIGNED -	REVISED -
PLOT SCALE = 1/8" = 1'	DRAWN - MMK	REVISED -
PLOT DATE = 6/3/2016	CHECKED - LLS	REVISED -
	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 4 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	9
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

REV. 500-04

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE												
				90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT				
				A	B	C	D	E	F	G	H	I				
				0003 URBAN	0003 URBAN	0010 URBAN	0040 URBAN	0040 URBAN	0040 URBAN	0021 URBAN	0021 URBAN	0043 URBAN				
70400100	TEMPORARY CONCRETE BARRIER	FOOT	5,393	5,393												
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	4,619	4,619												
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	3	3												
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2												
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	4	4												
72000200	SIGN PANEL - TYPE 2	SQ FT	64	64												
72000300	SIGN PANEL - TYPE 3	SQ FT	3,965	3,965												
72400200	REMOVE SIGN PANEL ASSEMBLY - TYPE B	EACH	7	7												
72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	9	9												
72400320	REMOVE SIGN PANEL - TYPE 2	SQ FT	67	67												
72400330	REMOVE SIGN PANEL - TYPE 3	SQ FT	1,274	1,274												
72400600	RELOCATE SIGN PANEL ASSEMBLY - TYPE B	EACH	1	1												
72400720	RELOCATE SIGN PANEL - TYPE 2	SQ FT	24	24												
72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	10,007	10,007												

• SPECIALITY ITEM

△ REV. 9-1-16

A ROADWAY AND DRAINAGE (IDOT)	D RETAINING WALL 2 (TOLLWAY)	G LIGHTING (IDOT)
B ROADWAY AND DRAINAGE (TOLLWAY)	E RETAINING WALL 3 (TOLLWAY)	H LIGHTING (TOLLWAY)
C BRIDGE NO. 380 (TOLLWAY)	F RETAINING WALL 4 (TOLLWAY)	I WATER MAIN (IDOT)

FILE NAME: I:\V\B\B\55-11-500-10.dwg



USER NAME : mksnr	DESIGNED -	REVISED -
PLOT SCALE : 1/8" = 1'	DRAWN - MMK	REVISED -
PLOT DATE : 6/3/2016	CHECKED - LLS	REVISED -
	DATE - 05/06/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 10 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1S17R-(113)	COOK	580	15
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

S00-10

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE									
				90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT	
				A	B	C	D	E	F	G	H	I	
				0003	0003	0010	0040	0040	0040	0040	0021	0021	0043
				URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
78200530	BARRIER WALL MARKERS, TYPE C	EACH	925	925									
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	6	6									
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	35,318	35,318									
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	8,743	8,743									
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	260	260									
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1								1		
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3,967								3,967		
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	576								576		
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,024								1,024		
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1-1/4" DIA.	FOOT	27								27		
81100320	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	280								280		
81100805	CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	120								120		
* 81200270	CONDUIT EMBEDDED IN STRUCTURE, 4" DIA., PVC	FOOT	150								150		
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	4								4		
81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	1								1		
81300800	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 6"	EACH	1								1		

6/3/2016 mksar

* SPECIALITY ITEM

△ REV. 9-1-16

A ROADWAY AND DRAINAGE (IDOT) D RETAINING WALL 2 (TOLLWAY) G LIGHTING AND ITS (IDOT)
 B ROADWAY AND DRAINAGE (TOLLWAY) E RETAINING WALL 3 (TOLLWAY) H LIGHTING (TOLLWAY)
 C BRIDGE NO. 380 (TOLLWAY) F RETAINING WALL 4 (TOLLWAY) I WATER MAIN (IDOT)



USER NAME = mksar	DESIGNED -	REVISED -
DRAWN - MMK	CHECKED - LLS	REVISOR -
PLOT SCALE = 1/8" = 1' in.	DATE = 05/06/2016	REVISIONS -
PLOT DATE = 6/3/2016		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES	
SCALE: N.T.S.	SHEET 13 OF 26 SHEETS STA. TO STA.

F.A.I. RTE. 190	SECTION 1517R-1(13)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 18
CONTRACT NO. 60X56			ILLINOIS FED. AID PROJECT	

S00-13

CONSTRUCTION CODE								
90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT
A	B	C	D	E	F	G	H	I
0003	0003	0010	0040	0040	0040	0021	0021	0043
URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	A	B	C	D	E	F	G	H	I
81400200	HEAVY-DUTY HANDHOLE	EACH	16							16		
81603080	UNIT DUCT, 600V, 3-1/C NO. 2, 1/C NO. 4 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	4,480							4,480		
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1,120							1,120		
81702120	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8	FOOT	333							333		
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	7,149							7,149		
81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	2,033							2,033		△
* 81702150	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	630							630		
81800230	AERIAL CABLE, 2-1/C NO. 6 WITH MESSENGER WIRE	FOOT	2,053							2,053		
81800300	AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	7,485							7,485		△
81800400	AERIAL CABLE, 4-1/C NO. 2 WITH MESSENGER WIRE	FOOT	132								132	
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	5							5		
82105600	LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 400 WATT	EACH	84							84		
82107100	UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	4							4		
83050825	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. DAVIT ARM	EACH	5							5		
83504500	LIGHT TOWER, 120 FT. MOUNTING HEIGHT, LUMINAIRE MT. - 8	EACH	6							6		

* SPECIALITY ITEM

△ REV. 9-1-16

A ROADWAY AND DRAINAGE (IDOT) D RETAINING WALL 2 (TOLLWAY) G LIGHTING AND ITS (IDOT)
 B ROADWAY AND DRAINAGE (TOLLWAY) E RETAINING WALL 3 (TOLLWAY) H LIGHTING (TOLLWAY)
 C BRIDGE NO. 380 (TOLLWAY) F RETAINING WALL 4 (TOLLWAY) I WATER MAIN (IDOT)

S00-14



USER NAME - mksar	DESIGNED -	REVISED -
DRAWN - MMK	CHECKED - LLS	DATE - 05/06/2016
PLLOT SCALE - 1/8" = 1' IN		
PLLOT DATE - 6/3/2016		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 14 OF 26 SHEETS STA. TO STA.

F.A.I. R.T.E. 190	SECTION 1517R-(113)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 19
CONTRACT NO. 60X56			[ILLINOIS] FED. AID PROJECT	

FILE NAME: I:\UNBID\60X56\S00-14.dgn 6/3/2016 10:31:11 AM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE									
				90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT	
				A	B	C	D	E	F	G	H	I	
				0003 URBAN	0003 URBAN	0010 URBAN	0040 URBAN	0040 URBAN	0040 URBAN	0021 URBAN	0021 URBAN	0043 URBAN	
83504700	LIGHT TOWER, 120 FT. MOUNTING HEIGHT, LUMINAIRE MT. - 12	EACH	1								1		
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	40								40		
83700350	LIGHT TOWER FOUNDATION, 54" DIAMETER	FOOT	210								210		
84100110	REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	25								25		
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	7								7		
84200804	REMOVAL OF POLE FOUNDATION	EACH	7								7		
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1								1		
87200400	SPAN WIRE	FOOT	3,752								3,752		
* 87300748	ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 19 100 PAIR	FOOT	210								210		△
87301727	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 19 6C	FOOT	924	924									
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	4								4		
87900205	DRILL EXISTING HEAVY DUTY HANDHOLE	EACH	9								9		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,576								2,576		
89502380	REMOVE EXISTING HANDHOLE	EACH	4								4		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5								5		

* SPECIALITY ITEM

△ REV. 9-1-16

A ROADWAY AND DRAINAGE (IDOT) D RETAINING WALL 2 (TOLLWAY) G LIGHTING AND ITS (IDOT)
 B ROADWAY AND DRAINAGE (TOLLWAY) E RETAINING WALL 3 (TOLLWAY) H LIGHTING (TOLLWAY)
 C BRIDGE NO. 380 (TOLLWAY) F RETAINING WALL 4 (TOLLWAY) I WATER MAIN (IDOT)



USER NAME - mksar	DESIGNED -	REVISED -
DRAWN - MMK	CHECKED - LLS	REVISED -
PLT SCALE - 1/8" = 1'	DATE - 05/06/2016	REVISED -
PLT DATE - 6/3/2016		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 15 OF 26 SHEETS STA. TO STA.

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-111.3	COOK	580	20
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

S00-15

6/23/2016

CONSTRUCTION CODE								
90% FED 10% IDOT	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	100% TOLLWAY	90% FED 10% IDOT	100% TOLLWAY	90% FED 10% IDOT
A	B	C	D	E	F	G	H	I
0003 URBAN	0003 URBAN	0010 URBAN	0040 URBAN	0040 URBAN	0040 URBAN	0021 URBAN	0021 URBAN	0043 URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	A	B	C	D	E	F	G	H	I
X0323917	CABINET, MODEL 334	EACH	4							4		
X0324597	CLOSED CIRCUIT TELEVISION CABINET	EACH	3							3		
* X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	400							400		
X0325003	REMOVE EXISTING VALVE AND VAULT	EACH	1									1
X0325040	FIBER OPTIC INNERDUCT 1 1/4" DIA.	FOOT	14,199							14,199		
X0325405	FILL EXISTING STORM SEWERS	CU YD	892	892								
X0325476	RADAR VEHICLE DETECTION SYSTEM	EACH	4							4		
X0326266	ETHERNET SWITCH	EACH	7							7		
X0326465	MODIFICATION OF EXISTING VIDEO DISTRIBUTION SYSTEM	L SUM	1							1		
X0326945	CLOSED CIRCUIT TELEVISION CAMERA EQUIPMENT	EACH	7							7		
X0327114	RADAR VEHICLE SENSING SYSTEM	EACH	1							1		
X0327117	ATMS SYSTEM INTEGRATION	L SUM	1							1		
X0327216	CLOSED CIRCUIT TELEVISION CAMERA	EACH	7							7		
X0327261	CABINET HOUSING EQUIPMENT, TYPE IV	EACH	1							1		
X0327303	REMOVAL OF EXISTING SIGN LIGHTING UNIT WITH NO SALVAGE	EACH	1							1		

6/3/2016 6:31:21 PM

* SPECIALITY ITEM

△ REV. 9-1-16

A ROADWAY AND DRAINAGE (IDOT) D RETAINING WALL 2 (TOLLWAY) G LIGHTING AND ITS (IDOT)
 B ROADWAY AND DRAINAGE (TOLLWAY) E RETAINING WALL 3 (TOLLWAY) H LIGHTING (TOLLWAY)
 C BRIDGE NO. 380 (TOLLWAY) F RETAINING WALL 4 (TOLLWAY) I WATER MAIN (IDOT)



USER NAME = jkocir	DESIGNED -	REVISED -
DRAWN - MMK	CHECKED - LLS	REVISED -
PLLOT SCALE = 1/8" = 1'	DATE - 05/06/2016	REVISED -
PLLOT DATE = 6/3/2016		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 18 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	23
CONTRACT NO. 60X56			S00-18	
[ILLINOIS] FED. AID PROJECT				

TEMPORARY PAVEMENT MARKING SCHEDULE OF QUANTITIES

		78005100	78005110	78005120	78005140	78005150	X7030025	X7030030	X7030035	X7030045	X7030050
		EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	EPOXY PAVEMENT MARKING - LINE 4"	EPOXY PAVEMENT MARKING - LINE 5"	EPOXY PAVEMENT MARKING - LINE 8"	EPOXY PAVEMENT MARKING - LINE 12"	WET REFLECTIVE TEMPORARY TAPE, TYPE III - LETTERS AND SYMBOLS	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	WET REFLECTIVE TEMPORARY TAPE TYPE III, 5 INCH	WET REFLECTIVE TEMPORARY TAPE TYPE III, 8 INCH	WET REFLECTIVE TEMPORARY TAPE TYPE III, 12 INCH
		FOOT	FOOT	FOOT	FOOT	FOOT		FOOT	FOOT	FOOT	FOOT
I-90	PRE-STAGE										
	STAGE 1	73		1914	4441	644	36		320	799	
	STAGE 2				906	438				583	
	STAGE 3				2470					152	50
EB I-190	PRE-STAGE							8340	4635	3960	
	STAGE 1										
	STAGE 2	146	4517	674	2104			884	135	275	
	STAGE 3	169	7206	1135	5975			3946	526	275	
EBCD	PRE-STAGE			950			113	4931	1006	2847	50
	STAGE 1							9270	1338		
	STAGE 2										
	STAGE 3										
TOTALS		388	11723	4674	15896	1080	149	27371	7960	8891	100

TEMPORARY ROADWAY SCHEDULE OF QUANTITIES

		20200100	31101200	40603340	44000100	70400100	70400200	70600250	70600260	70600350	78200530	Z0062456	X7040125
		EARTH EXCAVATION	SUBBASE GRANULAR MATERIAL, TYPE B 4"	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	PAVEMENT REMOVAL	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	BARRIER WALL MARKERS, TYPE C	TEMPORARY PAVEMENT	PINNING TEMPORARY CONCRETE BARRIER
		CU YD	SQ YD	TON	SQ YD	FOOT	FOOT	EACH	EACH	EACH	EACH	SQ YD	EACH
I-90	PRE-STAGE			275									
	STAGE 1												315
	STAGE 2												
	STAGE 3						1575				127		246
EB I-190	PRE-STAGE	294	1540		2154	1450		1			116	1551	345
	STAGE 1					3330		1			266		453
	STAGE 2						2413			2	192		285
	STAGE 3									1			
EBCD	PRE-STAGE	269	614			186		1			15	603	24
	STAGE 1					325					104		
	STAGE 2						331		1		26		
	STAGE 3												
TOTALS		553	2154	275	2154	5291	4319	3	1	3	846	2154	1668

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 DESIGNED: mmk
 DRAWN: mmk
 CHECKED: lls
 DATE: 05/06/2016
 REVISIONS:
 1 - 8/26/2016 MJK
 2 -
 3 -
 4 -
 5 -



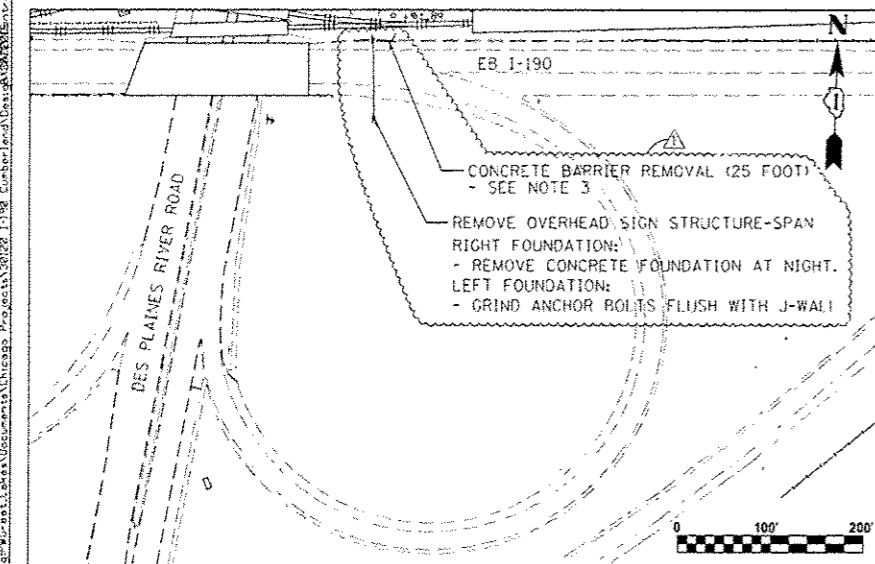
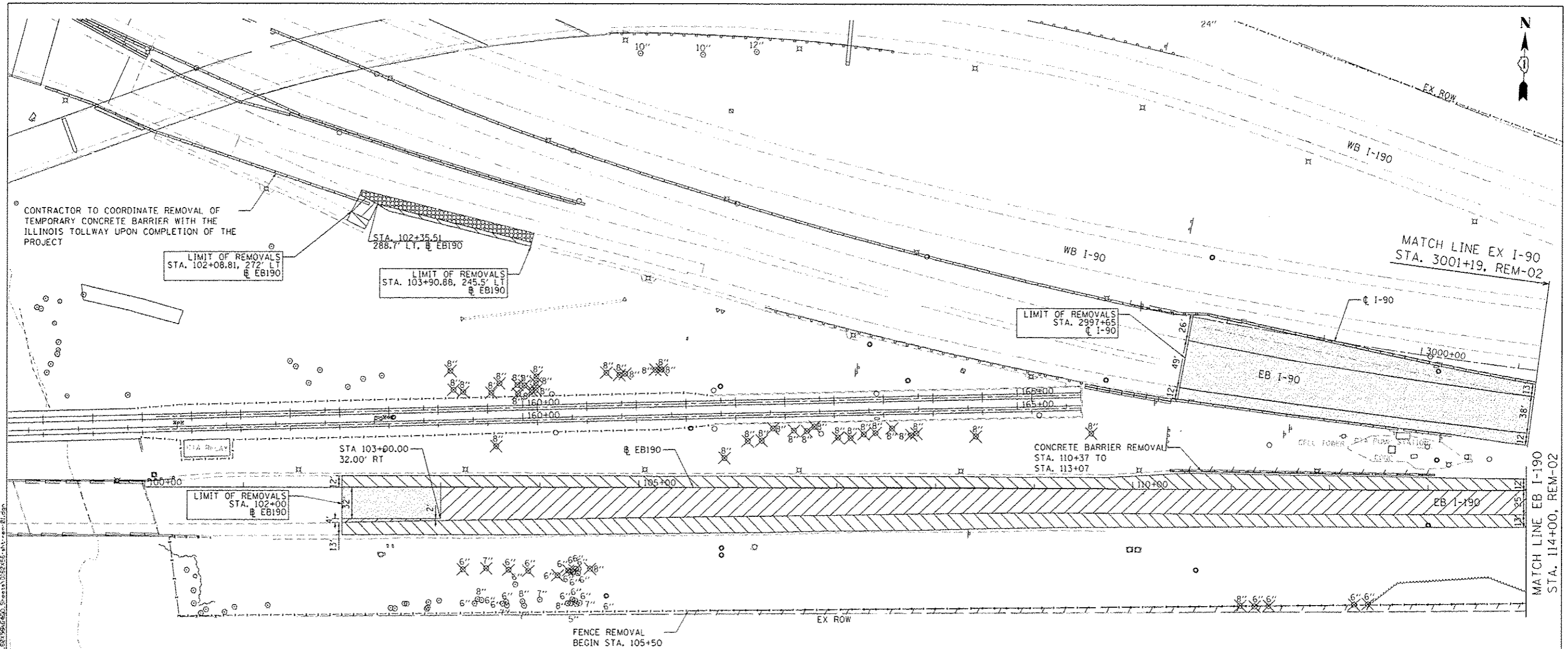
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		5 -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION








SCHEDULE OF QUANTITIES
TEMPORARY

SCALE: SHEET 7 OF 10 SHEETS STA. TO STA.

F.A.I. RTE: 190	SECTION: 1517R-103J	COUNTY: COOK	TOTAL SHEETS: 580	SHEET NO.: 45
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

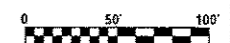


REMOVAL LEGEND

-  PAVEMENT REMOVAL
-  CONCRETE MEDIAN REMOVAL
-  PAVED SHOULDER REMOVAL
-  LINEAR ITEM REMOVAL
-  HMA SURFACE REMOVAL, 4"
-  ITEM REMOVAL
-  HOT-MIX ASPHALT REMOVAL, VARIABLE DEPTH (J1440015)

NOTES

1. SEE LIGHTING PLANS, DRAINAGE PLANS AND PAVEMENT MARKING AND SIGNING PLANS FOR ADDITIONAL REMOVALS NOT SHOWN ON THIS PLAN.
2. SEE REMOVAL SCHEDULE FOR RAISED REFLECTIVE PAVEMENT MARKER REMOVAL.
3. EXISTING STEEL RAILING ON TOP OF PARAPET SHALL BE REMOVED PRIOR TO REMOVAL OF BARRIER, STORED, AND REATTACHED ON NEW CONCRETE BARRIER TO THE SATISFACTION OF THE ENGINEER IN THE FIELD. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONCRETE BARRIER REMOVAL.



EB I-190 TO NB RIVER ROAD



USER NAME: mkrby	DESIGNED: MA	REVISED: 8/26/2016 MJK
PLT SCALE: 12.0000 / ft.	DRAWN: MA	REVISED:
PLT DATE: 8/30/2016	CHECKED: LLS	REVISED:
	DATE: 05/06/2016	REVISED:

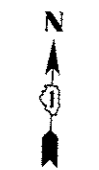
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROADWAY REMOVAL PLAN

SCALE: 1" = 50' SHEET 1 OF 4 SHEETS STA. 80P TO STA. 3001-19

F.A.I. RTE. 190	SECTION 1517R-1(13)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 54
	CONTRACT NO. 60X56			
ILLINOIS FED. AID PROJECT				

REM-01

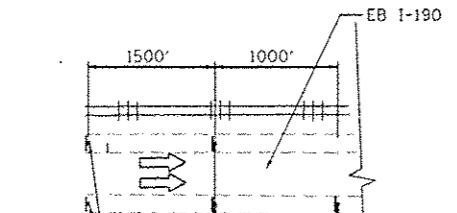


MAINTENANCE OF TRAFFIC LEGEND

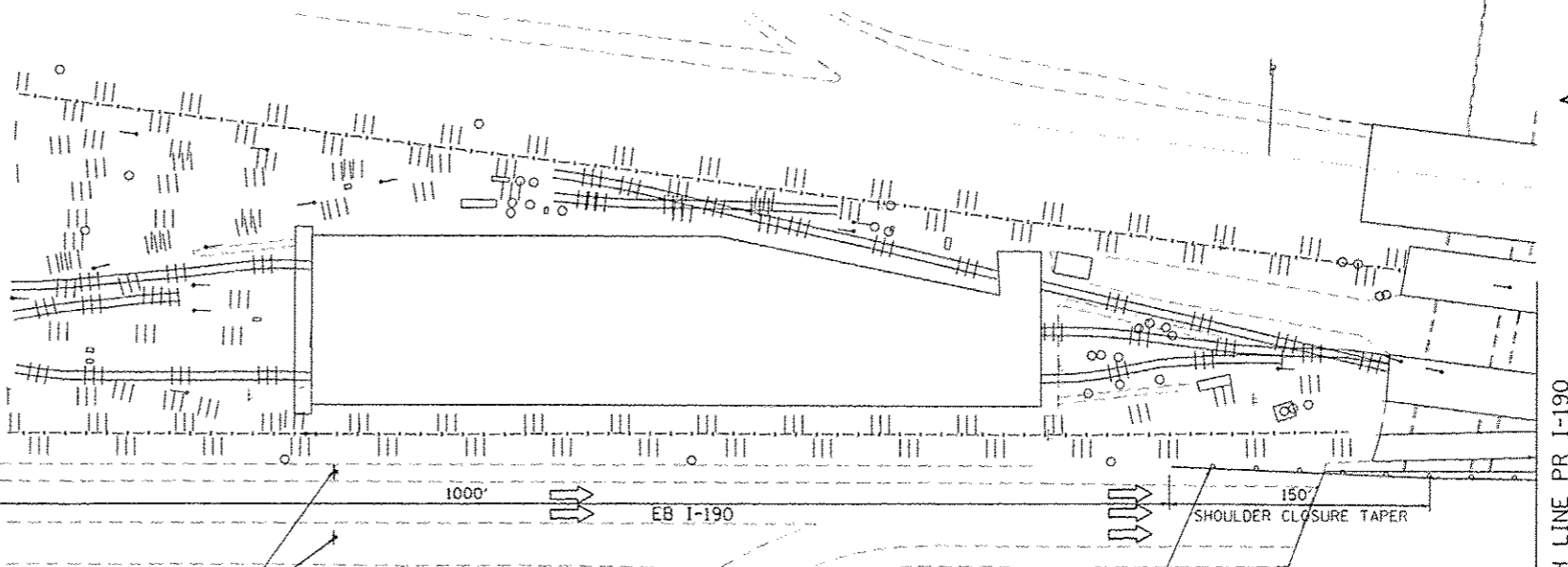
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	TEMPORARY PAVEMENT		TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN MONO DIRECTIONAL LIGHT		VERTICAL PANEL		2 PVT MK - LINE 4" YELLOW		8 PVT MK - LINE 8" WHITE
	EX. TRAFFIC DIRECTION		TYPE B MONO-DIRECTIONAL FLASHING LIGHT		PROPOSED SIGN		3 PVT MK - LINE 4" WHITE		T TEMP PVT MK (SEE SHT G-03)
	PR. TRAFFIC DIRECTION		TEMPORARY CONCRETE BARRIER		RAMP CLOSED		4 PVT MK - LINE 6" WHITE		W WET REF TEM TAPE T3 (SEE SHT G-03)
							5 PVT MK - LINE 12"		
							6 PVT MK - LTRS & SYMB		

NOTES:

- 1) INSTALL ADVISORY SIGN AS SHOWN ON THIS PAGE AND ACCORDING TO STANDARD 701400 FOR ADDITIONAL INFORMATION.
- 2) CONSTRUCT OVERHEAD TRUSS LEFT FOUNDATION AT MP 0.8 UTILIZING THE TEMPORARY LANE CLOSURE DURING THE ALLOWABLE HOURS AS SPECIFIED IN KEEPING THE EXPRESSWAY OPEN TO TRAFFIC SPECIAL PROVISION
- 3) CLOSE EB I-190 INSIDE SHOULDER USING TEMPORARY CONCRETE BARRIER AS SHOWN ON THE PLANS DURING PEAK HOURS DURING THIS STAGE.
- 4) INSTALL "ROAD CONSTRUCTION AHEAD" SIGNS ALONG RAMP'S FROM MANNHEIM RD TO EB I-190

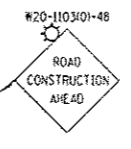


EB I-190 ADVISORY SIGNS INSTALLED IN-ADVANCE OF THE WORK AREA
 (WEST OF MANNHEIM ROAD AND EAST OF BESSIE COLEMAN DR)
 • CONTRACTOR COORDINATE WITH THE ENGINEER FOR PROPER MESSAGE DISPLAYS



MATCH LINE PR I-190 MOT-07

W21-1115(O)-3618
 R2-1-3648
 R10e108P-3618
 R2-1106P-3618



SHEET ADDED

USER NAME	mm	DESIGNED	MM	REVISED	8/26/2016 MM
DRAWN	MM	CHECKED	KA	DATE	05/06/2016
PLOT DATE	8/26/2016				

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
 STAGE 1 EB**

SCALE:	SHEET	OF	SHEETS	STA. 100+00.00	TO	STA. 113+31.00
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	86A
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

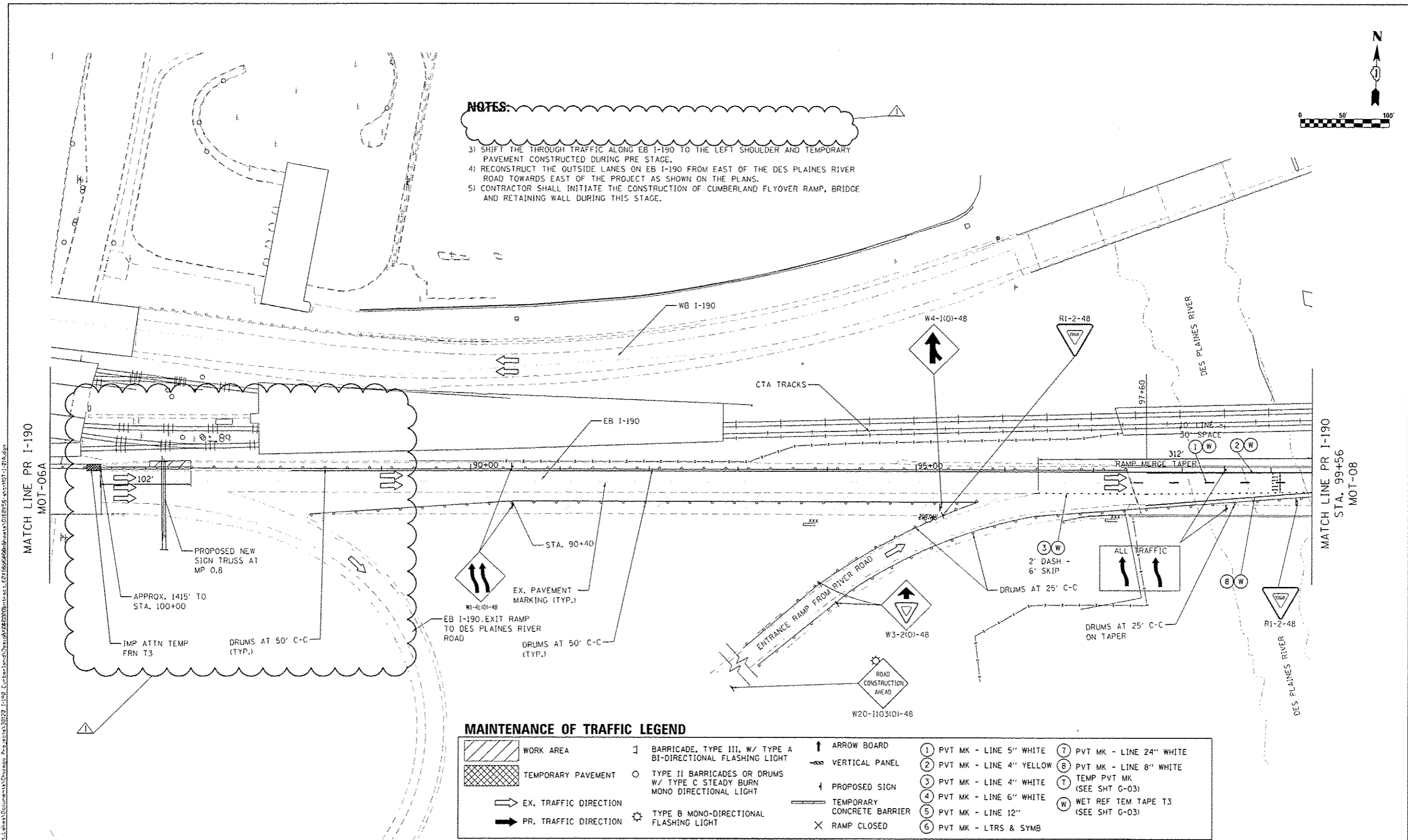
MOT-06A

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 DATE: 8/26/2016 10:51:18 AM
 USER: mm
 PLOT: 8/26/2016 10:51:18 AM
 PLOT SCALE: 1/8" = 1'-0"



NOTES:

- 3) SHIFT THE THROUGH TRAFFIC ALONG EB I-190 TO THE LEFT SHOULDER AND TEMPORARY PAVEMENT CONSTRUCTED DURING PRE STAGE.
- 4) RECONSTRUCT THE OUTSIDE LANES ON EB I-190 FROM EAST OF THE DES PLAINES RIVER ROAD TOWARDS EAST OF THE PROJECT AS SHOWN ON THE PLANS.
- 5) CONTRACTOR SHALL INITIATE THE CONSTRUCTION OF CUMBERLAND FLYOVER RAMP, BRIDGE AND RETAINING WALL DURING THIS STAGE.



MAINTENANCE OF TRAFFIC LEGEND

	WORK AREA		BARRICADE, TYPE III, W/ TYPE A BI-DIRECTIONAL FLASHING LIGHT		ARROW BOARD		1 PVT MK - LINE 5" WHITE		7 PVT MK - LINE 24" WHITE
	TEMPORARY PAVEMENT		TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN MONO DIRECTIONAL LIGHT		VERTICAL PANEL		2 PVT MK - LINE 4" YELLOW		8 PVT MK - LINE 8" WHITE
	EX. TRAFFIC DIRECTION		TYPE B MONO-DIRECTIONAL FLASHING LIGHT		PROPOSED SIGN		3 PVT MK - LINE 4" WHITE		T TEMP PVT MK (SEE SHT G-03)
	PR. TRAFFIC DIRECTION		TYPE B MONO-DIRECTIONAL FLASHING LIGHT		TEMPORARY CONCRETE BARRIER		4 PVT MK - LINE 6" WHITE		W WET REF TEM TAPE T3 (SEE SHT G-03)
	PR. TRAFFIC DIRECTION		TYPE B MONO-DIRECTIONAL FLASHING LIGHT		RAMP CLOSED		5 PVT MK - LINE 12"		6 PVT MK - LTRS & SYMB

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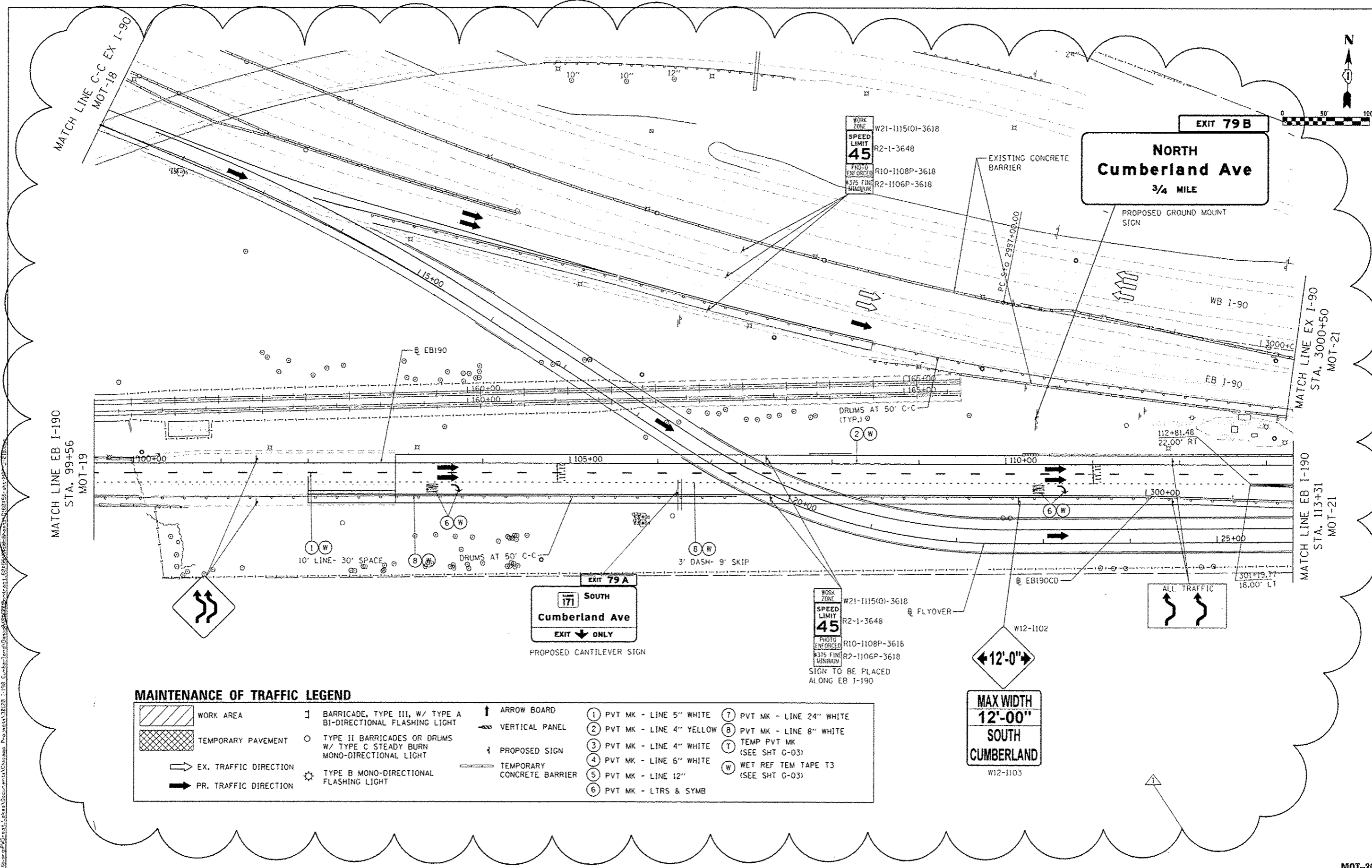
exp U.S. Services Inc. CHICAGO, IL BUILDINGS, EARTH & ENVIRONMENT, ENERGY INDUSTRIAL, INFRASTRUCTURE, SUSTAINABILITY	USER NAME: mohamm	DESIGNED: MM	REVISED: 8/26/2016 MM
	DRAWN: MM	CHECKED: RA	REVISED:
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	DATE: 8/26/2016	REVISED:	REVISED:
	DATE: 05/06/2016	REVISED:	REVISED:

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL			
STAGE 1 EB			
SCALE:	SHEET	OF SHEETS	STA. 100+00.00 TO STA. 113+31.00

F.A.I. RTE. 190	SECTION 1517R-1113	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 87
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

MOT-07



MAINTENANCE OF TRAFFIC LEGEND

	WORK AREA		BARRICADE, TYPE III, W/ TYPE A BI-DIRECTIONAL FLASHING LIGHT		ARROW BOARD		PVT MK - LINE 5" WHITE		PVT MK - LINE 24" WHITE
	TEMPORARY PAVEMENT		TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN MONO-DIRECTIONAL LIGHT		VERTICAL PANEL		PVT MK - LINE 4" YELLOW		PVT MK - LINE 8" WHITE
	EX. TRAFFIC DIRECTION		TYPE B MONO-DIRECTIONAL FLASHING LIGHT		PROPOSED SIGN		PVT MK - LINE 4" WHITE		TEMP PVT MK (SEE SHT G-03)
	PR. TRAFFIC DIRECTION		TEMPORARY CONCRETE BARRIER		WET REF TEM TAPE T3 (SEE SHT G-03)		PVT MK - LINE 6" WHITE		WET REF TEM TAPE T3 (SEE SHT G-03)
							PVT MK - LINE 12"		
							PVT MK - LTRS & SYMB		

exp U.S. Services Inc.
 CIVIL ENGINEERING
 BUILDINGS, EARTH & ENVIRONMENT ENERGY
 INDUSTRIAL INFRASTRUCTURE SUSTAINABILITY

USER NAME: mabamano	DESIGNED: MM	REVISED: 8/26/2016 MM
DRAWN: MM	CHECKED: KA	DATE: 05/06/2016
PLT SCALE: 1/8" = 1'-0"		
PLT DATE: 6/31/2016		

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL
 STAGE 3 EB**

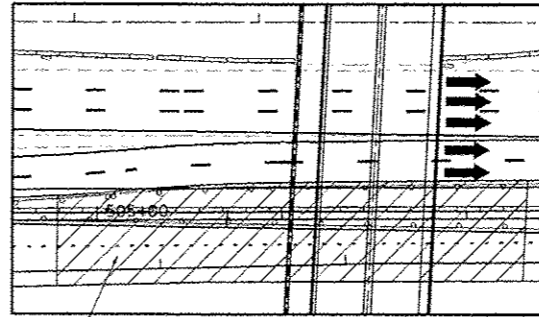
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F.A.I. RTE. 190	SECTION 15(7R-1113)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 100
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

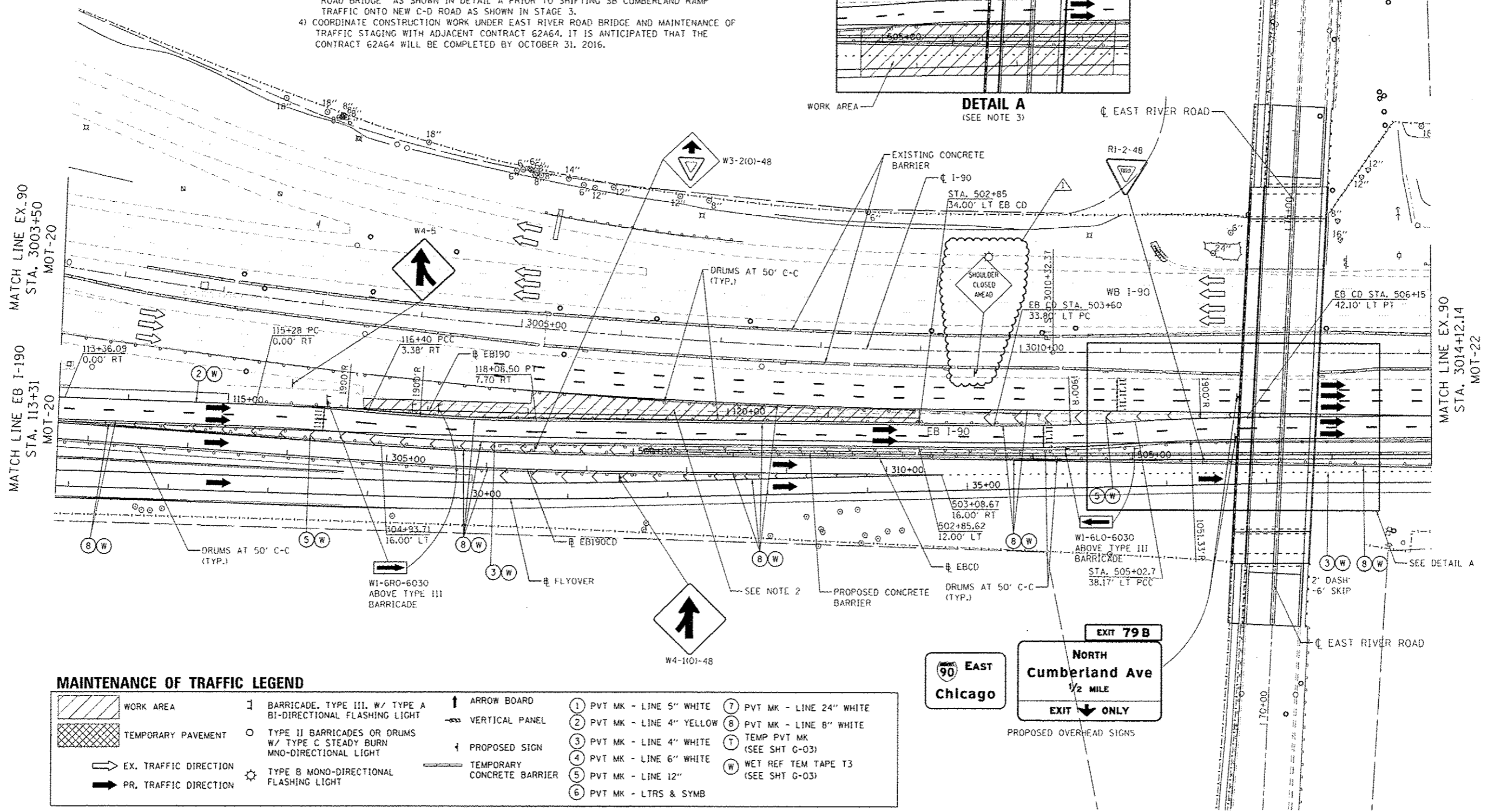
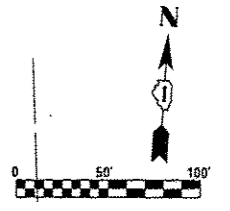
MOT-20

NOTES:

- 1) RECONSTRUCT THE GORE AND INSTALL PROPOSED SLOTTED DRAIN IN THE GORE AREA AS SHOWN ON THE PLANS. TEMPORARY LANE CLOSURES ALONG EB I-90 AND EB I-190 IS ALLOWED DURING THE HOURS AS SPECIFIED IN SPECIAL PROVISION.
- 2) CONTRACTOR SHALL VERIFY THE DIFFERENCE IN GRADE BETWEEN THE PAVEMENT AND DROP-OFF IS LESS THAN 12" PRIOR TO OPENING ADJACENT LANE TO TRAFFIC.
- 3) CONTRACTOR SHALL CONSTRUCT THE GAP ALONG EB C-D ROAD UNDER THE EAST RIVER ROAD BRIDGE AS SHOWN IN DETAIL A PRIOR TO SHIFTING SB CUMBERLAND RAMP TRAFFIC ONTO NEW C-D ROAD AS SHOWN IN STAGE 3.
- 4) COORDINATE CONSTRUCTION WORK UNDER EAST RIVER ROAD BRIDGE AND MAINTENANCE OF TRAFFIC STAGING WITH ADJACENT CONTRACT 62A64. IT IS ANTICIPATED THAT THE CONTRACT 62A64 WILL BE COMPLETED BY OCTOBER 31, 2016.

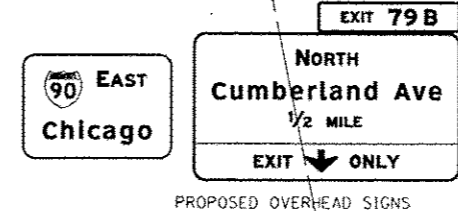


DETAIL A
(SEE NOTE 3)



MAINTENANCE OF TRAFFIC LEGEND

WORK AREA	BARRICADE, TYPE III, W/ TYPE A BI-DIRECTIONAL FLASHING LIGHT	ARROW BOARD	1 PVT MK - LINE 5" WHITE	7 PVT MK - LINE 24" WHITE
TEMPORARY PAVEMENT	TYPE II BARRICADES OR DRUMS W/ TYPE C STEADY BURN MNO-DIRECTIONAL LIGHT	VERTICAL PANEL	2 PVT MK - LINE 4" YELLOW	8 PVT MK - LINE 8" WHITE
EX. TRAFFIC DIRECTION	TYPE B MONO-DIRECTIONAL FLASHING LIGHT	PROPOSED SIGN	3 PVT MK - LINE 4" WHITE	T TEMP PVT MK (SEE SHT G-03)
PR. TRAFFIC DIRECTION		TEMPORARY CONCRETE BARRIER	4 PVT MK - LINE 6" WHITE	W WET REF TEM TAPE T3 (SEE SHT G-03)
			5 PVT MK - LINE 12"	
			6 PVT MK - LTRS & SYMB	



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 CONTRACT NO. 60X56
 SHEET NO. 101

exp U.S. Services Inc. CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ENVIRONMENTAL, BUILDINGS, EARTH & ENVIRONMENT, ENERGY, INDUSTRIAL INFRASTRUCTURE, SUSTAINABILITY	USER NAME: c.mpham	DESIGNED: MM	REVISED: 1/ 8/26/2016 MM
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	PLOT DATE: 8/26/2016	CHECKED: KA	REVISED:
		DATE: 05/06/2016	REVISED:

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL				
STAGE 3 EB				
SCALE:	SHEET	OF	SHEETS	STA. 3003+38.74 TO STA. 3014+12.14

F.A.I. RTE. 190	SECTION 1517R-1(13)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 101
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X56	

MOT-21

GENERAL NOTES

Fasteners shall be ASTM A325 Type I, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel = 3,058,300 lbs.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars, including epoxy-coated reinforcement bars, shall conform to the requirements of AASHTO M-31 (ASTM A706), Grade 60, deformed bars.

Reinforcement bars designated (E) shall be epoxy coated.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all steel surfaces shall be Gray, Munsell No. 5B 7/1.

All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

All exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

Reinforcement bar bending details shall be in accordance with the latest "Manual of Standard Practice for Detailing Reinforced Concrete Structures", ACI 315.

Reinforcement bar bending dimensions are out to out.

Bars noted thus, 3x2- #5 indicates 3 lines of bars with 2 lengths of bars per line.

Cover from the face of concrete to face of reinforcement bars shall be 3" for surfaces formed against earth and 2 inches for all other surfaces unless otherwise shown.

Slipforming of the parapets is not allowed.

Bridge seat reinforcement shall be carefully placed as detailed in the plans to avoid interference with drilling holes for anchor rods. The beams shall be erected in final position prior to drilling holes for and placing anchor rods.

All bearing anchor rods shall be set before permanently bolting diaphragms or cross frames over supports.

Web plates shall be furnished in available mill lengths and widths with a minimum number of web splices. Location of splices shall be subject to the approval of the Designer and shall be a minimum of 1'-0" from stiffeners or flange splices.

Bearing stiffeners at abutments shall be vertical and ends of beams shall be vertical. Bearing stiffeners at piers shall be perpendicular to flange.

Painting of new structural steel shall be accomplished in accordance with Section 506 of the Standard Specifications except field-applying intermediate and final coats of paint on new steel shall not be allowed.

Prior to placement of the joint block-out, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.

Contractor shall not scale dimensions from the Contract Plans for construction purposes. Scales shown are for information only.

No construction joints except those shown on the plans will be allowed unless approved by the Engineer.

It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.

It shall be the Contractor's responsibility to verify the location of all fiber optic utilities prior to starting construction. The Contractor shall initiate the location process for the fiber optic cable by completing a "Request Tollway Utilities Locate" form filled in online at the Tollway website under "Doing Business" at least four (4) business days prior to starting any underground operations, excavations or digging of any type in the general area of the fiber optic cable.

TOTAL BILL OF MATERIAL

SP	ITEM	UNIT	SUPER	SUB	TOTAL	RECORD QUANTITY
	Protective Shield	Sq Yd	2,228		2,228	
	Structure Excavation	Cu Yd		1,027	1,027	
	Concrete Structures	Cu Yd		1,166.0	1,166.0	
*	Concrete Structures (Special)	Cu Yd		151.0	151.0	
	Concrete Superstructure	Cu Yd	236.4		236.4	
*	High Performance Concrete Superstructure	Cu Yd	1,057.4		1,057.4	
	Bridge Deck Grooving	Sq Yd	3,361		3,361	
	Protective Coat	Sq Yd	4,370		4,370	
	Furnishing and Erecting Structural Steel	L Sum	1		1	
	Stud Shear Connectors	Each	15,987		15,987	
	Reinforcement Bars, Epoxy Coated	Pound	325,760	141,080	466,840	
	Test Pile Steel HP10x42	Each		2	2	
	Test Pile Steel HP14x73	Each		5	5	
	Furnishing Steel Piles HP10x42	Foot		725	725	
	Furnishing Steel Piles HP14x73	Foot		9,595	9,595	
	Driving Piles	Foot		10,320	10,320	
	Pile Shoes	Each		12	12	
	Name Plates	Each		1	1	
	Anchor Bolts, 1 1/2"	Each		132	132	
	Concrete Sealer	Sq Ft		6,610	6,610	
	Geocomposite Wall Drain	Sq Yd		350	350	
*	High Load Multi-Rotational Bearings, Guided Expansion, 250K	Each	12		12	
*	High Load Multi-Rotational Bearings, Guided Expansion, 750K	Each	12		12	
*	High Load Multi-Rotational Bearings, Fixed - 800K	Each	6		6	
*	Modular Expansion Joint 9"	Foot		76.0	76.0	
*	Granular Backfill For Structures	Cu Yd		291	291	
*	Pipe Underdrains For Structures 6"	Foot		121	121	
*	Bridge Approach Slab	Sq Yd		274	274	
*	Transition Approach Slab	Sq Yd		248	248	
	Bar Splicers	Each		82	82	
*	Form Liner Mock Up	L Sum		1	1	
*	Form Liner	Sq Ft		1,935	1,935	
*	Bonded Preformed Joint Seal 2"	Foot		32	32	

* Indicates item covered by Special Provision

GENERAL NOTES, cont'd.

Concrete sealer shall be applied to the surfaces of all pier and abutment seats, including backwalls located below roadway expansion joints. Sealer shall also be applied to all exposed surfaces of piers in the median or piers, abutments and wingwalls that are adjacent to the roadway.

After the beams (girders) are set, all elevations for determining fillet heights shall be taken at one time.

Upon completion of each structure, the Contractor shall measure the resulting horizontal and vertical clearances and submit them to the Engineer for review and inclusion in the As Built plans (Record Drawings).

The soil boring logs represent point information. Presentation of this information in no way implies that subsurface conditions are the same at locations other than the exact location of the boring.

Whenever any material is deposited into a drainage system or drainage structures, the deposited material shall be removed at the close of each working day. At the conclusion of construction operations, all drainage systems and structures shall be free from dirt and debris deposited during the various construction operations.

The deck pouring sequence shown on the plans has been used to design the required beam camber and to determine the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" used in the calculation of fillet heights. "I". Requests for changes to the plan pouring sequence shall be submitted in writing prior to ordering of steel. Modifications, either to the camber diagrams or the "Theoretical Grade Elevations Adjusted for Dead Load Deflection," resulting from changes to the plan pouring sequence shall be the responsibility of the Contractor. All required plans shall be submitted with the request and shall be sealed by an Illinois Licensed Structural Engineer.

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2	General Data - 1
3	General Data - 2
4	General Data - 3
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8	Top of Slab Elevations - 1
9	Top of Slab Elevations - 2
10	Top of Slab Elevations - 3
11	Top of Slab Elevations - 4
12	Top of Slab Elevations - 5
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32	Moment and Reaction Tables
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60	Boring Logs - 7
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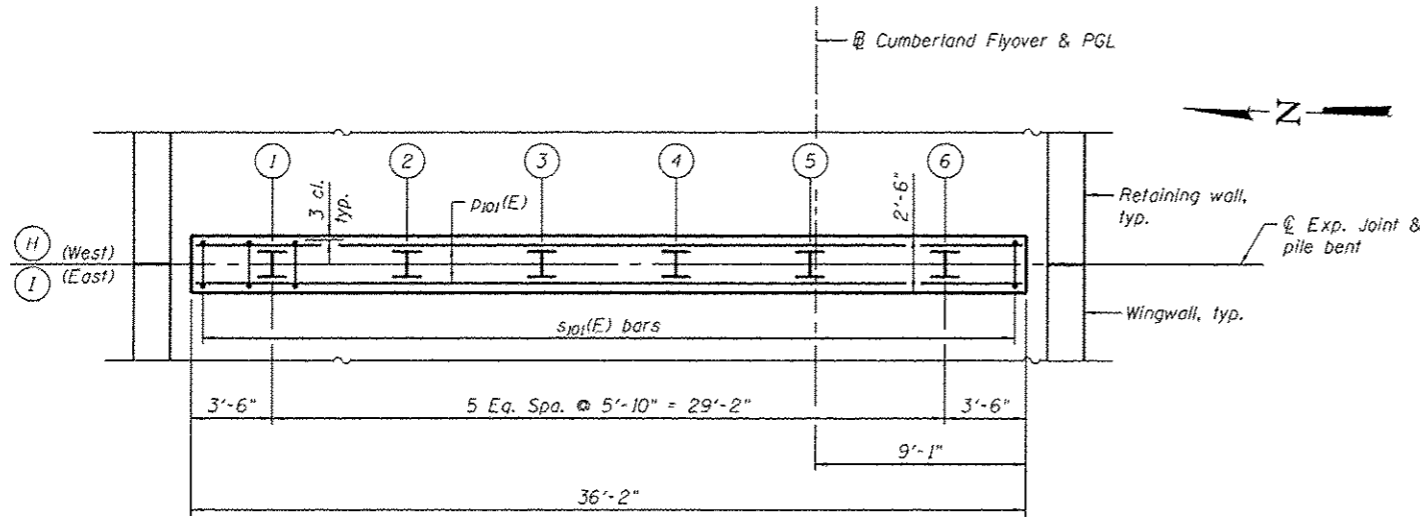
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PLOT DATE - 8/27/2016		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA - 1
BRIDGE NO. 380**

SHEET NO. 2 OF 61 SHEETS

F.A.I. RTE. 190	SECTION 1517R-1(13)	COUNTY COOK	TOTAL SHEETS 580	SHEET NO. 323
CONTRACT NO. 60X56			ILLINOIS FED. AID PROJECT	



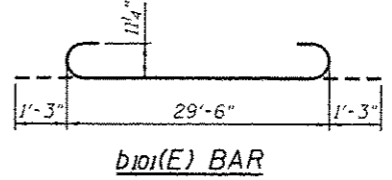
APPROACH BENT - PLAN
East Appr. shown, West Appr. similar

PILE DATA
Type: Steel-HP10x42 with Pile Shoes!
Nominal Required Bearing: 291 kips
Factored Resistance Available: 160 kips
Est. Length: *
No. Production Piles: 5
No. Test Piles: 1

- 71'-0" West
- 74'-0" East
- ** 355 West Bent
- 370 East Bent

ONE APPROACH BENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p101(E)	10	#6	35'-10"	
s101(E)	38	#4	8'-9"	
Concrete Structures Cu Yd 8.5				
Reinforcement Bars, Epoxy Coated Pound 760				
Furnishing Steel Piles HP10x42 Foot **				
Driving Piles Foot **				
Test Pile Steel HP10x42 Each 1				
Pile Shoes Each 6				



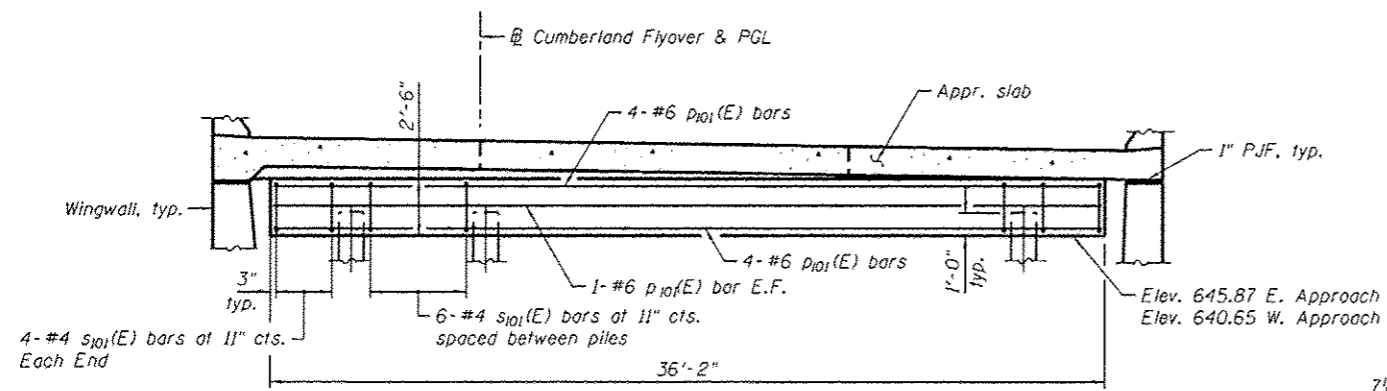
ONE APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a101(E)	120	#8	22'-6"	
a102(E)	61	#5	13'-3"	
a104(E)	61	#5	11'-3"	
a105(E)	61	#5	15'-8"	
a106(E)	57	#4	15'-8"	
Bridge Approach Slab Sq Yd 137				
Transition Approach Slab Sq Yd 124				
Reinforcement Bars, Epoxy Coated Pound 26,040				
Protective Coat Sq Yd 265				
Bridge Deck Grooving Sq Yd 119				
Banded Preformed Joint Seal Foot 16				

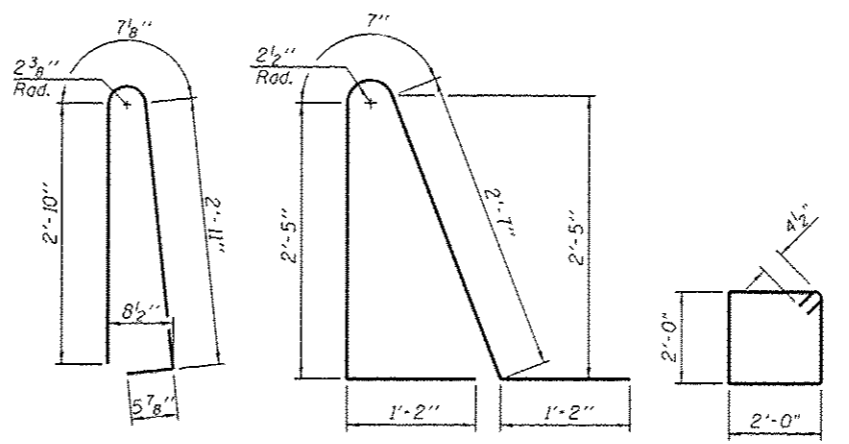
For Information Only

ONE APPROACH BARRIERS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d100(E)	110	#5	6'-10"	
d101(E)	104	#5	7'-11"	
Concrete Superstructure Cu Yd 8.0				
Reinforcement Bars, Epoxy Coated Pound 2,320				
Protective Coat Sq Yd 8				



APPROACH BENT ELEVATION
Looking West



Notes:

- The reinforcing bars schedule, bill of materials, and quantities are calculated for one end of bridge.
- The area of main Bridge Approach Slab shall be measured in place and computed in square yards. See Special Provisions for other work that is included in the cost of this item.
- The area of the Transition Approach Slab calculated for payment is the plan area calculated from the width dimensions from left outside edge of concrete pavement to the right outside edge of concrete pavement by the minimum length of 70.00 feet.
- For Modular Expansion Joint Detail, see Sheet 24 of 61.
- Concrete parapets shall be constructed and paid for in accordance with sections 503 and 508 of the IDOT Standard Specifications.
- Protective Coat shall be applied to the Bridge Approach Slab and Transition Approach Slab, and Approach Slab parapets in accordance with section 503.17 of the IDOT Standard Specifications.
- Bridge Deck Grooving shall be applied to the Bridge Approach Slab in accordance with section 503 of the IDOT Standard Specifications.
- If approach bent piles are installed after wingwall footing is constructed, they shall be precored in accordance with section 512.09c of the IDOT Standard Specifications.

GENERAL NOTES

CAST-IN-PLACE CONCRETE

All exposed Concrete edges shall have a 3/4"x45° Chamfer, Except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below the finished ground level.

REINFORCEMENT BARS

1. Reinforcement bars designated "E" shall be epoxy coated.
2. Reinforcement Bars, Epoxy Coated shall conform to the requirements of A.A.S.H.T.O. M-31 (ASTM A615) Grade 60, Deformed Bars.
3. Reinforcement bending details shall be in accordance with the latest "Manual Of Standard Practice for Detailing Reinforced Concrete Structures" ACI 315.
4. Reinforcement Bar Splices shall be in accordance with the following table. Unless otherwise shown on the Drawing.

CLASS "B" SPLICE (GRADE 60 BARS)

SIZE	1' C=3,500 PSI (BASIC)	1' C=3,500 PSI (TOP)
#4	2'-5"	2'-11"
#5	3'-4"	3'-9"
#6	4'-9"	5'-4"
#7	5'-6"	6'-3"
#8	7'-2"	8'-2"
#9	9'-2"	10'-4"
#10	10'-2"	11'-6"
#11	12'-6"	14'-2"

5. Reinforcement bar bending dimensions are out to out.
6. Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths of bars per line.
7. Cover from the face of concrete to face of reinforcement bars shall be 3" for surfaces formed against earth and 2 inches for all other surfaces unless otherwise shown.

CONSTRUCTION

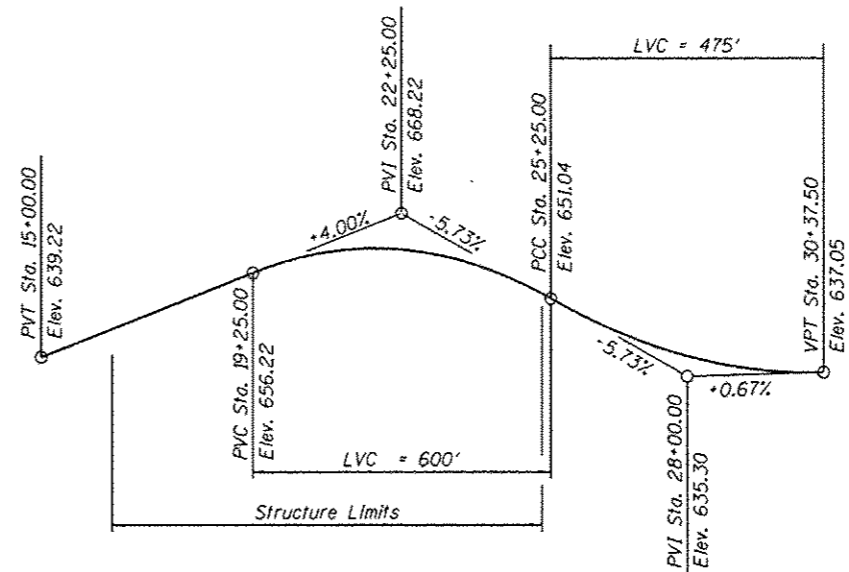
1. The Contractor shall not scale any dimensions from contract plans for construction purposes. Scales shown are for reference only.
2. No Construction joints, except those shown on the plans, will be allowed unless approved by the Engineer. All construction joints shall be bonded.
3. Temporary soil retention system, sheeting, bracing or cofferdams shall be constructed at the locations shown on the plans and/or as required for the excavation to protect the adjacent from settling or falling into the excavated areas.
4. Protective coat shall be applied to the top and traffic face of all barriers of the Wall.
5. When excavating for the wall's footing, the Contractor shall use a method that will result in minimal disturbance to the underlying soil.
6. Geocomposite wall drain is to be continuous over the entire length of the back face of the retaining wall.
7. The Contractor shall be responsible for the protection of all underground or surface utilities even though they may not be shown in the plans. Any utility that is damaged during construction shall be repaired or replaced to the satisfaction of the Engineer. This work will be at the Contractor's expense.
8. The Contractor shall coordinate work with utilities in advance of working in the vicinity of their facilities, and allow sufficient time for them to perform adjustments to their facilities in accordance with the Contractor's schedule. Coordination efforts shall be included in the cost of the contract bid price.
9. The Contractor must call the IDOT electrical maintenance Contractor to locate IDOT facility cables.

CONSTRUCTION (CONTINUED)

10. The 6" perforated pipe underdrain shall be situated within a block of granular backfill, which shall be wrapped completely in geotechnical filter fabric. A 1'-6" lap will be used where the fabric must be lapped. Cost of Geotechnical fabric shall be included with Pipe Underdrain, 6". Granular backfill for structures will be paid for separately.
11. The stability of the existing embankment shall be monitored during driving of piles since potentially liquefiable soils were encountered at and below the top of the existing embankment. All soft areas are to be tested and evaluated according to IDOT's subgrade stability manual. The contractor shall take all necessary precautions to prevent the instability of the embankment.
12. All retaining walls which are to be supported on piling have "Pile Installation Tables" that should be recorded in the field book. These tables are for record purposes and must be filled in by the construction section Engineer during pile installation or driving. The "Pile Location" and "Pile Number" columns must also be filled in during pile installation or driving.
13. Station and offsets are measured from @ SB Cumberland Flyover Ramp to the front face of the retaining wall.
14. For the Proposed Sewer location in the vicinity of the Retaining Walls, See Civil Plans.
15. The soil boring logs represent point information. Presentation of this information in no way implies that subsurface conditions are the same at locations other than the exact location of the boring.
16. No concrete cutting will be permitted until the cutting limits have been outlined by the Contractor and approved by the Engineer.
17. It shall be the Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
18. It shall be the Contractor's responsibility to verify the location of all fiber optic cables and other utilities prior to starting construction and no pile should be driven within 2'-0" clearance. The Contractor shall initiate the location process for the fiber optic cable by completing a "Request Tollway Utilities Locate" form filled in online at the Tollway website under "Doing Business" at least four (4) business days prior to starting any underground operations, excavations or digging of any type in the general area of the fiber optic cable.
19. Whenever any material is deposited into a drainage system or drainage structures, the deposited material shall be removed at the close of each working day. At the conclusion of construction operations, all drainage system and structures shall be free from dirt and debris deposited during the various construction operations.

ABBREVIATIONS

P.G.L.	Profile Grade Line	O.F.	Profile Grade Line
N.B.L.	North Bound Lanes	P.J.F.	North Bound Lanes
S.B.L.	South Bound Lanes	P.J.S.	South Bound Lanes
S.	South Abutment	BK/	Back of
Abut		B/	Bottom of
N.	North Abutment	T/	Top of
Abut		Prop.	Proposed
E.F.	Each Face	Exist.	Existing
F.F.	Front face		
B.F.	Back Face		
I.F.	Inside Face		



PROFILE GRADE @ CUMBERLAND FLYOVER RAMP

CURVE DATA CUMBFY-02

PI STA. = 20+67.96
 Δ = 33° 47' 31" (LT)
 D = 8° 44' 03"
 R = 656.00'
 T = 199.26'
 L = 386.90'
 E = 29.59'
 e = 6.0%
 P.C. STA. = 18+68.71
 P.T. STA. = 22+55.60

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Sht. No.	Sht. Title
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2	General Plan and Elevation (2 of 2)
3	General Notes
4	Detailed Plan and Elevation (1 of 4)
5	Detailed Plan and Elevation (2 of 4)
6	Detailed Plan and Elevation (3 of 4)
7	Detailed Plan and Elevation (4 of 4)
8	Wall Section & Details (1 of 4)
9	Wall Section & Details (2 of 4)
10	Wall Section & Details (3 of 4)
11	Wall Section & Details (4 of 4)
12	Reinforcement Details & Bill of Material
13	Metal Shell Pile Details
14	Light Pole Foundation Detail
15	Soil Boring Logs (1 of 4)
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19	Pile Driving Records (1 of 13)
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21	Pile Driving Records (3 of 13)
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27	Pile Driving Records (9 of 13)
28	Pile Driving Records (10 of 13)
29	Pile Driving Records (11 of 13)
30	Pile Driving Records (12 of 13)
31	Pile Driving Records (13 of 13)

TOTAL BILL OF MATERIAL

PAY ITEM DESCRIPTION	UNIT	TOTAL	RECORD QUANTITY
* Granular Backfill For Structures	Cu Yd	844	
Structure Excavation	Cu Yd	2,512	
Concrete Structure	Cu Yd	2,090	
Concrete Superstructure	Cu Yd	180	
Protective Coat	Sq Yd	845	
Reinforcement Bars, Epoxy Coated	Pound	264,214	
Furnishing Metal Shell Piles 12"x0.179"	Foot	(17,811)	
Driving Piles	Foot	(17,811)	
Test Pile Metal Shells	Each	7	
Geocomposite Wall Drain	Sq Yd	2,075	
* Pipe Underdrain for Structures, 6"	Foot	1,106	
Form Liner	Sq Ft	9,501	

* Special Provision Required

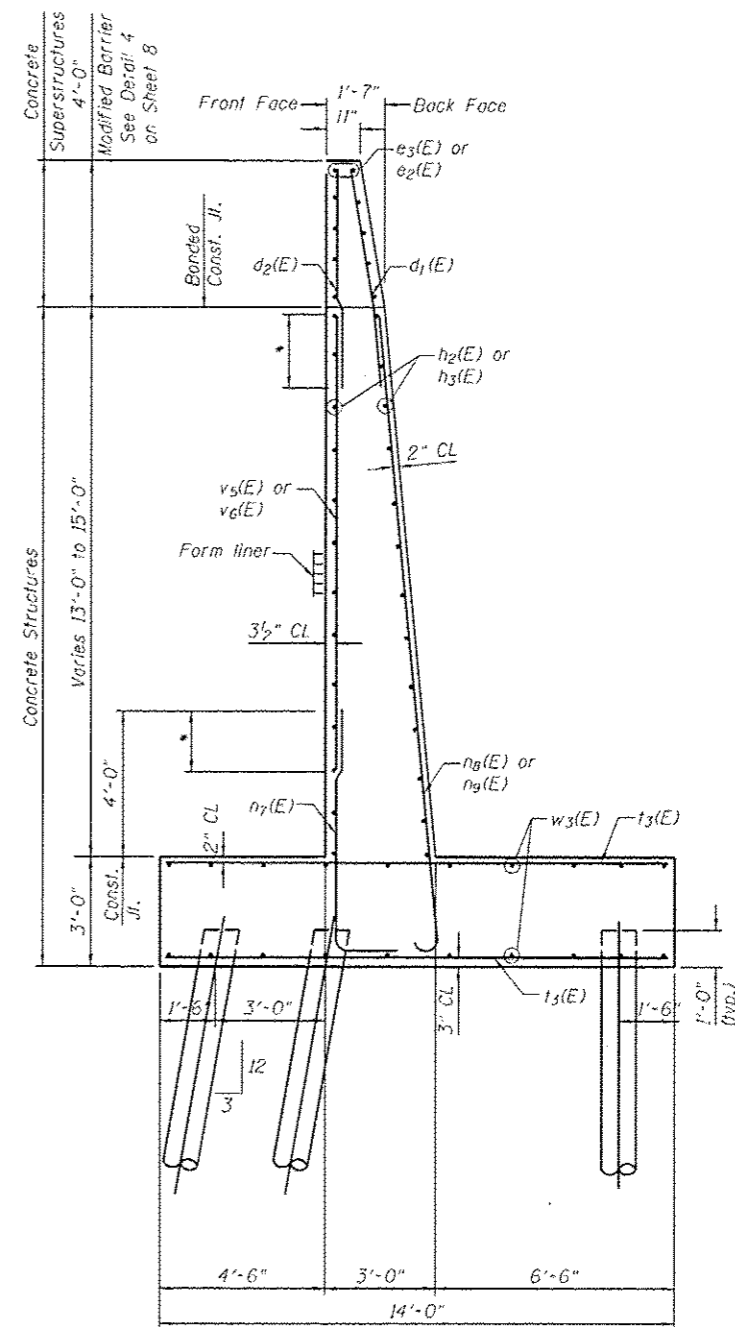


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES
CUMBERLAND FLYOVER RAMP RETAINING WALLS
NW78.70R EB(R), NW78.80R EB(R) & NW78.90R EB(R)**
SHEET NO. 3 OF 31 SHEETS


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	387
			CONTRACT NO. 60X56	
ILLINOIS FED. AID PROJECT				

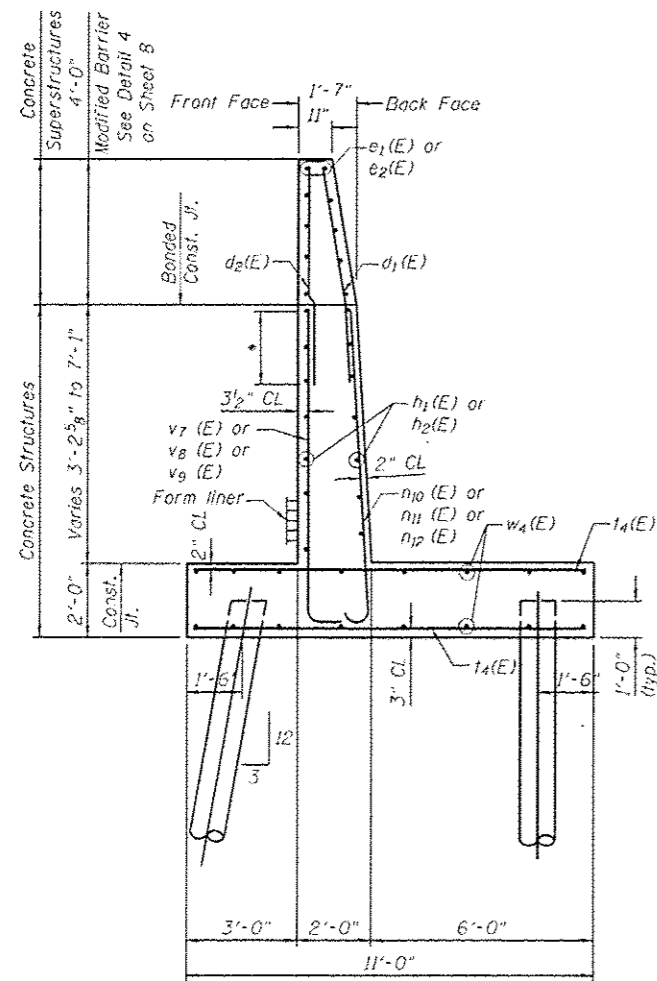


**Section C-C
Retaining Wall 2**

Sta. 15+85.00 to Sta. 16+29.58
 Pile Type: 12" Metal Shell Cast-in-Place
 Concrete Piles with wall thickness = 0.179"
 Nominal Required Bearing = 171 Kips
 Factored Resistance Available = 94 Kips
 Estimated Pile Length = 22'
 No. Req'd = 41*1 Test Pile

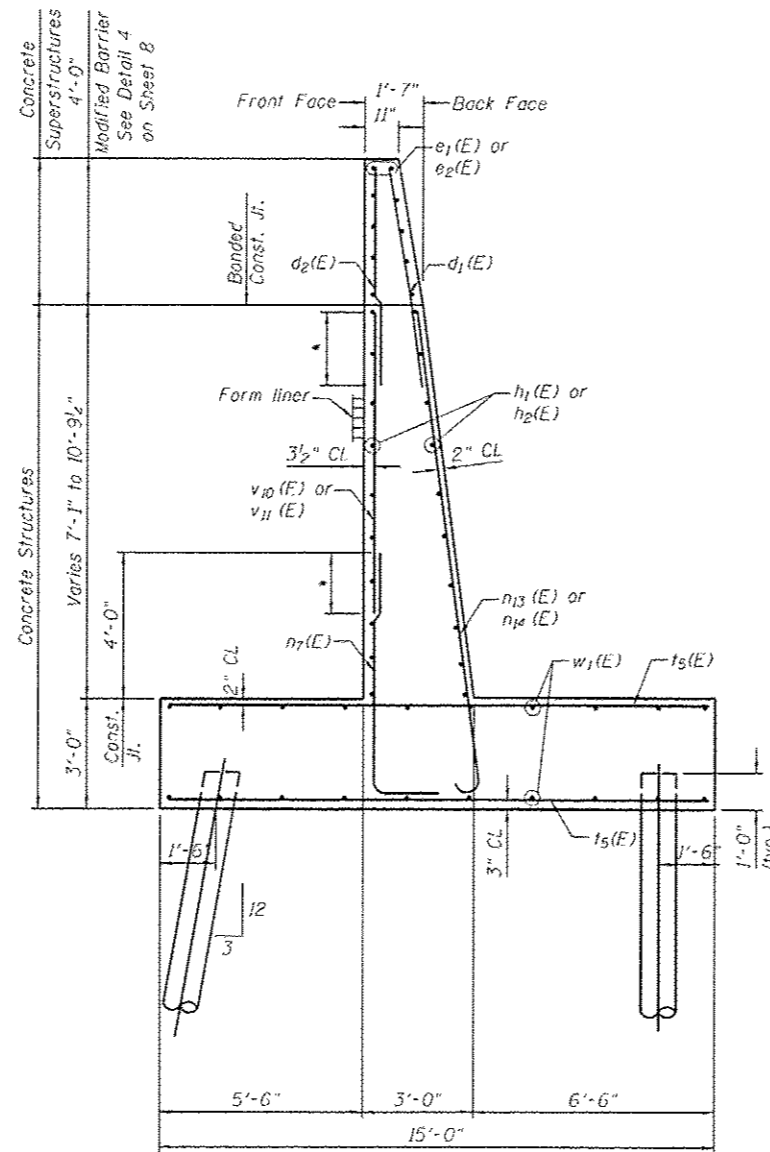
* For minimum lap lengths of reinforcement, see Sheet 3

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		CHECKED - NS	REVISED 1-08/26/2016 ADDENDUM 1			SHEET NO. 9 OF 31 SHEETS					
						ILLINOIS FED. AID PROJECT					



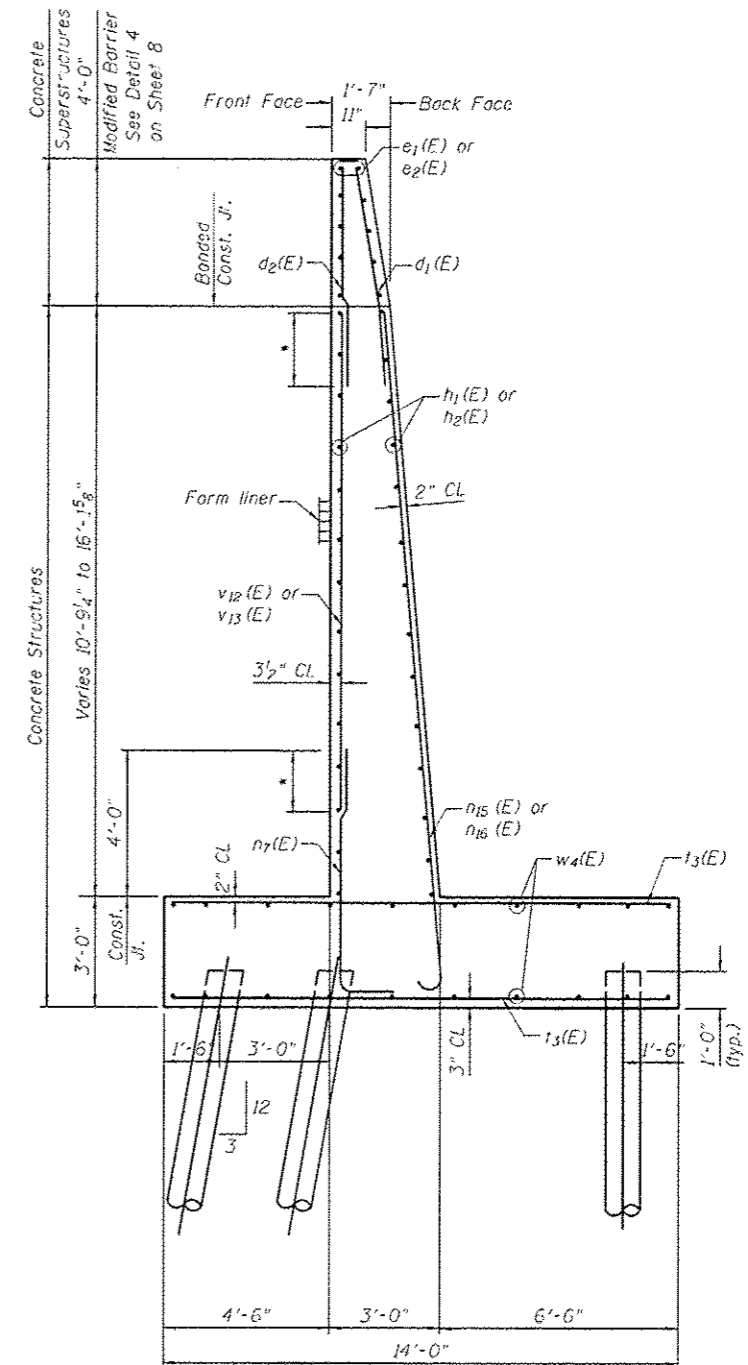
Section D-D
Retaining Wall 3

Sta. 28+70.24 to Sta. 27+20.24
 Pile Type: 12" Metal Shell Cast-in-Place
 Concrete Piles with wall thickness = 0.179"
 Nominal Required Bearing = 153 Kips
 Factored Resistance Available = 84 Kips
 Estimated Pile Length = 27'
 No. Req'd = 99+1 Test Pile



Section E-E
Retaining Wall 3

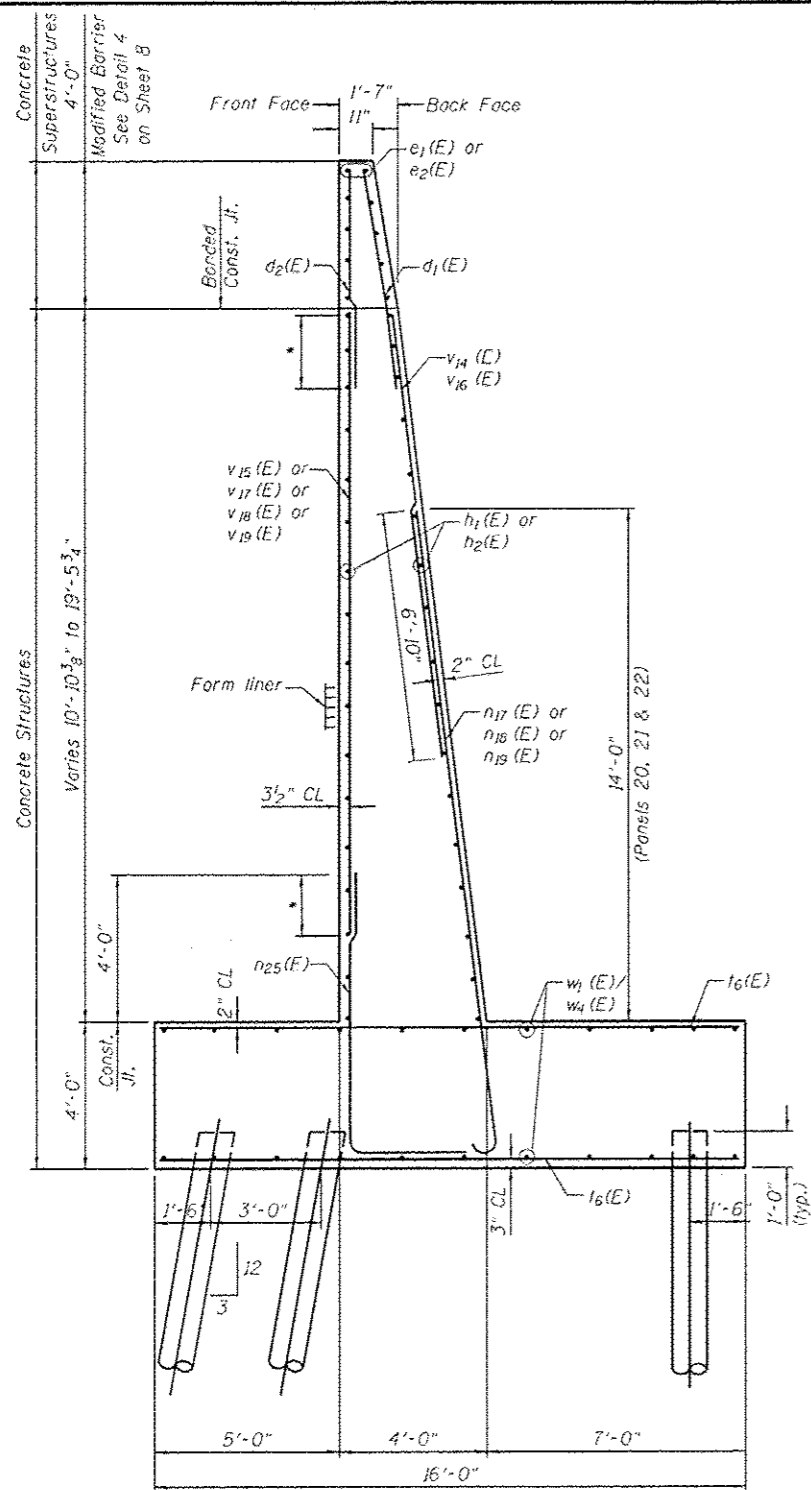
Sta. 27+20.24 to Sta. 26+30.24
 Pile Type: 12" Metal Shell Cast-in-Place
 Concrete Piles with wall thickness = 0.179"
 Nominal Required Bearing = 181 Kips
 Factored Resistance Available = 100 Kips
 Estimated Pile Length = 30'
 No. Req'd = 59+1 Test Pile



Section F-F
Retaining Wall 3

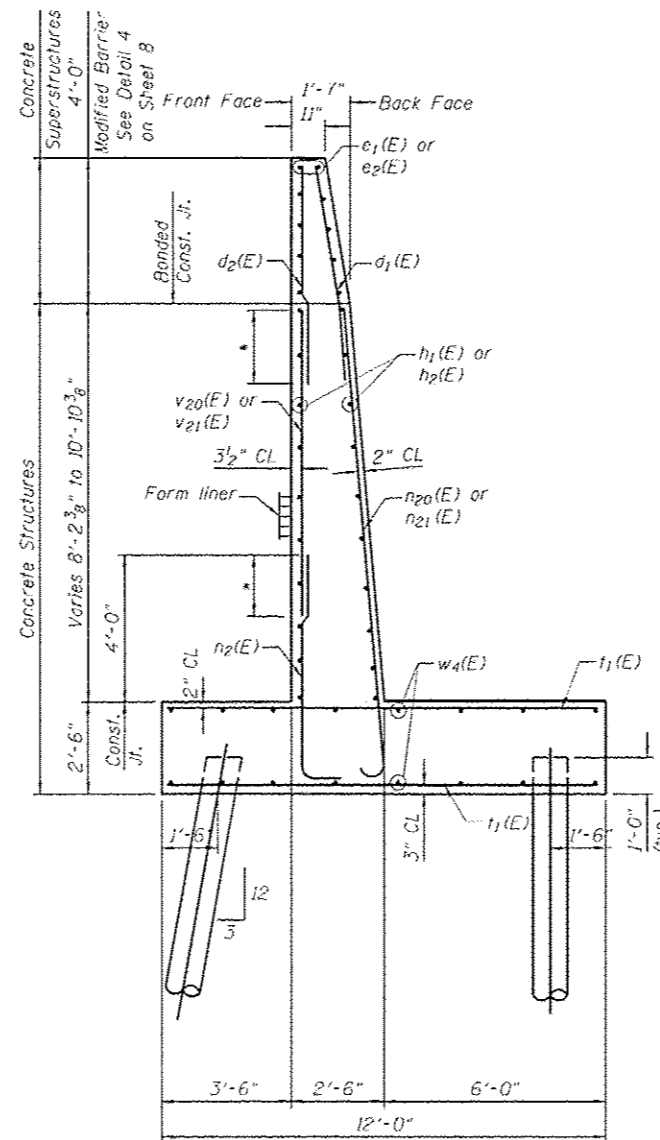
Sta. 26+30.24 to Sta. 25+40.24
 Pile Type: 12" Metal Shell Cast-in-Place
 Concrete Piles with wall thickness = 0.179"
 Nominal Required Bearing = 171 Kips
 Factored Resistance Available = 94 Kips
 Estimated Pile Length = 29'
 No. Req'd = 89+1 Test Pile

* For minimum lap lengths of reinforcement, see Sheet 3



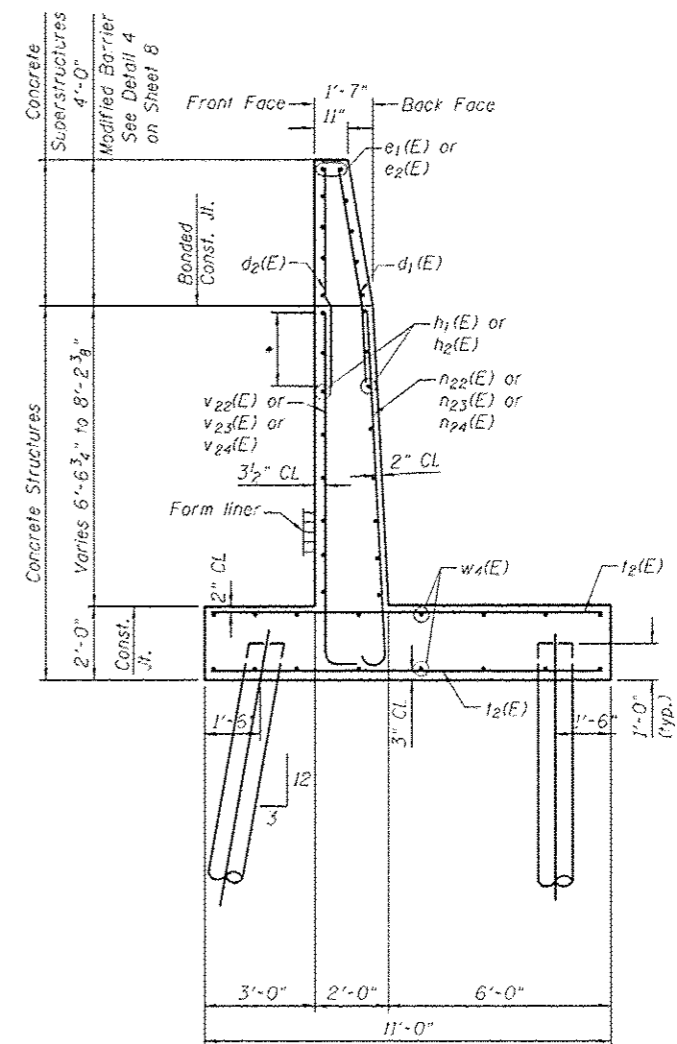
Section G-G
Retaining Wall 4

Sta. 25+40.24 to Sta. 27+20.24
Pile Type: 12" Metal Shell Cast-in-Place
Concrete Piles with wall thickness = 0.179"
Nominal Required Bearing = 220 Kips
Factored Resistance Available = 121 Kips
Estimated Pile Length = 24'
No. Req'd = 179+1 Test Pile



Section H-H
Retaining Wall 4

Sta. 27+20.24 to Sta. 28+10.24
Pile Type: 12" Metal Shell Cast-in-Place
Concrete Piles with wall thickness = 0.179"
Nominal Required Bearing = 206 Kips
Factored Resistance Available = 113 Kips
Estimated Pile Length = 25'
No. Req'd = 59+1 Test Pile



Section J-J
Retaining Wall 4

Sta. 28+10.24 to Sta. 30+80.24
Pile Type: 12" Metal Shell Cast-in-Place
Concrete Piles with wall thickness = 0.179"
Nominal Required Bearing = 169 Kips
Factored Resistance Available = 93 Kips
Estimated Pile Length = 22'
No. Req'd = 179+1 Test Pile

* For minimum lap lengths of reinforcement, see Sheet 3



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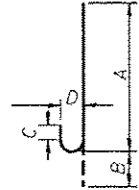
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTION & DETAILS (4 OF 4)
CUMBERLAND FLYOVER RAMP RETAINING WALLS
NW78.70R EB(R), NW78.80R EB(R) & NW78.90R EB(R)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
190	1517R-1(13)	COOK	580	395
			CONTRACT NO. 60X56	
ILLINOIS FED. AID PROJECT				

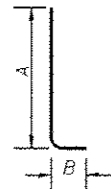
SHEET NO. 11 OF 31 SHEETS

Bar	A	B	C	D
n8(E)	17'-9"	1'-5"	3'-3/4"	1'-1/4"
n9(E)	16'-5"	1'-5"	3'-3/4"	1'-1/4"
n10(E)	6'-3"	10"	3"	7"
n11(E)	7'-0"	10"	3"	7"
n12(E)	8'-10"	10"	3"	7"
n13(E)	10'-11"	1'-5"	3'-3/4"	1'-1/4"
n14(E)	13'-7"	1'-5"	3'-3/4"	1'-1/4"
n15(E)	15'-1"	1'-5"	3'-3/4"	1'-1/4"
n16(E)	18'-8"	1'-5"	3'-3/4"	1'-1/4"
n17(E)	18'-0"	1'-7"	4'-1/2"	1'-2'-3/4"
n18(E)	18'-5"	1'-7"	4'-1/2"	1'-2'-3/4"
n19(E)	17'-0"	1'-7"	4'-1/2"	1'-2'-3/4"
n20(E)	13'-1"	11"	3"	8"
n21(E)	11'-3"	11"	3"	8"
n22(E)	9'-11"	10"	3"	7"
n23(E)	8'-5"	10"	3"	7"
n24(E)	7'-11"	10"	3"	7"



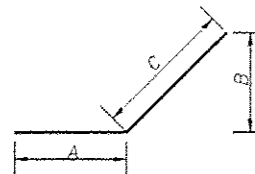
BAR n8(E) thru n24(E)

Note: Bars shall be cut-to-fit as required



Bar	A	B
n2(E)	6'-6"	12"
n7(E)	7'-0"	12"
n25(E)	8'-0"	12"

BAR n2(E), n7(E) & n25(E)



Bar	A	B	C
w5(E)	2'-7"	1'-5"	2'-10"
w6(E)	2'-7"	2'-6"	3'-7"
w7(E)	2'-7"	3'-6"	4'-1"

BAR w5(E), w6(E) & w7(E)

**WALL 2
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d1(E)	45	#6	7'-2"	---
d2(E)	45	#5	6'-1"	---
e2(E)	10	#4	29'-8"	---
e3(E)	10	#4	16'-5"	---
h2(E)	32	#5	29'-8"	---
h3(E)	30	#5	16'-11"	---
n7(E)	45	#5	8'-0"	---
n6(E)	45	#10	18'-2"	---
n9(E)	23	#10	17'-10"	---
l3(E)	104	#9	13'-6"	---
l7(E)	2	#9	2'-9"	---
l8(E)	2	#9	9'-0"	---
l11(E)	6	#9	14'-3"	---
v5(E)	30	#5	12'-8"	---
v6(E)	15	#5	11'-4"	---
w3(E)	60	#5	23'-4"	---
w6(E)	2	#5	2'-6"	---

Description	Unit	Qty
Structure Excavation	Cu Yd	193
Concrete Structures	Cu Yd	128
Concrete Superstructures	Cu Yd	9
Reinforcement Bars, Epoxy Coated	Pound	16,404
Furnishing Metal Shell Piles 12"x0.179"	Foot	911
Driving Piles	Foot	911
Test Pile Metal Shells	Each	1
Geocomposite Wall Drain	Sq Yd	98
Pipe Underdrain	Foot	97
Form Liner	Sq Ft	655
Granular Backfill for Structures	Cu Yd	48

**WALL 3
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d1(E)	330	#6	7'-2"	---
d2(E)	330	#5	6'-1"	---
d3(E)	6	#6	7'-7"	---
e1(E)	70	#4	32'-0"	---
e2(E)	40	#4	29'-8"	---
e4(E)	14	#6	7'-0"	---
n1(E)	140	#5	32'-7"	---
n2(E)	76	#5	29'-8"	---
n7(E)	180	#5	8'-0"	---
n10(E)	160	#7	7'-1"	---
n11(E)	80	#7	7'-10"	---
n12(E)	160	#7	9'-8"	---
n13(E)	36	#10	12'-4"	---
n14(E)	72	#10	15'-0"	---
n15(E)	45	#10	16'-6"	---
n16(E)	90	#10	20'-1"	---
l3(E)	212	#9	13'-6"	---
l4(E)	300	#8	10'-6"	---
l5(E)	216	#9	14'-6"	---
l6(E)	2	#9	9'-0"	---
l2(E)	2	#9	2'-6"	---
l3(E)	6	#9	14'-0"	---
v7(E)	60	#5	7'-6"	---
v8(E)	30	#5	8'-4"	---
v9(E)	60	#5	10'-1"	---
v10(E)	30	#5	5'-11"	---
v11(E)	60	#5	8'-5"	---
v12(E)	30	#5	10'-0"	---
v13(E)	60	#5	13'-9"	---
w1(E)	96	#5	31'-9"	---
w4(E)	210	#5	32'-7"	---
w6(E)	12	#5	6'-2"	---
w8(E)	2	#5	2'-6"	---

Description	Unit	Qty
Structure Excavation	Cu Yd	573
Concrete Structures	Cu Yd	673
Concrete Superstructures	Cu Yd	64
Reinforcement Bars, Epoxy Coated	Pound	88,286
Furnishing Metal Shell Piles 12"x0.179"	Foot	7,094
Driving Piles	Foot	7,094
Test Pile Metal Shells	Each	3
Geocomposite Wall Drain	Sq Yd	1161
Pipe Underdrain	Foot	395
Form Liner	Sq Ft	3033
Granular Backfill for Structures	Cu Yd	263

**WALL 4
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d1(E)	540	#6	7'-2"	---
d2(E)	540	#5	6'-1"	---
c1(E)	120	#4	32'-0"	---
e2(E)	60	#4	29'-8"	---
h1(E)	294	#5	32'-7"	---
h2(E)	146	#5	29'-8"	---
n2(E)	90	#5	7'-6"	---
n17(E)	135	#11	19'-7"	---
n18(E)	45	#11	20'-0"	---
n19(E)	90	#11	18'-7"	---
n20(E)	120	#8	14'-0"	---
n21(E)	60	#8	12'-2"	---
n22(E)	240	#7	10'-9"	---
n23(E)	240	#7	9'-3"	---
n24(E)	240	#7	8'-9"	---
n25(E)	180	#5	9'-0"	---
l1(E)	180	#9	11'-6"	---
l2(E)	540	#8	10'-6"	---
l6(E)	432	#9	15'-6"	---
l4(E)	2	#9	9'-6"	---
l5(E)	2	#9	3'-6"	---
v14(E)	90	#9	12'-4"	---
v15(E)	60	#5	17'-2"	---
v16(E)	45	#9	9'-0"	---
v17(E)	30	#5	13'-10"	---
v18(E)	30	#5	12'-4"	---
v19(E)	60	#5	10'-11"	---
v20(E)	60	#5	8'-6"	---
v21(E)	30	#5	6'-8"	---
v22(E)	90	#5	11'-2"	---
v23(E)	90	#5	9'-8"	---
v24(E)	90	#5	9'-2"	---
w1(E)	102	#5	31'-9"	---
w4(F)	396	#5	32'-7"	---
w5(E)	12	#5	5'-5"	---
w7(E)	13	#5	6'-8"	---

Description	Unit	Qty
Structure Excavation	Cu Yd	1,744
Concrete Structures	Cu Yd	1,288
Concrete Superstructures	Cu Yd	106
Reinforcement Bars, Epoxy Coated	Pound	159,523
Furnishing Metal Shell Piles 12"x0.179"	Foot	9,806
Driving Piles	Foot	9,806
Test Pile Metal Shells	Each	3
Geocomposite Wall Drain	Sq Yd	1116
Pipe Underdrain	Foot	614
Form Liner	Sq Ft	5813
Granular Backfill for Structures	Cu Yd	533