

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 646 (IL 40)
SECTION 101 BR-3
PROJECT: ACBRF-ACF-0646(078)
BRIDGE REPLACEMENT
WHITESIDE COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR STATE STANDARDS, SEE SHEET NO. 2

FUNCTIONAL CLASSIFICATION

OTHER PRINCIPAL ARTERIAL

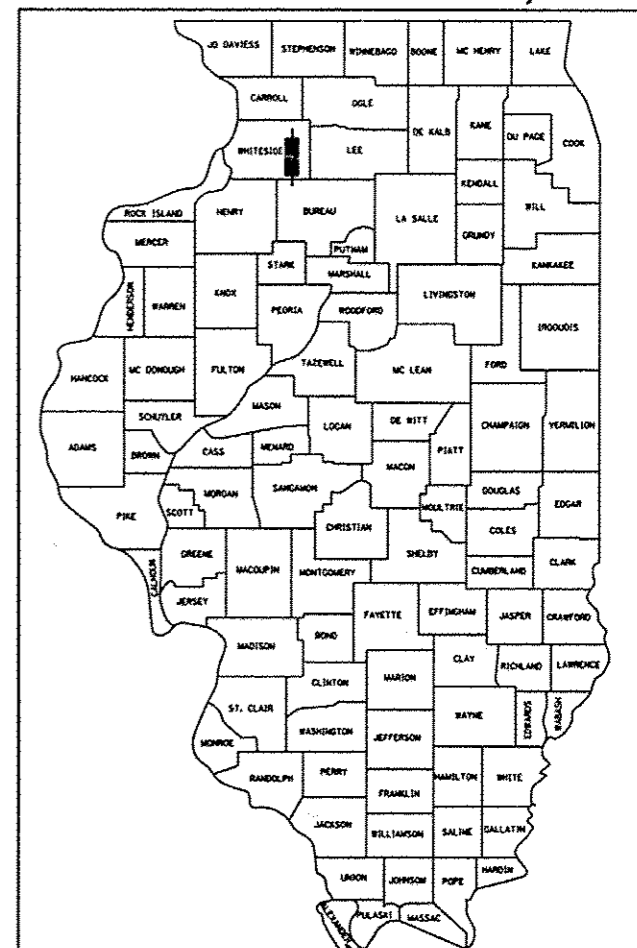
2007 ADT = 8,500

2027 ADT = 11,000

POSTED AND DESIGN SPEED LIMIT = 45 MPH

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	1
FED. ROAD DIST. NO. 2	ILLINOIS	CONTRACT NO. 64C17		

* 126 41 = 127
D-92-045-06
* 113 4 13 = 126



LOCATION OF SECTION INDICATED THUS: —■—

C-92-091-12
R 7 E

PROJECT / SECTION ENDS
STA. 637 + 00.00

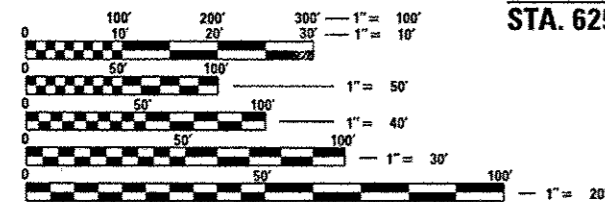
STRUCTURE REMOVAL AND REPLACEMENT STA. 632 + 59.38
(EXISTING SN = 098-0015)
IL 40 OVER HENNEPIN CANAL FEEDER

PROJECT / SECTION BEGINS
STA. 628 + 50.00

IMPROVEMENT BEGINS
STA. 625 + 00.00

IMPROVEMENT ENDS
STA. 641 + 71.93

STRAND ASSOCIATES, INC.
IDFPR NO. 184001273

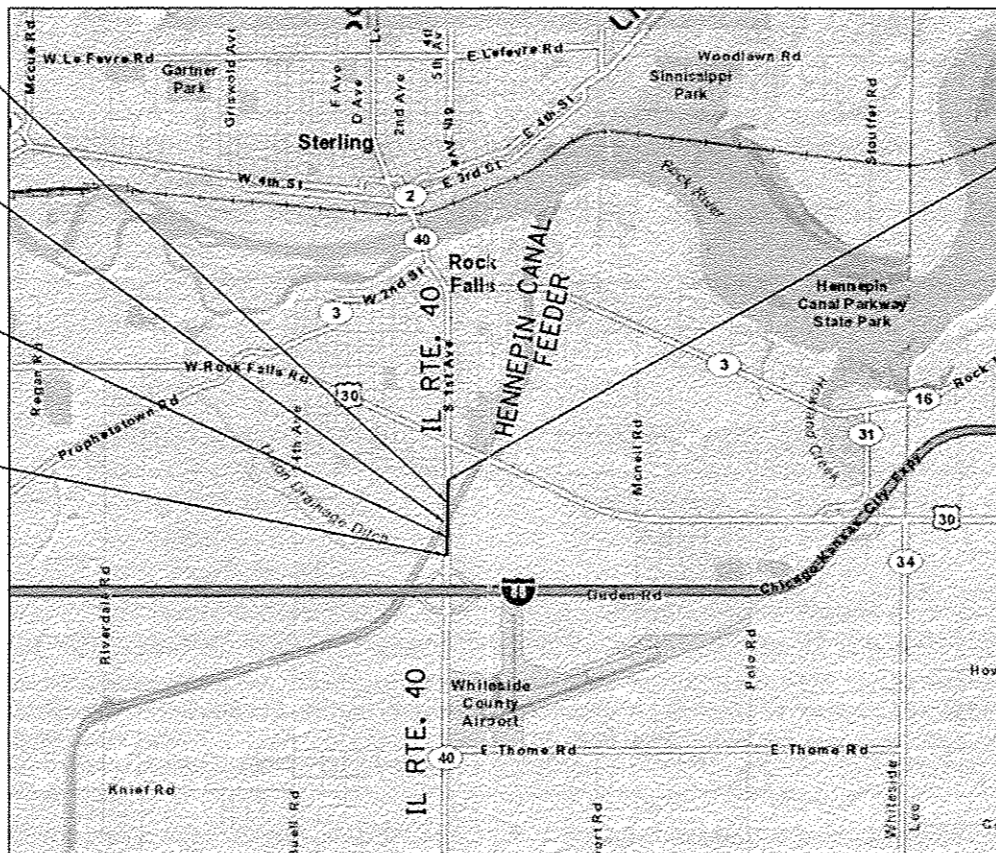


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

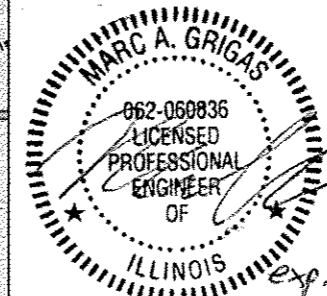
COLOMA TOWNSHIP, SECTION 33 & 34, MONTMORENCY TOWNSHIP, SECTION 3 & 4
PROJECT ENGINEER: BECKY MARRUFFO
PROJECT MANAGER DERRICK LOPEZ (815) 284-5930

CONTRACT NO. 64C17

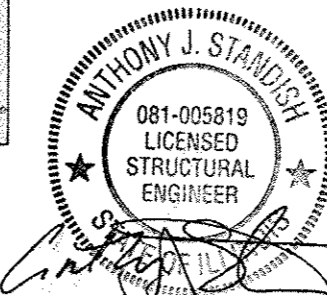


LOCATION MAP

GROSS LENGTH = 850 FEET = 0.161 MILE
NET LENGTH = 850 FEET = 0.161 MILE



MARC A. GRIGAS, P.E.
THIS STAMP APPLIES TO
DRAWINGS NO. 1-56, 92-113



ANTHONY J. STANDISH, P.E., S.E.
THIS STAMP APPLIES TO
DRAWINGS NO. 57-91

SA STRAND ASSOCIATES
1170 SOUTH HOBDOCK ROAD
JOLIET, ILLINOIS 60431
815) 744-4200
IDFPR NO. 184-001273

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 16 2012
Paul Koeter
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Feb 1 2013
John D. Baranzoli PE/EA
ENGINEER OF DESIGN AND ENVIRONMENT

Feb 1 2013
Over Osman PE/EA
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

Rev. 4-10-13
A Rev. 2-20-13

CONSULTANT: STRAND ASSOCIATES INC. (815) 744-4200 ANTHONY J. STANDISH, P.E., S.E. (815) 722-4200

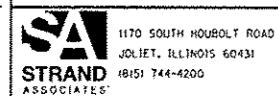
34. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

ELECTRIC	COMMONWEALTH EDISON COMPANY	MR. MICHAEL LENOX	815-490-2869
		MR. JOSEPH LANDISE	630-576-6958 / 312-909-0070
TELEPHONE	AT&T	MR. BILL CONOVER	309-686-3317
GAS	NICOR GAS COMPANY	MS. CONSTANCE LANE	630-983-8676
ELECTRIC	CITY OF ROCK FALLS	MR. DICK SIMON	815-622-1145
WATER	CITY OF ROCK FALLS	MR. TED PADILLA	815-622-1120
CATV	COMCAST CABLE	MR. MICHAEL OWENS	815-395-8977
TELEPHONE	NORLIGHT TELECOMMUNICATIONS	MS. LADON HALEY	812-456-1217
SEWER	CITY OF ROCK FALLS	MR EDWARD COX	815-622-1125
COMMUNICATIONS	LIGHTCORE	MR. JUSTIN FRENCH	636-887-4755
COMMUNICATIONS	G4S TECHNOLOGY, LLC	MR. ROBERT LUIF	630-739-0546

35. THE APPLICABLE PORTIONS OF ARTICLE 105.07 OF THE STANDARD SPECIFICATION SHALL APPLY EXCEPT FOR THE FOLLOWING: THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE VERTICAL DEPTHS OF THE UNDERGROUND UTILITIES WHICH MAY INTERFERE WITH CONSTRUCTION OPERATIONS. THIS WORK WILL NOT BE MEASURED OR PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICE FOR THE ITEM OF CONSTRUCTION INVOLVED.
36. PER SB 699 (90 DAY UTILITY RELOCATION LAW), ONCE RIGHT-OF-WAY IS CLEAR TO AWARD THE PROJECT, A NOTICE WILL BE SENT TO THE UTILITY COMPANIES INSTRUCTING THEM TO HAVE THEIR FACILITIES RELOCATED WITHIN 90 DAYS. ESTIMATED DATE RELOCATION COMPLETE = AWARD DATE + 100 DAYS.
37. TIE BARS SHALL BE INSTALLED TO TIE PCC APPURTENANCE TO ADJACENT EXISTING CONCRETE PAVEMENT.
38. TIE THE FOLLOWING TO THE EXISTING LENGTH, SIZE, AND CONCRETE PAVEMENT SPACING OF TIE BARS
 GUTTER OR CURB & GUTTER STD. 606001 24" LONG NO. 6 @ 24" CENTERS
 PCC BASE COURSE STD. 353001 24" LONG NO. 6 @ 30" CENTERS
 PCC PAVEMENT STD. 420101 24" LONG NO. 6 @ 30" CENTERS
39. TIE BARS TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF ARTICLE 420.05(B) OF THE STANDARD SPECIFICATIONS. SEE HIGHWAY STANDARD 420001 FOR DETAIL ON LONGITUDINAL CONSTRUCTION JOINT GROUDED IN PLACE TIE BAR. THE COST OF THE TIE BARS TO BE INCLUDED IN THE COST OF THE PCC APPURTENANCE ADJACENT TO THE EXISTING PAVEMENT.
40. CADD DATA WILL BE AVAILABLE TO CONTRACTORS AND CONSULTANTS WORKING ON THIS PROJECT. THIS INFORMATION WILL BE PROVIDED UPON REQUEST AS MICROSTATION CADD FILES AND GEOPAK COORDINATE GEOMETRY FILES ONLY. IF DATA IS REQUIRED IN OTHER FORMATS IT WILL BE YOUR RESPONSIBILITY TO MAKE THESE CONVERSIONS. IF ANY DISCREPANCY OR INCONSISTENCY ARISES BETWEEN THE ELECTRONIC DATA AND THE INFORMATION ON THE HARD COPY, THE INFORMATION ON THE HARD COPY SHOULD BE USED. CONTACT THE DISTRICT'S PROJECT ENGINEER TO REQUEST THESE FILES.
41. TEMPORARY IMPACT ATTENUATORS WILL BE MEASURED AS EACH FOR EACH ATTENUATOR SUPPLIED ON THE JOB AS SPECIFIED IN THE PLANS, AND SHALL INCLUDE THE COST OF RENTING/OWNING THE ATTENUATOR FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, TEMPORARY OF THE TYPE SPECIFIED.
42. RELOCATE TEMPORARY IMPACT ATTENUATORS WILL BE PAID FOR AS EACH AND WILL BE PAID FOR EACH TIME THE ATTENUATOR IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR IMPACT ATTENUATORS, RELOCATE OF THE TYPE SPECIFIED.
43. THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATIONS. TEMPORARY CONCRETE BARRIER WILL BE MEASURED IN FEET ALONG THE CENTERLINE OF THE BARRIER AND SHALL INCLUDE THE COST OF RENTING/OWNING THE BARRIER FOR THE TIME REQUIRED ON THE JOB PLUS HAULING TO AND FROM THE PROJECT SITE, AS WELL AS ONE PLACEMENT AND REMOVAL FROM THE ROADWAY IN ACCORDANCE WITH SECTION 704 OF THE STANDARD SPECIFICATION. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR TEMPORARY CONCRETE BARRIER.
44. RELOCATE TEMPORARY CONCRETE BARRIER WILL BE PAID FOR IN FEET ALONG THE CENTERLINE OF THE BARRIER, AND WILL BE PAID FOR EACH TIME THE BARRIER IS REQUIRED BY STAGING TO BE PICKED UP AND MOVED TO A DIFFERENT LOCATION ON THE PROJECT, WHETHER IT IS TO ANOTHER LOCATION ON THE ROADWAY OR TO A STORAGE/STAGING LOCATION FOR THE PROJECT. THIS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR RELOCATE TEMPORARY CONCRETE BARRIER.
45. ALL "AGGREGATE SUBGRADE IMPROVEMENT" (SECTION 303), SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES 311.04, 311.05, 311.05(A), 311.06 AND 311.07. ALL AGGREGATE SUBGRADE THICKNESSES LESS THAN 12 INCHES SHALL BE CONSTRUCTED OF AGGREGATE OF CA02 GRADATION.

46. ANY COLD WEATHER PROTECTION REQUIRED, INCLUDING ANY FOR THE STRUCTURE, SHALL BE INCLUDED IN THE COST OF THE UNIT PRICES BID FOR INDIVIDUAL CONCRETE ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

FILE NAME = S:\JULI\6388--6399\16146\025\16146\16146.dgn



USER NAME = vansson	DESIGNED - VLF	REVISED - 04-05-13
	DRAWN - DJW	REVISED -
PLOT SCALE = 40.0000 / 1" = 40'	CHECKED - MAC	REVISED -
PLOT DATE = 4/4/2013	DATE - 10-12-12	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

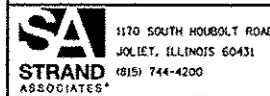
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	4
CONTRACT NO. 64C17			FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	ACF	ACBRF
				CONST. CODE 80% FED 20% STATE ROADWAY 0004	CONST. CODE 80% FED 20% STATE BRIDGE 0011 S.N. 098-0015
20200100	EARTH EXCAVATION	CU YD	865	865	
20400800	FURNISHED EXCAVATION	CU YD	620	620	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	448		448
20900110	POROUS GRANULAR BACKFILL	CU YD	250	250	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4,401	4,401	
25000210	SEEDING, CLASS 2A	ACRE	1	1	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	86	86	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	86	86	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	86	86	
25100115	MULCH, METHOD 2	ACRE	1	1	
25100630	EROSION CONTROL BLANKET	SQ YD	4,576	4,576	
25200100	SODDING	SQ YD	1,541	1,541	
25200200	SUPPLEMENTAL WATERING	UNIT	33	33	
28100107	STONE RIPRAP, CLASS A4	SQ YD	30	30	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	568	568	
28200200	FILTER FABRIC	SQ YD	30	30	
28000400	PERIMETER EROSION BARRIER	FOOT	1,424	1,424	

+ SPECIALTY ITEM

Rev. 4-10-13

FILE NAME = S:\JDL\5338--6399\6346\B25\Microa\5\10264C17-4\1-5001.dgn



USER NAME = vanosson	DESIGNED - VLF	REVISED -
PLOT SCALE = 28.8208' / IN.	DRAWN - DJW	REVISED -
PLOT DATE = 10/12/2012	CHECKED - MAG	REVISED -
	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A SHEET 1 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 646	SECTION 101 BR-3	COUNTY WHITESIDE	TOTAL SHEETS 113	SHEET NO. 5
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT			CONTRACT NO. 64C17	

	LOCATION		EARTH EXCAVATION 20200100	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	POROUS GRANULAR BACKFILL 20900110
	STA.	STA.	CU YD	CU YD	CU YD	CU YD	CU YD
STAGE 1	628+50	637+00	558.85	419.14	400.38	18.76	0.00
STAGE 2	628+50	637+00	147.05	110.29	399.69	-289.40	0.00
STAGE 3	628+50	637+00	100.50	75.38	365.93	-290.56	0.00
BIKE PATH	200+00	205+00	57.87	43.40	104.63	-61.23	250.00
TOTAL:			865.00	650.00	1275.00	-620.00	250

21101615

TOPSOIL FURNISH AND PLACE 4"

SO_YD	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	629.20
	LT STA. 631+79.00 TO STA. 637+00.00	1645.60
	RT STA. 628+50.00 TO STA. 633+14.00	1061.40
	RT STA. 633+74.72 TO STA. 637+00.00	1064.80
TOTAL:		4401.00 SO YD

25000210

SEEDING CLASS 2A

ACRE	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	0.15
	LT STA. 631+79.00 TO STA. 637+00.00	0.31
	RT STA. 628+50.00 TO STA. 633+14.00	0.28
	RT STA. 633+74.72 TO STA. 637+00.00	0.21
TOTAL:		1.00 ACRE

25000400

NITROGEN FERTILIZER NUTRIENT

POUND	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	13.52
	LT STA. 631+79.00 TO STA. 637+00.00	27.58
	RT STA. 628+50.00 TO STA. 633+14.00	24.88
	RT STA. 633+74.72 TO STA. 637+00.00	19.10
TOTAL:		86.00 POUND

25000500

PHOSPHORUS FERTILIZER NUTRIENT

POUND	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	13.52
	LT STA. 631+79.00 TO STA. 637+00.00	27.58
	RT STA. 628+50.00 TO STA. 633+14.00	24.88
	RT STA. 633+74.72 TO STA. 637+00.00	19.10
TOTAL:		86.00 POUND

25000600

POTASSIUM FERTILIZER NUTRIENT

POUND	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	13.52
	LT STA. 631+79.00 TO STA. 637+00.00	27.58
	RT STA. 628+50.00 TO STA. 633+14.00	24.88
	RT STA. 633+74.72 TO STA. 637+00.00	19.10
TOTAL:		86.00 POUND

25100115

MULCH METHOD 2

ACRE	LOCATION	QUANTITY
	IL 40	
	0 LT STA. 62850 TO 635+48.27	0.15
	0 LT STA. 63179 TO 637+00.00	0.31
	0 RT STA. 62850 TO 633+14.00	0.28
	0 RT STA. 63375 TO 637+00.00	0.21
TOTAL:		1.00 ACRE

25100630

EROSION CONTROL BLANKET

SO_YD	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	727.27
	LT STA. 631+79.00 TO STA. 637+00.00	1483.06
	RT STA. 628+50.00 TO STA. 633+14.00	1337.85
	RT STA. 633+74.72 TO STA. 637+00.00	1027.08
TOTAL:		4576.00 SO YD

25200100

SODDING

ACRE	LOCATION	QUANTITY
	IL 40	
	MEDIAN STA. 623+44.00 TO STA. 632+82.81	1540.36
TOTAL:		1541.00 SO YD

25200200

SUPPLEMENTAL WATERING

ACRE	LOCATION	QUANTITY
	IL 40	
	MEDIAN STA. 623+44.00 TO STA. 632+82.81	32.35
TOTAL:		33.00 UNIT

28000250

TEMPORARY EROSION CONTROL SEEDING

POUND	LOCATION	QUANTITY
	IL 40	
	LT STA. 628+50.00 TO STA. 631+48.27	90.16
	LT STA. 631+79.00 TO STA. 637+00.00	183.85
	RT STA. 628+50.00 TO STA. 633+14.00	165.85
	RT STA. 633+74.72 TO STA. 637+00.00	127.32
	6 APPLICATIONS:	
TOTAL:		568.00 POUND

28000400

PERIMETER EROSION BARRIER

FOOT	LOCATION	QUANTITY
	IL 40	
	STA. 628+50.00 TO STA. 630+77.54	228.07
	STA. 632+09.55 TO STA. 637+00.00	490.45
	STA. 628+50.00 TO STA. 633+06.67	456.67
	STA. 634+52.12 TO STA. 637+00.00	248.53
TOTAL:		1424.00 FOOT

28100107

STONE RIPRAP CLASS A4

SO_YD	LOCATION	QUANTITY
	BIKE PATH	
	STA. 200+09.24 TO 200+30.94 RT	30.00
TOTAL:		30.00 SO YD

28200200

FILTER FABRIC

SO_YD	LOCATION	QUANTITY
	BIKE PATH	
	STA. 200+09.24 TO 200+30.94 RT	30.00
TOTAL:		30.00 SO YD

30300011

AGGREGATE SUBGRADE IMPROVEMENT

TONS	LOCATION	QUANTITY
	IL 40	
	STA. 631+00.00 TO 632+47.68 RT	211.83
	STA. 633+57.13 TO 634+65.00 RT	217.00
	STA. 631+00.00 TO 631+65.99 LT	103.31
	STA. 632+85.09 TO 634+65.00 LT	259.92
TOTAL:		793.00 TONS

30300104

AGGREGATE SUBGRADE IMPROVEMENT 4"

SO_YD	LOCATION	WIDTH (FT)	WIDTH (FT)	QUANTITY
	IL 40			
	STA. 200+00.00	10	204+78.00	10
TOTAL:				532.00 SO YD

30300112

AGGREGATE SUBGRADE IMPROVEMENT 12"

SO_YD	LOCATION	QUANTITY
	IL 40	
	RT SHOULDER	
	STA. 628+50.00 TO 632+59.70	609.10
	STA. 634+78.63 TO 637+00.00	361.87
	C&G LT	
	STA. 625+00.00 TO 631+50.00	228.94
	STA. 633+50.00 TO 636+00.00	88.06
	STA. 637+62.05 TO 641+71.90	144.36
	C&G RT	
	STA. 625+00.00 TO 631+50.00	228.94
	STA. 633+50.00 TO 636+00.00	88.06
	STA. 637+62.05 TO 641+71.90	144.36
	MEDIAN	
	STA. 636+70.10 TO 636+76.15	3.36
	STA. 637+62.05 TO 637+72.05	7.14
	STA. 641+61.93 TO 641+71.93	4.31
TOTAL:		1909.00 SO YD

40600400

MIXTURE FOR CRACKS, JOINTS, AND FLANGWAYS

TON	LOCATION	QUANTITY
	IL 40	
	STA. 628+50.00 TO 637+00.00	2.00
TOTAL:		2.00 TON

40600635

LEVELING BINDER (MACHINE METHOD) N70

ION	LOCATION	AREA (SQ YD)	DEPTH (IN)	QUANTITY
	IL 40			
	STA. 628+50.00 TO 629+40.00 LT	240.00	2.50	33.60
	STA. 636+45.00 TO 636+80.10 LT	93.60	2.50	13.10
	STA. 628+50.00 TO 629+40.00 RT	240.00	2.50	33.60
	STA. 636+45.00 TO 636+80.10 RT	140.40	2.50	19.66
	STA. 636+80.10 TO 637+00.00 RT/LT	154.78	2.50	21.67
TOTAL:				122.00 TON

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1170 SOUTH HOBBS ROAD
JOLIET, ILLINOIS 60431
STRAND ASSOCIATES
(815) 744-4200

USER NAME: jvanesson
DESIGNED: VLF
DRAWN: DJW
CHECKED: MAG
PLOT DATE: 4/4/2013

DESIGNED: VLF
DRAWN: DJW
CHECKED: MAG
DATE: 10-12-12

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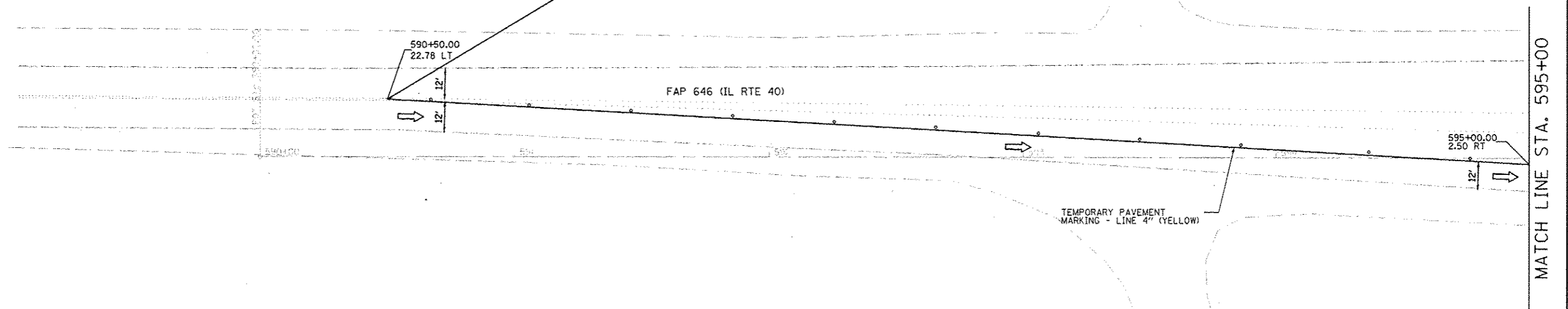
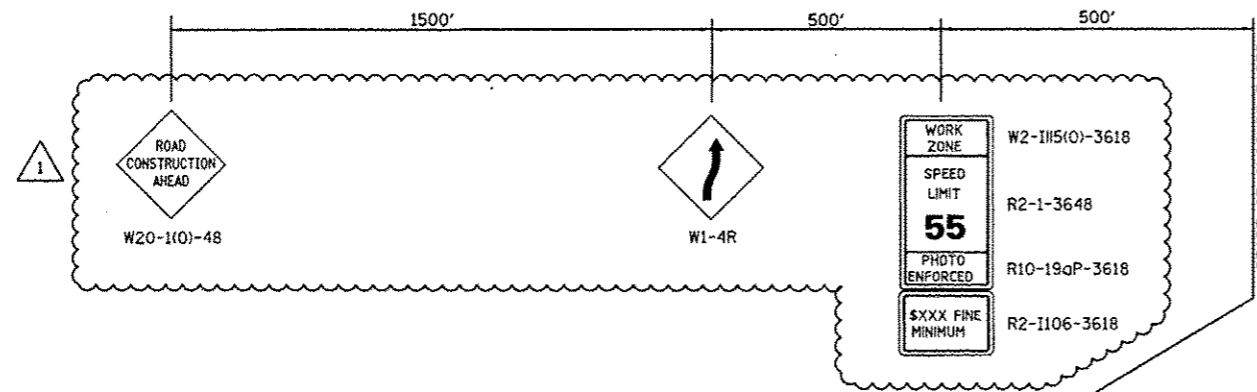
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: N/A SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. SECTION COUNTY TOTAL SHEET NO.
RTE. 646 101 BR-3 WHITESIDE 113 17
CONTRACT NO. 64C17
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT

STAGE 1



STAGE 1 NOTES:

1. CONSTRUCT THE EAST SIDE OF THE BRIDGE AND ROADWAY INCLUDING SHOULDERS AND GUARDRAIL.
2. INSTALL TEMPORARY CONCRETE BARRIER ACCORDING TO STANDARD 704001.
3. REFER TO STANDARD 701416 AND DISTRIC STANDARDS FOR ADDITIONAL SIGNS AND DEVICES NOT SHOWN.
4. BARRIER WALL OFFSETS ARE TO THE TRAFFIC SIDE OF THE WALL.
5. A CHECK BARRICADE SHALL BE PLACED IN THE MIDDLE OF THE CLOSED LANE AT THE SHOULDER AT 1000' CENTERS.
6. AT THE COMPLETION OF STAGE 1 CONSTRUCTION, ALL STAGE 1 TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED AND TEMPORARY PAVEMENT MARKINGS FOR THE WINTER SHUT DOWN STAGE SHALL BE INSTALLED.

LEGEND

- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 40' C-C SPACING
- 1 BARRICADE TYPE III WITH FLASHING LIGHTS, QUANTITY AS REQUIRED FOR PROPER CLOSURE TO SATISFACTION OF THE ENGINEER
- TEMPORARY PAVEMENT MARKING
- ▨ IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
- ↑ TRAFFIC SIGN
- DIRECTION OF TRAFFIC
- ▨ WORK ZONE



FILE NAME = S:\JULI\6280-6399\6246\025\Macro\Sheet\025\17-sh1-1.mxd

STRAND ASSOCIATES*
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-9200

USER NAME = dennisw	DESIGNED - VLF	REVISED - 04-05-13
DRAWN - DJW	CHECKED - MAG	REVISED -
PLOT SCALE = 48.0000' / IN.	DATE - 10-12-12	REVISED -
PLOT DATE = 4/4/2013		

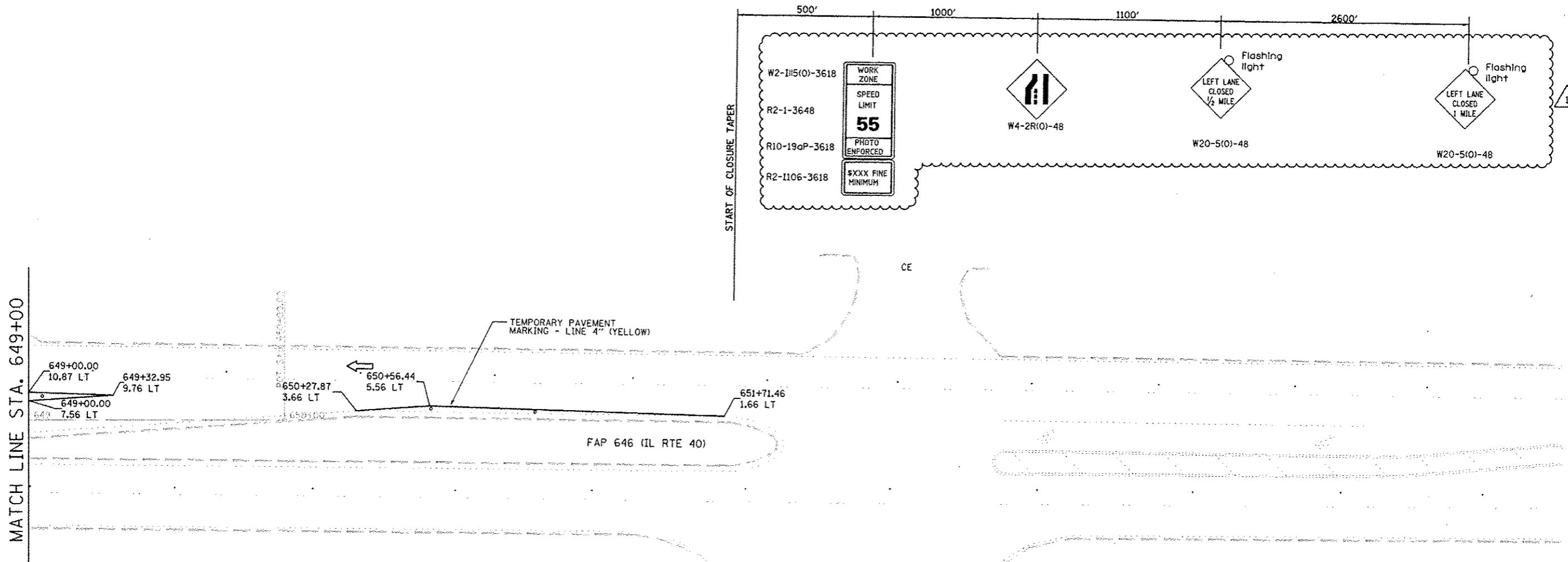
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
STAGE 1**

SCALE: 1" = 20' SHEET 1 OF 21 SHEETS STA. 590+00 TO STA. 595+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	30
CONTRACT NO. 64C17				
FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT				

STAGE 1

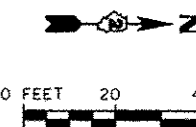


STAGE 1 NOTES:

1. CONSTRUCT THE EAST SIDE OF THE BRIDGE AND ROADWAY INCLUDING SHOULDERS AND GUARDRAIL.
2. INSTALL TEMPORARY CONCRETE BARRIER ACCORDING TO STANDARD 704001.
3. REFER TO STANDARD 701416 AND DISTRIC STANDARDS FOR ADDITIONAL SIGNS AND DEVICES NOT SHOWN.
4. BARRIER WALL OFFSETS ARE TO THE TRAFFIC SIDE OF THE WALL.
5. A CHECK BARRICADE SHALL BE PLACED IN THE MIDDLE OF THE CLOSED LANE AT THE SHOULDER AT 1000' CENTERS.
6. AT THE COMPLETION OF STAGE 1 CONSTRUCTION, ALL STAGE 1 TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED AND TEMPORARY PAVEMENT MARKINGS FOR THE WINTER SHUT DOWN STAGE SHALL BE INSTALLED.

LEGEND

- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 40' C-C SPACING
- ⚠ BARRICADE TYPE III WITH FLASHING LIGHTS, QUANTITY AS REQUIRED FOR PROPER CLOSURE TO SATISFACTION OF THE ENGINEER
- TEMPORARY PAVEMENT MARKING
- ▨ IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
- ⊕ TRAFFIC SIGN
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK ZONE



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STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME * denrusk	DESIGNED - VLF	REVISED - 04-05-13
PLOT SCALE * 48.0000' / IN.	DRAWN - DJW	REVISED -
PLOT DATE * 4/4/2013	CHECKED - MAG	REVISED -
	DATE - 10-12-12	REVISED -

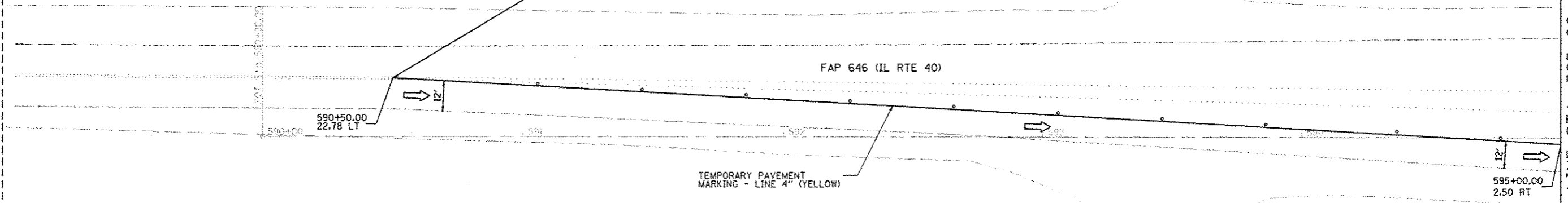
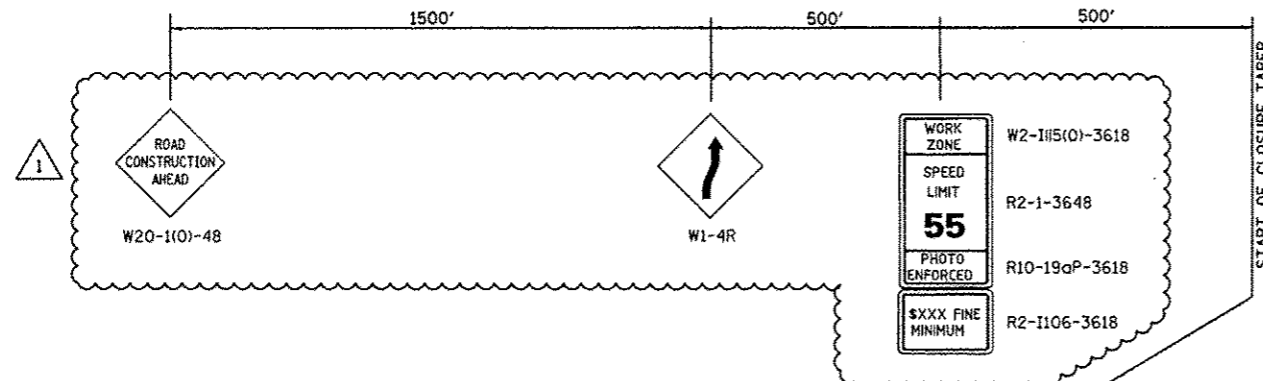
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC
STAGE 1**

SCALE: 1" = 20' SHEET 21 OF 21 SHEETS STA. 649+00 TO STA. 650+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 64C17				
FED. ROAD DIST. NO. 2 [ILLINOIS] FED. AID PROJECT				

STAGE 2

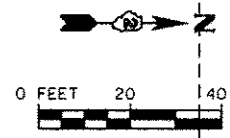


STAGE 2 NOTES:

1. REFER TO STANDARD 701416 FOR ADDITIONAL SIGNS AND DEVICES NOT SHOWN.
2. RELOCATE TEMPORARY CONCRETE BARRIER ACCORDING TO STANDARD 704001.
3. CONSTRUCT WEST SIDE OF BRIDGE AND ROADWAY INCLUDING SHOULDERS AND GUARDRAIL.
4. INSTALL PERMANENT PAVEMENT MARKINGS USING STANDARD 701426.

LEGEND

- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT AT 40' C-C SPACING
- 1 BARRICADE TYPE III WITH FLASHING LIGHTS, QUANTITY AS REQUIRED FOR PROPER CLOSURE TO SATISFACTION OF THE ENGINEER
- TEMPORARY PAVEMENT MARKING
- ▨ IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
- ↑ TRAFFIC SIGN
- ➔ DIRECTION OF TRAFFIC
- ▨ WORK ZONE



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1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = dennis*	DESIGNED - VLF	REVISED - 04-05-13	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC STAGE 2			F.A.P. RTE. 646	SECTION 101 BR-3	COUNTY WHITESIDE	TOTAL SHEETS 113	SHEET NO. 41
	PLOT SCALE = 48.0000 1 / IN.	CHECKED - MAG	REVISIED -		SCALE: 1" = 20'	SHEET 11	OF 21 SHEETS	STA. 590+00	TO STA. 595+00	CONTRACT NO. 64C17		
	PLOT DATE = 4/4/2013	DATE - 10-12-12	REVISIED -		FED. ROAD DIST. NO. 2 ILLINOIS FED. AID PROJECT							

Benchmark: Chiseled "X" on northwest corner of concrete headwall. Elev. 644.96

Existing Structure: S.N. 098-0015 originally constructed in 1966 as SBI Route 88, Section 101 B-1. The width was doubled in 1972 as FA 403, Section 195-(101 BY). Existing Structure is a combination PPC Deck Beam structure. Bk to Bk Abut 63.63' and Out to Out width 92'-0". The east third of the structure consists of 27" side deck beams. The west two-thirds consists of 33" deck beams spaced at ±6' centers supporting a 7" R.C. deck. Traffic to be maintained using stage construction.

No Salvage.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interim (Bridge Structure)
2002 AASHTO Standard Specification for Highway Bridges (Retaining Wall and Wingwalls)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.087g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.141g
Soil Site Class = D

DESIGN STRESSES

NEW CONSTRUCTION
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

EXISTING CONSTRUCTION
f'c = 2,200 psi
fy = 40,000 psi (Reinforcement)

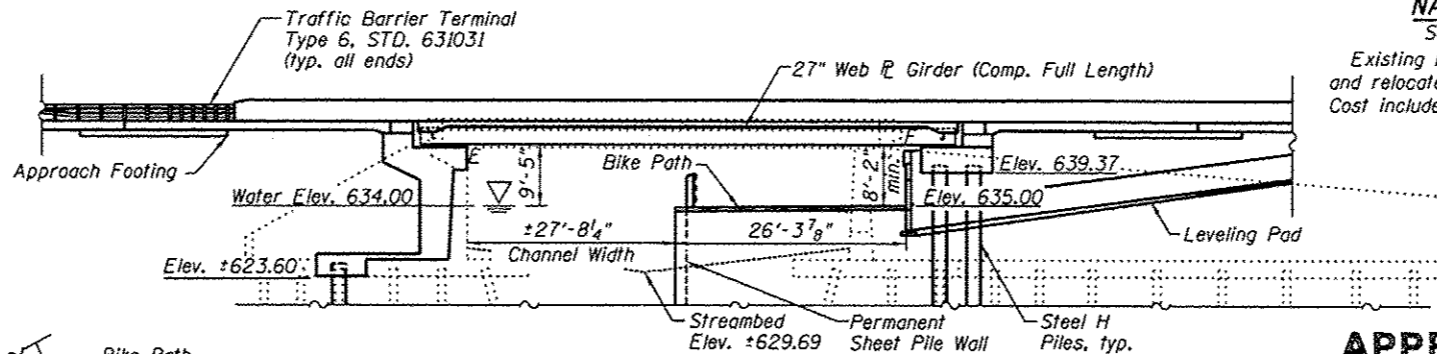
STATION 632+59.38
RE-BUILT 201X BY
STATE OF ILLINOIS
F.A.P. RTE. 646 SEC.101 BR-3
LOADING HL-93
STRUCTURE NO. 098-0015

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Details
- 3 Temporary Soil Retention Details
- 4 Substructure Layout
- 5 Temporary Concrete Barrier
- 6-8 Top of Slab Elevations
- 9 Top of South Approach Slab Elevations
- 10 Top of North Approach Slab Elevations
- 11-12 Superstructure
- 13 Superstructure Details
- 14-16 Bridge Approach Pavement
- 17 Preformed Joint Strip Seal
- 18 Steel Framing Plan
- 19 Beam Details
- 20 Bearing Details
- 21-22 North Abutment Details
- 23-24 MSE Wall Details
- 25 South Abutment Removal Details
- 26-28 South Abutment Details
- 29 South Abutment Footing Plan
- 30 HP Pile Details
- 31-31a Permanent Sheet Pile Wall
- 32 Bar Splicer and Assembly Details
- 33-34 Soil Boring Log
- 35 Existing General Plan and Elevation

NAME PLATE

See Std. 515001
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

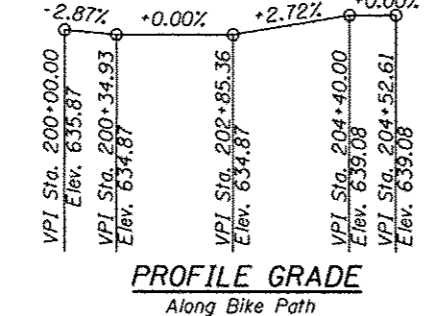
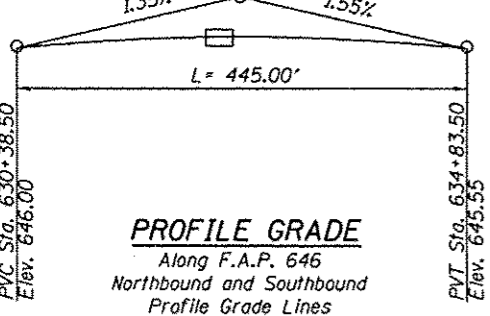
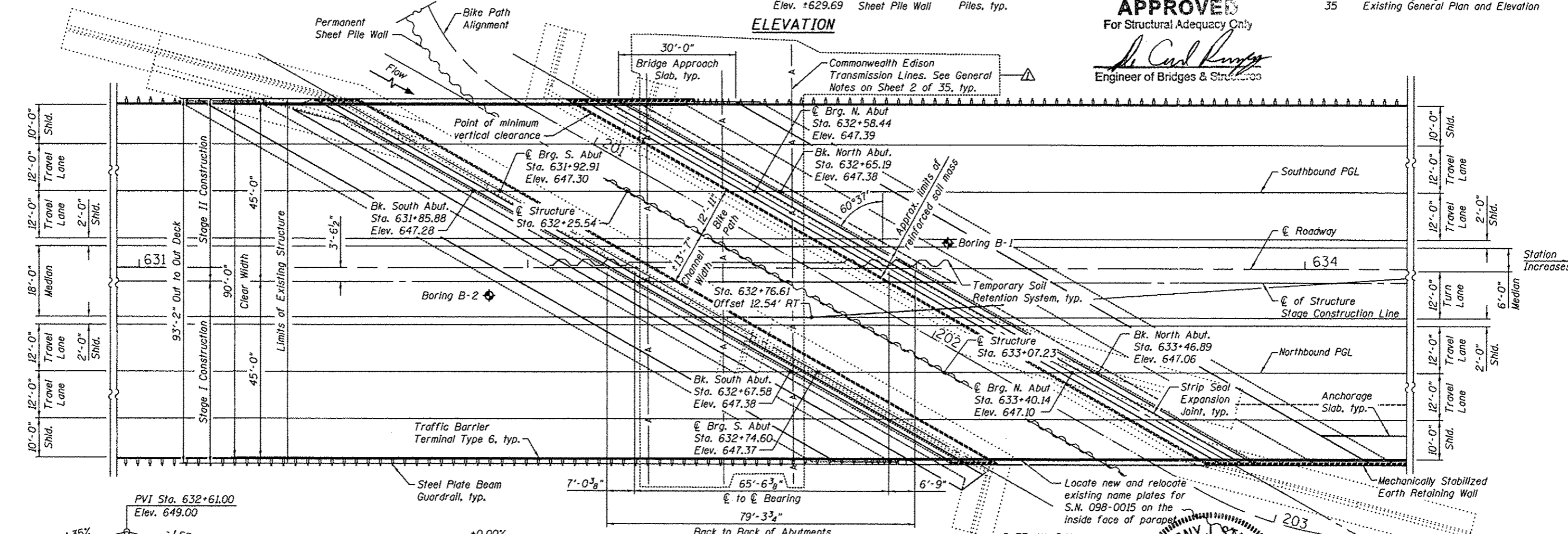


ELEVATION

APPROVED

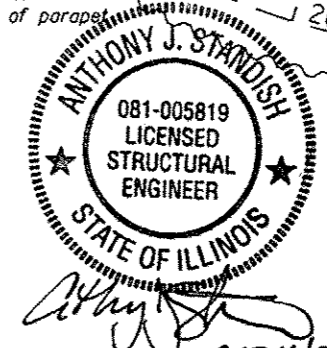
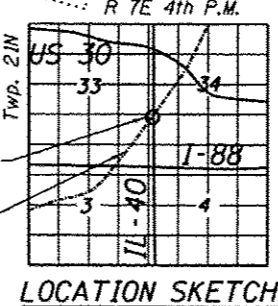
For Structural Adequacy Only

Carl Rung
Engineer of Bridges & Structures



WATERWAY INFORMATION

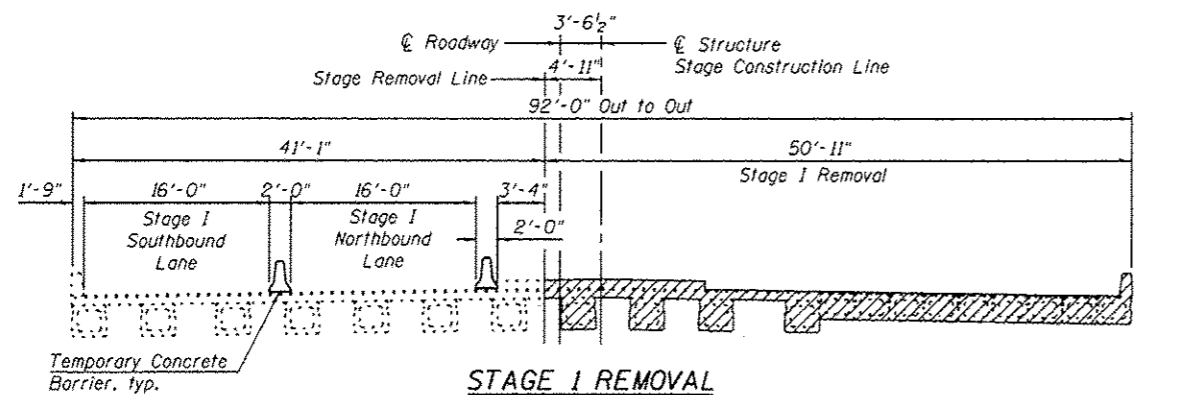
Flow is controlled. Waterway opening has been determined by recreational requirements.



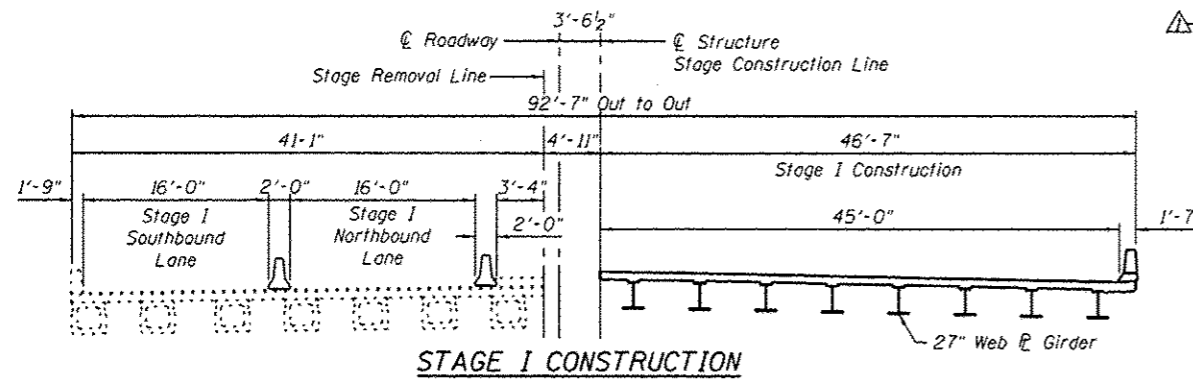
GENERAL PLAN AND ELEVATION
F.A.P. 646 (IL-40) OVER
HENNEPIN CANAL FEEDER
SECTION 101 BR-3
WHITESIDE COUNTY
STATION 632+59.38
STRUCTURE NO. 098-0015

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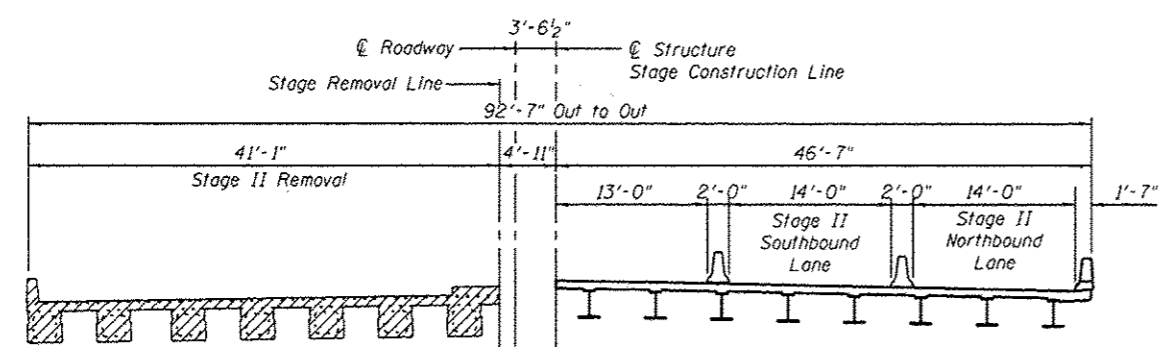
	1170 SOUTH HOUBOLT ROAD	USER NAME: brisnf	DESIGNED: MJD	REVISED: RRD 4/5/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION		F.A.P. RTE. 646	SECTION 101 BR-3	COUNTY WHITESIDE	TOTAL SHEETS 1/3	SHEET NO. 57
	10151 T44-4200 IDPR NO. 184-001273	PLOT SCALE:	PLOT DATE: 4/4/2013	CHECKED: AJS		REVISED:	STRUCTURE NO. 098-0015	SHEET NO. 1 OF 35 SHEETS		CONTRACT NO. 64C17		ILLINOIS FED. AID PROJECT



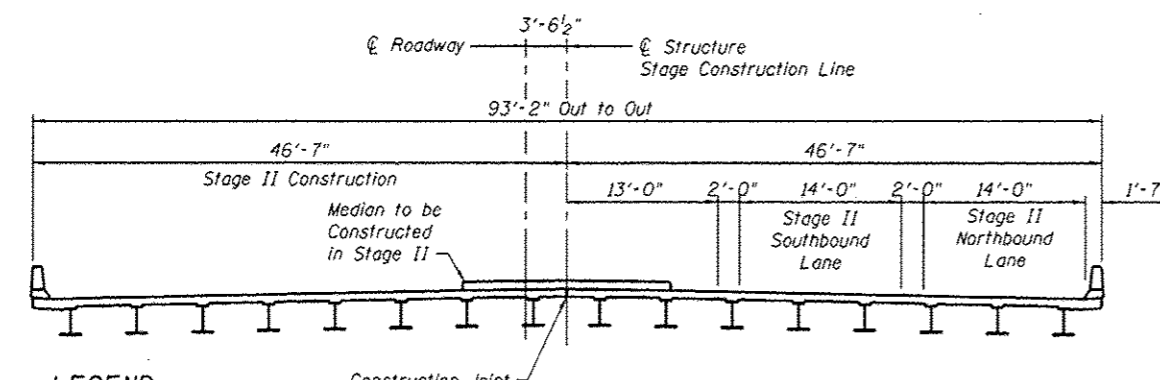
STAGE I REMOVAL



STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION

LEGEND
 Removal of Existing Structures
 Proposed Concrete

Note:
 All cross sections are looking North.
 See recurring special provision check sheet #6 for Asbestos Bearing Pad Removal.
 See Roadway Plans for quantity of temporary barrier.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu Yd		448	448
Removal of Existing Structures	Each		1	1
Concrete Removal	Cu Yd		82	82
Structure Excavation	Cu Yd		1,313	1,313
Removal and Disposal of Unsuitable Material for Structures	Cu Yd		448	448
Concrete Structures	Cu Yd		778	778
Concrete Superstructure	Cu Yd	643		643
Bridge Deck Grooving	Sq Yd	1,307		1,307
Protective Coat	Sq Yd	1,431		1,431
Furnishing and Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	6,480		6,480
Reinforcement Bars, Epoxy Coated	Pound	139,850	131,370	271,220
Bar Splicers	Each	371	570	941
Furnishing Steel Piles HP 12x53	Foot		4,701	4,701
Driving Piles	Foot		4,701	4,701
Test Pile Steel HP 12x53	Each		2	2
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	378		378
Elastomeric Bearing Assembly, Type I	Each	16		16
Anchor Bolts, 1"	Each	64		64
Concrete Sealer	Sq Ft		3,921	3,921
Epoxy Crack Injection	Foot		100	100
Geocomposite Wall Drain	Sq Yd		409	409
Porous Granular Embankment, Special	Cu Yd		545	545
Permanent Steel Sheet Piling	Sq Ft		12,893	12,893
Asbestos Bearing Pad Removal	Each		80	80
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq Ft		50	50
Mechanically Stabilized Earth Retaining Wall	Sq Ft		2,472	2,472
Pipe Underdrains For Structures 4"	Foot		304	304
Temporary Soil Retention System	Sq Ft		2,795	2,795

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 3/4-in. ϕ , holes 15/16-in. ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 251,647 Pounds.

All structural steel shall be AASHTO M 270 Grade 50W (except expansion joints which shall be AASHTO M 270 Grade 50).

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

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.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Concrete Sealer shall be applied to the designated areas of the abutment. This area includes the exposed face of the backwall, bridge seats and the front face of the abutment. On the South Abutment, Concrete Sealer shall only be applied to new concrete.

All structural steel and exposed surfaces of bearings within a distance of 8-ft. each way from the deck joints shall be painted as specified in Section 506 of the Standard Specifications.

The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Slip forming of the parapet is not allowed.

The abutments are to be repaired as necessary using Epoxy Crack Injection and Structural Repair of Concrete (Depth Equal to or Less than 5 Inches). At the time observations were performed no deficiencies were identified. Actual areas to be repaired shall be determined by the Engineer in the field at the time of construction. Quantities have been added to the plans and are for bidding purposes only.

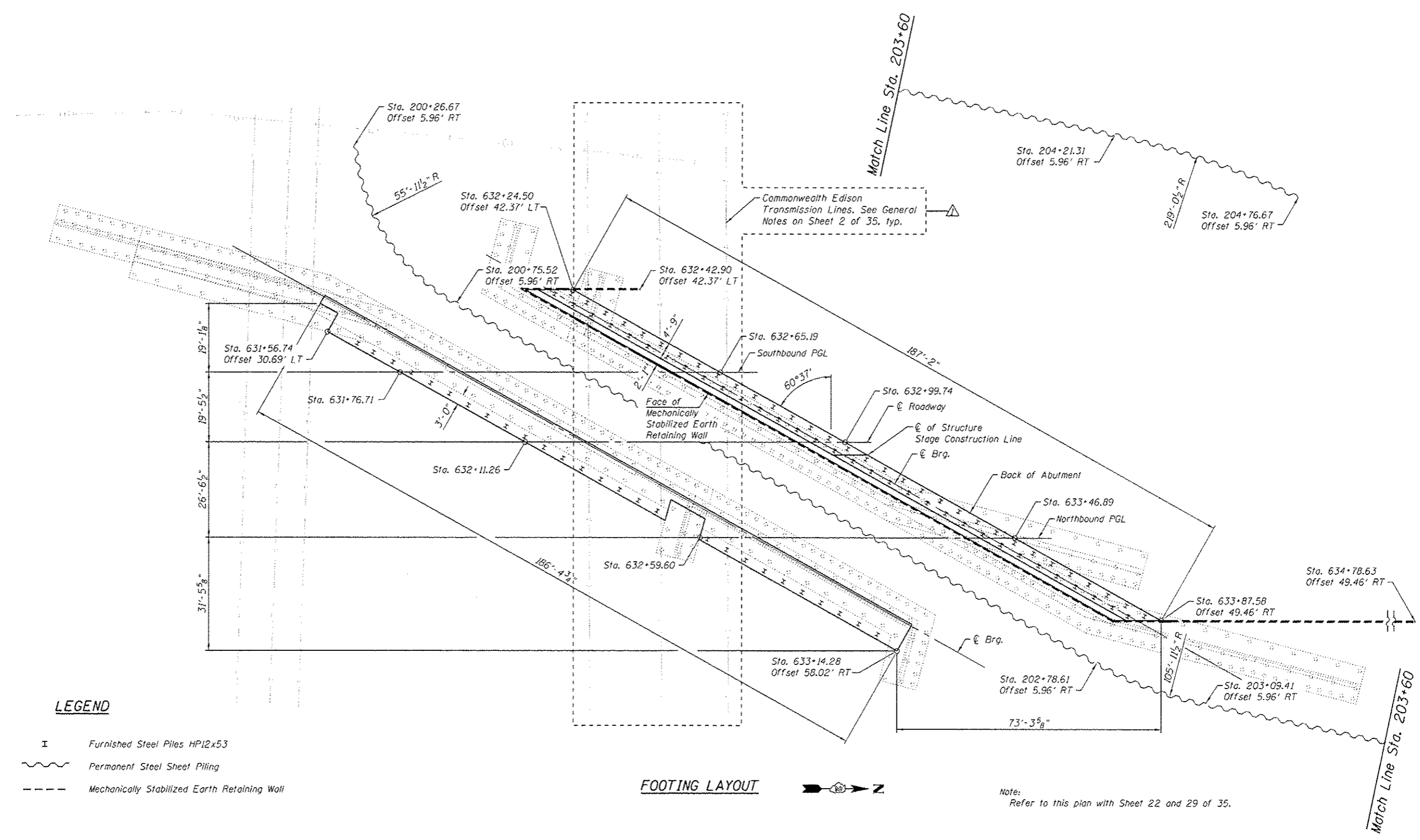
If the Contractor's procedure for existing beam removal and placement of new beams involves placement of cranes or other heavy equipment on existing or new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing or new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats on new beams, the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

Commonwealth Edison has stated that outages on the overhead transmission lines will not be permitted between the months of May 15 and September 1. All outage times are to be coordinated through Commonwealth Edison by the Contractor directly with primary and secondary dates proposed. Outages and their duration are not guaranteed.

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 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDPRR NO. 184-001273	USER NAME: brianf PLOT SCALE: * PLOT DATE: 4/9/2013	DESIGNED - RRD CHECKED - AJS DRAWN - BJF CHECKED - RRD	REVISED Δ RRD 4/5/2013 REVISED REVISED REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DETAILS STRUCTURE NO. 098-0015 SHEET NO. 2 OF 35 SHEETS	F.A.P. RTE. 646 SECTION 101 BR-3 COUNTY WHITESIDE TOTAL SHEETS 113 SHEET NO. 58 CONTRACT NO. 64C17 ILLINOIS FED. AID PROJECT
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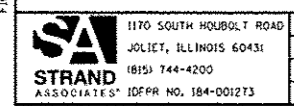
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- LEGEND**
- I Furnished Steel Piles HPI2x53
 - ~~~~~ Permanent Steel Sheet Piling
 - Mechanically Stabilized Earth Retaining Wall

FOOTING LAYOUT

Note:
Refer to this plan with Sheet 22 and 29 of 35.



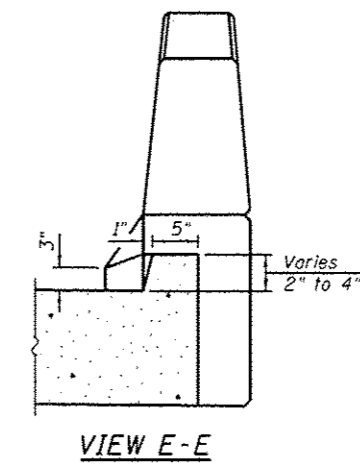
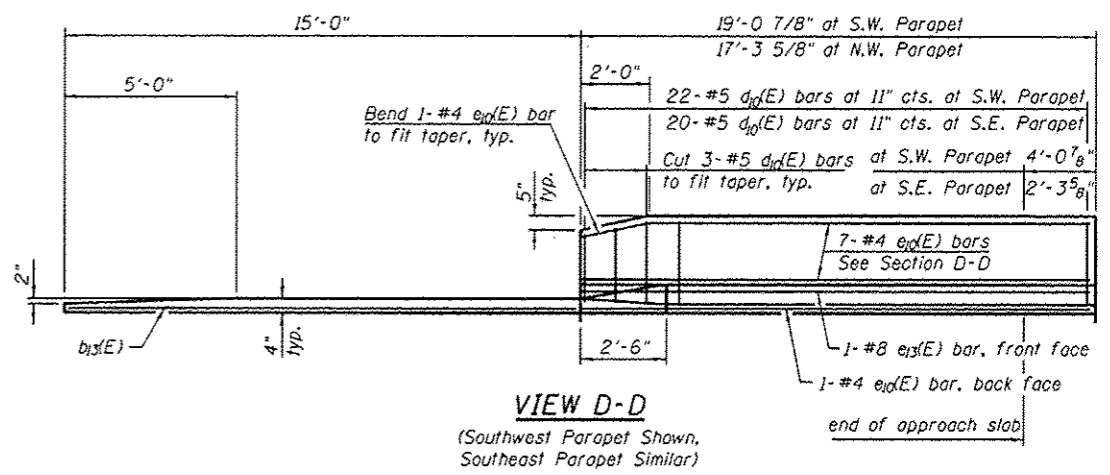
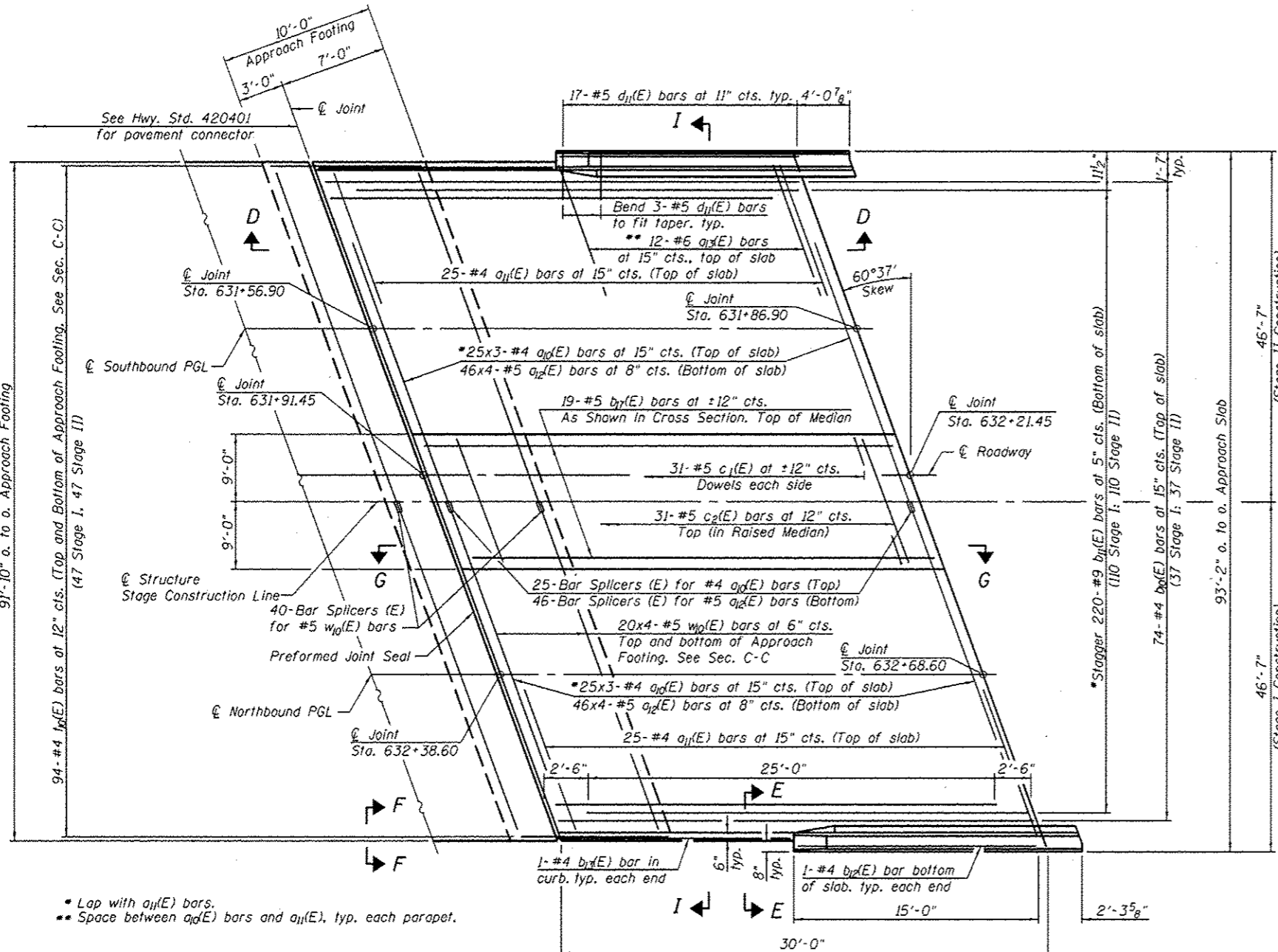
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PLD SCALE:	CHECKED - AJS	REVISED
PLD DATE: 4/4/2013	DRAWN - BJF	REVISED
	CHECKED - RRD	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE LAYOUT
STRUCTURE NO. 098-0015**
SHEET NO. 4 OF 35 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	60
CONTRACT NO. 64C17				
ILLINOIS FED. AID PROJECT				

Notes:
 See Sheet 16 of 35 for Sections G-G, H-H and I-I.
 $a_d(E)$ and $a_l(E)$ bar spacings measured along C.Rdwy.
 Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 Tilt #9 $b_l(E)$ bars as required to maintain clearance.
 See Sheet 14 of 35 for bar lap requirements.

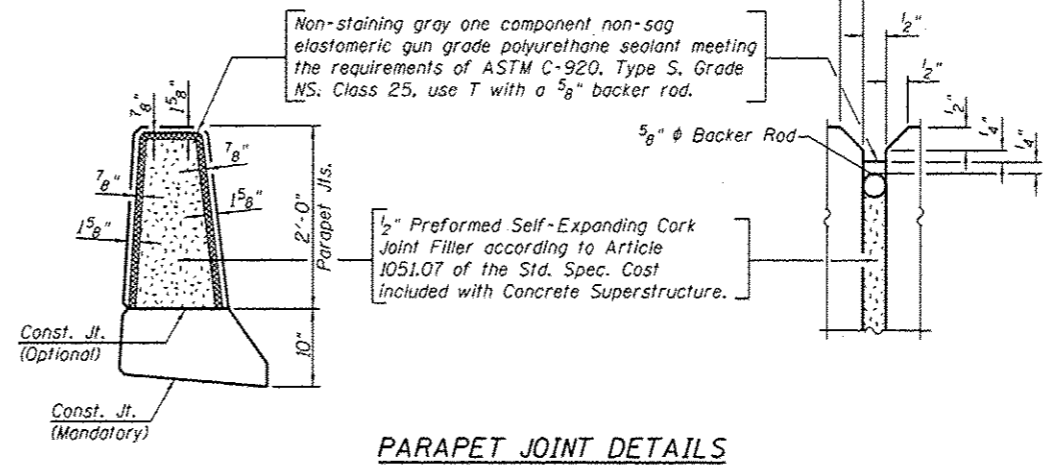
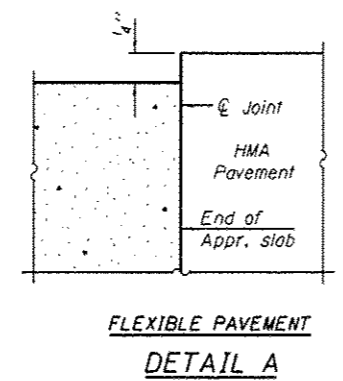


**SOUTH APPROACH
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$a_d(E)$	150	#4	25'-6"	—
$a_l(E)$	50	#4	25'-11"	—
$a_d(E)$	368	#5	25'-9"	—
$a_l(E)$	24	#6	6'-6"	—
$b_d(E)$	74	#4	29'-8"	—
$b_l(E)$	220	#9	29'-9"	—
$b_l(E)$	2	#4	14'-8"	—
$b_l(E)$	2	#4	15'-10"	—
$b_l(E)$	19	#5	29'-8"	—
$c_1(E)$	62	#5	1'-7"	—
$c_2(E)$	31	#5	36'-4"	—
$d_d(E)$	42	#5	5'-7"	—
$d_l(E)$	34	#5	7'-11"	—
$e_d(E)$	16	#4	14'-8"	—
$e_l(E)$	2	#8	14'-8"	—
$t_d(E)$	188	#4	20'-0"	—
$w_d(E)$	320	#5	25'-6"	—
Concrete Superstructure	Cu. Yd.		176	
Concrete Structures	Cu. Yd.		58	
Reinforcement Bars, Epoxy Coated	Pound		39,950	***
Reinforcement Bars, Epoxy Coated	Pound		11,030	****

*** Included in Superstructure quantity
 **** Included in Substructure quantity

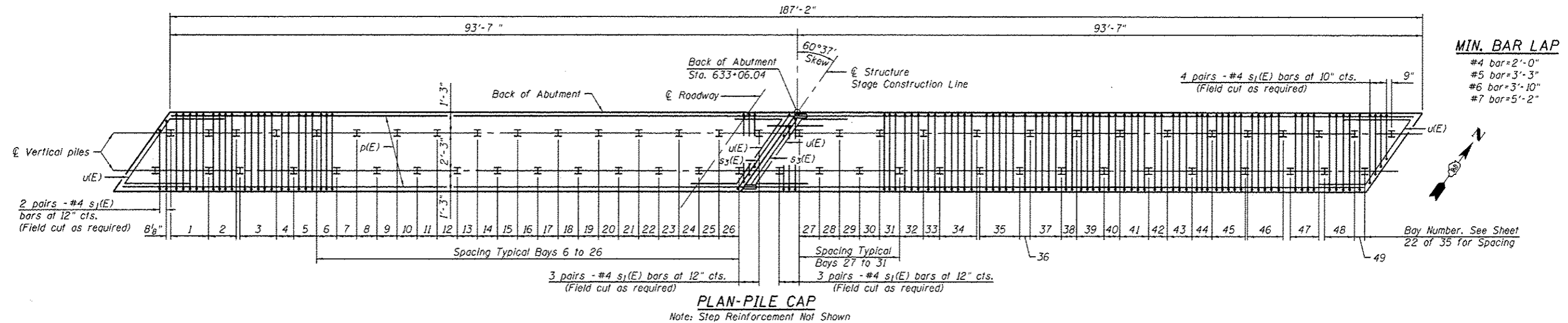
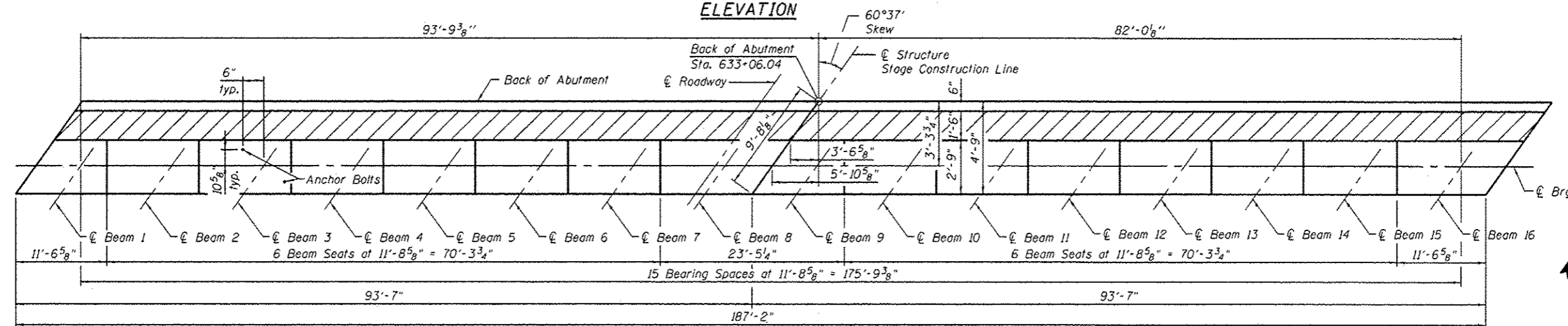
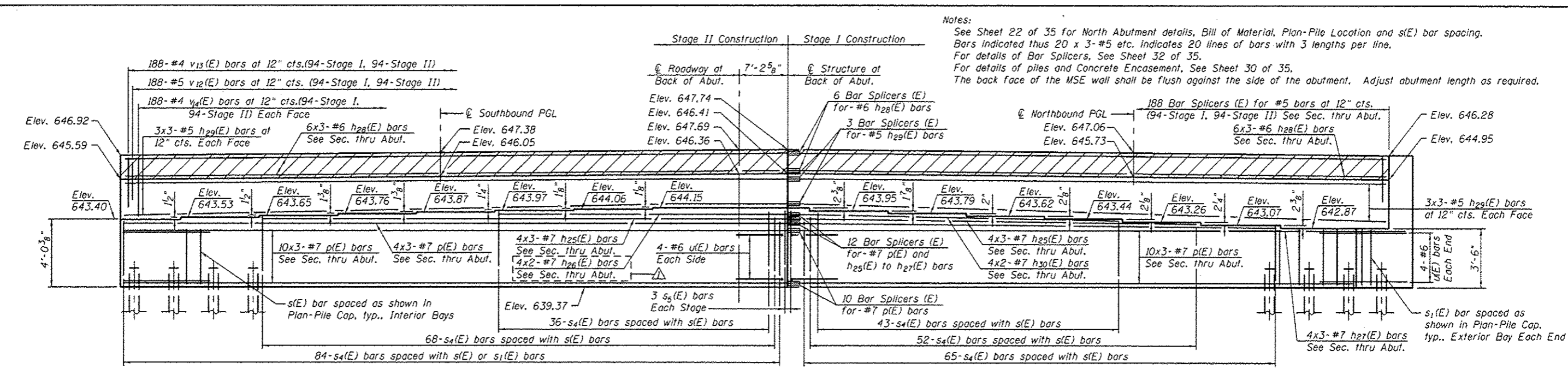
SOUTH PLAN



- Lap with $a_l(E)$ bars.
- Space between $a_d(E)$ bars and $a_l(E)$, typ. each parapet.

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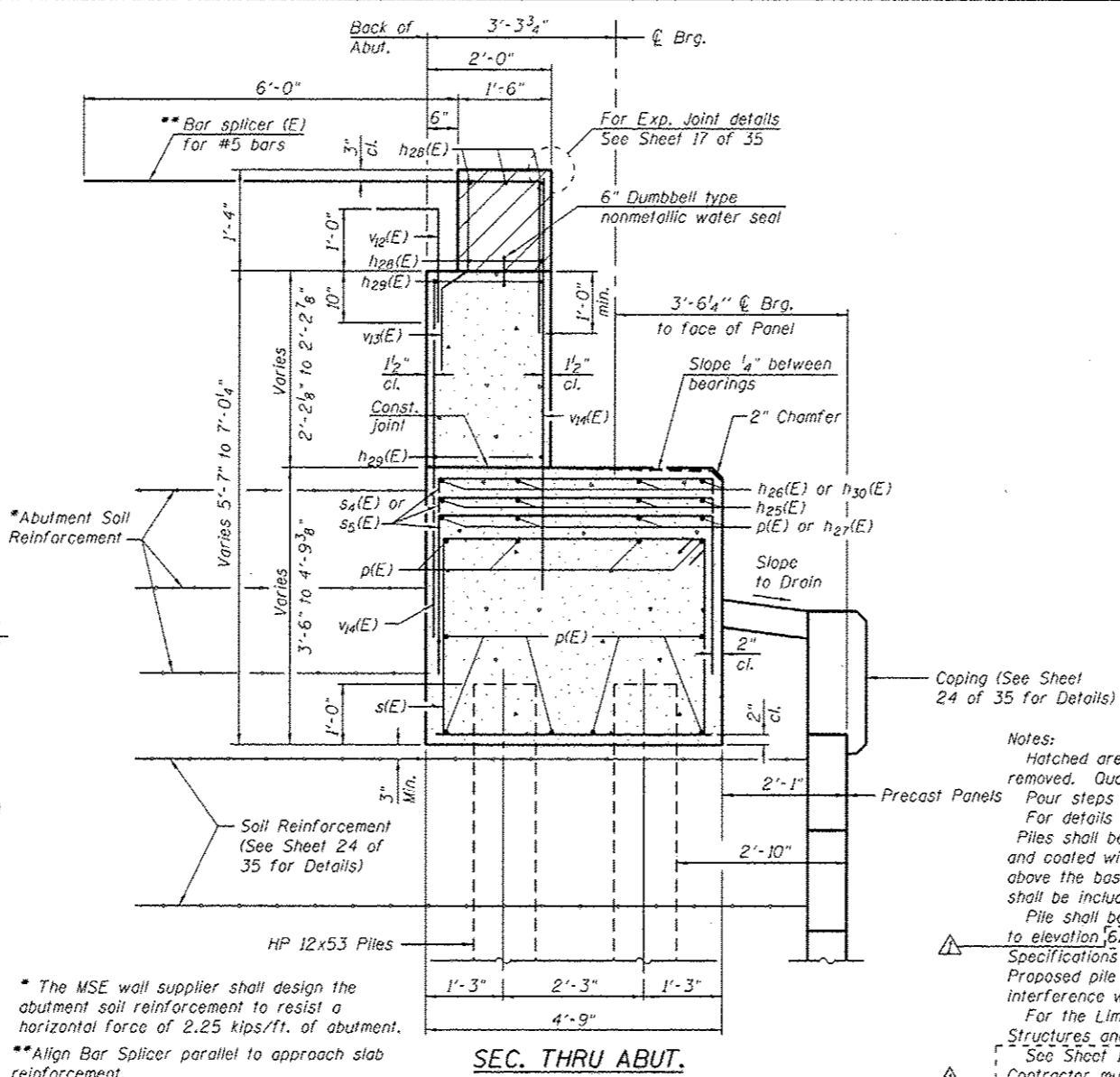
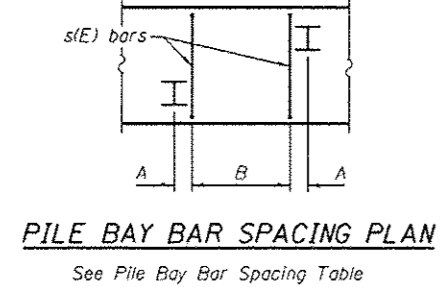
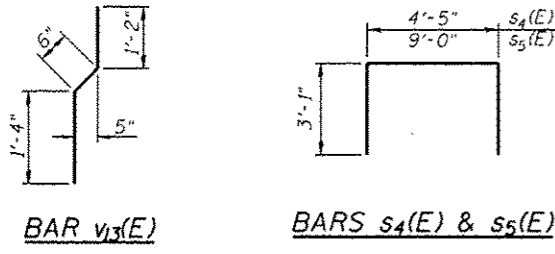
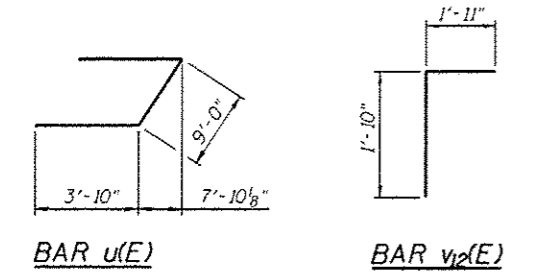
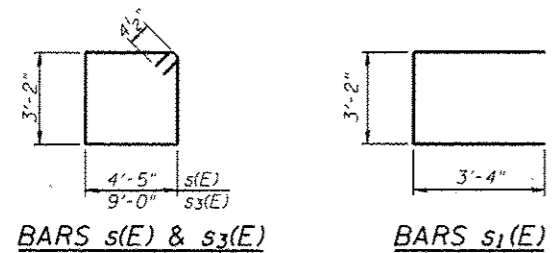
Notes:
 See Sheet 22 of 35 for North Abutment details, Bill of Material, Plan-Pile Location and s(E) bar spacing.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 For details of Bar Splicers, See Sheet 32 of 35.
 For details of piles and Concrete Encasement, See Sheet 30 of 35.
 The back face of the MSE wall shall be flush against the side of the abutment. Adjust abutment length as required.



MIN. BAR LAP
 #4 bar=2'-0"
 #5 bar=3'-3"
 #6 bar=3'-10"
 #7 bar=5'-2"

FILE NAME: S:\102\6288--6399\6345\825\Micro\Struct\Struct\Plan\0980015-64C17-021-NAABIT.dwg

1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60451 (815) 744-4200 IDPRR NO. 184-001273	USER NAME: brianf PLOT SCALE: PLOT DATE: 4/9/2013	DESIGNED - RRD CHECKED - AJS DRAWN - BJF CHECKED - RRD	REVISED Δ RRD 4/5/2013 REVISED REVISED REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH ABUTMENT DETAILS (1 OF 2) STRUCTURE NO. 098-0015 SHEET NO. 21 OF 35 SHEETS	F.A.P. RTE. 646 SECTION 101 BR-3 COUNTY WHITESIDE CONTRACT NO. 64C17	TOTAL SHEETS 113 SHEET NO. 77 ILLINOIS FED. AID PROJECT
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PILE BAY BAR SPACING TABLE

Bay	A	B
1	9 1/8"	5 bars at 12" cts.
2	8 5/8"	4 bars at 11" cts.
3	8 3/8"	5 bars at 12" cts.
4	9 3/8"	2 bars at 12" cts.
5	8 3/8"	3 bars at 12" cts.
6 to 26	8"	3 bars at 10" cts.
27 to 31	8"	3 bars at 10" cts.
32	9 1/8"	3 bars at 12" cts.
33	8 5/8"	2 bars at 12" cts.
34	9 3/8"	5 bars at 12" cts.
35	12"	5 bars at 12" cts.
36	9 3/8"	1 bar
37	10"	4 bars at 12" cts.
38	8 1/2"	2 bars at 11" cts.
39	8 1/4"	4 bars at 11" cts.
40	8 1/4"	2 bars at 12" cts.
41	7 3/4"	4 bars at 12" cts.
42	10 1/4"	2 bars at 12" cts.
43	10 1/4"	3 bars at 12" cts.
44	8 3/4"	3 bars at 9 1/2" cts.
45	8 1/2"	5 bars at 11" cts.
46	8"	5 bars at 12" cts.
47	9"	4 bars at 11" cts.
48	8 3/4"	4 bars at 12" cts.
49	9 1/4"	1 bar

For Numbering of Bays See Sheet 21 of 35. See Pile Bay Bar Spacing Plan for dimensions.

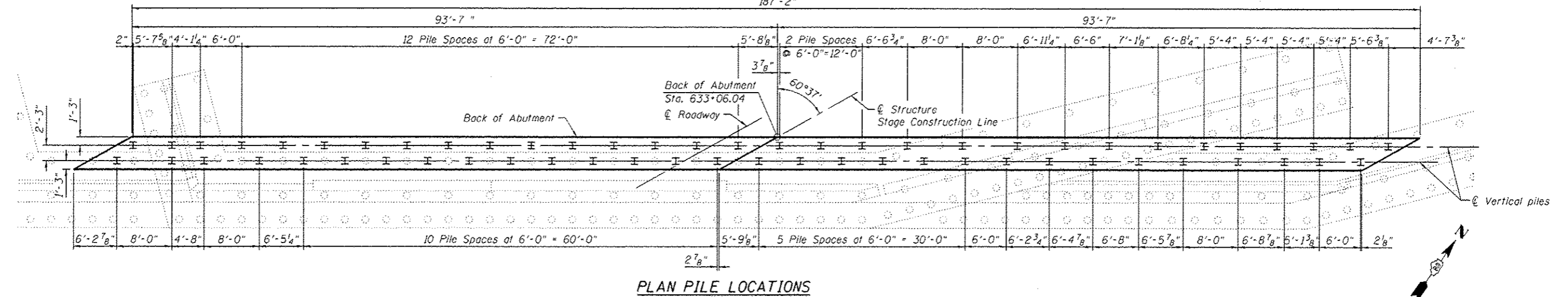
NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	72	#7	34'-8"	—
s(E)	156	#4	15'-11"	□
s1(E)	24	#4	9'-10"	□
s3(E)	2	#6	25'-1"	□
s4(E)	348	#4	10'-7"	□
s5(E)	6	#4	15'-1"	□
h25(E)	24	#7	28'-6"	—
h26(E)	8	#7	22'-7"	—
h27(E)	12	#7	30'-10"	—
h28(E)	36	#6	33'-9"	—
h29(E)	36	#5	33'-5"	—
h30(E)	8	#7	31'-11"	—
u(E)	16	#6	16'-8"	∩
v12(E)	188	#5	3'-9"	┌
v13(E)	188	#4	3'-0"	┌
v14(E)	376	#4	5'-0"	┌
Porous Granular Embankment		Cu. Yd.	448	
Structure Excavation		Cu. Yd.	973	
Removal and Disposal of Unsuitable Material for Structures		Cu. Yd.	448	
Concrete Structures		Cu. Yd.	173	
Reinforcement Bars, Epoxy Coated		Pound	18,410	
Furnishing Steel Piles, HP 12x53		Foot	3,540	
Driving Piles		Foot	3,540	
Test Pile, Steel HP 12x53		Each	1	
Concrete Sealer		Sq. Ft.	2,110	

Structure Excavation quantity includes excavation for MSE Wall.

PILE DATA

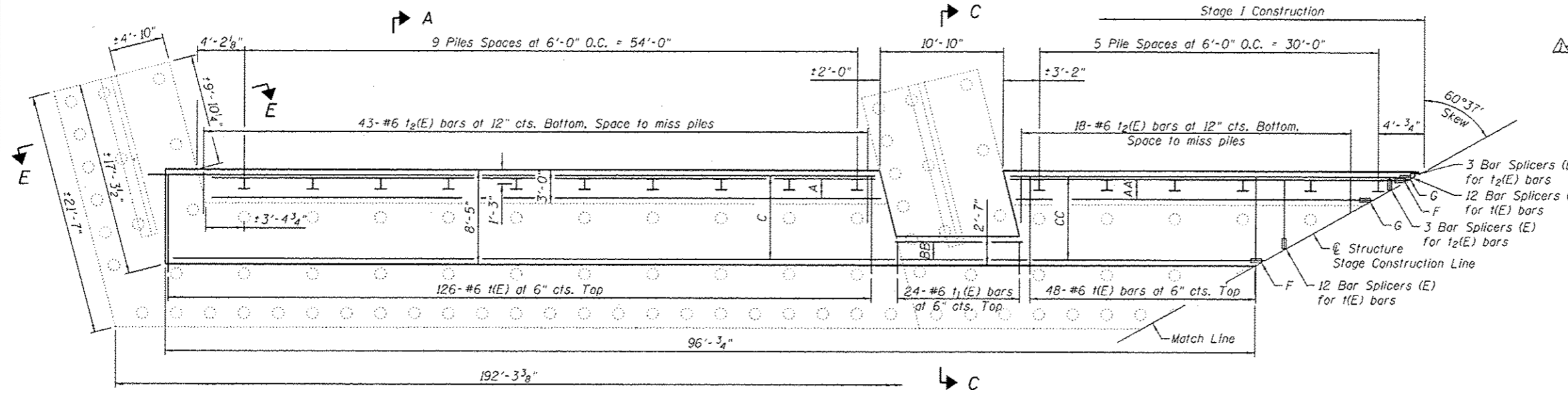
Type: HP 12x53
 Nominal Required Bearing: 145 Kips
 Factored Resistance Available: 80 Kips
 Est. Length: 59 Feet per Pile
 No. Production Piles: 60
 No. Test Piles: 1



FILE NAME: I:\A\12\A5200-039\A5200\A5200\Structural\Plan\098005-04C17-021-00801.dwg

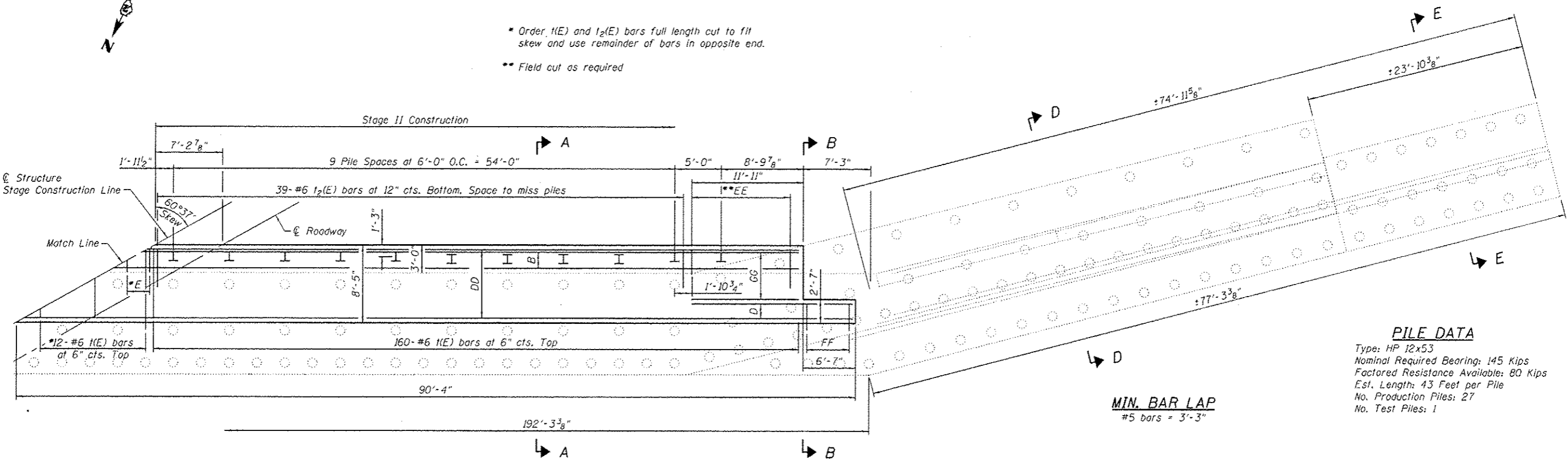
Notes:
 See Sheet 28 of 35 for South Abutment details and Bill of Material.
 Bar indicated thus 3x6-#5 etc. indicates 3 lines of bars 6 lengths per line. For details of Bar Splices, See Sheet 32 of 35.
 For details of piles and concrete encasement See Sheet 30 of 35.
 See Sheet 1 of 35 for location of overhead transmission lines. Contractor must communicate with Commonwealth Edison. See General Notes on Sheet 2 of 35.

Designation	Note
A	2x2-#5 w ₂ (E) bars at 12" cts. Bottom
AA	2-#5 w ₆ (E) bars at 12" cts. Bottom
B	3x2 w ₇ (E) bars at 12" cts. Bottom
BB	4-#5 w ₁ (E) at 12" cts. Top
C	10x2-#5 w ₁ (E) bars at 12" cts. Top
CC	10-#5 w ₂ (E) Bars at 12" cts. Top. Cut in field to fit skew
D	4-#5 w ₃ (E) bars at 12" cts. Top
DD	10x2-#5 w ₄ (E) bars at 12" cts. Top
E	3-#6 1 ₂ (E) bars at 12" cts. Bottom
EE	10-#6 1 ₂ (E) bars at 12" cts. Bottom. Space to miss piles.
F	10 Bar Splicers (E) for w ₂ (E) bars
FF	16-#6 1 ₁ (E) bars at 6" cts. Top
G	2 Bar Splicers (E) for w ₆ (E) bars
GG	6-#5 w ₁₁ (E) bars at 12" cts. Top



SOUTH ABUTMENT FOOTING PLAN

- * Order 1(E) and 1/2(E) bars full length cut to fit skew and use remainder of bars in opposite end.
- ** Field cut as required



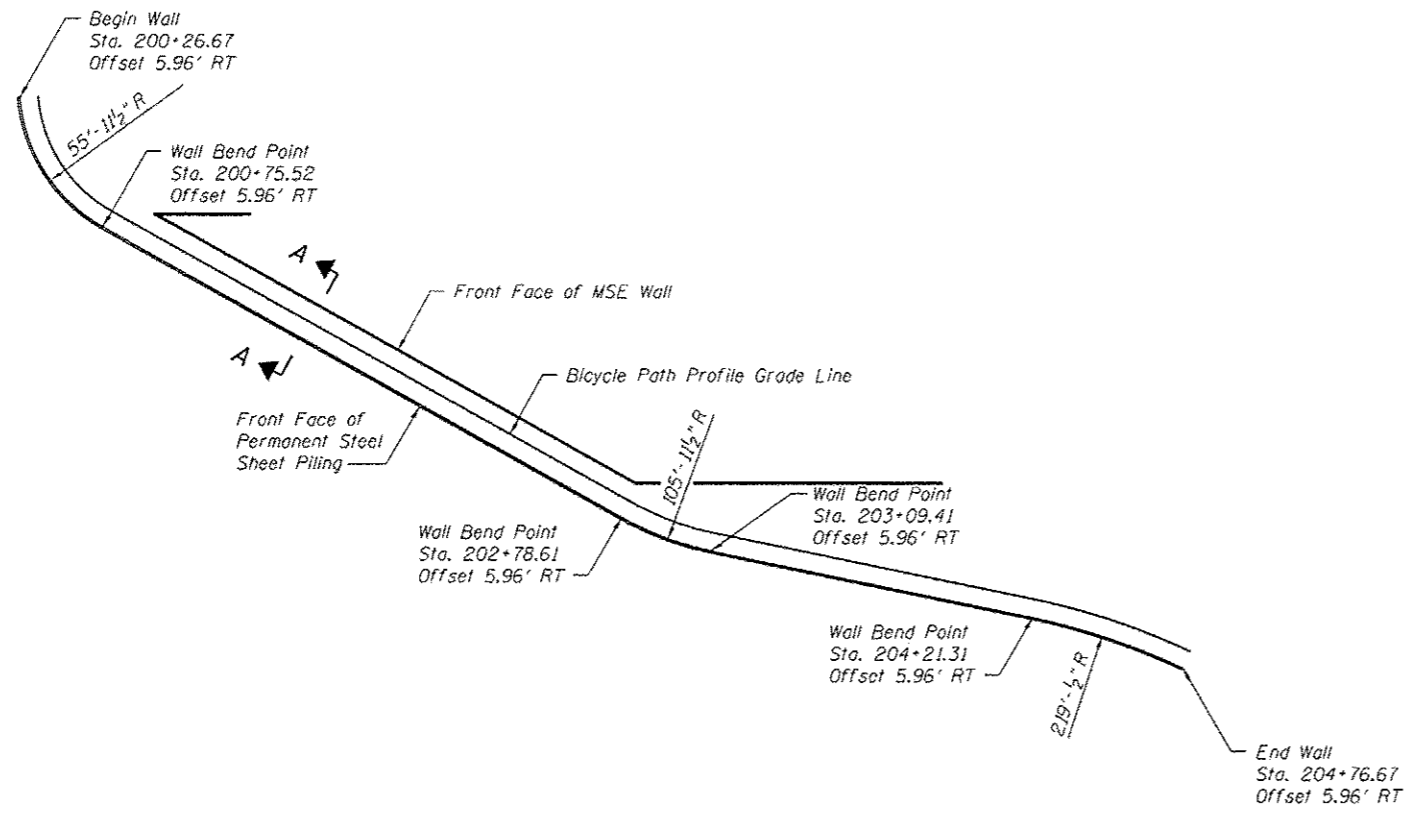
SOUTH ABUTMENT FOOTING PLAN

PILE DATA
 Type: HP 12x53
 Nominal Required Bearing: 145 Kips
 Factored Resistance Available: 80 Kips
 Est. Length: 43 Feet per Pile
 No. Production Piles: 27
 No. Test Piles: 1

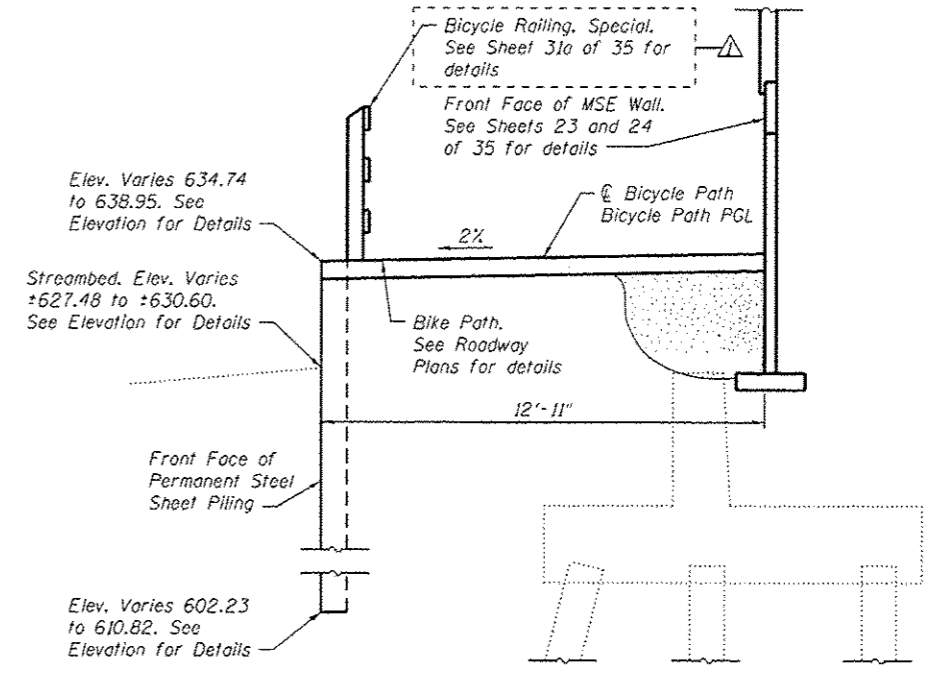
MIN. BAR LAP
 #5 bars = 3'-3"

FILE NAME : S:\103\6288--0399\6345\825\MicroStation\Structural Plans\980015-64C17-027-Sub01.dgn

1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 ASSOCIATES' ID#PR NO. 184-001273	USER NAME : vanessan PLOT SCALE : PLOT DATE : 4/4/2013	DESIGNED - K.JL CHECKED - A.JS DRAWN - B.JF CHECKED - K.JL	REVISED ARD 4/5/2013 REVISED REVISED REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOUTH ABUTMENT FOOTING PLAN STRUCTURE NO. 098-0015 SHEET NO. 29 OF 35 SHEETS	F.A.P. RTE. 646 SECTION 101 BR-3 COUNTY WHITESIDE TOTAL SHEETS 113 SHEET NO. 85 CONTRACT NO. 64C17	ILLINOIS FED. AID PROJECT

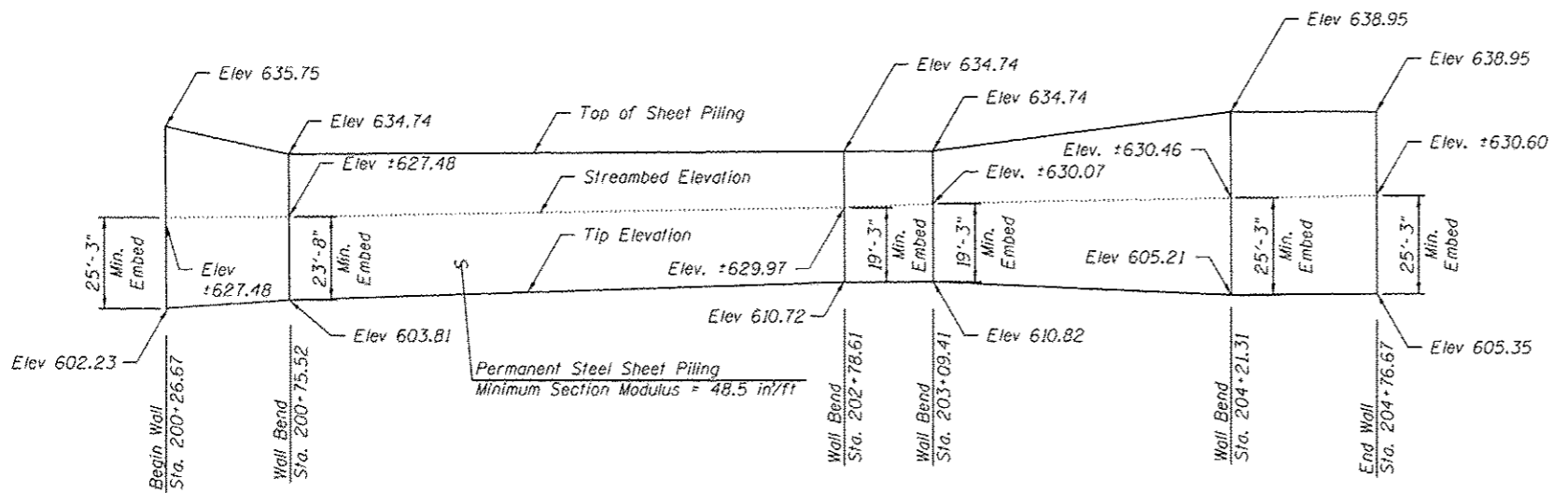


PLAN



SECTION A-A
(Looking East)
(Horizontal Dimensions @ Rt. L's)

Note:
See Sheet 1 of 35 for location of overhead transmission lines. Contractor must communicate with Commonwealth Edison. See General Notes on Sheet 2 of 35.



ELEVATION

BILL OF MATERIAL

Item	Unit	Total
Permanent Steel Sheet Piling	Sq Ft.	12,893

FILE NAME: S:\JULIET\098-0015\025\MicroStation\Structural Plans\098-0015-64C17-02-1-SP1LE.dgn

STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JULIET, ILLINOIS 60431
(815) 744-4200
ASSOCIATES' IDPR NO. 184-001273

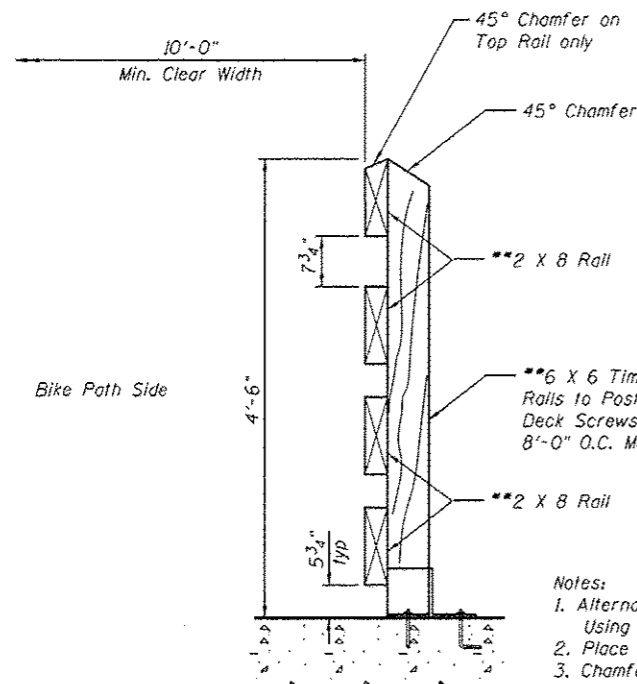
USER NAME: brianf
DESIGNED - RRD
CHECKED - AJS
DRAWN - BJJ
CHECKED - RRD
PLOT SCALE:
PLOT DATE: 4/11/2013

DESIGNED - RRD
CHECKED - AJS
DRAWN - BJJ
CHECKED - RRD
REVISED Δ RRD 4/5/2013
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT SHEET PILE WALL (1 of 2)
STRUCTURE NO. 098-0015
SHEET NO. 31 OF 35 SHEETS

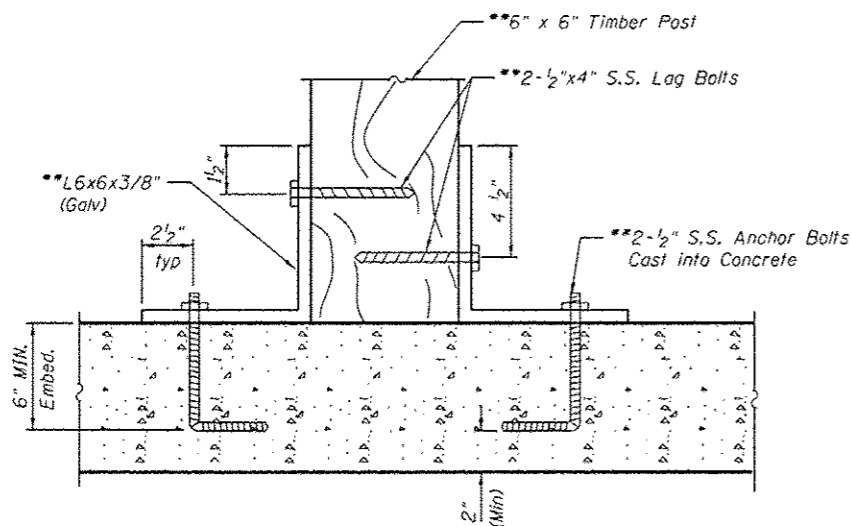
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	87
				CONTRACT NO. 64C17
ILLINOIS FED. AID PROJECT				



- Notes:
1. Alternate Joints in Rails by Using 8'-0" and 16'-0" Lumber.
 2. Place Bark Side Away from Post.
 3. Chamfer Rails 45° at Terminal Post.
 4. All Fence Wood to be CCA Treated PINE #2 Common or Better.
 5. The Clear Opening Between Elements Shall be such that a 6" Sphere Shall Not Pass Through the Lower 2'-3" of the Railing and a 8" Sphere Shall not Pass Through the Upper Portion of the Railing.

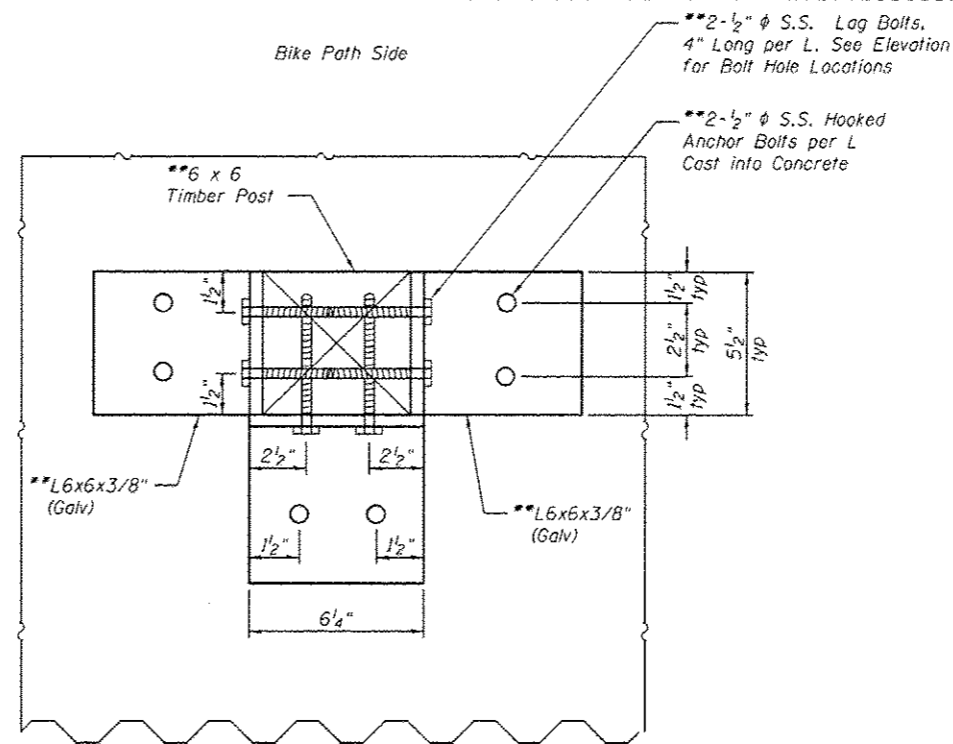
BICYCLE RAILING, SPECIAL SECTION (TYP.)

(See Roadway Plans for Quantities)

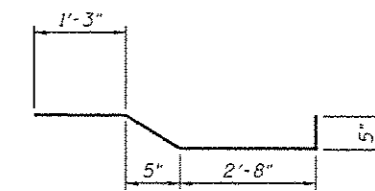


POST MOUNTING DETAIL - SECTION VIEW

**Included in the Cost of Bicycle Railing, Special



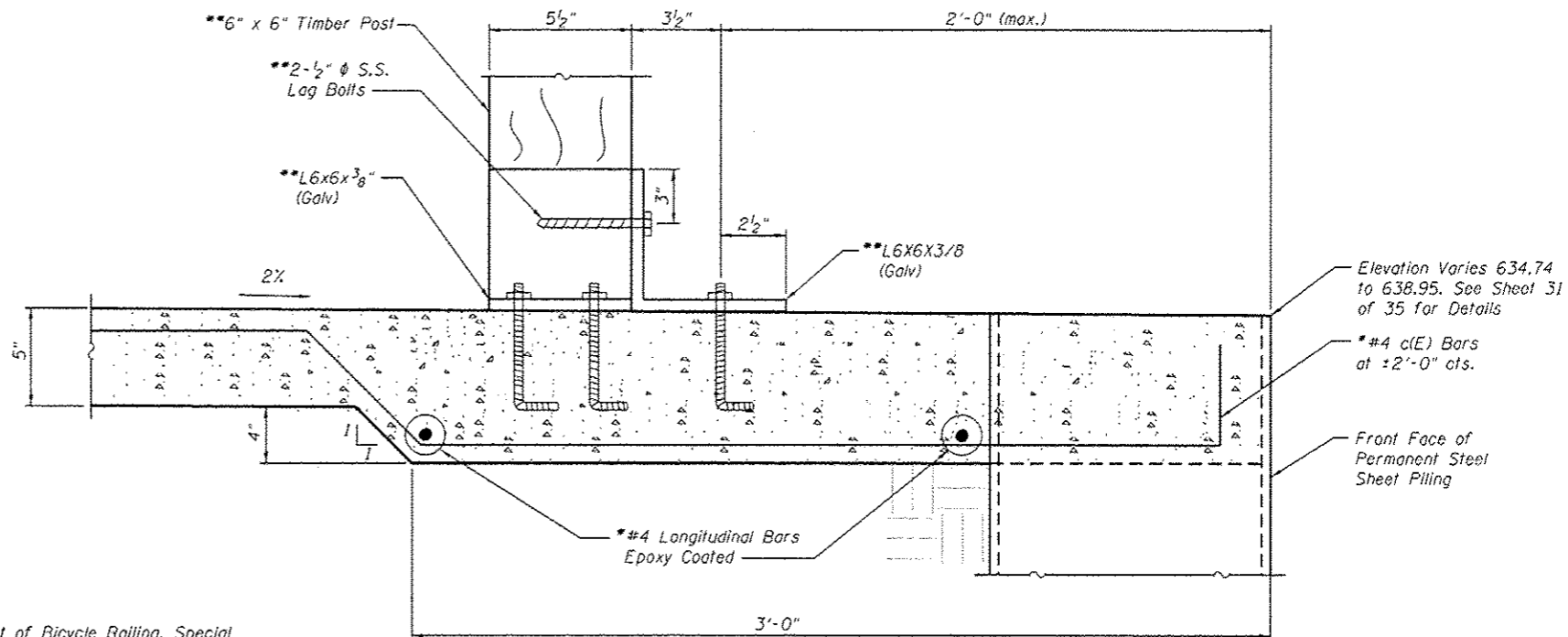
POST MOUNTING DETAIL - PLAN VIEW



c(E) bars

MIN. BAR LAP

#4 bar = 1'-3"



POST MOUNTING DETAIL - ELEVATION VIEW

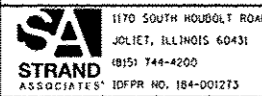
**Included in the Cost of PCC Sidewalk, 5"

Elevation Varies 634.74 to 638.95. See Sheet 31 of 35 for Details

#4 c(E) Bars at 2'-0" cts.

Front Face of Permanent Steel Sheet Piling

FILE NAME = SA\JUL162013-635916345\B25\Micro\SA\Structural\Plans\982013-64C17-02a-SP1LE2.dgn



1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
PLOT SCALE :
PLOT DATE : 4/11/2013

USER NAME : brionf
DESIGNED - RRD
CHECKED - AJS
DRAWN - BJJ
CHECKED - RRD

REVISED Δ RRD 4/5/2013
REVISED
REVISED
REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

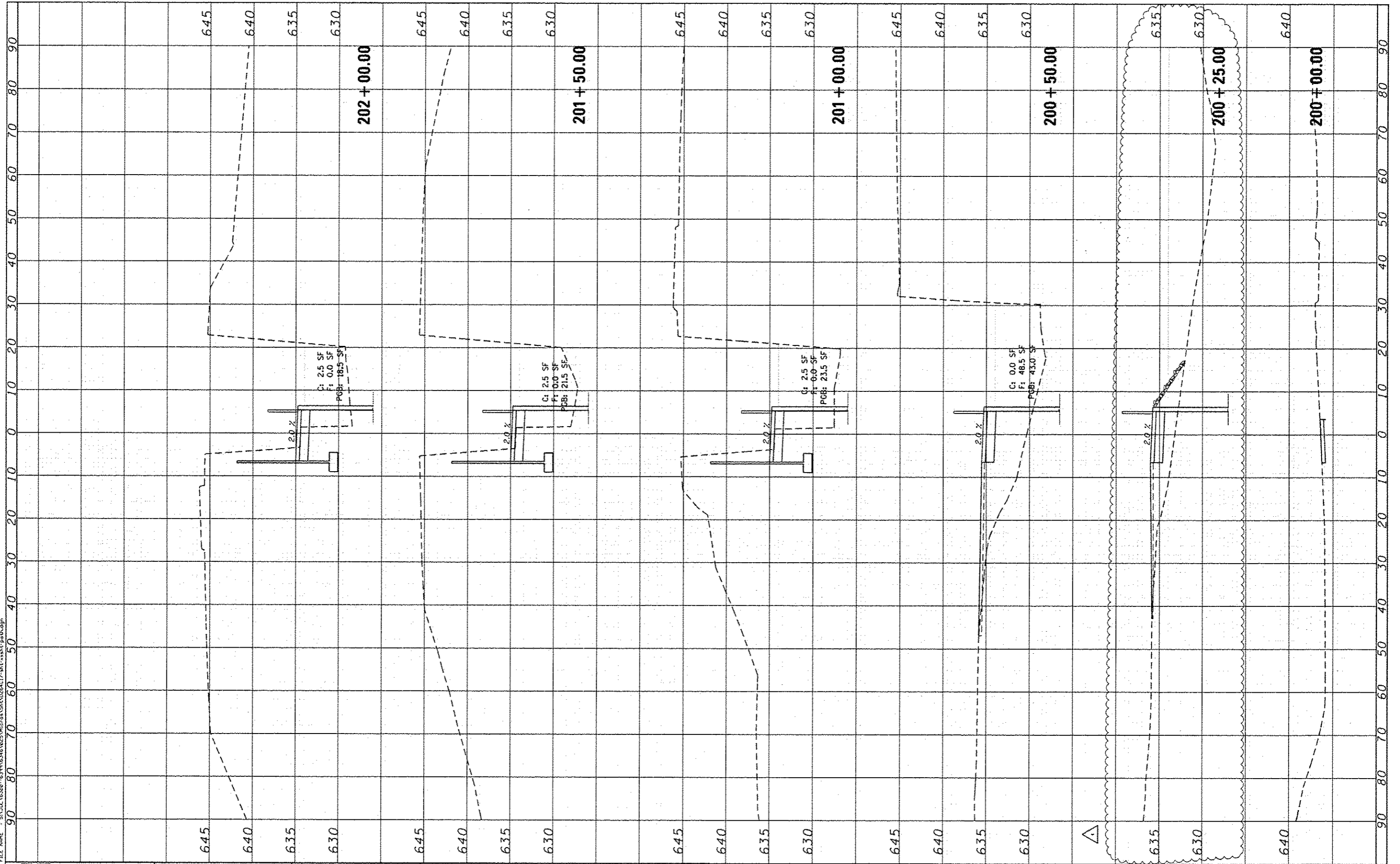
**PERMANENT SHEET PILE WALL (2 of 2)
STRUCTURE NO. 098-0015**
SHEET NO. 31A OF 35 SHEETS

F.A.P. RTE. 646	SECTION 101 BR-3	COUNTY WHITESIDE	TOTAL SHEETS 113	SHEET NO. 87a
CONTRACT NO. 64C17				
[ILLINOIS] FED. AID PROJECT				

FINAL SURVEY	DATE
DESIGNED	BY
PLOTTED	
TEMPLATE	
AREA	
AREA CHECKED	
NO.	

ORIGINAL SURVEY	DATE
DESIGNED	BY
PLOTTED	
TEMPLATE	
AREA	
AREA CHECKED	
NO.	

FILE NAME: I:\S\12\16208-1\PROJECT\16208-1\16208-1\16208-1.dwg



STRAND ASSOCIATES
 1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200

USER NAME: vannessam
 MODEL NAME: Default
 PLOT SCALE: 20.0000' / in.
 PLOT DATE: 4/1/2013

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED - Δ 04-05-13
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

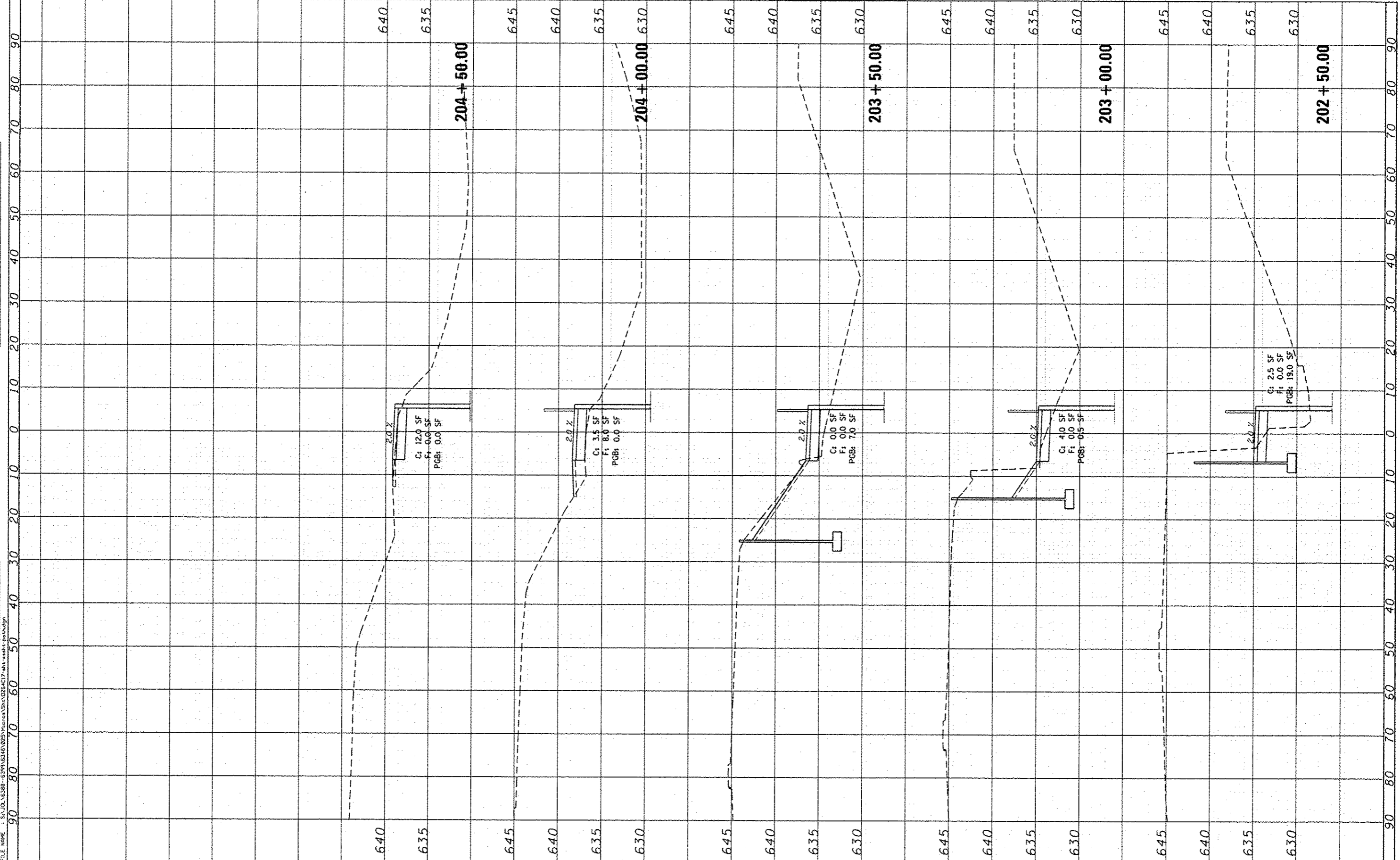
CROSS SECTIONS

SCALE: 10H 5V SHEET 1 OF 2 SHEETS STA. 200+00.00 TO STA. 202+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	113	112
CONTRACT NO. 64C17				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
NO. _____	BY _____
NO. _____	DATE _____
NO. _____	BY _____
NO. _____	DATE _____

ORIGINAL SURVEY	DATE
NO. _____	BY _____
NO. _____	DATE _____
NO. _____	BY _____
NO. _____	DATE _____



STRAND ASSOCIATES
 1110 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200

USER NAME = vanossum
 MODEL NAME = Default
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 4/4/2013

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS
 SCALE: 10H 5V SHEET 2 OF 2 SHEETS STA. 202+50.00 TO STA. 204+50.00

F.A.P. RTE. 646	SECTION 101 BR-3	COUNTY WHITESIDE	TOTAL SHEETS 113	SHEET NO. 113
CONTRACT NO. 64C17			ILLINOIS FED. AID PROJECT	