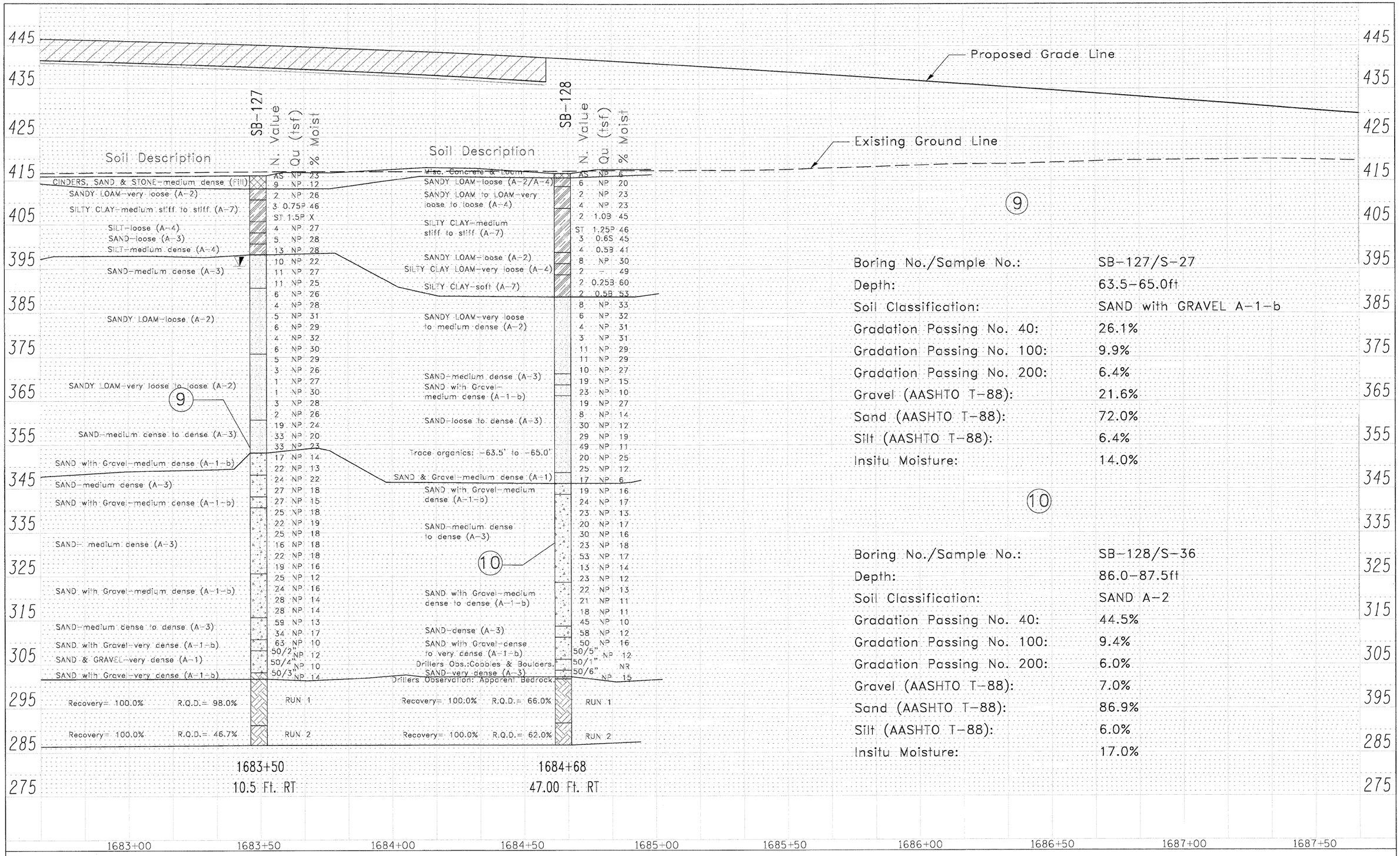


Boring No./Sample No.:	SB-127/S-27
Depth:	63.5-65.0ft
Soil Classification:	SAND with GRAVEL A-1-b
Gradation Passing No. 40:	26.1%
Gradation Passing No. 100:	9.9%
Gradation Passing No. 200:	6.4%
Gravel (AASHTO T-88):	21.6%
Sand (AASHTO T-88):	72.0%
Silt (AASHTO T-88):	6.4%
Insitu Moisture:	14.0%

Boring No./Sample No.:	SB-128/S-36
Depth:	86.0-87.5ft
Soil Classification:	SAND A-2
Gradation Passing No. 40:	44.5%
Gradation Passing No. 100:	9.4%
Gradation Passing No. 200:	6.0%
Gravel (AASHTO T-88):	7.0%
Sand (AASHTO T-88):	86.9%
Silt (AASHTO T-88):	6.0%
Insitu Moisture:	17.0%

PLAN
DATE
BY
SURVEYED
PLOTTED
GRADES CHECKED
ALIGNMENT CHECKED
R.O.W. CHECKED
NOTE BOOK
NO.
CADD FILE NAME

PROFILE
DATE
BY
SURVEYED
PLOTTED
GRADES CHECKED
ALIGNMENT CHECKED
STRUCTURE NO(S)/NS CHKD
NOTE BOOK
NO.

FILE NAME : P:\-0033 TENG-PTB 890-160 I-70 NMRB IL Approach_CADD\CADD Sheets

USER NAME = $USER$
PLOT SCALE = $SCALE$
PLOT DATE = $DATE$

DESIGNED - TSR
DRAWN - TSR
CHECKED - MDM
DATE - 11/10/09

REVISED - ___ ----------
REVISED - ___ ----------
REVISED - ___ ----------
REVISED - ___ ----------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL PROFILE

SCALE: 1":100' SHEET NO. 8 OF 8 SHEETS STA. 1682+50 TO STA. 1687+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998		ST. CLAIR	345	101
		CONTRACT NO. _____		
		ILLINOIS FED. AID PROJECT		

SHEET INDEX		
SHEET NO.	STATION to STATION	DESCRIPTION
3	1660+00 to 1680+00	
4	1680+00 to 1693+28	
5	21+00 to 34+00	EXCHANGE AVE.
6		TOTAL HOLDING SHEET

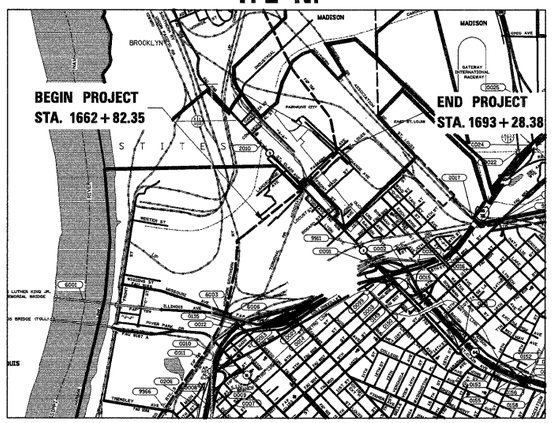
SPACE RESERVED FOR RECORDING OFFICER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLAT OF HIGHWAYS

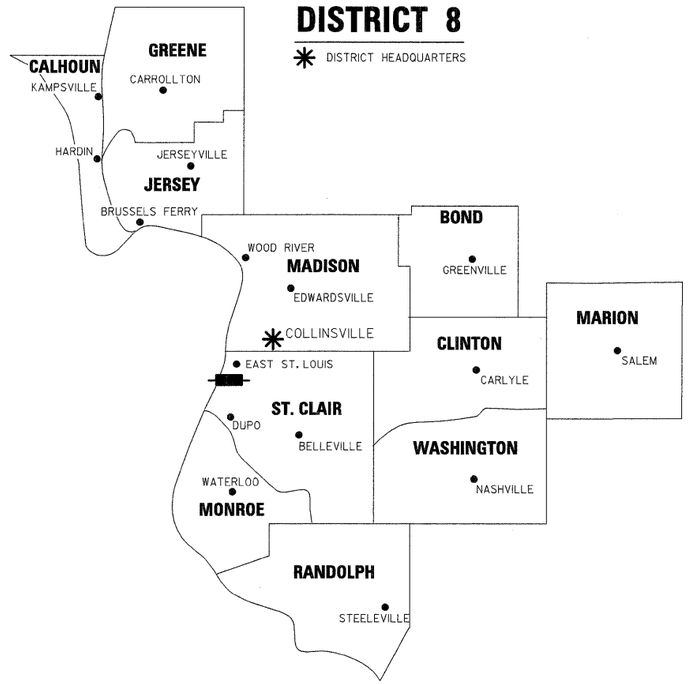
FA ROUTE 998
SECTION 82-2-1K
ST. CLAIR COUNTY
JOB NO. R-98-026-08

T. 2 N.



R. 10 W.

PROJECT LENGTH = 3,046 LIN. FT. = 0.5769 MILES



LOCATION OF SECTION INDICATED THUS: ▬

PREPARED BY:

AMERICAN
SURVEYING & ENGINEERING, P.C.
841 N. Galena Ave. Dixon, IL 61021
815-288-6231
ILLINOIS PROFESSIONAL DESIGN
FIRM NO. 184-003192

STATE OF ILLINOIS
COVENTINE FIDIS
35-2159
DIXON, ILL.
PROFESSIONAL LAND SURVEYOR

COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2010

SHEET 1 OF

109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	102
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND FOR EXISTING TOPOGRAPHIC SYMBOLS

TRAFFIC SIGNAL HANDHOLE
TRAFFIC SIGNAL GULFBOX
TRAFFIC SIGNAL HANDHOLE
TRAFFIC SIGNAL SIGNAL POST
TRAFFIC SIGNAL STEEL MAST ARM
TRAFFIC SIGNAL COMBINED MAST ARM
TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON
TRAFFIC SIGNAL WOODEN POLE
TRAFFIC SIGNAL VEHICLE DETECTION PRIORITY
TRAFFIC SIGNAL VEHICLE DETECTION MAGNET
TRAFFIC SIGNAL JUNCTION BOX
TRAFFIC SIGNAL CONTROLLER
TRAFFIC SIGNAL HEAVY DUTY HANDHOLE
RAILROAD CANTILEVER MAST ARM
RAILROAD CROSSBUCK
RAILROAD TRACK PATTERN
RAILROAD ABANDON PATTERN
RAILROAD CROSSGATE
RAILROAD CONTROL BOX
RAILROAD FLASHING SIGNAL
TELEPHONE SPLICE BOX ABOVE GROUND
UTILITY POWER POLE
TELEPHONE POLE
UTILITY TRAFFIC SIGNAL
UTILITY LIGHT POLE
FIRE HYDRANT
UTILITY MANHOLE
UTILITY TELEPHONE POLE
UTILITY GUY POLE
PIPELINE WARNING SIGN
UTILITY HANDHOLE
UTILITY SPLICE ABOVE GROUND
UTILITY JUNCTION BOX
UTILITY HEAVY DUTY HANDHOLE
UTILITY DOUBLE HANDHOLE
UTILITY CONTROLLER
UTILITY WATER METER

DRAINAGE FLOW LINE
RIP RAP
HEADWALL
CULVERT END SECTION
DRAINAGE MANHOLE
INLET
ROADWAY DITCH FLOW
VEGETATION LINE
STUMP
SHRUB
EVERGREEN TREE
DECIDUOUS TREE
WOODS/BUSH PATTERN
TRAFFIC SIGN
GAURDRAIL POST
GAURDRAIL PATTERN
FIELD LINE
LEVEE/NOISE BARRIER
FENCE PATTERN
MAIL BOX
ADVERTISING SIGN
MARSH
LIGHTING HANDHOLE
LIGHTING POWER POLE
LIGHTING JUNCTION BOX
LIGHTING HEAVYDUTY HANDHOLE
LIGHTING CONTROLLER
LIGHTING PULL POINT
HIGHWAY LIGHTING ELECTRICAL GROUND
HIGHWAY LIGHTING SINGLE UNIT
HIGHWAY LIGHTING DOUBLE UNIT
EXISTING CONCRETE BARRIER
EXISTING CREEK OR DITCH
EXISTING EDGE OF PAVEMENT

RIGHT OF WAY LEGEND

SECTION CORNERS
QUARTER SECTION CORNERS

EXISTING CENTERLINE
EXISTING RIGHT OF WAY LINE
FORMER RIGHT OF WAY LINE
EXISTING IDOT EASEMENT LINE
EXISTING EASEMENT LINE
EXISTING ACCESS CONTROL LINE
EXISTING RIGHT OF WAY & PROPOSED ACCESS CONTROL LINE
PROPOSED ACCESS CONTROL LINE
PROPOSED CENTERLINE
PROPOSED RIGHT OF WAY LINE
PROPOSED TEMPORARY EASEMENT LINE
PROPOSED PERMANENT EASEMENT LINE
SECTION LINE
QUARTER SECTION LINE
QUARTER QUARTER SECTION LINE
PROPERTY (DEED) LINE
APPARENT PROPERTY LINE
121.45' MEASURED DIMENSION
(121.45') RECORDED DIMENSION
FOUND STONE
FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
SET 5/8 INCH IRON ROD WITH PLASTIC CAP IDENTIFIED BY SURVEYORS LICENSE NUMBER AT CORNER UNLESS OTHERWISE NOTED
PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 606101 (TO BE SET BY OTHERS)
SET 5/8 INCH IRON ROD AS SURVEY CONTROL UNLESS OTHERWISE NOTED
FOUND CUT CROSS
SET CUT CROSS
SAME OWNERSHIP
EXISTING BUILDING

■ STAKING OF PROPOSED RIGHT OF WAY CORNERS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY ALUMINUM CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS LICENSE NUMBER. (PROPOSED RIGHT OF WAY CORNERS SET IN CULTIVATED AREAS SHALL BE A MINIMUM OF 20 INCHES BELOW THE GROUND SURFACE).

LEGEND FOR ABREVIATIONS

A/C	ACCESS CONTROL
AC	ACRE
AVE	AVENUE
BK	BOOK
BLVD	BOULEVARD
℄	CENTERLINE
CH	COUNTY HIGHWAY
Ch	CHAIN
DB	DEED BOOK
E	EAST
EX	EXISTING
FA	FEDERAL AID
FAI	FEDERAL AID INTERSTATE
FAP	FEDERAL AID PRIMARY
FAS	FEDERAL AID SECONDARY
FAUS	FEDERAL AID URBAN SECONDARY
FND	FOUND
ha	HECTARE
IP	IRON PIPE
IR	IRON ROD
LT	LEFT
m	METER
m²	SQUARE METERS
N	NORTH
N & BC	NAIL AND BOTTLE CAP
N & C	NAIL AND CAP
N & W	NAIL AND WASHER
NE	NORTHEAST
NW	NORTHWEST
PB	PLAT BOOK
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
POT	POINT OF TANGENT
℄	PROPERTY LINE
PR	PROPOSED
RD	ROAD
ROW	RIGHT OF WAY
RR	RAILROAD
RRS	RAILROAD SPIKE
RT	RIGHT
RTE	ROUTE
S	SOUTH
SBI	STATE BOND ISSUE
SE	SOUTHEAST
SQ FT	SQUARE FEET
SR	STATE ROUTE
ST	STREET
STA	STATION
SMK	SURVEY MARKER
SW	SOUTHWEST
TWP	TOWNSHIP
TR	TOWNSHIP ROAD
USGS	U.S. GEOLOGICAL SURVEY
W	WEST

SPACE RESERVED FOR RECORDING OFFICER

PROPOSED PARCEL NUMBER LEGEND

8001001	PROPOSED FEE SIMPLE ACQUISITION
8001001PE	PROPOSED PERMANENT EASEMENT
8001001TE	PROPOSED TEMPORARY EASEMENT
8001001DED	PROPOSED DEDICATION
8001001AC	PROPOSED ACCESS CONTROL LINE

CURVE ABBREVIATIONS

PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVE
PCC	POINT OF COMPOUND CURVE
R	RADIUS OF CURVE
L	CURVE LENGTH
CB	CHORD BEARING
CH	CHORD LENGTH
D	DEGREE OF CURVE
e	EXTERNAL
△	CENTRAL ANGLE

TOTAL HOLDING AREA SOURCE TABLE

1	AREA ACCORDING TO THE SURVEY PERFORMED BY THE CONSULTANT.
2	AREA LISTED IN RECORDED DEED.
3	AREA ACCORDING TO A RECORDED SUBDIVISION PLAT.
4	AREA ACCORDING TO A PLAT OF SURVEY.
5	AREA CALCULATED FROM RECORDED DEEDS OR TITLE COMMITMENTS - NOT SURVEYED.
6	AREA ACCORDING TO COUNTY TAX MAPS AND COUNTY ASSESSMENT RECORDS.
7	AREA ACCORDING TO OTHER RECORDS, SEE NOTE ON THE PLAT OF HIGHWAYS.

TOPOGRAPHIC STATEMENT

THE TOPOGRAPHY SHOWN HEREON WAS PROVIDED TO THE SURVEYOR BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION. THE SURVEYOR VISUALLY FIELD VERIFIED THE EXISTENCE OF THE TOPOGRAPHY SHOWN HEREON. IN ADDITION THE SURVEYOR PHYSICALLY LOCATED IN THE FIELD THE FOLLOWING ITEMS ON __/__/__:

1.
2.
3.

BASIS OF COORDINATE & BEARING STATEMENT

BASED ON THE MISSISSIPPI RIVER CROSSING (MRC) COORDINATE SYSTEM WHICH IS A MODIFIED UNIVERSAL TRANSVERSE MERCATOR (UTM) SYSTEM, ZONE 15 NORTH.

PREPARED BY:

AMERICAN
SURVEYING & ENGINEERING, P.C.
841 N. Galena Ave. Dixon, IL 61021
815-288-6231
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-003192

STATE OF ILLINOIS · COVENTINE FIDIS · 35-2159 · DIXON, ILL. · PROFESSIONAL LAND SURVEYOR

COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2010

109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 998
SECTION 82-2-1K
ST. CLAIR COUNTY
JOB NO. R-98-026-08

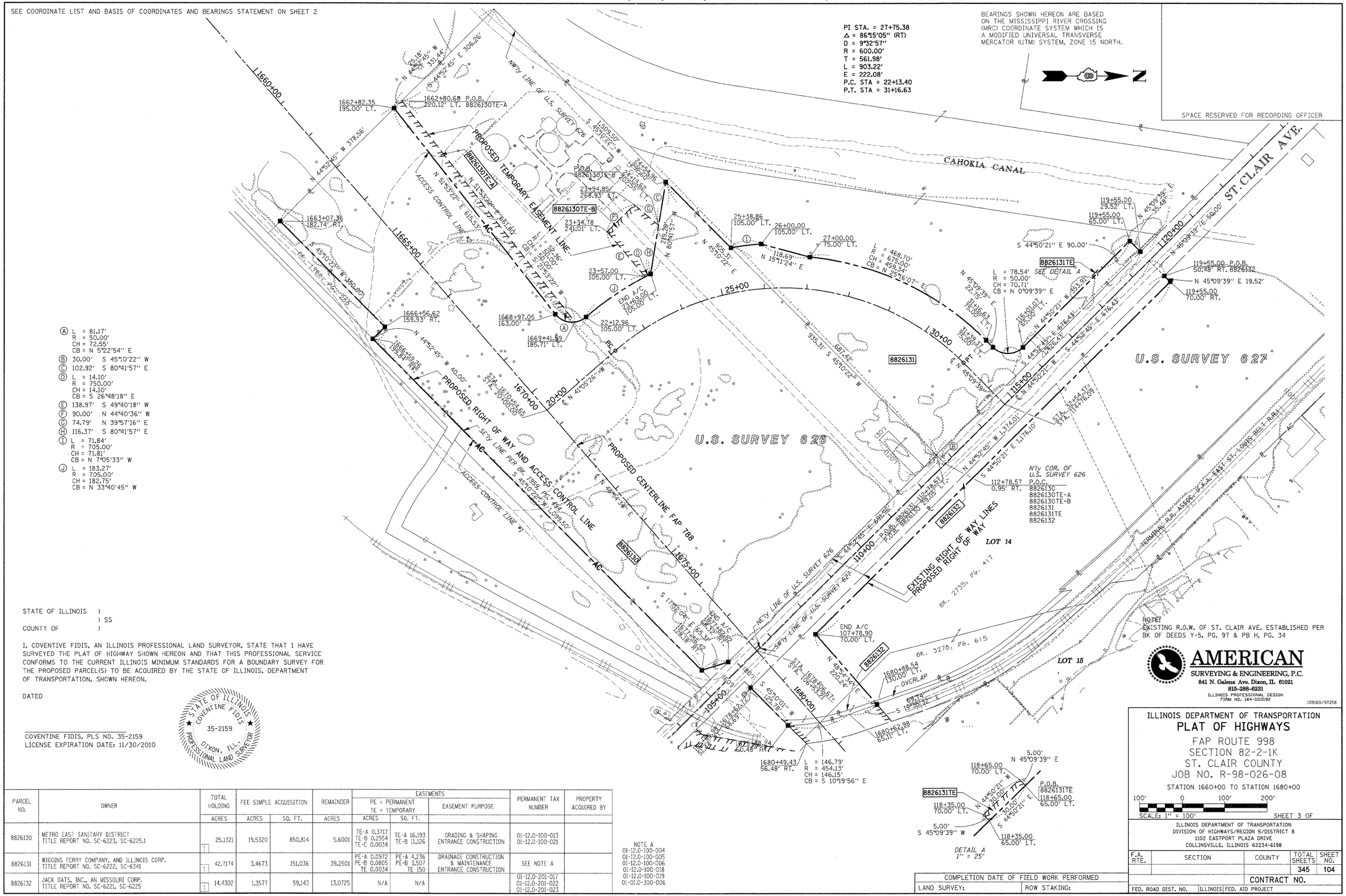
100′ 0 100′ 200′
SCALE: 1″ = 100′ SHEET 2 OF

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	103
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PART OF U.S. SURVEY 626 & 627 & SEC. 12, T2N, R10W, OF THE 3RD PM, ST. CLAIR COUNTY, ILLINOIS

SEE COORDINATE LIST AND BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2



STATE OF ILLINOIS)
) SS
COUNTY OF)

I, COVENTIVE FIDIS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, STATE THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED

STATE OF ILLINOIS · COVENTIVE FIDIS · 35-2159 · DIXON, ILL. · PROFESSIONAL LAND SURVEYOR

COVENTIVE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2010

PARCEL NO.	OWNER	TOTAL HOLDING	FEE SIMPLE ACQUISITION		REMAINDER	EASEMENTS PE = PERMANENT TE = TEMPORARY		EASEMENT PURPOSE	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
		ACRES	ACRES	SQ. FT.	ACRES	ACRES	SQ. FT.			
8826130	METRO EAST SANITARY DISTRICT TITLE REPORT NO. SC-6223, SC-6225.1	25.1321	19.5320	850,814	5.6001	TE-A 0.3717 TE-B 0.2554 TE-C 0.0034	TE-A 16,193 TE-B 11,126	GRADING & SHAPING ENTRANCE CONSTRUCTION	01-12.0-100-013 01-12.0-100-021	
8826131	WIGGINS FERRY COMPANY, AND ILLINOIS CORP. TITLE REPORT NO. SC-6222, SC-6341	42.7174	3.4673	151,036	39.2501	PE-A 0.0972 PE-B 0.0805 TE 0.0034	PE-A 4,236 PE-B 3,507 TE 150	DRAINAGE CONSTRUCTION & MAINTENANCE ENTRANCE CONSTRUCTION	SEE NOTE A	
8826132	JACK OATS, INC., AN MISSOURI CORP. TITLE REPORT NO. SC-6221, SC-6225	14.4302	1.3577	59,143	13.0725	N/A	N/A		01-12.0-201-017 01-12.0-201-022 01-12.0-201-023	

NOTE A
01-12.0-100-004
01-12.0-100-005
01-12.0-100-006
01-12.0-100-018
01-12.0-100-019
01-01.0-300-006

AMERICAN
SURVEYING & ENGINEERING, P.C.
841 N. Galena Ave. Dixon, IL 61021
815-288-6231
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-003192

109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 998
SECTION 82-2-1K
ST. CLAIR COUNTY
JOB NO. R-98-026-08

STATION 1660+00 TO STATION 1680+00

100' 0 100' 200'
SCALE: 1" = 100' SHEET 3 OF

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	104
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

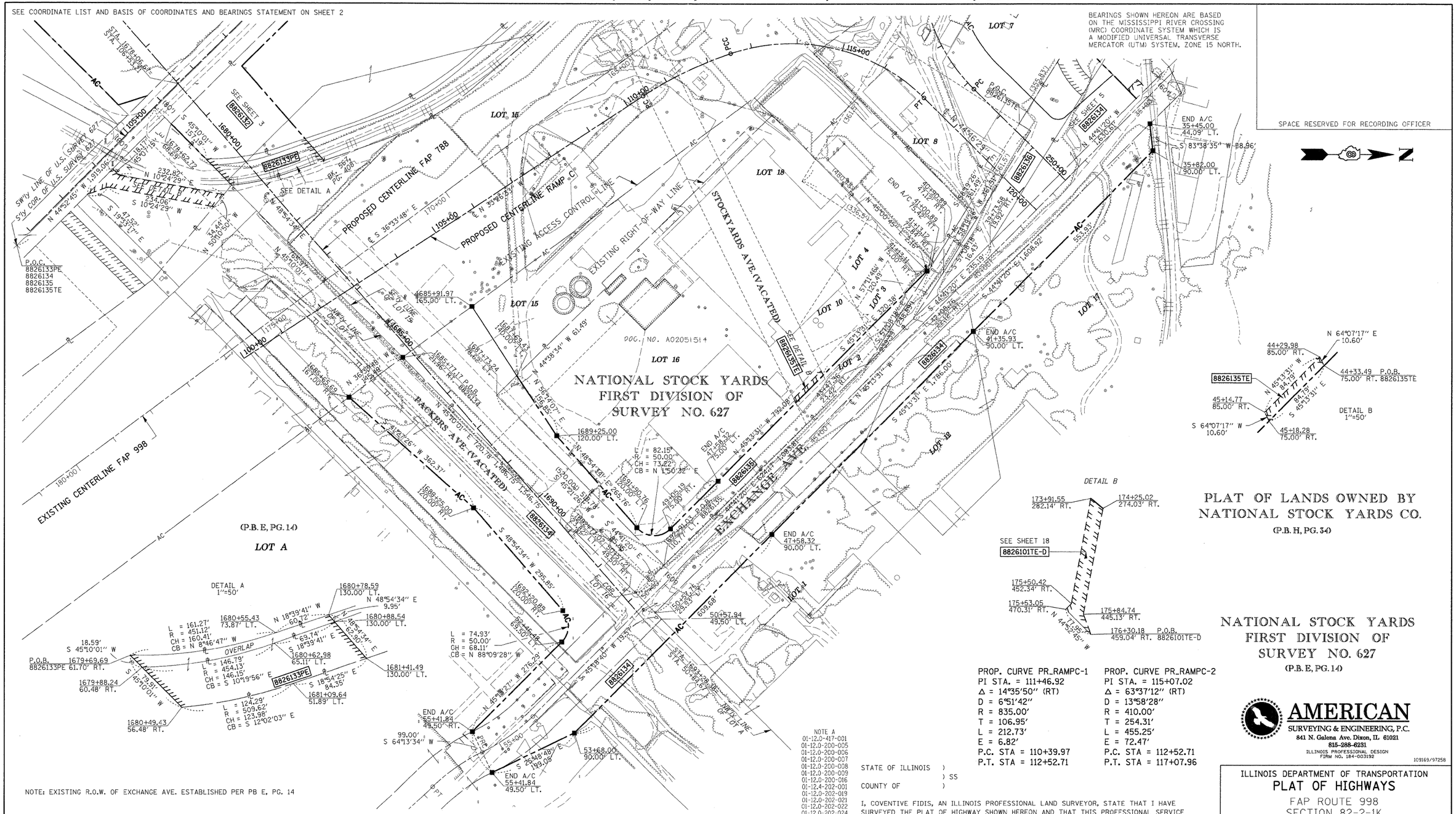
COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY:	ROW STAKING:

FAP ROUTE 998 CONSTRUCTION SECTION 82-2-1K ST. CLAIR COUNTY JOB # R-98-026-08

PART OF U.S. SURVEY 626 & 627 & SEC. 12, T. 2 N., R. 10 W. OF THE 3RD P.M.

REV: 5/23/11

PART OF U.S. SURVEY 627, T2N, R10W, OF THE 3RD PM, ST. CLAIR COUNTY, ILLINOIS



PLAT OF LANDS OWNED BY NATIONAL STOCK YARDS CO.

(P.B. H, PG. 34)

NATIONAL STOCK YARDS FIRST DIVISION OF SURVEY NO. 627

(P.B. E, PG. 14)

PROP. CURVE PR_RAMPC-1
PI STA. = 111+46.92
Δ = 14°35'50" (RT)
D = 6°51'42"
R = 835.00'
T = 106.95'
L = 212.73'
E = 6.82'
P.C. STA = 110+39.97
P.T. STA = 112+52.71

PROP. CURVE PR_RAMPC-2
PI STA. = 115+07.02
Δ = 63°37'12" (RT)
D = 13°58'28"
R = 410.00'
T = 254.31'
L = 455.25'
E = 72.47'
P.C. STA = 112+52.71
P.T. STA = 117+07.96

NOTE A
01-12.0-417-001
01-12.0-200-005
01-12.0-200-006
01-12.0-200-007
01-12.0-200-008
01-12.0-200-009
01-12.0-200-016
01-12.4-202-001
01-12.0-202-019
01-12.0-202-021
01-12.0-202-022
01-12.0-202-024

PARCEL NO.	OWNER	TOTAL HOLDING	FEE SIMPLE ACQUISITION								REMAINDER	EASEMENTS			PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY
			GROSS		PREVIOUSLY DEDICATED		DEDICATED BY OCCUPATION		NET			PE = PERMANENT TE = TEMPORARY		EASEMENT PURPOSE		
		ACRES	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	SQ. FT.	ACRES	ACRES	SQ. FT.			
8826133	ST. LOUIS NATIONAL STOCKYARDS COMPANY TITLE REPORT NO. SC-6224	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	PE 0.2883	PE 12,557	BRIDGE CONSTRUCTION & MAINTENANCE	01-12.0-201-026	
8826134	ST. LOUIS NATIONAL STOCKYARDS COMPANY TITLE REPORT NO. SC-6353, 6160, 6315, 6316	198.9095 [1]	8.3531	363,861	2.2311	97,187	1.1006	47,944	5.0214	218,730	190.5564	TE 0.0193	TE 839	ENTRANCE CONSTRUCTION	NOTE A	
8826135	250 PACKERS AVENUE, L.L.C., A MISSOURI L.L.C. TITLE REPORT NO. SC-5457	10.2300 [6]	1.1821	51,493	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TE 0.0195	TE 848	ENTRANCE CONSTRUCTION	01-12.0-201-027	
8826136	NORFOLK SOUTHERN RAILWAY COMPANY TITLE REPORT NO. SC-6339	N/A	0.9540	41,578	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		01-12.0-511-005	

STATE OF ILLINOIS)
) SS
COUNTY OF)

I, COVENTIVE FIDIS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, STATE THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED

COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2010

STATE OF ILLINOIS · COVENTINE FIDIS · 35-2159 · PROFESSIONAL LAND SURVEYOR · DIXON, ILL.

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY:	ROW STAKING:

AMERICAN
SURVEYING & ENGINEERING, P.C.
841 N. Galena Ave. Dixon, IL 61021
815-288-6231
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-003192

109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 998
SECTION 82-2-IK
ST. CLAIR COUNTY
JOB NO. R-98-026-08
STATION 1680+00 TO STATION 1693+28

100' 0 100' 200'
SCALE: 1" = 100'
SHEET 4 OF

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	105
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

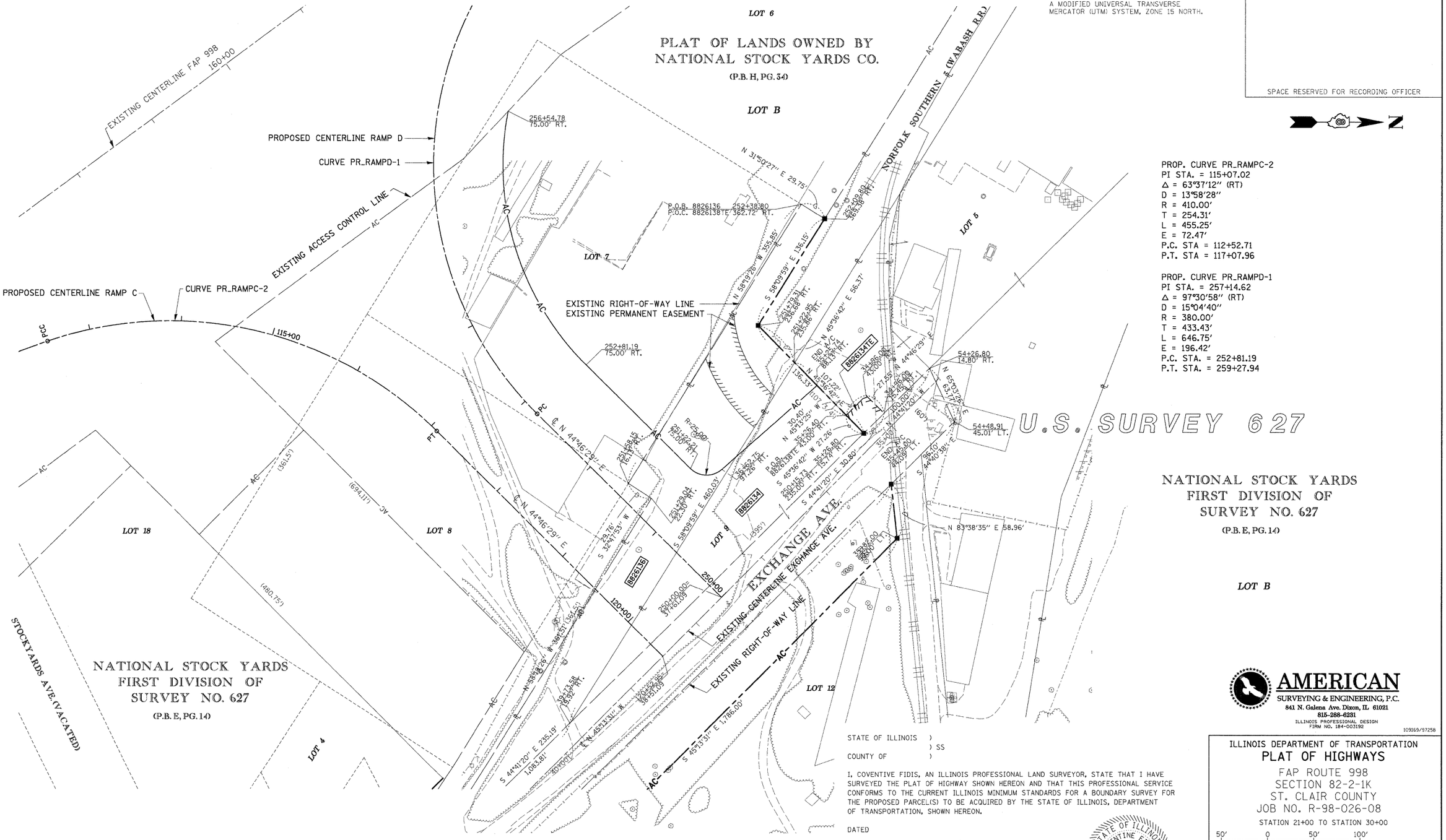
REV: 6/28/11

PART OF U.S. SURVEY 627, T2N, R10W, OF THE 3RD PM, ST. CLAIR COUNTY, ILLINOIS

SEE COORDINATE LIST AND BASIS OF COORDINATES AND BEARINGS STATEMENT ON SHEET 2

BEARINGS SHOWN HEREON ARE BASED ON THE MISSISSIPPI RIVER CROSSING (MRC) COORDINATE SYSTEM WHICH IS A MODIFIED UNIVERSAL TRANSVERSE MERCATOR (UTM) SYSTEM, ZONE 15 NORTH.

SPACE RESERVED FOR RECORDING OFFICER



STATE OF ILLINOIS)
) SS
COUNTY OF)

I, COVENTIVE FIDIS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, STATE THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED

COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2010

STATE OF ILLINOIS · COVENTINE FIDIS · 35-2159 · DIXON, ILL. · PROFESSIONAL LAND SURVEYOR

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY:	ROW STAKING:

AMERICAN
SURVEYING & ENGINEERING, P.C.
841 N. Galena Ave. Dixon, IL 61021
815-288-6231
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-003192

109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 998
SECTION 82-2-1K
ST. CLAIR COUNTY
JOB NO. R-98-026-08
STATION 21+00 TO STATION 30+00

50' 0 50' 100'
SCALE: 1" = 50'

SHEET 5 OF

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	106
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FAP ROUTE 998 CONSTRUCTION SECTION 82-2-1K ST. CLAIR COUNTY JOB # R-98-026-08

PART OF U.S. SURVEY 627, T. 2 N., R. 10 W. OF THE 3RD P.M.

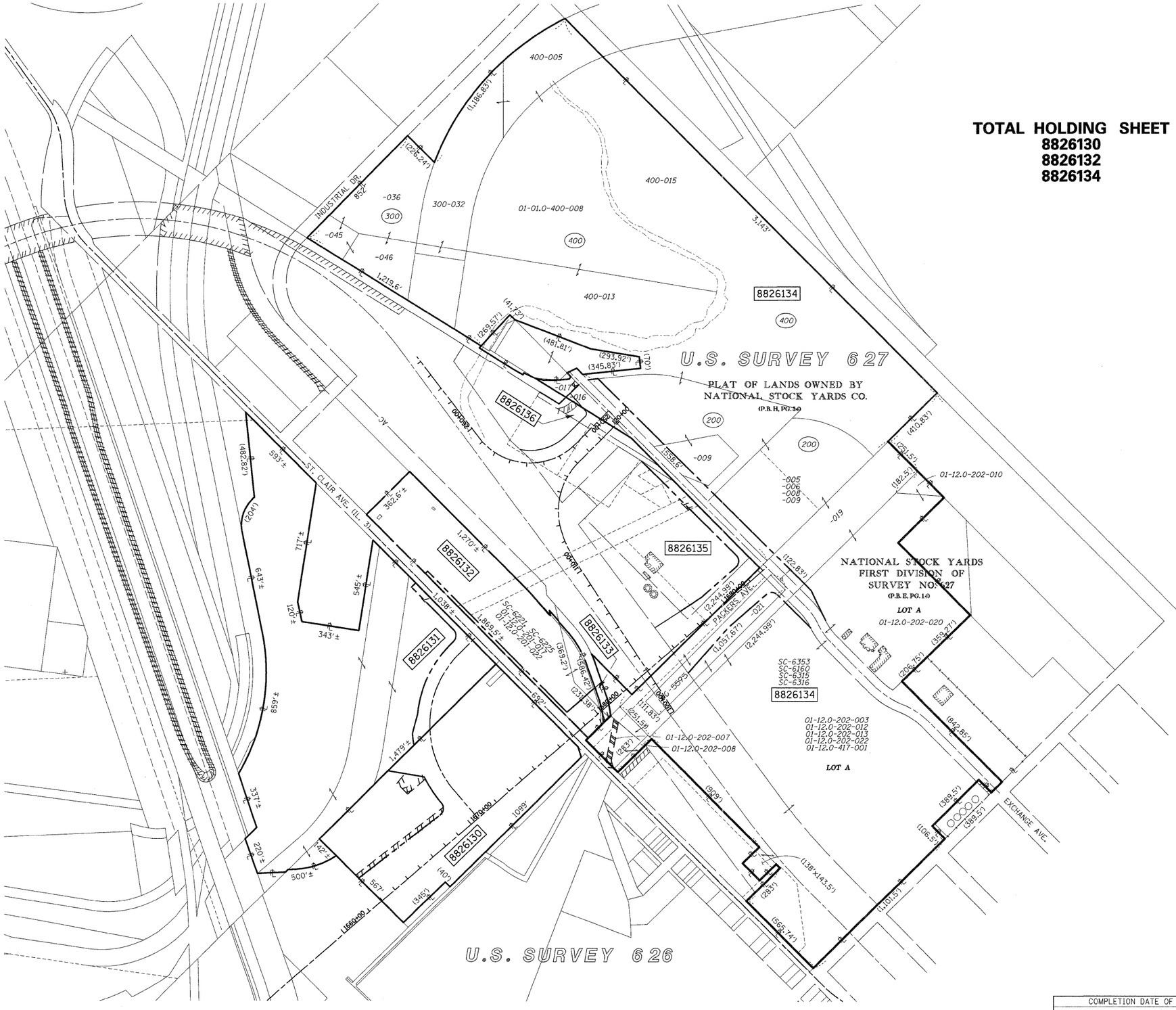
REV: 5/11/11

PART OF U.S. SURVEY 626 & 627, T2N, R10W, OF THE 3RD PM, ST. CLAIR COUNTY, ILLINOIS

N

SPACE RESERVED FOR RECORDING OFFICER

TOTAL HOLDING SHEET
8826130
8826132
8826134



STATE OF ILLINOIS)
) SS
COUNTY OF)

I, COVENTIVE FIDIS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, STATE THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED

COVENTINE FIDIS, PLS NO. 35-2159
LICENSE EXPIRATION DATE: 11/30/2010

STATE OF ILLINOIS · COVENTINE FIDIS · 35-2159 · DIXON, ILL. · PROFESSIONAL LAND SURVEYOR

109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
PLAT OF HIGHWAYS
FAP ROUTE 998
SECTION 82-2-1K
ST. CLAIR COUNTY
JOB NO. R-98-026-08
STATION 1660+00 TO STATION 1693+00

300′ 0 300′ 600′
SCALE: 1″ = 300′ SHEET 6 OF

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	107
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

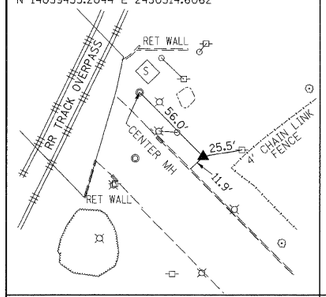
COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY:	ROW STAKING:

FAP ROUTE 998 CONSTRUCTION SECTION 82-2-IK ST. CLAIR COUNTY JOB # R-98-026-08

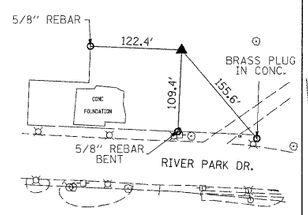
PART OF U.S. SURVEY 627, T. 2 N., R. 10 W. OF THE 3RD P.M.

REV. 5/11/11

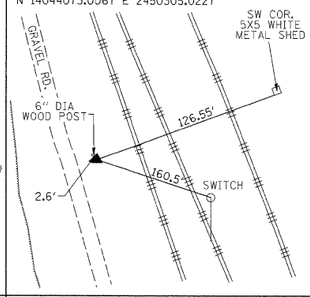
CONTROL POINT #7695 60D NAIL
N 14039433.2044 E 2450314.6062



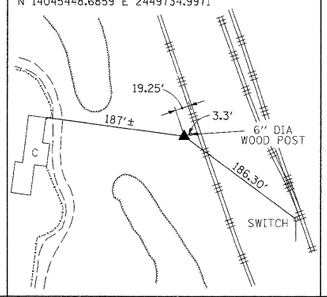
CONTROL POINT #7697 5/8" REBAR
N 14039855.2387 E 2449709.7110



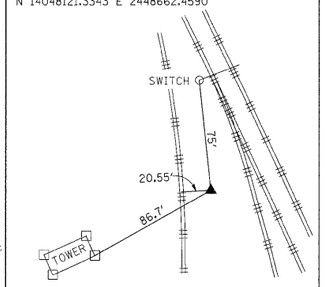
CONTROL POINT #4334 IDOT MON. DISK B-11
N 14044073.0067 E 2450305.0227



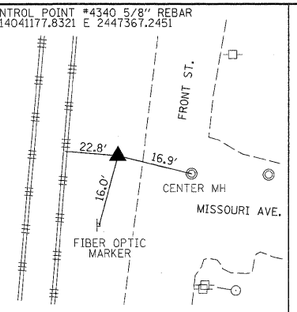
CONTROL POINT #4335 IDOT MON. DISK B-13
N 14045448.6859 E 2449734.9971



CONTROL POINT #4338 5/8" REBAR
N 14048121.3343 E 2448662.4590

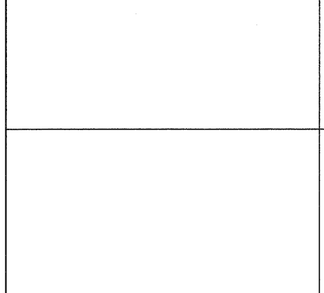


CONTROL POINT #4340 5/8" REBAR
N 14041177.8321 E 2447367.2451



SPACE RESERVED FOR RECORDING OFFICER

CONTROL POINT #20528 5/8" REBAR
N 14047536.3420 E 2449565.0650



109169/97258

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/REGION 5/DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, ILLINOIS 62234-6198

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			345	107A
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

POINT	RELOCATED IL RTE 3 STATION	RELOCATED IL RTE 3 OFFSET	RAMP A STATION	RAMP A OFFSET	ELEV
A1	1680+78.26	35.00' LT	24+79.68	158.25' RT	447.52
A2	1681+76.69	59.50' LT	24+55.18	59.81' RT	446.78
A3	1682+24.51	139.00' LT	23+75.68	12.00' RT	443.60
A4	1682+58.51	92.00' LT	24+22.68	22.00' LT	444.89
A5	1682+79.51	35.00' LT	24+79.68	43.00' LT	446.03
B1	1682+06.19	49.00' LT	24+65.68	30.32' RT	446.91
B2	1682+28.12	67.65' LT	24+47.04	8.39' RT	445.82
B3	1682+32.09	68.12' LT	24+46.56	4.41' RT	445.88
B4	1682+34.83	45.00' LT	24+69.68	1.67' RT	446.48
B5	1682+06.19	45.00' LT	24+69.68	30.32' RT	446.80

POINT	RELOCATED IL RTE 3 STATION	RELOCATED IL RTE 3 OFFSET	RAMP B STATION	RAMP B OFFSET	ELEV
C1	1681+54.75	7.00' RT	50+09.33	59.94' RT	447.95
C2	1682+03.60	46.34' RT	50+46.75	9.60' RT	447.08
C3	1682+10.27	121.94' RT	51+22.03	0.00' LT	444.47
C4	1682+26.09	75.43' RT	50+74.94	14.00' LT	445.73
C5	1682+64.02	7.00' RT	50+05.09	49.25' LT	446.84
C6	1682+58.42	17.00' RT	50+15.30	44.04' LT	446.72
C7	1682+39.43	44.08' RT	50+43.10	26.11' LT	446.23

MATCH LINE STA. 23+30
SEE SHEET 109

℄ PR. RAMP A

STR. #082-W308

ANCHORAGE SLAB

℄ PR. I-70

STR. #082-W309

SHLD TRANS. 4% TO 2%

℄ PR. RAMP C

END OF ANCHORAGE SLAB STA. 24+38.93, 23.37' LT

WING WALL

PAVING & JOINTING BY OTHERS

STR. #082-0329

STR. #082-0328

NOTE 1

FACE OF CURB 1'R

EOP 2'R

℄ PR. RELOCATED IL ROUTE 3 & PGL

℄ PR. RELOCATED IL ROUTE 3

STA. 1682+15.01 PR REL IL RTE 3 = STA. 50+00.00 PR RAMP B ELEVATION = 447.61

STA. 1682+36.51 PR REL IL RTE 3 = STA. 25+14.68 PR RAMP A ELEVATION = 447.36

NOTE 1:
SURROUNDING ISLAND, THE KEYED LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITHOUT TIE BARS PER IDOT HWY STD. 606301

END OF JOINT

NO JOINT ALONG BASELINE, ONLY ALONG ANCHORAGE SLAB

ANCHORAGE SLAB

POINT	RELOCATED IL RTE 3 STATION	RELOCATED IL RTE 3 OFFSET	ELEV
D1	1681+71.42	23.00' LT	447.53
D2	1682+19.60	10.63' LT	447.35
D3	1682+18.15	5.00' LT	447.47
E1	1683+42.51	11.00' LT	445.29
E2	1683+42.43	7.00' LT	445.37
E3	1683+92.51	5.00' LT	444.18

PROPOSED LEGEND

1. LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 TIE BARS AT 24" CTS.
2. LONGITUDINAL SAWED JOINT WITH NO. 6 TIE BARS AT 18" CTS.
3. LONGITUDINAL CONSTRUCTION JOINT FOR ANCHORAGE SLAB. PAVEMENT JOINTS SHALL ALIGN WITH ANCHORAGE SLAB JOINTS, SEE ANCHORAGE SLAB AND BARRIER WALL DETAILS
4. TRANSVERSE CONTRACTION JOINT WITH DOWEL BARS.

ALL EPOXY COATED

MATCH LINE STA. 51+80
SEE SHEET 110

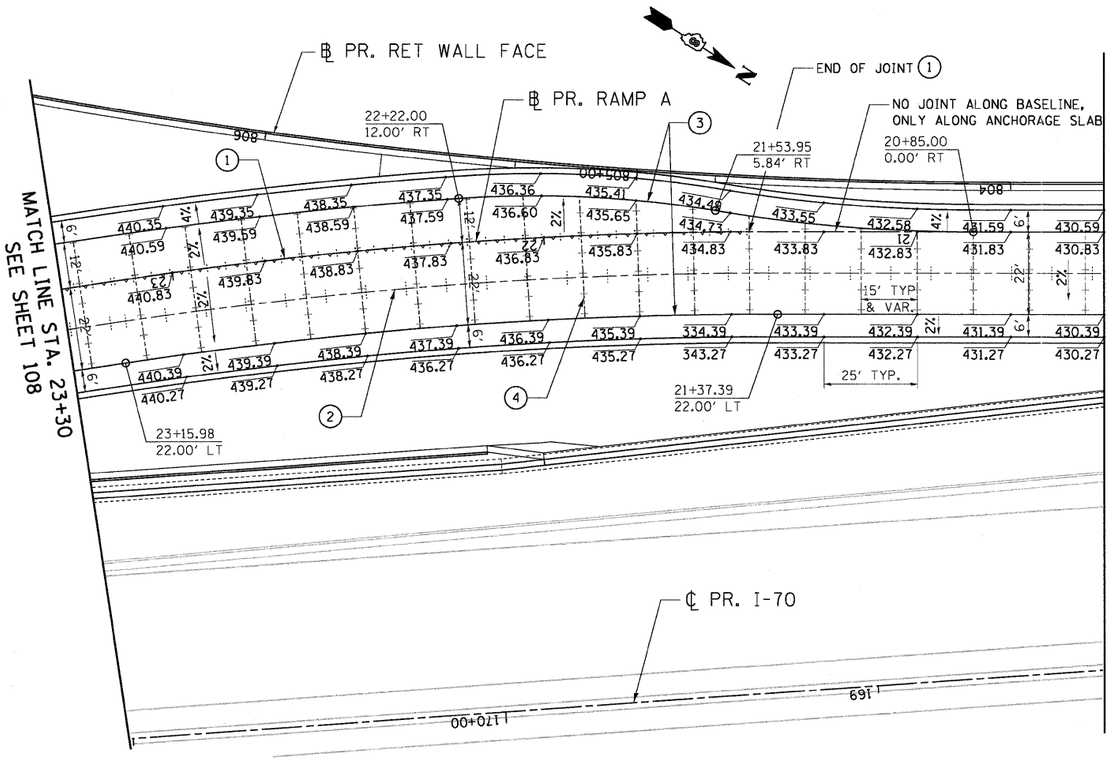
FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED - JB	REVISED -	
		DRAWN - AG	REVISED -	
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = #SCALE#	CHECKED - ACL	REVISED -	
	PLOT DATE = #DATE#	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

PROPOSED RELOCATED ILLINOIS ROUTE 3
INTERSECTION DETAIL

SCALE: 1"=20' | SHEET NO. OF SHEETS | STA. TO STA.

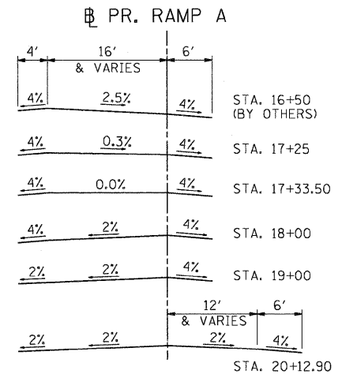
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	108
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



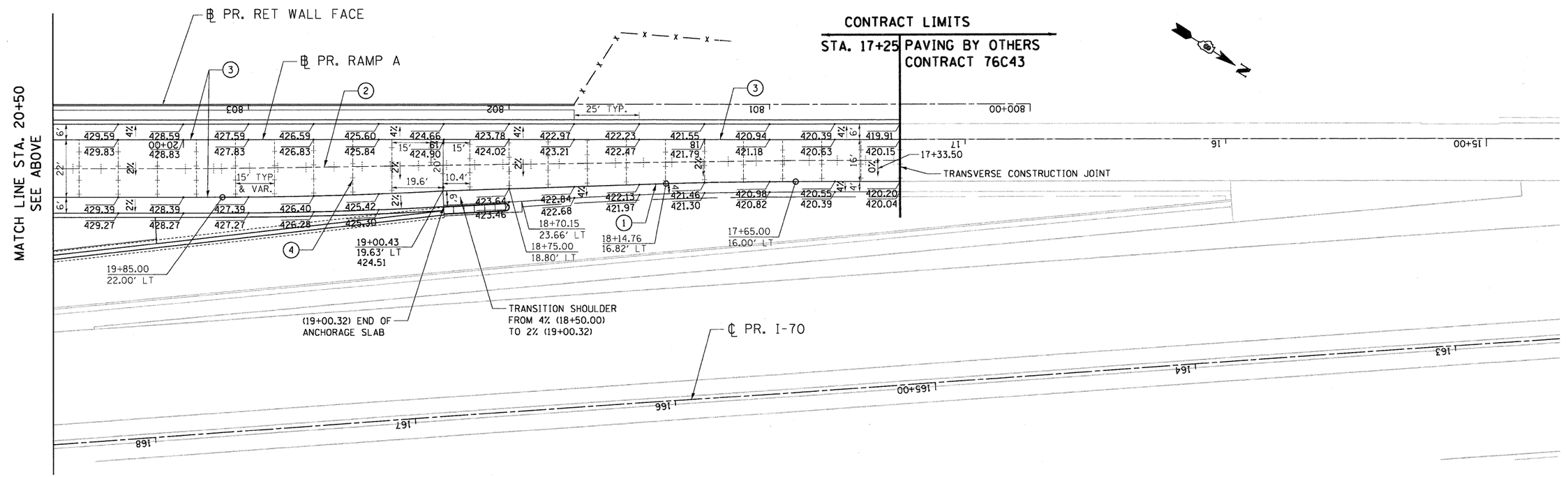
PROPOSED LEGEND

1. LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 TIE BARS AT 24" CTS.
2. LONGITUDINAL SAWED JOINT WITH NO. 6 TIE BARS AT 18" CTS.
3. LONGITUDINAL CONSTRUCTION JOINT FOR ANCHORAGE SLAB. PAVEMENT JOINTS SHALL ALIGN WITH ANCHORAGE SLAB JOINTS, SEE ANCHORAGE SLAB AND BARRIER WALL DETAILS
4. TRANSVERSE CONTRACTION JOINT WITH DOWEL BARS.

ALL EPOXY COATED



SUPERELEVATION TRANSITION

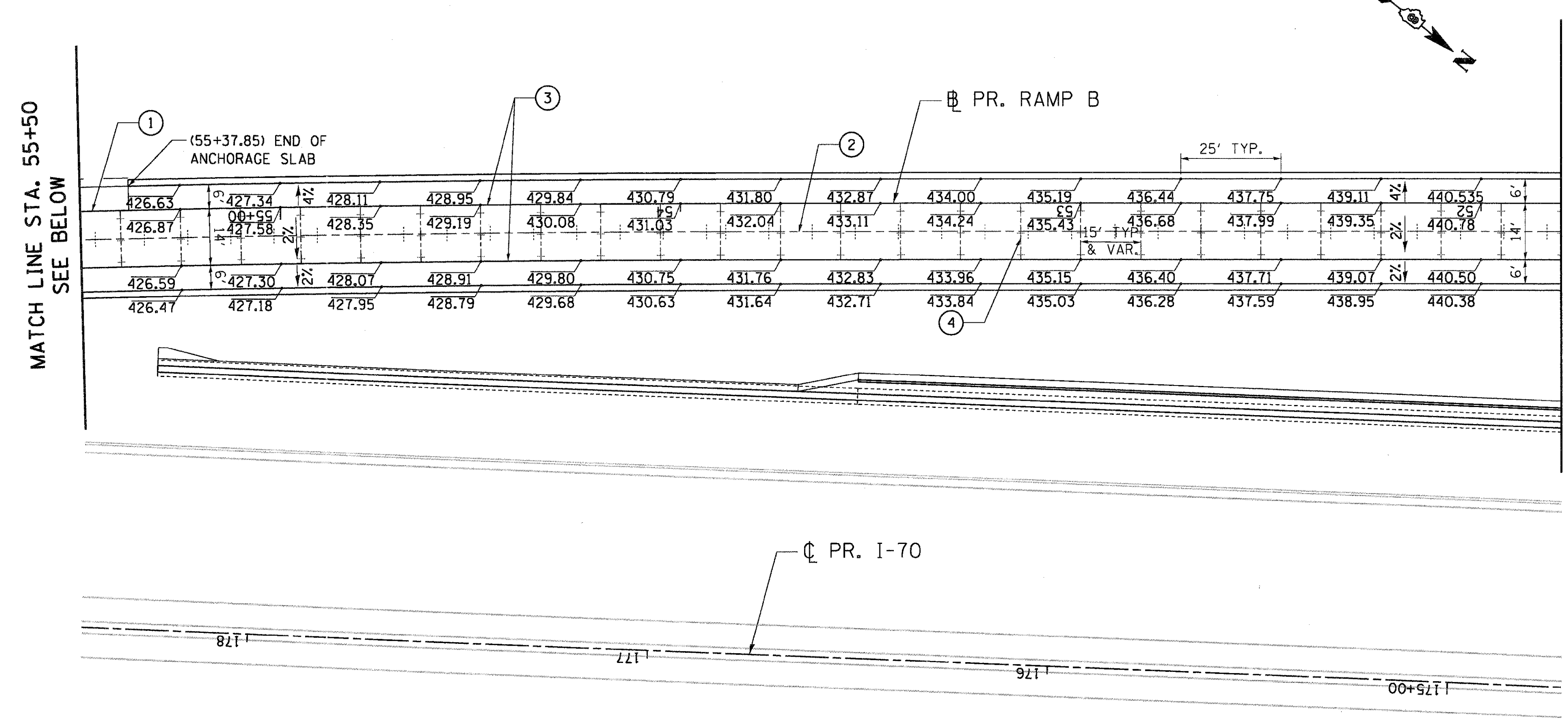


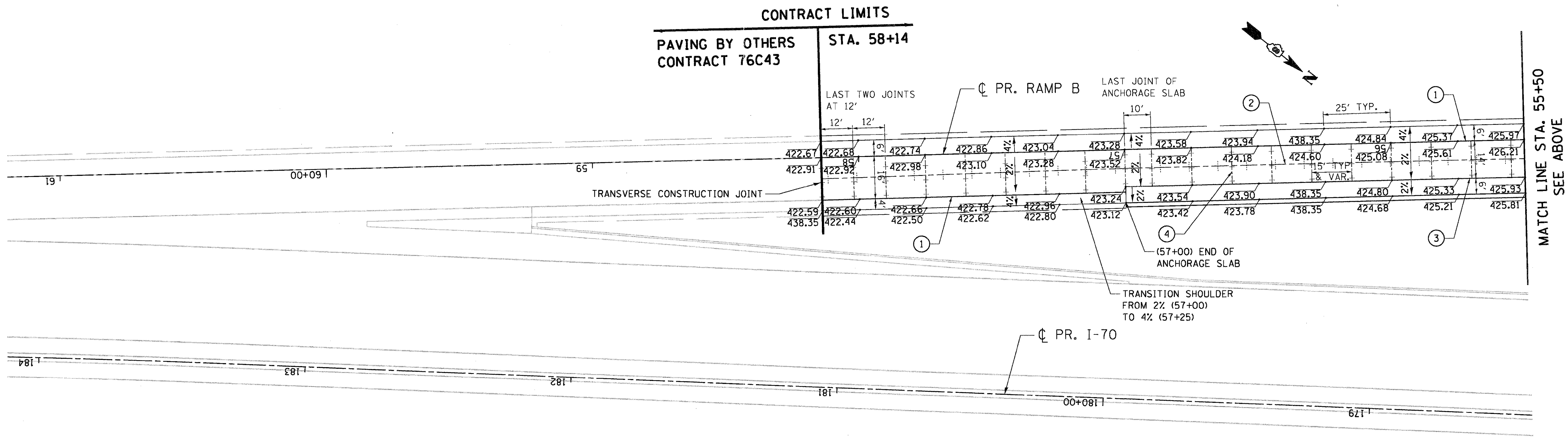
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** RELOCATED ILLINOIS ROUTE 3	**PROPOSED RAMP A JOINTING PLAN**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - MN	REVISED -			998	82-2-1HVB-1	ST. CLAIR	345	109
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -					CONTRACT NO. 76D05		
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROPOSED LEGEND

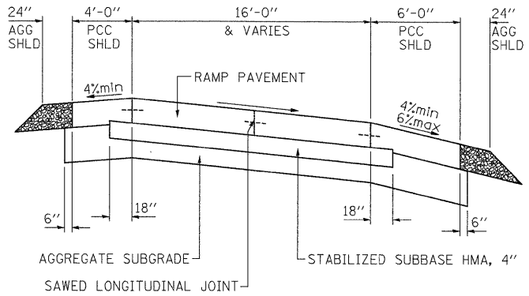
1. LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 TIE BARS AT 24" CTS.
2. LONGITUDINAL SAWED JOINT WITH NO. 6 TIE BARS AT 18" CTS.
3. LONGITUDINAL CONSTRUCTION JOINT FOR ANCHORAGE SLAB. PAVEMENT JOINTS SHALL ALIGN WITH ANCHORAGE SLAB JOINTS. SEE ANCHORAGE SLAB AND BARRIER WALL DETAILS
4. TRANSVERSE CONTRACTION JOINT WITH DOWEL BARS.

ALL EPOXY COATED

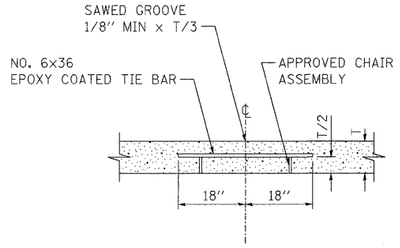




FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED RAMP B JOINTING PLAN	F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 110
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - AG	REVISED -	RELOCATED ILLINOIS ROUTE 3	SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 76D05		
	PLOT DATE = $DATE$	CHECKED - ACL	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DATE - 05/13/11	REVISED -							



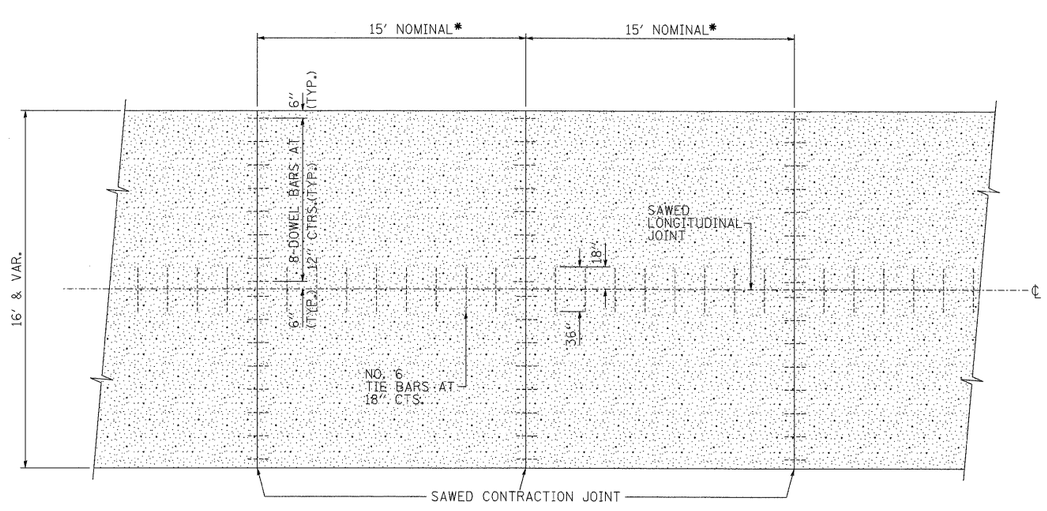
SECTION



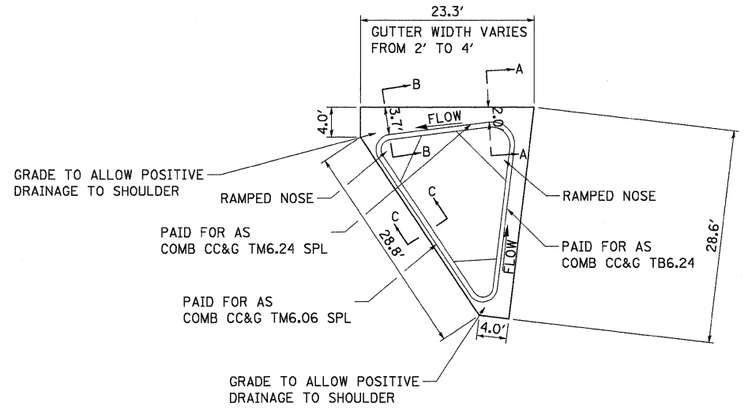
SAWED LONGITUDINAL JOINT

NOTES:
1. CENTERLINE JOINT REMAINS IN THE CENTER WHEN RAMP TRANSITIONS TO TWO (2) LANES AT 12′ EACH.
2. ALL BARS TO BE EPOXY COATED.

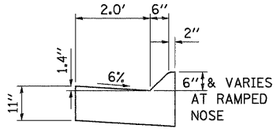
* THE 15′ DIMENSION SHALL BE ADJUSTED TO 12′ MIN. TO 18′ MAX. WHEN PLACED ADJACENT TO EXISTING PCC PAVEMENT STRUCTURE SO THAT JOINTS ARE IN PROLONGATION.



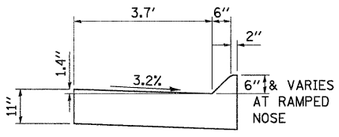
PLAN



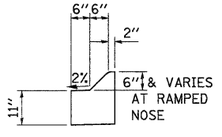
RAMP A CORNER ISLAND



SECTION A-A



SECTION B-B



SECTION C-C

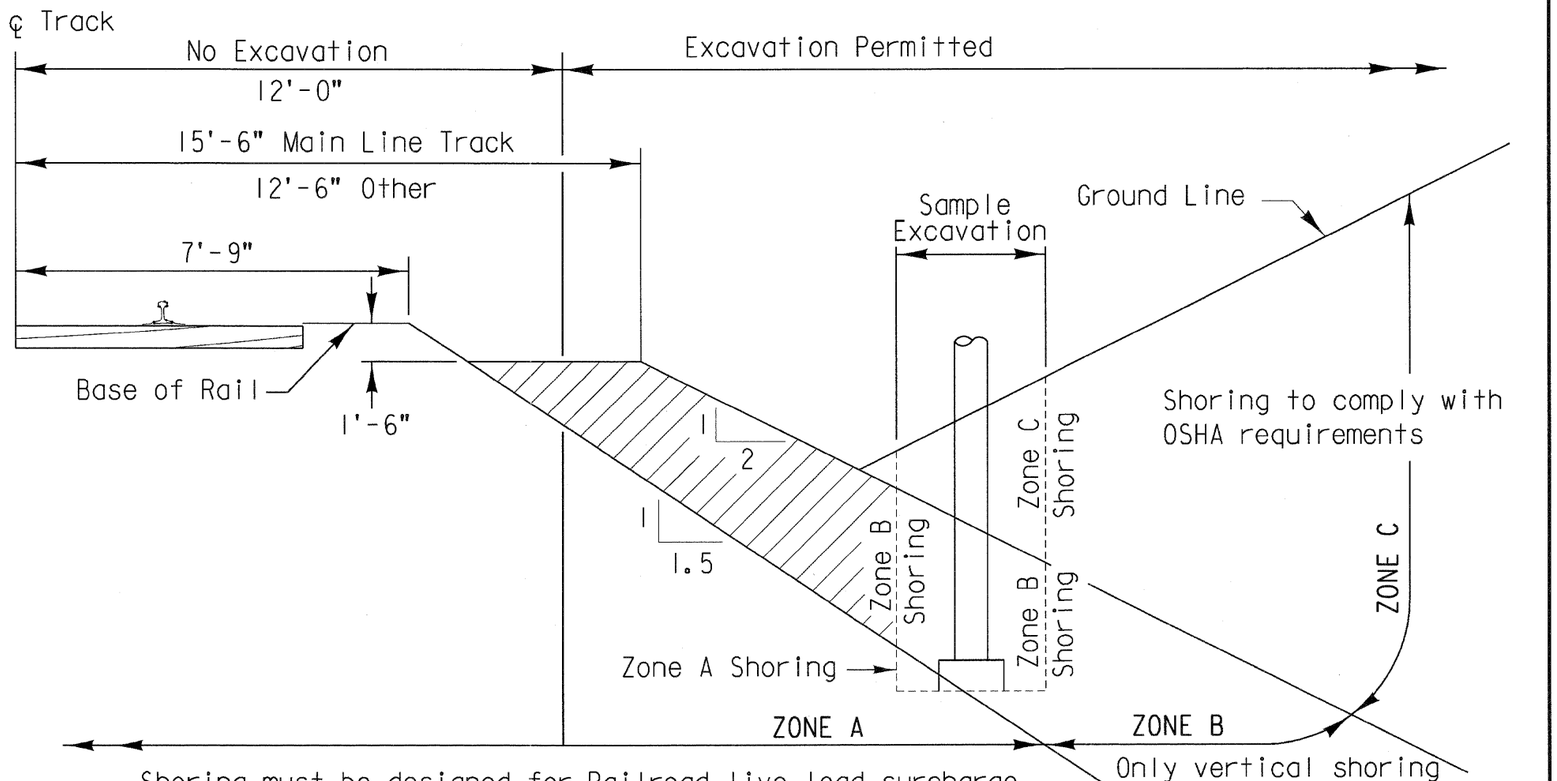
COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.24 (SPECIAL) &
COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06 (SPECIAL)

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - JFS	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JB	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

DETAIL FOR CENTERLINE SAW CUT 16′ & VARIABLE JOINTED PCC PAVEMENT FOR RAMPS
COMBINATION CONCRETE CURB AND GUTTER DETAILS
SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	111
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



GENERAL NOTES:

All dimensions are measured perpendicular to ℄ of track.

Prior to commencing any work, the contractor shall submit for approval by the Railroad detailed plans indicating the nature and extent of the track protection shoring proposed. The contractor shall install the temporary shoring system per the approved plans. Design of the temporary shoring system to comply with **GUIDELINES FOR TEMPORARY SHORING.**

For excavations which encroach into zone A or B, shoring plans shall be accompanied by design calculations. Plans and calculations must be signed and stamped by a Professional Engineer registered in the state where the work will be performed.

GENERAL EXCAVATION ZONES

SCALE: (NOT TO SCALE)

REVISIONS		
DATE	LTR.	DESCRIPTION
5/03	1	FORMERLY UPRR C.E. 106613
/		
/		
/		
/		
/		

DESIGN BY: PGP | DRAWN BY: JFS | CHECKED BY: AA

APPROVED:

K.H. Jennison
BNSF - ASSISTANT DIRECTOR STRUCTURES DESIGN

George J. Meyer 9-1-04
UPRR - MGR SPECIAL PROJECTS STRUCTURES DESIGN

BURLINGTON NORTHERN SANTA FE RAILWAY — BRIDGE STANDARDS — UNION PACIFIC

GENERAL SHORING REQUIREMENTS

FILE OWNER: UPRR | DATE: 5-6-03
PLAN NO.: 710000 (1) | SHEET: 1 OF 1

PLOTTED: $$$$DATE$$$ $TIME

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - JFS	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

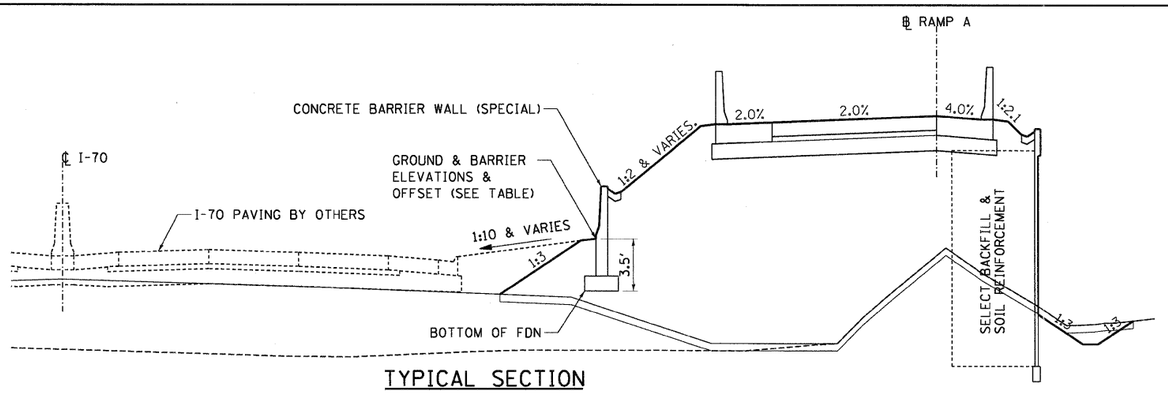
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

GENERAL SHORING REQUIREMENTS ADJACENT TO RAILROAD

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

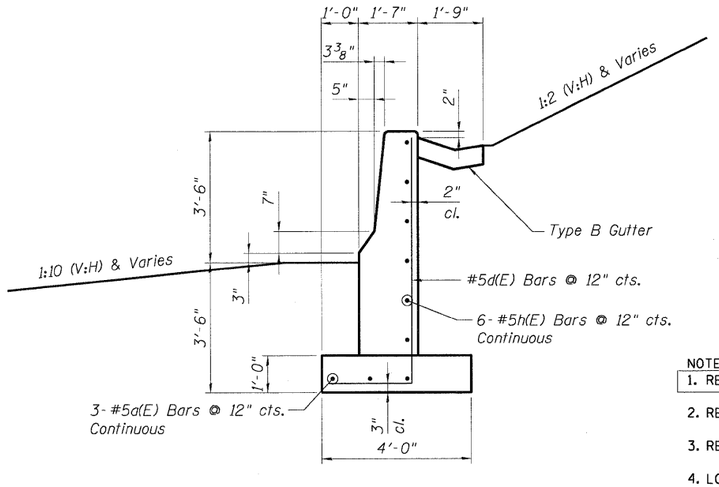
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	112
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

..\DBCONN-18-BORDER.DGN 5-11-2011, 11:03:59 NEWMANMD \\FS-0244\AMVAULT0-TRANS.07\2202\28868-001\CIVIL\CADD\99 ALL CONTRACTS\CONNSHEETS CONTRACT 18\DBCONN-18-SHT-PWTDETAILS.DGN

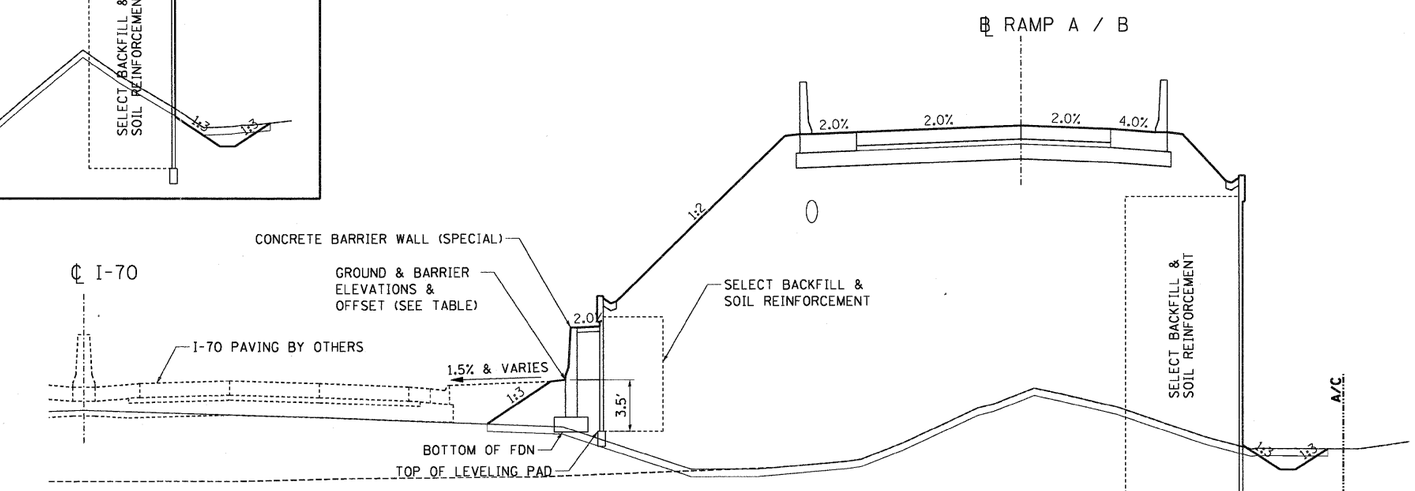


TYPICAL SECTION AT SLOPE

	BARRIER LOCATION (AT SLOPE)			
	STATION	BOTTOM OF FDN	GROUND & BARRIER ELEVATION	GROUND & BARRIER OFFSET
RAMP A	19+00.00	420.88	424.38	28.80' LT
	19+25.00	420.14	423.96	31.60' LT
	19+50.00	419.40	423.55	34.41' LT
	19+75.00	419.37	423.20	37.21' LT
	20+00.00	419.33	422.96	40.02' LT
	20+25.00	419.26	422.78	42.83' LT
	20+50.00	419.18	422.69	45.63' LT
	20+75.00	419.10	422.60	48.44' LT
	21+00.00	419.01	422.52	51.24' LT
	21+25.00	418.90	422.42	54.05' LT
	21+50.00	418.78	422.30	56.72' LT
	21+75.00	418.67	422.19	58.89' LT
	22+00.00	418.55	422.06	60.56' LT
	22+15.35	418.49	422.01	61.33' LT
	22+19.10	418.49	421.99	61.35' LT
RAMP B	53+55.80	415.76	419.25	49.09' LT
	53+75.00	415.74	419.23	48.32' LT
	54+00.00	415.72	419.21	47.31' LT
	54+25.00	415.75	419.24	46.22' LT
	54+50.00	415.77	419.28	45.03' LT
	54+75.00	415.81	419.31	43.74' LT
	55+00.00	415.84	419.35	42.34' LT
	55+25.00	415.89	419.42	40.84' LT
	55+31.62	415.90	419.44	40.42' LT



CONCRETE BARRIER WALL (SPECIAL)
(section through slope)

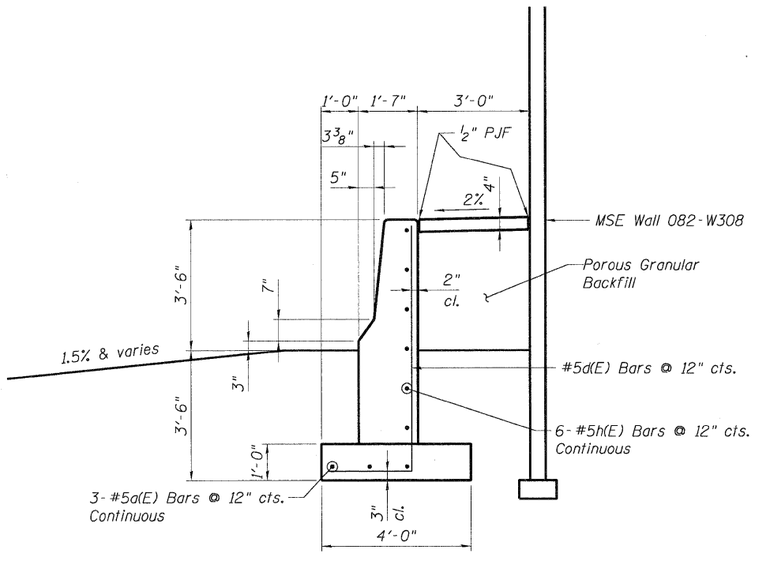


TYPICAL SECTION WITH RETAINING WALL

	BARRIER LOCATION (WITH RETAINING WALL)			
	STATION	TOP OF LEVELING PAD / BOTTOM OF FOUNDATION	GROUND & BARRIER ELEVATION	GROUND & BARRIER OFFSET
PR. I-70	170+00	418.49	421.99	64.42' RT
	170+25	418.41	421.91	64.42' RT
	170+50	418.34	421.84	64.42' RT
	170+75	418.26	421.76	64.42' RT
	170+95	418.20	421.70	64.42' RT
	171+00	418.18	421.68	64.42' RT
	171+25	418.06	421.56	64.42' RT
	171+50	417.94	421.44	64.42' RT
	171+75	417.82	421.32	64.42' RT
	172+00	417.70	421.20	64.42' RT
	172+15	417.63	421.13	64.42' RT
	172+25	417.58	421.08	64.42' RT
	172+34	417.54	421.04	64.42' RT
	172+50	417.46	420.96	64.42' RT
	172+75	417.34	420.84	64.42' RT
	173+00	417.21	420.71	64.42' RT
	173+25	417.09	420.59	64.42' RT
	173+40	417.01	420.51	64.42' RT
	173+50	416.96	420.46	64.42' RT
	173+70	416.86	420.36	64.42' RT
	173+75	416.84	420.34	64.42' RT
	174+00	416.71	420.21	64.42' RT
	174+25	416.59	420.09	64.42' RT
	174+50	416.46	419.96	64.42' RT
	174+75	416.36	419.86	64.42' RT
	175+00	416.25	419.75	64.42' RT
	175+25	416.15	419.65	64.42' RT
	175+50	416.05	419.55	64.42' RT
	175+75	415.94	419.44	64.42' RT
	176+00	415.84	419.34	64.42' RT
	176+25	415.80	419.30	64.42' RT
	176+50	415.75	419.25	64.42' RT

NOTES:

1. REINFORCEMENT BARS SHALL BE INCLUDED IN THE COST OF THE CONCRETE BARRIER WALL (SPECIAL).
2. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.
3. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
4. LOCATE EXPANSION JOINTS AT 90 FT. INTERVALS IN WALL. HORIZONTAL REINFORCING BARS SHALL NOT PASS THROUGH EXPANSION JOINTS. JOINT SHALL BE FILLED WITH 1" PREFORMED JOINT FILLER. EXPANSION JOINTS ARE NOT REQUIRED IN THE WALL FOOTING.
5. PROVIDE NOTCH IN FOOTING AS REQUIRED FOR DRAINAGE STRUCTURES.



CONCRETE BARRIER WALL (SPECIAL)
(section through MSE Wall)

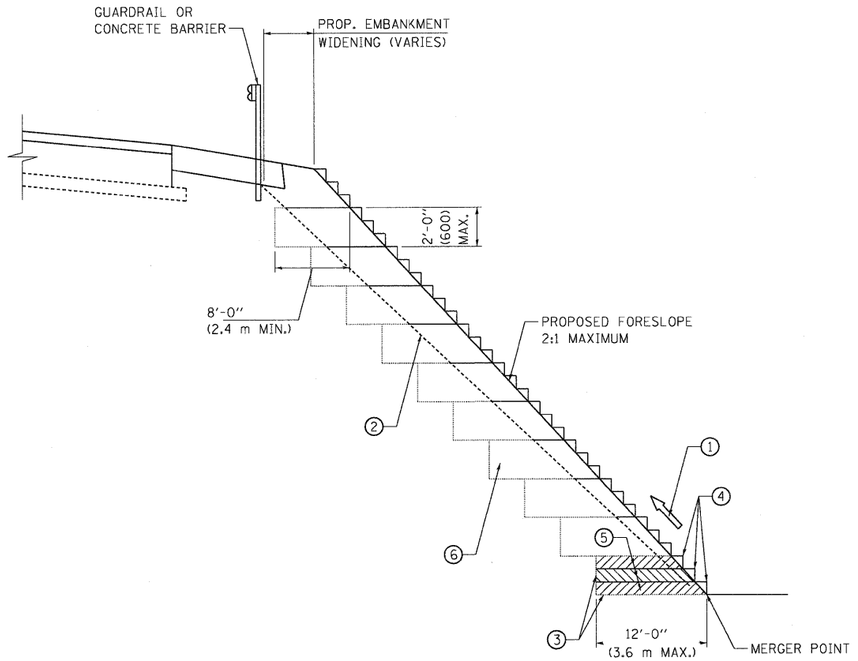
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -
		DRAWN - JB	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - ACL	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

CONCRETE BARRIER WALL (SPECIAL) SECTIONS AND ELEVATIONS

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	113
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

..\DBCONN-10-BORDER.DGN NEWMANND \\FS-6044\MV\VAULT\D-TRANS.07\222\20868 001\CIVIL\CAD\99 ALL CONTRACTS\CONN\SHEETS CONTRACT 10\DBCONN-10-SHT-PVTDETAIL2.DGN
5-11-2011, 11:04:06

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JB	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION** RELOCATED ILLINOIS ROUTE 3	**BENCHING DETAIL FOR EMBANKMENT WIDENING**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - JFS	REVISED -			998	82-2-1HVB-1	ST. CLAIR	345	114
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JB	REVISED -					CONTRACT NO. 76D05		
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. NEW WIRE, SPLICES, FUSES, FUSEHOLDER AND SURGE PROTECTORS SHALL BE PROVIDED AND INSTALLED FOR ALL LUMINAIRES BEING INSTALLED. THIS WORK SHALL BE INCLUDED IN THE COST OF THE LUMINAIRE.

2. ALL LIGHTING UNITS SHALL BE LABELED ACCORDING TO THE STANDARD SPECIFICATIONS, ARTICLE 1069.06. LIGHTING UNIT NUMBERS, WATTAGE, AND VOLTAGE SHALL BE AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

3. ALL MEASUREMENTS FOR ATTACHMENTS ARE APPROXIMATE. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND FABRICATE TO FIT.

4. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES.

5. THE EQUIPMENT GROUNDING CONDUCTOR (GREEN GROUND) MUST BE CONTINUOUS THROUGHOUT EACH CIRCUIT.

6. EACH CABLE SHALL BE UNIQUELY MARKED FOR IDENTIFICATION IN ORDER TO DISTINGUISH BETWEEN CIRCUITS AND INDIVIDUAL CABLES WITHIN A CIRCUIT. MARKERS SHALL BE VISIBLE AT ALL POINTS OF ENTRY, SUCH AS JUNCTION BOXES, PULL BOXES, HANDHOLES, ETC.

~~6. COOPERATION BETWEEN THE CONTRACTORS SHALL BE AS PER ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS.~~

7. EXCEPT FOR WIRES AND/OR CABLES ON STRUCTURE, OR CROSSING OR BENEATH PAVED AREAS, WIRES AND CABLES BETWEEN POLES OR BOXES SHALL BE DIRECT BURIED.

GROUND MOUNTED POLE NOTES

1. AFTER NEW CABLE IS INSTALLED, FOUNDATIONS SHALL BE FILLED WITH FINE AGGREGATE ACCORDING TO ARTICLE 836.03. A STAINLESS STEEL SCREEN SHALL BE INSTALLED TO SEAL THE OPENING BELOW THE POLE BASE FROM RODENT ENTRY. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "LIGHT POLE FOUDATION".

LEGEND

—●—	PROPOSED ELECTRIC SERVICE INSTALLATION
⧓	PROPOSED LIGHTING CONTROLLER
—Ⓐ—	PROPOSED CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALV STEEL
—Ⓑ—	PROPOSED ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO.8
—Ⓒ—	PROPOSED ELECTRIC CABLE ASSEMBLY IN TRENCH, 600V (XLP-TYPE USE), 3-1/C NO.8
—Ⓓ—	PROPOSED CONDUIT IN TRENCH, 2 1/2" DIA., PVC
—Ⓔ—	PROPOSED CONDUIT EMBEDDED IN STRUCTURE, 2 - 2" DIA., PVC
◙	PROPOSED JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE OF TYPE/SIZE SPECIFIED
▬	UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR, 240 VOLT
●—⊗	LIGHT POLE, ALUMINUM POLE BASE MOUNTED, 45 FT. M.H., 15 FT. MAST ARM, LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT AND 15" BOLT CIRCLE (INSTALL CONCRETE FOUNDATION ONLY IN THIS CONTRACT)

`$$$$ref_list_name$$$$` `$$$$date_time$$$$$` `$$user$$` `$$$$$$$$$$$$$$$$$$$$$$$dgn_name$$$$$$$$$$$$$$$$$$$$$$$$$$`

FILE NAME = $FILEL$	ABNA engineering	USER NAME = $USER$	DESIGNED - FSM	REVISED -
			DRAWN - MNR	REVISED -
ABNA ENGINEERING INC. PROFESSIONAL ENGINEERS EAST ST. LOUIS, ILLINOIS		PLOT SCALE = $SCALE$	CHECKED - AAB	REVISED -
		PLOT DATE = $DATE$	DATE - 5/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

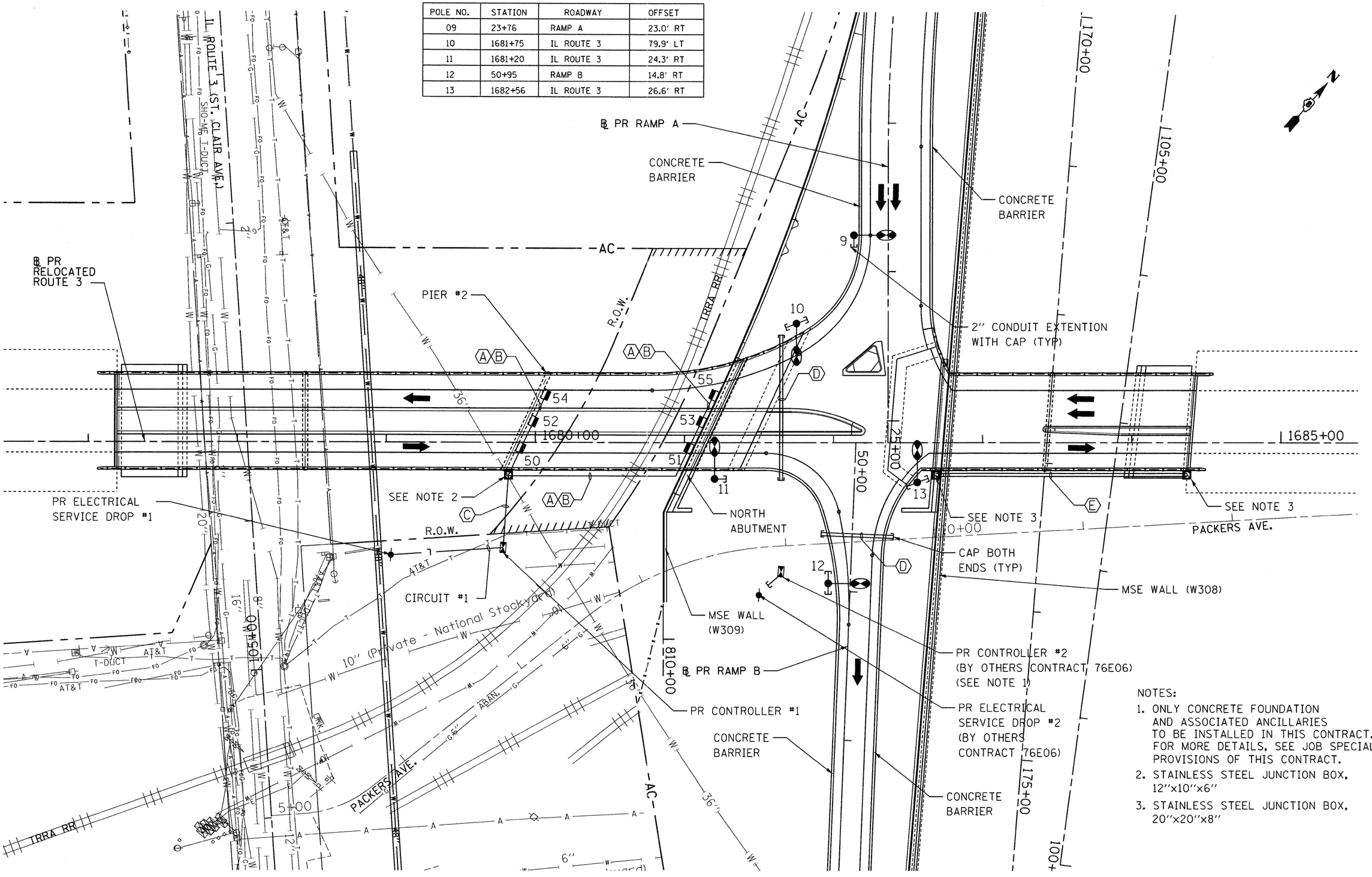
LIGHTING NOTES & LEGEND

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	115
		CONTRACT NO. 76D05		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

POLE NO.	STATION	ROADWAY	OFFSET
09	23+76	RAMP A	23.0' RT
10	1681+75	IL ROUTE 3	79.9' LT
11	1681+20	IL ROUTE 3	24.3' RT
12	50+95	RAMP B	14.8' RT
13	1682+56	IL ROUTE 3	26.6' RT



NOTES:

1. ONLY CONCRETE FOUNDATION AND ASSOCIATED ANCILLARIES TO BE INSTALLED IN THIS CONTRACT. FOR MORE DETAILS, SEE JOB SPECIAL PROVISIONS OF THIS CONTRACT.
2. STAINLESS STEEL JUNCTION BOX, 12"x10"x6"
3. STAINLESS STEEL JUNCTION BOX, 20"x20"x8"

$$$$ref_list_name$$$$ $$$$date_time$$$$ $$user$$ $$$$dgn_name$$$$

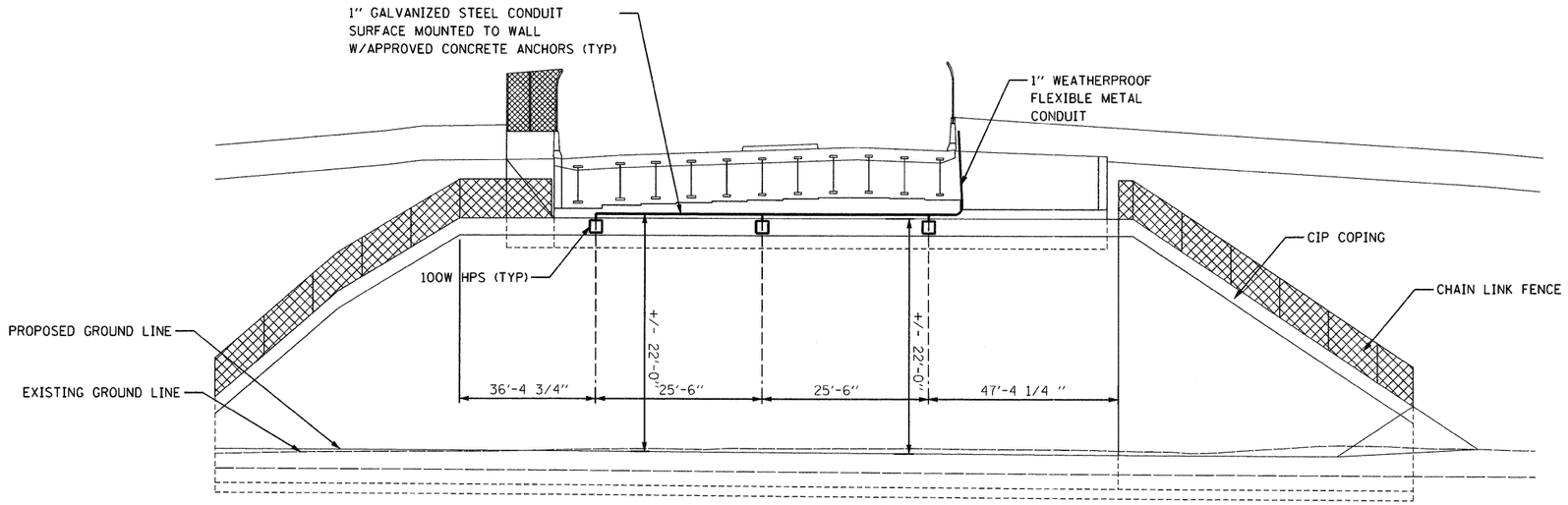
FILE NAME = $FILE$	ABNA ENGINEERING INC. PROFESSIONAL ENGINEERS EAST ST. LOUIS, ILLINOIS	USER NAME = $USER$	DESIGNED - FSM	REVISED -	
			DRAWN - MNR/KAD	REVISED -	
		PLOT SCALE = $SCALE$	CHECKED - AAB	REVISED -	
		PLOT DATE = $DATE$	DATE - 5/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

PROPOSED RELOCATED ILLINOIS ROUTE 3
LIGHTING PLAN
STA. 1677+00 TO STA. 1685+00

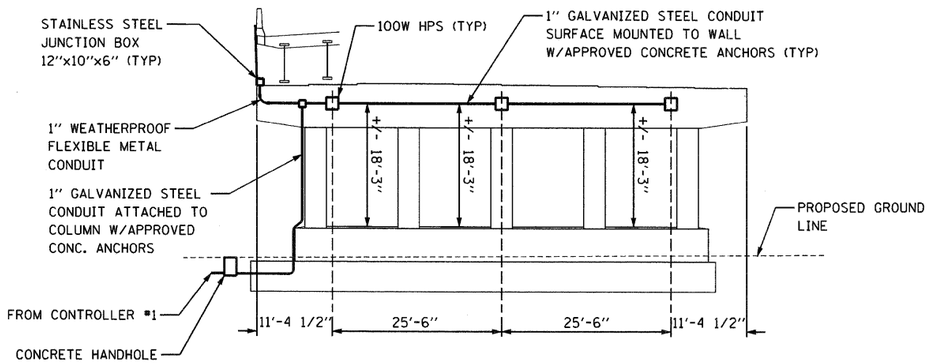
SCALE: 1"=30' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	116
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



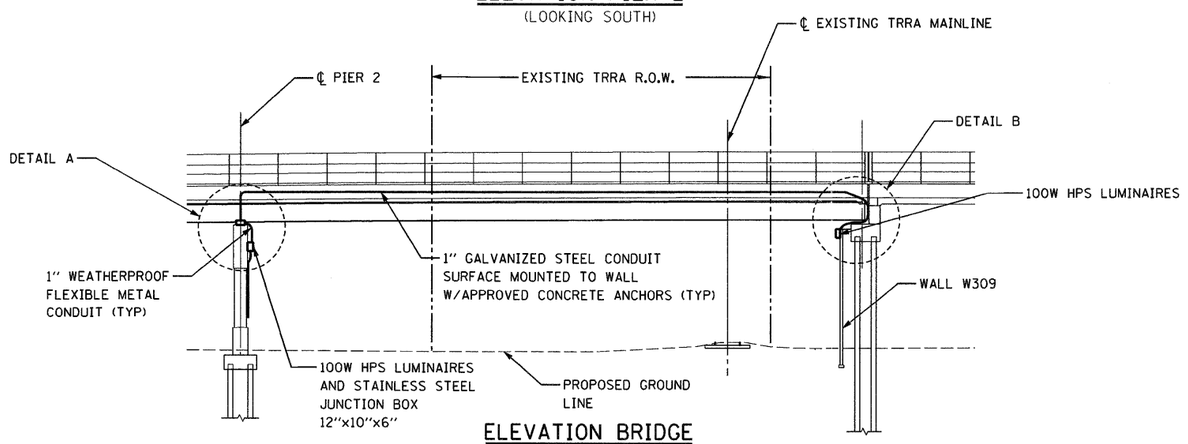
ELEVATION MSE WALL

(LOOKING NORTH)



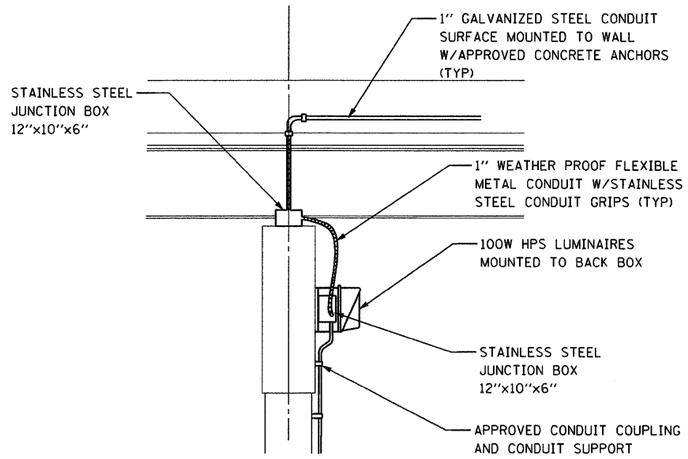
ELEVATION PIER 2

(LOOKING SOUTH)



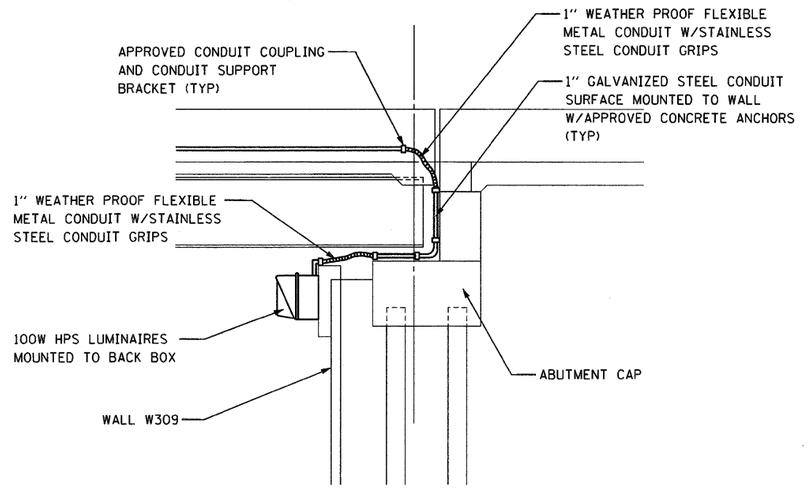
ELEVATION BRIDGE

(LOOKING WEST)



DETAIL A

(CONDUIT DETAIL AT PIER 2)



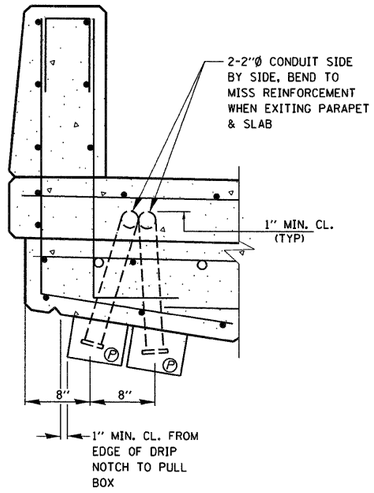
DETAIL B

(CONDUIT DETAIL AT MSE WALL)

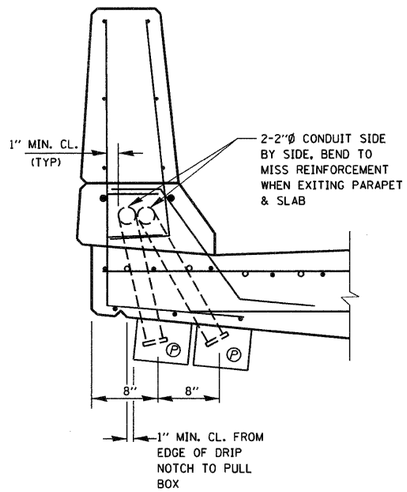
$$$$ref_list_name$$$$ $$$$date_time$$$$ $$user$$ $$$$$$$$$$$$$$$$$$$$$$$$dgn_name$$$$$$$$$$$$$$$$$$$$$$$$$$$$

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - FSM	REVISED -	**STATE OF ILLINOIS**	**LIGHTING DETAILS**
ABNA ENGINEERING INC. PROFESSIONAL ENGINEERS EAST ST. LOUIS, ILLINOIS		DRAWN - MNR	REVISED -	**DEPARTMENT OF TRANSPORTATION**	
ABNA engineering	PLOT SCALE = $SCALE$	CHECKED - AAB	REVISED -	RELOCATED ILLINOIS ROUTE 3	
	PLOT DATE = $DATE$	DATE - 5/13/11	REVISED -		SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

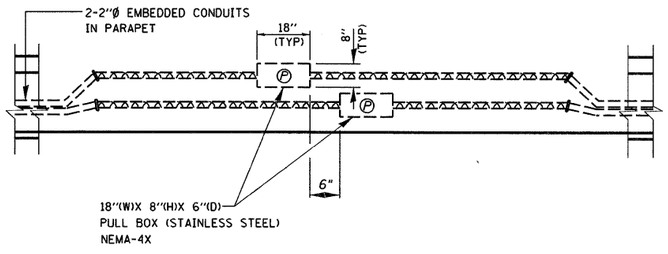
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	117
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



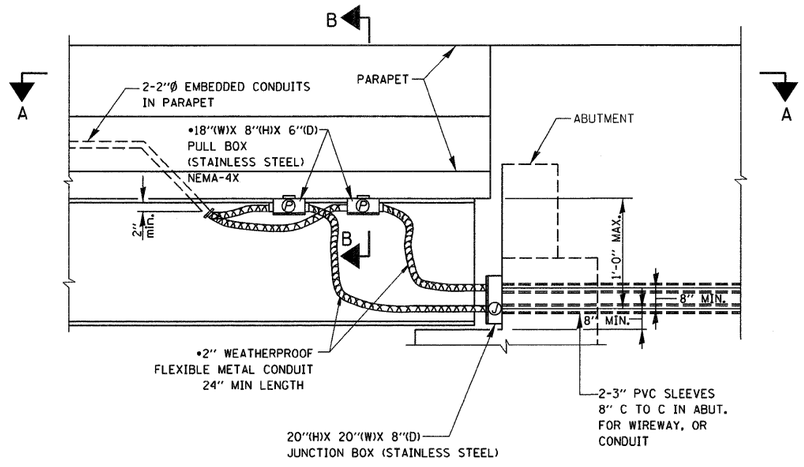
VIEW B-B
(WITH SIDEWALK)



VIEW B-B
(WITHOUT SIDEWALK)



VIEW A-A



SECTION AT CONVENTIONAL ABUTMENTS

•BY OTHERS IN FUTURE CONTRACT

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - FSM	REVISED -	
		DRAWN - MNR	REVISED -	
ABNA ENGINEERING INC. PROFESSIONAL ENGINEERS EAST ST. LOUIS, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - AAB	REVISED -	
ABNA engineering	PLOT DATE = $DATE$	DATE - 5/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

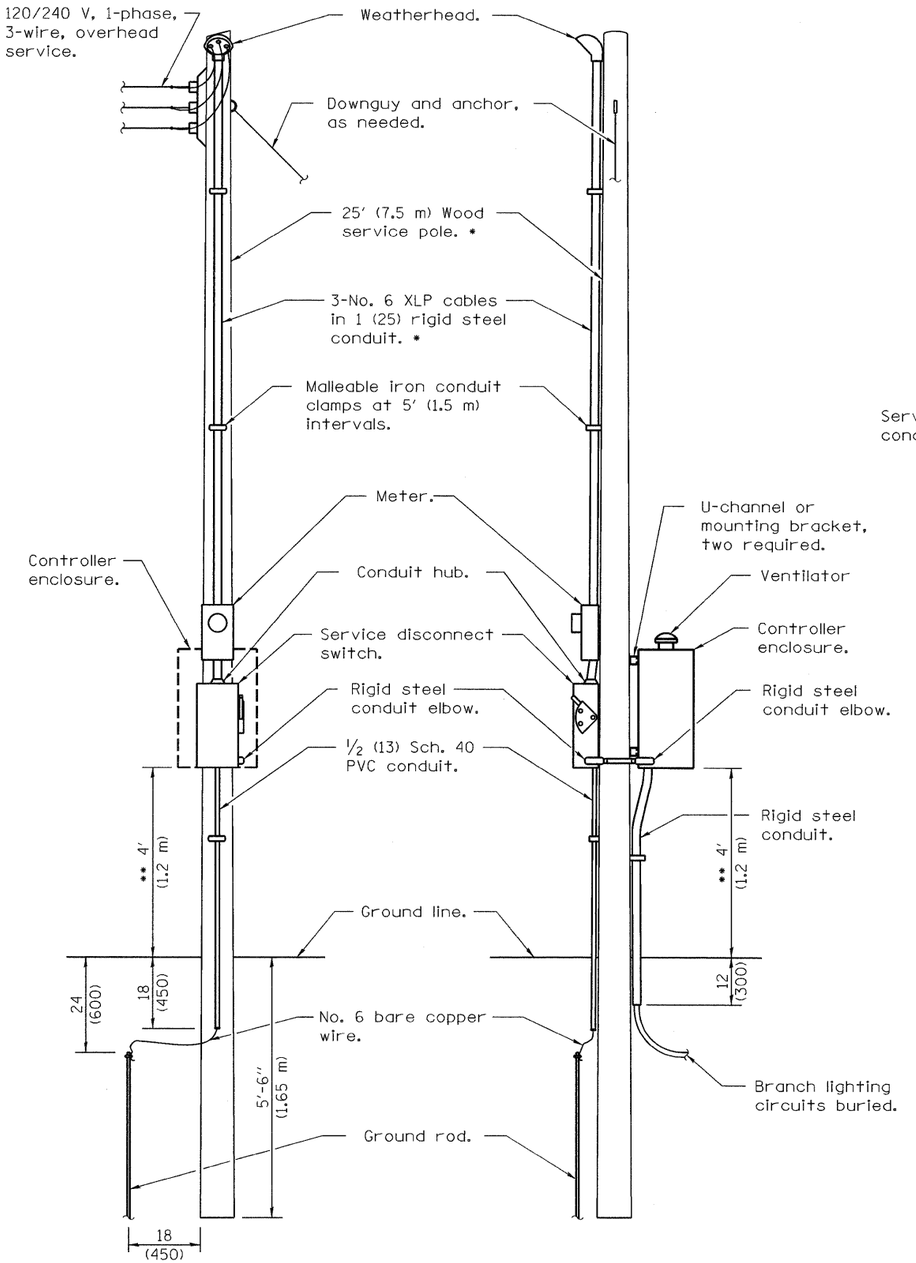
LIGHTING DETAILS

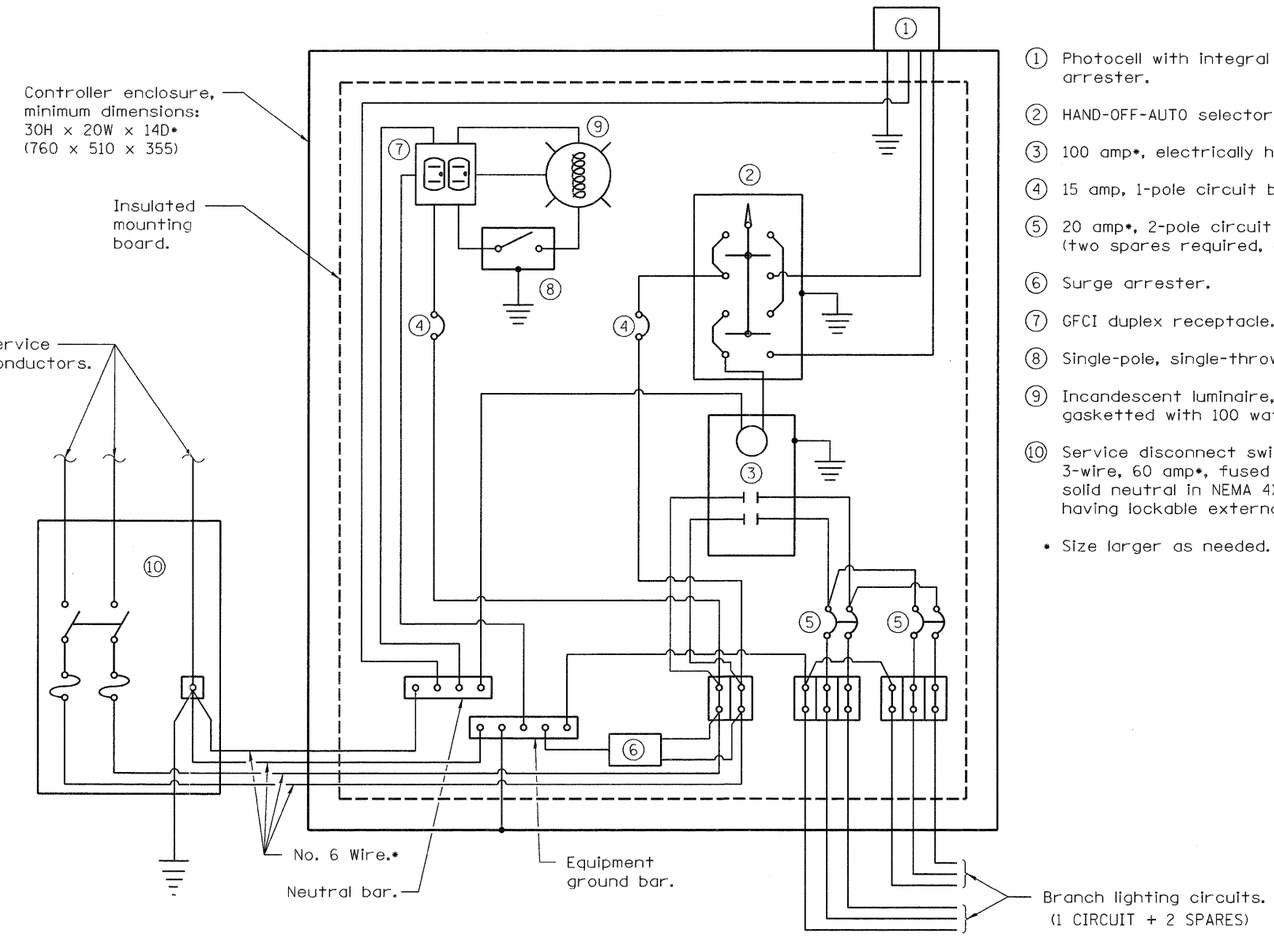
SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	118

CONTRACT NO. 76D05

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT





FRONT **SIDE**

120/240 V ELECTRIC SERVICE INSTALLATION #1

* Size larger as needed.
** Or as directed by Utility Company.

① Photocell with integral surge arrester.

② HAND-OFF-AUTO selector switch.

③ 100 amp*, electrically held contactor.

④ 15 amp, 1-pole circuit breaker.

⑤ 20 amp*, 2-pole circuit breaker (two spares required, only one shown).

⑥ Surge arrester.

⑦ GFCI duplex receptacle.

⑧ Single-pole, single-throw switch.

⑨ Incandescent luminaire, enclosed and gasketted with 100 watt lamp.

⑩ Service disconnect switch - 2-pole, 3-wire, 60 amp*, fused at 60 amp*, solid neutral in NEMA 4X enclosure having lockable external handle.

- Size larger as needed.

CONTROL SCHEMATIC

CONTROLLER #1

FILE NAME =
$FILEL$

ABNA ENGINEERING INC.
PROFESSIONAL ENGINEERS
EAST ST. LOUIS, ILLINOIS

USER NAME = $USER$
PLOT SCALE = $SCALE$
PLOT DATE = $DATE$

DESIGNED - FSM	REVISED -	
DRAWN - MNR	REVISED -	
CHECKED - AAB	REVISED -	
DATE - 5/13/11	REVISED -	

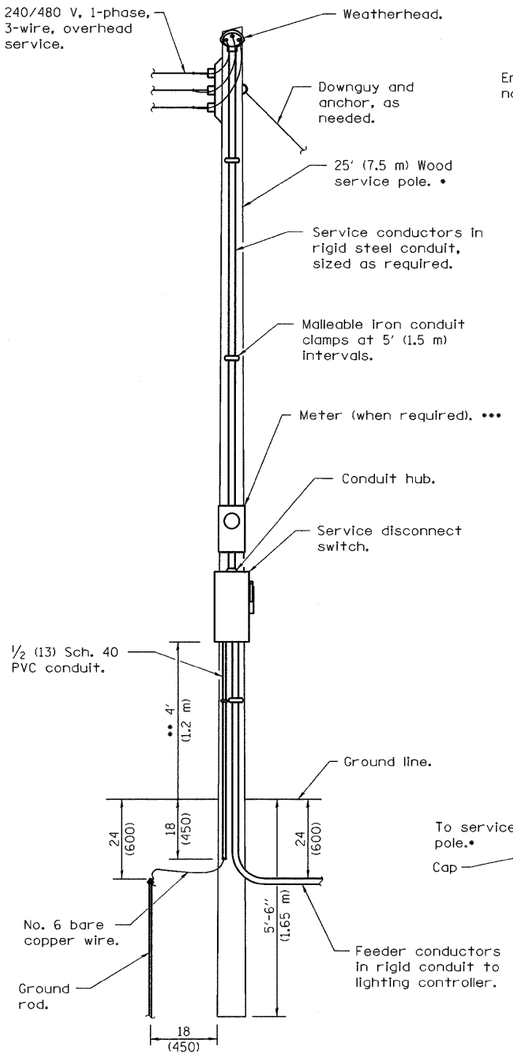
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

CONTROL INSTALLATION

SCALE: | SHEET NO. 1 OF 2 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	119
		CONTRACT NO. 76D05		

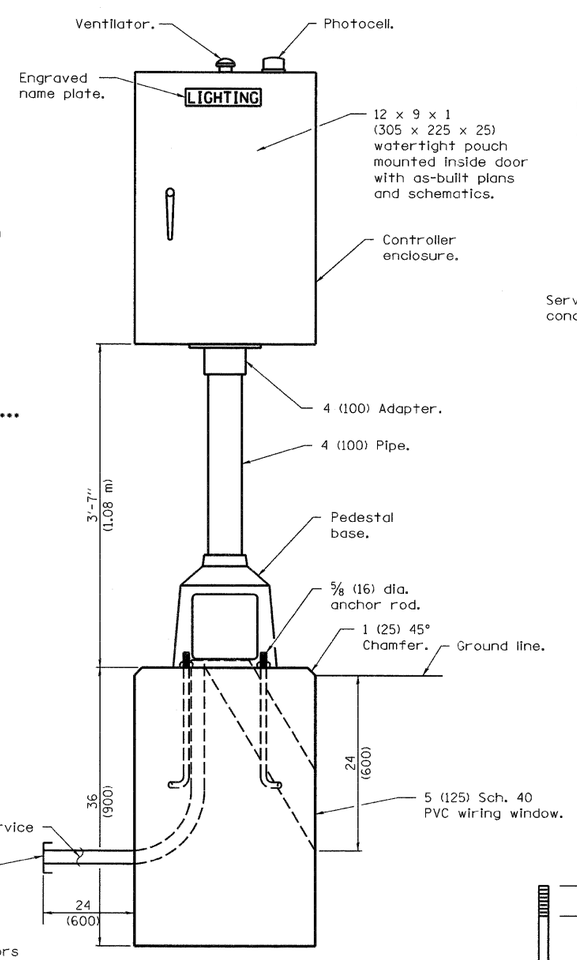
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



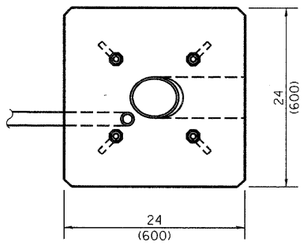
240/480 V ELECTRIC SERVICE INSTALLATION #2

- • Size larger as needed.
- •• Or as directed by Utility Company.
- ••• When cold sequencing is required, provide a meter disconnect switch as directed by Utility Company.

NIC



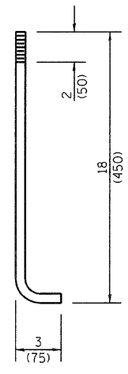
LIGHTING CONTROLLER



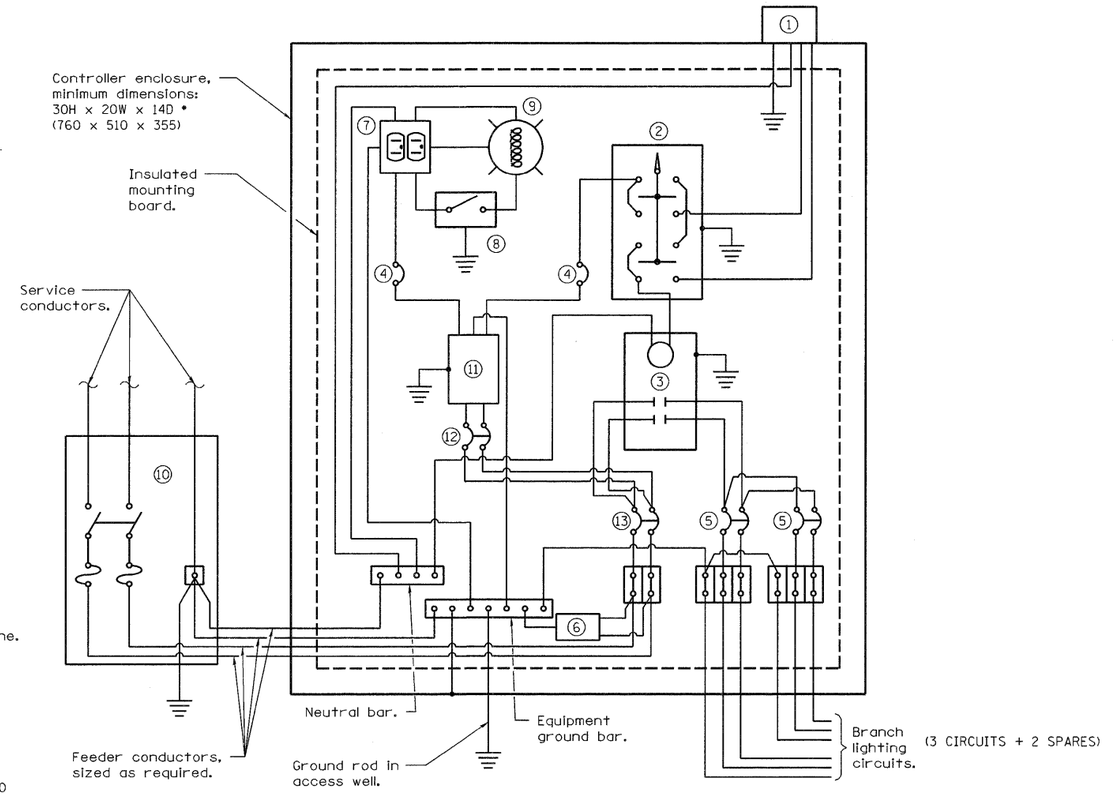
FOUNDATION (PLAN)

(Work pad not shown.)

• Controller #2 foundation shall have the power supply conduit installed and capped 2′ from foundation for future use.



ANCHOR ROD DETAIL



CONTROL SCHEMATIC

① Photocell with integral surge arrester.
② HAND-OFF-AUTO selector switch.
③ 100 amp•, electrically held contactor.
④ 15 amp, 1-pole circuit breaker.
⑤ 20 amp•, 2-pole circuit breaker (one additional and two spares required but not shown).
⑥ Surge arrester.
⑦ GFCI duplex receptacle.

• Size larger as needed.

⑧ Single-pole, single-throw switch.
⑨ Incandescent luminaire, enclosed and gasketted with 100 watt lamp.
⑩ Service disconnect switch - 2-pole, 3-wire, 60 amp•, fused at 60 amp•, solid neutral in NEMA 4X enclosure having lockable external handle.
⑪ Transformer - 1KVA•, 480V primary, 120/240V secondary, single-phase, 60Hz.
⑫ 15 amp, 2-pole circuit breaker.
⑬ 60 amp•, 2-pole circuit breaker.

All dimensions are in inches (millimeters) unless otherwise shown.

CONTROLLER #2

(Install concrete foundation only in this contract)

$$$$ref_list_name$$$$ $$$$date_time$$$$ $$user$$

FILE NAME =
$FILEL$
ABNA ENGINEERING INC.
PROFESSIONAL ENGINEERS
EAST ST. LOUIS, ILLINOIS

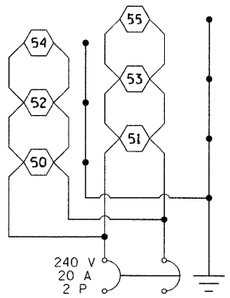
USER NAME = $USER$	DESIGNED - FSM	REVISED -
	DRAWN - MNR	REVISED -
PLOT SCALE = $SCALE$	CHECKED - AAB	REVISED -
PLOT DATE = $DATE$	DATE - 5/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

CONTROL INSTALLATION
SCALE: | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	120

CONTRACT NO. 76D05
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



CIRCUIT 1

CONTROLLER #1 WIRING DIAGRAM

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE

I-70 IL RELOCATED RTE 3 INTERCHANGE TRRA UNDERPASS LUMINAIRES

GIVEN CONDITIONS

ROADWAY DATA:	Pavement Width (Main Rail Line)	8FT
	Number of Lanes	1
	Median Width	N/A
	IES Surface Classification (Calculated Ref)	R3
	Q-Zero Value	0.07
LIGHT POLE DATA:	Mounting Height	23.67 FT
	Pole Set-Back from Edge of Pavement	N/A
	Aiming Angle	N/A
	Arm Length	N/A
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	9500
	IES Vertical Distribution	S
	IES Control Distribution	NC
	IES Lateral Distribution	4 (IV)
	Total Light Loss Factor	0.7
LAYOUT DATA:	Spacing	25.5 FT
	Configuration	2R_OPP
	Luminaire Overhang Over Edge of Pavement Lane	N/A

NOTE: Variations from the above specified IES distribution pattern may be requested and accepted of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination,	(E_{Ave})	1.0 FC
	Uniformity Ratio,	(E_{Ave}/E_{Min})	3.0
LUMINANCE: (Target Values but not Specified)	Average Luminance:	(L_{Ave})	0.6
	Uniformity Ratios:	(L_{Ave}/L_{Min})	3.5
		(L_{Max}/L_{Min})	6.0
	Maximum Veiling Luminance Ratio:	(L_V/L_{Ave})	0.3

FILE NAME =	USER NAME = $USER$	DESIGNED - FSM	REVISED -
$FILEL$		DRAWN - MNR	REVISED -
ABNA ENGINEERING INC. PROFESSIONAL ENGINEERS EAST ST. LOUIS, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - AAB	REVISED -
	PLOT DATE = $DATE$	DATE - 5/13/11	REVISED -

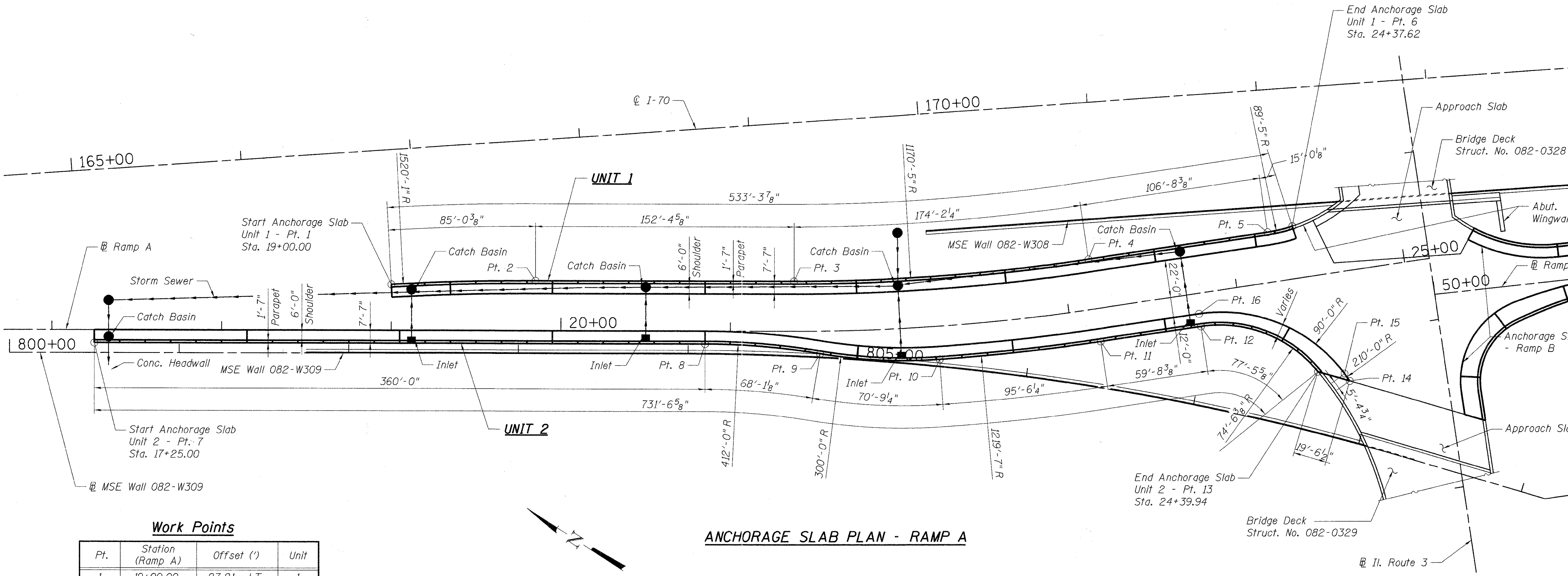
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

CONTROLLER WIRING DIAGRAM / LUMINAIRE PERFORMANCE TABLE

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	121
		CONTRACT NO. 76D05		

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



ANCHORAGE SLAB PLAN - RAMP A

Work Points

Pt.	Station (Ramp A)	Offset (')	Unit
1	19+00.00	27.21 LT.	1
2	19+85.00	29.58 LT.	1
3	21+37.39	29.58 LT.	1
4	23+15.98	29.58 LT.	1
5	24+22.68	29.58 LT.	1
6	24+37.62	30.84 LT.	1
7	17+25.00	7.58 RT.	2
8	20+85.00	7.58 RT.	2
9	21+52.62	13.30 RT.	2
10	22+22.00	19.58 RT.	2
11	23+15.98	19.58 RT.	2
12	23+75.68	19.58 RT.	2
13	24+39.94	56.35 RT.	2
14	24+57.65	64.61 RT.	2
15	24+55.18	59.81 RT.	2
16	23+75.68	12.00 RT.	2

BILL OF MATERIAL

Item	Unit	Total
Concrete Superstructure	Cu. Yd.	1,261.0
Protective Coat	Sq. Yd.	2,947
Reinforcement Bars, Epoxy Coated	Pound	174,520

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

LOADING HL-93

STATE OF ILLINOIS BYRON T. DANLEY 081-004737 CHICAGO IL LICENSED STRUCTURAL ENGINEER

BYRON T. DANLEY

EXPIRES: 11/30/12

DATE : 5/5/11

FOR SHEETS : 122 through 135

General Notes:

1. Dimensions measured along outside face of parapet.
2. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
3. Reinforcement bars designated (E) shall be epoxy coated.
4. For locations of Catch Basins & Inlets, see Drainage Plans.

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	
		DRAWN - HBJ	REVISED -	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

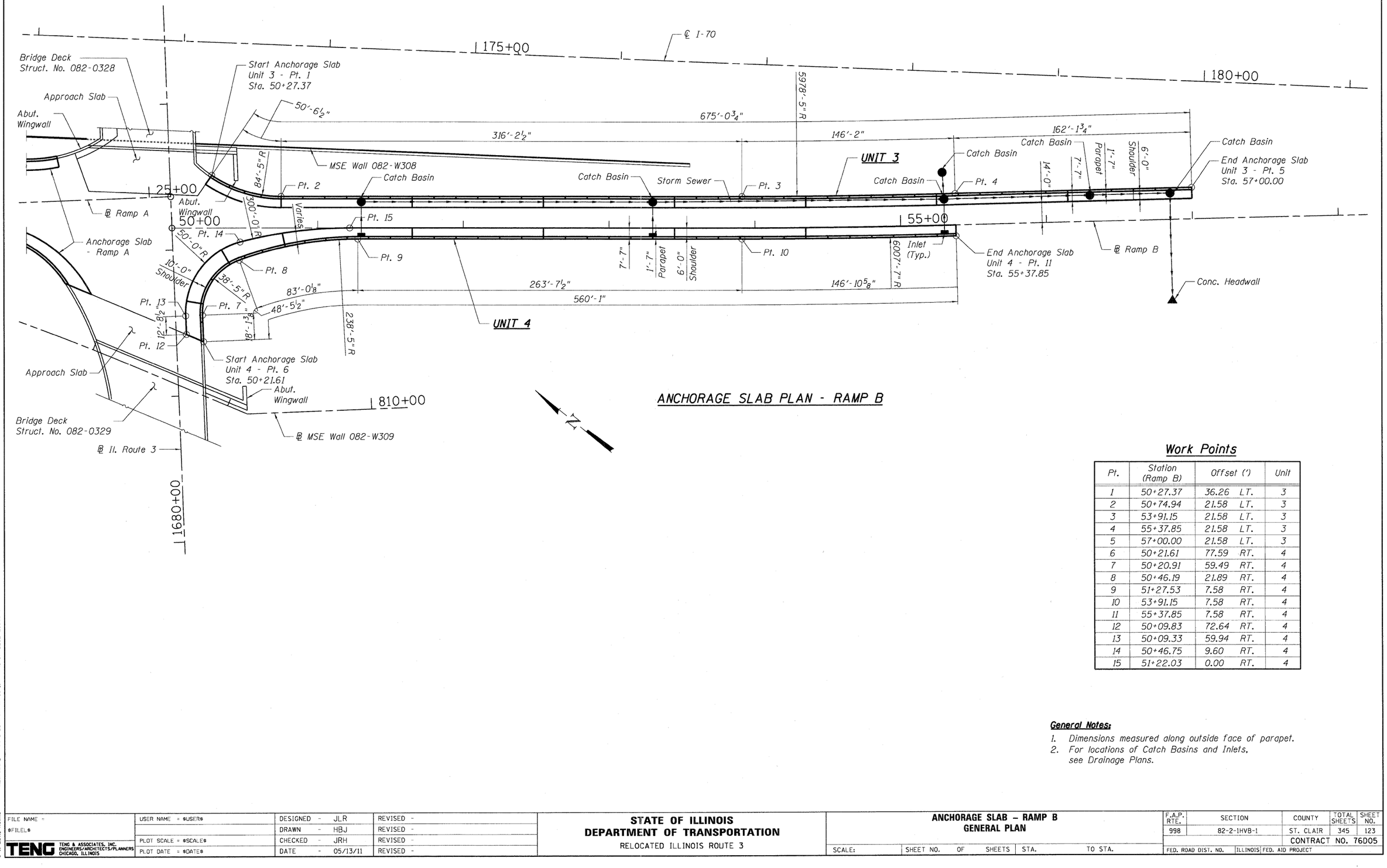
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

ANCHORAGE SLAB - RAMP A
GENERAL PLAN

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	122
		CONTRACT NO. 76D05		

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



ANCHORAGE SLAB PLAN - RAMP B

Work Points

Pt.	Station (Ramp B)	Offset (')	Unit
1	50+27.37	36.26 LT.	3
2	50+74.94	21.58 LT.	3
3	53+91.15	21.58 LT.	3
4	55+37.85	21.58 LT.	3
5	57+00.00	21.58 LT.	3
6	50+21.61	77.59 RT.	4
7	50+20.91	59.49 RT.	4
8	50+46.19	21.89 RT.	4
9	51+27.53	7.58 RT.	4
10	53+91.15	7.58 RT.	4
11	55+37.85	7.58 RT.	4
12	50+09.83	72.64 RT.	4
13	50+09.33	59.94 RT.	4
14	50+46.75	9.60 RT.	4
15	51+22.03	0.00 RT.	4

General Notes:

1. Dimensions measured along outside face of parapet.
2. For locations of Catch Basins and Inlets, see Drainage Plans.

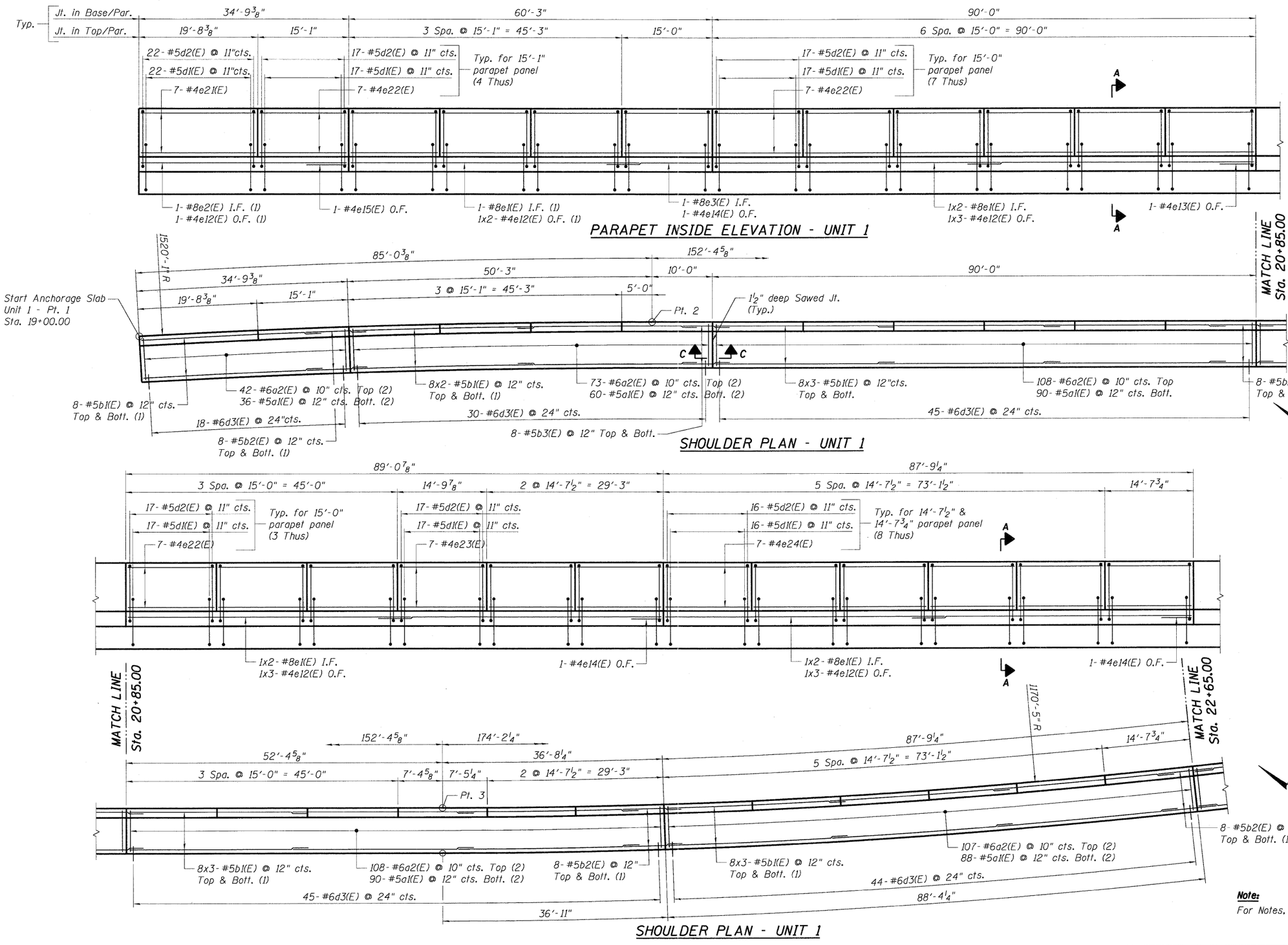
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	
		DRAWN - HBJ	REVISED -	
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

ANCHORAGE SLAB – RAMP B
GENERAL PLAN

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	123
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Note:
For Notes, see Sht. 125.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

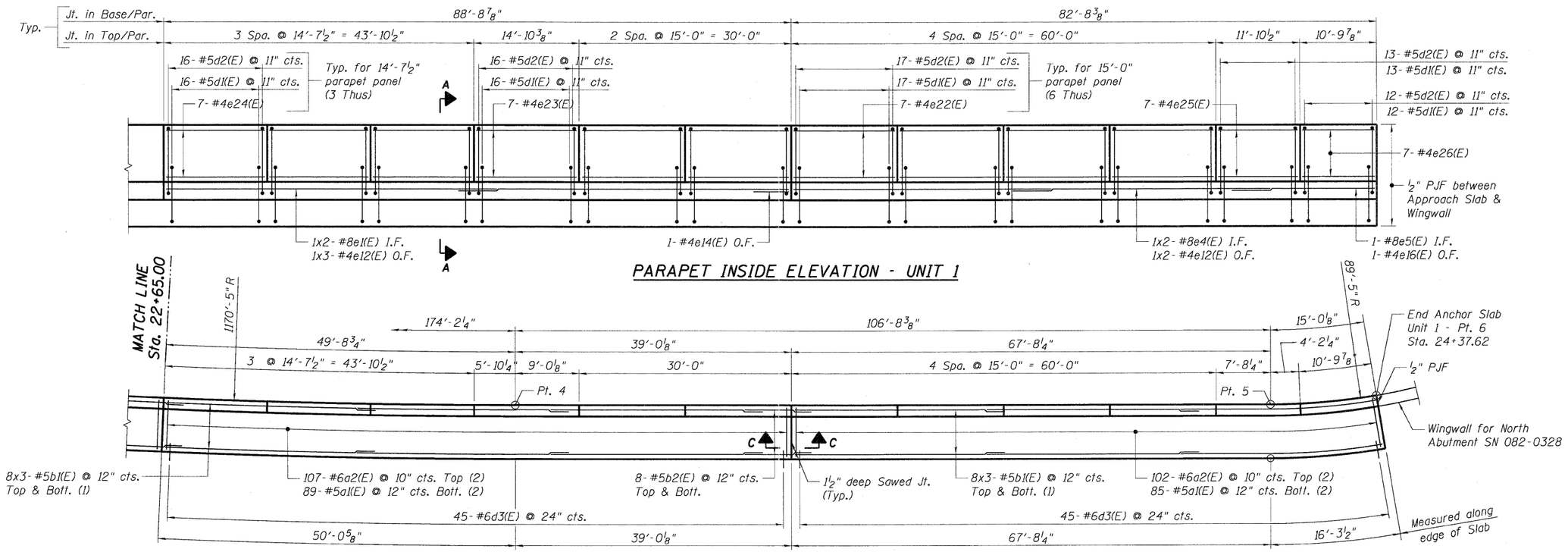
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

PLAN & ELEVATION – UNIT 1
1 OF 2

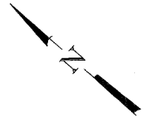
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	124
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\\DBCONN-10-DESIGNC.DGN, \\DBCONN-10 BORDER1.DGN, \\DBCONN-10-DESIGNC.DGN, \\DBCONN-10-DESIGNA.DGN, \\DBCONN-10-SHT-PLAN2-2265.DGN, \\DBCONN-10-SHT-PLAN2-2438.DGN,
5-11-2011, 9:51:23 NEWMANMD \\VS-2044\VAMVAULT-TRANS.07\2202\28868-001\STRUCT\CADD\01 DESIGN MOMENTS.ADS\SHEET\DBCONN-10 SHT-PLAN1-1900.DGN



SHOULDER PLAN - UNIT 1



MIN. LAP LENGTHS (unless noted otherwise)	
#4	2'-1"
#5	2'-7"
#6	3'-1"
#8	5'-5"

Reinforcing Bar Notes:

(1) Bars shall be sprung in place to be concentrically placed at the spacing noted in curved area of the Slab.
(2) Bars shall be placed radially at the spacing noted in curved area of the Slab.
(3) Cut bars according to Cutting Diagram, Sht. 135.

Notes:

1. Dimensions measured along outside face of parapet U.N.O.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Bars indicated thus 8x3-#5 etc. indicates 8 lines of bars with 3 lengths per line.
4. I.F. indicates inside face
   O.F. indicates outside face
5. For Stations & Offsets of Pt. points, see GENERAL PLAN, see Sht. SA-1.
6. For Sections A-A, B-B & C-C, see Sht. 134.
7. For Bar List & Bill of Material, see Sht. 135.

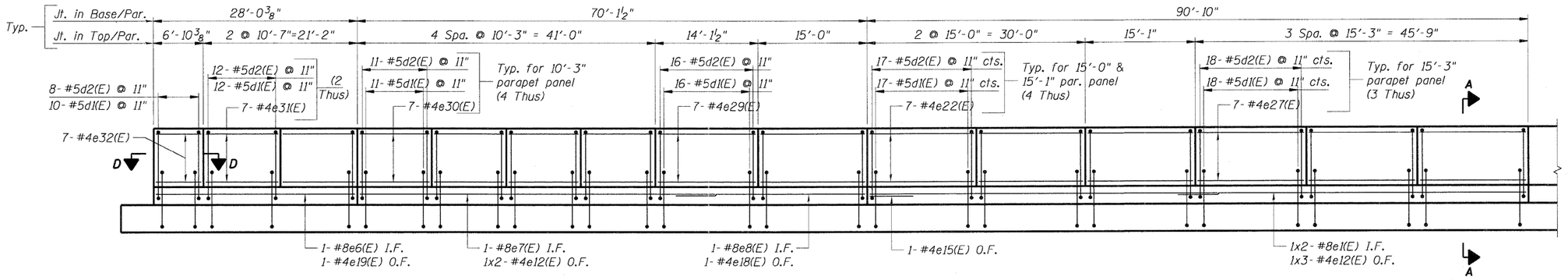
FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

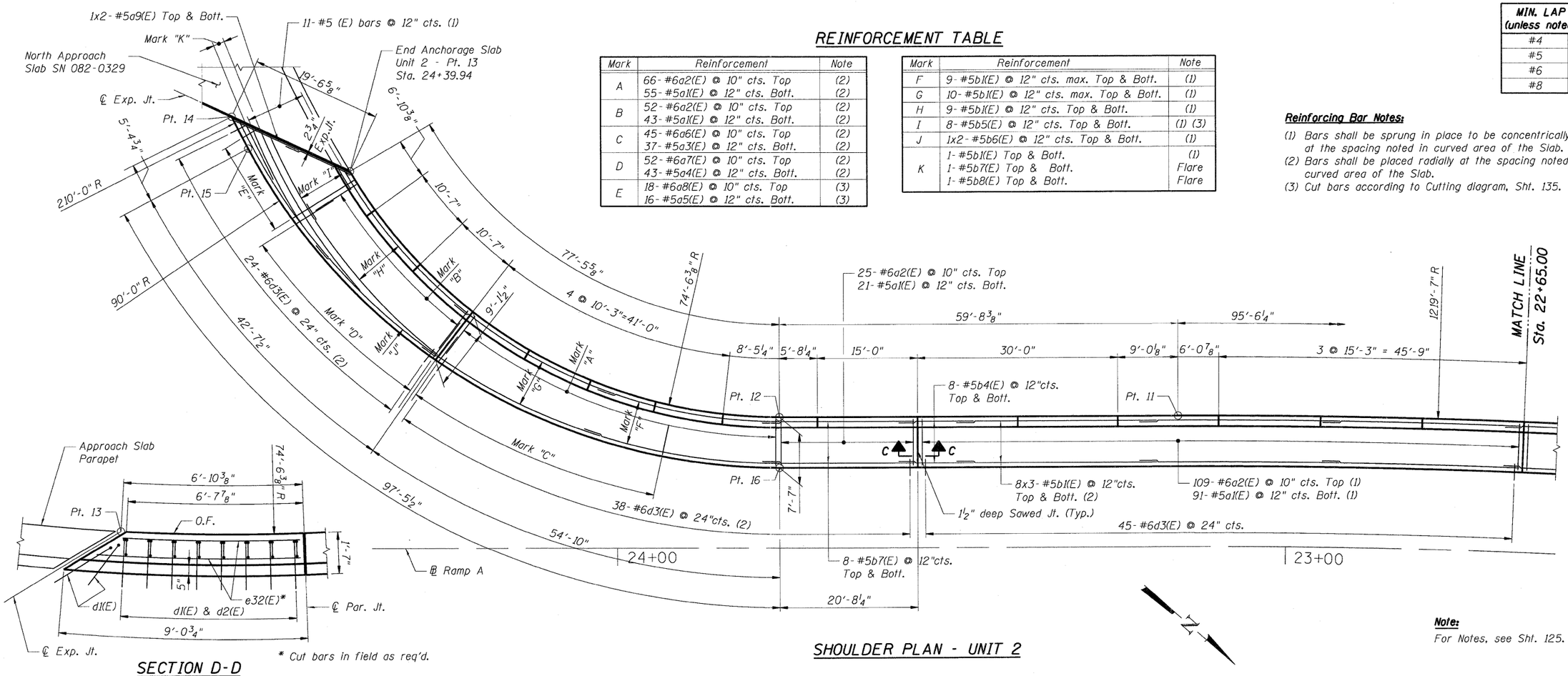
PLAN & ELEVATION – UNIT 1
2 OF 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	125
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PARAPET INSIDE ELEVATION - UNIT 2



SHOULDER PLAN - UNIT 2

SECTION D-D

* Cut bars in field as req'd.

REINFORCEMENT TABLE

Mark	Reinforcement	Note
A	66-#6a2(E) @ 10" cts. Top 55-#5a1(E) @ 12" cts. Bott.	(2) (2)
B	52-#6a2(E) @ 10" cts. Top 43-#5a1(E) @ 12" cts. Bott.	(2) (2)
C	45-#6a6(E) @ 10" cts. Top 37-#5a3(E) @ 12" cts. Bott.	(2) (2)
D	52-#6a7(E) @ 10" cts. Top 43-#5a4(E) @ 12" cts. Bott.	(2) (2)
E	18-#6a8(E) @ 10" cts. Top 16-#5a5(E) @ 12" cts. Bott.	(3) (3)

Mark	Reinforcement	Note
F	9-#5b1(E) @ 12" cts. max. Top & Bott.	(1)
G	10-#5b1(E) @ 12" cts. max. Top & Bott.	(1)
H	9-#5b1(E) @ 12" cts. Top & Bott.	(1)
I	8-#5b5(E) @ 12" cts. Top & Bott.	(1) (3)
J	1x2-#5b6(E) @ 12" cts. Top & Bott.	(1)
K	1-#5b1(E) Top & Bott. 1-#5b7(E) Top & Bott. 1-#5b8(E) Top & Bott.	(1) Flare Flare

MIN. LAP LENGTHS (unless noted otherwise)	
#4	2'-1"
#5	2'-7"
#6	3'-1"
#8	5'-5"

Reinforcing Bar Notes:

(1) Bars shall be sprung in place to be concentrically placed at the spacing noted in curved area of the Slab.
(2) Bars shall be placed radially at the spacing noted in curved area of the Slab.
(3) Cut bars according to Cutting diagram, Sht. 135.

Note:
For Notes, see Sht. 125.

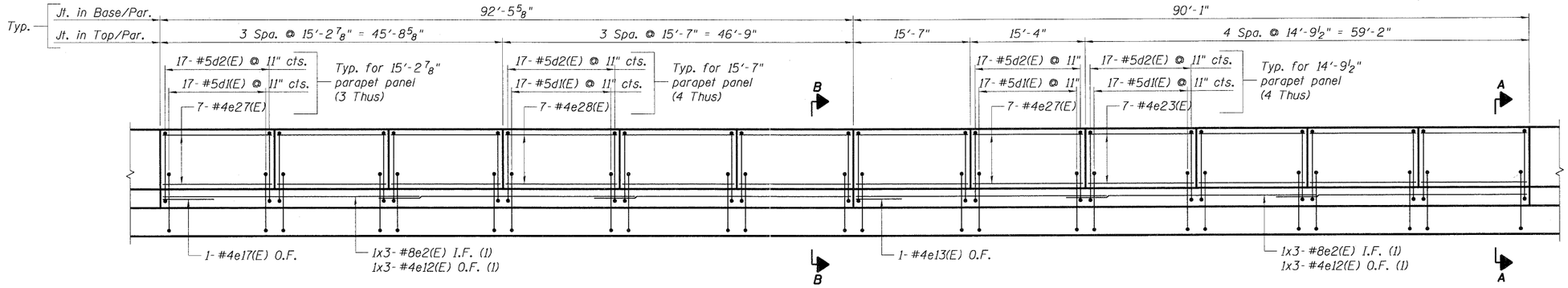
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

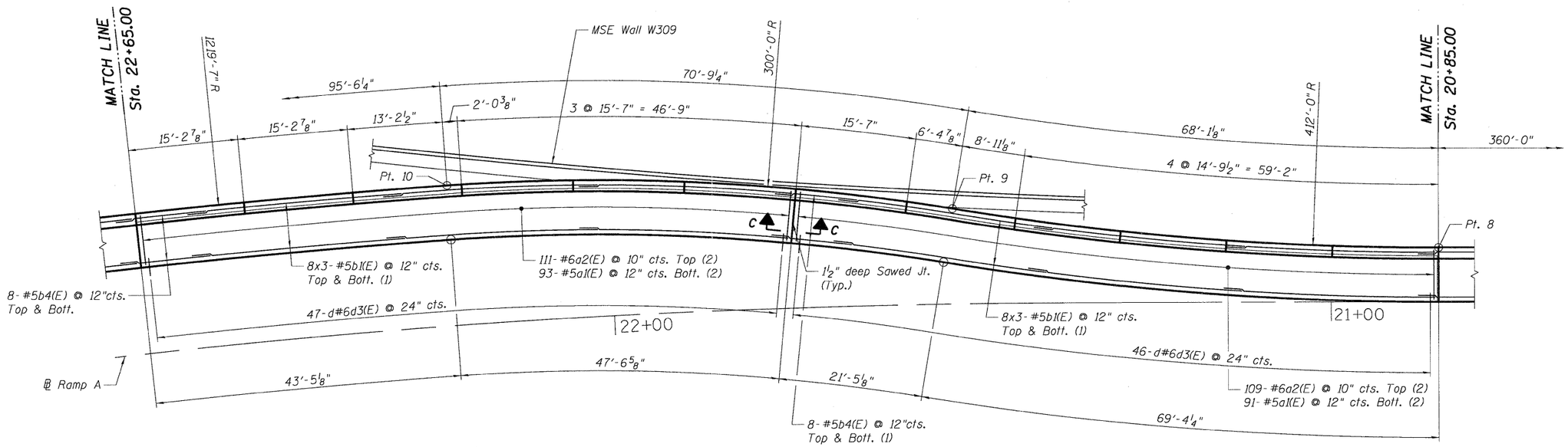
PLAN & ELEVATION – UNIT 2
1 OF 3

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	126
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



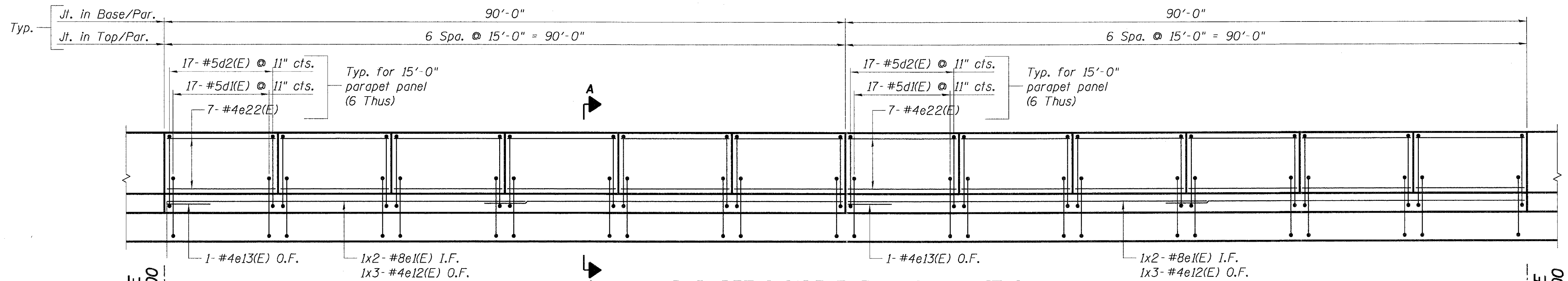
PARAPET INSIDE ELEVATION - UNIT 2



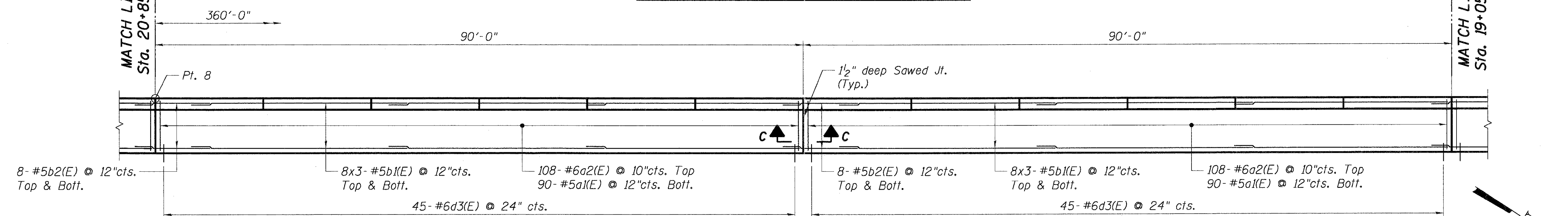
SHOULDER PLAN - UNIT 2

Note:
For Notes, see Sht. 125.

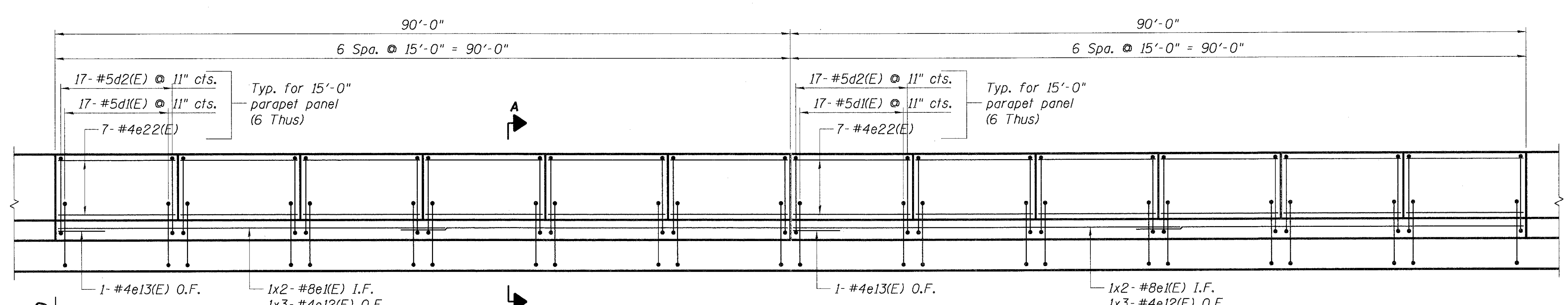
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	**STATE OF ILLINOIS**	**PLAN & ELEVATION – UNIT 2**	F.A.P. RTE. 998
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - HBJ	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**2 OF 3**	SECTION 82-2-1HVB-1
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	RELOCATED ILLINOIS ROUTE 3		COUNTY ST. CLAIR
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	TOTAL SHEETS 345
						SHEET NO. 127
						CONTRACT NO. 76D05
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



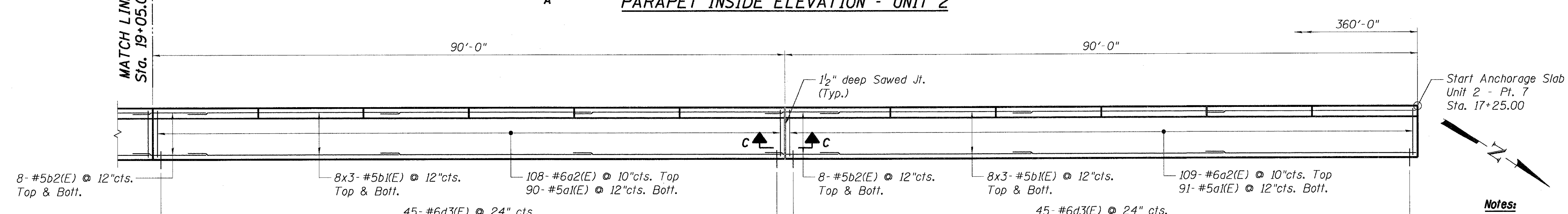
PARAPET INSIDE ELEVATION - UNIT 2



SHOULDER PLAN - UNIT 2



PARAPET INSIDE ELEVATION - UNIT 2



SHOULDER PLAN - UNIT 2

Notes:

For Notes, see Sht. 125.

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - HBJ	REVISED -	
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	RELOCATED ILLINOIS ROUTE 3
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

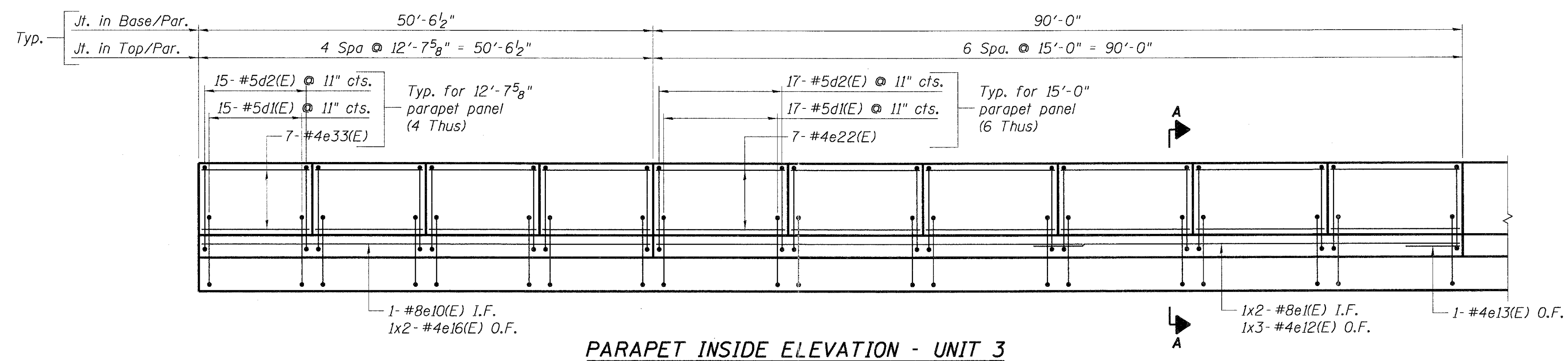
PLAN & ELEVATION - UNIT 2
3 OF 3

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

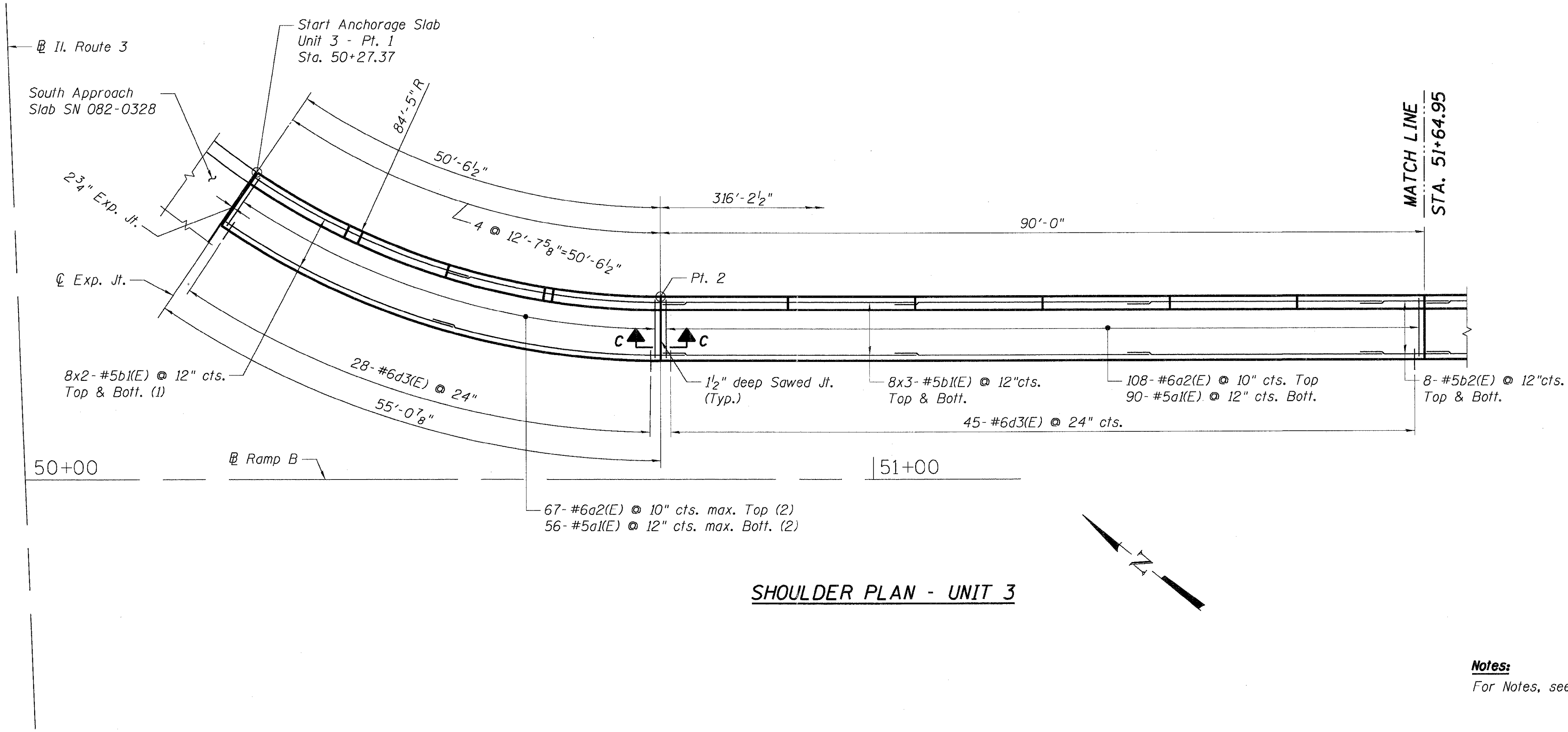
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	128

CONTRACT NO. 76D05

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



PARAPET INSIDE ELEVATION - UNIT 3



SHOULDER PLAN - UNIT 3

Notes:

For Notes, see Sht. 125.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - HBJ	REVISED -	RELOCATED ILLINOIS ROUTE 3
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

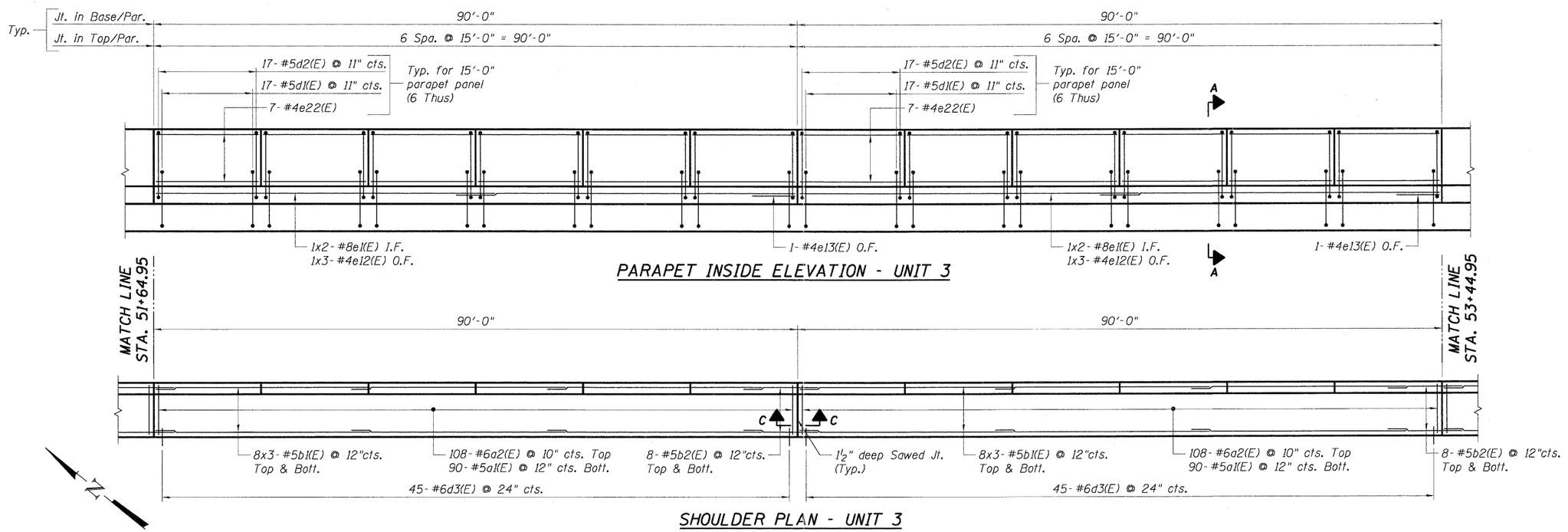
PLAN & ELEVATION - UNIT 3
1 OF 3

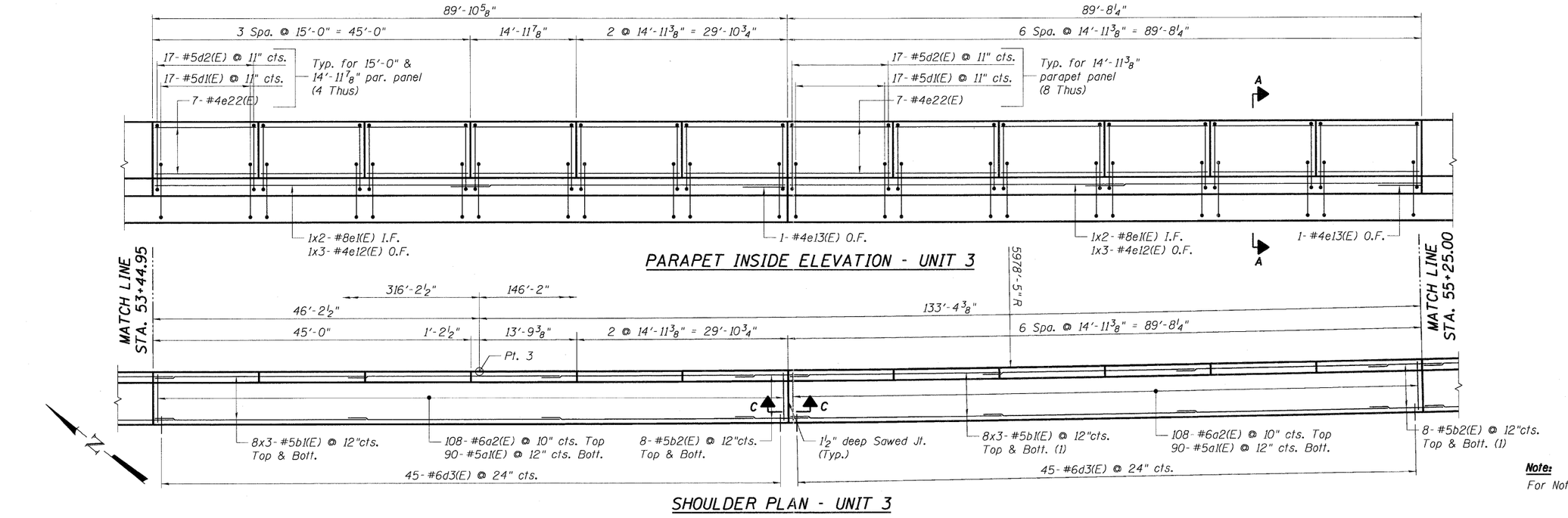
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	129

CONTRACT NO. 76D05

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT





Note:
For Notes, see Sht. 125.

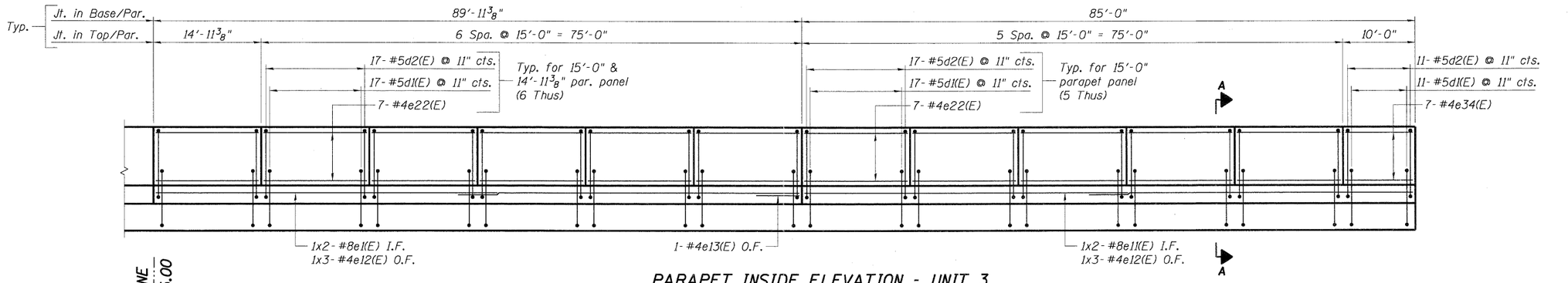
FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

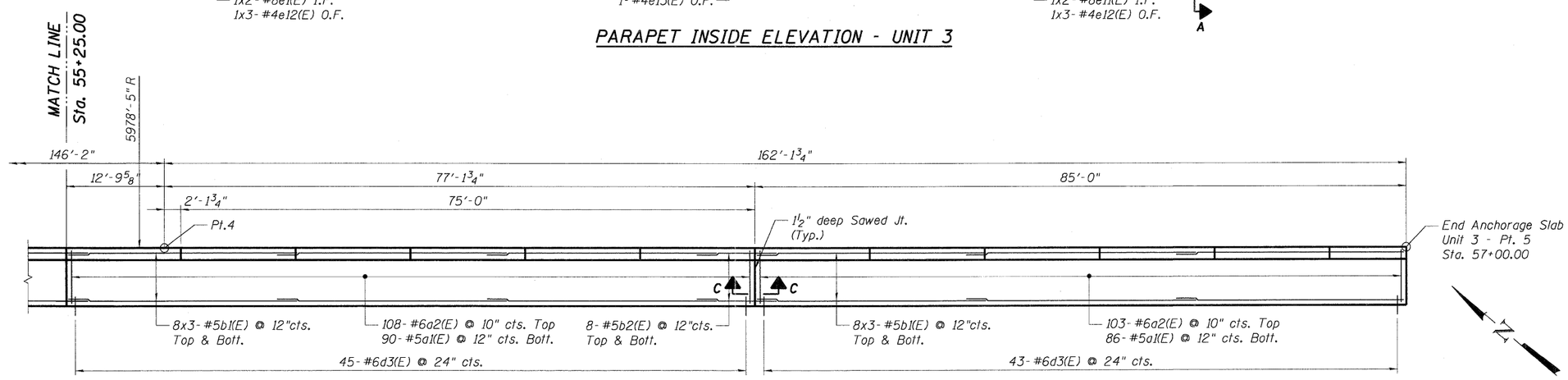
PLAN & ELEVATION – UNIT 3
2 OF 3

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	130
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



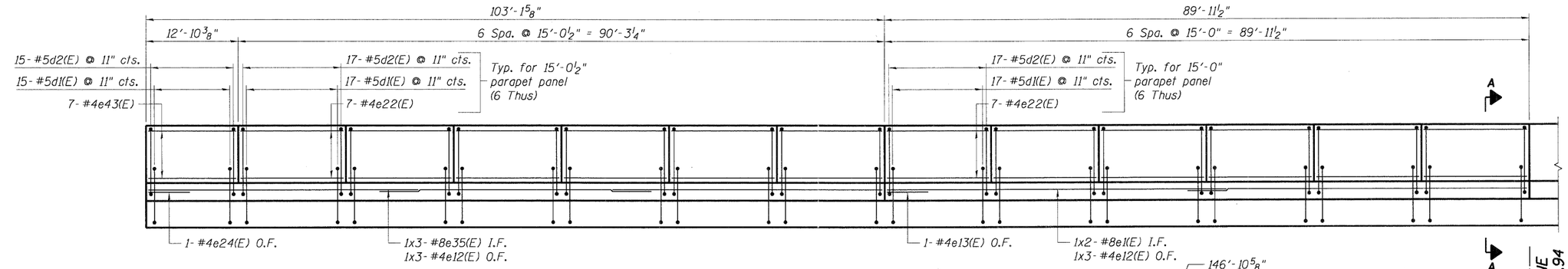
PARAPET INSIDE ELEVATION - UNIT 3



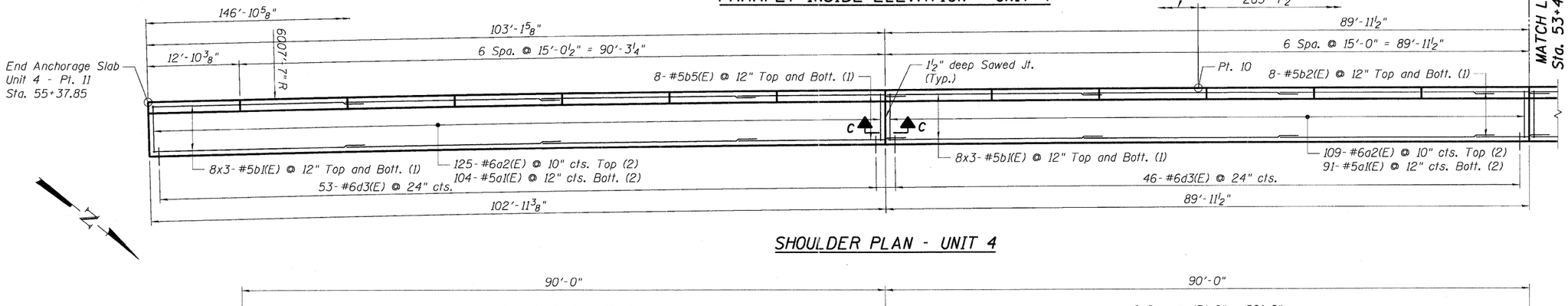
SHOULDER PLAN - UNIT 3

Note:
For Notes, see Sht. 125.

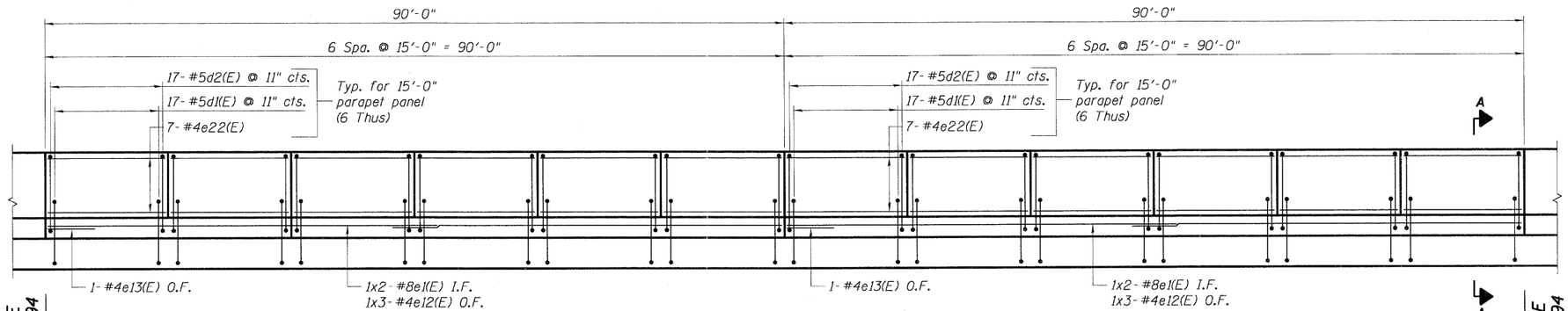
FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** RELOCATED ILLINOIS ROUTE 3	**PLAN & ELEVATION – UNIT 3 3 OF 3**	F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 131
		DRAWN - HBJ	REVISED -							
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT	CONTRACT NO. 76D05		
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -							



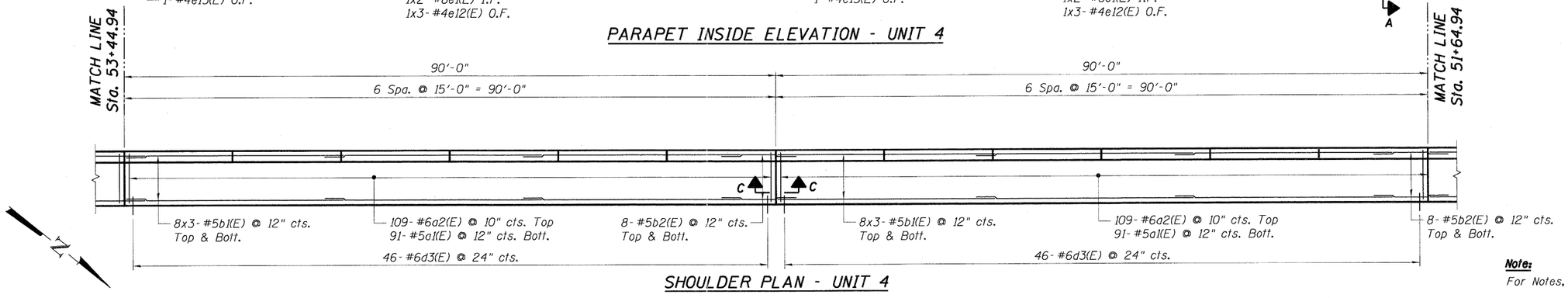
PARAPET INSIDE ELEVATION - UNIT 4



SHOULDER PLAN - UNIT 4



PARAPET INSIDE ELEVATION - UNIT 4



SHOULDER PLAN - UNIT 4

Note:
For Notes, see Sht. 125.

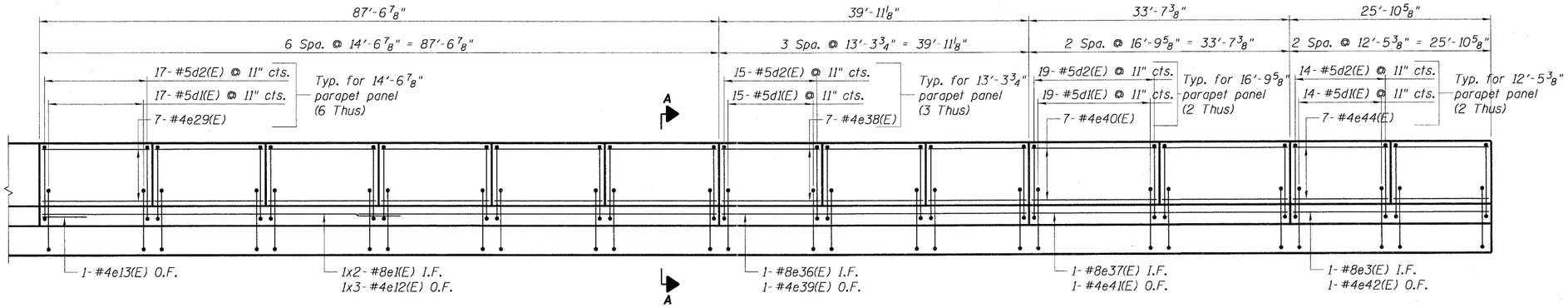
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

PLAN & ELEVATION – UNIT 4
1 OF 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	132
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PARAPET INSIDE ELEVATION - UNIT 4

REINFORCEMENT TABLE

Mark	Reinforcement	Note
L	9x3-#5b1(E) @ 12" cts. Top & Bott.	(1)
M	2-#5b1(E) @ 12" cts. Top & Bott.	(1) Flare
N	3-#5b1(E) @ 12" cts. Top & Bott.	(1) Flare
O	12-#5b1(E) @ 12" cts. Top & Bott.	(1)
P	12-#5b10(E) @ 12" cts. Top & Bott.	(1) (3)
Q	7-#6a18(E) @ 10" cts. Top 6-#5a17(E) @ 12" cts. Bott.	
R	4-#5b1(E) @ 12" cts. Top & Bott.	(1) Flare

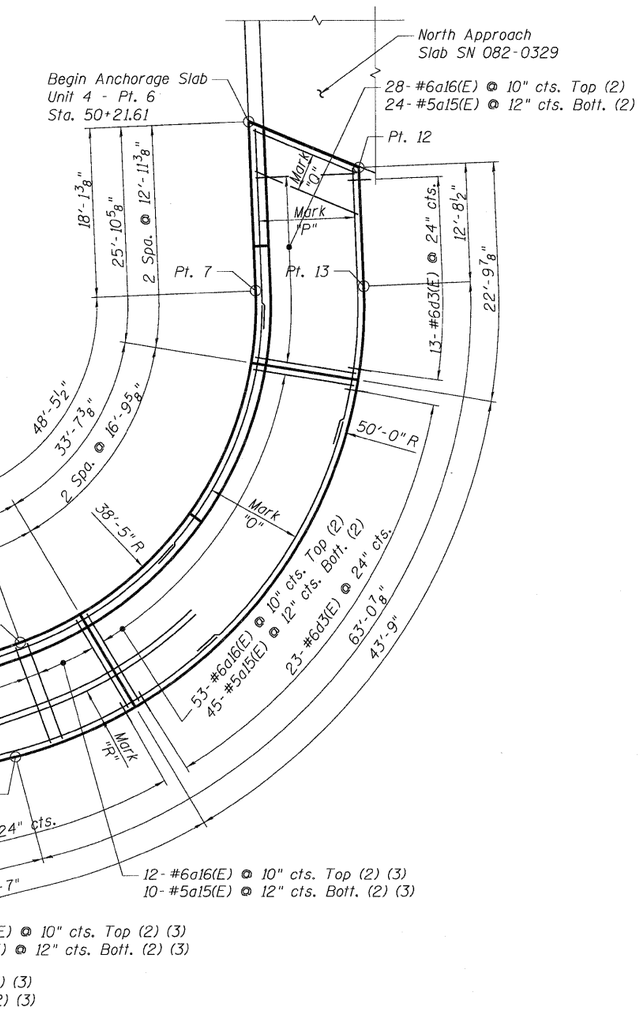
Reinforcing Bar Notes:

(1) Bars shall be sprung in place to be concentrically placed at the spacing noted in curved area of the Slab.
(2) Bars shall be placed radially at the spacing noted in curved area of the Slab.
(3) Cut bars according to Cutting Diagram, Sht. 135.

Notes:

For Notes, see Sht. 125.

MIN. LAP LENGTHS (unless noted otherwise)	
#4	2'-1"
#5	2'-7"
#6	3'-1"
#8	5'-5"



SHOULDER PLAN - UNIT 4

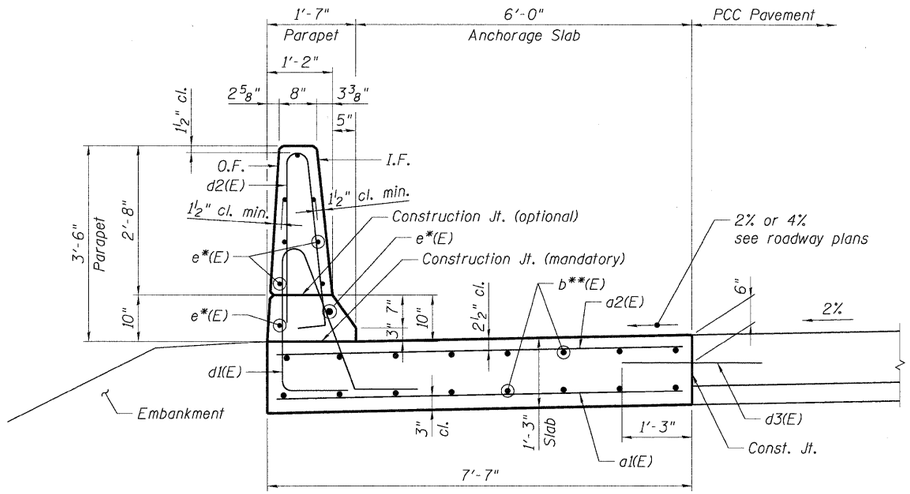
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

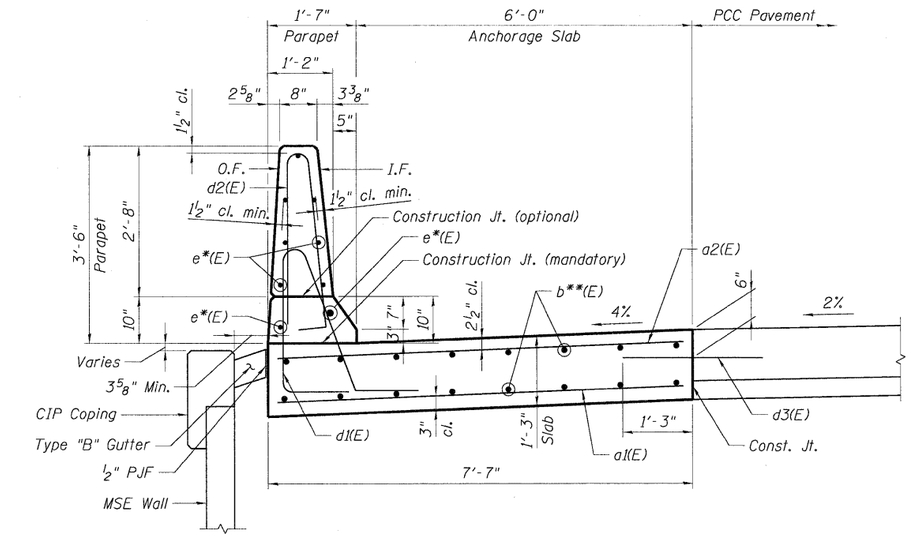
PLAN & ELEVATION – UNIT 4
2 OF 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	133
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

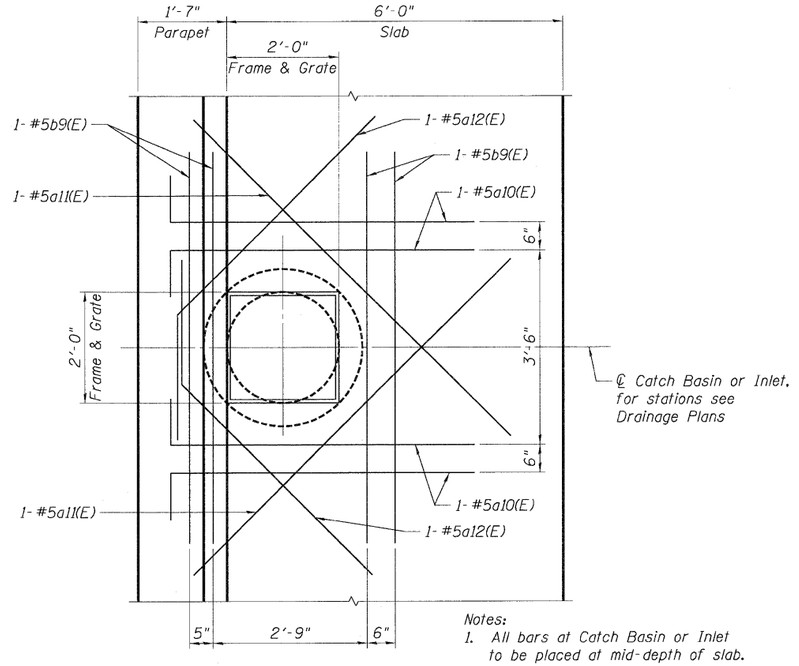


SECTION A-A



SECTION B-B

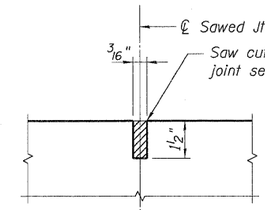
* For bar designation, see Parapet Elevations.
** For bar designation, see Shoulder Plans.



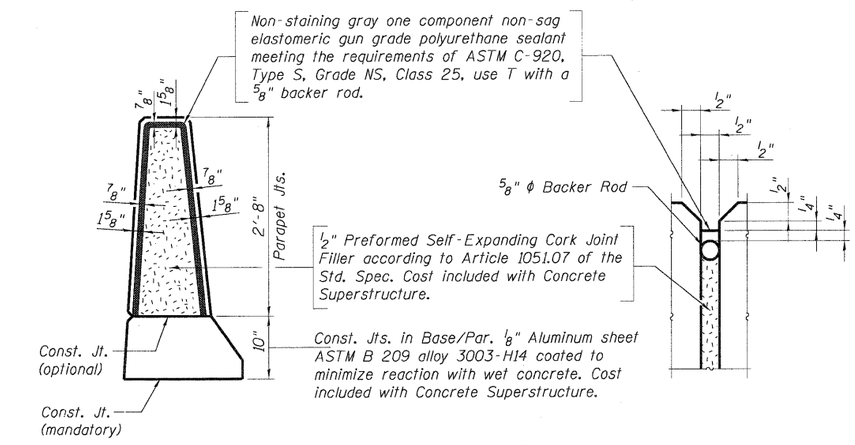
Notes:
1. All bars at Catch Basin or Inlet to be placed at mid-depth of slab.
2. Cut a1(E), a2(E), and b**(E) bars that conflict with drainage structures.

ANCHORAGE SLAB PLAN AT CATCH BASIN OR INLET

(4 Thus - Unit 1)
(5 Thus - Unit 2)
(5 Thus - Unit 3)
(3 Thus - Unit 4)



SECTION C-C



PARAPET JOINT DETAILS

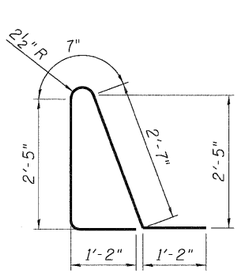
FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

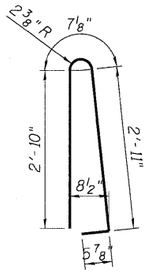
ANCHORAGE SLAB DETAILS
1 OF 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

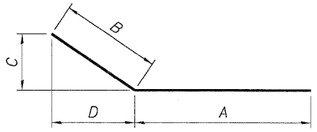
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	134
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Bar d1(E)

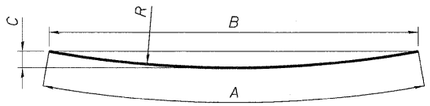


Bar d2(E)



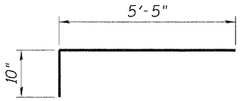
Bars a12(E) & e8(E

Bar	A	B	C	D
a12(E)	5'-0"	2'-6"	1'-9¼"	1'-9¼"
e8(E)	20'-6"	5'-6"	2¼"	5'-6"

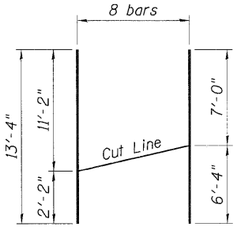


Bars e5(E), e6(E), e7(E), e10(E), e36(E) & e37(E)

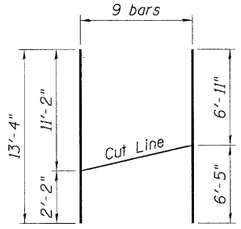
Bar	A	B	C	R
e5(E)	20'-6"	20'-5½"	7"	90'-7"
e6(E)	29'-6"	29'-3 3/4"	1'-5¼"	75'-8 3/8"
e7(E)	50'-0"	49'-1⅛"	4'-1⅛"	75'-8 3/8"
e10(E)	50'-9"	50'-0⅛"	3'-8 3/4"	85'-7"
e36(E)	40'-0"	39'-10½"	1'-1¼"	239'-6"
e37(E)	34'-3"	33'-2"	3'-7 3/4"	39'-6"



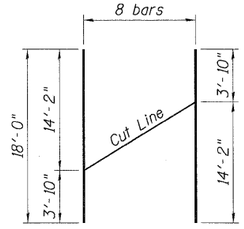
Bar a10(E)



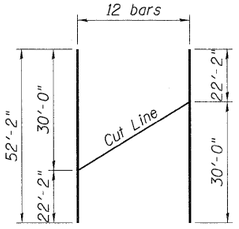
Bar a5(E)



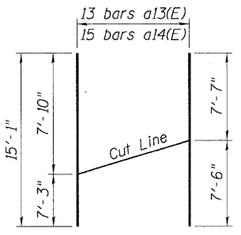
Bar a8(E)



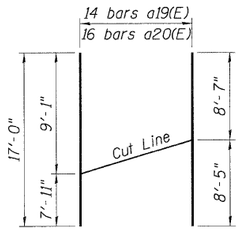
Bar b5(E)



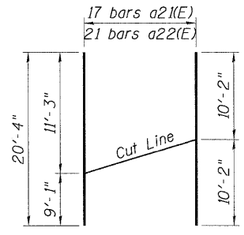
Bar b10(E)



Bars a13(E) & a14(E)



Bars a19(E) & a20(E)



Bars a21(E) & a22(E)

CUTTING DIAGRAMS

BAR LIST

Anchorage Slab - Unit 1

Bar	No.	Size	Length	Shape
a1(E)	538	#5	7'-3"	——
a2(E)	647	#6	7'-3"	——
a10(E)	16	#5	6'-3"	⌐
a11(E)	8	#5	8'-0"	——
a12(E)	8	#5	7'-6"	⌐
b1(E)	288	#5	30'-0"	——
b2(E)	80	#5	10'-6"	——
b3(E)	16	#5	8'-0"	——
b9(E)	16	#5	7'-0"	——
d1(E)	596	#5	7'-11"	⌐
d2(E)	596	#5	6'-10"	⌐
d3(E)	272	#6	2'-6"	——
e1(E)	9	#8	48'-0"	——
e2(E)	1	#8	34'-6"	——
e3(E)	1	#8	17'-3"	——
e4(E)	2	#8	36'-6"	——
e5(E)	1	#8	20'-6"	⌒
e12(E)	17	#4	30'-0"	——
e13(E)	1	#4	6'-3"	——
e14(E)	4	#4	5'-3"	——
e15(E)	1	#4	7'-0"	——
e16(E)	1	#4	27'-0"	——
e21(E)	7	#4	19'-4"	——
e22(E)	140	#4	14'-8"	——
e23(E)	14	#4	14'-6"	——
e24(E)	77	#4	14'-3"	——
e25(E)	7	#4	11'-6"	——
e26(E)	7	#4	10'-6"	——

BAR LIST

Anchorage Slab - Unit 3

Bar	No.	Size	Length	Shape
a1(E)	682	#5	7'-3"	——
a2(E)	818	#6	7'-3"	——
a10(E)	20	#5	6'-3"	⌐
a11(E)	10	#5	8'-0"	——
a12(E)	10	#5	7'-6"	⌐
b1(E)	368	#5	30'-0"	——
b2(E)	96	#5	10'-6"	——
b9(E)	20	#5	7'-0"	——
d1(E)	768	#5	7'-11"	⌐
d2(E)	768	#5	6'-10"	⌐
d3(E)	341	#6	2'-6"	——
e1(E)	12	#8	48'-0"	——
e10(E)	1	#8	50'-9"	⌒
e11(E)	2	#8	45'-6"	——
e12(E)	21	#4	30'-0"	——
e13(E)	6	#4	6'-3"	——
e16(E)	2	#4	27'-0"	——
e22(E)	287	#4	14'-8"	——
e33(E)	28	#4	12'-4"	——
e34(E)	7	#4	9'-8"	——

BAR LIST

Anchorage Slab - Unit 2

Bar	No.	Size	Length	Shape
a1(E)	755	#5	7'-3"	——
a2(E)	905	#6	7'-3"	——
a3(E)	37	#5	4'-1"	——
a4(E)	43	#5	6'-0"	——
a5(E)*	8	#5	13'-4"	——
a6(E)	45	#6	4'-7"	——
a7(E)	52	#6	6'-6"	——
a8(E)*	9	#6	13'-4"	——
a9(E)	4	#5	10'-9"	——
a10(E)	20	#5	6'-3"	⌐
a11(E)	10	#5	8'-0"	——
a12(E)	10	#5	7'-6"	⌐
b1(E)	394	#5	30'-0"	——
b2(E)	64	#5	10'-6"	——
b4(E)	48	#5	13'-0"	——
b5(E)*	8	#5	18'-0"	——
b6(E)	4	#5	25'-0"	——
b7(E)	18	#5	23'-0"	——
b8(E)	2	#5	9'-0"	——
b9(E)	20	#5	7'-0"	——
d1(E)	828	#5	7'-11"	⌐
d2(E)	826	#5	6'-10"	⌐
d3(E)	380	#6	2'-6"	——
e1(E)	10	#8	48'-0"	——
e2(E)	6	#8	34'-5"	——
e6(E)	1	#8	29'-6"	⌒
e7(E)	1	#8	50'-0"	⌒
e8(E)	1	#8	26'-0"	⌐
e12(E)	23	#4	30'-0"	——
e13(E)	5	#4	6'-3"	——
e15(E)	1	#4	7'-0"	——
e17(E)	1	#4	9'-0"	——
e18(E)	1	#4	15'-0"	——
e19(E)	1	#4	27'-8"	——
e22(E)	196	#4	14'-8"	——
e23(E)	28	#4	14'-6"	——
e27(E)	49	#4	14'-11"	——
e28(E)	28	#4	15'-3"	——
e29(E)	7	#4	13'-9"	——
e30(E)	28	#4	9'-11"	——
e31(E)	14	#4	10'-3"	——
e32(E)	7	#4	7'-9"	——

*Cut bars according to cutting diagram.

BAR LIST

Anchorage Slab - Unit 4

Bar	No.	Size	Length	Shape
a1(E)	415	#5	7'-3"	——
a2(E)	498	#6	7'-3"	——
a10(E)	12	#5	6'-3"	⌐
a11(E)	6	#5	8'-0"	——
a12(E)	6	#5	7'-6"	⌐
a13(E)*	13	#5	15'-1"	——
a14(E)*	15	#6	15'-1"	——
a15(E)	79	#5	11'-3"	——
a16(E)	93	#6	11'-3"	——
a17(E)	6	#5	12'-3"	——
a18(E)	7	#6	12'-3"	——
a19(E)*	14	#5	17'-0"	——
a20(E)*	16	#6	17'-0"	——
a21(E)*	17	#5	20'-4"	——
a22(E)*	21	#6	20'-4"	——
b1(E)	320	#5	30'-0"	——
b2(E)	48	#5	10'-4"	——
b5(E)*	16	#5	23'-6"	——
b9(E)	12	#5	7'-0"	——
b10(E)*	12	#5	52'-2"	——
d1(E)	636	#5	7'-11"	⌐
d2(E)	636	#5	6'-10"	⌐
d3(E)	296	#6	2'-6"	——
e1(E)	8	#8	47'-7"	——
e3(E)	1	#8	25'-2"	——
e12(E)	15	#4	30'-0"	——
e13(E)	4	#4	5'-11"	——
e22(E)	168	#4	14'-8"	——
e24(E)	1	#4	19'-1"	——
e29(E)	42	#4	14'-3"	——
e35(E)	3	#8	37'-10"	——
e36(E)	1	#8	40'-0"	⌒
e37(E)	1	#8	34'-3"	⌒
e38(E)	21	#4	13'-0"	——
e39(E)	1	#4	39'-7"	——
e40(E)	14	#4	16'-6"	——
e41(E)	1	#4	33'-3"	——
e42(E)	1	#4	25'-7"	——
e43(E)	7	#4	12'-6"	——
e44(E)	14	#4	12'-1"	——

*Cut bars according to cutting diagram.

BILL OF MATERIAL

Item	Unit	Anchorage Slab Unit			
		1	2	3	4
Concrete Superstructure	Cu Yd	258.1	365.0	327.2	310.7
Protective Coat	Sq Yd	613	865	777	692
Reinforcement Bars, Epoxy Coated	Pound	36,030	52,100	45,650	40,740

..\DBCONN-10\DESIGN\..\DBCONN-10-BORDER1.DGN
5-11-2011, 9:51:59 NEWMANMD \\FS-0044\MYVAULT\D-FRANS.07\2202\20868-001\STRUCT\CADD\01 DESIGN\MOMENTSLAB\SHEET\DBCONN-10-SHT-PVTDETAILS.DGN

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - HBJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RELOCATED ILLINOIS ROUTE 3

ANCHORAGE SLAB DETAILS
2 OF 2

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	135
		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BENCHMARK:
Monument No. 8: Aluminum disk set in the south end of a headwall to a box culvert under Illinois Route 3, 0.7 miles south of Canal Street, 0.1 miles south of Industrial Drive and north of single railroad track. El. 401.95

EXISTING STRUCTURE:
None

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, 5th Edition

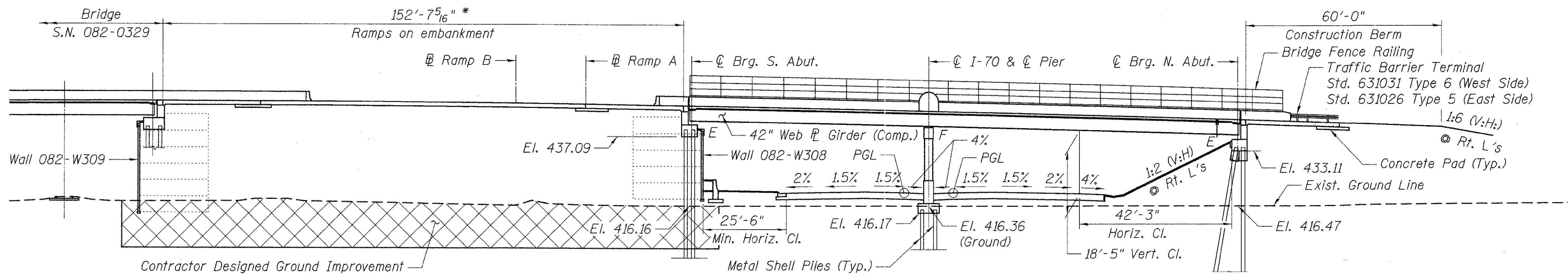
DESIGN STRESSES

FIELD UNITS

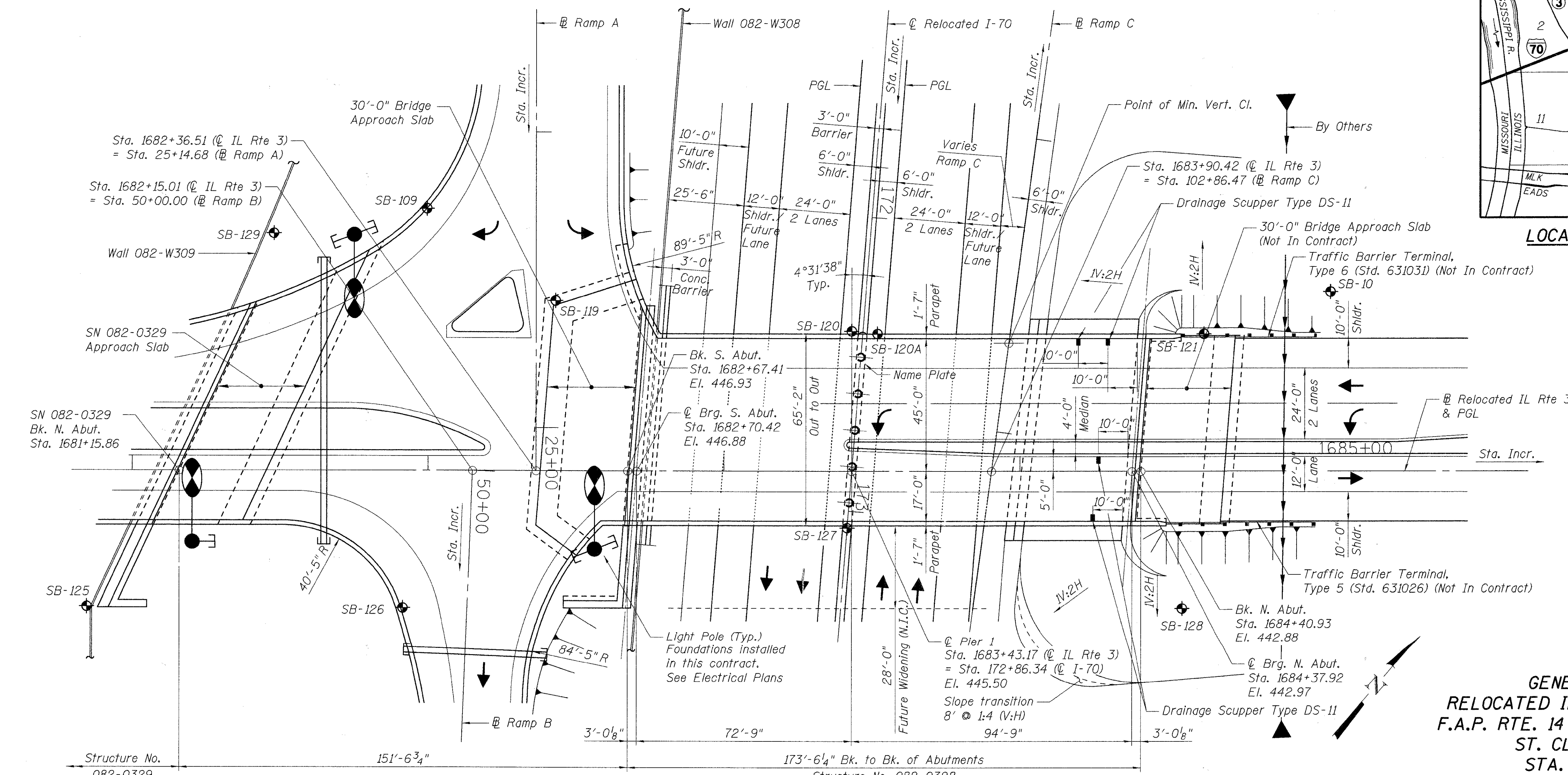
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50, Primary Members)
fy = 36,000 psi (M270 Grade 36, Secondary Members)

LOADING HL-93

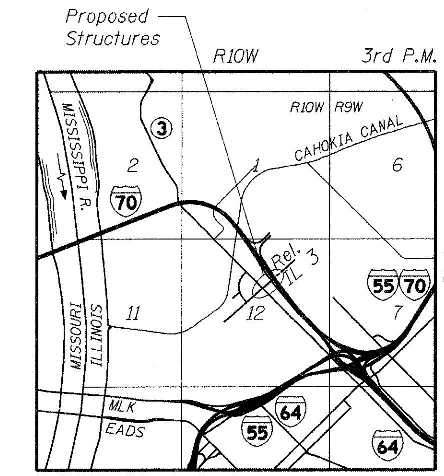
Allow 50#/sq. ft. for future wearing surface.



ELEVATION



PLAN



LOCATION SKETCH

STATE OF ILLINOIS
BYRON T. DANLEY
081-004737
CHICAGO IL
LICENSED STRUCTURAL ENGINEER

BYRON T. DANLEY

EXPIRES: 11/30/12

DATE : 6/27/11

GENERAL PLAN
RELOCATED IL RTE 3 OVER I-70
F.A.P. RTE. 14 SEC. 82-2-1HVB-1
ST. CLAIR COUNTY
STA. 1683+43.17
STRUCTURE NO. 082-0328

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - JLR	REVISED -
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

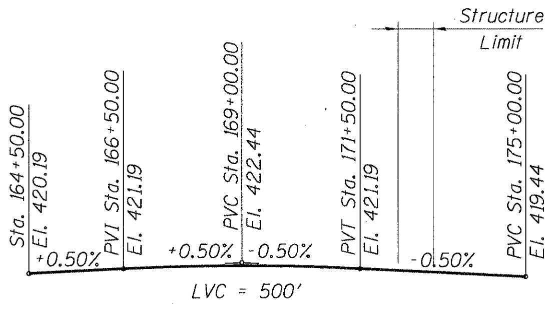
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

GENERAL PLAN

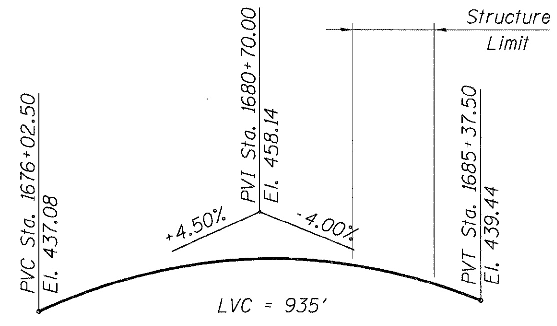
SCALE: | SHEET NO. SA-1 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	136
SN 082-0328		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

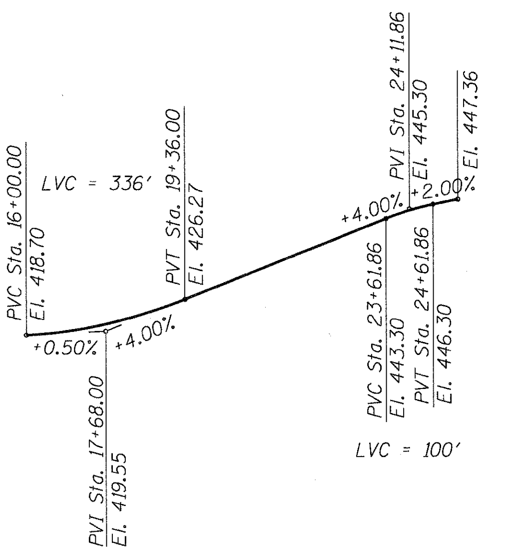
..\0820328-CONN-10-001-PG.DGN, ..\0820318-CONN-94-001-BO.DGN, ..\0820328-CONN-06-DRAIN.DGN, ..\DBCONN-10-001-PG.DGN, ..\DBCONN-10-LIGHT.DGN
6-27-2011, 10:18:52 BONDHUJO \\FS-0044\AMVAULT\D-TRANS.07\2282\20868-001\STRUCT\CAD\01 DESIGN\0820328\SHEET\0820328-CONN-10-001-SHT-PG.DGN



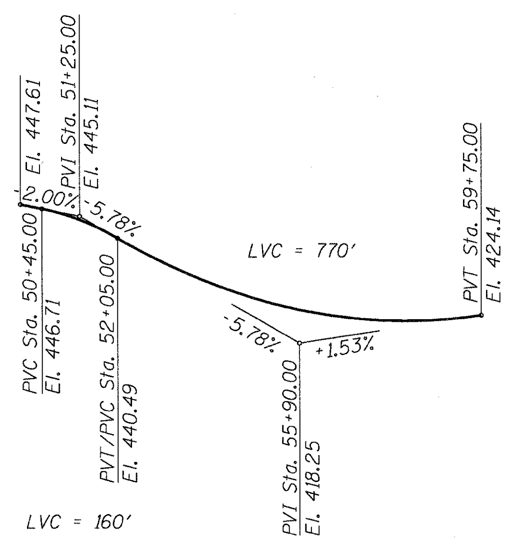
PROFILE GRADE F.A.P. RTE 998 (RELOCATED I-70)



PROFILE GRADE ℄ RELOCATED IL-3



PROFILE GRADE ℄ RAMP A



PROFILE GRADE ℄ RAMP B

SEISMIC DATA*

Soil Site Class = D

Return Period, Tr [yrs]	1000
Design Spectral Accel. at 1.0 sec. SD1 [g]	0.20
Design Spectral Accel. at 0.2 sec. SDS [g]	0.39
Importance Category	Essential
Seismic Performance Zone	2

* Seismic Data based on site-specific analysis.

CURVE RAMPA-1

P.I. = Sta. 22+26.85
Δ = 8°31'38" (LT)
D = 4°46'29"
R = 1,200.00'
L = 178.60'
T = 89.46'
E = 3.33'
P.C. = Sta. 21+37.39
P.T. = Sta. 23+15.98

CURVE RAMPB-1

P.I. = Sta. 54+64.50
Δ = 1°24'03" (LT)
D = 0°57'18"
R = 6,000.00'
L = 146.70'
T = 73.35'
E = 0.45'
P.C. = Sta. 53+91.15
P.T. = Sta. 55+37.85

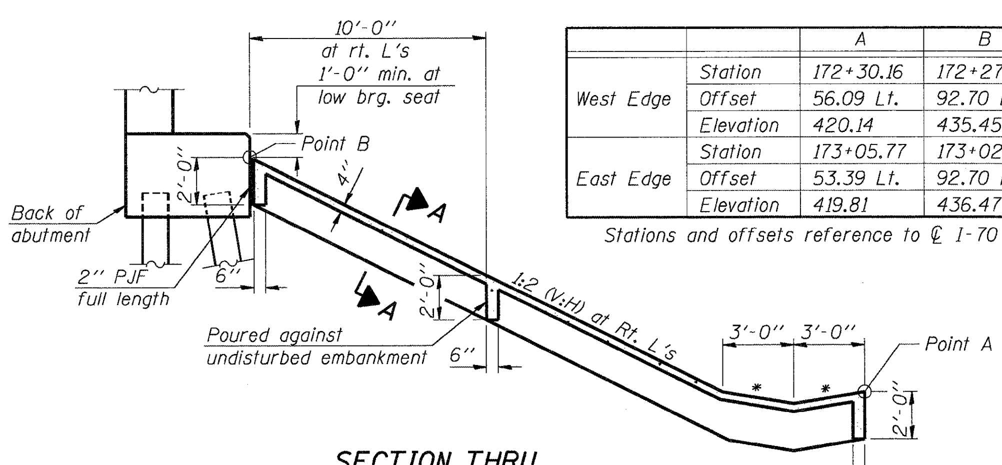
CURVE RAMPB-2

P.I. = Sta. 64+42.05
Δ = 5°06'17" (LT)
D = 1°15'51"
R = 4,532.00'
L = 403.77'
T = 202.02'
E = 4.50'
P.C. = Sta. 62+40.04
P.T. = Sta. 66+43.82

STATION 1683+43.17
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RTE. 14 SEC. 82-2-1HVB-1
LOADING HL-93
STRUCTURE NO. 082-0328

NAME PLATE

See Std. 515001

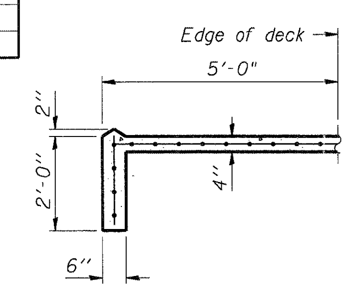


		A	B
West Edge	Station	172+30.16	172+27.26
	Offset	56.09 Lt.	92.70 Lt.
	Elevation	420.14	435.45
East Edge	Station	173+05.77	173+02.66
	Offset	53.39 Lt.	92.70 Lt.
	Elevation	419.81	436.47

Stations and offsets reference to ℄ I-70

SECTION THRU NORTH SLOPEWALL

* 1:6 (V:H)



SECTION A-A

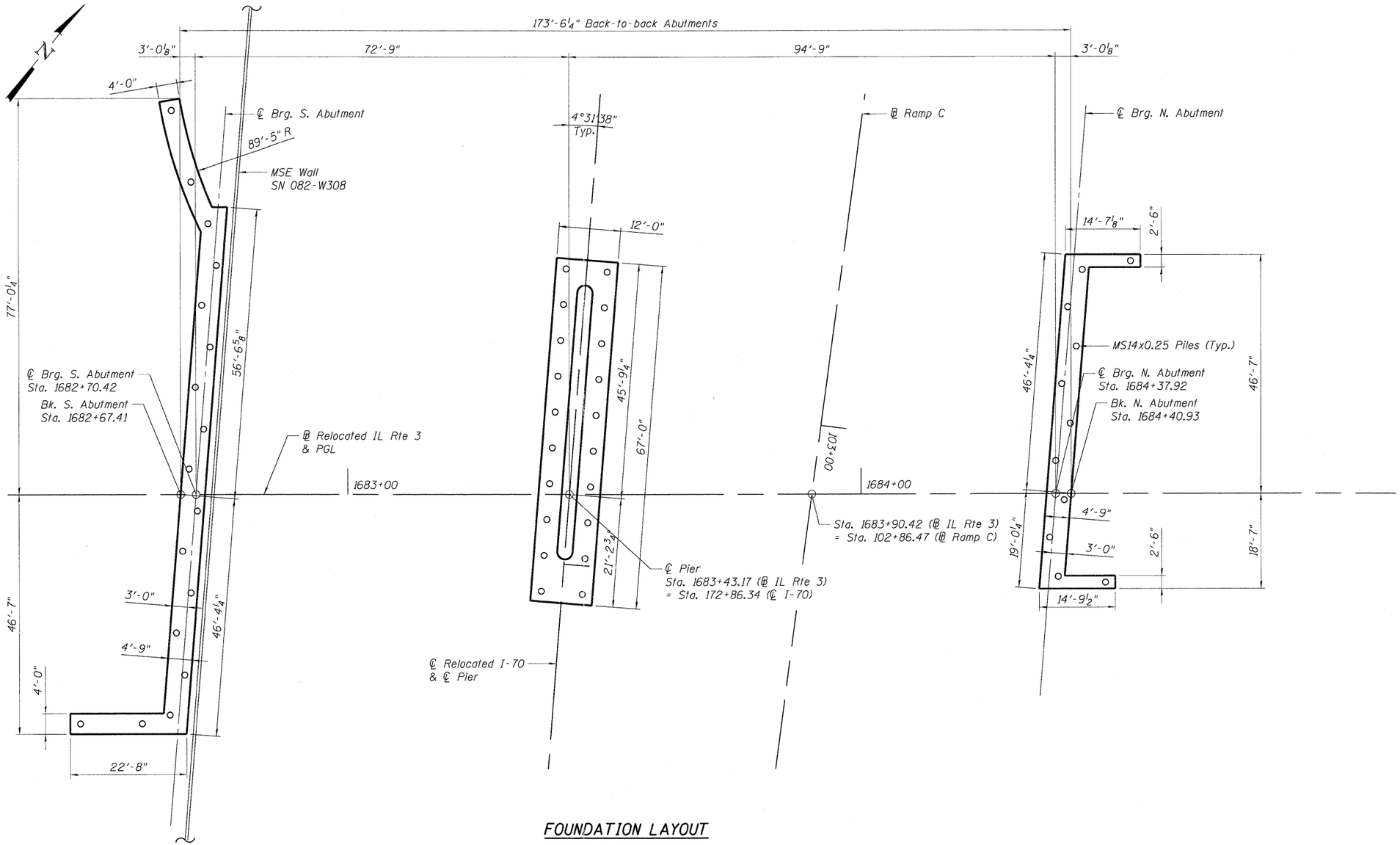
INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd		442	442
Concrete Structures	Cu Yd	35.5	464.9	500.4
Concrete Superstructure	Cu Yd	464.8		464.8
Bridge Deck Grooving	Sq Yd	1,343		1,343
Protective Coat	Sq Yd	1,537		1,537
Furnishing and Erecting Structural Steel	L Sum	0.20		0.20
Stud Shear Connectors	Each	5,736		5,736
Reinforcement Bars, Epoxy Coated	Pound	128,540	56,720	185,260
Bar Splicers	Each		138	138
Bridge Fence Railing	Foot	397		397
Slope Wall 4"	Sq Yd		363	363
Furnishing Metal Shell Piles 14"x0.250"	Foot		4,155	4,155
Driving Piles	Foot		4,155	4,155
Test Pile Metal Shells	Each		3	3
Name Plates	Each		1	1
Preformed Joint Strip Seal	Foot		132	132
Elastomeric Bearing Assembly, Type I	Each		17	17
Anchor Bolts, 1"	Each		32	32
Anchor Bolts, 1 1/2"	Each		16	16
Concrete Sealer	Sq Ft		3,552	3,552
Geocomposite Wall Drain	Sq Yd		53	53
Porous Granular Embankment, Special	Cu Yd		122	122
Drainage Scuppers, DS-11	Each	4		4
Pipe Underdrains for Structures 4"	Foot		106	106

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 284,210 lbs.
   Grade 50 = 261,880 lbs.
   Grade 36 = 22,330 lbs.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Concrete Sealer shall be applied to the designated areas of the abutments and pier.
8. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
9. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
10. Slope wall shall be reinforced with welded wire fabric, 6 in x 6 in - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
11. Slipforming of the parapets is not allowed.
12. Light pole foundations and buried conduit shown on Sht. SA-1 to be installed in this contract. Light poles to be installed by others. See electrical plans.



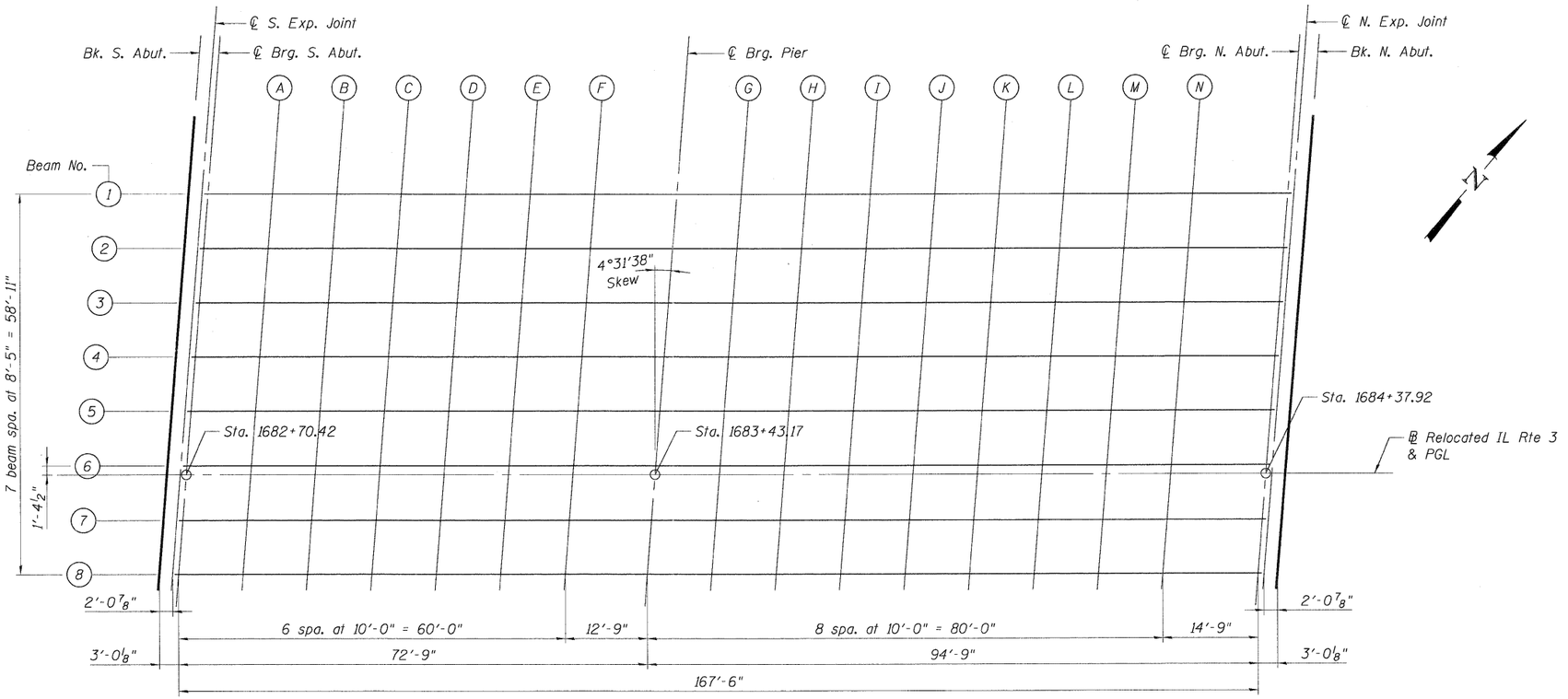
FOUNDATION LAYOUT

NOTE:

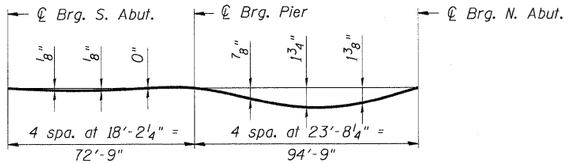
See substructure plans for spacing and location of piles.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION** IL 3 OVER I-70	**FOUNDATION LAYOUT**
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -		SCALE: / SHEET NO. SA-3 OF SA-57 / STA. 1683+43.17 TO STA.
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	138
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



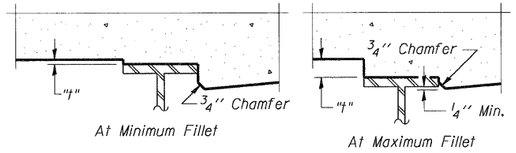
PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on the following sheets.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on the following sheets, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

..\B820328-CONN-10-001-FP.DGN, ..\B820318-CONN-99-001-BD.DGN, ..\B820328-CONN-10-001-TL.DGN, ..\DBCONN-10-ALIGNMENT.DGN
5-11-2011, 9:52:22 NEWMANMD \\FS-0044-VAULT_D-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\B820328\SHEET\B820328-CONN-10-001-SHT-SP.DGN

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

TOP OF SLAB ELEVATIONS
1 OF 3

SCALE: | SHEET NO. SA-4 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	139
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+70.85	-43.46	445.92	445.92
℄ Exp. Jt.	1682+72.93	-43.46	445.89	445.89
℄ Brg. S. Abut.	1682+73.86	-43.46	445.87	445.87
A	1682+83.86	-43.46	445.79	445.80
B	1682+93.86	-43.46	445.62	445.63
C	1683+03.86	-43.46	445.43	445.45
D	1683+13.86	-43.46	445.24	445.25
E	1683+23.86	-43.46	445.04	445.04
F	1683+33.86	-43.46	444.83	444.82
℄ Brg. Pier	1683+46.61	-43.46	444.55	444.55
G	1683+56.61	-43.46	444.32	444.34
H	1683+66.61	-43.46	444.08	444.14
I	1683+76.61	-43.46	443.83	443.92
J	1683+86.61	-43.46	443.57	443.69
K	1683+96.61	-43.46	443.30	443.44
L	1684+06.61	-43.46	443.03	443.16
M	1684+16.61	-43.46	442.74	442.85
N	1684+26.61	-43.46	442.45	442.52
℄ Brg. N. Abut.	1684+41.36	-43.46	442.00	442.00
℄ Exp. Jt.	1684+42.29	-43.46	441.97	441.97
Bk. N. Abut.	1684+44.37	-43.46	441.90	441.90

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+70.19	-35.04	446.18	446.18
℄ Exp. Jt.	1682+72.27	-35.04	446.15	446.15
℄ Brg. S. Abut.	1682+73.20	-35.04	446.13	446.13
A	1682+83.20	-35.04	445.97	445.98
B	1682+93.20	-35.04	445.80	445.81
C	1683+03.20	-35.04	445.61	445.63
D	1683+13.20	-35.04	445.42	445.43
E	1683+23.20	-35.04	445.22	445.22
F	1683+33.20	-35.04	445.01	445.01
℄ Brg. Pier	1683+45.95	-35.04	444.73	444.73
G	1683+55.95	-35.04	444.50	444.53
H	1683+65.95	-35.04	444.26	444.32
I	1683+75.95	-35.04	444.01	444.11
J	1683+85.95	-35.04	443.76	443.88
K	1683+95.95	-35.04	443.49	443.63
L	1684+05.95	-35.04	443.21	443.35
M	1684+15.95	-35.04	442.93	443.05
N	1684+25.95	-35.04	442.64	442.71
℄ Brg. N. Abut.	1684+40.70	-35.04	442.19	442.19
℄ Exp. Jt.	1684+41.63	-35.04	442.16	442.16
Bk. N. Abut.	1684+43.71	-35.04	442.09	442.09

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+69.52	-26.63	446.36	446.36
℄ Exp. Jt.	1682+71.60	-26.63	446.33	446.33
℄ Brg. S. Abut.	1682+72.53	-26.63	446.31	446.31
A	1682+82.53	-26.63	446.15	446.16
B	1682+92.53	-26.63	445.98	445.99
C	1683+02.53	-26.63	445.80	445.81
D	1683+12.53	-26.63	445.60	445.61
E	1683+22.53	-26.63	445.40	445.40
F	1683+32.53	-26.63	445.20	445.19
℄ Brg. Pier	1683+45.28	-26.63	444.92	444.92
G	1683+55.28	-26.63	444.69	444.71
H	1683+65.28	-26.63	444.45	444.51
I	1683+75.28	-26.63	444.20	444.30
J	1683+85.28	-26.63	443.94	444.07
K	1683+95.28	-26.63	443.68	443.82
L	1684+05.28	-26.63	443.40	443.54
M	1684+15.28	-26.63	443.12	443.23
N	1684+25.28	-26.63	442.82	442.90
℄ Brg. N. Abut.	1684+40.03	-26.63	442.37	442.37
℄ Exp. Jt.	1684+40.96	-26.63	442.35	442.35
Bk. N. Abut.	1684+43.04	-26.63	442.28	442.28

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+68.86	-18.21	446.54	446.54
℄ Exp. Jt.	1682+70.94	-18.21	446.51	446.51
℄ Brg. S. Abut.	1682+71.87	-18.21	446.49	446.49
A	1682+81.87	-18.21	446.33	446.34
B	1682+91.87	-18.21	446.16	446.17
C	1683+01.87	-18.21	445.98	445.99
D	1683+11.87	-18.21	445.79	445.79
E	1683+21.87	-18.21	445.59	445.58
F	1683+31.87	-18.21	445.38	445.37
℄ Brg. Pier	1683+44.62	-18.21	445.10	445.10
G	1683+54.62	-18.21	444.87	444.90
H	1683+64.62	-18.21	444.63	444.69
I	1683+74.62	-18.21	444.38	444.48
J	1683+84.62	-18.21	444.13	444.25
K	1683+94.62	-18.21	443.86	444.00
L	1684+04.62	-18.21	443.59	443.73
M	1684+14.62	-18.21	443.30	443.42
N	1684+24.62	-18.21	443.01	443.09
℄ Brg. N. Abut.	1684+39.37	-18.21	442.56	442.56
℄ Exp. Jt.	1684+40.30	-18.21	442.53	442.53
Bk. N. Abut.	1684+42.38	-18.21	442.47	442.47

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+68.19	-9.79	446.72	446.72
℄ Exp. Jt.	1682+70.27	-9.79	446.69	446.69
℄ Brg. S. Abut.	1682+71.20	-9.79	446.67	446.67
A	1682+81.20	-9.79	446.51	446.52
B	1682+91.20	-9.79	446.34	446.35
C	1683+01.20	-9.79	446.16	446.17
D	1683+11.20	-9.79	445.97	445.97
E	1683+21.20	-9.79	445.77	445.77
F	1683+31.20	-9.79	445.56	445.55
℄ Brg. Pier	1683+43.95	-9.79	445.28	445.28
G	1683+53.95	-9.79	445.05	445.08
H	1683+63.95	-9.79	444.82	444.88
I	1683+73.95	-9.79	444.57	444.67
J	1683+83.95	-9.79	444.31	444.44
K	1683+93.95	-9.79	444.05	444.19
L	1684+03.95	-9.79	443.78	443.91
M	1684+13.95	-9.79	443.49	443.61
N	1684+23.95	-9.79	443.20	443.28
℄ Brg. N. Abut.	1684+38.70	-9.79	442.75	442.75
℄ Exp. Jt.	1684+39.63	-9.79	442.72	442.72
Bk. N. Abut.	1684+41.71	-9.79	442.66	442.66

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+67.52	-1.38	446.90	446.90
℄ Exp. Jt.	1682+69.60	-1.38	446.86	446.86
℄ Brg. S. Abut.	1682+70.53	-1.38	446.85	446.85
A	1682+80.53	-1.38	446.69	446.70
B	1682+90.53	-1.38	446.52	446.53
C	1683+00.53	-1.38	446.34	446.35
D	1683+10.53	-1.38	446.15	446.16
E	1683+20.53	-1.38	445.95	445.95
F	1683+30.53	-1.38	445.74	445.74
℄ Brg. Pier	1683+43.28	-1.38	445.47	445.47
G	1683+53.28	-1.38	445.24	445.26
H	1683+63.28	-1.38	445.00	445.06
I	1683+73.28	-1.38	444.75	444.85
J	1683+83.28	-1.38	444.50	444.63
K	1683+93.28	-1.38	444.24	444.38
L	1684+03.28	-1.38	443.96	444.10
M	1684+13.28	-1.38	443.68	443.80
N	1684+23.28	-1.38	443.39	443.47
℄ Brg. N. Abut.	1684+38.03	-1.38	442.94	442.94
℄ Exp. Jt.	1684+38.96	-1.38	442.91	442.91
Bk. N. Abut.	1684+41.04	-1.38	442.85	442.85

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	
		DRAWN - TCG	REVISED -	
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

TOP OF SLAB ELEVATIONS
2 OF 3

SCALE: | SHEET NO. SA-5 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	140
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+67.41	0.00	446.93	446.93
℄ Exp. Jt.	1682+69.49	0.00	446.89	446.89
℄ Brg. S. Abut.	1682+70.42	0.00	446.88	446.88
A	1682+80.42	0.00	446.72	446.73
B	1682+90.42	0.00	446.55	446.56
C	1683+00.42	0.00	446.37	446.38
D	1683+10.42	0.00	446.18	446.19
E	1683+20.42	0.00	445.98	445.98
F	1683+30.42	0.00	445.77	445.77
℄ Brg. Pier	1683+43.17	0.00	445.50	445.50
G	1683+53.17	0.00	445.27	445.29
H	1683+63.17	0.00	445.03	445.09
I	1683+73.17	0.00	444.79	444.88
J	1683+83.17	0.00	444.53	444.66
K	1683+93.17	0.00	444.27	444.41
L	1684+03.17	0.00	443.99	444.13
M	1684+13.17	0.00	443.71	443.83
N	1684+23.17	0.00	443.42	443.50
℄ Brg. N. Abut.	1684+37.92	0.00	442.97	442.97
℄ Exp. Jt.	1684+38.85	0.00	442.94	442.94
Bk. N. Abut.	1684+40.93	0.00	442.88	442.88

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+66.86	7.04	446.79	446.79
℄ Exp. Jt.	1682+68.94	7.04	446.76	446.76
℄ Brg. S. Abut.	1682+69.87	7.04	446.75	446.75
A	1682+79.87	7.04	446.59	446.60
B	1682+89.87	7.04	446.42	446.43
C	1682+99.87	7.04	446.24	446.25
D	1683+09.87	7.04	446.05	446.06
E	1683+19.87	7.04	445.85	445.85
F	1683+29.87	7.04	445.64	445.64
℄ Brg. Pier	1683+42.62	7.04	445.37	445.37
G	1683+52.62	7.04	445.14	445.17
H	1683+62.62	7.04	444.90	444.96
I	1683+72.62	7.04	444.66	444.76
J	1683+82.62	7.04	444.40	444.53
K	1683+92.62	7.04	444.14	444.28
L	1684+02.62	7.04	443.87	444.01
M	1684+12.62	7.04	443.59	443.70
N	1684+22.62	7.04	443.29	443.37
℄ Brg. N. Abut.	1684+37.37	7.04	442.85	442.85
℄ Exp. Jt.	1684+38.30	7.04	442.82	442.82
Bk. N. Abut.	1684+40.38	7.04	442.76	442.76

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1682+66.19	15.46	446.64	446.64
℄ Exp. Jt.	1682+68.27	15.46	446.60	446.60
℄ Brg. S. Abut.	1682+69.20	15.46	446.59	446.59
A	1682+79.20	15.46	446.43	446.44
B	1682+89.20	15.46	446.26	446.27
C	1682+99.20	15.46	446.08	446.09
D	1683+09.20	15.46	445.89	445.90
E	1683+19.20	15.46	445.70	445.69
F	1683+29.20	15.46	445.49	445.48
℄ Brg. Pier	1683+41.95	15.46	445.21	445.21
G	1683+51.95	15.46	444.99	445.01
H	1683+61.95	15.46	444.75	444.81
I	1683+71.95	15.46	444.51	444.60
J	1683+81.95	15.46	444.25	444.37
K	1683+91.95	15.46	443.99	444.12
L	1684+01.95	15.46	443.72	443.85
M	1684+11.95	15.46	443.44	443.55
N	1684+21.95	15.46	443.15	443.22
℄ Brg. N. Abut.	1684+36.70	15.46	442.70	442.70
℄ Exp. Jt.	1684+37.63	15.46	442.67	442.67
Bk. N. Abut.	1684+39.71	15.46	442.61	442.61

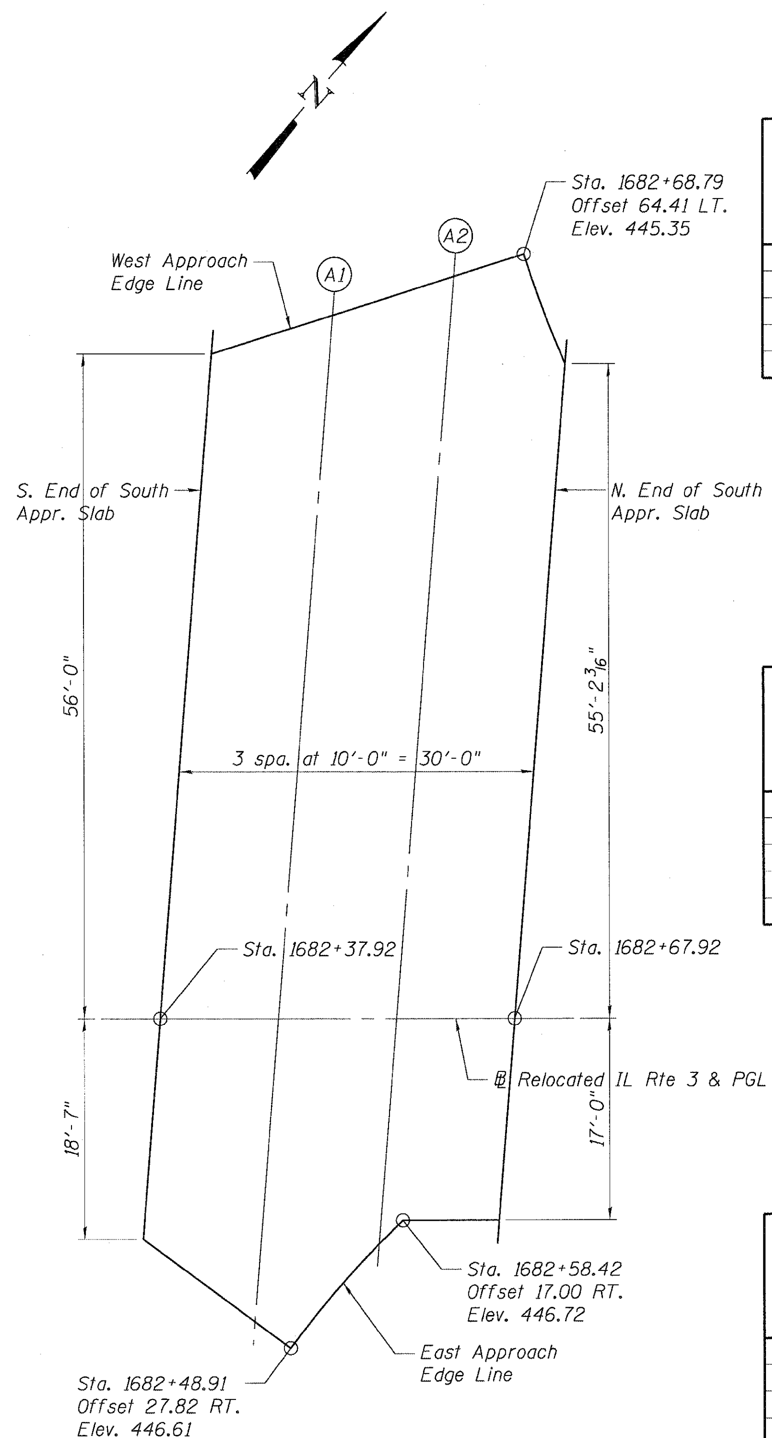
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

TOP OF SLAB ELEVATIONS
3 OF 3

SCALE: | SHEET NO. SA-6 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	141
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN
South Approach

WEST APPROACH EDGE LINE

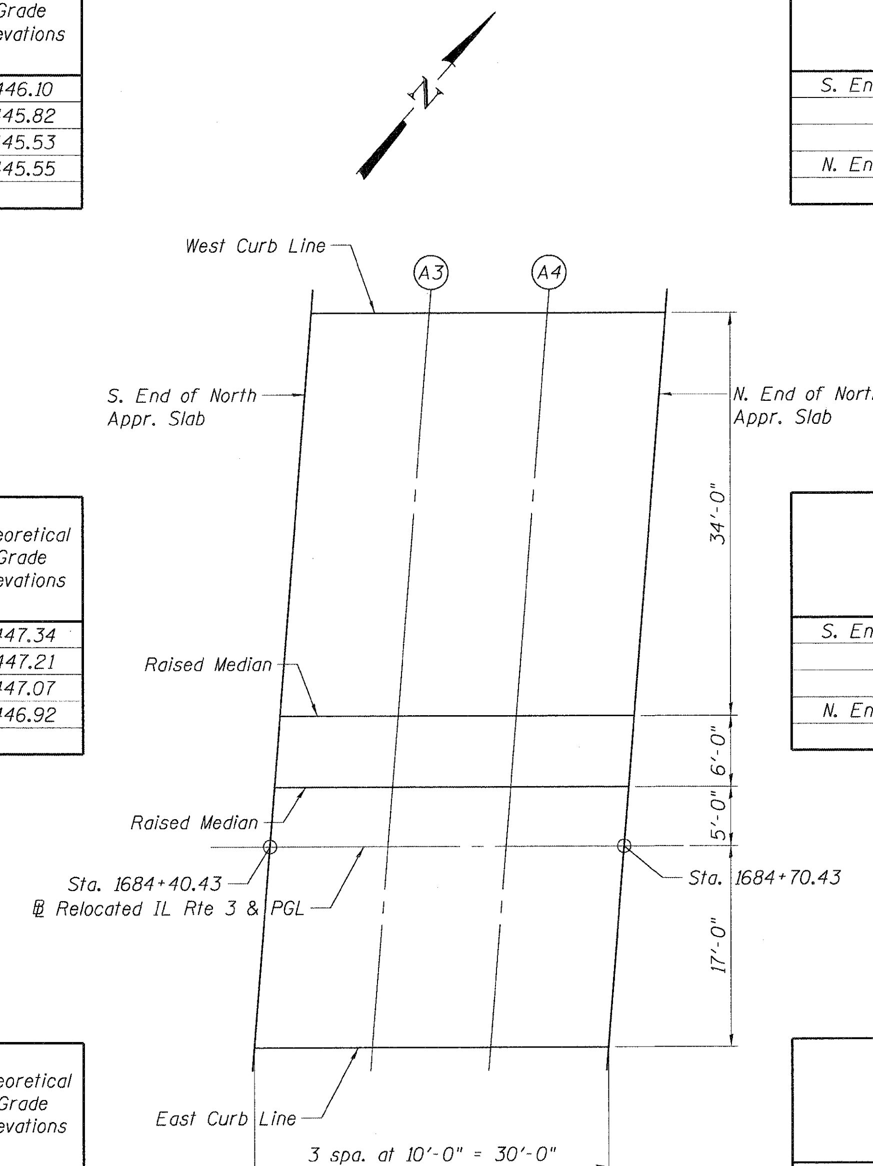
Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1682+42.35	-56.00	446.10
A1	1682+52.61	-59.26	445.82
A2	1682+62.87	-62.53	445.53
N. End South Appr. Slab	1682+72.29	-55.18	445.55

℄ RELOCATED IL RTE 3 & PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1682+37.92	0.00	447.34
A1	1682+47.92	0.00	447.21
A2	1682+57.92	0.00	447.07
N. End South Appr. Slab	1682+67.92	0.00	446.92

EAST APPROACH EDGE LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1682+36.44	18.58	446.92
A1	1682+45.89	25.58	446.68
A2	1682+56.41	18.99	446.70
N. End South Appr. Slab	1682+66.57	17.00	446.60



PLAN
North Approach
(Not in contract, for information only)

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1684+43.99	-45.00	441.88
A3	1684+53.99	-45.00	441.56
A4	1684+63.99	-45.00	441.23
N. End North Appr. Slab	1684+73.99	-45.00	440.90

℄ RELOCATED IL RTE 3 & PGL

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1684+40.43	0.00	442.89
A3	1684+50.43	0.00	442.58
A4	1684+60.43	0.00	442.25
N. End North Appr. Slab	1684+70.43	0.00	441.92

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1684+39.09	17.00	442.60
A3	1684+49.09	17.00	442.28
A4	1684+59.09	17.00	441.96
N. End North Appr. Slab	1684+69.09	17.00	441.62

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

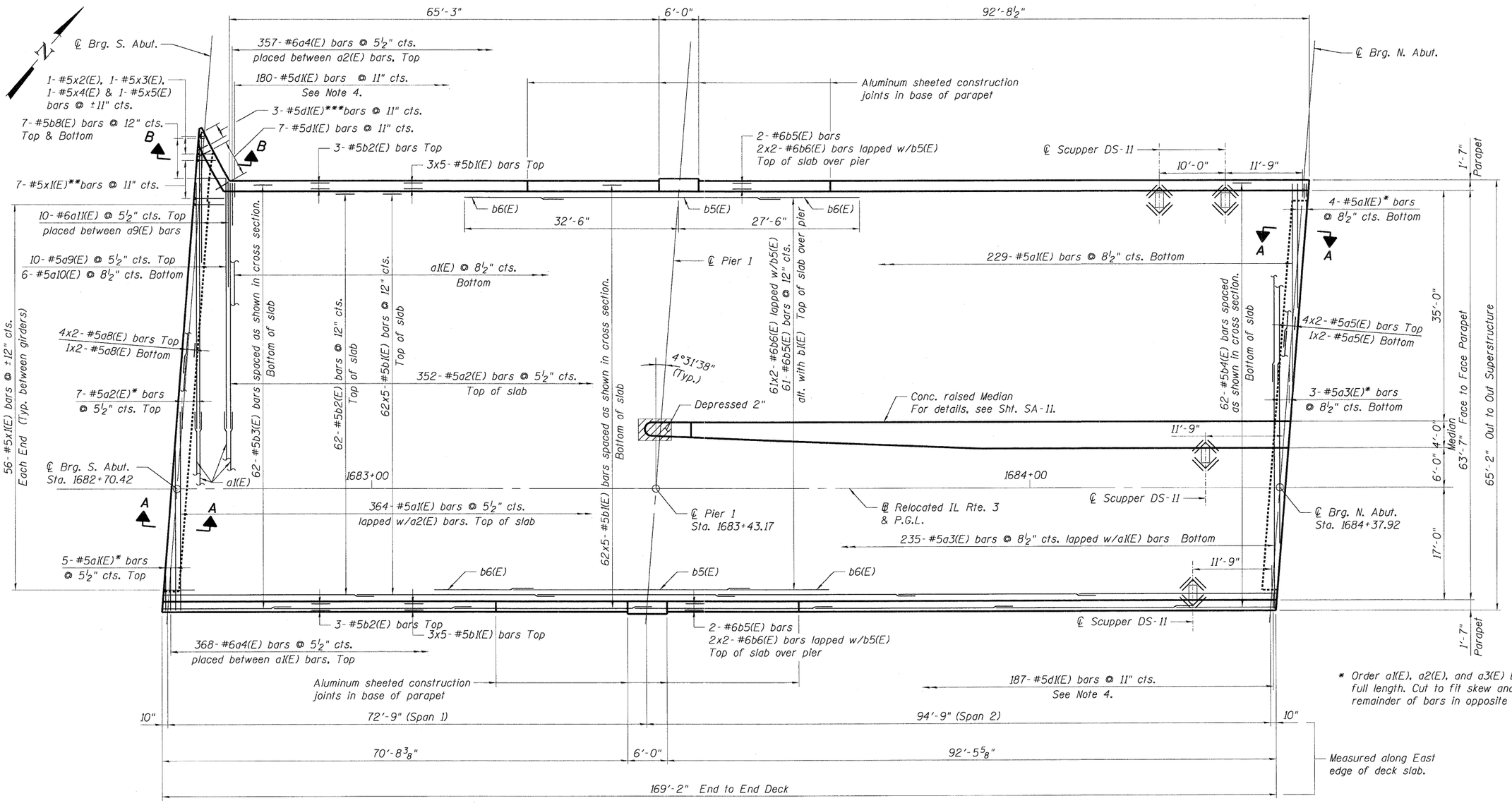
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

TOP OF APPROACH SLAB ELEVATIONS

SCALE: | SHEET NO. SA-7 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	142
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

** Cut bars to fit skew if required.
*** Bend bars to fit skew.



* Order a1(E), a2(E), and a3(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

DECK PLAN

Notes:

1. See Sheet SA-14 for Bar List and Bill of Material.
2. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. Minimum Lap for Deck Reinforcement:
   #5 Bars = 2'-7"
   #6 Bars = 3'-1"
4. Space bars to miss Parapet Joints.
5. For sections A-A & B-B, see Sheet SA-10.

..\0820319-CONN-99-001-BO.DGN ..\0820328-CONN-10-001-SU.DGN ..\0820328-CONN-10-001-SU.DGN ..\0820328-CONN-10-001-SU.DGN
5-11-2011, 9:52:35 NEWMANMD \\FS-0044\AM\VAULT\D-TRANS_07\2202\20865-001\STRUCTURE\CADD\DESIGN\0820328\SHEET\0820328-CONN-10-001-SHT-SU.DGN

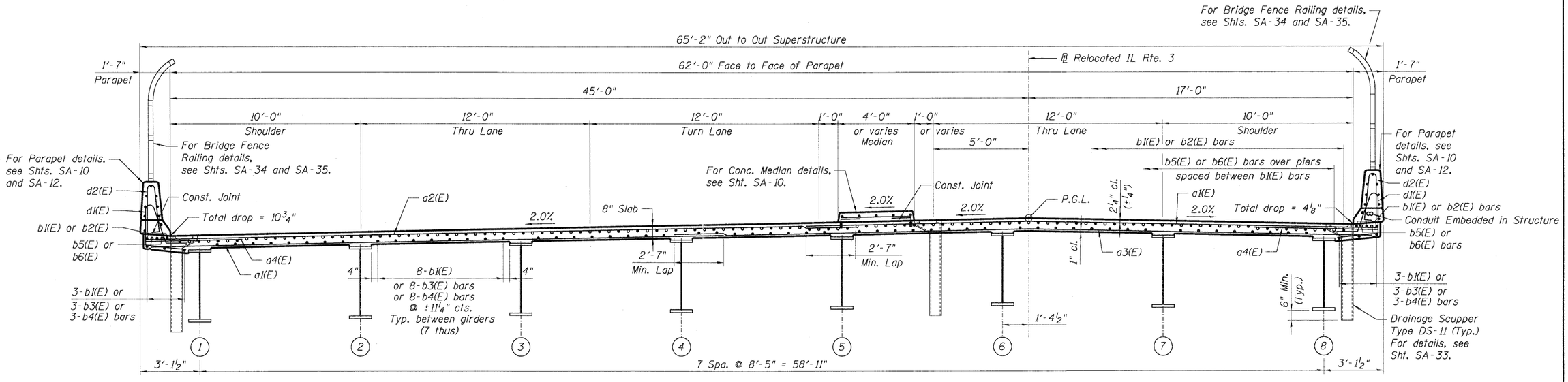
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - FD	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

DECK PLAN

SCALE: | SHEET NO. SA-8 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	143
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTION

Notes:

1. For scupper spacing, see Sheet SA-8.
2. For Deck details and Bar List, see Sheets SA-10 & SA-14.

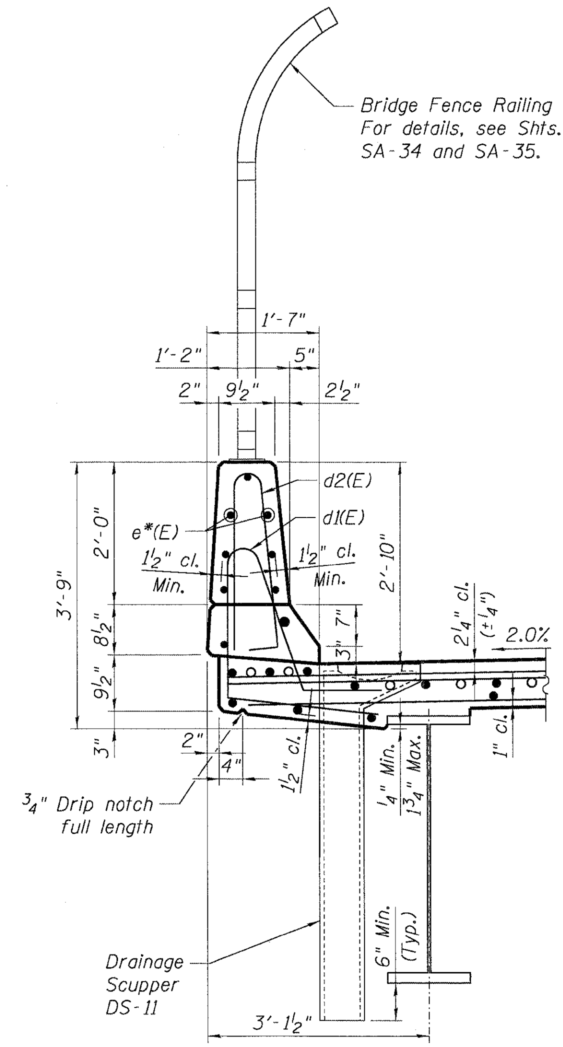
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - FD	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

DECK CROSS SECTIONS
1 OF 2

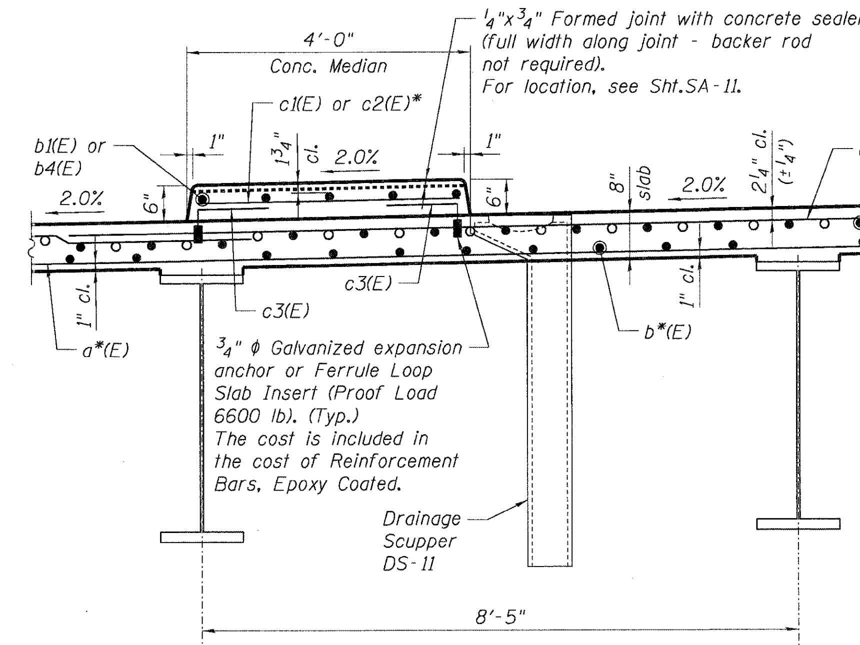
SCALE: | SHEET NO. SA-9 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	144
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



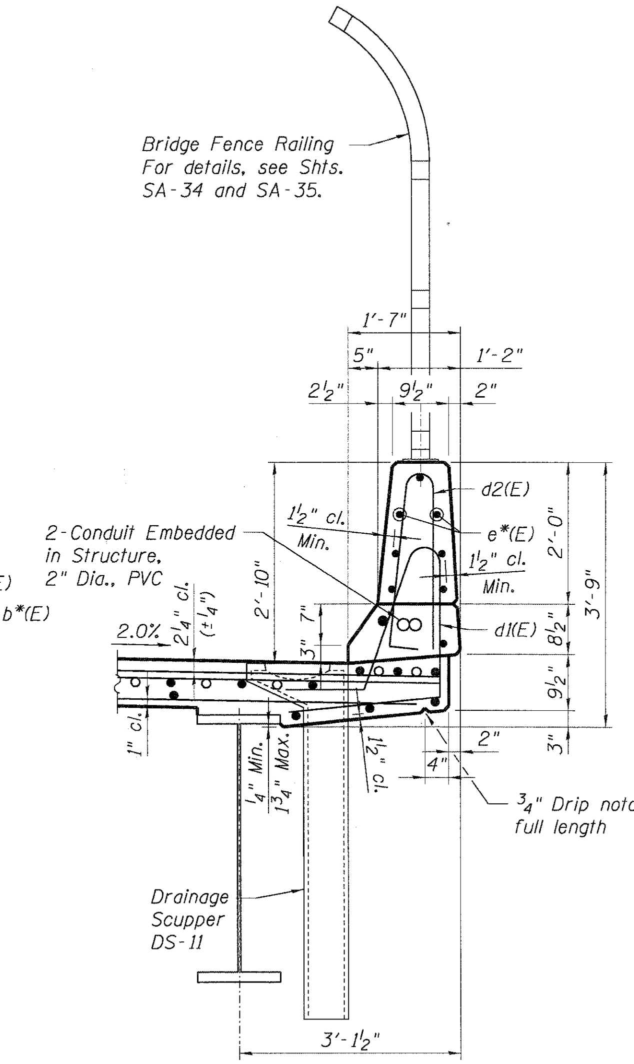
WEST PARAPET

Looking North



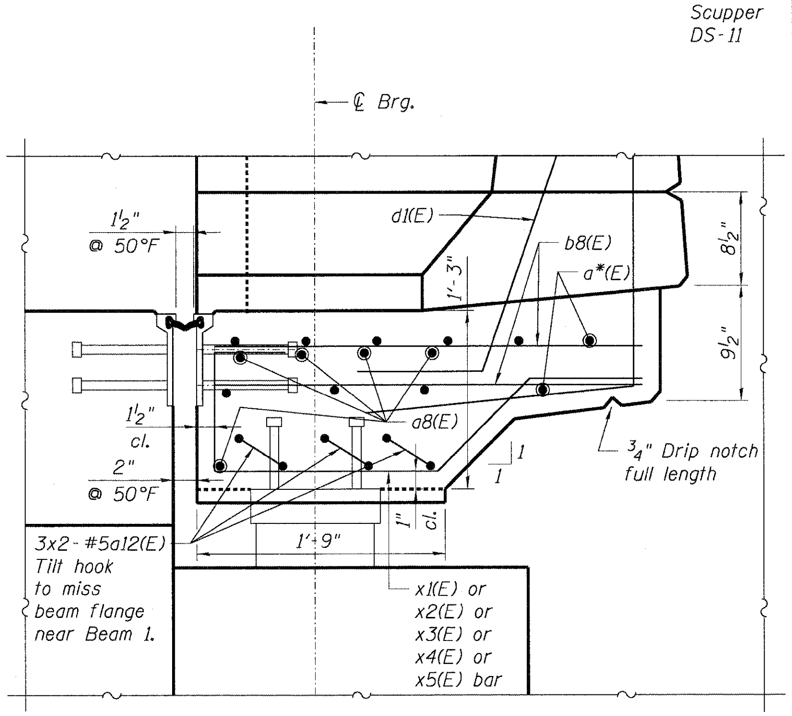
CONCRETE MEDIAN

Looking North



EAST PARAPET

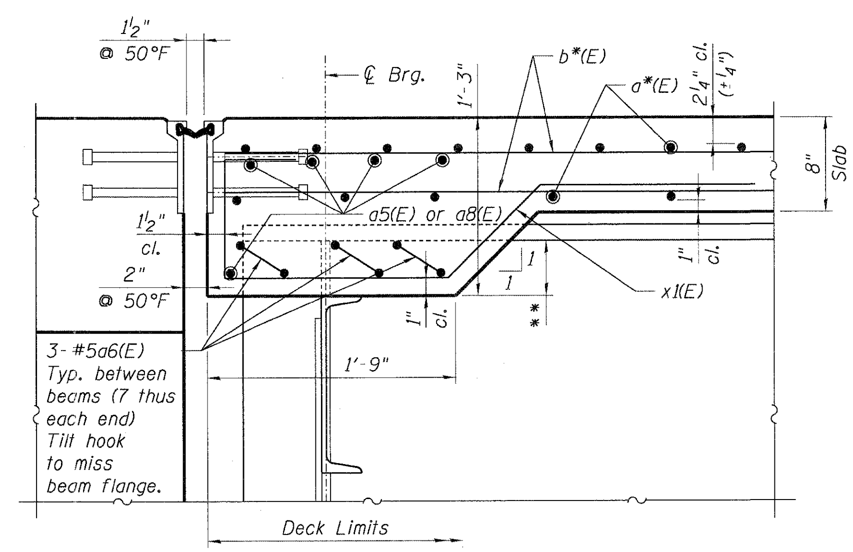
Looking North



SECTION B-B

(Horiz. dim. @ Rt. L's)

* For bar designation, see deck plans.
** For dimension, see Sheet SA-19.



SECTION A-A

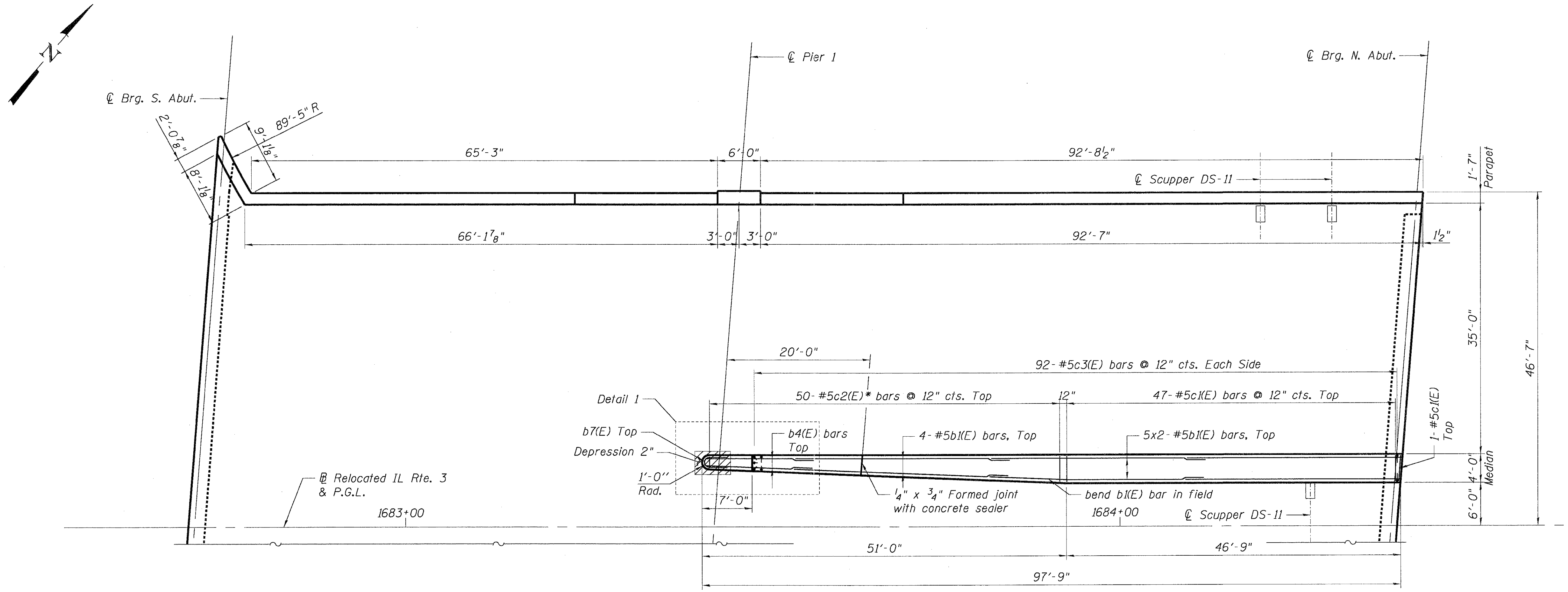
(Horiz. dim. @ Rt. L's)

Notes:

1. For Bar List and Bill of Material, see Sheet SA-14.
2. For section A-A & B-B locations, see Sheet SA-8.

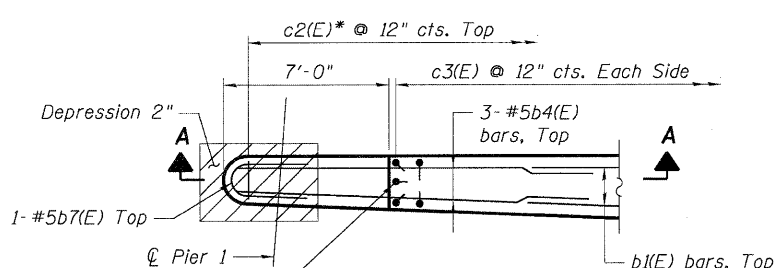
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	DECK CROSS SECTIONS 2 OF 2
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - FD	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -		
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: SHEET NO. SA-10 OF SA-57 STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	145
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

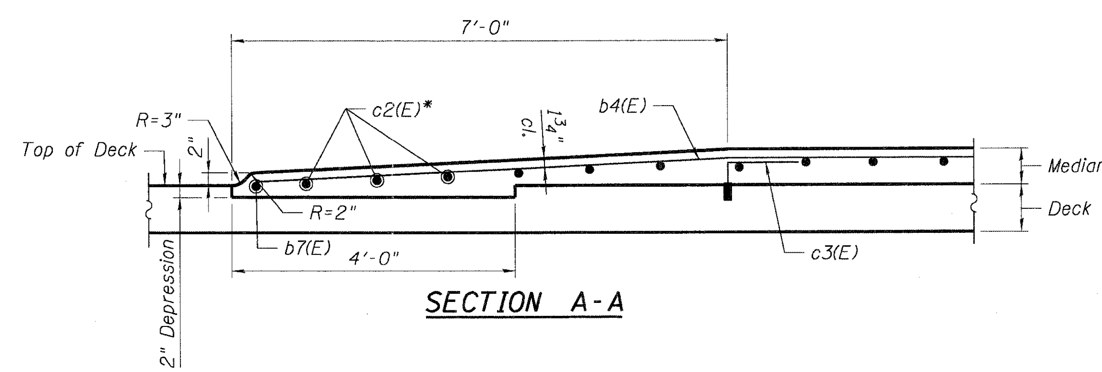


* Cut bars according to cutting diagram and use remainder of bars in this set.

MEDIAN PLAN



PLAN DETAIL 1



SECTION A-A

Notes:

1. See Sheet SA-14 for Bar List and Bill of Material.
2. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. Minimum Lap for Median Reinforcement:
   #5 Bars = 2'-7"

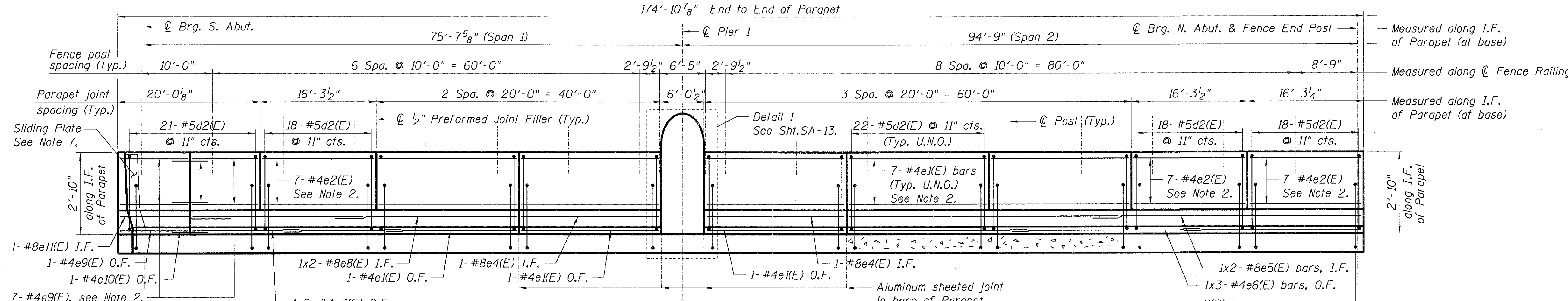
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	
		DRAWN - FD	REVISED -	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

MEDIAN DETAILS

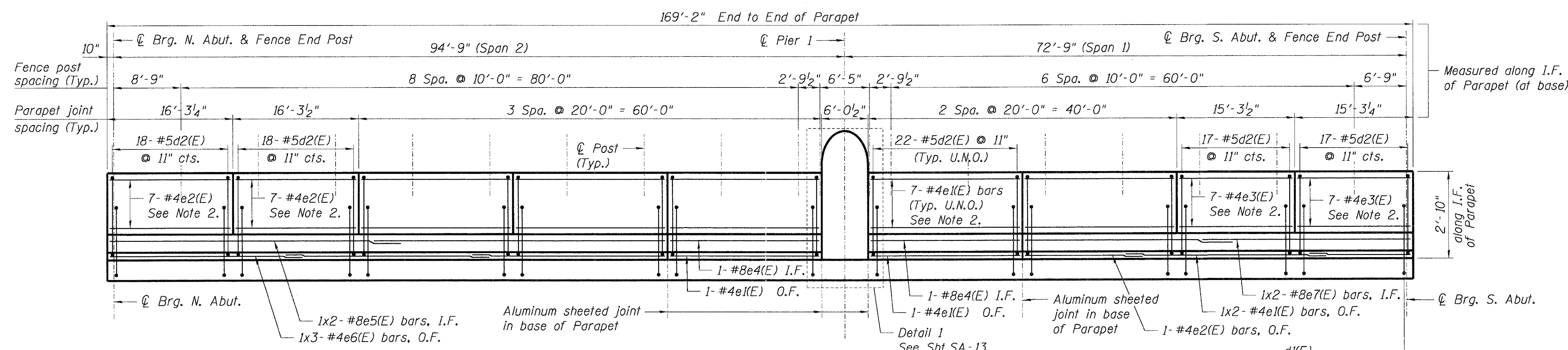
SCALE: | SHEET NO. SA-11 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	146
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



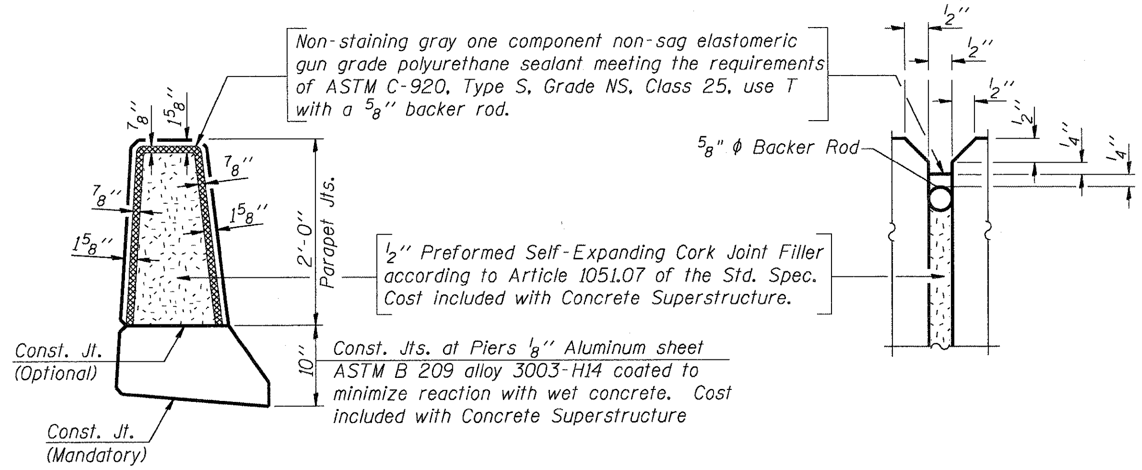
INSIDE ELEVATION OF WEST PARAPET

Looking West (elevation developed along I.F. of parapet at base)



INSIDE ELEVATION OF EAST PARAPET

Looking East



PARAPET JOINT DETAILS

Notes:

1. See Sheet SA-14 for Bar list and Sheet SA-10 for Parapet details.
2. Reinforcement shall be spaced as shown in details on Sht. SA-10.
3. I.F. denotes inside face
   O.F. denotes outside face
   E.F. denotes each face
4. Space bars to miss Parapet Joints.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Minimum Lap for Parapet Reinforcement:
   #4 Bars = 2'-1"
   #8 Bars = 5'-5"
7. For Sliding Plate details at joint, see Sheet SA-17.

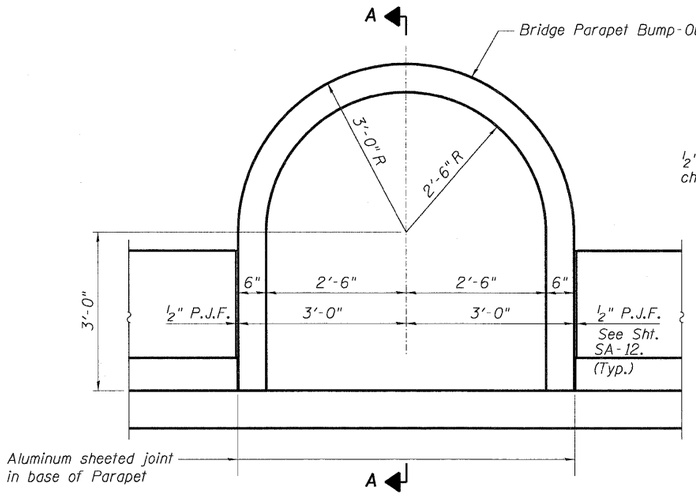
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - FD	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

PARAPET ELEVATIONS

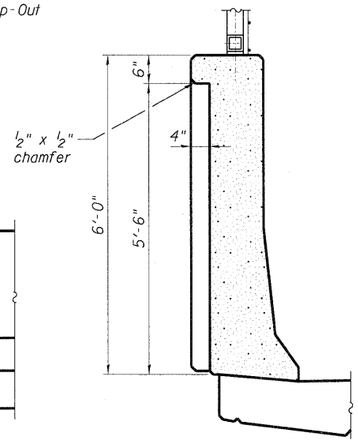
SCALE: | SHEET NO. SA-12 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	147
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



COMMUNITY ICON PARAPET ELEVATION

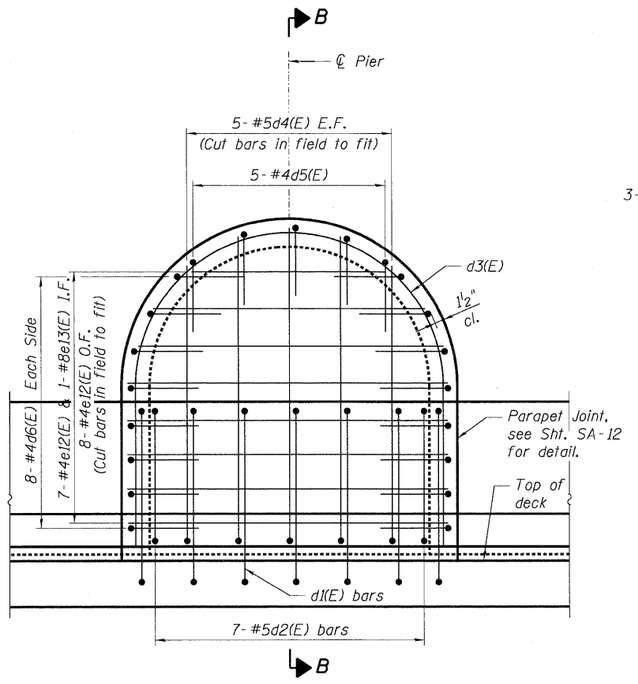
(Outside Face Shown)



SECTION A-A

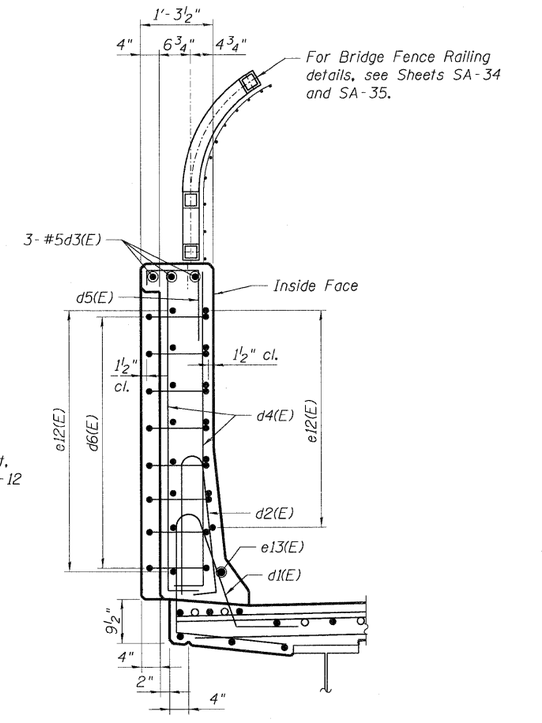
Notes:

1. See Sheet SA-14 for Bar List and Bill of Material.
2. I.F. denotes Inside Face
   O.F. denotes Outside Face
   E.F. denotes Each Face



DETAIL 1

(See Community Icon Parapet Elevation for dimensions)
(Inside Face Shown)



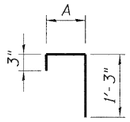
SECTION B-B

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION** IL 3 OVER I-70
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - FD	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

PARAPET DETAILS

SCALE: | SHEET NO. SA-13 OF SA-57 | STA. 1683+43.17 TO STA.

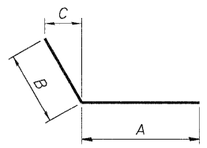
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	148
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



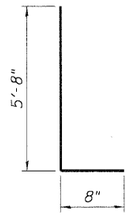
BARS d5(E) & d6(E)

TABLE

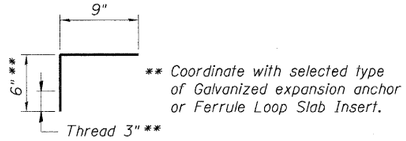
Bar	A	B	C
d5(E)	1'-0"	-	-
d6(E)	1'-0½"	-	-
e10(E)	3'-0"	3'-0"	1'-6"
e11(E)	8'-4"	6'-0"	2'-10⅛"



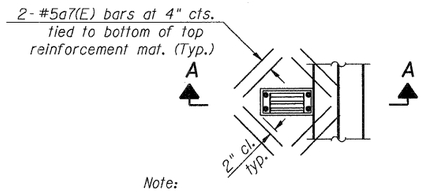
BARS e10(E) & e11(E)



BAR d4(E)

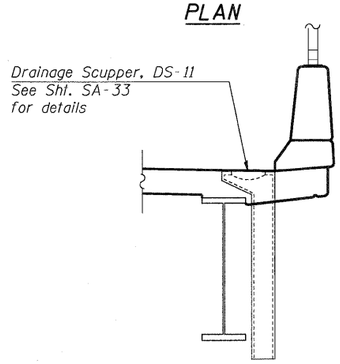


BAR c3(E)

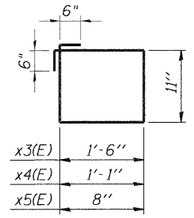


Note:
Cut longitudinal reinforcement to clear drainage scuppers.

PLAN



SECTION A-A

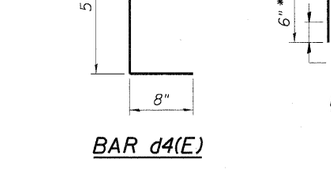


BARS x3(E), x4(E) & x5(E)

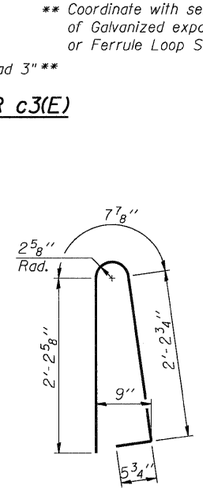
BAR LIST

Bar	No.	Size	Length	Shape
a1(E)	602	#5	30'-0"	——
a2(E)	359	#5	37'-3"	——
a3(E)	238	#5	36'-7"	——
a4(E)	725	#6	6'-6"	——
a5(E)	10	#5	33'-9"	——
d6(E)	42	#5	9'-4"	⊂⊃
a7(E)	32	#5	1'-6"	——
a8(E)	10	#5	37'-9"	——
a9(E)	10	#5	44'-10"	——
a10(E)	6	#5	38'-4"	——
a11(E)	10	#6	20'-0"	——
a12(E)	6	#5	7'-1"	⊂
b1(E)	664	#5	30'-0"	——
b2(E)	68	#5	32'-0"	——
b3(E)	62	#5	20'-0"	——
b4(E)	65	#5	15'-0"	——
b5(E)	65	#6	36'-0"	——
b6(E)	130	#6	15'-3"	——
b7(E)	1	#5	7'-6"	⊂
b8(E)*	7	#5	5'-2"	——
c1(E)	48	#5	3'-7"	——
c2(E)*	25	#5	5'-1"	——
c3(E)	185	#5	1'-3"	⌐
x1(E)	119	#5	6'-5"	⌐¬
x2(E)	1	#5	4'-11"	⌐¬
x3(E)	1	#5	5'-10"	▭
x4(E)	1	#5	5'-0"	▭
x5(E)	1	#5	4'-2"	▭
d1(E)	377	#5	7'-10"	⊏
d2(E)	379	#5	5'-7"	⊐
d3(E)	6	#5	14'-8"	⊂
d4(E)	20	#5	6'-4"	⌐
d5(E)	10	#4	2'-6"	⌐
d6(E)	32	#4	2'-7"	⌐
e1(E)	77	#4	19'-8"	——
e2(E)	36	#4	16'-0"	——
e3(E)	16	#4	15'-0"	——
e4(E)	4	#8	19'-8"	——
e5(E)	4	#8	39'-0"	——
e6(E)	6	#4	25'-6"	——
e7(E)	2	#8	28'-0"	——
e8(E)	2	#8	25'-8"	——
e9(E)	15	#4	8'-5"	——
e10(E)	8	#4	6'-0"	——
e11(E)	1	#8	14'-4"	——
e12(E)	30	#4	5'-8"	——
e13(E)	2	#8	5'-8"	——

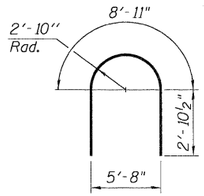
* Cut bars according to Cutting diagram.



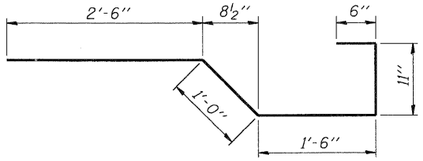
BAR d1(E)



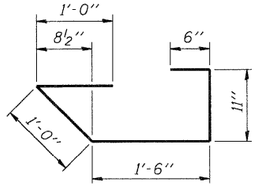
BAR d2(E)



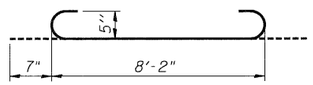
BAR d3(E)



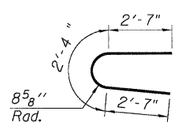
BAR x1(E)



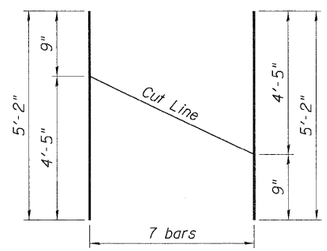
BAR x2(E)



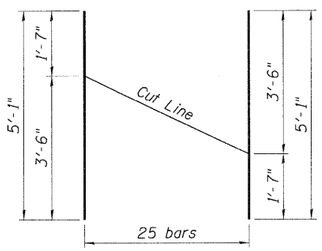
BAR a6(E)



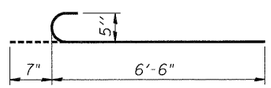
BAR b7(E)



BAR b8(E)



BAR c2(E)



BAR a12(E)

BILL OF MATERIAL

Item	Unit	Total
Concrete Superstructure	Cu. Yd.	347.8
Reinforcement Bars, Epoxy Coated	Pound	92,920
Bridge Deck Grooving	Sq. Yd.	1,069
Protective Coat	Sq. Yd.	1,311

Notes:

1. Reinforcement bars designated (E) shall be epoxy coated.

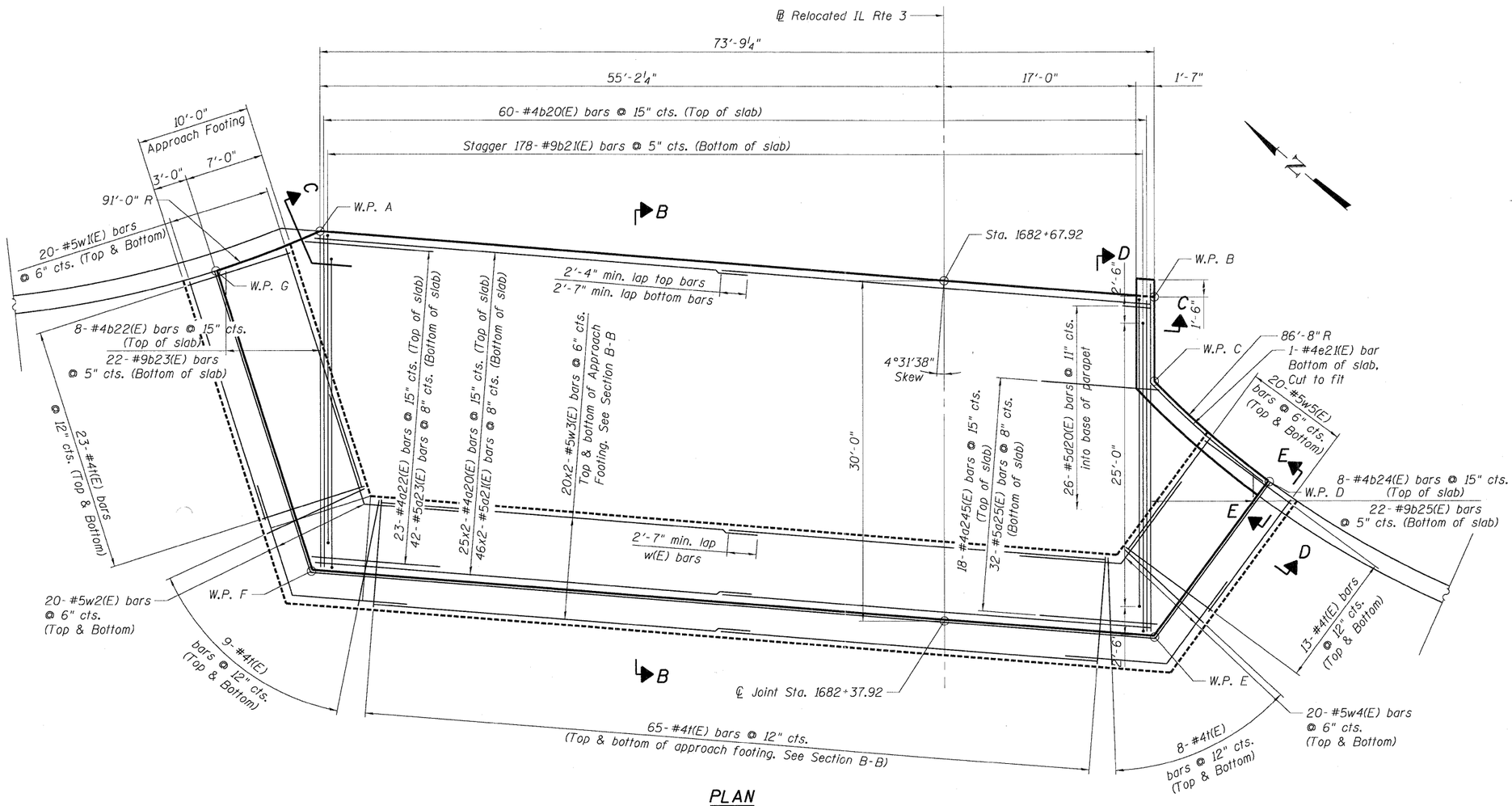
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JLR	REVISED -
		DRAWN - FD	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JRH	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

DECK DETAILS & BAR LIST

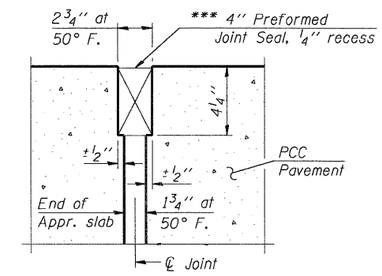
SCALE: | SHEET NO. SA-14 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	149
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



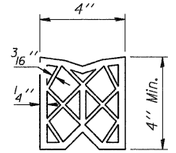
PLAN

*** Cost included with Concrete Superstructure.

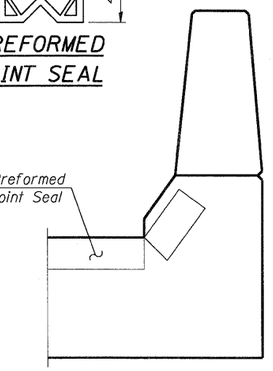


RIGID PAVEMENT

DETAIL A



PREFORMED JOINT SEAL

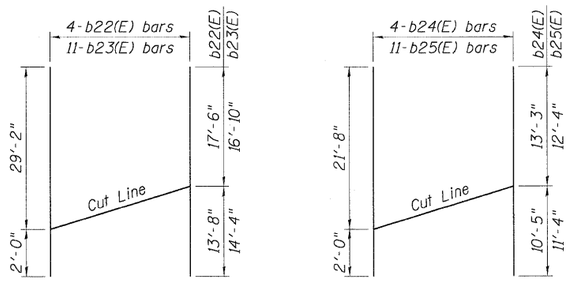


VIEW E-E

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

Work Points

Work Point	Station	Offset
A	1682+72.29	55.18 Lt.
B	1682+66.44	18.58 Rt.
C	1682+59.06	18.58 Rt.
D	1682+50.18	28.76 Rt.
E	1682+36.44	18.58 Rt.
F	1682+42.35	56.00 Lt.
G	1682+68.79	64.41 Lt.



CUTTING DIAGRAMS

NOTES:

1. See sheet SA-16 for Sections B-B & C-C and View D-D.
2. a20(E) thru a23(E) bar spacings measured along ℄ Roadway.
3. Tilt b21(E) bars as required to maintain clearance.
4. Bars indicated thus 25x2-#5 etc. indicated 25 lines of bars with 2 lengths per line.
5. See cutting diagrams for b22(E) thru b25(E) bars.

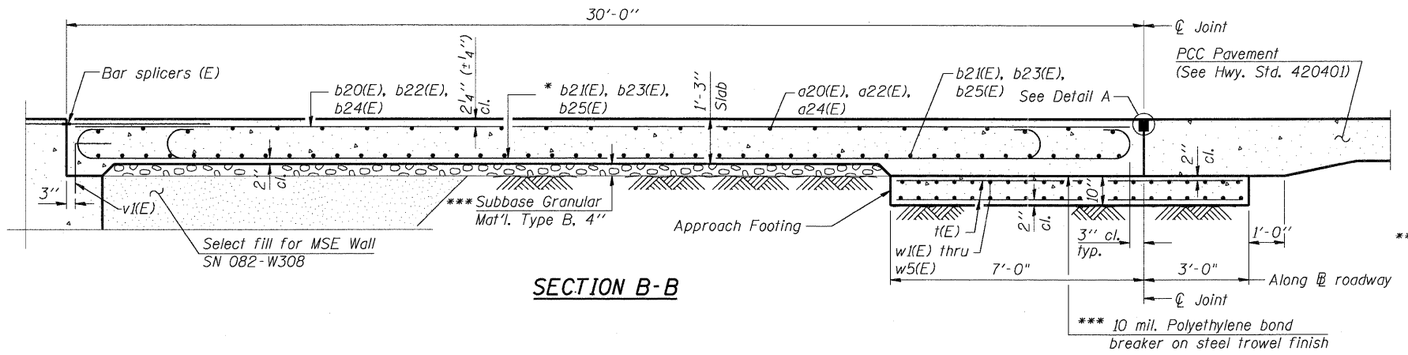
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOUTH APPROACH SLAB PLAN

SCALE: | SHEET NO. SA-15 OF SA-57 | STA. 1683+43.17 TO STA.

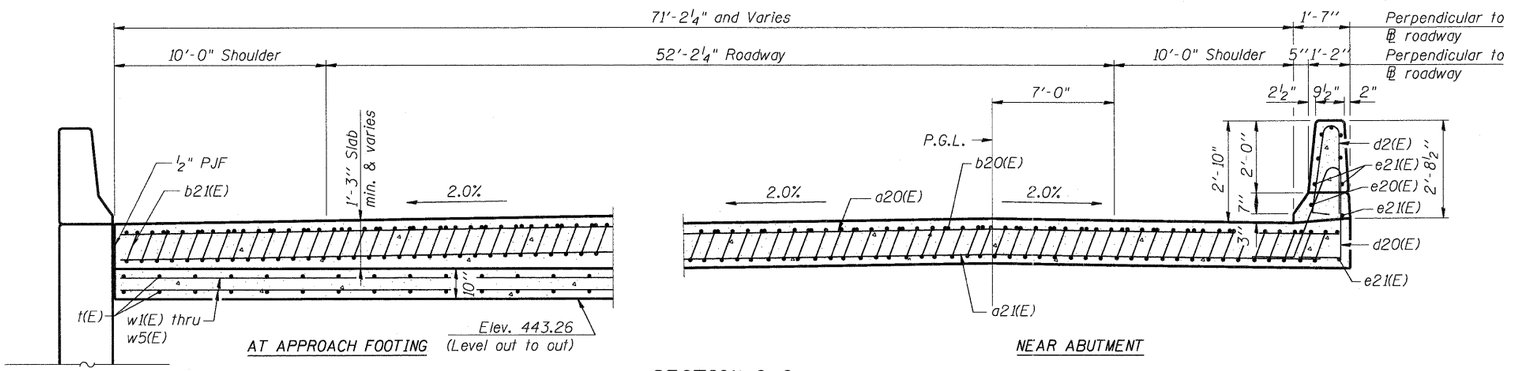
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	150
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION B-B

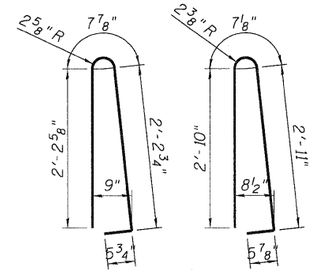
* Tilt #9b21(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.



SECTION C-C

(See Plan for dimensions not shown)

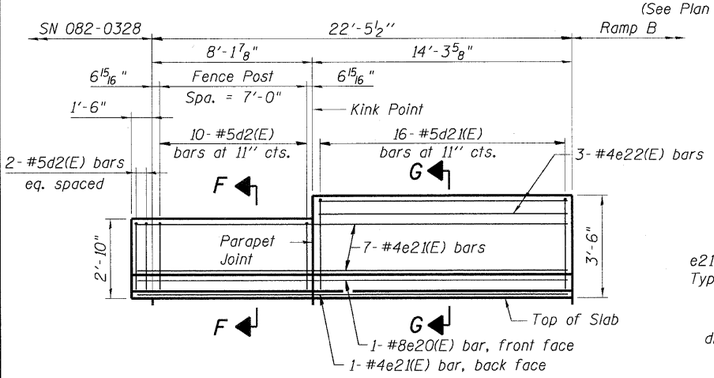


BAR d2(E) BAR d21(E)

BILL OF MATERIAL

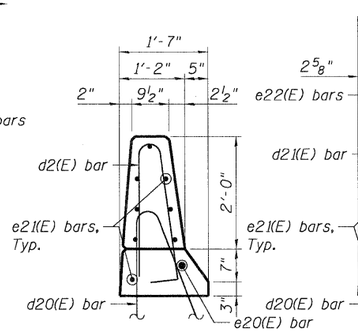
Bar	No.	Size	Length	Shape
a20(E)	50	#4	38'-0"	
a21(E)	92	#5	38'-2"	
a22(E)	23	#4	11'-9"	
a23(E)	42	#5	12'-0"	
a24(E)	18	#4	12'-9"	
a25(E)	32	#5	13'-0"	
b20(E)	60	#4	29'-8"	
b21(E)	178	#9	29'-9"	
b22(E)*	4	#4	31'-2"	
b23(E)*	11	#9	31'-2"	
b24(E)*	4	#4	23'-8"	
b25(E)*	11	#9	23'-8"	
d2(E)	12	#5	5'-7"	
d20(E)	26	#5	7'-11"	
d21(E)	16	#5	6'-10"	
e20(E)	1	#8	21'-11"	
e21(E)	8	#4	21'-11"	
e22(E)	3	#4	13'-11"	
t(E)	236	#4	9'-8"	
w1(E)	40	#5	23'-0"	
w2(E)	40	#5	18'-0"	
w3(E)	80	#5	35'-0"	
w4(E)	40	#5	16'-6"	
w5(E)	40	#5	13'-4"	
Protective Coat			Sq. Yd.	226
Bridge Deck Grooving			Sq. Yd.	274
Concrete Superstructure			Cu. Yd.	117.0
Concrete Structures			Cu. Yd.	35.5
Reinforcement Bars, Epoxy Coated			Pound	35,620

*Cut bars according to cutting diagrams.

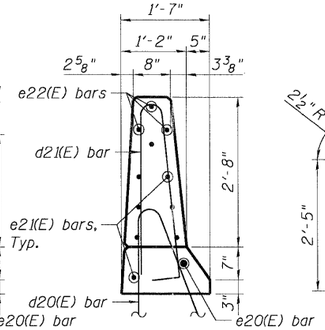


VIEW D-D

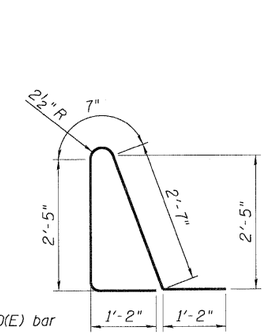
(Along inside face of parapet, unfolded)



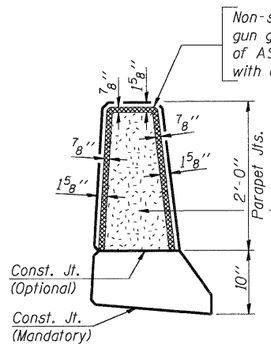
SECTION F-F

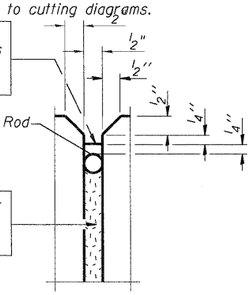


SECTION G-G

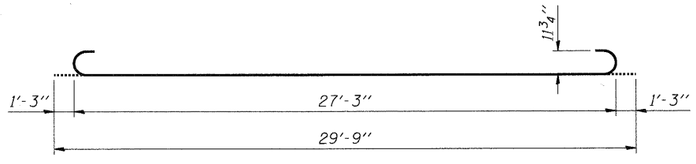


BAR d20(E)

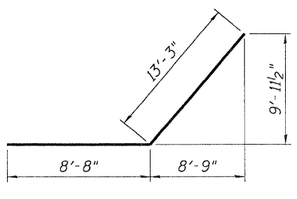




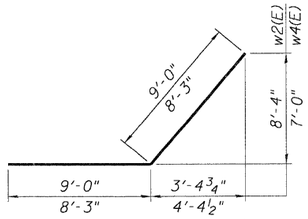
PARAPET JOINT DETAILS



BAR b21(E)



Bars e20(E) and e21(E)



Bars w2(E) and w4(E)

NOTES:

1. See sheet SA-15 for Detail A and View E-E.
2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v1(E) bar details, see sheet SA-23.
6. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
7. For bar splicer details, see sheet SA-32.
8. Cost of excavation for approach footing included with Concrete Structures.
9. Cost of PJF included with Concrete Superstructure.
10. For bridge fence details, see Sht. SA-34.

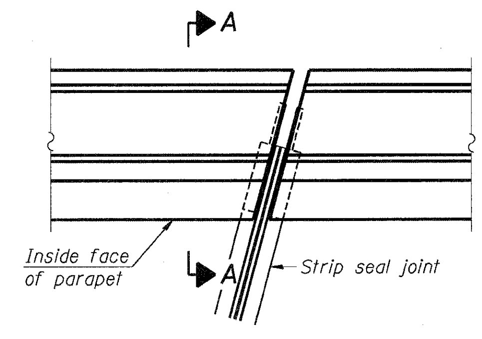
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

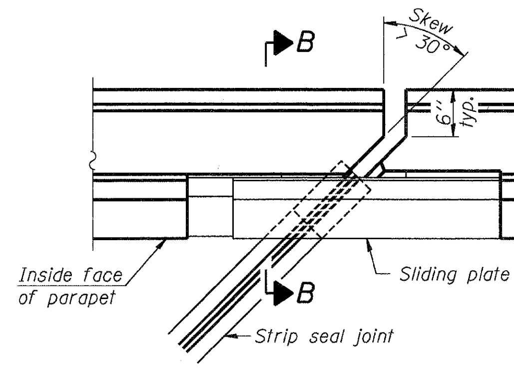
BRIDGE APPROACH SLAB DETAILS

SCALE: | SHEET NO. SA-16 OF SA-57 | STA. 1683+43.17 TO STA.

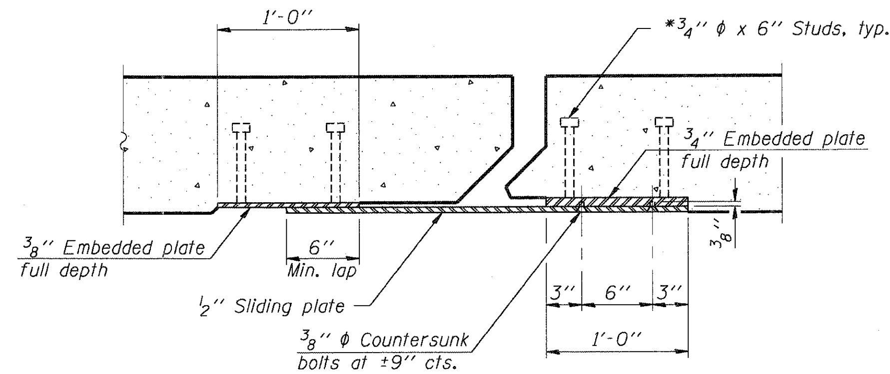
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	151
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



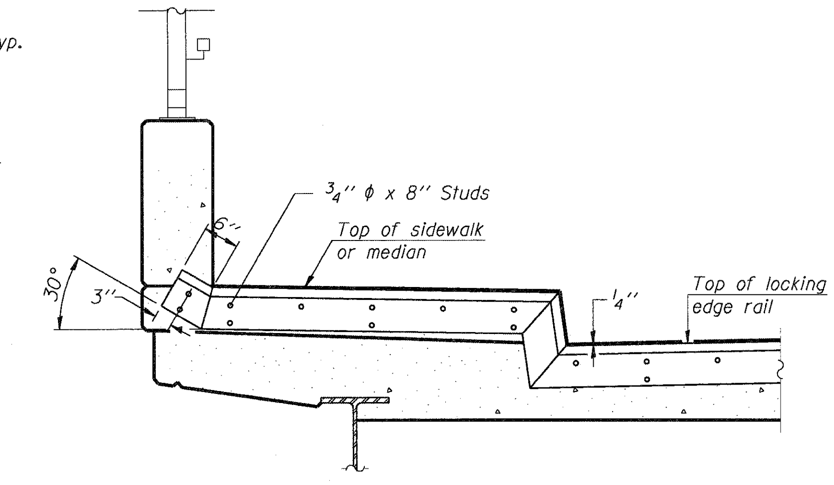
PLAN
(For skews ≤ 30°)



PLAN
(For skews > 30°)
Showing point block

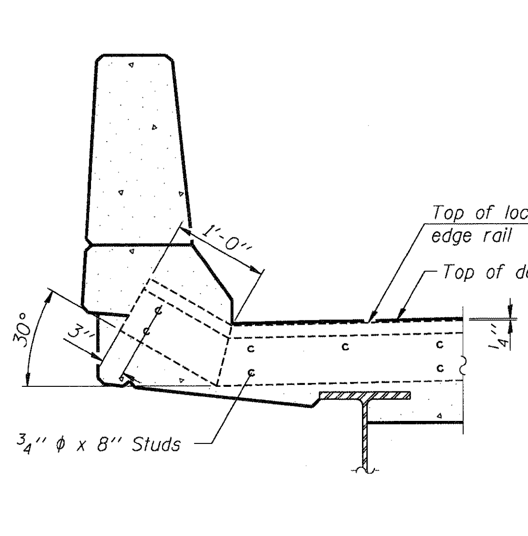


SECTION C-C

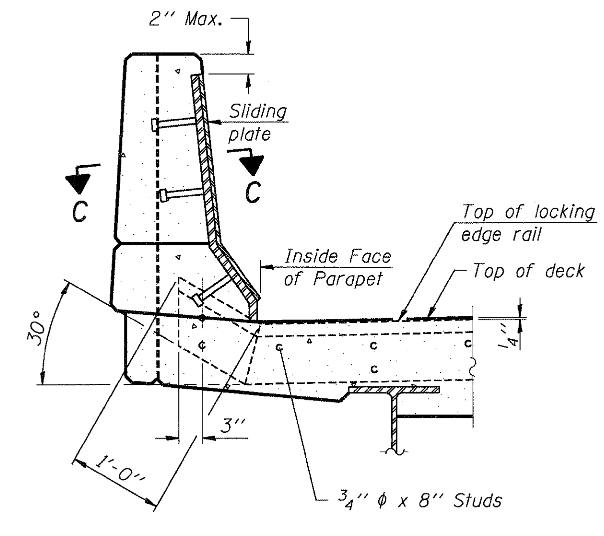


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

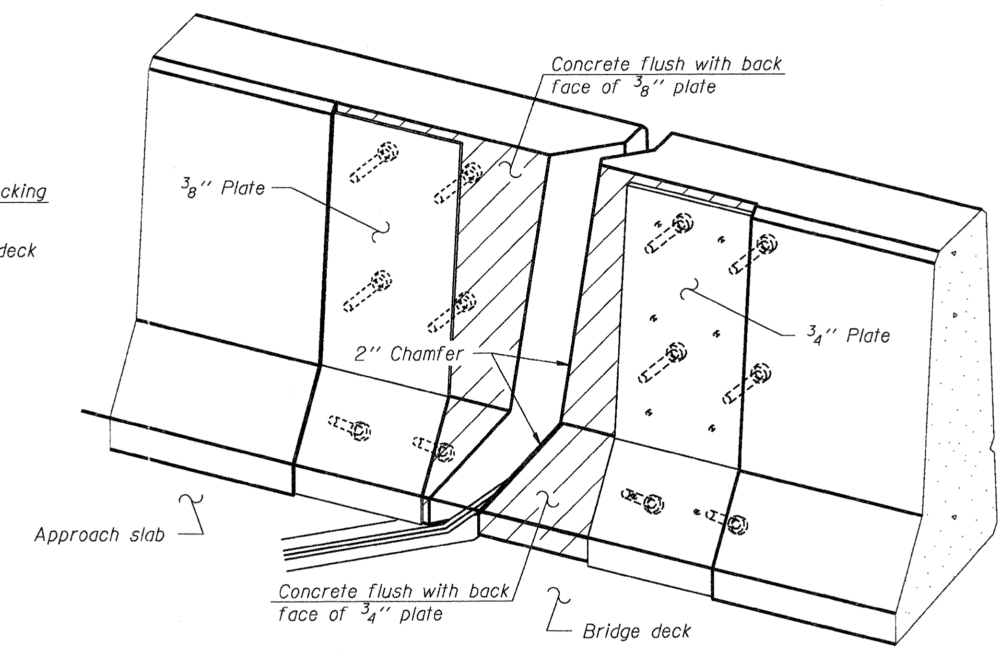
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



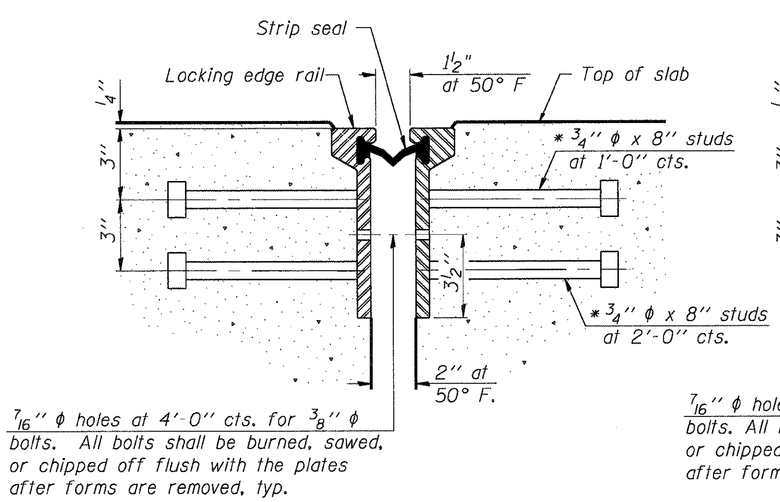
SECTION A-A



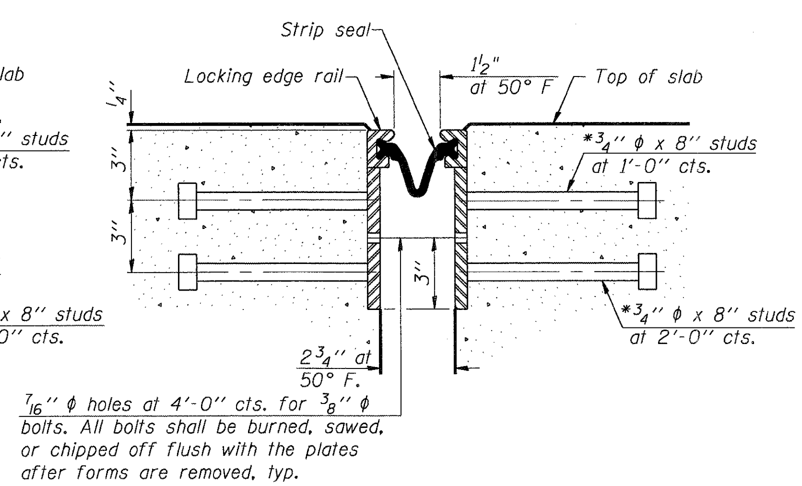
SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

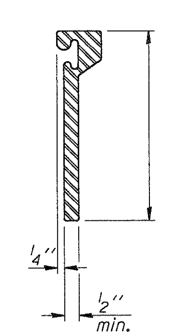


SECTION THRU ROLLED RAIL JOINT

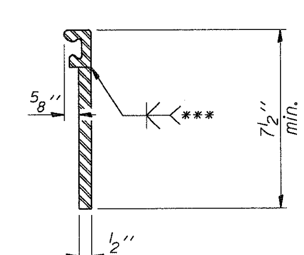


SECTION THRU WELDED RAIL JOINT

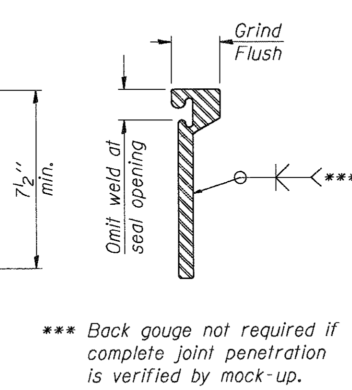
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

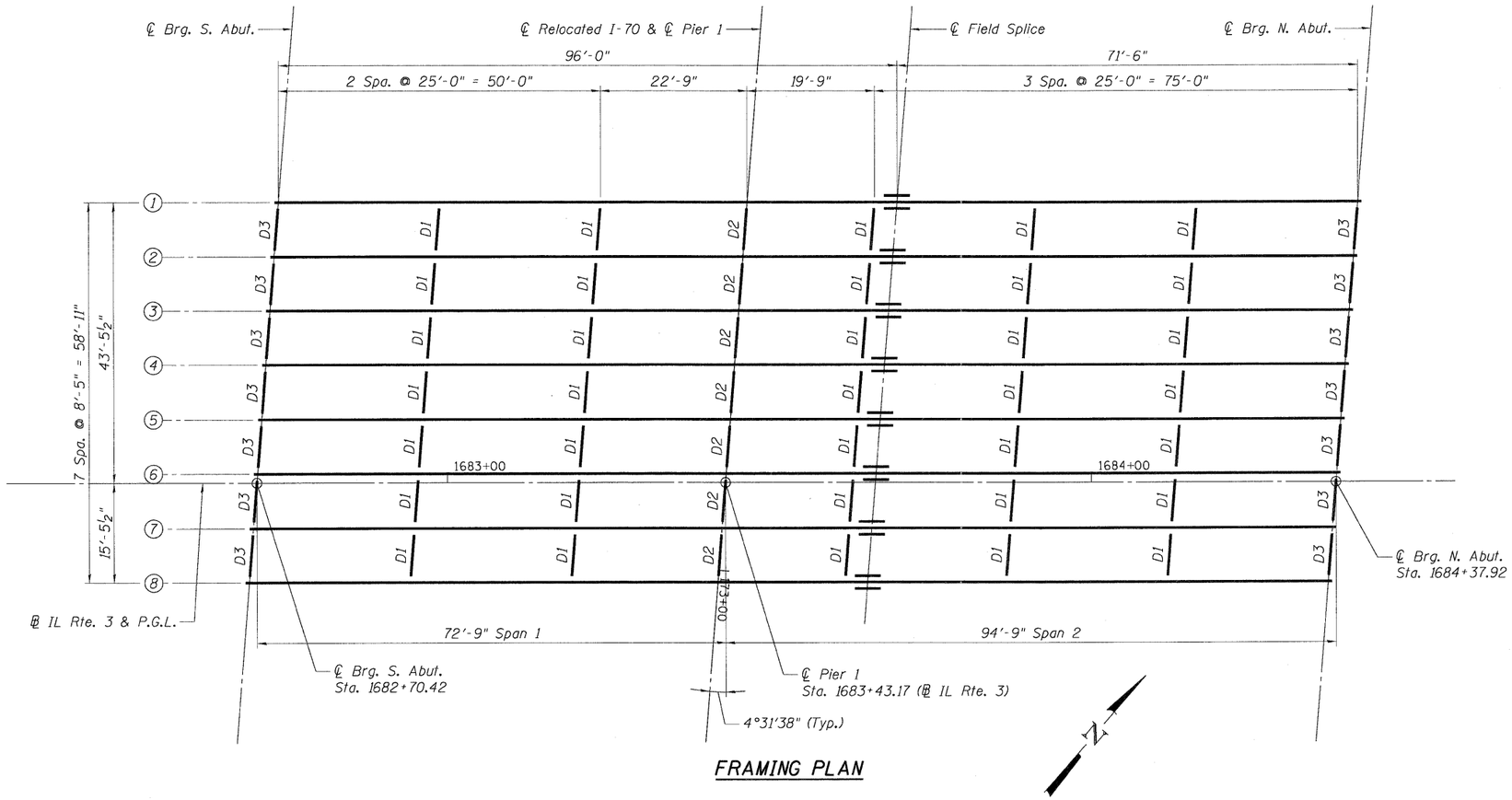
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	132

EJ-SSJ 7-1-10

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	EXPANSION JOINT DETAILS
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -		SCALE:
	PLOT DATE = $DATE$	CHECKED - JLR	REVISED -		SHEET NO. SA-17 OF SA-57
		DATE - 05/13/11	REVISED -		STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	152
SN 082-0328		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

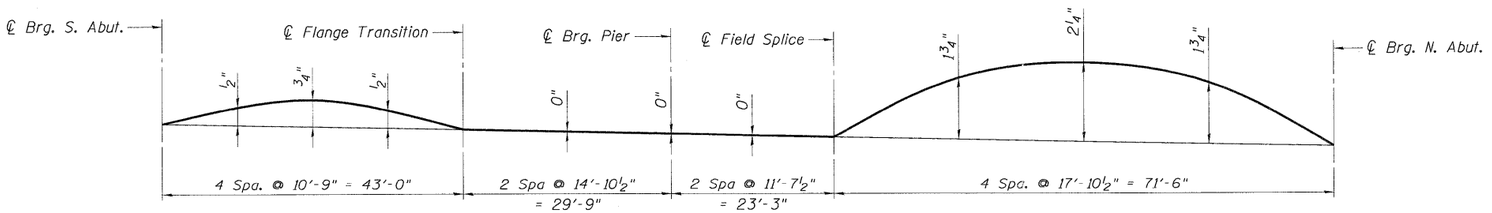


FRAMING PLAN

TOP OF WEB ELEVATIONS

(For fabrication only)

Girder	℄ Brg. S. Abut.	℄ Flange Transition	℄ Brg. Pier	Splice	℄ Brg. N. Abut.
1	445.06	444.32	443.67	443.16	441.19
2	445.31	444.50	443.85	443.35	441.38
3	445.49	444.69	444.04	443.53	441.57
4	445.67	444.87	444.22	443.72	441.76
5	445.85	445.05	444.40	443.90	441.95
6	446.03	445.23	444.59	444.09	442.14
7	445.92	445.13	444.49	443.99	442.05
8	445.77	444.97	444.33	443.83	441.90

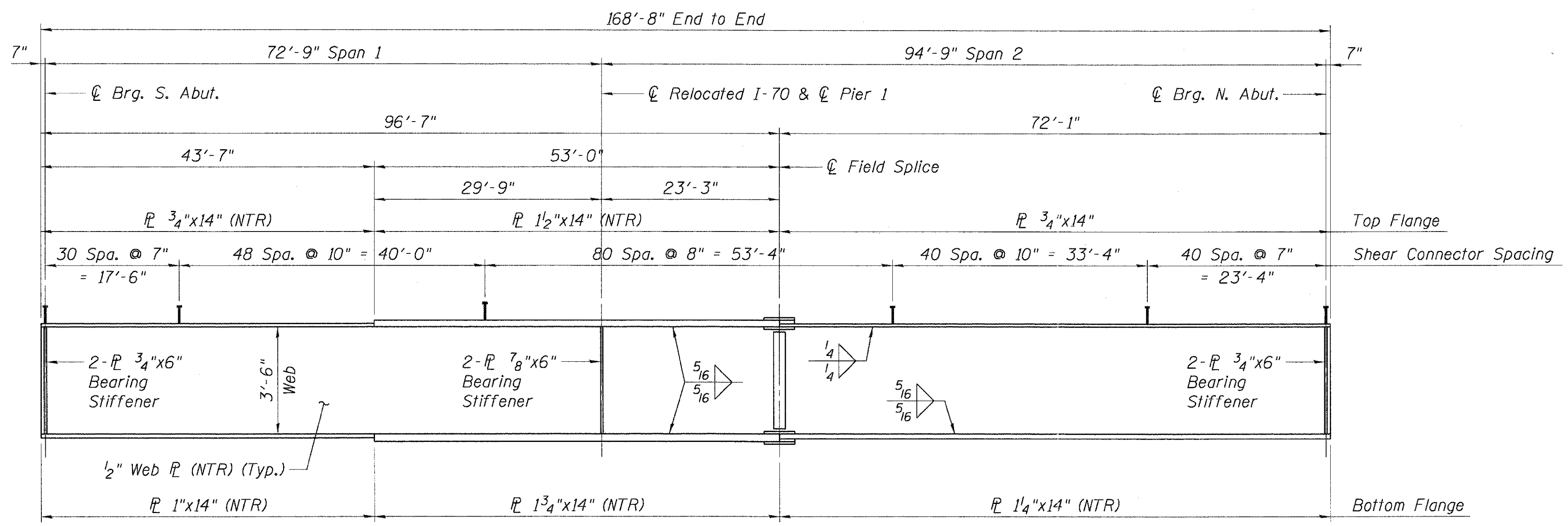


CAMBER DIAGRAM

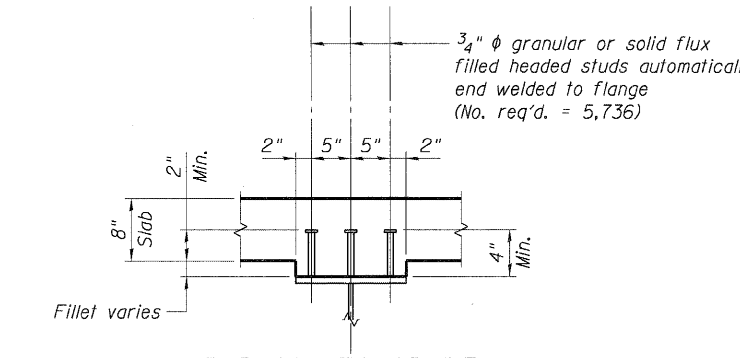
NOTES:

1. All structural steel shall be AASHTO M 270 Grade 50 except diaphragms, fill plates, and shim plates shall be Grade 36.
2. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

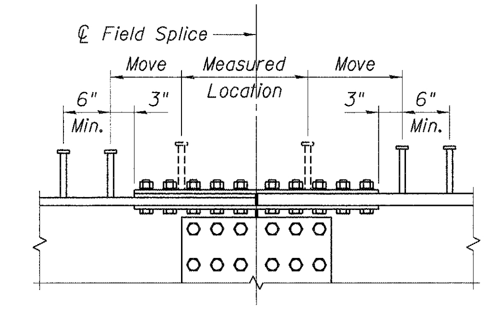
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - CCE	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	FRAMING PLAN	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - CCE	REVISED -			998	82-2-1HVB-1	ST. CLAIR	345	153
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -				SN 082-0328	CONTRACT NO. 76D05		
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE:	SHEET NO. SA-18 OF SA-57	STA. 1683+43.17 TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



GIRDER ELEVATION

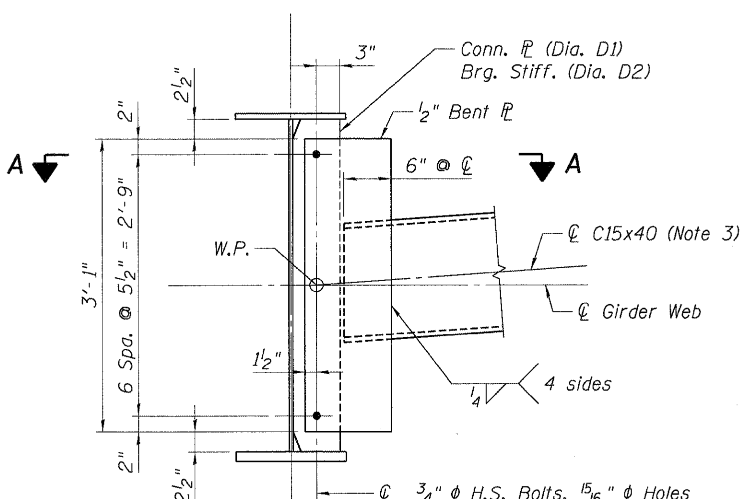


SHEAR CONNECTOR DETAIL



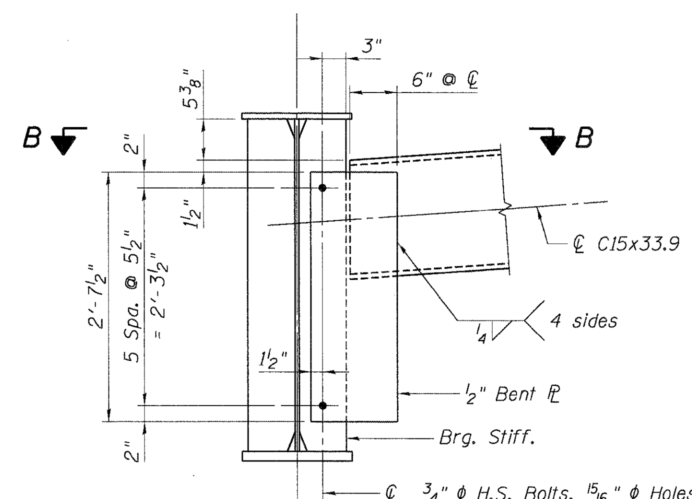
SHEAR CONNECTOR DETAIL AT SPLICES

DO NOT place shear connectors on splice plates.
Move row of studs to 3" beyond nearest edge of splice plate from measured location.



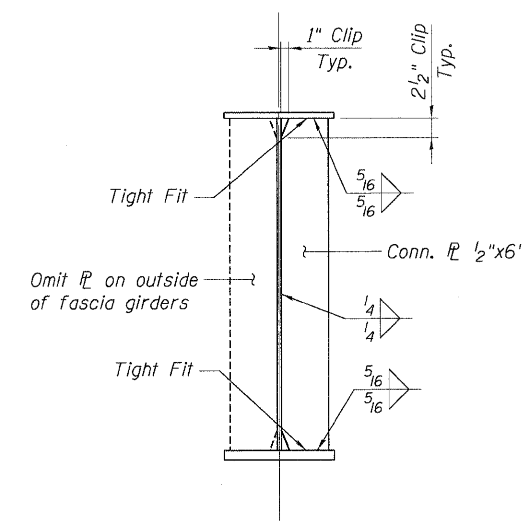
DIAPHRAGMS D1 AND D2

(35 D1, 7 D2 Required)

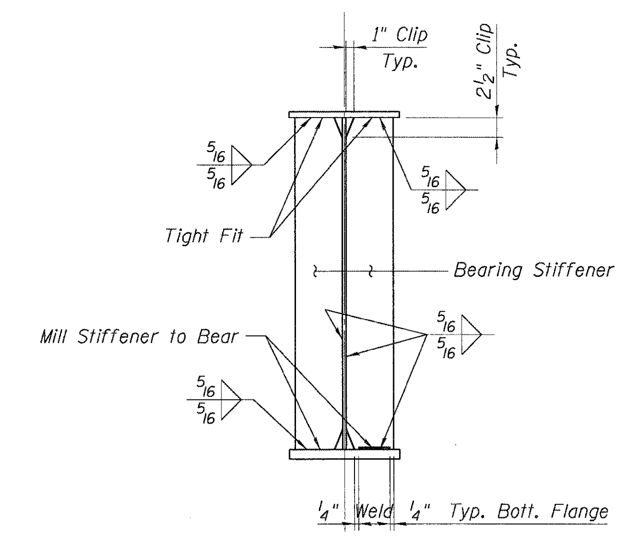


DIAPHRAGM D3

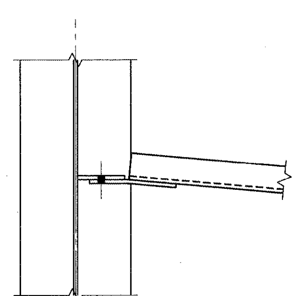
(14 Required)



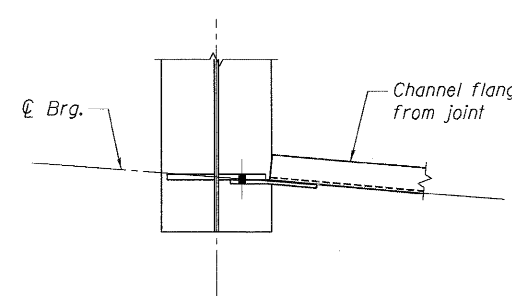
DIAPHRAGM CONNECTION PLATE DETAIL



BEARING STIFFENER DETAIL



SECTION A-A



SECTION B-B

NOTES:

1. All structural steel shall be AASHTO M 270 Grade 50 except diaphragms, fill plates, and shim plates shall be Grade 36.
2. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
3. Alternate channels C15x50 are permitted for Diaphragms D1 and D2 to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the Department.
4. Two hardened washers required for each set of oversized holes.

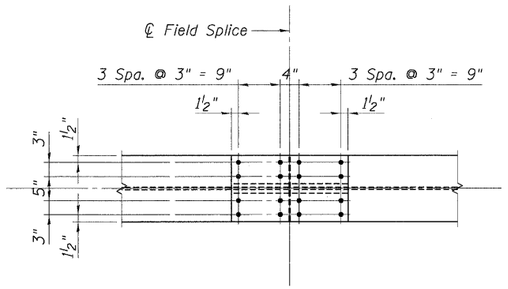
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - CCE	REVISED -
		DRAWN - CCE	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

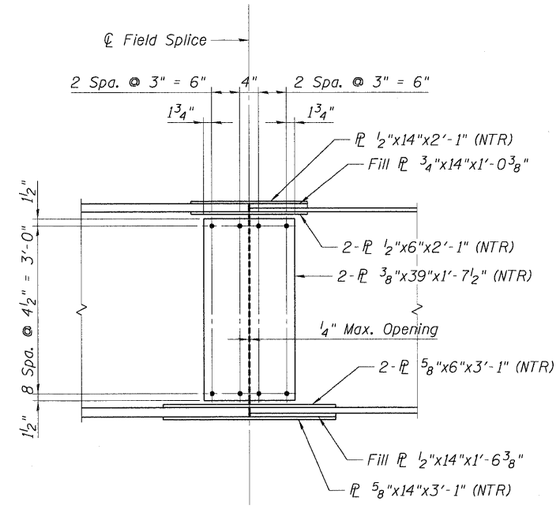
GIRDER ELEVATION

SCALE: | SHEET NO. SA-19 OF SA-57 | STA. 1683+43.17 TO STA.

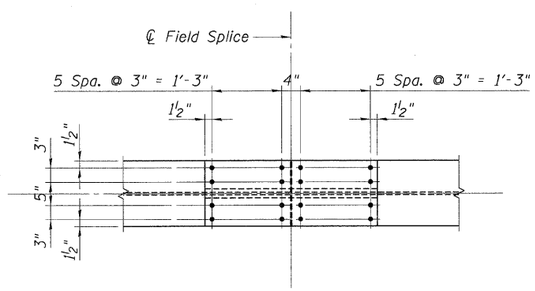
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	154
SN 082-0328		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP FLANGE



FIELD SPLICE ELEVATION



BOTTOM FLANGE

EXTERIOR GIRDER MOMENT TABLE

		0.4 Span 1	Pier 1	0.6 Span 2
Is	(in4)	14,229	24,661	15,587
Ic (n)	(in4)	36,787		41,726
Ic (3n)	(in4)	27,233		30,378
Ic (cr)	(in4)		29,665	
Ss	(in3)	700	1,144	816
Sc (n)	(in3)	969		1,122
Sc (3n)	(in3)	891		1,033
Sc (cr)	(in3)		1,225	
DC1	(k/ft)	0.979	1.050	0.990
M DC1	(k-ft)	209	1,069	653
DC2	(k/ft)	0.126	0.126	0.164
M DC2	(k-ft)	19	152	116
DW	(k/ft)	0.388	0.388	0.388
M DW	(k-ft)	90	391	262
M LL+IM	(k-ft)	1,023	1,420	1,395
Mu (Strength I)	(k-ft)	2,210	4,598	3,796
ϕf Mn	(k-ft)	4,931		5,534
fs DC1	(ksi)	3.6	11.2	9.6
fs DC2	(ksi)	0.3	1.5	1.3
fs DW	(ksi)	1.2	3.8	3.0
fs LL+IM	(ksi)	12.7	13.9	14.9
fs (Service II)	(ksi)	21.5	34.6	33.4
0.95 Rh Fyf	(ksi)	47.5	47.5	47.5
fs Total (Strength I)	(ksi)	28.8	46.0	44.4
ϕf Fn	(ksi)		50.0	
Vf	(k)	58.9	56.6	56.9

INTERIOR GIRDER REACTION TABLE

		S. Abut.	Pier 1	N. Abut.
R DC1	(k)	23.8	119.1	39.3
R DC2	(k)	2.5	15.4	6.2
R DW	(k)	8.8	42.0	14.3
R LL+IM	(k)	86.8	159.6	93.6
R Total	(k)	121.9	336.1	153.3

Is, Ss: Noncomposite moment of inertia and section modulus of the steel section used for computing fs (Strength I and Service II) due to noncomposite dead loads

Ic (n), Sc (n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, n, used for computing fs (Strength I and Service II) in uncracked sections due to short-term composite live loads

Ic (3n), Sc (3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, 3n, used for computing fs (Strength I and Service II) in uncracked sections due to long-term composite (superimposed) dead loads

Ic (cr), Sc (cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement used for computing fs (Strength I and Service II) in cracked sections due to both short-term composite live loads and long-term composite dead loads

DC1: Unfactored noncomposite dead load

M DC1: Unfactored moment due to noncomposite dead load

DC2: Unfactored long-term composite (superimposed excluding future wearing surface) dead load

M DC2: Unfactored moment due to long-term composite (superimposed excluding future wearing surface) dead load

DW: Unfactored long-term composite (superimposed future wearing surface only) dead load

M DW: Unfactored moment due to long-term composite (superimposed future wearing surface only) dead load

M LL+IM: Unfactored moment due to live load plus dynamic load allowance (impact)

Mu (Strength I): Factored design moment
1.25 [(M DC1) + (M DC2)] + 1.5 (M DW) + 1.75 (M LL+IM)

ϕf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1

fs DC1: Unfactored stress at outside face of controlling steel flange due to vertical noncomposite dead loads as calculated below
(M DC1) / Ss

fs DC2: Unfactored stress at outside face of controlling steel flange due to vertical composite dead loads as calculated below
(M DC2) / [Sc (3n)] or (M DC2) / [Sc (cr)] as applicable

fs DW: Unfactored stress at outside face of controlling steel flange due to vertical composite future wearing surface loads as calculated below
(M DW) / [Sc (3n)] or (M DW) / [Sc (cr)] as applicable

fs LL+IM: Unfactored stress at outside face of controlling steel flange due to vertical composite live plus impact loads as calculated below
(M LL+IM) / [Sc (n)] or (M LL+IM) / [Sc (cr)] as applicable

fs (Service II): Sum of stresses as computed below
(fs DC1) + (fs DC2) + (fs DW) + 1.3 (fs LL+IM)

0.95 Rh Fyf: Composite stress capacity for Service II loading according to Article 6.10.4.2

fs Total (Strength I): Sum of stresses as computed below
1.25 [(fs DC1) + (fs DC2)] + 1.5 (fs DW) + 1.75 (fs LL+IM)

ϕf Fn: Composite factored flexural resistance of controlling flange for Strength I loading according to Article 6.10.7.2 or 6.10.8

Vf: Maximum vertical fatigue shear force range under Fatigue I load combination computed according to Article 6.10.10

NOTES:

1. All structural steel shall be AASHTO M 270 Grade 50 except diaphragms, fill plates, and shim plates shall be Grade 36.
2. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

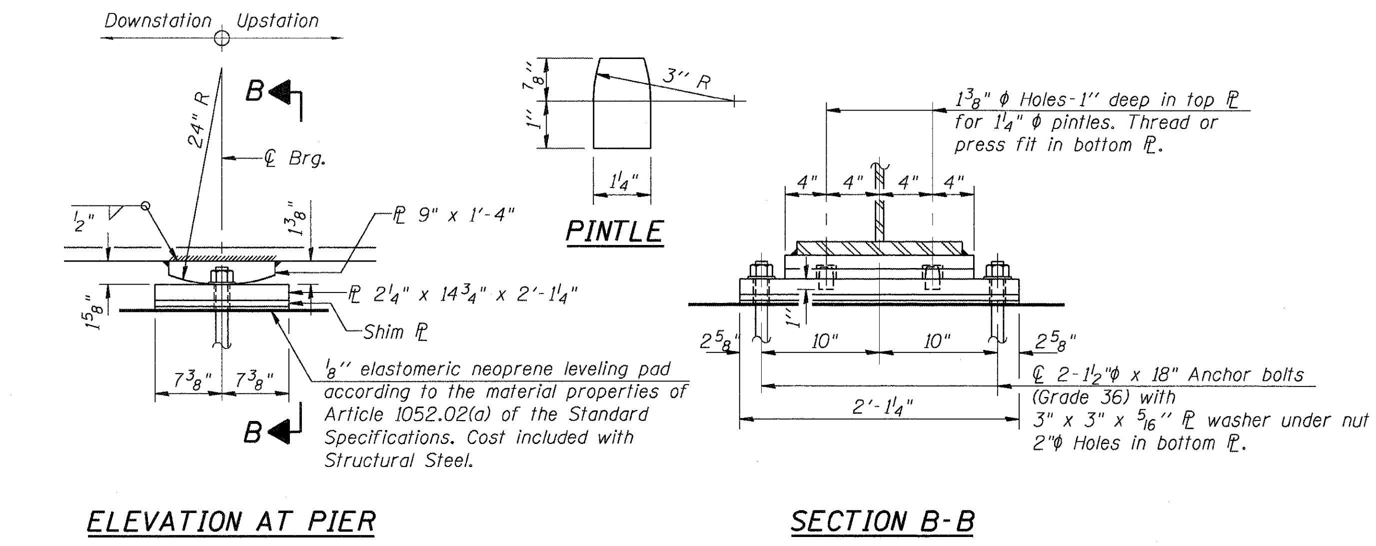
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - CCE	REVISED -	
		DRAWN - CCE	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

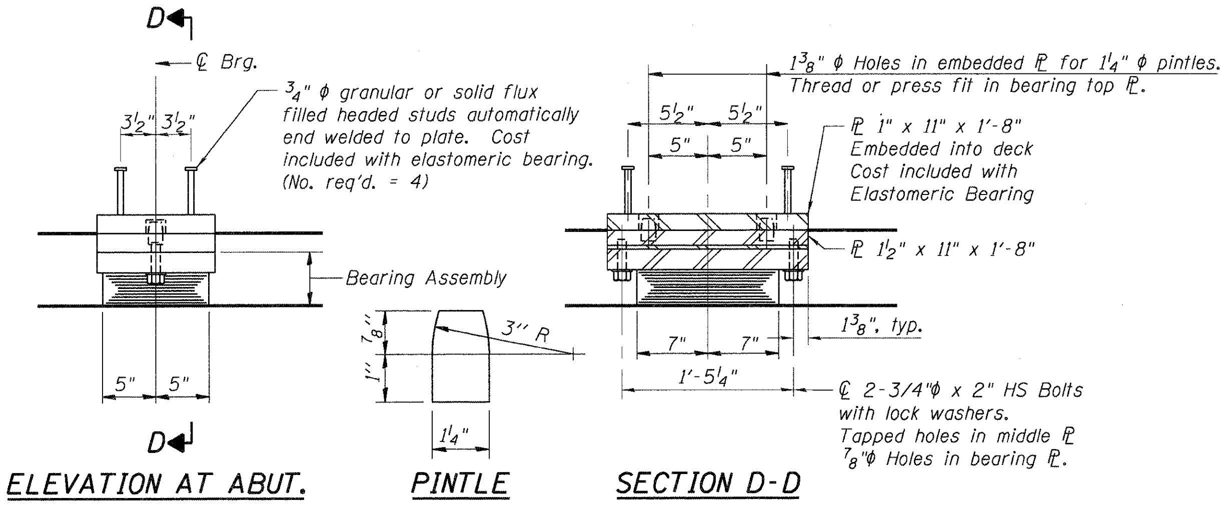
STEEL DETAILS

SCALE: | SHEET NO. SA-20 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	155
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

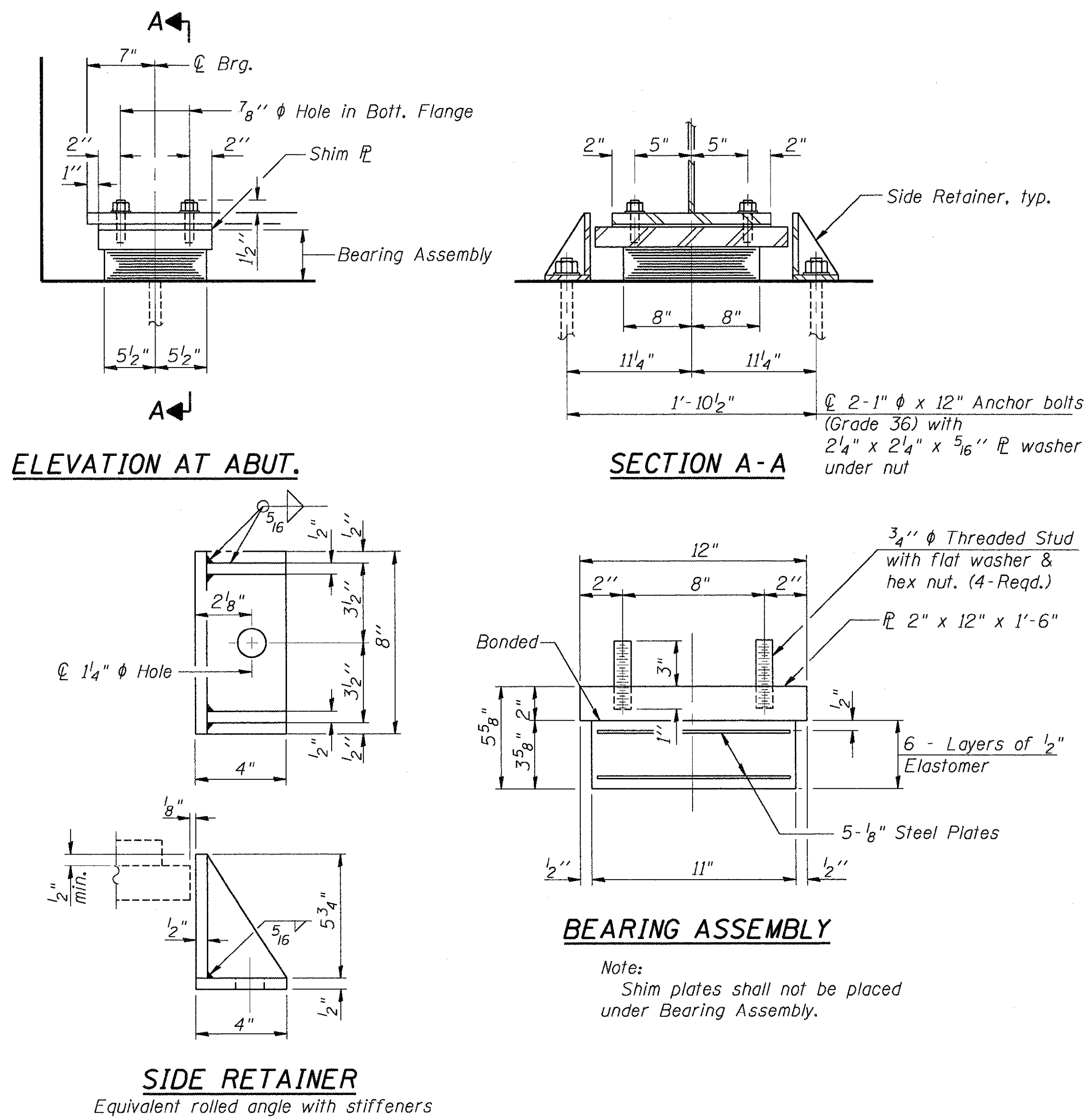


FIXED BEARING AT PIER

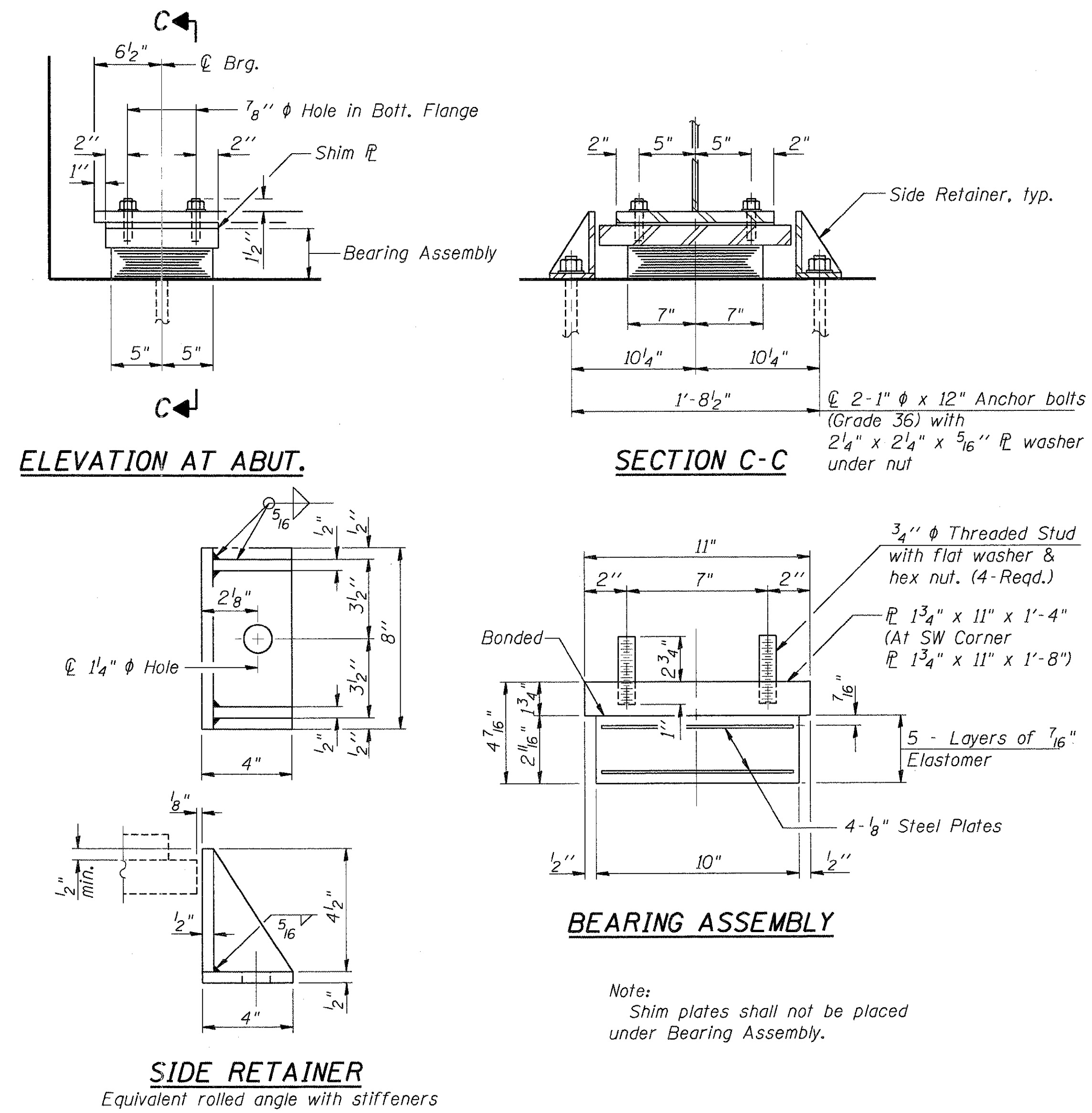


TYPE I ELASTOMERIC EXP. BRG. AT SLAB SOUTHWEST CORNER

(No Side Retainers)



NORTH ABUTMENT TYPE I ELASTOMERIC EXP. BRG.



SOUTH ABUTMENT TYPE I ELASTOMERIC EXP. BRG.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	17
Anchor Bolts, 1"	Each	32
Anchor Bolts, 1½"	Each	16

NOTES:

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. Anchor bolts for fixed bearings may be either cast in place or installed in holes after members are in place.
3. Anchor bolts for side retainers may be either cast in place or installed in holes drilled before or after members are in place.
4. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
5. Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
6. The structural steel plates of the elastomeric bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 36.
7. The structural steel plates of the fixed bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 50.
8. Two ⅛" adjusting shims shalls be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
9. The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

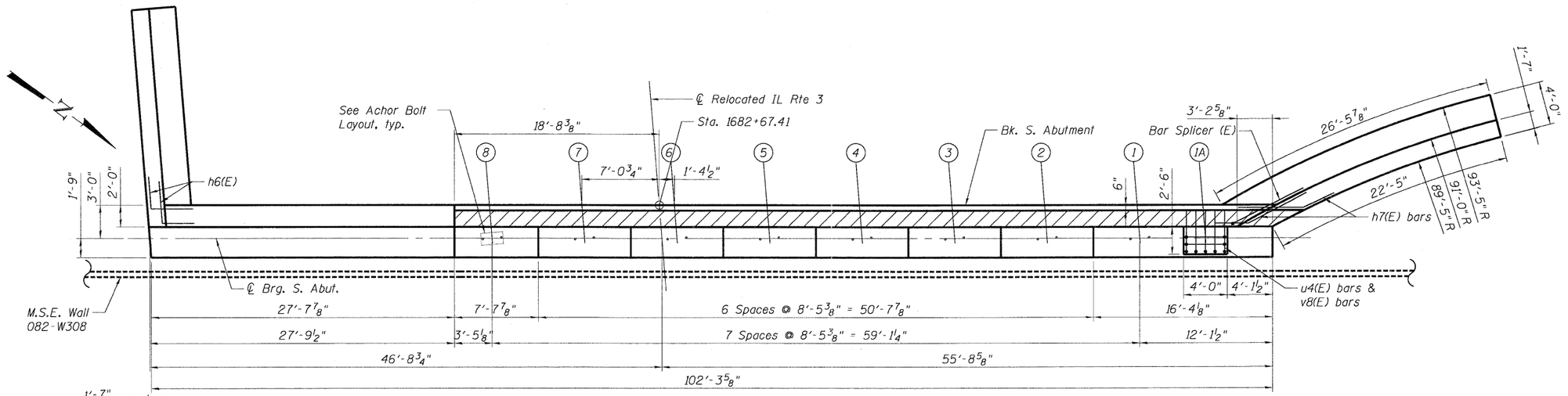
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	
		DRAWN - TCG	REVISED -	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

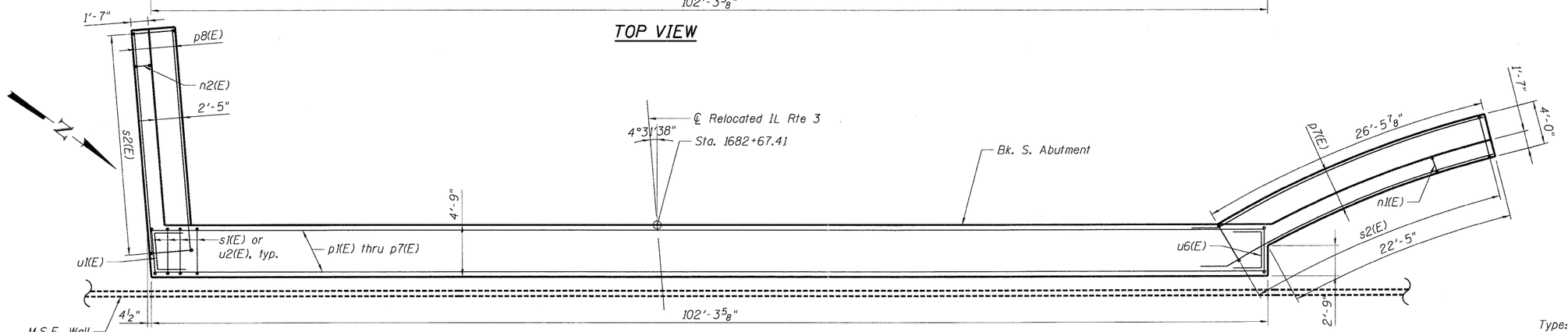
BEARING DETAILS

SCALE: | SHEET NO. SA-21 OF SA-57 | STA. 1683+43.17 TO STA.

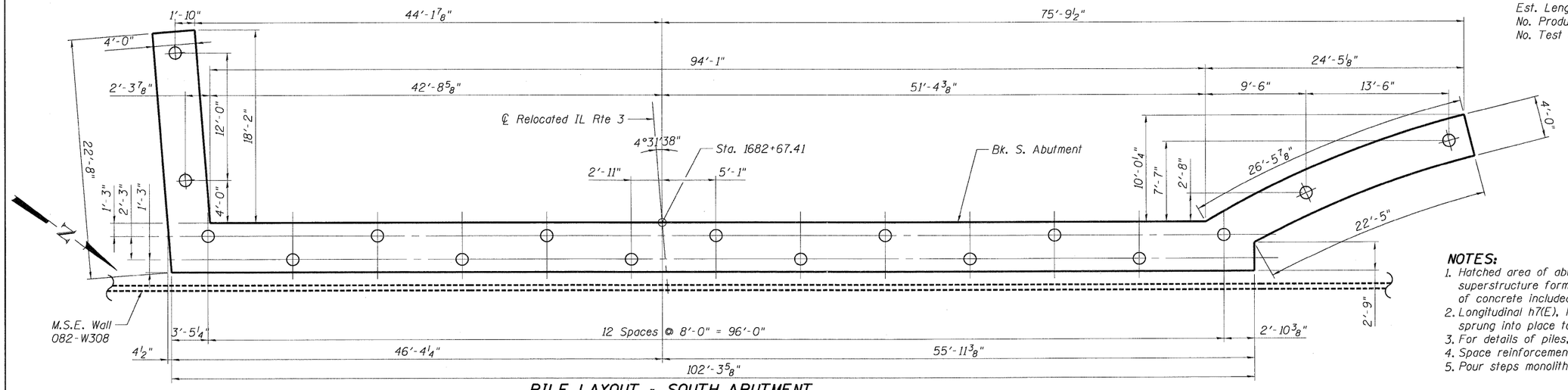
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	156
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP VIEW



PLAN - SOUTH ABUTMENT CAP



PILE LAYOUT - SOUTH ABUTMENT

BEARING SEAT ELEVATIONS

Girder	Elevations
1A	443.86
1	441.09
2	441.35
3	441.53
4	441.71
5	441.88
6	442.06
7	441.96
8	441.80

PILE DATA

Type: MS14X0.25 Metal Sheel Piles
Nominal Required Bearing: 413 kips/pile
Factored Resistance Available: 227 kips/pile
Est. Length: 98 ft
No. Production Piles: 16
No. Test Piles: 1

NOTES:

1. Hatched area of abutment backwall to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
2. Longitudinal h7(E), h8(E), h9(E) , and p8(E) shall be sprung into place to be concentric at the spacing noted.
3. For details of piles, see Sht. SA-36
4. Space reinforcement in cap to miss anchor bolts.
5. Pour steps monolithically with cap.

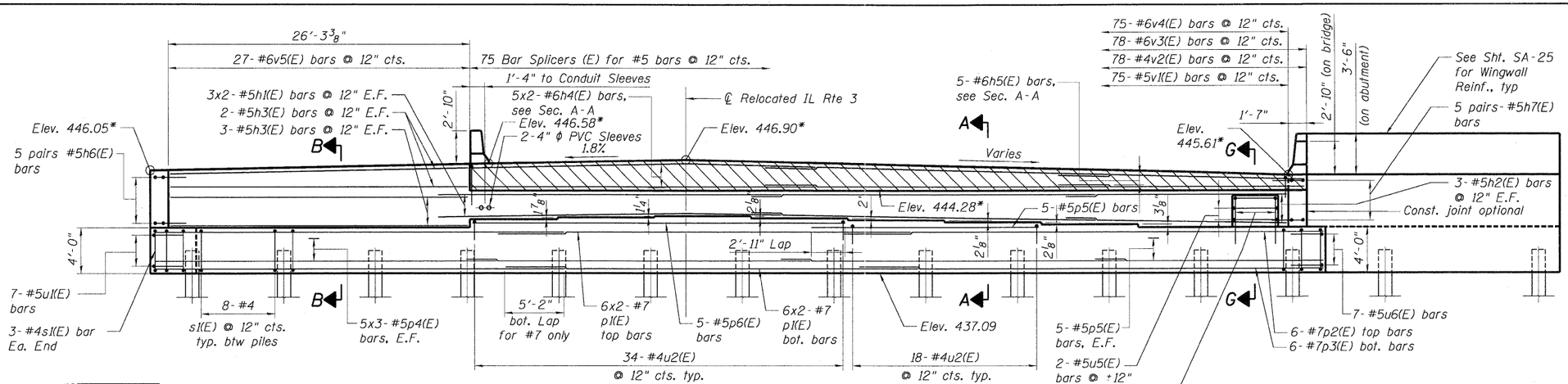
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
		DRAWN - MDJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOUTH ABUTMENT
PLAN & PILE LAYOUT

SCALE: | SHEET NO. SA-22 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	157
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION

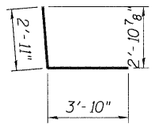
(Looking South)

*Elevations @ Front Face of Backwall

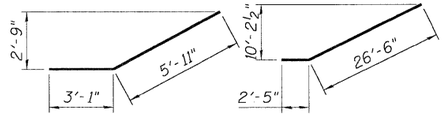
MIN. LAP LENGTH

(Unless noted otherwise)

Bar Size	Lap
#5	2'-7"
#6	4'-5"
#7	5'-10"

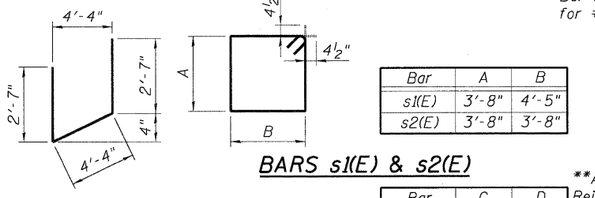


BAR h6(E)



BAR h7(E)

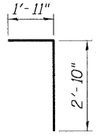
BAR p7(E)

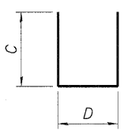


Bar	A	B
s1(E)	3'-8"	4'-5"
s2(E)	3'-8"	3'-8"

BARS s1(E) & s2(E)

BAR u1(E)

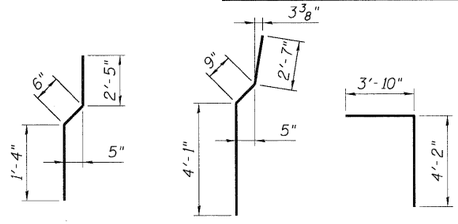




Bar	C	D
n1(E)	5'-5"	1'-4"
n2(E)	6'-5"	1'-4"
u2(E)	2'-4"	4'-2"
u3(E)	2'-7"	1'-4"
u4(E)	4'-3"	3'-9"
u5(E)	3'-10"	3'-9"
u6(E)	2'-7"	4'-4"
v5(E)	7'-2"	1'-9"

BAR v1(E)

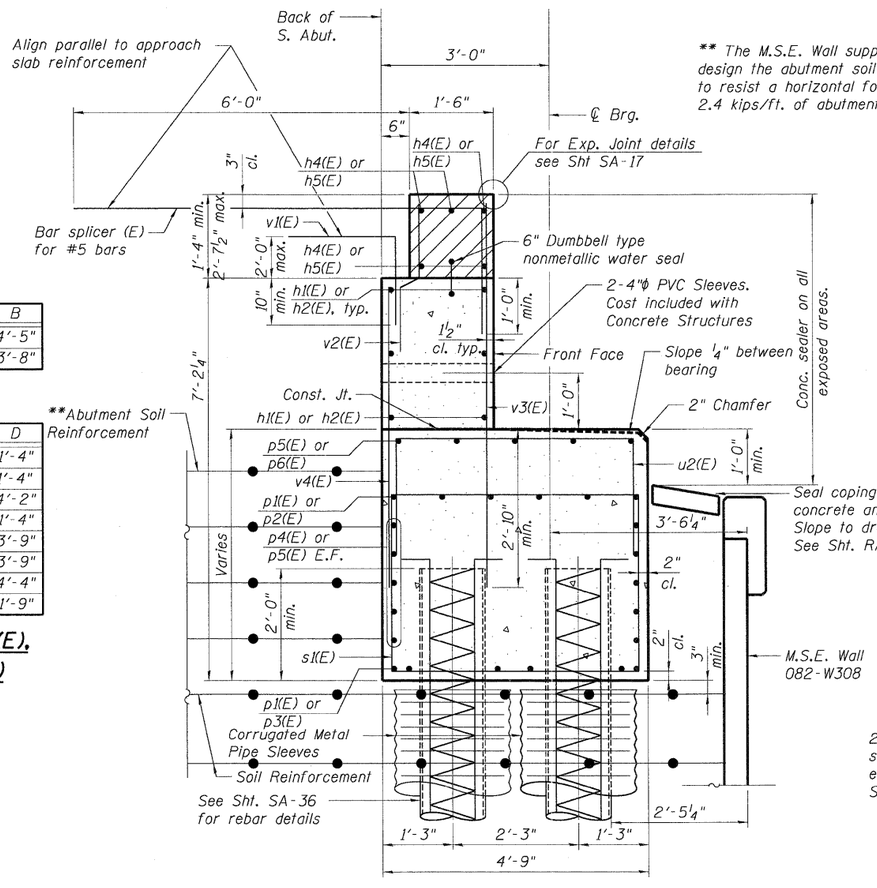
BARS n1(E), n2(E), u2(E), u3(E), u4(E), u5(E), u6(E), & v5(E)



BAR v2(E)

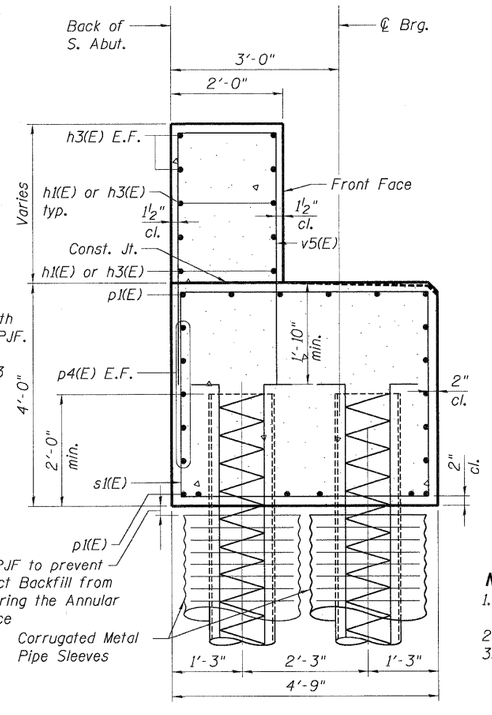
BAR v6(E)

BAR v8(E)



SECTION A-A

** The M.S.E. Wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 2.4 kips/ft. of abutment



SECTION B-B

SOUTH ABUTMENT BAR LIST

Bar	No.	Size	Length	Shape
h1(E)	12	#5	30'-0"	
h2(E)	6	#5	22'-9"	
h3(E)	10	#5	25'-11"	
h4(E)	10	#6	30'-0"	
h5(E)	5	#6	26'-0"	
h6(E)	10	#5	6'-9"	
h7(E)	10	#5	9'-0"	
h8(E)	10	#5	25'-4"	
h9(E)	10	#5	22'-1"	
h10(E)	12	#5	19'-8"	
n1(E)	62	#6	12'-2"	
n2(E)	49	#6	14'-2"	
p1(E)	24	#7	36'-0"	
p2(E)	6	#7	41'-8"	
p3(E)	6	#7	40'-4"	
p4(E)	30	#5	30'-0"	
p5(E)	15	#5	19'-10"	
p6(E)	5	#5	32'-8"	
p7(E)	16	#7	28'-11"	
p8(E)	16	#7	20'-6"	
s1(E)	102	#4	16'-11"	
s2(E)	47	#4	15'-5"	
u1(E)	7	#5	9'-6"	
u2(E)	52	#5	8'-10"	
u3(E)	25	#5	6'-6"	
u4(E)	2	#5	12'-3"	
u5(E)	2	#5	11'-5"	
u6(E)	7	#5	9'-6"	
v1(E)	75	#5	4'-9"	
v2(E)	78	#4	4'-3"	
v3(E)	78	#6	7'-6"	
v4(E)	75	#6	5'-10"	
v5(E)	27	#6	16'-1"	
v6(E)	62	#6	7'-5"	
v7(E)	31	#5	7'-2"	
v8(E)	5	#5	8'-0"	

For details of Bar Splicers, see sheet SA-32
For details of piles, see sheet SA-36.

SOUTH ABUTMENT BILL OF MATERIALS

Item	Unit	Total
Concrete Structures	Cu. Yd.	155.9
Reinforcement Bars, Epoxy Coated	Pound	16,540
Furnishing Metal Shell Piles 14"x0.250"	Foot	1,568
Driving Piles	Foot	1,568
Test Pile Metal Shells	Each	1
Concrete Sealer	Sq. Ft.	871

NOTES:

1. Bars indicated thus 5x3- #5 etc. indicates 5 lines with 3 lengths per line.
2. E.F. indicates each face.
3. Drive piles, install CMP pile sleeves, fill annular space around piles with sand, construct MSE Wall. Cost of CMP pile sleeves, sand, and PJF are included with Metal Shell Piles.

..\0820328 CONN-10-001-AB.DGN ..\0820328-CONN-10-001-AB.DGN ..\0820328-CONN-10-001-AB.DGN ..\0820318 CONN-99-001-BD.DGN
5-11-2011, 9:53:25 NEWMANMD \\FS-0044\AM\VAULT\D-TRANS_07\2202\20868 001\STRUCT\CADD\ DESIGN\0820328\SHEET\0820328 CONN-10-002-SHT-AB.DGN

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
		DRAWN - MDJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

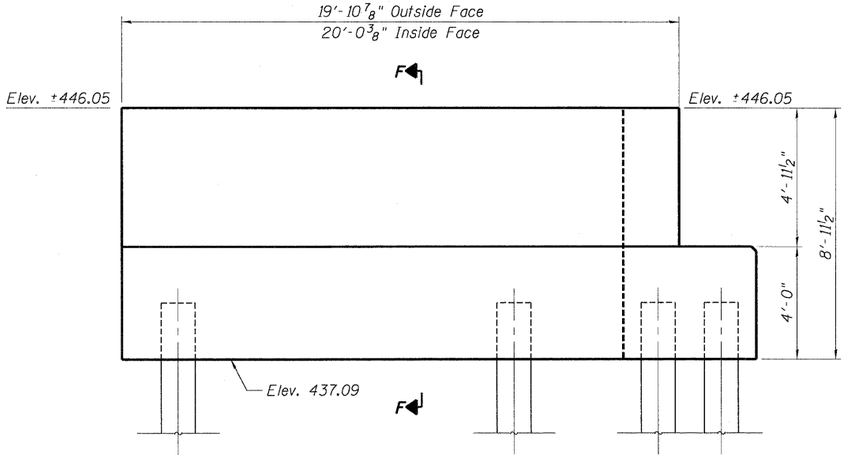
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOUTH ABUTMENT ELEVATION & SECTIONS

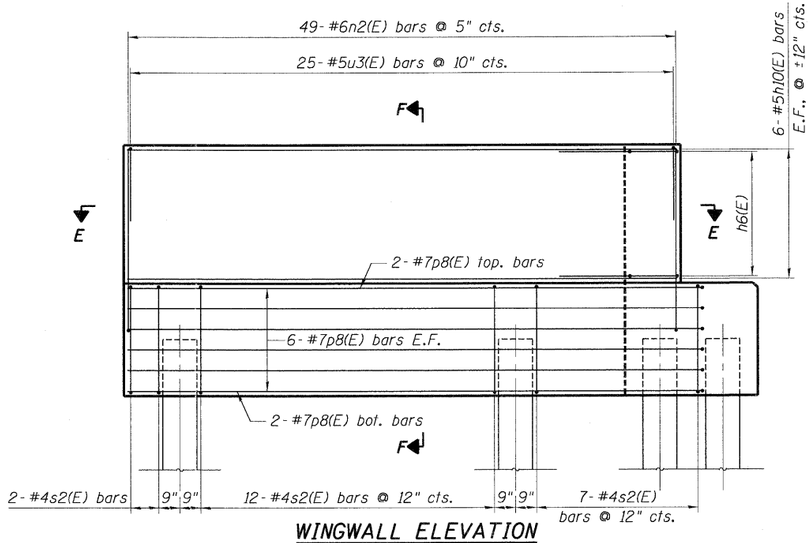
SCALE: | SHEET NO. SA-23 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	158
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



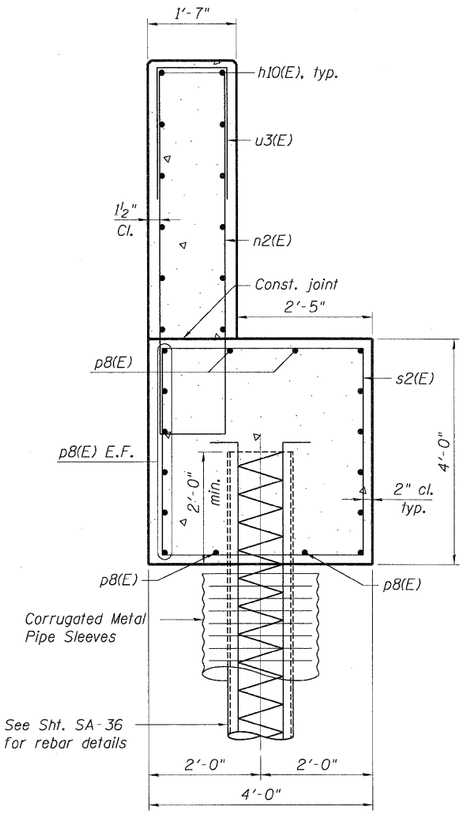
WINGWALL ELEVATION

(Looking West - Showing Dimensions)



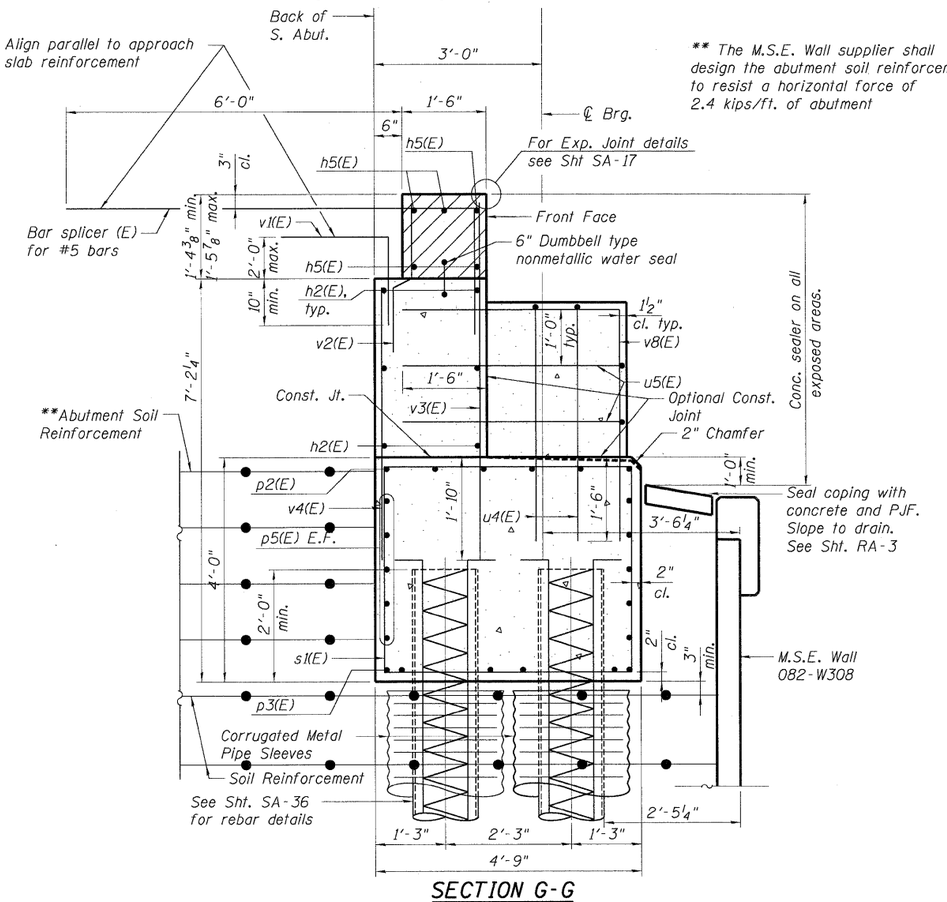
WINGWALL ELEVATION

(Looking West - Showing Reinforcement)

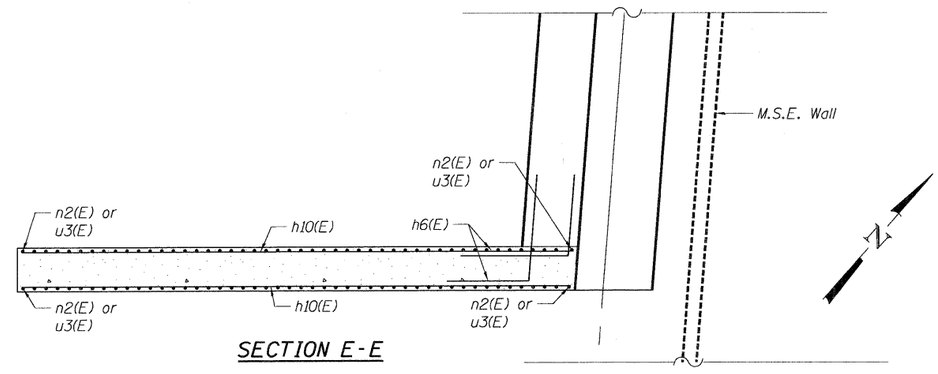


SECTION F-F

** The M.S.E. Wall supplier shall design the abutment soil reinforcement to resist a horizontal force of 2.4 kips/ft. of abutment



SECTION G-G



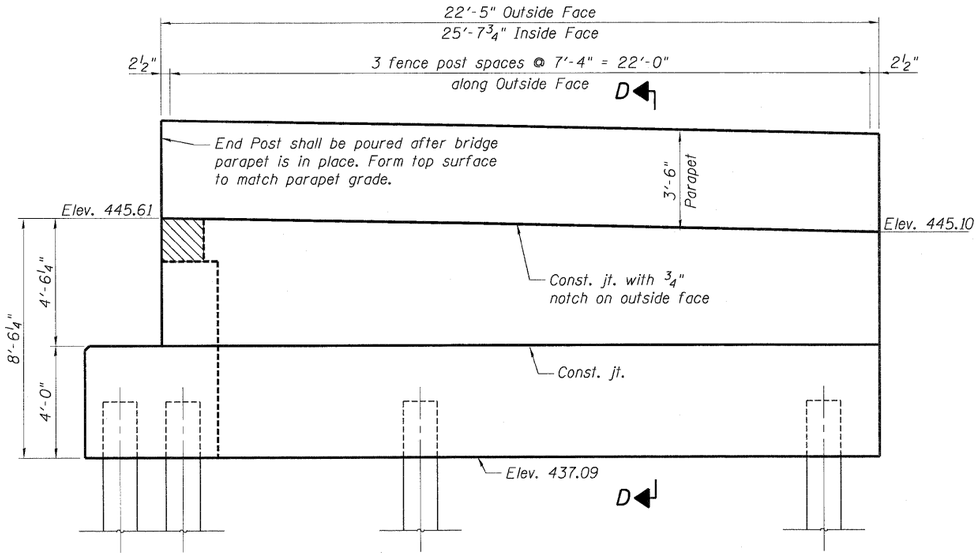
SECTION E-E

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS	SOUTH ABUTMENT	F.A.P RTE. 998
		DRAWN - MKD	REVISED -	DEPARTMENT OF TRANSPORTATION	EAST WINGWALL & DETAILS	SECTION 82-2-1HVB-1
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	IL 3 OVER I-70		COUNTY ST. CLAIR
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: SHEET NO. SA-24 OF SA-57 STA. 1683+43.17 TO STA.	TOTAL SHEETS 345 SHEET NO. 159

SN 082-0328

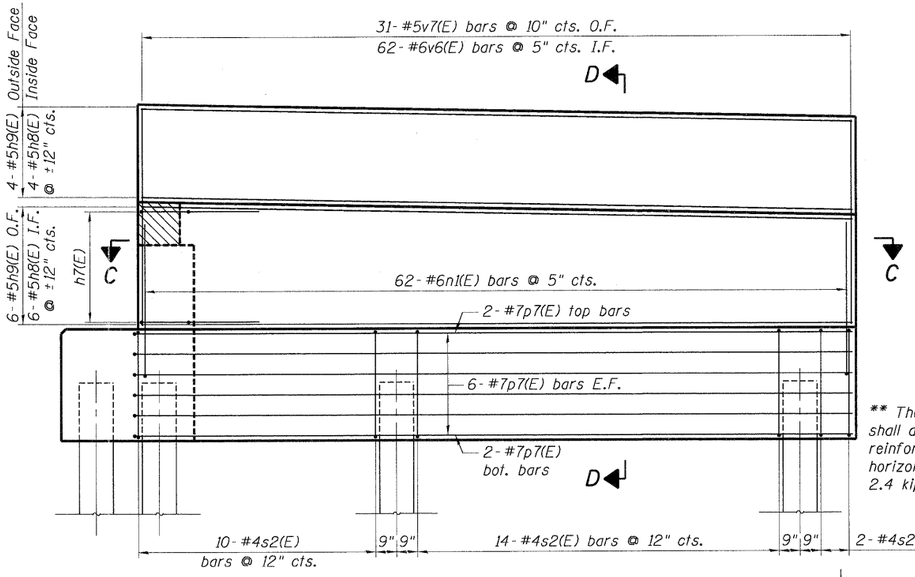
CONTRACT NO. 76D05

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



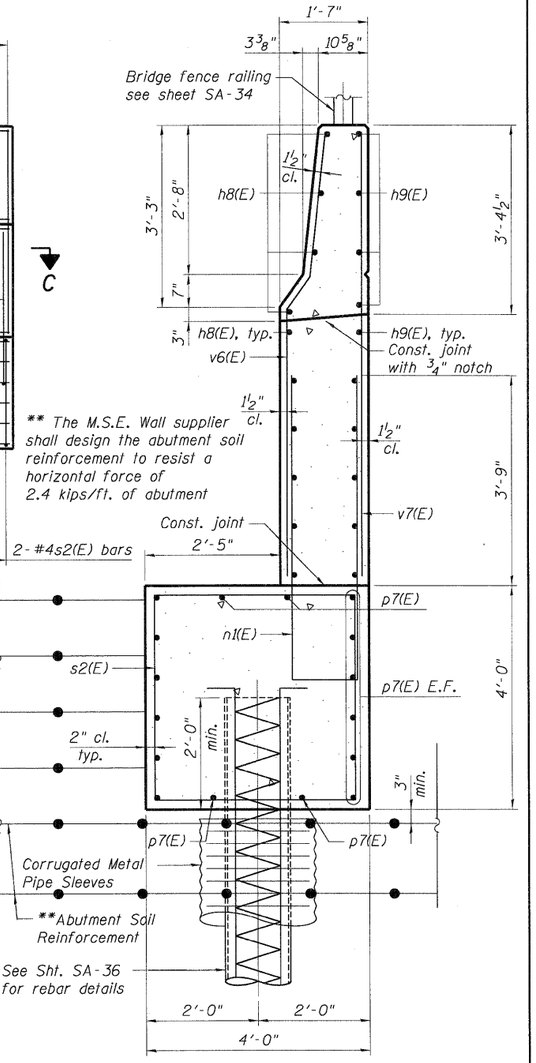
WINGWALL ELEVATION

(Looking East - Showing Dimensions)

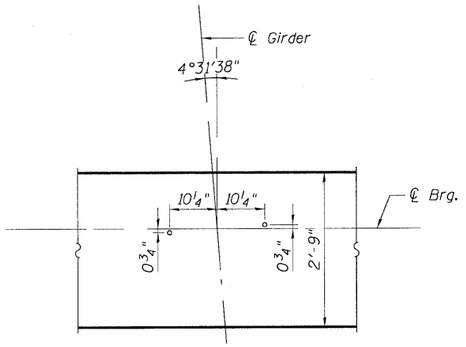


WINGWALL ELEVATION

(Looking East - Showing Reinforcement)

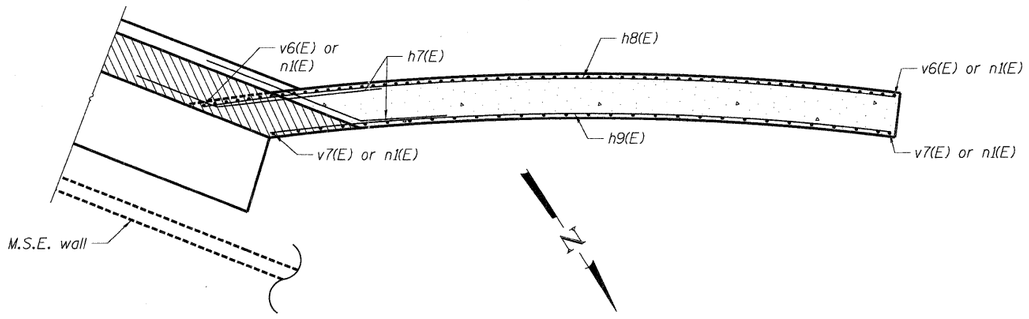


SECTION D-D



ANCHOR BOLT DETAIL

See Sht. SA-21 for Anchor Bolt size and spacing



SECTION C-C

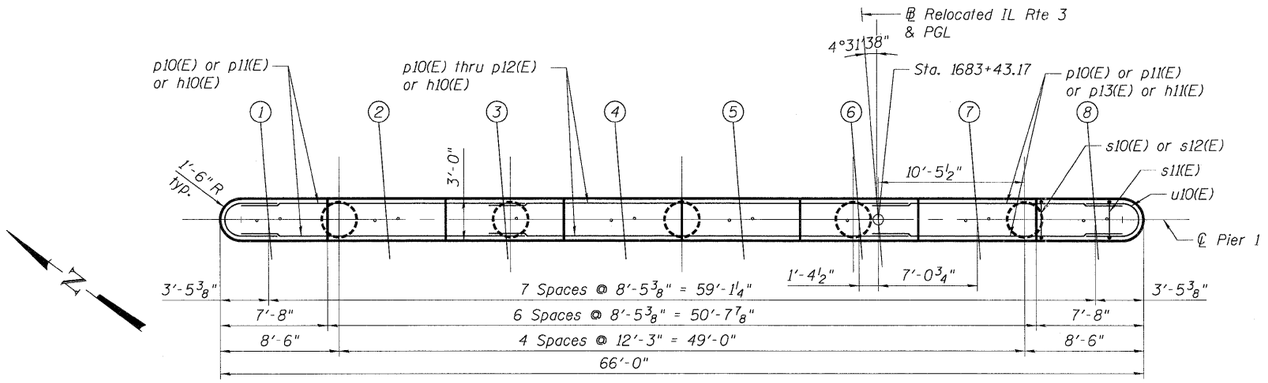
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
		DRAWN - MDJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

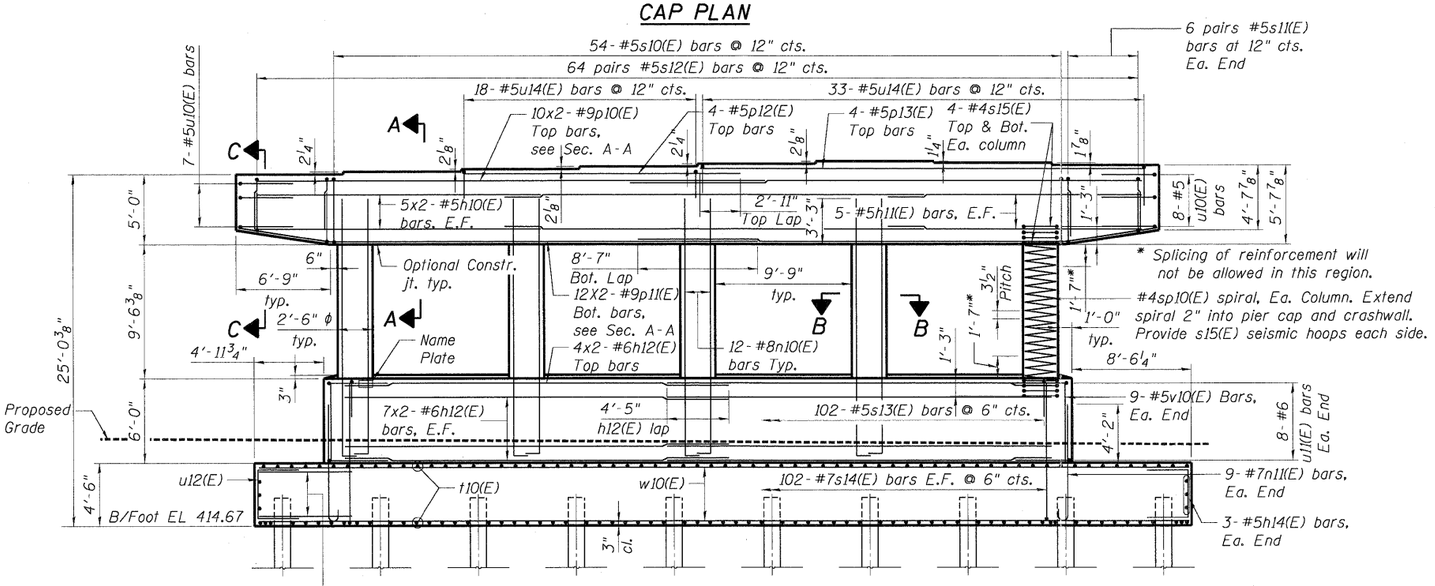
SOUTH ABUTMENT
WEST WINGWALL & DETAILS

SCALE: | SHEET NO. SA-25 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	160
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

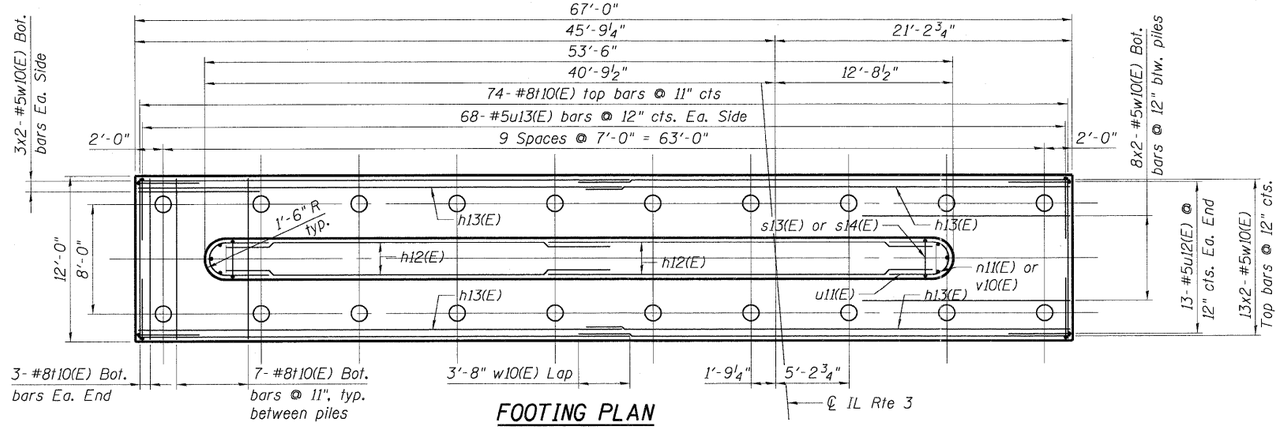


CAP PLAN



ELEVATION

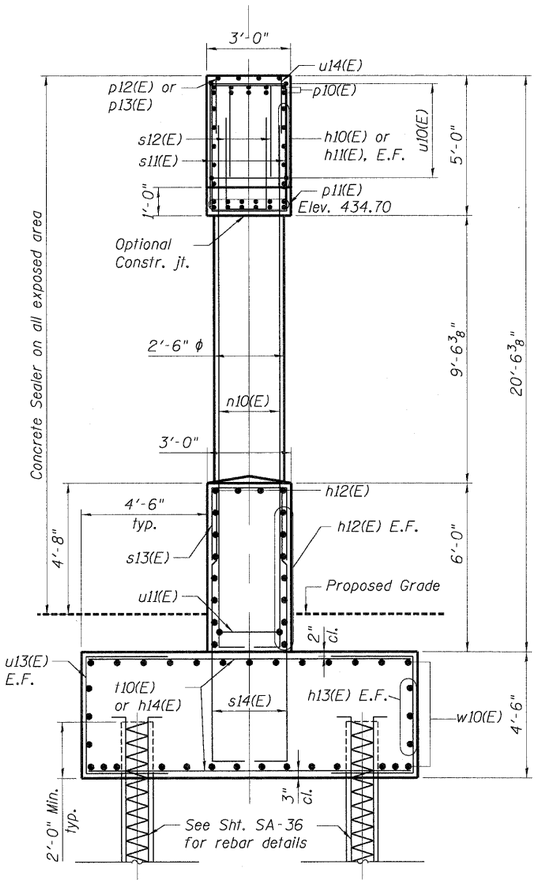
(Looking North)



FOOTING PLAN

BEARING SEAT ELEVATIONS

Girder	Elevations
1	439.70
2	439.89
3	440.07
4	440.25
5	440.44
6	440.62
7	440.52
8	440.36



END VIEW

MIN. LAP LENGTH

(Unless noted otherwise)

Bar Size	Lap
#5	2'-7"
#6	3'-1"
#9	9'-8"

PILE DATA

Type: MS14X0.25 Metal Shell Piles
Nominal Required Bearing: 413 kips/pile
Factored Resistance Available: 227 kips/pile
Est. Length: 83 ft
No. Production Piles: 19
No. Test Piles: 1

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet SA-36.
4. E.F. indicates each face.
5. Bars indicated thus 5x3-#5 etc. indicates 5 lines of bars with 3 lengths per line.
6. Space u12(E) & u13(E) bars to miss piles.
7. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

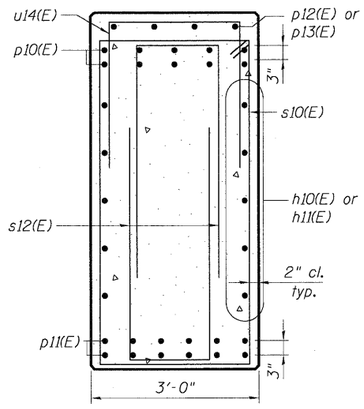
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
		DRAWN - MDJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

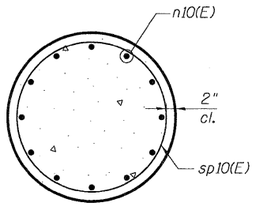
PIER 1
PLAN & ELEVATION

SCALE: | SHEET NO. SA-26 OF SA-57 | STA. 1683+43.17 TO STA.

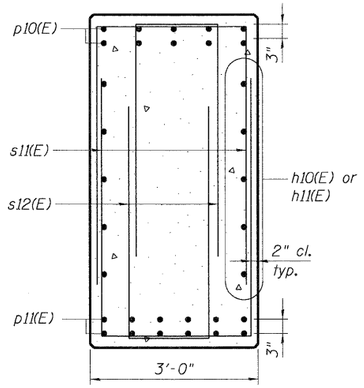
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	161
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



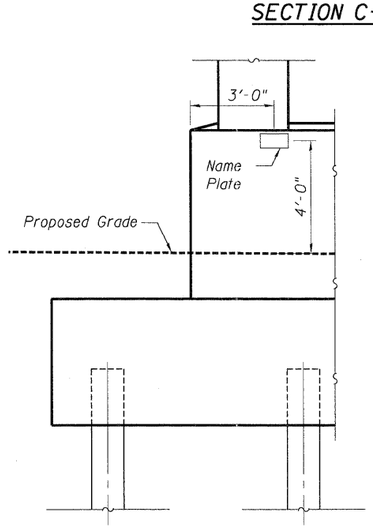
SECTION A-A



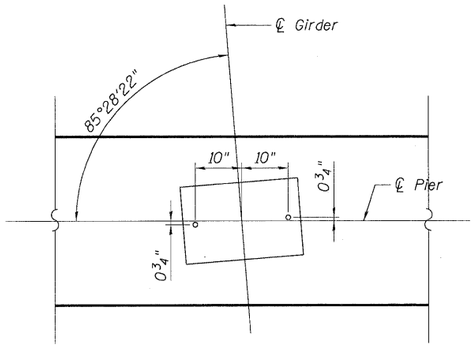
SECTION B-B



SECTION C-C

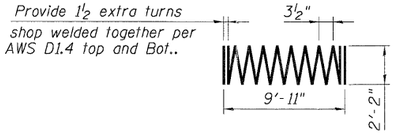


NAME PLATE DETAIL



ANCHOR BOLT DETAIL

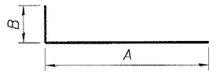
See Sht. SA-21 for Anchor Bolt size and spacing



Length = 251'-11"

BAR sp10(E)

(For information only - length calculated as continous bar ignoring splices)

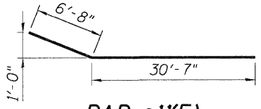


BARS n10(E) & s14(E)

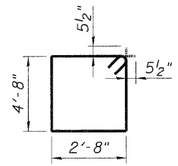
A & B DIMENSIONS

Bar	A	B
n10(E)	18'-9"	1'-4"
s14(E)	9'-11"	1'-2"

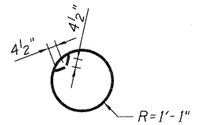
BAR n11(E)



BAR p11(E)



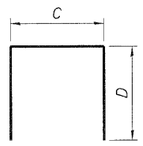
BAR s10(E)



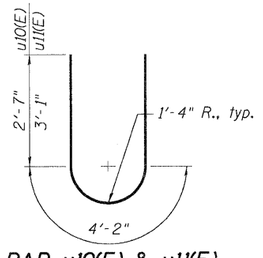
BAR s15(E)

C & D DIMENSIONS

Bar	C	D
s11(E)	2'-8"	3'-8"
s12(E)	1'-6"	3'-8"
s13(E)	2'-8"	2'-7"
u12(E)	3'-11"	2'-11"
u13(E)	4'-1"	2'-11"
u14(E)	2'-4"	2'-3"



BARS s11(E), s12(E), s13(E), u12(E), u13(E) & u14(E)



BAR u10(E) & u11(E)

PIER 1
BAR LIST

	Bar	No.	Size	Length	Shape
	h10(E)	20	#5	30'-0"	——
	h11(E)	10	#5	8'-2"	——
	h12(E)	36	#6	27'-6"	——
	h13(E)	12	#5	34'-8"	——
	h14(E)	6	#5	11'-8"	——
	n10(E)	60	#8	20'-1"	⌊
	n11(E)	18	#7	9'-2"	⊃
	p10(E)	20	#9	36'-4"	——
	p11(E)	24	#9	37'-3"	⟋
	p12(E)	4	#5	19'-10"	——
	p13(E)	4	#5	31'-4"	——
	s10(E)	54	#5	15'-7"	□
	s11(E)	24	#5	10'-0"	⊔
	s12(E)	128	#5	8'-10"	⊔
	s13(E)	102	#5	7'-10"	⊔
	s14(E)	204	#7	11'-1"	⌊
	s15(E)	40	#4	8'-4"	○
**	sp10(E)	5	#4	9'-11"	∿∿
	t10(E)	143	#8	11'-8"	——
	u10(E)	15	#5	9'-4"	⊃
	u11(E)	16	#6	10'-4"	⊃
	u12(E)	26	#5	9'-9"	⊔
	u13(E)	136	#5	9'-11"	⊔
	u14(E)	51	#5	6'-10"	⊔
	v10(E)	18	#5	5'-10"	——
	w10(E)	54	#5	35'-2"	——

** Length is the height of the spiral

PIER 1
BILL OF MATERIAL

Item	Unit	Total
Concrete Structures	Cu. Yd.	218.7
Reinforcement Bars, Epoxy Coated	Pound	29,780
Furnishing Metal Shell Piles 14"X0.250"	Foot	1,577
Driving Piles	Foot	1,577
Test Pile Metal Shells	Each	1
Structure Excavation	Cu. Yd.	263
Concrete Sealer	Sq. Ft.	2,080
Name Plate	Each	1

..\B20328-CONN-18-001-PI.DGN, ..\B20328-CONN-18-001-PI.DGN, ..\B20328-CONN-18-001-PI.DGN, ..\B20328-CONN-99-001-BD.DGN, ..\B20328-CONN-18-001-PI.DGN, ..\B20328-CONN-18-002-SHT-PI.DGN
5-11-2011, 9:53:40 NEWMANMD \\FS-0044\VM\VAULT_D-TRANS 07\2202\200868-001\STRUCT\CADD\01 DESIGN\B20232BY\SHEET\B20232B-CONN-18-002-SHT-PI.DGN

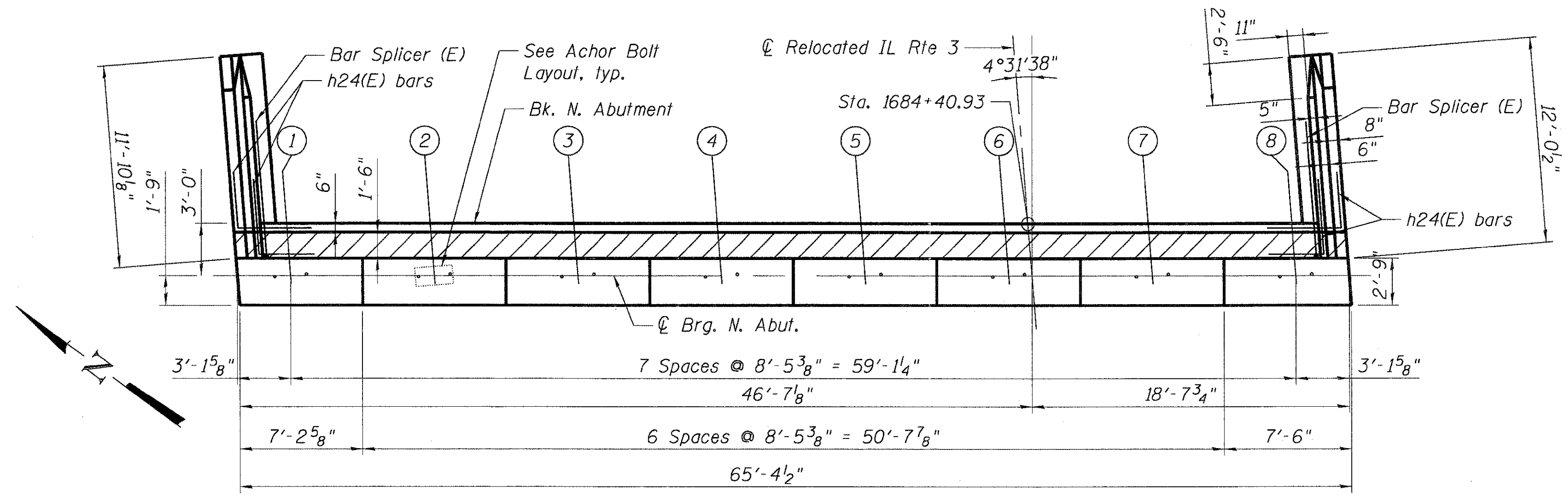
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
		DRAWN - MDJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

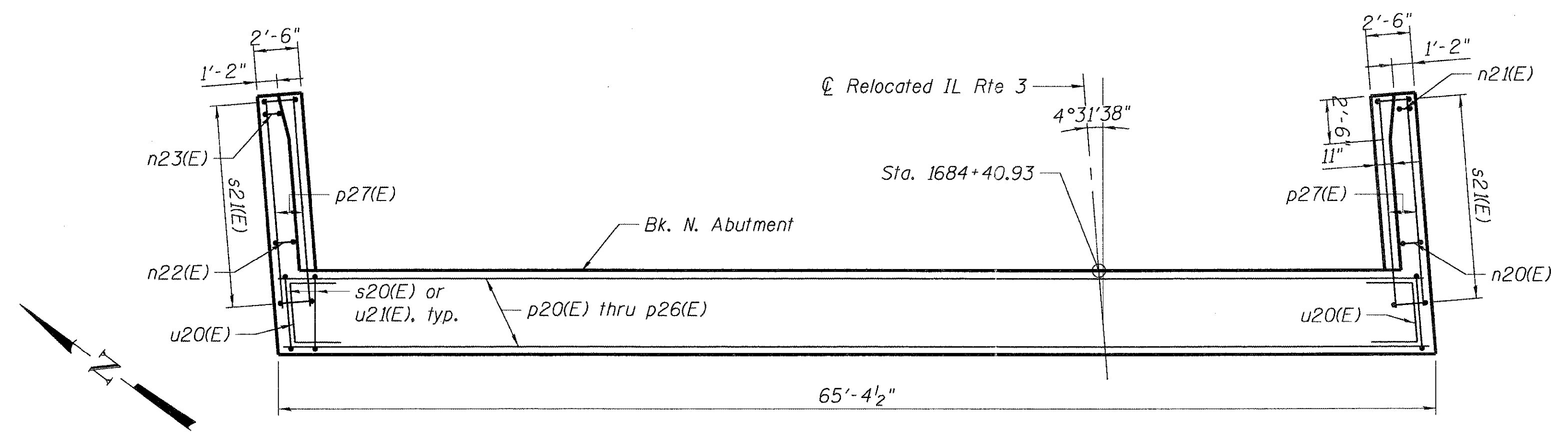
PIER 1
SECTIONS & DETAILS

SCALE: | SHEET NO. SA-27 OF SA-57 | STA. 1683+43.17 TO STA.

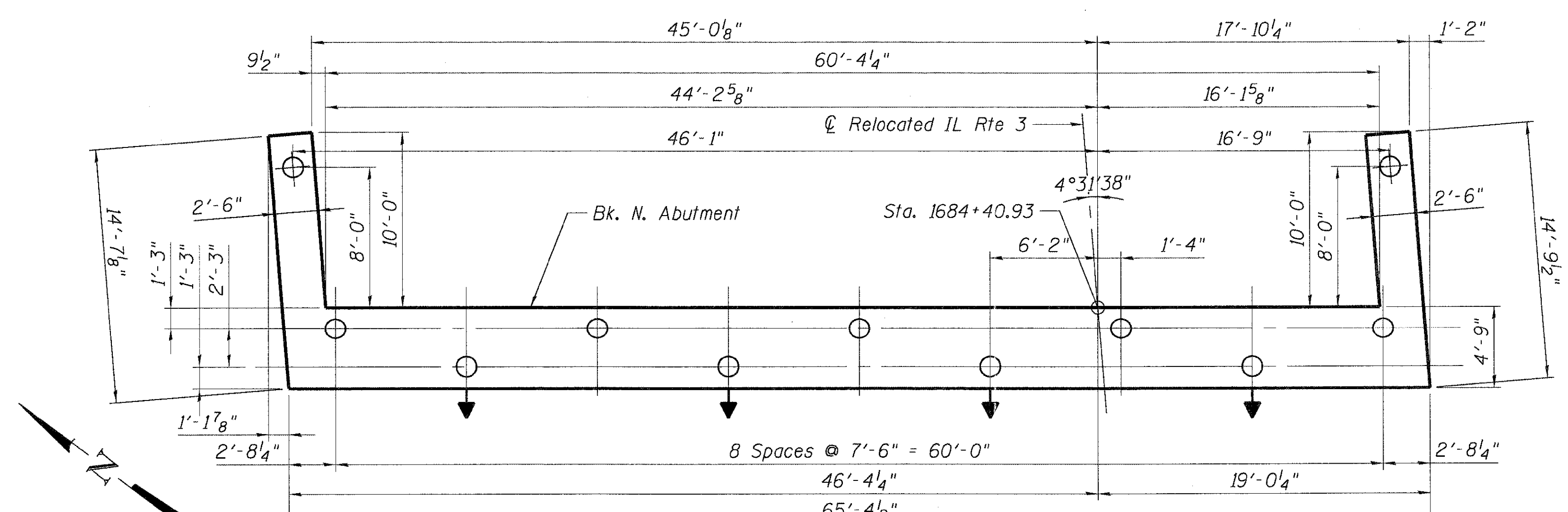
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	162
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



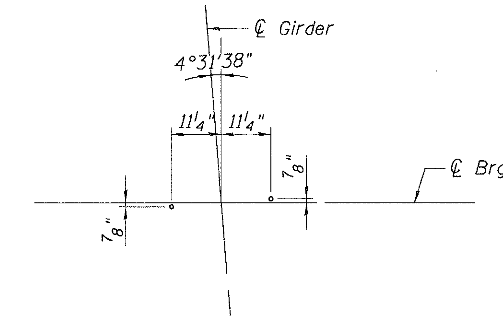
TOP VIEW



PLAN - NORTH ABUTMENT CAP



PILE LAYOUT - NORTH ABUTMENT



ANCHOR BOLT DETAIL

See Sht. SA-21 for Anchor Bolt size and spacing

BEARING SEAT ELEVATIONS

Girder	Elevations
1	437.11
2	437.30
3	437.49
4	437.68
5	437.87
6	438.05
7	437.96
8	437.81

PILE DATA

Type: MS14X0.25 Metal Shell Piles
Nominal Required Bearing: 413 kips/pile
Factored Resistance Available: 227 kips/pile
Est. Length: 101 ft
No. Production Piles: 10
No. Test Piles: 1

NOTES:

1. Hatched area of abutment backwall to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
2. For Anchor Bolt and Bearing details, see Sht. SA-21.
3. ➔ Indicates battered pile.
4. For details of piles, see Sht. SA-36.
5. Space reinforcement in cap to miss anchor bolts.
6. Pour steps monolithically with cap.

..\0820328-CONN-10-202-AB.DGN, ..\0820318-CONN-99-001-BO.DGN
NEWMANMD \\FS-0244\AM\VAULT\D-TRANS.07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820328\SHEET\0820328-CONN-10-004-SHT-AB.DGN
5-11-2011, 9:53:43

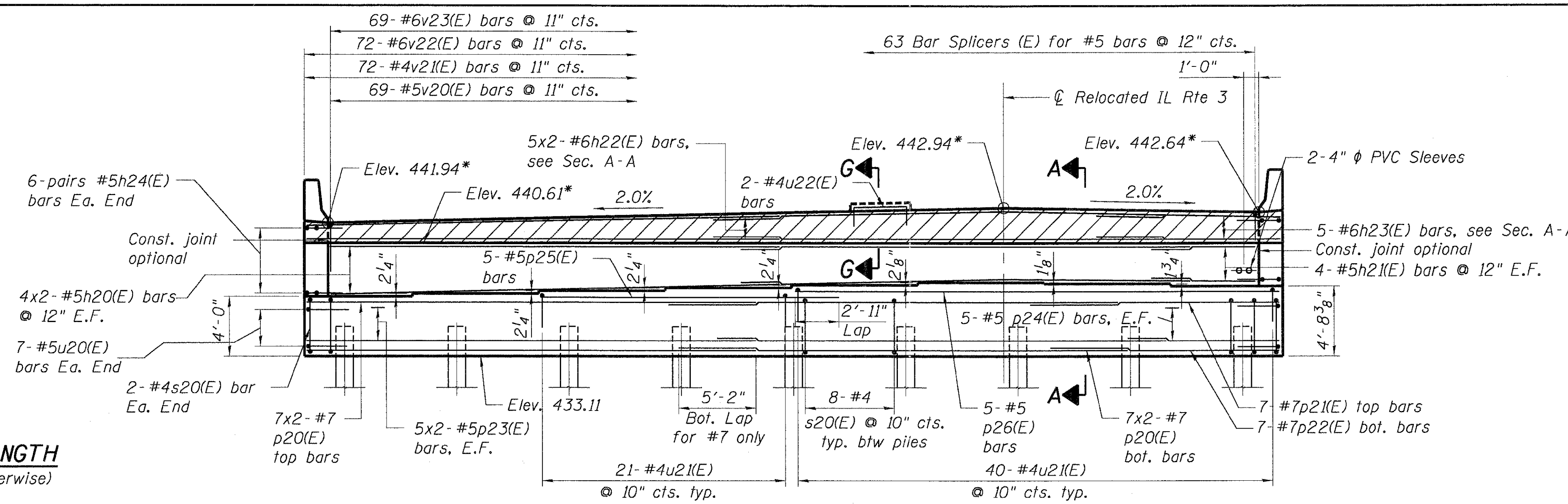
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - MDJ	REVISED -
	PLOT DATE = $DATE$	CHECKED - JLR	REVISED -
		DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

NORTH ABUTMENT
PLAN & PILE LAYOUT

SCALE: | SHEET NO. SA-28 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	163
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

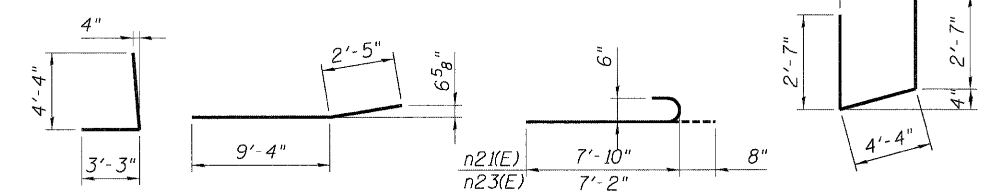


ELEVATION
(Looking North)

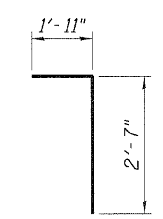
*Elevations @ Front Face of Backwall

MIN. LAP LENGTH
(Unless noted otherwise)

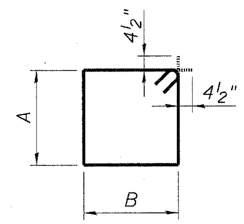
Bar Size	Lap
#5	2'-7"
#6	4'-5"
#7	5'-10"



BAR h24(E) BAR h26(E) BARS n21(E) & n23(E) BAR u20(E)

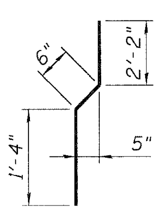


BAR v20(E)

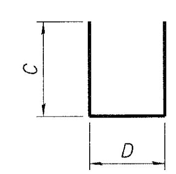


Bar	A	B
s20(E)	3'-8"	4'-5"
s21(E)	2'-2"	2'-2"

BARS s20(E) & s21(E)

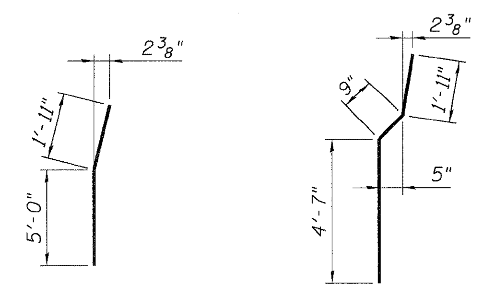


BAR v21(E)

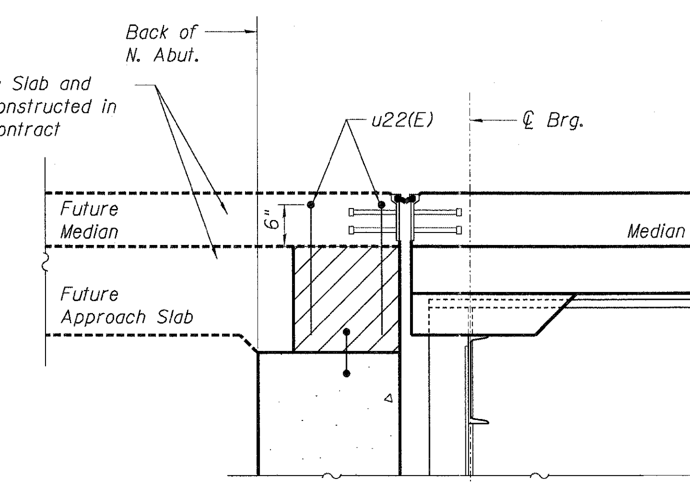


Bar	C	D
n20(E)	7'-10"	1'-4"
n22(E)	7'-2"	1'-4"
u21(E)	2'-3"	4'-2"
u22(E)	1'-9"	3'-9"

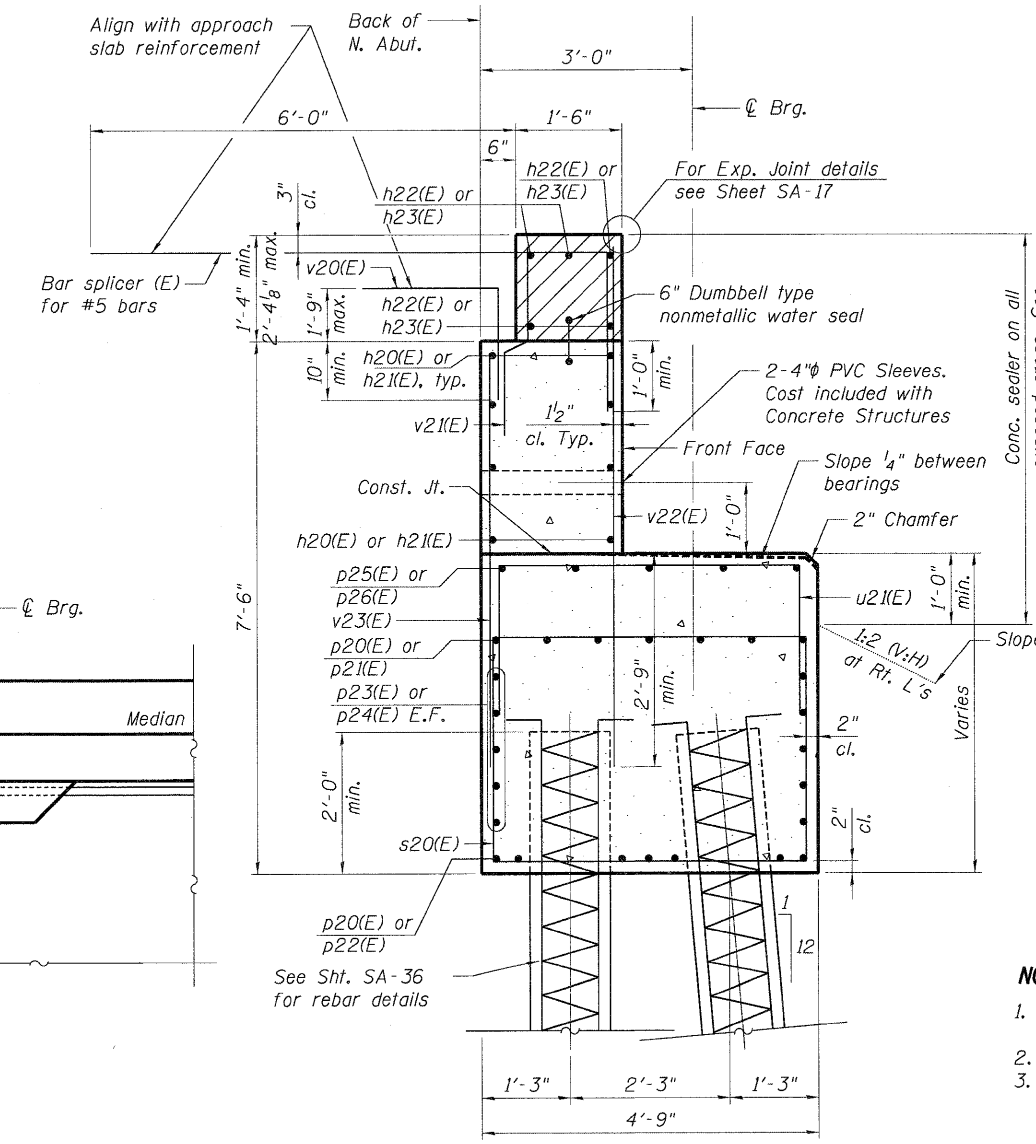
BARS n20(E), n22(E), u21(E), & u22(E)



BAR v24(E) BAR v25(E)



SECTION G-G



SECTION A-A

NORTH ABUTMENT BAR LIST

Bar	No.	Size	Length	Shape
h20(E)	16	#5	30'-0"	
h21(E)	8	#5	7'-0"	
h22(E)	10	#6	30'-0"	
h23(E)	5	#6	13'-10"	
h24(E)	24	#5	7'-7"	
h25(E)	28	#5	11'-8"	
h26(E)	20	#5	11'-9"	
n20(E)	14	#6	17'-0"	
n21(E)	8	#6	8'-6"	
n22(E)	14	#6	15'-8"	
n23(E)	8	#6	7'-10"	
p20(E)	28	#7	30'-0"	
p21(E)	7	#7	16'-9"	
p22(E)	7	#7	15'-5"	
p23(E)	20	#5	30'-0"	
p24(E)	10	#5	10'-3"	
p25(E)	5	#5	19'-10"	
p26(E)	5	#5	32'-6"	
p27(E)	24	#6	11'-10"	
s20(E)	68	#4	16'-11"	
s21(E)	24	#4	9'-5"	
u20(E)	14	#5	9'-6"	
u21(E)	61	#4	8'-8"	
u22(E)	2	#4	7'-3"	
v20(E)	69	#5	4'-6"	
v21(E)	72	#4	4'-0"	
v22(E)	72	#6	7'-6"	
v23(E)	69	#6	6'-1"	
v24(E)	8	#6	6'-11"	
v25(E)	28	#5	7'-3"	
v26(E)	36	#5	6'-7"	

For details of Bar Splicers, see sheet SA-32
For details of piles, see sheet SA-36

NORTH ABUTMENT BILL OF MATERIALS

Item	Unit	Total
Concrete Structures	Cu. Yd.	90.3
Reinforcement Bars, Epoxy Coated	Pound	10,400
Furnishing Metal Shell Piles 14"x0.250"	Foot	1,010
Driving Piles	Foot	1,010
Test Pile Metal Shells	Each	1
Structure Excavation	Cu. Yd.	179
Concrete Sealer	Sq. Ft.	601

NOTES:

1. Bars indicated thus 5x3-#5 etc. indicates 5 lines with 3 lengths per line.
2. E.F. indicates each face.
3. The exposed end of v20(E) bars are to be protected. The unused half of the abutment bar splicers to be incorporated into the approach slab are to be stored by the Contractor at a location as directed by the Engineer.

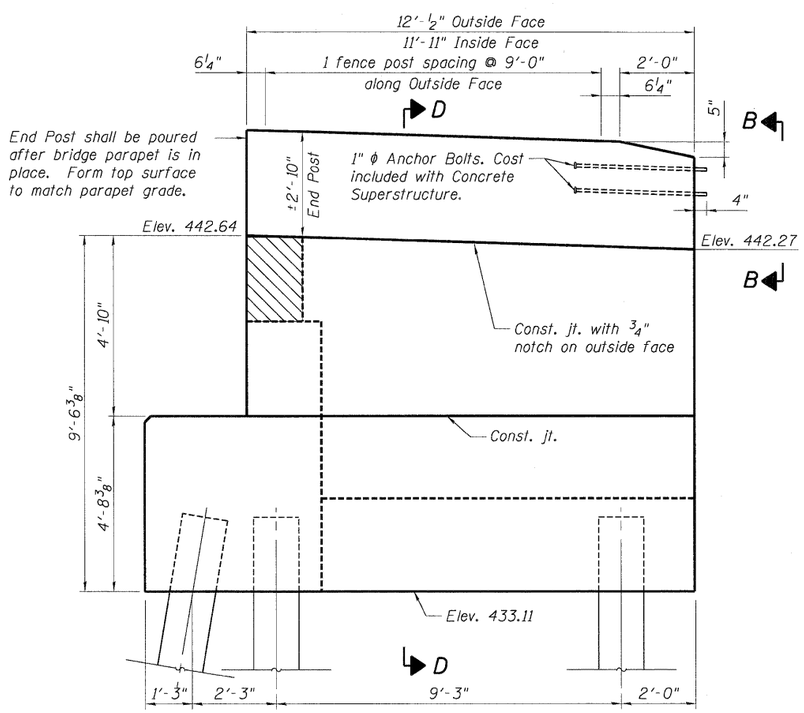
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - MDJ	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

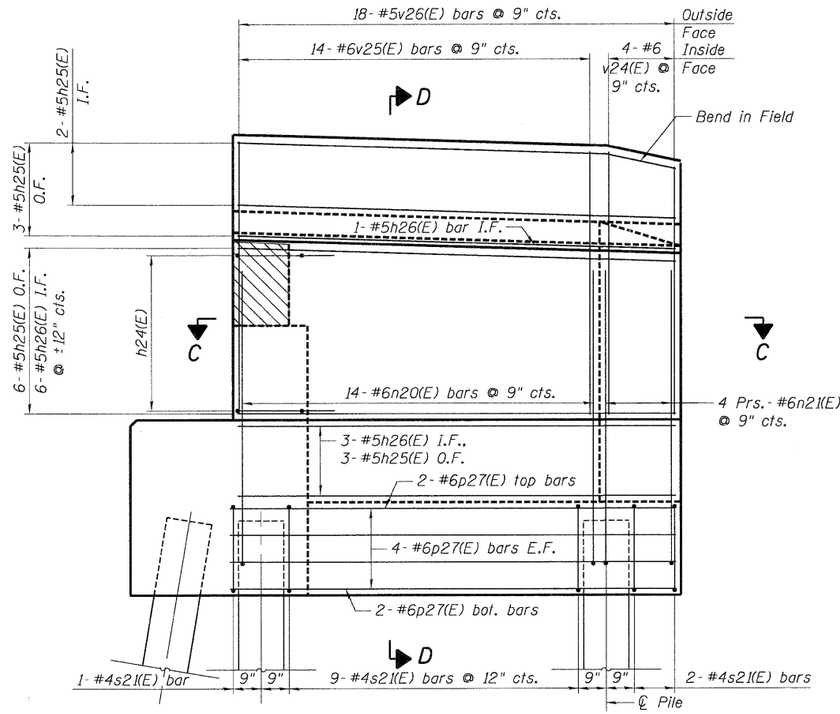
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

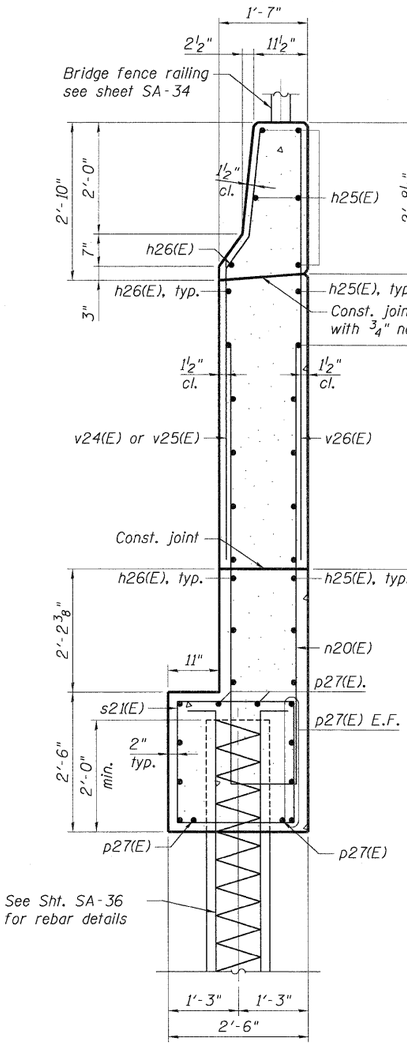
NORTH ABUTMENT
ELEVATION & SECTION

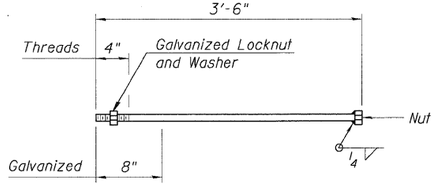
SCALE: | SHEET NO. SA-29 OF SA-57 | STA. 1683+43.17 TO STA.

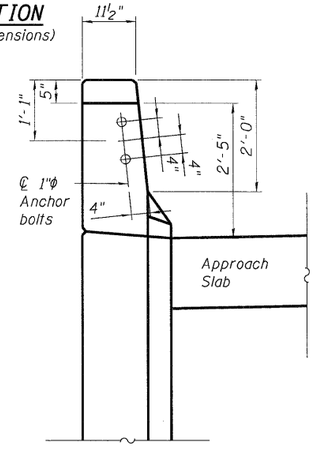
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	164
	SN 082-0328		CONTRACT NO. 76D05	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

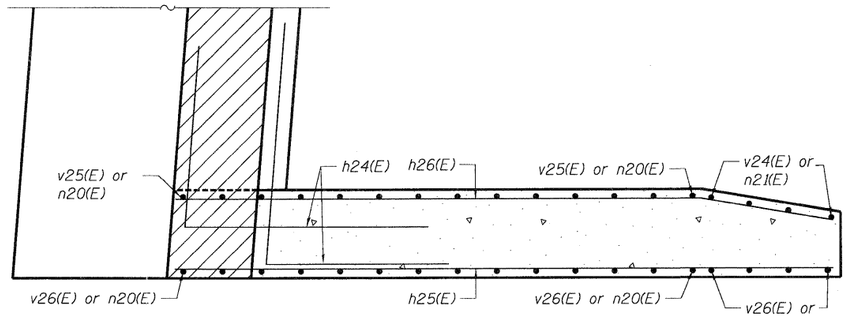












WINGWALL ELEVATION

(Looking West - Showing Dimensions)

WINGWALL ELEVATION

(Looking West - Showing Reinforcement)

SECTION D-D

1 " ϕ ANCHOR BOLT

VIEW B-B

SECTION C-C

NOTES:

1. Space n20(E) bars to miss piles.

..\0820328-CONN-10-002-AB.DGN, ..\0820328-CONN-10-002-AB.DGN, ..\0820328-CONN-10-002-AB.DGN, ..\0820328-CONN-10-002-AB.DGN, ..\0820328-CONN-10-002-AB.DGN, ..\0820328-CONN-10-002-AB.DGN, ..\0820318-CONN-99-001-BO.DGN, ..\0820328-CONN-10-002-AB.DGN
5-11-2011, 9:53:52 NEWMANMD \\FS-0044\AM\VAULT,D-TRANS_07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820328\SHEET\0820328-CONN-10-006-SHT-AB.DGN

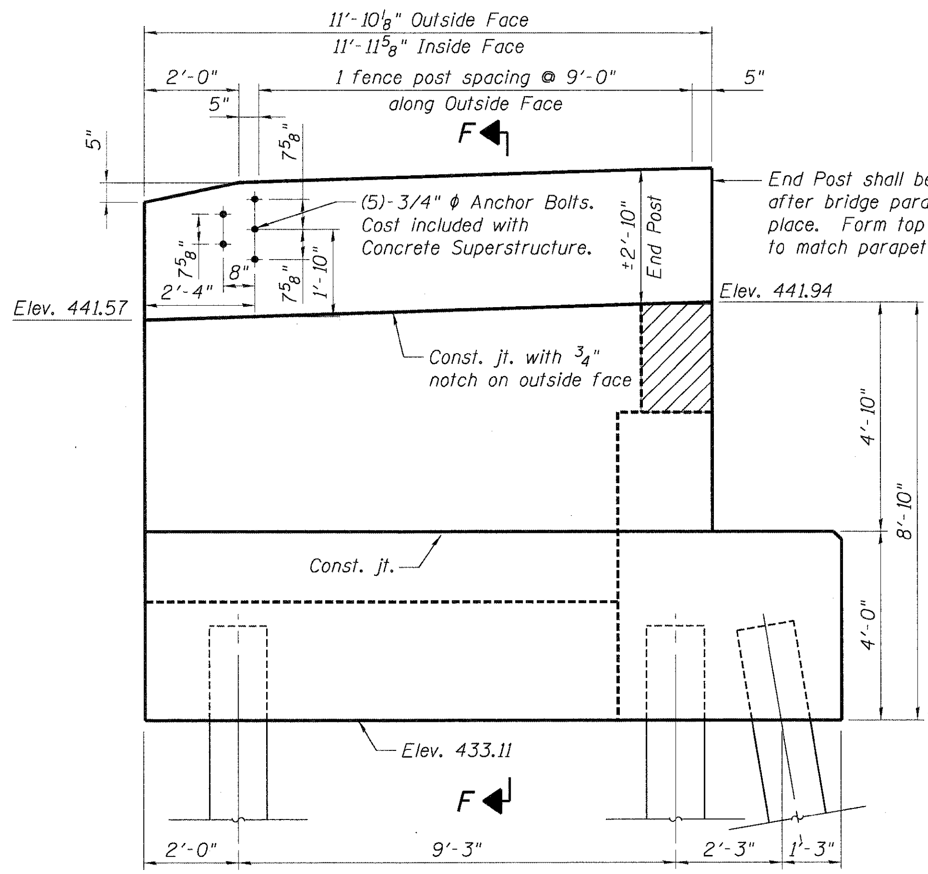
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -
		DRAWN - MDJ	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

NORTH ABUTMENT
EAST WINGWALL & DETAILS

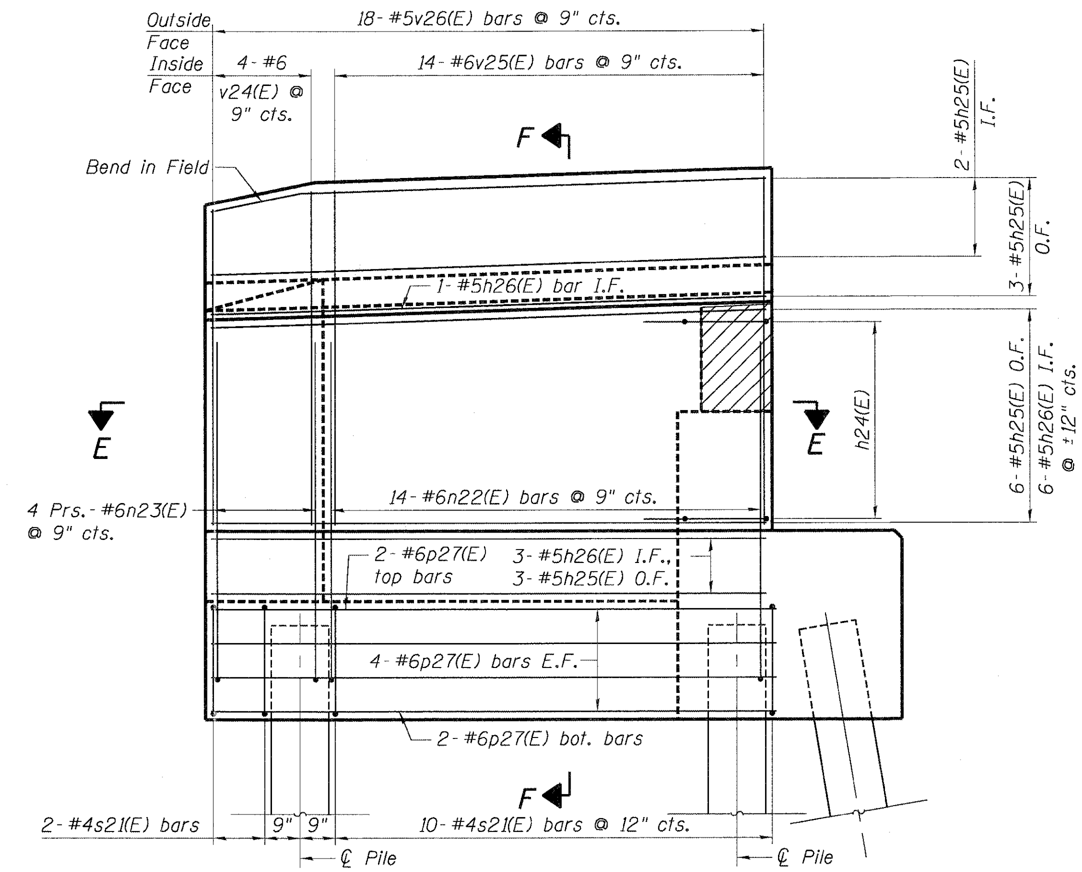
SCALE:	SHEET NO. SA-30 OF SA-57	STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	165
SN 082-0328		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



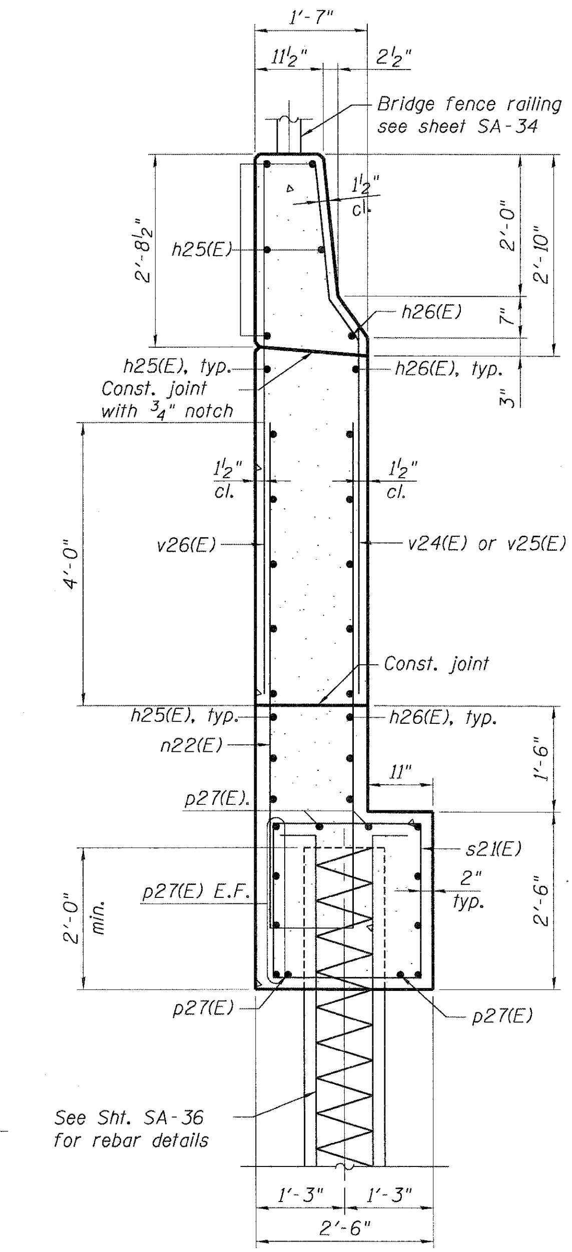
WINGWALL ELEVATION

(Looking East - Showing Dimensions)

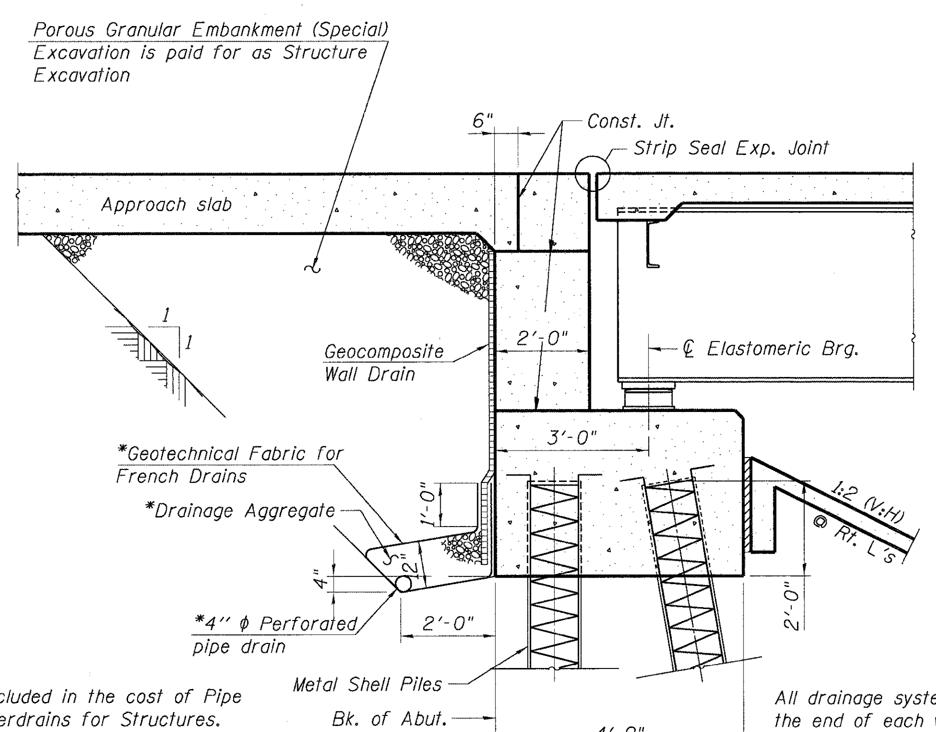


WINGWALL ELEVATION

(Looking East - Showing Reinforcement)



SECTION F-F

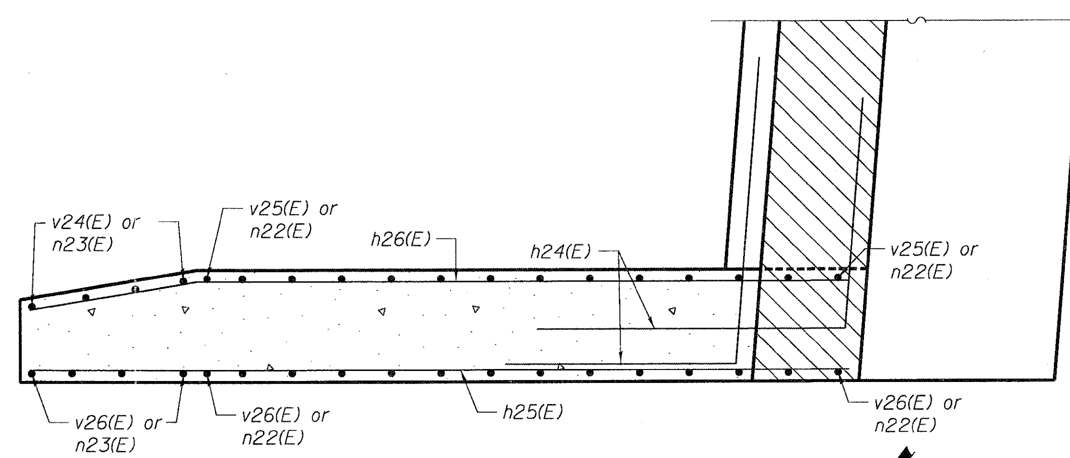


*Included in the cost of Pipe Underdrains for Structures.

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls.

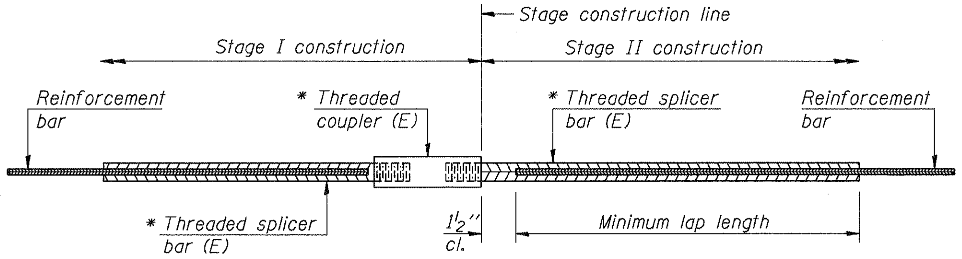
SECTION THRU NORTH ABUTMENT

(Horiz. dim. @ Rt. L's)



SECTION E-E

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - MDJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	NORTH ABUTMENT WEST WINGWALL & DETAILS	F.A.P RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 166
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - MDJ	REVISED -			SN 082-0328		CONTRACT NO. 76D05		
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -		SCALE:	SHEET NO. SA-31 OF SA-57	STA. 1683+43.17 TO STA.			
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

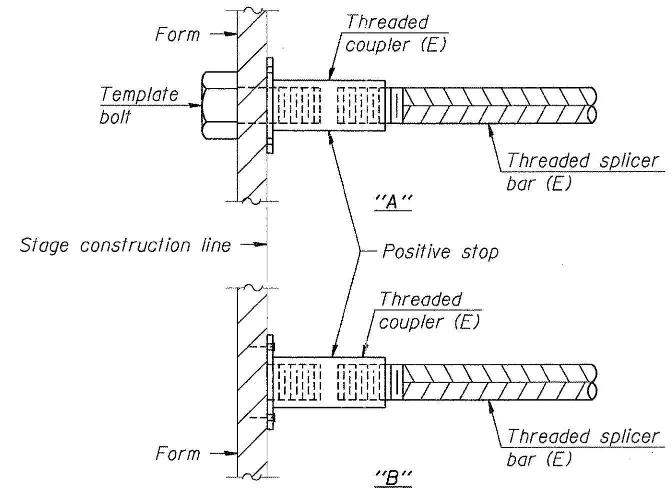
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

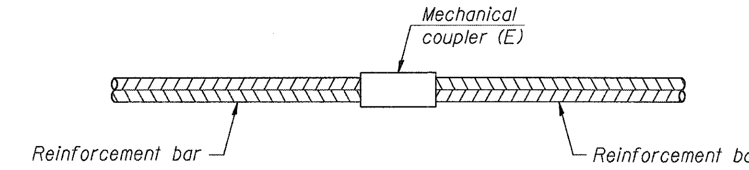
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



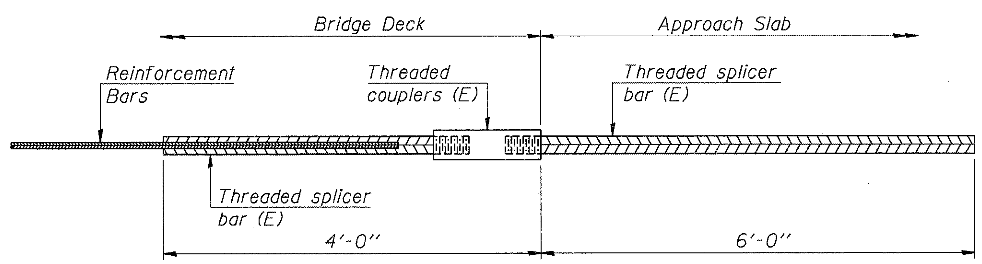
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



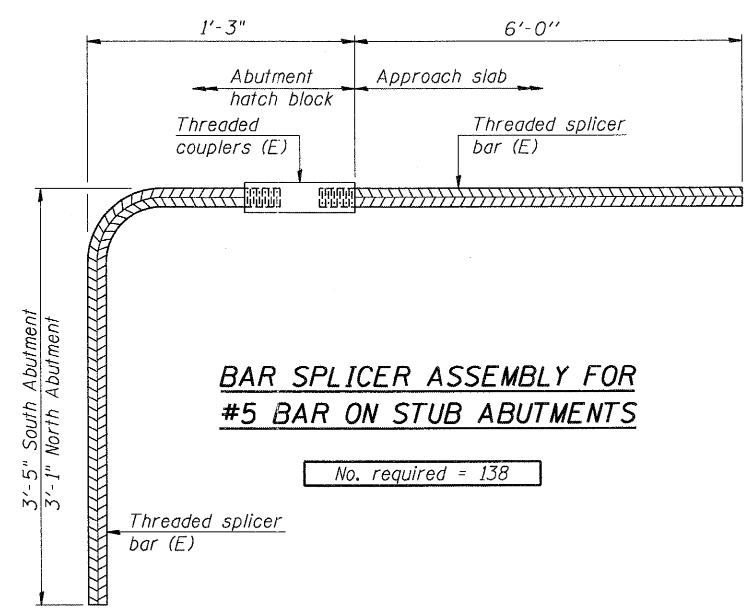
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 138

NOTES:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 7-1-10

..\0820328-CONN-99-001-BD.DGN NEWMANMD 5-11-2011, 9:53:59 \\VFS-0044\MVAULT_D-TRANS_07\2202\20860-001\STRUCT\CAD\01 DESIGN\0820328\SHEET\0820328-CONN-10-001-SHT-MS.DGN

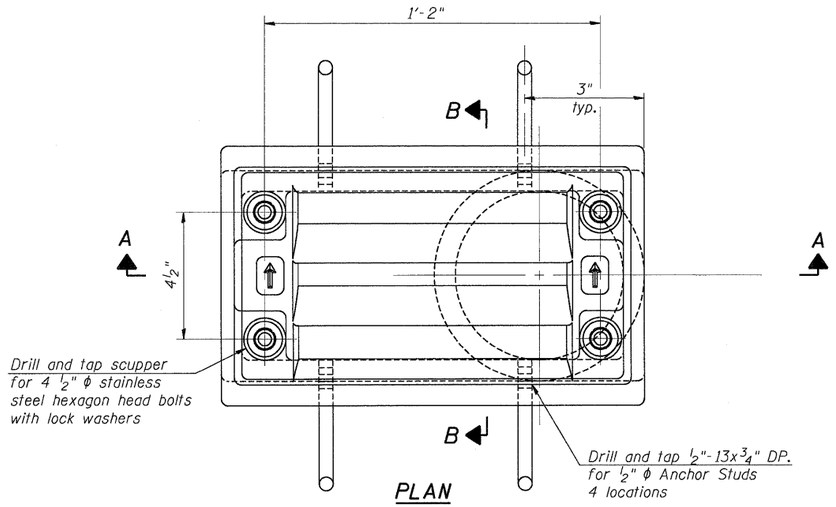
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

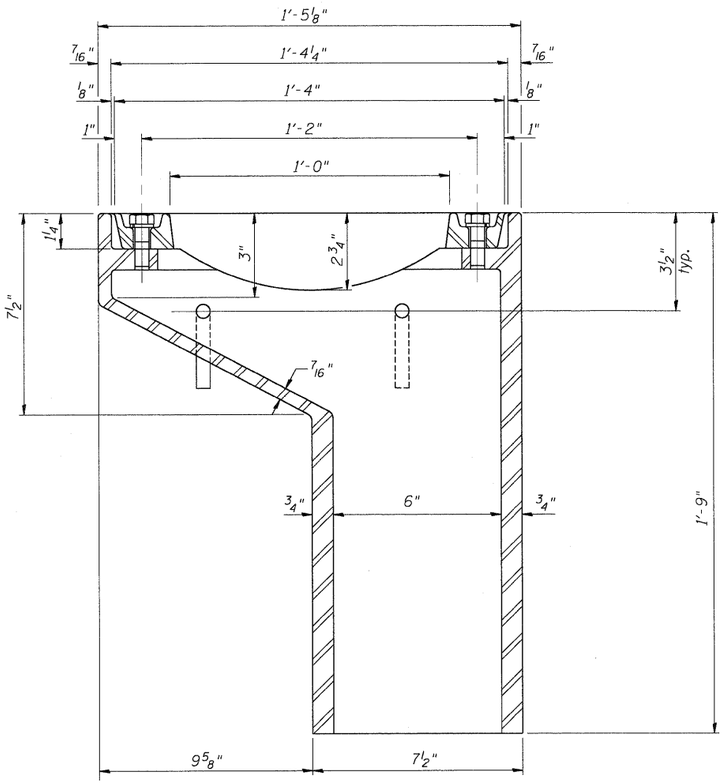
BAR SPLICER DETAILS

SCALE: | SHEET NO. SA-32 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	167
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

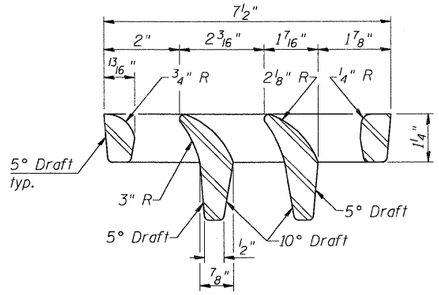


PLAN

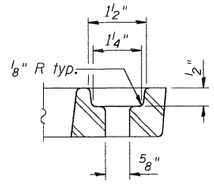


SECTION A-A

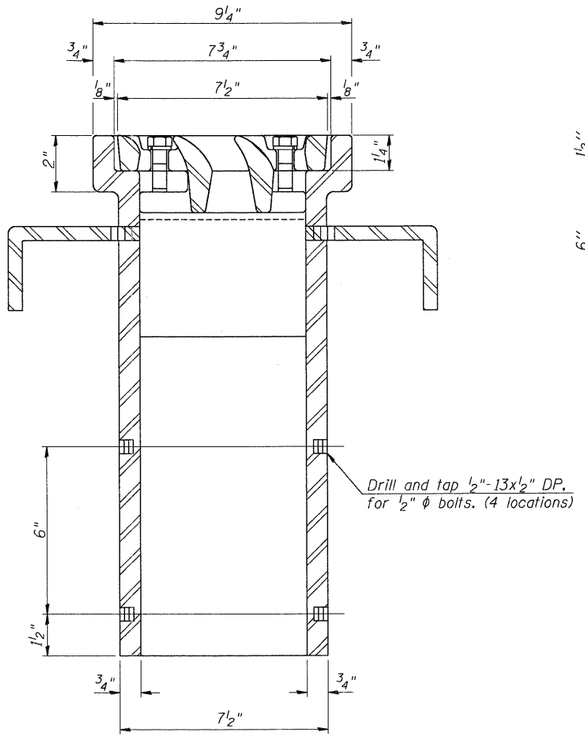
See sheet SA-9 for scupper location relative to parapet.



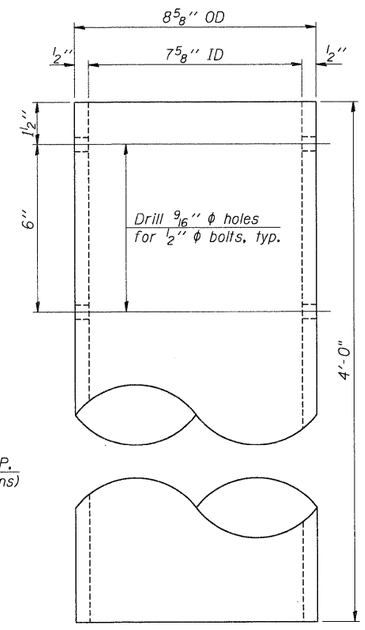
VANE GRATE DETAIL



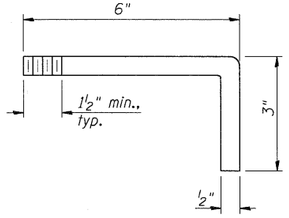
BOLT HOLE DETAIL



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

DS-11

7-1-10

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

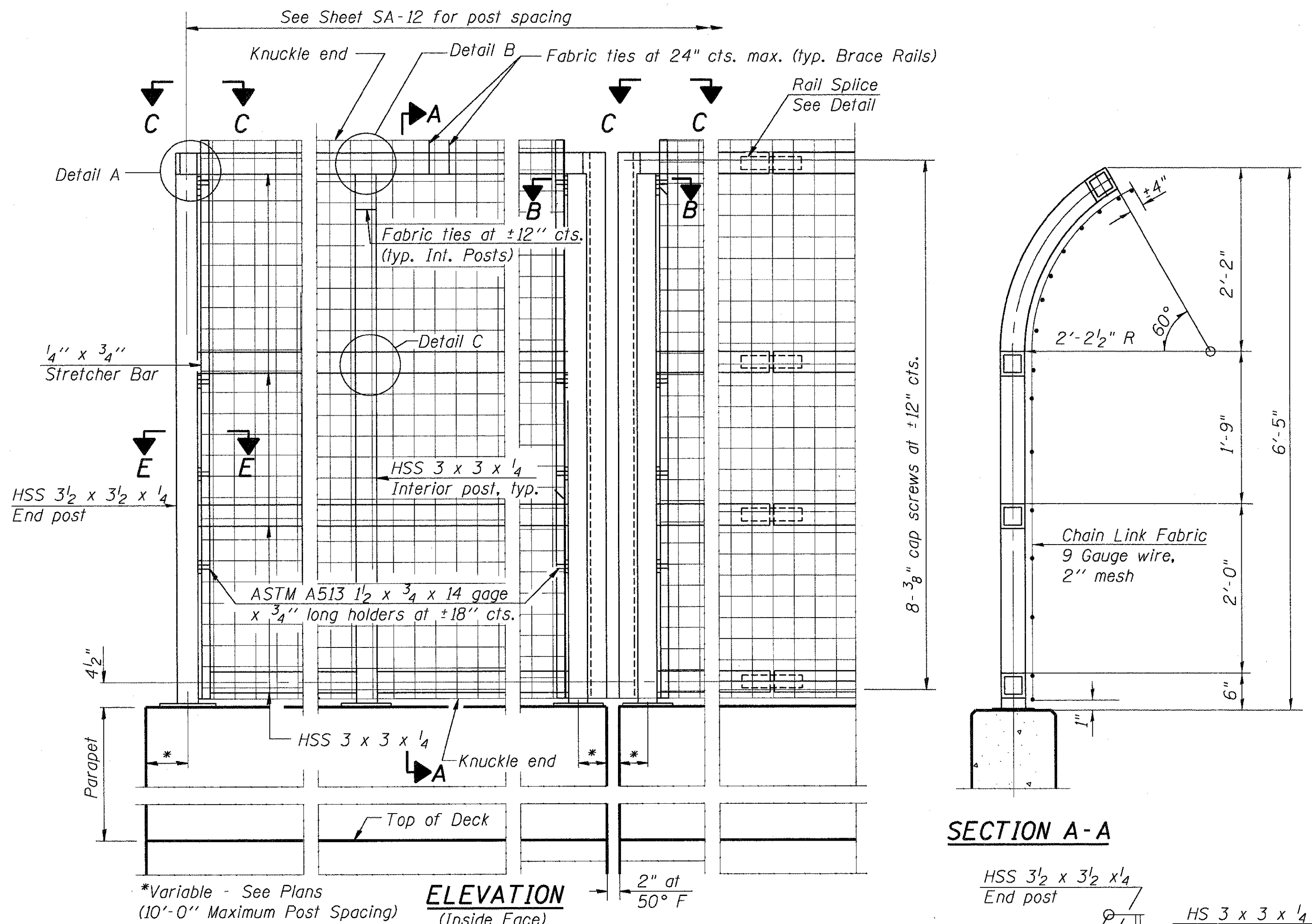
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

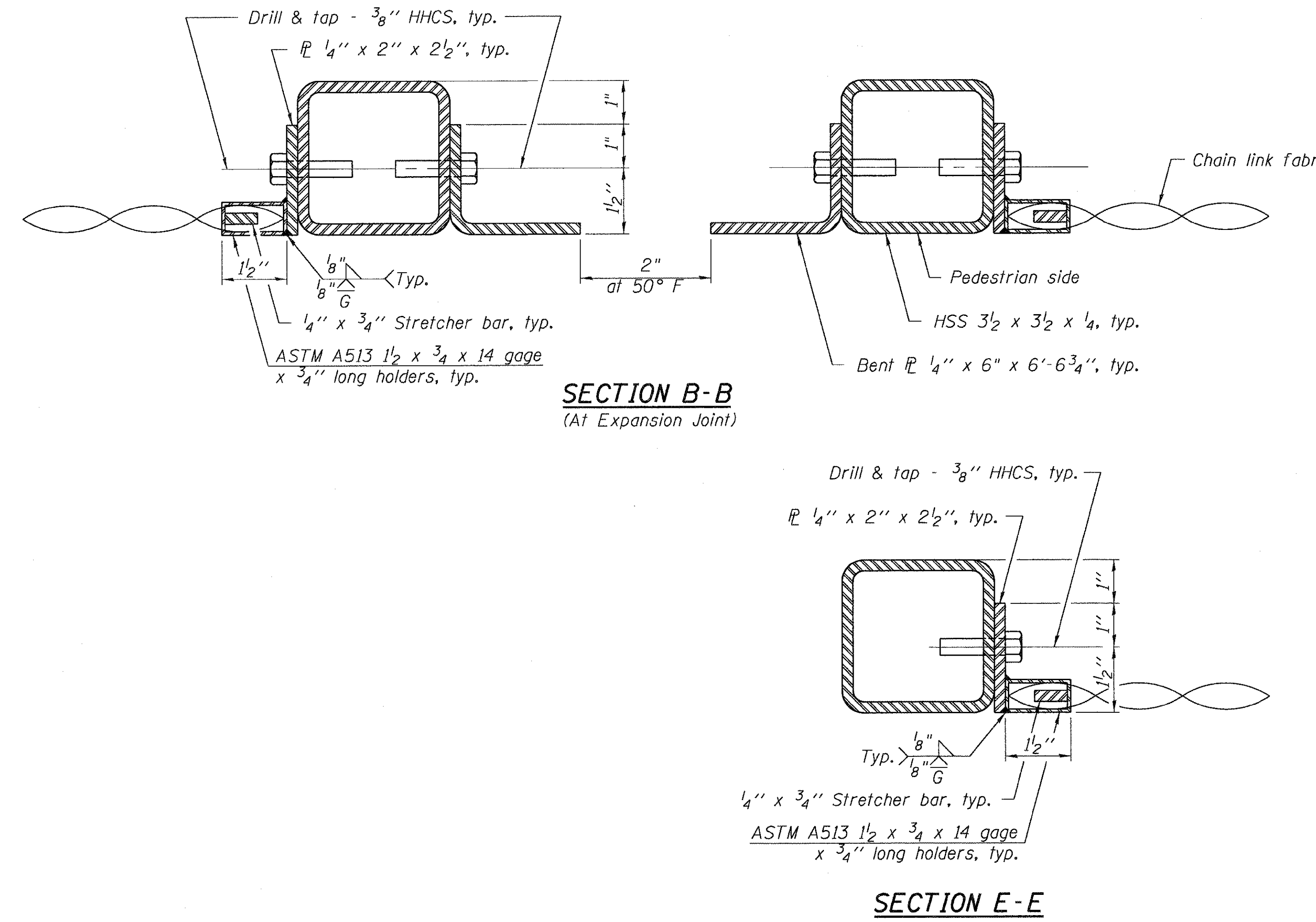
DRAINAGE SCUPPER, DS-11

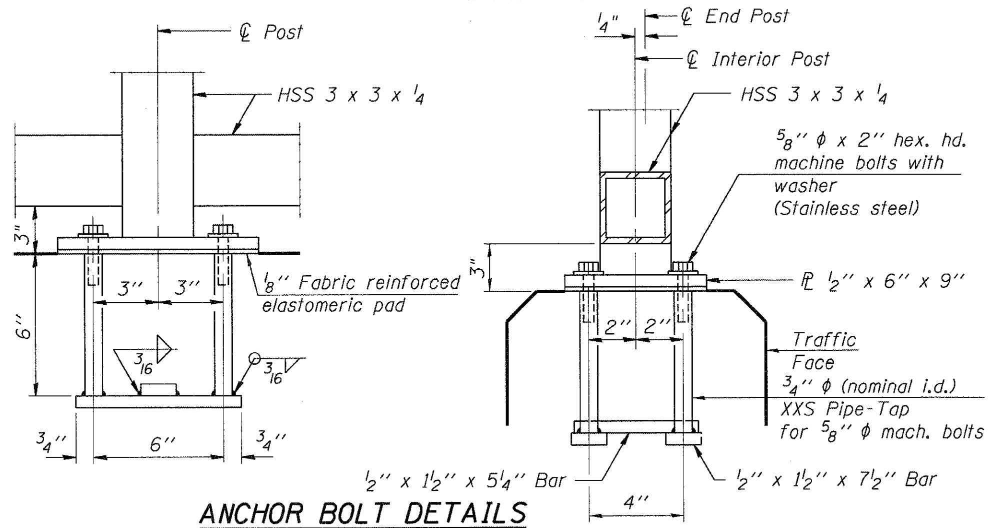
SCALE: | SHEET NO. SA-33 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	168
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

..\082038_CONN-99-001-BD.DGN 5-11-2011, 9:54:01 NEWMANMD \\FS-0844\JAN\VAULT_D-TRANS.07\2202\20868 001\STRUCTURAL\CAD\01 DESIGN\082032B\SHEET\082032B-CONN-10 004 SHT-MS.DGN

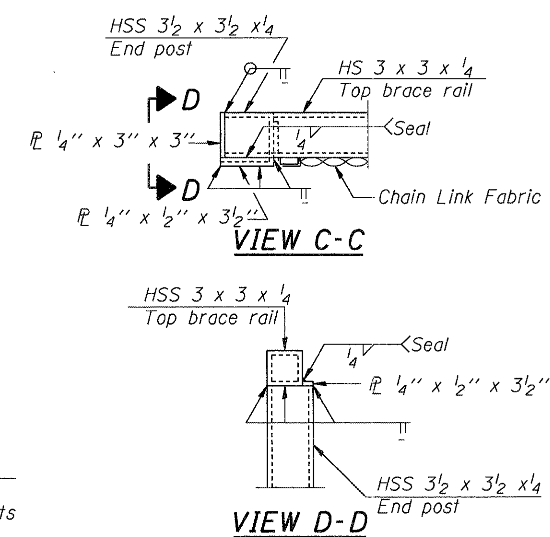


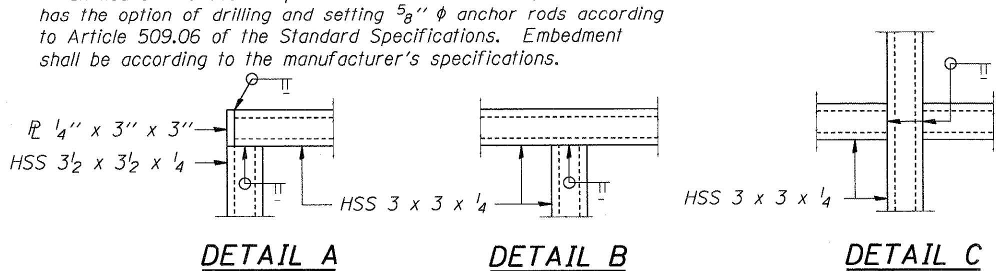


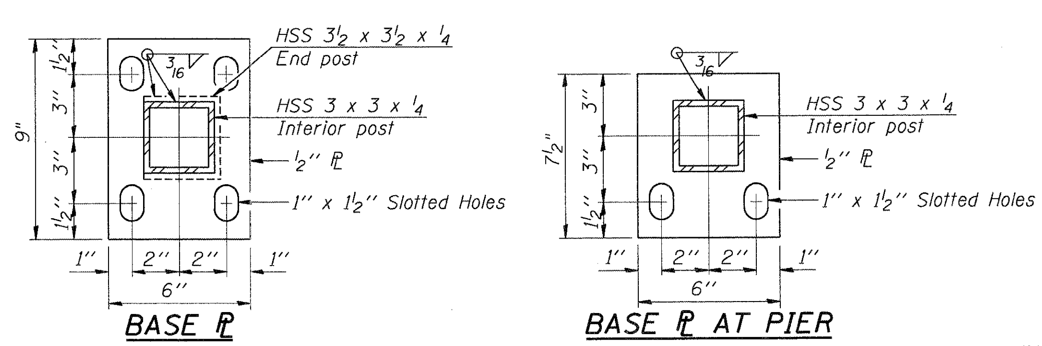


ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.







NOTE:

All post, railing, splices, anchor devices and plates shall be painted using the DuPont Imron 2.1 HG High Gloss Polyurethane (Includes Mix Quality "VF") or approved equal. The color of the final finish coat shall be Black.

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	397

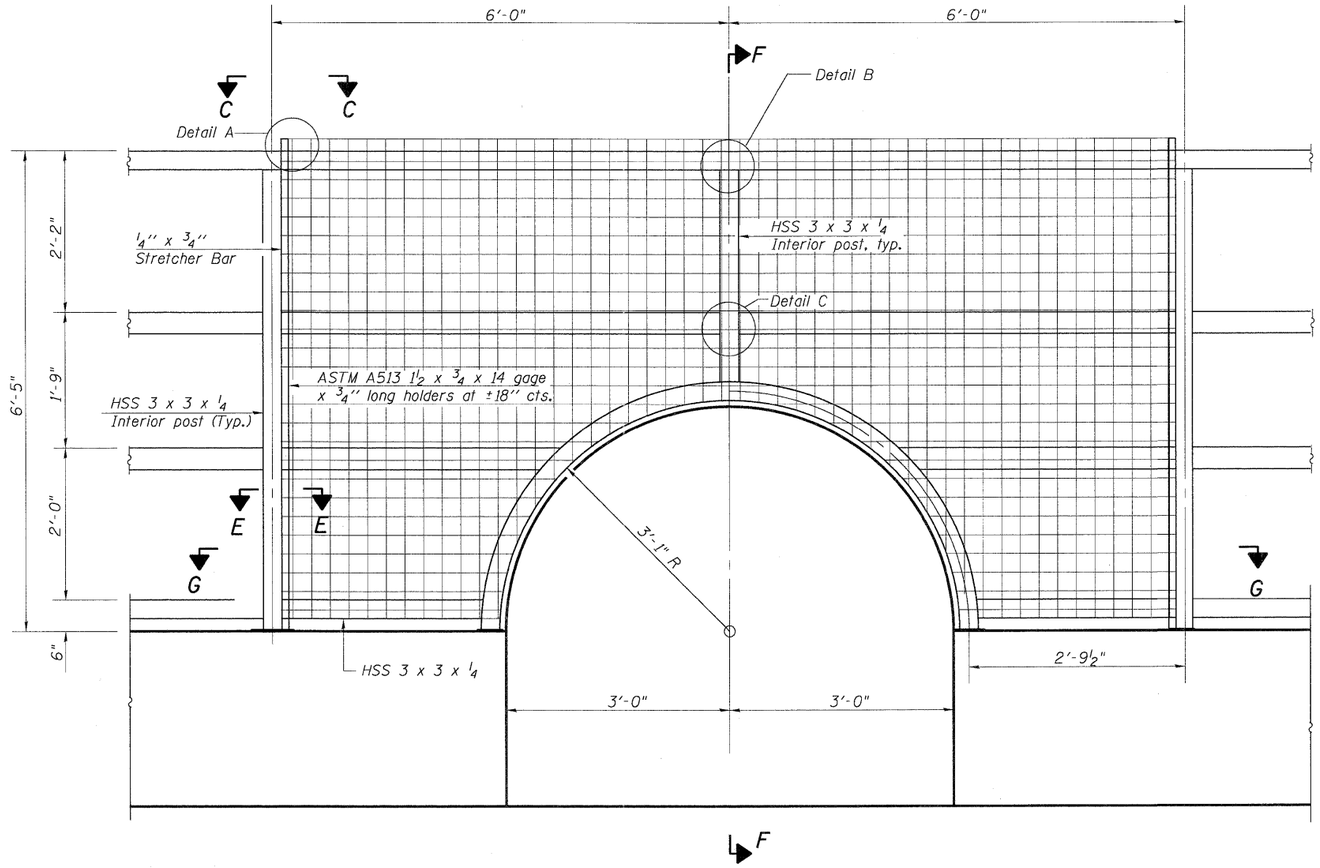
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

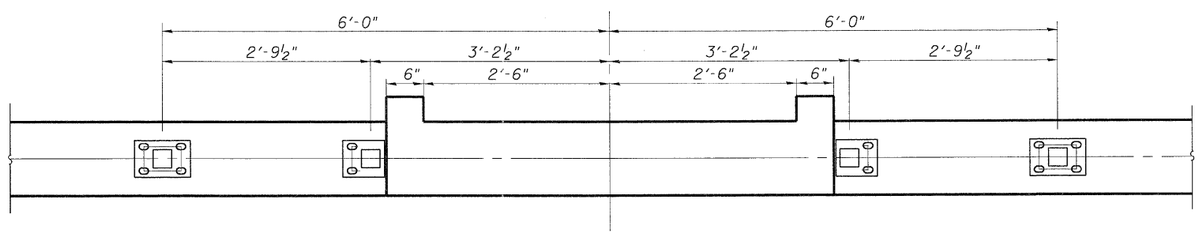
BRIDGE FENCE RAILING DETAILS
1 OF 2

SCALE: | SHEET NO. SA-34 OF SA-57 | STA. 1683+43.17 TO STA.

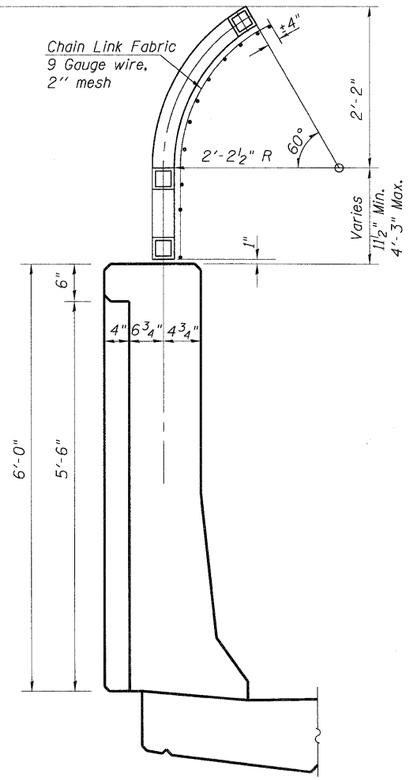
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	169
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



ELEVATION AT PIER



SECTION G-G



SECTION F-F

NOTE:

For fence and railing details and sections see Sheet SA-34.

..\082038-CONN-99-001-BD.DGN 5-11-2011, 9:54:07 NEWMANND \\FS-0244\AM\VAULT\D-TRANS.07\220\20868.00\STRUCTN\CAD\01 DESIGN\082032B\SHEET\082032B CONN 10 026 SHT MS.DGN

FILE NAME = $FILE$ | USER NAME = $USER$ | DESIGNED - | REVISED -
DRAWN - TCG | REVISED -
PLOT SCALE = $SCALE$ | CHECKED - JLR | REVISED -
PLOT DATE = $DATE$ | DATE - 05/13/11 | REVISED -

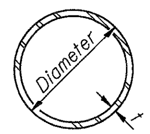
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

BRIDGE FENCE RAILING DETAILS
2 OF 2

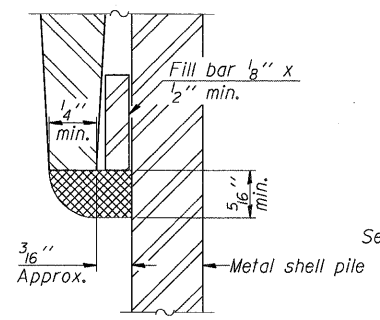
SCALE: | SHEET NO. SA-35 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	170
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

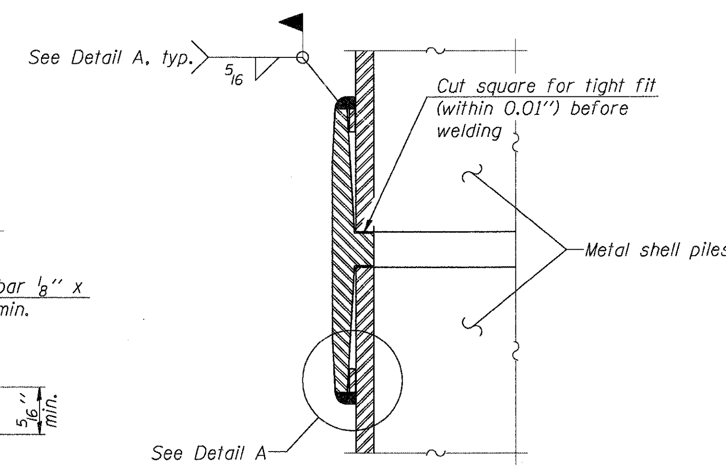


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3/ft.$)
PP12	0.179″	22.60	0.0274
PP12	0.250″	31.37	0.0267
PP14	0.250″	36.71	0.0368
PP14	0.312″	45.61	0.0361

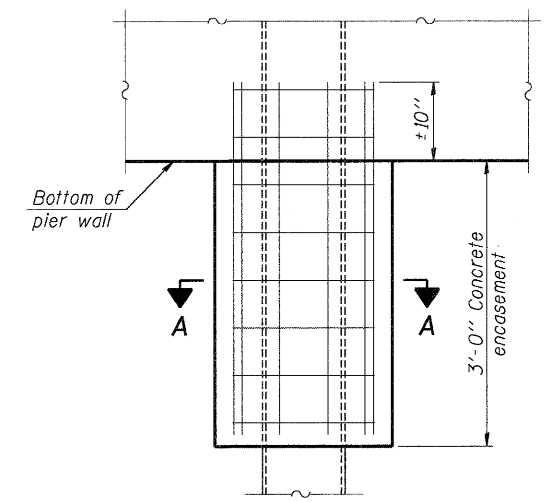


DETAIL A

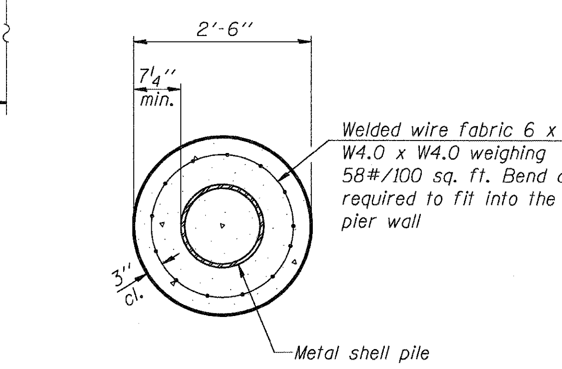


Notes:
The 1/8″ x 1/2″ min. fill bar may be constructed of 2 bars with a 1/8″ max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



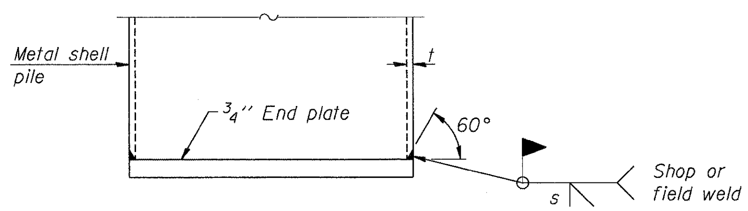
ELEVATION



SECTION A-A

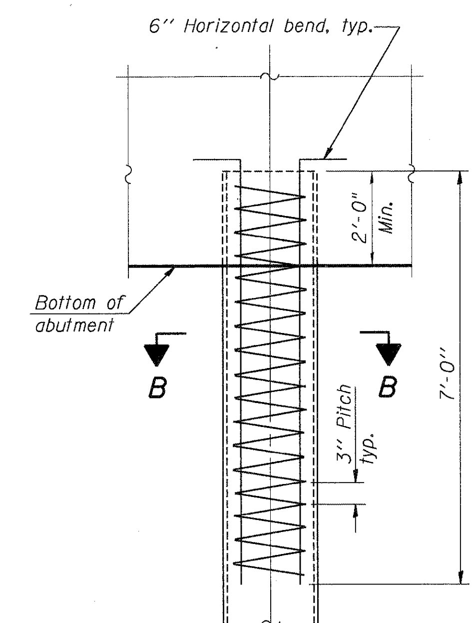
Note:
Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT

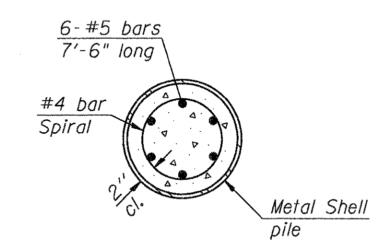


s = t - 1/16″

END PLATE ATTACHMENT

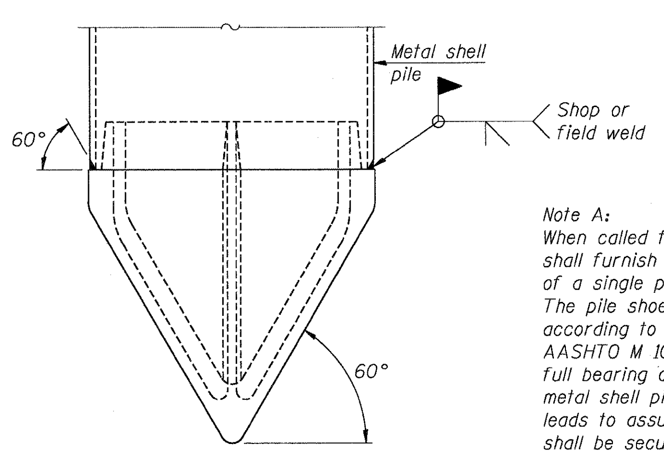


ELEVATION



SECTION B-B

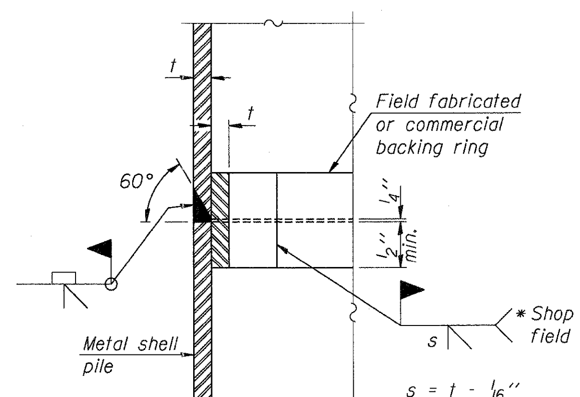
METAL SHELL REINFORCEMENT AT ALL SUBSTRUCTURES



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)



s = t - 1/16″

COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	METAL SHELL PILE DETAILS	F.A.P RTE. 998 / SECTION 82-2-1HVB-1 / COUNTY ST. CLAIR / TOTAL SHEETS 345 / SHEET NO. 171
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -		SCALE:	SN 082-0328 / CONTRACT NO. 76D05
	PLOT DATE = $DATE$	CHECKED - JLR	REVISED -		SHEET NO. SA-36 OF SA-57	FED. ROAD DIST. NO. / ILLINOIS / FED. AID PROJECT
		DATE - 05/13/11	REVISED -		STA. 1683+43.17 TO STA.	

SB-109

SOIL BORING LOG

PAGE 1 of 4
DATE 5/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-109
Station: 24+26
Offset: 37.5' Right
Ground Surface Elev. *415.9*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
		AS	NP	21
CINDERS-black-loose (Fill)		5		
		4		
		3	NP	23
412.9				
SILTY CLAY-brown-stiff (A-6) Wet		1		
		2		
	-5	3	1.25P	26
410.4				
SILTY LOAM-brown-loose (A-4)		1		
		2		
		2	NP	16
		1		
		2		
	-10	2	NP	22
405.4				
SILTY CLAY-brown-very soft (A-7) Wet		2		
		1		
		1	<0.25P	36
402.9				
SILTY LOAM-brown-very loose to loose (A-4)		2		
		3		
	-15	2	<0.25P	28
		3		
		1		
		2	NP	29
397.9				
SANDY LOAM-brown-very loose to loose (A-2/A-3)		3		
		2		
	-20	2	NP	27

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-brown-very loose to loose (A-2/A-3)		2		
		2		
		1	NP	31
392.9				
SAND-brown-loose to dense (A-3)		4		
		4		
	-25	4	NP	24
		10		
		10		
		10	NP	25
		18		
		24		
	-30	28	NP	22
		16		
		20		
		18	NP	23
		9		
		10		
	-35	9	NP	25
		7		
		8		
		11	NP	25
		5		
		4		
	-40	5	NP	25

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-109

SOIL BORING LOG

PAGE 2 of 4
DATE 5/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-109
Station: 24+26
Offset: 37.5' Right
Ground Surface Elev. *415.9*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-loose to dense (A-3) *375.4*				
SANDY LOAM-gray-loose (A-2)		6		
		3		
		5	NP	29
372.9				
SAND-brown-medium dense (A-3)		6		
		7		
	-45	7	NP	26
		7		
		6		
		7	NP	28
		7		
		7		
	-50	5	NP	24
365.4				
SANDY LOAM-gray-medium dense (A-2)		6		
		7		
		7	NP	25
		6		
		7		
	-55	6	NP	25
		5		
		6		
		7.	NP	27
		6		
		7		
	-60	6	NP	30

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-gray-medium dense (A-2)		6		
		8		
		9	NP	27
		7		
		6		
	-65	7	NP	27
350.4				
SAND-gray-loose to medium dense (A-3)		8		
		10		
		12	NP	24
		5		
		4		
	-70	7	NP	22
		6		
		4		
		3	NP	24
		5		
		5		
	-75	7	NP	25
		12		
		12		
		13	NP	23
337.9				
SAND & GRAVEL-brown & gray-medium dense (A-1)		13		
		9		
	-80	8	NP	9

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-109

SOIL BORING LOG

PAGE 3 of 4
DATE 5/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-109
Station: 24+26
Offset: 37.5' Right
Ground Surface Elev. *415.9*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND & GRAVEL-brown & gray-medium dense (A-1)		14		
		10		
		7	NP	10
332.9				
SAND-brown & gray-medium dense to dense (A-3)		14		
		15		
	-85	12	NP	13
		24		
		43		
		17	NP	14
		13		
		10		
	-90	12	NP	14
		12		
		12		
		13	NP	15
		13		
		15		
	-95	20	NP	14
		11		
		9		
		9	NP	15
317.9				
SAND with GRAVEL-brown & gray-dense (A-1-b)		13		
		15		
	-100	20	NP	15

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with GRAVEL-dense (A-1-b) *315.4*				
SAND-brown & gray-very dense (A-3)		21		
		28		
		36	NP	16
312.9				
SAND & GRAVEL-brown & gray-very dense (A-1)		50/5"		
	-105		NP	11
		50/3"		
			NP	13
307.9				
SAND with GRAVEL-brown & gray-very dense (A-1-b)		50/1"		
	-110			NR
		50/5"		
			NP	17
302.9				
SANDY LOAM-brown-very dense (A-2)		50/5"		
300.9	-115		NP	37
RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone		RUN 1		
	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-109

SOIL BORING LOG

PAGE 4 of 4
DATE 5/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-C59-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-109
Station: 24+26
Offset: 37.5' Right
Ground Surface Elev. *415.9*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a*
After 24 Hrs. *n/a*

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. ½" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4, -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8% *290.9*	125	RUN 1		
RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone. Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=35.0% *285.9*	-130	RN 2		
End Of Boring @ -130.0' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 5"* Casing Used 3"* Casing Used	-135, -140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-109 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 5/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-109
Station: 24+26
Offset: 37.5' Right
Ground Surface Elev. *415.9*

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. *300.9*
Begin Core Elev. *300.9*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone. Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. ½" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4, -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8%	*300.9* … -119 … -125	1	100.0	64.8	n/a	1111@ -115.0'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-109 Run-2

ROCK CORE LOG

PAGE 2 of 2
DATE 5/11-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | CORING METHOD Rotary Wash

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-109
Station: 24+26
Offset: 37.5' Right
Ground Surface Elev. *415.9*

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. *300.9*
Begin Core Elev. *300.9*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone. Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout.	*290.0* … -130 … -135	2	100.0	35.0	n/c	1293@ -125.0'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOIL BORING LOGS
2 OF 21

SCALE: | SHEET NO. SA-38 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	173
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

..\9999999-CONN-99-001-MS.DGN, ..\0820310-CONN-99-001-BD.DGN
5-11-2011, 9:54:18 NEWMANMD

SB-119

SOIL BORING LOG

PAGE 1 of 4
DATE 5/8-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-119
Station: 1682+57
Offset: 46.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			AS	NP	9
CINDERS & SAND-black-loose (Fill)			6, 8, 5	NP	20
	413.0				
SAND-brown-very loose to loose (A-3)		-5	1, 2, 1	NP	12
			1, 1, 1	NP	8
		-10	1, 2, 2	NP	12
			2, 1, 1	NP	25
	403.0				
SILTY LOAM-brown-very loose (A-4)		-15	1, 0, 1	NP	27
	400.5				
SILTY CLAY-brown & gray-medium stiff (A-7) Wet			1, 4, 4	0.8B	*81* / 38
	398.0				
SAND-brown-loose to dense (A-3)		-20	3, 2, 3	NP	27

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-loose to dense (A-3)			2, 3, 3	NP	28
		-25	3, 5, 4	NP	24
			6, 6, 6	NP	23
		-30	8, 21, 23	NP	21
			17, 20, 17	NP	22
		-35	13, 15, 10	NP	21
	380.5				
SANDY LOAM-brown-loose (A-2)			3, 2, 4	NP	30
	378.0				
SANDY LOAM to SAND-brown-loose to medium dense (A-2/A-3)		-40	3, 3, 6	NP	29

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-119

SOIL BORING LOG

PAGE 2 of 4
DATE 5/8-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-119
Station: 1682+57
Offset: 46.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM to SAND-brown-loose to medium dense (A-2/A-3)			4, 5, 5	NP	25
		-45	3, 4, 3	NP	29
			3, 5, 6	NP	30
		-50	6, 7, 7	NP	25
			5, 7, 6	NP	26
		-55	7, 5, 4	NP	25
	360.5				
SANDY LOAM to SAND-gray-loose to medium dense (A-2/A-3)			4, 3, 4	NP	28
		-60	4, 4, 5	NP	28

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM to SAND-gray-loose to medium dense (A-2/A-3)			4, 5, 6	NP	26
		-65	4, 4, 5	NP	29
			3, 2, 5	NP	34
	348.0				
SAND-brown-medium dense (A-3)		-70	5, 6, 9	NP	24
			8, 9, 10	NP	21
	343.0				
SAND with Gravel-brown & gray-medium dense (A-1-b)		-75	7, 7, 7	NP	16
			8, 11, 13	NP	15
	338.0				
SAND-brown-medium dense (A-3)		-80	7, 10, 8	NP	20

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-119

SOIL BORING LOG

PAGE 3 of 4
DATE 5/8-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-119
Station: 1682+57
Offset: 46.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-medium dense (A-3)	*335.5*				
SAND with Gravel-brown & gray-medium dense (A-1-b)			9, 7, 6	NP	15
Trace organics from -83.5' to -85.0'.		-85	7, 11, 10	NP	16
			16, 10, 7	NP	12
	328.0				
SAND-brown-medium dense (A-3)		-90	5, 8, 8	NP	12
			8, 8, 8	NP	13
		-95	8, 9, 9	NP	16
			6, 7, 9	NP	16
	318.0				
SAND with Gravel-brown & gray-medium dense to dense (A-1-b)		-100	7, 7, 11	NP	15

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-brown & gray-medium dense to dense (A-1-b)			15, 23, 26	NP	13
		-105	11, 9, 14	NP	9
	310.5				
Drillers Observation: Cobbles & Boulders from -105.5' to -108.5'.					
	307.5				
SAND-brown & gray-very dense (A-3)		-110	50/5"	NP	13
			42, 50/5"	NP	14
	303.0				
Drillers Observation: Apparent becrock.	*302.0*				
RUN 1 (-114.0' to -124.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Highly fractured to -115.8'. Horizontal fractures @ -116.2', -116.6', -117.1', -117.6', -118.2', -118.6' & -118.8'. Vertical fracture from -119.2' to -120.0'. Horizontal fractures @ -120.1', -121.5', -122.1', -122.3', -123.2' & -123.4'.		-115	RUN 1		
		-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	SOIL BORING LOGS 3 OF 21
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -		SCALE:
	PLOT DATE = $DATE$	CHECKED - JLR	REVISED -		SHEET NO. SA-39 OF SA-57
		DATE - 05/13/11	REVISED -		STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	174
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-119

SOIL BORING LOG

PAGE 4 of 4
DATE 5/8-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3
DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1
LOCATION I-70 & Illinois Route 3
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-119
Station: 1682+57
Offset: 46.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a*
After 24 Hrs. *n/a*

DEPTH (ft)	B-OWS (/6")	UCS Qu (tsf)	MOIST (%)
Recovery=100.0% R.Q.D.=70.2%		RUN 1	
292.0			
End Of Boring @ -124.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"± Casing Used 3"± Casing Used			
-125			
-130			
-135			
-140			
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-119 Run-1

ROCK CORE LOG

PAGE 1 of 1
DATE 5/8-12/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3
DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1
LOCATION I-70 & Illinois Route 3
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. 082-0328
Station: --
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
BORING NO. SB-119
Station: 1682+57
Top of Rock Elev. *303.0*
Offset: 46.0' Left
Begin Core Elev. *302.0*
Ground Surface Elev. *416.0*

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORETIME (min/ft)	STRENGTH (tsf)
302.0					
RUN 1 (-114.0' to -124.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Highly fractured to -115.8'. Horizontal fractures @ -116.2', -116.6', -117.1', -117.6', -118.2', -118.6' & -118.8'. Vertical fracture from -119.2' to -120.0'. Horizontal fractures @ -120.1', -121.5', -122.1', -122.3', -123.2' & -123.4'.	1	100.0	70.2	n/a	1004@ -114.0'
-119					
-124					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** IL 3 OVER I-70
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

SOIL BORING LOGS 4 OF 21

SCALE: | SHEET NO. SA-40 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	175
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-120

SOIL BORING LOG

PAGE 1 of 4
DATE 4/27-29/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-120
Station: 1683+47
Offset: 46.5' Left
Ground Surface Elev. 415.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 393.8

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	AS	NP	5	CRUSHED STONE (Fill)
414.8				
	10			CINDERS & SAND-black-medium dense (Fill)
	11			
	7	NP	20	
412.8				
	1			SILTY LOAM to LOAM-brown-very loose (A-4)
	1			
-5	2	NP	20	
410.3				
	1			SAND-brown-very loose to loose (A-3)
	2			
	2	NP	13	
	2			
	2			
-10	1	NP	11	
	3			
	3			
	3	NP	28	
	3			
	2			
-15	3	NP	27	
400.3				
	2			SANDY LOAM-brown-loose (A-2)
	3			
	3	NP	31	
397.8				
	5			SAND-brown-medium dense to dense (A-3)
	6			
-20	10	NP	24	
	11			SAND-brown-medium dense to dense (A-3)
	14			
	14	NP	25	
	11			
	14			
-25	14	NP	22	
	14			
	17			
	18	NP	20	
	12			
	15			
-30	21	NP	27	
	14			
	16			
	14	NP	25	
	16			
	18			
-35	8	NP	23	
	6			
	7			
	7	NP	24	
377.8				
	4			SANDY LOAM-brown-loose to medium dense (A-2)
	4			
-40	6	NP	29	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR=No Recovery

SB-120

SOIL BORING LOG

PAGE 2 of 4
DATE 4/27-29/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-120
Station: 1683+47
Offset: 46.5' Left
Ground Surface Elev. 415.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 393.8

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	4			SANDY LOAM-brown-loose to medium dense (A-2)
	4			
	6	NP	28	
	4			
-45	6	NP	31	
	5			
	4			
	7	NP	31	
	3			
-50	5	NP	29	
365.3				
	1			SANDY LOAM-gray-very loose to medium dense (A-2)
	1			
	2	NP	26	
	2			
-55	5	NP	26	
	2			
	4			
	4	NP	25	
	5			
	9			
-60	10	NP	28	
	4			SANDY LOAM-gray-very loose to medium dense (A-2)
	4			
	6	NP	35	
352.8				
	3			SAND-gray-very loose (A-3)
	2			
-65	5	NP	25	
350.3				
	5			ORGANIC LOAM-black (A-8)
	10			
	11	NP	101	
347.8				
	3			SAND & GRAVEL-brown & gray-loose (A-1)
	1			
-70	5	NP	17	
345.3				
	13			SAND-gray-medium dense to dense (A-3)
	18			
	13	NP	20	
	9			
	11			
-75	14	NP	17	
	13			
	16			
	19	NP	17	
	10			
	12			
-80	12	NP	18	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR=No Recovery

SB-120

SOIL BORING LOG

PAGE 3 of 4
DATE 4/27-29/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-120
Station: 1683+47
Offset: 46.5' Left
Ground Surface Elev. 415.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 393.8

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				SAND-medium dense to dense (A-3) 335.3
	13			SAND with Gravel-brown & gray-medium dense (A-1-b)
	10			
	11	NP	24	
330.3				
	7			GRAVEL-brown & gray-medium dense (A-1-a)
	6			
-85	7	NP	23	
327.8				
	14			SAND-brown & gray-medium dense to dense (A-3)
	14			
	12	NP	1	
	13			
	10			
-90	8	NP	17	
	12			
	12			
	13	NP	18	
	10			
	12			
-95	14	NP	16	
	13			
	10			
	10			
	10	NP	17	
	9			
	9			
-100	12	NP	16	
	19			SAND-brown & gray-medium dense to dense (A-3)
	24			
	35	NP	18	
312.8				
	17			SAND with Gravel-brown & gray-medium dense (A-1-b)
	13			
-105	11	NP	14	
310.3				
	50/4"			SAND & GRAVEL-brown & gray-very dense (A-1)
			NP	13
	50/5"			
-110			NP	13
305.3				
	50/5"			SILTY SAND & GRAVEL-brown & gray-very dense (A-2)
			NP	18
302.8				
	50/2"			SAND & GRAVEL-brown & gray-very dense (A-1)
301.3				
-115			NP	17	Drillers Observation: Apparent Bedrock
300.3				
				RUN 1 (-115.5' to -125.5') Mississippian System, Valmeyeron Series Limestone
				Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -115.9' -116.0',-116.5', -117.1', -117.2' & -117.8'. ¼" clay parting @ -118.2'. Horizontal fracture @ -118.6'. RUN 1
-120				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR=No Recovery

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** IL 3 OVER I-70	**SOIL BORING LOGS 5 OF 21**
		DRAWN - TCG	REVISED -		
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -		
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: SHEET NO. SA-41 OF SA-57 STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	176
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-120

SOIL BORING LOG

PAGE 4 of 4
DATE 4/27-29/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3
DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1
LOCATION I-70 & Illinois Route 3
COUNTY St. Clair
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-120
Station: 1683+47
Offset: 46.5' Left
Ground Surface Elev. 415.8

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 393.8

DEPTH (ft)	B-O-W-S (/6")	UCS Qu (tsf)	MOIST (%)

½" clay parting @ -119.2'. Horizontal fractures @ -119.5', -119.7', -120.2' & -120.5'. 1.0" clay parting @ -120.7'. Horizontal fractures @ -121.9', -122.4', -122.6', -123.1', -124.3' & -124.9'.

Recovery=100.0%
R.Q.D.=83.8%

RUN 1

-125
290.3

RUN 2 (-125.5' to -130.5')
Mississippian System,
Valmeyeran Series Limestone

Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Becoming darker gray between -126.1' & -126.8' with numerous horizontal fractures throughout.

Recovery=100.0% R.Q.D.=45.0%

RUN 2

-130
285.3

End Of Boring @ -130.5'
Hollow Stem Augers To -10.0'
Rotary Drilling To Completion
CME Automatic Hammer
10' Of 4"ø Casing Used

-135
-140

DEPTH (ft)	B-O-W-S (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-120 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 4/27-29/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3
DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1
LOCATION I-70 & Illinois Route 3
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-120
Station: 1683+47
Offset: 46.5' Left
Ground Surface Elev. 415.8
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.3
Begin Core Elev. 300.3

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
300.3					

RUN 1 (-115.5' to -125.5')
Mississippian System, Valmeyeran Series Limestone

Light gray to grey with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -115.9" -116.0', -116.3', -117.1', -117.2' & -117.8'. ¼" clay parting @ -118.2'. Horizontal fracture @ -118.6'. ½" clay parting @ -119.2'. Horizontal fractures @ -119.5', -119.7', -120.2' & -120.5'. 1.0" clay parting @ -120.7'. Horizontal fractures @ -121.9', -122.4', -122.6', -123.1', -124.3' & -124.9'.

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
-120.5	1	100.0	83.8	n/a	15039 -116.1
-125.5					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

SB-120 Run-2

ROCK CORE LOG

PAGE 2 of 2
DATE 4/27-29/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3
DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1
LOCATION I-70 & Illinois Route 3
COUNTY St. Clair
CORING METHOD Rotary Wash
STRUCT. NO. 082-0328
Station: --
BORING NO. SB-120
Station: 1683+47
Offset: 46.5' Left
Ground Surface Elev. 415.8
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.3
Begin Core Elev. 300.3

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
300.3					

RUN 2 (-125.5' to -130.5')
Mississippian System, Valmeyeran Series Limestone

Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Becoming darker gray between -126.1' & -126.8' with numerous horizontal fractures throughout.

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
-130.5	2	100.0	45.0	n/a	10539 -126.8
-135.5					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - TCG	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOIL BORING LOGS
6 OF 21

SCALE: | SHEET NO. SA-42 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	177
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-120A

SOIL BORING LOG

PAGE 1 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --
Station: --
BORING NO. SB-120A
Station: 1683+52
Offset: 46.6' Left
Ground Surface Elev. *416.1*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-5			
-10			
-15			
-20			

Blind Drill To -114.5'.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-25			
-30			
-35			
-40			

Blind Drill To -114.5'.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-120A

SOIL BORING LOG

PAGE 2 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --
Station: --
BORING NO. SB-120A
Station: 1683+52
Offset: 46.6' Left
Ground Surface Elev. *416.1*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-45			
-50			
-55			
-60			

Blind Drill To -114.5'.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-65			
-70			
-75			
-80			

Blind Drill To -114.5'.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-120A

SOIL BORING LOG

PAGE 3 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --
Station: --
BORING NO. SB-120A
Station: 1683+52
Offset: 46.6' Left
Ground Surface Elev. *416.1*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-85			
-90			
-95			
-100			

Blind Drill To -114.5'.

301.6

RUN 1 (-114.5' to -119.5')
Mississippian System,
Valmeyeran Series Limestone

Light gray with horizontal bedding.
Fine grained with horizontal fractures @ -114.6', -114.7', -115.0', -115.3', -115.7', -116.1', -116.3', -116.9', -117.6', -118.3', -118.9' & -119.3'.

Recovery=100.0%
R.Q.D.=75.0%

296.6

RUN 2 (-119.5' to -124.5')

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-105			
-110			
-115	RUN 1		
-120	RUN 2		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-120A

SOIL BORING LOG

PAGE 4 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD Hollow Stem Auger/Rotary — HAMMER TYPE CME Automatic

STRUCT. NO. --
Station: --
BORING NO. SB-120A
Station: 1683+52
Offset: 46.6' Left
Ground Surface Elev. *416.1*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Horizontal fracture with 1/4" clay parting @ -119.5'. Horizontal fracture @ -119.7'. Horizontal fracture with 3/4" clay parting @ -120.6'. Horizontal fractures @ -122.0', -122.9', -123.1' & -124.3'. Recovery=100.0% R.Q.D.=88.0% *291.6*		RUN 2		
RUN 3 (-124.5' to -129.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -124.8', -128.1', -128.4' & -129.0'. Recovery=97.0% R.Q.D.=84.0% *286.6*	-125	RUN 3		
RUN 4 (-129.5' to -134.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding becoming darker gray @ -133.2'. Fine grained with some chert replacement. Numerous horizontal fractures throughout. 1/2" clay parting @ -133.2'. Recovery=100.0% R.Q.D.=70.0% *281.6*	-130	RUN 4		
RUN 5 (-134.5' to -139.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Slightly porous & fossiliferous. Horizontal fractures @ -135.4', -136.1', -136.6', -137.6', -138.2', -138.9' & -139.2'. Recovery=100.0% R.Q.D.=95.0% *276.6*	-135	RUN 5		
RUN 6 (-139.5' to -144.5')	-140	RUN 6		

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Slightly porous & fossiliferous with some weathering. Horizontal fractures @ -141.0' & -141.3'. Highly fractured from -141.6' to -142.7'. Horizontal fractures @ -143.5' & -144.2'. Recovery=100.0% R.Q.D.=74.0% *271.6*		RUN 6		
RUN 7 (-144.5' to -149.5') Mississippian System, Valmeyeran Series Limestone Weathered & gray with horizontal bedding. Slightly porous & fossiliferous with some chert replacement. Fine grained with some chert replacement. Horizontal fractures @ -145.0', -145.1', -145.7', -146.4', -147.2', -148.0' & -148.3'. Large chert nodule from -148.3' to -148.7'. Recovery=89.5% R.Q.D.=77.0% *266.6*	-145	RUN 7		
End Of Boring @ -149.5' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 5"* Casing Used 115' Of 3"* Casing Used	-150			
	-155			
	-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-120A Run-1&2

ROCK CORE LOG

PAGE 1 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — CORING METHOD Rotary Wash

STRUCT. NO. --
Station: --
BORING NO. SB-120A
Station: 1683+52
Offset: 46.6' Left
Ground Surface Elev. *416.1*

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. *301.6*
Begin Core Elev. *301.6*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-114.5' to -119.5') *301.6* Mississippian System, Valmeyeran Series Limestone Light gray with horizontal bedding. Fine grained with horizontal fractures @ -114.6', -114.7', -115.0', -115.3', -115.7', -116.1', -116.3', -116.9', -117.6', -118.3', -118.9' & -119.3'.	-119.5	1	100.0	75.0	n/a	1406@ -116.4'
RUN 2 (-119.5' to -124.5') *296.6* Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Horizontal fracture with 1/4" clay parting @ -119.5'. Horizontal fracture @ -119.7'. Horizontal fracture with 3/4" clay parting @ -120.6'. Horizontal fractures @ -122.0', -122.9', -123.1' & -124.3'.	-124.5	2	100.0	88.0	n/a	1015@ -119.7'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-120A Run-3&4

ROCK CORE LOG

PAGE 2 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — CORING METHOD Rotary Wash

STRUCT. NO. --
Station: --
BORING NO. SB-120A
Station: 1683+52
Offset: 46.6' Left
Ground Surface Elev. *416.1*

CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Core Diameter 2.0 in
Top of Rock Elev. *301.6*
Begin Core Elev. *301.6*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 3 (-124.5' to -129.5') *291.6* Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -124.8', -128.1', -128.4' & -129.0'.	-129.5	3	97.0	84.0	n/a	1342@ -124.9'
RUN 4 (-129.5' to -134.5') *286.6* Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding becoming darker gray @ -133.2'. Fine grained with some chert replacement. Numerous horizontal fractures throughout. 1/2" clay parting @ -133.2'.	-134.5	4	100.0	70.0	n/a	1097@ 129.5'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-120A Run-5&6

ROCK CORE LOG

PAGE 3 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash
STRUCT. NO. -- CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Station: --
BORING NO. SB-120A Core Diameter 2.0 in
Station: 1683+52 Top of Rock Elev. 301.6
Offset: 46.6' Left Begin Core Elev. 301.6
Ground Surface Elev. 416.1

	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 5 (-134.5' to -139.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Slightly porous & fossiliferous. Horizontal fractures @ -135.4', -136.1', -136.6', -137.6', -138.2', -138.9' & -139.2'.	281.6	5	100.0	55.0	n/a	1120@ -134.5'
	-139.5					
RUN 6 (-139.5' to -144.5') Mississippian System, Valmeyeran Series Limestone Light grey to gray with horizontal bedding. Fine grained with some chert replacement. Slightly porous & fossiliferous with some weathering. Horizontal fractures @ -141.0' & -141.3'. Highly fractured from-141.6' to -142.7'. Horizontal fractures @ -143.5' & -144.2'.	276.6	6	100.0	74.0	n/a	8908 -139.5'
	-144.5					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-120A Run-7

ROCK CORE LOG

PAGE 4 of 4
DATE 9/24/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash
STRUCT. NO. -- CORING BARREL TYPE & SIZE NX Double Swivel-5 ft
Station: --
BORING NO. SB-120A Core Diameter 2.0 in
Station: 1683+52 Top of Rock Elev. 301.6
Offset: 46.6' Left Begin Core Elev. 301.6
Ground Surface Elev. 416.1

	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 7 (-144.5' to -149.5') Mississippian System, Valmeyeran Series Limestone Weathered & gray with horizontal bedding. Slightly porous & fossiliferous with some chert replacement. Fine grained with some chert replacement. Horizontal fractures @ -145.0', -145.1', -145.7', -146.4', -147.2', -148.0' & -148.3'. Large chert nodule from -148.3' to -148.7'.	271.6	7	89.5	77.0	n/a	562@ -144.6'
	-149.5					
	-154.5					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	SOIL BORING LOGS 9 OF 21
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -		SCALE: SHEET NO. SA-45 OF SA-57 STA. 1683+43.17 TO STA.
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	180
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-121

SOIL BORING LOG

PAGE 1 of 4
DATE 4/27-30/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE 170/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-121
Station: 1684+69
Offset: 54.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			AS	NP	18
CINDERS, STONE & CONCRETE (Fill)	*414.5*				
			4, 4, 5	NP	17
SILTY LOAM with Cinders-brown-loose (Fill)	*413.0*				
		-5	1, 3, 4	NP	24
SILTY LOAM-brown-loose (A-4)	*410.5*				
			1, 2, 3	NP	11
SAND-brown-loose (A-3)	*408.0*				
		-10	5, ´2, 6	NP	17
			3, 5, 6	NP	31
SANDY LOAM-brown-medium dense (A-2)	*403.0*				
		-15	8, 11, 14	NP	25
			8, 15, 16	NP	26
		-20	8, 21, 26	NP	22
SAND-brown-medium dense to dense (A-3)					

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			14, 15, 17	NP	27
		-25	8, 12, 13	NP	25
SAND-brown-medium dense to dense (A-3)	*390.5*				
			3, 3, 4	NP	29
		-30	3, 4, 4	NP	29
SANDY LOAM-brown-loose (A-2)	*385.5*				
			2, 2, 3	NP	32
		-35	3, 2, 3	NP	30
			2, 2, 2	NP	32
		-40	2, 2, 3	NP	30
SILTY LOAM-dark gray-very loose to loose (A-4)					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-121

SOIL BORING LOG

PAGE 2 of 4
DATE 4/27-30/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE 170/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-121
Station: 1684+69
Offset: 54.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			2, 2, 4	NP	31
		-45	3, 3, 3	NP	28
			3, 3, 3	NP	27
		-50	2, 2, 2	NP	28
			2, 2, 2	NP	30
		-55	2, 1, 1	NP	30
SILTY LOAM-dark gray-very loose to loose (A-4)	*360.5*				
			8, 11, 10	NP	27
		-60	5, 7, 6	NP	25
SAND-gray-medium dense (A-3)					

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			5, 10, 12	NP	18
SAND-gray-medium dense (A-3)	*353.0*				
		-65	9, 9, 8	NP	13
			11, 12, 11	NP	14
SAND with Gravel-brown & gray-medium dense (A-1-b)	*348.0*				
		-70	10, 14, 16	NP	19
SAND-gray-dense (A-3)	*345.5*				
			8, 10, 7	NP	16
SAND with Gravel-brown & gray-medium dense (A-1-b)	*343.0*				
		-75	9, 9, 9	NP	18
			12, 16, 15	NP	19
		-80	13, 21, 17	NP	16
SAND-gray-medium dense to dense (A-3)					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-121

SOIL BORING LOG

PAGE 3 of 4
DATE 4/27-30/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE 170/IL3 | DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 | LOCATION I-70 & Illinois Route 3
COUNTY St. Clair | DRILLING METHOD 3.25" Hollow Stem Auger | HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-121
Station: 1684+69
Offset: 54.0' Left
Ground Surface Elev. *416.0*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-medium dense to dense (A-3)	*335.5*				
			9, 11, 12	NP	14
		-85	12, 8, 9	NP	13
			11, 10, 9	NP	11
SAND with Gravel-brown & gray-medium dense (A-1-b)	*328.0*				
		-90	11, 19, 16	NP	14
			13, 14, 14	NP	10
SAND & GRAVEL-brown & gray-medium dense to dense (A-1)	*323.0*				
		-95	4, 5, 9	NP	13
			12, 12, 15	NP	16
		-100	12, 18, 27	NP	15
SAND-brown & gray-medium dense to dense (A-3)					

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-medium dense to dense (A-3)	*315.5*				
			41, 38, 19	NP	8
SAND & GRAVEL-brown & gray-dense (A-1)	*313.0*				
		-105	15, 15, 15	NP	12
			50/6"	NP	14
		-110	50/2"	NP	15
SAND with Gravel-brown & gray-dense to very dense (A-1-b)	*305.5*				
			26, 34, 42	NP	1′
SAND-brown & gray-very dense (A-3)	*302.0*		50/5"	NP	14
Drillers Observation: Apparent Bedrock.	*301.6*				
RUN 1 (-114.4' to -124.4') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -114.5', -115.1', -116.5', -117.3', -117.5', 1´7.7', -118.5', -118.7', -119.1', 119.5', -119.7', -119.9', -120.8', 121.2', -122.0', -122.1', -122.5' & -122.6'. Thin clay parting @ -122.7'. Horizontal fracture @ -123.3'.		-115 to -120	RUN 1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-121

SOIL BORING LOG

PAGE 4 of 4
DATE 4/27-30/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-121
Station: 1684+69
Offset: 54.0' Left
Ground Surface Elev. 416.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
½" clay parting @ -123.9'. Recovery=100.0% R.Q.D.=72.0%	RUN 1		
291.6			
RUN 2 (-124.4' to -129.4') Mississippian System, Valmeyeran Series Limestone. Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -124.8 & -126.8'. Recovery=100.0% R.Q.D.=100.0%	RUN 2		
286.6			
End Of Boring @ -129.4' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used 115' Of 3"* Casing Used			

-125 -130 -135 -140 -145 -150 -155 -160

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, F-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-121 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 4/27-30/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-121
Station: 1684+69
Offset: 54.0' Left
Ground Surface Elev. 416.0

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 302.0
Begin Core Elev. 301.6

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
301.6 RUN 1 (-114.4' to -124.4') Mississippian System, Valmeyeran Series Limestone. Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -114.5', -115.1', -116.5', -117.3', -117.5', -117.7', -118.5', -118.7', -119.1', -119.5', -119.7', -119.9', -120.8', -121.2', -122.0', -122.1', -122.5' & -122.6'. Thin clay parting @ -122.7'. Horizontal fracture @ -123.3'. ½" clay parting @ -123.9'.	1	100.0	72.0	n/a	7959 @ -114.5'
-119.4					
-124.4					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-121 Run-2

ROCK CORE LOG

PAGE 2 of 2
DATE 4/27-30/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-121
Station: 1684+69
Offset: 54.0' Left
Ground Surface Elev. 416.0

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 302.0
Begin Core Elev. 301.6

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
291.6 RUN 2 (-124.4' to -129.4') Mississippian System, Valmeyeran Series Limestone. Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -124.8 & -126.8'.	2	100.0	100.0	n/c	13650 @ -124.4'
-129.4					
-134.4					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** IL 3 OVER I-70	**SOIL BORING LOGS 11 OF 21**	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - TCG	REVISED -			998	82-2-1HVB-1	ST. CLAIR	345	182
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -				SN 082-0328		CONTRACT NO. 76D05	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SCALE: SHEET NO. SA-47 OF SA-57 STA. 1683+43.17 TO STA.		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

SB-125

SOIL BORING LOG

PAGE 1 of 4
DATE 5/5/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0329
Station: --
BORING NO. SB-125
Station: 1680+85
Offset: 46.5' Right
Ground Surface Elev. 417.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 395.2

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				CONCRETE
416.2				
	3			
	2			
	2	NP	21	CINDERS-black-loose (Fill)
	1			
	2			
-5	2	NP	23	SAND-brown-medium dense to dense (A-3)
411.7				
	2			
	4			
	4	NP	17	SANDY LOAM-brown-loose to medium dense (A-2)
	3			
	5			
-10	5	NP	11	
406.7				
	2			
	7			
	7	NP	23	SAND-brown-medium dense (A-3)
404.2				
	3			
	3			
-15	4	NP	31	SANDY LOAM-brown-loose (A-2)
401.7				
	7			
	7			
	11	NP	27	SAND-brown-medium dense to dense (A-3)
	11			
	17			
-20	27	NP	21	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	12			
	17			
	20	NP	23	
	13			
	16			
-25	21	NP	24	
	14			
	17			
	19	NP	23	
	14			
	15			
-30	14	NP	26	
	12			
	15			
	19	NP	25	
	12			
	14			
-35	21	NP	26	
	3			
	5			
	6	NP	30	
379.2				
	4			
	4			
-40	6	NP	31	SANDY LOAM-brown-medium dense (A-2)

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample V=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR=No Recovery

SB-125

SOIL BORING LOG

PAGE 2 of 4
DATE 5/5/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0329
Station: --
BORING NO. SB-125
Station: 1680+85
Offset: 46.5' Right
Ground Surface Elev. 417.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 395.2

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	3			
	5			
	7	NP	31	SANDY LOAM-brown-medium dense (A-2)
	3			
	4			
-45	7	NP	32	
	3			
	4			
	7	NP	28	
	3			
	5			
-50	8	NP	30	
	5			
	6			
	7	NP	29	
	4			
	4			
-55	8	NP	30	
361.7				
	5			
	5			
	6	NP	27	SAND-gray-medium dense (A-3)
	7			
	9			
-60	11	NP	24	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	7			
	9			
	11	NP	26	SAND-gray-medium dense (A-3)
-65	12	NP	26	
	7			
	8			
	12	NP	27	
349.2				
	8			
	8			
-70	10	NP	12	SAND with Gravel-gray-medium dense (A-1-b)
346.7				
	12			
	17			
	19	NP	17	SAND-gray-dense (A-3)
	10			
	11			
-75	20	NP	20	
341.7				
	13			
	16			
	13	NP	17	SAND with Gravel-brown & gray-medium dense (A-1-b)
	9			
	11			
-80	14	NP	16	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample V=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR=No Recovery

SB-125

SOIL BORING LOG

PAGE 3 of 4
DATE 5/5/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-0329
Station: --
BORING NO. SB-125
Station: 1680+85
Offset: 46.5' Right
Ground Surface Elev. 417.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 395.2

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				SAND with Gravel (A-1-b)
336.7				
	8			
	12			
	13	NP	17	SAND-brown & gray-medium dense (A-3)
	13			
	12			
-85	11	NP	19	
331.7				
	10			
	11			
	9	NP	14	SAND with Gravel-brown & gray-medium dense (A-1-b)
329.2				
	13			
	20			
-90	8	NP	21	
	10			
	11			
	12	NP	14	SAND-brown & gray-medium dense to very dense (A-3)
	11			
	11			
-95	13	NP	13	
	10			
	10			
	12	NP	12	
	9			
	8			
-100	9	NP	16	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	14			
	20			
	23	NP	16	
	29			
	50/6"			SAND-brown & gray-medium dense to very dense (A-3)
-105		NP	12	
	13			
	16			
	17	NP	10	
	50/0"			
-110			NR	
	35			
	50/6"			
		NP	13	
	50/6"			
302.2 -115			NR	
Drillers Observation: Apparent Bedrock. 301.7				
RUN 1 (-115.5' to -120.5') Cobbles from -115.5' to -115.8'. Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -116.4', -116.7', -117.2', -117.7', -118.1', -119.6' & -119.7'. ½" clay parting @ -120.5'.			RUN 1	
-120				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample V=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR=No Recovery

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOIL BORING LOGS
12 OF 21

SCALE: | SHEET NO. SA-48 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	183
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-125

SOIL BORING LOG

PAGE 4 of 4
DATE 5/5/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-125
Station: 1680+85
Offset: 46.5' Right
Ground Surface Elev. 417.2

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 395.2

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Recovery=100.0% R.Q.D.=90.0% *296.7*		RUN 1		
RUN 2 (-120.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -121.3', -121.8' & -122.5'. Recovery=95.0% R.Q.D.=81.7% *293.7*		RUN 2		
RUN 3 (-123.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -124.8', -125.5', -125.6', -125.7', -125.9', -126.0', -126.1', -126.8' & -126.9'. Recovery=97.5% R.Q.D.=62.5% *289.7*	-125	RUN 3		
RUN 4 (-120.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=25.0% *286.7*	-130	RUN 4		
End Of Boring @ -130.5' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used	-135 -140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-125 Run-1&2

ROCK CORE LOG

PAGE 1 of 2
DATE 5/5/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-125
Station: 1680+85
Offset: 46.5' Right
Ground Surface Elev. 417.2

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.4
Begin Core Elev. 301.7

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-115.5' to -120.5') *301.7* (-115.5' to -115.8') Cobbles *301.4* (-115.8' to -120.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -116.4', -116.7', -117.2', -117.7', -118.1', -119.6' & -119.7'. ½" clay parting @ -120.5'.	-120.5	1	100.0	90.0	n/a	1236@ -117.3'
RUN 2 (-120.5' to -123.5') *296.7* Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -121.3', -121.8' & -122.5'.		2	95.0	81.7	n/a	1050@ -121.3'
	-25.5					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-125 Run-3&4

ROCK CORE LOG

PAGE 2 of 2
DATE 5/5/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-125
Station: 1680+85
Offset: 46.5' Right
Ground Surface Elev. 417.2

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.4
Begin Core Elev. 301.7

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 3 (-123.5' to -127.5') *293.7* Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -124.8', -125.5', -125.6', -125.7', -125.9', -126.0', -126.1', -126.8' & -126.9'.		3	97.5	62.5	n/a	1211@ -123.7'
RUN 4 (-127.5' to -130.5') *289.7* Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout.	-128.5	4	100.0	25.0	n/a	n/a
	-33.5					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-126

SOIL BORING LOG

PAGE 1 of 4
DATE 4/29-30/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-126
Station: 1681+98
Offset: 39.5' Right
Ground Surface Elev. 416.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a ▽
After 24 Hrs. 395.7 ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
9.0" TOPSOIL-black	415.9		AS	–	33
SILTY LOAM-dark brown-very loose (A-4)	413.7		1 / 1 / 2	NP	21
SANDY LOAM-brown-very loose (A-2)	411.2	-5	1 / 1 / 2	NP	30
SILTY CLAY-brown-stiff (A-7) Wet	408.7		1 / 2 / 2	1.2S@ 12.7%	*79* / 39
SILT-brown & gray-loose (A-4)		-10	ST	NP	26
			2 / 2 / 2	NP	29
	401.2	-15	2 / 1 / 6	NP	33
SAND-brown-medium dense (A-3)	398.7		5 / 7 / 5	NP	22
SILTY CLAY LOAM-brown-medium dense (A-4) Wet		-20	1 / 5 / 8	NP	34
SILTY CLAY LOAM-brown-medium dense (A-4) Wet	395.7 ▼				
SAND-brown-medium dense (A-3)	393.2		5 / 11 / 11	NP	25
SILTY CLAY LOAM-brown-very loose (A-4) Wet	391.2	-25	1 / 1 / 1	NP	38
SANDY LOAM-brown & grey-very loose to loose (A-2)			3 / 2 / 3	NP	30
		-30	1 / 2 / 3	NP	34
			1 / 1 / 2	NP	33
		-35	1 / 2 / 3	NP	33
			3 / 2 / 5	NP	32
		-40	2 / 4 / 5	NP	29

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-126

SOIL BORING LOG

PAGE 2 of 4
DATE 4/29-30/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-126
Station: 1681+98
Offset: 39.5' Right
Ground Surface Elev. 416.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a ▽
After 24 Hrs. 395.7 ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-brown & gray-very loose to loose (A-2)			3 / 3 / 5	NP	32
		-45	3 / 3 / 6	NP	31
			3 / 3 / 6	NP	32
		-50	2 / 2 / 3	NP	32
			1 / 0 / 4	NP	32
		-55	3 / 2 / 4	NP	28
			2 / 3 / 4	NP	27
		-60	3 / 4 / 8	NP	28
SANDY LOAM-very loose to loose (A-2)	356.2				
SAND-brown-medium dense (A-3)	353.7		8 / 12 / 14	NP	24
SAND-gray-medium dense (A-3)	351.2	-65	8 / 11 / 9	NP	18
WOOD (A-8)	348.7		0 / 2 / 9	NP	525
SAND-brown & gray-dense (A-3)	346.2	-70	9 / 13 / 18	NP	16
SAND & GRAVEL-brown & gray-medium dense (A-1)			16 / 13 / 15	NP	8
	341.2	-75	9 / 10 / 10	NP	15
SAND-brown & gray-dense (A-3)			9 / 8 / 10	NP	17
		-80	8 / 8 / 9	NP	16

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-126

SOIL BORING LOG

PAGE 3 of 4
DATE 4/29-30/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-126
Station: 1681+98
Offset: 39.5' Right
Ground Surface Elev. 416.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a ▽
After 24 Hrs. 395.7 ▼

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-dense (A-3)	336.2				
SAND with Gravel-brown & gray-medium dense (A-1-b)	333.7		12 / 11 / 12	NP	13
SAND-brown & gray-medium dense (A-3)	331.2	-85	8 / 11 / 13	NP	17
Trace organics from -86.0' to -87.5'.			9 / 10 / 12	NP	15
SAND with Gravel-brown & gray-medium dense (A-1-b)		-90	13 / 8 / 7	NP	17
			10 / 9 / 10	NP	18
		-95	8 / 9 / 10	NP	16
			9 / 8 / 11	NP	16
		-100	9 / 12 / 13	NP	15
SAND with Gravel (A-1-b)	316.2				
SAND-brown & gray-dense to very dense (A-3)			14 / 21 / 25	NP	17
		-105	50/4"	NP	NR
	308.7		15 / 50/5"	NP	15
SAND with Gravel-brown & gray-very dense (A-1-b)		-110	42 / 50/5"	NP	13
			50/1"	NP	NR
	301.2	-115	50/2"	NP	NR
RUN 1 (-115.5' to -125.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Weathered to -116.4'. Horizontal fractures @ -115.9', -116.3', -116.4', -116.9', -117.4', -117.8', -118.1', -118.4', -118.8', -119.1', -119.4', -119.6', -120.1' & -120.5'. ½" clay parting @ -120.6'.		-120	RUN 1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-126

SOIL BORING LOG

PAGE 4 of 4
DATE 4/29-30/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic
STRUCT. NO. 082-W309
Station: --
BORING NO. SB-126
Station: 1681+98
Offset: 39.5' Right
Ground Surface Elev. 416.7

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. 395.7

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Horizontal fractures @ -121.1', -122.2', -122.7', -123.3', -123.8' & -124.4'. Recovery=100.0% R.Q.D.=79.5%	RUN 1		
-125			
291.2			
RUN 2 (-125.5' to -128.0') Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some varving & chert replacement. Recovery=100.0% R.Q.D.=56.0% 288.7	RUN 2		
RUN 3 (-128.0' to -131.0') Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Recovery=100.0% R.Q.D.=38.3% 285.7	RUN 3		
-130			
End Of Boring @ -131.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used			
-135			
-140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR=No Recovery

SB-126 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 4/29-30/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash
STRUCT. NO. 082-W309
Station: --
BORING NO. SB-126
Station: 1681+98
Offset: 39.5' Right
Ground Surface Elev. 416.7

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.2
Begin Core Elev. 301.2

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
301.2 RUN 1 (-115.5' to -125.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Weathered to -116.4'. Horizontal fractures @ -115.9', -116.3', -116.4', -116.9', -117.4', -117.8', -118.1', -118.4', -118.8', -119.1', -119.4', -119.6', -120.1' & -120.5'. ½" clay parting @ -120.6'. Horizontal fractures @ -121.1', -122.2', -122.7', -123.3', -123.8' & -124.4'.	1	100.0	79.5	n/a	8969 -117.6'
-5					
-10					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-126 Run-2&3

ROCK CORE LOG

PAGE 2 of 2
DATE 4/29-30/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash
STRUCT. NO. 082-W309
Station: --
BORING NO. SB-126
Station: 1681+98
Offset: 39.5' Right
Ground Surface Elev. 416.7

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.2
Begin Core Elev. 301.2

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
291.2 RUN 2 (-125.5' to -128.0') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some varving & chert replacement. Horizontal fractures @ -125.7', -126.5', -127.0', -127.3', -127.6' & -127.8'.	2	100.0	56.0	n/a	11009 -125.5'
288.7 RUN 3 (-128.0' to -131.0') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Horizontal fractures @ -128.3', -128.5', -128.9', -129.0', -129.4', -129.7', -130.0', -130.4' & -130.7'.	3	100.0	38.3	n/a	n/a
-130.5'					
-135.5'					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILE1$	USER NAME = $USER$	DESIGNED -	REVISED -	
		DRAWN - TCG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOIL BORING LOGS
15 OF 21

SCALE: | SHEET NO. SA-51 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	186
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-127

SOIL BORING LOG

PAGE 1 of 4
DATE 4/23-19/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-127
Station: 1683+45
Offset: 0.5' Left
Ground Surface Elev. *416.5*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *397.6* ▼

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
			AS	NP	23
CINDERS, SAND & STONE-black-medium dense (Fill)	*413.5*		9, 6, 3	NP	12
SANDY LOAM-brown-very loose (A-2)	*411.0*	-5	1, 1, 1	NP	26
SILTY CLAY-brown & gray-medium stiff to stiff (A-7) Wet			1, 1, 2	0.75P	46
	406.0	-10	ST	1.25P	47
SILT-brown-loose (A-4)	*403.5*		2, 2, 2	NP	27
SAND-brown-loose (A-3)	*401.0*	-15	3, 3, 2	NP	28
SILT-brown-medium dense (A-4)	*398.5*		2, 6, 7	NP	28
SAND-brown-medium dense (A-3)		-20	5, 4, 6	NP	22

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown-medium dense (A-3) ▼			4, 5, 6	NP	27
	391.0	-25	6, 6, 5	NP	25
SANDY LOAM-brown & gray-loose (A-2)			2, 3, 3	NP	26
		-30	2, 2, 2	NP	28
			2, 2, 3	NP	31
		-35	2, 3, 3	NP	29
			2, 2, 2	NP	32
		-40	2, 2, 4	NP	30

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-127

SOIL BORING LOG

PAGE 2 of 4
DATE 4/23-19/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-127
Station: 1683+45
Offset: 0.5' Left
Ground Surface Elev. *416.5*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *397.6* ▼

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-loose (A-2)	*376.0*				
SANDY LOAM-dark gray-very loose to loose (A-2)			2, 2, 3	NP	29
		-45	2, [illegible], 2	NP	26
			1, 0, 1	NP	27
		-50	1, 0, 1	NP	30
			1, 1, 2	NP	28
	361.0	-55	1, 1, 1	NP	26
SAND-gray-medium dense to dense (A-3)			7, 9, 10	NP	24
		-60	7, 14, 19	NP	20

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray-medium dense to dense (A-3)	*353.5*		14, 13, 20	NP	23
SAND with Gravel-gray-medium dense (A-1-b)		-65	7, 8, 9	NP	14
	348.5		8, 10, 12	NP	13
SAND-gray-medium dense (A-3)		-70	11, 11, 13	NP	22
	343.5		9, 14, 13	NP	18
SAND with Gravel-brown & gray-medium dense (A-1-b)	*341.0*	-75	13, 11, 16	NP	15
SAND-brown & gray-medium dense (A-3)			9, 12, 13	NP	18
		-80	9, 12, 10	NP	19

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-127

SOIL BORING LOG

PAGE 3 of 4
DATE 4/23-19/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-127
Station: 1683+45
Offset: 0.5' Left
Ground Surface Elev. *416.5*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *397.6* ▼

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-brown & gray-medium dense (A-3)			10, 10, 15	NP	18
		-85	7, 7, 9	NP	18
			15, 12, 10	NP	18
	326.0	-90	7, 9, 10	NP	16
SAND with Gravel-brown & gray-medium dense (A-1-b)			12, 12, 13	NP	12
		-95	12, 11, 13	NP	16
			11, 13, 15	NP	14
		-100	15, 15, 13	NP	14

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel (A-1-b)	*316.0*				
SAND-brown & gray-medium dense to dense (A-3)			17, 19, 40	NP	13
	311.0	-105	13, 18, 16	NP	17
SAND with Gravel-brown & gray-very dense (A-1-b)	*308.5*		14, 26, 37	NP	10
SAND & GRAVEL-brown & gray-very dense (A-1)		-110	50/2"	NP	12
	303.5		50/4"	NP	10
SAND with Gravel-brown & gray-very dense (A-1-b)	*302.0*		37, 50/3"	NP	14
Drillers Observation: App. Bedrock.	*301.5*	-115			
RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.2', -116.4', -116.8', -117.2', -118.1', -118.8', -119.5', -120.0', -120.3', -120.9', -121.9', -122.6', -123.0', -123.6' & -124.2'.		-120	RUN 1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-127

SOIL BORING LOG

PAGE 4 of 4
DATE 4/23-19/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-127
Station: 1683+45
Offset: 0.5' Left
Ground Surface Elev. 416.5

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encountr n/a
Upon Completion n/a
After 24 Hrs. 397.6

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Recovery=100.0% R.Q.D.=98.0%			
291.5	RUN 1		
RUN 2 (-125.0' to -129.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontol bedding. Fine grained with some chert replacement. Highly weathered from 125.6' :o 127.0'. Horizontol fractures @ -'28.1', -128.6', -128.7', -128.9' & -129.1'. Recovery=100.0% R.Q.D.=46.7%			
287.0	RUN 2		
End Of Boring @ -129.5' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 4"* Casing Used 115' Of 3"* Casing Used			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample V5=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-127 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 4/23-19/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-127
Station: 1683+45
Offset: 0.5' Left
Ground Surface Elev. 416.5

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 302.0
Begin Core Elev. 301.5

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
301.5 RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.2', -116.4', -116.8', -117.2', -118.1', -118.8', -119.5', -120.0', -120.3', -120.9', -121.9', -122.6', -123.0', -123.6' & -124.2'.	1	100.0	98.0	n/c	8789 -115.0'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-127 Run-2

ROCK CORE LOG

PAGE 2 of 2
DATE 4/23-19/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-127
Station: 1683+45
Offset: 0.5' Left
Ground Surface Elev. 416.5

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 302.0
Begin Core Elev. 301.5

DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
291.5 RUN 2 (-125.0' to -129.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Highly weathered from -125.6' to -127.0'. Horizontal fractures @ -128.1', -128.6', -128.7', -128.9' & -129.1'.	2	100.0	46.7	n/a	9640 -125.0'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

..\9999999-CONN-99-001-MS.DGN,..\0828318-CONN-99-001-BG.DGN
5-11-2011, 9:55:06 NEWMANMD \\FS-0044\VM\VAULT_D-TRANS_07\2282\268868_001\STRUCT\CAD\BI DESIGN\0828328\SHEET\0828328-CONN-18-021-SHT-MS.DGN

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED -	REVISED -	
		DRAWN - TCG	REVISED -	
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER I-70

SOIL BORING LOGS
17 OF 21
SCALE: | SHEET NO. SA-53 OF SA-57 | STA. 1683+43.17 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	188
	SN 082-0328	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-128

SOIL BORING LOG

PAGE 1 of 4
DATE 5/5-7/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-128
Station: 1684+68
Offset: 47.0' Right
Ground Surface Elev. *416.6*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Miscellaneous Concrete & Loam-black	*415.6*		AS	NP	6
SANDY LOAM-black-loose (A-2/A-4)			1		
			3		
	413.6		3	NP	20
SANDY LOAM to LOAM-brown- very loose to loose (A-4)			1		
			1		
		-5	1	NP	23
			2		
			2		
	408.6		2	NP	23
SILTY CLAY-brown & gray- medium stiff to stiff (A-7) Wet			1		*75*
			1		
		-10	1	1.0B	45
			ST	1.25P	46
			1		*69*
			1	0.6S@	
		-15	2	11.3%	45
			2		*81*
			2		
	398.6		2	0.5B	41
SANDY LOAM-brown-loose (A-2)			3		
			4		
		-20	4	NP	30
SANDY LOAM-brown-loose (A-2)	*396.1*				
SILTY CLAY LOAM-brown & gray- very loose (A-4)			1		
			1		
	393.6		1	-	49
SILTY CLAY-gray-soft (A-7) Wet			1		*65*
			1		
		-25	1	0.25B	60
			0		*67*
			0		
	388.6		2	0.5B	53
SANDY LOAM-gray- very loose to medium dense (A-2)			3		
			4		
		-30	4	NP	33
			2		
			3		
			3	NP	32
			3		
			2		
		-35	2	NP	31
			2		
			1		
			2	NP	31
			3		
			5		
		-40	6	NP	29

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-128

SOIL BORING LOG

PAGE 2 of 4
DATE 5/5-7/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-128
Station: 1684+68
Offset: 47.0' Right
Ground Surface Elev. *416.6*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-gray- very loose to medium dense (A-2)			4		
			5		
			6	NP	29
			4		
			3		
	371.1	-45	7	NP	27
SAND-gray-medium dense (A-3)			6		
			11		
	368.6		8	NP	15
SAND with Gravel-brown- medium dense (A-1-b)			7		
			11		
	366.1	-50	12	NP	10
SAND-gray-loose to dense (A-3)			7		
			10		
			9	NP	27
			4		
			3		
		-55	5	NP	14
			11		
			17		
			13	NP	12
			9		
			12		
		-60	17	NP	19
SAND-gray-loose to dense (A-3)			12		
			21		
			28	NP	11
Trace organics from -63.5' to -65.0'.			7		
			8		
		-65	12	NP	25
			8		
			13		
	348.6		12	NP	12
SAND & Gravel-brown & gray- medium dense (A-1)			9		
			7		
	346.1	-70	10	NP	6
SAND with Gravel-brown & gray- medium dense (A-1-b)			9		
			9		
	343.6		10	NP	16
SAND-gray- medium dense to dense (A-2)			9		
			12		
		-75	12	NP	17
			6		
			9		
			14	NP	13
			6		
			8		
		-80	12	NP	17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-128

SOIL BORING LOG

PAGE 3 of 4
DATE 5/5-7/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-128
Station: 1684+68
Offset: 47.0' Right
Ground Surface Elev. *416.6*

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-gray- medium dense to dense (A-2)			10		
			16		
			14	NP	16
			9		
			12		
		-85	11	NP	18
			14		
			25		
			28	NP	17
			7		
			6		
		-90	7	NP	14
			9		
			10		
	323.6		13	NP	12
SAND with Gravel-brown & gray- medium dense to dense (A-1-b)			10		
			12		
		-95	10	NP	13
			10		
			11		
			10	NP	11
			8		
			9		
		-100	9	NP	11
SAND with Gravel-brown & gray- medium dense to dense (A-1-b)			20		
			34		
	313.6		11	NP	10
SAND-brown & gray-dense (A-3)			12		
			23		
	311.1	-105	35	NP	12
SAND with Gravel-brown & gray- dense to very dense (A-1-b)			18		
			22		
			28	NP	16
			50/5"		
	306.1	-110		NP	12
Drillers Observation: Cobbles & Boulders.			50/1"		
	303.6				NR
SAND-brown & gray-very dense (A-3)	*302.1*		50/6"		
Drillers Observation: Apparent Bedrock	*301.6*	-115		NP	15
RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -115.2', -115.6', -115.7', -115.8', -116.0', -116.3', -116.5', -118.8', -119.3', -120.0', -120.3', -120.5', -120.7', -121.3', -121.7', -122.2' & -122.9'. Highly fractured with intersecting horizontal & vertical		-120	RUN 1		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	**STATE OF ILLINOIS**	**SOIL BORING LOGS**	F.A.P RTE. 998
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**18 OF 21**	SECTION 82-2-1HVB-1
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	IL 3 OVER I-70	SCALE:	COUNTY ST. CLAIR
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SHEET NO. SA-54 OF SA-57	TOTAL SHEETS 345 / SHEET NO. 189
					STA. 1683+43.17 TO STA.	SN 082-0328 / CONTRACT NO. 76D05
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SB-128

SOIL BORING LOG

PAGE 4 of 4
DATE 5/5-7/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE 170/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0328
Station: --
BORING NO. SB-128
Station: 1684+68
Offset: 47.0' Right
Ground Surface Elev. 416.6

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter n/a
Upon Completion n/a
After 24 Hrs. n/a

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
fractures from -123.3' to -125.0'. Recovery=100.0% R.Q.D.=66.0% 291.6	-125	RUN 1		
RUN 1 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.3' & -125.6'. ¾" clay parting @ -125.8'. Vertical fracture with intersecting horizontal fractures from -126.1' to -126.8'. Horizontal fractures @ -127.3', -127.7', -128.5', -128.9', -129.4' & -129.5'. Recovery=100.0% R.Q.D.=62.0% 286.6	-130	RUN 2		
End Of Boring @ -130.0' Hollow Stem Augers To -8.5' Rotary Drilling To Completion CME Automatic Hammer 8.5' Of 4"* Casing Used 3"* Casing Used	-135 -140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-145			
-150			
-155			
-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-128 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 5/5-7/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE 170/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — CORING METHOD Rotary Wash
STRUCT. NO. 082-0328 — CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station: --
Core Diameter 2.0 in
Top of Rock Elev. 302.1
Begin Core Elev. 301.6
BORING NO. SB-128
Station: 1684+68
Offset: 47.0' Right
Ground Surface Elev. 416.6

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-115.0' to -125.0') 301.6 Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -115.2', -115.6', -115.7', -115.8', -116.0', -116.3', -116.5', -118.8', -119.3', -120.0', -120.3', -120.5', -120.7', -121.3', -121.7', -122.2' & -122.9'. Highly fractured with intersecting horizontal & vertical fractures from -123.3' to -125.0'.	-120 -125	1	100.0	66.0	n/a	874@ -116.5'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-128 Run-2

ROCK CORE LOG

PAGE 2 of 2
DATE 5/5-7/2009
LOGGED BY MR
GSI JOB No. 08201

ROUTE 170/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — CORING METHOD Rotary Wash
STRUCT. NO. 082-0328 — CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Station: --
Core Diameter 2.0 in
Top of Rock Elev. 302.1
Begin Core Elev. 301.6
BORING NO. SB-128
Station: 1684+68
Offset: 47.0' Right
Ground Surface Elev. 416.6

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (-125.0' to -130.0') 291.6 Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.3' & -125.6'. ¾" clay parting @ -125.8'. Vertical fracture with intersecting horizontal fractures from -126.1' to -126.8'. Horizontal fractures @ -127.3', -127.7', -128.5', -128.9', -129.4' & -129.5'.	-130 -135	2	100.0	62.0	n/a	1202@ -127.3'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER I-70	SOIL BORING LOGS 19 OF 21	F.A.P RTE. 998 / SECTION 82-2-1HVB-1 / COUNTY ST. CLAIR / TOTAL SHEETS 345 / SHEET NO. 190
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS		DRAWN - TCG	REVISED -			SN 082-0328 — CONTRACT NO. 76D05
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -		SCALE: — SHEET NO. SA-55 OF SA-57 — STA. 1683+43.17 TO STA.	FED. ROAD DIST. NO. — ILLINOIS — FED. AID PROJECT
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -			

SB-129

SOIL BORING LOG

PAGE 1 of 4
DATE 5/7-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-129
Station: 1681+48
Offset: 80.5' Left
Ground Surface Elev. *416.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM with Cinders-black (Fill)		AS	NP	12
415.8				
SILTY CLAY-dark brown, gray & black-soft to stiff (A-7) Wet		1		
		2		
		2	1.25P	25
		0		*79*
		1		
	-5	1	0.4B	40
411.3				
SILT-brown & gray-.oose (A-4)		2		
		3		
		3	NP	25
	-10	ST	NP	20
		3		
		3		
		3	NP	29
		2		
		2		
	-15	2	NP	29
		2		
		2		
		2	NP	34
398.8				
SANDY LOAM-brown & gray-very loose to loose (A-2)		3		
		2		
	-20	3	NP	27

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-brown & gray-very loose to loose (A-2)		3		
		1		
		2	NP	30
393.8				
SAND-brown & gray-medium dense to dense (A-3)		4		
		6		
	-25	9	NP	26
		8		
		7		
		8	NP	26
		5		
		7		
	-30	15	NP	29
		17		
		22		
		25	NP	22
		16		
		19		
	-35	24	NP	22
		12		
		15		
		25	NP	24
		7		
		6		
	-40	8	NP	25

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-129

SOIL BORING LOG

PAGE 2 of 4
DATE 5/7-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-129
Station: 1681+48
Offset: 80.5' Left
Ground Surface Elev. *416.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-medium dense to dense (A-3) *376.3*				
SILTY CLAY LOAM-brown & gray-soft (A-4/A-6) Wet		4		*89*
		3		
		3	0.3B	31
373.8				
SAND-brown & gray-medium dense (A-3)		7		
		8		
	-45	10	NP	28
		6		
		6		
		8	NP	26
		5		
		4		
	-50	8	NP	25
		6		
		8		
		10	NP	29
		7		
		7		
	-55	10	NP	28
361.3				
SANDY LOAM-gray-medium dense (A-2)		7		
		6		
		10	NP	27
		4		
		5		
	-60	9	NP	27

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SANDY LOAM-medium dense (A-2) *356.3*				
SAND-gray-medium dense to dense (A-3)		6		
		6		
		11	NP	26
		11		
		13		
	-65	12	NP	21
		6		
		13		
		17	NP	23
		11		
		12		
	-70	13	NP	22
		13		
		14		
		9	NP	23
Trace organics from -73.5' to -75.0'.		8		
		11		
	-75	14	NP	26
		9		
		12		
		13	NP	21
338.8				
SAND with Gravel-brown & gray-medium dense (A-1-b)		10		
		10		
	-80	10	NP	17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-129

SOIL BORING LOG

PAGE 3 of 4
DATE 5/7-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-129
Station: 1681+48
Offset: 80.5' Left
Ground Surface Elev. *416.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a* ▽
After 24 Hrs. *n/a* ▼

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND with Gravel-brown & gray-medium dense (A-1-b)		9		
		9		
		9	NP	14
		9		
		9		
	-85	9	NP	12
331.3				
SAND-brown & gray-medium dense (A-3)		6		
		13		
		16	NP	15
		12		
		9		
	-90	12	NP	14
		9		
		9		
		10	NP	13
		8		
		12		
	-95	13	NP	17
		11		
		7		
		8	NP	15
		9		
		10		
	-100	10	NP	19

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SAND-medium dense (A-3) *316.3*				
SAND with Gravel-brown & gray-dense to very dense (A-1-b)		14		
		16		
		22	NP	13
		25		
		44		
	-105	34	NP	12
		50/5"		
			NP	12
		50/4"		
	-110		NP	11
		20		
		30		
		50/5"	NP	39
		28		
		50/6"		
	-115		NP	27
300.8				
Drillers Observation: Apparent Bedrock *300.3*				
RUN 1 (-116.5' to -126.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -117.1', -117.5', -118.3', -119.5', -119.7', -120.4', -120.7', -121.5',		RUN 1		
	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-129

SOIL BORING LOG

PAGE 4 of 4
DATE 5/7-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — DRILLING METHOD 3.25" Hollow Stem Auger — HAMMER TYPE CME Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-129
Station: 1681+48
Offset: 80.5' Left
Ground Surface Elev. *416.8*

Surface Water Elev. *n/a*
Stream Bed Elev. *n/a*
Groundwater Elevation:
First Encounter *n/a*
Upon Completion *n/a*
After 24 Hrs. *n/a*

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
−122.1', −122.8', −123.0', −124.1', −125.2', −125.8', −126.3' & −126.4'. Recovery=100.0% R.Q.D.=89.5% *290.3*	−125	RUN 1		
RUN 1 (−126.5' to −131.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=22.0% *285.3*	−130	RUN 2		
End Of Boring @ −131.5' Hollow Stem Augers To −10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4"* Casing Used	−135 −140			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
−145			
−150			
−155			
−160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-129 Run-1

ROCK CORE LOG

PAGE 1 of 2
DATE 5/7-8/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — CORING METHOD Rotary Wash

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-129
Station: 1681+48
Offset: 80.5' Left
Ground Surface Elev. *416.8*

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. *300.8*
Begin Core Elev. *300.3*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (−116.5' to −126.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ −117.1', −117.5', −118.3', −119.5', −119.7', −120.4', −120.7', −121.5', −122.1', −122.8', −123.0', −124.1', −125.2', −125.8', −126.3' & −126.4'.	*300.3* −121.5 −126.5	1	100.0	89.5	n/a	764@ −116.5'

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-129 Run-2

ROCK CORE LOG

PAGE 2 of 2
DATE 5/7-8/2009
LOGGED BY DR
GSI JOB No. 08201

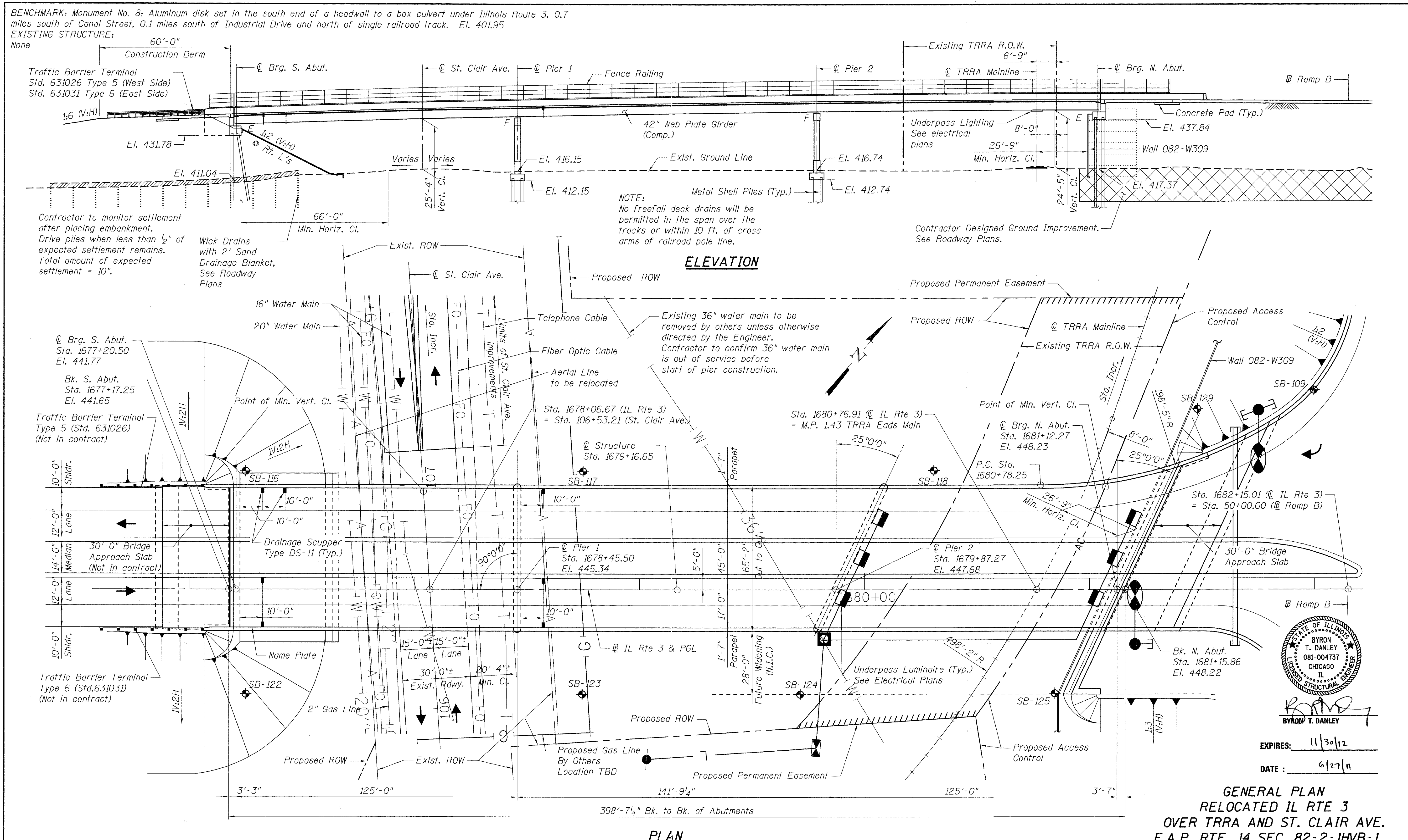
ROUTE I70/IL3 — DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 — LOCATION I-70 & Illinois Route 3
COUNTY St. Clair — CORING METHOD Rotary Wash

STRUCT. NO. 082-0329
Station: --
BORING NO. SB-129
Station: 1681+48
Offset: 80.5' Left
Ground Surface Elev. *416.8*

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. *300.8*
Begin Core Elev. *300.3*

Description	DEPTH (ft)	CORE RUN (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
RUN 1 (−126.5' to −131.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout.	*290.3* −131.5 −136.5	2	100.0	22.0	n/a	n/a

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

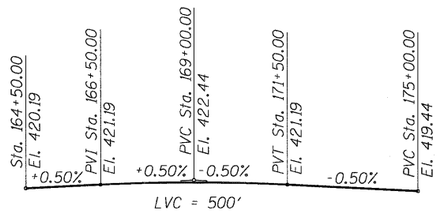


GENERAL PLAN
RELOCATED IL RTE 3
OVER TRRA AND ST. CLAIR AVE.
F.A.P. RTE. 14 SEC. 82-2-1HVB-1
ST. CLAIR COUNTY
STA. 1679+16.65
STRUCTURE NO. 082-0329

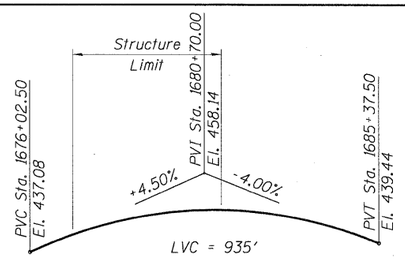
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - HBJ	REVISED -	IL 3 OVER TRRA & ST. CLAIR AVENUE
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

GENERAL PLAN		
SCALE:	SHEET NO. SB-1 OF SB-63	STA. 1679+16.65 TO STA.

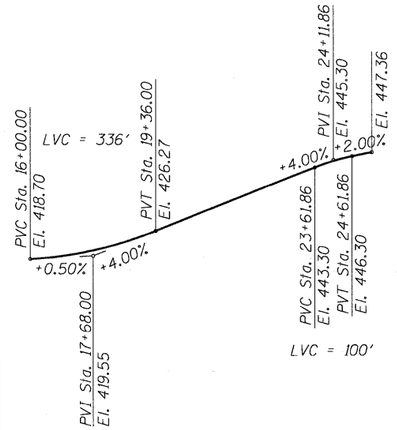
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	193
SN 082-0329		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



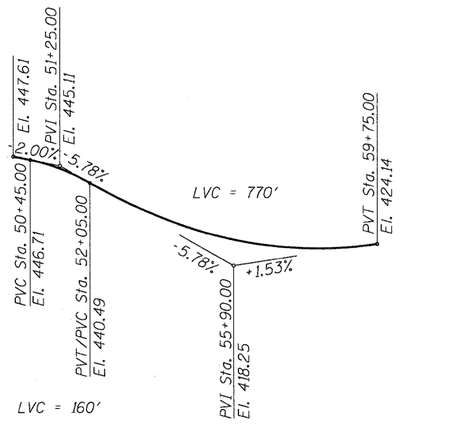
PROFILE GRADE F.A.P. RTE 998 (RELOCATED I-70)



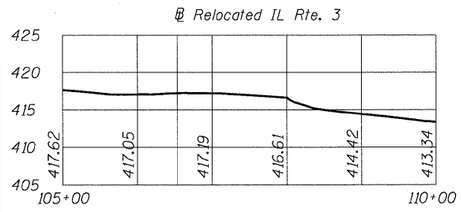
PROFILE GRADE ℄ RELOCATED IL-3



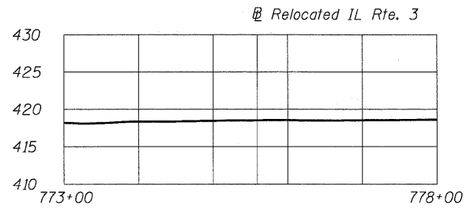
PROFILE GRADE ℄ RAMP A



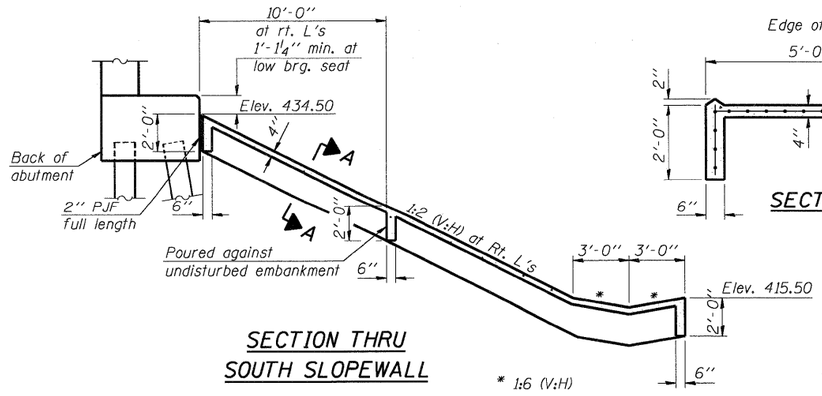
PROFILE GRADE ℄ RAMP B



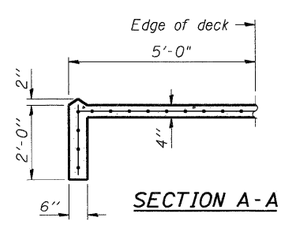
ST. CLAIR AVE. PROFILE



TRRA MAINLINE PROFILE



SECTION THRU SOUTH SLOPEWALL



SECTION A-A

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications, 5th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50, Primary Members)
fy = 36,000 psi (M270 Grade 36, Secondary Members)

LOADING HL-93

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

STATION 1679+16.65
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RTE. 14 SEC. 82-2-1HVB-1
LOADING HL-93
STRUCTURE NO. 082-0329

NAME PLATE

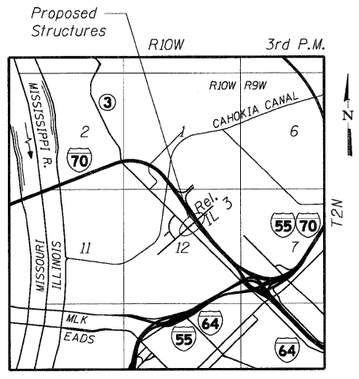
See Std. 515001

SEISMIC DATA*

Soil Site Class = D

Return Period, Tr [yrs]	1000
Design Spectral Accel. at 1.0 sec, SD1 [g]	0.20
Design Spectral Accel. at 0.2 sec, SDS [g]	0.39
Importance Category	Essential
Seismic Performance Zone	2

* Seismic Data based on site-specific analysis.



LOCATION SKETCH

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu Yd		644	644
Concrete Structures	Cu Yd	29.6	769.8	799.4
Concrete Superstructure	Cu Yd	1,026.3		1,026.3
Bridge Deck Grooving	Sq Yd	1,977		1,977
Protective Coat	Sq Yd	3,455		3,455
Furnishing and Erecting Structural Steel	L Sum	0.80		0.80
Stud Shear Connectors	Each	16,713		16,713
Reinforcement Bars, Epoxy Coated	Pound	248,150	106,020	354,170
Bar Splicers	Each		145	145
Bridge Fence Railing	Foot	905		905
Slope Wall 4"	Sq Yd		422	422
Furnishing Metal Shell Piles 14"x0.250"	Foot		6,136	6,136
Driving Piles	Foot		6,136	6,136
Test Pile Metal Shells	Each		4	4
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot		141	141
Elastomeric Bearing Assembly, Type II	Each		21	21
Anchor Bolts, 1"	Each		42	42
Anchor Bolts, 1 1/2"	Each		80	80
Concrete Sealer	Sq Ft		1,694	1,694
Geocomposite Wall Drain	Sq Yd		53	53
Porous Granular Embankment, Special	Cu Yd		116	116
Drainage Scuppers, DS-11	Each	7		7
Pipe Underdrains for Structures 4"	Foot		107	107

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 1,159,370 lbs.
   Grade 50 = 1,125,270 lbs.
   Grade 36 = 34,100 lbs.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Concrete Sealer shall be applied to the designated areas of the abutments.
8. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1. See Special Provision for "Cleaning and Painting New Metal Structures".
9. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
10. Slopewall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs per 100 sq ft.
11. Slipforming of the parapets shall not be allowed.
12. Light pole foundations and buried conduit shown on Sht. SB-1 to be installed in this contract. Light poles to be installed by others. See electrical plans.

..\0820329 CONN-10-002-1LOGN, ..\0820318 CONN-99-201-BLDGN
5-11-2011, 9:55:32 NEWMANMD \\FS-0044\VAULT\D_TRANS_07\2282\280868-201\STRUCT\CAD\01 DESIGN\0820329\SHEET\0820329-CONN-10-201-SHT-SLDGN

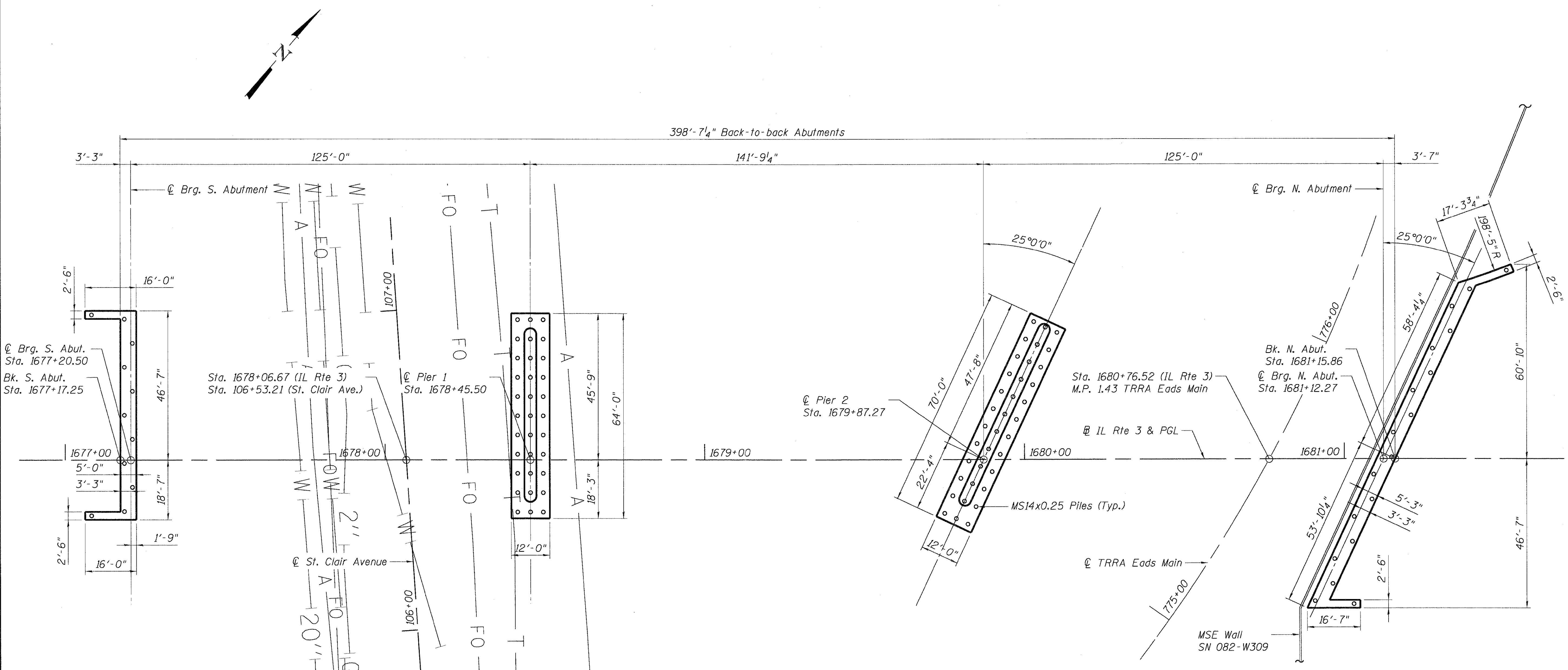
FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER
TRRA & ST. CLAIR AVENUE

GENERAL DATA

SCALE: | SHEET NO. SB-2 OF SB-63 | STA. 1679+16.65 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	194
	SN 082-0329	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FOUNDATION LAYOUT

NOTES:

1. See substructure plans for spacing and location of piles.
2. See general plan for utility information.

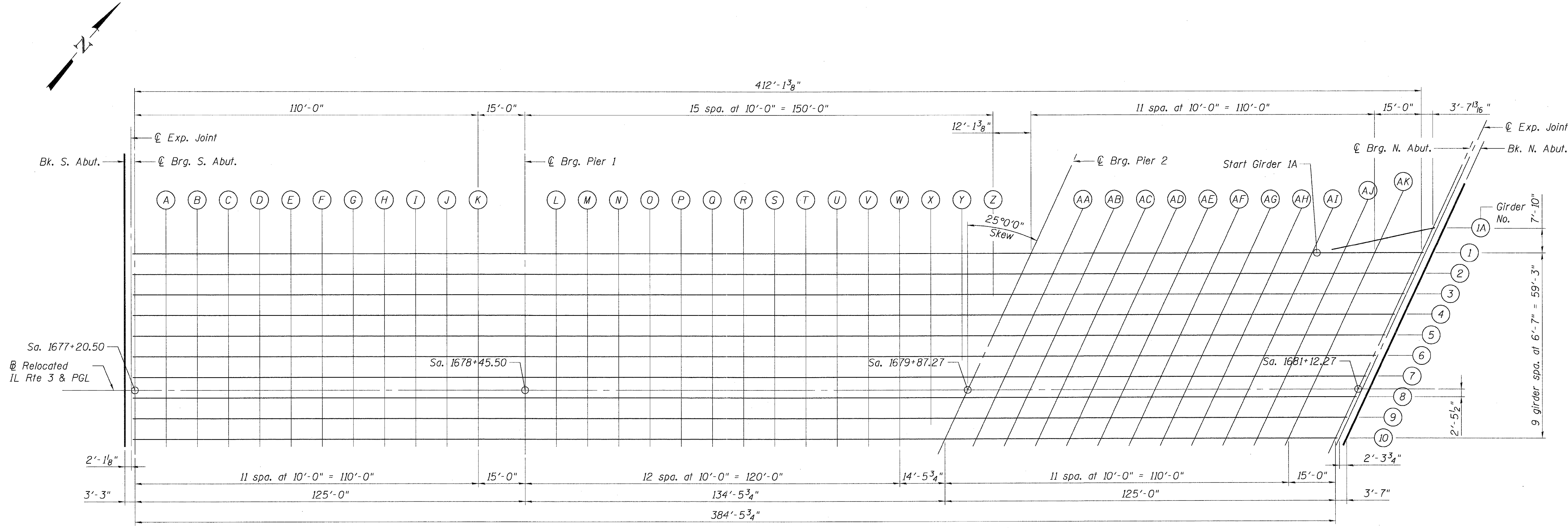
FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -
	PLOT DATE = $DATE$	CHECKED - JLR	REVISED -
		DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER
TRRA & ST. CLAIR AVENUE

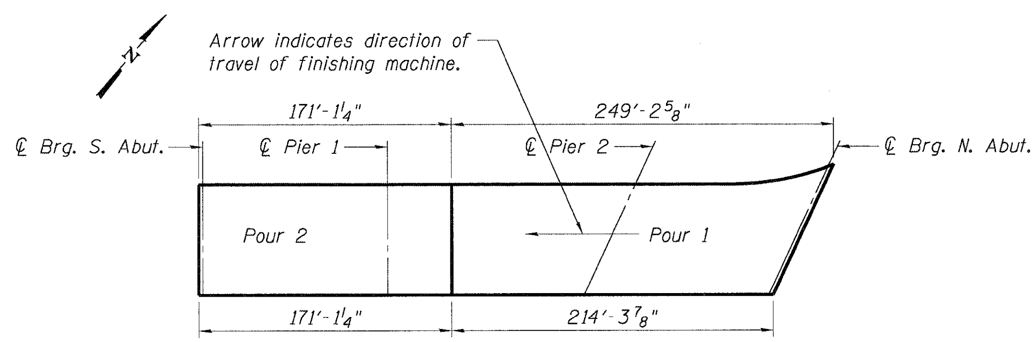
FOUNDATION LAYOUT

SCALE: | SHEET NO. SB-3 OF SB-63 | STA. 1679+16.65 TO STA.

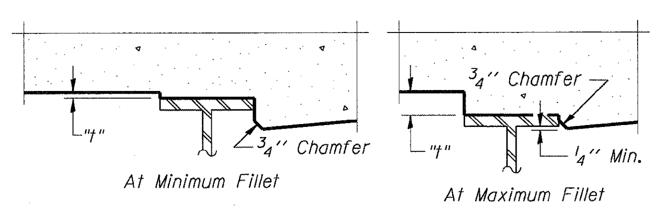
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	195
	SN 082-0329	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



PLAN



DECK POURING SEQUENCE

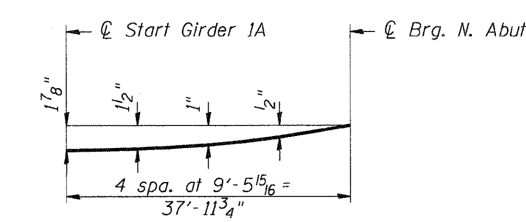


To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on the following sheets, minus slab thickness, equals the fillet heights "t" above top flange of girders.

FILLET HEIGHTS

GIRDER 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Start Girder 1A	1680+99.11	-43.625	447.36	447.52
AJ	1681+08.54	-45.613	447.32	447.44
AK	1681+19.63	-47.951	447.24	447.32
℄ Brg. N. Abut.	1681+36.27	-51.458	447.02	447.02
℄ Exp. Jt.	1681+37.68	-51.757	447.01	447.01
Bk. N. Abut.	1681+40.24	-52.297	446.99	446.99



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 1A

(Includes weight of concrete only.)

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown to the left.

..\0820329-CONN-10-001-FP.DGN,..\0820329-CONN-10-001-PG.DGN,..\DBCONN-10-ALIGNMENT1.DGN,..\0820318-CONN-99-001-BD.DGN
NEWMANMD \\FS-0044\MV\VAULT_D-TRANS.07\2282\20860-001\STRUCT\CAD\01 DESIGN\0820329\SHEET\0820329-CONN-10-001-SHT-SP.DGN
5-11-2011, 9:55:39

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - TCG	REVISED -	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	IL 3 OVER
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	TRRA & ST. CLAIR AVENUE

TOP OF SLAB ELEVATIONS
1 OF 5

SCALE: | SHEET NO. SB-4 OF SB-63 | STA. 1679+16.65 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	196
	SN 082-0329	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 1

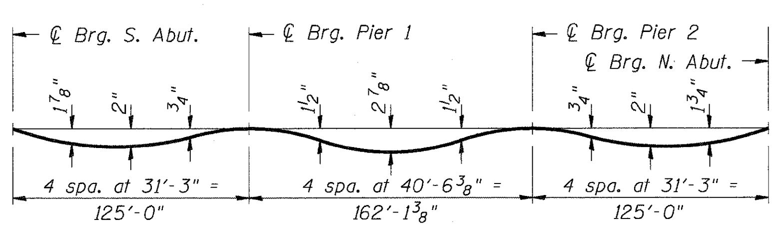
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-43.63	440.78	440.78
℄ Exp. Jt.	1677+19.34	-43.63	440.85	440.85
℄ Brg. S. Abut.	1677+20.50	-43.63	440.89	440.89
A	1677+30.50	-43.63	441.23	441.29
B	1677+40.50	-43.63	441.56	441.67
C	1677+50.50	-43.63	441.88	442.03
D	1677+60.50	-43.63	442.19	442.37
E	1677+70.50	-43.63	442.50	442.68
F	1677+80.50	-43.63	442.79	442.96
G	1677+90.50	-43.63	443.07	443.22
H	1678+00.50	-43.63	443.35	443.46
I	1678+10.50	-43.63	443.61	443.69
J	1678+20.50	-43.63	443.87	443.91
K	1678+30.50	-43.63	444.12	444.14
℄ Brg. Pier 1	1678+45.50	-43.63	444.47	444.47
L	1678+55.50	-43.63	444.70	444.71
M	1678+65.50	-43.63	444.91	444.95
N	1678+75.50	-43.63	445.12	445.20
O	1678+85.50	-43.63	445.32	445.44
P	1678+95.50	-43.63	445.50	445.67
Q	1679+05.50	-43.63	445.68	445.88
R	1679+15.50	-43.63	445.85	446.08
S	1679+25.50	-43.63	446.02	446.25
T	1679+35.50	-43.63	446.17	446.39
U	1679+45.50	-43.63	446.31	446.52
V	1679+55.50	-43.63	446.44	446.62
W	1679+65.50	-43.63	446.57	446.70
X	1679+75.50	-43.63	446.68	446.77
Y	1679+85.50	-43.63	446.79	446.84
Z	1679+95.50	-43.63	446.89	446.91
AA	1680+07.61	-43.63	446.99	446.99
℄ Brg. Pier 2	1680+17.61	-43.63	447.07	447.08
AB	1680+27.61	-43.63	447.14	447.17
AC	1680+37.61	-43.63	447.20	447.26
AD	1680+47.61	-43.63	447.25	447.34
AE	1680+57.61	-43.63	447.29	447.42
AF	1680+67.61	-43.63	447.32	447.48
AG	1680+77.61	-43.63	447.35	447.52
AH	1680+87.61	-43.63	447.36	447.53
AI	1680+97.61	-43.63	447.36	447.52
AJ	1681+07.61	-43.63	447.35	447.48
AK	1681+17.61	-43.63	447.34	447.42
AL	1681+32.61	-43.63	447.29	447.29
℄ Brg. N. Abut.	1681+33.89	-43.63	447.29	447.29
℄ Exp. Jt.	1681+36.20	-43.63	447.28	447.28
Bk. N. Abut.				

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-37.04	440.91	440.91
℄ Exp. Jt.	1677+19.34	-37.04	440.99	440.99
℄ Brg. S. Abut.	1677+20.50	-37.04	441.03	441.03
A	1677+30.50	-37.04	441.36	441.43
B	1677+40.50	-37.04	441.69	441.81
C	1677+50.50	-37.04	442.01	442.17
D	1677+60.50	-37.04	442.33	442.51
E	1677+70.50	-37.04	442.63	442.82
F	1677+80.50	-37.04	442.92	443.10
G	1677+90.50	-37.04	443.20	443.36
H	1678+00.50	-37.04	443.48	443.60
I	1678+10.50	-37.04	443.74	443.83
J	1678+20.50	-37.04	444.00	444.05
K	1678+30.50	-37.04	444.25	444.27
℄ Brg. Pier 1	1678+45.50	-37.04	444.60	444.60
L	1678+55.50	-37.04	444.83	444.84
M	1678+65.50	-37.04	445.04	445.08
N	1678+75.50	-37.04	445.25	445.31
O	1678+85.50	-37.04	445.45	445.55
P	1678+95.50	-37.04	445.64	445.77
Q	1679+05.50	-37.04	445.82	445.98
R	1679+15.50	-37.04	445.99	446.17
S	1679+25.50	-37.04	446.15	446.34
T	1679+35.50	-37.04	446.30	446.48
U	1679+45.50	-37.04	446.44	446.60
V	1679+55.50	-37.04	446.58	446.71
W	1679+65.50	-37.04	446.70	446.80
X	1679+75.50	-37.04	446.82	446.88
Y	1679+85.50	-37.04	446.92	446.95
Z	1679+95.50	-37.04	447.02	447.03
AA	1680+04.54	-37.04	447.10	447.10
℄ Brg. Pier 2	1680+14.54	-37.04	447.18	447.19
AB	1680+24.54	-37.04	447.25	447.29
AC	1680+34.54	-37.04	447.31	447.38
AD	1680+44.54	-37.04	447.37	447.47
AE	1680+54.54	-37.04	447.41	447.56
AF	1680+64.54	-37.04	447.45	447.62
AG	1680+74.54	-37.04	447.47	447.66
AH	1680+84.54	-37.04	447.49	447.68
AI	1680+94.54	-37.04	447.49	447.67
AJ	1681+04.54	-37.04	447.49	447.63
AK	1681+14.54	-37.04	447.48	447.57
AL	1681+29.54	-37.04	447.44	447.44
℄ Brg. N. Abut.	1681+30.82	-37.04	447.44	447.44
℄ Exp. Jt.	1681+33.13	-37.04	447.43	447.43
Bk. N. Abut.				

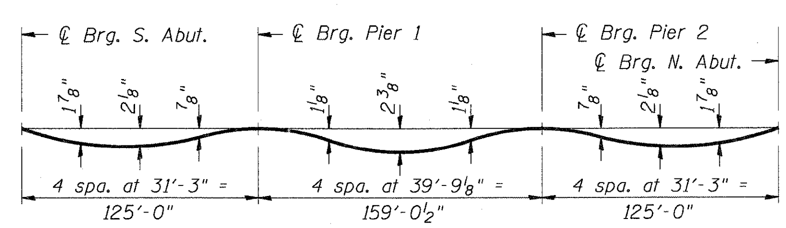
GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-30.46	441.05	441.05
℄ Exp. Jt.	1677+19.34	-30.46	441.12	441.12
℄ Brg. S. Abut.	1677+20.50	-30.46	441.16	441.16
A	1677+30.50	-30.46	441.50	441.56
B	1677+40.50	-30.46	441.83	441.94
C	1677+50.50	-30.46	442.15	442.31
D	1677+60.50	-30.46	442.46	442.65
E	1677+70.50	-30.46	442.76	442.96
F	1677+80.50	-30.46	443.05	443.24
G	1677+90.50	-30.46	443.34	443.50
H	1678+00.50	-30.46	443.61	443.75
I	1678+10.50	-30.46	443.88	443.97
J	1678+20.50	-30.46	444.13	444.19
K	1678+30.50	-30.46	444.38	444.41
℄ Brg. Pier 1	1678+45.50	-30.46	444.73	444.73
L	1678+55.50	-30.46	444.96	444.97
M	1678+65.50	-30.46	445.18	445.20
N	1678+75.50	-30.46	445.38	445.43
O	1678+85.50	-30.46	445.58	445.66
P	1678+95.50	-30.46	445.77	445.88
Q	1679+05.50	-30.46	445.95	446.09
R	1679+15.50	-30.46	446.12	446.27
S	1679+25.50	-30.46	446.28	446.44
T	1679+35.50	-30.46	446.43	446.58
U	1679+45.50	-30.46	446.57	446.70
V	1679+55.50	-30.46	446.71	446.81
W	1679+65.50	-30.46	446.83	446.90
X	1679+75.50	-30.46	446.95	446.99
Y	1679+85.50	-30.46	447.05	447.07
Z	1679+95.50	-30.46	447.15	447.16
AA	1680+01.47	-30.46	447.21	447.21
℄ Brg. Pier 2	1680+11.47	-30.46	447.29	447.30
AB	1680+21.47	-30.46	447.36	447.41
AC	1680+31.47	-30.46	447.43	447.51
AD	1680+41.47	-30.46	447.48	447.60
AE	1680+51.47	-30.46	447.53	447.68
AF	1680+61.47	-30.46	447.57	447.75
AG	1680+71.47	-30.46	447.60	447.79
AH	1680+81.47	-30.46	447.62	447.81
AI	1680+91.47	-30.46	447.63	447.81
AJ	1681+01.47	-30.46	447.63	447.77
AK	1681+11.47	-30.46	447.62	447.71
AL	1681+26.47	-30.46	447.59	447.59
℄ Brg. N. Abut.	1681+27.75	-30.46	447.59	447.59
℄ Exp. Jt.	1681+30.06	-30.46	447.58	447.58
Bk. N. Abut.				



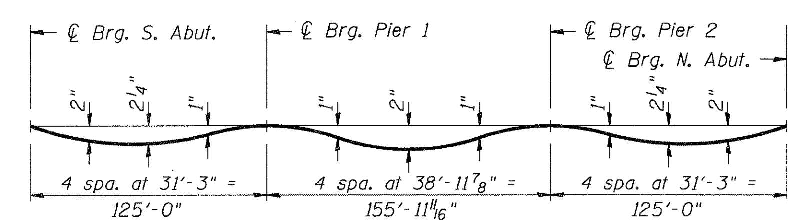
DEAD LOAD DEFLECTION DIAGRAM - GIRDER 1

(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 2

(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 3

(Includes weight of concrete only.)

NOTE:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS 2 OF 5	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	DRAWN - TCG	REVISED -	IL 3 OVER TRRA & ST. CLAIR AVENUE		998	82-2-1HVB-1	ST. CLAIR	345	197
	PLOT DATE = $DATE$	CHECKED - JLR	REVISED -		SCALE: SHEET NO. SB-5 OF SB-63 STA. 1679+16.65 TO STA.		SN 082-0329	CONTRACT NO. 76D05		
		DATE - 05/13/11	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

\\FS-8044\AM\VAULT_D-TRANS_07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820329\SHEET\0820329-CONN-10-002-SHT-SP.DGN
5-11-2011, 9:55:42 NEWMANMD

GIRDER 4

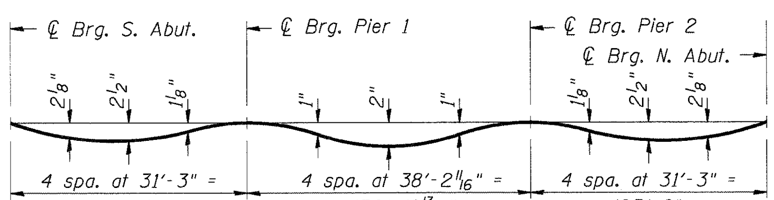
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-23.88	441.18	441.18
℄ Exp. Jt.	1677+19.34	-23.88	441.25	441.25
℄ Brg. S. Abut.	1677+20.50	-23.88	441.29	441.29
A	1677+30.50	-23.88	441.63	441.70
B	1677+40.50	-23.88	441.96	442.08
C	1677+50.50	-23.88	442.28	442.45
D	1677+60.50	-23.88	442.59	442.80
E	1677+70.50	-23.88	442.89	443.11
F	1677+80.50	-23.88	443.18	443.40
G	1677+90.50	-23.88	443.47	443.66
H	1678+00.50	-23.88	443.74	443.89
I	1678+10.50	-23.88	444.01	444.12
J	1678+20.50	-23.88	444.26	444.33
K	1678+30.50	-23.88	444.51	444.54
℄ Brg. Pier 1	1678+45.50	-23.88	444.87	444.87
L	1678+55.50	-23.88	445.09	445.10
M	1678+65.50	-23.88	445.31	445.33
N	1678+75.50	-23.88	445.51	445.57
O	1678+85.50	-23.88	445.71	445.80
P	1678+95.50	-23.88	445.90	446.02
Q	1679+05.50	-23.88	446.08	446.23
R	1679+15.50	-23.88	446.25	446.41
S	1679+25.50	-23.88	446.41	446.58
T	1679+35.50	-23.88	446.56	446.72
U	1679+45.50	-23.88	446.71	446.83
V	1679+55.50	-23.88	446.84	446.94
W	1679+65.50	-23.88	446.96	447.03
X	1679+75.50	-23.88	447.08	447.11
Y	1679+85.50	-23.88	447.19	447.20
Z	1679+95.50	-23.88	447.28	447.29
AA	1679+98.40	-23.88	447.31	447.31
℄ Brg. Pier 2	1680+08.40	-23.88	447.40	447.41
AB	1680+18.40	-23.88	447.47	447.52
AC	1680+28.40	-23.88	447.54	447.63
AD	1680+38.40	-23.88	447.60	447.73
AE	1680+48.40	-23.88	447.65	447.82
AF	1680+58.40	-23.88	447.69	447.89
AG	1680+68.40	-23.88	447.72	447.94
AH	1680+78.40	-23.88	447.74	447.96
AI	1680+88.40	-23.88	447.75	447.95
AJ	1680+98.40	-23.88	447.76	447.92
AK	1681+08.40	-23.88	447.75	447.85
AL	1681+23.40	-23.88	447.73	447.73
℄ Brg. N. Abut.	1681+24.68	-23.88	447.73	447.73
℄ Exp. Jt.	1681+26.99	-23.88	447.72	447.72
Bk. N. Abut.				

GIRDER 5

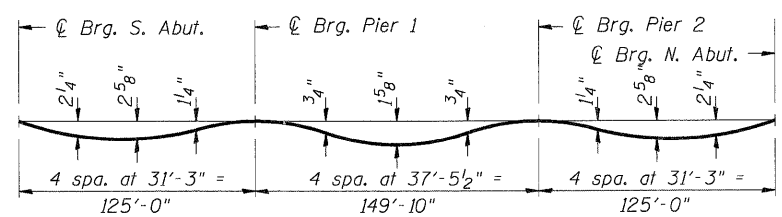
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-17.29	441.31	441.31
℄ Exp. Jt.	1677+19.34	-17.29	441.38	441.38
℄ Brg. S. Abut.	1677+20.50	-17.29	441.42	441.42
A	1677+30.50	-17.29	441.76	441.83
B	1677+40.50	-17.29	442.09	442.22
C	1677+50.50	-17.29	442.41	442.59
D	1677+60.50	-17.29	442.72	442.93
E	1677+70.50	-17.29	443.02	443.25
F	1677+80.50	-17.29	443.32	443.54
G	1677+90.50	-17.29	443.60	443.80
H	1678+00.50	-17.29	443.87	444.04
I	1678+10.50	-17.29	444.14	444.26
J	1678+20.50	-17.29	444.40	444.47
K	1678+30.50	-17.29	444.64	444.68
℄ Brg. Pier 1	1678+45.50	-17.29	445.00	445.00
L	1678+55.50	-17.29	445.22	445.23
M	1678+65.50	-17.29	445.44	445.46
N	1678+75.50	-17.29	445.65	445.69
O	1678+85.50	-17.29	445.84	445.92
P	1678+95.50	-17.29	446.03	446.13
Q	1679+05.50	-17.29	446.21	446.34
R	1679+15.50	-17.29	446.38	446.52
S	1679+25.50	-17.29	446.54	446.68
T	1679+35.50	-17.29	446.69	446.82
U	1679+45.50	-17.29	446.84	446.94
V	1679+55.50	-17.29	446.97	447.04
W	1679+65.50	-17.29	447.10	447.14
X	1679+75.50	-17.29	447.21	447.23
Y	1679+85.50	-17.29	447.32	447.32
Z				
AA	1679+95.33	-17.29	447.41	447.41
℄ Brg. Pier 2	1680+05.33	-17.29	447.50	447.52
AB	1680+15.33	-17.29	447.58	447.64
AC	1680+25.33	-17.29	447.65	447.75
AD	1680+35.33	-17.29	447.71	447.85
AE	1680+45.33	-17.29	447.77	447.95
AF	1680+55.33	-17.29	447.81	448.02
AG	1680+65.33	-17.29	447.84	448.07
AH	1680+75.33	-17.29	447.87	448.09
AI	1680+85.33	-17.29	447.88	448.08
AJ	1680+95.33	-17.29	447.89	448.05
AK	1681+05.33	-17.29	447.89	447.99
AL	1681+20.33	-17.29	447.87	447.87
℄ Brg. N. Abut.	1681+21.61	-17.29	447.86	447.86
℄ Exp. Jt.	1681+23.92	-17.29	447.86	447.86
Bk. N. Abut.				

GIRDER 6

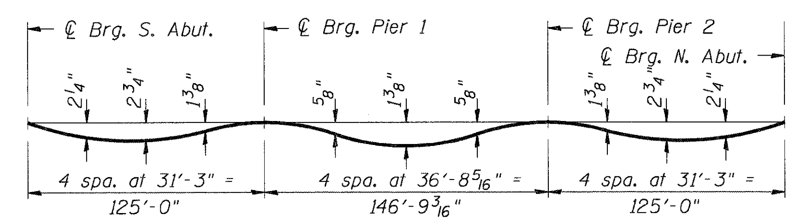
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-10.71	441.44	441.44
℄ Exp. Jt.	1677+19.34	-10.71	441.51	441.51
℄ Brg. S. Abut.	1677+20.50	-10.71	441.55	441.55
A	1677+30.50	-10.71	441.89	441.96
B	1677+40.50	-10.71	442.22	442.36
C	1677+50.50	-10.71	442.54	442.73
D	1677+60.50	-10.71	442.85	443.07
E	1677+70.50	-10.71	443.15	443.39
F	1677+80.50	-10.71	443.45	443.68
G	1677+90.50	-10.71	443.73	443.94
H	1678+00.50	-10.71	444.01	444.18
I	1678+10.50	-10.71	444.27	444.40
J	1678+20.50	-10.71	444.53	444.61
K	1678+30.50	-10.71	444.78	444.82
℄ Brg. Pier 1	1678+45.50	-10.71	445.13	445.13
L	1678+55.50	-10.71	445.35	445.36
M	1678+65.50	-10.71	445.57	445.58
N	1678+75.50	-10.71	445.78	445.81
O	1678+85.50	-10.71	445.97	446.03
P	1678+95.50	-10.71	446.16	446.24
Q	1679+05.50	-10.71	446.34	446.44
R	1679+15.50	-10.71	446.51	446.62
S	1679+25.50	-10.71	446.67	446.78
T	1679+35.50	-10.71	446.83	446.92
U	1679+45.50	-10.71	446.97	447.04
V	1679+55.50	-10.71	447.10	447.15
W	1679+65.50	-10.71	447.23	447.25
X	1679+75.50	-10.71	447.34	447.35
Y	1679+85.50	-10.71	447.45	447.45
Z				
AA	1679+92.26	-10.71	447.52	447.52
℄ Brg. Pier 2	1680+02.26	-10.71	447.61	447.63
AB	1680+12.26	-10.71	447.69	447.75
AC	1680+22.26	-10.71	447.76	447.87
AD	1680+32.26	-10.71	447.83	447.98
AE	1680+42.26	-10.71	447.88	448.08
AF	1680+52.26	-10.71	447.93	448.15
AG	1680+62.26	-10.71	447.96	448.20
AH	1680+72.26	-10.71	447.99	448.22
AI	1680+82.26	-10.71	448.01	448.22
AJ	1680+92.26	-10.71	448.02	448.19
AK	1681+02.26	-10.71	448.02	448.13
AL	1681+17.26	-10.71	448.00	448.00
℄ Brg. N. Abut.	1681+18.54	-10.71	448.00	448.00
℄ Exp. Jt.	1681+20.85	-10.71	448.00	448.00
Bk. N. Abut.				



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 4
(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 5
(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 6
(Includes weight of concrete only.)

NOTE:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - TCG	REVISED -	
		DRAWN - TCG	REVISED -	
TENG — TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -	
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

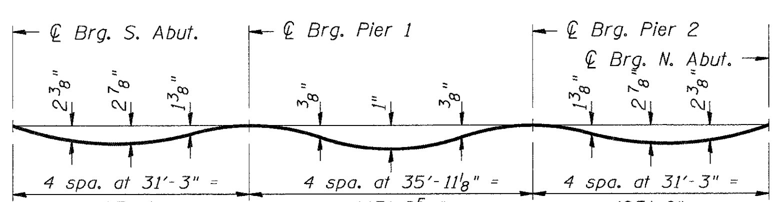
TOP OF SLAB ELEVATIONS
3 OF 5
IL 3 OVER
TRRA & ST. CLAIR AVENUE

SCALE: | SHEET NO. SB-6 OF SB-63 | STA. 1679+16.65 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	198
	SN 082-0329	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	-4.13	441.57	441.57
℄ Exp. Jt.	1677+19.34	-4.13	441.64	441.64
℄ Brg. S. Abut.	1677+20.50	-4.13	441.68	441.68
A	1677+30.50	-4.13	442.02	442.10
B	1677+40.50	-4.13	442.35	442.49
C	1677+50.50	-4.13	442.67	442.87
D	1677+60.50	-4.13	442.98	443.21
E	1677+70.50	-4.13	443.29	443.53
F	1677+80.50	-4.13	443.58	443.82
G	1677+90.50	-4.13	443.86	444.08
H	1678+00.50	-4.13	444.14	444.32
I	1678+10.50	-4.13	444.40	444.54
J	1678+20.50	-4.13	444.66	444.75
K	1678+30.50	-4.13	444.91	444.95
℄ Brg. Pier 1	1678+45.50	-4.13	445.26	445.26
L	1678+55.50	-4.13	445.49	445.48
M	1678+65.50	-4.13	445.70	445.71
N	1678+75.50	-4.13	445.91	445.93
O	1678+85.50	-4.13	446.11	446.15
P	1678+95.50	-4.13	446.29	446.36
Q	1679+05.50	-4.13	446.47	446.55
R	1679+15.50	-4.13	446.64	446.73
S	1679+25.50	-4.13	446.81	446.89
T	1679+35.50	-4.13	446.96	447.03
U	1679+45.50	-4.13	447.10	447.15
V	1679+55.50	-4.13	447.23	447.26
W	1679+65.50	-4.13	447.36	447.37
X	1679+75.50	-4.13	447.47	447.47
Y	1679+85.50	-4.13	447.58	447.58
Z				
AA	1679+89.19	-4.13	447.62	447.62
℄ Brg. Pier 2	1679+99.19	-4.13	447.71	447.74
AB	1680+09.19	-4.13	447.80	447.86
AC	1680+19.19	-4.13	447.87	447.98
AD	1680+29.19	-4.13	447.94	448.10
AE	1680+39.19	-4.13	448.00	448.20
AF	1680+49.19	-4.13	448.05	448.28
AG	1680+59.19	-4.13	448.09	448.33
AH	1680+69.19	-4.13	448.12	448.36
AI	1680+79.19	-4.13	448.14	448.35
AJ	1680+89.19	-4.13	448.15	448.32
AK	1680+99.19	-4.13	448.15	448.26
AL	1681+14.19	-4.13	448.14	448.14
℄ Brg. N. Abut.	1681+15.47	-4.13	448.14	448.14
℄ Exp. Jt.	1681+17.78	-4.13	448.14	448.14
Bk. N. Abut.				



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 7

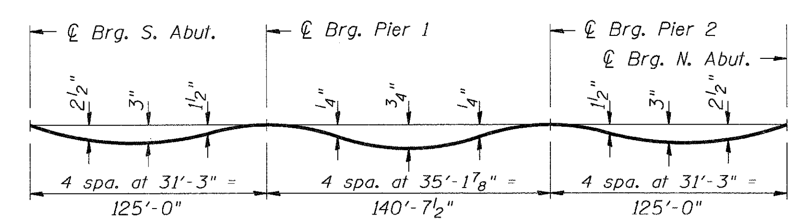
(Includes weight of concrete only.)

PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	0.00	441.65	441.65
℄ Exp. Jt.	1677+19.34	0.00	441.73	441.73
℄ Brg. S. Abut.	1677+20.50	0.00	441.77	441.77
A	1677+30.50	0.00	442.10	442.18
B	1677+40.50	0.00	442.43	442.58
C	1677+50.50	0.00	442.75	442.95
D	1677+60.50	0.00	443.07	443.30
E	1677+70.50	0.00	443.37	443.62
F	1677+80.50	0.00	443.66	443.91
G	1677+90.50	0.00	443.94	444.17
H	1678+00.50	0.00	444.22	444.41
I	1678+10.50	0.00	444.49	444.63
J	1678+20.50	0.00	444.74	444.83
K	1678+30.50	0.00	444.99	445.04
℄ Brg. Pier 1	1678+45.50	0.00	445.34	445.34
L	1678+55.50	0.00	445.57	445.56
M	1678+65.50	0.00	445.78	445.78
N	1678+75.50	0.00	445.99	446.00
O	1678+85.50	0.00	446.19	446.22
P	1678+95.50	0.00	446.38	446.43
Q	1679+05.50	0.00	446.56	446.62
R	1679+15.50	0.00	446.73	446.80
S	1679+25.50	0.00	446.89	446.95
T	1679+35.50	0.00	447.04	447.09
U	1679+45.50	0.00	447.18	447.22
V	1679+55.50	0.00	447.32	447.33
W	1679+65.50	0.00	447.44	447.44
X	1679+75.50	0.00	447.56	447.55
Y				
Z				
AA	1679+87.27	0.00	447.68	447.68
℄ Brg. Pier 2	1679+97.27	0.00	447.78	447.81
AB	1680+07.27	0.00	447.86	447.93
AC	1680+17.27	0.00	447.94	448.06
AD	1680+27.27	0.00	448.01	448.17
AE	1680+37.27	0.00	448.07	448.28
AF	1680+47.27	0.00	448.12	448.36
AG	1680+57.27	0.00	448.16	448.41
AH	1680+67.27	0.00	448.19	448.44
AI	1680+77.27	0.00	448.22	448.44
AJ	1680+87.27	0.00	448.23	448.41
AK	1680+97.27	0.00	448.24	448.35
AL	1681+12.27	0.00	448.23	448.23
℄ Brg. N. Abut.	1681+13.55	0.00	448.22	448.22
℄ Exp. Jt.	1681+15.86	0.00	448.22	448.22
Bk. N. Abut.				

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	2.46	441.61	441.61
℄ Exp. Jt.	1677+19.34	2.46	441.68	441.68
℄ Brg. S. Abut.	1677+20.50	2.46	441.72	441.72
A	1677+30.50	2.46	442.06	442.13
B	1677+40.50	2.46	442.39	442.53
C	1677+50.50	2.46	442.71	442.90
D	1677+60.50	2.46	443.02	443.25
E	1677+70.50	2.46	443.32	443.57
F	1677+80.50	2.46	443.61	443.86
G	1677+90.50	2.46	443.90	444.12
H	1678+00.50	2.46	444.17	444.36
I	1678+10.50	2.46	444.44	444.58
J	1678+20.50	2.46	444.69	444.79
K	1678+30.50	2.46	444.94	444.99
℄ Brg. Pier 1	1678+45.50	2.46	445.29	445.29
L	1678+55.50	2.46	445.52	445.51
M	1678+65.50	2.46	445.74	445.73
N	1678+75.50	2.46	445.94	445.95
O	1678+85.50	2.46	446.14	446.17
P	1678+95.50	2.46	446.33	446.37
Q	1679+05.50	2.46	446.51	446.56
R	1679+15.50	2.46	446.68	446.74
S	1679+25.50	2.46	446.84	446.89
T	1679+35.50	2.46	446.99	447.03
U	1679+45.50	2.46	447.13	447.16
V	1679+55.50	2.46	447.27	447.28
W	1679+65.50	2.46	447.39	447.39
X	1679+75.50	2.46	447.51	447.50
Y				
Z				
AA	1679+86.12	2.46	447.62	447.62
℄ Brg. Pier 2	1679+96.12	2.46	447.72	447.75
AB	1680+06.12	2.46	447.81	447.88
AC	1680+16.12	2.46	447.88	448.00
AD	1680+26.12	2.46	447.95	448.12
AE	1680+36.12	2.46	448.01	448.23
AF	1680+46.12	2.46	448.07	448.31
AG	1680+56.12	2.46	448.11	448.36
AH	1680+66.12	2.46	448.14	448.39
AI	1680+76.12	2.46	448.17	448.39
AJ	1680+86.12	2.46	448.18	448.36
AK	1680+96.12	2.46	448.19	448.30
AL	1681+11.12	2.46	448.18	448.18
℄ Brg. N. Abut.	1681+12.40	2.46	448.18	448.18
℄ Exp. Jt.	1681+14.71	2.46	448.17	448.17
Bk. N. Abut.				



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 8

(Includes weight of concrete only.)

NOTE:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - TCG	REVISED -
		DRAWN - TCG	REVISED -
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER
TRRA & ST. CLAIR AVENUE

TOP OF SLAB ELEVATIONS
4 OF 5

SCALE: | SHEET NO. SB-7 OF SB-63 | STA. 1679+16.65 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	199
	SN 082-0329	CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

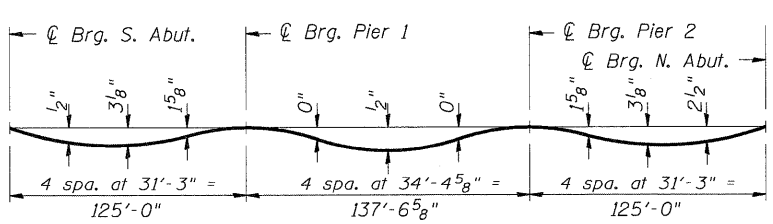
\\FS-0044\AMVAULT_D-TRANS_07\2202\20868-001\STRUCT\CAD\01 DESIGN\0820329\SHEET\0820329-CONN-12-004-SHT-SP.DGN
..\0820318-CONN-99-001-BD.DGN
5-11-2011, 9:55:47 NEWMANMD

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	9.04	441.47	441.47
℄ Exp. Jt.	1677+19.34	9.04	441.55	441.55
℄ Brg. S. Abut.	1677+20.50	9.04	441.59	441.59
A	1677+30.50	9.04	441.92	442.00
B	1677+40.50	9.04	442.25	442.40
C	1677+50.50	9.04	442.57	442.78
D	1677+60.50	9.04	442.89	443.13
E	1677+70.50	9.04	443.19	443.45
F	1677+80.50	9.04	443.48	443.74
G	1677+90.50	9.04	443.76	444.00
H	1678+00.50	9.04	444.04	444.24
I	1678+10.50	9.04	444.30	444.45
J	1678+20.50	9.04	444.56	444.66
K	1678+30.50	9.04	444.81	444.86
℄ Brg. Pier 1	1678+45.50	9.04	445.16	445.16
L	1678+55.50	9.04	445.39	445.38
M	1678+65.50	9.04	445.60	445.59
N	1678+75.50	9.04	445.81	445.81
O	1678+85.50	9.04	446.01	446.02
P	1678+95.50	9.04	446.20	446.22
Q	1679+05.50	9.04	446.38	446.41
R	1679+15.50	9.04	446.55	446.58
S	1679+25.50	9.04	446.71	446.74
T	1679+35.50	9.04	446.86	446.88
U	1679+45.50	9.04	447.00	447.01
V	1679+55.50	9.04	447.14	447.13
W	1679+65.50	9.04	447.26	447.25
X	1679+75.50	9.04	447.38	447.37
Y				
Z				
AA	1679+83.05	9.04	447.46	447.46
℄ Brg. Pier 2	1679+93.05	9.04	447.56	447.59
AB	1680+03.05	9.04	447.65	447.72
AC	1680+13.05	9.04	447.73	447.85
AD	1680+23.05	9.04	447.80	447.98
AE	1680+33.05	9.04	447.87	448.08
AF	1680+43.05	9.04	447.92	448.17
AG	1680+53.05	9.04	447.96	448.23
AH	1680+63.05	9.04	448.00	448.25
AI	1680+73.05	9.04	448.03	448.25
AJ	1680+83.05	9.04	448.05	448.23
AK	1680+93.05	9.04	448.05	448.17
AL	1681+08.05	9.04	448.05	448.05
℄ Brg. N. Abut.	1681+09.33	9.04	448.05	448.05
℄ Exp. Jt.	1681+11.64	9.04	448.05	448.05
Bk. N. Abut.				

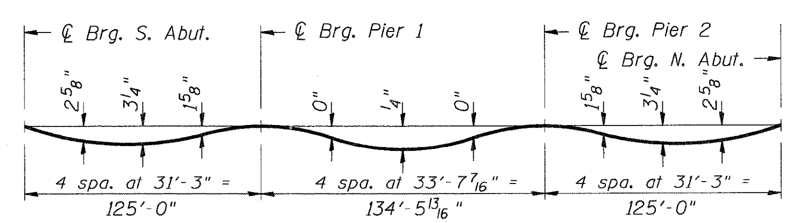
GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1677+17.25	15.63	441.34	441.34
℄ Exp. Jt.	1677+19.34	15.63	441.41	441.41
℄ Brg. S. Abut.	1677+20.50	15.63	441.45	441.45
A	1677+30.50	15.63	441.79	441.87
B	1677+40.50	15.63	442.12	442.28
C	1677+50.50	15.63	442.44	442.66
D	1677+60.50	15.63	442.75	443.01
E	1677+70.50	15.63	443.06	443.33
F	1677+80.50	15.63	443.35	443.62
G	1677+90.50	15.63	443.63	443.88
H	1678+00.50	15.63	443.91	444.12
I	1678+10.50	15.63	444.17	444.33
J	1678+20.50	15.63	444.43	444.54
K	1678+30.50	15.63	444.68	444.73
℄ Brg. Pier 1	1678+45.50	15.63	445.03	445.03
L	1678+55.50	15.63	445.26	445.24
M	1678+65.50	15.63	445.47	445.46
N	1678+75.50	15.63	445.68	445.67
O	1678+85.50	15.63	445.88	445.87
P	1678+95.50	15.63	446.06	446.07
Q	1679+05.50	15.63	446.24	446.26
R	1679+15.50	15.63	446.41	446.43
S	1679+25.50	15.63	446.58	446.59
T	1679+35.50	15.63	446.73	446.73
U	1679+45.50	15.63	446.87	446.86
V	1679+55.50	15.63	447.00	446.99
W	1679+65.50	15.63	447.13	447.11
X	1679+75.50	15.63	447.24	447.24
Y				
Z				
AA	1679+79.98	15.63	447.29	447.29
℄ Brg. Pier 2	1679+89.98	15.63	447.40	447.43
AB	1679+99.98	15.63	447.49	447.57
AC	1680+09.98	15.63	447.57	447.71
AD	1680+19.98	15.63	447.65	447.83
AE	1680+29.98	15.63	447.72	447.95
AF	1680+39.98	15.63	447.77	448.03
AG	1680+49.98	15.63	447.82	448.09
AH	1680+59.98	15.63	447.86	448.13
AI	1680+69.98	15.63	447.89	448.13
AJ	1680+79.98	15.63	447.91	448.10
AK	1680+89.98	15.63	447.92	448.04
AL	1681+04.98	15.63	447.92	447.92
℄ Brg. N. Abut.	1681+06.26	15.63	447.92	447.92
℄ Exp. Jt.	1681+08.57	15.63	447.92	447.92
Bk. N. Abut.				



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 9

(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM - GIRDER 10

(Includes weight of concrete only.)

NOTE:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

FILE NAME =	USER NAME = $USER$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS 5 OF 5
$FILEL$		DRAWN - TCG	REVISED -	IL 3 OVER TRRA & ST. CLAIR AVENUE	
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = $SCALE$	CHECKED - JLR	REVISED -		SCALE:
	PLOT DATE = $DATE$	DATE - 05/13/11	REVISED -		SHEET NO. SB-8 OF SB-63 / STA. 1679+16.65 TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	200
SN 082-0329		CONTRACT NO. 76D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

5-11-2011, 9:55:49 NEWMANMD \\PS-0044\MWAULT_D-TRANS_07\2202\20060-001\STRUCT\CAD\01 DESIGN\0820329\SHEET\0820329-CONN-10-005-SHT-SP.DGN