

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1372	17-00183-00-BR	STARK	50	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 89752		

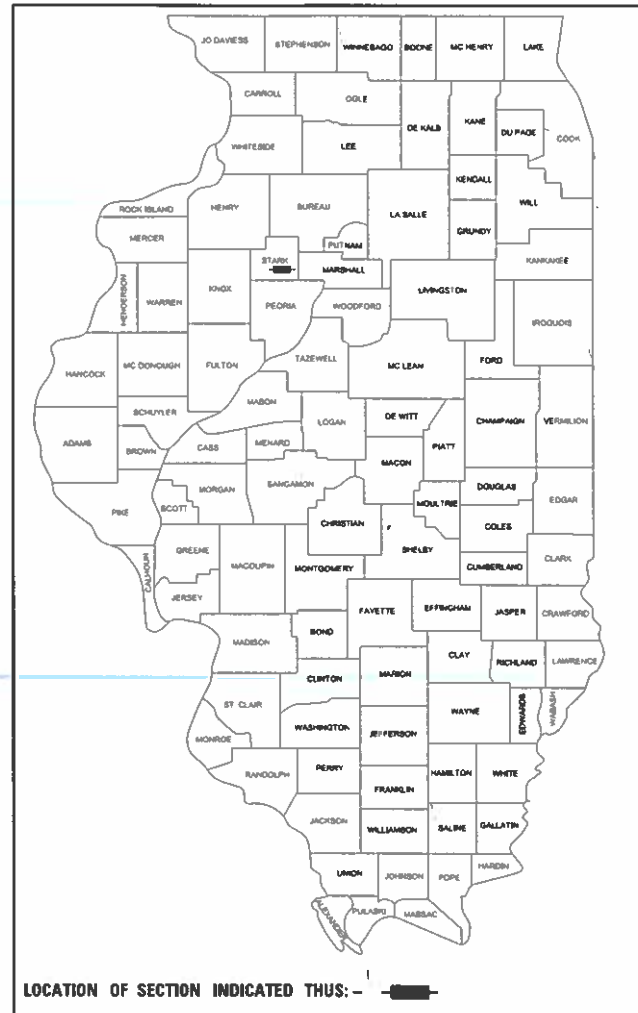
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	SCHEDULE OF QUANTITIES AND HIGHWAY STANDARDS
4.	TYPICAL CROSS SECTIONS
5.	REMOVAL PLAN
6-7.	PLAN AND PROFILE
8.	GUARDRAIL AND SHOULDER LAYOUT
9.	EROSION CONTROL PLAN
10.	PAVEMENT MARKING PLAN
11-32.	BRIDGE PLANS
33-48.	STATION CROSS SECTIONS
49-50.	DETOUR PLAN

HIGHWAY STANDARDS:
SEE SHEET 3 OF 48

PLANS FOR PROPOSED
ILLINOIS SPECIAL BRIDGE PROGRAM

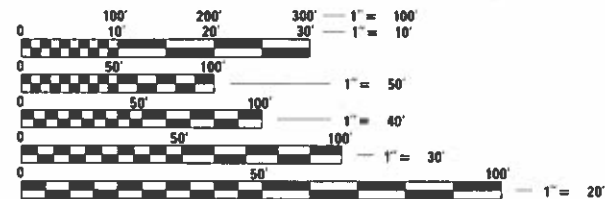
PROJECT NMKM(136)
SECTION 17-00183-00-BR
STARK COUNTY
F.A.S. 1372 / C.H. 13 / NORTH VALLEY ROAD
PROPOSED STRUCTURE NO. 088-3413
C-94-008-19



UTILITIES

AMEREN CILCO
300 LIBERTY ST.
PEORIA, IL 61602

FRONTIER COMMUNICATIONS
111 X. MAIN
P.O. BOX B
KEWANEE, IL 61143

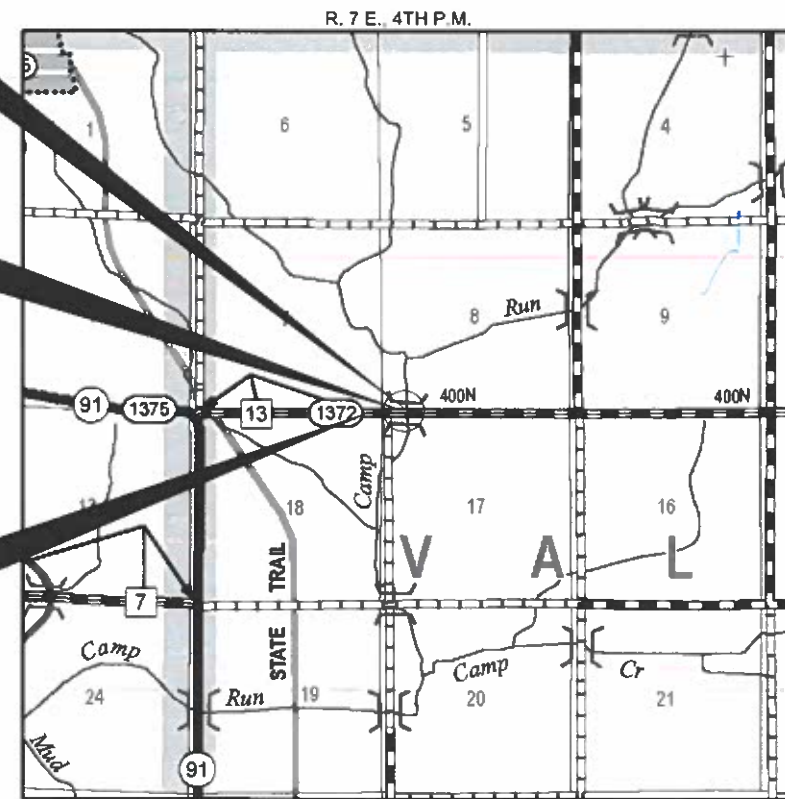


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

STA. 10+00
STEEL WIDE FLANGE BEAM BRIDGE WITH CONCRETE SLAB DECK.
THREE SPANS: 46'-0", 58'-0", 46'-0"
30'-0" RDWY., SKEW = 0°
EXISTING STRUCTURE NO. 088-3113
PROPOSED STRUCTURE NO. 088-3413

IMPROVEMENT ENDS
STATION 13+30

IMPROVEMENT BEGINS
STATION 6+69



LOCATION MAP

APPROXIMATE SCALE: 0 1/2 MILE
NET LENGTH OF SECTION = 661 FEET = 0.125 MILES



WARNING

CALL 811
BEFORE YOU DIG
DIG NO: X2091281

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED *JUNE 29 2022*

[Signature]
COUNTY ENGINEER

PASSED *July 8 2022*

Tony Sassine SDA
DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS

Released For Bid Based on Limited Review *July 08 2022*

Kensel A. Garnett KSD
REGION THREE ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR
DESIGN SPEED: 50 MPH
DESIGN TRAFFIC: 900 ADT

CATALOG NO. 035670-00
CONTRACT NO. 89752 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DATE: 06/30/2022

EXPIRES: 11/30/2023

HAMPTON, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS • STRUCTURAL ENGINEERS • LAND SURVEYORS

HLR

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com

184.000959
ILLINOIS PROFESSIONAL DESIGN FIRMS / S / PE / SE CORPORATION

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0010	
		UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	144
20300100	CHANNEL EXCAVATION	CU YD	826
20400800	FURNISHED EXCAVATION	CU YD	275
25100630	EROSION CONTROL BLANKET	SQ YD	454
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10
28000305	TEMPORARY DITCH CHECKS	FOOT	20
28000400	PERIMETER EROSION BARRIER	FOOT	750
28100209	STONE RIPRAP, CLASS A5	TON	950
28200200	FILTER FABRIC	SQ YD	811
35100100	AGGREGATE BASE COURSE, TYPE A	TON	119
35400200	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 7"	SQ YD	122
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	550
40600982	HOT MIX ASPHALT REMOVAL - BUTT JOINT	SQ YD	106
40603215	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N50	TON	78
40604100	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N50	TON	81
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	48
44000100	PAVEMENT REMOVAL	SQ YD	276
44000153	HOT-MIX ASPHALT SURFACE REMOVAL, 1"	SQ YD	623
48101200	AGGREGATE SHOULDERS, TYPE B	TON	157
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	186
50200300	COFFERDAM EXCAVATION	CU YD	133
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1
50300100	FLOOR DRAINS	EACH	14
50300225	CONCRETE STRUCTURES	CU YD	88.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	207.9
50300260	BRIDGE DECK GROOVING	SQ YD	659
50300280	CONCRETE ENCASEMENT	CU YD	20.0
50300300	PROTECTIVE COAT	SQ YD	877
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	89.2
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	3,795
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	97,220
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	1,280
51202305	DRIVING PILES	FOOT	1,280
51203200	TEST PILE METAL SHELLS	EACH	2

^ SEE SPECIAL PROVISIONS

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0010	
		UNIT	QUANTITY
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	40
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	104
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	60
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	138
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	25
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	1,124
67100100	MOBILIZATION	L SUM	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	162
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	54
72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,860
78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	6
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5
X7011006	TRAFFIC CONTROL AND PROTECTION, TEMPORARY DETOUR	L SUM	1
Z0076600	TRAINEES	HOURS	1000
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOURS	1000
XX007887	RELOCATE EXISTING RIPRAP	SQ YD	230

^ SEE SPECIAL PROVISIONS #0042

* SPECIALTY ITEMS

GENERAL NOTES

1) ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2022". (HERE IN AFTER REFERRED TO AS THE STANDARD SPECIFICATIONS, THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE DETAILS IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE DOCUMENTS.

2) THE LOCATION ON THE PLANS OF EXISTING DRAINAGE STRUCTURES, TELEPHONE LINES, ELECTRIC LINES, WATER SERVICE LINES, GAS MAINS, AND OTHER UTILITY FACILITIES AS SHOWN ON THE PLANS ARE BASED ON FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE. BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.

3) THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES

AGGREGATE BASE COURSE	2.05 TON/CU YD
GRANULAR BACKFILL	1.50 TON/CU YD
STONE RIPRAP	1.75 TON/CU YD

BITUMINOUS MATERIALS APPLICATION RATES

SURFACE TYPE	RESIDUAL RATE
AGGREGATE BASE (PRIME COAT)	0.250 LB/SQ FT
MILLED HMA OR PCC (TACK COAT)	0.080 LB/SQ FT
EXISTING PAVEMENT (TACK COAT)	0.050 LB/SQ FT
TACK COAT (BETWEEN LIFTS)	0.080 LB/SQ FT

4) THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER.

SEEDING, CLASS 2 (SPECIAL) = 0.50 ACRES

5) ALL WASTE MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

6) COMMITMENTS:
1) NONE

FILENAME = 200084-shi-summary.dgn	USER/DATE = dfoley	DESIGNED = J.W.F.	REVISED =
HAMPTON, LENZINI AND RENWICK, INC.	3033 ILLINOIS AVENUE SUITE 200 SPRINGFIELD, ILLINOIS 62792	DRAWN = R.D.H.	REVISED =
ILLINOIS PROFESSIONAL DESIGN FIRM LS-PE/EE/WRP 184-00393	PLOT SCALE = SSCALES	CHECKED = S.W.M.	REVISED =
	PLOT DATE = 7/5/2022	DATE = 06/30/2022	REVISED =

STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT

SUMMARY OF QUANTITIES AND GENERAL NOTES

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	2
C.H. 13 / NORTH VALLEY ROAD			CONTRACT NO. 89752	
ILLINOIS FED. AID PROJECT NUMBER (13)				

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
515001-04	NAME PLATE FOR BRIDGES
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

PAVEMENT MARKING SCHEDULE					
LOCATION	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	PAINT PAVEMENT MARKING - LINE 4"		
			WHITE EDGE LINES	SKIP DASH LINE	SINGLE YELLOW CENTERLINE
	70300100	70300150	78001110		
NORTH VALLEY ROAD / C.H. 13 / F.A.S. 1372	FOOT	SQ. FT.	FOOT	FOOT	FOOT
LT. STA. 7+50 TO CL. STA. 12+90	54	18	540		
CL-WB STA. 7+50 TO CL. STA. 12+00					450
CL-EB STA. 7+50 TO CL. STA. 12+90	54	18		30	
CL-EB STA. 8+70 TO CL. STA. 11+30					260
CL-EB STA. 11+30 TO CL. STA. 12+90		18		40	
RT. STA. 7+50 TO CL. STA. 12+90	54		540		
SUBTOTAL	162	54	1,080	70	710
TOTAL	162	54	1860		

TEMPORARY DITCH CHECKS	
LOCATION	FOOT
LT STA 11+00	10
LT STA 12+00	10
TOTAL	20

PERIMETER EROSION BARRIER	
LOCATION	FOOT
LT STA 7+50 TO LT STA 9+10	175
RT STA 7+50 TO RT STA 9+10	175
LT STA 11+00 TO LT STA 12+75	200
RT STA 11+00 TO LT STA 12+75	200
TOTAL	750

EARTHWORK SCHEDULE							
LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	PERCENT USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE
	CU YD	CU YD			CU YD	CU YD	CU YD
STA 7+50 TO STA 9+24.13	49		25%	100%	37	376	-339
STA 9+24.13 TO STA 10+76.83		826	25%	70%	434		434
STA 10+76.83 TO STA 12+75	95		25%	100%	71	441	-370
TOTAL	144	826			542	817	-275
USE	144	826					275

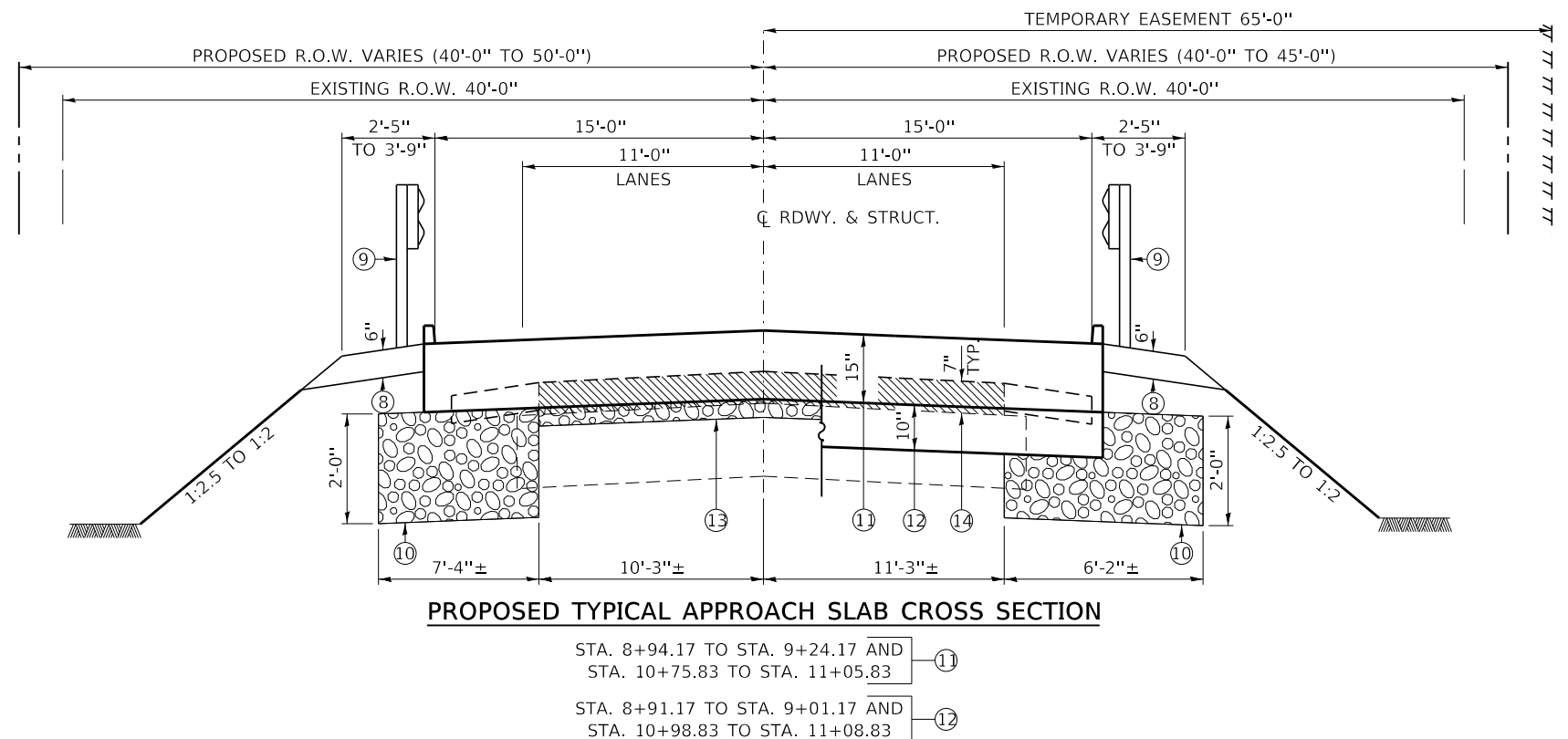
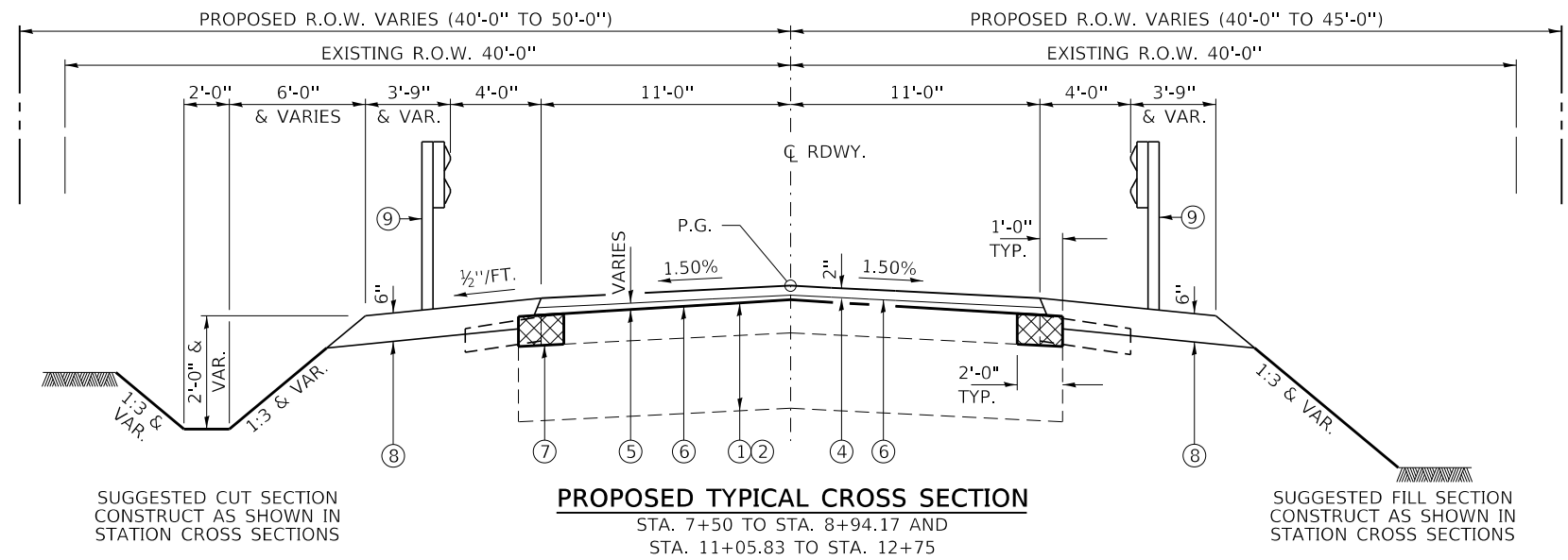
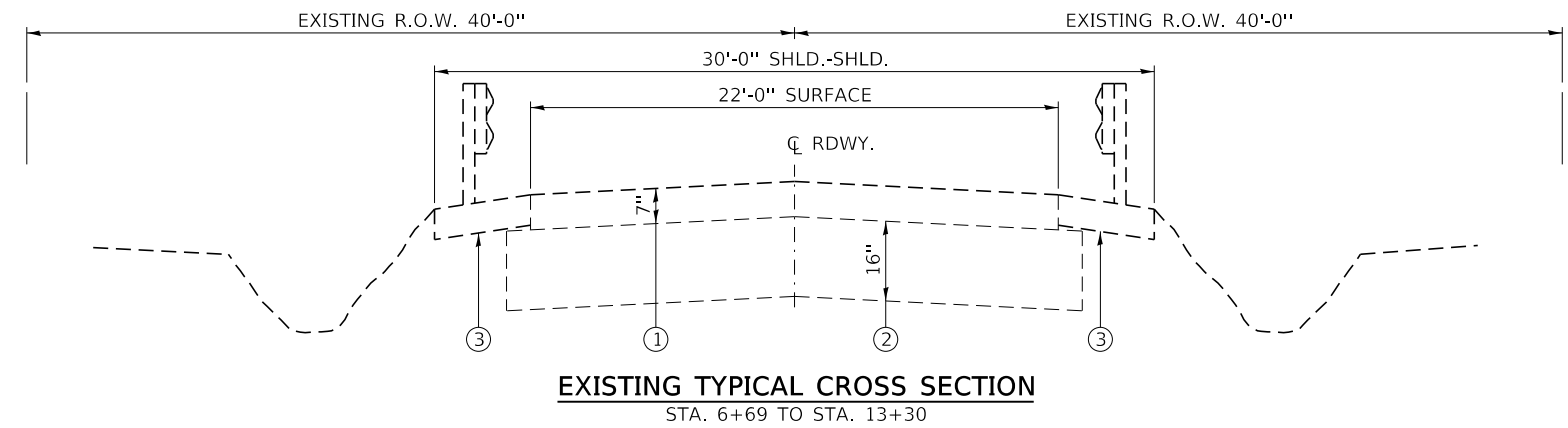
FURNISHED EXCAVATION 275 CU YD

EROSION CONTROL TABLE			
LOCATION	SEEDING, CLASS 2 (SPECIAL)	EROSION CONTROL BLANKET	TEMPORARY EROSION CONTROL SEEDING
	X2501000	25100630	28000250
C.H. 13 / F.A.S. 1372	ACRE	SQ YD	POUND
STA. 287+00.00 TO STA. 292+30.17	0.20	221	5
STA. 293+73.83 TO STA. 300+00.00	0.30	233	5
TOTAL	0.50	454	10

GUARDRAIL SCHEDULE						
LOCATION	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	GUARDRAIL REMOVAL	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A
	C.H. 13 / F.A.S. 1372	63000001	63100085	63100167	63200310	7250100
SEE SHEET 9 FOR LAYOUT	FOOT	EACH	EACH	FOOT	EACH	EACH
LT. STA. 8+34.17 TO LT. STA. 11+90.83	12.5	2	2	562	2	3
RT. STA. 8+09.17 TO RT. STA. 11+65.83	12.5	2	2	562	2	3
TOTAL	25	4	4	1124	4	6

ROADWAY SCHEDULE										
LOCATION	AGGREGATE BASE COURSE TYPE A	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 7"	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5FG, N50	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N50	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	PAVEMENT REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL, 1 INCH	AGGREGATE SHOULDERS TYPE B
	TON	SQ YD	POUND	SQ YD	TON	TON	SQ YD	SQ YD	SQ YD	TON
STA 7+50 TO STA 9+24.13	59	63	253	24	77	37	24	138	308	75
STA 10+76.83 TO STA 12+75	60	59	297	82	1	44	24	138	315	82
TOTAL	119	122	550	106	78	81	48	276	623	157

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
LOCATIONS(S)	C.H. 13 / F.A.S. 1372	C.H. 13 / F.A.S. 1372
MIXTURE USE(S):	POLYMERIZED HMA SURFACE COURSE, FLEXIBLE PAVEMENT CONNECTOR	POLYMERIZED HMA BINDER COURSE, FLEXIBLE PAVEMENT CONNECTOR
PG:	SBS PG 70-22	SBS PG 70-22
DESIGN AIR VOIDS:	4% @ 50 Gyr.	4% @ 50 Gyr.
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 9.5 FG	IL 9.5 FG
FRICTION AGGREGATE:	MIXTURE C	NONE
MIXTURE WEIGHT:	112 LBS \ SY \ INCH THICKNESS	112 LBS \ SY \ INCH THICKNESS
DENSITY TEST METHOD	NUCLEAR GAUGE	NUCLEAR GAUGE
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA
SUBLOT SIZE	N/A	N/A
MATERIAL TRANSFER DEVICE	NOT REQUIRED	NOT REQUIRED



LEGEND

- ① EXISTING H.M.A. PAVEMENT 7"
- ② EXISTING AGGREGATE BASE COURSE 16"
- ③ EXISTING AGGREGATE SHOULDER
- ④ POLYMERIZED HMA SURFACE COURSE, IL.-9.5FG, MIX C, N50 (2" THICKNESS)
- ⑤ POLYMERIZED HMA BINDER COURSE, IL.-9.5FG, N50 (VARIABLE THICKNESS)
- ⑥ POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)
- ⑦ PCC BASE COURSE WIDENING 7", 2' WIDE TYP.
- ⑧ AGGREGATE SHOULDER, TYPE B (6" DEPTH)
- ⑨ STEEL PLATE BEAM GUARDRAIL, TYPE A 6' POSTS
- ⑩ AGGREGATE BASE COURSE, TYPE A
- ⑪ BRIDGE APPROACH PAVEMENT 15" - SEE BRIDGE PLANS
- ⑫ BRIDGE APPROACH PAVEMENT FOOTING 10" - SEE BRIDGE PLANS
- ⑬ SUBBASE GRANULAR MATERIAL, TYPE B, 4"
- ⑭ PAVMENT REMOVAL 7"± (EXISTING)
- ☒ PAVMENT REMOVAL

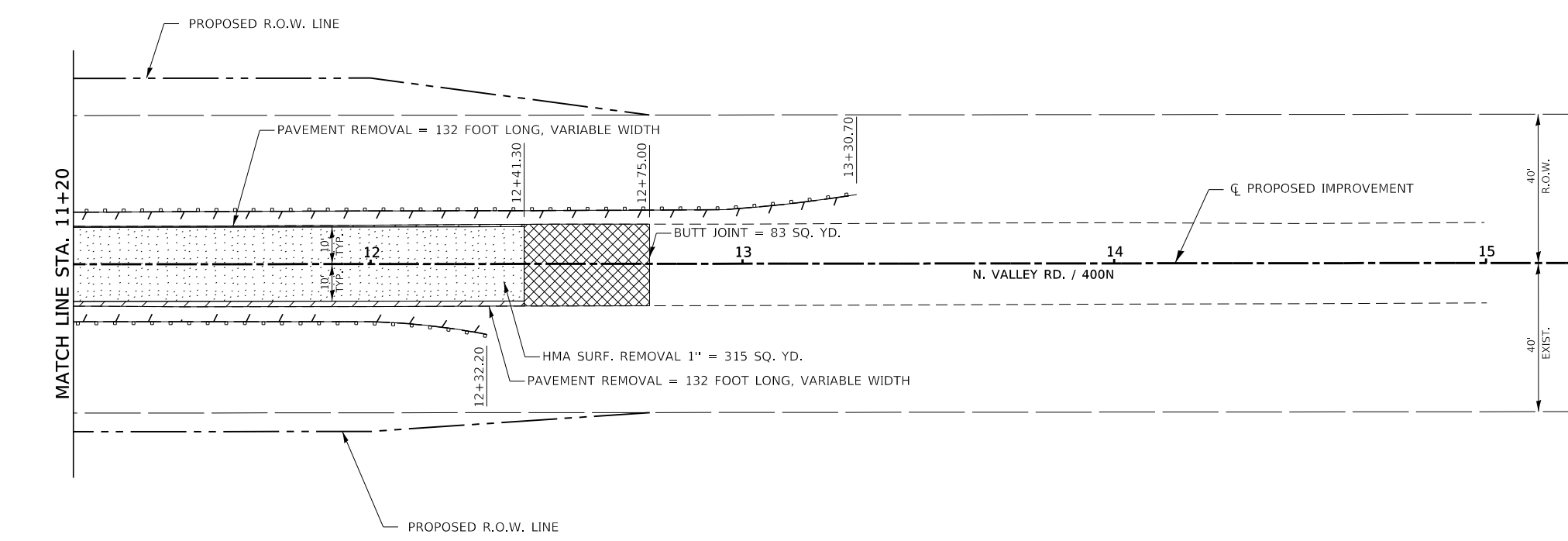
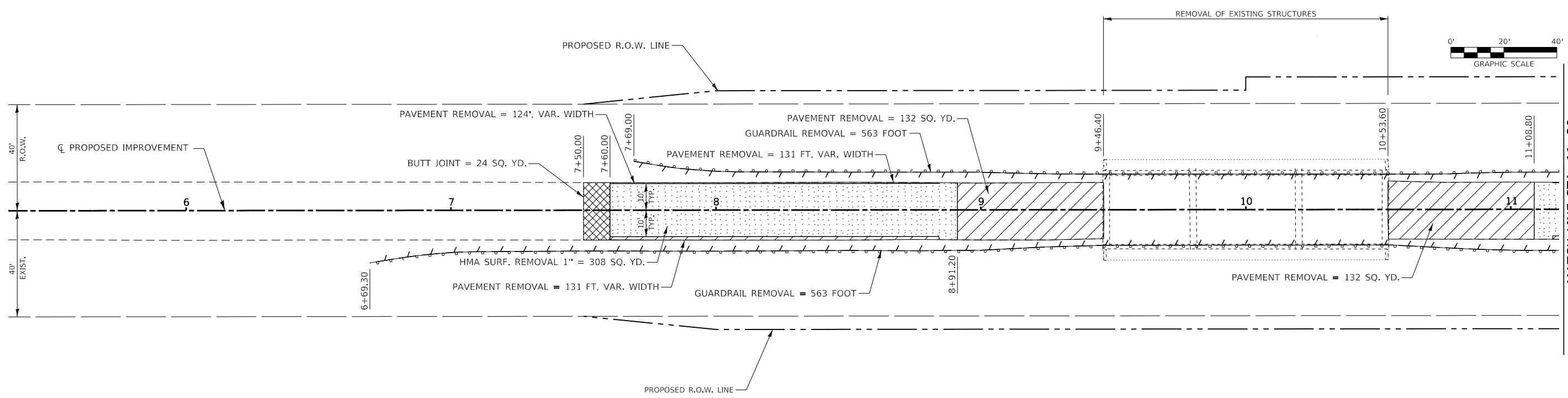
FILE NAME = 200084-shit-typec@ons.dgn	USER NAME = dfoley	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184.000959	PLOT SCALE = \$SCALES	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 7/8/2022	CHECKED - M.A.L.	REVISED -
		DATE - 06/30/2022	REVISED -

STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT

TYPICAL CROSS SECTIONS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	4
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS FED. AID PROJECT NMKM(136)				



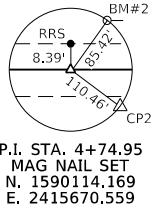
- LEGEND**
- GUARDRAIL REMOVAL
 - PAVEMENT REMOVAL
 - H.M.A. SURFACE REMOVAL, BUTT JOINT
 - H.M.A. SURFACE REMOVAL, 1"

FILE NAME = 200084-sht-removal.dgn	USER NAME = dfoley	DESIGNED - M.A.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - D.M.F.	REVISED -
	PLOT SCALE = \$\$SCALE\$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 7/6/2022	DATE - 06/30/2022	REVISED -

**STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT**

REMOVAL PLAN			
SCALE:	SHEET NO. 1 OF 1 SHEETS	STA. 5+20.00	TO STA. 15+20.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	5
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS FED. AID PROJECT NMKM(136)				

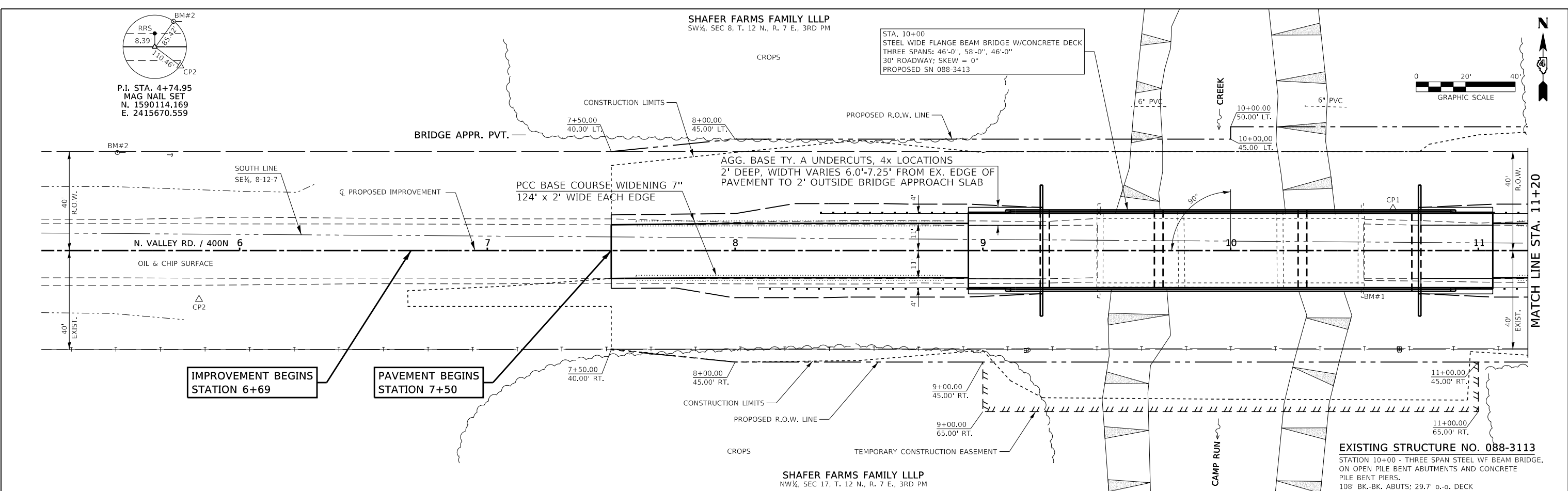


SHAFAER FARMS FAMILY LLLP
SW¼, SEC 8, T. 12 N., R. 7 E., 3RD PM

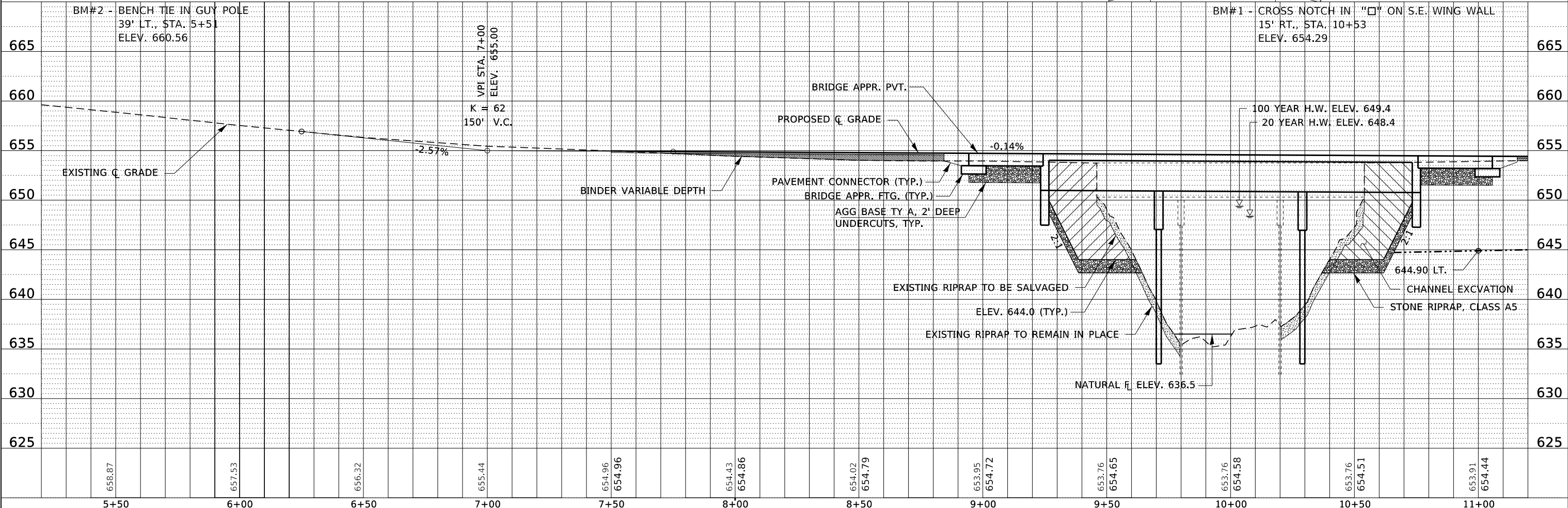
STA. 10+00
STEEL WIDE FLANGE BEAM BRIDGE W/CONCRETE DECK
THREE SPANS: 46'-0", 58'-0", 46'-0"
30' ROADWAY; SKEW = 0°
PROPOSED SN 088-3413



DATE	
BY	
REVIEWED	
PLANNED	
NOTED	
NO.	



DATE	
BY	
REVIEWED	
PLANNED	
NOTED	
NO.	



5+50	6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00
658.87	657.53	656.32	655.44	654.96 654.96	654.43 654.86	654.02 654.79	653.95 654.72	653.76 654.65	653.76 654.58	653.76 654.51	653.91 654.44

FILE NAME = 200084-shi-planprf.dgn
DESIGNED - S.A.A.
DRAWN - T.W.K.
CHECKED - J.W.F.
DATE - 06/30/2022

USER NAME = dfoley
PLOT SCALE = \$\$\$CALE\$
PLOT DATE = 7/6/2022

REVISOR -
REVISOR -
REVISOR -
REVISOR -

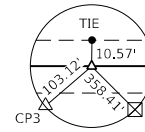
STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE
NORTH VALLEY ROAD
SCALE: 5V:20H
SHEET NO. 1 OF 2 SHEETS
STA. 5+20.00 TO STA. 11+20.00

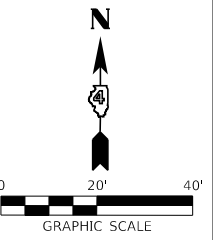
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	6
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		

ILLINOIS FED. AID PROJECT NMKM(136)

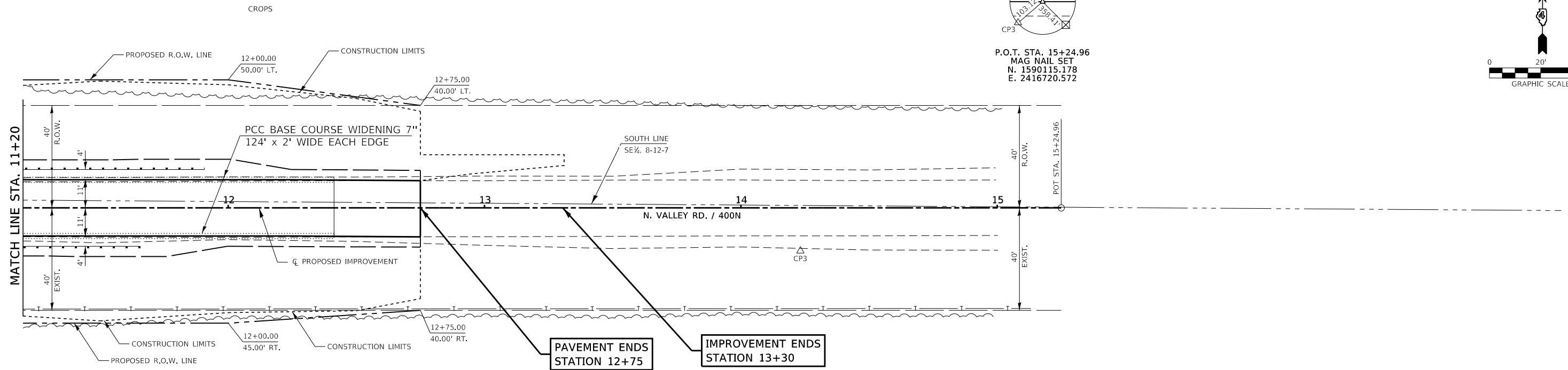
SHAVER FARMS FAMILY LLLP
SW 1/4, SEC 8, T. 12 N., R. 7 E., 3RD PM



P.O.T. STA. 15+24.96
MAG NAIL SET
N. 1590115.178
E. 2416720.572

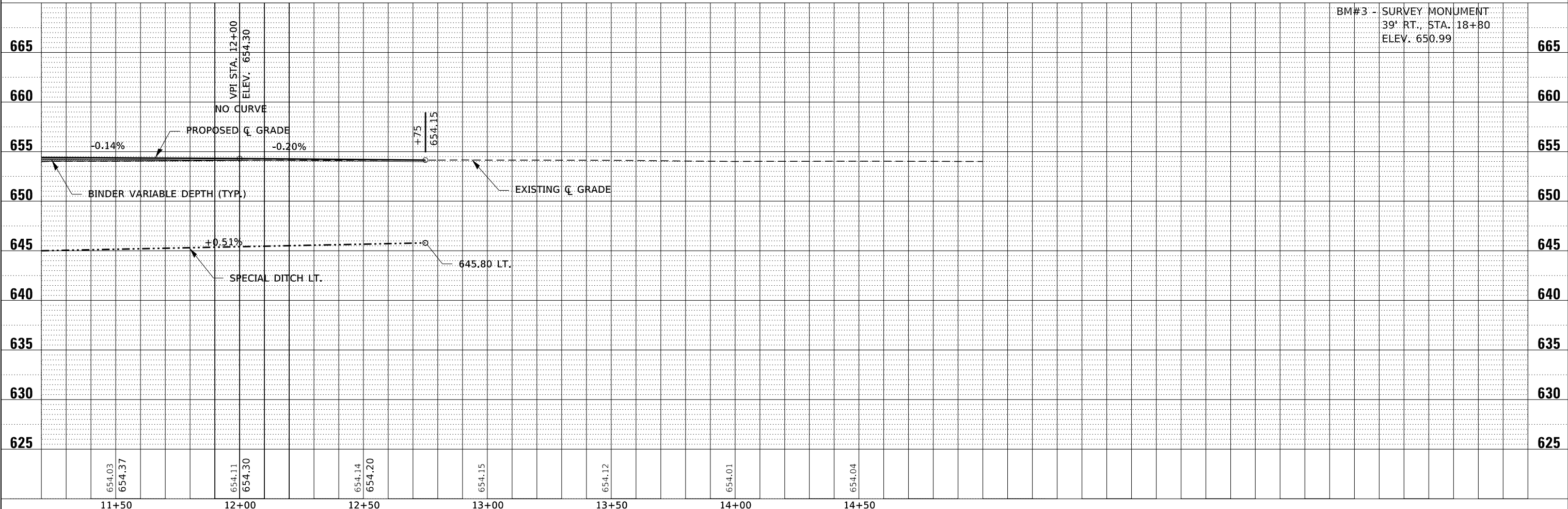


PLAN	REVIEWED	DATE
	BY	
NOTE BOOK NO.	ALIGNED CHECKED	
	PLANNED CHECKED	
NO.	AS BUILT	
	FILE NAME	

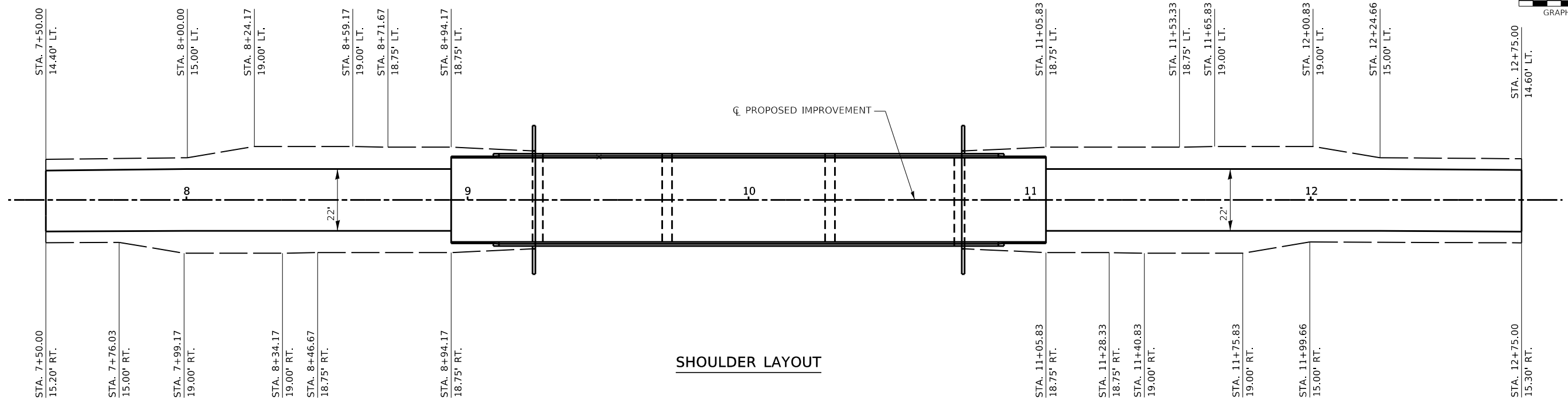
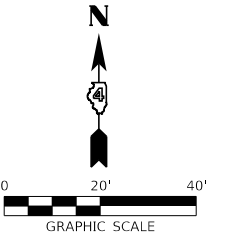


PROFILE	REVIEWED	DATE
	BY	
NOTE BOOK NO.	GRADES CHECKED	
	STRUCTURE NOTATING CHECKED	

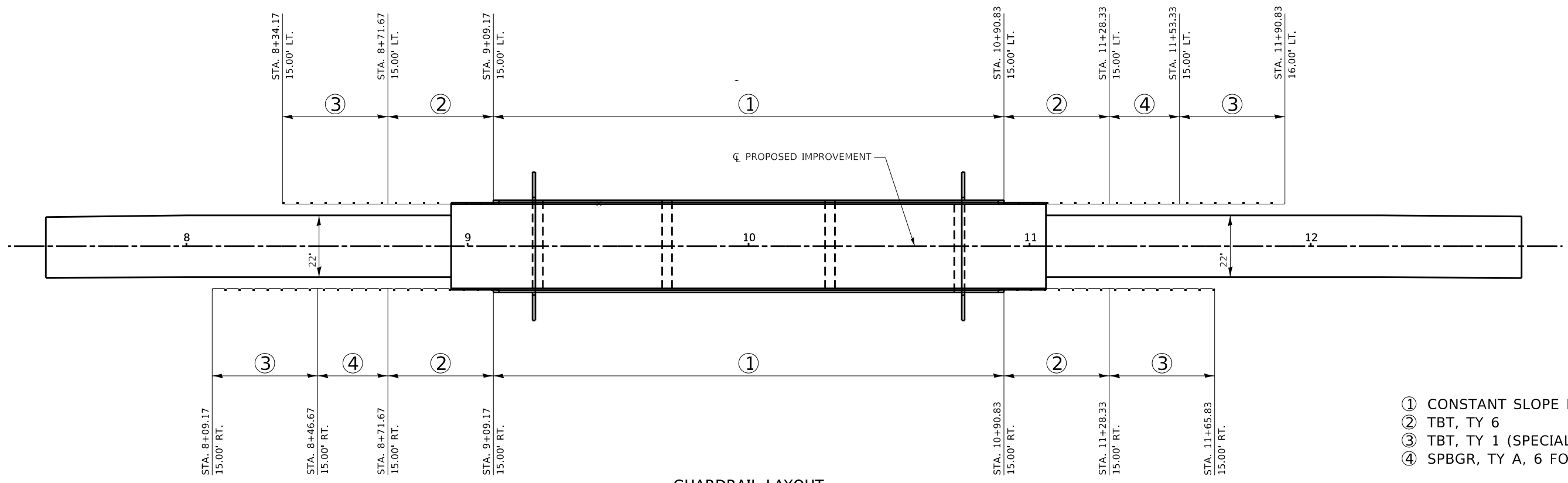
SHAVER FARMS FAMILY LLLP
NW 1/4, SEC 17, T. 12 N., R. 7 E., 3RD PM



FILE NAME = 200084-shi-planprf.dgn	USER NAME = dfoley	DESIGNED - S.A.A.	REVISED -	<p align="center">STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT</p>	<p align="center">PLAN & PROFILE NORTH VALLEY ROAD</p>	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	DRAWN - T.W.K.	REVISED -			1372	17-00183-00-BR	STARK	50	7
PLOT DATE = 7/6/2022	CHECKED - J.W.F.	REVISOR -	REVISED -			C.H. 13 / NORTH VALLEY ROAD				CONTRACT NO. 89752
DATE = 06/30/2022	REVISOR -	REVISED -	REVISED -			SCALE: 5V:20H	SHEET NO. 2 OF 2 SHEETS	STA. 11+20.00 TO STA. 15+25.00	ILLINOIS FED. AID PROJECT NMKM(136)	



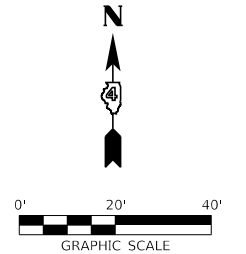
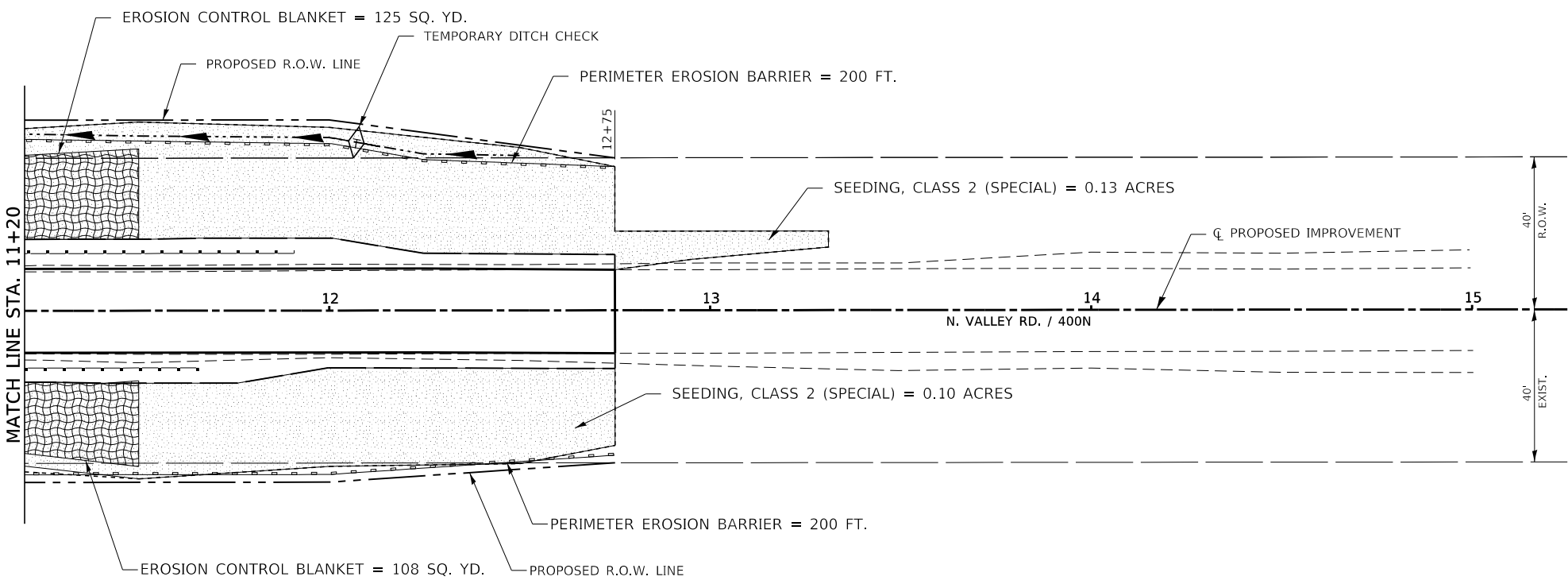
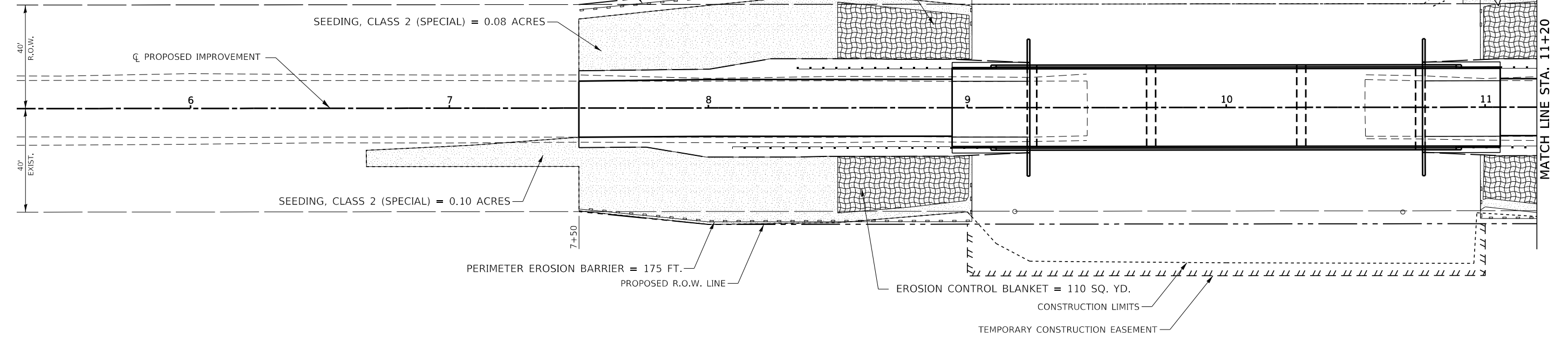
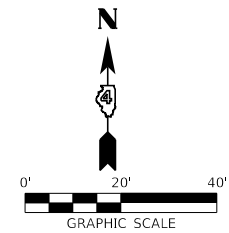
SHOULDER LAYOUT



GUARDRAIL LAYOUT

- ① CONSTANT SLOPE PARAPET
- ② TBT, TY 6
- ③ TBT, TY 1 (SPECIAL) TANGENT
- ④ SPBGR, TY A, 6 FOOT POSTS

FILE NAME = 200084-shi-shdgrd.dgn	USER NAME = dfoley	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	GUARDRAIL AND SHOULDER LAYOUT		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. <small>3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L5 / PE / SE CORP. 184.000959</small>		DRAWN - R.D.H.	REVISED -				1372	17-00183-00-BR	STARK	50	8	
PLOT SCALE = \$SCALES		CHECKED - S.W.M.	REVISED -		SCALE:		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT NMKM(136)		
PLOT DATE = 7/8/2022		DATE - 06/30/2022	REVISED -		C.H. 13 / NORTH VALLEY ROAD CONTRACT NO. 89752							



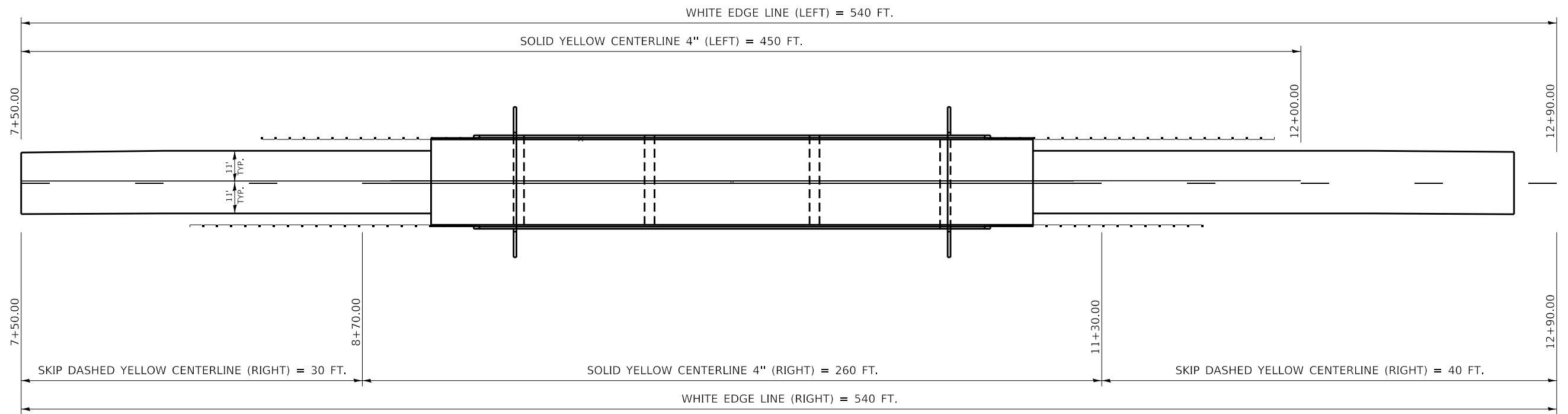
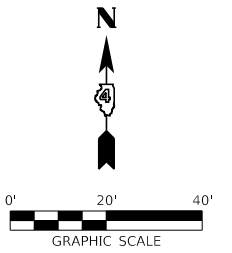
- LEGEND**
- PERIMETER EROSION BARRIER
 - EROSION CONTROL BLANKET
 - SEEDING, CLASS 2 (SPECIAL)
 - TEMPORARY DITCH CHECK

FILE NAME = 200084-erit-erosion.dgn	USER NAME = dfiley	DESIGNED - M.A.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	DRAWN - D.M.F.	REVISED -
PLOT DATE = 7/8/2022		CHECKED - S.W.M.	REVISED -
		DATE - 06/30/2022	REVISED -

**STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT**

EROSION CONTROL PLAN			
SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00BR	STARK	50	9
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS FED. AID PROJECT NMKM(136)				



FILE NAME = 200084-shl-pvmtmrkng.dgn
 USER NAME = dfoley
HAMPTON, LENZINI AND RENWICK, INC.
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184.000959

DESIGNED - M.A.L.	REVISED -
DRAWN - D.M.F.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 06/30/2022	REVISED -

DESIGNED - M.A.L.	REVISED -
DRAWN - D.M.F.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 06/30/2022	REVISED -

**STATE OF ILLINOIS
 STARK COUNTY HIGHWAY DEPARTMENT**

PAVEMENT MARKING PLAN

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

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	10
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS FED. AID PROJECT NMKM(136)				

BENCHMARK: Chiseled "□" on SE Wingwall, 15' Rt., Sta. 10+53, Elev. 654.29

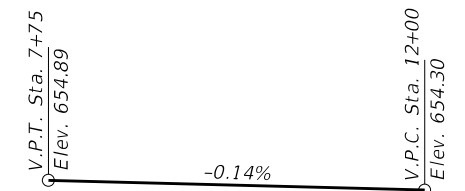
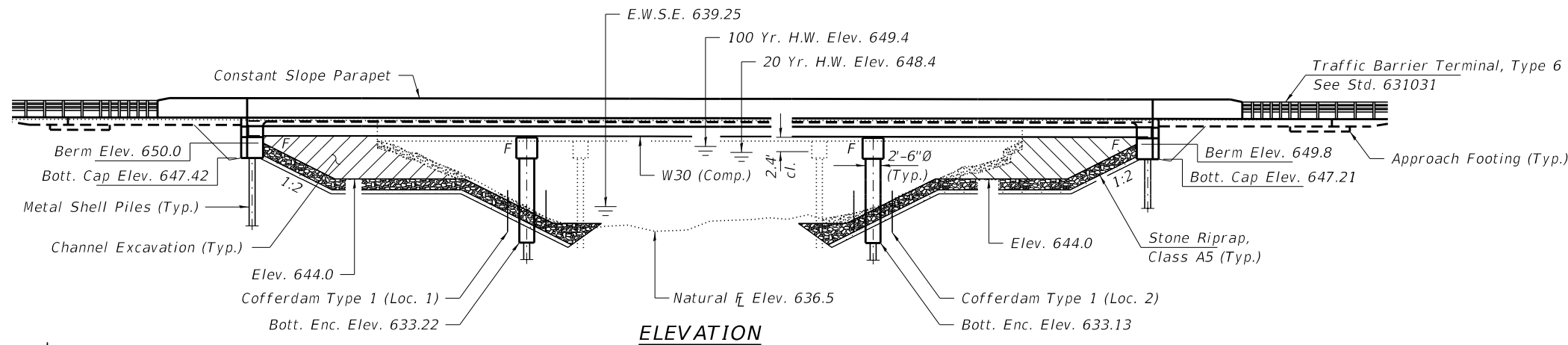
EXISTING STRUCTURE: S.N. 088-3113 - Three span steel beam bridge on spill thru pile bent abutments, and concrete bent piers. 108.0' bk.-bk. abuts., 29.7' o.-o. deck.

Structure closed to traffic during construction.

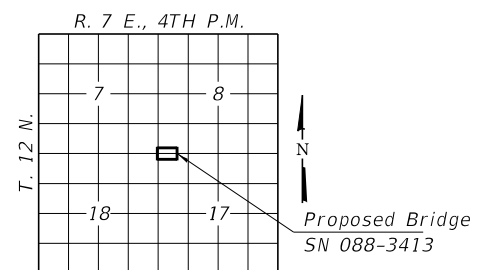
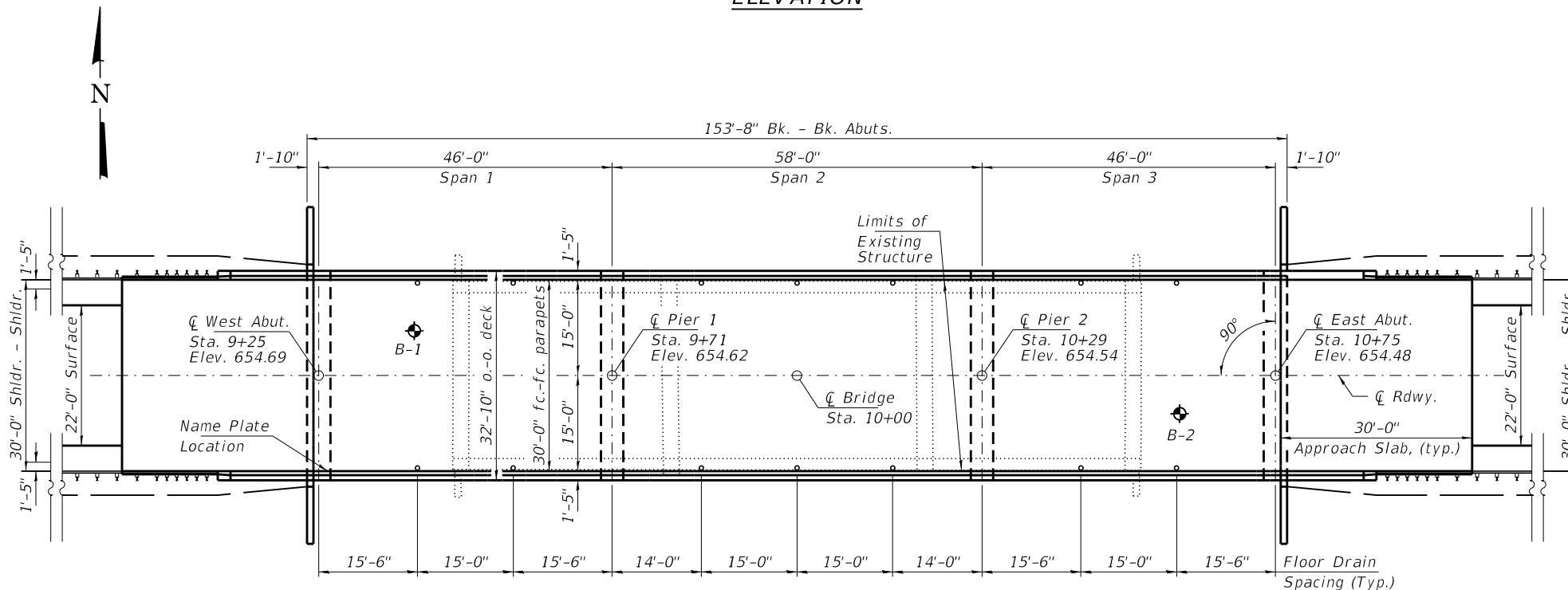
No Salvage

INDEX OF STRUCTURE SHEETS

1. General Plan & Elevation
2. General Details
3. Riprap Layout
- 4-6. Top of Slab Elevations
7. Top of West Approach Elevations
8. Top of East Approach Elevations
9. Superstructure
10. Superstructure Details
11. Diaphragm Details
- 12-13. Bridge Approach Slab Details
14. Structural Steel
15. Structural Steel Details
16. Bearing Details
17. West Abutment
18. East Abutment
19. Piers
20. Metal Shell Pile Details
- 21-22. Borings



PROFILE GRADE
C.H. 13



LOCATION SKETCH

DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	647.3	622.3	622.3	647.3	5
Q200	647.3	618.2	618.2	647.3	
Design	647.3	622.3	622.3	647.3	
Check	647.3	618.2	618.2	647.3	

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi (Superstructure)
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (Structural steel)
(M270 Gr 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.147g
Design Spectral Acceleration at 0.2 sec. (SD5) = 0.244g
Soil Site Class = E

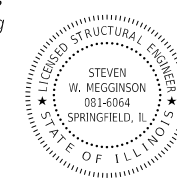
WATERWAY INFORMATION

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Ten-Year	10	3120	790	880	648.0	1.5	1.1	649.5	649.1
Design	20	5270	830	950	648.4	1.8	1.3	650.2	649.7
Base	100	7920	920	1080	649.4	2.4	1.7	651.8	651.1
Scour Check	200	9160	960	1130	649.8	2.4	1.9	652.2	651.7
Max. Calc.	500	10800	1000	1190	650.2	3.0	2.3	653.2	652.5

10 Year Velocity through Existing Bridge = 4.0 fps 10 Year Velocity through Proposed Bridge = 3.5 fps

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

Steven W. Megginson 06/30/2022
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



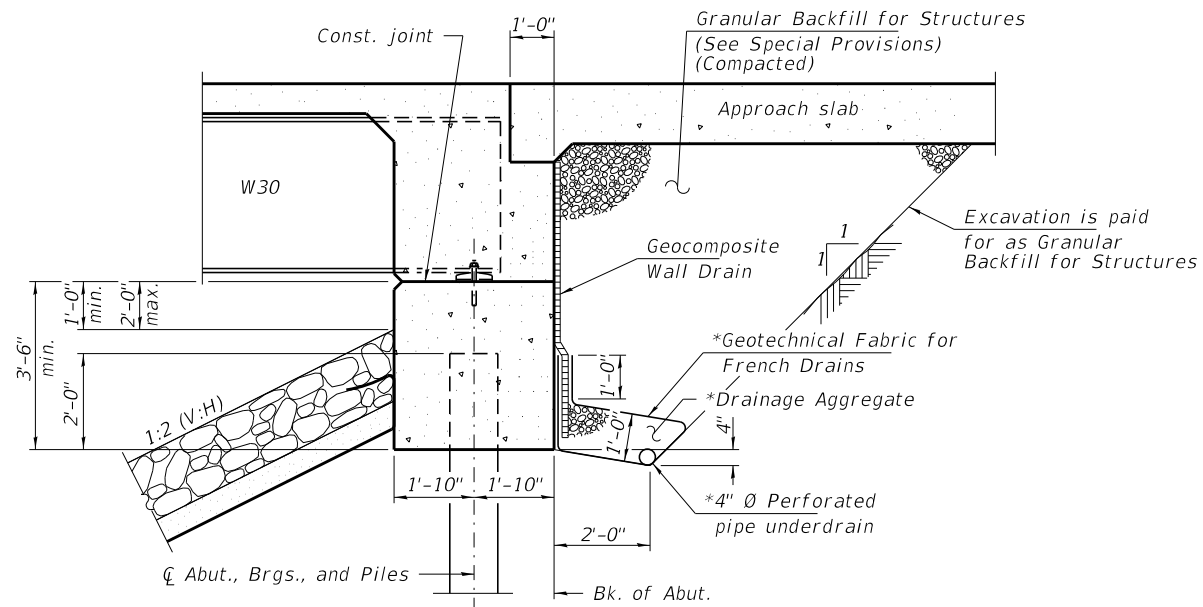
Expires 11-30-2022

GENERAL PLAN & ELEVATION
F.A.S. 1372 / C.H. 13 / NORTH
VALLEY ROAD OVER
CAMP RUN CREEK
SECTION 17-00183-00-BR
STARK COUNTY
STATION 10+00
STRUCTURE NO. 088-3413

FILE NAME = 200084-shi-bridge.dgn	USER NAME = jfoley	DESIGNED - P.R.R.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	GENERAL PLAN AND ELEVATION STRUCTURE NO. 088-3413	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L5 / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -			1372	17-00183-00-BR	STARK	50	11	
PLOT DATE = 7/6/2022	DRAWN - R.D.H.	CHECKED - S.W.M.	REVISED -			C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		ILLINOIS	FED. AID PROJECT NMKM(136)
						SHEET NO. 1 OF 22 SHEETS					

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8"Ø, holes 1 5/16"Ø, unless otherwise noted.
 Calculated weight of Structural Steel = 117,160 lbs.
 All structural steel shall be AASHTO M 270 Grade 50W.
 No field welding is permitted except as specified in the contract documents.
 Reinforcement bars designated (E) shall be epoxy coated.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Structural steel shall only be painted from distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
 The top surface of the deck shall be screeded with a straight edge. Further finishing shall be delayed until the water sheen appears, but not to the point of rendering further manipulation ineffective. The surface then shall be roughened with a suitable stiff-bristled broom or wire brush drawn in transverse direction removing any laitance present and breaking up the water sheen. The corrugations formed shall be uniform in appearance and in no case more than 1/4" in depth.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. at Rt. L's)

*Included in the cost of Pipe Underdrains for Structures, 4"

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. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures 4".

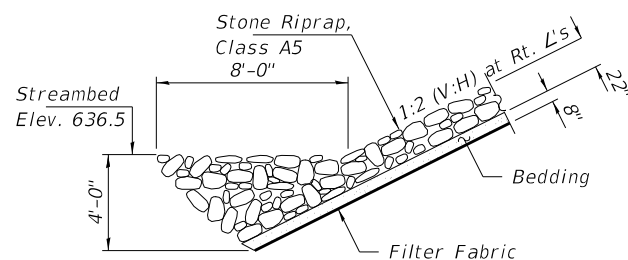
Concrete Headwalls for Pipe Drains shall be installed at each pipe underdrain outlet. (4 each).

CAMP RUN CREEK
 BUILT 202 BY
 STARK COUNTY
 SEC. 17-00183-00-BR
 C.H. 13 / F.A.S. 1372
 STR. NO. 088-3413
 LOADING HL-93

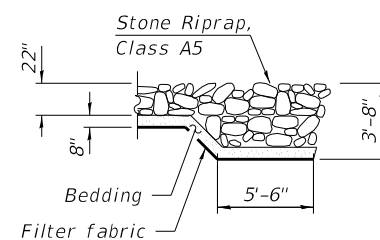
NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

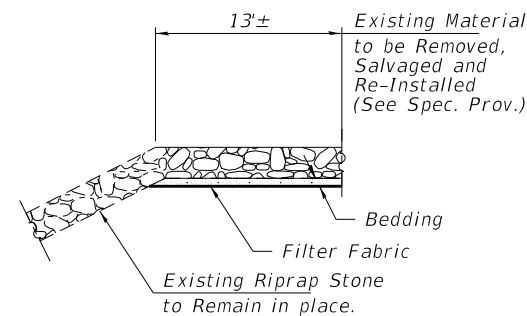
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		826	826
Stone Riprap, Class A5	Ton		950	950
Filter Fabric	Sq. Yd.		811	811
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		186	186
Cofferdam Excavation	Cu. Yd.			133
Cofferdam (Type 1) (Location - 1)	Each			1
Cofferdam (Type 1) (Location - 2)	Each			1
Floor Drains	Each	14		14
Concrete Structures	Cu. Yd.		88.8	88.8
Concrete Superstructure	Cu. Yd.	207.9		207.9
Bridge Deck Grooving	Sq. Yd.	659		659
Concrete Encasement	Cu. Yd.		20.0	20.0
Protective Coat	Sq. Yd.	877		877
Concrete Superstructure (Approach Slab)	Cu. Yd.	89.2		89.2
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,795		3,795
Reinforcement Bars, Epoxy Coated	Pound	83,490	13,730	97,220
Furnishing Metal Shell Piles 14"x0.312"	Foot		1,280	1,280
Driving Piles	Foot		1,280	1,280
Test Pile Metal Shells	Each		2	2
Name Plates	Each		1	1
Anchor Bolts, 1"	Each		40	40
Granular Backfill for Structures	Cu. Yd.		104	104
Geocomposite Wall Drain	Sq. Yd.		60	60
Concrete Headwalls for Pipe Drains	Each		4	4
Pipe Underdrains for Structures 4"	Foot		138	138
Relocate Existing Riprap	Sq. Yd.		230	230



SECTION A-A



SECTION B-B



SECTION C-C

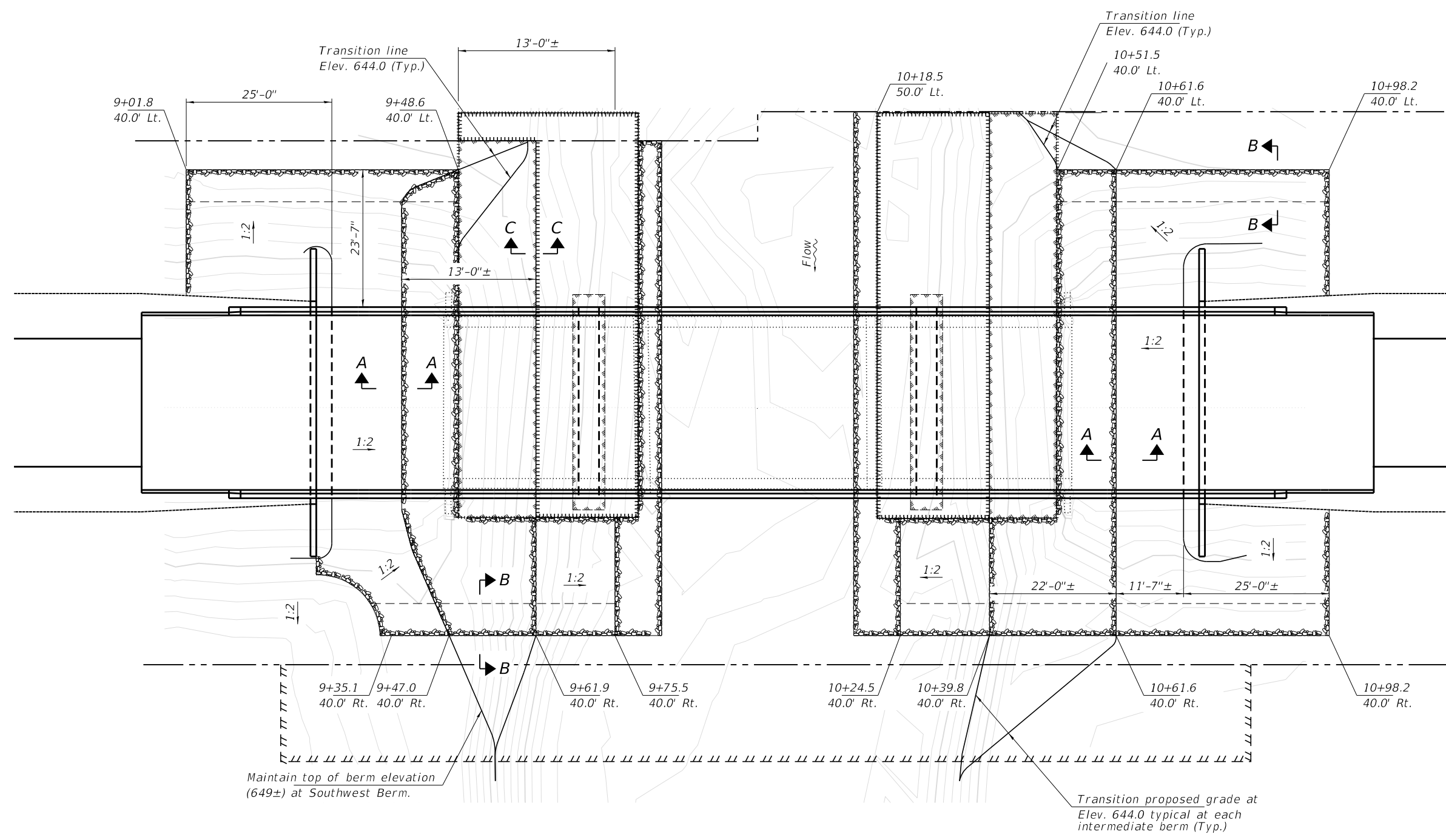
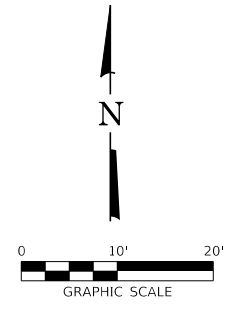
FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.009959	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -
PLOT DATE = 7/6/2022		DRAWN - R.D.H.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
 STARK COUNTY HIGHWAY DEPARTMENT

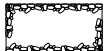

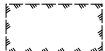
GENERAL DETAILS
 STRUCTURE NO. 088-3413

SHEET NO. 2 OF 22 SHEETS

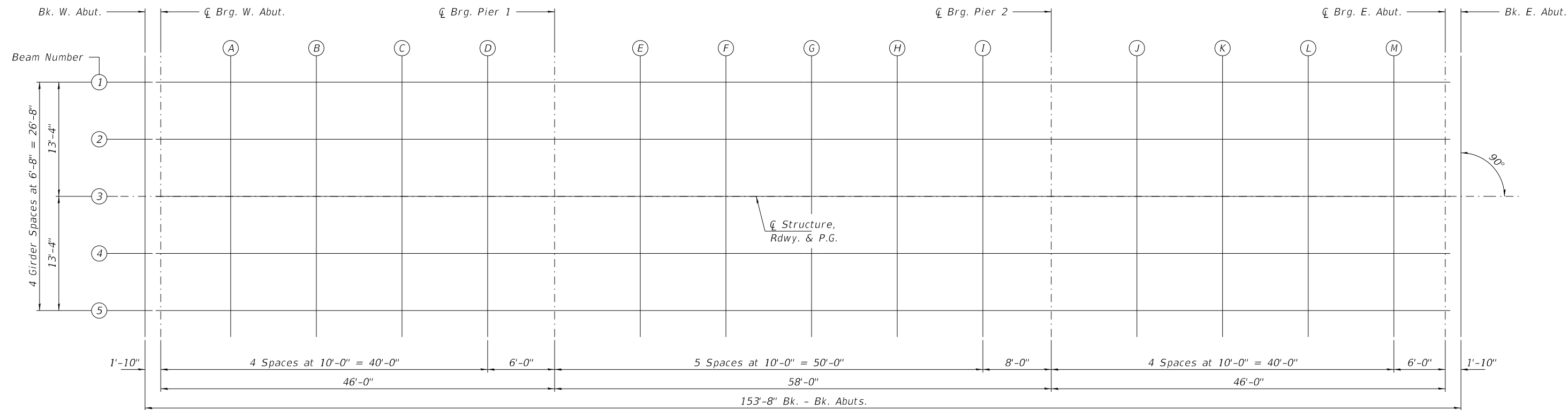
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	12
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS		FED. AID PROJECT NMKM(136)		



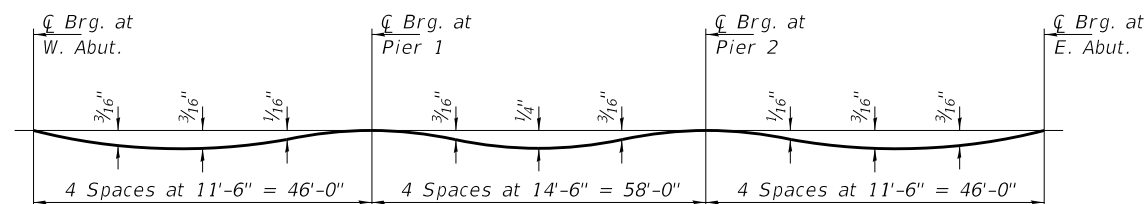
RIPRAP LAYOUT

-  Stone Riprap
-  Riprap to Remain in Place
-  Riprap to be relocated for Pier. See Special Provisions.

FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	RIPRAP LAYOUT STRUCTURE NO. 088-3413	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -			1372	17-00183-00-BR	STARK	50	13	
	PLOT DATE = 7/6/2022	DRAWN - R.D.H.	REVISED -			SHEET NO. 3 OF 22 SHEETS		CONTRACT NO. 89752		ILLINOIS FED. AID PROJECT NMKM(136)	
		CHECKED - S.W.M.	REVISED -								



PLAN

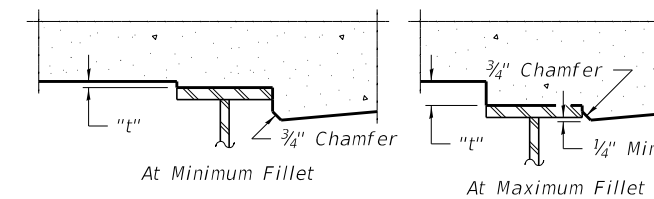


DEAD LOAD DEFLECTION DIAGRAM

(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 on sheets 5 & 6 of 22.



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 sheet 5 & 6 of 22, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	TOP OF SLAB ELEVATIONS STRUCTURE NO. 088-3413	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -			1372	17-00183-00-BR	STARK	50	14
	PLOT SCALE = \$SCALE\$	DRAWN - R.D.H.	REVISED -			C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
	PLOT DATE = 7/6/2022	CHECKED - S.W.M.	REVISED -			ILLINOIS		FED. AID PROJECT NMKM(136)		
					SHEET NO. 4 OF 22 SHEETS					

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+23.17	-13.33	654.40	654.40
☉ Brg. W. Abut.	9+25.00	-13.33	654.40	654.40
A	9+35.00	-13.33	654.39	654.40
B	9+45.00	-13.33	654.37	654.39
C	9+55.00	-13.33	654.36	654.37
D	9+65.00	-13.33	654.35	654.35
☉ Pier 1	9+71.00	-13.33	654.34	654.34
E	9+81.00	-13.33	654.32	654.33
F	9+91.00	-13.33	654.31	654.33
G	10+01.00	-13.33	654.30	654.32
H	10+11.00	-13.33	654.28	654.30
I	10+21.00	-13.33	654.27	654.27
☉ Pier 2	10+29.00	-13.33	654.26	654.26
J	10+39.00	-13.33	654.24	654.25
K	10+49.00	-13.33	654.23	654.24
L	10+59.00	-13.33	654.21	654.23
M	10+69.00	-13.33	654.20	654.21
☉ Brg. E. Abut.	10+75.00	-13.33	654.19	654.19
Bk. E. Abut.	10+76.83	-13.33	654.19	654.19

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+23.17	-6.67	654.54	654.54
☉ Brg. W. Abut.	9+25.00	-6.67	654.54	654.54
A	9+35.00	-6.67	654.53	654.54
B	9+45.00	-6.67	654.51	654.53
C	9+55.00	-6.67	654.50	654.51
D	9+65.00	-6.67	654.49	654.49
☉ Pier 1	9+71.00	-6.67	654.48	654.48
E	9+81.00	-6.67	654.46	654.47
F	9+91.00	-6.67	654.45	654.47
G	10+01.00	-6.67	654.43	654.46
H	10+11.00	-6.67	654.42	654.44
I	10+21.00	-6.67	654.41	654.41
☉ Pier 2	10+29.00	-6.67	654.40	654.40
J	10+39.00	-6.67	654.38	654.39
K	10+49.00	-6.67	654.37	654.38
L	10+59.00	-6.67	654.35	654.37
M	10+69.00	-6.67	654.34	654.35
☉ Brg. E. Abut.	10+75.00	-6.67	654.33	654.33
Bk. E. Abut.	10+76.83	-6.67	654.33	654.33

BEAM 3, ☉ STRUCTURE & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+23.17	0.00	654.68	654.68
☉ Brg. W. Abut.	9+25.00	0.00	654.68	654.68
A	9+35.00	0.00	654.67	654.68
B	9+45.00	0.00	654.65	654.67
C	9+55.00	0.00	654.64	654.65
D	9+65.00	0.00	654.62	654.63
☉ Pier 1	9+71.00	0.00	654.62	654.62
E	9+81.00	0.00	654.60	654.61
F	9+91.00	0.00	654.59	654.61
G	10+01.00	0.00	654.57	654.60
H	10+11.00	0.00	654.56	654.58
I	10+21.00	0.00	654.55	654.55
☉ Pier 2	10+29.00	0.00	654.53	654.53
J	10+39.00	0.00	654.52	654.53
K	10+49.00	0.00	654.51	654.52
L	10+59.00	0.00	654.49	654.51
M	10+69.00	0.00	654.48	654.49
☉ Brg. E. Abut.	10+75.00	0.00	654.47	654.47
Bk. E. Abut.	10+76.83	0.00	654.47	654.47

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+23.17	6.67	654.54	654.54
☒ Brg. W. Abut.	9+25.00	6.67	654.54	654.54
A	9+35.00	6.67	654.53	654.54
B	9+45.00	6.67	654.51	654.53
C	9+55.00	6.67	654.50	654.51
D	9+65.00	6.67	654.49	654.49
☒ Pier 1	9+71.00	6.67	654.48	654.48
E	9+81.00	6.67	654.46	654.47
F	9+91.00	6.67	654.45	654.47
G	10+01.00	6.67	654.43	654.46
H	10+11.00	6.67	654.42	654.44
I	10+21.00	6.67	654.41	654.41
☒ Pier 2	10+29.00	6.67	654.40	654.40
J	10+39.00	6.67	654.38	654.39
K	10+49.00	6.67	654.37	654.38
L	10+59.00	6.67	654.35	654.37
M	10+69.00	6.67	654.34	654.35
☒ Brg. E. Abut.	10+75.00	6.67	654.33	654.33
Bk. E. Abut.	10+76.83	6.67	654.33	654.33

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+23.17	13.33	654.40	654.40
☒ Brg. W. Abut.	9+25.00	13.33	654.40	654.40
A	9+35.00	13.33	654.39	654.40
B	9+45.00	13.33	654.37	654.39
C	9+55.00	13.33	654.36	654.37
D	9+65.00	13.33	654.35	654.35
☒ Pier 1	9+71.00	13.33	654.34	654.34
E	9+81.00	13.33	654.32	654.33
F	9+91.00	13.33	654.31	654.33
G	10+01.00	13.33	654.30	654.32
H	10+11.00	13.33	654.28	654.30
I	10+21.00	13.33	654.27	654.27
☒ Pier 2	10+29.00	13.33	654.26	654.26
J	10+39.00	13.33	654.24	654.25
K	10+49.00	13.33	654.23	654.24
L	10+59.00	13.33	654.21	654.23
M	10+69.00	13.33	654.20	654.21
☒ Brg. E. Abut.	10+75.00	13.33	654.19	654.19
Bk. E. Abut.	10+76.83	13.33	654.19	654.19

NORTH EDGE OF SHOULDER

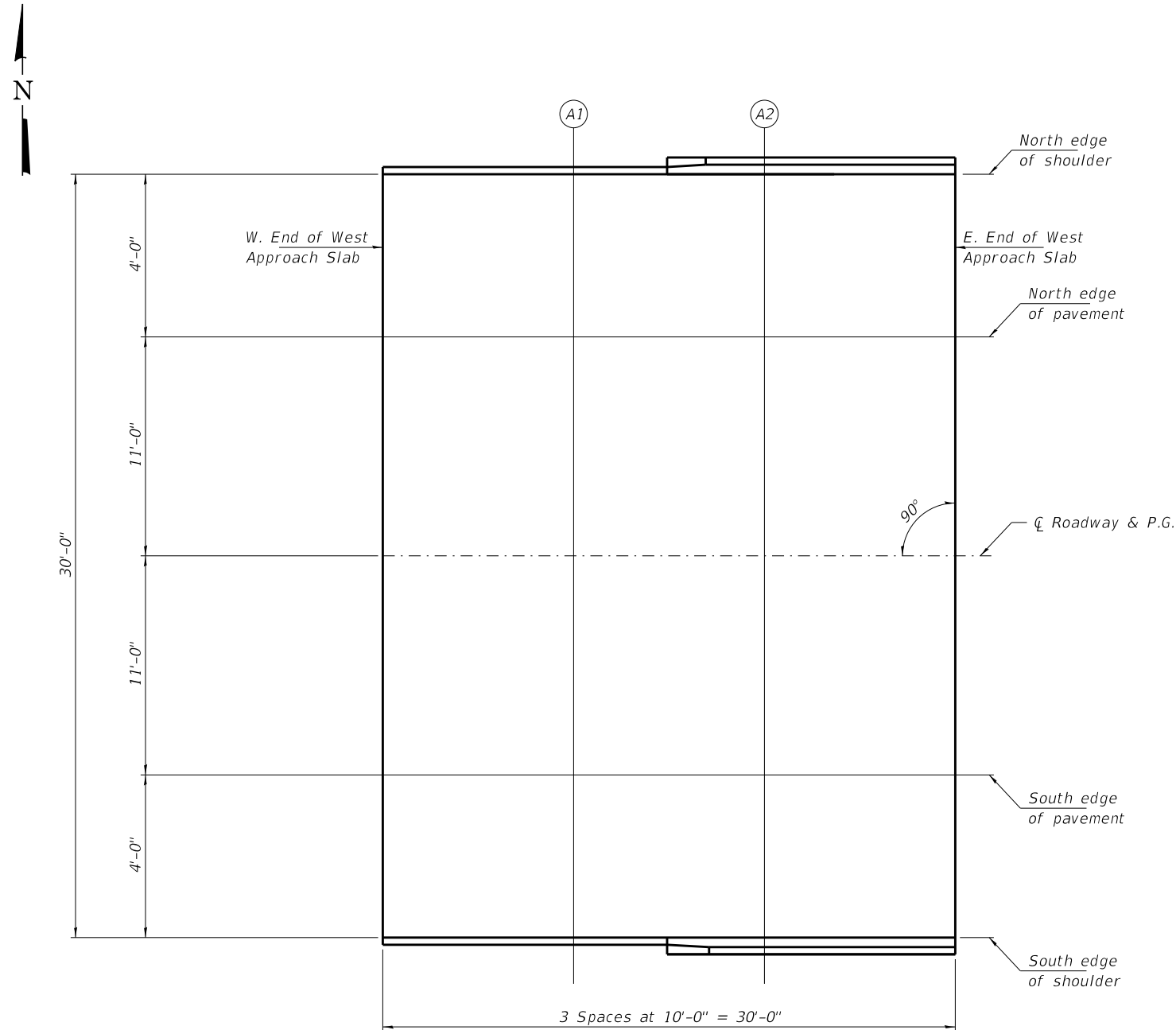
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	8+94.17	-15.00	654.41
A1	9+04.17	-15.00	654.40
A2	9+14.17	-15.00	654.38
E. End West Appr. Slab	9+24.17	-15.00	654.37

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	8+94.17	-11.00	654.49
A1	9+04.17	-11.00	654.48
A2	9+14.17	-11.00	654.47
E. End West Appr. Slab	9+24.17	-11.00	654.45

CL ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	8+94.17	0.00	654.72
A1	9+04.17	0.00	654.71
A2	9+14.17	0.00	654.70
E. End West Appr. Slab	9+24.17	0.00	654.68



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	8+94.17	11.00	654.49
A1	9+04.17	11.00	654.48
A2	9+14.17	11.00	654.47
E. End West Appr. Slab	9+24.17	11.00	654.45

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	8+94.17	15.00	654.41
A1	9+04.17	15.00	654.40
A2	9+14.17	15.00	654.38
E. End West Appr. Slab	9+24.17	15.00	654.37

FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -
	PLOT SCALE = \$SCALE\$	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 7/6/2022	CHECKED - S.W.M.	REVISED -

**STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT**

**TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 088-3413**

SHEET NO. 7 OF 22 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	17
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS		FED. AID PROJECT NMKM(136)		

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	10+75.83	-15.00	654.16
A1	10+85.83	-15.00	654.14
A2	10+95.83	-15.00	654.13
E. End East Appr. Slab	11+05.83	-15.00	654.11

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	10+75.83	-11.00	654.24
A1	10+85.83	-11.00	654.23
A2	10+95.83	-11.00	654.21
E. End East Appr. Slab	11+05.83	-11.00	654.20

CL ROADWAY & P.G.

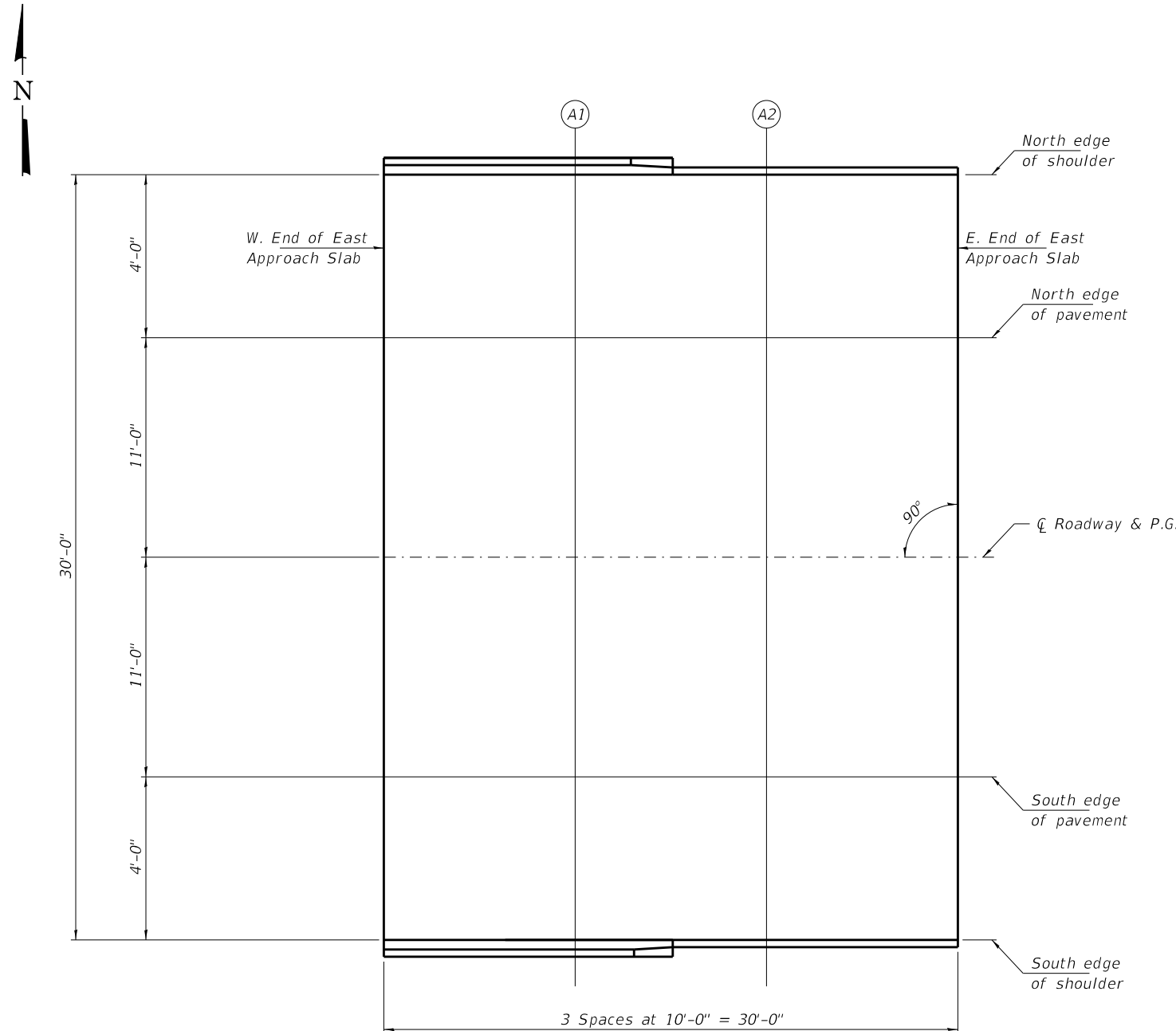
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	10+75.83	0.00	654.47
A1	10+85.83	0.00	654.45
A2	10+95.83	0.00	654.44
E. End East Appr. Slab	11+05.83	0.00	654.43

SOUTH EDGE OF PAVEMENT

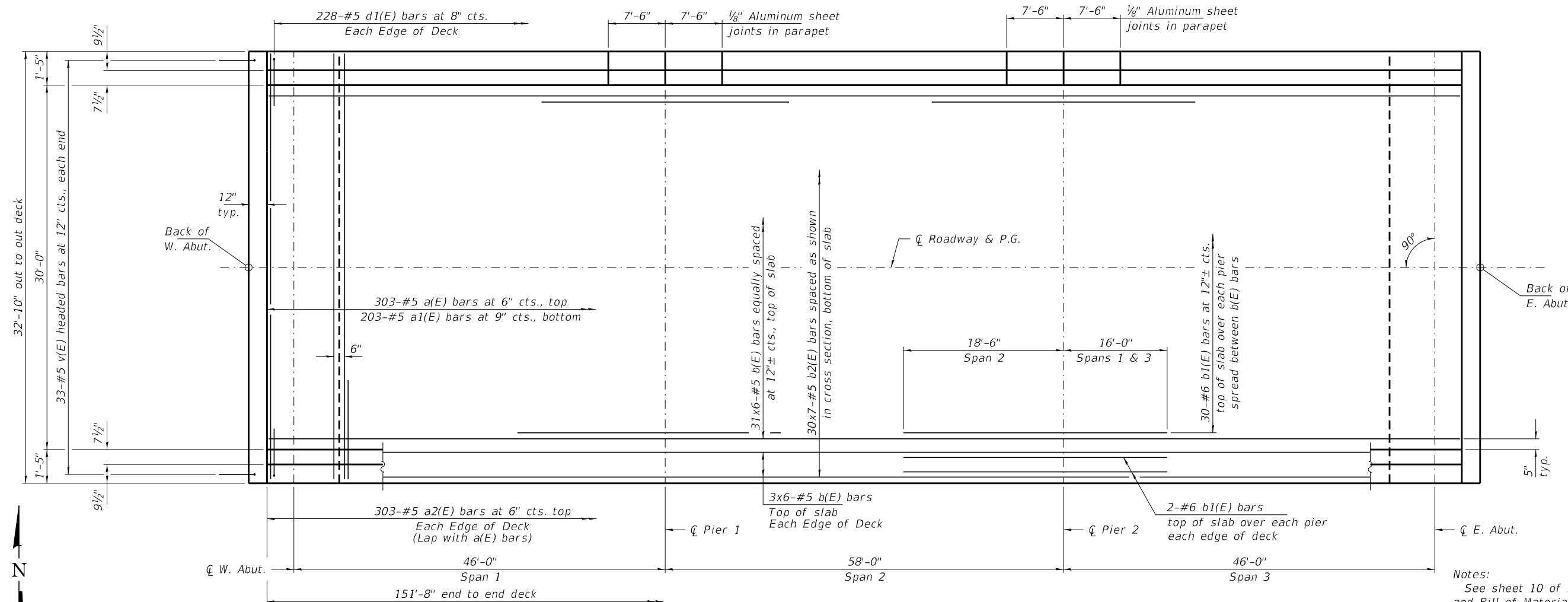
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	10+75.83	11.00	654.24
A1	10+85.83	11.00	654.23
A2	10+95.83	11.00	654.21
E. End East Appr. Slab	11+05.83	11.00	654.20

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Slab	10+75.83	15.00	654.16
A1	10+85.83	15.00	654.14
A2	10+95.83	15.00	654.13
E. End East Appr. Slab	11+05.83	15.00	654.11

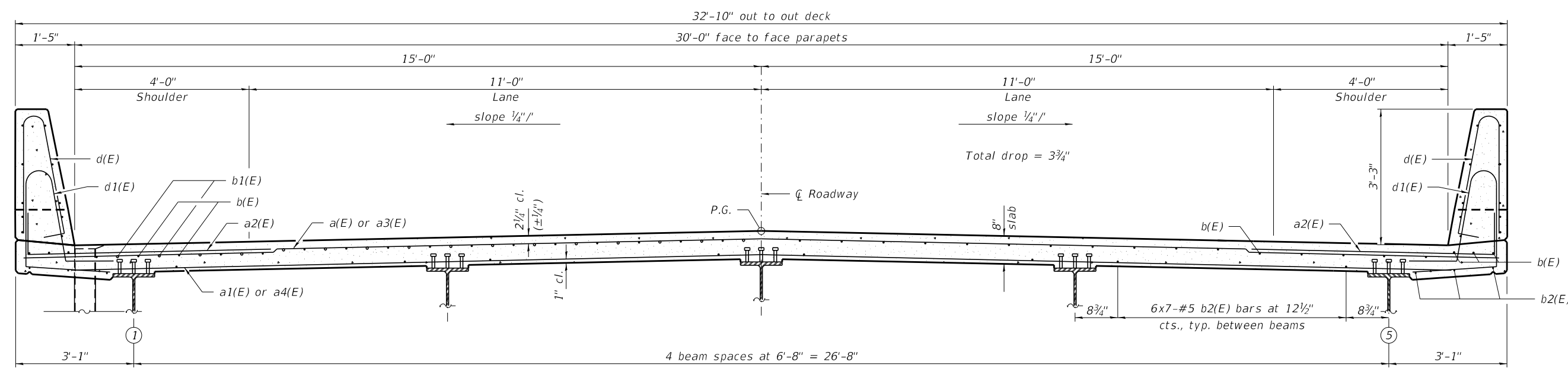


PLAN



PLAN

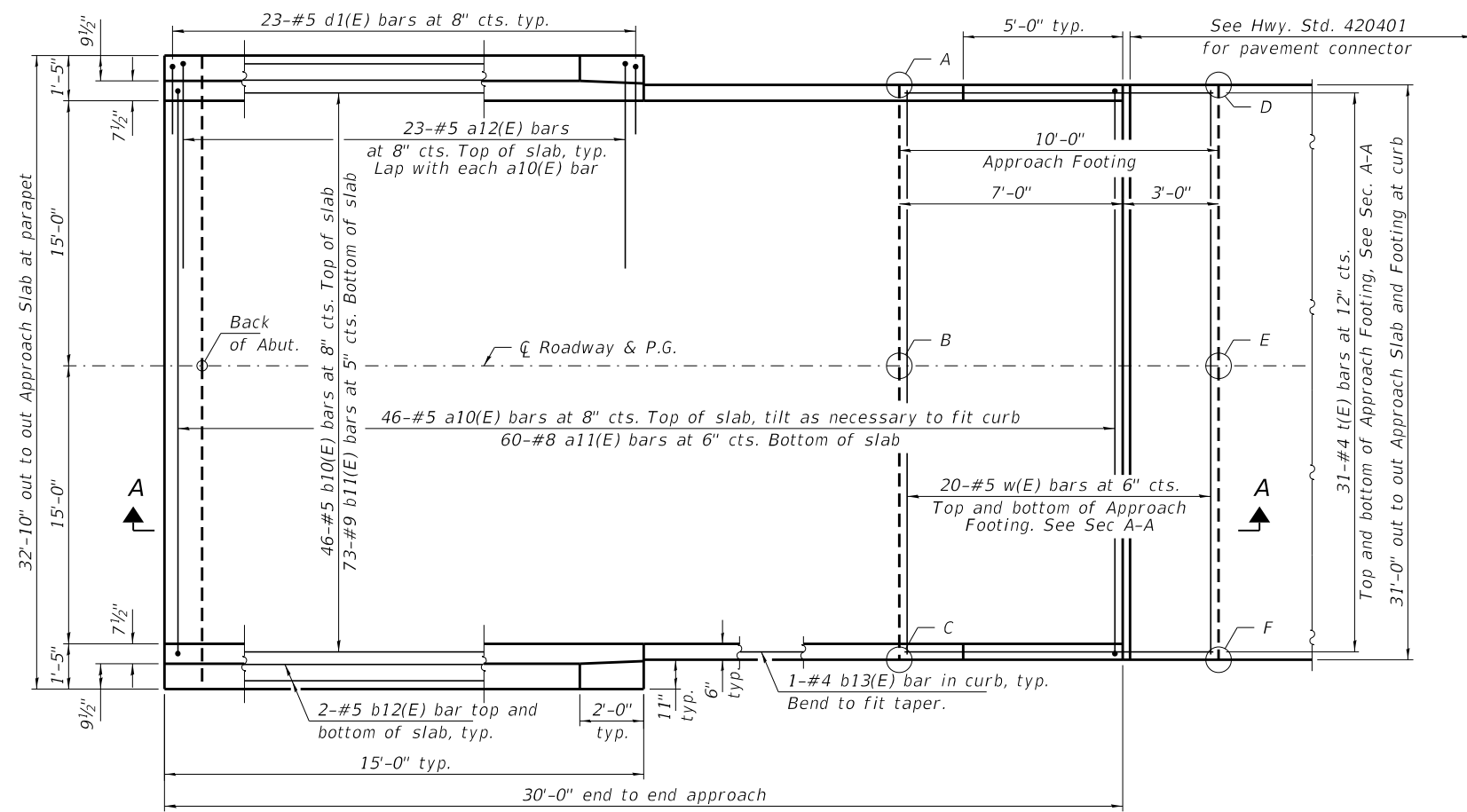
Notes:
 See sheet 10 of 22 for superstructure details and Bill of Material.
 Bars indicated thus 33 x 6-#5 etc. indicates 33 lines of bars with 6 lengths per line.



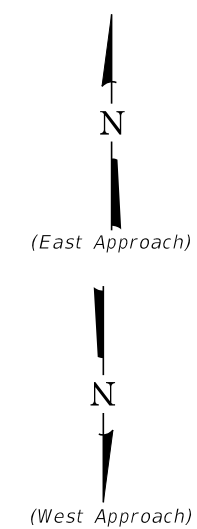
CROSS SECTION
(Looking East)

MINIMUM BAR LAP
 #5 bar = 3'-6"

FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	SUPERSTRUCTURE STRUCTURE NO. 088-3413	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -			1372	17-00183-00-BR	STARK	50	19
	PLOT DATE = 7/6/2022	DRAWN - R.D.H.	REVISED -			C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
		CHECKED - S.W.M.	REVISED -			ILLINOIS		FED. AID PROJECT NMKM(136)		

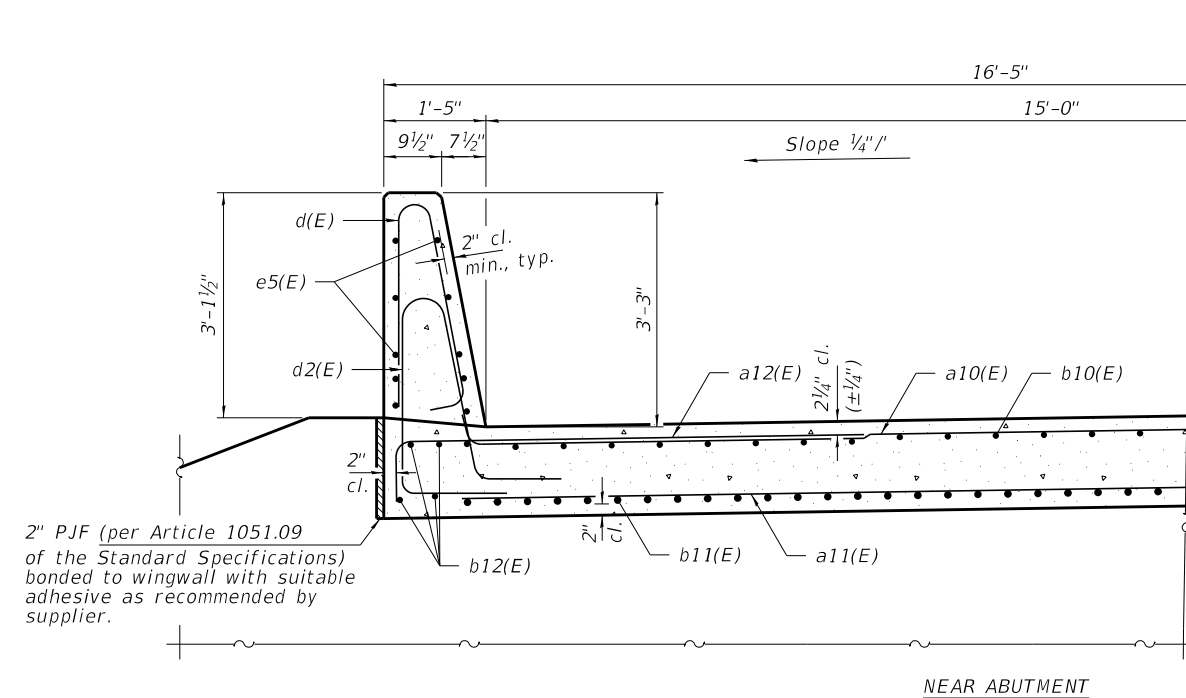


PLAN



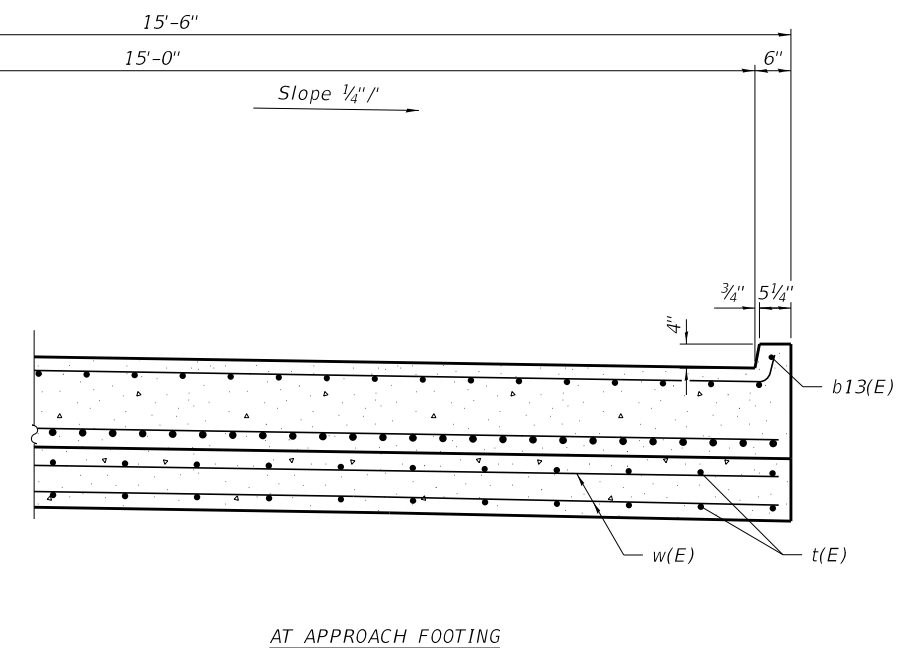
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	West Approach		East Approach	
	Top	Bottom	Top	Bottom
A	653.14	652.31	652.86	652.03
B	653.46	652.63	653.19	652.35
C	653.14	652.31	652.86	652.03
D	653.15	652.32	652.85	652.02
E	653.48	652.64	653.17	652.34
F	653.15	652.32	652.85	652.02



NEAR ABUTMENT

CROSS SECTION
(Looking East)



AT APPROACH FOOTING

BAIA-CIP-39CS-0 10-12-2021

(Sheet 1 of 2)

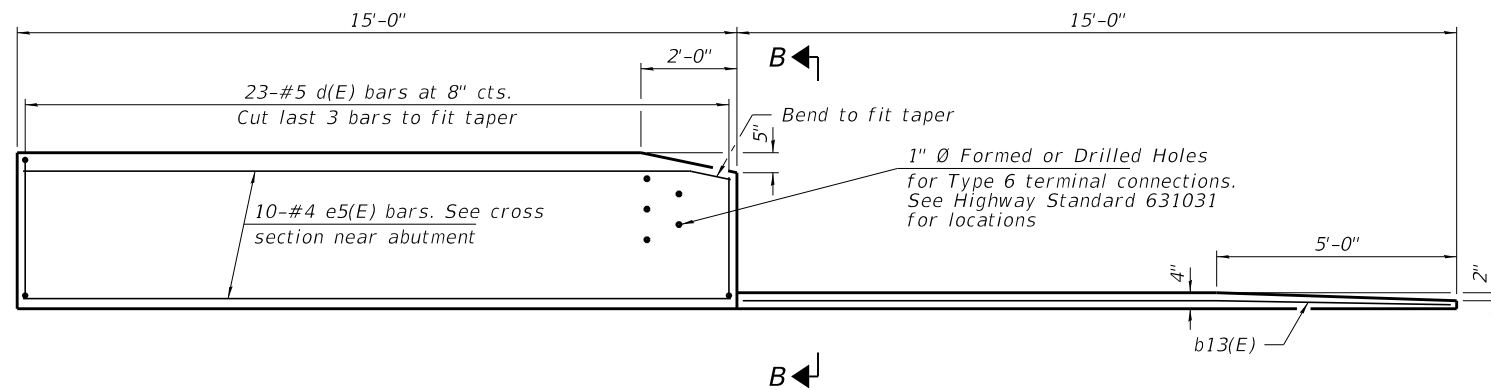
FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORP. 184.000959	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 7/6/2022	DRAWN - R.D.H.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 088-3413

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	22
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
ILLINOIS / FED. AID PROJECT NMKM(136)				

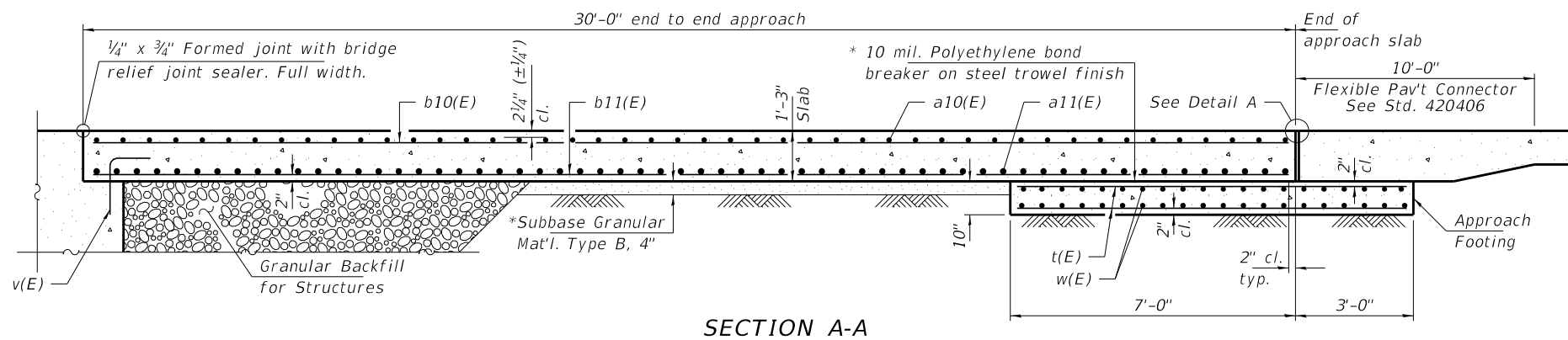
SHEET NO. 12 OF 22 SHEETS



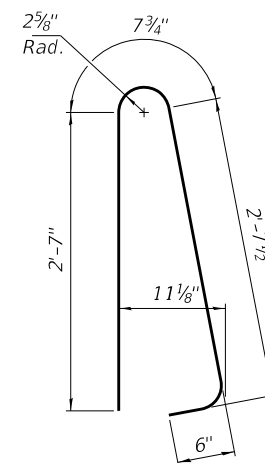
INSIDE ELEVATION OF PARAPET AND CURB

Notes:

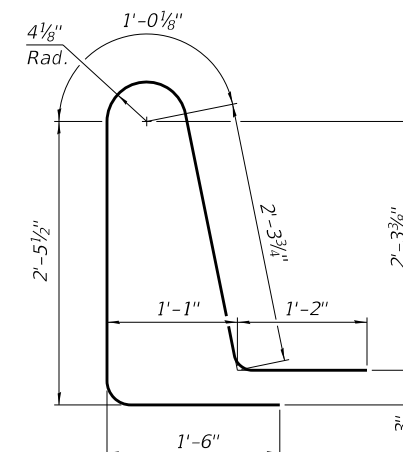
The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 22.



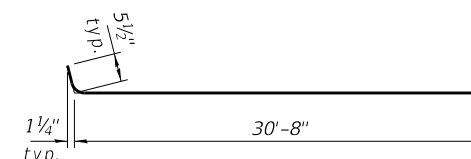
SECTION A-A



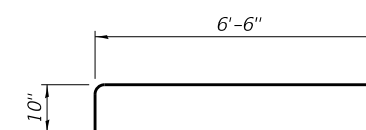
BAR d(E)



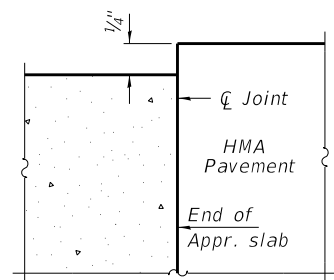
BAR d2(E)



BAR a10(E)

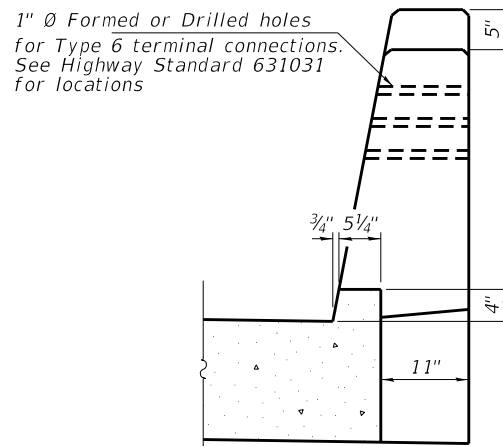


BAR a12(E)



DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).



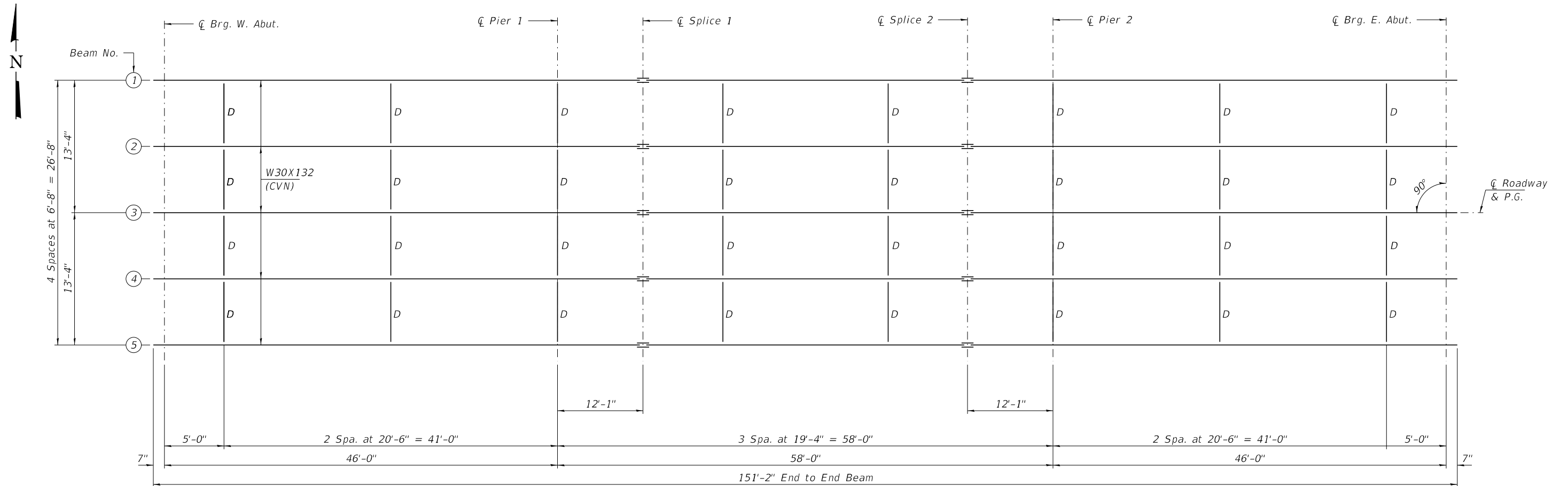
VIEW B-B

**TWO APPROACHES
BILL OF MATERIAL**

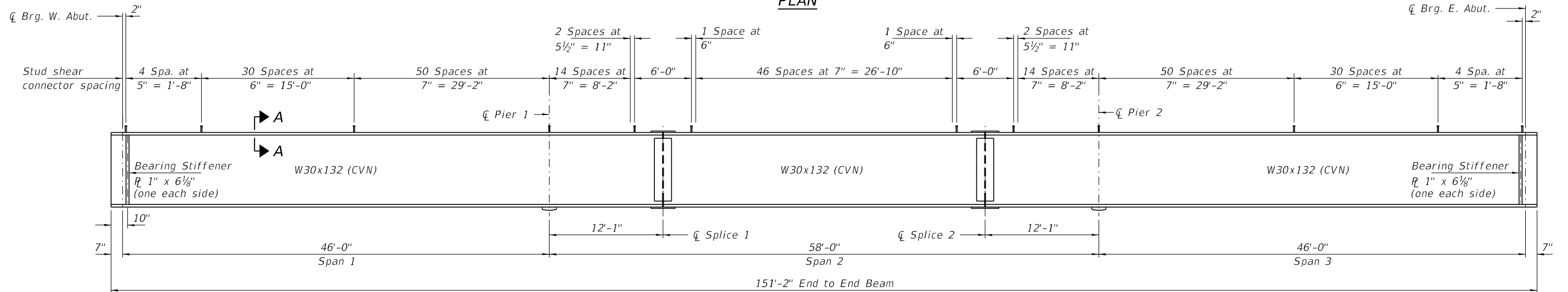
Bar	No.	Size	Length	Shape
a10(E)	92	#5	31'-7"	—
a11(E)	120	#8	30'-11"	—
a12(E)	92	#5	7'-4"	—
b10(E)	92	#5	29'-8"	—
b11(E)	146	#9	29'-8"	—
b12(E)	16	#5	14'-8"	—
b13(E)	4	#4	14'-8"	—
d(E)	92	#5	6'-5"	U
d2(E)	92	#5	8'-6"	U
e5(E)	40	#4	14'-8"	—
t(E)	62	#4	9'-8"	—
w(E)	80	#5	30'-8"	—
Concrete Superstructure		Cu. Yd.	7.8	
Concrete Superstructure (Approach Slab)		Cu. Yd.	89.2	
Concrete Structures		Cu. Yd.	9.6	
Reinforcement Bars, Epoxy Coated		Pound	36,280	
Protective Coat		Sq. Yd.	232	

BAIA-CIP-39CS-0 10-12-2021

(Sheet 2 of 2)



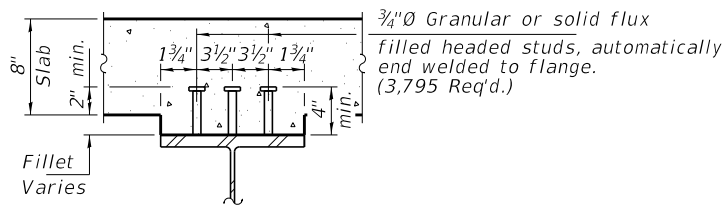
PLAN



BEAM ELEVATION
(Looking East)

Location	☐ Brg. W. Abut.	☐ Brg. Pier 1	☐ Splice 1	☐ Splice 2	☐ Brg. Pier 2	☐ Brg. E. Abut.
BEAM 1	653.63	653.56	653.53	653.48	653.48	653.45
BEAM 2	653.80	653.70	653.67	653.62	653.62	653.59
BEAM 3	653.94	653.84	653.81	653.76	653.76	653.73
BEAM 4	653.80	653.70	653.67	653.62	653.62	653.59
BEAM 5	653.66	653.56	653.53	653.48	653.48	653.45

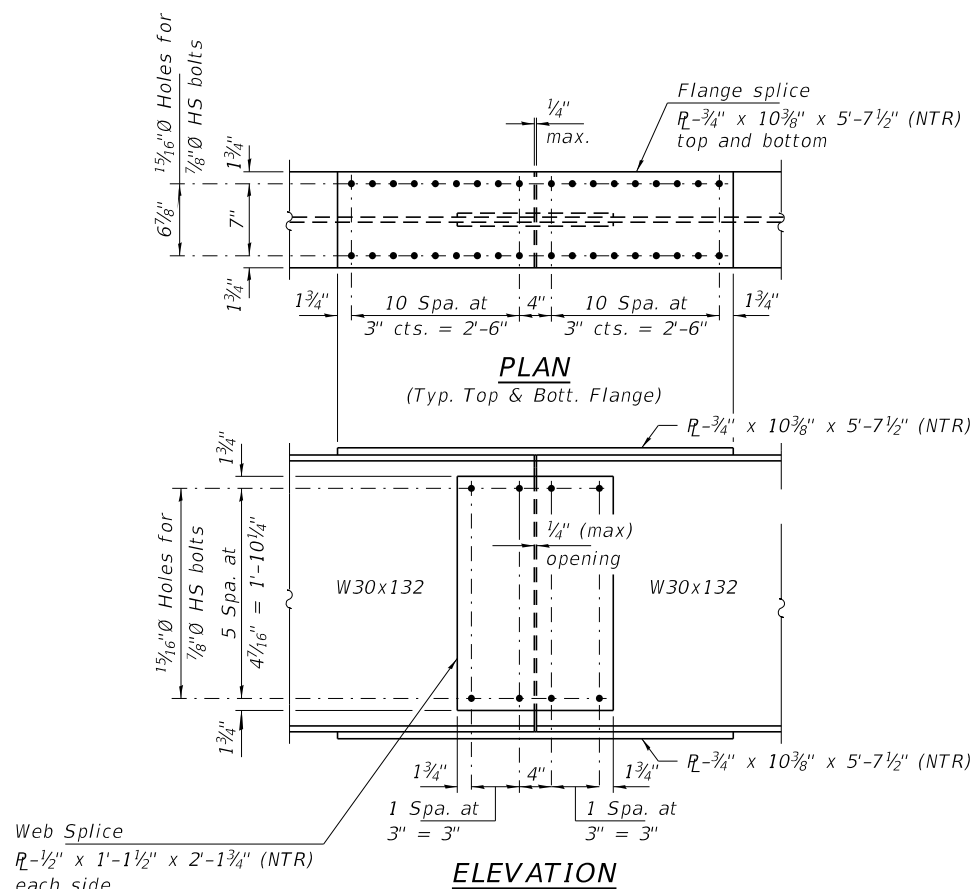
TOP OF BEAM ELEVATIONS
(For fabrication only)
(Does not include Dead Load Deflections)



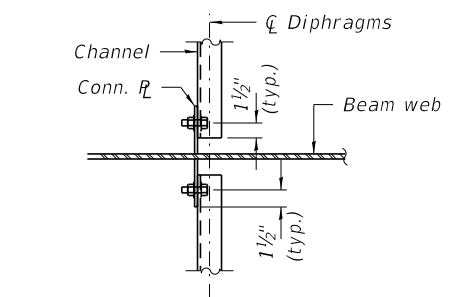
SECTION A-A

Notes:

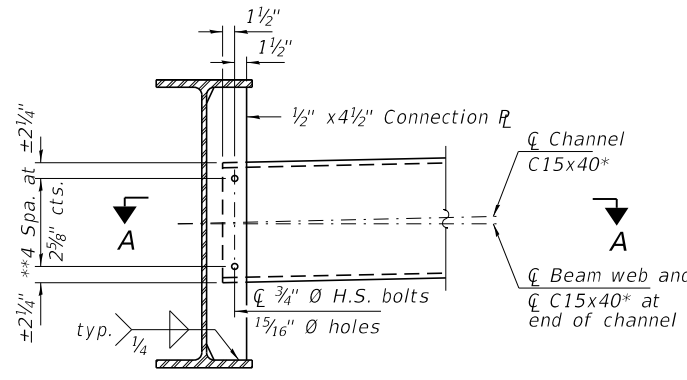
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 "CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.
 All beams, diaphragms, connection plates and splices shall be M270 Grade 50W.
 For Structural Steel details see sheet 15 of 22.



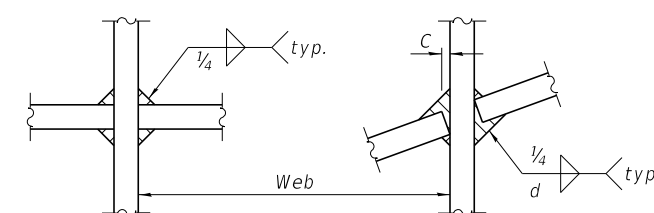
SPLICE DETAIL (LOCATIONS 1-2)
(10 Required)



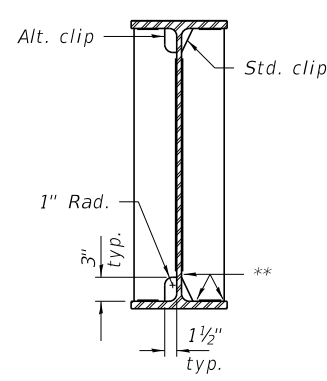
SECTION A-A



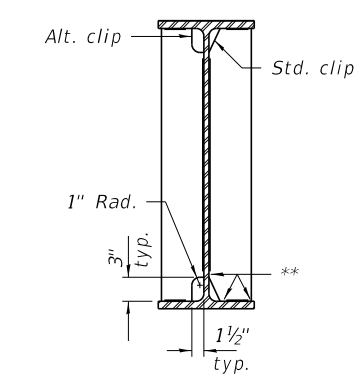
DIAPHRAGM, D
(32 Required)



WEB WELD DETAIL
 $d = 1/4 + c$



WELD LIMITS AND CLIP DETAILS
**Stop welds 1/4" (±1/8") from edges as shown. Typical



WELD LIMITS AND CLIP DETAILS
**Stop welds 1/4" (±1/8") from edges as shown. Typical

BEAM MOMENT TABLE		
		-
I_s	(in ⁴)	5770
$I_c(n)$	(in ⁴)	16,620
$I_c(3n)$	(in ⁴)	12,347
$I_c(cr)$	(in ⁴)	6,993
S_s	(in ³)	380
$S_c(n)$	(in ³)	578
$S_c(3n)$	(in ³)	524
$S_c(cr)$	(in ³)	372
DC1	(k/ft)	0.85
MDC1	(k)	12.3
DC2	(k/ft)	0.18
MDC2	(k)	27
DW	(k/ft)	0.34
MDW	(k)	49
LLDF		0.611
$M_{\ell} + IM$	(k)	473
M_u (Strength I)	(k)	1,089
$\phi_r M_n$	(k)	2,319
f_s DC1	(ksi)	3.9
f_s DC2	(ksi)	0.6
f_s DW	(ksi)	1.1
f_s ($\ell + IM$)	(ksi)	9.8
f_s (Service II)	(ksi)	18.4
$0.95R_h F_y f$	(ksi)	47.5
f_s (Total)(Strength I)	(ksi)	
$\phi_r F_n$	(ksi)	
Vf	(k)	21.8

	Abutment		Pier	
	Interior	Exterior	Interior	Exterior
LLDF	0.523	0.720	0.523	0.720
OCF		1.000		1.000
RDC1 (k)	49.2	39.1	49.2	39.1
RDC2 (k)	10.5	14.5	3.1	4.3
RDW (k)	19.4	26.8	5.7	7.9
R_{ℓ} (k)	77.5	106.7	30.7	42.3
R_{IM} (k)	16.3	22.5	7.5	10.4
RTotal (k)	172.9	209.6	96.2	104.0

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_{\ell} + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 $M_{\ell} + IM$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1/ S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2/ $S_c(3n)$ or MDC2/ $S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW/ $S_c(3n)$ or MDW/ $S_c(cr)$ as applicable.

f_s ($\ell + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
 $M_{\ell} + IM / S_c(n)$ or $M_{\ell} + IM / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
 $f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s(\ell + IM)$

$0.95R_h F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

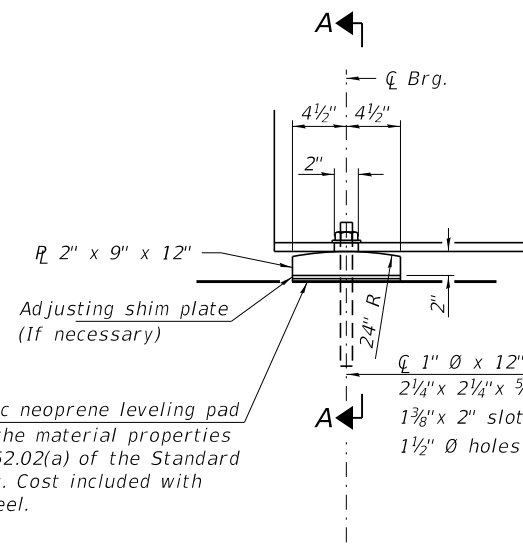
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 ($f_s DC1 + f_s DC2$) + 1.5 $f_s DW + 1.75 f_s(\ell + IM)$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

Vf: Maximum factored shear range in span computed according to Article 6.10.10.

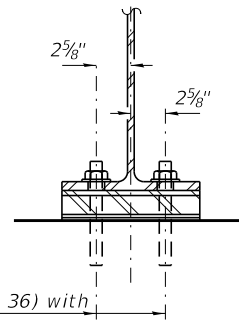
Note:
 M_{ℓ} and R_{ℓ} include the effects of centrifugal force and superelevation.

Notes:
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
All beams, diaphragms, connection plates and splices shall be M270 Grade 50W.
*Alternate channels (C15X50) are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
**3/4" HS bolts, 1 1/2" holes.
Two hardened washers required for each set of oversized holes.
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.

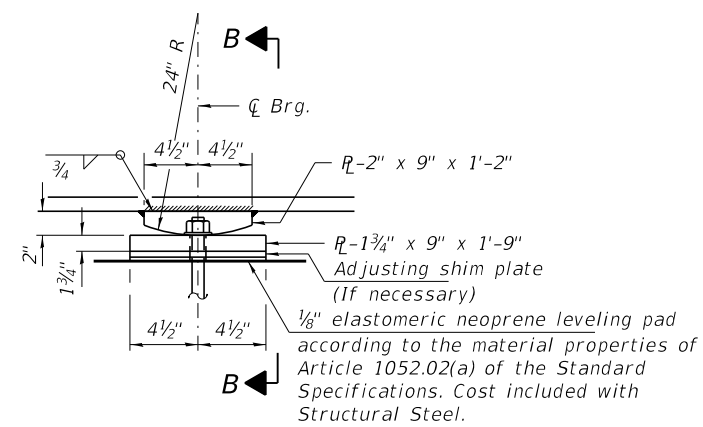


1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

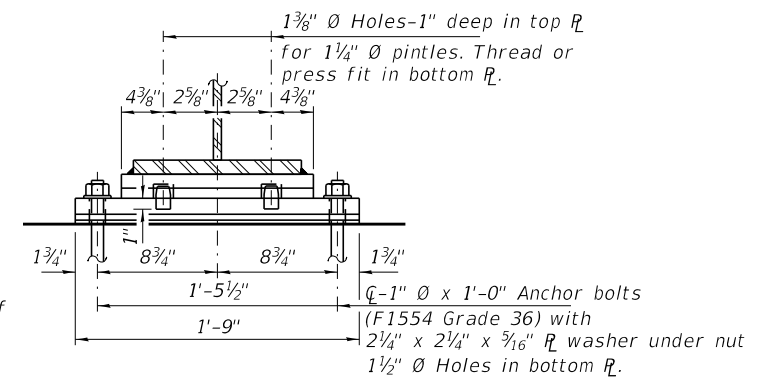
ELEVATION AT ABUTMENT



SECTION A-A



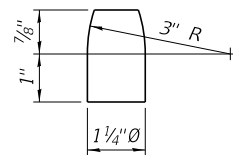
ELEVATION AT PIER



SECTION B-B

FIXED BEARING AT PIERS 1 & 2
(10 required)

FIXED BEARING AT ABUTMENTS
(10 required)



PINTLE

Notes:

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

The structural steel plates of the fixed bearings, including pintles, shall conform to the requirements of AASHTO M270 Grade 50W.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	40

FILE NAME = 200084-shi-bri.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -
	PLOT SCALE = \$SCALE\$	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 7/6/2022	CHECKED - S.W.M.	REVISED -

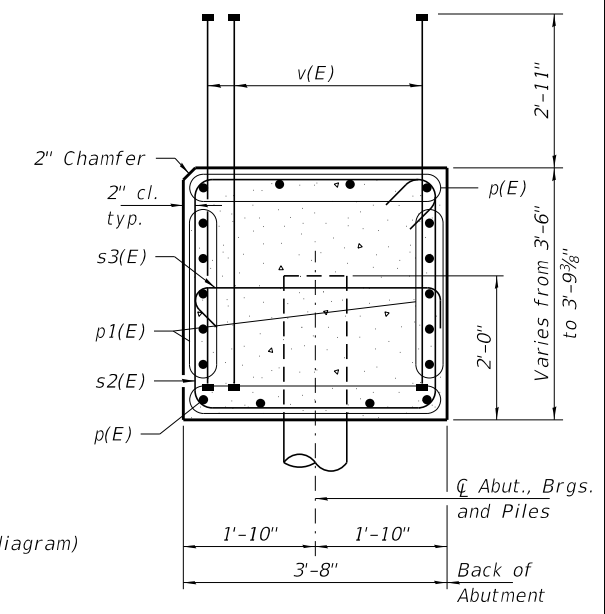
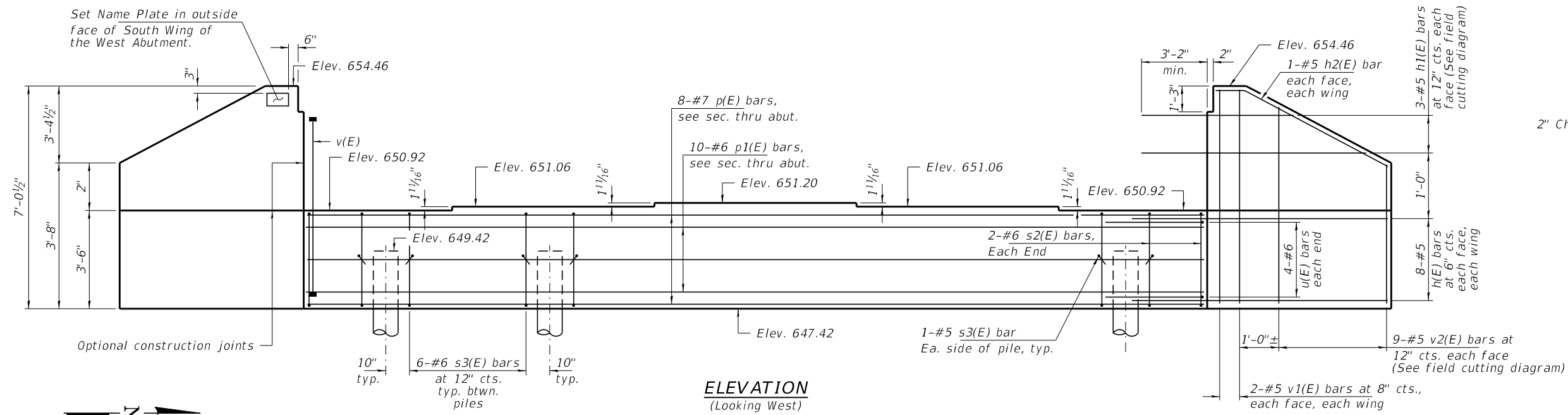
STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT

BEARING DETAILS
STRUCTURE NO. 088-3413

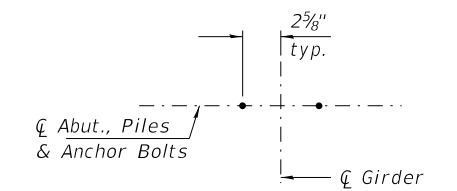
SHEET NO. 16 OF 22 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	26
C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		

ILLINOIS FED. AID PROJECT NMKM(136)



SEC. THRU ABUT.

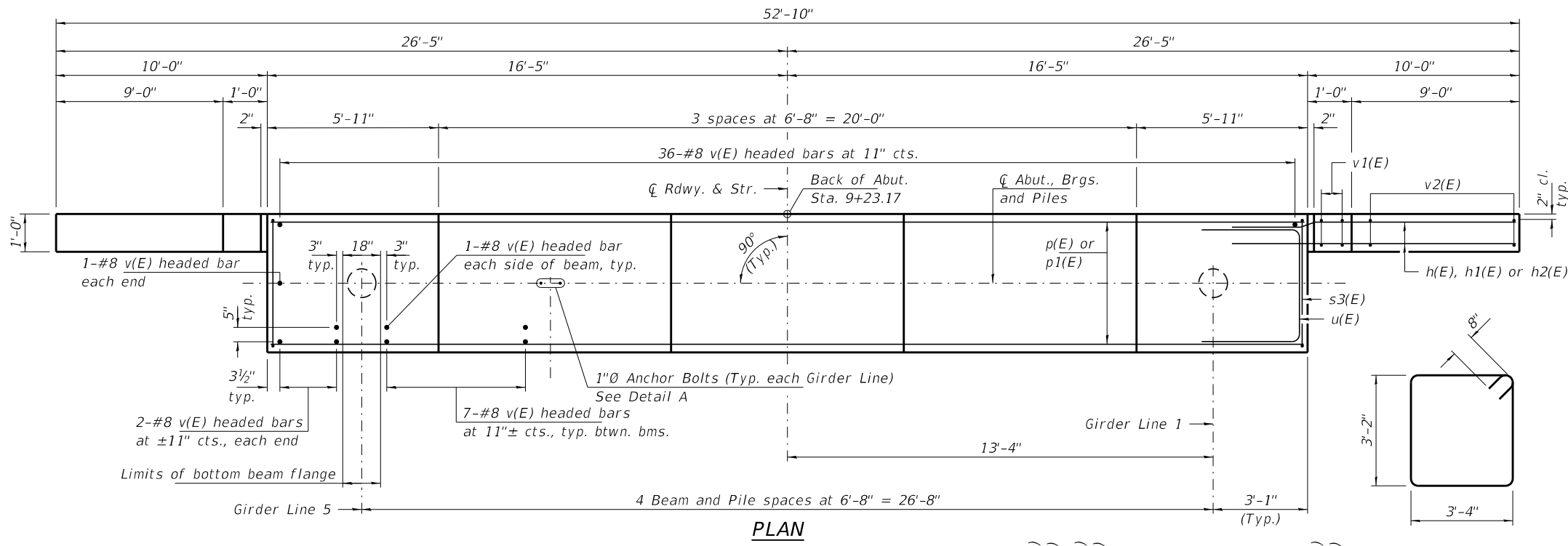


DETAIL A

BILL OF MATERIAL - W. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	32	#5	13'-0"	—
h1(E)	6	#5	18'-10"	—
h2(E)	4	#5	10'-8"	—
p(E)	8	#7	32'-6"	—
p1(E)	6	#6	32'-6"	—
s2(E)	32	#6	15'-0"	⊞
s3(E)	10	#5	4'-8"	⊞
u(E)	8	#6	11'-10"	⊞
v(E)	82	#8	6'-1"	—
v1(E)	8	#5	8'-0"	—
v2(E)	18	#5	11'-3"	—
Concrete Structures			Cu. Yd.	19.8
Protective Coat			Sq. Yd.	13
Reinf. Bars, Epoxy Coated			Pound	3,940
Furn. Metal Shell Piles 14"x0.312"			Foot	176
Driving Piles			Foot	176
Name Plates			Each	1
Test Pile Metal Shells			Each	1

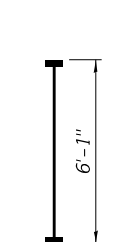
Notes:
 Pour steps monolithically with cap.
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 For details of piles see sheet 20 of 22.



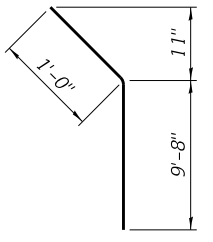
PLAN

PILE DATA
 Type: 14"x0.312" Metal Shell Piles
 Nominal Required Bearing: 274 Kips/Pile
 Factored Resistance Available: 150 Kips/Pile
 Est. Length: 44 Ft/Pile
 No. Production Piles: 4
 No. Test Piles: 1

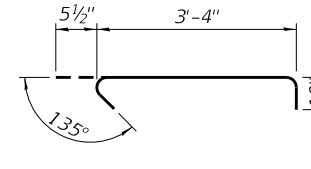
Notes: One test pile shall be driven in a permanent location at the West Abutment.



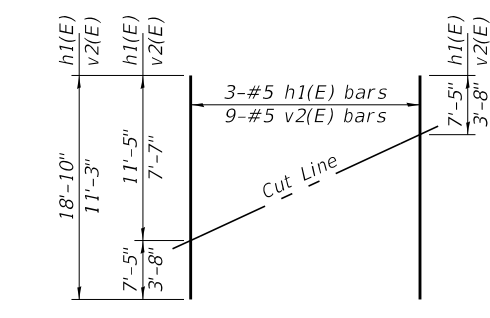
BAR v(E)
(Headed)



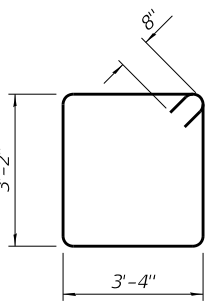
BAR h2(E)



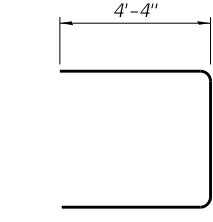
BAR s3(E)



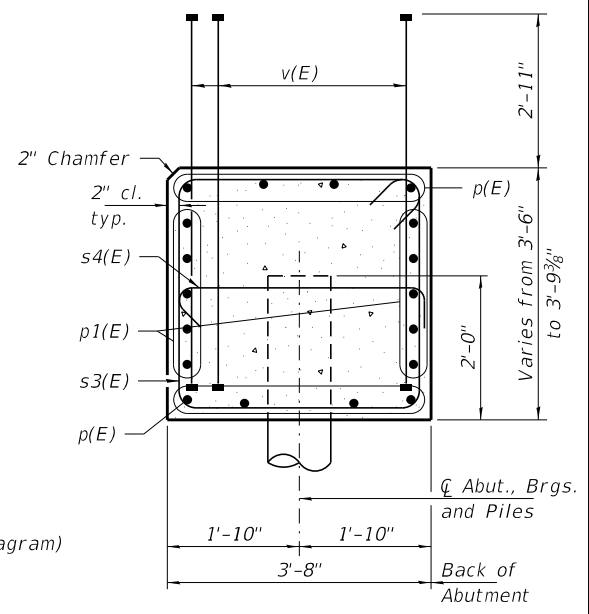
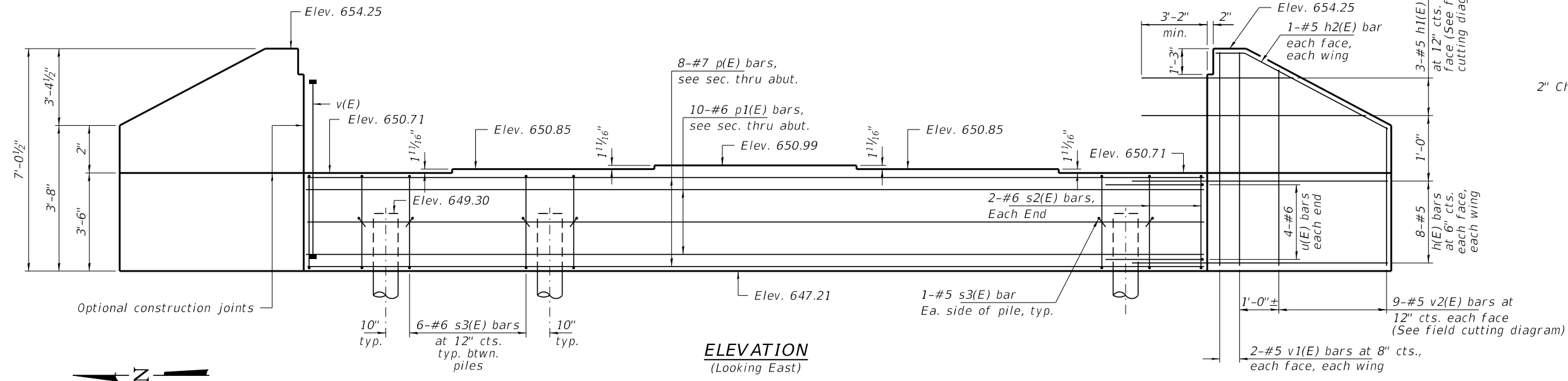
FIELD CUTTING DIAGRAM
 Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.



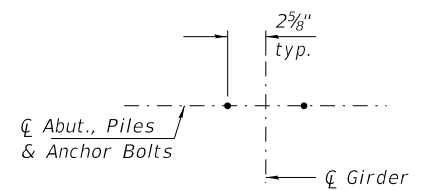
BAR s2(E)



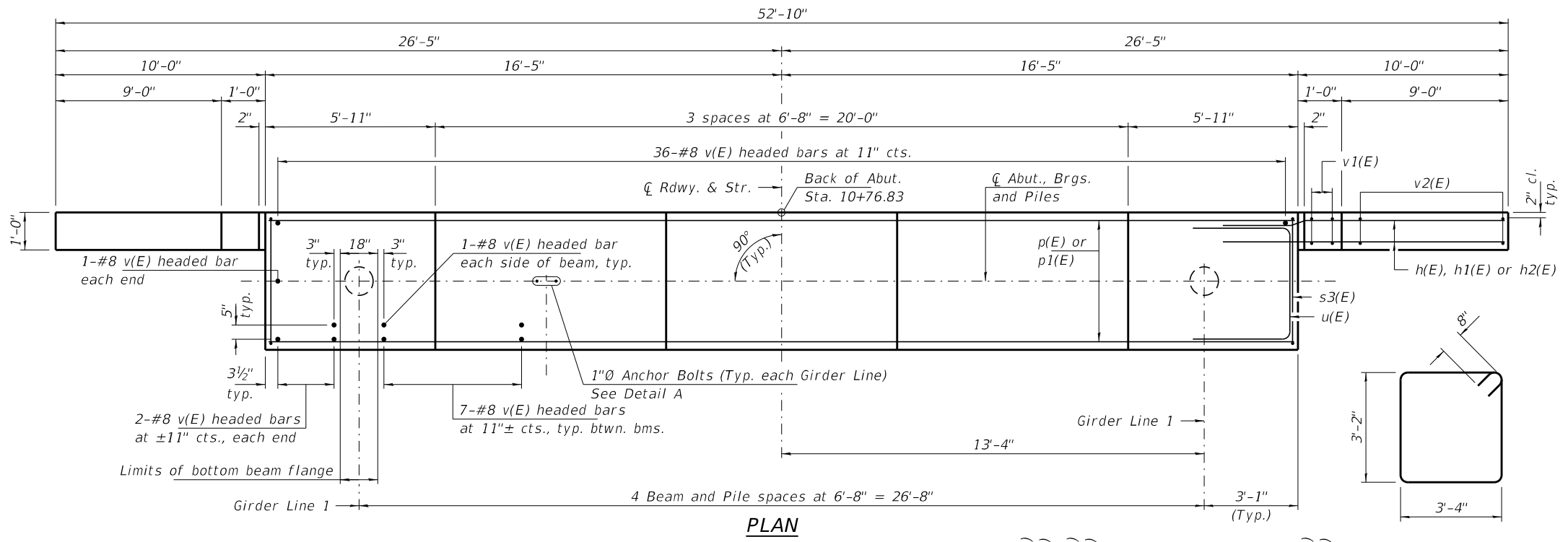
BAR u(E)



SEC. THRU ABUT.



DETAIL A

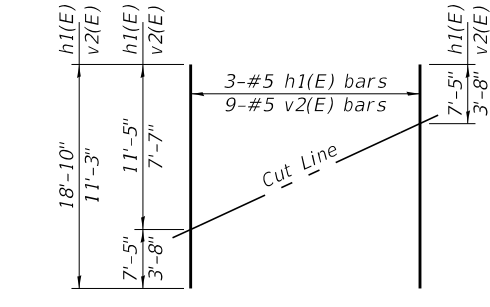
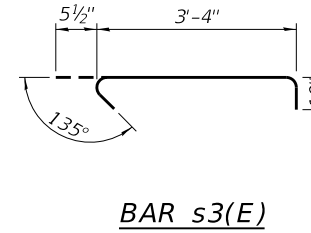
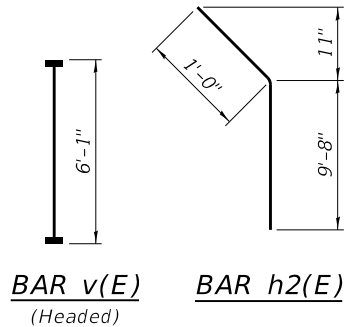


PLAN

BILL OF MATERIAL - E. ABUT.

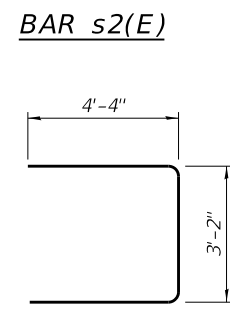
BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	32	#5	13'-0"	—
h1(E)	6	#5	18'-10"	—
h2(E)	4	#5	10'-8"	—
p(E)	8	#7	32'-6"	—
p1(E)	6	#6	32'-6"	—
s2(E)	32	#6	15'-0"	□
s3(E)	10	#5	4'-8"	┌
u(E)	8	#6	11'-10"	┌
v(E)	82	#8	6'-1"	—
v1(E)	8	#5	8'-0"	—
v2(E)	18	#5	11'-3"	—
Concrete Structures			Cu. Yd.	19.8
Protective Coat			Sq. Yd.	13
Reinf. Bars, Epoxy Coated			Pound	3,940
Furn. Metal Shell Piles 14"x0.312"			Foot	330
Driving Piles			Foot	330

PILE DATA
 Type: 14"x0.312" Metal Shell Piles
 Nominal Required Bearing: 274 Kips/Pile
 Factored Resistance Available: 150 Kips/Pile
 Est. Length: 66 Ft/Pile
 No. Production Piles: 5
 No. Test Piles: 0



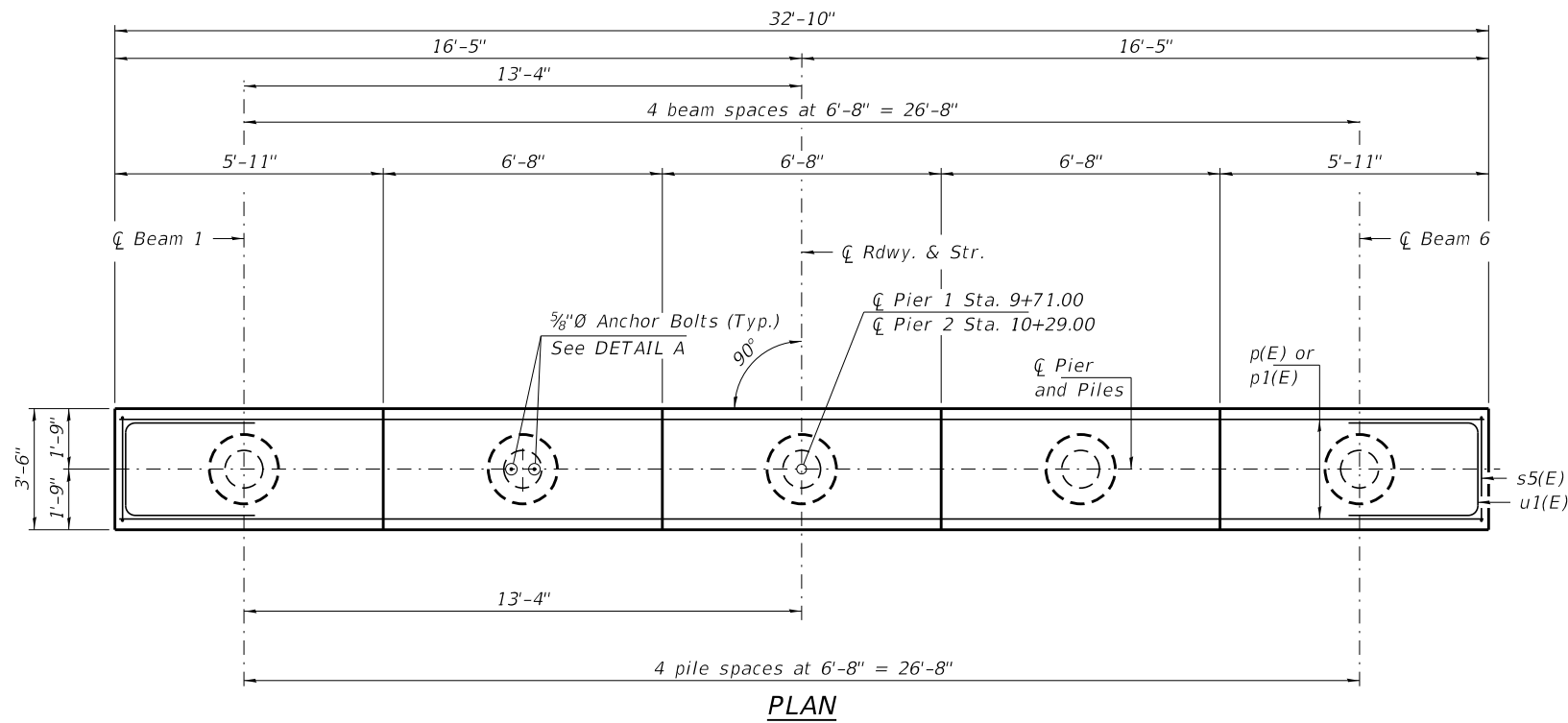
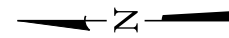
FIELD CUTTING DIAGRAM

Order h1(E) and v2(E) full length. Cut as shown and use remainder of bars in opposite wing.

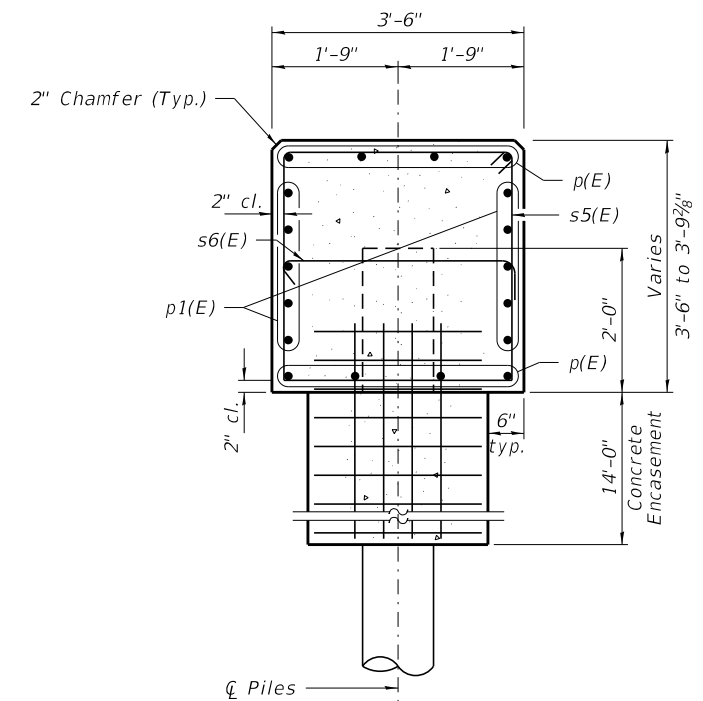


BAR u(E)

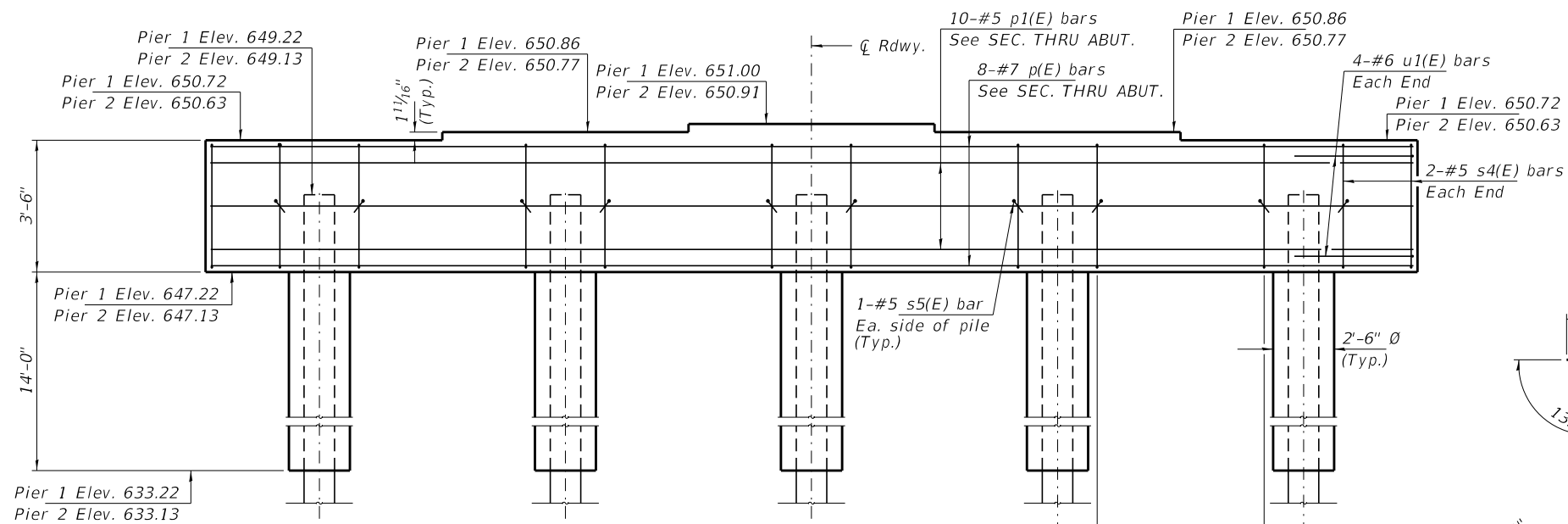
Notes:
 Pour steps monolithically with cap.
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 For details of piles see sheet 20 of 22.



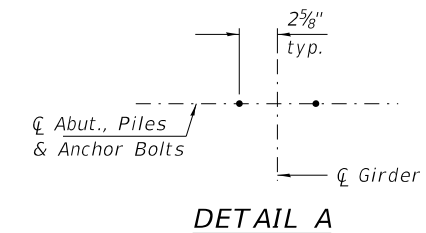
PLAN



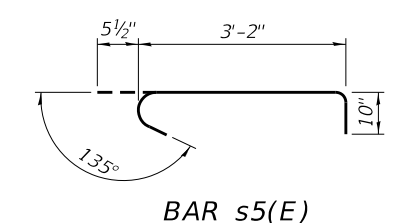
SEC. THRU PIER



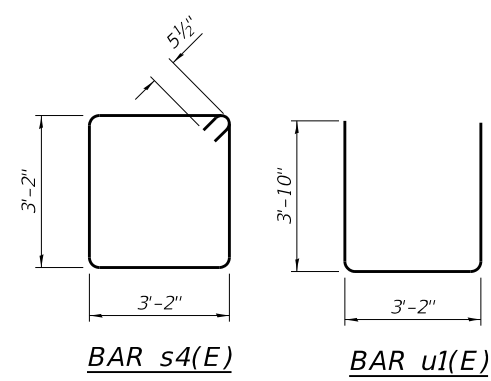
ELEVATION
(Looking East)



DETAIL A



BAR s5(E)



BAR s4(E)

BAR u1(E)

PILE DATA

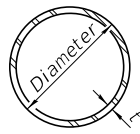
Type: 14"x0.312" Metal Shell Piles
 Nominal Required Bearing: 440 Kips/Pile
 Factored Resistance Available: 210 Kips/Pile
 Est. Length: 78 Ft/Pile (Pier 1)
 Est. Length: 96 Ft/Pile (Pier 2)
 No. Production Piles: 9
 No. Test Piles: 1

Notes: One test pile shall be driven in a permanent location at Pier 2.

BILL OF MATERIAL - 2 PIERS

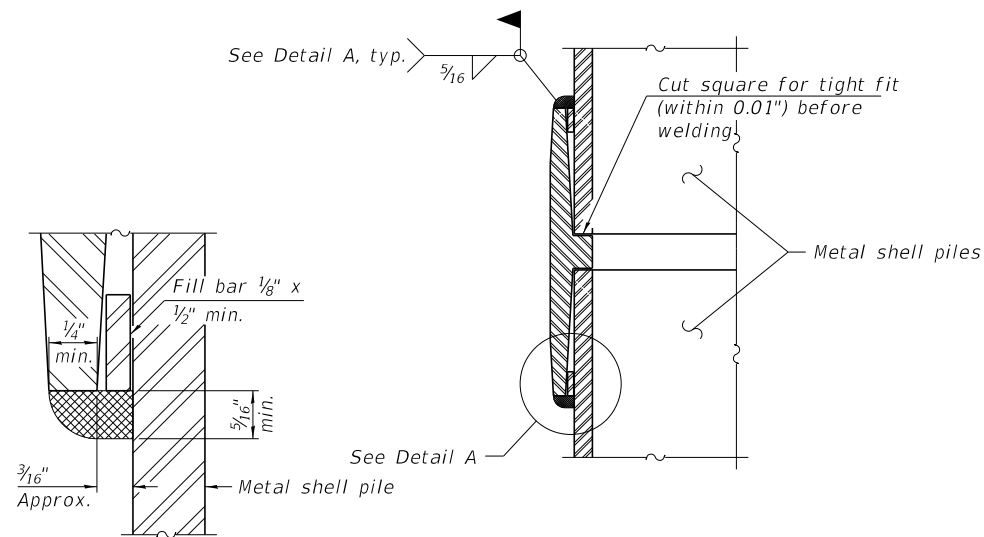
BAR	NO.	SIZE	LENGTH	SHAPE
p(E)	16	#7	32'-6"	—
p1(E)	20	#5	32'-6"	—
s4(E)	56	#5	13'-7"	□
s5(E)	20	#5	4'-6"	┌
u1(E)	16	#6	10'-10"	U
Concrete Structures			Cu. Yd.	15.0
Concrete Encasement			Cu. Yd.	20.0
Reinf. Bars, Epoxy Coated			Pound	2,890
Furn. Metal Shell Piles 14"x0.312"			Foot	774
Driving Piles			Foot	774
Test Pile Metal Shell			Each	1

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 20 of 22.

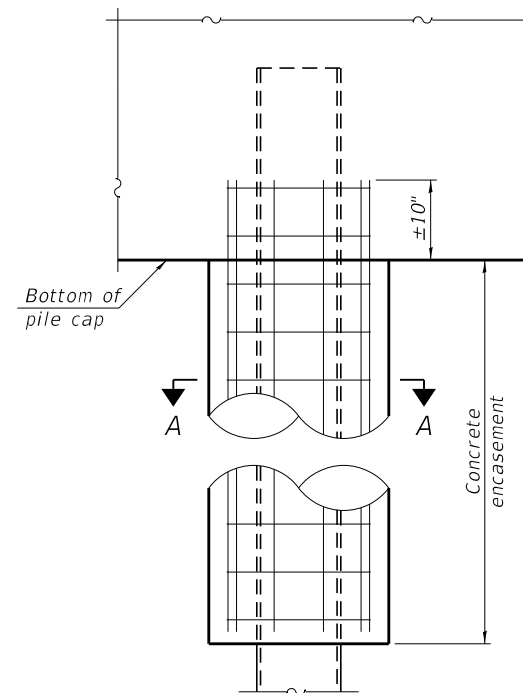


METAL SHELL PILE TABLE

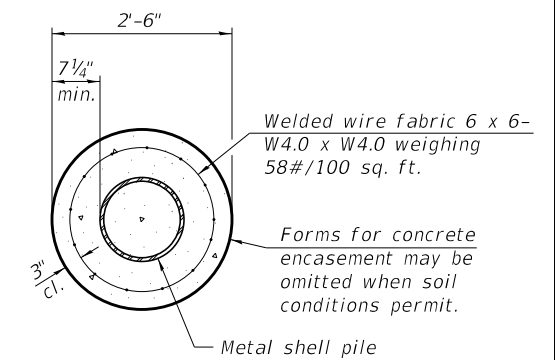
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



DETAIL A

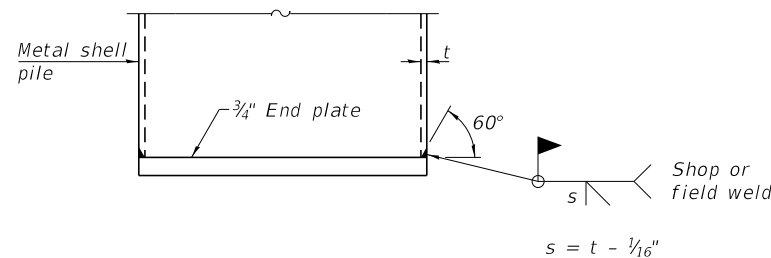


ELEVATION



SECTION A-A

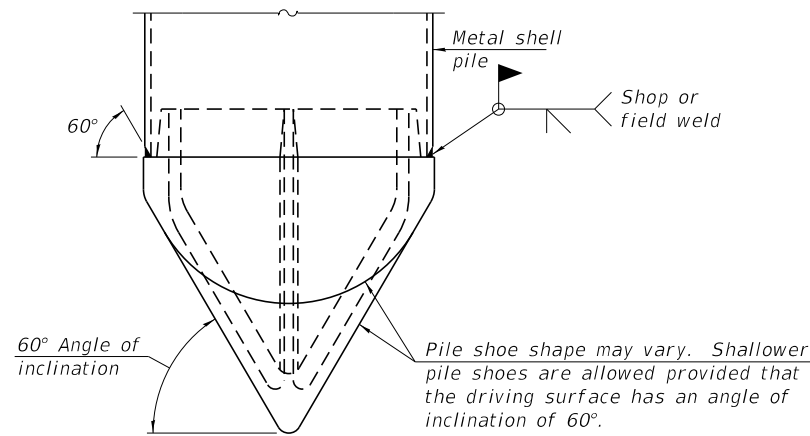
INDIVIDUAL PILE CONCRETE ENCASUREMENT
(When specified)



END PLATE ATTACHMENT

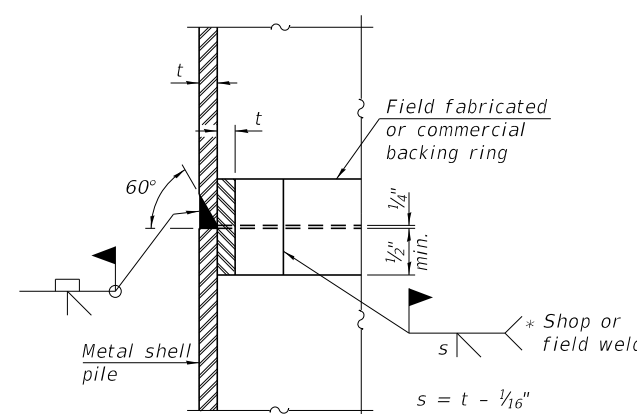
WELDED COMMERCIAL SPLICE

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.



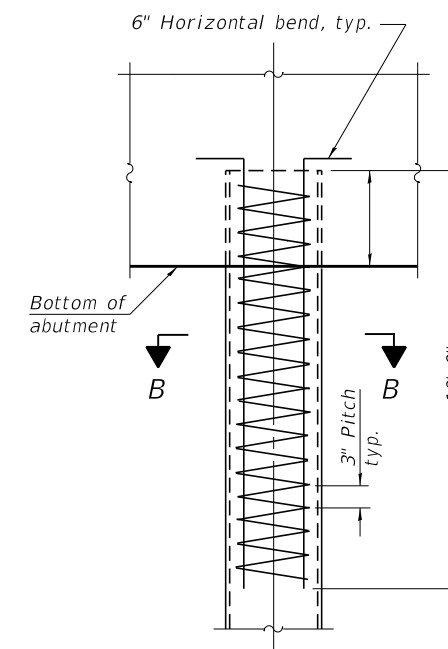
PILE SHOE ATTACHMENT

(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 80-50 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).

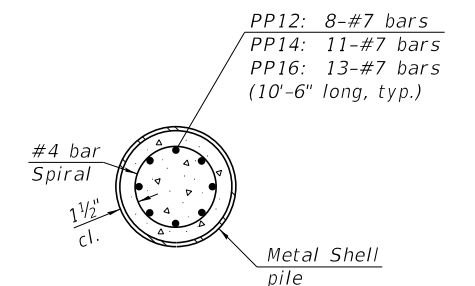


COMPLETE PENETRATION WELD SPLICE

* 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.



ELEVATION



SECTION B-B

REINFORCEMENT AT ABUTMENTS
(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

F-MS 1-1-2020

FILE NAME = 200084-shi-bridge.dgn	USER NAME = dfoley	DESIGNED - P.R.R.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	METAL SHELL PILE DETAILS STRUCTURE NO. 088-3413	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3035 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORP. 184.000959	PLOT SCALE = \$SCALE\$	CHECKED - S.W.M.	REVISED -			1372	17-00183-00-BR	STARK	50	30
	PLOT DATE = 7/6/2022	DRAWN - R.D.H.	REVISED -			C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
		CHECKED - S.W.M.	REVISED -			ILLINOIS		FED. AID PROJECT NMKM(136)		



SOIL BORING LOG

Date 5/18/20

ROUTE FAS 1372-CH13 DESCRIPTION North Valley Road Over Camp Run Creek LOGGED BY Krusemark
SECTION 17-00183-00-BR LOCATION Valley Township, SEC. 8, TWP. T12N, RNG. R7E, 4th PM,
COUNTY Stark DRILLING METHOD Hollow Stem Augers HAMMER TYPE CME Auto

Table with columns for Depth (ft), Blows (B), Penetration (P), and Soil Description. Includes data for BITUMINOUS CONCRETE, CRUSHED LIMESTONE, and various soil types like SILTY CLAY LOAM and GRAVEL.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 5/18/20

ROUTE FAS 1372-CH13 DESCRIPTION North Valley Road Over Camp Run Creek LOGGED BY Krusemark
SECTION 17-00183-00-BR LOCATION Valley Township, SEC. 8, TWP. T12N, RNG. R7E, 4th PM,
COUNTY Stark DRILLING METHOD Hollow Stem Augers HAMMER TYPE CME Auto

Table with columns for Depth (ft), Blows (B), Penetration (P), and Soil Description. Includes data for Dense Gray Fine-To Coarse-Grained SAND and Fine GRAVEL, Stiff Gray SILT, and Stiff Gray SILTY CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



SOIL BORING LOG

Date 5/18/20

ROUTE FAS 1372-CH13 DESCRIPTION North Valley Road Over Camp Run Creek LOGGED BY Krusemark
SECTION 17-00183-00-BR LOCATION Valley Township, SEC. 8, TWP. T12N, RNG. R7E, 4th PM,
COUNTY Stark DRILLING METHOD Hollow Stem Augers HAMMER TYPE CME Auto

Table with columns for Depth (ft), Blows (B), Penetration (P), and Soil Description. Includes data for Stiff Gray SILT LOAM, Dense Dark Gray Fine-To Medium-Grained SAND With Some Silt, and Very Stiff Gray SILT LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

BORING-01



Illinois Department of Transportation
Division of Highways
Whitney & Associates

SOIL BORING LOG

Page 1 of 3

Date 5/19/20

ROUTE FAS 1372-CH13 DESCRIPTION North Valley Road Over Camp Run Creek LOGGED BY Krusemark
SECTION 17-00183-00-BR LOCATION Valley Township, SEC. 17, TWP. T12N, RNG. R7E, 4th PM.
COUNTY Stark DRILLING METHOD Hollow Stem Augers HAMMER TYPE CME Auto

STRUCT. NO.	Station	DEPTH	B	L	U	M	Surface Water Elev.	Stream Bed Elev.	DEPTH	B	U	M
088-3113		(ft)	(/ft)	(tsf)	(%)		ft	ft	(ft)	(/ft)	(tsf)	(%)
Groundwater Elev.: First Encounter 628.5 174.2 ft Upon Completion 636.7 182.4 ft After - Hrs. - ft												
BITUMINOUS CONCRETE (7.0') 198.62												
CRUSHED LIMESTONE (18.0') 852.92												
Stiff, Brown CLAY LOAM (Fill) 197.70												
Stiff, Brown CLAY LOAM (Fill) 652.0												
3												
3 1.3 17												
3 B												
DD = 107 PCF												
195.20												
Medium, Brown and Dark Brown CLAY LOAM With Occasional Fine Gravel (Fill) 649.5												
3												
2 0.8 21												
3 B												
DD = 101 PCF												
192.20												
Stiff, Black SILTY CLAY LOAM With Trace of Organic Matter 646.5												
2												
3 1.1 30												
5 B												
DD = 87 PCF												
-10												
3 1.0 34												
4 B												
DD = 83 PCF												
187.70												
Very Loose, Gray, Medium- To Coarse-Grained SAND With Considerable Silty Clay Loam 642.0												
2												
1 - 17												
1												
165.70												
Very Loose, Gray, Fine- To Coarse-Grained SAND With Considerable Silty Clay Loam 639.0												
2												
1 - 15												
1												
182.28												
Loose, Black DECAYED WOOD 636.5												
2												
3 -												
4												
180.20												
634.5												
-20												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Whitney & Associates

SOIL BORING LOG

Page 2 of 3

Date 5/19/20

ROUTE FAS 1372-CH13 DESCRIPTION North Valley Road Over Camp Run Creek LOGGED BY Krusemark
SECTION 17-00183-00-BR LOCATION Valley Township, SEC. 17, TWP. T12N, RNG. R7E, 4th PM.
COUNTY Stark DRILLING METHOD Hollow Stem Augers HAMMER TYPE CME Auto

STRUCT. NO.	Station	DEPTH	B	L	U	M	Surface Water Elev.	Stream Bed Elev.	DEPTH	B	U	M
088-3113		(ft)	(/ft)	(tsf)	(%)		ft	ft	(ft)	(/ft)	(tsf)	(%)
Groundwater Elev.: First Encounter 628.5 174.2 ft Upon Completion 636.7 182.4 ft After - Hrs. - ft												
Medium-Density, Gray, Medium- To Coarse-Grained SAND With Occasional Fine Gravel (continued) 177.20												
Loose, Gray, Fine- To Coarse-Grained SAND and Fine GRAVEL 631.5												
2												
3 -												
5												
175.20												
Loose, Gray, Fine-Grained SAND 629.5												
2												
3 -												
4												
-46												
8												
10												
12												
151.20												
Medium-Density, Gray, Fine- To Coarse-Grained SAND 605.5												
7												
8 -												
10												
130.20												
Stiff, Gray SILT 584.5												
4												
5 1.2 26												
6 B												
7 B												
DD = 99 PCF												
145.70												
Medium-Density, Gray, Fine- To Medium-Grained SAND 600.0												
7												
9 -												
10												
125.70												
Very Stiff, Gray SILTY CLAY LOAM 580.0												
7												
8 2.1 23												
10 B												
DD = 165 PCF												
121.20												
Stiff, Gray SILTY CLAY LOAM 575.5												
7												
8 -												
10												
-80												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Whitney & Associates

SOIL BORING LOG

Page 3 of 3

Date 5/19/20

ROUTE FAS 1372-CH13 DESCRIPTION North Valley Road Over Camp Run Creek LOGGED BY Krusemark
SECTION 17-00183-00-BR LOCATION Valley Township, SEC. 17, TWP. T12N, RNG. R7E, 4th PM.
COUNTY Stark DRILLING METHOD Hollow Stem Augers HAMMER TYPE CME Auto

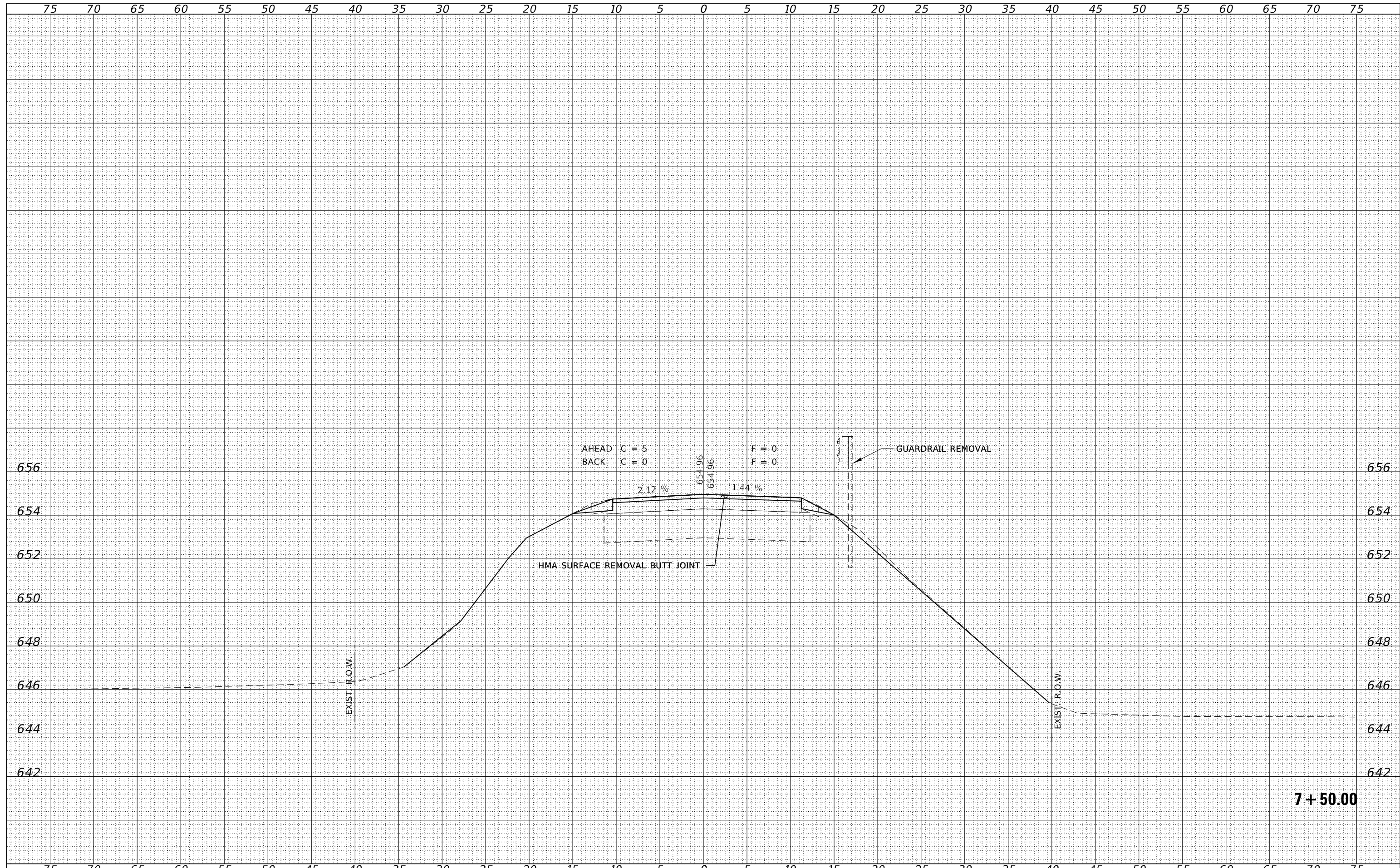
STRUCT. NO.	Station	DEPTH	B	L	U	M	Surface Water Elev.	Stream Bed Elev.	DEPTH	B	U	M
088-3113		(ft)	(/ft)	(tsf)	(%)		ft	ft	(ft)	(/ft)	(tsf)	(%)
Groundwater Elev.: First Encounter 628.5 174.2 ft Upon Completion 636.7 182.4 ft After - Hrs. - ft												
Stiff, Gray SILTY CLAY LOAM 653.5 (continued) 5												
5 1.6 26												
6 B												
DD = 101 PCF												
116.20												
Stiff, Gray SILT 570.5												
95.70												
Very Stiff, Gray SILTY CLAY LOAM 550.0												
8												
1.4 26												
8 P												
-105												
8												
2.3 20												
16 P												
93.20												
End of Boring 547.5												
DD = 107 PCF												
111.20												
Stiff, Dark Gray SILTY CLAY LOAM 565.5												
4												
5 1.1 28												
6 B												
7 B												
DD = 97 PCF												
-90												
5												
6 1.9 25												
7 B												
DD = 102 PCF												
106.70												
Very Stiff, Dark Gray SILTY CLAY LOAM 561.0												
6												
8 2.1 25												
14 P												
DD = 162 PCF												
-96												
6												
8 2.1 25												
14 P												
DD = 162 PCF												
101.20												
Stiff, Gray SILTY CLAY LOAM 555.5												
7												
8 -												
10												
-100												

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

BORING-02

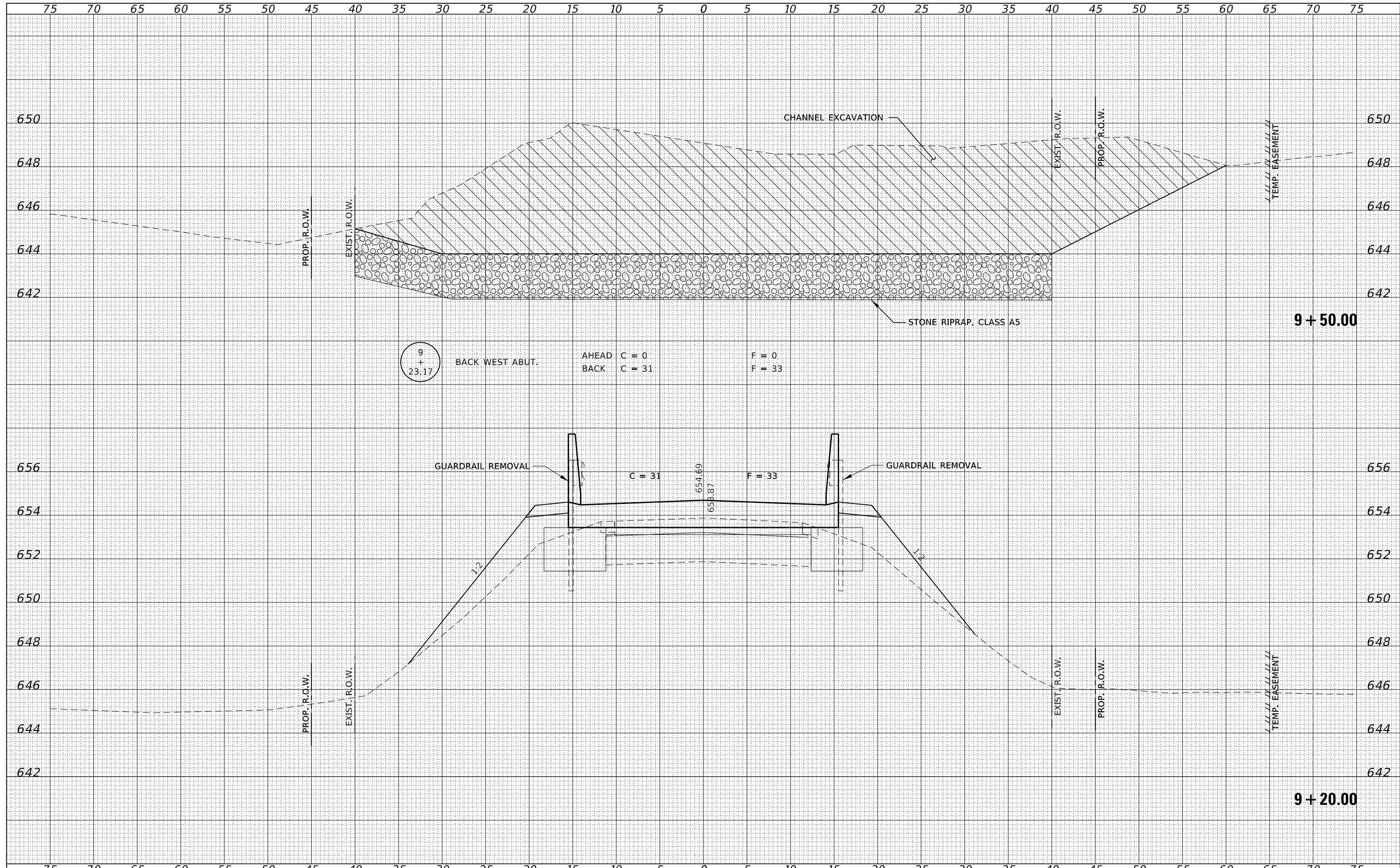
DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED



DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



9
+
23.17

BACK WEST ABUT.

AHEAD C = 0 F = 0
BACK C = 31 F = 33

GUARDRAIL REMOVAL

C = 31

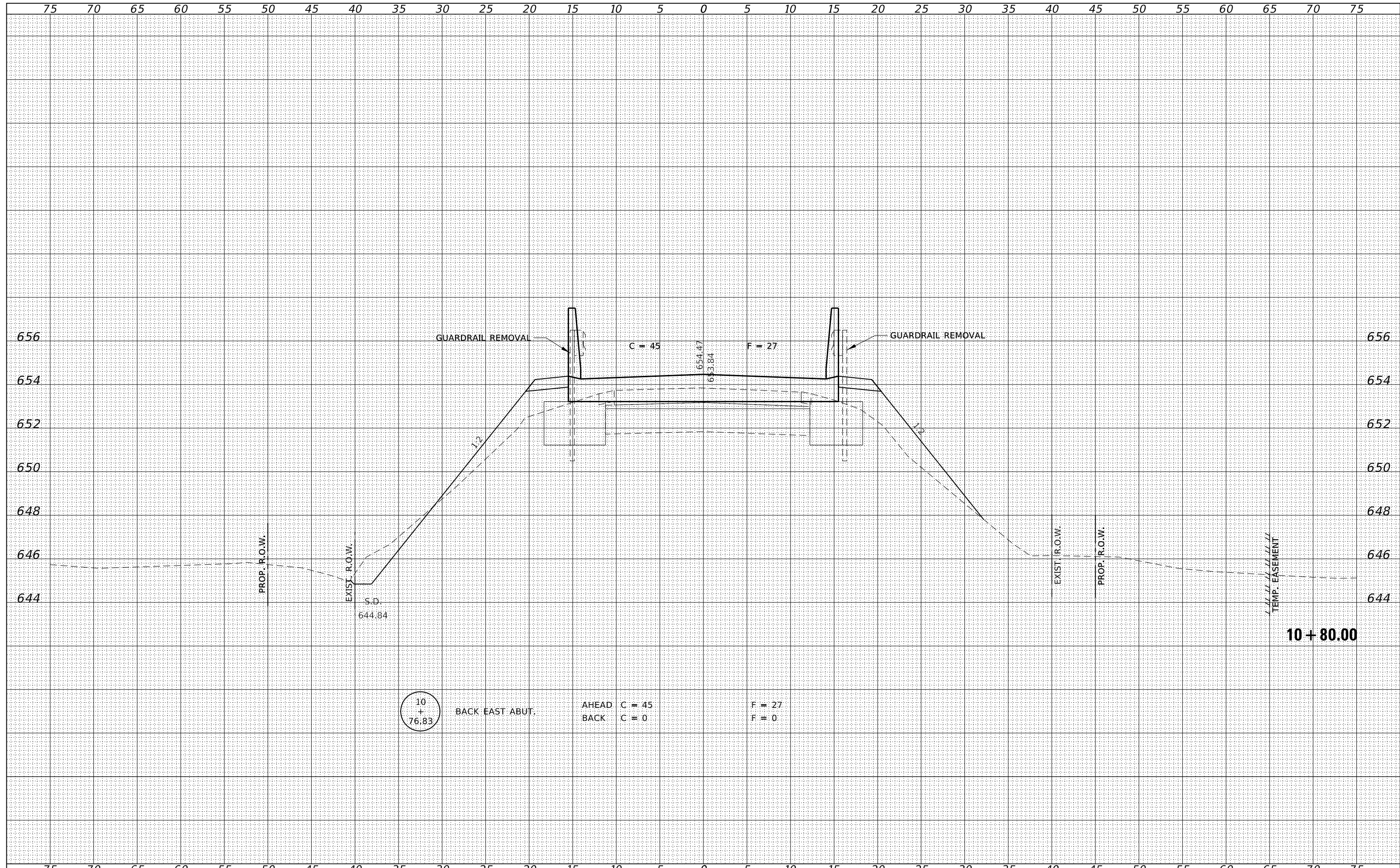
F = 33

GUARDRAIL REMOVAL

FILE NAME = 200084-chn-vssheets.dgn	USER NAME = dfoley	DESIGNED - S.A.A.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	STATION CROSS SECTIONS			F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3885 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. CORP. 184.009958		DRAWN - T.W.K.	REVISED -		1372	17-00183-00-BR	STARK	50	39			
PLOT SCALE = \$SCALE\$		CHECKED - J.W.F.	REVISED -		C.H. 13 / NORTH VALLEY ROAD			CONTRACT NO. 89752				
PLOT DATE = 7/6/2022		DATE - 06/30/2022	REVISED -		SCALE: 5H:2V	SHEET NO. 7 OF 16 SHEETS	STA. 9+20.00 TO STA. 9+50.00	ILLINOIS FED. AID PROJECT NMKM(136)				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME = 200084-cht-xssheets.dgn
 USER NAME = dfoley
 DESIGNED - S.A.A.
 DRAWN - T.W.K.
 CHECKED - J.W.F.
 DATE - 06/30/2022
 PLOT SCALE = \$SCALES
 PLOT DATE = 7/6/2022

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

**STATE OF ILLINOIS
 STARK COUNTY HIGHWAY DEPARTMENT**

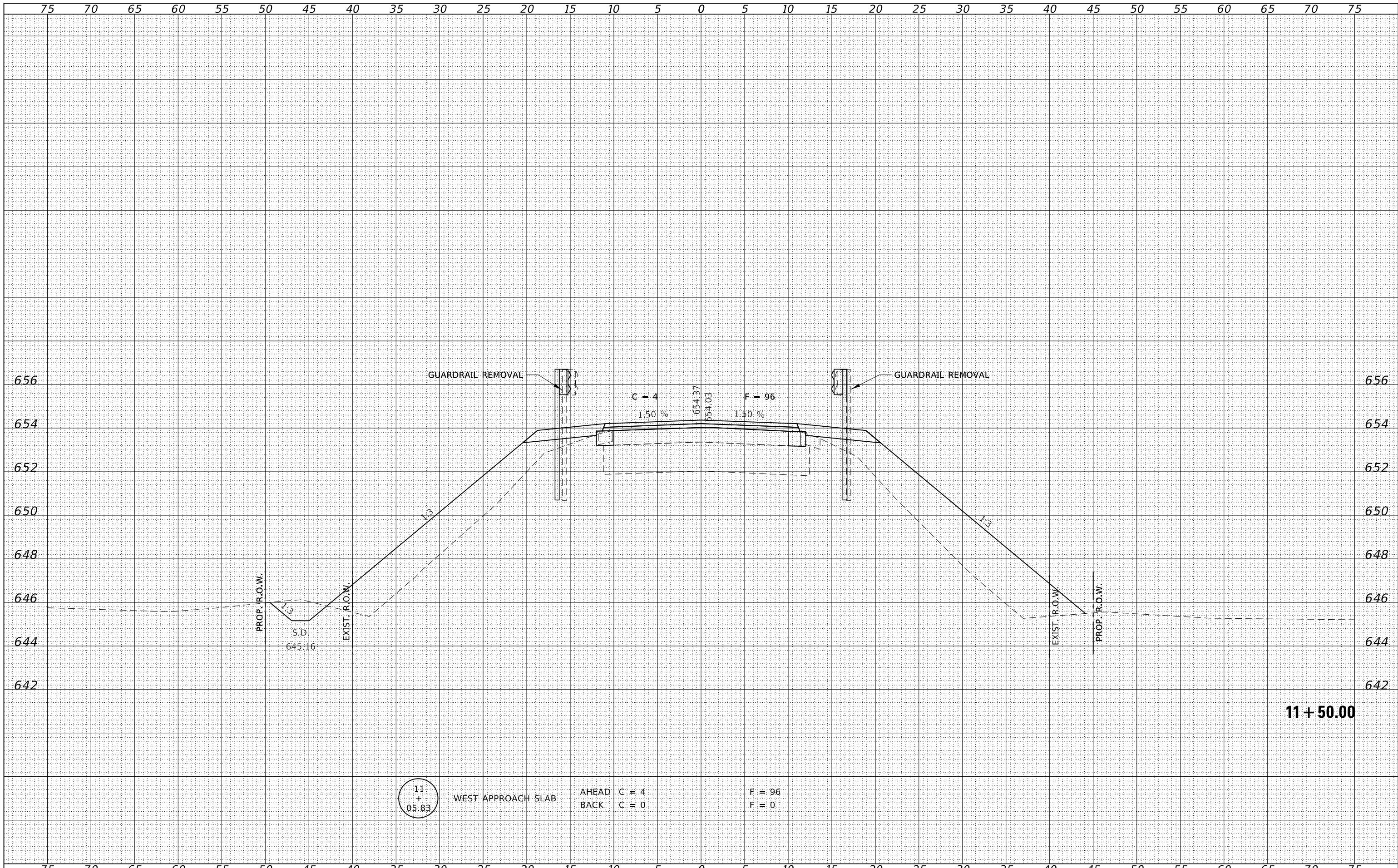
STATION CROSS SECTIONS

SCALE: 5H:2V
 SHEET NO. 9 OF 16 SHEETS
 STA. 10+80.00 TO STA. 10+80.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1372	17-00183-00-BR	STARK	50	41
C.H. 13 / NORTH VALLEY ROAD			CONTRACT NO. 89752	
ILLINOIS FED. AID PROJECT NKKM(136)				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



11 + 50.00








11
+
05.83

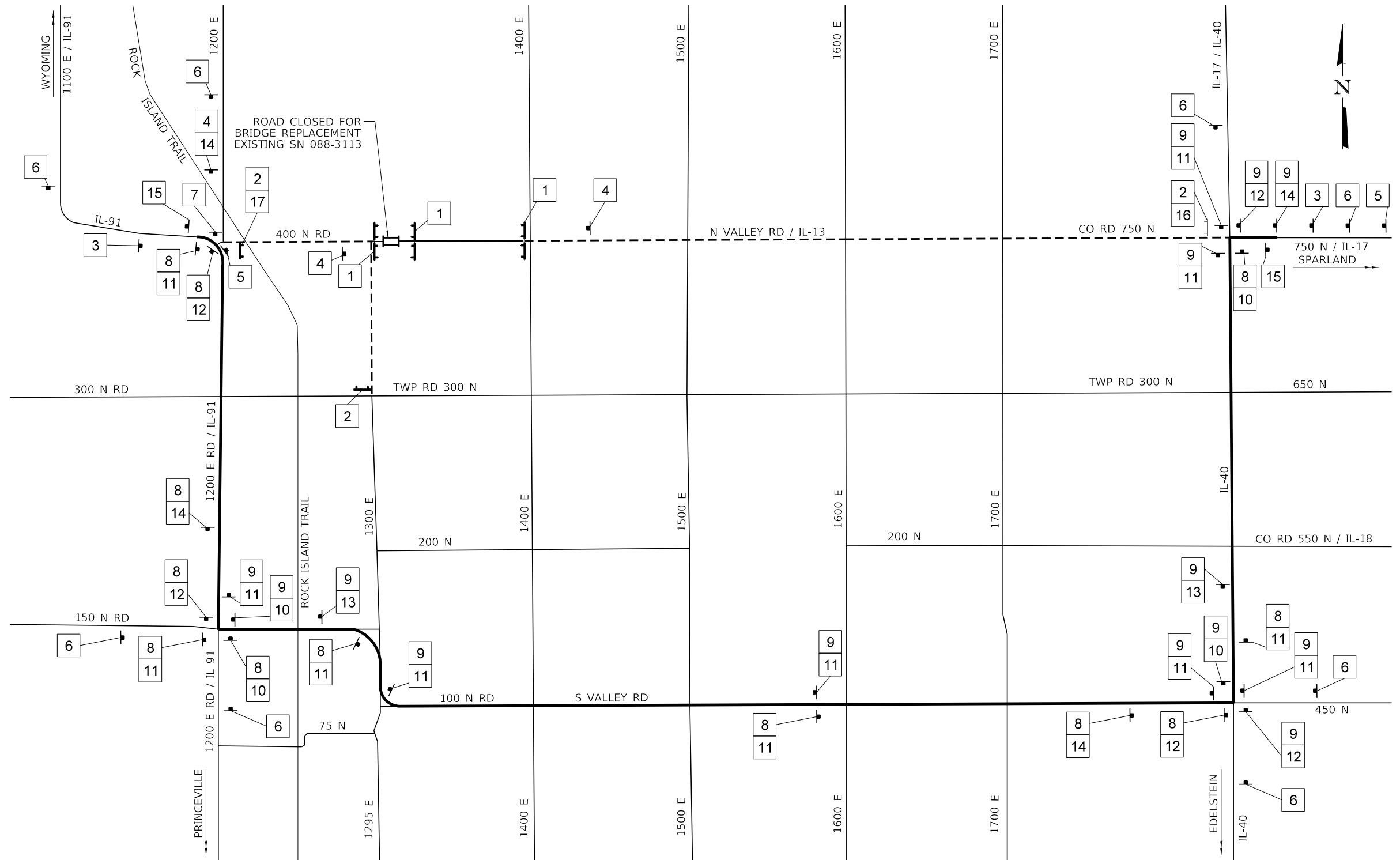
WEST APPROACH SLAB

AHEAD C = 4 F = 96
BACK C = 0 F = 0

NORTH VALLEY ROAD DETOUR PLAN

LEGEND

-  OPEN ROAD
-  DETOUR ROUTE
-  ROAD OPEN TO LOCAL TRAFFIC ONLY
-  SERIES OF DETOUR SIGNS WITH DIRECTION AND ROAD NAME PLATES, NUMBER DENOTES SIGN TYPE
-  SINGLE DETOUR SIGN, NUMBER DENOTES TYPE
-  TYPE III BARRICADE WITH AMBER FLASHING LIGHTS
-  PROPOSED DETOUR SIGN



SPECIAL DETOUR NOTES

1. THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO THE DETOUR GENERAL NOTES.
2. THE TOTAL LENGTH OF THE DETOUR IS 12.4 MILES.
3. ALL DETOUR SIGNS, SHALL BE COMPLETELY COVERED AT ALL TIMES THE ROADWAY IS NOT CLOSED TO TRAFFIC.
4. PORTABLE/CHANGEABLE ELECTRONIC MESSAGE BOARDS SHALL BE USED IN ADVANCE OF THE PROJECT ACCORDING TO IDOT STANDARDS AND SHALL BE IN PLACE A MINIMUM OF 14 DAYS PRIOR TO COMMENCING THE WORK AND REMAIN THROUGHOUT THE ROADWAY CONSTRUCTION WORK.
5. ROAD CLOSURE SHALL BE LIMITED TO 70 WORKING DAYS. SEE SPECIAL PROVISIONS.

FILE NAME = 200084-shd-Detour.dgn	USER NAME = dfoley	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	DETOUR PLAN	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
								1372	17-00183-00-BR	STARK	50	49
PLOT SCALE = \$SCALE\$ CHECKED - S.W.M. DATE - 06/30/2022								C.H. 13 / NORTH VALLEY ROAD		CONTRACT NO. 89752		
PLOT DATE = 7/8/2022								ILLINOIS		FED. AID PROJECT		

NOTES

- ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JAN. 1, 2022", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 2020", THE DETAILS IN THESE PLANS, AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- THE CONTRACTOR SHALL SCHEDULE ALL WORK IN AN EXPEDIENT MANNER TO REDUCE THE LENGTH OF TIME THAT THE DETOUR NEEDS TO BE IN EFFECT. SEE SPECIAL PROVISIONS TRAFFIC CONTROL PLAN.
- THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES FOR APPROVAL OF SUCH DATE. IF REQUESTED BY THE CONTRACTOR IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT THE ENGINEER WILL FIELD LOCATE THE POSITIONS OF ANY SIGNS.
- IF DEEMED NECESSARY BY THE ENGINEER A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR SHALL BE HELD AT LEAST TWO WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT.
- LONGITUDINAL DIMENSIONS SHOWN ON THESE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
- THE ROAD SHALL NOT BE CLOSED UNTIL ALL SIGNING IS ERECTED IN ACCORDANCE WITH THE DETOUR PLAN AND INSPECTED AND APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED BY HIM ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.
- THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.
- ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE DETOUR IS IN EFFECT SHALL BE COMPLETELY COVERED BY THE CONTRACTOR, IN A MANNER APPROVED BY THE ENGINEER.
- ALL DETOUR SIGNING SHALL BE POST MOUNTED IF THE ROAD CLOSURE IS TO EXCEED FOUR (4) CALENDAR DAYS.
- THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ALL BARRICADES SHALL HAVE REFLECTORIZED STRIPING ON BOTH SIDES OF THE BARRICADES. THE TYPE III BARRICADES USED AT THE POINT OF CLOSURE TO THRU TRAFFIC SHALL NOT EXCEED 8'-0" IN WIDTH EACH, FOR A SINGLE APPROACH LANE.
- THE "ROAD CLOSED" (R11-2) AND THE "ROADCLOSED TO THRU TRAFFIC" (R11-4) SIGNS SHALL BE MOUNTED ABOVE THE TOP OF THE BARRICADE. ALL TYPE III BARRICADES SHALL HAVE TWO (2) AMBER TYPE A-LOW INTENSITY FLASHING LIGHTS SPACED NEAR THE CENTERLINE OF THE SUPPORTS.
- THE ROAD NAME SIGN SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE REFLECTIVE SHEETING. THE SIGN BLANK SHALL BE A 9" BY VARIABLE OR A 12" BY VARIABLE WITH DESIGN SERIES C LETTERS. THE CAPITAL LETTERS SHALL BE 6" WITH 5" LOWER CASE.
- DURING NON-WORKING HOURS AT THE POINT OF ROAD CLOSURE TO ALL TRAFFIC THE CONTRACTOR SHALL PROVIDE A MEANS TO RESTRAIN THE BARRICADES FROM EASY MOVEMENT BY VANDALS. THE RESTRAINT CHOSEN METHOD SHALL BE APPROVED BY THE ENGINEER.
- CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED IMMEDIATELY BEHIND THE TYPE III BARRICADES DURING NON-WORKING HOURS. IN ANY EVENT ARTICLE 701.11 OF THE STANDARD SPECIFICATIONS SHALL APPLY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VISIBILITY OF ALL DETOUR AND CONSTRUCTION SIGNING, INCLUDING BRUSHING BACK VEGETATION IF DEEMED NECESSARY BY THE ENGINEER.
- THE ENGINEER SHALL BE NOTIFIED AT LEAST TWENTY FOUR (24) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES.

SIGN LEGEND

SIGN NO.	SIGN	SIGN TYPE	QUANTITY	SIGN NO.	SIGN	SIGN TYPE	QUANTITY
①		R11-2 48"x30"	3	⑬		M5-1 (O), 21"x15"	2
②		R11-4 IGN BE	3	⑭		M6-1 (O), 21"x15"	4
③		W20-2 (O), 48" x 48" WITH AMBER FLASHING LIGHT.	2	⑮		M4-8A (O), 24"x48"	2
④		W20-3 (O), 48" x 48" WITH AMBER FLASHING LIGHT.	3	⑯		M4-10L (O), 48"x18"	1
⑤		W20-3 (O), 48" x 48" WITH AMBER FLASHING LIGHT.	2	⑰		M4-10R (O), 48"x18"	1
⑥		W20-2 (O), 48"x48" WITH AMBER FLASHING LIGHT.	8				
⑦		W20-2R (O), 48" x 48"	1				
⑧		M3-2 (O), 24"x12" M4-8 (O), 24"x12" SPECIAL (O) 24"x12"	12				
⑨		M3-4 (O), 24"x12" M4-8 (O), 24"x12" SPECIAL (O) 24"x12"	14				
⑩		M6-1 (O), 21"x15"	4				
⑪		M6-3 (O), 21"x15"	12				
⑫		M6-1 (O), 21"x15"	5				