

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**



EXP US Services, Inc.
CIVIL

Michael Bartusiewicz

1/8/2025
DATE

MICHAŁ BARTUSIEWICZ, PE
ILLINOIS REGISTRATION NO. 062-066222
EXP DATE: 11/30/2025
APPLY TO SHEETS: 1-13, 19



EXP US Services, Inc.
STRUCTURAL

Maen A. Farhat

1/8/2025
DATE

MAEN A. FARHAT, SE
ILLINOIS REGISTRATION NO: 081-008545
EXP DATE: 11/30/2026
APPLY TO SHEETS: 14-18

Prepared By: *Susan Re*
DISTRICT STUDIES & PLANS ENGINEER

Examined By: *Nancy Lee*
DISTRICT LAND ACQUISITION ENGINEER

Examined By: *Chris Miller*
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: *[Signature]*
DISTRICT OPERATIONS ENGINEER

Examined By: _____
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: *Brenda Willy*
DISTRICT CONSTRUCTION ENGINEER

Examined By: *Adam Davis*
DISTRICT MATERIALS ENGINEER

MODEL: 2DS SHEET 14
FILE NAME: C:\WORK\EXP\PM\BENTLEY\COM\EXP\PM-01000134610918A16-SHE-SIGNATURES.DGN



USER NAME = BARTUSIEWICZM	DESIGNED -	REVISED -
	DRAWN - AS	REVISED -
PLOT SCALE = 0.16666633" = 1"	CHECKED -	REVISED -
PLOT DATE = 1/8/2025	DATE - 1/8/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURES

SCALE: SHEET \$CV0E7E0F SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	2
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

1	COVER SHEET
2	SIGNATURES
3	INDEX, GENERAL NOTES, AND HIGHWAY STANDARDS
4 - 6	SUMMARY OF QUANTITIES
7	EXISTING AND PROPOSED TYPICAL SECTIONS
8	ALIGNMENT, TIES, AND BENCHMARKS
9	EXISTING AND PROPOSED ROADWAY PLANS
10 - 13	STAGE CONSTRUCTION TRAFFIC CONTROL PLANS
14 - 17	STRUCTURE PLANS
18	SOIL BORING LOGS
19	IDOT DISTRICT 9 DETAIL - 24' PCC PAVEMENT OVER BOX CULVERT

GENERAL NOTES

1. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL AGGREGATE2.05 TONS/CU. YD.
EARTH110 LBS/CU. FT.
2. EXISTING PIPE UNDERDRAIN OUTLETS IN THE FORESLOPES OR MEDIAN SLOPES SHALL BE PRESERVED AND PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO AN UNDERDRAIN OUTLET RESULTING FROM CONSTRUCTION ACTIVITY SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. EDGE LINE PAVEMENT MARKING SHALL BE REMOVED IF A 10 FT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHALL BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
4. REMOVAL OF ABANDONED UTILITIES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-10	PAVEMENT JOINTS
420701-03	PAVEMENT WELDED WIRE REINFORCEMENT
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-10	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
862001-01	UNINTERRUPTIBLE POWER SUPPLY (UPS)

COMMITMENTS

NONE

MODEL NAMED BOUNDARY SHEET.H
FILE NAME: C:\PW\WORK\EXP\W.BENTLEY.COM\EXP\PW\01\DD213461\DD978A56-SHT-GENNOTE.DGN



USER NAME = BARTUSIEWICZM	DESIGNED - AS	REVISED -
	DRAWN - MB	REVISED -
PLOT SCALE = 0.16666633 1/ IN.	CHECKED - MB	REVISED -
PLOT DATE = 1/28/2025	DATE - 1/8/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX, GENERAL NOTES,
AND HIGHWAY STANDARDS

SCALE: SHEET \$CV0E3COF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	3
CONTRACT NO. 78A56				
		ILLINOIS	FED. AID PROJECT	

MODEL: 2D SHEET H
FILE NAME: C:\PW\WORK\EXP-PW\BENTLEY.COM EXP-PW-01\DD213461\09\78A56-SHT-500.DGN

SP	CODE NO.	ITEM	UNIT	TOTAL QTY.	CONSTRUCTION CODES	
					ROADWAY	BOX CULVERT
					0004 URBAN	0004 S.N.
	20200100	EARTH EXCAVATION	CU YD	205	205	
	20700220	POROUS GRANULAR EMBANKMENT	CU YD	168		168
	25200110	SODDING, SALT TOLERANT	SQ YD	38	38	
	28000400	PERIMETER EROSION BARRIER	FOOT	92	92	
	28000510	INLET FILTERS	EACH	3	3	
	28100209	STONE RIPRAP, CLASS A5	TON	15	15	
*	30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	317	317	
	42000060	WELDED WIRE REINFORCEMENT	SQ YD	317	317	
	42000540	PORTLAND CEMENT CONCRETE PAVEMENT 12"	SQ YD	317	317	
	44000100	PAVEMENT REMOVAL	SQ YD	317	317	
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	92	92	
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
	50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	30		30
	50300225	CONCRETE STRUCTURES	CU YD	2.4		2.4

MODEL: 2D SHEET H
FILE NAME: C:\PW\WORK\EXP-PW\BENTLEY.COM\EXP-PW-01\DD213461\09\78A56-SHT-500-02.DGN

SP	CODE NO.	ITEM	UNIT	TOTAL QTY.	CONSTRUCTION CODES	
					ROADWAY	BOX CULVERT
					0004 URBAN	0004 S.N.
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	270		270
	52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	310		310
	54010707	PRECAST CONCRETE BOX CULVERTS 7' X 7'	FOOT	32		32
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	37		37
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	92	92	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
	67100100	MOBILIZATION	L SUM	1	1	
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1	
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1,397	1,397	
	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	5,585	5,585	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	187.5	187.5	
	70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	36	36	

REV - MS



USER NAME = BARTUSIEWICZM	DESIGNED - AS	REVISED -
	DRAWN - MB	REVISED -
PLOT SCALE = 0.16666633 ' / IN.	CHECKED - MB	REVISED -
PLOT DATE = 1/28/2025	DATE - 1/8/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET \$CV0E6FOF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	5
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

					80% FED 20% STATE	CONSTRUCTION CODES	
SP	CODE NO.	ITEM	UNIT	TOTAL QTY.		ROADWAY	BOX CULVERT
						0004	0004
						URBAN	S.N.
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	187.5		187.5	
	70600240	IMPACTATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2		2	
	70600340	IMPACTATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2		2	
*	78001100	PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	21		21	
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	465		465	
*	78001180	PAINT PAVEMENT MARKING - LINE 24"	FOOT	150		150	
	78300201	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	476		476	
	86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1		1	
	X5810103	WATERPROOFING MEMBRANE SYSTEM FOR BURIED STRUCTURES	SQ YD	37			37
*	X7010230	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602 (SPECIAL)	L SUM	1		1	
*	Z0054517	ROCK FILL - FOUNDATION	TON	37.2			37.2

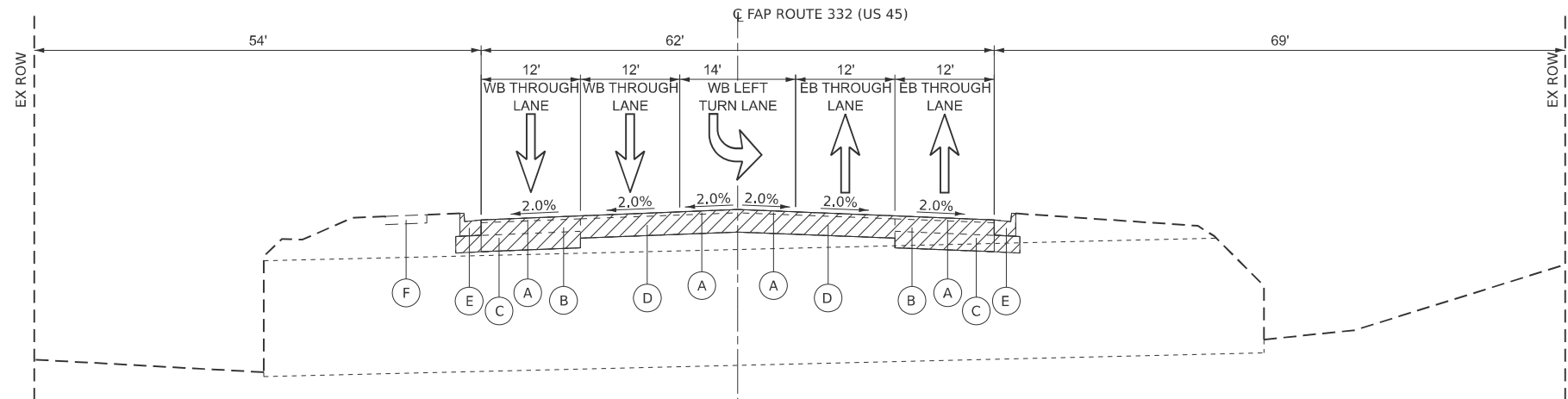
* SPECIALTY ITEM

REV-SK

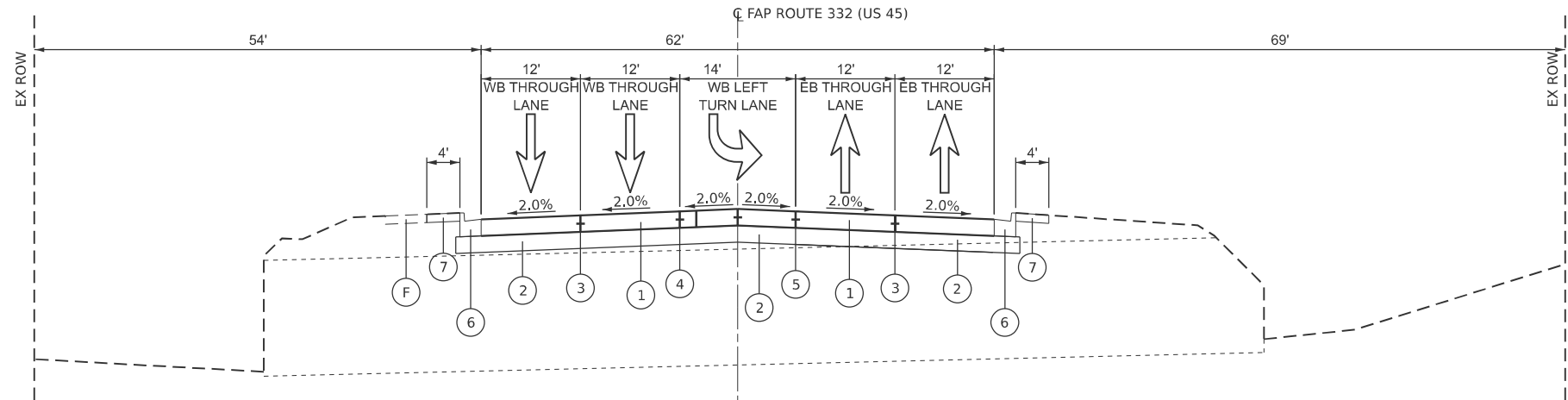
REV - MS

MODEL: 2D SHEET H
FILE NAME: C:\PW\WORK\EXP-PW\BENTLEY.COM EXP-PW-01\DD213461\09\78A56-SHT-500-03.DGN

	USER NAME = BARTUSIEWICZM	DESIGNED - AS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - MB	REVISED -						332	31CLV-1	SALINE	19	6
	PLOT SCALE = 0.16666633 ' / IN.	CHECKED - MB	REVISED -						CONTRACT NO. 78A56				
	PLOT DATE = 1/28/2025	DATE - 1/8/2025	REVISED -		SCALE:	SHEET \$CV0E7FOF	SHEETS	STA.	TO STA.				



EXISTING US 45 AT CULVERT
(LOOKING EAST)



PROPOSED US 45 AT CULVERT
(LOOKING EAST)

EXISTING LEGEND

- REMOVAL
- (A) EXISTING HMA SURFACE COURSE (2 1/4")
- (B) EXISTING HMA BINDER COURSE (9")
- (C) EXISTING SUBBASE (12")
- (D) EXISTING PCC PAVEMENT (14")
- (E) EXISTING COMBINATION CONCRETE CURB & GUTTER, B-6.24
- (F) EXISTING SIDEWALK

PROPOSED LEGEND

- (1) PORTLAND CEMENT CONCRETE PAVEMENT 12" (JOINTED)
- (2) AGGREGATE SUBGRADE IMPROVEMENT 12"
- (3) PAINT PAVEMENT MARKING - LINE 4" (SKIP DASH, WHITE)
- (4) PAINT PAVEMENT MARKING - LINE 4" (SOLID, WHITE)
- (5) PAINT PAVEMENT MARKING - LINE 4" (SOLID DOUBLE, YELLOW)
- (6) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- (7) SODDING, SALT TOLERANT

MODEL: EXISTING TYPICAL SECTIONS
FILE NAME: C:\WORK\EX-45\BENTLEY\COM\EX-45\DWG\01\00213461\097B8565HT-EX-45-TYPICAL.DGN



USER NAME = BARTUSIEWICZM	DESIGNED - AS	REVISED -
	DRAWN - MB	REVISED -
PLOT SCALE = 0.16666633 1/ IN.	CHECKED - MB	REVISED -
PLOT DATE = 1/28/2025	DATE - 1/8/2025	REVISED -

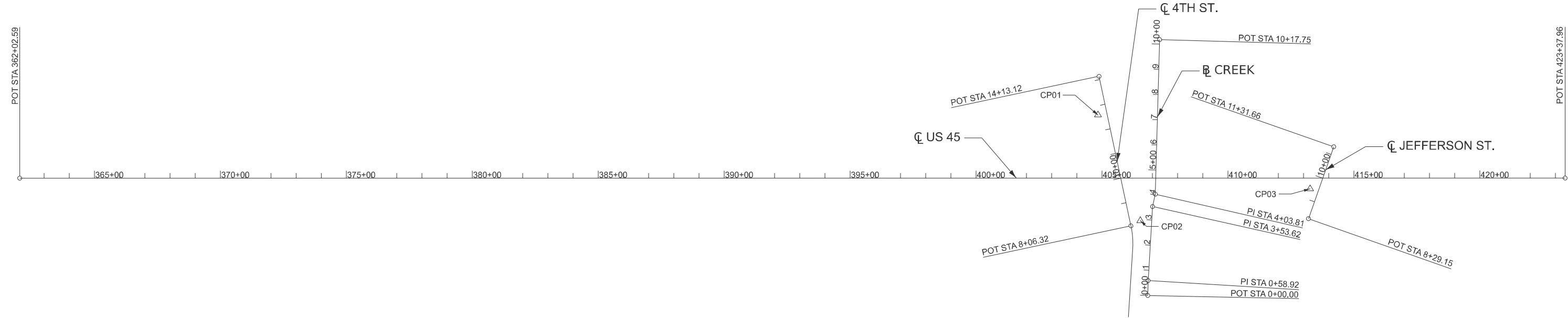
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED
TYPICAL SECTIONS

SCALE: 1:10 SHEET \$CV0E3B0F SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	7
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

MODEL ALIGNMENT AND TIES
FILE NAME: C:\PW\WORK\EXP-IV\BENTLEY.COM\EXP-IV\461\DD0213461\DD0213461\US45-SHT-ALIGNMENT-TIES.DGN

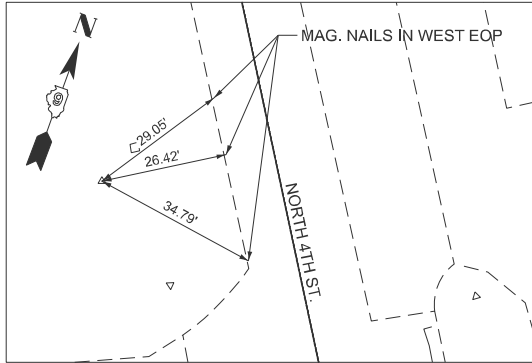


EX US 45 CENTERLINE			
POINT ON ALIGNMENT	STATION	NORTHING (Y)	EASTING (X)
POT	362+02.59	414388.842	950909.972
POT	423+37.96	416482.697	956676.989

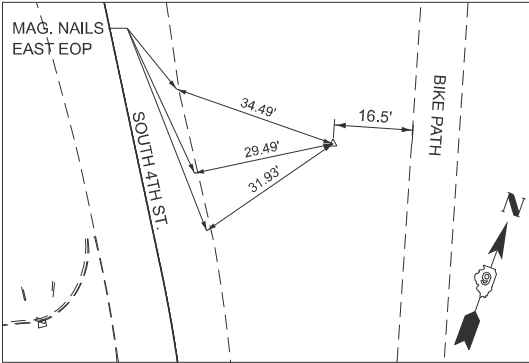
EX 4TH ST CENTERLINE			
POINT ON ALIGNMENT	STATION	NORTHING (Y)	EASTING (X)
POT	8+06.32	415716.353	955121.352
POT	14+13.12	416231.074	954799.989

EX JEFFERSON ST CENTERLINE			
POINT ON ALIGNMENT	STATION	NORTHING (Y)	EASTING (X)
POT	8+29.15	415983.458	955774.279
POT	11+31.66	416285.949	955771.127

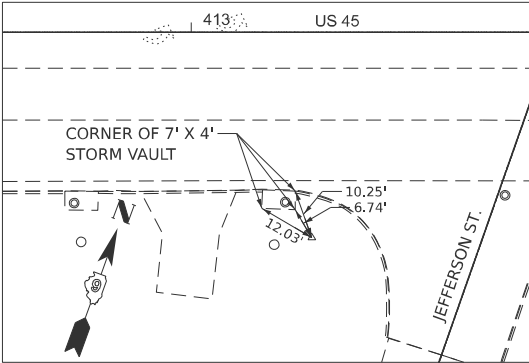
EX CREEK BASELINE			
POINT ON ALIGNMENT	STATION	NORTHING (Y)	EASTING (X)
POT	0+00.00	415479.289	955278.611
PI	0+58.92	415535.087	955259.686
PI	3+53.62	415817.667	955176.032
PI	4+03.81	415867.444	955169.636
POT	10+17.75	416450.096	954976.135



CONTROL POINT #01
5/8" IRON PIPE AND ORANGE CAP
STA. 404+83.51
N 416085.0669
E 954848.4672
ELEV. 382.51



CONTROL POINT #02
5/8" IRON PIPE AND ORANGE CAP
STA. 406+51.34
N 415748.0296
E 954149.3883
ELEV. 382.90



CONTROL POINT #03
5/8" IRON PIPE AND ORANGE CAP
STA. 413+25.12
N 416096.8556
E 955739.5504
ELEV. 386.01



USER NAME = BARTUSIEWICZM
PLOT SCALE = 0.16666633 1/ IN.
PLOT DATE = 1/28/2025

DESIGNED - AS
DRAWN - MB
CHECKED - MB
DATE - 1/8/2025

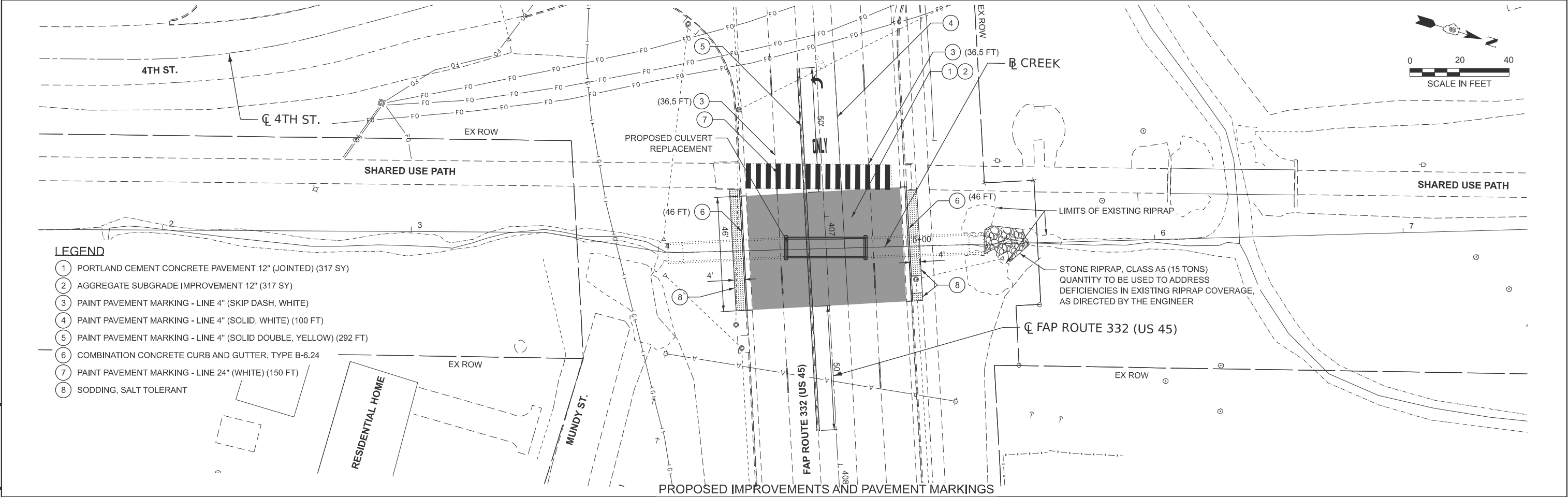
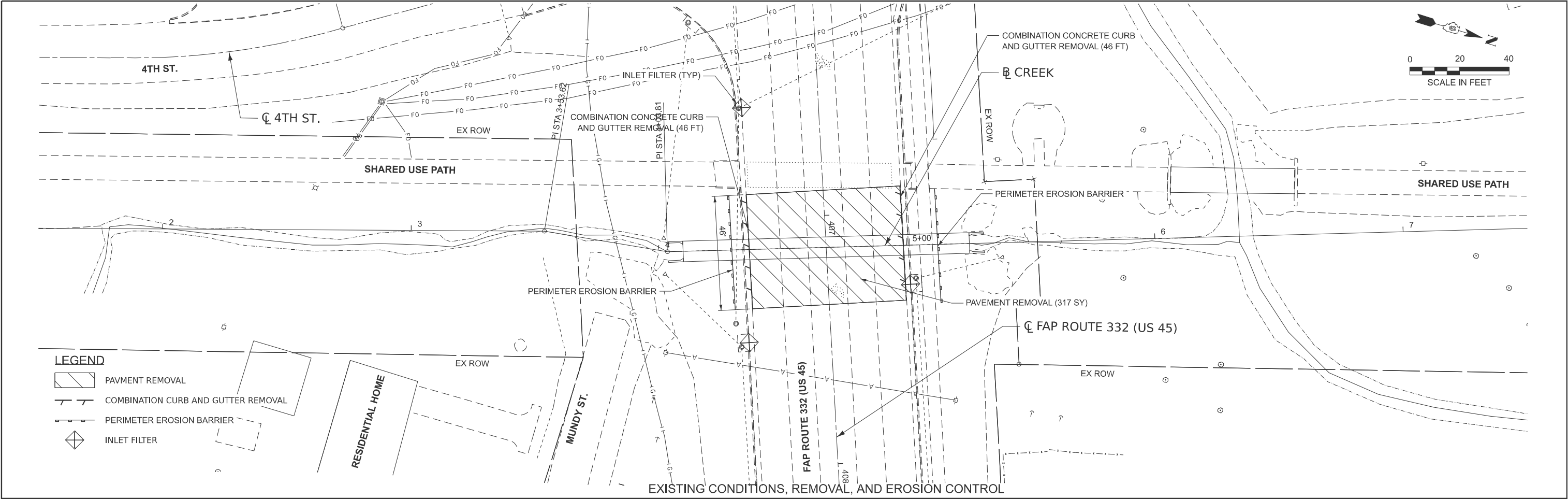
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES, AND BENCHMARKS

SCALE: SHEET \$CV0E400F SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	8
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				



MODEL: CREEK PLAN 01
FILE NAME: C:\PW\WORK\EXP-2\W.BENTLEY\COM\EXP-2\461\00213461\09784565\SH-CREEK2PLAN-PNP-AND-REMOVAL.DGN

SUGGESTED CONSTRUCTION SEQUENCE

STAGE 1

CONSTRUCTION TO BE COMPLETED

- REMOVE EXISTING WESTBOUND PAVEMENT
- EXCAVATE AND INSTALL TEMPORARY SOIL RETENTION SYSTEM
- REMOVE PORTION OF EXISTING CULVERT
- CONSTRUCT PORTION OF PROPOSED CULVERT AND BACKFILL
- CONSTRUCT NEW PAVEMENT STRUCTURE

MAINTENANCE OF TRAFFIC

- EASTBOUND INSIDE LANE AND LEFT TURN LANE TO BE CLOSED FOR DURATION OF CONSTRUCTION STAGE
- WESTBOUND OUTSIDE LANE AND LEFT TURN LANE TO BE CLOSED FOR DURATION OF CONSTRUCTION STAGE
- WESTBOUND INSIDE LANE TO BE SHIFTED IN ACCORDANCE WITH WORKZONE REQUIREMENTS
- TEMPORARY BRIDGE TRAFFIC SIGNALS TO BE INSTALLED AT FORTH STREET INTERSECTION
- TEMPORARY BARRIER WALL TO BE UTILIZED IN THE WESTBOUND DIRECTION AND PINNED TO EXISTING PAVEMENT WHERE ADJACENT TO OPEN EXCAVATION
- ALL BLUNT ENDS OF TEMPORARY BARRIER WALL TO EXTEND BEYOND 14' CLEARZONE OR UTILIZE IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2

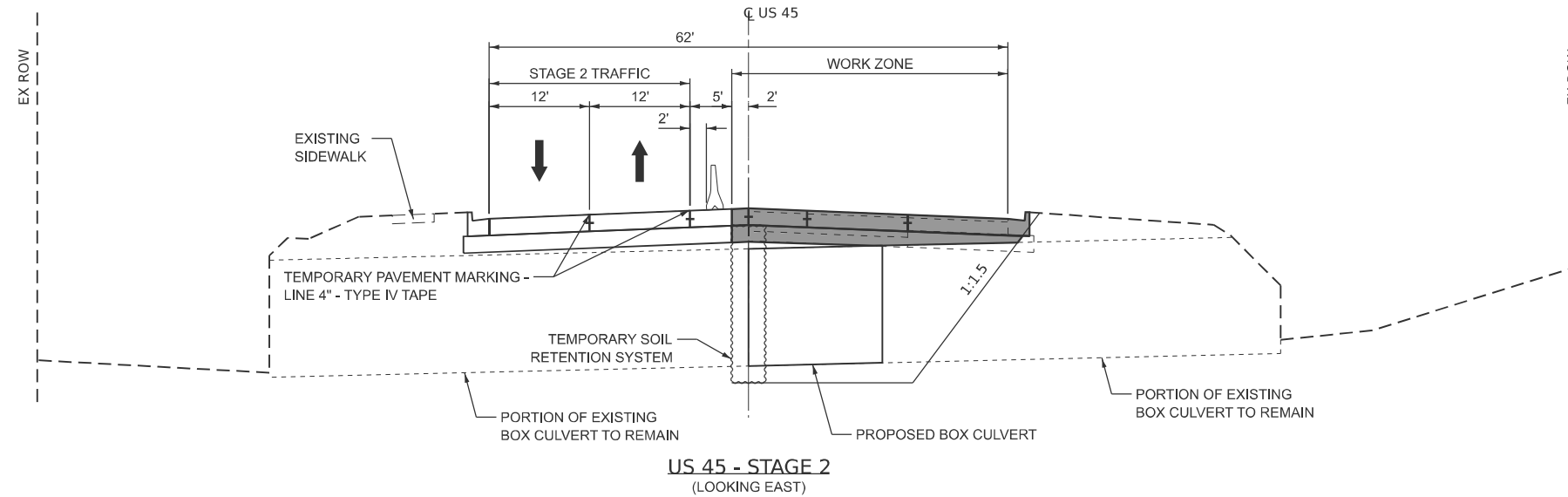
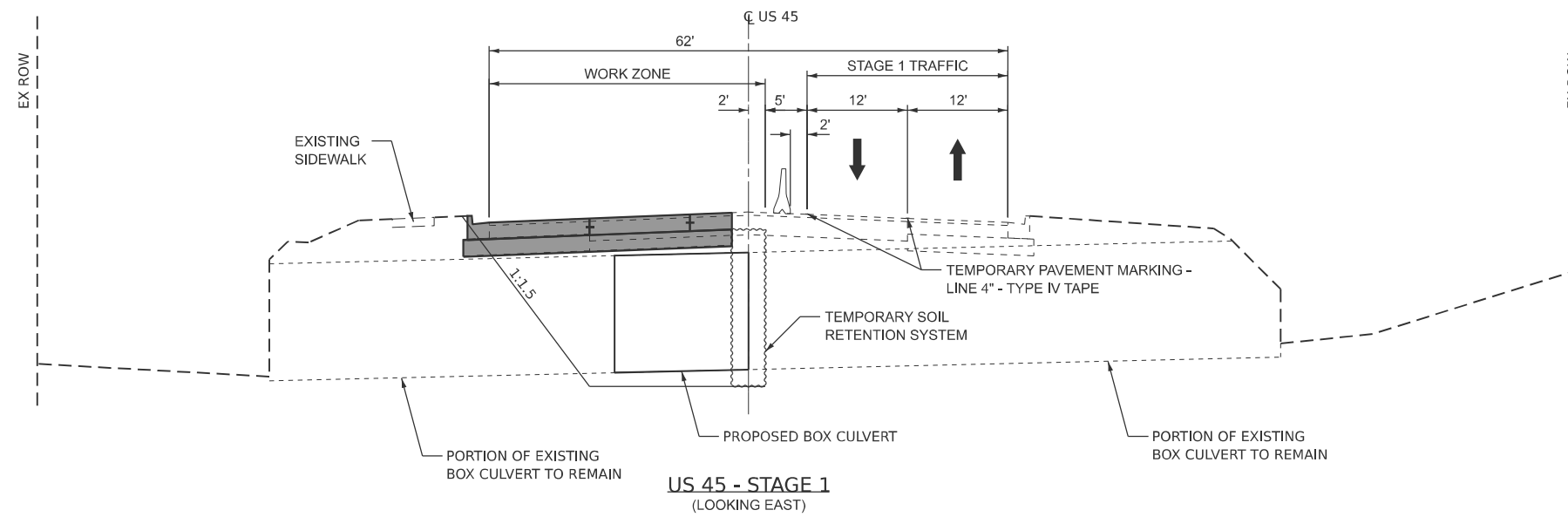
STAGE 2

CONSTRUCTION TO BE COMPLETED

- REMOVE EXISTING EASTBOUND PAVEMENT AND PORTION OF WESTBOUND PAVEMENT
- EXCAVATE AND INSTALL TEMPORARY SOIL RETENTION SYSTEM
- REMOVE PORTION OF EXISTING CULVERT
- CONSTRUCT PORTION OF PROPOSED CULVERT AND BACKFILL
- CONSTRUCT NEW PAVEMENT STRUCTURE

MAINTENANCE OF TRAFFIC

- EASTBOUND OUTSIDE LAE AND LEFT TURN LANE TO BE CLOSED FOR DURATION OF CONSTRUCTION STAGE
- WESTBOUND INSIDE LANE AND LEFT TURN LANE TO BE CLOSED FOR DURATION OF CONSTRUCTION STAGE
- EASTBOUND INSIDE LANE TO BE SHIFTED IN ACCORDANCE WITH WORKZONE REQUIREMENTS
- TEMPORARY BRIDGE TRAFFIC SIGNALS TO BE RELOCATED OR MODIFIED AT FORTH STREET INTERSECTION
- TEMPORARY BARRIER WALL TO BE UTILIZED IN THE EASTBOUND DIRECTION AND PINNED TO EXISTING PAVEMENT WHERE ADJACENT TO OPEN EXCAVATION
- ALL BLUNT ENDS OF TEMPORARY BARRIER WALL TO EXTEND BEYOND 14' CLEARZONE OR UTILIZE IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2



LEGEND

PAVEMENT CONSTRUCTED
IN THIS STAGEPAVEMENT CONSTRUCTED
IN PRIOR STAGE

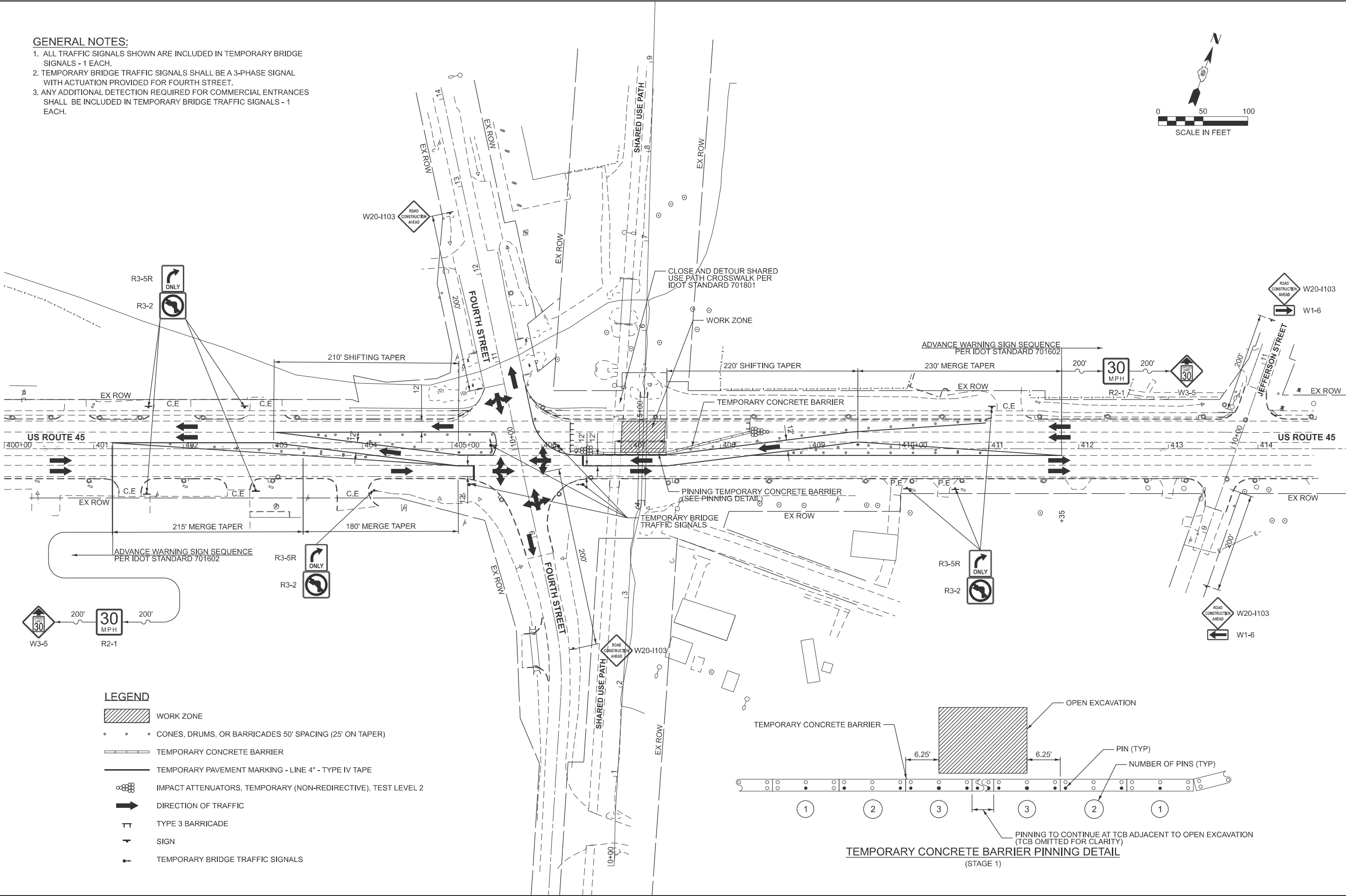
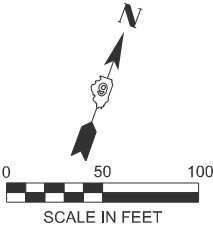
TEMPORARY CONCRETE BARRIER, PINNED



DIRECTION OF TRAFFIC

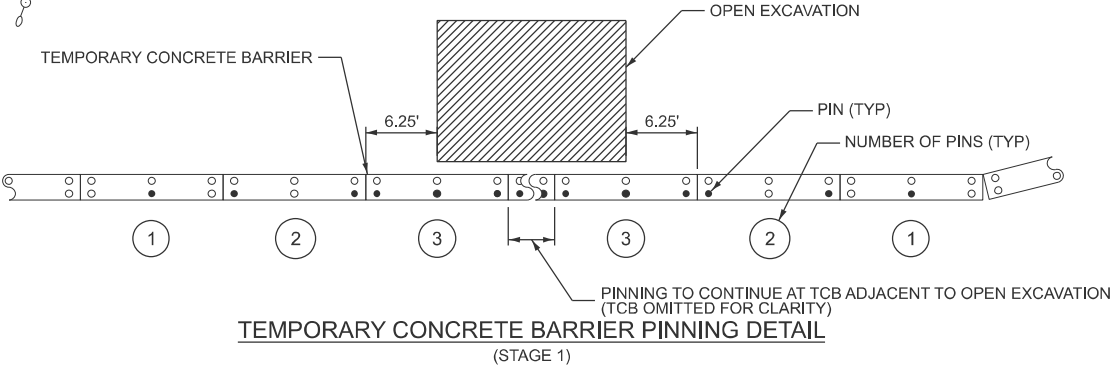
GENERAL NOTES:

1. ALL TRAFFIC SIGNALS SHOWN ARE INCLUDED IN TEMPORARY BRIDGE SIGNALS - 1 EACH.
2. TEMPORARY BRIDGE TRAFFIC SIGNALS SHALL BE A 3-PHASE SIGNAL WITH ACTUATION PROVIDED FOR FOURTH STREET.
3. ANY ADDITIONAL DETECTION REQUIRED FOR COMMERCIAL ENTRANCES SHALL BE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.



LEGEND

- WORK ZONE
- CONES, DRUMS, OR BARRICADES 50' SPACING (25' ON TAPER)
- TEMPORARY CONCRETE BARRIER
- TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE
- SIGN
- TEMPORARY BRIDGE TRAFFIC SIGNALS



MODEL: PLAN 01
FILE NAME: C:\P\WORK\EXP-2\W.BENTLEY\COM\EXP-2\W401.D0213461.D97B4565HT-MOT-STAGEL.DGN



USER NAME	= BARTUSIEWICZM
DESIGNED	- AS
DRAWN	- MB
CHECKED	- MB
DATE	- 1/8/2025

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

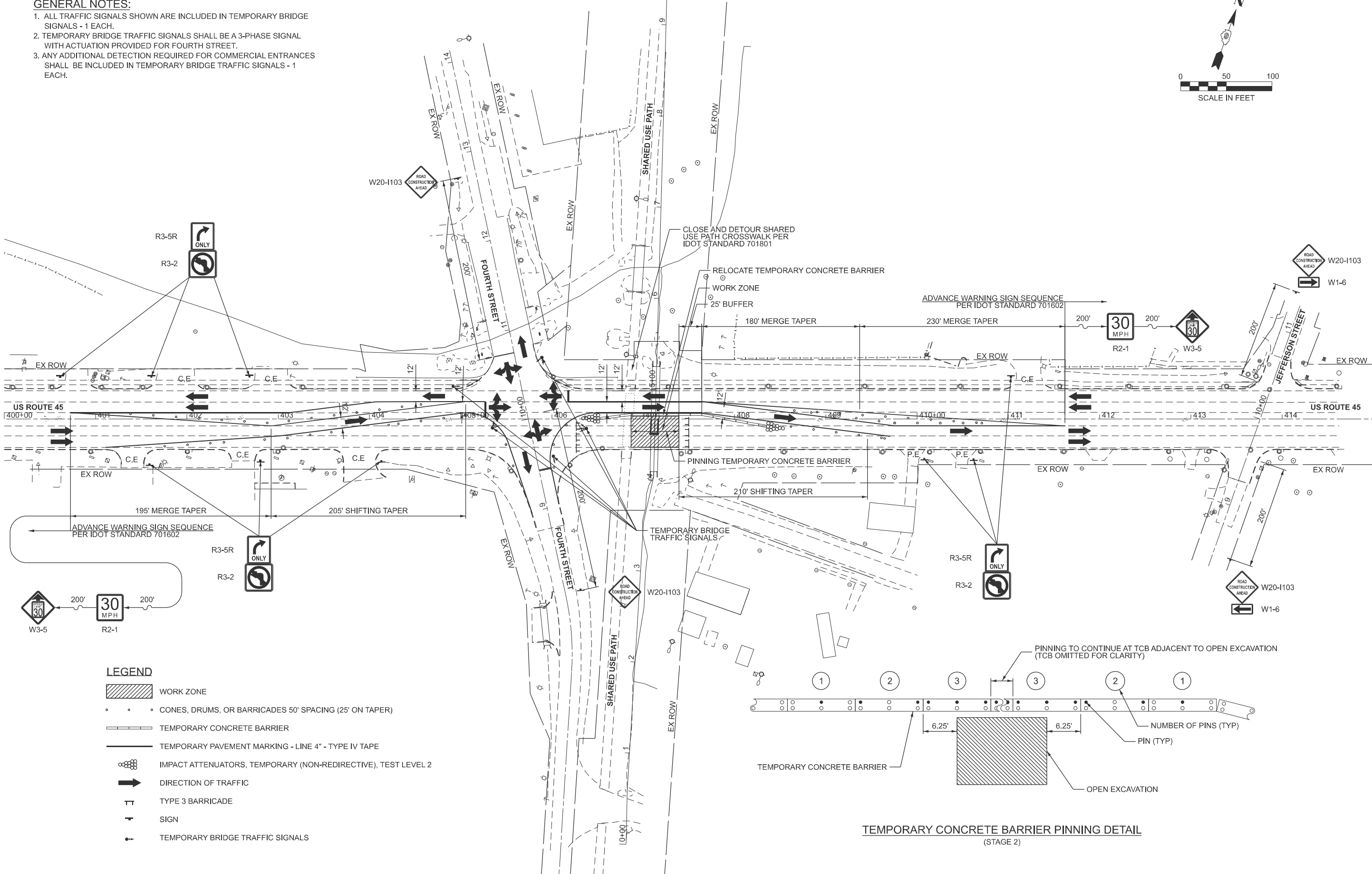
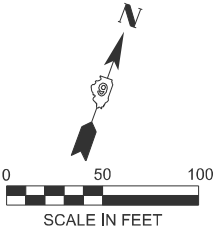
STAGE CONSTRUCTION TRAFFIC CONTROL
STAGE 1

SCALE: 1:50 SHEET \$CV0E42OF SHEETS STA. 400+00.00 TO STA. 415+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	12
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

1. ALL TRAFFIC SIGNALS SHOWN ARE INCLUDED IN TEMPORARY BRIDGE SIGNALS - 1 EACH.
2. TEMPORARY BRIDGE TRAFFIC SIGNALS SHALL BE A 3-PHASE SIGNAL WITH ACTUATION PROVIDED FOR FOURTH STREET.
3. ANY ADDITIONAL DETECTION REQUIRED FOR COMMERCIAL ENTRANCES SHALL BE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.



LEGEND

- WORK ZONE
- CONES, DRUMS, OR BARRICADES 50' SPACING (25' ON TAPER)
- TEMPORARY CONCRETE BARRIER
- TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2
- DIRECTION OF TRAFFIC
- TYPE 3 BARRICADE
- SIGN
- TEMPORARY BRIDGE TRAFFIC SIGNALS

TEMPORARY CONCRETE BARRIER PINNING DETAIL
(STAGE 2)

MODEL: NOT PLAN SHEET
FILE NAME: C:\P\WORK\EXP-2\W.BENTLEY\COM\EXP-2\W20-1103-1\STAGE2.DGN



USER NAME	= BARTUSIEWICZM
DESIGNED	- AS
DRAWN	- MB
CHECKED	- MB
DATE	- 1/8/2025

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION TRAFFIC CONTROL
STAGE 2

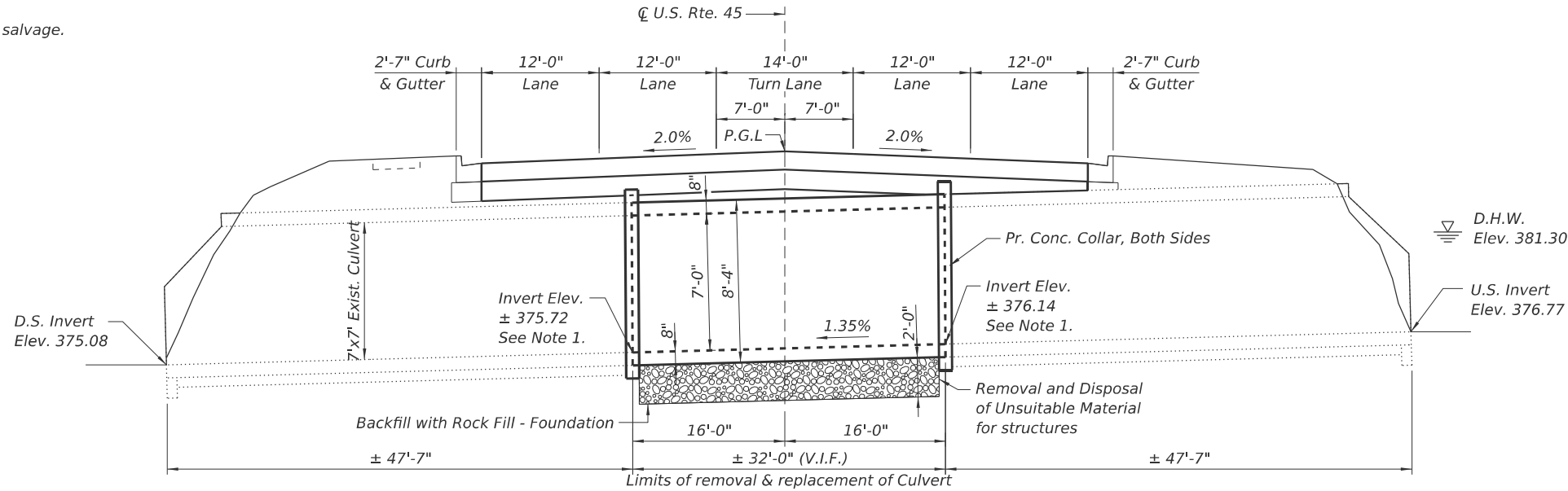
SCALE: 1:50 SHEET \$CV0E43OF SHEETS STA. 400+00.00 TO STA. 415+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	13
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

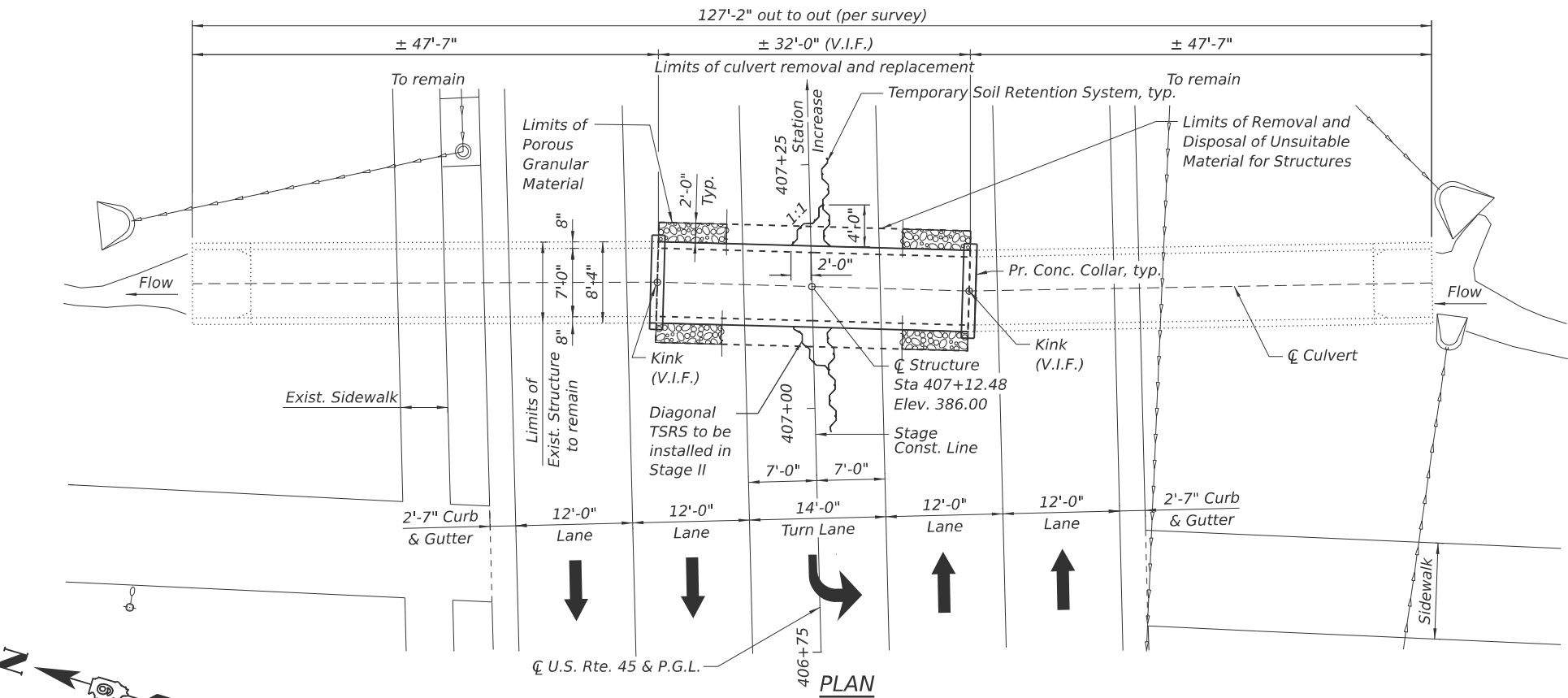
Benchmark: Saw cut "□" on top of SW wingwall fo city of Eldorado box culvert north of Rte. 45
on west side of Fourth St. S.N. 083-6008 Sta. 405+50± & 53' Lt. Elev. 384.77.

Existing Structure: SN 083-7060, built in 1922 under SBI Rte. 1, Section 30A. The original structure is a single barrel cast in place culvert with 7' rise, 7' span and 31'-4" length. The culvert was widened in 1987 approximately 18'-0" each end with precast segments. The skew is approximately 2 degrees. The structure was lengthened with precast extensions on each end in 2014. The length of current existing culvert is 127'-2" (end to end per survey).

No salvage.



ELEVATION
(Looking Upstation)



PLAN

LOADING HL-93

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

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Fabric)

EXISTING CONSTRUCTION (2014)

$f'_c = 5,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Fabric)

EXISTING CONSTRUCTION (1987)

$f'_c = 5,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 65,000$ psi (Welded Wire Fabric)

WATERWAY INFORMATION

Drainage Area = 0.156 Sq. Mi.			Exist. Overtopping Elev. 385.45 @ Sta. 405+50 Prop. Overtopping Elev. 385.45 @ Sta. 405+50						
Flood	Freq. Yr.	Q C.F.S.	Opening Ft²		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	123	21	21	380.5	1.7	1.7	382.2	382.2
Design	50	170	27	27	381.3	1.3	1.3	382.6	382.6
Base	100	195	29	29	381.6	1.2	1.2	382.8	382.8
Overtopping (E)	>500	394	-	-	-	-	-	385.5	-
Overtopping (P)	>500	394	-	-	-	-	-	-	385.5
Max. Calc.	500	270	33	33	382.2	1.3	1.3	383.5	383.5

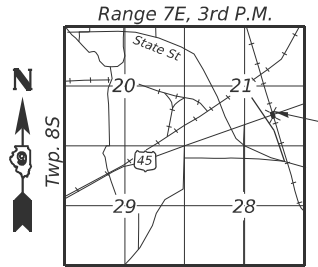
10-Year Outlet Velocity from Existing Structure = 2.9 fps
10-Year Outlet Velocity from Proposed Structure = 2.9 fps

Notes:

- Contractor shall match invert of the adjacent existing culvert section to remain to avoid any differences in elevation.
- See Sheet S-2 for General Notes and Collar details.
- Contractor shall verify in field existing kink angles in the culvert alignment.

LEGEND

- Exist. Catch Basin
- Exist. Storm Sewer
- Temp. Soil Retention System
- Exist. Power Pole



LOCATION SKETCH



USER NAME	=	DESIGNED	-	TB	REVISED	-
PLOT SCALE	=	CHECKED	-	MAF	REVISED	-
PLOT DATE	=	DRAWN	-	TB	REVISED	-
		CHECKED	-	MAF	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 083-7060

SHEET S-1 OF S-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	14
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

- S-1 General Plan and Elevation
S-2 General Notes, Index of Sheets and Total BOM
S-3 Stage Removal and Construction
S-4 Temporary Concrete Barrier
S-5 Soil Boring Logs

GENERAL NOTES

Precast concrete box culverts shall conform to the design requirements of ASTM C1577.

The new box culvert shall have configuration to mate with the existing culvert to remain in place.

Contractor shall exercise caution when removing existing cast-in-place culvert sections in order to minimize damages to existing precast culvert sections to remain in place.

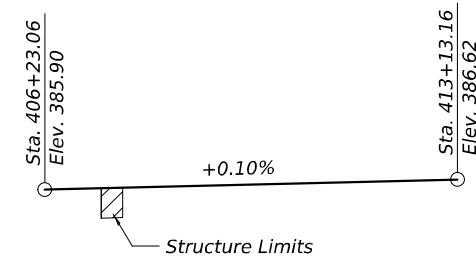
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials.

The cost of the 6" thick layer porous granular material shall not be paid for separately but shall be included in the unit price of the work for which it is required per Article 540.06.

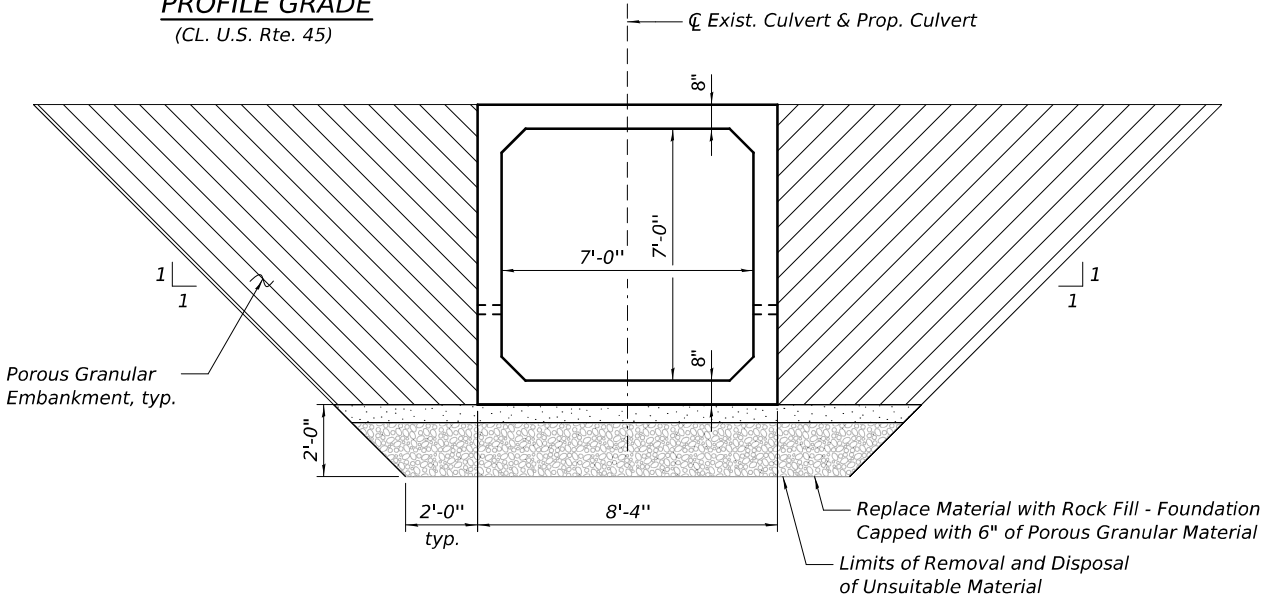
Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.

ABBREVIATIONS

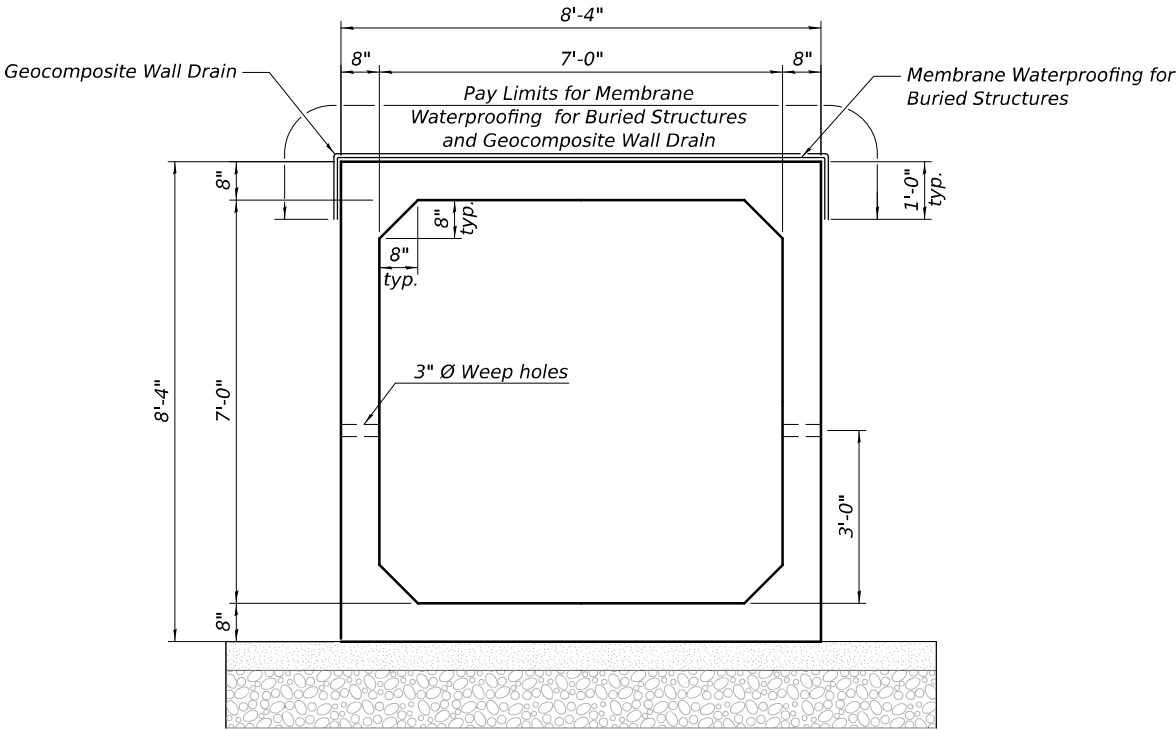
- Elev. = Elevation
Rte. = Route
Sq. Ft. = Square Feet
Sq. Yd. = Square Yard
Cu. Yd. = Cubic Yard
V.I.F. = Verify in Field
TSRS = Temporary Soil Retention System



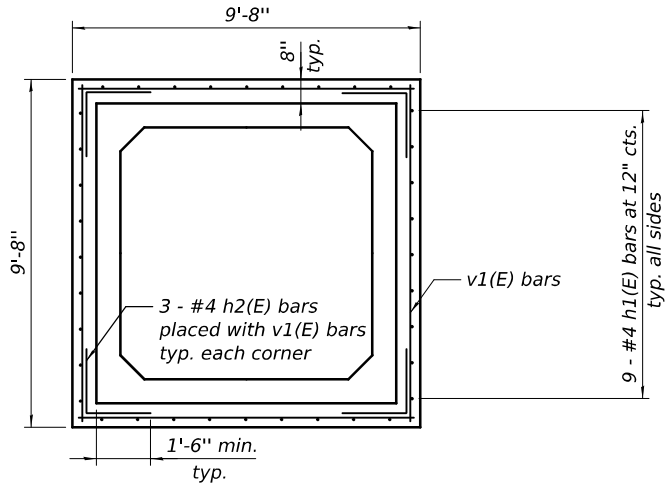
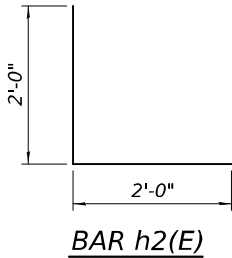
PROFILE GRADE
(CL. U.S. Rte. 45)



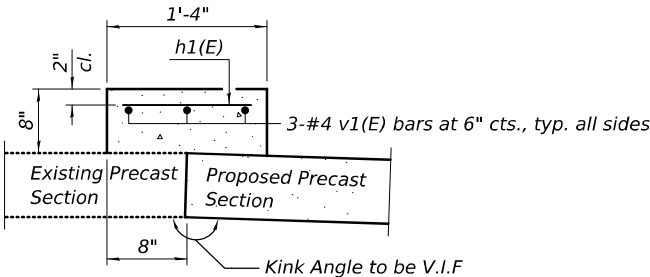
PAY LIMITS FOR POROUS GRANULAR EMBANKMENT
(Hatched Area)



SECTION THRU BARREL



SECTION THRU BARREL AT COLLAR
(Showing Collar Reinforcement)



SECTION THRU CONNECTION COLLAR

TOTAL BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h1(E)	36	#4	1'-0"	—
h2(E)	12	#4	4'-0"	└
v1(E)	12	#4	9'-4"	—
Porous Granular Embankment			Cu. Yd.	168
Removal of Existing Structure			Each	1
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	30
Concrete Structures			Cu. Yd.	2.4
Reinforcement Bars, Epoxy Coated			Pound	270
Temporary Soil Retention System			Sq. Ft.	310
Precast Concrete Box Culverts 7'x7'			Foot	32
Geocomposite Wall Drain			Sq. Yd.	37
Membrane Waterproofing System for Buried Structures			Sq. Yd.	37
Rock Fill - Foundation			Ton	37.2



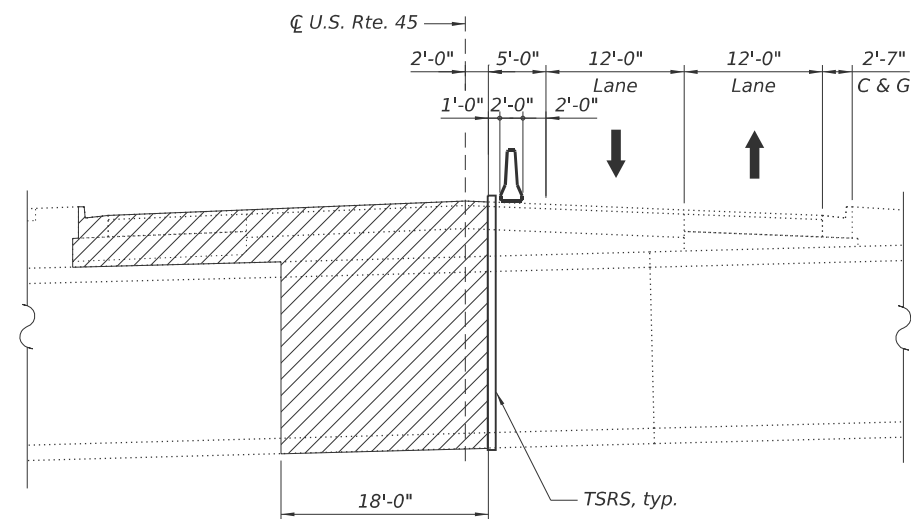
USER NAME =	DESIGNED - TB	REVISED -
CHECKED - MAF	REVISED -	
PLOT SCALE =	DRAWN - TB	REVISED -
PLOT DATE =	CHECKED - MAF	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

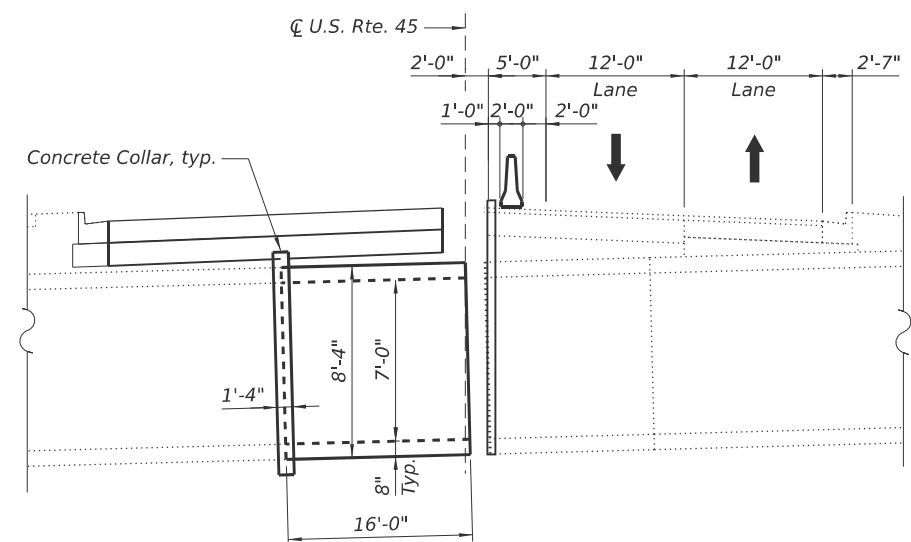
GENERAL NOTES, INDEX OF SHEETS AND TOTAL BOM
SN 083-7060

SHEET S-2 OF S-5 SHEETS

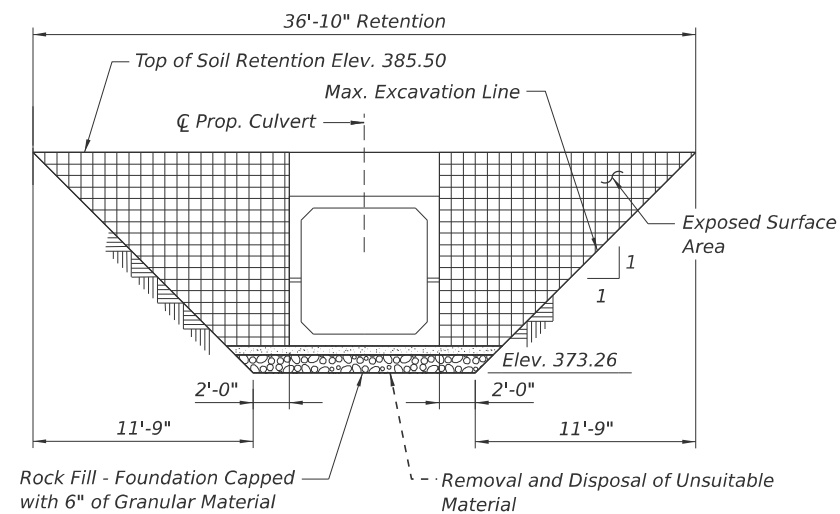
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	15
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				



STAGE I REMOVAL
Looking East






STAGE I CONSTRUCTION
Looking East

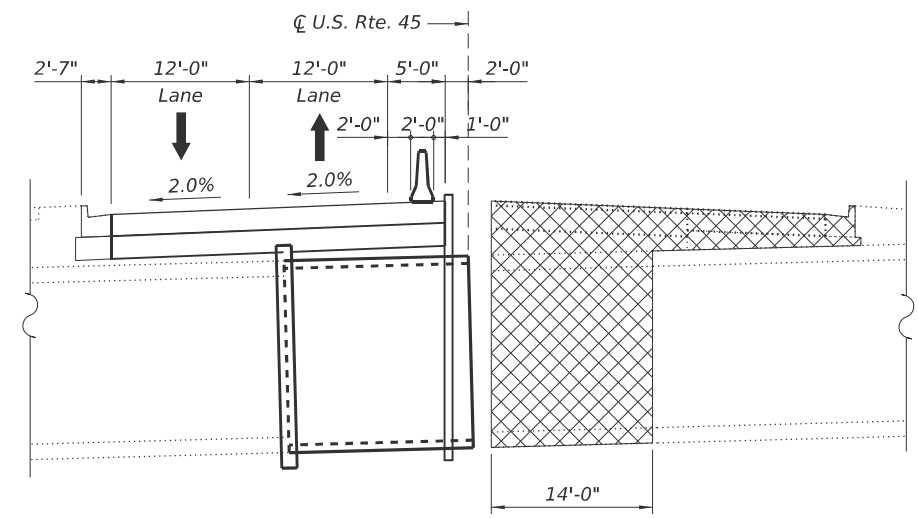


TEMPORARY SOIL RETENTION SYSTEM - STAGE I & II
(Dimensions along stage construction line)

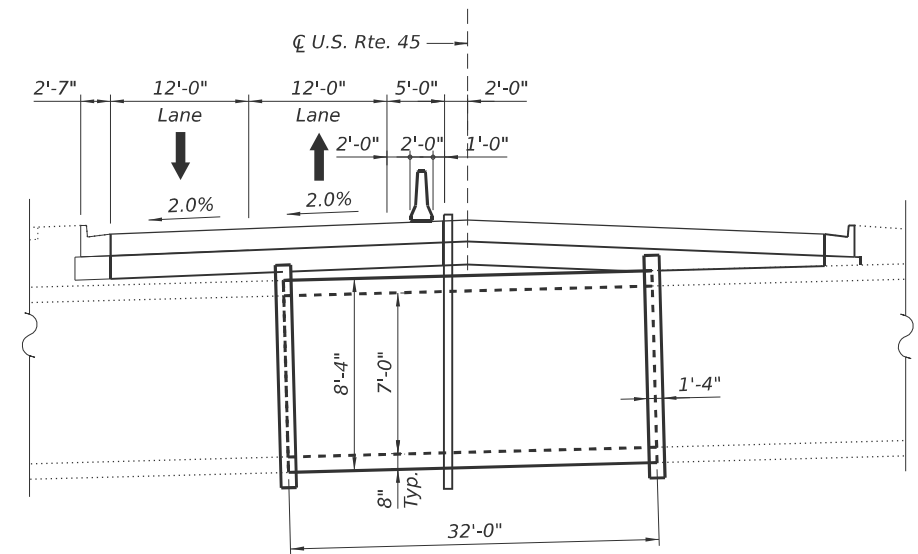
LEGEND

-  Stage I Removal
-  Stage II Removal
-  Temporary Soil Retention System

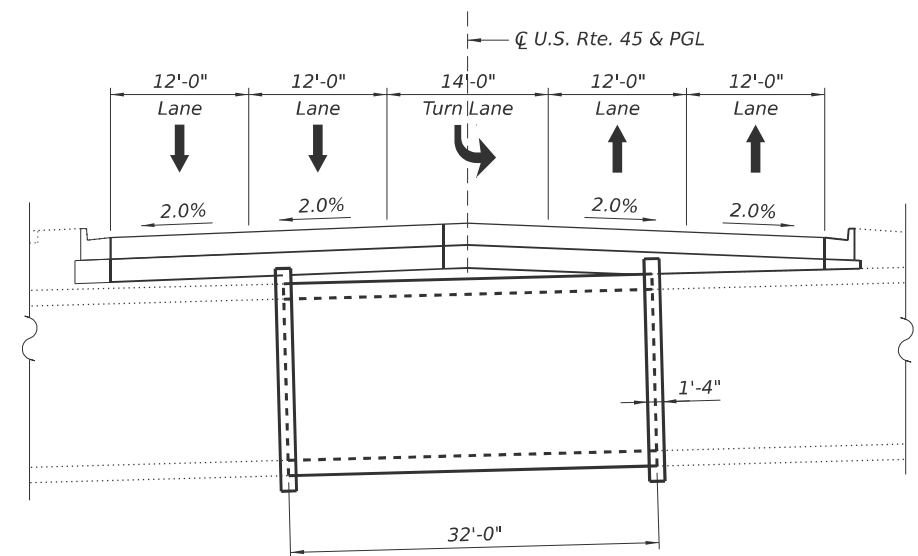
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



STAGE II REMOVAL
Looking East



STAGE II CONSTRUCTION
Looking East



FINAL
Looking East

MODEL: NAMED BOUNDARY SHEET H
FILE NAME: C:\PW\WORK\EXP-PW\BENTLEY.COM_EXP-PW\01\00213456\ID978A56-SHT-PHASING-003.DGN



USER NAME	=	DESIGNED	-	TB	REVISED	-	-
CHECKED	-	MAF	REVISED	-	-	-	-
PLOT SCALE	=	DRAWN	-	TB	REVISED	-	-
PLOT DATE	=	CHECKED	-	MAF	REVISED	-	-

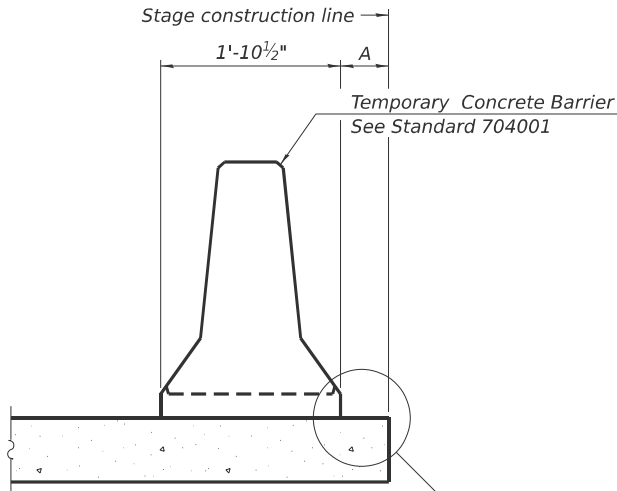
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE REMOVAL AND CONSTRUCTION
SN 083-7060

SHEET S-3 OF S-5 SHEETS

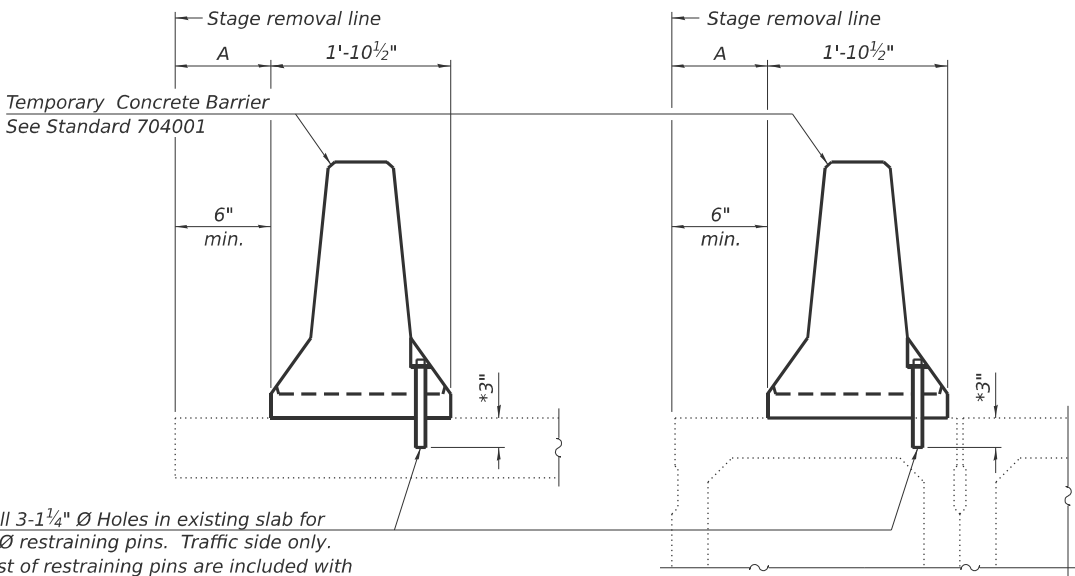
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	16
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

MODEL: DEFAULT
FILE NAME: C:\PW\WORK\EXP-PW\BENTLEY.COM_EXP-PW-Q1D0213456ID978A56-SJT-TCB.DGN



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

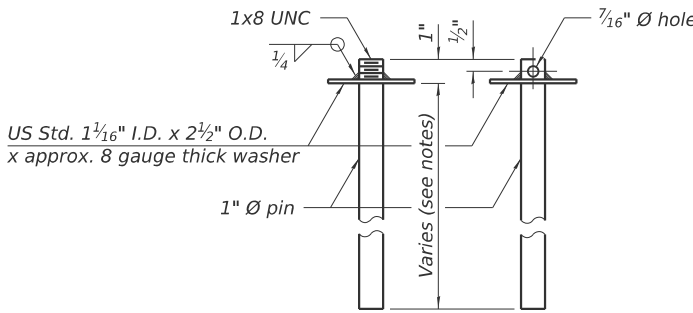
NEW SLAB OR NEW DECK BEAM



Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

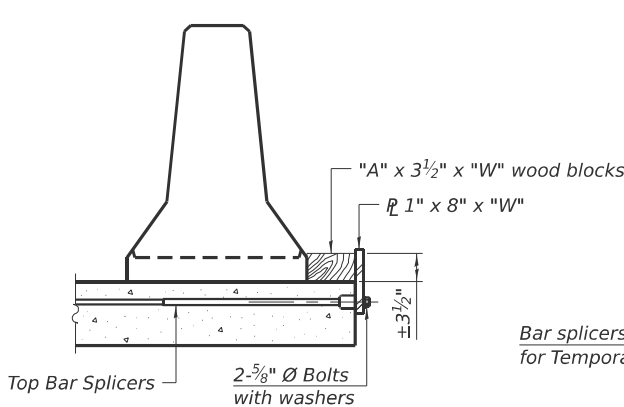
EXISTING SLAB

EXISTING DECK BEAM

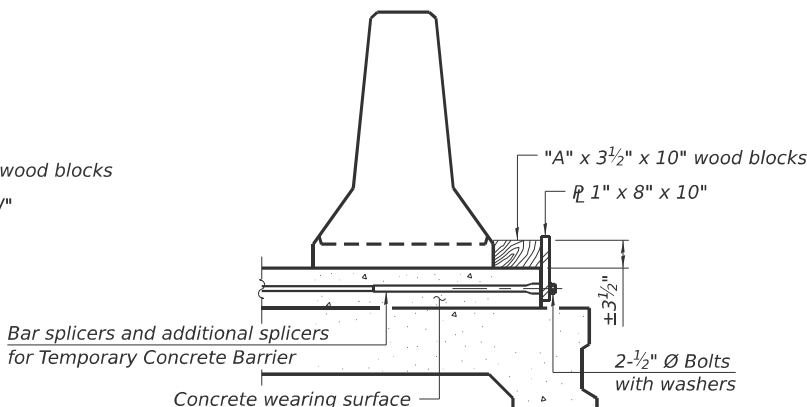


RESTRAINING PIN

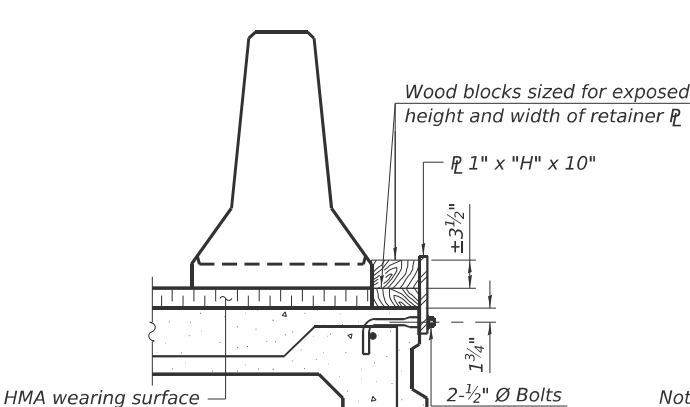
SECTIONS THRU SLAB OR DECK BEAM



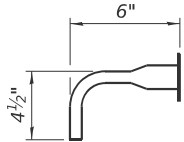
DETAIL I



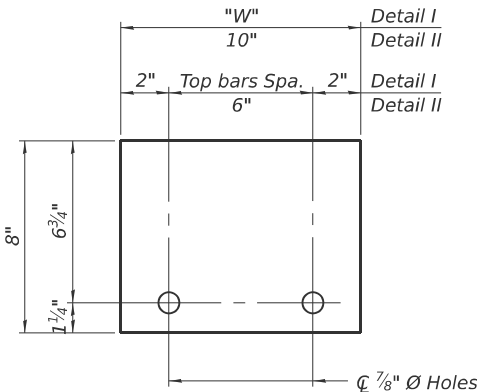
DETAIL II



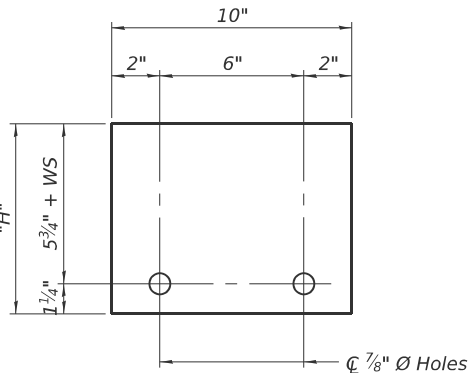
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER ϕ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ϕ 1" x "H" x 10"
(Detail III)

Notes:
Cost of retainer assembly is included with Temporary Concrete Barrier.
A retainer assembly shall be located at the approximate ϕ of each temporary concrete barrier.
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

RAILING CRITERIA	
NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

5-15-2023



USER NAME	=	DESIGNED	-	TB	REVISED	-	-
PLOT SCALE	=	CHECKED	-	MAF	REVISED	-	-
PLOT DATE	=	DRAWN	-	MTR	REVISED	-	-
		CHECKED	-	MAF	REVISED	-	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
SN 083-7060

SHEET S-4 OF S-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	31CLV-1	SALINE	19	17
CONTRACT NO. 78A56				
ILLINOIS FED. AID PROJECT				

Page 1 of 2

Date 12/27/10

COUNTY Saline DRILLING METHOD HSA HAMMER TYPE AUTO

D F P T H	B L O W S	U C S Qu	M O I S T
(ft)	(/6")	(tsf)	(%)

	3		
	12		
	22		17
.35			
	2		
	14		
	26		14
-25			
	2		
	22		
	36		11
.65			
	20		
	50		12
▽ -30			
	12		
▼	42		
	50		13
	50		
-35			
-40			

BBS, form 137 (Rev. 8-99)

Page 2 of 2

Date 12/27/10

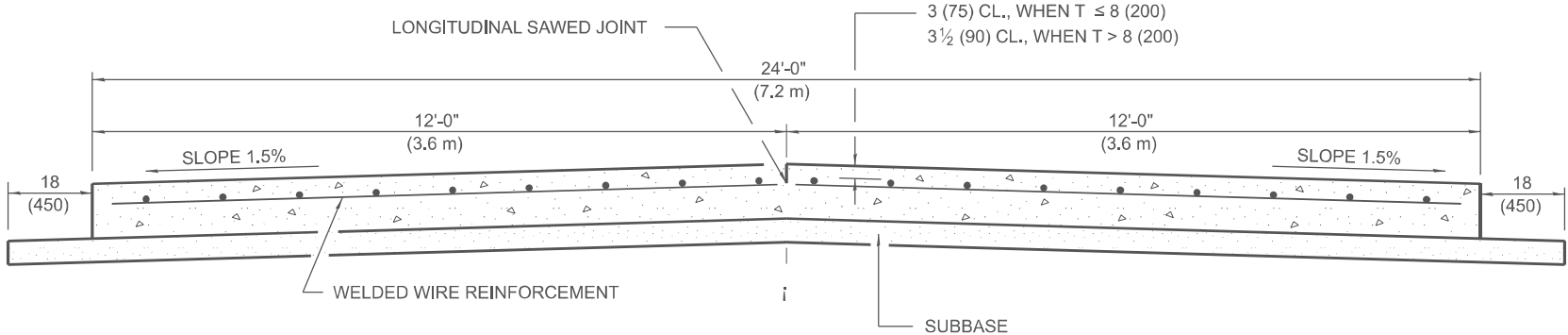
COUNTY Saline CORING METHOD Rotary, Surf Set Diamond Bit

RECOVERY	R . Q . D .	CORE TIME	STRENGTH
(%)	(%)	(min/ft)	(tsf)

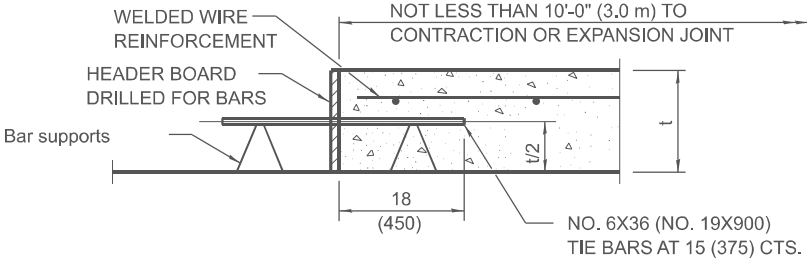
[illegible]

BBS, form 138 (Rev. 8-99)

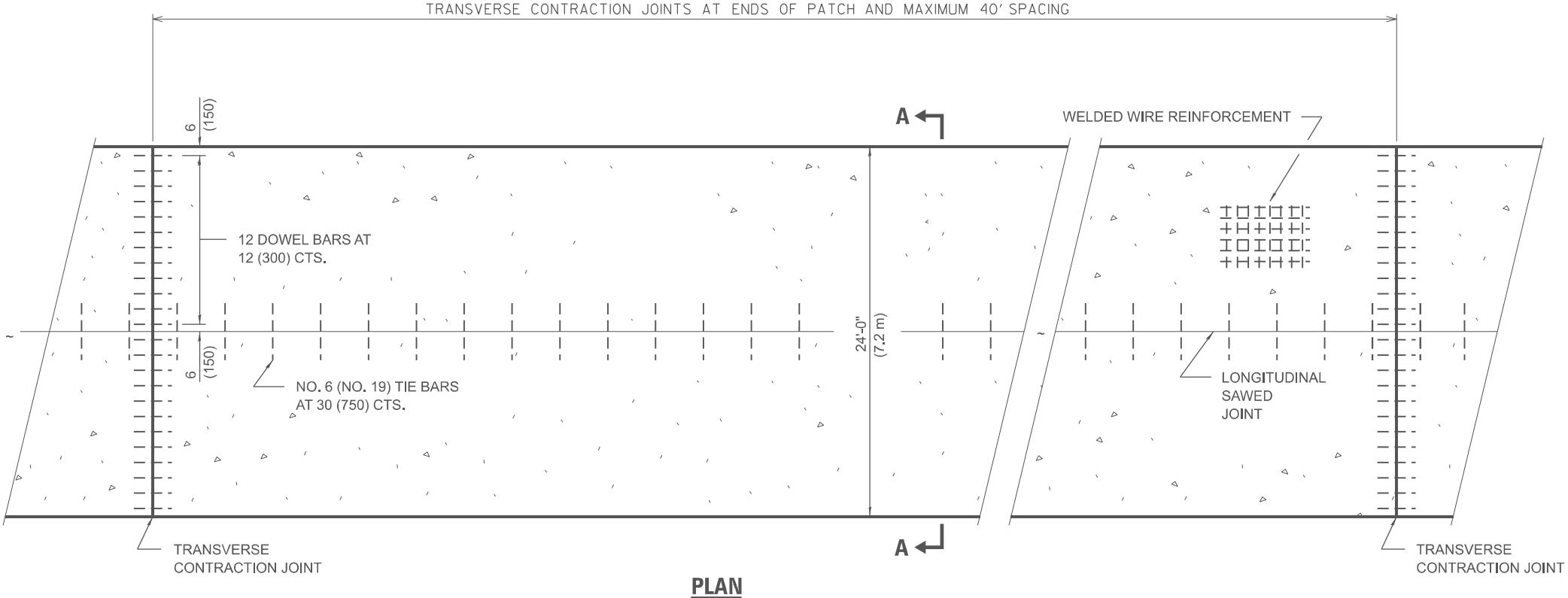
OVER BOX CULVERT



(TYPICAL 2-LANE WITH SHOULDERS)



(IF NEEDED PER STANDARD SPECIFICATIONS)



GENERAL NOTES

SEE STANDARD 420001 FOR DETAILS NOT SHOWN.

SEE STANDARD 420701 FOR WELDED WIRE
REINFORCEMENT DETAILS.

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

ACTUAL DIMENSIONS TO MATCH FIELD CONDITIONS
AND CONSTRUCTION METHODS.

REVISIONS

DRAWN	11-9-17
REVISED	7-23-18
REVISED	10-21-21

STD. 9-25

ONE TRANSVERSE CONTRACTION JOINT SHALL BE PLACED AT THE MIDDLE OF THE PROPOSED PCC PAVEMENT.

NO. 6 TIE BARS SHALL BE PLACED AT ALL LANE LINES AND AT BOTH EDGES OF PAVEMENT.
THE COST OF ALL DOWEL BARS AND TIE BARS SHALL BE INCLUDED IN THE COST OF PORTLAND CEMENT CONCRETE PAVEMENT 12"