

BUREAU
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

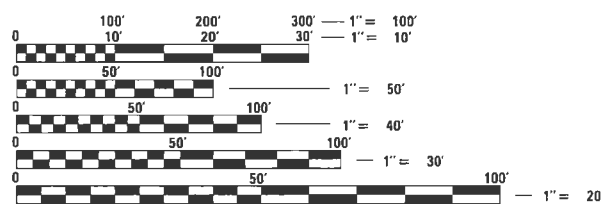
FAP 587 (IL 92)
SECTION (135B-1)BR
PROJECT NO. STP-8EV2(971)
BRIDGE REPLACEMENT
BUREAU COUNTY
C-93-073-21

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

TRAFFIC DATA - IL 92
MAJOR COLLECTOR
2017 ADT = 450 PROJ. 2040 ADT = 554
P.V. = 88.9% S.U. = 6.7% M.U. = 4.4%

BEGIN IMPROVEMENT (IL 92)
STA. 223 + 45.00

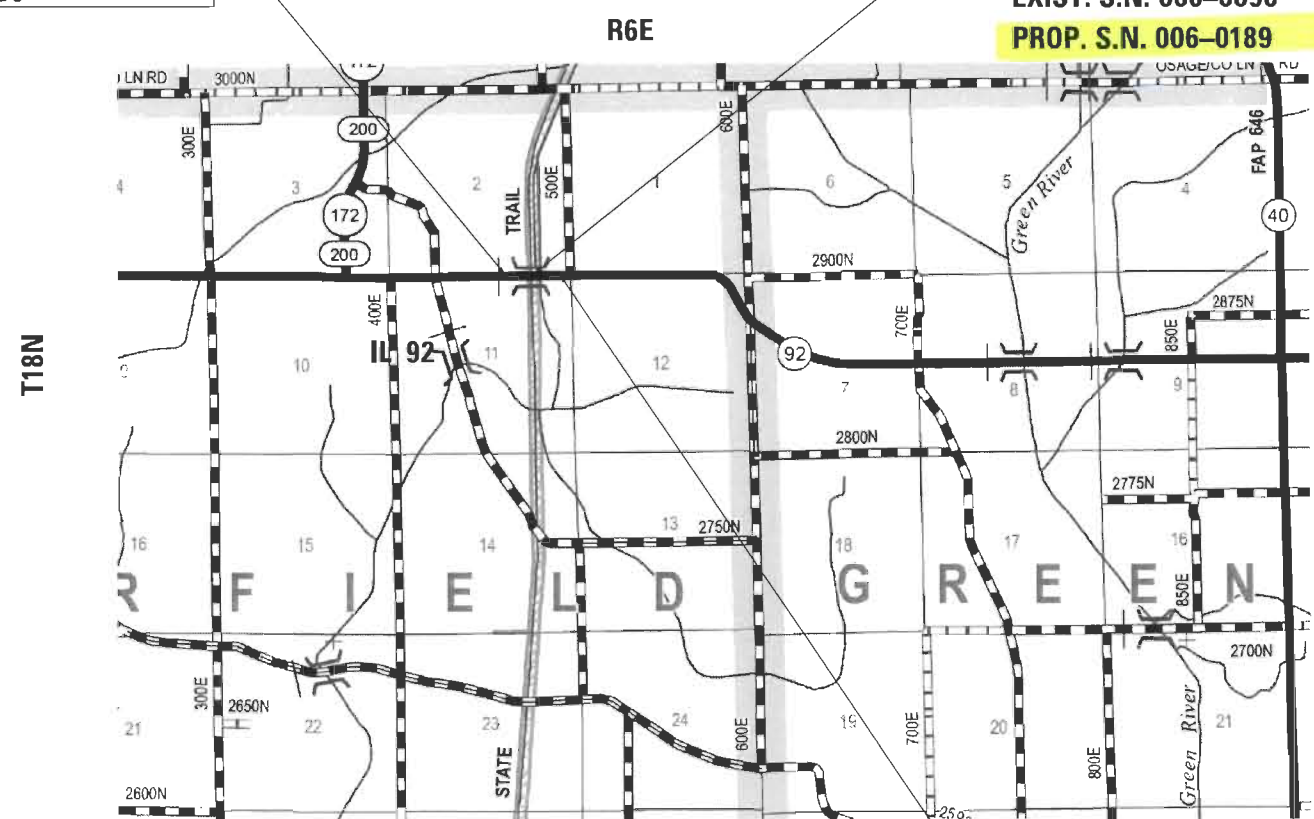
BRIDGE REMOVAL AND REPLACEMENT
STA. 230 + 74.26
EXIST. S.N. 006-0096
PROP. S.N. 006-0189



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

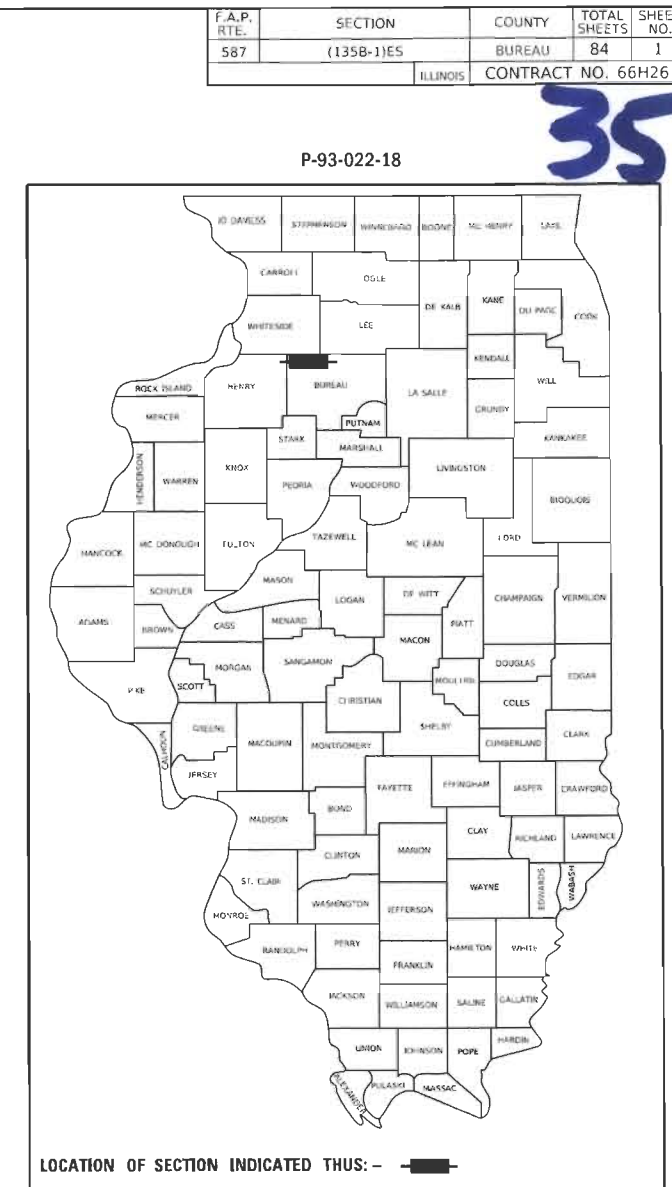
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: BRAD DUNCAN, P.E.
UNIT CHIEF: LUIS CALDERON, P.E.
TOWNSHIP(S): FAIRFIELD TOWNSHIP
CONTRACT NO. 66H26



GROSS LENGTH = 1465.00 FT. = 0.277 MILE
NET LENGTH = 1465.00 FT. = 0.277 MILE

END IMPROVEMENT (IL 92)
STA. 238 + 10.00



EFK Moen
Civil Engineering Design

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SUBMITTED August 11, 2021
REGIONAL ENGINEER
October 1, 2021
ENGINEER OF DESIGN AND SUPERVISION
October 1, 2021
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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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
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
424026-03	ENTRANCE/ALLEY PEDESTRIAN CROSSINGS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542401-04	METAL FLARED END SECTION FOR PIPE CULVERTS
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 M) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

START & END DATES
OF CONSTRUCTION:

INSPECTORS:

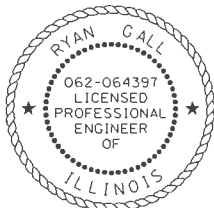
PREPARED BY:

DATE:

EXAMINED BY:
DISTRICT CONSTRUCTION ENGINEER

DISTRICT MATERIALS ENGINEER

DISTRICT OPERATIONS ENGINEER



Signed: *[Signature]*
Date: 07/29/2021
License Expires: 11/30/2021
The seal shown above is valid
for Sheets 01-37, and 59-84.



Signed: *[Signature]*
Date: 07/29/2021
License Expires: 11/30/2022
The seal shown above is valid
for Sheets 38-58.

EFK Moen
Civil Engineering Design

USER NAME = RCall	DESIGNED - RG	REVISED -
	DRAWN - CS	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 8/4/2021	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 92 OVER HENNEPIN CANAL FEEDER
INDEX AND HIGHWAY STANDARDS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 587	SECTION (135B-1)BR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 2
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66H26	

HMA SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL SAW CUT THE HMA SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK WILL BE INCLUDED IN THE COST OF THE HMA SURFACE.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

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

GRANULAR MATERIALS	2.05	TONS/CU YD
HMA PAVEMENT	112	LBS/SQ YD/IN

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

REMOVAL OF EXISTING STRUCTURES:
A UTILITY LINE (FRONTIER) IS CURRENTLY ATTACHED TO THE SOUTH SIDE OF THE STRUCTURE. THE CONTRACTOR SHALL VERIFY WITH FRONTIER IF THE LINE IS INACTIVE PRIOR TO REMOVAL. THE REMOVAL OF THIS LINE AND ANY NEARBY LINES INTERFERING WITH THE PROPOSED CONSTRUCTION OF THE NEW STRUCTURE SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE REMOVAL OF THE EXISTING STRUCTURES.

EXISTING SIGNS:
SIGNS REMOVED AND NOT REPLACED SHALL BE RETURNED TO IDOT DISTRICT 3.

THE HENNEPIN CANAL TRAIL MUST BE OPENED FROM 9/30/2022 TO 10/2/2022 FOR HENNEPIN 100 RACE. CONSTRUCTION ACTIVITIES SHALL BE ADJUSTED TO COMPLY WITH THIS REQUIREMENT.

USER NAME = RGall	DESIGNED - RG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 92 OVER HENNEPIN CANAL FEEDER GENERAL NOTES					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - CS	REVISED -		587	(135B-1)BR		BUREAU	84	3				
PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -							CONTRACT NO. 66H26				
PLOT DATE = 8/3/2021	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AID PROJECT

Benchmark: RR Spike in west side of power pole, west of boat ramp. Sta. 229+60.41, 140.74' left. Elevation 638.647.

Existing Structure: S.N. 006-0096 originally built in 1958 as Section 135B-1. The structure is a 3-span variable depth solid slab bridge on stub abutments and piers founded on concrete piles. The length of the structure is 89'-6" bk. to bk. abutments. The width is 36'-4" out to out. Traffic to be detoured with the bridge closed during construction.

Salvage: None

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

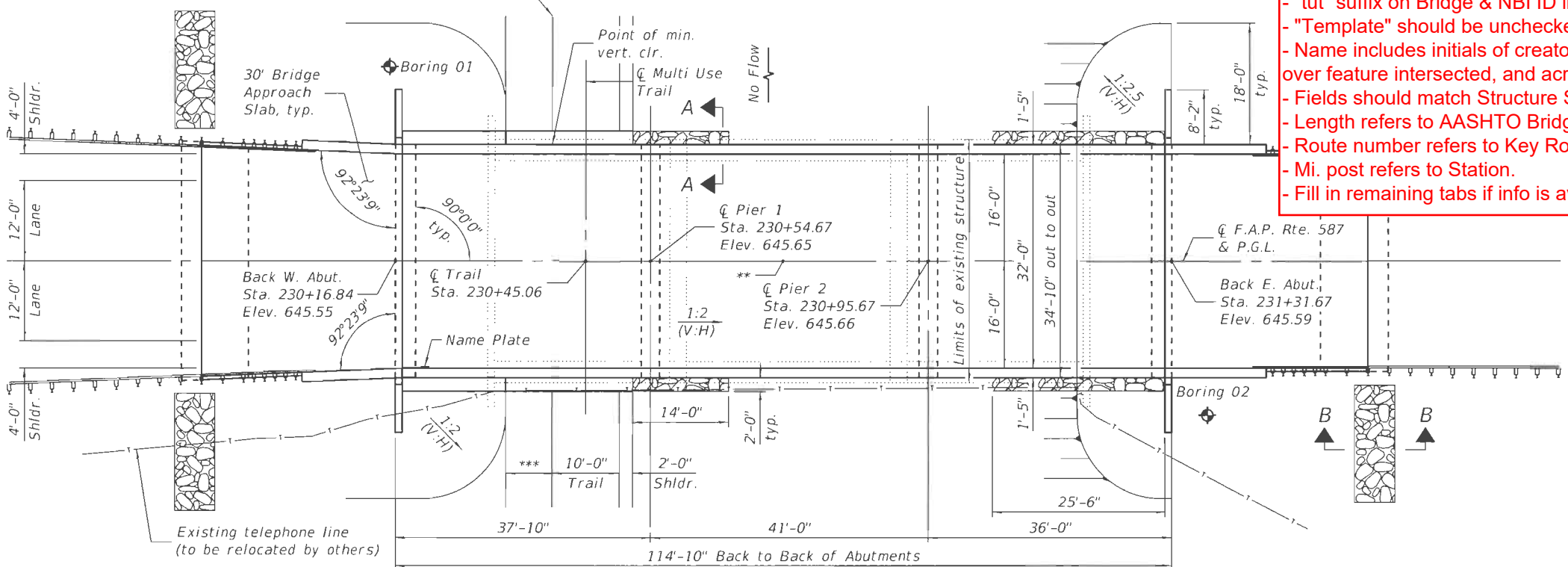
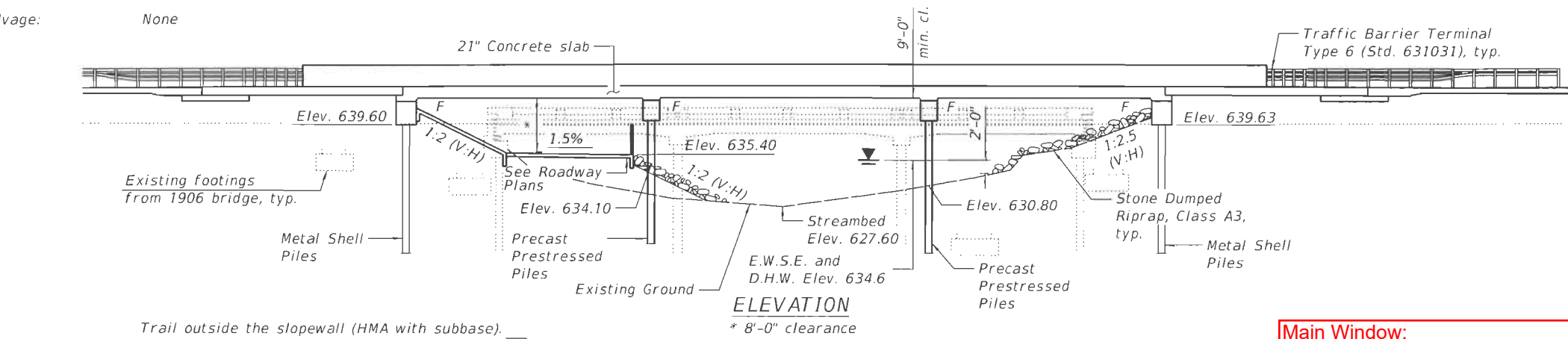
f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

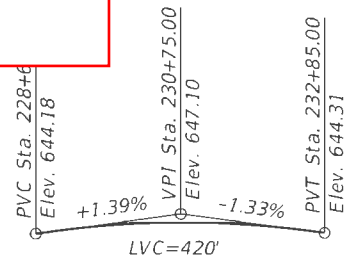
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (41,300 lbs.-1/2" Ø)
fsi = 189,000 psi (28,900 lbs.-1/2" Ø)

SEISMIC DATA

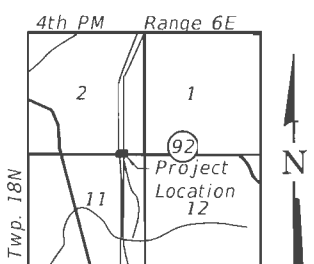
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.09g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.145g
Soil Site Class = D



Main Window:
- "tut" suffix on Bridge & NBI ID indicates tutorial.
- "Template" should be unchecked in active models.
- Name includes initials of creator and latest modifier of model, facility carried over feature intersected, and acronym for structure type (see setup guide).
- Fields should match Structure Summary Report.
- Length refers to AASHTO Bridge Length (clear span).
- Route number refers to Key Route Number.
- Mi. post refers to Station.
- Fill in remaining tabs if info is available.



PROFILE GRADE
Along Centerline Roadway



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 92 OVER
HENNEPIN CANAL FEEDER
F.A.P. RTE. 587 - SEC. (135B-1)BRR
BUREAU COUNTY
STATION 230+74.26
STRUCTURE NO. 006-0189

PLAN

** Centerline Structure Sta. 230+74.26
*** Shoulder width varies from 2'-0" along trail to 6'-10" under bridge

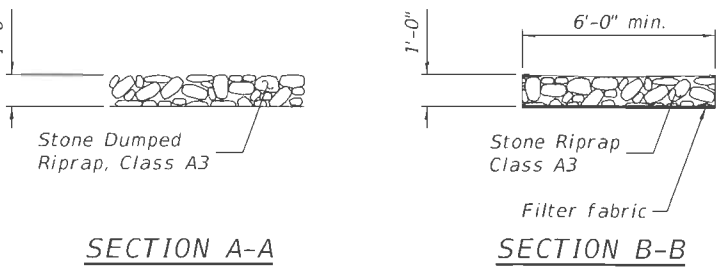
DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	639.60	625.10	625.10	639.63	8
Q200	639.60	625.10	625.10	639.63	
Design	639.60	625.10	625.10	639.63	
Check	639.60	625.10	625.10	639.63	

WATERWAY INFORMATION

Drainage Area = 0.32 sq. mi.		Exist. Overtopping Elev. 639.8 @ Sta. 230+75		Prop. Overtopping Elev. 647.8 @ Sta. 230+75	
Flood	Freq. Yr.	Q C.F.S.	Opening Ft²	Nat. H.W.E.	Head - Ft.
			Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	N/A	N/A	348 279	634.6	634.6 634.6
Base	--	--	--	--	--
Scour Check	--	--	--	--	--
Max. Calc.	--	--	--	--	--

Est. 100' wide canal, 17 miles long to US Lock 33
Maximum HWE based on Locks 33 (US) and 22 (DS)



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Civil Engineering Design

USER NAME = ADBenz	DESIGNED - ACB	REVISED -
PLOT SCALE =	CHECKED - CDL	REVISED -
PLOT DATE = 8/4/2021	DRAWN - ACB	REVISED -
	CHECKED - CDL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 006-0189

SHEET 1 OF 21 SHEETS

F.A.P. RTE. 587	SECTION (135B-1)BRR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 38
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

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.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

INDEX OF SHEETS

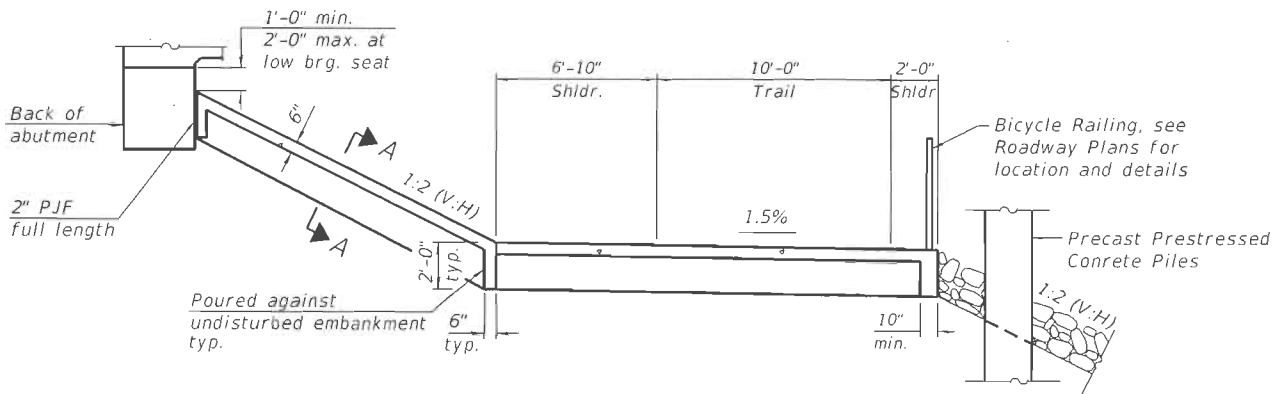
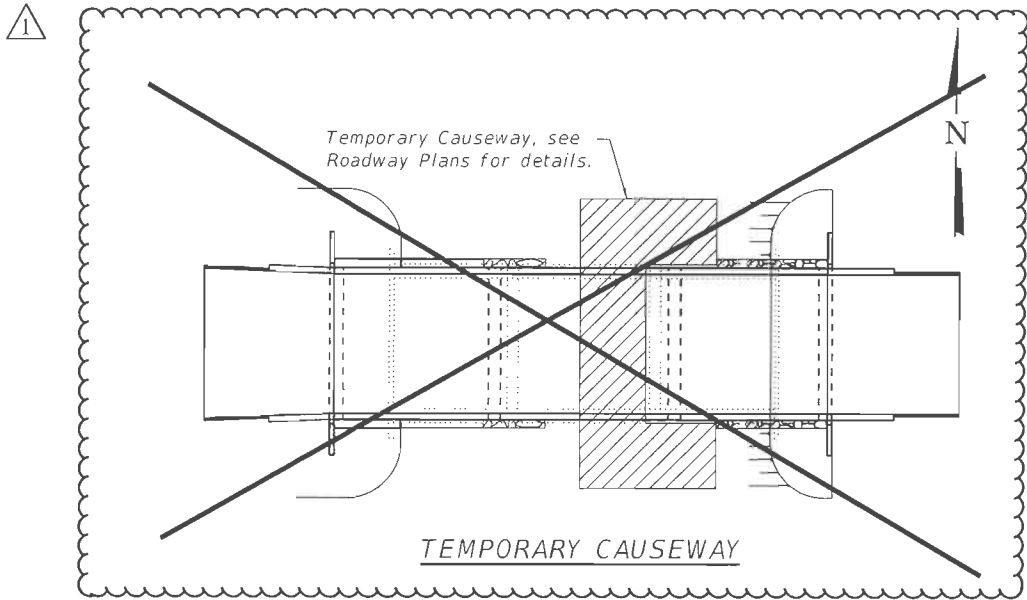
- 1. General Plan & Elevation
- 2. General Data
- 3. Top of Slab Elevations
- 4. Top of Slab Elevations
- 5. Top of West Approach Slab Elevations
- 6. Top of East Approach Slab Elevations
- 7. Superstructure
- 8. Superstructure
- 9. Superstructure Details
- 10. West Bridge Approach Slab Details
- 11. West Bridge Approach Slab Details
- 12. East Bridge Approach Slab Details
- 13. East Bridge Approach Slab Details
- 14. West Abutment
- 15. East Abutment
- 16. Piers
- 17. Metal Shell Pile Details
- 18. Precast Pile Details
- 19. Concrete Parapet Slipforming Option
- 20. Soil Boring Logs
- 21. Soil Boring Logs

STATION 230+74.26
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 587
SEC. (135B-1)BRR
LOADING HL-93
STRUCTURE NO. 006-0189

NAME PLATE
See Std. 515001

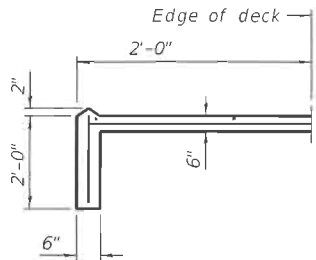
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A3	Sq Yd		52	52
Stone Dumped Riprap, Class A3	Sq Yd		187	187
Filter Fabric	Sq Yd		52	52
Removal Of Existing Structures	Each	1		1
Structure Excavation	Cu Yd		93	93
Concrete Structures	Cu Yd		77.3	77.3
Concrete Superstructure	Cu Yd	300.3		300.3
Bridge Deck Grooving	Sq Yd	580		580
Protective Coat	Sq Yd	754		754
Concrete Superstructure (Approach Slab)	Cu Yd	96.3		96.3
Reinforcement Bars, Epoxy Coated	Pound	109,500	12,500	122,000
Slope Wall 6 Inch	Sq Yd		147	147
Furnishing Precast Prestressed Concrete Piles 14"	Foot		560	560
Furnishing Metal Shell Piles 14" X 0.312"	Foot		290	290
Driving Piles	Foot		850	850
Test Piles Precast Prestressed Concrete	Each		2	2
Test Pile Metal Shells	Each		2	2
Pile Shoes	Each		12	12
Name Plates	Each	1		1
Granular Backfill For Structures	Cu Yd		71	71
Geocomposite Wall Drain	Sq Yd		49	49
Pipe Underdrains For Structures 4"	Foot		124	124

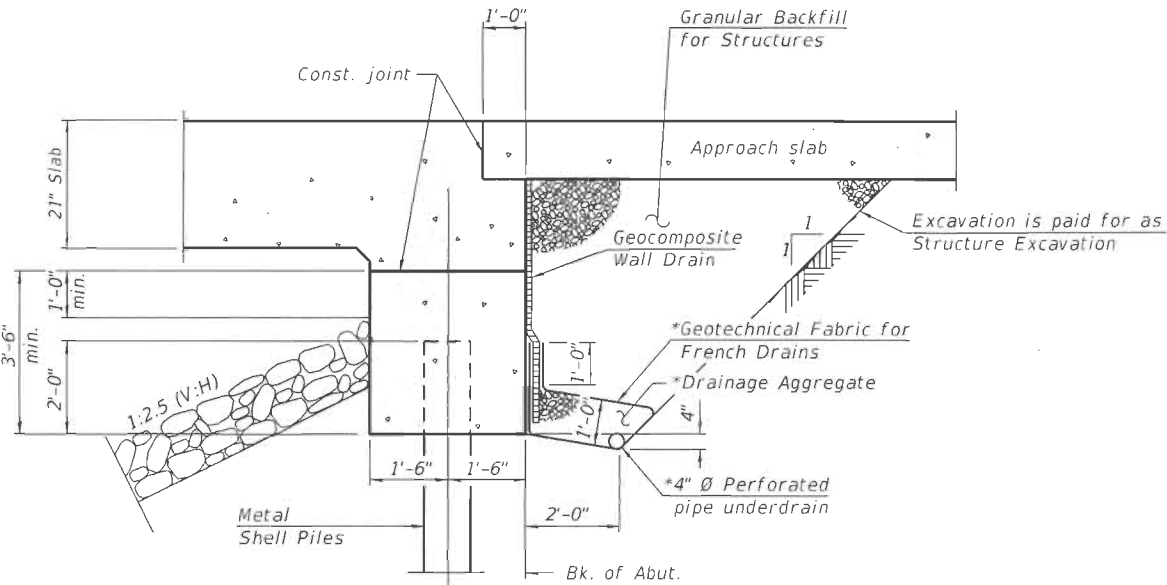


SECTION THRU CONCRETE SLOPEWALL

Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



SECTION A-A



SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrains For Structures. (See Special Provisions)

Note:
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).

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9/29/2021 9:12:10 AM

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Civil Engineering Design

USER NAME	ASBnz	DESIGNED	ACB	REVISED	-
		CHECKED	CDL	REVISED	-
PLOT SCALE	*	DRAWN	ACB	REVISED	-
PLOT DATE	9/29/2021	CHECKED	CDL	REVISED	-

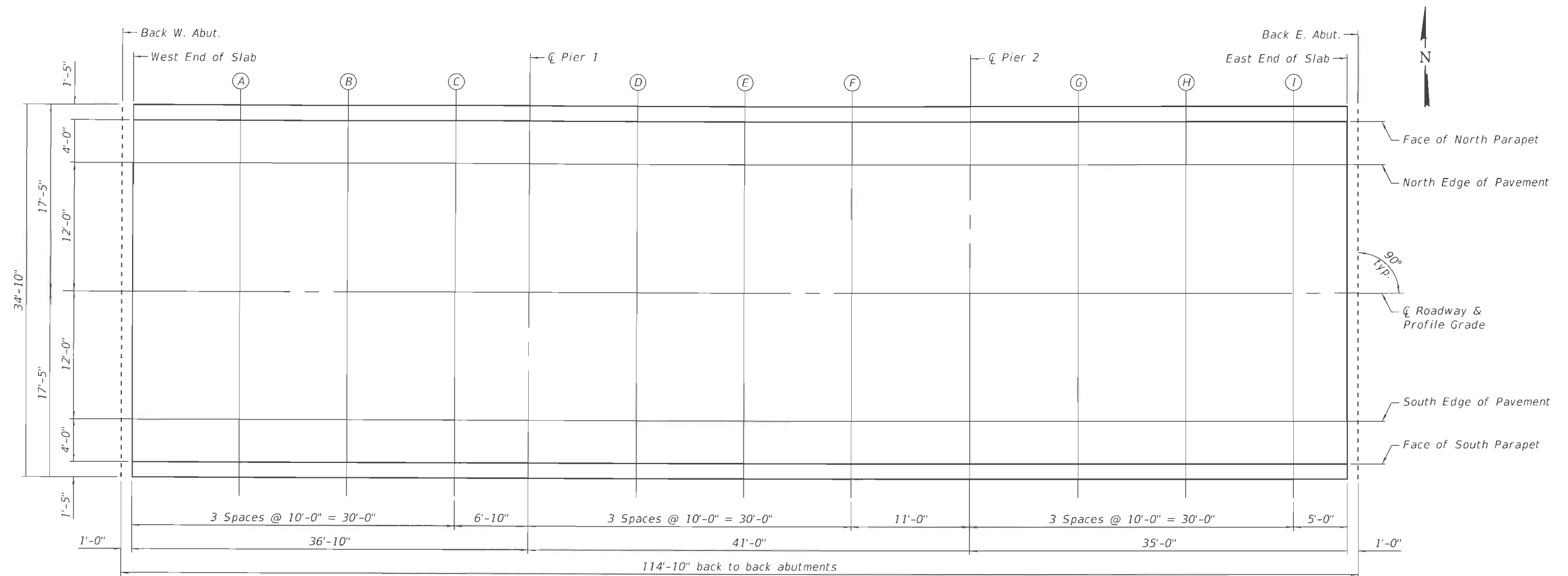
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 006-0189

SHEET 2 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	39
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

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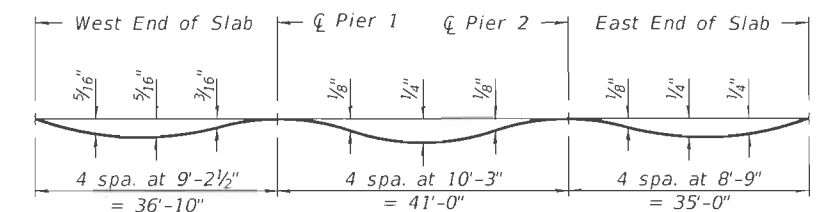
PLAN

Face of North Parapet

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	230+16.84	-16.00	645.29	645.29
West End of Slab	230+17.84	-16.00	645.29	645.29
A	230+27.84	-16.00	645.33	645.35
B	230+37.84	-16.00	645.36	645.38
C	230+47.84	-16.00	645.38	645.39
Centerline Pier 1	230+54.67	-16.00	645.39	645.39
D	230+64.67	-16.00	645.41	645.42
E	230+74.67	-16.00	645.41	645.43
F	230+84.67	-16.00	645.41	645.43
Centerline Pier 2	230+95.67	-16.00	645.40	645.40
G	231+05.67	-16.00	645.39	645.40
H	231+15.67	-16.00	645.37	645.39
I	231+25.67	-16.00	645.34	645.36
East End of Slab	231+30.67	-16.00	645.33	645.33
Back E. Abut.	231+31.67	-16.00	645.33	645.33

North Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	230+16.84	-12.00	645.37	645.37
West End of Slab	230+17.84	-12.00	645.37	645.37
A	230+27.84	-12.00	645.41	645.43
B	230+37.84	-12.00	645.44	645.46
C	230+47.84	-12.00	645.46	645.47
Centerline Pier 1	230+54.67	-12.00	645.47	645.47
D	230+64.67	-12.00	645.49	645.50
E	230+74.67	-12.00	645.49	645.51
F	230+84.67	-12.00	645.49	645.51
Centerline Pier 2	230+95.67	-12.00	645.48	645.48
G	231+05.67	-12.00	645.47	645.48
H	231+15.67	-12.00	645.45	645.47
I	231+25.67	-12.00	645.42	645.44
East End of Slab	231+30.67	-12.00	645.41	645.41
Back E. Abut.	231+31.67	-12.00	645.41	645.41



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 3 and 4 of 21.

EFK•Moen
Civil Engineering Design

USER NAME = ABenz	DESIGNED - ACB	REVISED -
	CHECKED - CDL	REVISED -
PLOT SCALE =	DRAWN - ACB	REVISED -
PLOT DATE = 7/30/2021	CHECKED - CDL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0189

SHEET 3 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(1356-1)BRR	BUREAU	84	40
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: \\SERVER18\\Project\\554\\20027 09 IDOT D3 PTB 194-027 W09 IL 92 over Hennopin Canal Feeder\\DGM\\Bridge\\Final\\Plots\\Sheets\\0060189-66H2E-004-Slab_Elevations.dgn

Centerline Roadway & Profile Grade

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	230+16.84	0.00	645.55	645.55
West End of Slab	230+17.84	0.00	645.55	645.55
A	230+27.84	0.00	645.59	645.61
B	230+37.84	0.00	645.62	645.64
C	230+47.84	0.00	645.64	645.65
Centerline Pier 1	230+54.67	0.00	645.65	645.65
D	230+64.67	0.00	645.67	645.68
E	230+74.67	0.00	645.67	645.69
F	230+84.67	0.00	645.67	645.69
Centerline Pier 2	230+95.67	0.00	645.66	645.66
G	231+05.67	0.00	645.65	645.66
H	231+15.67	0.00	645.63	645.65
I	231+25.67	0.00	645.60	645.62
East End of Slab	231+30.67	0.00	645.59	645.59
Back E. Abut.	231+31.67	0.00	645.59	645.59

South Edge of Pavement

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	230+16.84	12.00	645.37	645.37
West End of Slab	230+17.84	12.00	645.37	645.37
A	230+27.84	12.00	645.41	645.43
B	230+37.84	12.00	645.44	645.46
C	230+47.84	12.00	645.46	645.47
Centerline Pier 1	230+54.67	12.00	645.47	645.47
D	230+64.67	12.00	645.49	645.50
E	230+74.67	12.00	645.49	645.51
F	230+84.67	12.00	645.49	645.51
Centerline Pier 2	230+95.67	12.00	645.48	645.48
G	231+05.67	12.00	645.47	645.48
H	231+15.67	12.00	645.45	645.47
I	231+25.67	12.00	645.42	645.44
East End of Slab	231+30.67	12.00	645.41	645.41
Back E. Abut.	231+31.67	12.00	645.41	645.41

Face of South Parapet

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	230+16.84	16.00	645.29	645.29
West End of Slab	230+17.84	16.00	645.29	645.29
A	230+27.84	16.00	645.33	645.35
B	230+37.84	16.00	645.36	645.38
C	230+47.84	16.00	645.38	645.39
Centerline Pier 1	230+54.67	16.00	645.39	645.39
D	230+64.67	16.00	645.41	645.42
E	230+74.67	16.00	645.41	645.43
F	230+84.67	16.00	645.41	645.43
Centerline Pier 2	230+95.67	16.00	645.40	645.40
G	231+05.67	16.00	645.39	645.40
H	231+15.67	16.00	645.37	645.39
I	231+25.67	16.00	645.34	645.36
East End of Slab	231+30.67	16.00	645.33	645.33
Back E. Abut.	231+31.67	16.00	645.33	645.33



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PLOT SCALE	=	DRAWN	-	ACB	REVISED	-
PLOT DATE	= 7/30/2021	CHECKED	-	CDL	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0189

SHEET 4 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	41
CONTRACT NO. 66H26				
		ILLINOIS	FED. AID PROJECT	

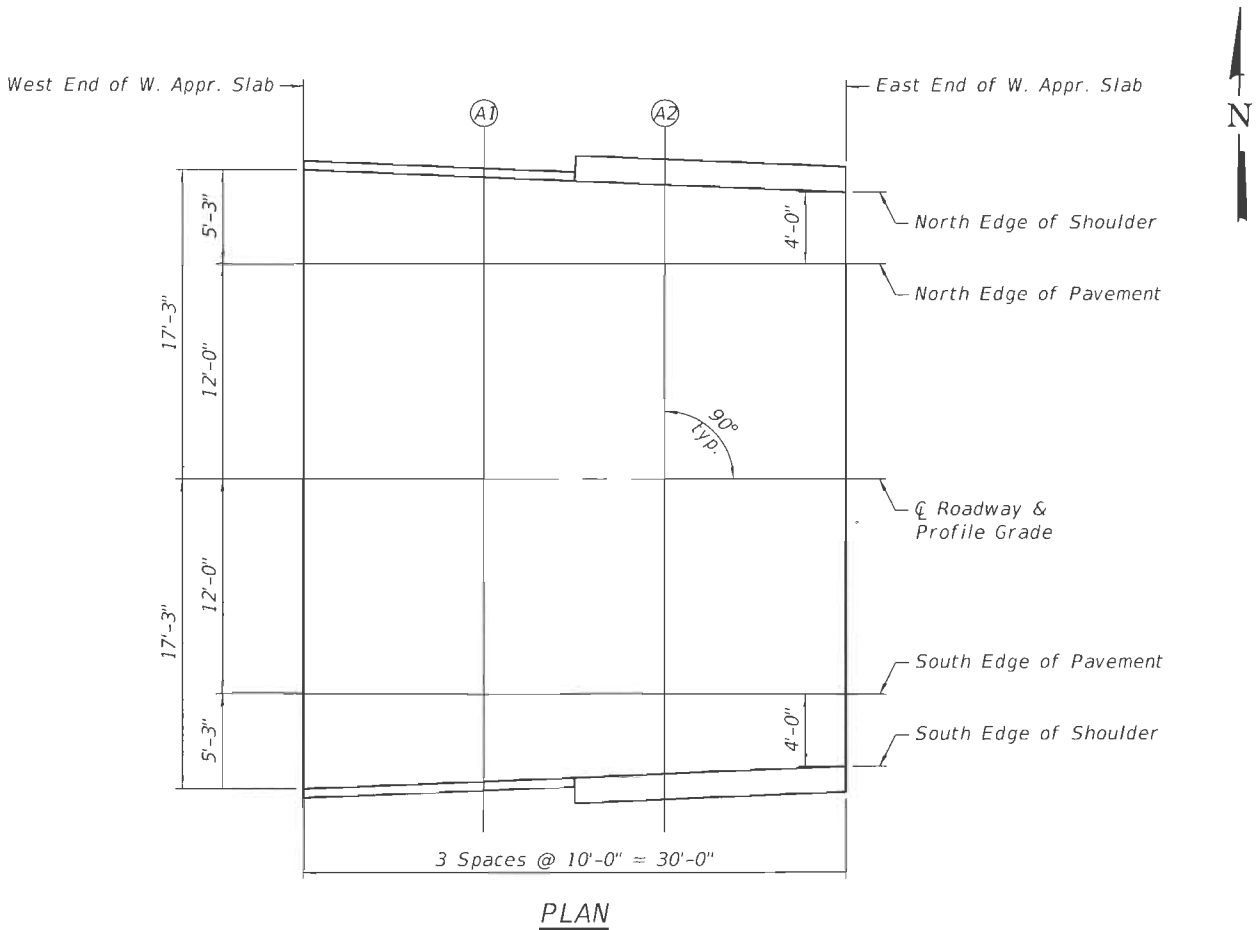
NORTH EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Appr. Slab	229+87.84	-17.25	645.11
A1	229+97.84	-16.83	645.18
A2	230+07.84	-16.42	645.24
East End of W. Appr. Slab	230+17.84	-16.00	645.29

NORTH EDGE OF PAVEMENT			
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Appr. Slab	229+87.84	-12.00	645.22
A1	229+97.84	-12.00	645.28
A2	230+07.84	-12.00	645.33
East End of W. Appr. Slab	230+17.84	-12.00	645.37

CL ROADWAY & PROFILE GRADE			
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Appr. Slab	229+87.84	0.00	645.40
A1	229+97.84	0.00	645.46
A2	230+07.84	0.00	645.51
East End of W. Appr. Slab	230+17.84	0.00	645.55

SOUTH EDGE OF PAVEMENT			
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Appr. Slab	229+87.84	12.00	645.22
A1	229+97.84	12.00	645.28
A2	230+07.84	12.00	645.33
East End of W. Appr. Slab	230+17.84	12.00	645.37

SOUTH EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
West End of W. Appr. Slab	229+87.84	17.25	645.11
A1	229+97.84	16.83	645.18
A2	230+07.84	16.42	645.24
East End of W. Appr. Slab	230+17.84	16.00	645.29



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E-AS 2-17-2017

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Civil Engineering Design

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0189

SHEET 5 OF 21 SHEETS

F.A.P. RTE. 587	SECTION (135B-1)BRR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 42
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Apr. Slab	231+30.67	-16.00	645.33
A3	231+40.67	-16.00	645.29
A4	231+50.67	-16.00	645.25
East End of E. Apr. Slab	231+60.67	-16.00	645.20

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Apr. Slab	231+30.67	-12.00	645.41
A3	231+40.67	-12.00	645.37
A4	231+50.67	-12.00	645.33
East End of E. Apr. Slab	231+60.67	-12.00	645.28

CL ROADWAY & PROFILE GRADE

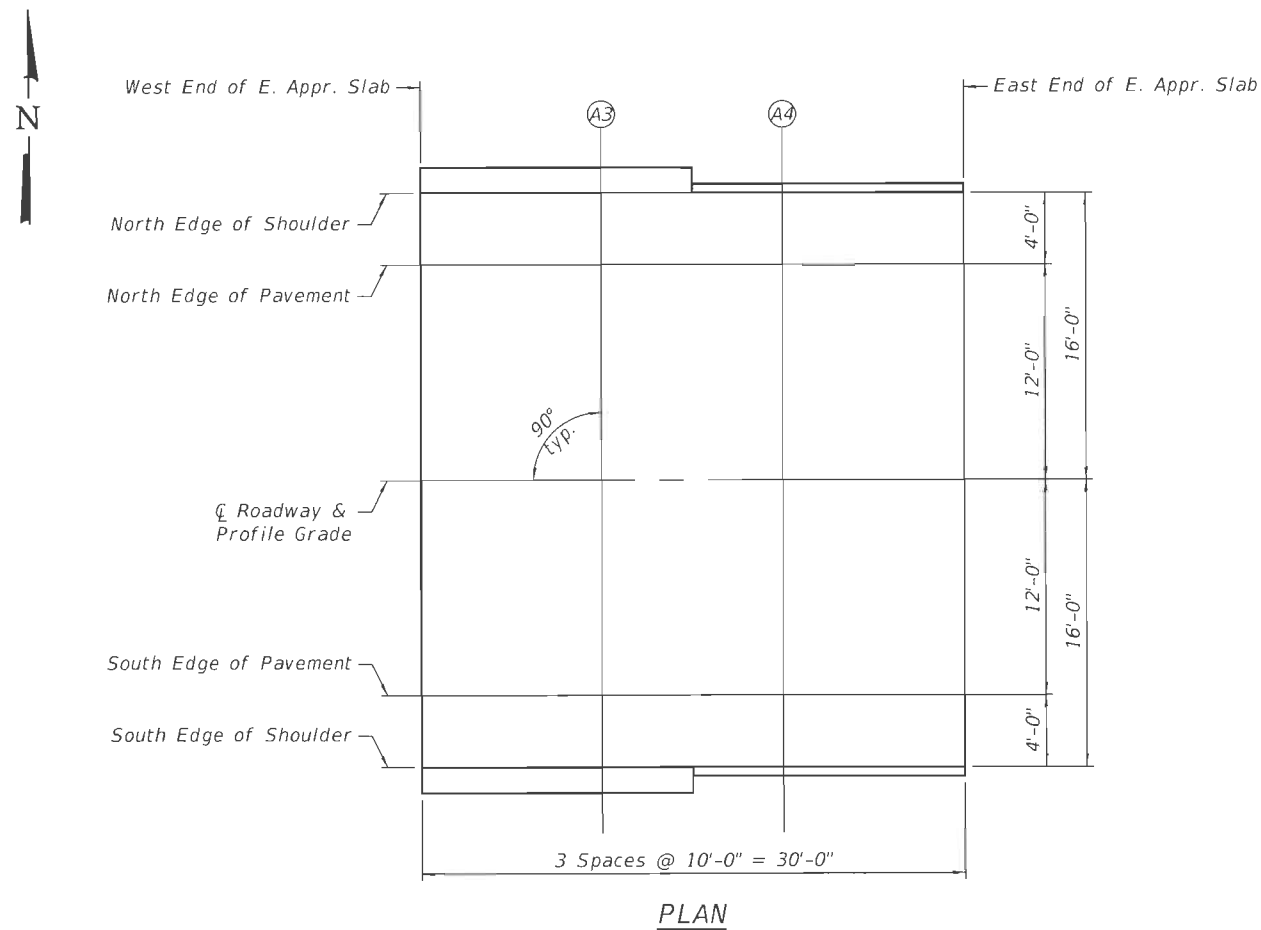
Location	Station	Offset	Theoretical Grade Elevations
West End of E. Apr. Slab	231+30.67	0.00	645.59
A3	231+40.67	0.00	645.55
A4	231+50.67	0.00	645.51
East End of E. Apr. Slab	231+60.67	0.00	645.46

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Apr. Slab	231+30.67	12.00	645.41
A3	231+40.67	12.00	645.37
A4	231+50.67	12.00	645.33
East End of E. Apr. Slab	231+60.67	12.00	645.28

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
West End of E. Apr. Slab	231+30.67	16.00	645.33
A3	231+40.67	16.00	645.29
A4	231+50.67	16.00	645.25
East End of E. Apr. Slab	231+60.67	16.00	645.20



E-AS

2-17-2017

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

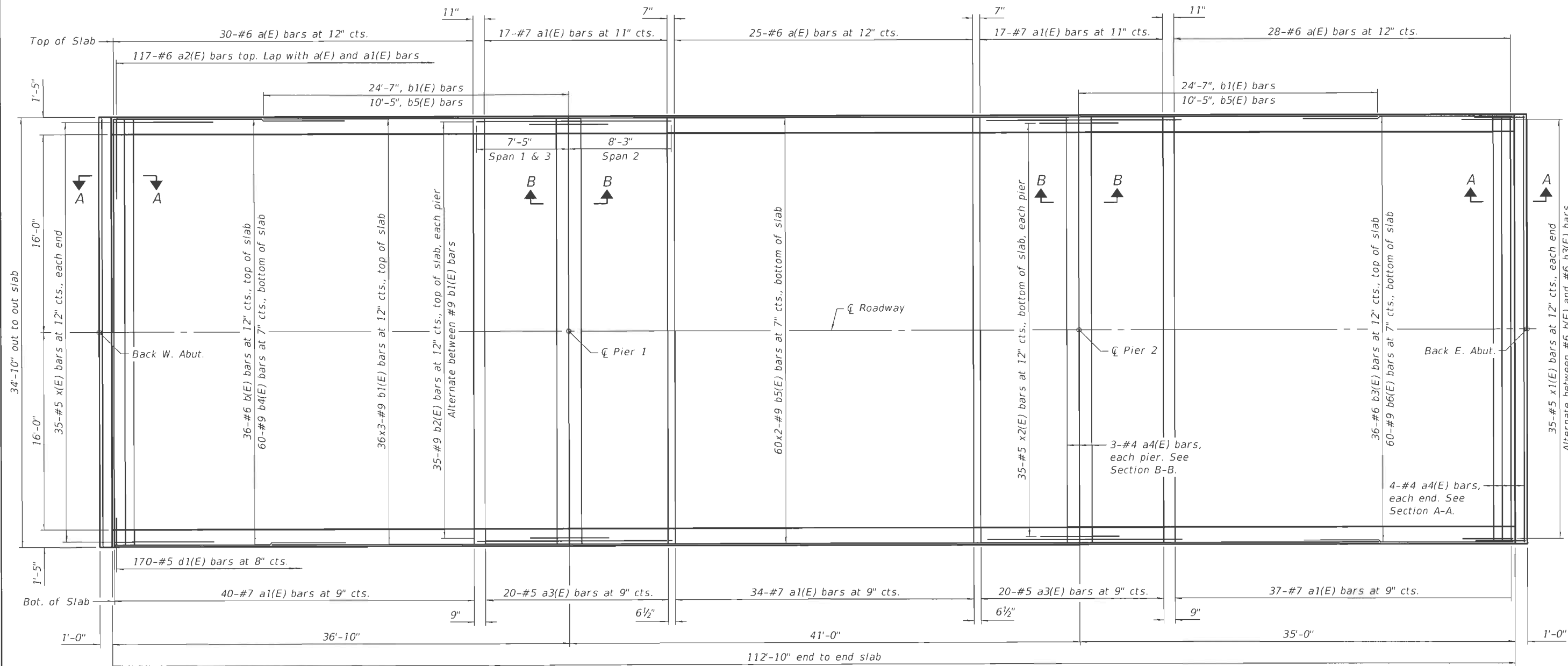
TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0189

SHEET 6 OF 21 SHEETS

F.A.P. RTE. 587	SECTION (135B-1)BRR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 43
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

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SLAB PLAN

MINIMUM BAR LAP

#9 bar = 6'-7" (Top of Slab)
#9 bar = 7'-3" (Bottom of Slab)

Notes:
See sheet 9 of 21 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

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Civil Engineering Design

USER NAME	= ABenz	DESIGNED	- ACB	REVISED	-
		CHECKED	- CDL	REVISED	-
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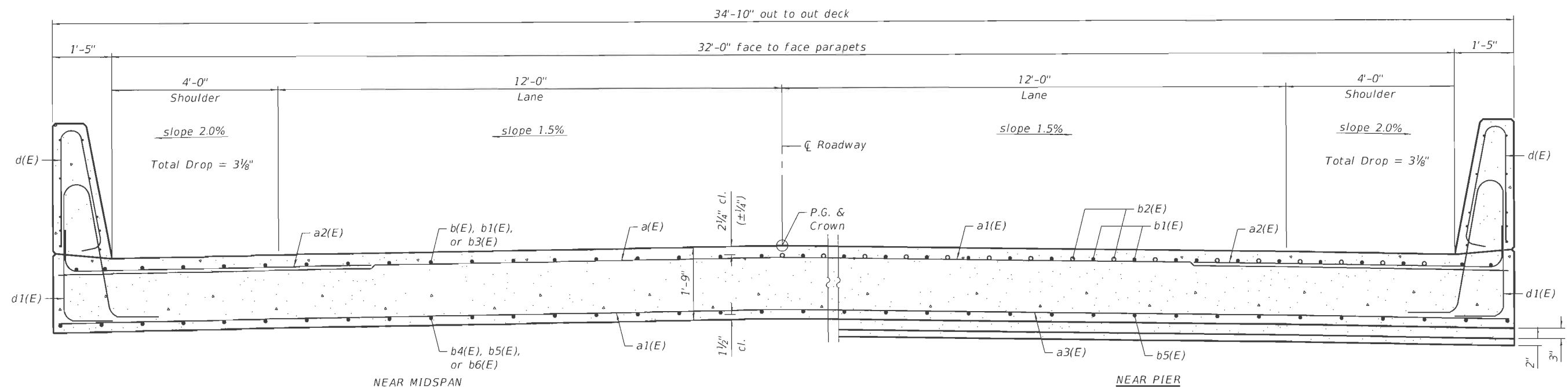
STATE OF ILLINOIS
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SUPERSTRUCTURE
STRUCTURE NO. 006-0189

SHEET 7 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	44
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

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* Slab strip(s) that controls the overall load rating should have " - X" as a suffix in the Member Name and both the "Existing" and "Current" boxes should be checked in the Member window. Non-controlling slab strips should only have the "Current" box checked.

CROSS SECTION
(Looking East)

Slab systems should be used, rather than line girders. The number of strips defined in the system is dependent on the variation of the cross-section. Strips should be defined for each variation (main interior portion, thickened edges, etc.). In this case, the cross-section is uniform, so the system was defined with two equal strips. Note that if the slab contains a thickened edge beam with shear stirrup reinforcement, a separate line girder definition must be created since the slab system definition does not allow for shear stirrups.

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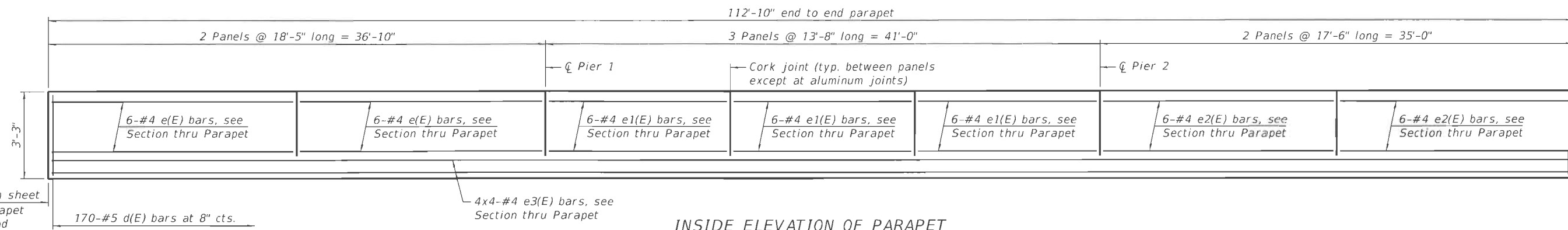
STATE OF ILLINOIS
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SUPERSTRUCTURE
STRUCTURE NO. 006-0189

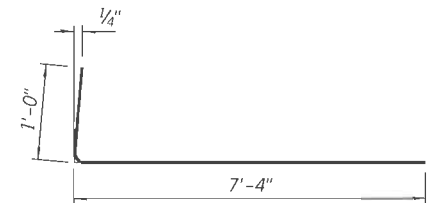
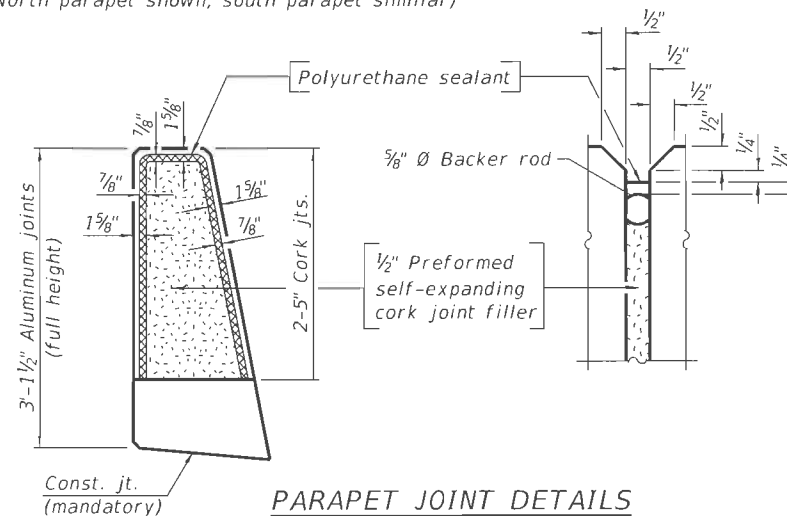
SHEET 8 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

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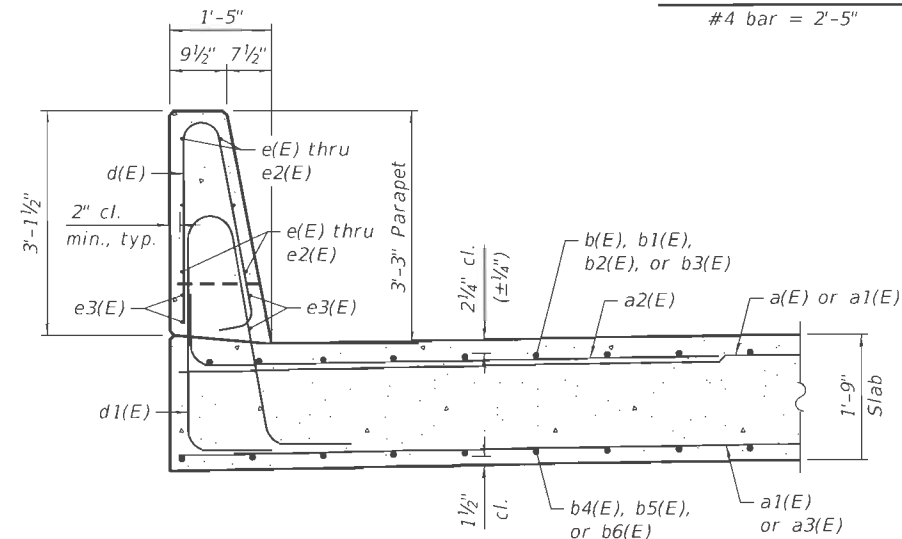


INSIDE ELEVATION OF PARAPET
(North parapet shown, south parapet similar)

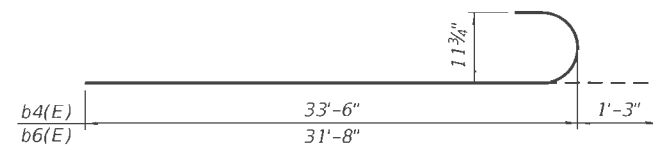


BAR a2(E)

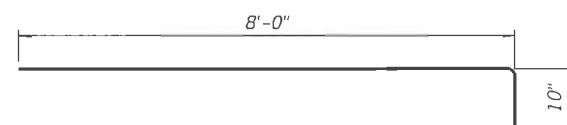
MINIMUM BAR LAP
#4 bar = 2'-5"



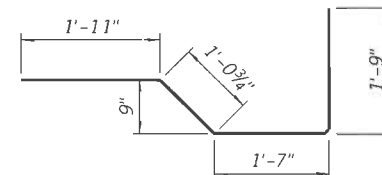
SECTION THRU PARAPET



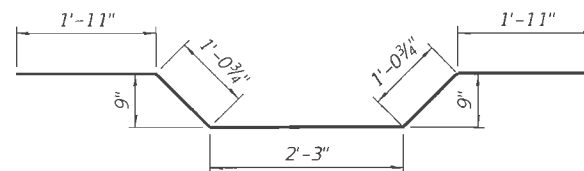
BAR b4(E) or b6(E)



BAR x(E)



BAR x1(E)

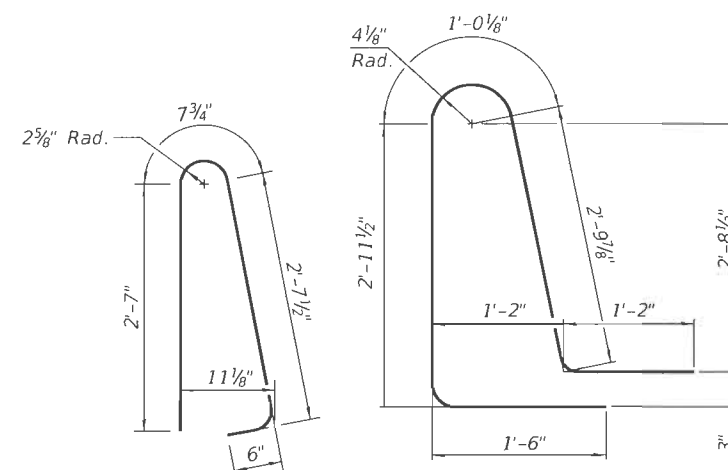


BAR x2(E)

Notes:

The 1/8" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

PARAPET JOINT DETAILS



BAR d(E)

BAR d1(E)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	83	#6	34'-6"	—
a1(E)	145	#7	34'-6"	—
a2(E)	234	#6	8'-4"	└
a3(E)	40	#5	34'-6"	—
a4(E)	14	#4	34'-6"	—
b(E)	36	#6	18'-8"	—
b1(E)	108	#9	34'-6"	—
b2(E)	35	#9	15'-8"	—
b3(E)	36	#6	16'-10"	—
b4(E)	60	#9	34'-9"	┐
b5(E)	120	#9	34'-7"	—
b6(E)	60	#9	32'-11"	┐
d(E)	340	#5	6'-5"	└
d1(E)	340	#5	9'-6"	└
e(E)	12	#4	18'-2"	—
e1(E)	18	#4	13'-5"	—
e2(E)	12	#4	17'-3"	—
e3(E)	16	#4	30'-0"	—
x(E)	70	#5	8'-10"	└
x1(E)	70	#5	6'-4"	└
x2(E)	70	#5	8'-3"	└
Reinforcement Bars, Epoxy Coated			Lbs.	71,700
Concrete Superstructure			Cu. Yds.	292.5

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

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Civil Engineering Design

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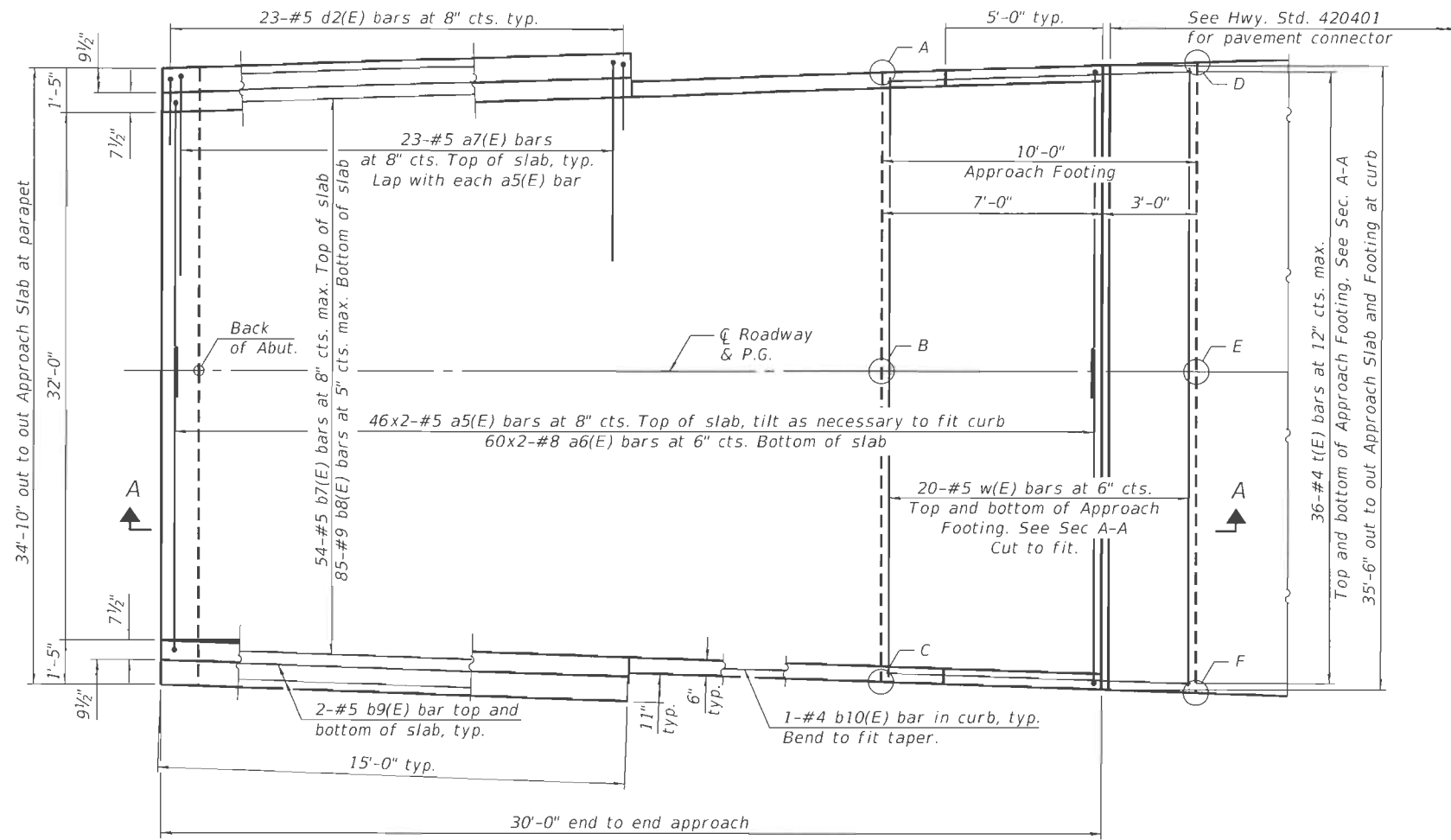
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 006-0189**

SHEET 9 OF 21 SHEETS

F.A.P. RTE. 587	SECTION (135B-1)BRR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 46
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

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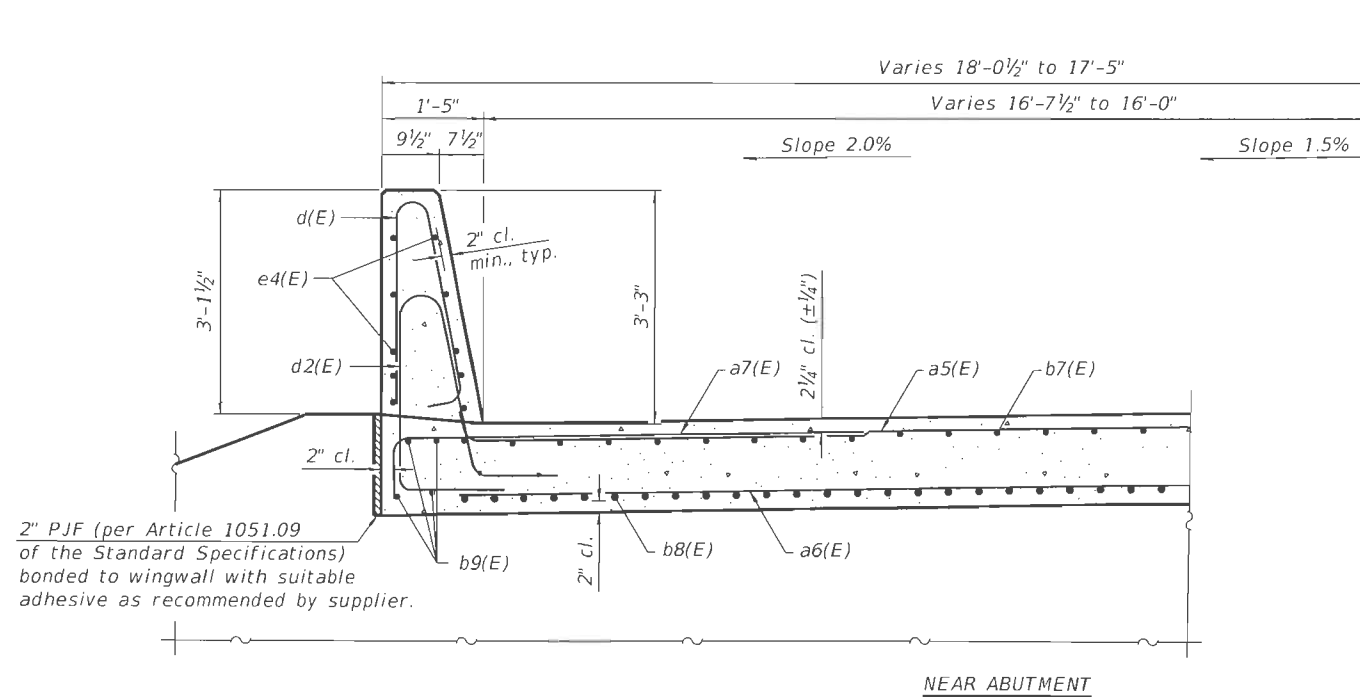
PLAN

TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

Point	West Approach	
	Top	Bottom
A	643.90	643.07
B	644.19	643.36
C	643.90	643.07
D	643.83	643.00
E	644.13	643.30
F	643.83	643.00

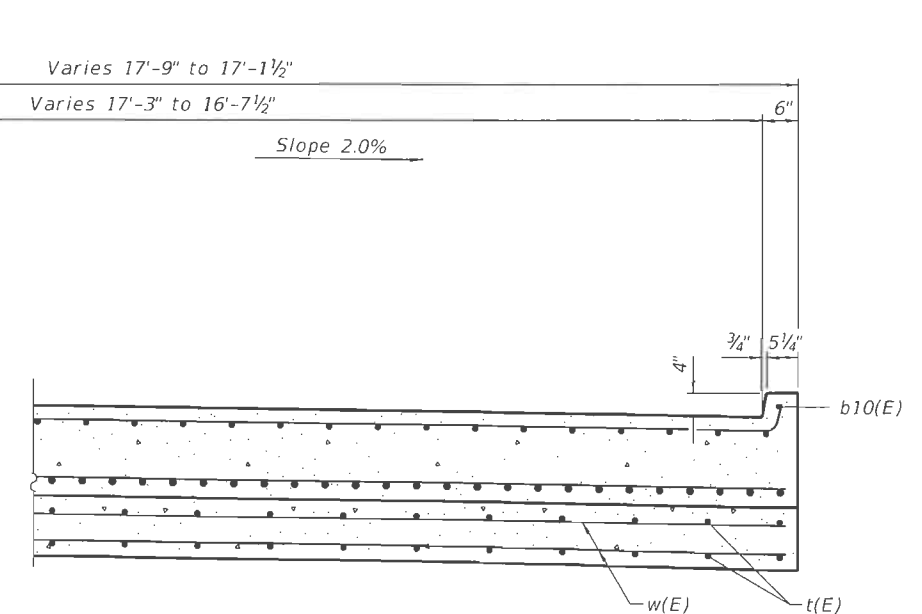
MINIMUM BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"



NEAR ABUTMENT

CROSS SECTION
(Looking East)



AT APPROACH FOOTING

BAIA-CIP-39CS-0 6-15-2019

(Sheet 1 of 2)

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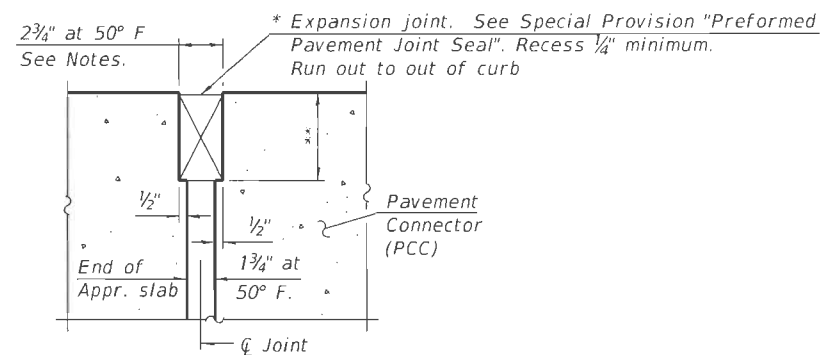
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0189

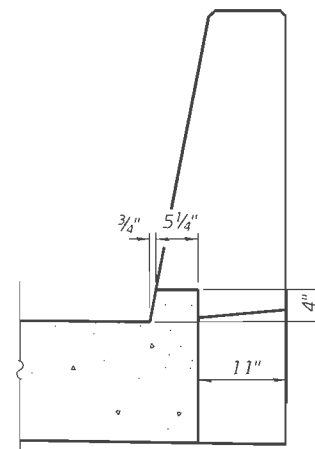
SHEET 10 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	47
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

8/23/2021 3:00:21 PM



DETAIL A



VIEW B-B

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.

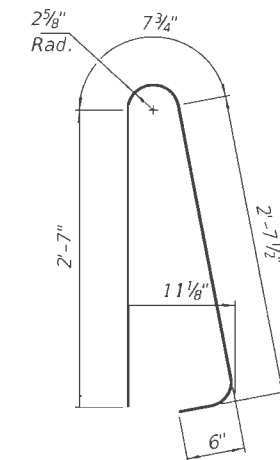
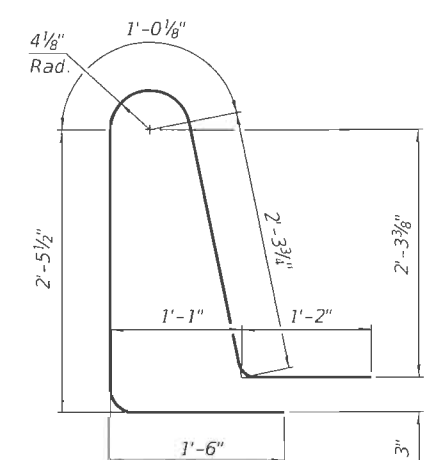
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

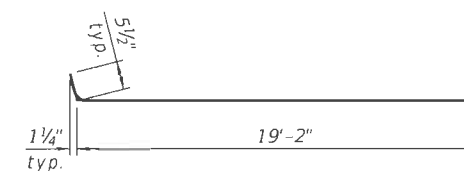
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

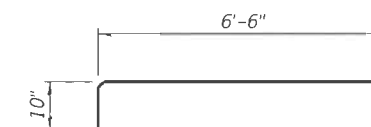
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 21.


$$\underline{BAR \ d(E)}$$


BAR d2(E)



BAR a5(E)



BAR a7(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a5(E)	92	#5	19'-8"	————
a6(E)	120	#8	20'-0"	————
a7(E)	46	#5	7'-4"	————
b7(E)	54	#5	29'-8"	————
b8(E)	85	#9	29'-8"	————
b9(E)	8	#5	14'-8"	————
b10(E)	2	#4	14'-8"	————
d(E)	46	#5	6'-5"	————
d2(E)	46	#5	8'-6"	————
e4(E)	20	#4	14'-8"	————
t(E)	72	#4	9'-8"	————
w(E)	40	#5	35'-2"	————
Concrete Superstructure			Cu. Yd.	3.9
Concrete Superstructure (Approach Slab)			Cu. Yd.	49.0
Concrete Structures			Cu. Yd.	10.9
Reinforcement Bars, Epoxy Coated			Pound	21,880

BAIA-CIP-39CS-0 6-15-2019

(Sheet 2 of 2)

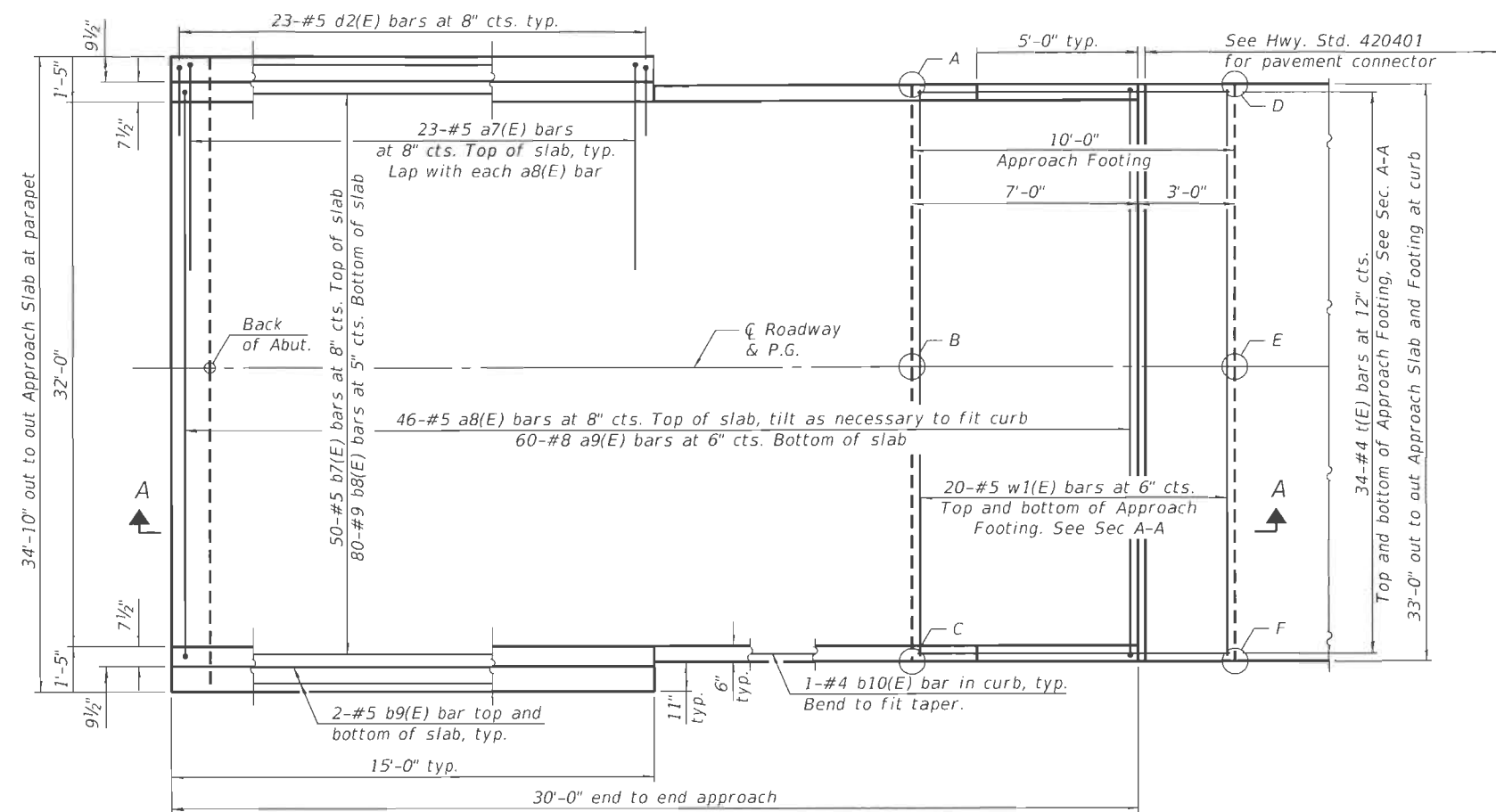
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0189

SHEET 11 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	48
		CONTRACT NO. 66H26		
		ILLINOIS FED. AID PROJECT		

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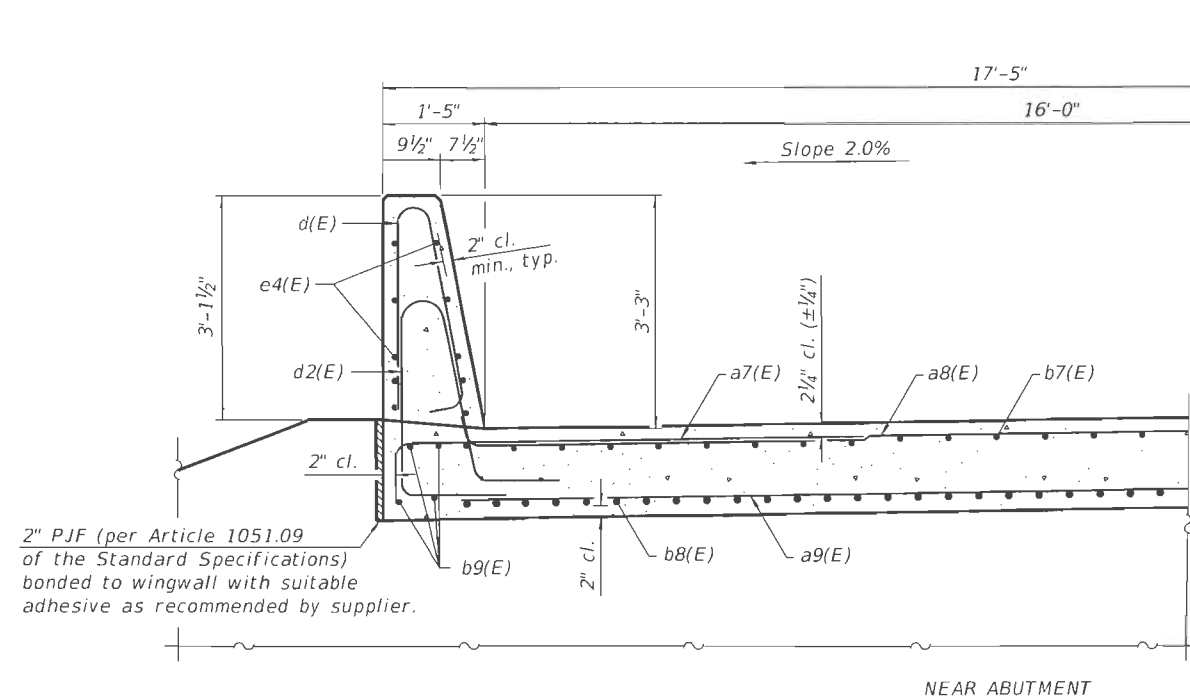


PLAN

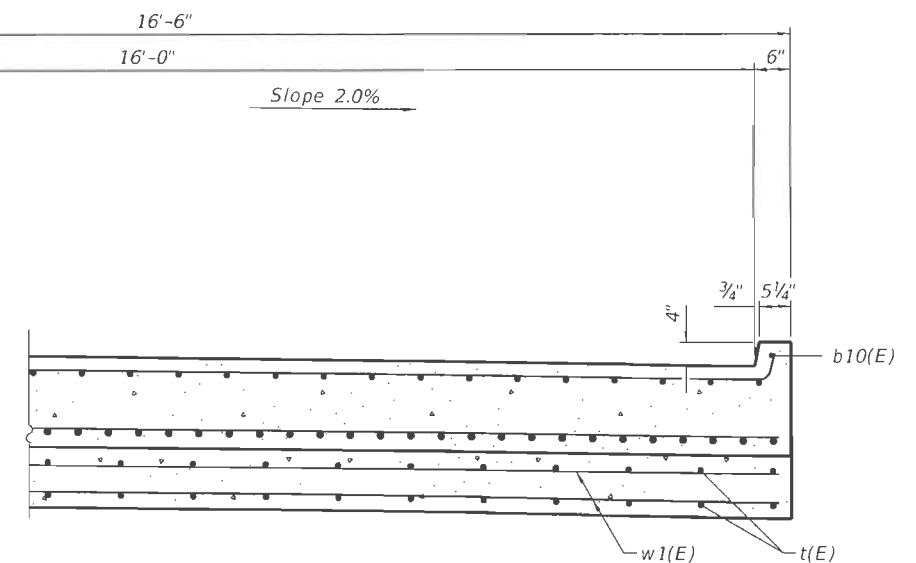


TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

Point	East Approach	
	Top	Bottom
A	643.99	643.15
B	644.25	643.41
C	643.99	643.15
D	643.93	643.10
E	644.19	643.36
F	643.93	643.10



CROSS SECTION
(Looking East)



BAIA-CIP-39CS-0 6-15-2019

(Sheet 1 of 2)

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Civil Engineering Design

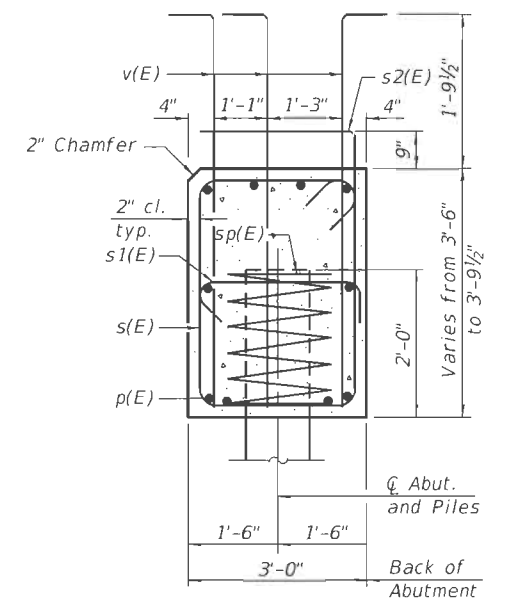
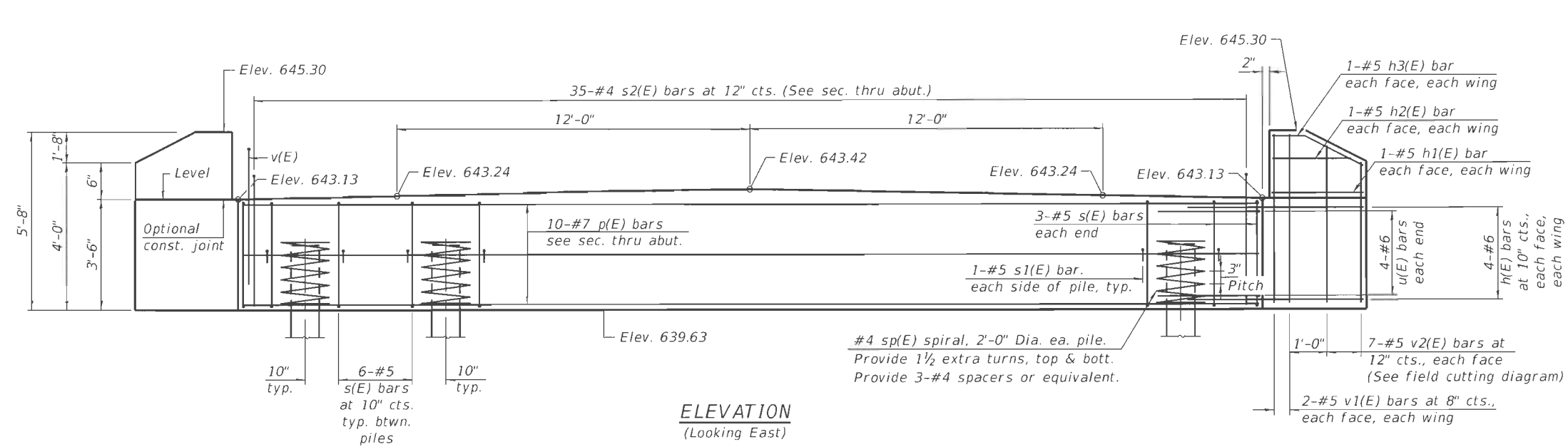
USER NAME	= ABenz	DESIGNED	- ACB	REVISED	-
CHECKED	- CDL	CHECKED	- CDL	REVISED	-
PLOT SCALE	=	DRAWN	- ACB	REVISED	-
PLOT DATE	= 7/30/2021	CHECKED	- CDL	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION














EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0189

SHEET 12 OF 21 SHEETS

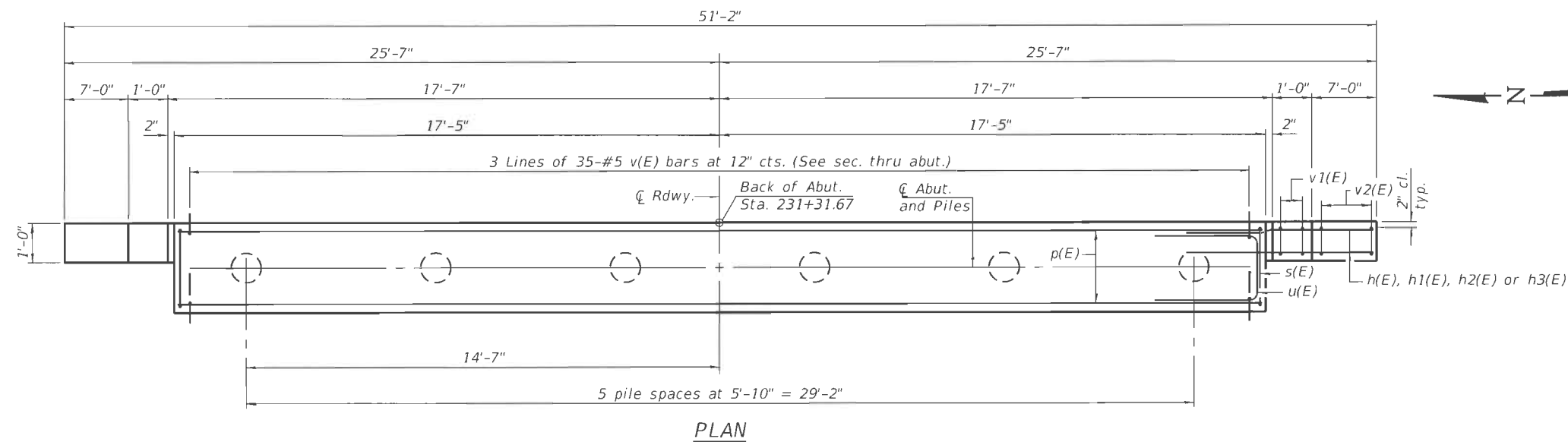
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	49
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				



SEC. THRU ABUT.

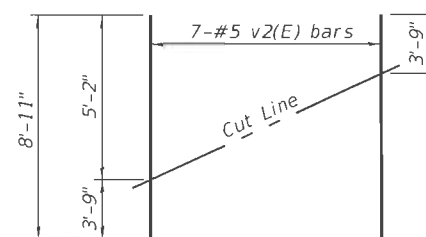
Bar	No.	Size	Length	Shape
h(E)	16	#6	12'-4"	
h1(E)	4	#5	7'-9"	
h2(E)	4	#5	4'-10"	
h3(E)	4	#5	7'-11"	
p(E)	10	#7	34'-6"	
s(E)	36	#5	12'-7"	
s1(E)	12	#5	3'-8"	
s2(E)	35	#4	6'-9"	
* sp(E)	6	#4	2'-0"	
u(E)	8	#6	11'-2"	
v(E)	105	#5	6'-0"	
v1(E)	8	#5	5'-5"	
v2(E)	14	#5	8'-11"	
Structure Excavation			Cu. Yd.	37
Concrete Structures			Cu. Yd.	16.9
Reinforcement Bars, Epoxy Coated			Pound	3,000
Furnishing Metal Shell Piles 14" x 0.312"			Foot	150
Driving Piles			Foot	150
Test Pile Metal Shells			Each	1
Pile Shoes			Each	6

For details of piles see sheet 17 of 21.
* Length is height of spiral.

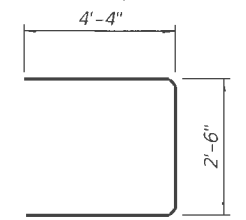
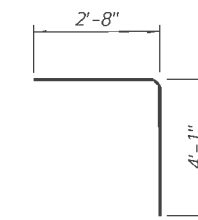
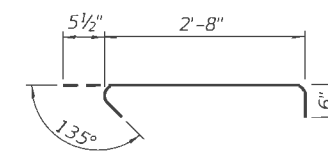
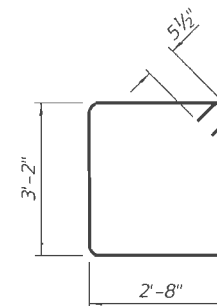
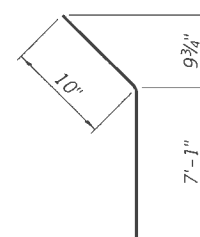
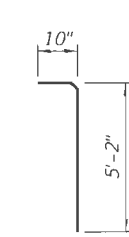


PILE DATA

Type: Metal Shell Piles 14" x 0.312" with Pile Shoes
Nominal Required Bearing: 271k
Factored Resistance Available: 149k
Est. Length: 30'
No. Production Piles: 5
No. Test Piles: 1

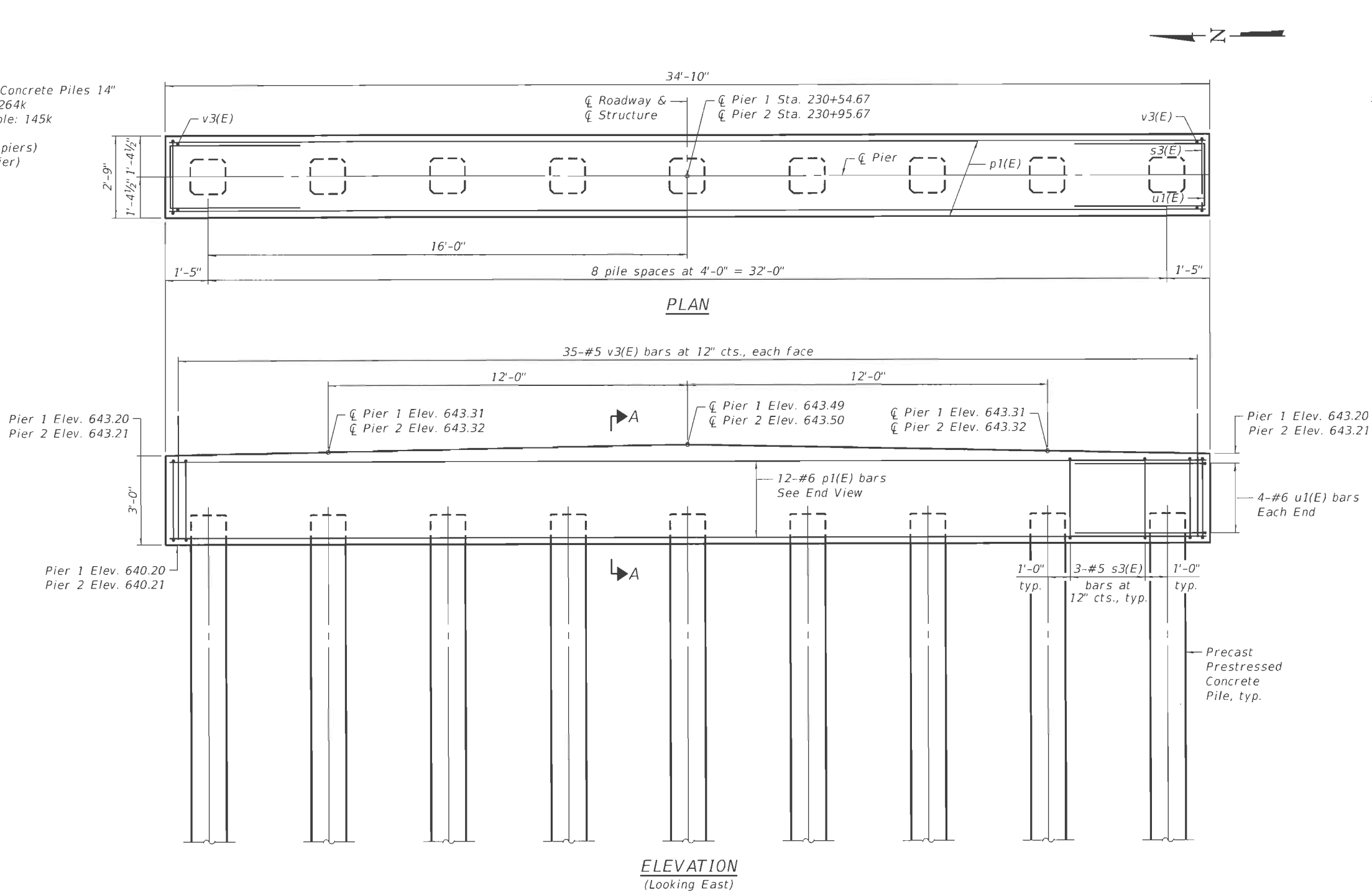


Order v2(E) full length. Cut as shown and use remainder of bars in opposite wing.



PILE DATA

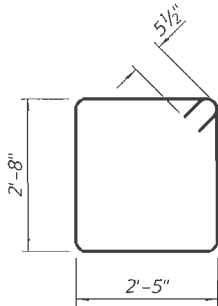
Type: Precast Prestressed Concrete Piles 14"
Nominal Required Bearing: 264k
Factored Resistance Available: 145k
Est. Length: 35'
No. Production Piles: 16 (2 piers)
No. Test Piles: 2 (1 Each Pier)



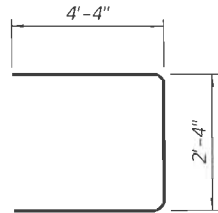
TWO PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p1(E)	24	#6	34'-6"	
s3(E)	56	#5	11'-1"	
u1(E)	16	#6	11'-0"	
v3(E)	140	#5	4'-2"	
Concrete Structures			Cu. Yd.	22.4
Reinforcement Bars, Epoxy Coated			Pound	2,760
Furnishing Precast Prestressed Concrete Piles 14"			Foot	560
Driving Piles			Foot	560
Test Pile Precast Prestressed Concrete			Each	2

For details of piles see sheet 18 of 21.



BAR s3(E)



BAR u1(E)

MODEL: Default
FILE NAME: \\SERVER18\Projects\SS420027.09 IDOT D3 PTB 194-027 WD9 IL 92 over Hennepin Canal Feeder\DCN\Bridges\0060189-66H26-016-Piers.dgn

EFK Moen
Civil Engineering Design

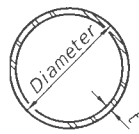
USER NAME	= ABenz	DESIGNED	- ACB	REVISED	-
		CHECKED	- CDL	REVISED	-
PLOT SCALE	=	DRAWN	- ACB	REVISED	-
PLOT DATE	= 9/29/2021	CHECKED	- CDL	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIERS
STRUCTURE NO. 006-0189

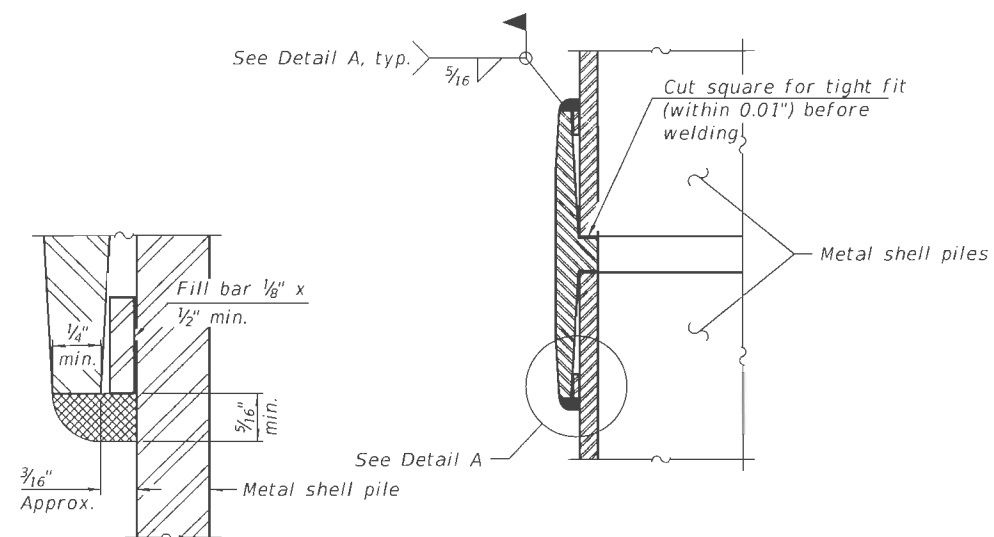
SHEET 16 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	53
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

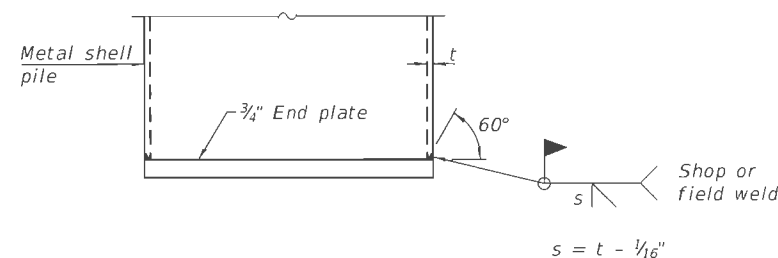


METAL SHELL PILE TABLE

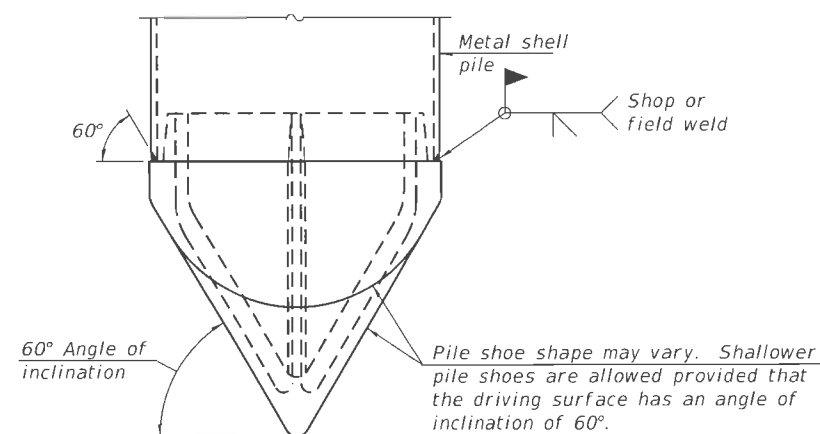
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



DETAIL A



END PLATE ATTACHMENT

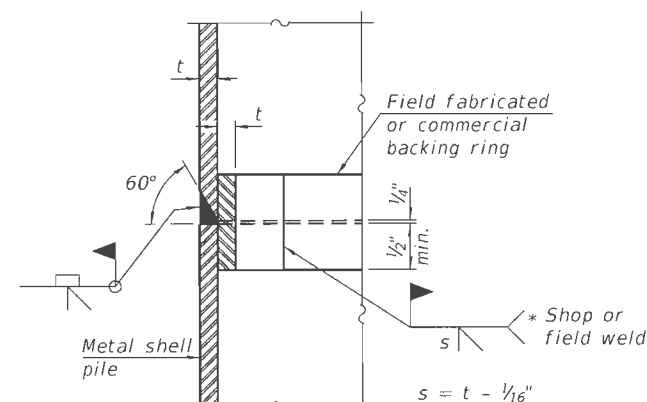


PILE SHOE ATTACHMENT

(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).

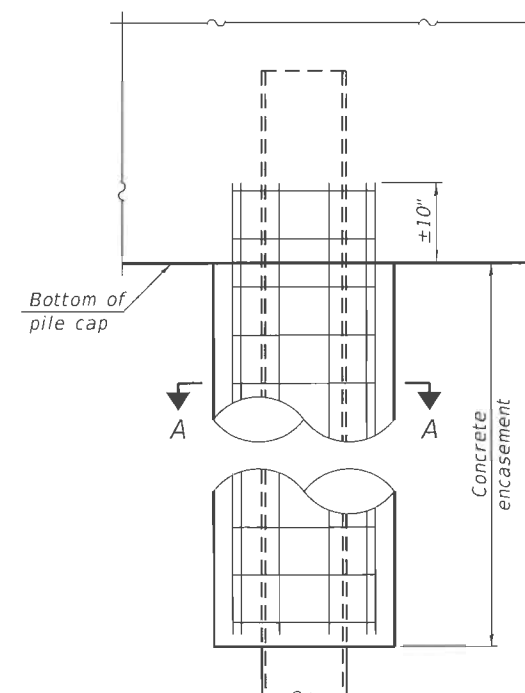
WELDED COMMERCIAL SPLICE

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.



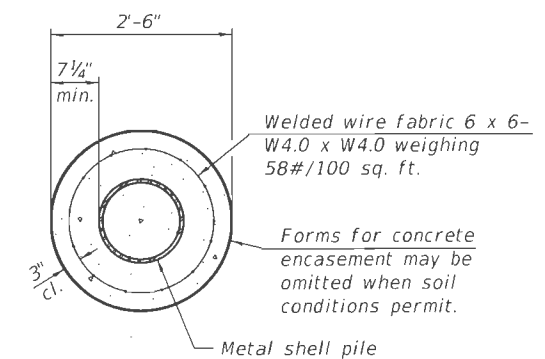
COMPLETE PENETRATION WELD SPLICE

* 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.

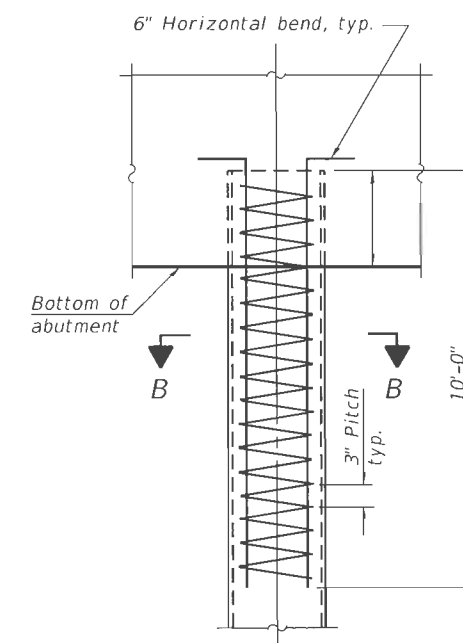


ELEVATION

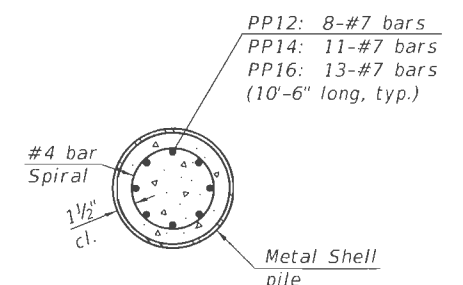
INDIVIDUAL PILE
CONCRETE ENCASEMENT
(When specified)



SECTION A-A



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

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USER NAME	ABR12	DESIGNED	ACB	REVISED	-
CHECKED	CDL	REVISED	-		
PLOT SCALE	=	DRAWN	ACB	REVISED	-
PLOT DATE	7/30/2021	CHECKED	CDL	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

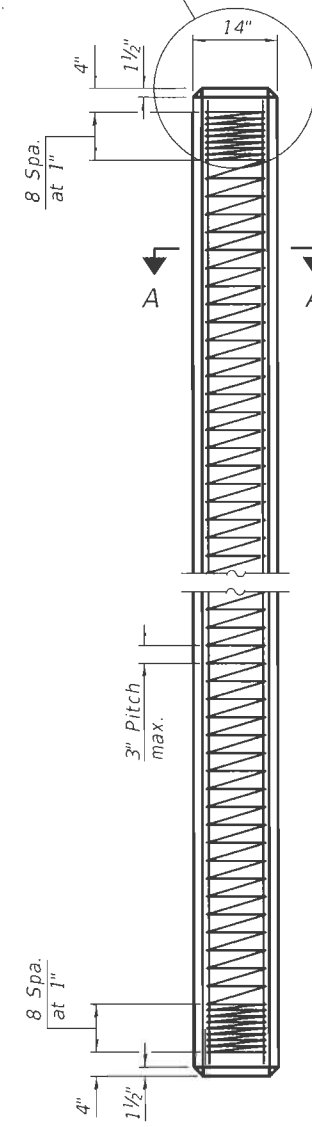
METAL SHELL PILE DETAILS
STRUCTURE NO. 006-0189

SHEET 17 OF 21 SHEETS

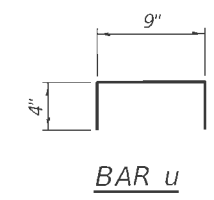
F.A.P. RTE. 587	SECTION (135B-1)BRR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 54
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

MODEL: Default
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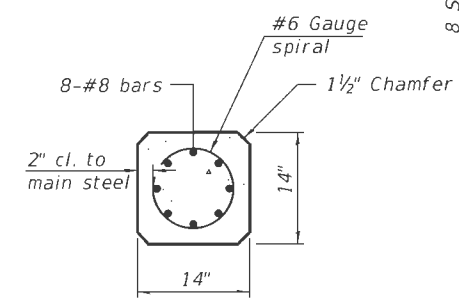
See End Plan and
End Elevation for
end reinforcement,
typ.



PRECAST CONCRETE PILE

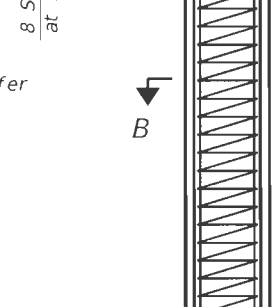
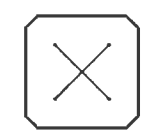


See End Plan and
End Elevation for
end reinforcement,
typ.

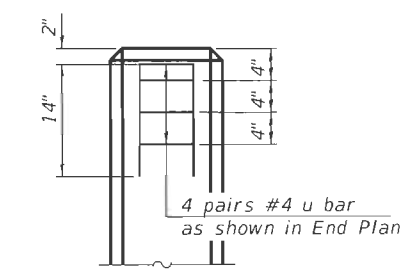


SECTION A-A

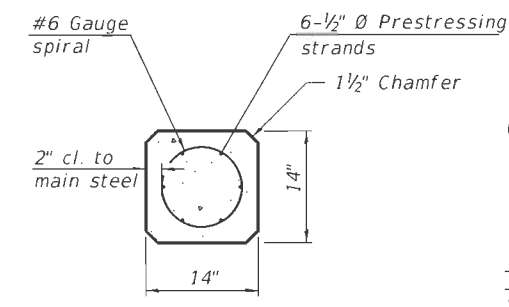
END PLAN
(End reinforcement only)



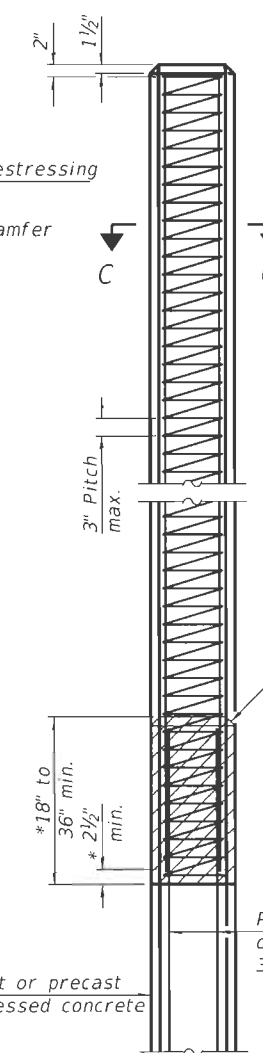
SECTION B-B



END ELEVATION
(End reinforcement only)

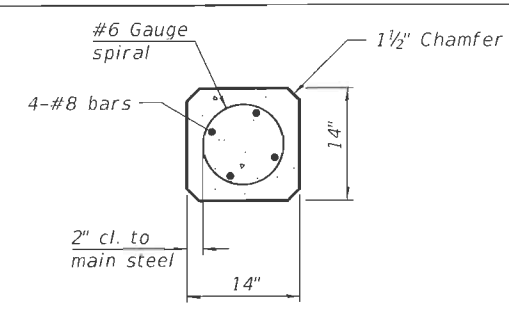


STANDARD PILE EXTENSION

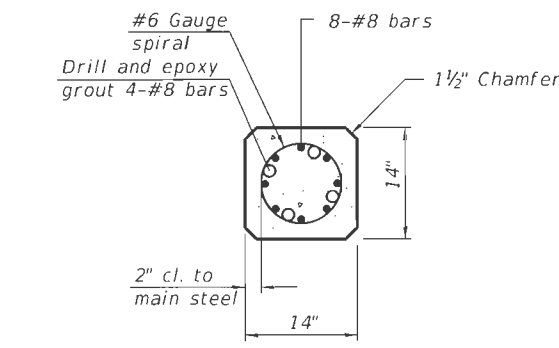


NOTES

Prestressing steel shall be uncoated high strength, low-relaxation 7-wire strand. The nominal diameter shall be 1/2" with a cross-sectional area of 0.153 in².
For precast prestressed concrete pile lengths up to 65', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 65', use three slings placed at a distance of 0.12 L* from each end and at midpoint of pile. *L= Overall length of pile to be handled.
For precast concrete pile lengths up to 45', use two slings placed at a distance of 0.21 L from each end. For handling piles longer than 45', use three slings placed at a distance of 0.12 L from each end and at midpoint of pile.



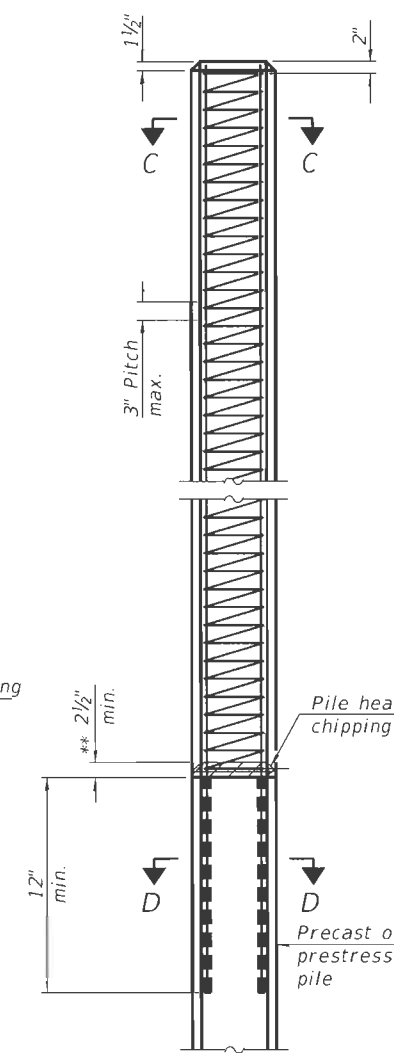
SECTION D-D
(Precast)



SECTION D-D
(Precast prestressed)

- * To construct pile extension, chip top of pile back 36 bar Ø min. to expose vertical bars and lap vertical buildup bars. Remove spiral to 2 1/2" min. above chipping and provide full strength lap weld exterior face (4" min. length).
- *. To construct pile extension, chip top of pile back 2 1/2" to expose wire spiral and provide full strength lap weld exterior face (4" min. length).

ALTERNATE PILE EXTENSION



DESIGN STRESSES

f'c = 5,000 p.s.i.(prestressed)
f'c = 4,500 p.s.i. (precast)
f'ci = 4,000 p.s.i.
f's = 270,000 p.s.i. (41,300 lbs.-1/2" Ø)
fsi = 189,000 p.s.i. (28,900 lbs.-1/2" Ø)

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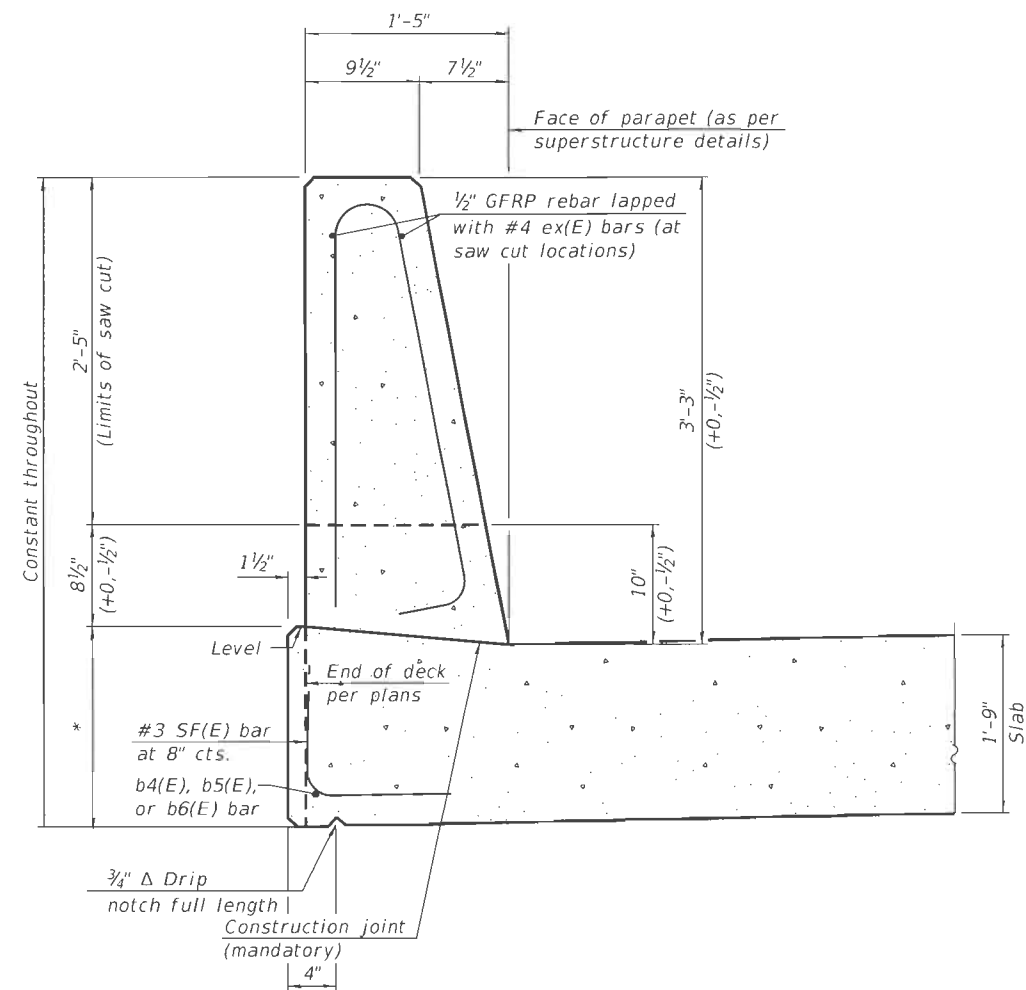
PRECAST PILE DETAILS
STRUCTURE NO. 006-0189

SHEET 18 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	55
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

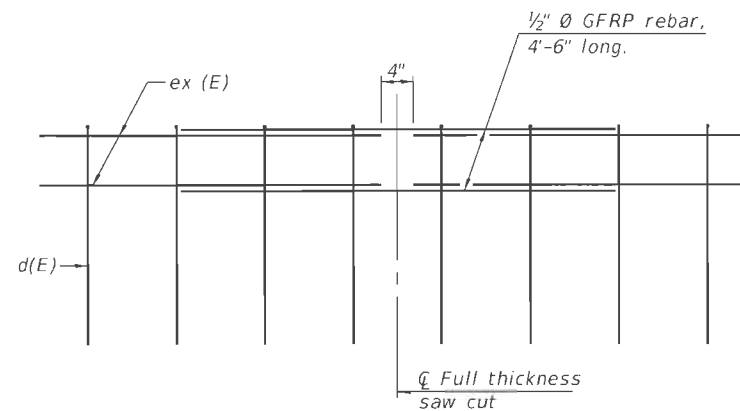
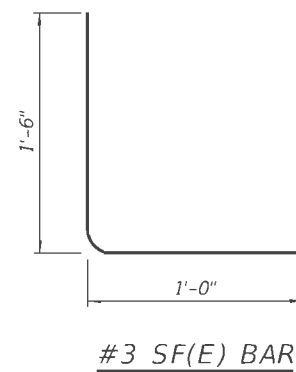
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7/30/2021 10:08:28 AM

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**39" CONSTANT-SLOPE
PARAPET SECTION**
(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)

*See Superstructure Details.



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section
at each parapet joint location.)

Notes:
All dimensions shall remain the same as shown on superstructure details, except the deck width increases by 1 1/2" as shown in the Parapet Section. Additional concrete needed to revise the deck width = 0.00866 cu. yds./ft. for 39" parapets.
Place full depth aluminum sheets as shown on superstructure details.
Replace all cork joint filler locations with a full thickness saw cut.
Steel superstructure shown. Other superstructure types similar.

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Civil Engineering Design

USER NAME = ABen2	DESIGNED - ACB	REVISED -
	CHECKED - CDL	REVISED -
PLOT SCALE =	DRAWN - ACB	REVISED -
PLOT DATE = 7/30/2021	CHECKED - CDL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 006-0189**

SHEET 19 OF 21 SHEETS

F.A.P. RTE. 587	SECTION (135B-1)BRR	COUNTY BUREAU	TOTAL SHEETS 84	SHEET NO. 56
CONTRACT NO. 66H26				
ILLINOIS FED. AID PROJECT				

Page 1 of 2

Date 5/28/19

SECTION	(135 B-1)ES	LOCATION	SE 1/4, SEC. 2, TWP. 18N, RNG. 6E, 4 th PM, Latitude 41.569205, Longitude -89.767603
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STRUCT. NO.	006-0096 (Exist.)	D	B	U	M	Surface Water Elev.	633.08	ft	D	B	U	M	
Station	230+75	E	L	C	O	Stream Bed Elev.	628.51	ft	E	L	C	O	
		P	L	S	I				P	L	S	I	
BORING NO.	01 (N.W. Quad.)	T	W	S	S	Groundwater Elev.:			T	W	S	S	
Station	230+16	H	S	Qu	T	First Encounter	626.6	ft	H	S	Qu	T	
Offset	29.0 ft Lt.					Upon Completion	627.1	ft					
Ground Surface Elev.	639.05	ft	(ft)	(/6")	(tsf)	(%)	After	Hrs.	ft	(ft)	(/6")	(tsf)	(%)

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)

**Illinois Department
of Transportation**
Division of Highways
Illinois Department of Transportation

Page 2 of 2

Date 5/28/19

SECTION (135 B-1)ES LOCATION SE 1/4, SEC. 2, TWP. 18N, RNG. 6E, 4th PM,
Latitude 41.569205, Longitude -89.767603

STRUCT. NO.	006-0096 (Exist.)	D	B	U	M	Surface Water Elev.	633.08	ft
Station	230+75	E	L	C	O	Stream Bed Elev.	628.51	ft
		P	O	S	I			
BORING NO.	01 (N.W. Quad.)	T	W		S	Groundwater Elev.:		
Station	230+16	H	S	Qu	T	First Encounter	626.6	ft ▼
Offset	29.0 ft Lt.					Upon Completion	627.1	ft ▼
Ground Surface Elev.	639.05	ft	(ft)	(/6")	(tsf)	(%)	After	Hrs.
								ft

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)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
587	(135B-1)BRR	BUREAU	84	57
		CONTRACT NO. 66H26		
ILLINOIS		FED. AID PROJECT		

Page 1 of 2Date 6/11/19

SECTION (135 B-1)ES LOCATION NE 1/4, SEC. 11, TWP. 18N, RNG. 6E, 4th PM,
Latitude 41.569059, Longitude -89.767187

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

T H	W S	Qu	S T
(ft)	(/6")	(tsf)	(%)

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)

Page 2 of 2

Date 6/11/19

SECTION	(135 B-1)ES	LOCATION	NE 1/4, SEC. 11, TWP. 18N, RNG. 6E, 4 th PM, Latitude 41.569059, Longitude -89.767187
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ft
ft

ft 
ft 
ft

$$\begin{array}{l} \text{ft} \nabla \\ \text{ft} \nabla \\ \text{ft} \end{array}$$

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)