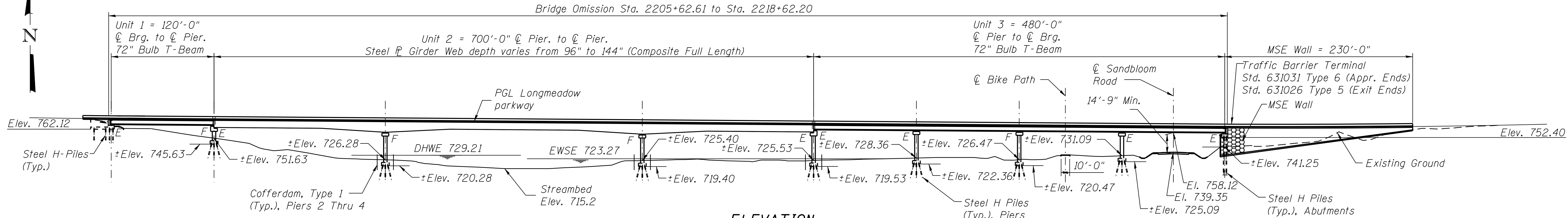
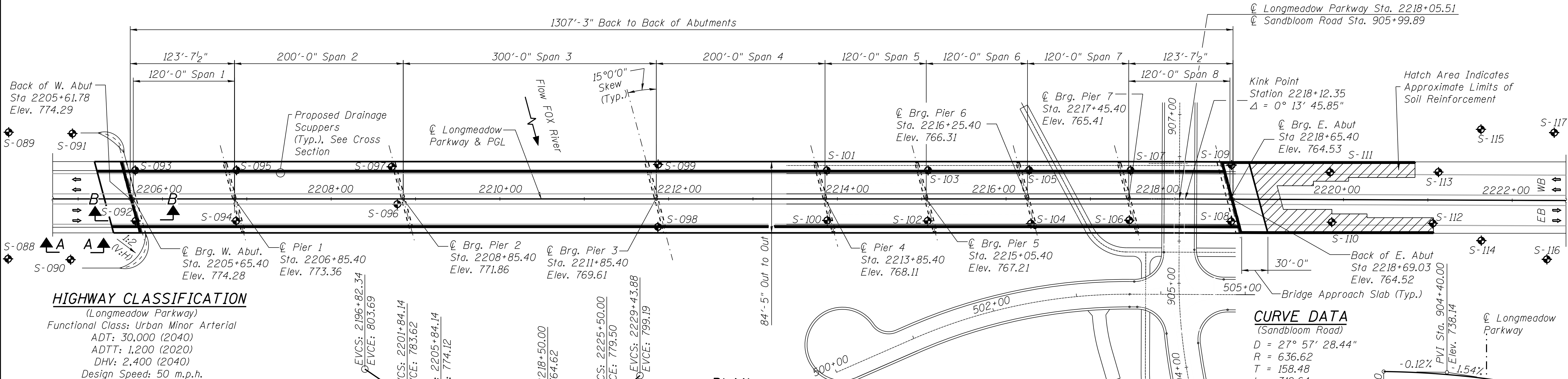


Bench Mark: Chis. " □ " S.E. COR. CONC. SLAB.
The INT. of ILL. 31 and Miller Rd. go N. 0.9 MI ± to Mark.
Elev. 806.34

Existing Structure: None



ELEVATION



PLAN

HIGHWAY CLASSIFICATION

(Longmeadow Parkway)
Functional Class: Urban Minor Arterial
ADT: 30,000 (2040)
ADTT: 1,200 (2020)
DHV: 2,400 (2040)
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic
Directional Distribution: 50/50

LOADING HL-93

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

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications

Including 2010 Interims

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f_{pu} = 270,000$ psi (low lax, strands)

SEISMIC DATA

Seismic Performance Zone (SPZ)=1
Design Spectral Acceleration at 1.0 sec. (S_D)=8.2
Design Spectral Acceleration at 0.2 sec. (S_D)=14.4
Soil Site Class = D

PVI STA=2203+84.14
PVI ELEV=775.62
A.D.= -3.25
K=123.08

PROFILE GRADE

(Along Longmeadow Parkway)

WATERWAY INFORMATION

Drainage Area = 1364 sq. mi. Low Grade Elev. n/a @ n/a									
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	5775	-	2853	727.67	0.00	0.00	0.00	727.67
Base	50	8345	-	3990	729.21	0.00	0.00	0.00	729.21
Overtopping	100	10095	-	4688	730.09	0.00	0.00	0.00	730.09
Max. Calc.	500	12525	-	5643	731.17	0.00	0.01	0.00	731.18

LEGEND

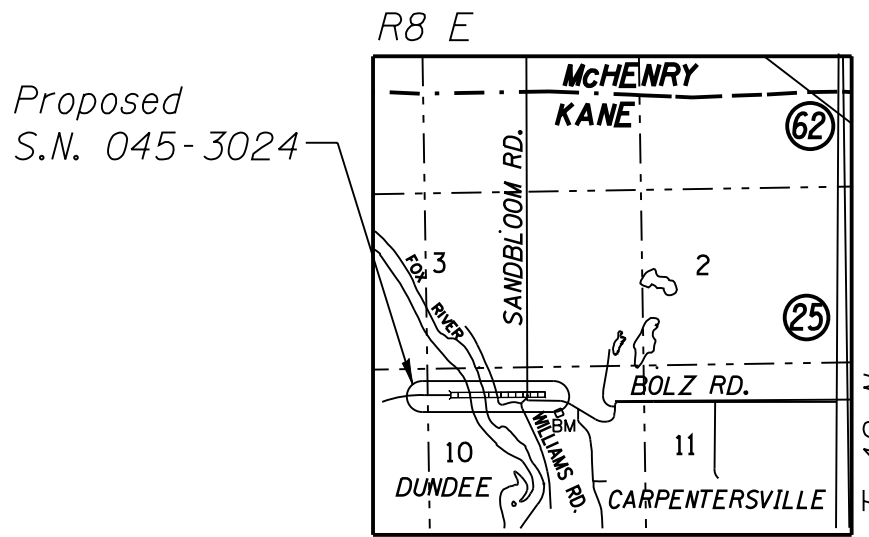
Soil Boring Location

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Pier 6	Pier 7	E. Abut.
Q100	762.12	751.63	720.02	719.14	719.07	721.90	720.01	724.63	741.25
Q500	762.12	751.63	719.87	718.99	718.91	721.74	719.85	724.47	741.25

HIGHWAY CLASSIFICATION

(Sandbloom Road)
Functional Class: Local
ADT: 2,814 (2004)
ADTT: 113 (2004)
DHV: 422 (2004)
Design Speed: 40 m.p.h.
Posted Speed: 35 m.p.h.
Two-Way Traffic
Directional Distribution: 57/43



LOCATION SKETCH

CURVE DATA

(Sandbloom Road)
D = 27° 57' 28.44"
R = 636.62
T = 158.48
L = 310.64
E = 19.43'
S.E. = 5.8%
P.C. Sta. = 901+98.34
P.T. Sta. = 905+08.98

PROFILE GRADE

(Along Sandbloom Road)

GENERAL PLAN & ELEVATION

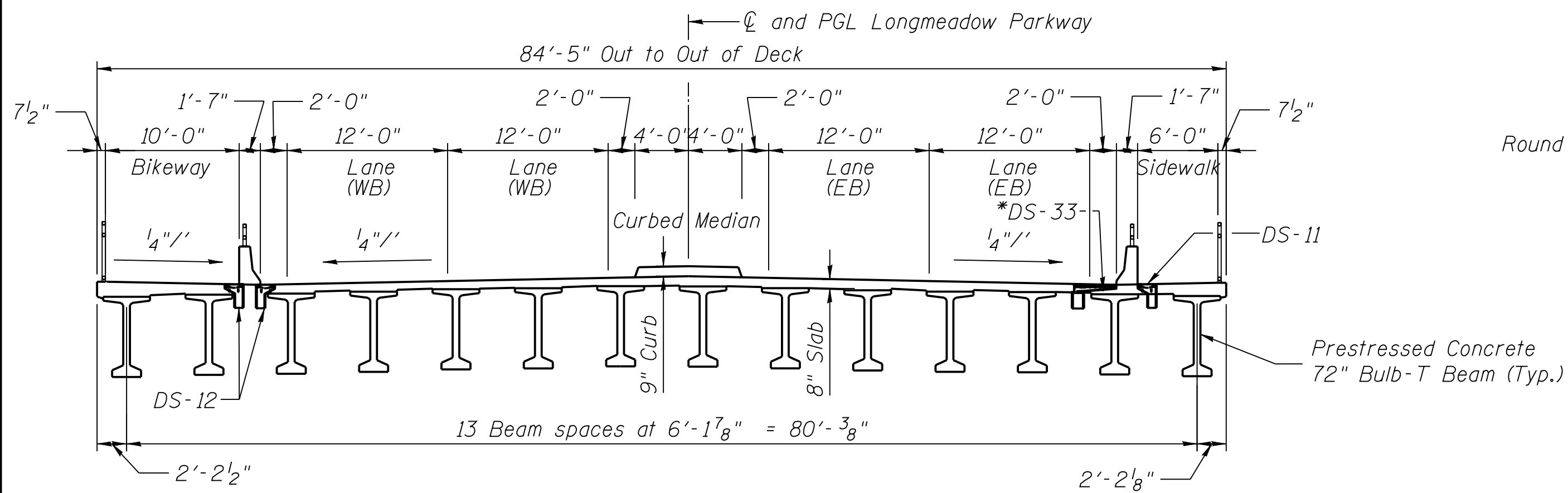
LONGMEADOW PARKWAY OVER FOX RIVER

SEC 94-00215-01-ES

KANE COUNTY

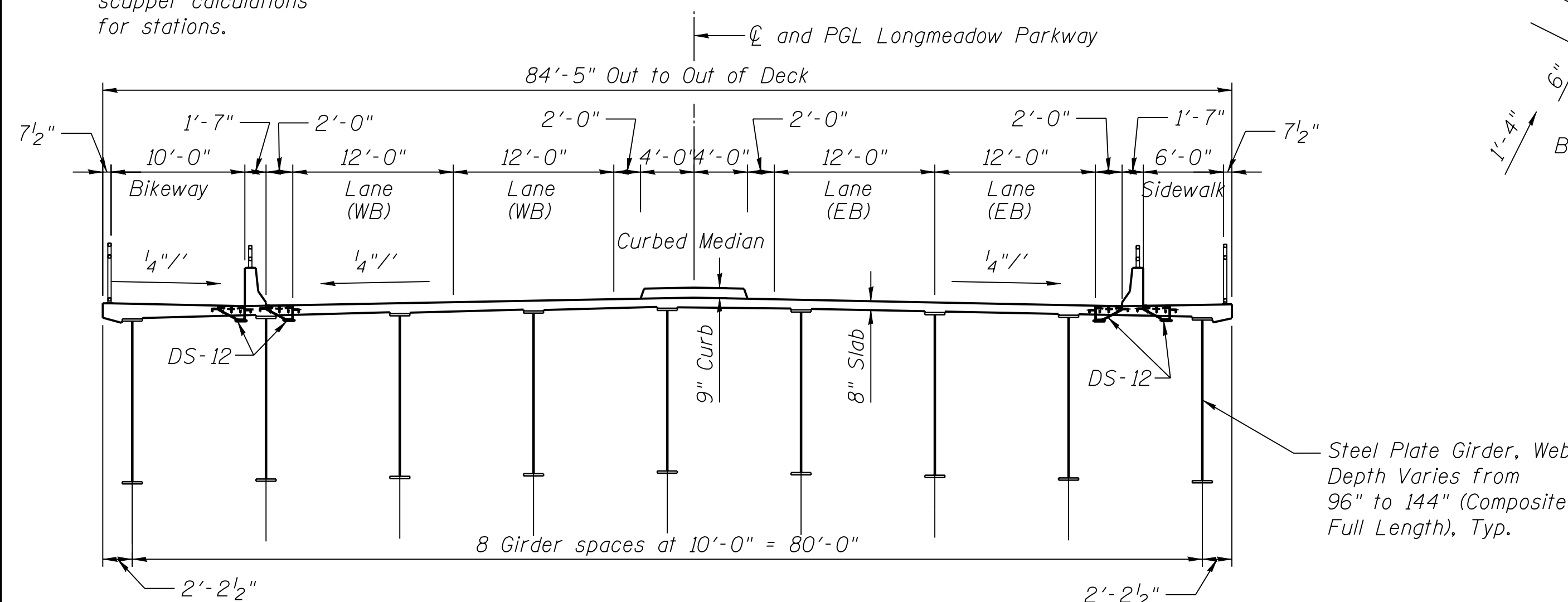
STATION 2210+35.40

SN. 045-3024



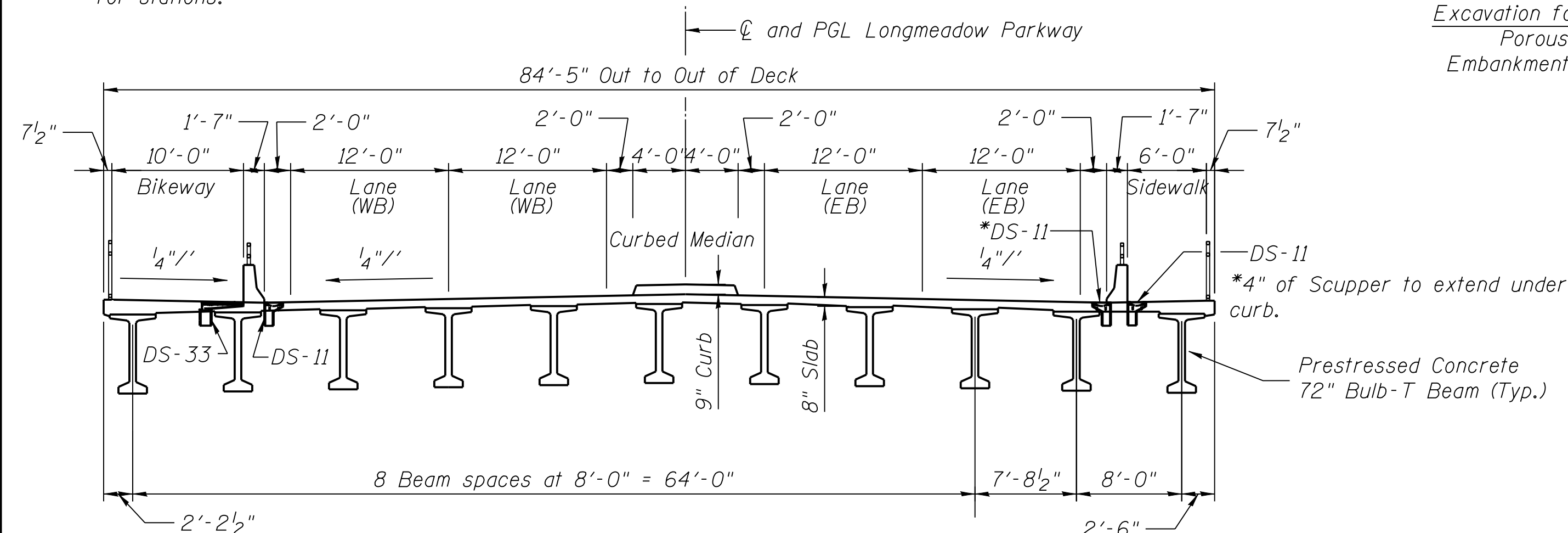
Note:
Scuppers for Unit-1
are at 23ft C/C. See
scupper calculations
for stations.

CROSS SECTION - UNIT 1
(Looking East)



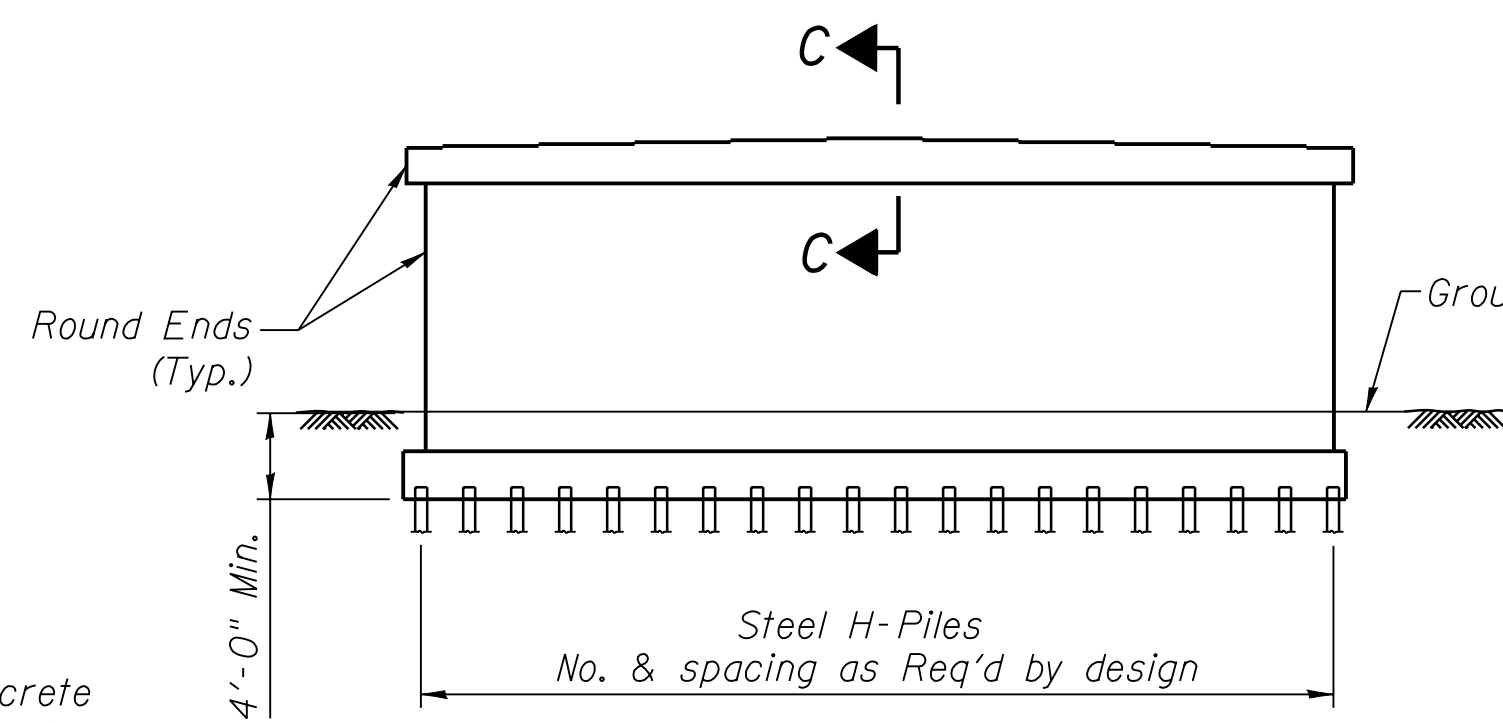
Note:
Scuppers for Unit-2
are at 20ft C/C. See
scupper calculations
for stations.

CROSS SECTION - UNIT 2
(Looking East)

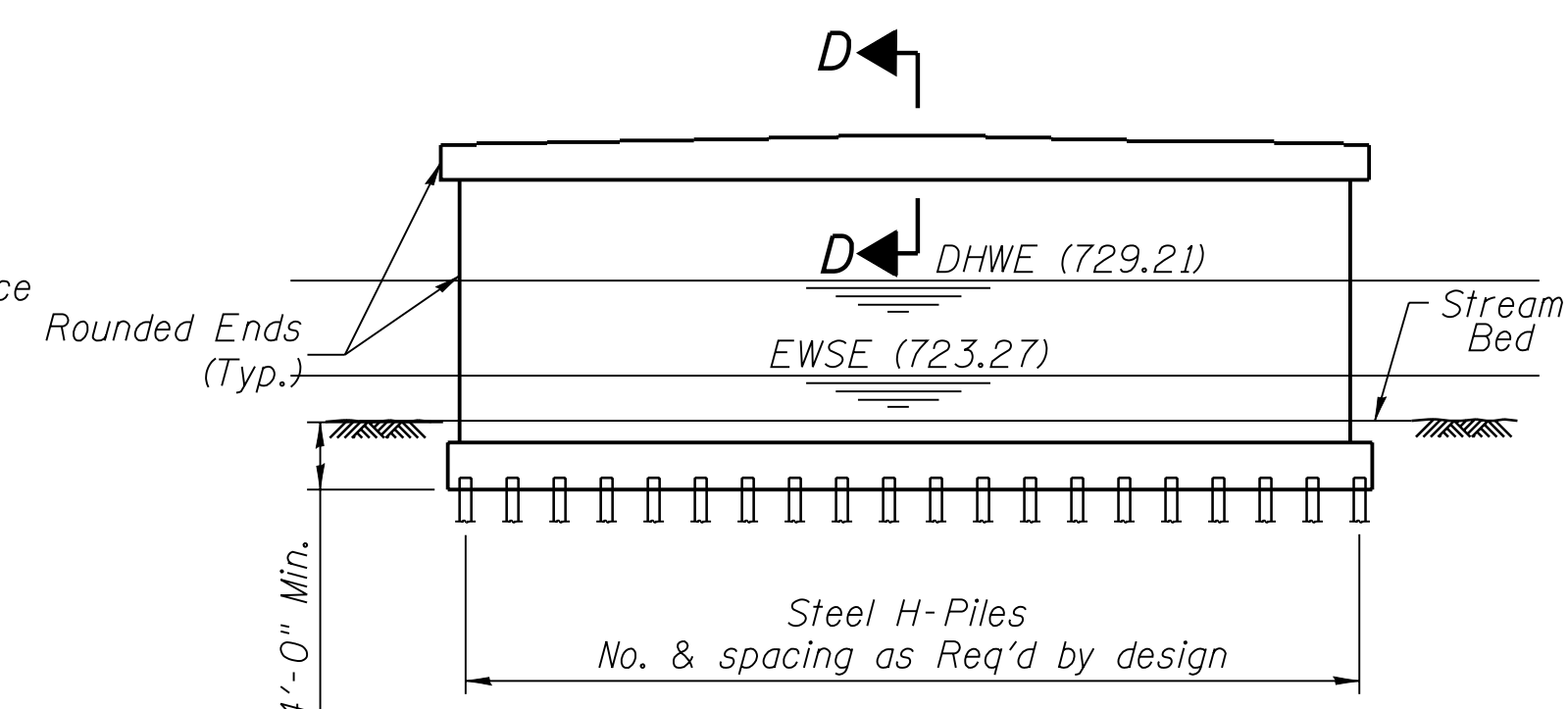


Note:
Scuppers for Unit-3
are at 18ft C/C. See
scupper calculations
for stations

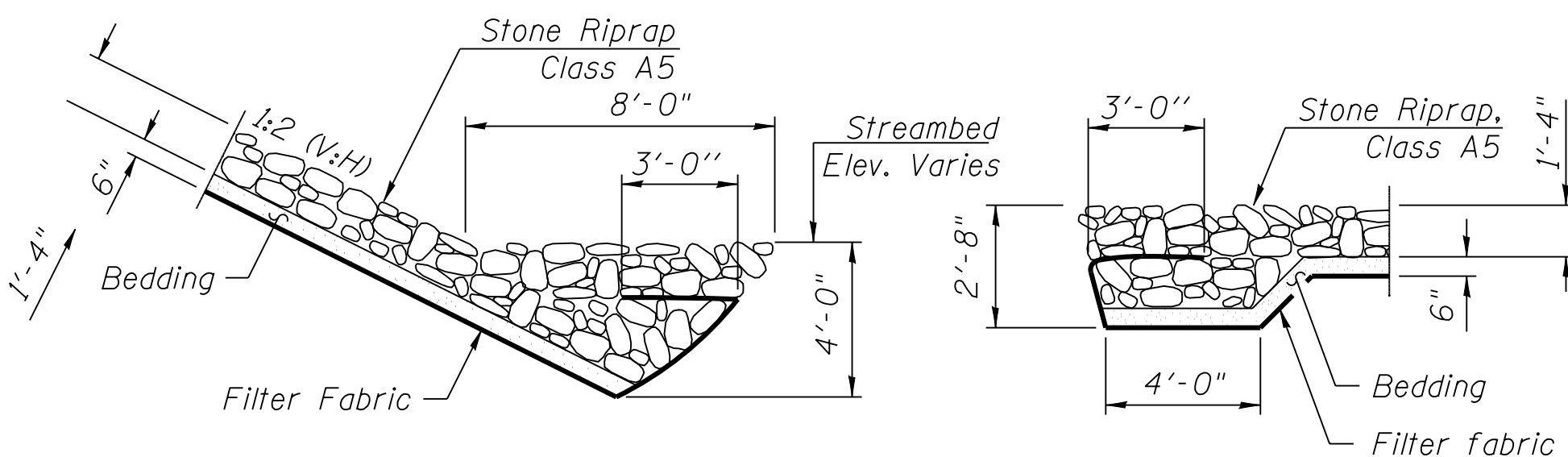
CROSS SECTION - UNIT 3
(Looking East)



PIER SKETCH 1 AND 5 THRU 7
(Looking East)

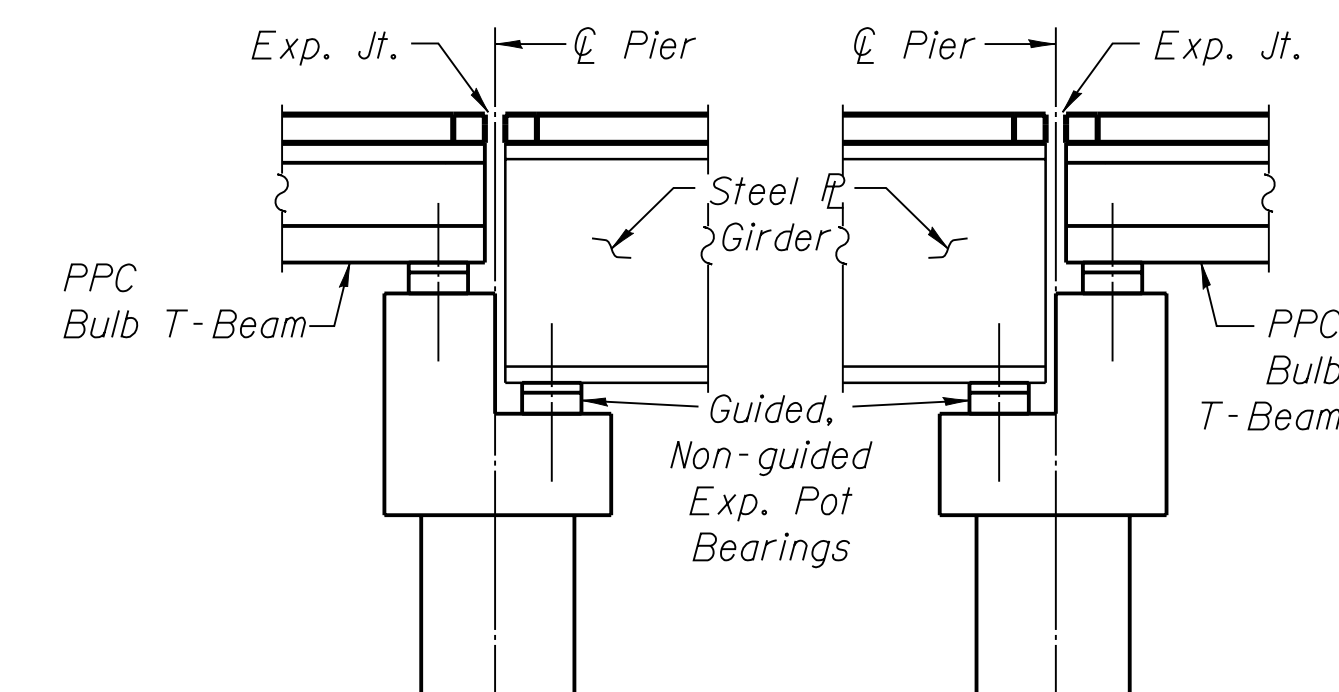


PIER SKETCH - PIERS 2 THRU 4
(Looking East)



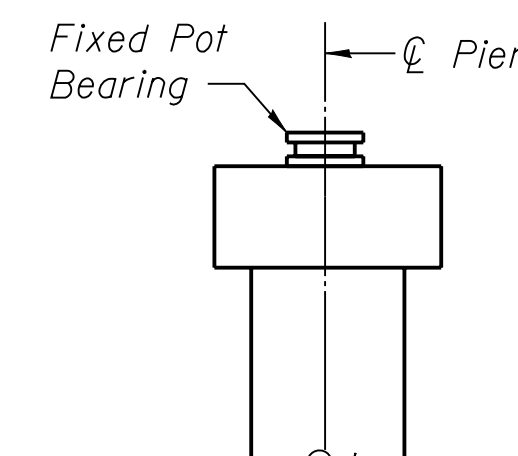
SECTION B-B

SECTION A-A

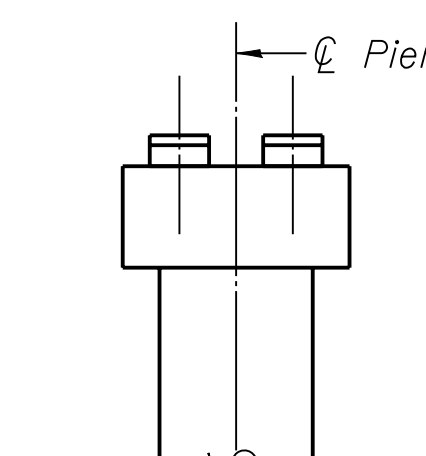


SECTION C-C
(Pier 1 Only)

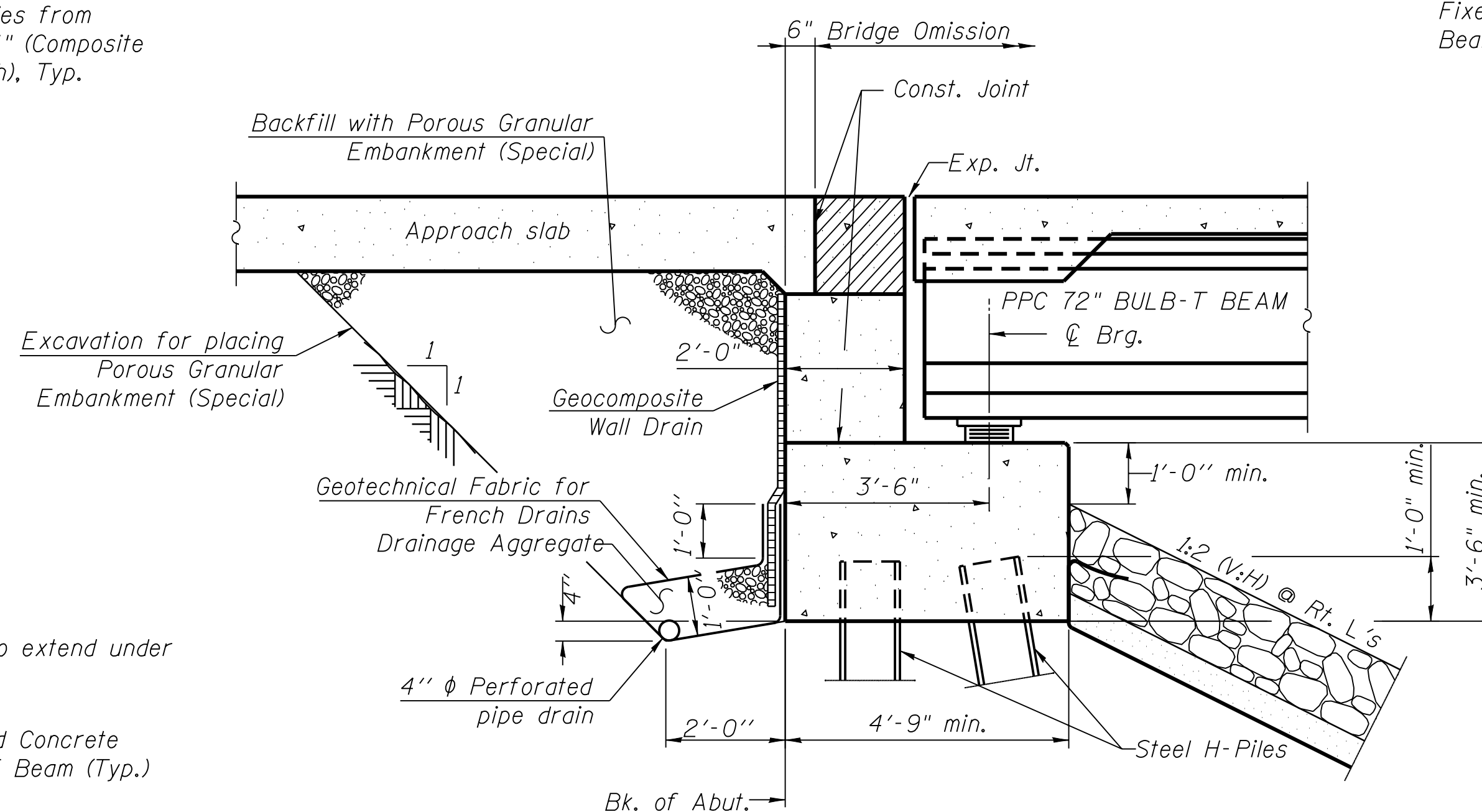
SECTION D-D
(Pier 4 Only)



SECTION D-D
(Piers 2 and 3)



SECTION C-C
(Piers 5 thru 7)



**SECTION THRU PILE SUPPORTED
STUB WEST ABUTMENT**
(Horiz. dim. @ Rt. L's)

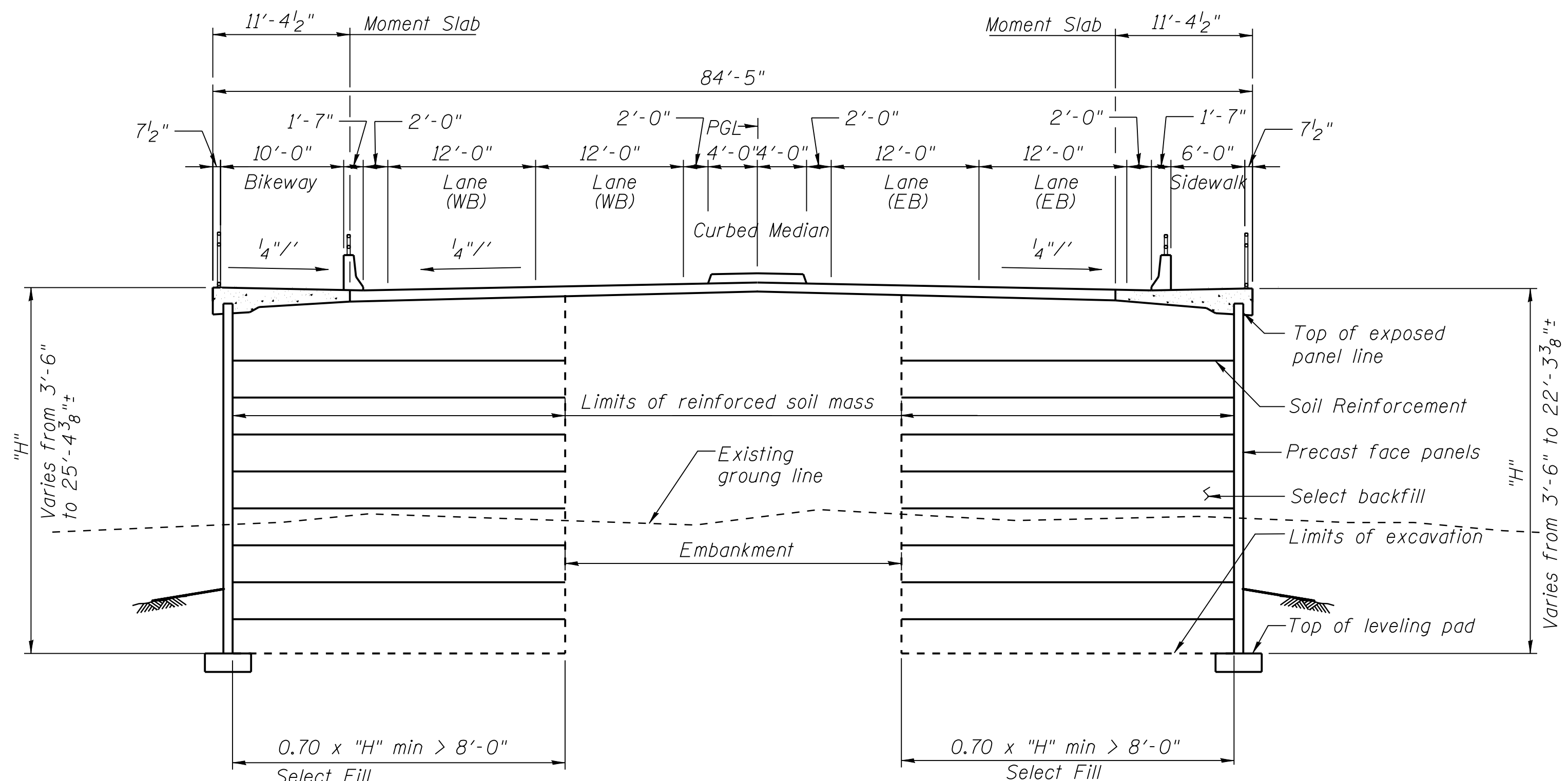
**SECTIONS & DETAILS 1 OF 2
LONGMEADOW PARKWAY OVER FOX RIVER
SEC 94-00215-01-ES
KANE COUNTY
STATION 2210+35.40
SN. 045-3024**

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
\$FILEL\$		CHECKED -	REVISED -
	PLOT SCALE = \$SCALE\$	DRAWN -	REVISED -
	PLOT DATE = \$DATE\$	CHECKED -	REVISED -

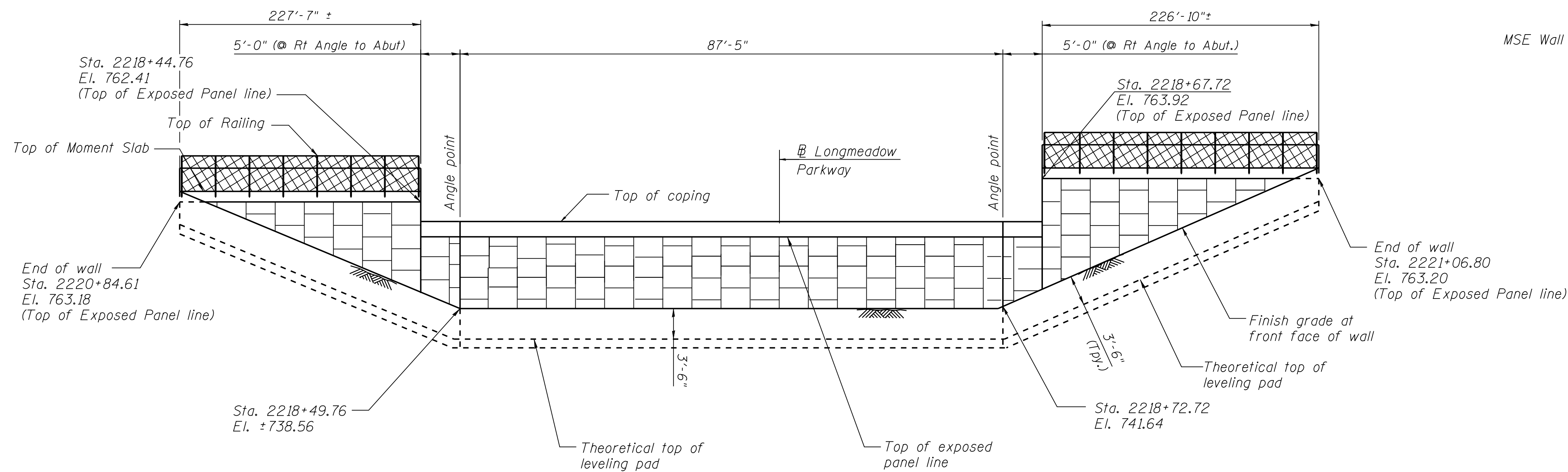
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SHEET NO. 2 OF 3 SHEETS

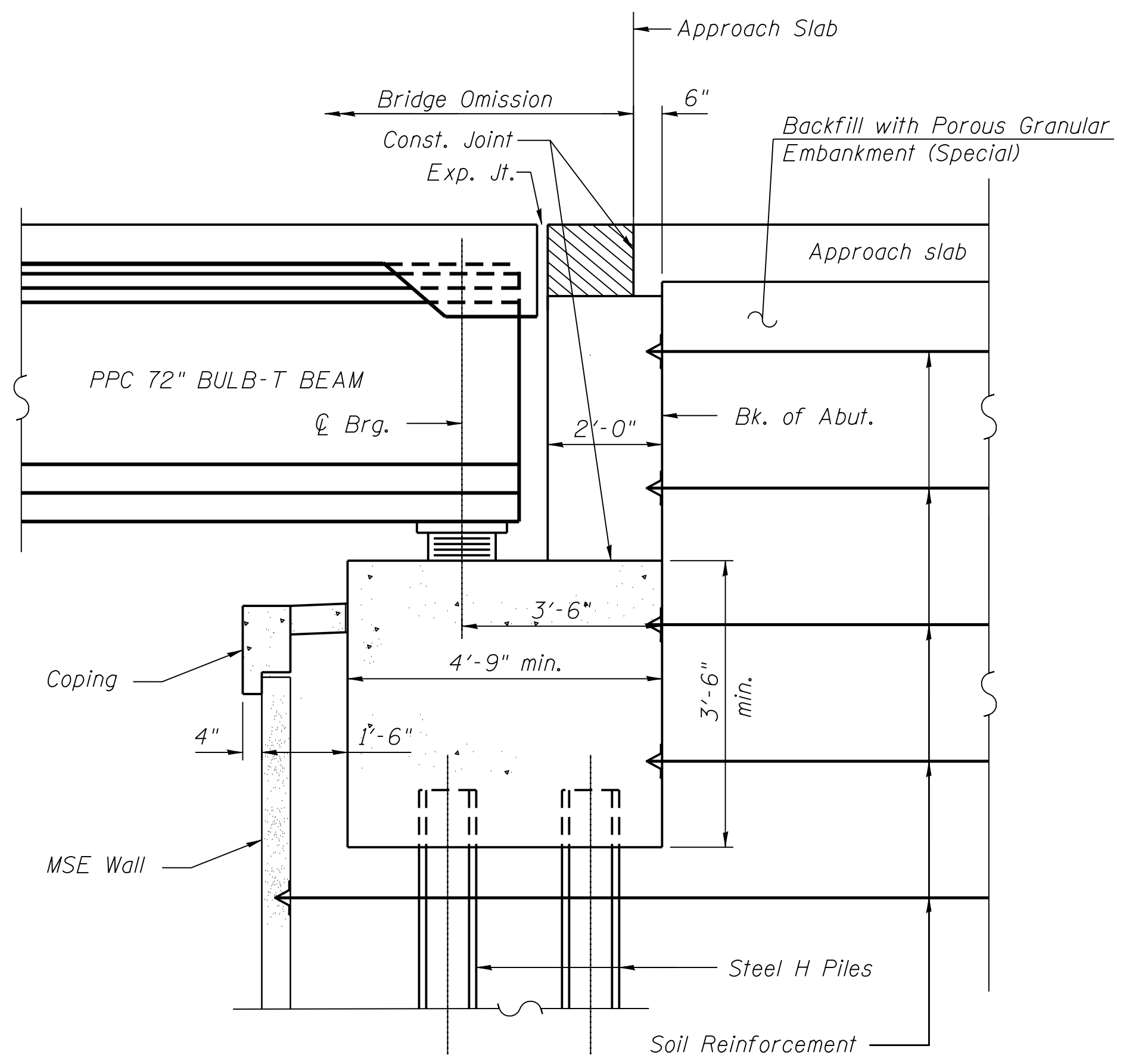
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94-00215-01 ES	KANE		
CONTRACT NO.			
ILLINOIS FED. AID PROJECT			



EAST ABUTMENT SECTION
(Looking East)



EAST ABUTMENT WALL
(Developed elevation along front face of wall)



**SECTION THRU PILE SUPPORTED
STUB EAST ABUTMENT**
(Horiz. dim. @ Rt. L's)

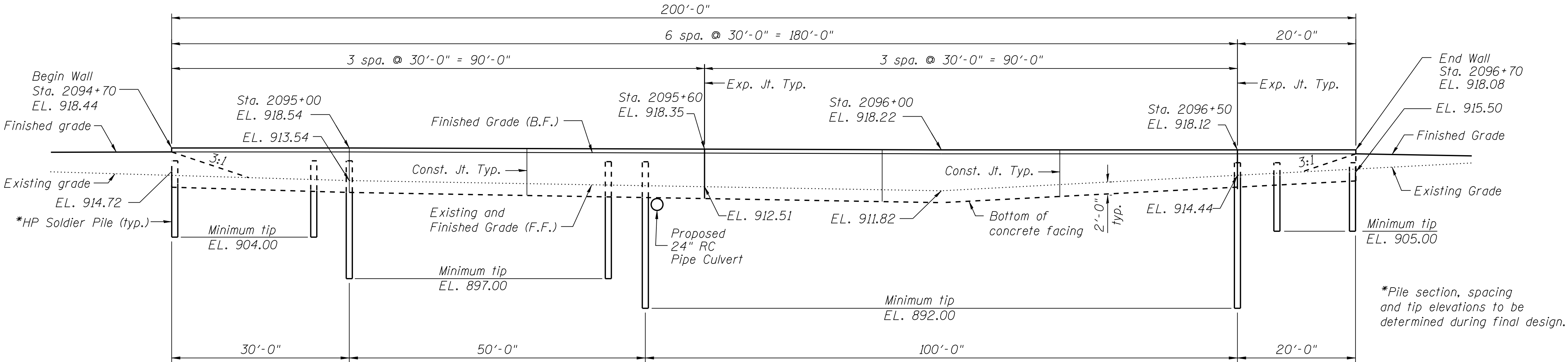
SECTIONS & DETAILS 2 OF 2
LONGMEADOW PARKWAY OVER FOX RIVER
SEC 94-00215-01-ES
KANE COUNTY
STATION 2210+35.40
SN. 045-3024

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
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	PLOT DATE = \$DATE\$	CHECKED -	REVISED -

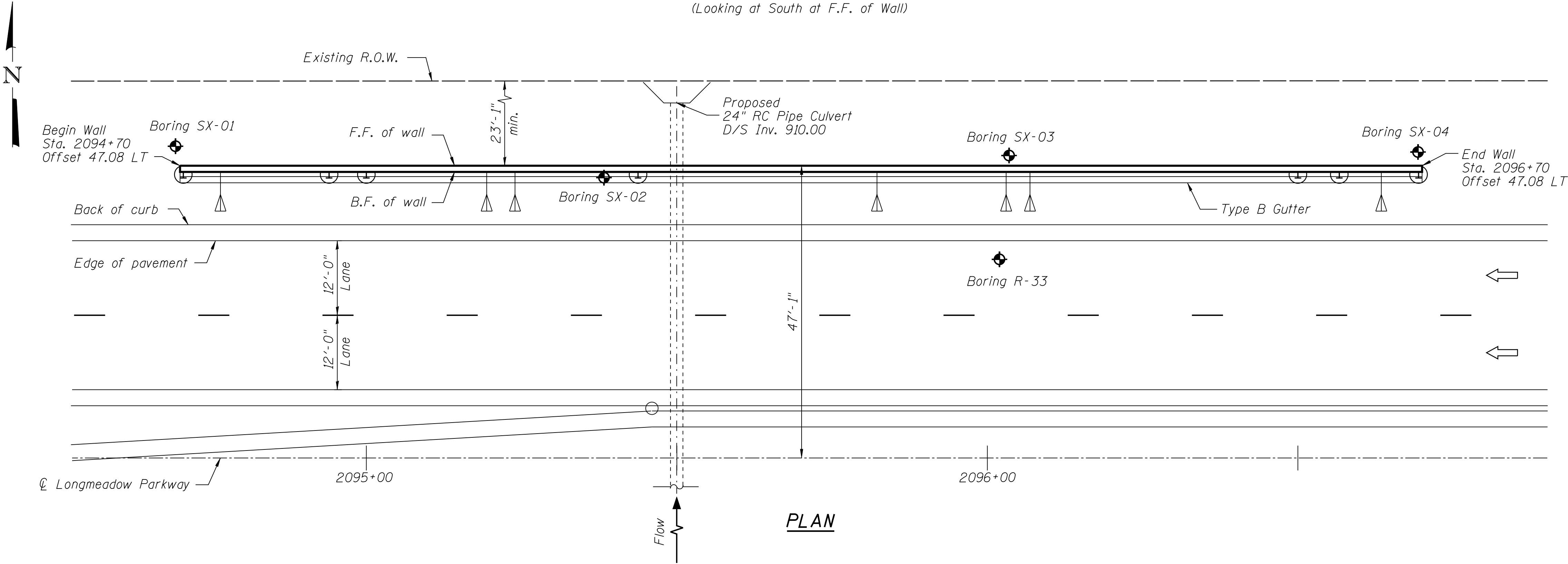
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94-00215-01 ES	KANE		
CONTRACT NO.			
ILLINOIS FED. AID PROJECT			

Benchmark: Southwest tag bolt on the first fire hydrant North of Creeks Crossing Drive on the west side of Sleepy Hollow Road. Elev. 905.35

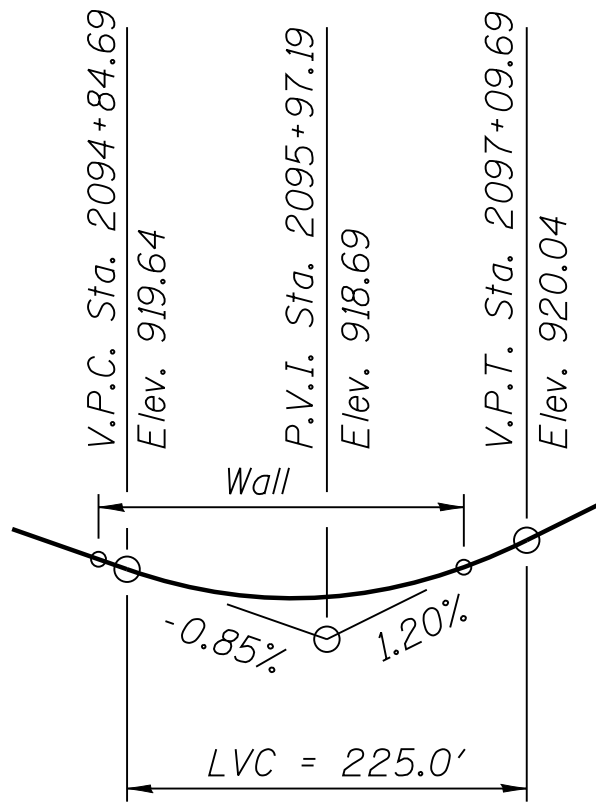
Existing Structure: None



ELEVATION
(Looking at South at F.F. of Wall)



PLAN



PROFILE GRADE
(Along @ Longmeadow Parkway)

Note: 1) Offsets are measured from the @ Longmeadow Parkway to the front face of wall.
2) F.F. - Front Face
3) B.F. - Back Face

HIGHWAY CLASSIFICATION

Longmeadow Parkway
Functional Class: Urban Minor Arterial
ADT: 25,000 (2040)
ADTT: 1,000 (2040)
DHV: 2.024
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.

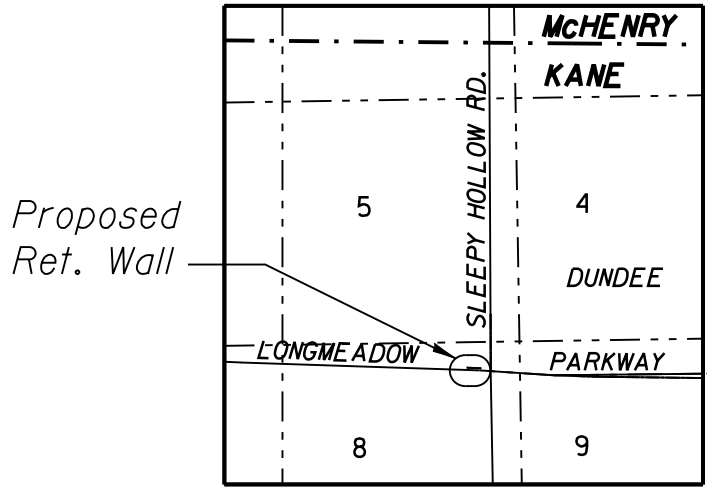
DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications
for Highway Bridges

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50)

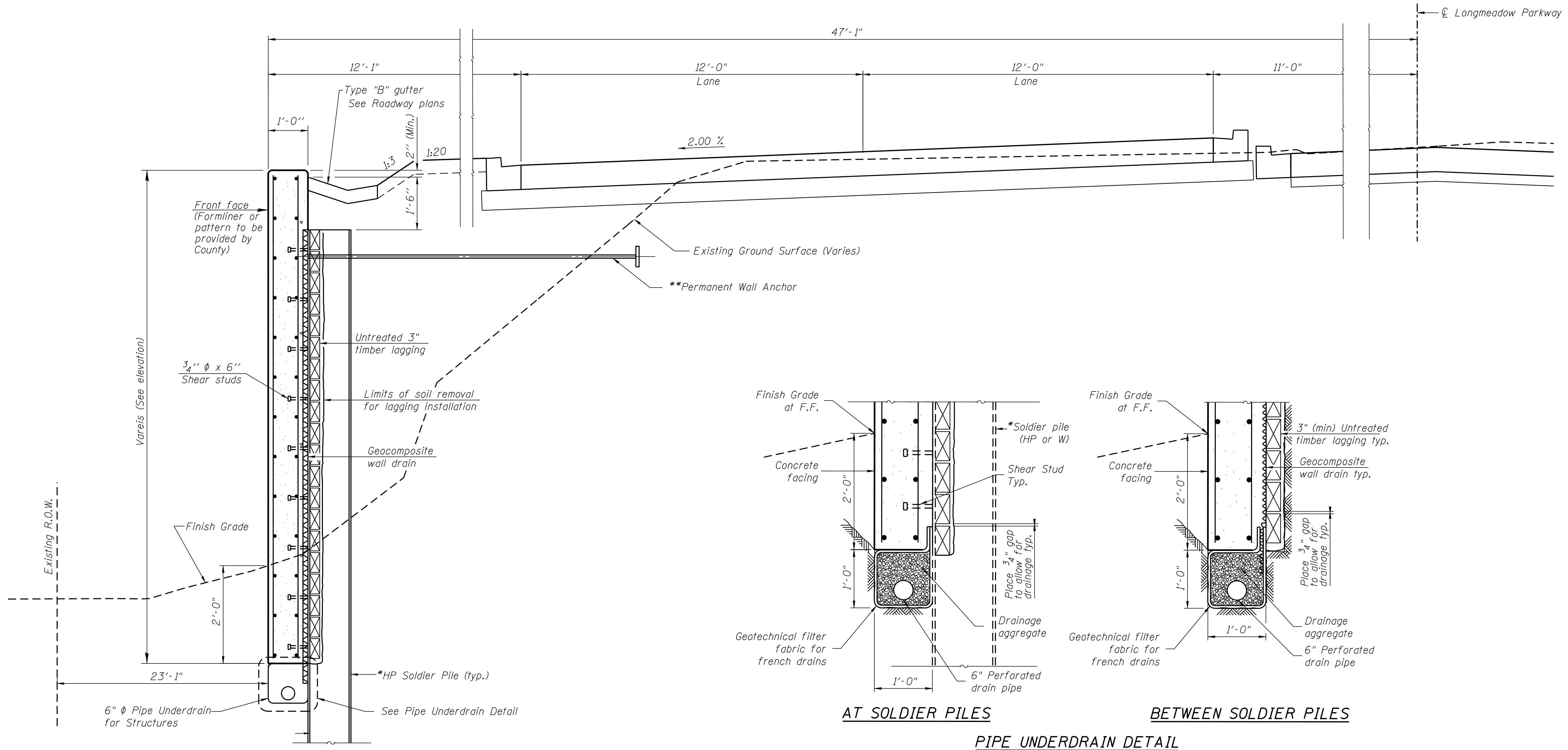
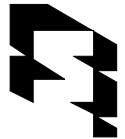


LOCATION SKETCH

GENERAL PLAN AND ELEVATION
LONGMEADOW PARKWAY & SLEEPY HOLLOW RD.
SECTION 94-00215-01 ES
KANE COUNTY
STATION 2094+70 TO 2096+70
STRUCTURE NO. RW-01

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
*FILEL\$		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	94-00215-01 ES	DUPAGE/KANE		
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



TYPICAL WALL SECTION
(Looking East)

*Pile section, spacing, and tip elevation,
to be determined during final design.

**Permanent wall anchor type, length, and number
to be determined during final design.

AT SOLDIER PILES

BETWEEN SOLDIER PILES

PIPE UNDERDRAIN DETAIL

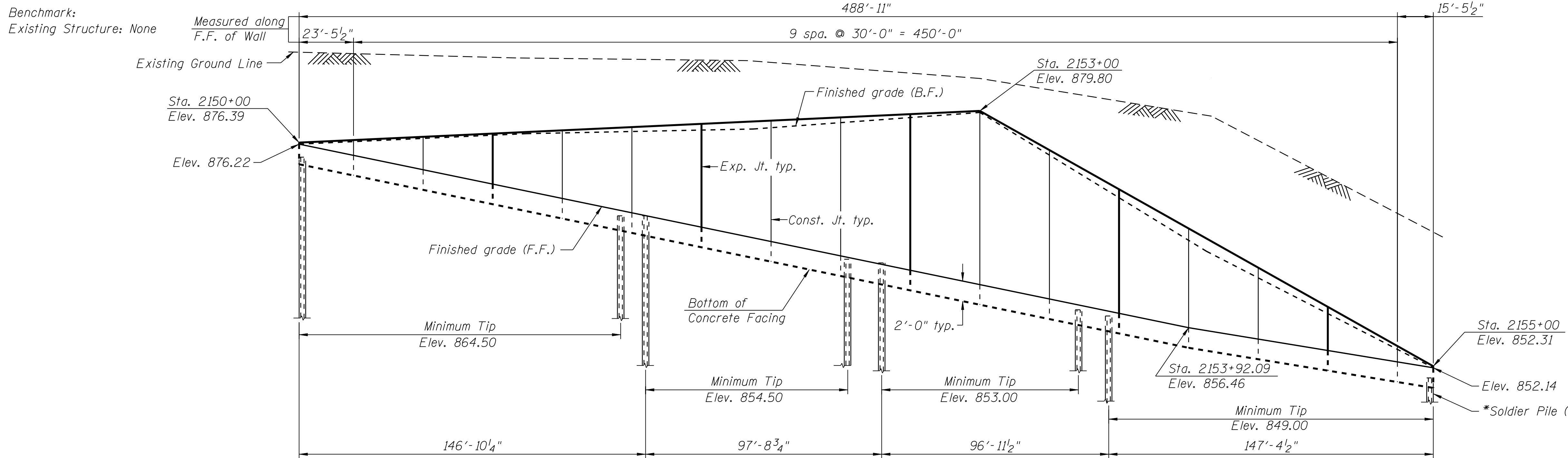
CROSS SECTION DETAILS
LONGMEADOW PARKWAY & SLEEPY HOLLOW RD.
SECTION 94-00215-01 ES
KANE COUNTY
STATION 2094+70 TO 2096+70
STRUCTURE NO. RW-01

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
*FILEL\$		CHECKED -	REVISED -
	PLOT SCALE =	DRAWN -	REVISED -
	PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 2 SHEETS

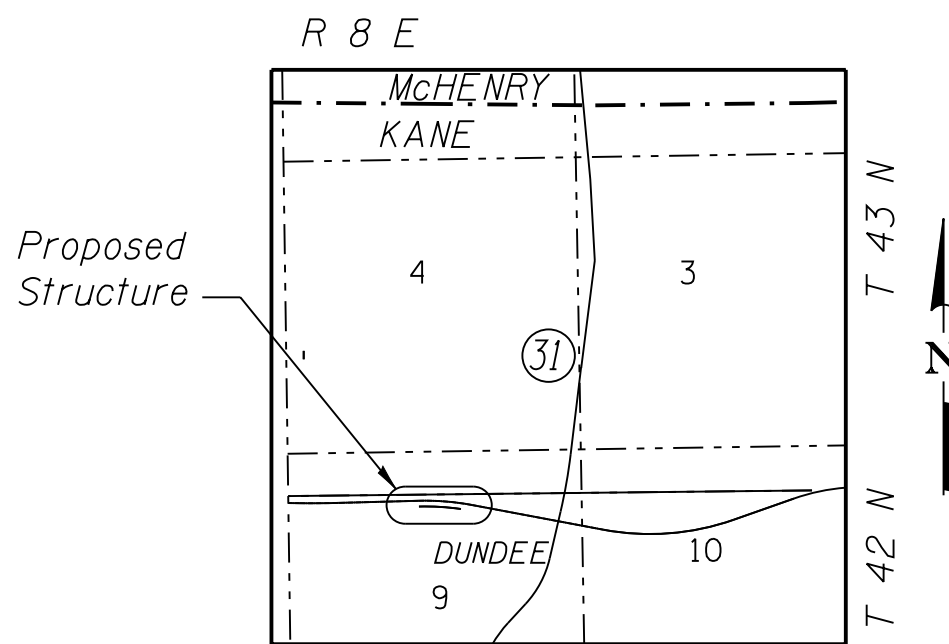
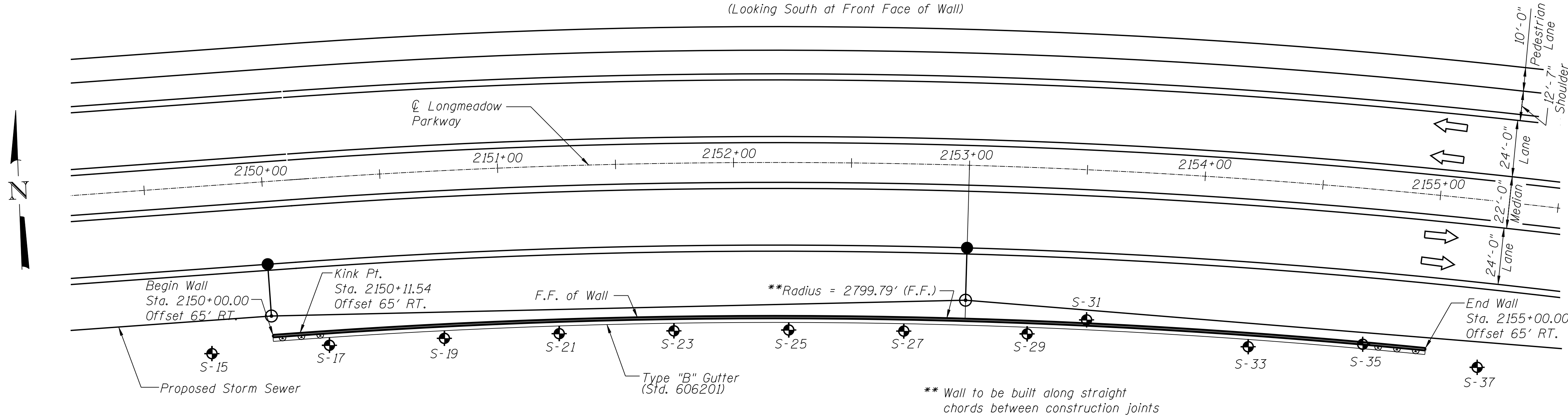
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	94-00215-01 ES	DUPAGE/KANE		
		CONTRACT NO.		
	ILLINOIS	FED. AID	PROJECT	



*Pile section, spacing, and tip elevation,
to be determined during final design.

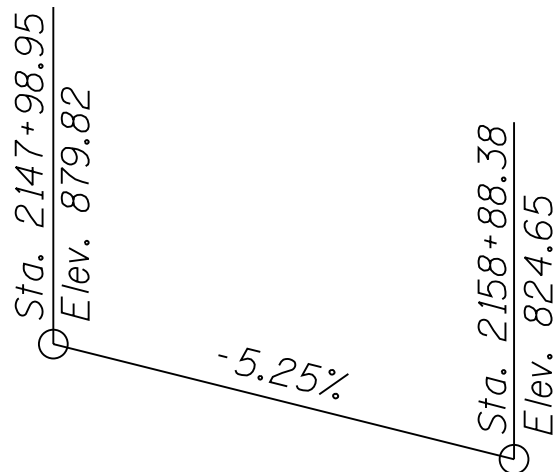
ELEVATION

(Looking South at Front Face of Wall)



LOCATION SKETCH

Note: 1) Offsets are measured from the ϕ
Longmeadow Parkway to the front
face of wall.
2) F.F. - Front Face
3) B.F. - Back Face



PROFILE GRADE

(along ϕ Longmeadow Pkwy)

CURVE DATA

Δ = 12°09'45"
D = 2°00'00"
T = 305.21'
L = 608.12'
E = 16.21'
R = 2864.79'
S.E. = 2.75
P.C. = Sta. 2150+11.54
P.T. = Sta. 2156+19.67
P.I. = Sta. 2153+16.75

HIGHWAY CLASSIFICATION

Longmeadow Parkway
Functional Class: Urban Minor Arterial
ADT: 29,000 (2040)
ADTT: 1,160 (2040)
DHV: 2.224
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic
Directional Distribution:

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications
for Highway Bridges

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)
 f_y = 50,000 psi (M270 Grade 50)

LEGEND

Soil Boring Location
F.F. - Front Face
B.F. - Back Face

GENERAL PLAN AND ELEVATION
LONGMEADOW PARKWAY OVER FOX RIVER
SECTION 94-00215-01 ES
KANE COUNTY
STATION 2150+00 TO 2155+00
STRUCTURE NO. RW-02

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. 1 OF 2 SHEETS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILEL\$		CHECKED -	REVISED -				94-00215-01 ES	DUPAGE/KANE		
	PLOT SCALE =	DRAWN -	REVISED -					CONTRACT NO.		
	PLOT DATE =	CHECKED -	REVISED -						ILLINOIS	FED. AID PROJECT

