Bench Mark: Chiseled square on N.E. wingwall Sta. 20+35.58, 27.83' RT. Elev. 618.46

Existing Structure: SN. 016-0314 built in 1931 as FA 42, section 039-2323.3-15-D. Reconstructed, including superstructure replacement and lengthening of the bridge with construction of two additional spans, in 1970 as FA 42, section 207-0708.08-C.F. Structure consists of 5 total spans; 3 PPC Deck Beam spans (1 to 3) and 2 continuous spans (4 to 5) of reinforced concrete T-Beams. The superstructure is supported on 1 closed counterfort (spread footing) abut, 1 pile bent abutment and multi-column piers (Shaft - pier 10; Piles - pier 11; Spread Footing - piers 8 & 9). The structure is 163'-5¼" back-to-back of abutments, 56'-6" out-to-out deck. Structure is to be removed and replaced.

Traffic Control: Staged construction will be utilized by maintaining two NB lanes of traffic in stage I and one NB lane of traffic during stage II construction.

Salvage: Bridge handrail, posts, and temporary support beams.

Pier Removal: Piers may be left inplace during Stage I removal and removed during Stage II construction.

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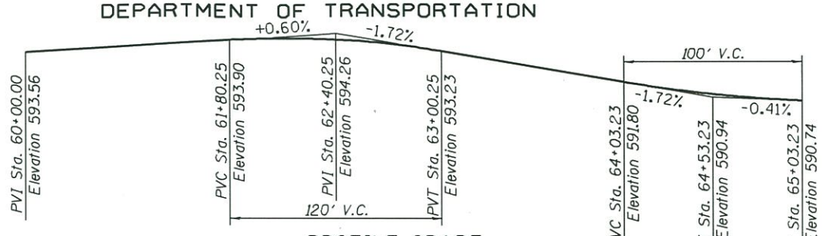
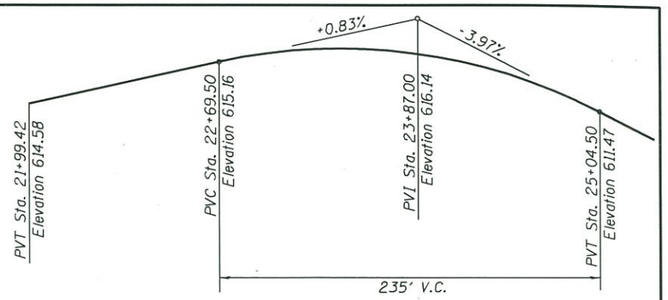
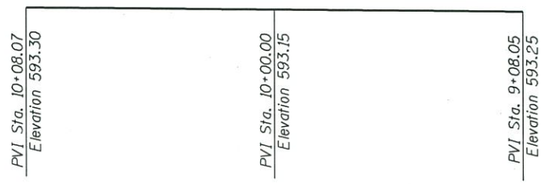


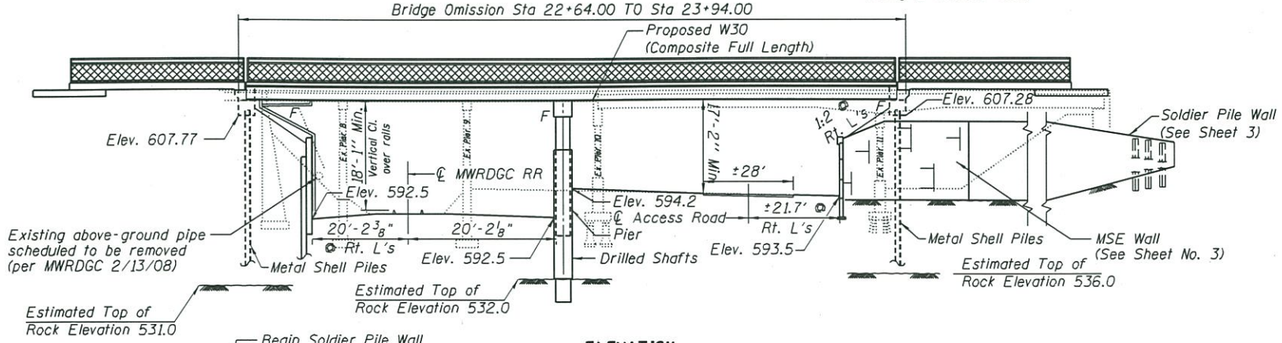
PROFILE GRADE
(Along ℄ Access Road)



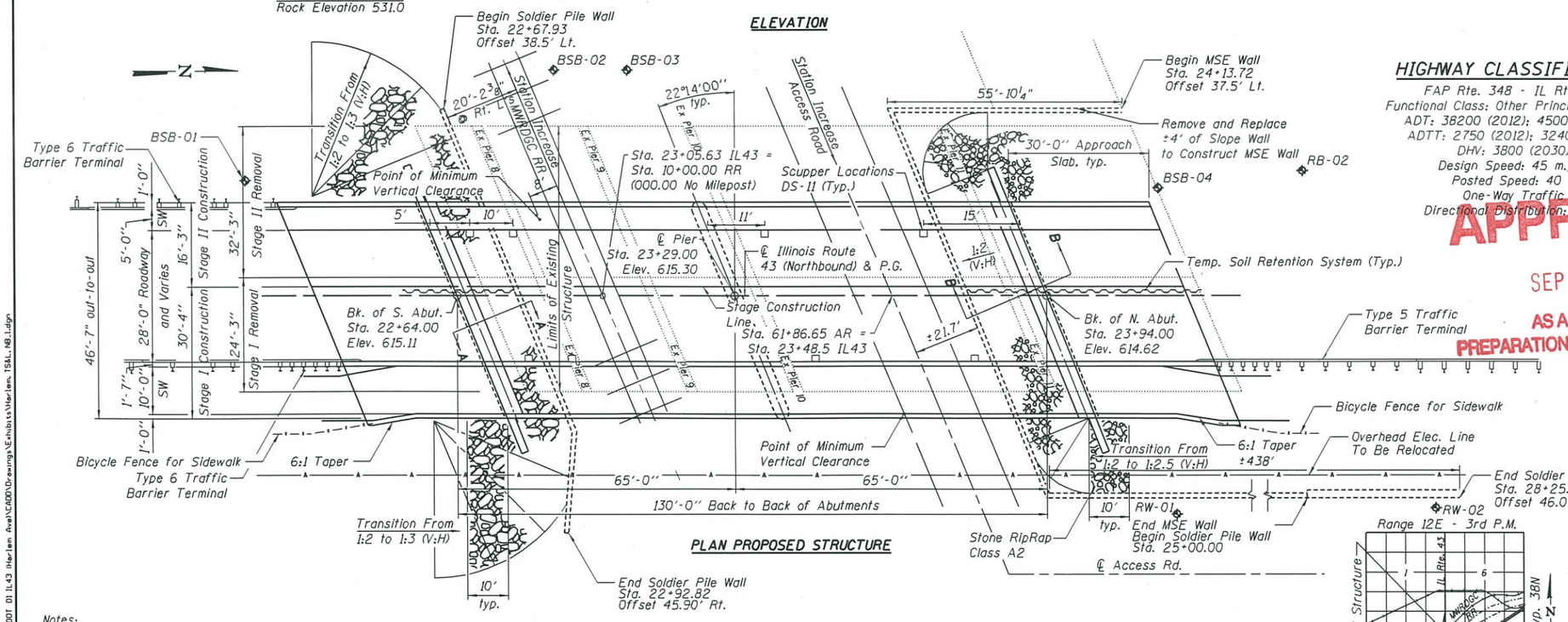
PR PROFILE GRADE
(Along ℄ Roadway)



PROFILE GRADE
(Along ℄ Railroad)



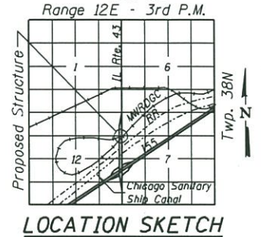
ELEVATION



PLAN PROPOSED STRUCTURE

Notes:
No freefall deck drains will be permitted in the span over the tracks or within 10ft. of the crossarms of a railroad pole line.

See Sheet 2 for Section A-A, B-B.
See Sheet 3 for Section C-C.



LOCATION SKETCH

HIGHWAY CLASSIFICATION

FAP Rte. 348 - IL Rte. 43
Functional Class: Other Principal Arterial
ADT: 38200 (2012); 45000 (2030)
ADTT: 2750 (2012); 3240 (2030)
DHV: 3800 (2030)
Design Speed: 45 m.p.h.
Posted Speed: 40 m.p.h.
One-Way Traffic
Directional Distribution: 100%

LOADING HL-93

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

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition with 2012 & 2013 Interims

APPROVED
SEP 09 2015
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (AASHTO M 270 Grade 50)
PRECAST UNITS
f'c = 4,500 psi (Precast Panels)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.062g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.115g
Soil Site Class = C

GENERAL PLAN & ELEVATION
IL ROUTE 43 (NORTHBOUND)
OVER MWRDGC RAILROAD
FAP ROUTE 348
SECTION 0708.08B-R(11)
COOK COUNTY
STATION 23+29.00
STRUCTURE NO. 016-1330

PRINTED DATE: 9/4/2015
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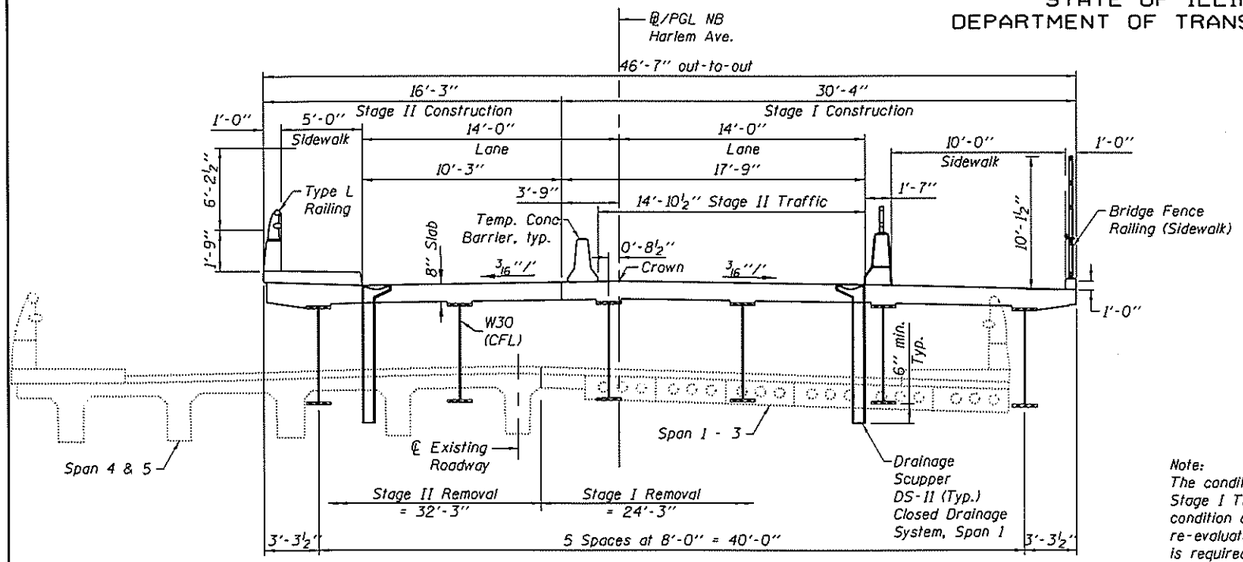
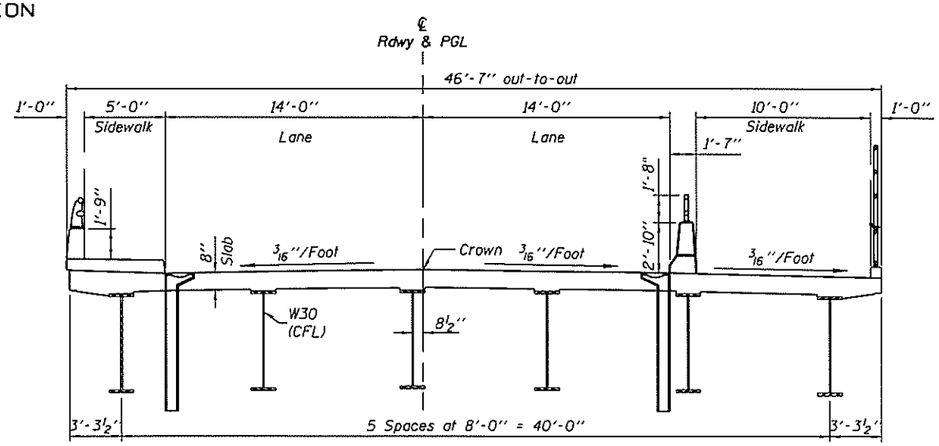
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	5	1
		CONTRACT NO. 60706		
ILLINOIS	FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





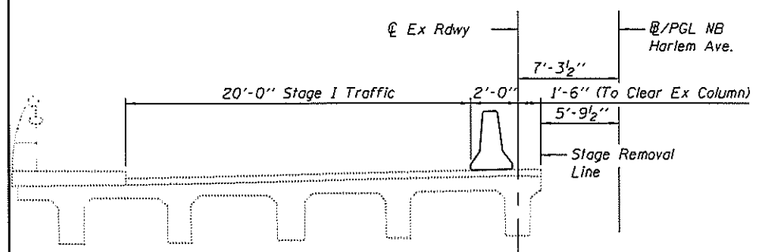
Note:
The condition of the existing deck beams for the duration of Stage I Traffic should be verified during final design. If their condition changes, the proposed staging sequence shall be re-evaluated. If a beam replacement or beam support contract is required, the designer shall provide the necessary plans.

PROPOSED CROSS SECTION

(Looking North)

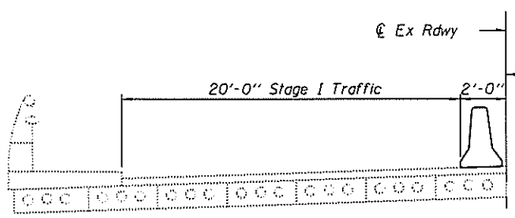
CROSS SECTION

(Looking North)
(Existing steel WF beam supports not shown for clarity.)



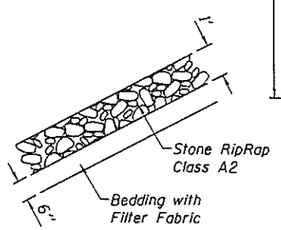
EXISTING SECTION SPANS (4-5)

(Looking North)

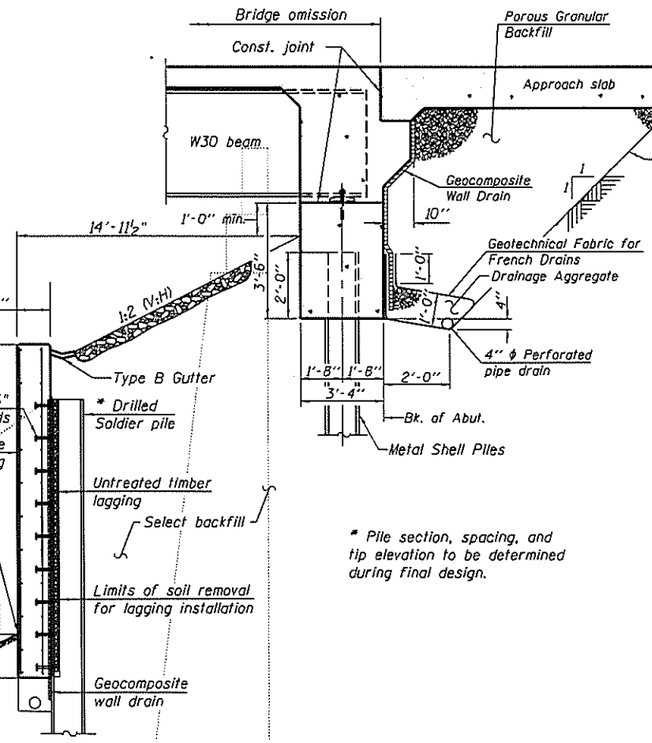


EXISTING SECTION SPANS (1-3)

(Looking North)



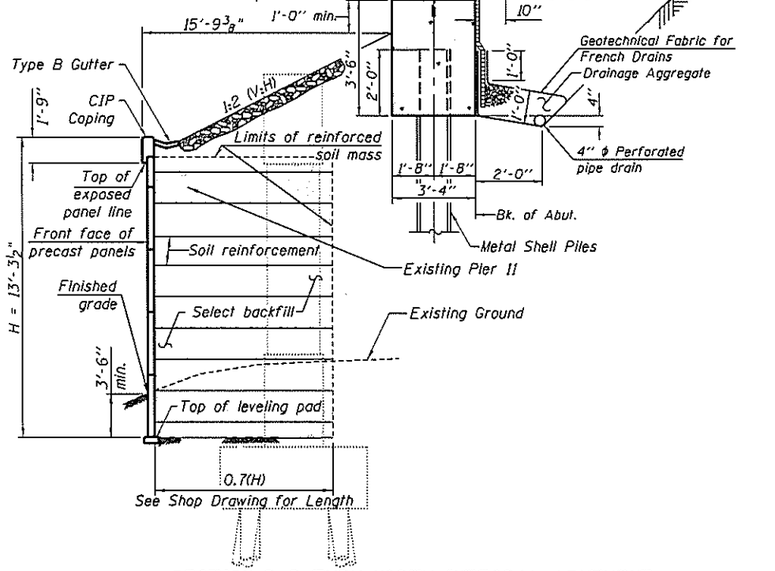
STONE RIPRAP DETAIL



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

SECTION A-A THRU SOUTH INTEGRAL ABUTMENT

(Horiz. dim. ℄ Rt. L's)



SECTION B-B THRU NORTH INTEGRAL ABUTMENT

(Horiz. dim. ℄ Rt. L's)

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CROSS-SECTIONS AND MISCELLANEOUS DETAILS
SN: 016-1330

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.08B-R(11)	COOK	5	2
		CONTRACT NO. 60706		
	ILLINOIS	FED. AID PROJECT		

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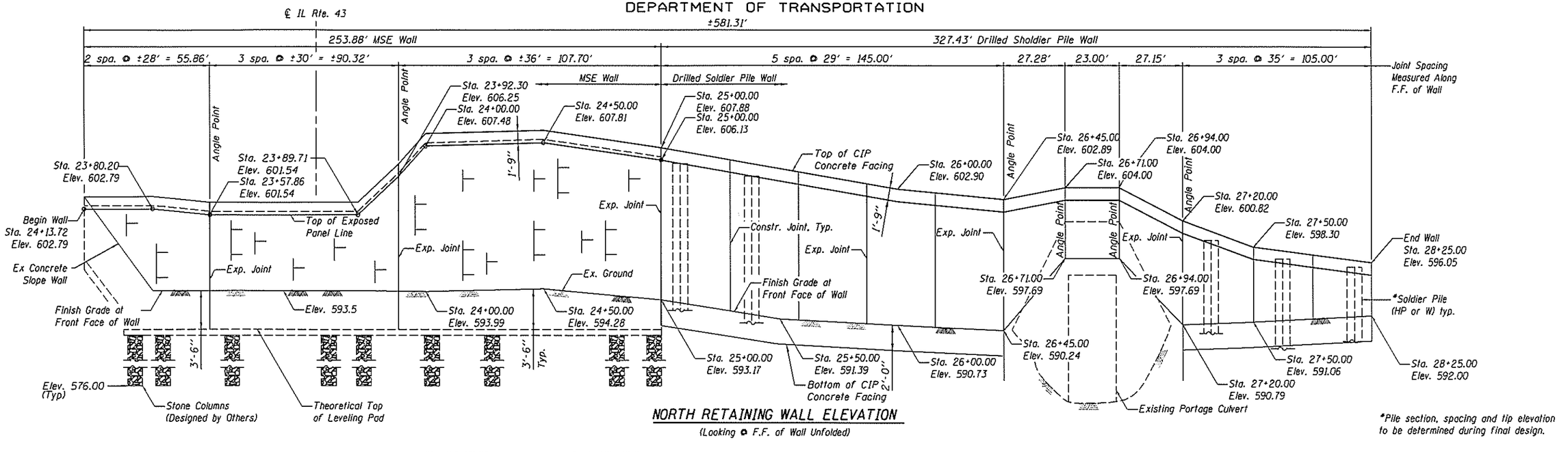
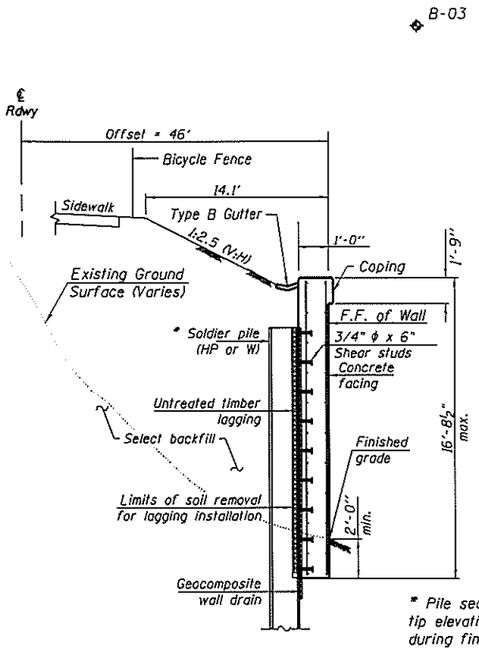
DEPARTMENT OF TRANSPORTATION



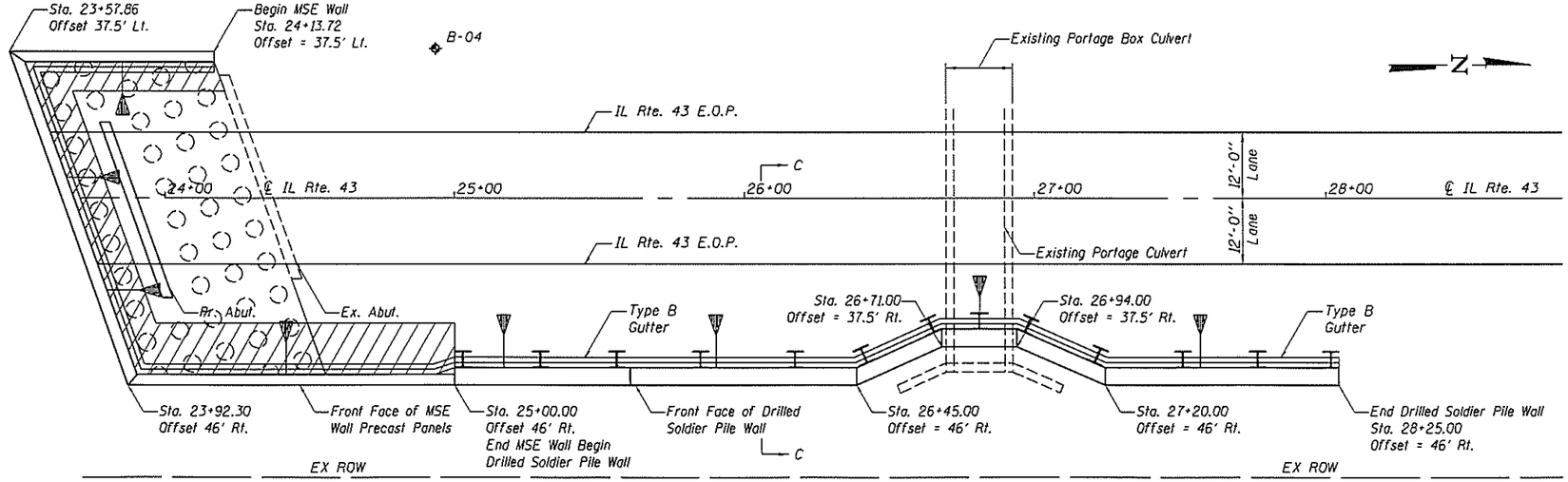
NORTH RETAINING WALL ELEVATION
(Looking @ F.F. of Wall Unfolded)

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



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

SECTION C-C
THRU SOLDIER PILE WALL



NORTH RETAINING WALL PLAN
(Plan View)

MSE Wall Soil Reinforcement

Stone Column Improvements

Note: No Stone Colomns placed where driving new piles or at existing.

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NORTH RETAINING WALL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
348	0708.088-R(1)1	COOK	5	3
		CONTRACT NO. 60706		
		ILLINOIS FED. AID PROJECT		

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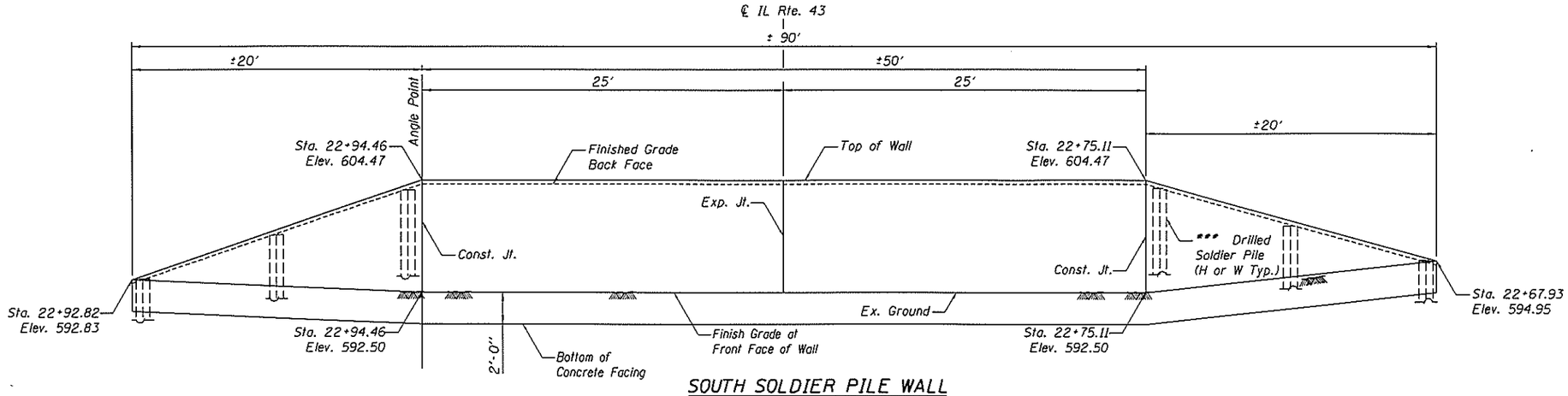
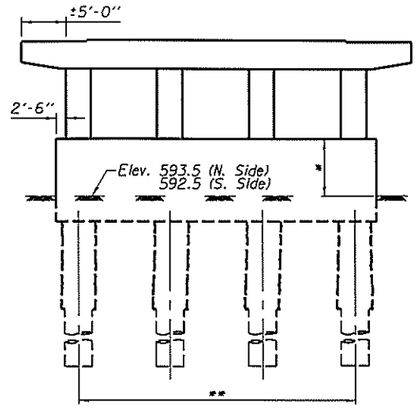


SOUTH SOLDIER PILE WALL
(Looking at F.F. of Wall Unfolded)

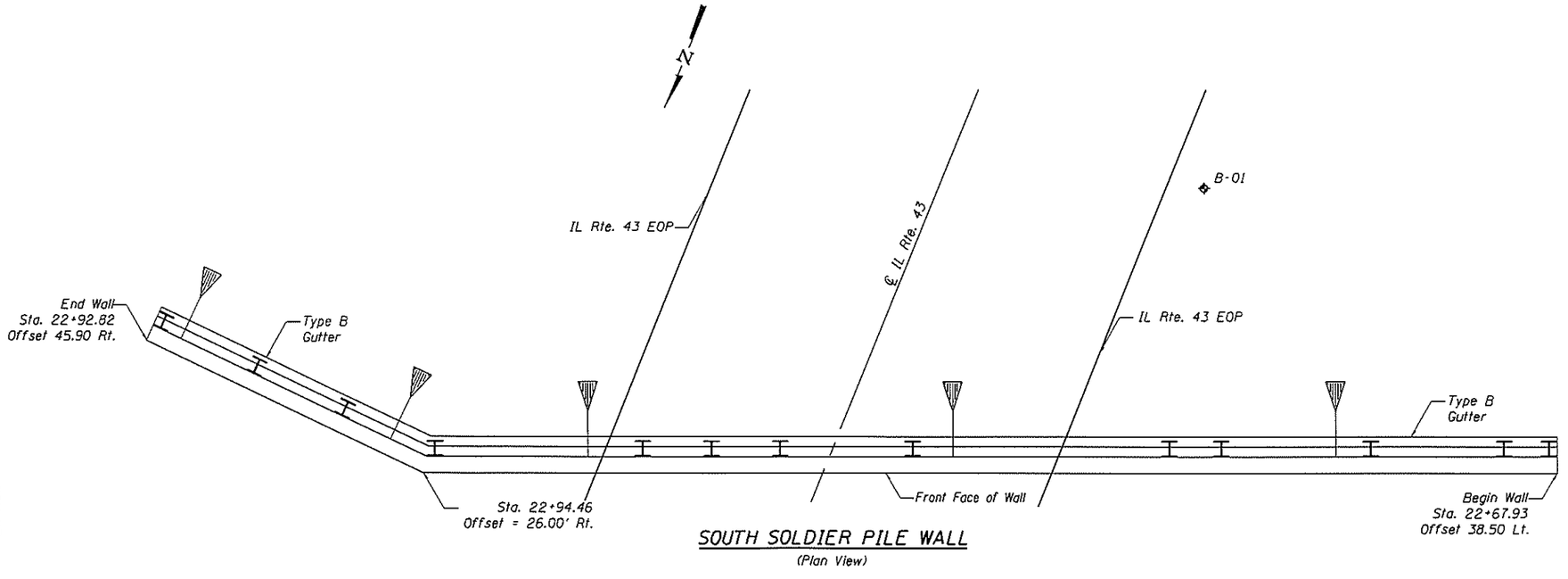


PIER SKETCH

* 5'-0" N. Side
6'-0" S. Side

** Number, diameter and depth of shafts to be determined in design.

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



SOUTH SOLDIER PILE WALL
(Plan View)

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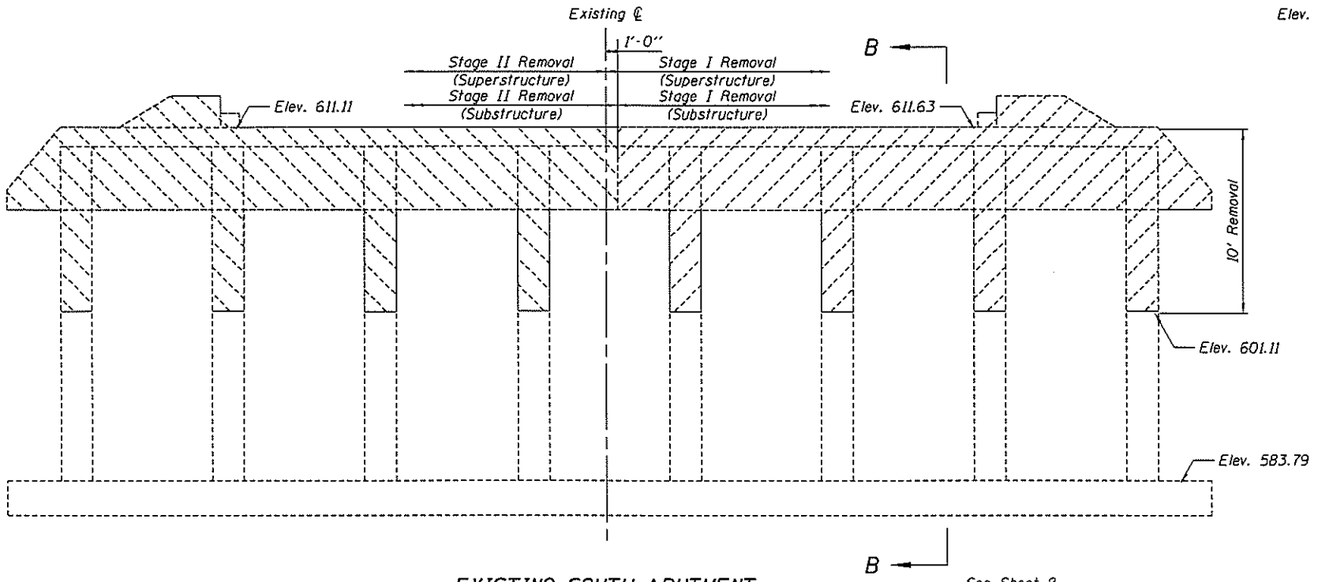
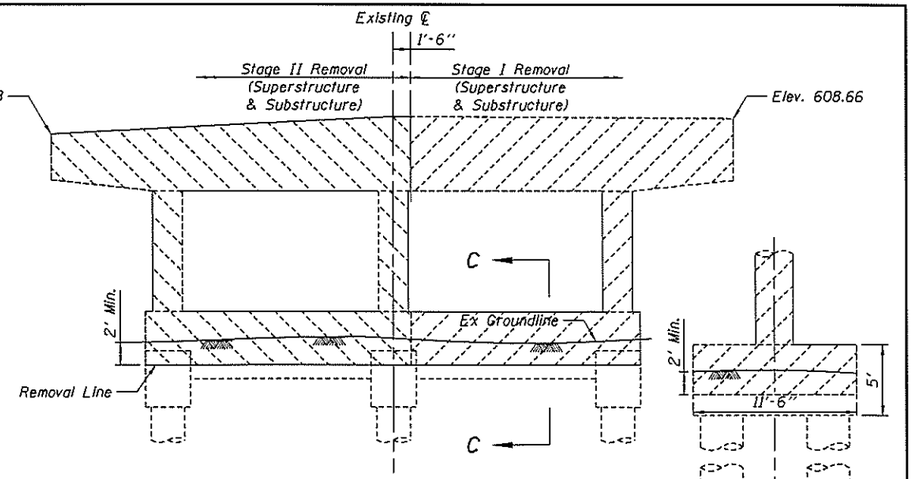


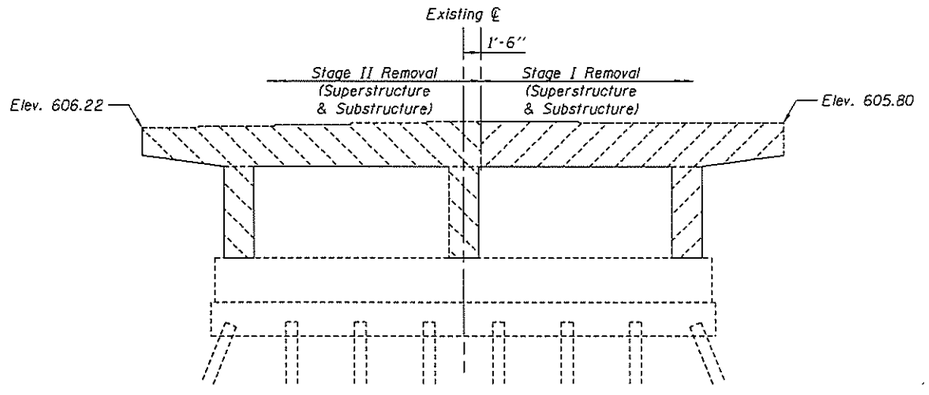
EXISTING SOUTH ABUTMENT
(Looking North)

See Sheet 2 for Section B-B

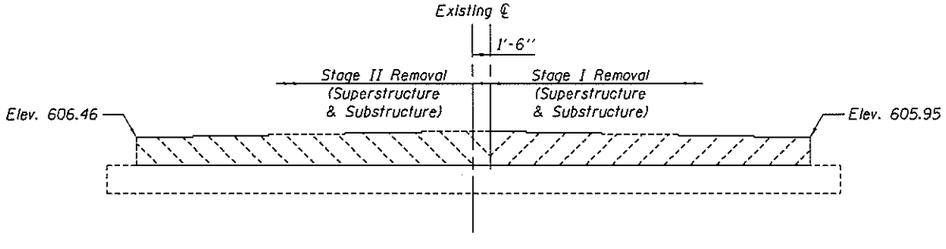


EXISTING PIER 10
(Looking North)

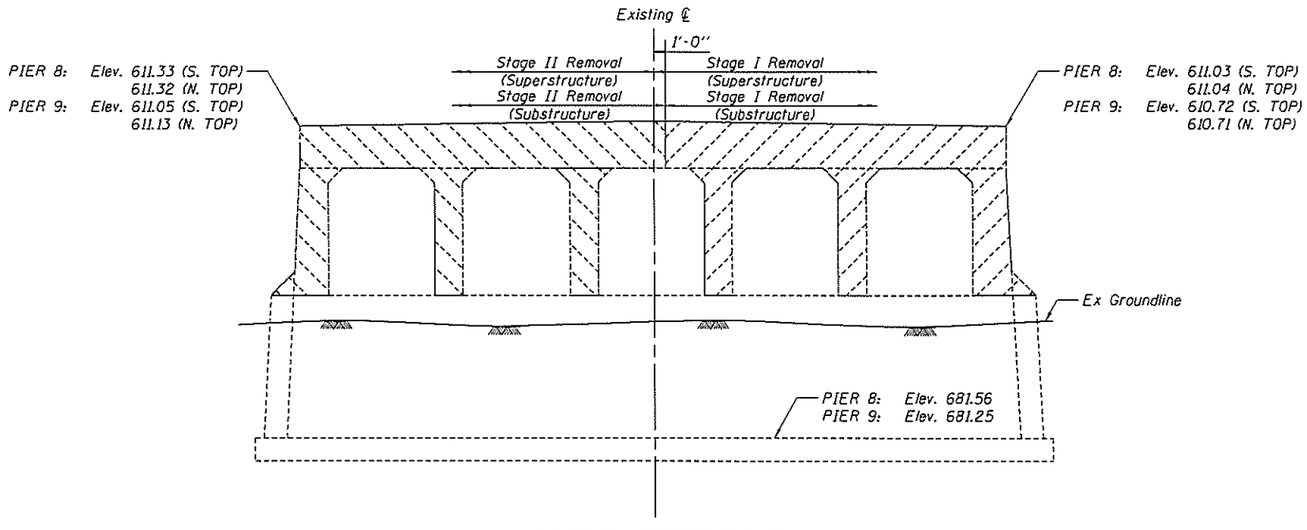
SECTION C-C



EXISTING PIER 11
(Looking North)



EXISTING NORTH ABUTMENT
(Looking North)



EXISTING PIERS 8 & 9
(Looking North)

Stage I Removal

Stage II Removal

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SUBSTRUCTURE REMOVAL

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