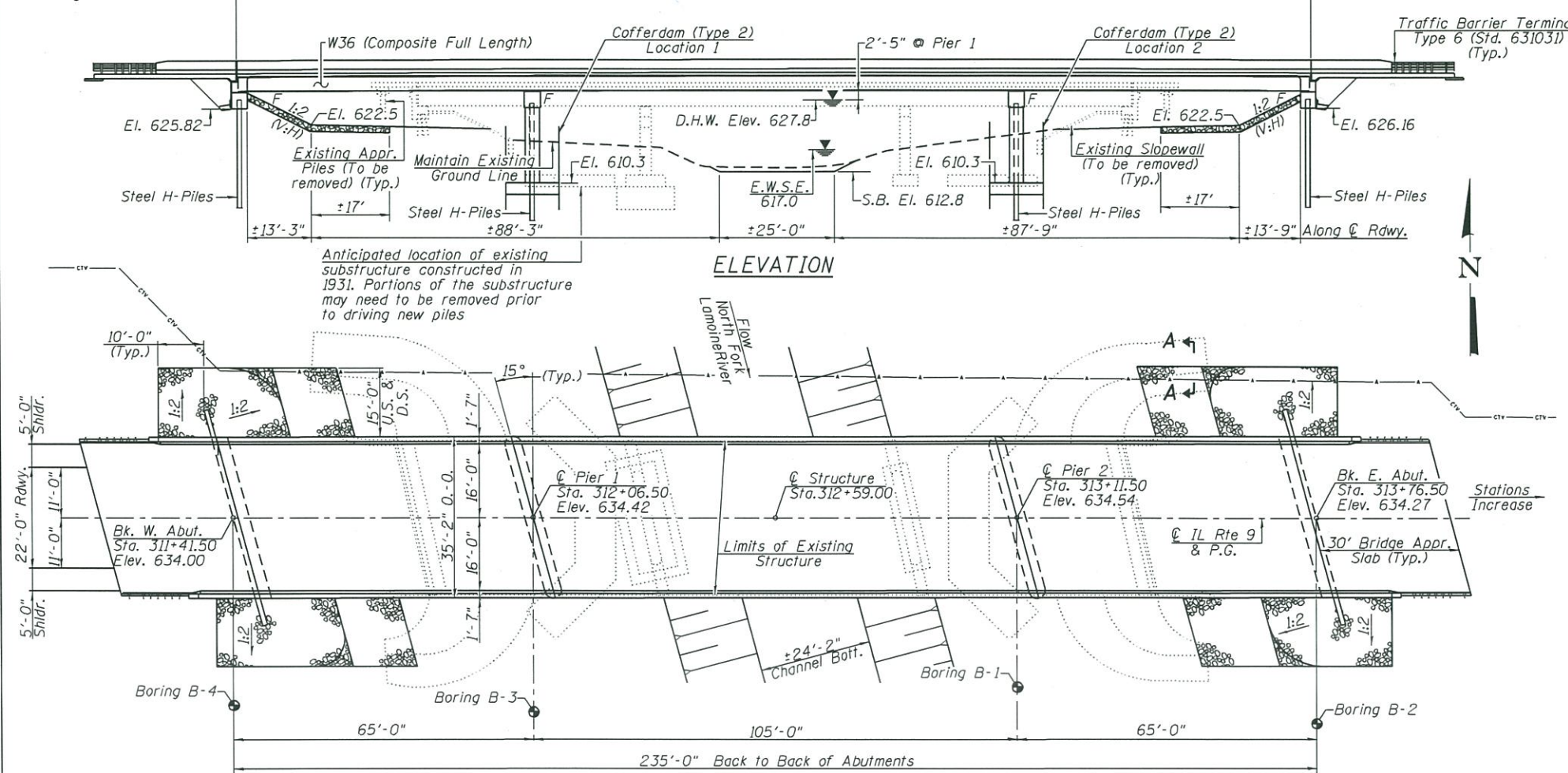


Bench Mark: Chiseled "□" on S.W. wingwall of S.N. 055-0015. El. 632.07
 Existing Structure: Structure Number 055-0015, built in 1960 as S.B.I. Route 95, Section 120 BR at Station 312+59.00.
 Structure consists of three span continuous wide flange beams supported on spill-thru abutments and hammer head piers. 153'-6" back-to-back abutments. 33'-8" out-to-out deck. Traffic to be detoured.
 Project will be built under road closure.

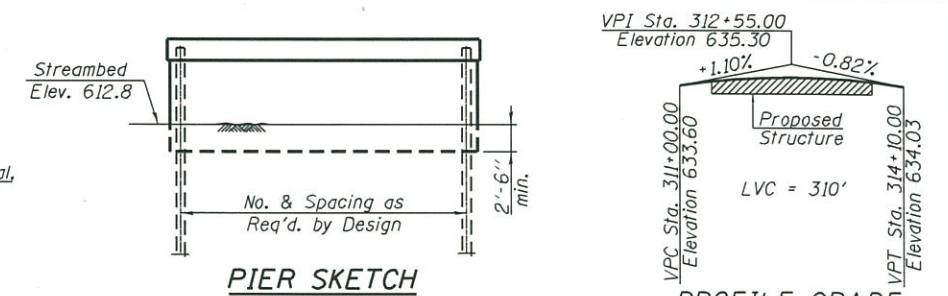
No Salvage.

Bridge Omission Sta. 311+42.54 to Sta. 313+75.46



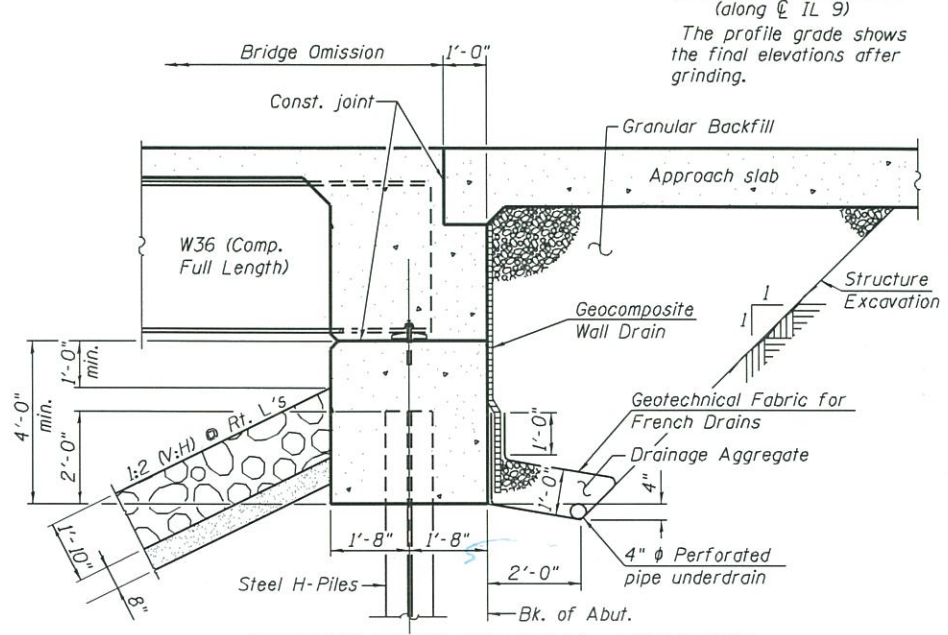
ELEVATION

PLAN



PIER SKETCH

PROFILE GRADE



SECTION THRU INTEGRAL ABUTMENT

WATERWAY INFORMATION

| Drainage Area = 49.20 mi ² | | Exist. Low Grade Elev. 630.70 @ Sta. 306+00 | | Prop. Low Grade Elev. 630.70 @ Sta. 306+00 | | |
|---------------------------------------|-----------|---|------------------------------|--|-------------------------|----------------------------|
| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. Exist. Prop. | Nat. H.W.E. | Head - Ft. Exist. Prop. | Headwater El. Exist. Prop. |
| Design | 10 | 4470 | 972 1356 | 626.4 | 1.2 0.6 | 627.6 627.0 |
| Base | 100 | 6960 | 1177 1650 | 627.8 | 1.7 0.9 | 629.5 628.7 |
| Overtop E | 150 | 8100 | 1207 1764 | 628.3 | 2.1 1.0 | 630.4 629.3 |
| Max. Calc. | 500 | 10800 | 1207 2006 | 628.7 | 2.0 1.2 | 630.7 631.8 |

10 year velocity through existing bridge = 4.6 fps
 10 year velocity through prop. bridge = 3.3 fps

DESIGN SCOUR ELEVATION TABLE

| Item | Design Scour Elevations (ft.) | | | | |
|--------|-------------------------------|--------|--------|----------|---|
| | W. Abut. | Pier 1 | Pier 2 | E. Abut. | |
| Q100 | 625.82 | 604.45 | 599.50 | 626.16 | 5 |
| Q500 | 625.82 | 601.95 | 594.50 | 626.16 | |
| Design | 625.82 | 604.45 | 599.50 | 626.16 | |
| Check | 625.82 | 601.95 | 594.50 | 626.16 | |

HIGHWAY CLASSIFICATION

F.A.P. Route 685 - IL Rte. 9
 Functional Class: Minor Arterial
 ADT: 2,650 (2011); 2714 (2032)
 ADTT: 275 (2011); 282 (2032)
 DHV: 326 (2032)

Design Speed: 55 m.p.h. (posted); 55 m.p.h. (design)
 Two way traffic Directional Dist. 50:50

LOADING HL 93

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

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 and 2016 Interims.

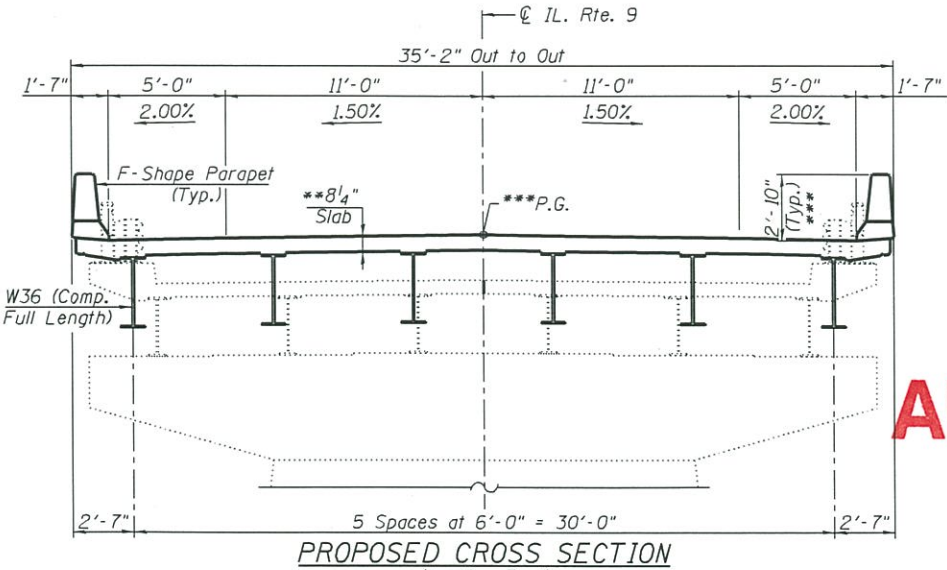
DESIGN STRESSES

FIELD UNITS

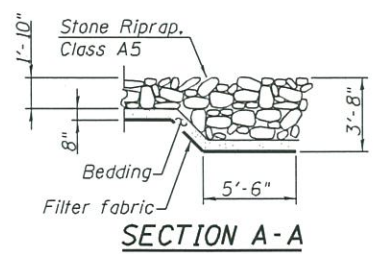
- $f'_c = 3,500$ psi (Concrete Substructure)
- $f'_c = 4,000$ psi (Concrete Superstructure)
- $f_y = 60,000$ psi (reinforcement)
- * $f_y = 50,000$ psi (M270 Grade 50)
- * $f_y = 36,000$ psi (M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.110g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.166g
 Soil Site Class = D



PROPOSED CROSS SECTION

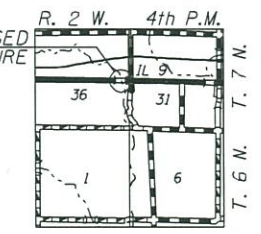


SECTION A-A

APPROVED

MAR 22 2017

AS A BASIS FOR PREPARATION OF DETAILED PLANS



LOCATION SKETCH

GENERAL PLAN & ELEVATION
 IL ROUTE 9 OVER NORTH FORK LAMOINE RIVER
 F.A.P. ROUTE 685 - SEC. (120-BR)
 MCDONOUGH COUNTY
 STA. 312+59.00
 STRUCTURE NO. 055-0097

| | | | | | | | | | | |
|---|--------------|------------|-----------|---|---|---------------------------|-----------|-----------|----------------|-------------|
| Veenstra & Kimm, Inc. Springfield, IL Phone: (217)544-8033 | USER NAME = | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL PLAN & ELEVATION SHEET NO. 1 OF 1 SHEETS | F.A.P. RTE. = | SECTION = | COUNTY = | TOTAL SHEETS = | SHEET NO. = |
| | PLDT SCALE = | CHECKED - | REVISED - | | | 685 | (120-BR) | MCDONOUGH | | |
| PLDT DATE = | DRAWN - | REVISED - | | | | CONTRACT NO. 68215 | | | | |
| | CHECKED - | REVISED - | | | | ILLINOIS FED. AID PROJECT | | | | |