

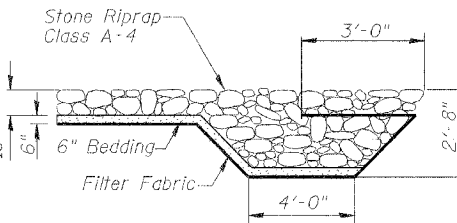
Benchmark: Chiseled square on top of Northeast wingwall, Sta. 1158+20.0592, 22.1043' Lt., El. = 640.488

Existing Structure: The existing structure, constructed in 1953, has no structure number. The structure is a 10'x6' single barrel R.C. box culvert with a 45'-4" out-to-out length. Section and route of the existing structure are 16RS-3, F.A.P. 309 (US 30). Traffic to be maintained utilizing Stage Construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Centerline and P.G. Existing & Proposed US Rte. 30



STONE RIPRAP ANCHOR DETAIL

| | | | | | |
|-----------------------|---------|-----------|-------------|------------------|-------------|
| ROUTE NO. | SECTION | COUNTY | PROJECT NO. | SHEET NO. | SHEET NO. 1 |
| F.A.P. 309 | 16R-2 | WHITESIDE | 547 | 188 | 7 SHEETS |
| FED. ROAD DIST. NO. 4 | | ILLINOIS | | FED. AID PROJECT | |

Contract # 64969

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO "Standard Specifications for Highway Bridges"

DESIGN STRESSES

FIELD UNITS

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

INDEX OF SHEETS

1. General Plan & Elevation
2. Stage Construction & General Notes
3. Top & Bottom Slab Layout
4. Culvert Section & Details
5. Bar Splicer Details
6. Boring Logs
7. Boring Logs

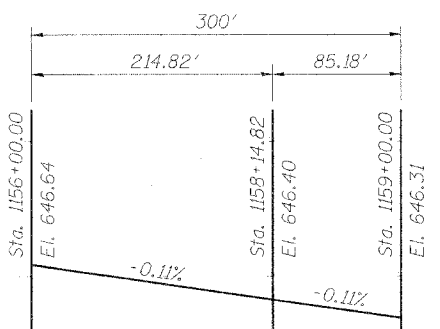
WATERWAY INFORMATION

| Drainage Area = 0.52 sq. mi | | West Culvert | | Exist. Low Grade Elev. 641.50 @ Sta. 1163+50 | | Prop. Low Grade Elev. 645.91 @ Sta. 1163+50 | | | |
|-----------------------------|-----------|----------------|------------------------|--|--------------|---|-------|----------------------|--------|
| Flood | Freq. Yr. | Prop. Q C.F.S. | Opening Sq. Ft. Exist. | Prop. | *Nat. H.W.E. | Head - Ft. Exist. | Prop. | Headwater El. Exist. | Prop. |
| Overtop (Exist.) | 10 | 75 | 60 | 181.4 | 640.77 | 0.53 | 0.09 | 641.30 | 640.86 |
| Design | 50 | 677 | 60.0 | 240.0 | 641.89 | 0.74 | 0.28 | 642.63 | 642.17 |
| Base | 100 | 857 | 60.0 | 240.0 | 642.19 | 0.58 | 0.54 | 642.77 | 642.73 |
| Max. Calc. | 500 | 1237 | --- | 240.0 | 643.13 | 0.04 | 1.03 | 643.17 | 644.16 |

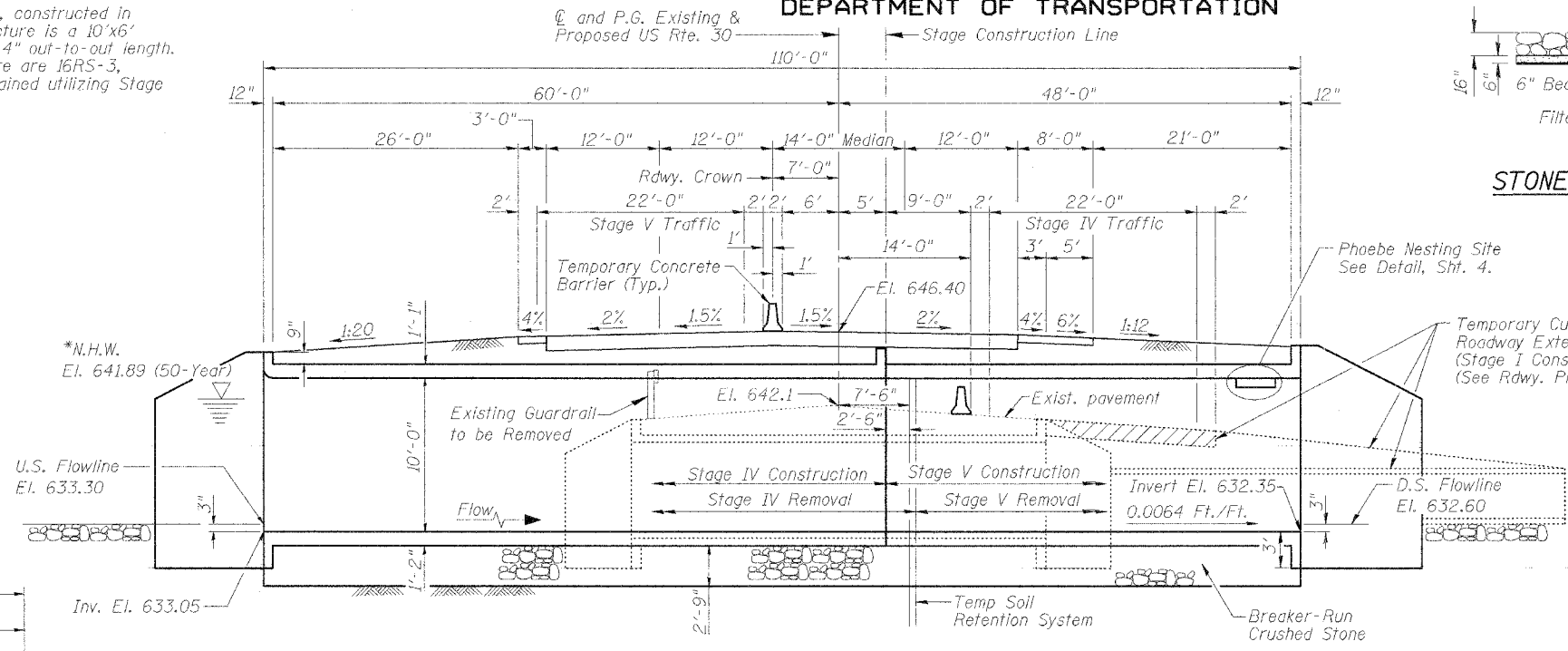
10-Yr. velocity through existing West Culvert = 5.84 fps * Upstream Face of Culvert
10-Yr. velocity through proposed West Culvert = 4.04 fps

STATION 1158+14.82
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. ROUTE 309
SEC. 16R-2
LOADING HS20
STR. NO. 098-2025

NAME PLATES
See Std. 515001

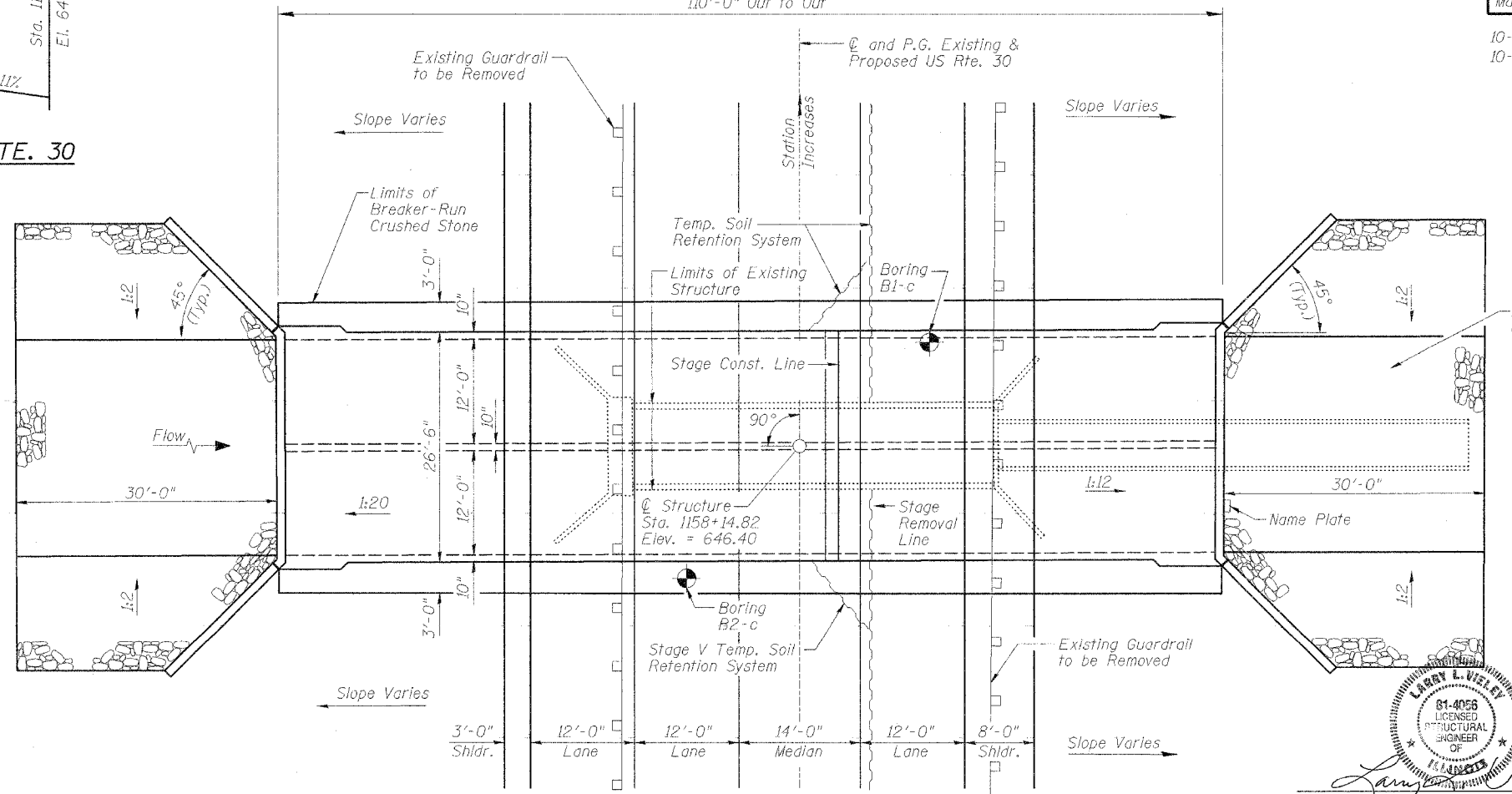


PROFILE GRADE U.S. RTE. 30
(Along Centerline Roadway)



LONGITUDINAL SECTION

N.T.S Looking East
(Horizontal Dimensions at Rt. Angles to Centerline Roadway)



PLAN

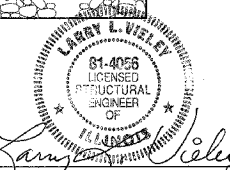
N.T.S

Boring Locations Indicated Thus: [Symbol]

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | LL |
| DRAWN | MGM |
| CHECKED | LLV |

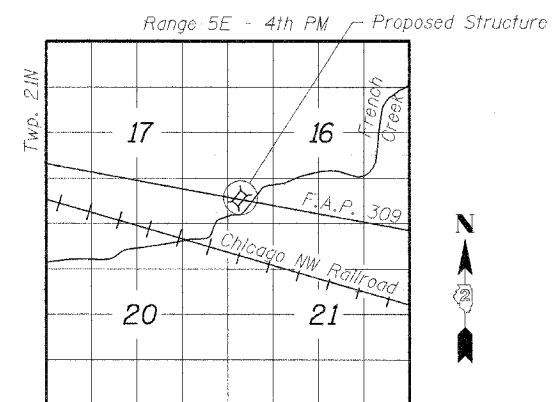
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Adams
ENGINEER OF BRIDGES AND STRUCTURES



Larry L. Vieley
Illinois Registered Structural Engineer
NO. 081-004056
License Expires: November 30, 2006

Date: 01/10/2006



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
US RTE. 30 OVER UNNAMED CREEK
F.A.P. ROUTE 309 SECT. 16R-2
WHITESIDE COUNTY
STATION 1158+14.82
STRUCTURE NO. 098-2025

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