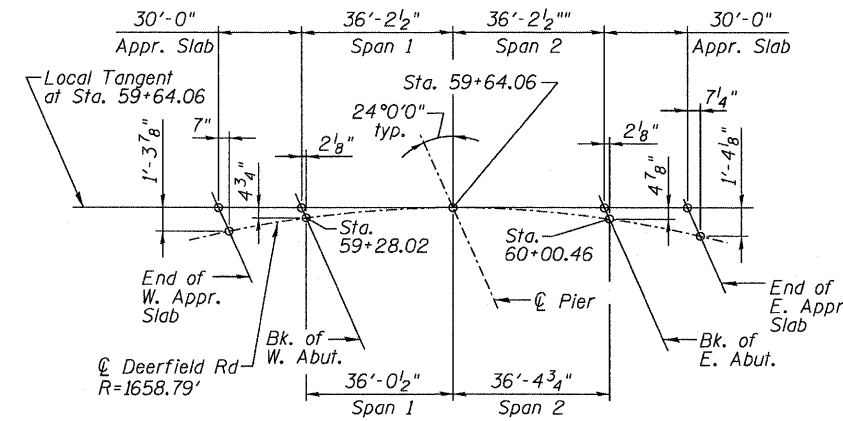
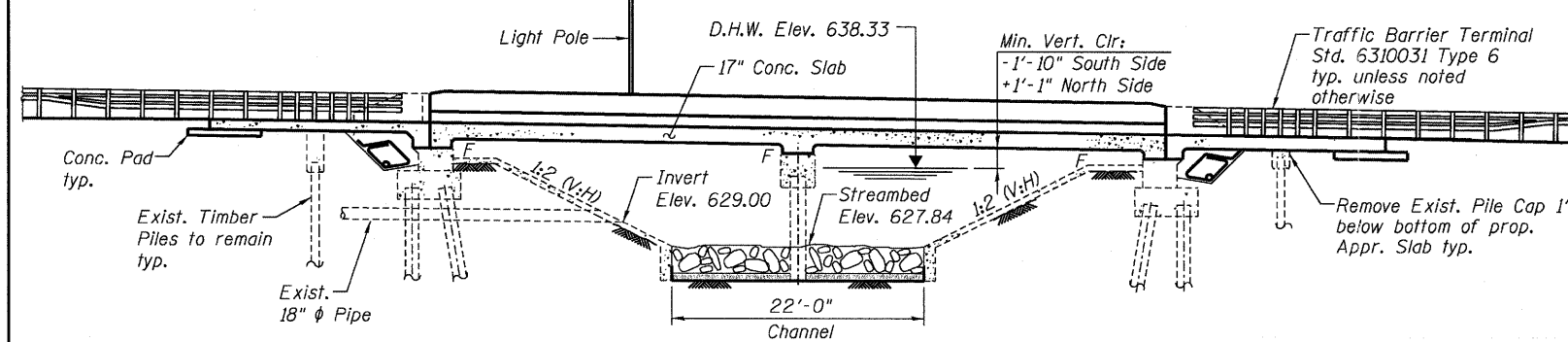


BM- #1: Chiseled square located at center of headwall South of Deerfield Road and North of Exit ramp West of US 41 South Bound lanes. Elev.=636.99.
 BM- #4: Chiseled square cut in the top of the Southeast Wingwall, Elev.=638.64.

Existing structure: S.N. 049-0088 is a two equal span continuous R.C. Slab bridge, built in 1962 as part of FAU Route 1257 Section 104RB-R at Sta. 59+64.06. Structure consists of 16" thick slab with 2" thick microsilica concrete overlay supported by pile bent abutments and pier. The structure is 72'-5 1/4" Back to Back of Abutments with Out to Out width varies from 98'-8 1/4" to 88'-7". Bridge carries 2 thru traffic lanes and merge/ramp lane in each direction. Existing superstructure to be removed and replaced with 2-span continuous R.C. Slab Bridge. Deteriorated portion of slope wall to be repaired. Scour protection measures at the pier to be constructed. Traffic to be maintained utilizing stage construction.

No Salvage, except existing light pole to be removed, stored during construction and placed on it's original location.



OFFSET SKETCH

LOADING HS20-44
 Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

EXISTING STRUCTURE

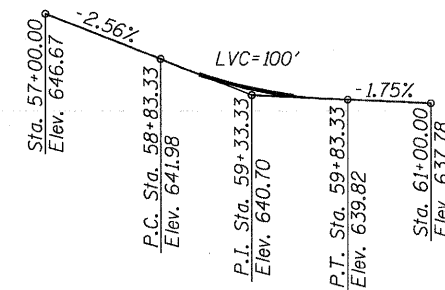
$f_c = 1,400$ psi
 $f_s = 20,000$ psi (Reinforcement)
 $f_s = 18,000$ psi (Structural Steel)

NEW CONSTRUCTION

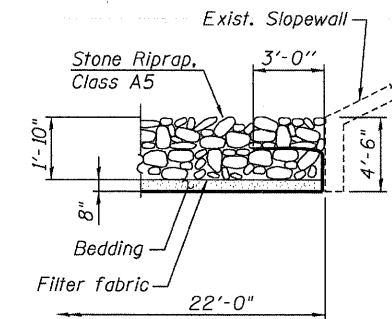
$f_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

SEISMIC DATA

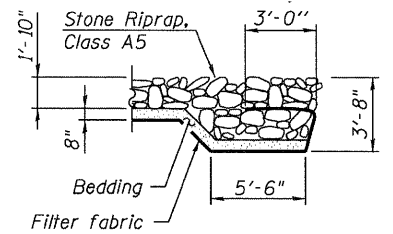
Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.04g
 Site Coefficient (S) = 1.5



PROFILE GRADE



SECTION A-A

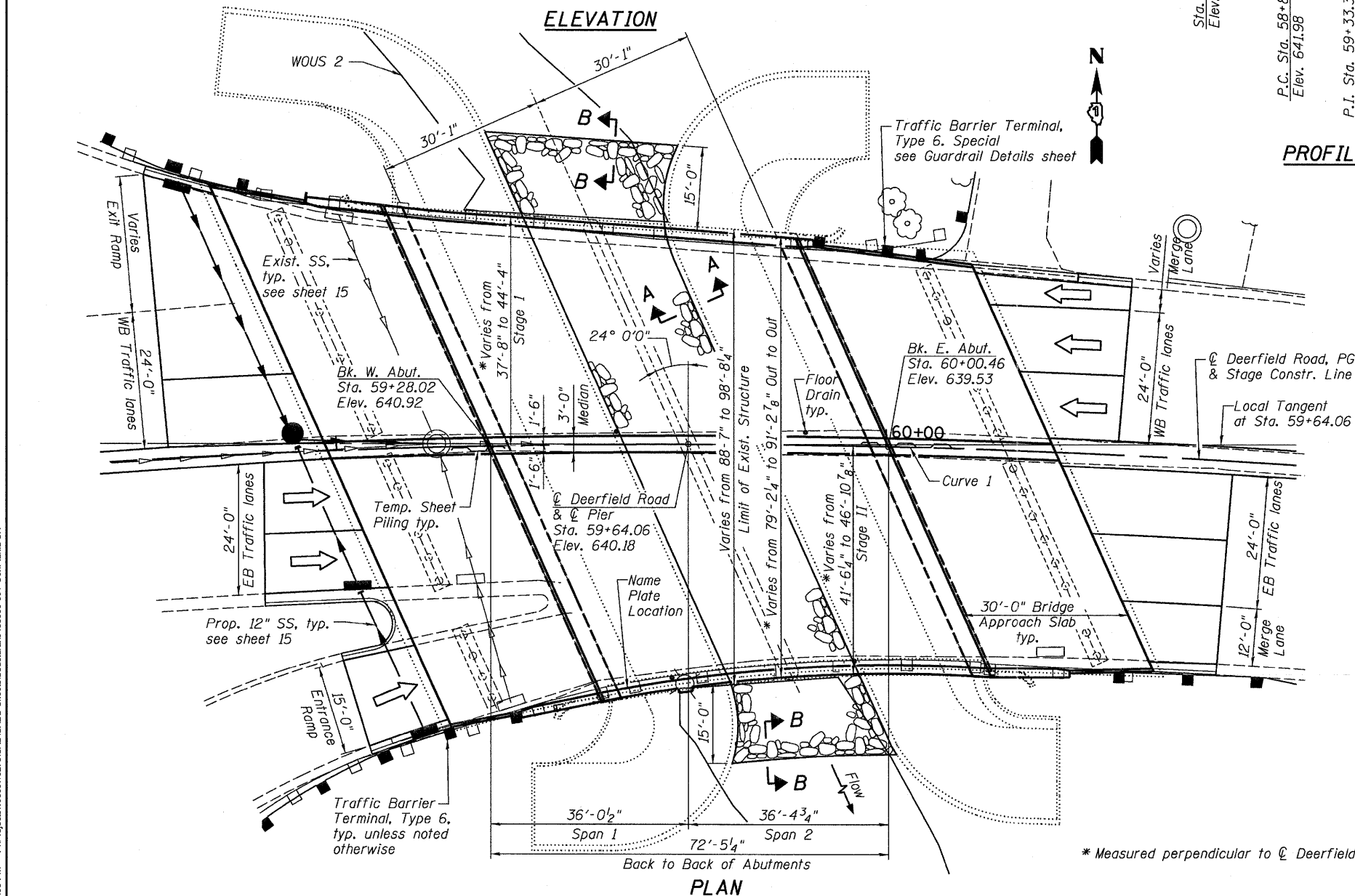


SECTION B-B

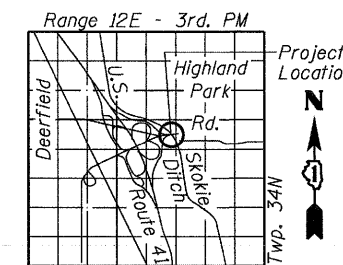
WATERWAY INFORMATION

Drainage Area = 16.8 sq miles Low Grade Elev. 640.70 @ Sta. 60+12.00

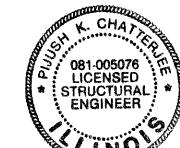
| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
|-------------|-----------|----------|-----------------|-------|-------------|------------|-------|---------------|--------|
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| | 10 | 923 | 349 | 349 | 637.14 | 0.00 | 0.00 | 637.14 | 637.14 |
| Design | 50 | 1498 | 430 | 430 | 638.33 | 0.24 | 0.24 | 638.57 | 638.57 |
| Base | 100 | 1798 | 461 | 461 | 638.81 | 0.39 | 0.39 | 639.20 | 639.20 |
| Overtopping | | | | | | | | | |
| Max. Calc. | 500 | 2742 | 537 | 537 | 640.26 | 0.84 | 0.84 | 641.10 | 641.10 |



PLAN



LOCATION SKETCH



Pijush K. Chatterjee 6/23/2011
 Expires: 11/30/2012

STATION 59+64.06
 RE-BUILT 2011 BY
 STATE OF ILLINOIS
 F.A.U. RTE. 1257 SEC. 104RB-R
 LOADING HS20
 STR. NO. 049-0088

NAME PLATE

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Carl P...
 ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION
DEERFIELD ROAD BRIDGE
OVER EAST SKOKIE DITCH
SN 049-0088

FILE NAME = ...0490088-001-GenPlan.DGN
 PLOT TIME = 3:46:53 PM
 PLOT DATE = 6/23/2011

| | | | |
|----------|------------|---------|---|
| DESIGNED | EV | REVISED | - |
| DRAWN | EV | REVISED | - |
| CHECKED | PC | REVISED | - |
| DATE | 06 24 2011 | REVISED | - |

SEPSTEIN
 803 WEST PALTON STREET
 CHICAGO, ILLINOIS 60611-1258
 TEL 312 464 9100
 FAX 312 589 1217
 WEB www.sepsteinglobal.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 51 OF 522 SHEETS

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 1257 | 104RB-R | LAKE | 54 | 20 |
| CONTRACT NO. 62102 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

6/23/2011 3:46:53 PM P:\Projects\1000\10273\CAD\CADD Sheets\Structural\0490088-001-GenPlan.DGN