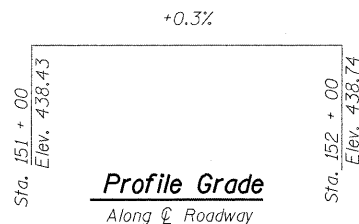


BENCHMARK: ELEV. = 438.08
Cut square on the northeast wingwall
of the existing structure SN 080-0015

EXISTING STRUCTURE: S.N. 080-0015 Was originally constructed in 1916 under SAR-4, Section A as a single span slab superstructure on closed abutments supported by spread footings. The length of the existing structure is 26'-0" and the width is 32'-2" out to out. The existing structure is not skewed and is to be completely removed and replaced. The road will be temporarily closed during construction. No salvage.



Profile Grade
Along \bar{C} Roadway

STATION 151+20
BUILT 20... BY
STATE OF ILLINOIS
F.A.S. RT. 1720 SEC. 5B-1
LOADING HS20
STR. NO. 080-2005

NAME PLATE
See Std. 515001

Index of Sheets

1. General Plan and Elevation
2. Riprap Details
3. & 4. Box Culvert End Section Details
5. Bar Splicer Assembly Details
6. Boring Logs

DESIGN SPECIFICATIONS
2002 AASHTO

LOADING HS20-44

Allow 50#/sq.ft for future wearing surface

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (reinforcement)
 f_y = 65,000 psi (welded wire fabric)

PRECAST UNITS

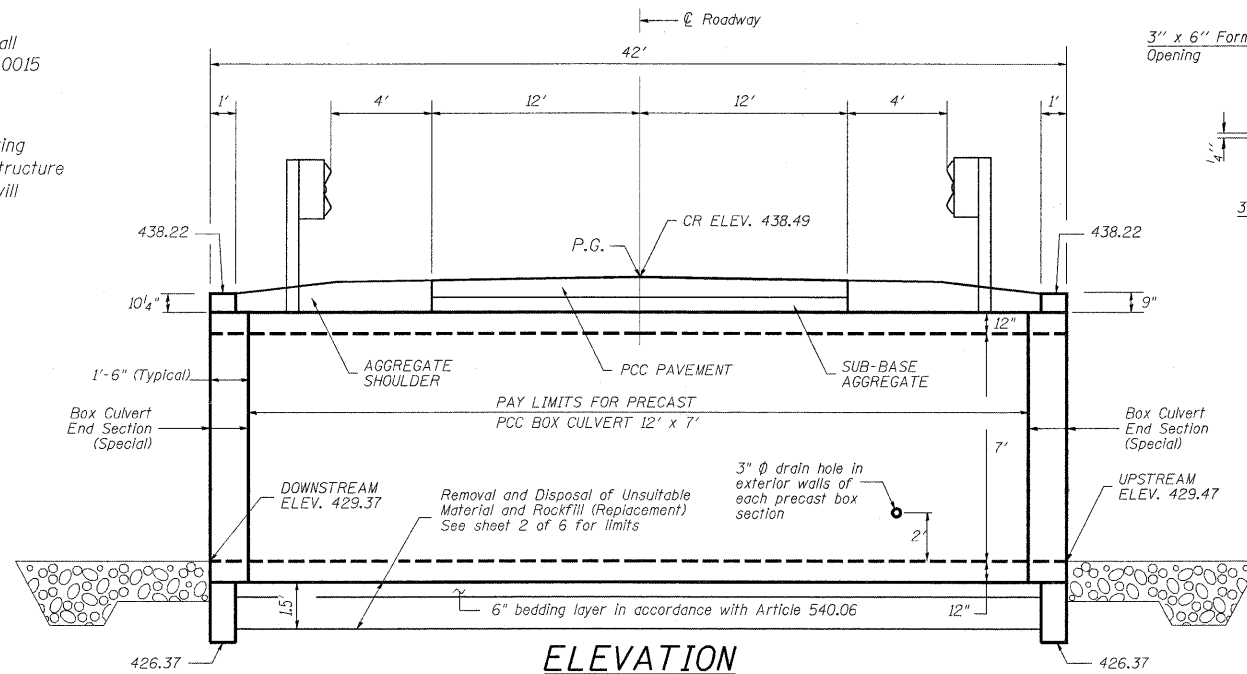
f'_c = 5,000 psi
 f_y = 65,000 psi (welded wire fabric)



Expires 11/30/2010

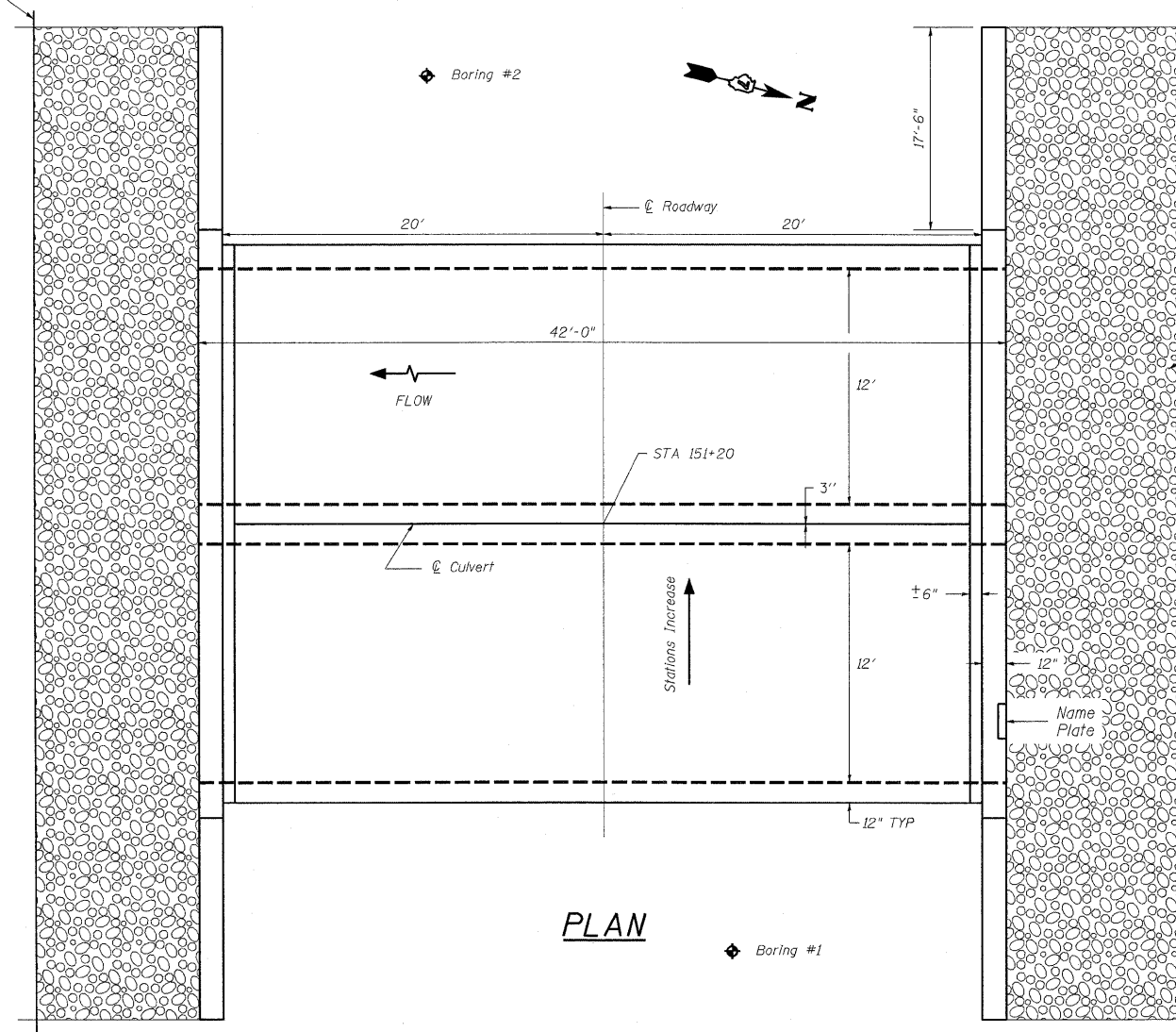
DESIGNED	March 16, 2010
CHECKED	Thomas J. [Signature]
DRAWN	Robert D. Anderson
CHECKED	Robert D. Anderson

EXAMINED
PASSED

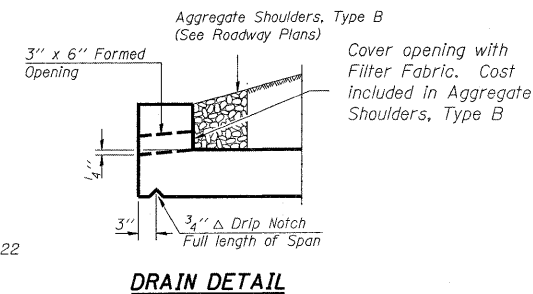


ELEVATION

Dimensions at right angles to \bar{C} Roadway



PLAN



DRAIN DETAIL

General Notes

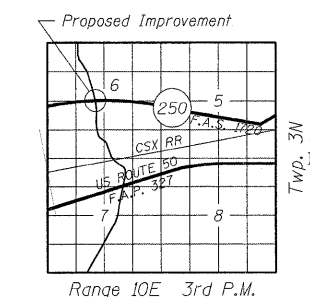
- Excavation behind abutment walls shall be performed to balance front and back soil pressure before removing the superstructure.
- Build tops of headwalls parallel to profile grade.
- Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions.
- The design fill height for the precast boxes is less than 2 feet.
- The design of the precast box section shall be in accordance with AASHTO M273, Table 1, Box Section 12 x 8 except that the area A_{S1} shall be 0.35 in²/ft
- The welded wire fabric extending from the outside face of the vertical walls of the precast box sections shall be 2x3 W4.5 x W4.0 or equivalent. Substitution of reinforcement bar for welded wire fabric is not allowed.
- For End Section only, 1/2" cover unless otherwise noted.
- The ends of the the precast box sections adjacent to the end section shall be formed without the male and female shapes specified in Article 8.1 of AASHTO M273. See Section D-D on sheet 4 of 6.
- All portions of the precast box culverts in contact with cast-in-place concrete shall be sandblasted according to Article 503.09(b).

The box culvert end section shall be built in the field and a precast option is not allowed except the cut-off wall may be precast. If the contractor elects to use a precast cut-off wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.

The joints between precast box sections shall be sealed and all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, in place and protected during the backfilling process.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material	Cu. Yd.	82
Rockfill (Replacement)	Ton	148
Precast Concrete Box Culverts 12' x 7'	Ft.	78
Box Culvert End Sections (Special)	Each	2
Name Plates	Each	1
Stone Riprap, Class A4	Sq. Yd.	130
Filter Fabric	Sq. Yd.	130
Porous Granular Embankment	Ton	585



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
IL ROUTE 250 - SECTION 5B-1
RICHLAND COUNTY
STATION 151+20.00
STRUCTURE NO. 080-2005