

Benchmark:
 Railroad Spike in south face of powerpole located at the northeast intersection of Johnsburg Road and Chapel Hill Road. Elevation = 762.76 (NAVD88)

The Proposed Retaining Wall will be constructed during Staged Construction. The west bound lane will be open to traffic. The east bound lane will be detoured.

DESIGN SPECIFICATIONS
 2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 Max. Soil Pressure under footing = 1,500 psf

LOADING HL-93
NOTES

Reinforcement bars shall conform to the requirements of ASTM A 760 Gr. 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

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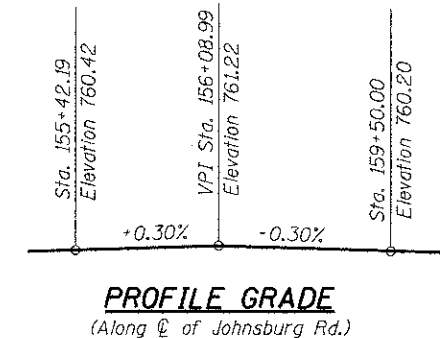
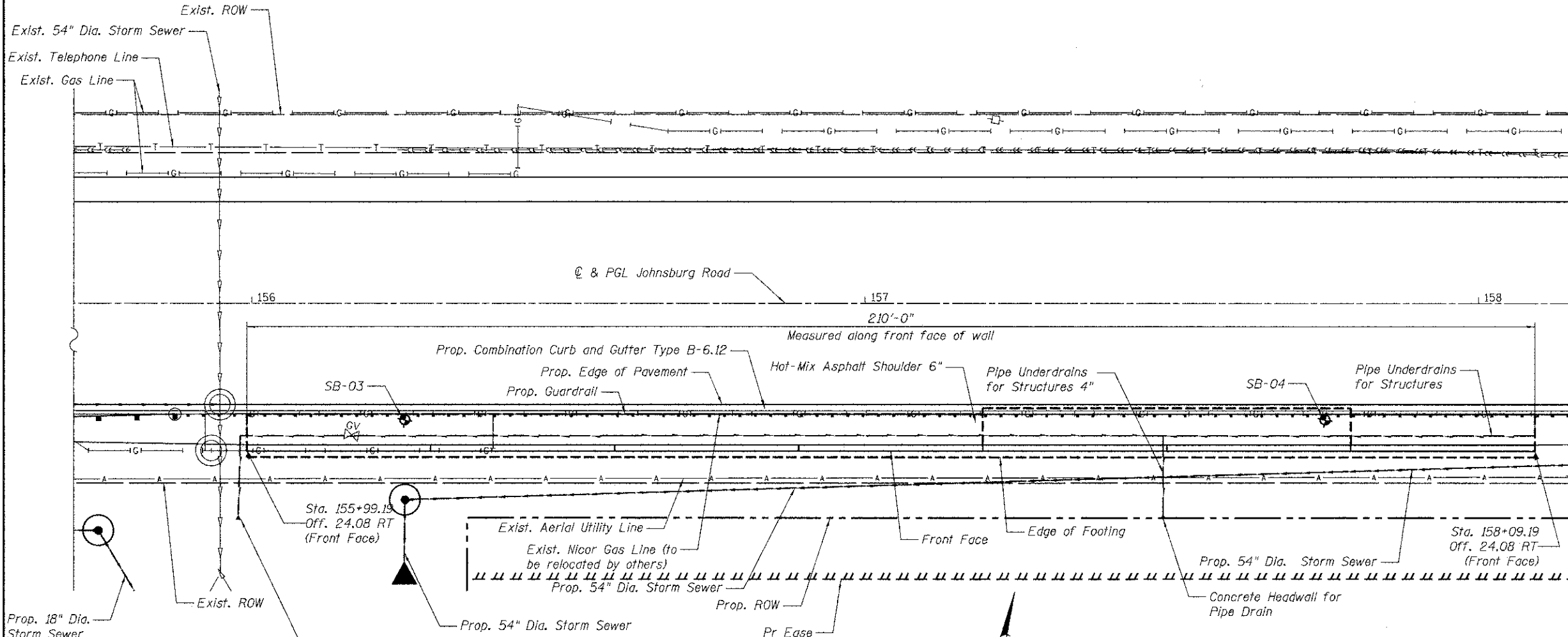
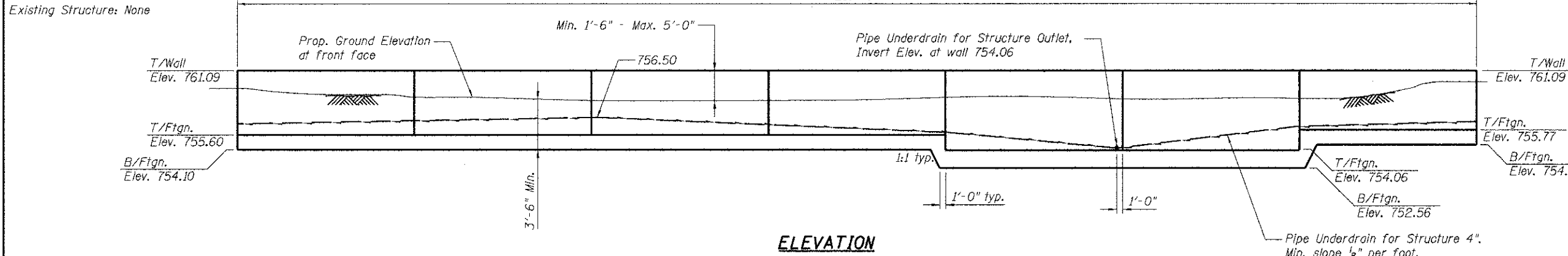
- SB-01 General Plan and Elevation Retaining Wall 2
- SB-02 Footing Details
- SB-03 Retaining Wall Details
- SB-04 Soil Boring Logs

To the best of my knowledge, information and belief, this retaining wall design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

Michael J. Green 10/18/12
 Structural Engineer Exp. 11/30/14
 HR Green, Inc.

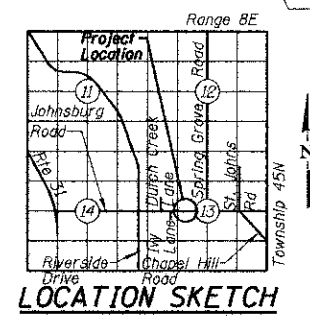


Note: Chloride containing admixtures shall not be used for Class SI Concrete.



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Reinforcement Bars Epoxy Coated	Pound	18,500
Concrete Structures	Cu. Yd.	133
Structure Excavation	Cu. Yd.	515
Porous Granular Embankment, Special	Cu. Yd.	415
Geocomposite Wall Drain	Sq. Yd.	145
Pipe Underdrain for Structures 4"	Foot	225
Concrete Headwall for Pipe Drains	Each	2



**GENERAL PLAN AND ELEVATION
 RETAINING WALL 2
 JOHNSBURG ROAD (FAU ROUTE 0168)
 SECTION NO. 05-00314-00-WR
 McHENRY COUNTY
 STATION 155+99.19 TO STATION 158+09.19**