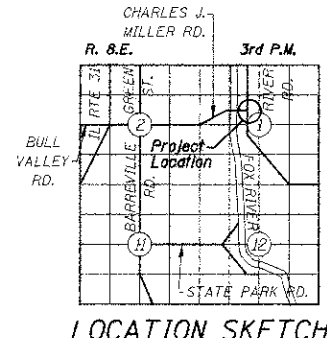
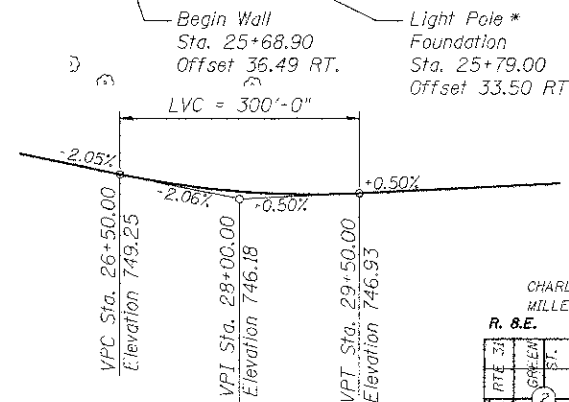
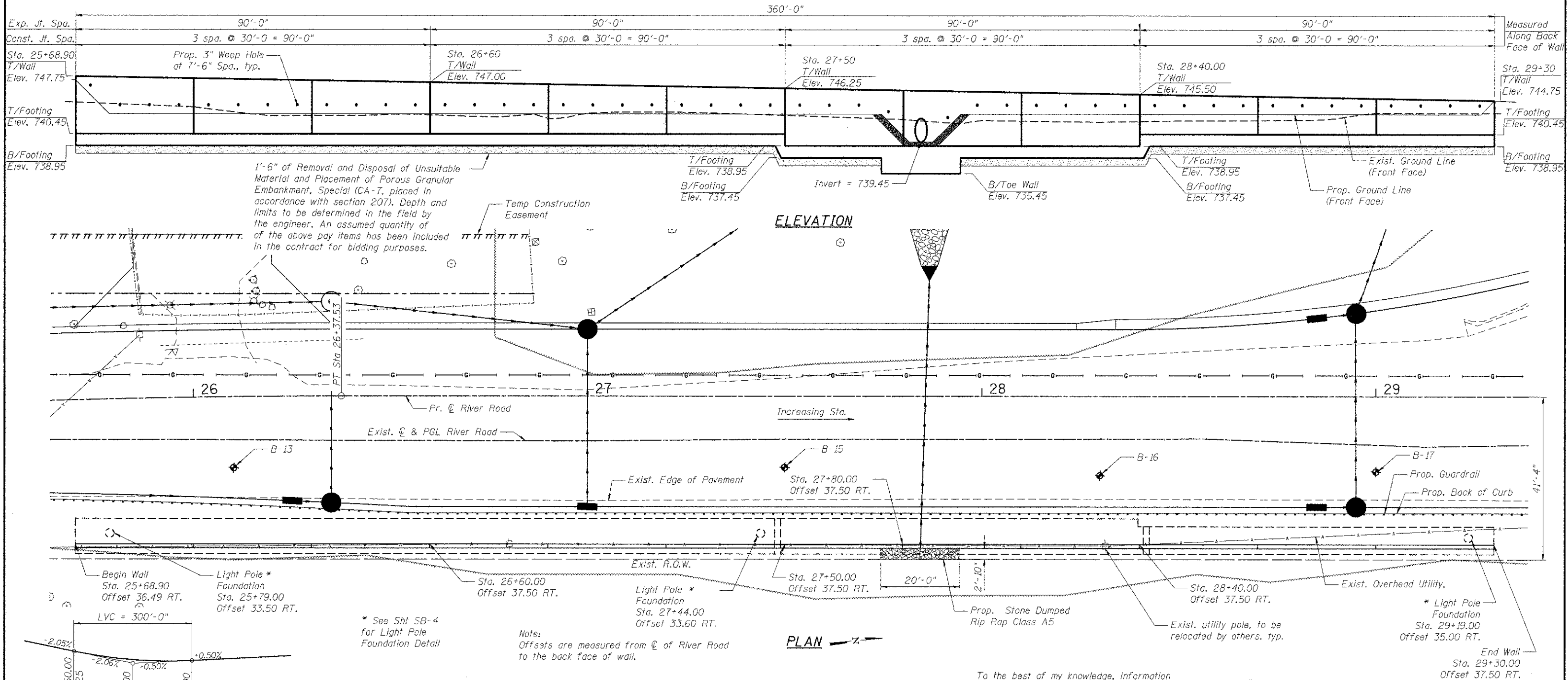


Benchmark:
 BM 1: Railroad spike in the west face of powerpole at the east side of River Road and the centerline of Charles J. Miller Road extended.
 Elevation = 748.38 (NAVD 88)
 BM 2: Railroad spike in the south face of powerpole at the northeast corner of Charles J. Miller Road and McHenry Avenue.
 Elevation = 745.83 (NAVD 88)



DESIGN SPECIFICATIONS
 2010 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)
 Max. Soil pressure under footing = 1,360 psf

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu. Yd.	210
Porous Granular Embankment, Special	Cu. Yd.	905
Stone Dumped Riprap, Class A5	Sq. Yd.	12
Structure Excavation	Cu. Yd.	1085
Concrete Structures	Cu. Yd.	256.0
Reinforcement Bars Epoxy Coated	Pound	29,380
Geocomposite Wall Drain	Sq. Yd.	160

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
 Structural Engineer Expires 11/30/2012
 HR Green, Inc.



GENERAL PLAN AND ELEVATION
RIVER ROAD RETAINING WALL
 FAU. RTE. 89, SEC. 09-00372-00-PW
 McHENRY COUNTY
 STATION 25+68.90 TO 29+30

DESIGNED	JPG
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. SB-1 SB-7 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	89	09-00372-00-PW	McHENRY	252	165
CONTRACT NO.				63633	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

DATE: 7/23/12