

Bench Mark:
 BM 1703 Chiseled "X" on light pole foundation bolt. Sta. 192+94.19.
 6.41' Rt. El. 608.23

WATERWAY INFORMATION

Proposed Low Grade Elev. 602.24 @ Sta. 403+00
 Existing Low Grade Elev. 606.24 @ Sta. 402+00
 Drainage Area = 419.9 Acres

Flood	Freq. Yr.	Q (C.F.S.)	Opening (Sq. Ft.)		Nat. H.W.E.	Head (Ft.)		Headwater Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	206	16.2	15.3	587.18/588.21	2.6	2.71	589.78	590.92
Base	100	585	34.7	33.4	588.65/589.66	5.22	5.34	593.87	595.00

Existing Structure:
 The existing structure is a 8'x5' cast in place reinforced concrete box culvert originally built in 1959. The existing structure is to remain and be extended.
 Traffic is to be maintained on the existing ramp during construction.

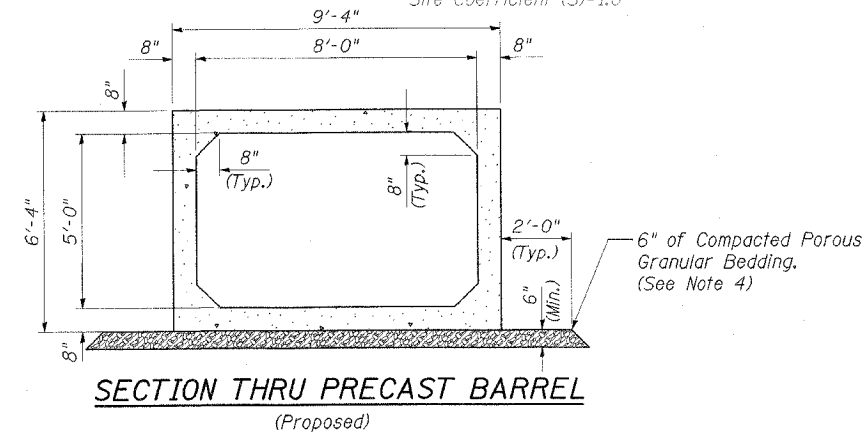
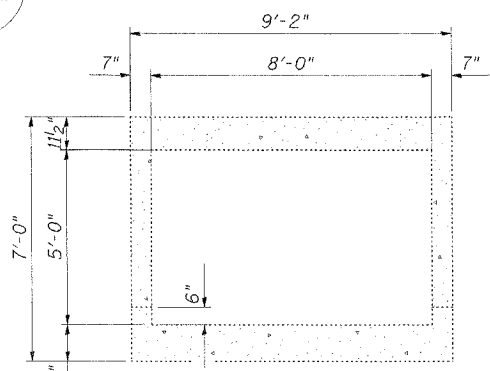
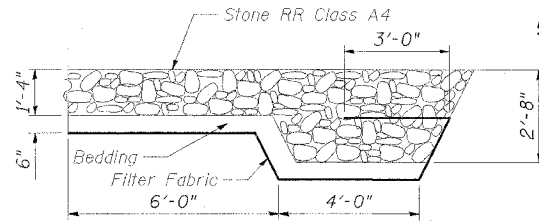
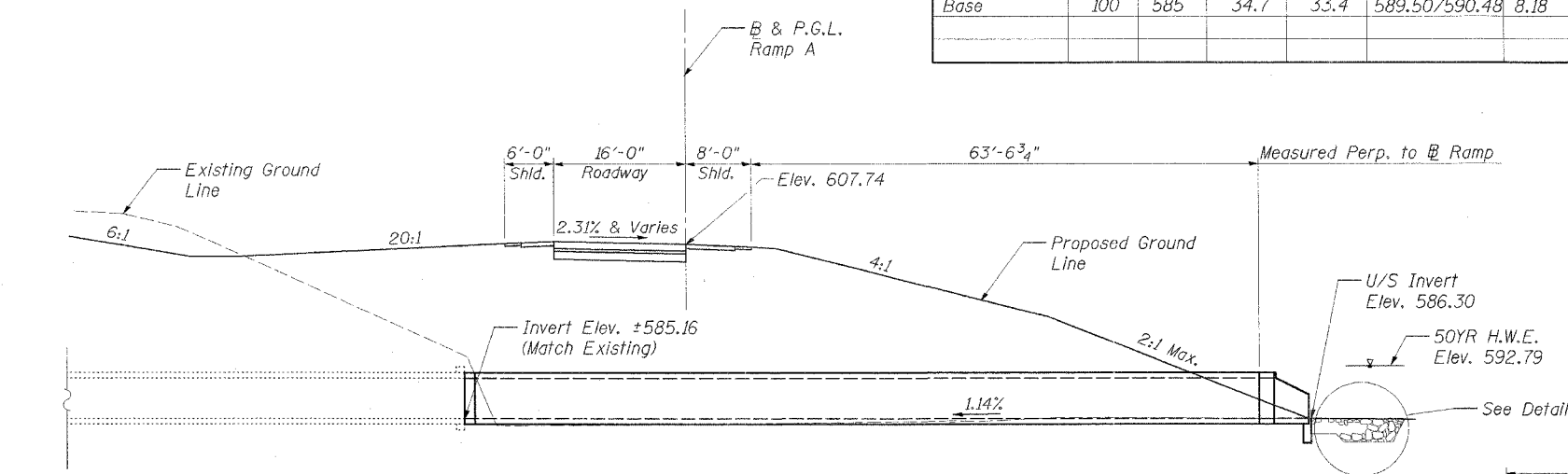
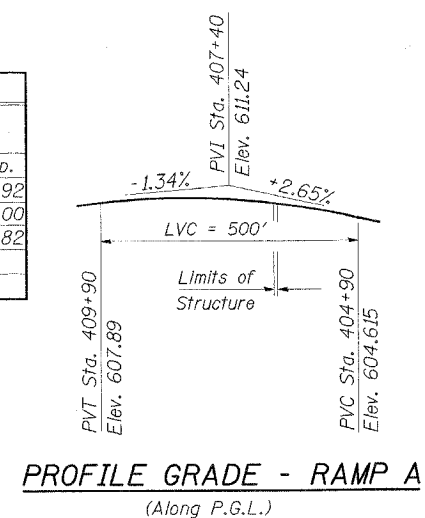
DESIGN SPECIFICATIONS
 AASHTO Standard Specifications for Highway Bridges 2002 and All Subsequent Interims
LOADING HS20-44 & ALT.
 Allow 50 psf for future wearing surface.

DESIGN STRESSES

Precast Units
 f'c=5000 psi
 fy=65,000 psi (Welded Wire Fabric)
Field Units
 f'c=3500 psi
 fy=60,000 psi (Reinf.)

SEISMIC DATA

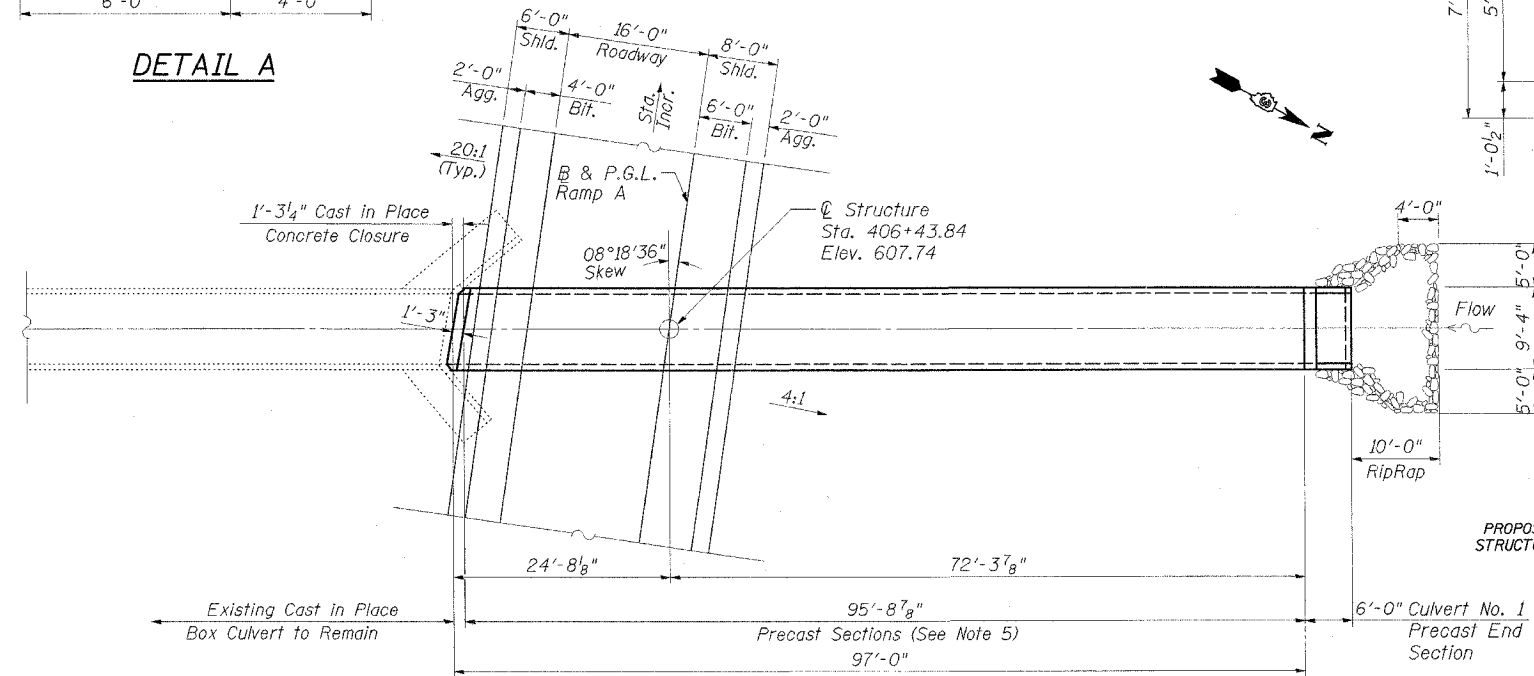
Seismic Performance Category (SPC)=A
 Bedrock Acceleration Coefficient (A)=0.035g
 Site Coefficient (S)=1.0



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Riprap	Sq. Yd.	20
Filter Fabric	Sq. Yd.	20
Concrete Structures	Cu. Yd.	1.2
Reinforcement Bars	Lbs.	170
Expansion Bolts	Each	16
Precast Concrete Box Culverts 8' x 5'	Foot	96
Box Culvert End Section, Culvert No. 3	Each	1

- NOTES:**
- The Precast Concrete Box Culvert shall conform to the requirements of AASHTO M-259M.
 - Precast toewalls and headwalls are incidental to "Precast Box Culvert End Sections."
 - For backfill and embankment see Standard Specifications.
 - The porous granular bedding material shall be gradation CA-7, CA-11, or CA-18 and shall be compacted to the satisfaction of the Engineer by mechanical means. Cost for porous granular bedding shall be included with cost for "Precast Box Culverts 8' x 5'."
 - Precast Sections consist of 11 - 8' 0" precast sections and 1 - tapered section fabricated to match existing skew of culvert.

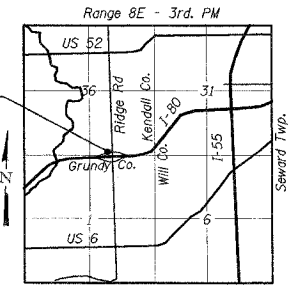


SECTION THRU BARREL (Existing)

PATRICK ENGINEERING, INC.
 GREGORY J. HATLESTAD, S.E.



GREGORY J. HATLESTAD, S.E.
 # 081-005562



EXP _____
 DATE _____

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI ROUTE 80
 (I-80 AT MINOOKA INTERCHANGE)
 CULVERT NO. 3
8'X5' BOX CULVERT - RAMP A
 GENERAL PLAN AND ELEVATION
 STATION 406+43.84
 SCALE: NONE
 DATE: 2/10/06
 DRAWN BY: M. TRYON
 CHECKED BY: A. YARGICOGLU

