

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(32, 47-4K)	KENDALL/GRUNDY	243	171
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 66294				

Bench Mark:

BM 1703 Chiseled "X" on light pole foundation bolt, Sta. 192+94.19, 6.41' Rt, El. 608.228

Existing Structure

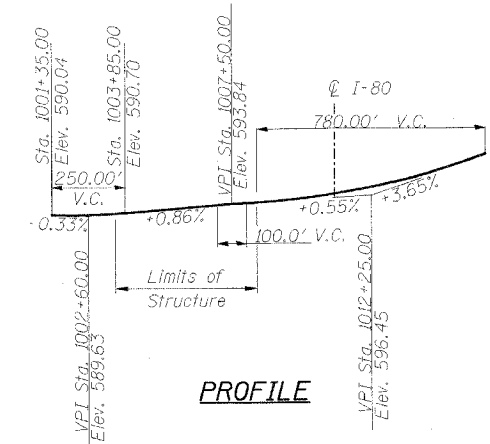
The 11'x4' cast in place reinforced concrete box culvert is replacing a side ditch 36" ϕ reinforced concrete culvert drainage system along the east side of Ridge Road due to road widening and lack of R.O.W. The existing 36" Reinforced Concrete Culvert is to be used as temporary drainage until it is filled and abandoned. The proposed 11'x4' cast in place reinforced concrete box culvert to be constructed utilizing staged construction.

WATERWAY INFORMATION

Proposed Low Grade Elev. = 593.0 @ Sta. 200+75
Existing Low Grade Elev. = 593.6 @ Sta. 200+00

Drainage Area = 0.23 Sq. Mi.

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	187	----	7.3	588.46	----	1.36	----	589.22
	50	336	----	9.9	589.11	----	2.29	----	591.40
Overtop	100	423	----	11.1	589.41	----	2.95	----	592.36



DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges
LOADING HS20-44 & ALT.

Allowance for Future Wearing Surface=50 lb/ft

DESIGN STRESSES

$f'_c=3500$ psi
 $f_y=60,000$ psi (Reinf.)
SEISMIC DATA

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

INDEX OF SHEETS

- S-1 - General Plan & Elevation
- S-2 - Plan & Elevation Details
- S-3 - Details
- S-4 - Temporary Sheet Piling Details
- S-10 - Bar Splicer Details

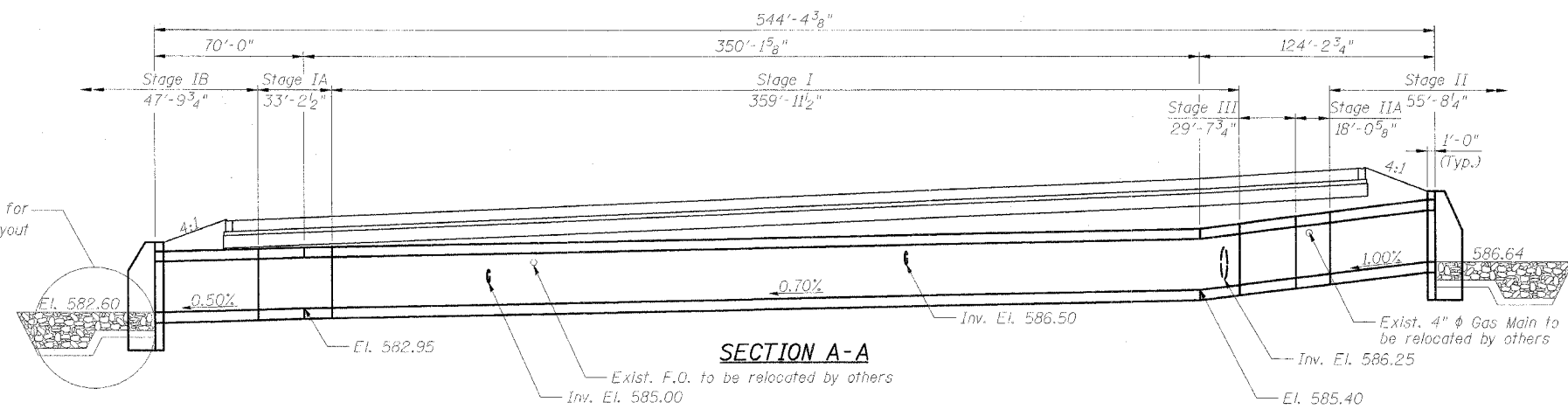
TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Porous Granular Backfill	Cu. Yd.	590
RipRap	Sq. Yd.	25
Filter Fabric	Sq. Yd.	25
Structure Excavation	Cu. Yd.	2,358
Reinforcement Bars	Pound	118,100
Temporary Sheet Piling	Sq. Ft.	3,480
Concrete Box Culverts	Cu. Yd.	484.7
Bar Splicers	Each	215

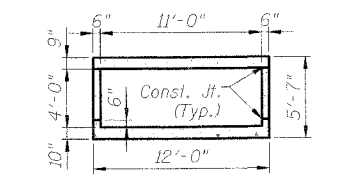
* See Special Provisions

NOTES:

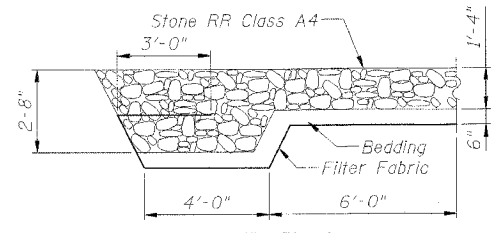
- Traffic to be maintained utilizing stage construction
- See Sheet S-4 for Temporary Sheet Piling Details
- All longitudinal dimensions measured along ϕ culvert.
- See Drainage and Utilities Ridge Road Sta. 1000+00 to Sta. 1013+00 sheet for details and quantities for Abandon Existing Culvert.



PROFILE



DETAIL A

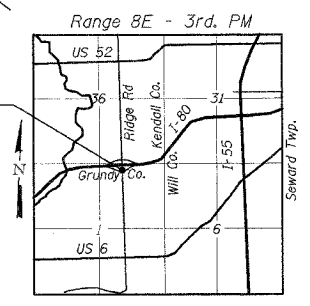


PATRICK ENGINEERING, INC.
GREGORY J. HATLESTAD, S.E.



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

EXP _____
DATE _____



LOCATION SKETCH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI ROUTE 80
(I-80 AT MINOOKA INTERCHANGE)
CULVERT NO. 1
11'X4' BOX CULVERT
GENERAL PLAN & ELEVATION

SCALE: None
DATE: 2/10/06
DRAWN BY: M. Tryon
CHECKED BY: A. Yargicoglu



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