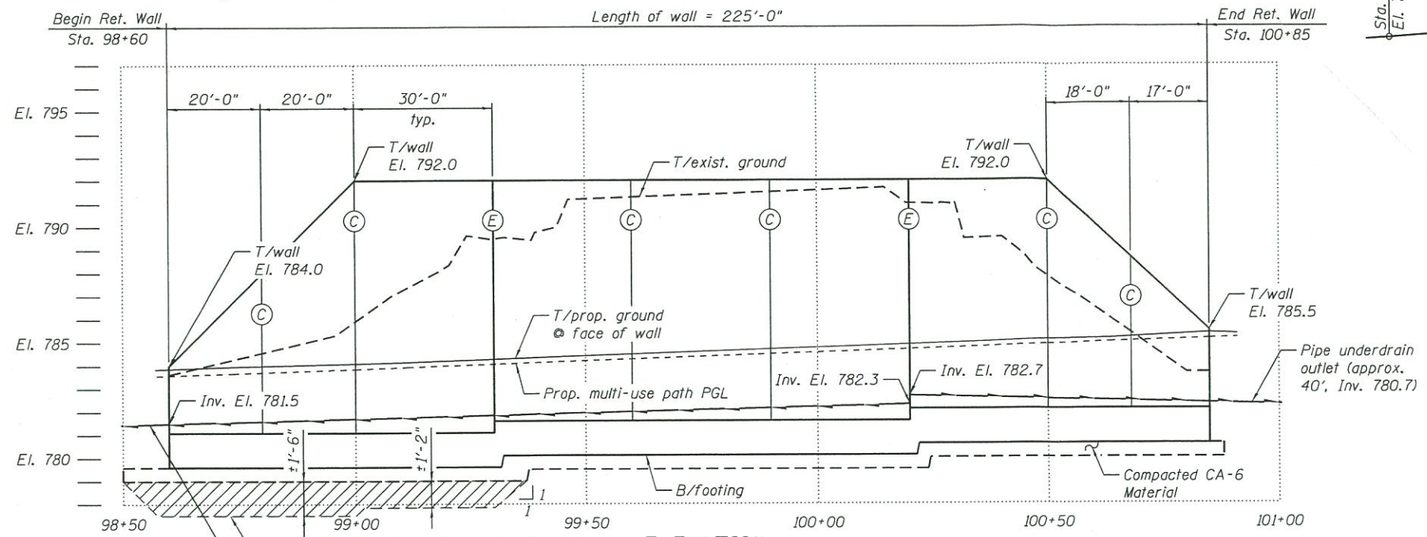
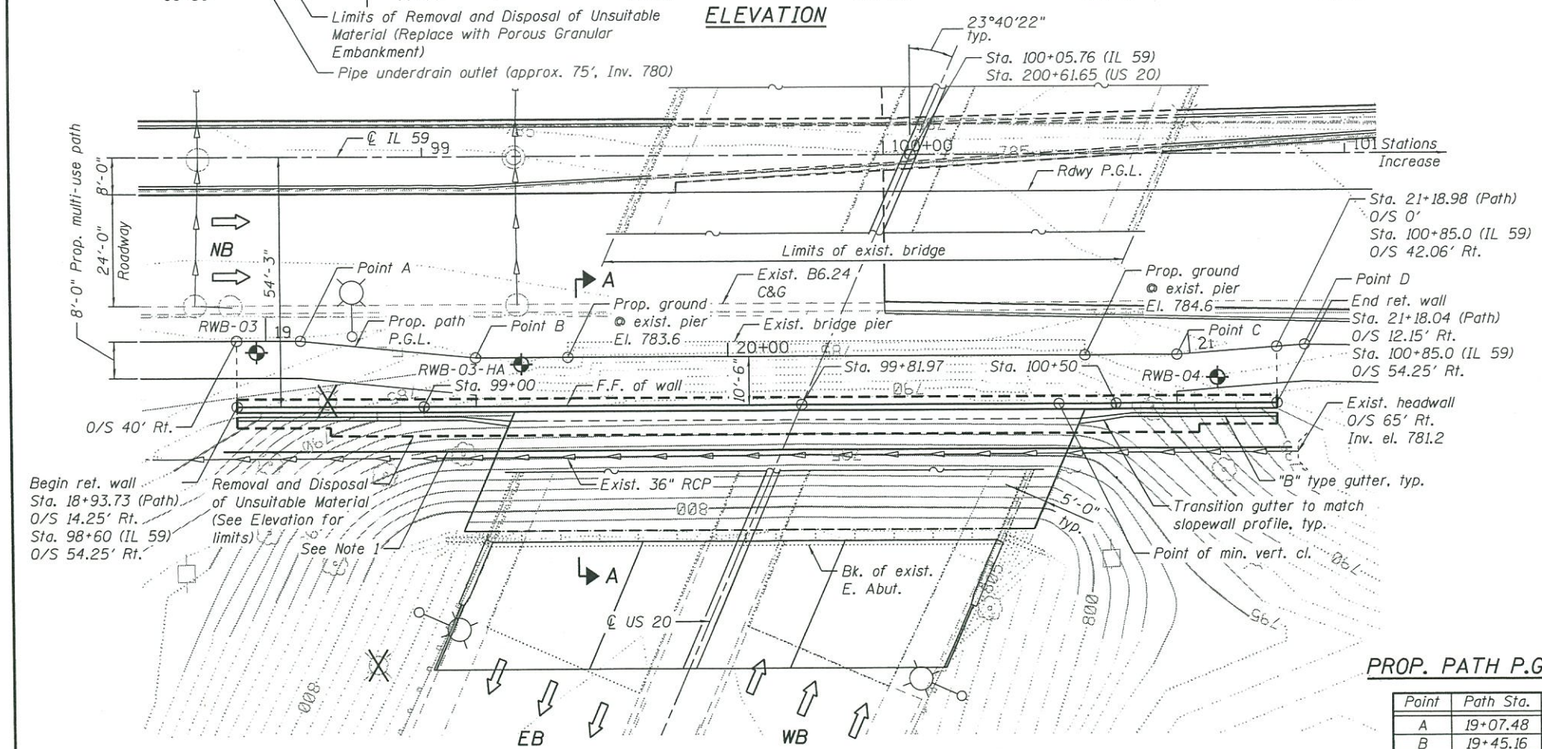
Benchmark: Cut "□" on the southwest corner of the west pier crashwall of the US 20/IL 59 bridge. Elev. 786.22.

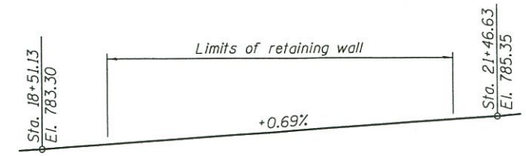
Existing Structure: S.N. 016-0254 carrying US 20 over IL 59 was built in 1990 as part of Project No. IX-21(52). The structure is a three-span bridge with an overall bk. to bk. abutment length of ±182'-9" and out to out deck width of 103'-2". The superstructure consists of a 7½" thick reinforced concrete deck supported by 54" deep PPC I-beams. The substructure consists of multi-column piers with crashwall founded on spread footings, and integral abutments founded on 14" ϕ metal shell piles. The existing slopewall will be removed and replaced to accommodate the proposed retaining wall. No retaining wall currently exists. Traffic will be maintained on IL 59 & US 20 during construction.



ELEVATION



PLAN



PATH PROFILE GRADE LINE

(Along left edge of path)

NOTES

1. Contractor shall provide soil retention/pipe bracing to retain embankment and prevent movement of existing storm sewer. Cost included with Structure Excavation.
2. The factored bearing resistance required shall be a minimum of 3,000 p.s.f. Contractor shall verify soil properties and notify the Engineer if bearing values are not encountered at bottom of footing elevations.
3. See sheet 2 for Section A-A.

HIGHWAY CLASSIFICATION

F.A.P. Rte. 338 (IL Rte 59) Sutton Rd.
Functional Class: Other Principal Arterial
ADT: 45,200 (2010); 50,000 (2040)
ADTT: 4,972 (2010); 5,500 (2040)
DHV: 2,500 (2040)
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

F.A.P. Rte. 345 (US 20) Lake St.
Functional Class: Other Principal Arterial
ADT: 31,600 (2013); 37,389 (2032)
ADTT: 2,243 (2013); 5,235 (2032)
DHV: 2,243 (2032)
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Specifications, 7th Edition with 2015 AASHTO Interim Revisions

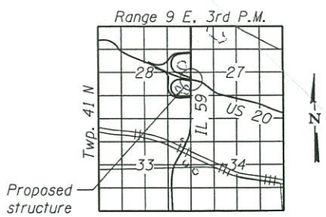
DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi

LEGEND

(E) (C) = Exp. Jt., Const. Jt.
= Soil Boring
= Prop. Light Pole
= Prop. Pipe Underdrain
= Exist. Storm Sewer
= Exist. Light Pole Removal

APPROVED
AUG 13 2015
AS A BASIS FOR PREPARATION OF DETAILED PLANS



LOCATION SKETCH

PROP. PATH P.G.L. REFERENCE POINTS

Point	Path Sta.	O/S	IL 59 Sta.	O/S
A	19+07.48	0'	98+73.75	40' Rt.
B	19+45.16	0'	99+11.25	43.75' Rt.
C	20+97.21	0'	100+63.29	43.75' Rt.
D	21+24.75	0'	100+90.96	41.6' Rt.

GENERAL PLAN
U.S. ROUTE 20 OVER IL ROUTE 59
F.A.P. RTE. 338 & 345 - SEC. 7K-1(12)
COOK COUNTY
STA. 98+60 TO 100+85
SN 016-Z032

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbandainc.com

USER NAME =	DESIGNED - DF	REVISED
	CHECKED - -	REVISED
PLOT SCALE = N.T.S.	DRAWN - LAM	REVISED
PLOT DATE = 7/29/2015	CHECKED - DF	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	7K-1(12)	COOK		
		CONTRACT NO. 60V57		
		ILLINOIS FED. AID PROJECT		

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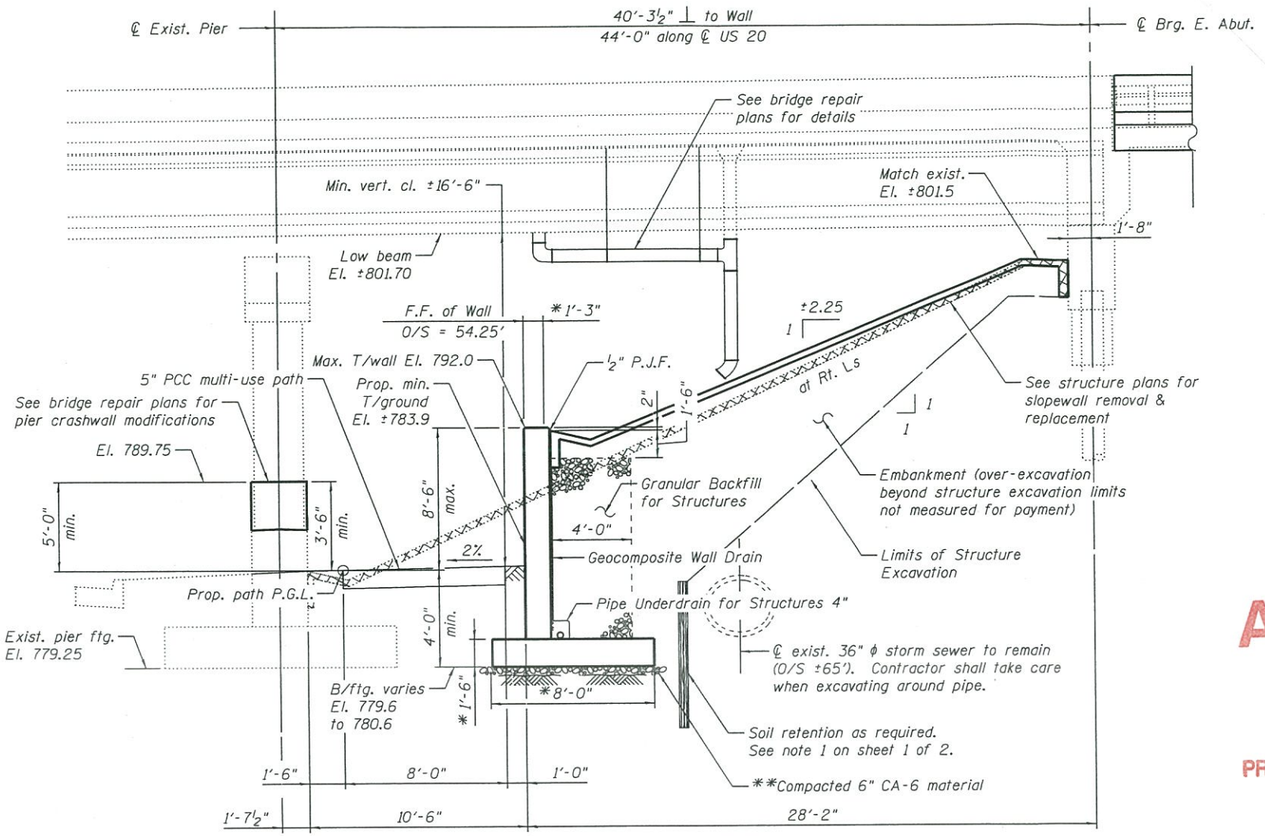
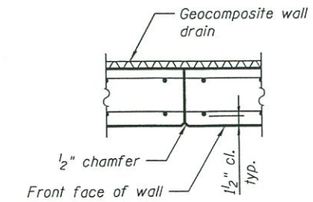


SECTION A-A

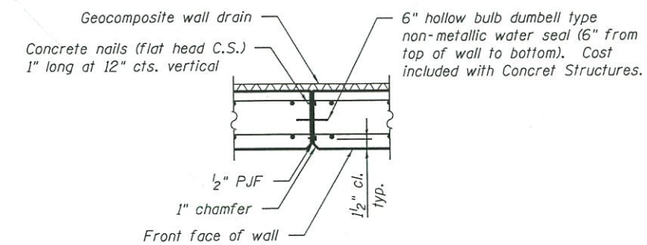
(Dimensions at Rt. L to wall U.N.O.)
(Offset shown from ℄ IL 59)

* Subject to refinement in final design.

** For areas with Removal of Unsuitable Material, cap Porous Granular Emabankment with 6" compacted CA-6 material.

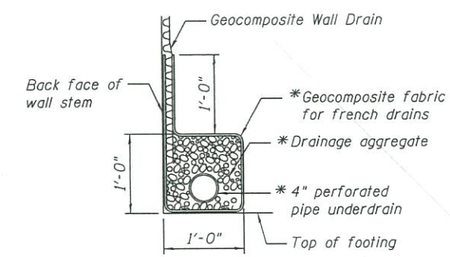


CONSTRUCTION JOINT



EXPANSION JOINT

APPROVED
AUG 13 2015
AS A BASIS FOR
PREPARATION OF DETAILED PLANS



PIPE UNDERDRAIN DETAIL

*Cost included with Pipe Underdrains for Structures 4"

DETAILS
U.S. ROUTE 20 OVER IL ROUTE 59
F.A.P. RTE. 338 & 345 - SEC. 7K-1(12)
COOK COUNTY
STA. 98+60 TO 100+85
SN 016-Z032

BOWMAN, BARRETT & ASSOCIATES INC. CONSULTING ENGINEERS Chicago, Illinois 312.228.0100 www.bbandainc.com	USER NAME =	DESIGNED - DF	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - -	REVISED			345	7K-1(12)	COOK		
	PLOT SCALE = N.T.S.	DRAWN - LAM	REVISED		SHEET NO. 2 OF 2 SHEETS			CONTRACT NO. 60V57		
	PLOT DATE = 7/29/2015	CHECKED - DF	REVISED				ILLINOIS	FED. AID PROJECT		

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