Benchmark: TBM "G" #565 Southeast bottom of light pole #93-15 +/- 300' north of 153rd st. on the west side of LaGrange Rd. El 699.946

Traffic shall be maintained at all times utilizing Stage Construction.

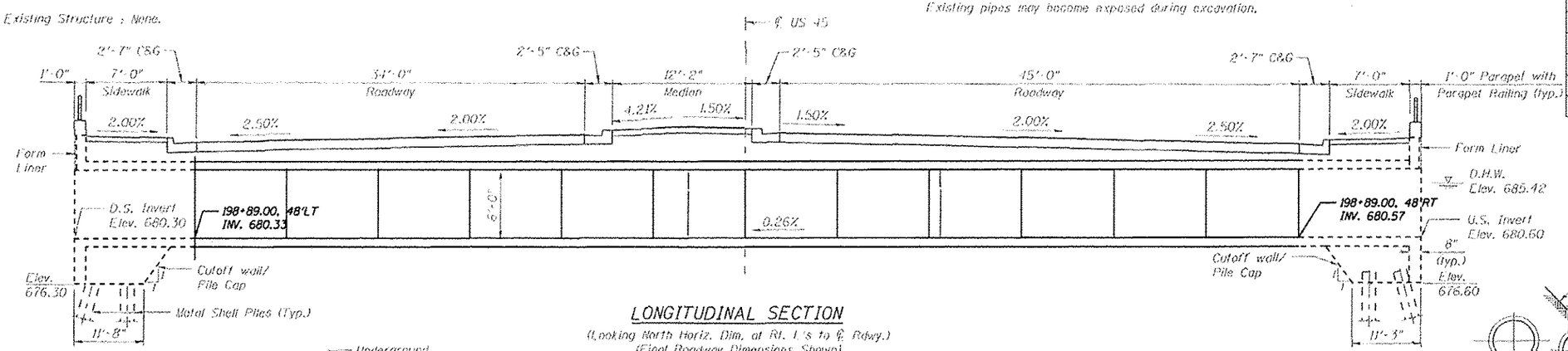
Existing Structure : None.

Note 1: Flow to be maintained through existing pipe culverts during construction of proposed box culvert. Existing pipes to be removed at a later stage during roadway construction.

Note 2: Timber piles of the Temporary Support System need to be driven before excavation.
Existing pipes may become exposed during excavation.

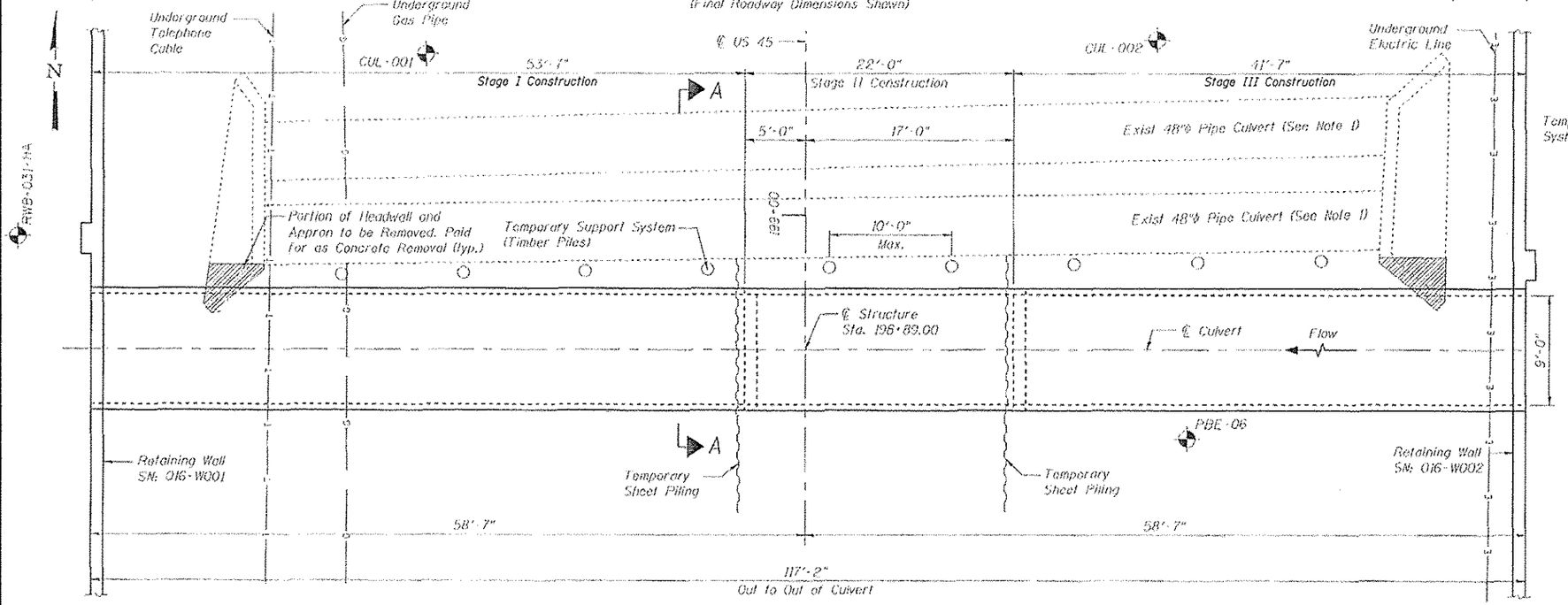
TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	220
Concrete Removal	Cu. Yd.	4.0
Structure Excavation	Cu. Yd.	590
Precast Concrete Box Culverts 9' X 6'	Foot	96
Temporary Sheet Piling	Sq. Ft.	1008
Temporary Support System	L. Sum	1

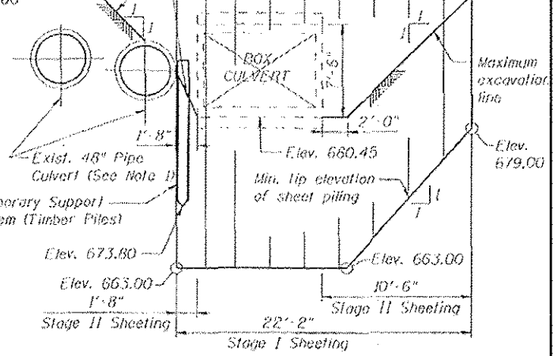


LONGITUDINAL SECTION

(Looking North Horiz. Dim. at Rt. 1's to ℄ Rdwy.)
(Final Roadway Dimensions Shown)



PLAN



SECTION A-A

Minimum Section Modulus = 14.0 in³ /ft.

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

RWB-026

WATERWAY INFORMATION

Drainage Area = 87 acres Low Grade Elev. 688.82 @ Sta. 198+64

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Wat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	111	50.85	34.92	684.46	0.15	0	684.63	684.41
Design	50	190	53.4	43.38	685.42	0.38	0.00	685.80	685.42
Base	100	235	53.6	47.34	685.86	0.57	0.00	686.43	685.86
Overtopping	>500							688.43	
Max. Calc.	500	399.5	53.6	54	687.22	1.21	1.43	688.03	688.65

DESIGN STRESSES

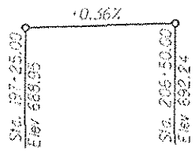
PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Fabric)

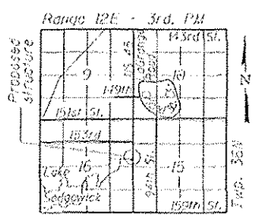
Max. Soil Pressure under footing = 1300 psf

LOADING HL 93

Design by AASHTO LRFD applying the standard designs of ASTM C 1577



PROFILE GRADE
(FAP RTE. 330)



LOCATION SKETCH

NOTES:

The precast concrete box culvert shall be designed by the Contractor.

Design and drawings shall be sealed by an Illinois Licensed Structural Engineer.

The precast concrete box culvert units shall meet IDOT policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products."

The Contractor shall submit shop drawings for the precast concrete culvert to the District Office according to the applicable requirements of Article 504.04 of the Standard Specifications.

GENERAL PLAN & ELEVATION
US 45 (LaGRANGE ROAD)
FAP RTE. 330 - SEC 103R-4
COOK COUNTY
STATION 198+89.00

URS
100 S. WACKER DR.
SUITE 500
CHICAGO IL 60606
TEL (312)939-1400
FAX (312)939-4188

FILE NAME = D160W09-SHT-S-1.dgn	USER NAME = Anthony.Plutz	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.6630 ' / in.	CHECKED -	REVISED -
SHT_PLAN	PLOT DATE = 1/18/2013	DATE - 01/02/13	REVISED -

D160W09-SHT-S-1.dgn 1/18/2013 1:00:28 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
MARLEY CREEK BOX CULVERT

SCALE: | SHEET 1 OF 6 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2012-0881	COOK	152	133
	S-1	CONTRACT NO. 60W09		
	ILLINOIS FED. AID PROJECT			