

BENCH MARK:
Southeast corner of the roof at "Marchese and Son, Inc." located at intersection of Central Avenue and Monaco Drive, Elev. 811.68

EXISTING STRUCTURE:
The structure is a 10'x4' reinforced concrete single box culvert. The structure carries F.A.P. Route 344 / IL 83 over a drainage ditch located 1000 feet north of IL 38 / Roosevelt Road and is a tributary to Salt Creek. The culvert has a length of 195'-5". Existing structure to be bulkheaded and filled with CLSM once the proposed structure is constructed.

TRAFFIC CONTROL:
Three stages of construction will be implemented where only stage one requires lane reductions. Southbound-off and northbound-on ramps will remain open through all stages.

WATERWAY INFORMATION

Drainage Area = 0.57 sq. mi.		Low Grade Elev. = 666.29 @ Sta. 106+81							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft. Exist.	Headwater El. Prop.	Headwater El. Exist.	Headwater El. Prop.	
In Stream Work	2	61.5	40	88	660.93	0.07	0.00	661.00	660.93
	10	134	40	88	661.68	0.33	0.00	662.01	661.68
Design	50	231	40	88	662.61	0.96	0.00	663.57	662.61
Base	100	283	40	88	663.20	1.52	0.35	664.72	663.55
Overtopping	500	437	40	88	666.20	0.74	0.61	666.94	666.81
Max. Calc.	500	437	40	88	666.20	0.74	0.61	666.94	666.81

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface

DESIGN STRESSES

FIELD UNITS

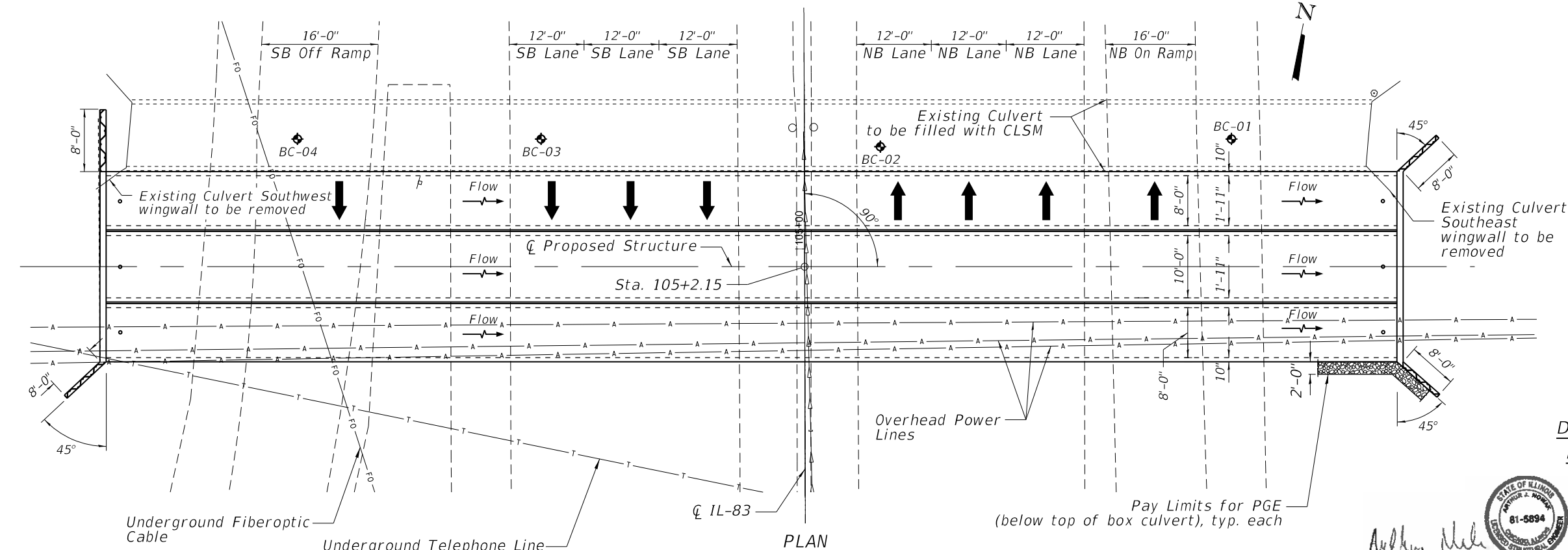
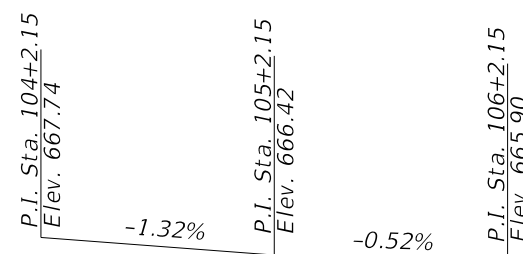
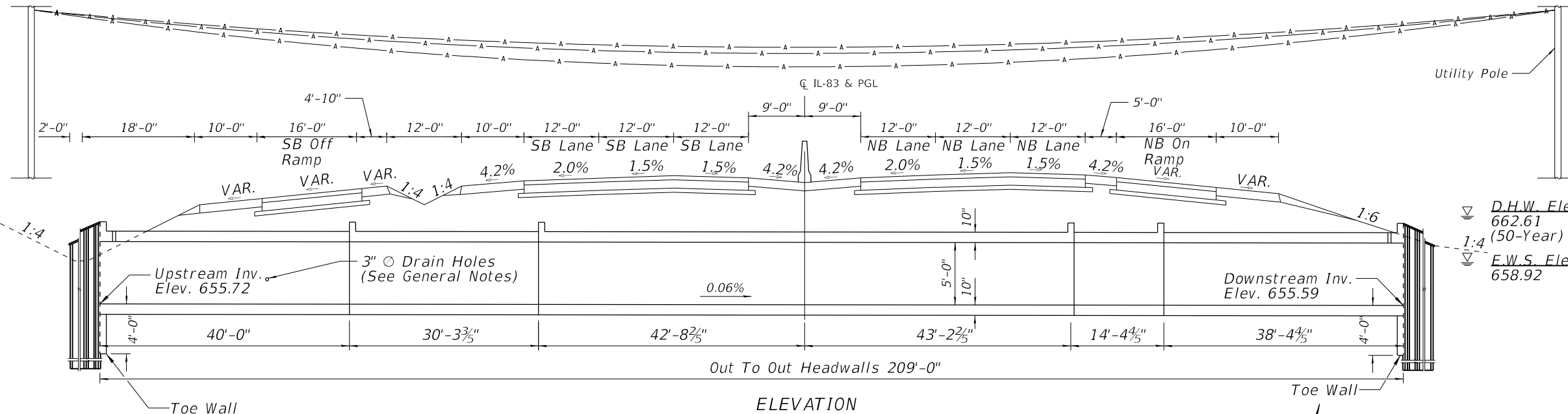
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

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

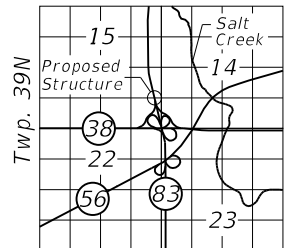
HIGHWAY CLASSIFICATION

F.A.P. Rte. 344 (IL Rte 83)
Functional Class: Other Principal Arterial
ADT: 68,100 (2017); 69,800 (2040)
ADTT: 9750 (2017); 10,000 (2040)
DHV: 6810
Design Speed: 55 m.p.h.
Posted Speed: 50 m.p.h.
Two-Way Traffic (6 lanes)
Directional Distribution: 50 (SB) / 50 (NB)



PROFILE GRADE
(Along \bar{C} of IL 83)

LOCATION SKETCH



GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 83 OVER
DITCH AT ILLINOIS ROUTE 38 (WB) RAMP
F.A.P. RTE. 344 - SECTION 2020-196-T
DUPAGE COUNTY
STATION 105+02
STRUCTURE NO. 022-8300



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PLOT DATE = 3/10/2021	CHECKED - AJN	REVISED -
	DATE - 3/11/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
CULVERT - STRUCTURE NO. 022-8300

SCALE: SHEET CUL-01 OF CUL-10 SHEETS STA. TO STA.

F.A.P. RTE. 344	SECTION 2020-196-T	COUNTY DUPAGE	TOTAL SHEETS 122	SHEET NO. 56
ILLINOIS			FED. AID PROJECT	

CUL-01

CONTRACT NO. 62M69