

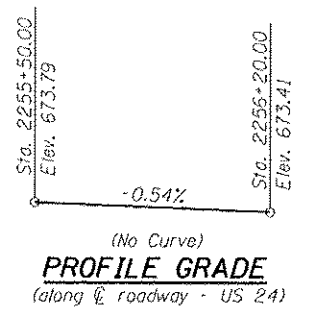
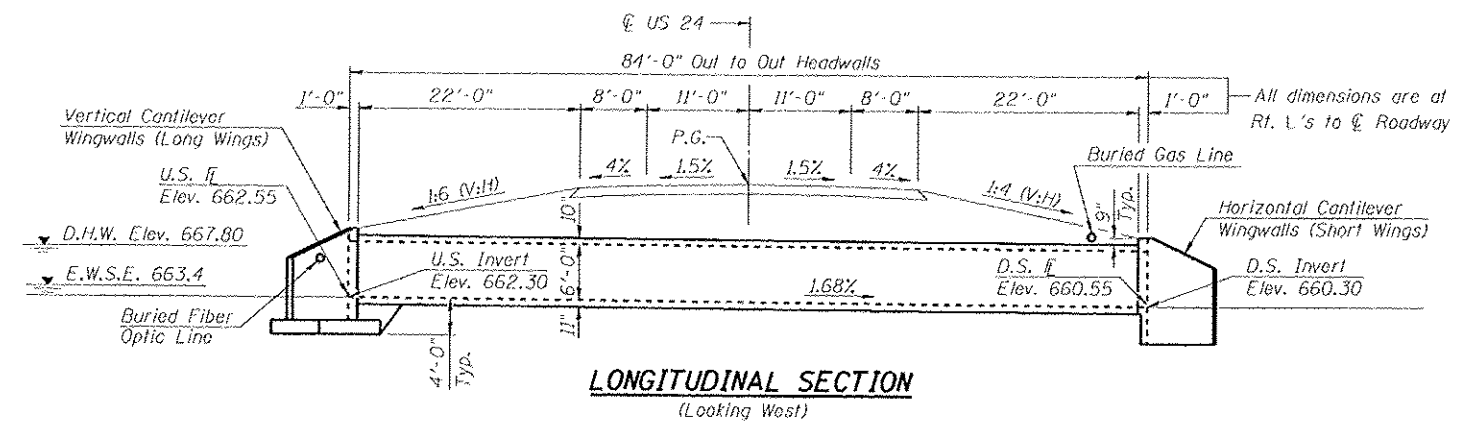
Benchmark: Chiseled "□" on south headwall; just west of N. 48th Street and U.S. 24 intersection, Sta. 2255+48.0, 34.0' L.L., Elev. 669.12.
 Existing Structure: S.N. 001-7099 is a 6' by 6' reinforced concrete box culvert at a 45° skew originally built in 1955 as S.B.I. 31, Section (1,2,3)W.
 The existing structure shall be removed and replaced. The roadway will be closed and traffic detoured during construction. Precast alternate is not allowed.
 No Salvage.

INDEX OF SHEETS

1. General Plan
2. General Data
- 3.-4. Culvert Details
5. Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures No. 1	Each	1
Structure Excavation	Cu. Yd.	1,045
Name Plates	Each	1
Reinforcement Bars	Pound	22,840
Reinforcement Bars, Epoxy Coated	Pound	390
Concrete Box Culverts	Cu. Yd.	141.7
Granular Culvert Backfill	Cu. Yd.	902



WATERWAY INFORMATION

Drainage Area = 0.44 mi.² Exist. Overtopping Elev. 673.4 @ Sta. 2256+86.1
 Prop. Overtopping Elev. @ Sta.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	290	30	50	667.0	2.2	0.0	669.2	667.0
Base	50	480	30	55	667.8	5.7	1.0	673.4	668.8
Max. Calc.	100	570	35	60	667.9	5.8	2.3	673.8	670.2
	500	790	40	60	668.5	5.8	3.6	674.2	672.0

10 Year Velocity through Proposed Culvert = 8.8 fps

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	658.30	656.30

STATION 2255+86.15
 BUILT 201 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 63 SEC. 1(RS-5, CR-1,2,3) 2(RS-6)
 LOADING HL-93
 STRUCTURE NO. 001-7129

LOADING HL-93

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

DESIGN SPECIFICATIONS

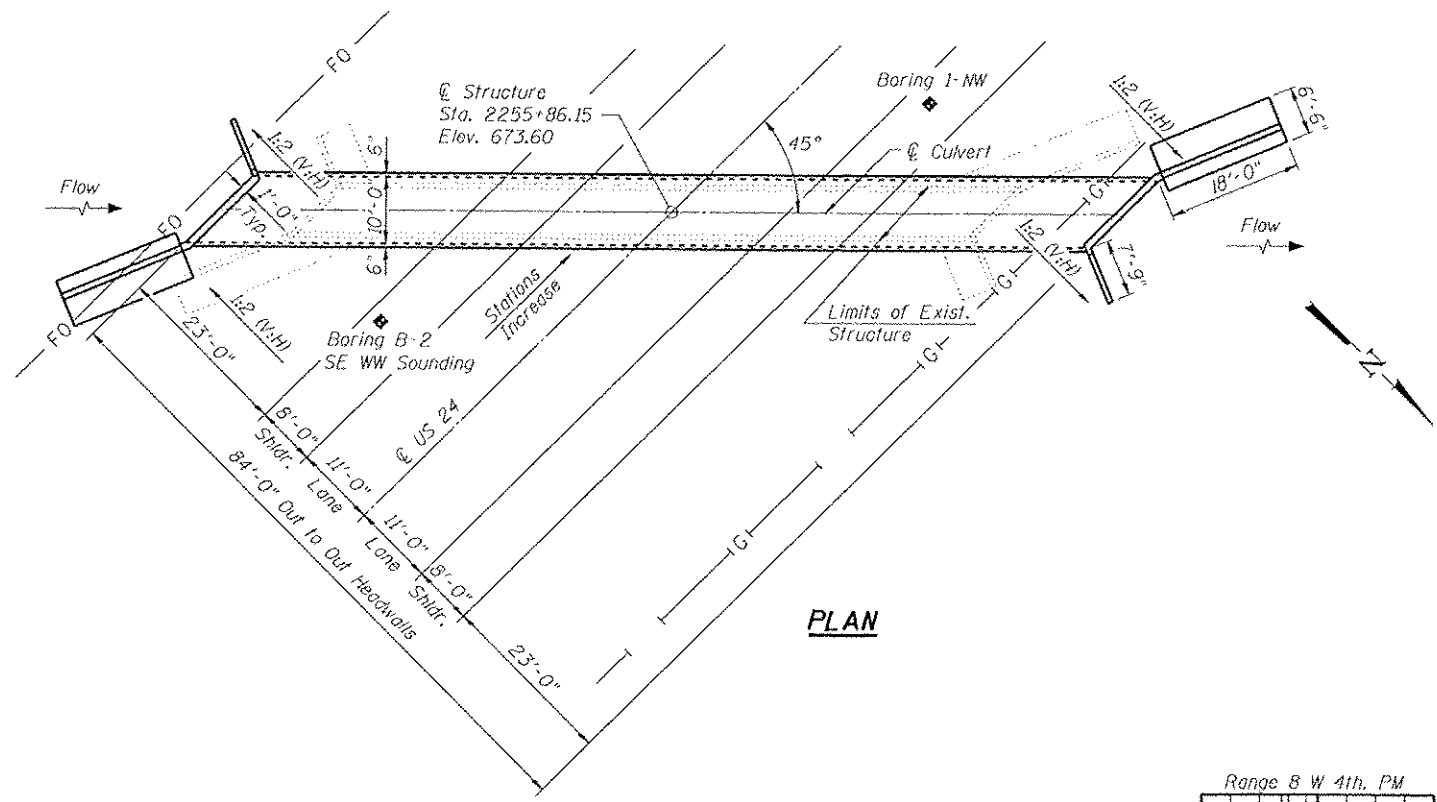
2012 AASHTO LRFD Specifications with 2013 Interims

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

GENERAL NOTES

Contact the District Geotechnical Engineer to verify foundation conditions meet plan requirements.
 For riprap layout and quantities, see Roadway Plans.



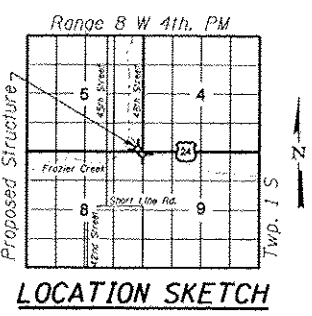
NAME PLATE
 See Std. 515001

UTILITY LEGEND

G = Buried Gas Line
 FO = Buried Fiber Optic Line



Alan D. Lukens
 Licensed Structural Engineer
 State of Illinois No. 081-005167
 License Expires 11/30/2014



KLINGNER & ASSOCIATES, P.C.
 Engineers - Architects - Surveyors
 1000 North 7th Street, Suite 400, Peoria, IL 61602
 1100 East Grand Road, Mendota, IL 61342
 1100 North 1st Street, Suite 100, Burlington, IL 61731
 1000 North 7th Street, Suite 400, Peoria, IL 61602
 1100 East Grand Road, Mendota, IL 61342
 1100 North 1st Street, Suite 100, Burlington, IL 61731
 STATE OF ILLINOIS DESIGN FIRM # 1842738

DESIGNED - RJP	EXAMINED	DATE
CHECKED - ADL	ENGINEER OF BRIDGE DESIGN	
DRAWN - RJP	PASSED	REVISED
CHECKED - ADL	ENGINEER OF BRIDGES AND STRUCTURES	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
 STRUCTURE NUMBER 001-7129
 SHEET NO. 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
63	(1)CR-1, (2)CR	ADAMS	43	17

CONTRACT NO. 72C12
 ILLINOIS FPD, AID PROJECT
 Klingner & Associates P.C.

GENERAL PLAN & LONGITUDINAL SECTION
US 24 OVER TRIBUTARY TO FRAZIER CREEK
 F.A.P. ROUTE 63
 SECTION (RS-5, CR-1,2,3) 2(RS-6)
 ADAMS COUNTY
 STATION 2255+86.15
 S.N. 001-7129