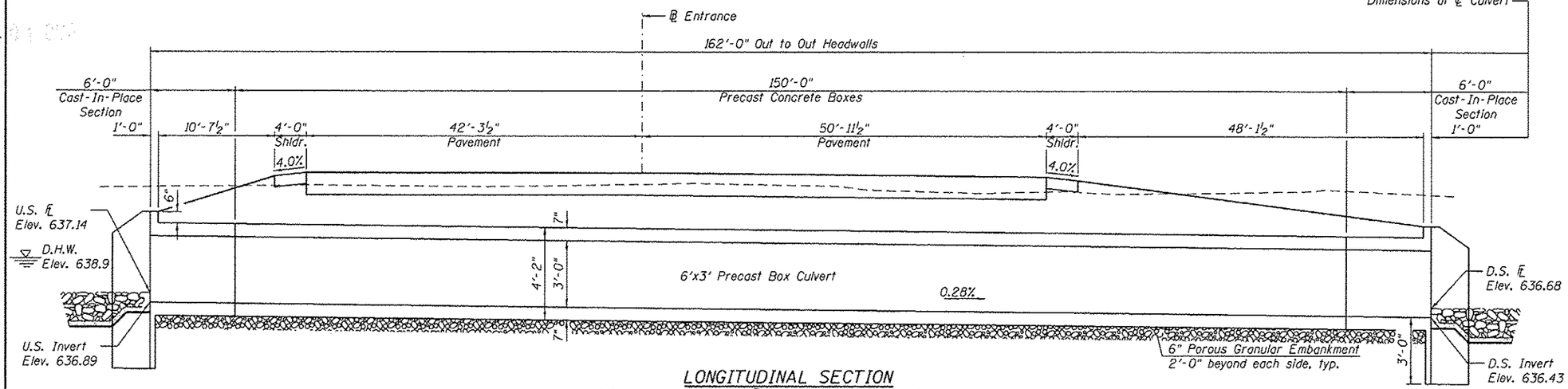
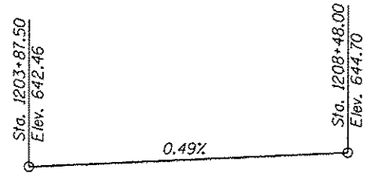
Benchmark: B.M. 7008. Found cut "+" north end of easterly headwall on box cuvert 1385' south of Lisbon Center Road. Elevation 635.44.

Existing Structure: None. Traffic to be detoured during construction.



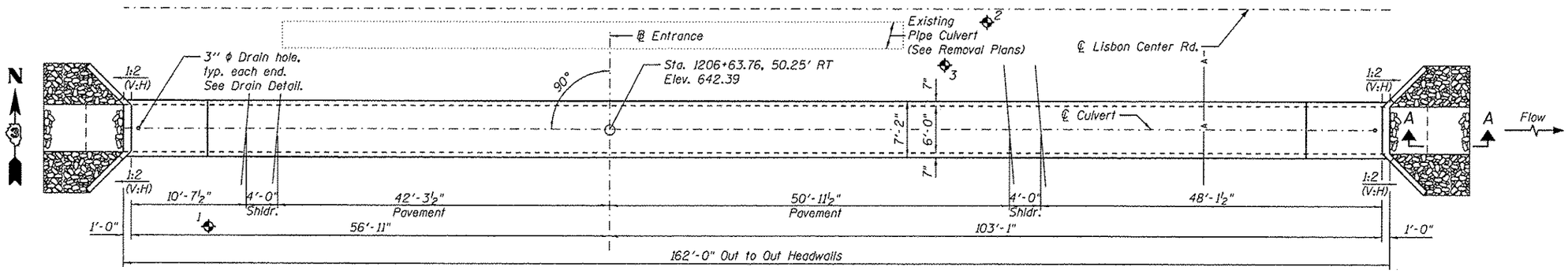
LONGITUDINAL SECTION

(Dimensions at Rt L's to ℄ Entrance, unless noted otherwise)
(Looking North)

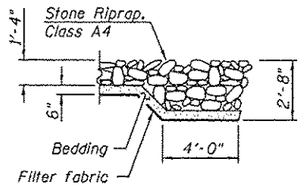


PROFILE GRADE

(Along Lisbon Center Rd. P.G.)



PLAN



SECTION A-A

*Waterproofing membrane shall cover the top surface of the culvert, including the top and inside face of edge beams at stage lines, and extend 6 inches up the inside face of the headwall. For precast box culverts, the waterproofing membrane shall cover the top 1 foot of the outside face of the sidewalls. For cast in place box culverts, the waterproofing membrane shall extend to 6 inches below the construction joint between the culvert sidewall and the top slab on the outside face of the sidewalls.

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications.
6th 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

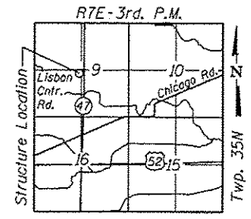
f'c = 5,000 psi
fy = 60,000 psi (Reinforcement)
fy = 65,000 psi (Welded Wire Fabric)

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The last section of precast culvert on each end shall have reinforcing bars extending from the precast culvert to be incorporated into the cast-in-place end sections as shown on sheet 2 of 3.

Precast concrete box culverts shall conform to the design requirements of ASTM C1577.



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 0.136 sq mi
Exist. Low Grade Elev. 641.52
Prop. Low Grade Elev. 642.05

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	NAT. H.W.E.	Rev. NAT. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	45	3.1	10.0	641.2	638.2	1.1	0.3	642.3	638.5
Design	50	92	3.1	14.2	641.6	638.9	0.7	0.9	642.3	639.7
Base	100	121	3.1	16.2	641.8	639.2	0.6	1.2	642.4	640.4
Overtopping	-	174	3.1	18.1	641.9	639.7	-	2.3	-	642.0
Max. Calc.	500	206	3.1	20.8	642.1	640.0	0.8	2.3	642.9	642.3

10 year velocity through Existing Structure = 14.5 fps
10 year velocity through Proposed Structure = 4.5 fps

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	34
Stone Riprap, Class A4	Sq. Yd.	20
Filter Fabric	Sq. Yd.	20
Reinforcement Bars	Pound	1590
Concrete Box Culverts	Cu. Yd.	9.9
Precast Concrete Box Culvert 6'x3'	Foot	150.0
*Membrane Waterproofing for Culverts	Sq. Yd.	164

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	U.S. Invert	D.S. Invert
	633.89	633.43

LICENSED STRUCTURAL ENGINEER — VINCENT P. TABOR 081-007047 — STATE OF ILLINOIS

Vincent P. Tabor 7/14/2014

Vincent P. Tabor — Date
Licensed Structural Engineer
State of Illinois No. 081-007047
Expires 11/30/2014

GENERAL PLAN & ELEVATION
ENTRANCE OVER
DRAINAGE DITCH
F.A.P. RTE. 326
SEC-(109, 110)R-1
KENDALL COUNTY
STATION 1206+63.76
WATER CROSSING 149B

REVISED -	USER NAME =	DESIGNED - PSS	
REVISED -	FILE NAME =	CHECKED - VPT	
REVISED -	PLOT SCALE =	DRAWN - AJF	
REVISED -	PLOT DATE =	CHECKED - VPT	

LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
WATER CROSSING 149B
SHEET NO. 1 OF 3 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(109, 110)R-1	KENDALL	619	402
		CONTRACT NO. 66884		
	ILLINOIS FED. AID PROJECT			