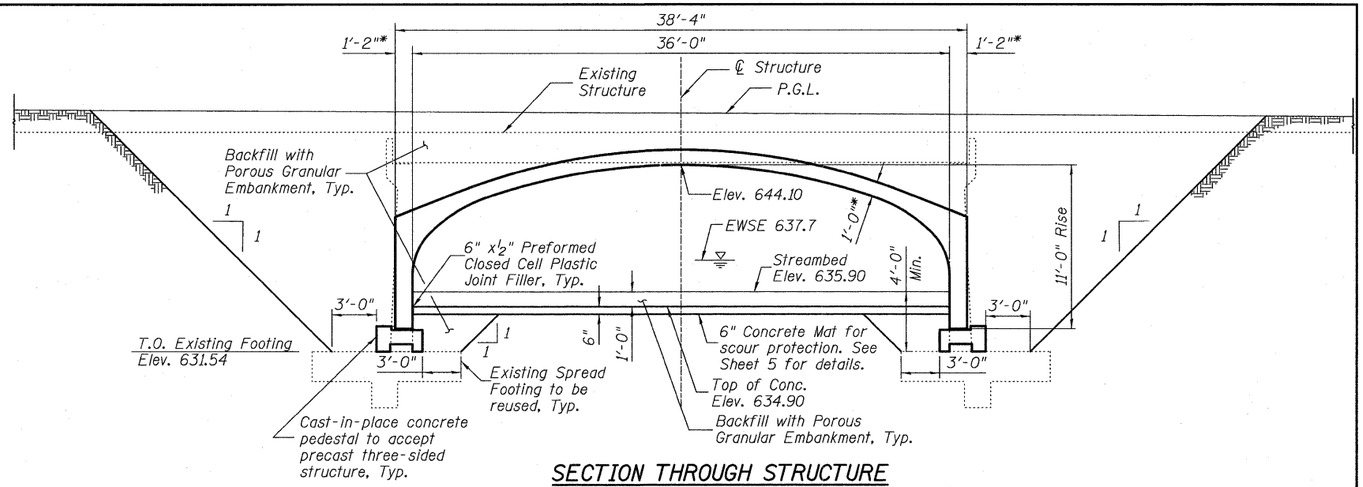
Bench Mark: Survey marker southwest of the intersection of Lake-Cook Road and Milwaukee Avenue. Northing 1,998,621.83, Easting 1,097,353.29, Elevation 664.70.

Existing Structure: 016-0525. Built in 1965 as part of County Highway 105-Section 105-1415.1-MFT as a single span prestressed concrete box beam multi-girder bridge. Five of the box beams were removed and replaced in 2006. Substructure is two full height reinforced concrete abutments on spread footings. 39'-6" back to back abutments and 65'-0" out to out. Existing Bridge is to be removed as required to install new three sided structure. Traffic is to be staged during construction utilizing two stages with two lanes of traffic for each stage.

Reuse Existing Footing.

Precast Alternate is not allowed for Footings.

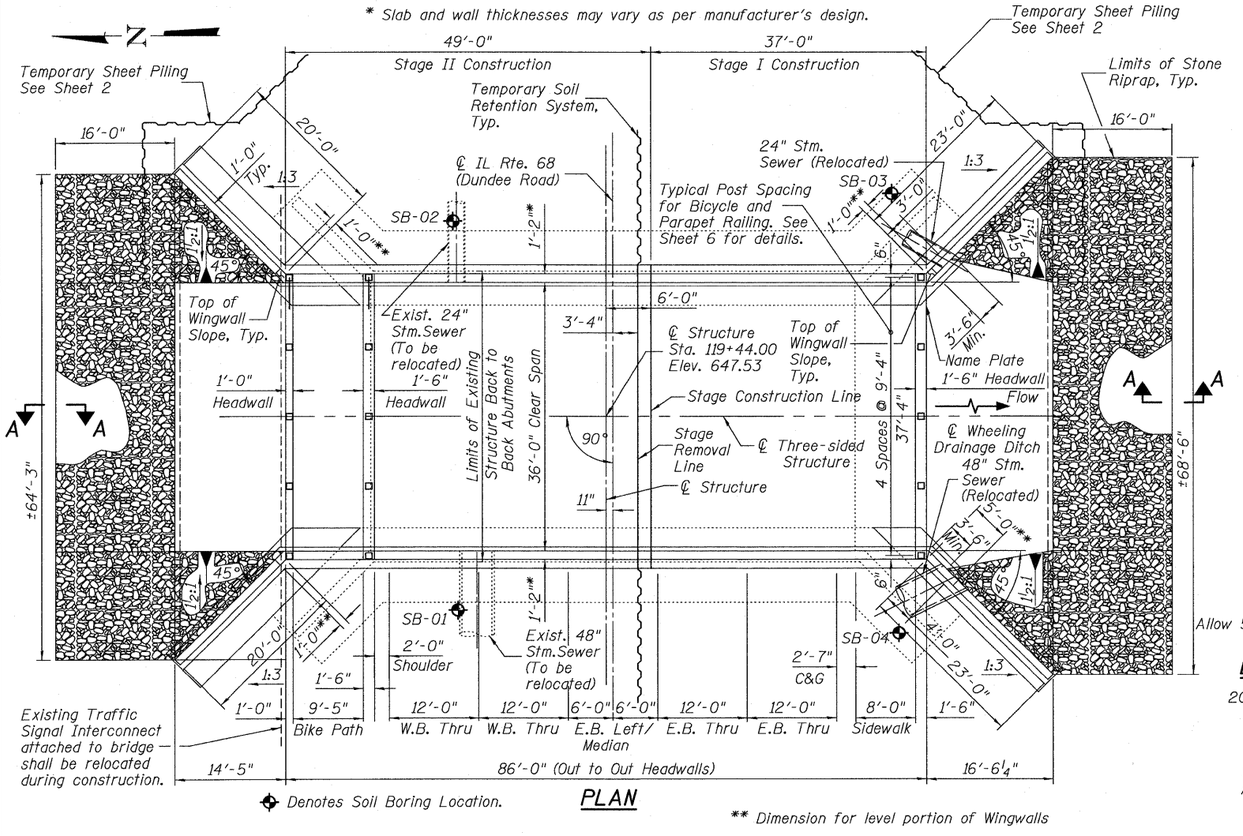
INDEX OF SHEETS



SECTION THROUGH STRUCTURE

Diversion of water may be required for stem and wingwall construction at the responsibility of the contractor.

* Slab and wall thicknesses may vary as per manufacturer's design.



Denotes Soil Boring Location.

PLAN

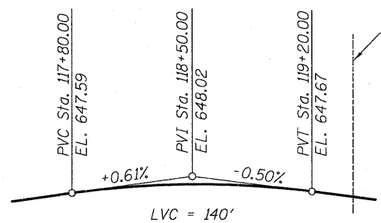
** Dimension for level portion of Wingwalls

STATION 119+44.00
BUILT 20 BY
STATE OF ILLINOIS
FAP RT 343 SEC. 98-B
LOADING HS-20
STRUCTURE NO. 016-0525

NAME PLATE

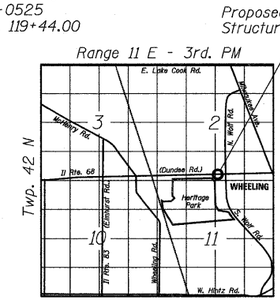
See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

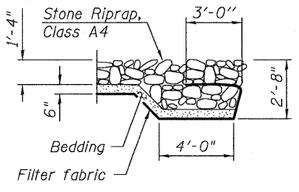


PROFILE GRADE

℄ IL Rte. 68 (Dundee Road)



LOCATION SKETCH



SECTION A-A

WATERWAY INFORMATION

Drainage Area = 22 sq. mi.

Existing Low Grade Elev. = 646.4 ft @ Sta. 119+00
Proposed Low Grade Elev. = 646.2 ft @ Sta. 123+00

Flood	Frequency Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	585	156	156	641.98	0.05	0.04	642.03	642.02
Design	50	940	178	178	642.57	0.15	0.15	642.72	642.72
Base	100	1203	205	205	643.29	0.22	0.22	643.51	643.51
Overtopping	Exceeds 500 Yr								
Max. Calc.	500	2003	236	236	644.21	1.24	1.23	645.45	645.44

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream End	Downstream End
	631.90	631.90

LOADING HS-20

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

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

SEISMIC DATA

Seismic Performance Category = A
Acceleration Coefficient A = 0.035
Site Coefficient = 2.0

DESIGN STRESSES

EXISTING UNITS

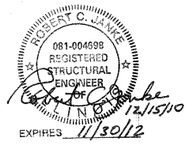
f'c = 3,500 psi
fy = 40,000 psi

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)



APPROVED
FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES

Applied Technologies

FILE NAME = GENERAL PLAN.DGN	USER NAME = RDS	DESIGNED - JRF	REVISED -
		CHECKED - PAT2	REVISED -
	PLOT SCALE = 1" = 10'	DRAWN - RDS	REVISED -
	PLOT DATE = 12-15-10	CHECKED - RCJ	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 016-0525
SHEET NO. 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	98-B	COOK	65	30
		CONTRACT NO. 60H20		
	ILLINOIS FED. AID PROJECT			