

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES:

1. Reinforcement bars shall conform to the requirements of AASHTO M31M, or M322M Grade 400.
2. Exposed edges shall be beveled 19mm.
3. All construction joints shall be bonded.
4. A distance of half the length of the wingwall, but not less than two meters of the barrel shall be poured monolithically with the wingwalls.
5. All dimensions are in millimeters (mm) except as noted.
6. For "Stone Riprap, Class A4" and "Filter Fabric for use with Riprap" bill of material, see Roadway plans.
7. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the engineer.
8. Design Fill Height = 0.600m

FAP	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 1
337	20R-5	LAKE	562	443	9 SHEETS

ILLINOIS PROJECT: D-91-552-99 Contract No. 60881

TOTAL BILL OF MATERIAL

Item	Unit	TOTAL
Removal of Existing Structures No. 1	EACH	1
Reinforcement Bars	KG	11,130
Temporary Sheet Piling	SQ M	38
Steel Plate Beam Guard Rail, Attached to Structures	METER	9.2
Concrete Box Culverts	CU M	87
Bicycle Railing	METER	8.50
Bar Splicers	EACH	76

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9. BORING LOGS

WATERWAY INFORMATION

DRAINAGE AREA = 2.0 SQ.KM AT STATION 104+500 MAX. RECORDED H.W.E. = N/A m

Flood	Frequency Yr.	Discharge Cms	Waterway Opening m ²		Natural H.W.E. m	Created Head m		Headwater Elevation m	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
	10	2.4	1.5	3.0	200.67	0.09	0.00**	200.76	200.36
Design	50	4.9	1.6	3.2	200.71	0.36	0.00**	201.07	200.70
Base	100	6.6	1.6	3.3	200.74	0.39	0.18	201.13	200.92
Overtopping									
Max. Calc.	500	9.9	1.8	4.5	201.90	0.00	0.00	201.90	201.90

**The actual proposed created head is negative, zero value was provided for 10 and 50 years flood.

DESIGN SPECIFICATION

AASHTO 2002 Standard Specifications for Highway Bridges.

LOADING MS18

Allow 2.4 KN/m² for future wearing surface.

DESIGN STRESSES

FIELD UNITS

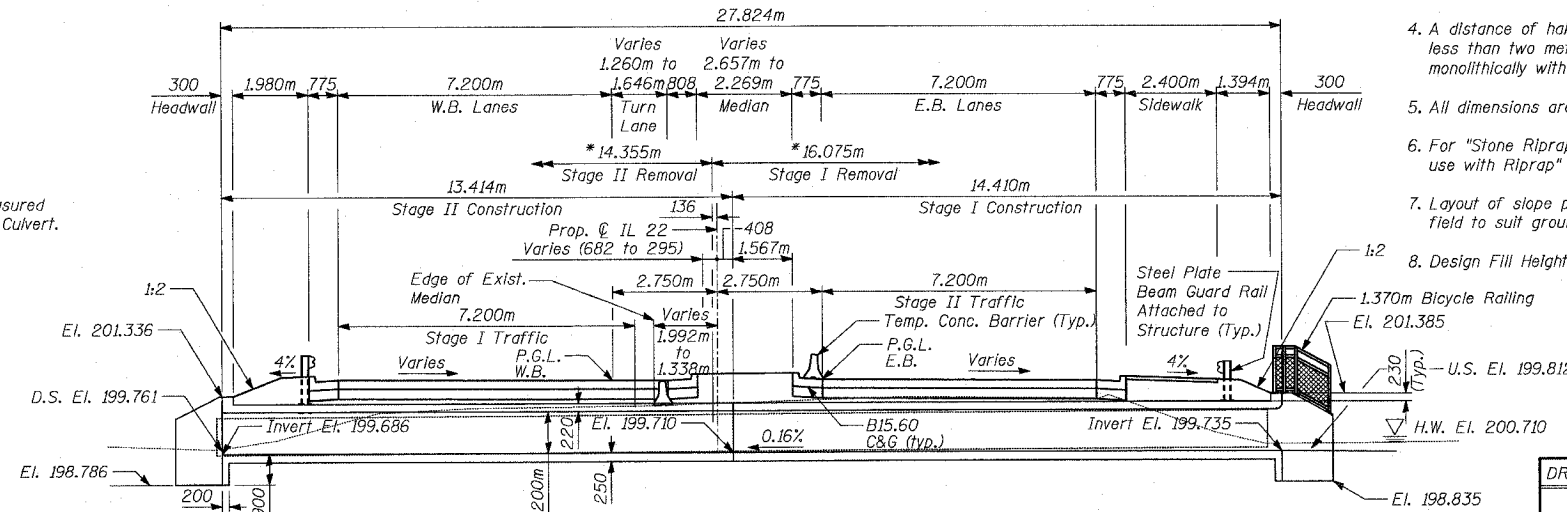
f_c = 24 MPa
f_y = 400 MPa (Reinforcement)

Bench Mark: BM #61 - Set cross on southwest bolt of fire hydrant in front of church on the south side of Old Half Day Road. Approximately 180m northeast of Route 22. Station: 104+511.89 102.83m LT. El. 202.411m

Existing Structure: Twin 1.07m diameter concrete culverts. The Contractor shall remove the existing structure and replace it with a new concrete Double-Barrel Box Culvert.

Salvage: None.

*Dimensions are measured along Centerline of Culvert.



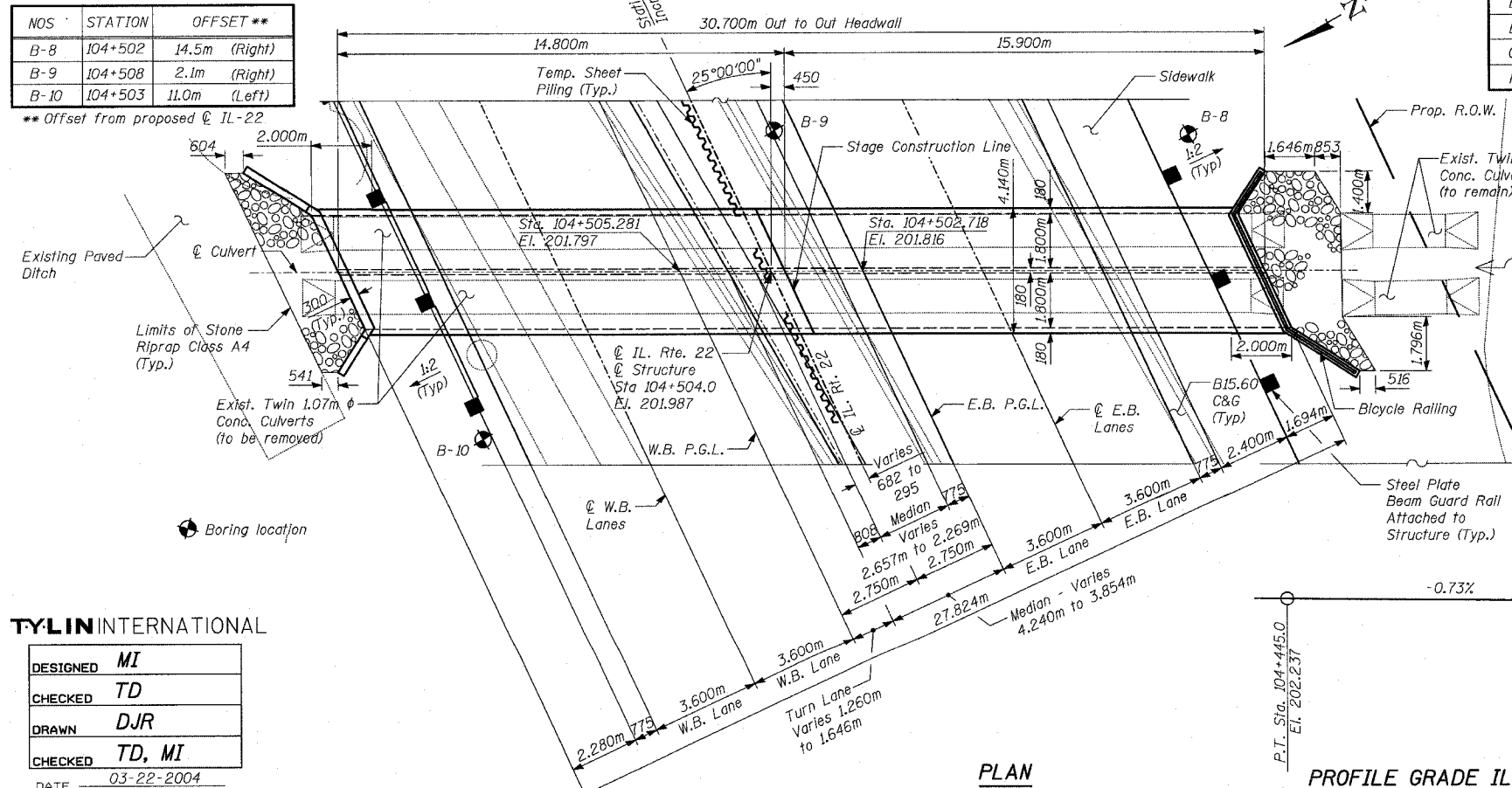
LONGITUDINAL SECTION

(Dimensions shown are at right angle to centerline of roadway)

BORING LOCATION

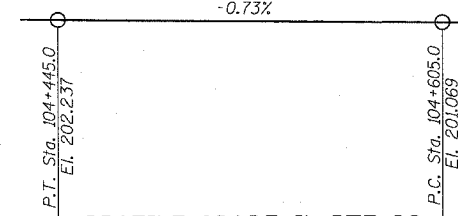
NOS	STATION	OFFSET **
B-8	104+502	14.5m (Right)
B-9	104+508	2.1m (Right)
B-10	104+503	11.0m (Left)

** Offset from proposed centerline of IL-22



PLAN

PROFILE GRADE IL RTE 22



Signed: Heather J. Gaffney, S.E. No. 081-004961
Expires 11-30-2004. For drawings 1 thru 9 of 9
Date: 3/22/04

APPROVED

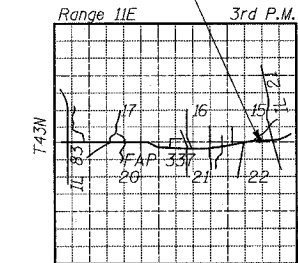
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN

IL ROUTE 22 OVER
INDIAN CREEK TRIBUTARY
FAP 337 SECTION 20R-5
LAKE COUNTY
STA. 104+504.000
S.N. 049-C002

PROPOSED CULVERT



LOCATION SKETCH

TYLIN INTERNATIONAL

DESIGNED	MI
CHECKED	TD
DRAWN	DJR
CHECKED	TD, MI

DATE 03-22-2004