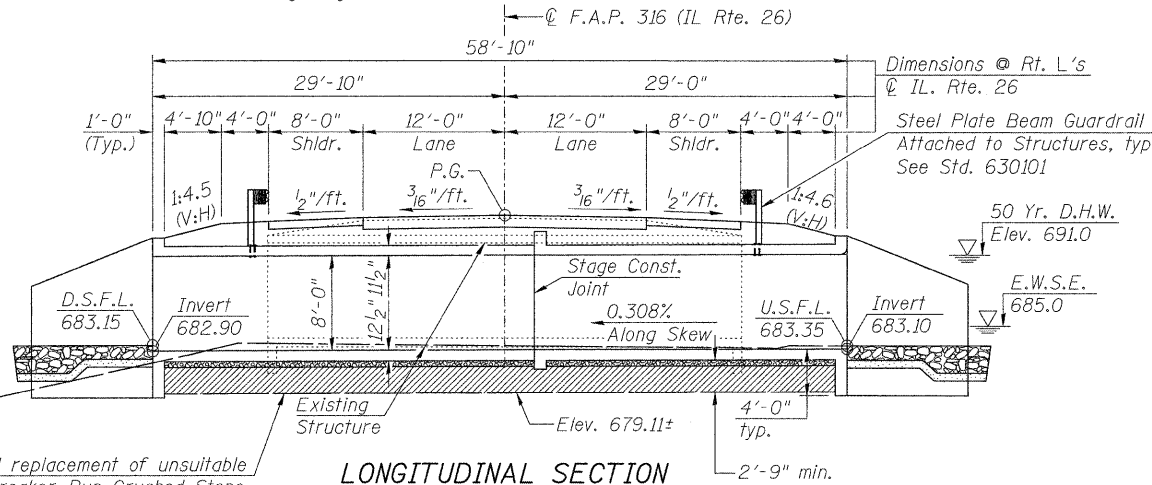


Bench Mark: Survey Pt. #403 on west parapet in north span of S.N. 052-0026, 17' Lt. Sta. 312+08.83, Elev. 700.35
 Existing Structure: S.N. 052-2029, built in 1928 as Section 102, SBI Route 89 at Sta. 325+79.66 (New Survey); R.C. Double 10' x 8' Box Culvert, 23'-0" back to back ext. barrel walls, 40'-2" face to face rails, 45'-8" out to out Headwalls (along skew); Skew 24° ahead right. Structure to be removed and replaced. Traffic to be maintained utilizing stage construction.
 No Salvage.

WATERWAY INFORMATION

Flood	Frequency Year		Discharge cfs		Waterway Opening - ft ²		Nat. H.W.E.	Head - ft.		Headwater Elev. - ft.	
			Exist.	Prop.	Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10-Year	052-2001		197	184	122	122					
	052-0081		4274	3571	780	872					
	052-2031		569	1285	120	248					
	TOTAL		5040	5040	1022	1242	690.0	0.2	0.2	690.2	690.2
Design	50-Year	052-2001	506	482	149	149					
	052-0081		5677	4891	880	1014					
	052-2031		757	1567	140	284					
	TOTAL		6940	6940	1169	1447	691.0	0.4	0.3	691.4	691.3
Base	100-Year	052-2001	591	571	154	154					
	052-0081		6189	5457	900	1042					
	052-2031		870	1622	144	288					
	TOTAL		7650	7650	1198	1484	691.2	0.5	0.4	691.7	691.6
Overtopping		Not Applicable									
Max. Calc	500-Year	052-2001	775	747	163	163					
	052-0081		7378	6577	930	1085					
	052-2031		1007	1836	150	288					
	TOTAL		9160	9160	1243	1536	691.5	0.7	0.7	692.2	692.2

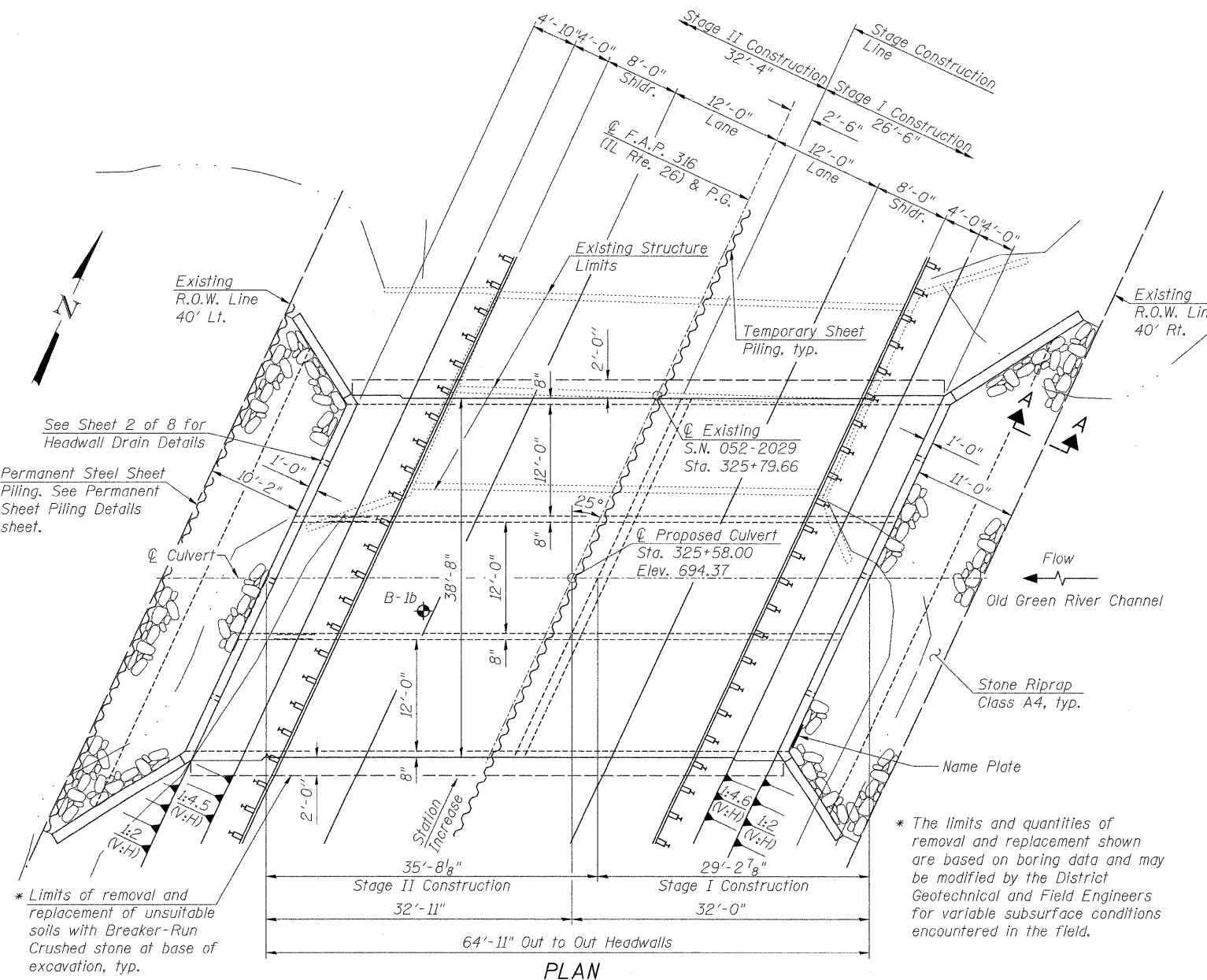
10 Year velocity through: Existing S.N. 052-2001 = 1.1 ft/s
 Existing S.N. 052-0026 = 5.3 ft/s
 Existing S.N. 052-2029 = 4.7 ft/s
 10 Year velocity through: Existing S.N. 052-2001 = 1.1 ft/s
 Prop. Bridge S.N. 052-0081 @ S.N. 052-0026 = 4.4 ft/s
 Prop. Bridge S.N. 052-2031 @ S.N. 052-2029 = 5.3 ft/s



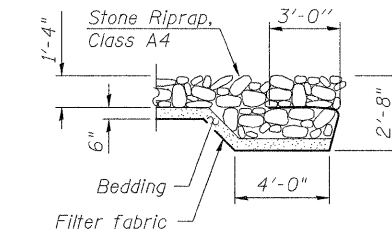
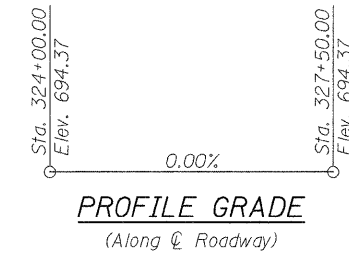
*Removal and replacement of unsuitable soils with Breaker-Run Crushed Stone may be required beneath the culvert.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	679.10	678.90



* Limits of removal and replacement of unsuitable soils with Breaker-Run Crushed stone at base of excavation, typ.



SECTION A-A

INDEX OF SHEETS

1. General Plan and Elevation
2. General Data
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
- 5-6. Culvert Details
7. Bar Splicer Assembly Details
8. Soil Boring Logs

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

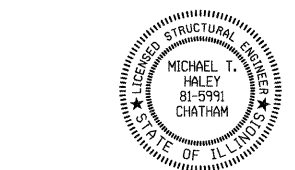
LOADING HS 20-44

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

DESIGN STRESSES

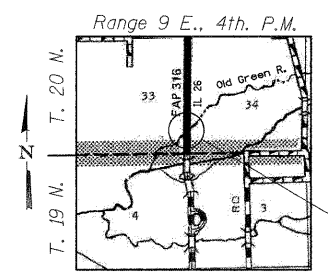
FIELD UNITS

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



Michael J. Haley
 Michael T. Haley
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2012

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 [Signature]
 ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 26 OVER
OLD GREEN RIVER
F.A.P. RTE 316 - SEC. 102-BR7
LEE COUNTY
STATION 325+58.00
STRUCTURE NO. 052-2031