

STA. 270+14.74, 25.17 RT., EL. 699.632
 PK NAIL ON WESTMOST WOOD GUARDRAIL
 POST +/- 300' WEST OF TALL GRASS PARKWAY,
 SOUTH SIDE OF US 30

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 353	*	WILL	1235	650
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
 11 SHEETS

EXISTING STRUCTURE:
 6'-0" x 3'-0" CONCRETE BOX CULVERT
 TOTAL LENGTH IS APPROXIMATELY 68'-0".

NO SALVAGE.
 PROPOSED IMPROVEMENTS:
 EXISTING STRUCTURE TO BE REMOVED AND REPLACED
 WITH A TRIPLE 3'-0" x 2'-0" BOX CULVERT IN STAGES
 MAINTAINING TWO LANES OF TRAFFIC.

STATION 271+00.00
 BUILT BY
 STATE OF ILLINOIS
 FAP 353 SECT. (12 & 13) WRS-3
 LOADING HS20
 STR. NO. 099-C015

DESIGN SPECIFICATIONS

AASHTO 2002 SPECIFICATIONS.
 LOADING HS20-44
 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)

NAME PLATE

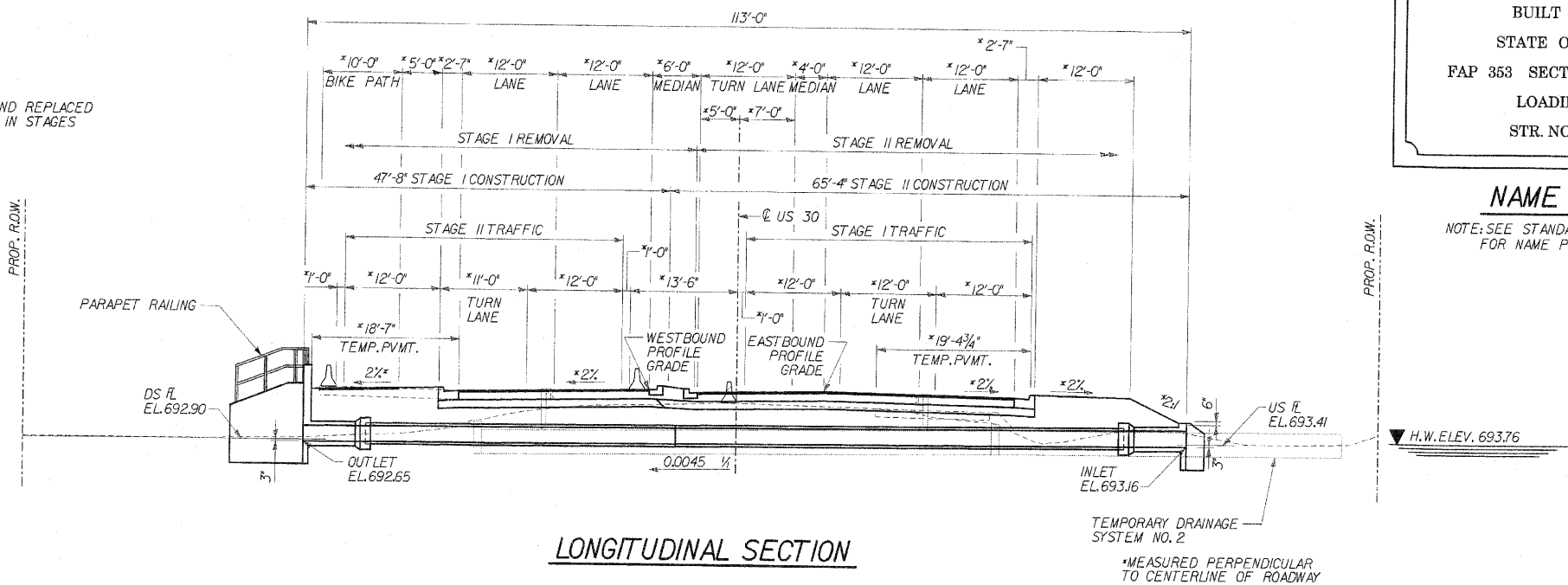
NOTE: SEE STANDARD DRAWING 515001
 FOR NAME PLATE DETAILS.

TOTAL BILL OF MATERIALS

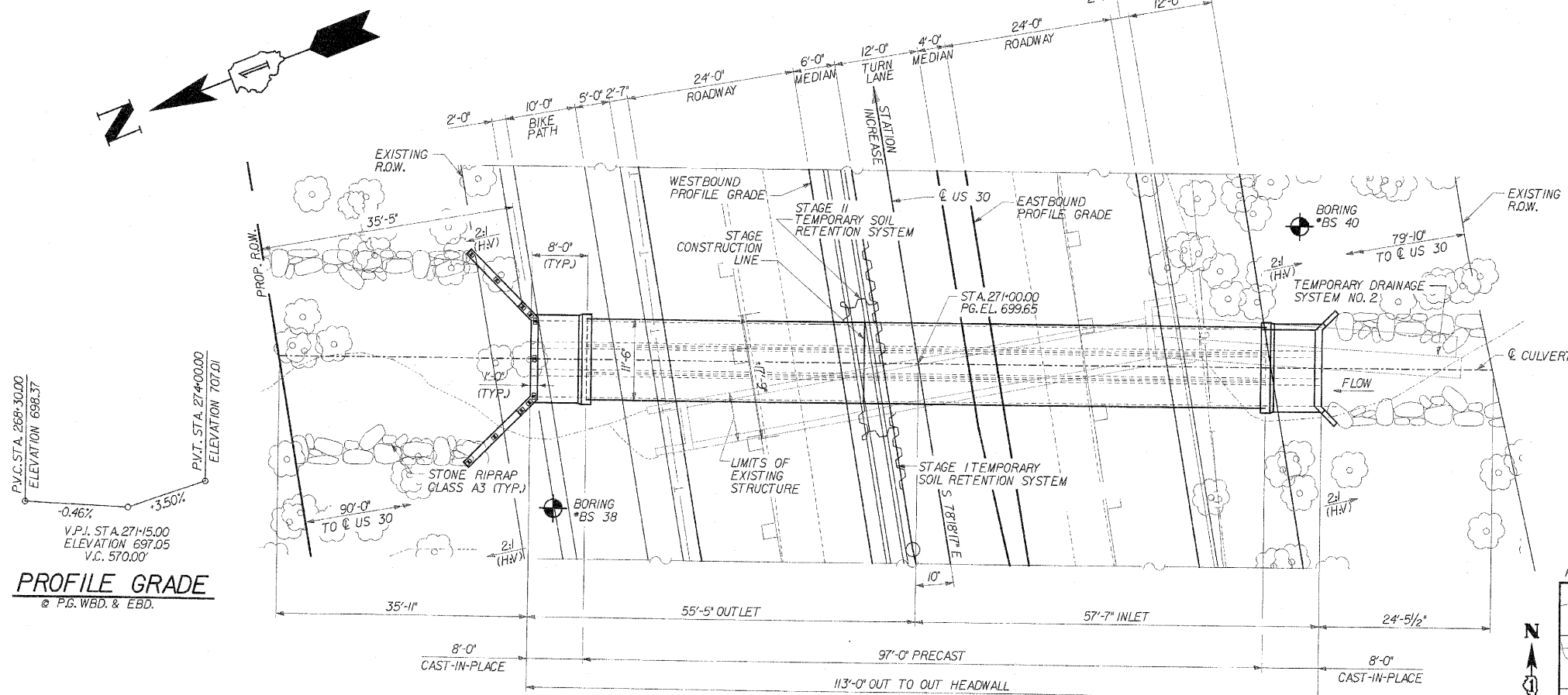
ITEM	UNIT	QUANTITY
STONE RIPRAP CLASS A3	TON	90
FILTER FABRIC	SQ.YD.	160
REMOVAL OF EXISTING STRUCTURES NO.5	EACH	1
REINFORCEMENT BARS	POUND	3,294
PARAPET RAILING	FOOT	35
NAME PLATES	EACH	1
CONCRETE BOX CULVERTS	CU. YD.	27.1
PRECAST CONCRETE BOX CULVERT 3' x 2'	FOOT	291.0
TEMPORARY SOIL RETENTION SYSTEM	SQ.FT.	478
TEMPORARY DRAINAGE SYSTEM NO. 2	FOOT	44

GENERAL NOTES

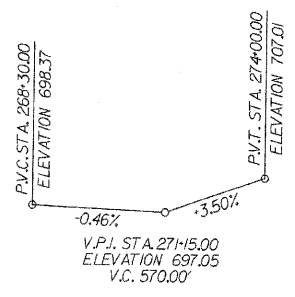
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.
- CAST-IN-PLACE BARREL SHALL BE POURED MONOLITHICALLY WITH THE WINGWALLS.
- EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER.
- IN ACCORDANCE WITH ARTICLE 540.04 OF THE STANDARD SPECIFICATIONS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DIVERT STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREAS FREE OF WATER. THE METHOD OF WATER DIVERSION SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND THE COST SHALL BE INCLUDED WITH "REMOVAL OF EXISTING STRUCTURES NO. 5". CLEAN FILL (GRANULAR) MATERIAL WILL ONLY BE ALLOWED.
- THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M259 (DESIGN FILL HEIGHT= 3'-0").
- A CANTILEVERED SHEET PILING DESIGN DOES NOT APPEAR FEASIBLE AND ADDITIONAL MEMBERS OR OTHER RETENTION SYSTEM MAY BE NECESSARY. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SOIL RETENTION SYSTEM DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.
- THE CONTRACTOR SHALL PREPARE IN-STREAM WORK PLANS (ALL COFFERDAMS, WORK PADS, AND EROSION AND SEDIMENT CONTROL, ETC.) AND SUBMIT TO THE ENGINEER AND THE U.S. ARMY CORP. OF ENGINEERS FOR REVIEW AND APPROVAL. THE CONTRACTOR SHOULD EXPECT TO HAVE TO ATTEND MEETINGS AT THE USACE OFFICE TO DISCUSS THEIR WORK PLAN IN ORDER TO SECURE THEIR PERMIT. THE COST OF ALL IN-STREAM WORK ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



LONGITUDINAL SECTION



PLAN



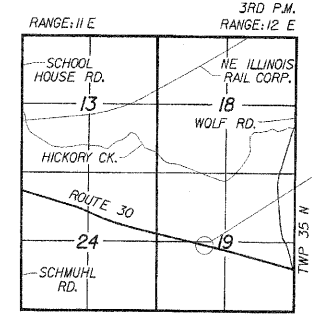
PROFILE GRADE
 @ P.B. W.B.D. & E.B.D.

WATERWAY INFORMATION										
DRAINAGE AREA (SQ. MI) - 0.17		LOW GRADE ELEV. (FEET) EXIST - 697.92 @ STA. 270+05				MAX. RECORDED H.W.E. -				
		PROPOSED - 698.21 @ STA. 268+96								
FLOOD	FREQ. YR.	DISCHARGE (C.F.S.)	WATERWAY OPENING		NATURAL H.W.E.		CREATED HEAD		HEADWATER ELEVATION	
			EXISTING (square feet)	PROPOSED (square feet)	EXISTING U/S Face	PROPOSED U/S Face	EXISTING (feet)	PROPOSED (feet)	EXISTING	PROPOSED
DESIGN	10	7.4	1.50	2.25	692.46	693.66	1.83	0.16	694.29	693.82
BASE	50	13	2.10	3.15	692.56	693.76	1.85	0.29	694.41	694.05
MAX. CALC.	100	16	2.34	3.51	692.60	693.80	1.86	0.30	694.46	694.10
OVERTOPPING	500	34	3.60	5.40	692.81	694.01	1.96	0.62	694.77	694.63

DESIGNED	CDS
CHECKED	ASP
DRAWN	EvH
CHECKED	ASP



Wayne A. Triek
 7-6-10
 11-30-10



LOCATION SKETCH

DLZ
 85 W. Algonquin Rd. Ste. 220
 Arlington Heights IL 60005

REVISIONS	
NAME	DATE

CULVERT 'E'
 GENERAL PLAN
 U.S. ROUTE 30 (LINCOLN HIGHWAY)
 F.A.P. 353 (U.S. 30)
 SECTION (12 & 13) WRS-3
 STATION 271+00.00
 WILL COUNTY
 STRUCTURE NUMBER 099-C015