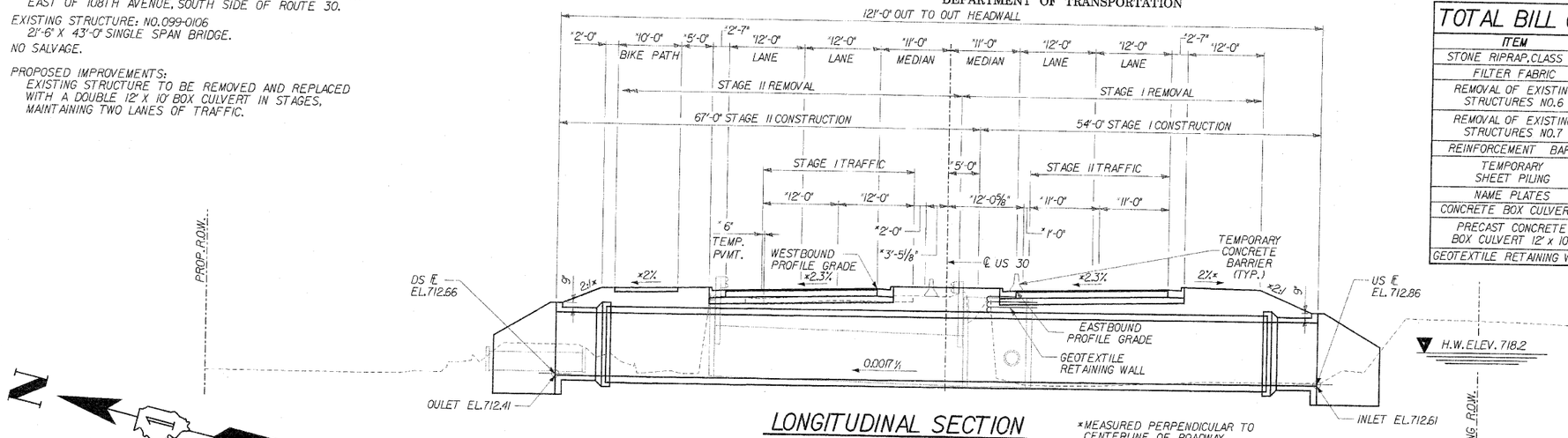
BENCH MARK: BM 234
STA. 338+42.67 45.53' RT. ELEV. 726.825
MARK ON SOUTHERLY FLANGE BOLT OF SECOND HYDRANT EAST OF 108TH AVENUE, SOUTH SIDE OF ROUTE 30.

EXISTING STRUCTURE: NO. 099-0106
21'-6" X 43'-0" SINGLE SPAN BRIDGE.

NO SALVAGE.

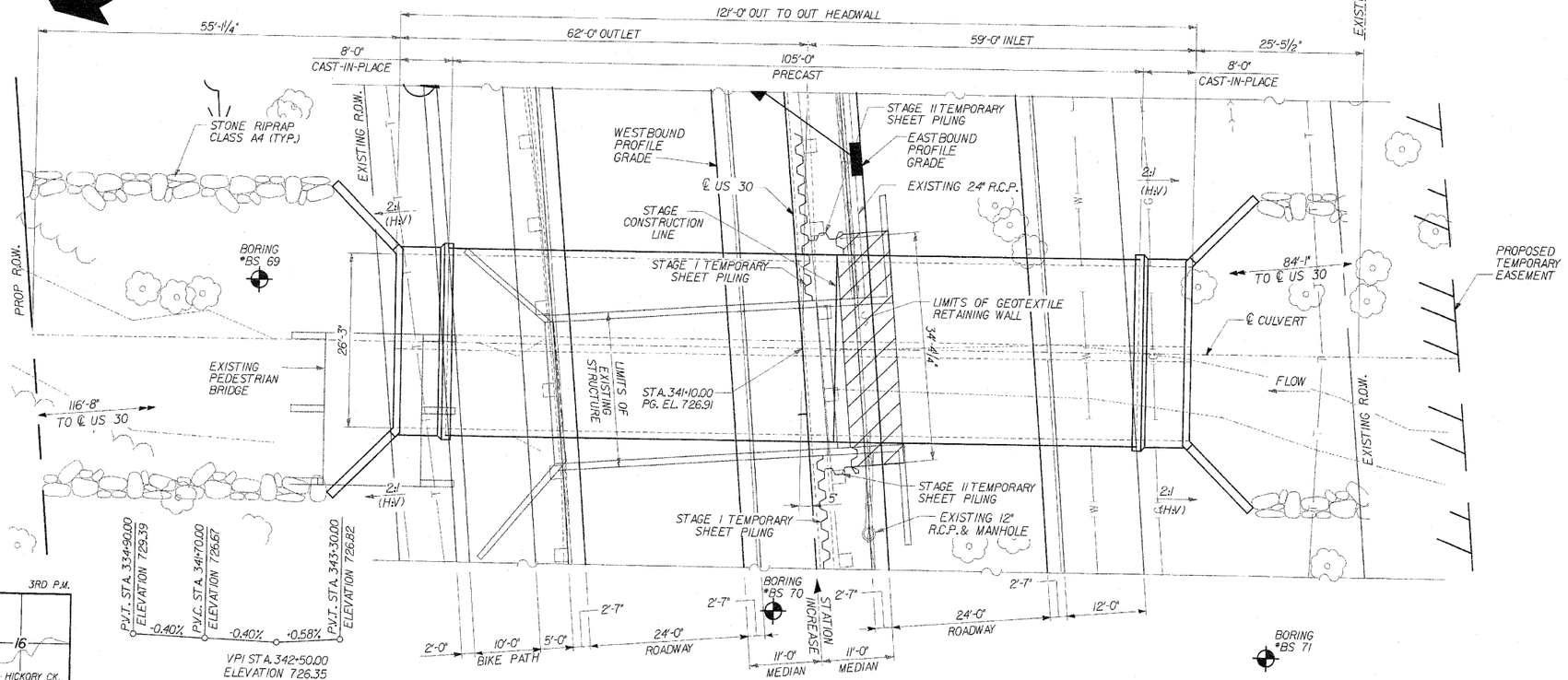
PROPOSED IMPROVEMENTS:
EXISTING STRUCTURE TO BE REMOVED AND REPLACED WITH A DOUBLE 12' X 10' BOX CULVERT IN STAGES, MAINTAINING TWO LANES OF TRAFFIC.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION

*MEASURED PERPENDICULAR TO CENTERLINE OF ROADWAY.



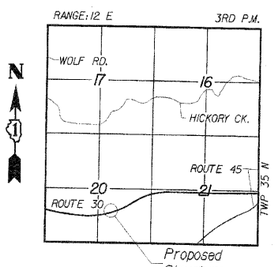
CURVE DATA

P.I. = STA. 339+67.40
Δ = 36°18'39.1" (LT.)
T = 1,311.69'
L = 2,534.98'
R = 3999.99'
E = 209.57'

PROFILE GRADE

@ P.G. WBD. & EBD.

PLAN



LOCATION SKETCH

DESIGNED	ASP
CHECKED	CDS
DRAWN	LNB
CHECKED	ASP

WATERWAY INFORMATION

DRAINAGE AREA (SQ.MI) = 1.56 | LOW GRADE ELEV. (FEET) EXIST = 725.15 @ STA. 343+00 PROPOSED = 726.54 @ STA. 345+50 | MAX. RECORDED H.W.E. =

FLOOD	FREQ. YR.	DISCHARGE C.F.S.	WATERWAY OPENING EXISTING (square feet)	WATERWAY OPENING PROPOSED (square feet)	NATURAL H.W.E. (feet)	CREATED HEAD EXISTING (feet)	CREATED HEAD PROPOSED (feet)	HEADWATER ELEVATION EXISTING	HEADWATER ELEVATION PROPOSED
	10	366	85	104.2	717.2	0.6	0.0	717.8	717.2
DESIGN	50	681	106	128.2	718.2	1.2	0.3	719.4	718.5
BASE	100	869	116	142.6	718.8	1.4	0.4	720.2	719.2
MAX. CALC.	500	1477	147	176.2	720.2	2.3	0.8	722.5	721.0
OVERTOPPING									

TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
STONE RIPRAP, CLASS A4	TON	295
FILTER FABRIC	SQ.YD.	410
REMOVAL OF EXISTING STRUCTURES NO.6	EACH	1
REMOVAL OF EXISTING STRUCTURES NO.7	EACH	1
REINFORCEMENT BARS	POUND	17,276
TEMPORARY SHEET PILING	SQ.FT.	2,430
NAME PLATES	EACH	1
CONCRETE BOX CULVERTS	CU.YD.	96.2
PRECAST CONCRETE BOX CULVERT 12' x 10'	FOOT	210
GEOTEXTILE RETAINING WALL	SQ.FT.	90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 353	*	WILL	1235	661
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
11 SHEETS

* SECT. (12 & 13) WRS-3
* CONTRACT NO. 62479

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)

GENERAL NOTES

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR.60. SEE SPECIAL PROVISIONS.
2. CAST-IN-PLACE BARREL SHALL BE POURED MONOLITHICALLY WITH THE WINGWALLS.
3. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER.
4. 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.6". CLEAN FILL (GRANULAR) MATERIAL WILL ONLY BE ALLOWED.
5. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M259 (DESIGN FILL HEIGHT = 5'-0")
6. 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 USACOE 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.

WAYNE A. TRUEY
REGISTERED STRUCTURAL ENGINEER
081-005429
STATE OF ILLINOIS
7-6-10
Expires 11-30-10

STATION 341+10.00
BUILT BY
STATE OF ILLINOIS
FAP 353 SECT. (12 & 13) WRS-3
LOADING HS20
STR. NO. 099-4662

NAME PLATE

NOTE: SEE STANDARD DRAWING 515001 FOR NAME PLATE DETAILS.

REVISIONS	
NAME	DATE

DLZ
DLZ Illinois, Inc.
85 W. Algonquin Rd. Ste. 220
Arlington Heights Il 60005

CULVERT 'G' GENERAL PLAN

U.S. ROUTE 30 (LINCOLN HIGHWAY)
F.A.P. 353 (U.S. 30)
SECTION (12 & 13) WRS-3
STATION 341+10.00
WILL COUNTY
STRUCTURE NUMBER 099-4662