

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF STRUCTURAL SHEETS

SHT. NO.	DESCRIPTION
11	GENERAL PLAN, ELEVATION AND INDEX
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GENERAL NOTES

1. EXISTING STRUCTURE: NOT SALVAGEABLE. THE NEW STRUCTURE NUMBER IS 099-0521.
2. THE PROPOSED PRECAST CONCRETE BOX CULVERT SHALL BE DESIGNED BY THE CONTRACTOR ACCORDING TO THE REQUIREMENTS OF AASHTO M273. COST IS INCLUDED IN PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.
3. FLOW OF THE CREEK UNDER WEST RIVER ROAD IS TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION BY PLACE A TEMPORARY STREAM DIVERSION AT THE UPSTREAM END OF THE BOX CULVERT/WINGWALLS AND TEMPORARILY PUMPING OR OTHERWISE CONVEYING THE STREAM FLOW THROUGH THE WORK ZONE. THE DESIGN AND CONSTRUCTION OF THE TEMPORARY DIVERSION SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AND THE COST SHALL BE INCLUDED IN CONCRETE BOX CULVERTS ITEM. THE TEMPORARY STREAM DIVERSION PLAN TO BE USED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.
4. ALL CONSTRUCTION JOINTS SHALL BE BONDED.
5. THE INFORMATION SHOWN IN THESE PLANS CONCERNING THE TYPE AND LOCATION OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE EXISTENCE, TYPE, SIZE AND LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES AS MAY BE NECESSARY TO AVOID CONFLICT WITH CONSTRUCTION OPERATIONS AND/OR DAMAGE TO THE UTILITY.
6. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO PRECAST CONCRETE BOX CULVERT 9'x6'.
7. THE CONTRACTOR IS TO PROTECT AND MAINTAIN ALL TREES WITHIN AND ADJACENT TO THE WORK ZONE FOR THIS PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO PRECAST CONCRETE BOX CULVERT 9'x6'.
8. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.
9. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
10. THE CONTRACTOR SHALL SUBMIT A PLAN AND SCHEDULE OF CONSTRUCTION ACTIVITIES TO THE ENGINEER FOR APPROVAL BEFORE STARTING ANY WORK FOR THIS PROJECT.
11. AS-BUILT/ACTUAL DETAILS OF EXISTING BOX CULVERT AND WINGWALLS ARE NOT AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL EXISTING STRUCTURE TO BE REMOVED.
12. THE COST OF 6" OF CA 7 UNDER CULVERT SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.
13. THE COST OF REMOVING AND REPLACING THE EXISTING 18" PIPE CULVERT SHALL BE INCLUDED IN THE PRECAST CONCRETE BOX CULVERT 9'x6' ITEM.

WATERWAY INFORMATION

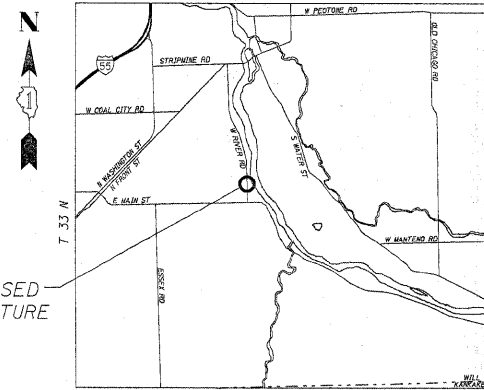
		DRAINAGE AREA = 2.43				LOW GRADE ELEV. = 552.22 EXISTING AND 552.28 PROPOSED				AT STATION 100+15	
FLOOD	FREQ. (YR.)	Q (CFS)	WATERWAY OPENING (FT.)		NATURAL H.W.E. (FT.)	HEAD (FT.)		HEADWATER ELEVATION (FT.)			
			EXISTING	PROPOSED		EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
DESIGN	50	315	59.4	69.1	548.64	0.38	0.24	549.02	548.88		
BASE	100	354	67.3	77.9	549.13	0.42	0.28	549.55	549.41		
OVERTOPPING	-	-	-	-	-	-	-	-	-		
MAX. CALC.	-	-	-	-	-	-	-	-	-		

10 YEAR VELOCITY THROUGH EXISTING BRIDGE = 6.06ft/s 10 YEAR VELOCITY THROUGH PROPOSED STRUCTURE = 4.82 ft/s
ALL - TIME H.W.E. & DATE: UNKNOWN

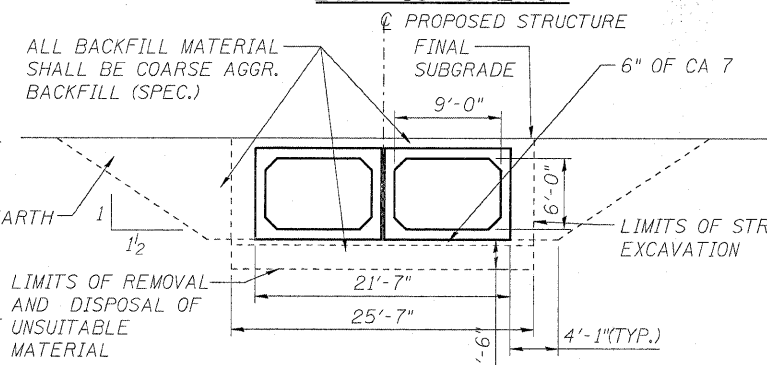
SIZE OF EXISTING BOX: 8'x6'
SIZE OF PROPOSED BOX: 9'x6'
SPANS: 2 (EXISTING, PROPOSED)

GENERAL PLAN, ELEVATION AND INDEX
FAU 0327 / WEST RIVER ROAD
OVER CREEK (2.6 MI. SOUTH OF IL ROUTE 53
SECTION 112 T-1
WILL COUNTY
STA. 100+00.00
STRUCTURE NO. 099-0521

SHEET NO. S1	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0327	112 T-1	WILL	17	11
OF S3 SHEETS		D-91-496-09		CONTRACT NO. 60G54	
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	



LOCATION SKETCH



**SECTION THROUGH
PRECAST BARREL**

DESIGN LOADING

HS20-44 AND ALTERNATE MILITARY LOADING AND ALLOWANCE FOR 50 P.S.F. FUTURE WEARING SURFACE

DESIGN SPECIFICATIONS

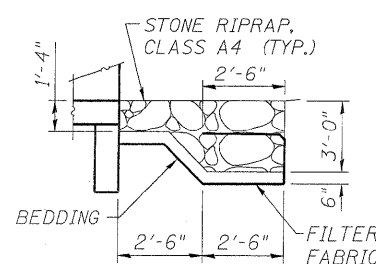
AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 2002

DESIGN STRESSES

FIELD UNITS	PRECAST UNITS
$f'_c = 3,500$ psi	$f'_c = 5,000$ psi
$f_y = 60,000$ psi (REINFORCEMENT)	$f_y = 65,000$ psi (WWF)
	$f_y = 60,000$ psi (REINFORCEMENT)

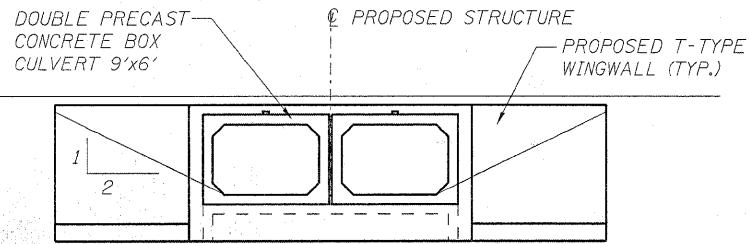
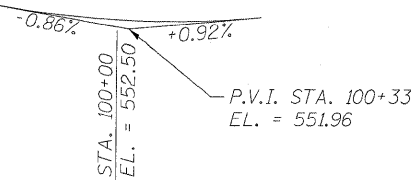
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Horizontal Bedrock Acceleration Coefficient (A) = 3.5%g
Site Coefficient (S) = 1.0



SECTION THRU RIPRAP

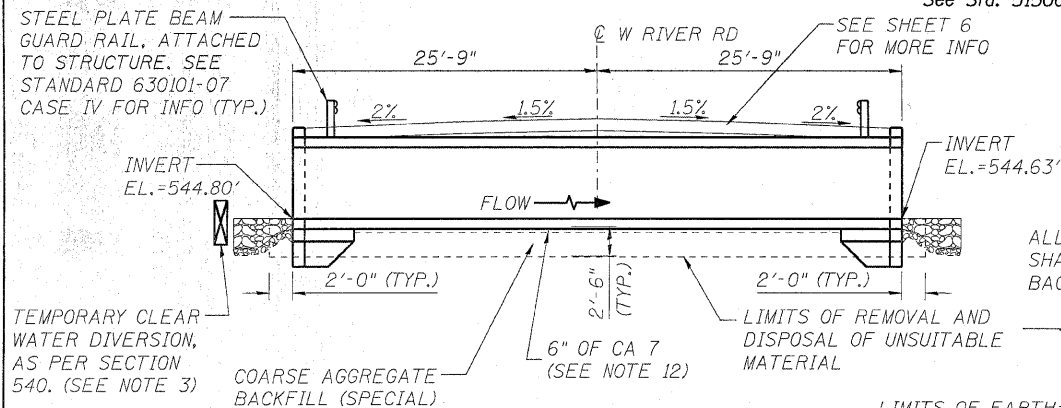
**PROFILE GRADE
(ALONG @ ROADWAY)**



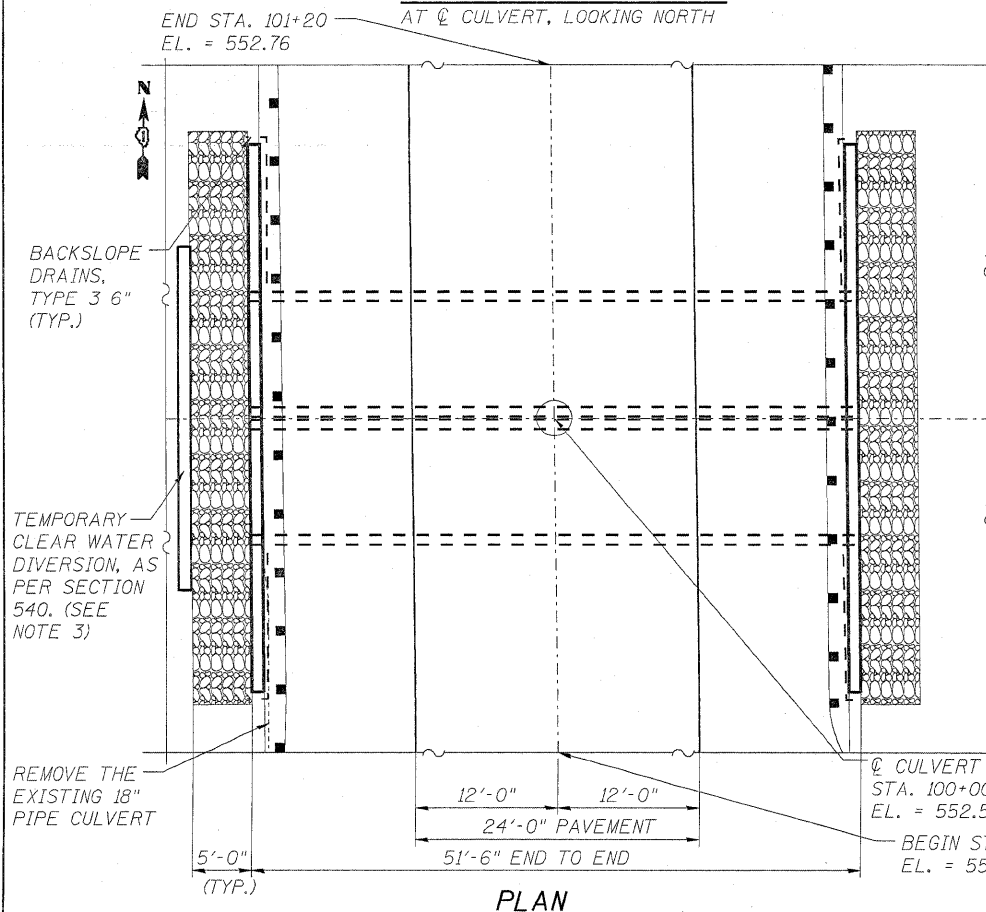
DOWNSTREAM END ELEVATION

STATION 100+00 (PROJECT)
BUILT 20XX BY
STATE OF ILLINOIS
F.A.U. ROUTE 0327 SEC. 112 T-1
LOADING HS20-44
STR. NO. 099-0521

NAME PLATE
See Std. 515001



**LONGITUDINAL SECTION
AT @ CULVERT, LOOKING NORTH**



PLAN

DESIGNED -	ST
CHECKED -	WHE
DRAWN -	ST
CHECKED -	WHE

LOWCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

SHEET NO. S1 OF S3 SHEETS SECTION 112 T-1 COUNTY WILL TOTAL SHEETS 17 SHEET NO. 11 CONTRACT NO. 60G54