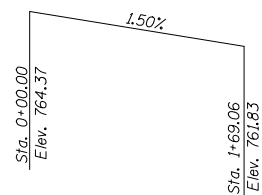


EXISTING STRUCTURE: No Existing Structure

BENCHMARK ELEV. = 759.26 Chiseled square in top center of west headwall of 24" x 18" concrete box culvert at approx. Sta. 379+93, 30' LT.

**General Notes**

See 'Double Cell Precast Box Culvert End Sections' for end section details.



**Profile Grade**  
Along  $\phi$  TR 547 Roadway

STATION 0+76.31  
BUILT 2011 BY  
STATE OF ILLINOIS  
F.A.P. RT. 71 SEC. 121R  
LOADING HS 20  
STRUCTURE NO. 057-2048

**NAME PLATE**  
See Std. 515001

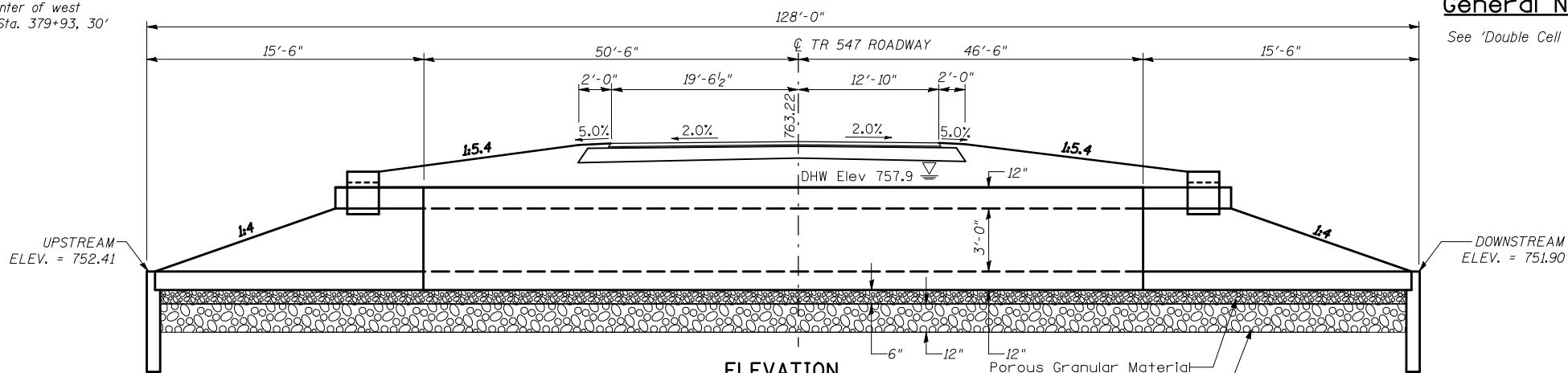
**DESIGN SPECIFICATIONS**  
2002 AASHTO

**LOADING HS20-44**  
Allow 50#/sq.ft. for future wearing surface

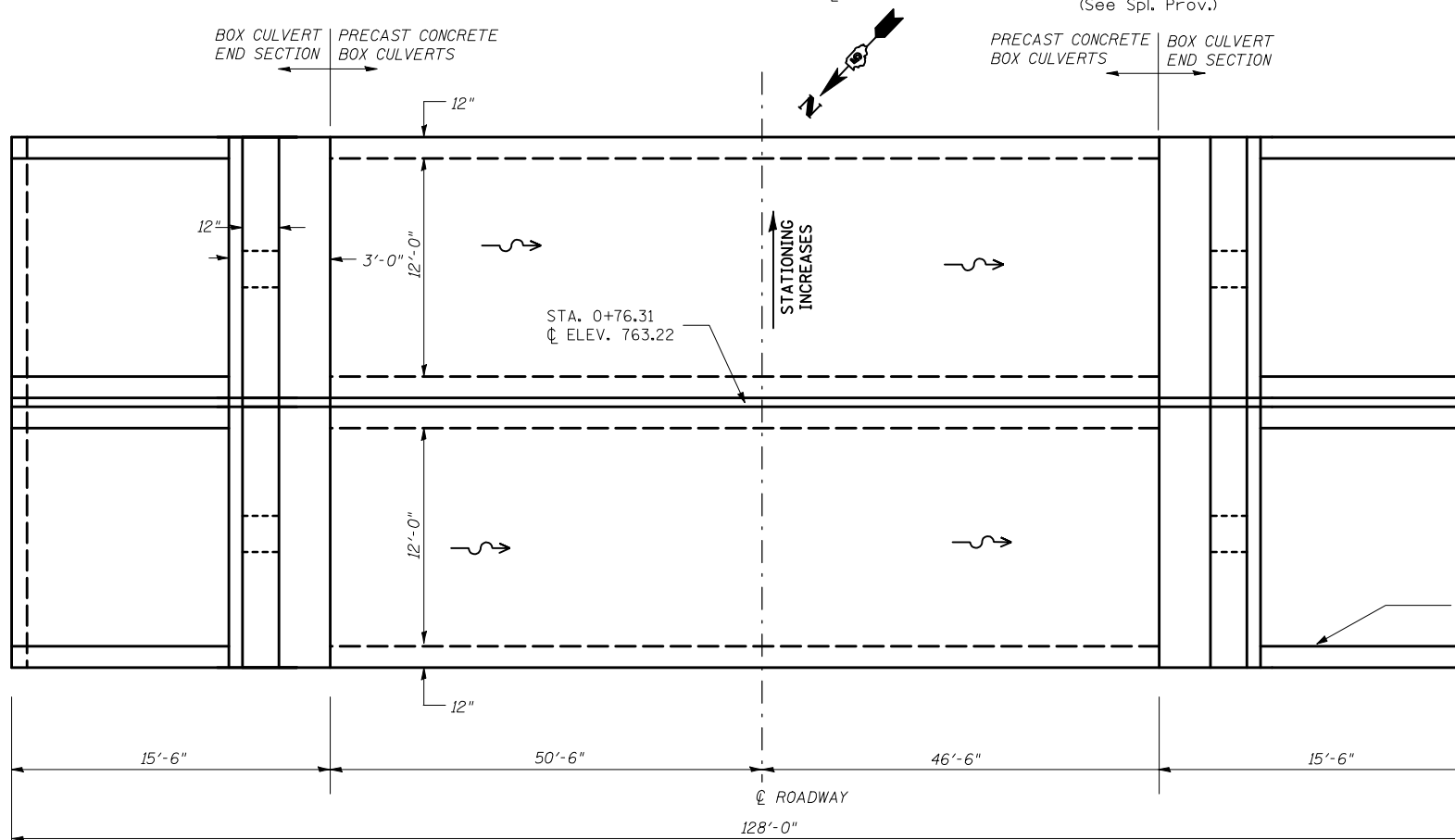
**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 65,000$  psi (welded wire fabric)

**PRECAST UNITS**  
 $f'_c = 5,000$  psi  
 $f_y = 65,000$  psi (welded wire fabric)



**ELEVATION**  
(DIMENSIONS AT RIGHT ANGLES TO  $\phi$  OF ROADWAY)



**PLAN**

**WATERWAY INFORMATION TABLE**

Route: TR 547	Existing S.N.: SLD 6.68 LT - No Structure Exists
Section: 121R	Proposed S.N.: 057-2048
County: McLean	Waterway: Unnamed Tributary of Salt Creek
Date: 4/30/2009	By: GMS

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.	Head - Ft.		Headwater Elevation	
			Existing	Proposed		Existing	Proposed	Existing	Proposed
	10	244	N/A	72	N/A	N/A	N/A	N/A	756.6
Design	50	414	N/A	72	N/A	N/A	N/A	N/A	757.9
Base	100	493	N/A	72	N/A	N/A	N/A	N/A	758.5
Overtopping									
Max. Calc.	500	688	N/A	72	N/A	N/A	N/A	N/A	760.0

10 YEAR VELOCITY THROUGH EXISTING BRIDGE : N/A

10 YEAR VELOCITY THROUGH PROPOSED BRIDGE : 3.39 ft/s

**Design Scour Elevation Table**

Design Scour Elevation (ft.)	Upstream	Downstream
	749.41	748.91

**TOTAL BILL OF MATERIAL**

Item	Unit	Total
Removal of Existing Structures No. 2	Each	1
Precast Concrete Box Culverts 12'x3'	Foot	194
Box Culvert End Sections, Culvert No.2	Each	2
Name Plates	Each	1

**GENERAL PLAN AND ELEVATION**  
**DOUBLE 12'x3' PRECAST BOX CULVERT**  
**F.A.P. ROUTE 71 - SECTION 121R**  
**MCLEAN COUNTY**  
**STATION 0+76.31 S.N. 057-2048**  
**CULVERT NO. 2**

