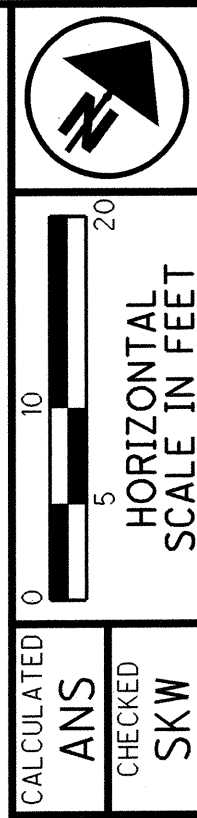
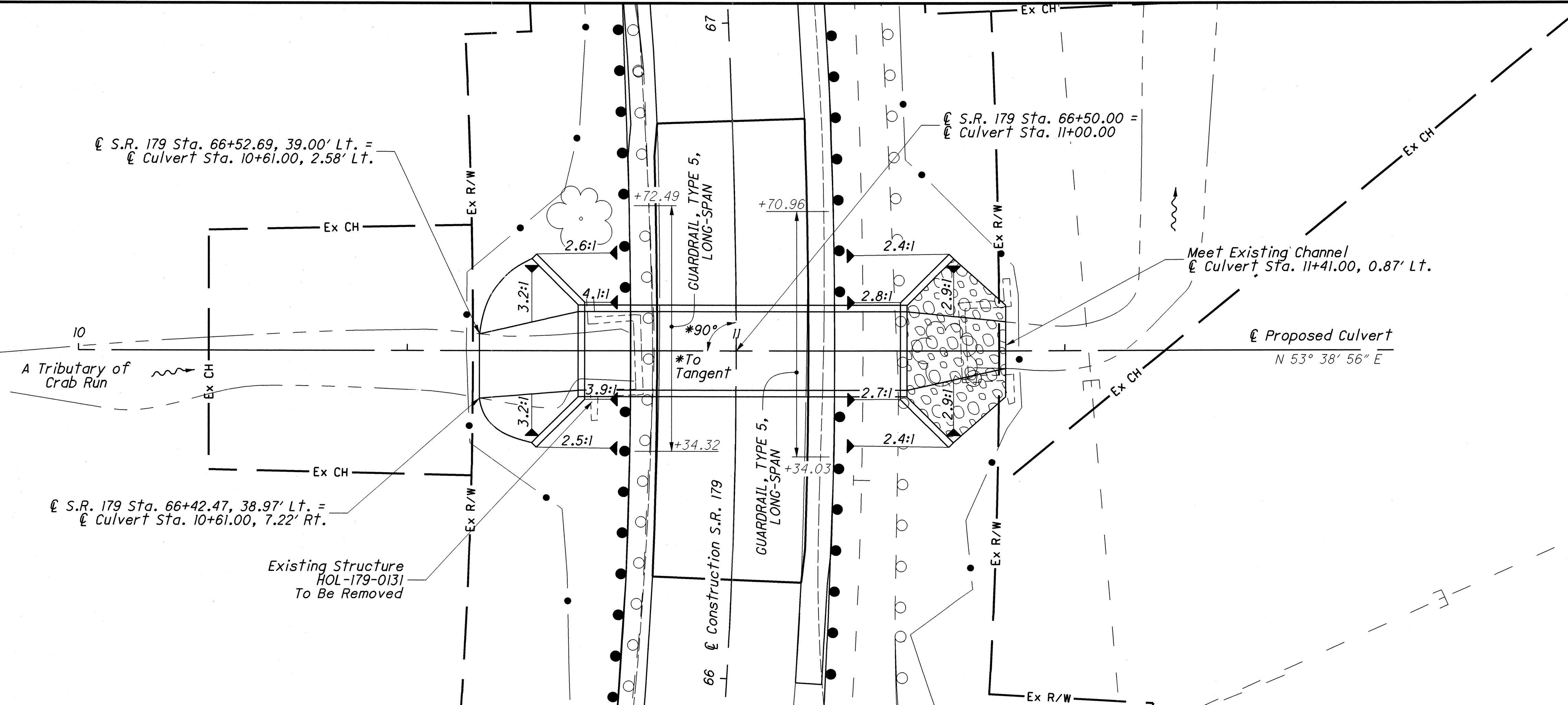
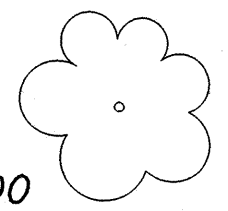


CURVE DATA

P.I. STA. 64+84.81
 $\Delta = 41^\circ 25' 55''$ (LT)
 $D_c = 10^\circ 00' 00''$
 $R = 572.96'$
 $L_s = 300.00'$
 $\theta_s = 15^\circ 00' 00''$
 $LT = 200.72'$
 $ST = 100.66'$
 $x = 297.95'$
 $y = 26.05'$
 $k = 149.66'$
 $p = 6.53'$
 $\Delta c = 11^\circ 25' 55''$ (LT)
 $L_c = 114.32'$
 $T_s = 368.81'$
 $E_s = 46.59'$
 TS Sta. 61+16.00
 SC Sta. 64+16.00
 CS Sta. 65+30.32
 ST Sta. 68+30.32

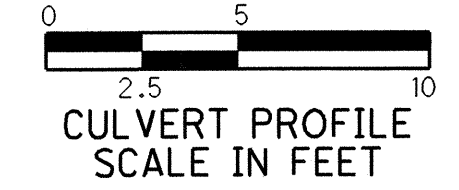


CULVERT PLAN AND PROFILE
1.31 CULVERT

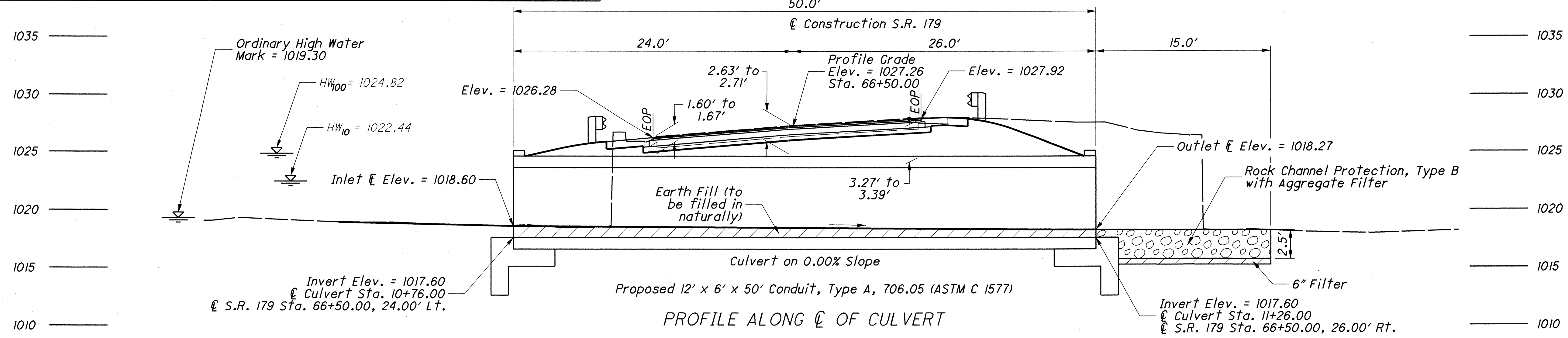
PROPOSED STRUCTURE DATA	EXISTING STRUCTURE DATA
TYPE: Prefabricated Reinforced Concrete Box Culvert	TYPE: Corrugated Metal Pipe Arch
SPAN LENGTH: 12.0' Along \mathcal{C}	SPAN LENGTH: 10.0' Along \mathcal{C}
ROADWAY WIDTH: 31.05' f/f Rail	ROADWAY WIDTH: 37.00' f/f Rail
LOADING: HL93	LOADING: H-15
SKEW: None	SKEW: None
ALIGNMENT: Curve Left	ALIGNMENT: Curve Left
CROWN: Superelevated	CROWN: Superelevated
WEARING SURFACE: Asphalt Concrete Pavement	WEARING SURFACE: Asphalt Concrete Pavement
STRUCTURAL FILE NUMBER: 3802086	STRUCTURAL FILE NUMBER: 3802078
APPROACH SLAB: None	APPROACH SLAB: None
	DATE BUILT: 1937

PROPOSED STRUCTURE DATA	EXISTING STRUCTURE DATA
TYPE: Prefabricated Reinforced Concrete Box Culvert	TYPE: Corrugated Metal Pipe Arch
SPAN LENGTH: 12.0' Along \mathcal{C}	SPAN LENGTH: 10.0' Along \mathcal{C}
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WEARING SURFACE: Asphalt Concrete Pavement	WEARING SURFACE: Asphalt Concrete Pavement
STRUCTURAL FILE NUMBER: 3802086	STRUCTURAL FILE NUMBER: 3802078
APPROACH SLAB: None	APPROACH SLAB: None
	DATE BUILT: 1937

CALCULATIONS
ITEM 601 - ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER
CADD AREA = 316.1 S.F.
$316.1 \text{ s.f.} \times 2.5' \div 27 = 29.3 \text{ C.Y.}$ (use 29 C.Y.)
Quantity Carried To General Summary



HYDRAULIC DATA		
DRAINAGE AREA = 397 Acres (0.62 sq. miles)		
DISCHARGE	VELOCITY	HEADWATER ELEVATION
$Q_{10} = 253 \text{ cfs}$	7.03 ft/s	1022.44
$Q_{100} = 503 \text{ cfs}$	10.72 ft/s	1024.82



PROFILE ALONG \mathcal{C} OF CULVERT

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 09-MAR-2009 10:48AM swirner

HOL-179-(0.67)
 (1.31)(1.67)