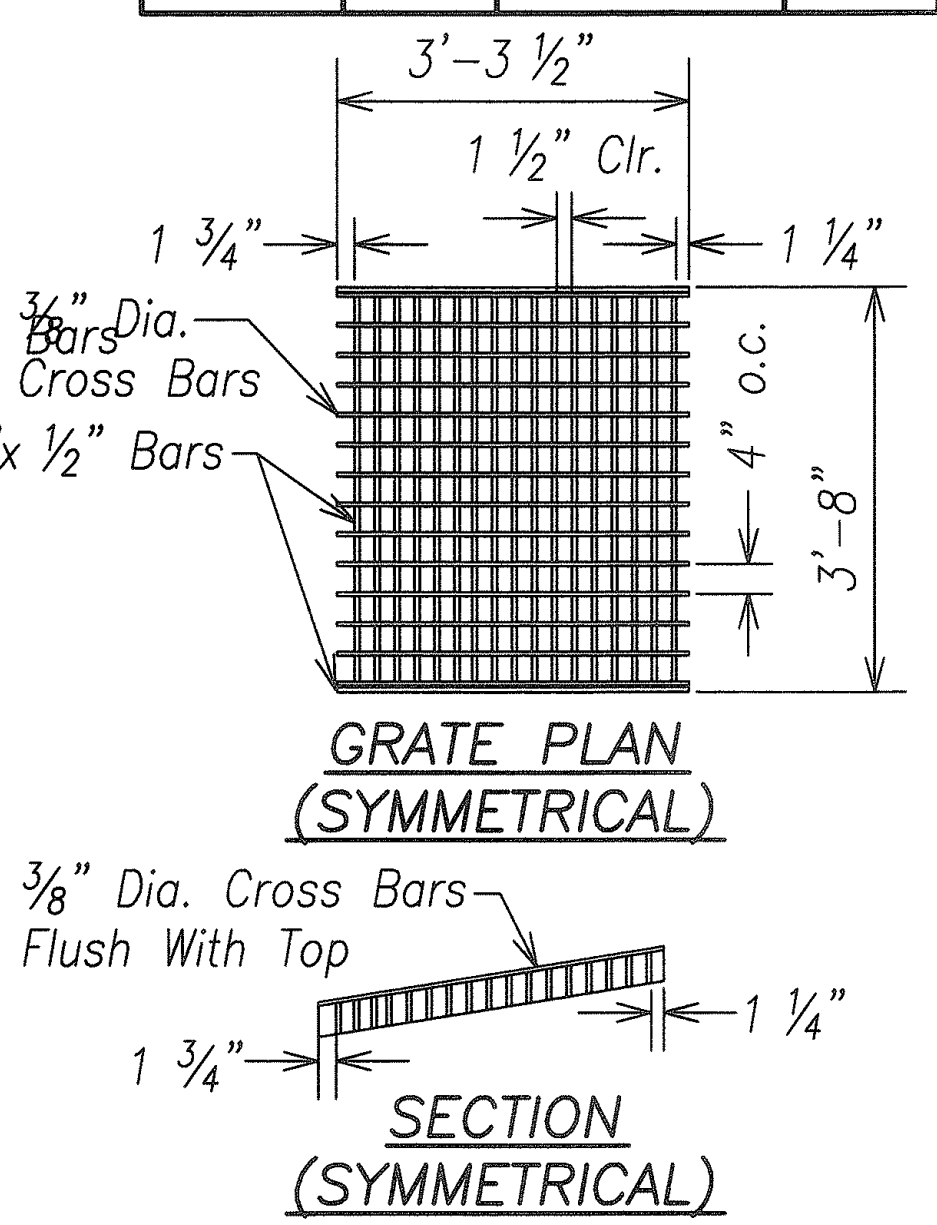
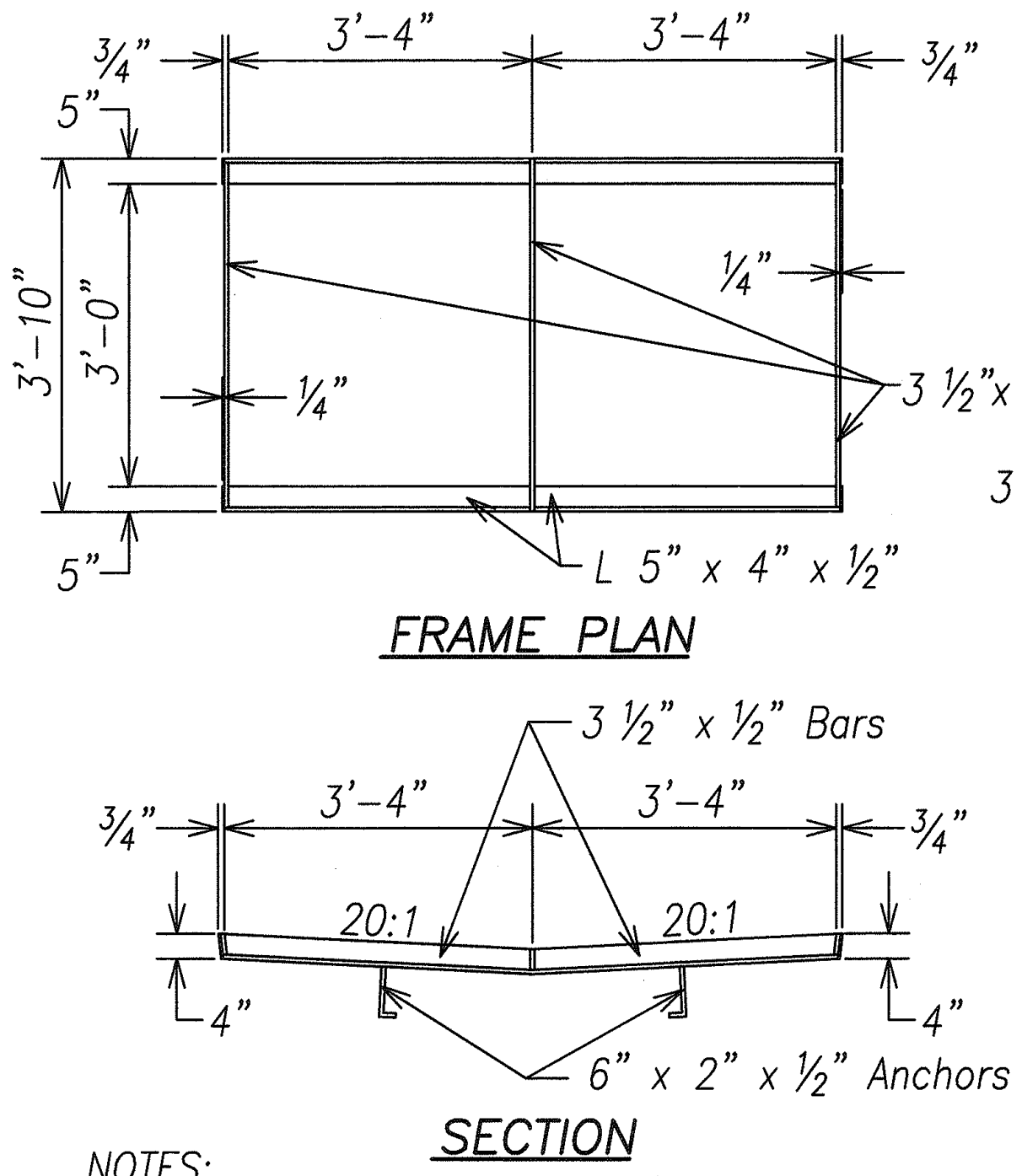
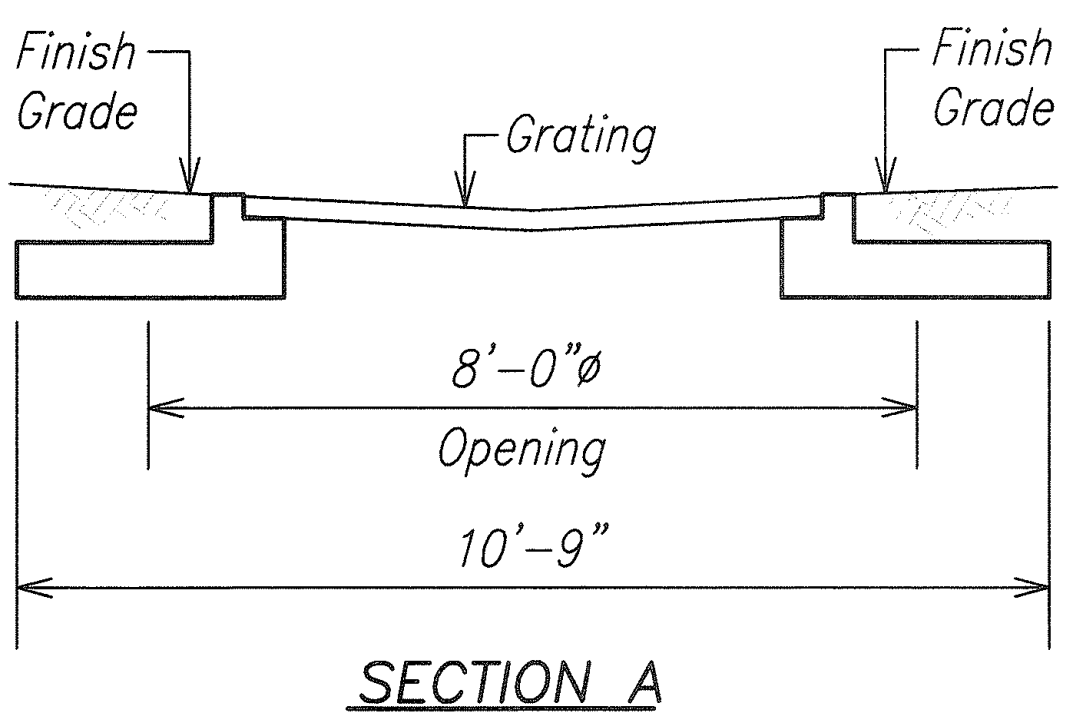
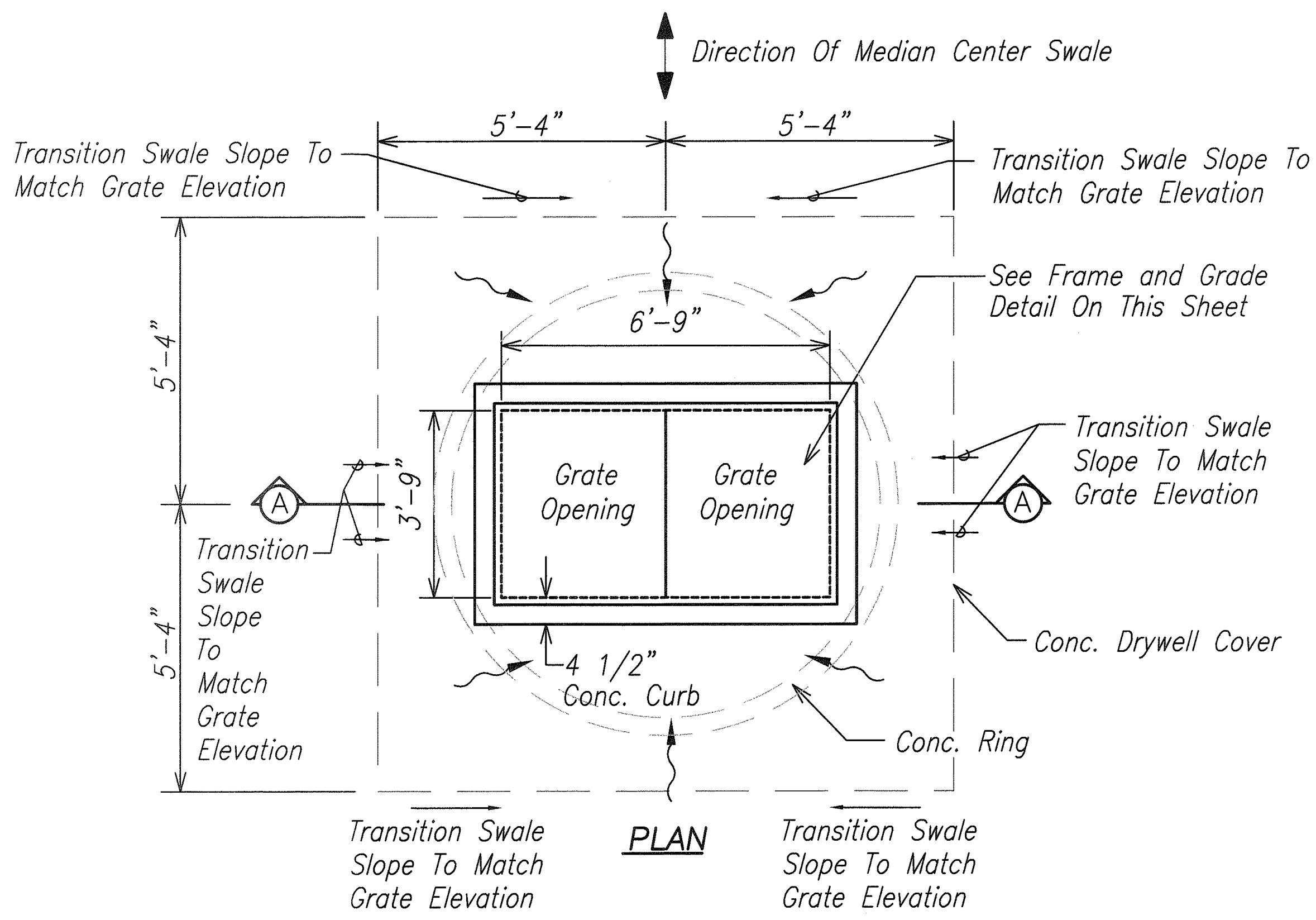


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(22)	2003	36	72



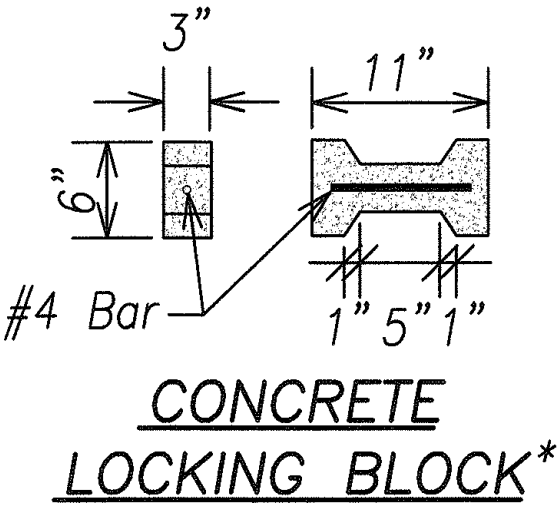
NOTES:

1. Frame and Grate Shown on This Sheet Are for Drywells Only. For Type 61616 Grated Drop Inlet (GDI), follow DOT Standard Plan H-12 and H-13 for 61616 Steel Frame and Grate.
2. Modify DOT Standard Plan H-12 Grate by Adding 3/8"Ø Cross Bars at 4" On Center Similar to Grate Plan, This Sheet.
3. Adjust Finish Grades to be Flush to the Top of GDI and Gratings.
4. See DOT Standard Plan H-13 for Details Not Shown.

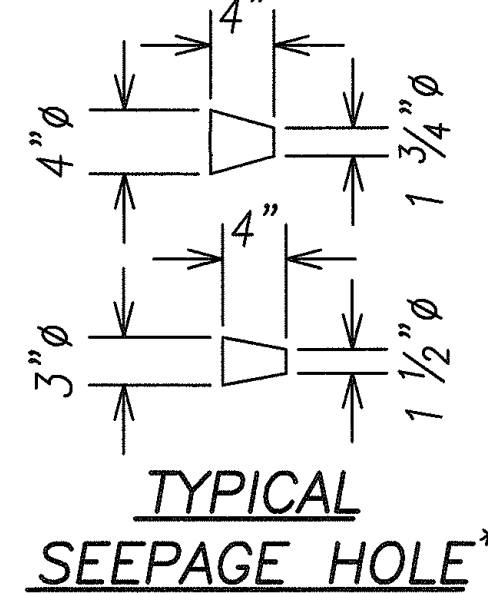
FRAME AND GRATE
Not to Scale

NOTES FOR PRECAST REINFORCED CONCRETE RINGS:

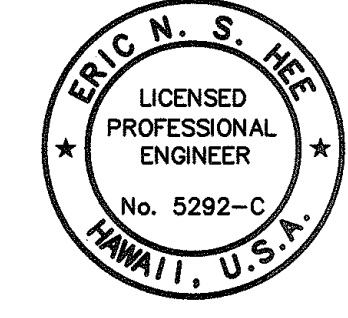
1. All Concrete and Reinforced Concrete Work Shall be Done in Accordance with Applicable Provisions of the American Concrete Institute Building Code Requirements for Reinforced Concrete (ACI 318-89) As Specified Herein.
2. Concrete Compressive Strength: 4000 PSI in 28 Days.
3. Cement Shall Conform to the Requirements of the Current "Standard Specification for Portland Cement" ASTM Designation C-150.
4. Mixing: Ready Mix ASTM C-94.
5. Reinforcing Steel Shall be Deformed, Intermediate Grade, Conforming To the Current "Standard Specifications for Billet-Steel Bars for Concrete Reinforcements", ASTM A615, Grade 60.
6. Wire Strand Shall Conform to ASTM A416 and Have a Strength of 270 ksi.



CONCRETE LOCKING BLOCK*



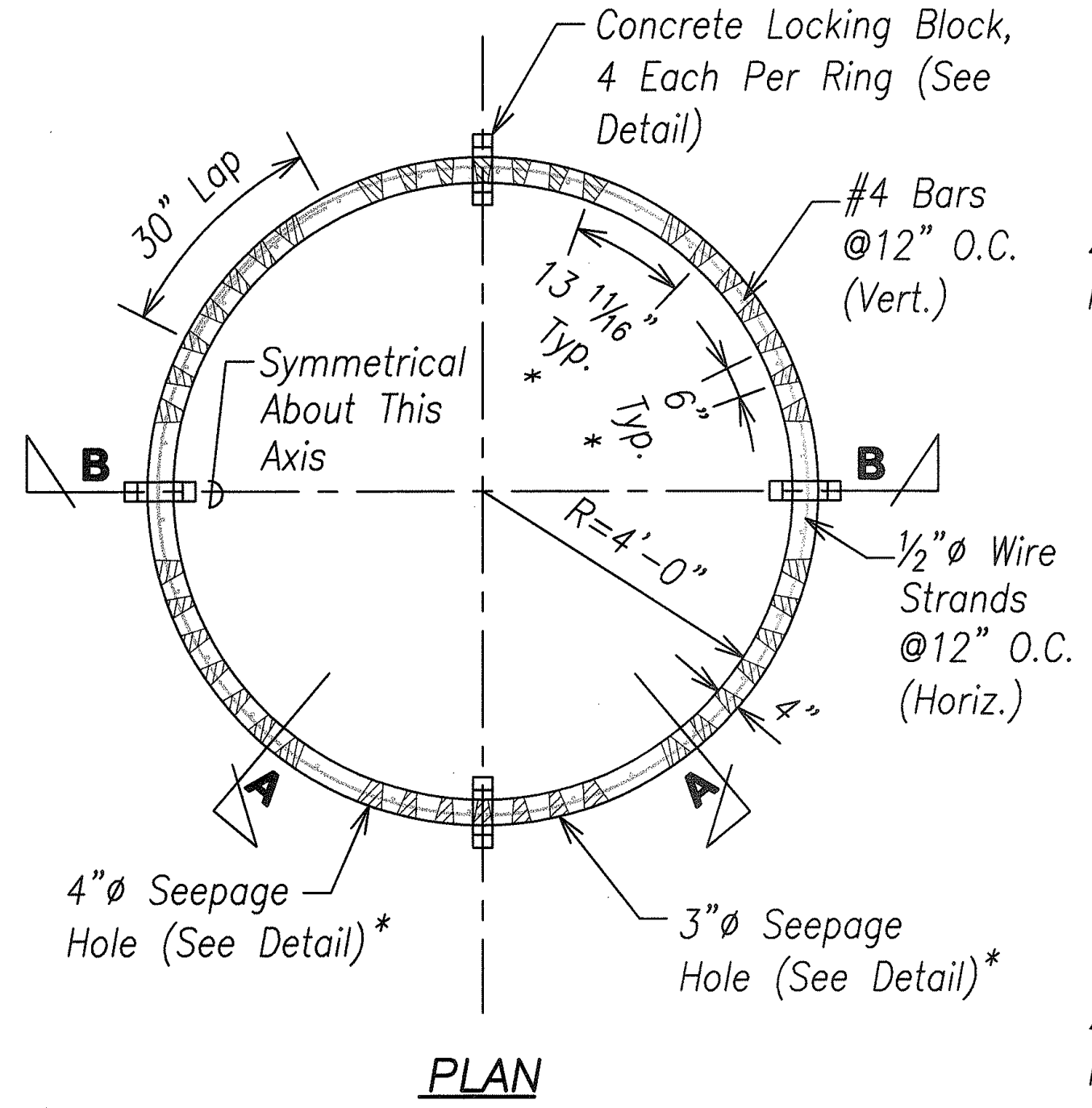
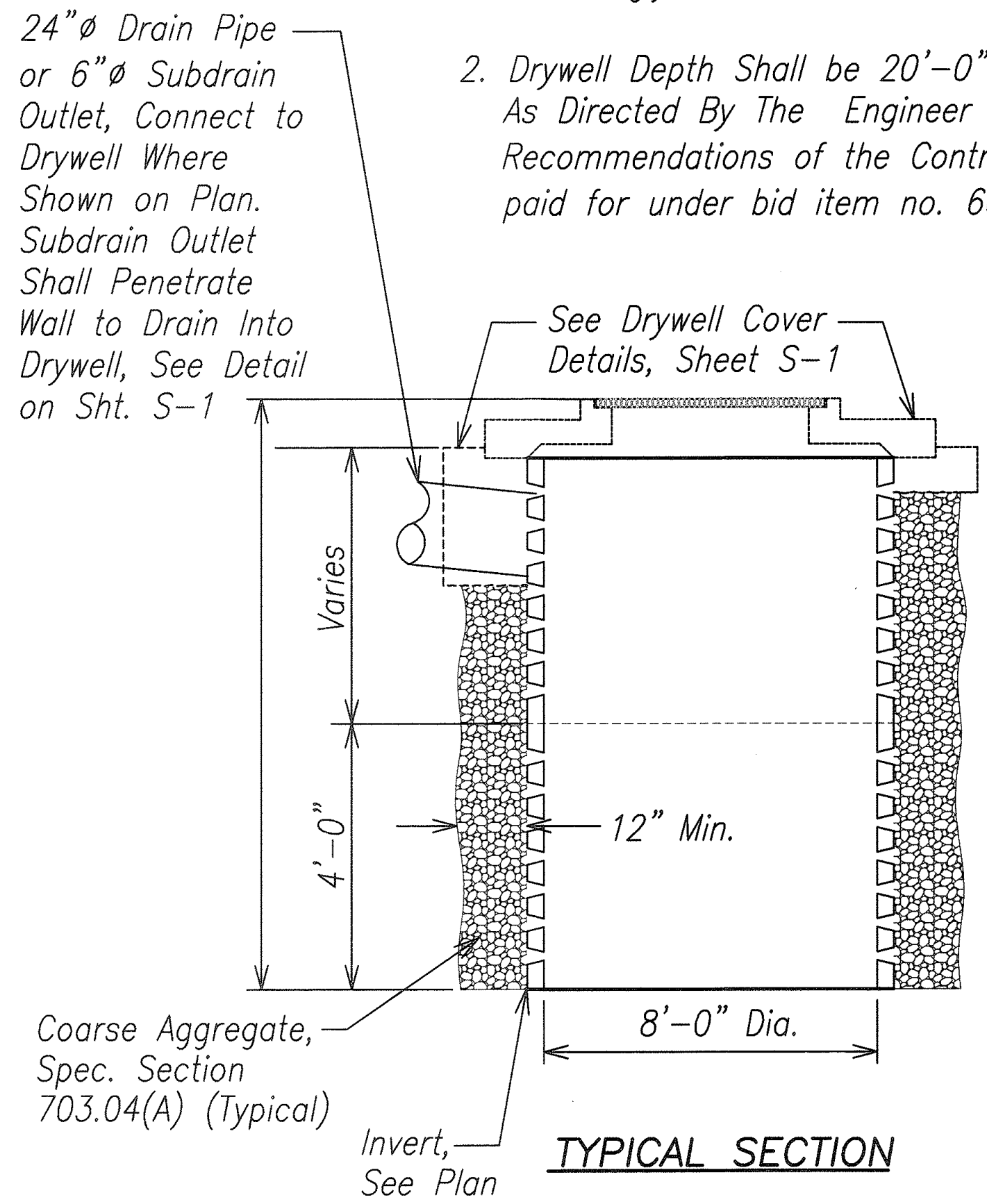
*Adjust Dimensions to Suit Manufacturer's Specifications.



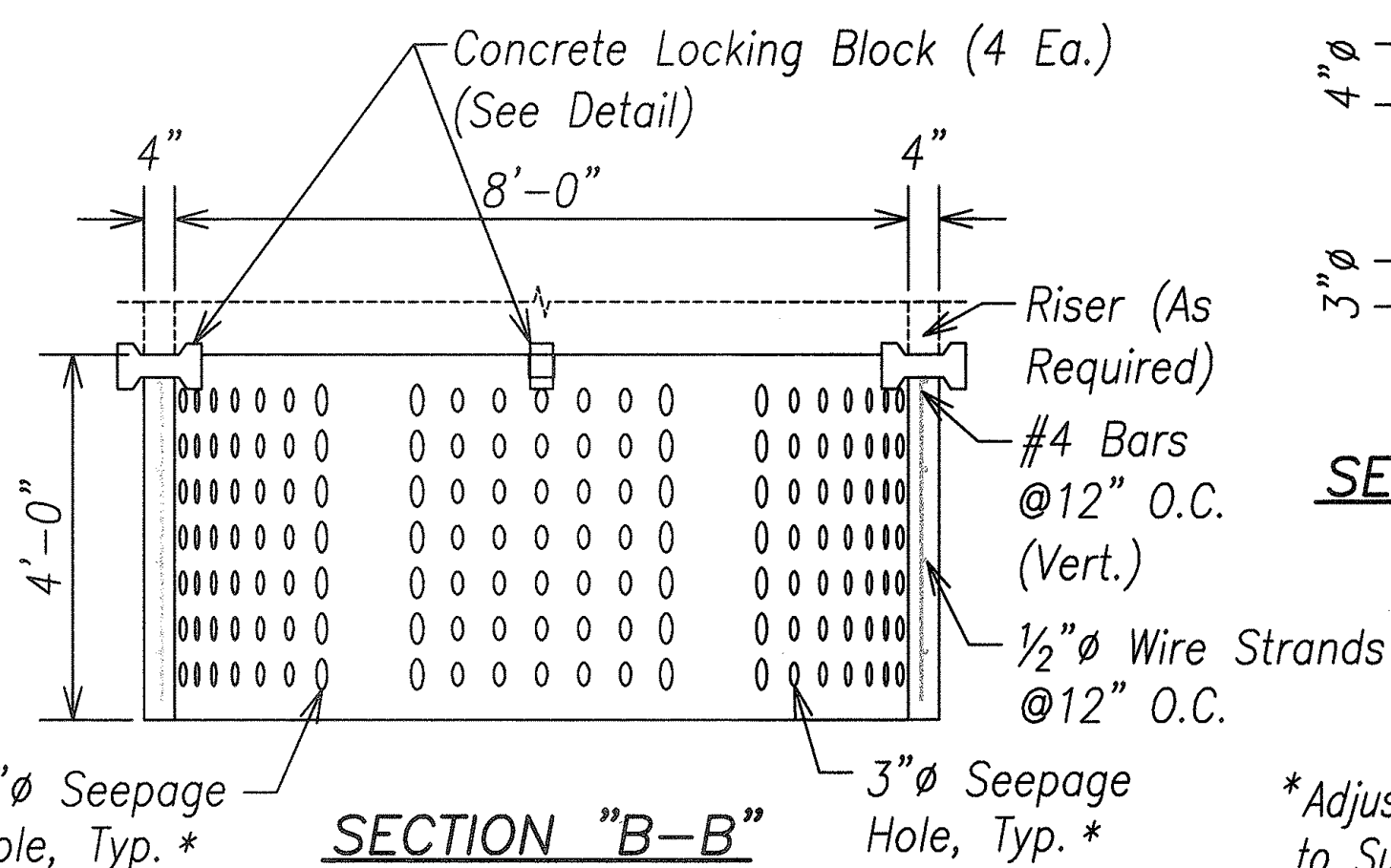
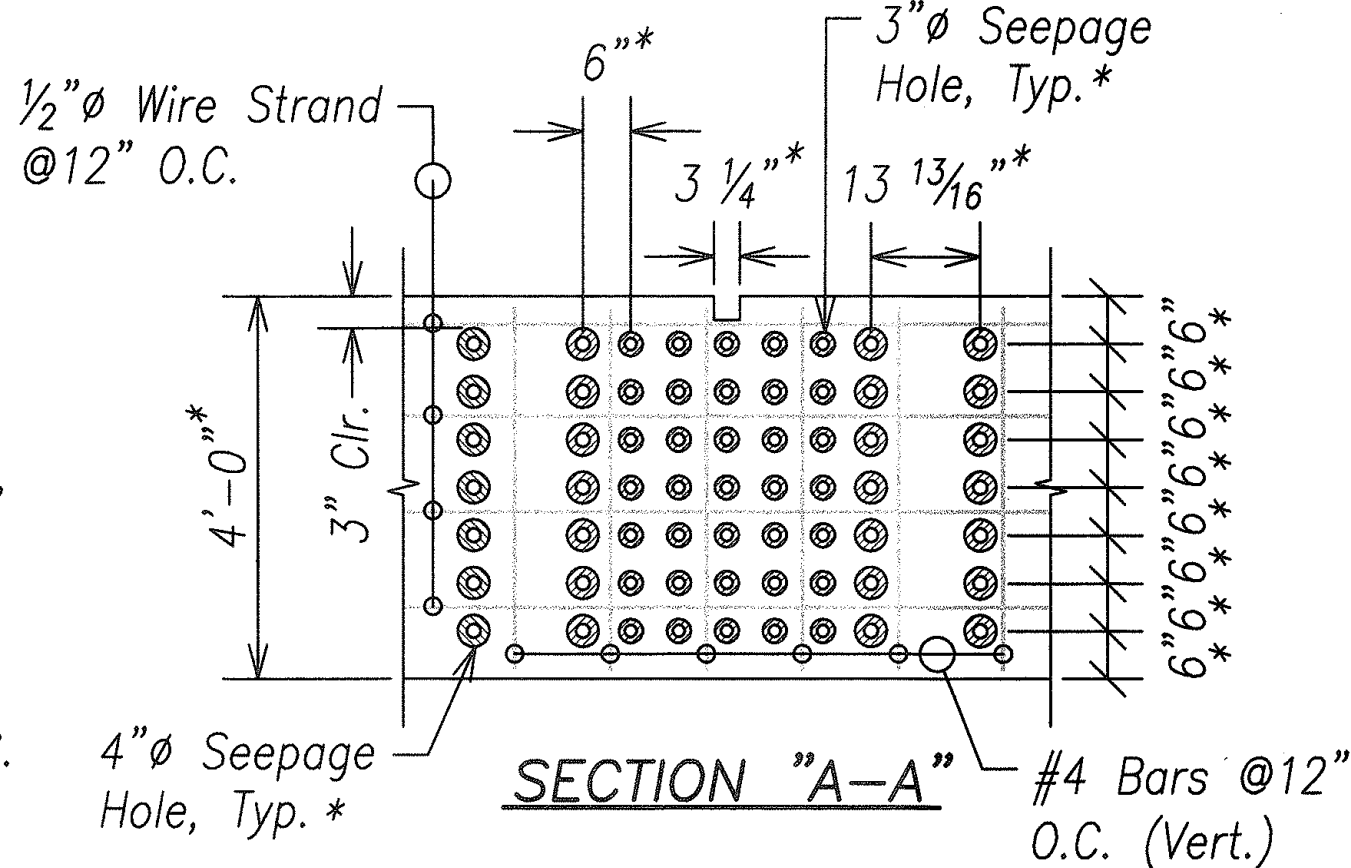
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Eric N. S. Hee
ENGINEERS SURVEYORS HAWAII, INC.
LICENSE EXPIRATION DATE: 4/30/04

Notes:

1. Boulders and Hard Rock Excavations are Anticipated for the Construction of Drywells. Contractor Shall Make His Bid Proposal Accordingly.
2. Drywell Depth Shall be 20'-0" But May be More Or Less Deep As Directed By The Engineer Upon Consideration of the Recommendations of the Contractor's Geologist. Geologist shall be paid for under bid item no. 604.7020 "Geologist Services."



PRECAST REINFORCED CONCRETE RING DETAILS
Not to Scale



SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

J:\94-56 FAD01 drywell.dwg (ESH-1) 1=1 2/5/03 lk

2/5/03	REVISED DRYWELL AND GRATING DETAILS
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRYWELL & GRATING DETAILS	
HALEAKALA HIGHWAY WIDENING, PHASE I HANA HIGHWAY TO PUKALANI BYPASS FED. AID PROJ. NO. NH-037-1(22)	
SCALE: AS NOTED	DATE: NOV., 2002
SHEET No. H-1 OF 1 SHEETS	