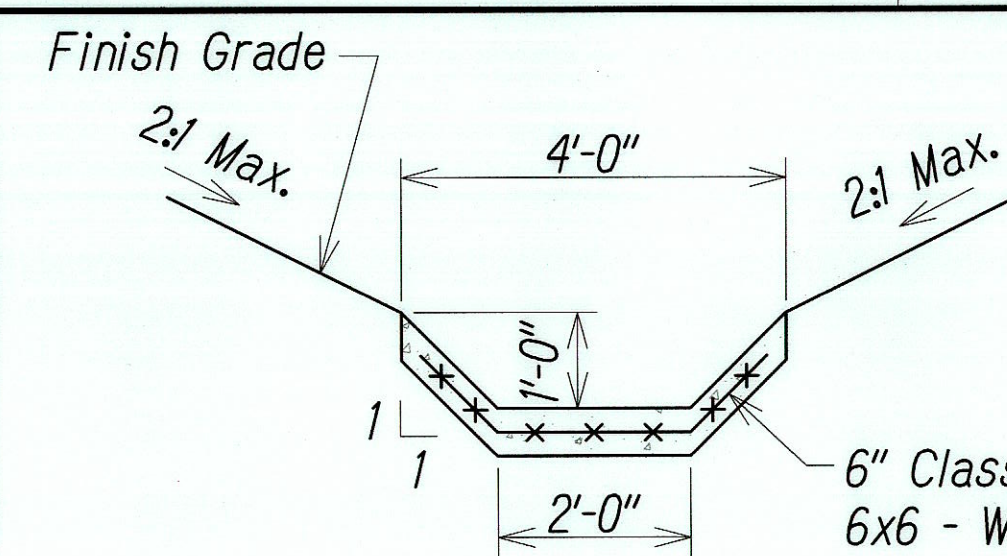
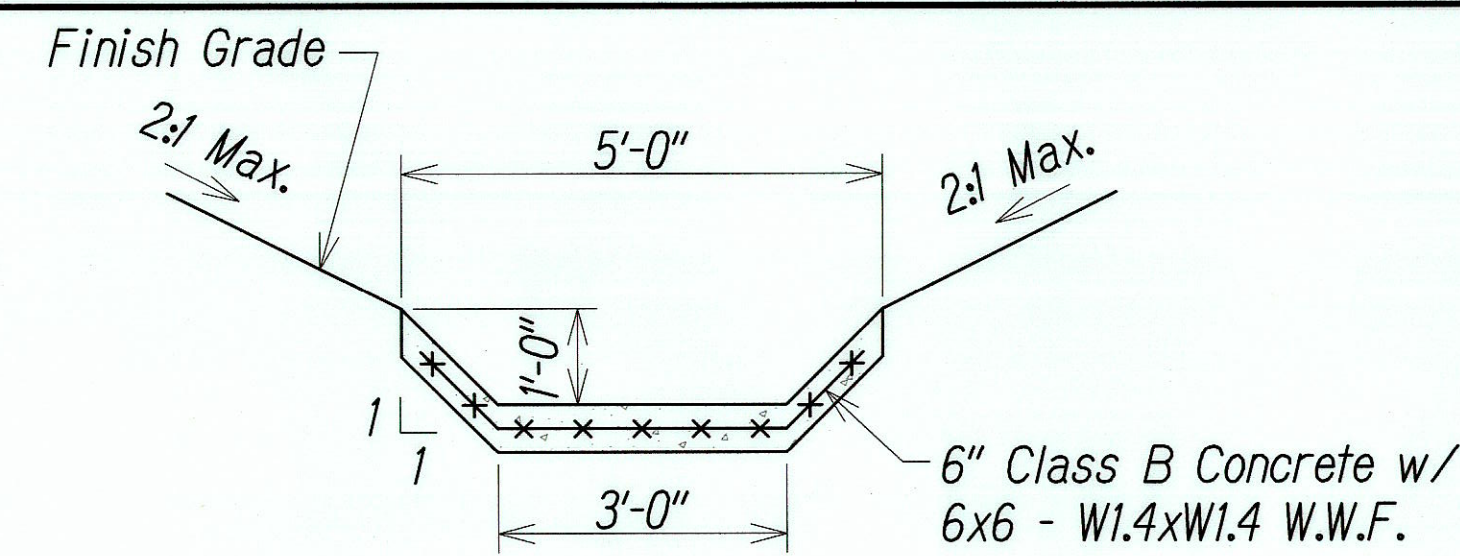


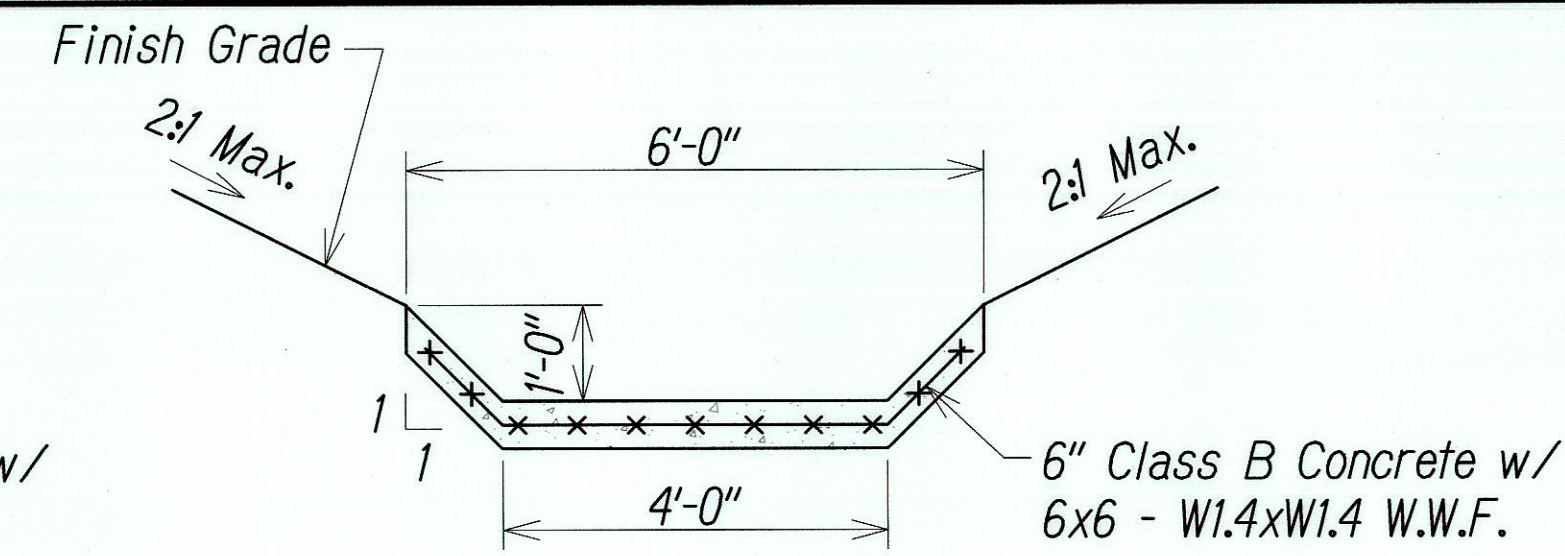
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-030-1(38)	2010	83	213



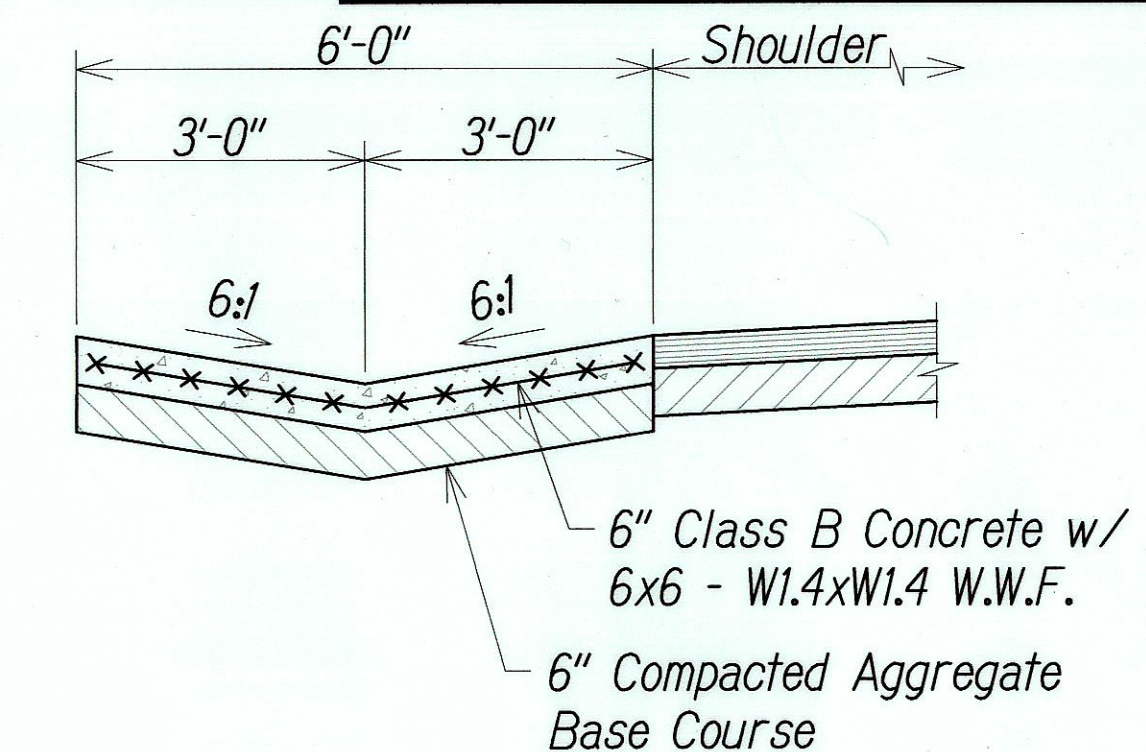
4' CONC. INTERCEPTOR DITCH
Not to Scale



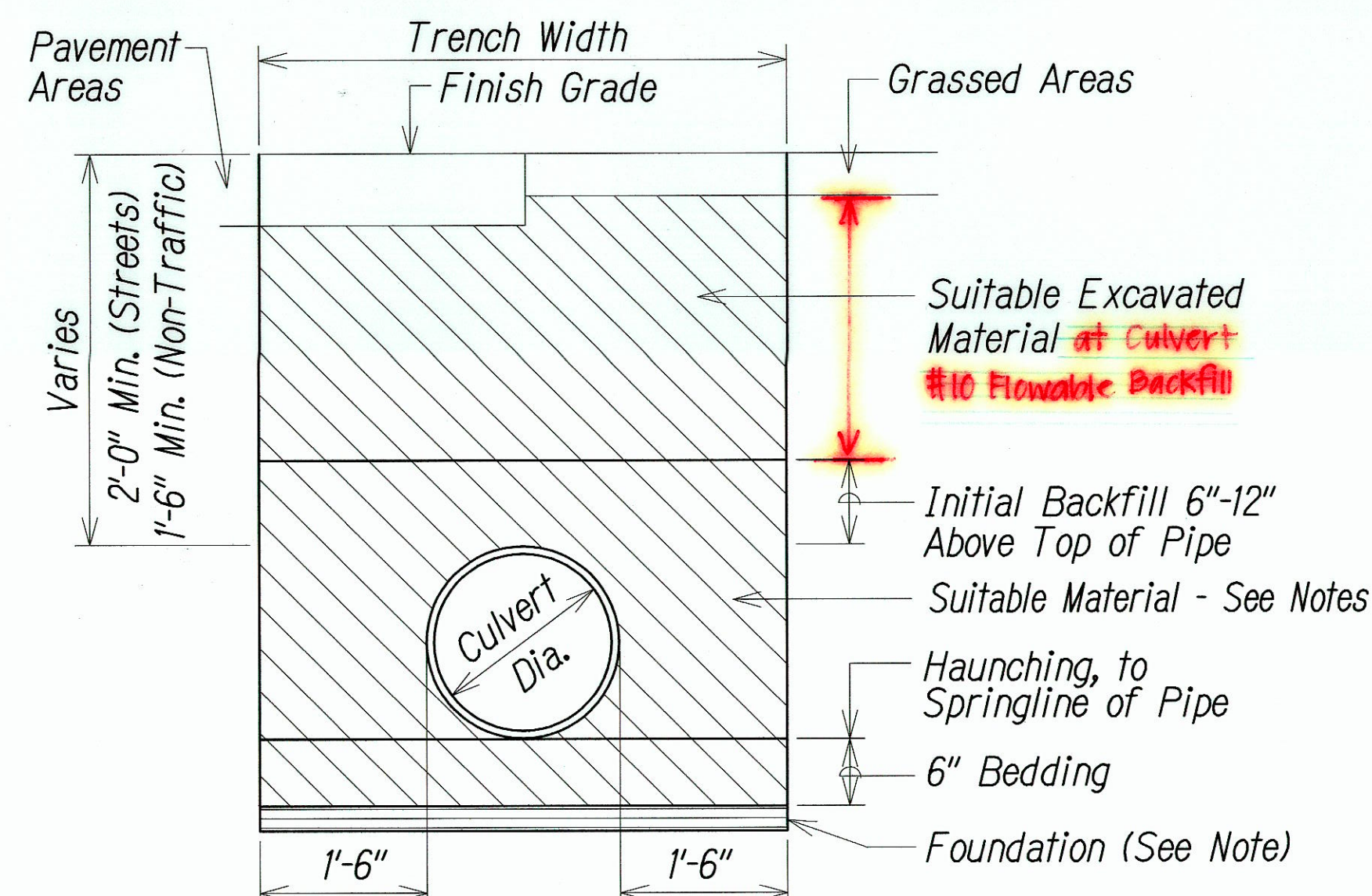
5' CONC. INTERCEPTOR DITCH
Not to Scale



6' CONC. INTERCEPTOR DITCH
Not to Scale



GUTTER TYPE 2 (61616)
Not to Scale

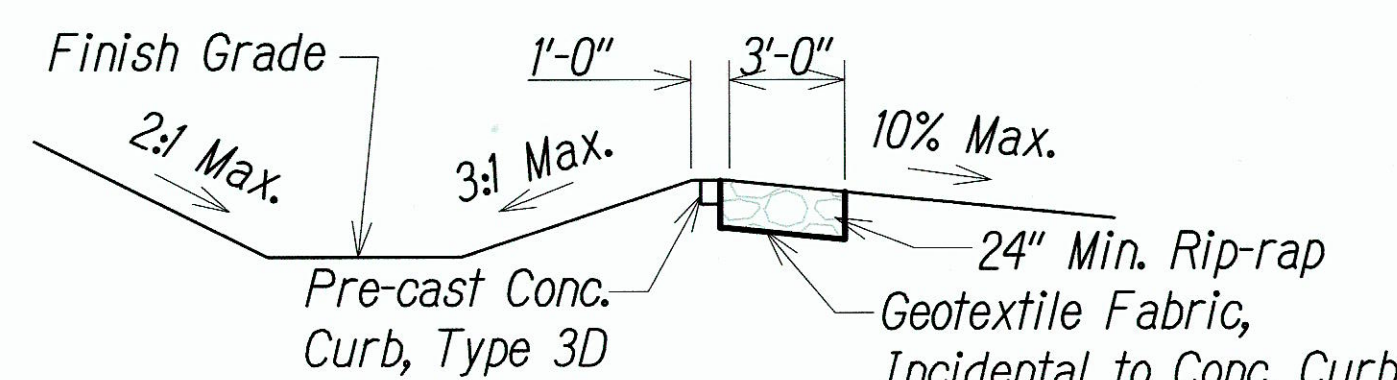


**TYPICAL TRENCH DETAIL
STORM DRAIN**
Not to Scale

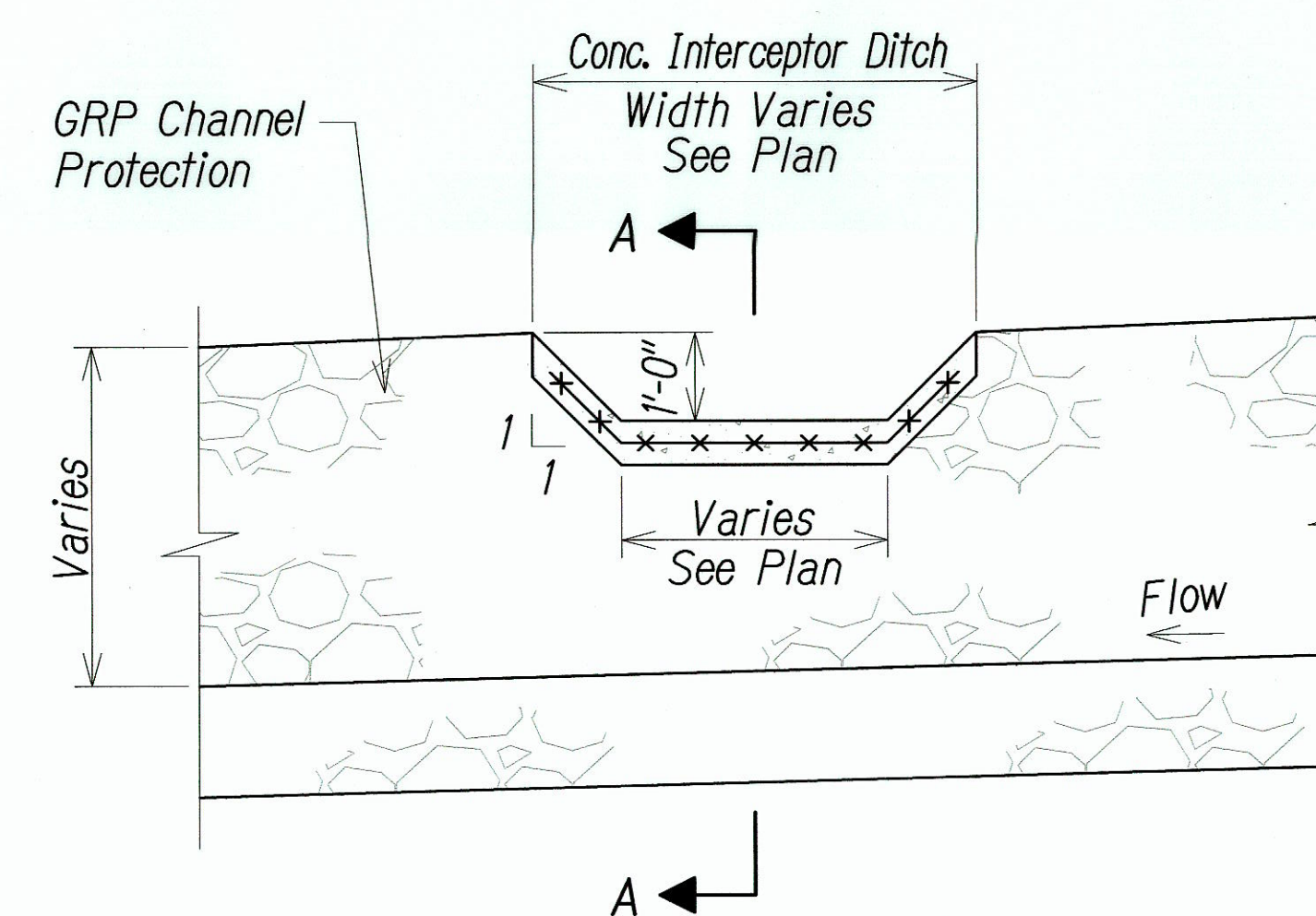
- Notes:**
- Foundation:** Where the trench bottom is unstable, the Contractor shall excavate to a depth required by the Engineer and replace with a foundation of Class I or II material as defined in ASTM D2321, "Standard Practice for Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications," latest edition; as an alternative and at the discretion of the Engineer, the trench bottom may be stabilized using a woven geotextile fabric.
 - Bedding:** Suitable material shall be Class I, II or III and installed as required in ASTM D2321, latest edition. the minimum bedding thickness shall be 6".
 - Haunching and Initial Backfill:** Suitable material shall be Class I, II or III and installed as required in ASTM D2321, latest edition.
 - Unless otherwise specified on the plans, minimum trench widths shall be as follows:

Nominal Ø in	Min. Recommended Trench Width, in
24	48
30	66

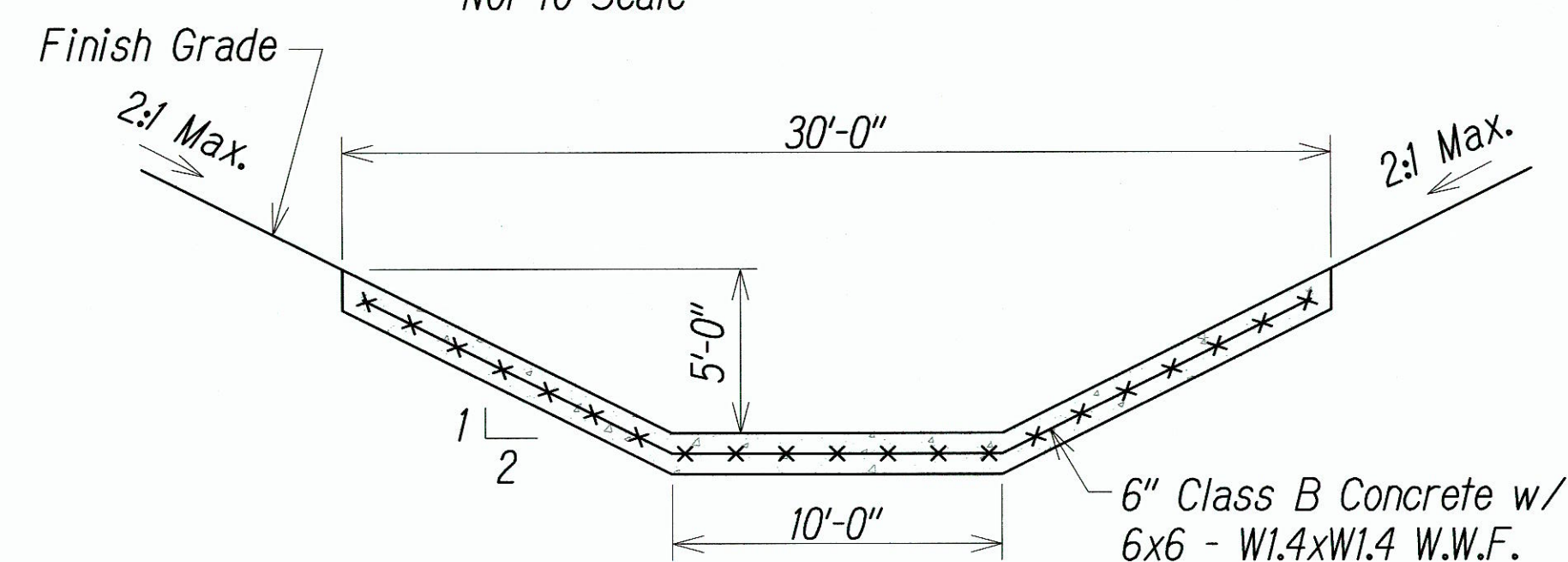
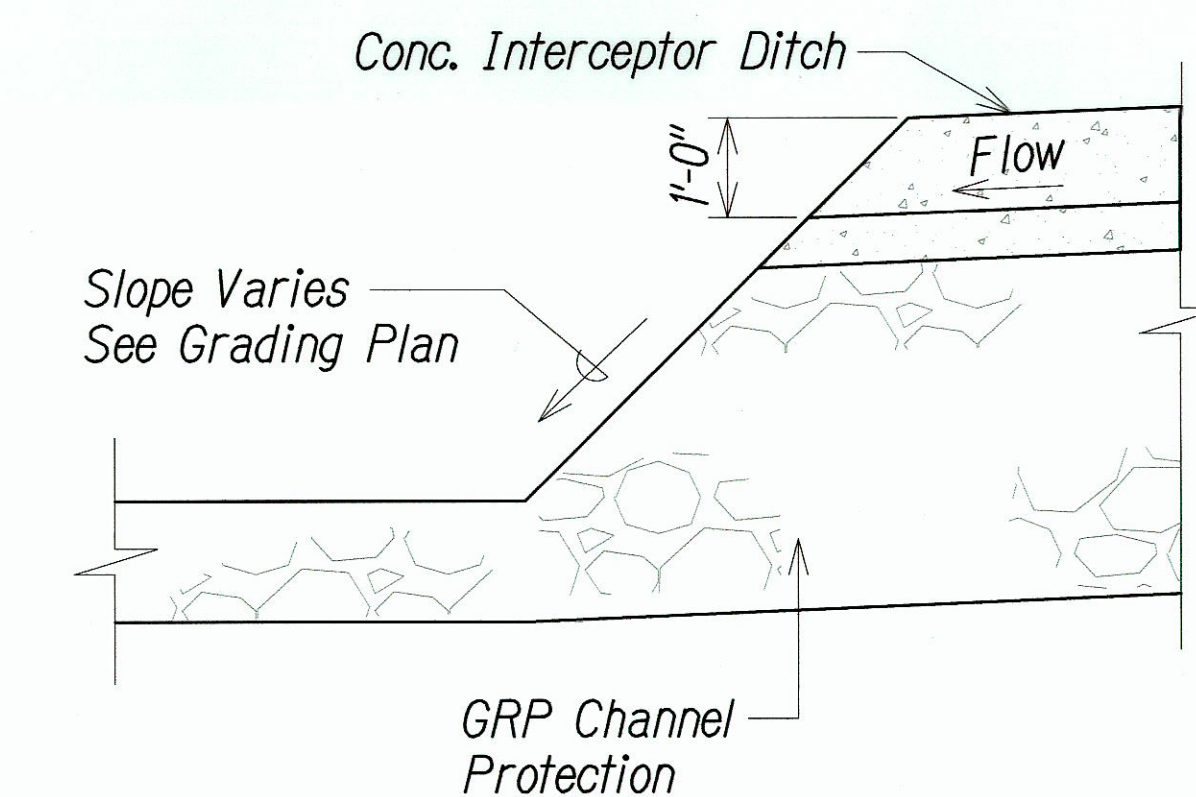
- For all ditches and gutters, provide contraction joint every 15 ft.



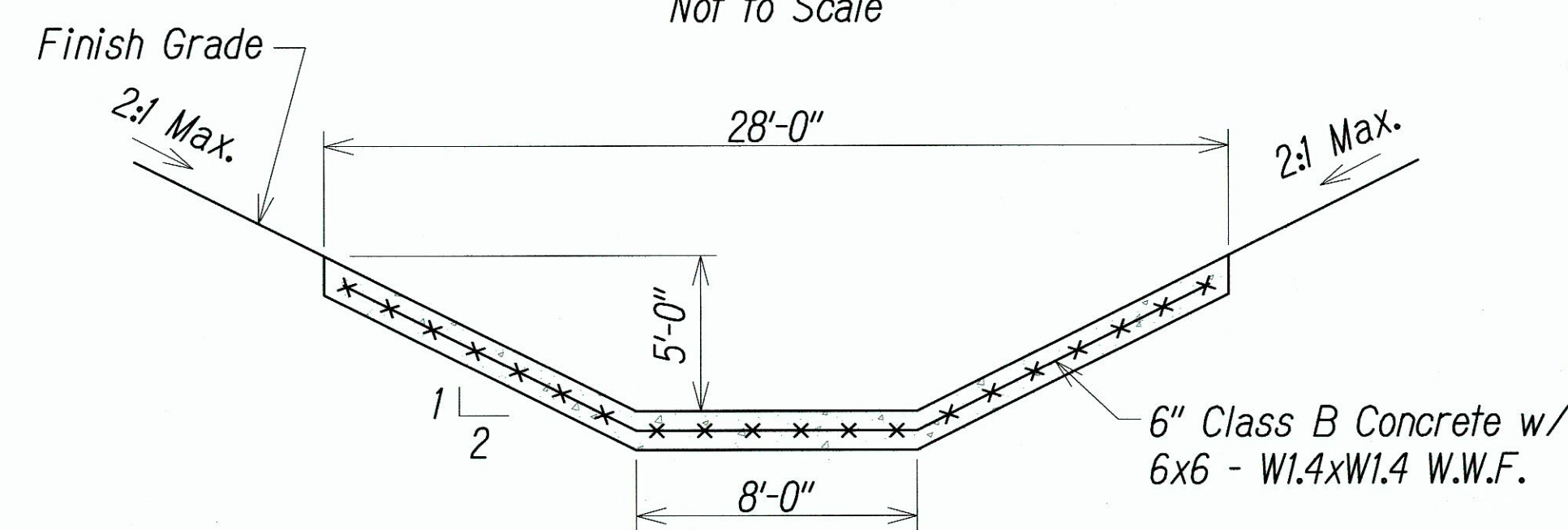
LEVEL SPREADER DETAIL
Not to Scale



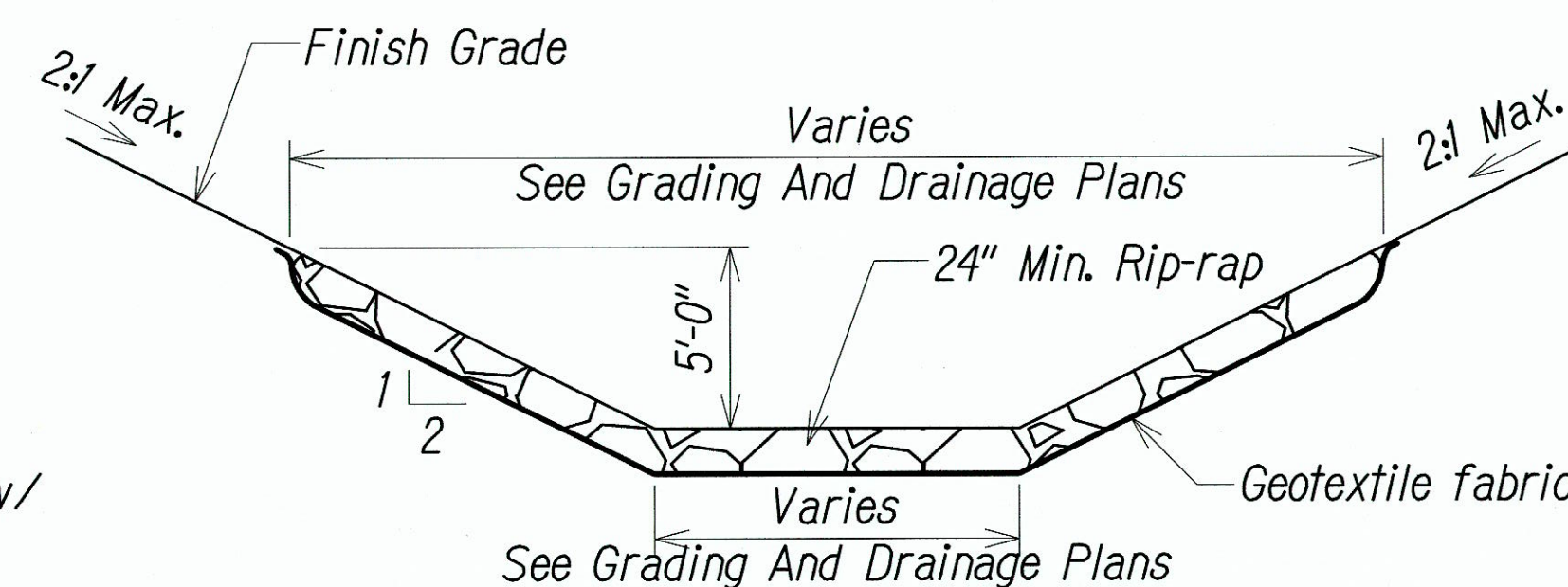
**TYPICAL CONC. INTERCEPTOR DITCH
CONNECTION TO GRP CHANNEL PROTECTION**
Not to Scale



DIVERSION DITCH 1, 3, & 4
Not to Scale

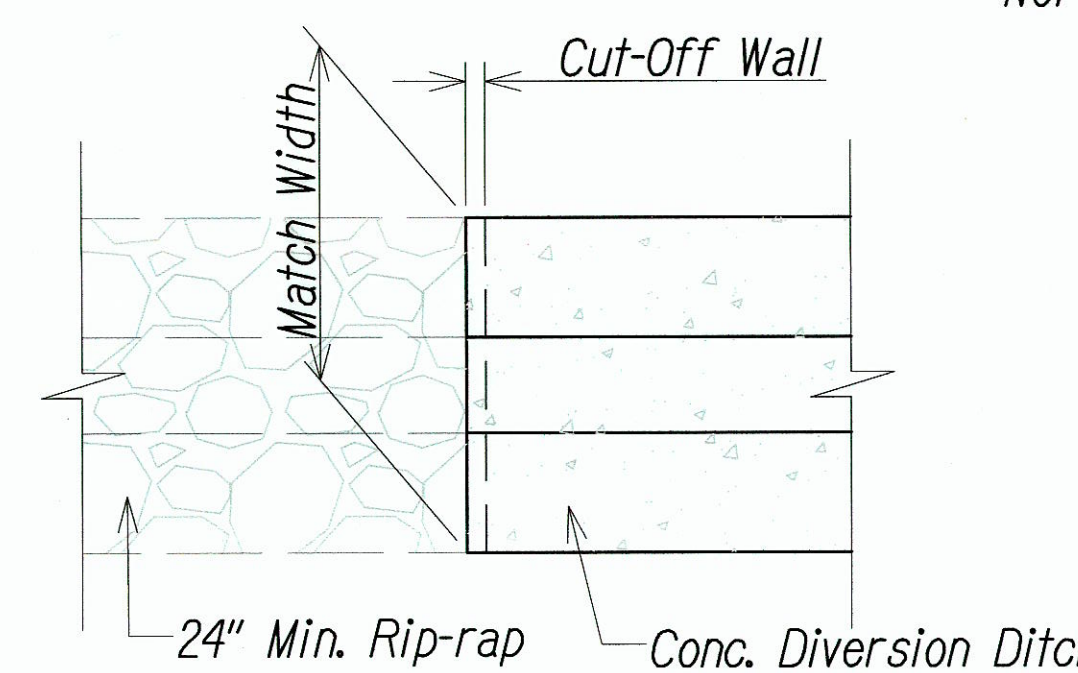


DIVERSION DITCH 2
Not to Scale



RIP-RAP DETAIL
Not to Scale

Note:
Refer to Standard
Specification, Section 615 For
Machine-Laid Rip-Rap Size



**RIP-RAP APRON AND DIVERSION DITCH
CUT-OFF WALL CONNECTION DETAIL**
Not to Scale



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION

DATE	REVISION
1/18/10	ADD Level Spreader Detail
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRAINAGE DETAILS	
HONOAPIILANI HIGHWAY REALIGNMENT, PHASE 1B-1 Lahaina Rd. to Hokiokio Pl. Federal Aid Project NO. NH-030-1(38)	
Scale: As Shown	Date: November 23, 2009
SHEET No. 1 OF 1 SHEETS	

"AS-BUILT"

ADD. 83