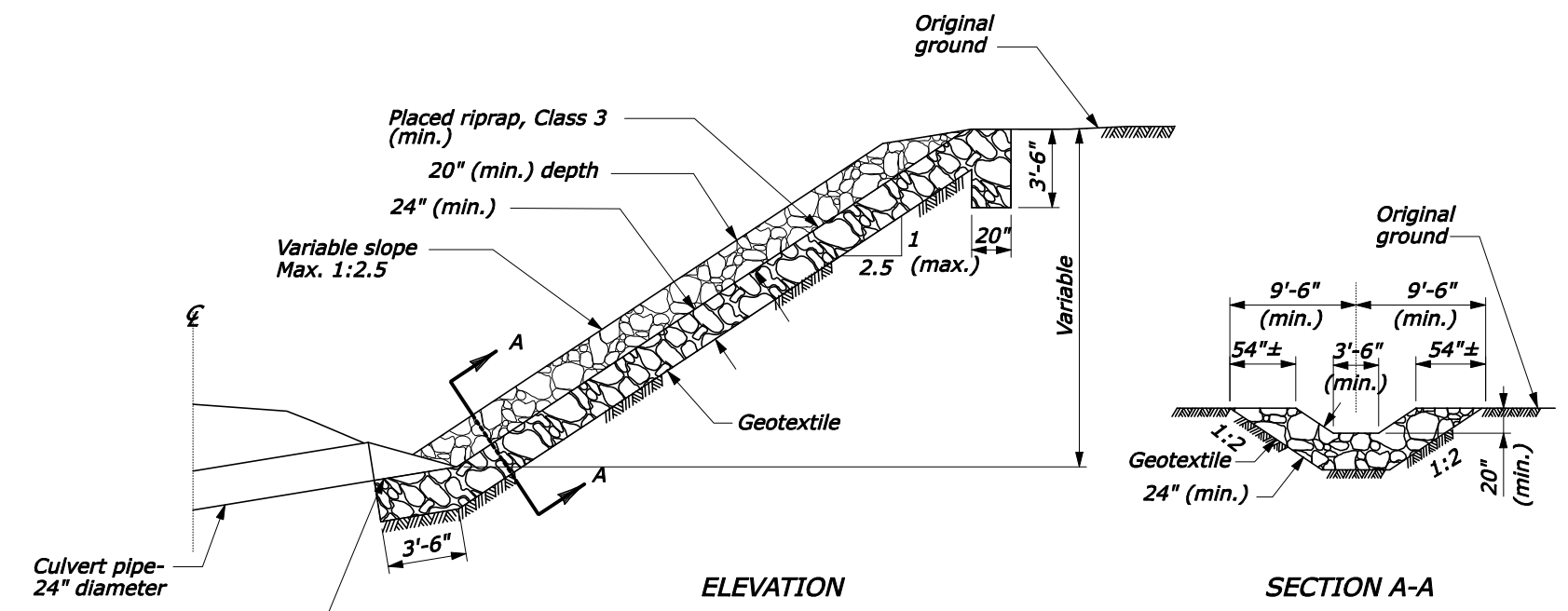


REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
.

NOTE:

1. Excavation for placement of riprap will not be measured for payment.
2. Furnish geotextile conforming to Subsection 714.01 (a).



**RIPRAP RUNDOWN AT 24" CULVERT INLET
(Q_{max} = 17 cfs)**

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
U.S. CUSTOMARY SPECIAL	
RIPRAP RUNDOWN AT CULVERT INLET	
	SPECIAL 251-A



NOTES TO THE DESIGNER

Last Updated: March 2009

General Information

1. **Riprap classes.** Use this drawing with either the FP-03 riprap classifications or the NCHRP classifications (See the Section 251 SCRs on the LOS).
2. **Maximum Flow.** $Q_{\max} = 17$ cfs for a 24" culvert. For other flows, use the HEC15 spreadsheet to evaluate the riprap ditch (HEC15 spreadsheet located on RoadMap:
http://roadmap/DocShare/GetFile.cfm?KEY_FM_FILE_MASTER_SEQ=989&KEY_FM_FILE_SEQ=1152

Applicable SCRs

1. Section 251:
http://www.cflhd.gov/design/_documents/construction/scr_03/S251-03E.doc
2. Section 602:
http://www.cflhd.gov/design/_documents/construction/scr_03/S602-03E.doc
3. Section 705:
http://www.cflhd.gov/design/_documents/construction/scr_03/S705-03E.doc

Typical Pay Items Used

- 25101-3000 Placed riprap, class 3
- 60201-0800 24-inch pipe culvert
- 60210-0800 End section for 24-inch pipe culvert
- Geotextile quantity is shown for information only

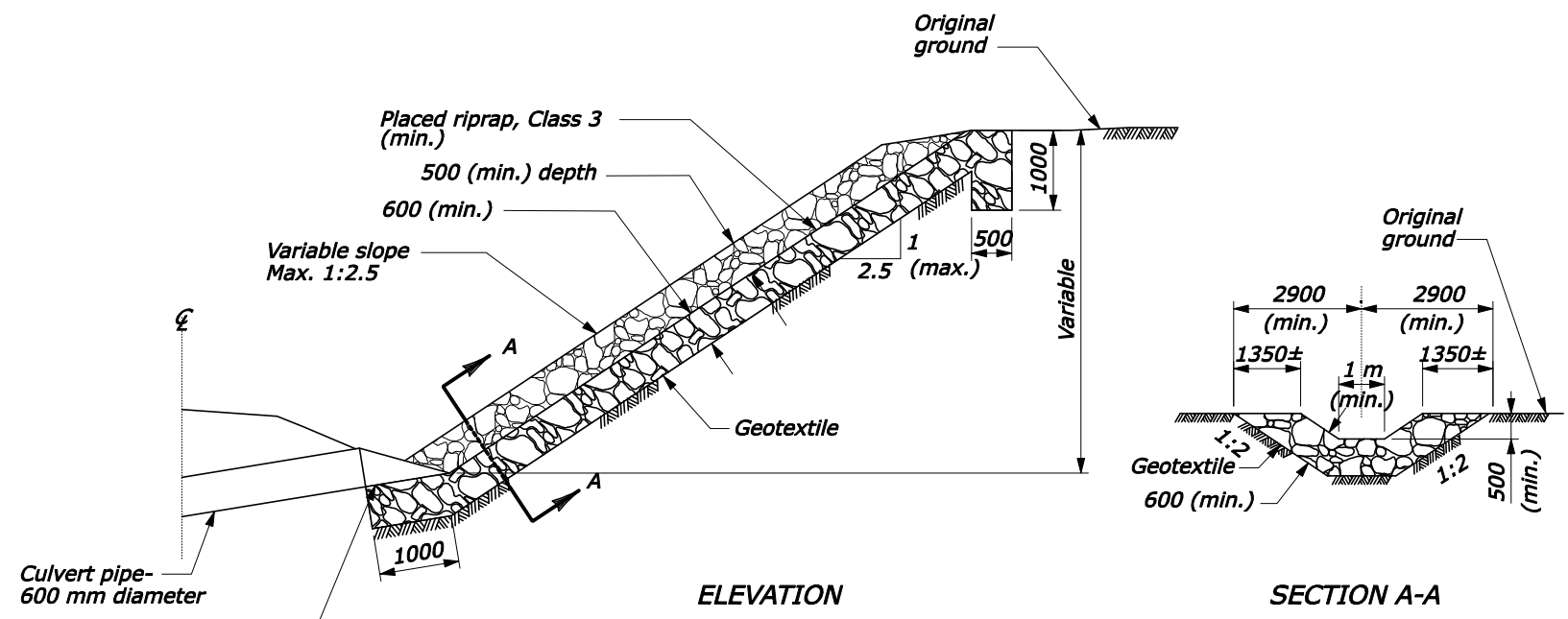
Updates

March 2009

- Moved this drawing from CFL Detail 251-50

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
.

- NOTE:**
- Excavation for placement of riprap will not be measured for payment.
 - Furnish geotextile conforming to Subsection 714.01 (a).
 - Dimensions without units are millimeters.



RIPRAP RUNDOWN AT 600 mm CULVERT INLET
($Q_{max} = 0.5 \text{ m}^3/\text{s}$)

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
METRIC SPECIAL	
RIPRAP RUNDOWN AT CULVERT INLET	
	SPECIAL M251-A

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NOTES TO THE DESIGNER

Last Updated: March 2009

General Information

1. **Riprap classes.** Use this drawing with either the FP-03 riprap classifications or the NCHRP classifications (See the Section 251 SCRs on the LOS).
2. **Maximum Flow.** $Q_{\max} = 0.5$ m³/s for a 600mm culvert. For other flows, use the HEC15 spreadsheet to evaluate the riprap ditch (HEC15 spreadsheet located on RoadMap:
http://roadmap/DocShare/GetFile.cfm?KEY_FM_FILE_MASTER_SEQ=989&KEY_FM_FILE_SEQ=1152

Applicable SCRs

1. Section 251:
http://www.cflhd.gov/design/_documents/construction/scr_03/S251-03M.doc
2. Section 602:
http://www.cflhd.gov/design/_documents/construction/scr_03/S602-03M.doc
3. Section 705:
http://www.cflhd.gov/design/_documents/construction/scr_03/S705-03M.doc

Typical Pay Items Used

- 25101-3000 Placed riprap, class 3
- 60201-0800 600mm pipe culvert
- 60210-0800 End section for 600mm pipe culvert
- Geotextile quantity is shown for information only

Updates

March 2009

- Moved this drawing from CFL Detail 251-50