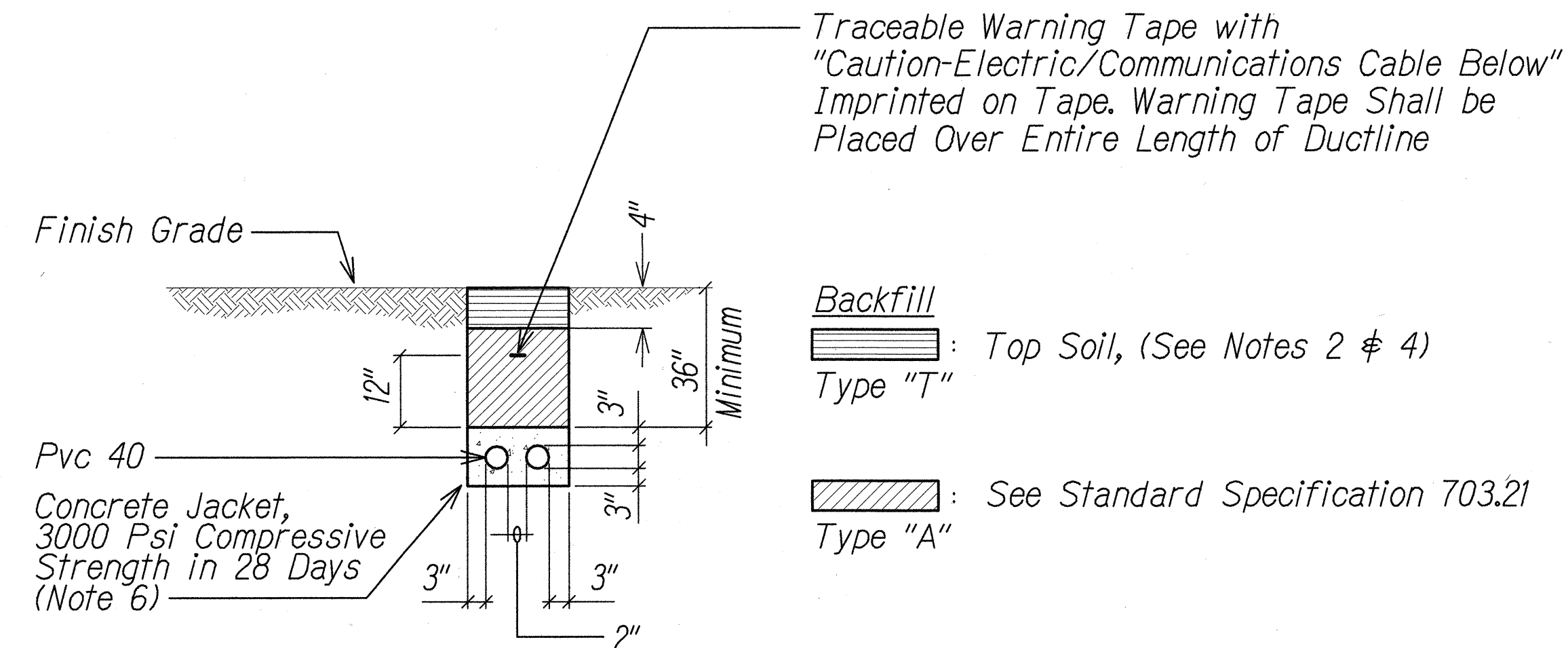


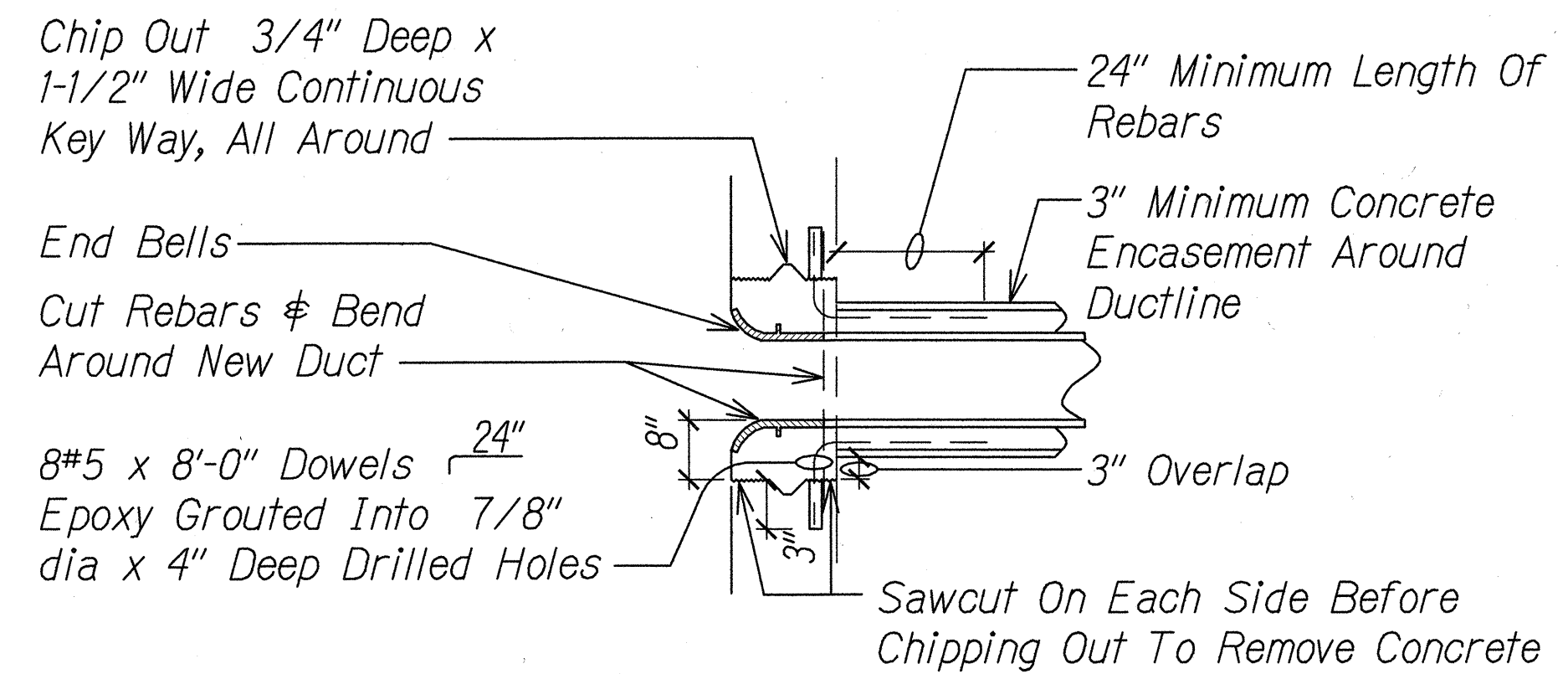
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
OAHU	HAW.	HWY-0-01-13	2016	38	47



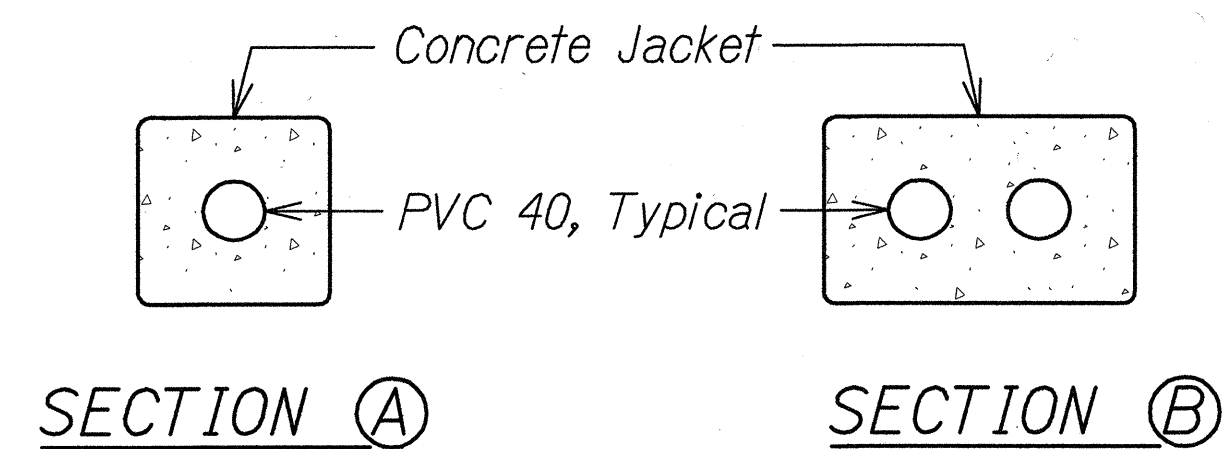
**TYPICAL DUCT SECTION FOR UNPAVED AREA**  
E-004 E-004 NTS

**NOTES:**

1. Provide 2" Separation Between Ducts of Same System and 3" Between Ducts of Different Systems.
2. Where Trench Encounters Grass or Landscaping, Provide 4" Top Soil After Trench is Backfilled, and Restore Landscaping to Match Existing Adjacent Areas.
3. See Duct Section Details for Conduit Arrangement.
4. Where Trench Encounters Existing Concrete Sidewalk, Sidewalk Shall be Demolished. Backfill, Compact and Replace Sidewalk to Match Existing. Omit Top Soil in Trench Restoration and Provide Minimum 4" Thick Concrete Sidewalk to Match Original Finish. Replace Entire Width of Sidewalk so that there is No Evidence that a Duct was Installed Below the Sidewalk.
5. For Trenching in AC Pavement Roadway the Minimum Required Depth is 36" to Top of Duct. For Trenching in All Other Areas, the Minimum Required Depth is 34" to Top of Duct.
6. Provide PVC 80 Conduit Where Concrete Jacket is Not Indicated on Duct Section Details.
7. See State Highway Standard Plan TE-36 for Trench Details at Asphalt Concrete Pavement Areas.
8. Refer to Civil Drawings for Trench Restoration Details.



**DETAIL OF TYPICAL DUCT ENTRY INTO MANHOLE/HANDHOLE**  
E-004 E-004 NTS

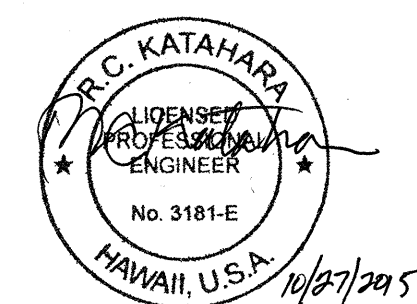


**DUCT SECTION DETAILS**  
NTS

**NOTES:**

1. See Standard Plan TE-36 for Trench Details in Asphalt Concrete Paved Areas.
2. See Details on this Sheet for Trench Details in Non-Traffic Areas.

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



This work was prepared by me or under my supervision. Construction of this project will be under my observation. Observation of construction is defined in Section 16-13.2 of the Hawaii Administrative Rules of the Board of Professional Engineers, Architects, Surveyors and Landscape Architects of the State of Hawaii (dated 9/13/01; effective 10/26/01).

MK ENGINEERS, JPC

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ELECTRICAL DUCT SECTION**

TRAFFIC OPERATIONAL IMPROVEMENTS  
AT VARIOUS LOCATIONS  
Project No. HWY-0-01-13

Scale: As Noted Date: Oct 2015  
SHEET No. E-004 OF 6 SHEETS