

CULVERT NOTES

GENERAL

I. SOIL BORINGS WERE COMPLETED IN FEBRUARY 2015. BORING LOGS ARE INCLUDED IN THIS PLAN SET. A GEOTECHNICAL REPORT SUMMARIZING THE SUBSURFACE CONDITIONS AND DESIGN RECOMMENDATIONS FOR THE BOX CULVERT AND WINGWALLS WAS COMPLETED BY TERRACON CONSULTANTS INC. MARCH 27, 2015. THIS REPORT IS THE BASIS FOR THE GEOTECHNICAL RECOMMENDATION INCORPORATED IN THIS PLAN SET. DUE TO CONCERNS ABOUT THE VARIABILITY OF SUBGRADE CONDITIONS, THE ENGINEER WILL EVALUATE THE EXPOSED SUBGRADES AFTER EXCAVATION AND PRIOR TO PLACING BEDDING MATERIAL.

PRECAST CONCRETE STRUCTURE

I. DESIGN CRITERIA:

A. SOIL UNIT WEIGHT = 140 PCF

B. DESIGN LIVE LOAD = AASHTO HL-93

C. FOUNDATION DESIGN PARAMETERS FOR PRECAST WINGWALL BEARING ON CRUSHED STONE BEDDING.

1. BEARING

i. NOMINAL BEARING RESISTANCE = 18 KSF

ii. BEARING RESISTANCE FACTOR = 0.45

iii. FACTORED BEARING RESISTANCE = 8.1 KSF

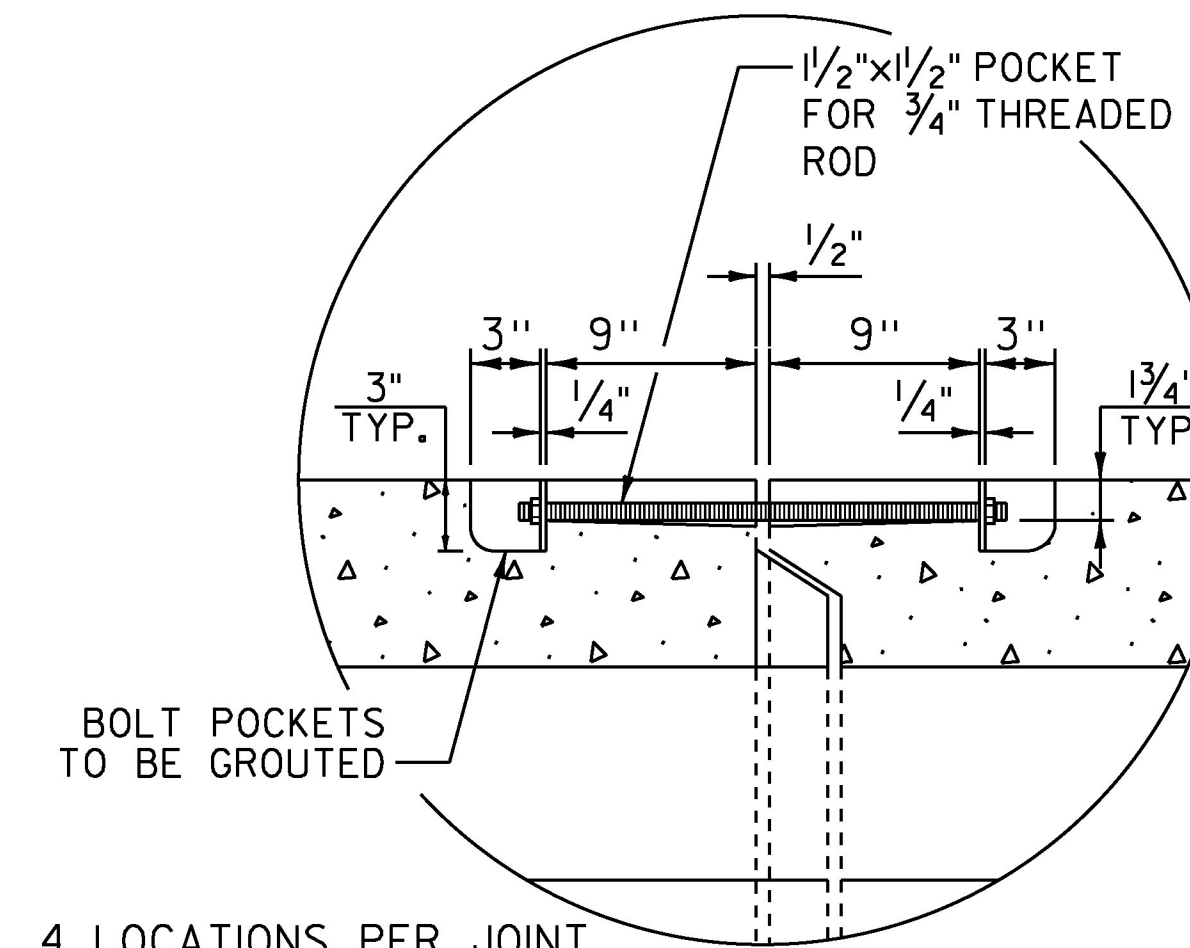
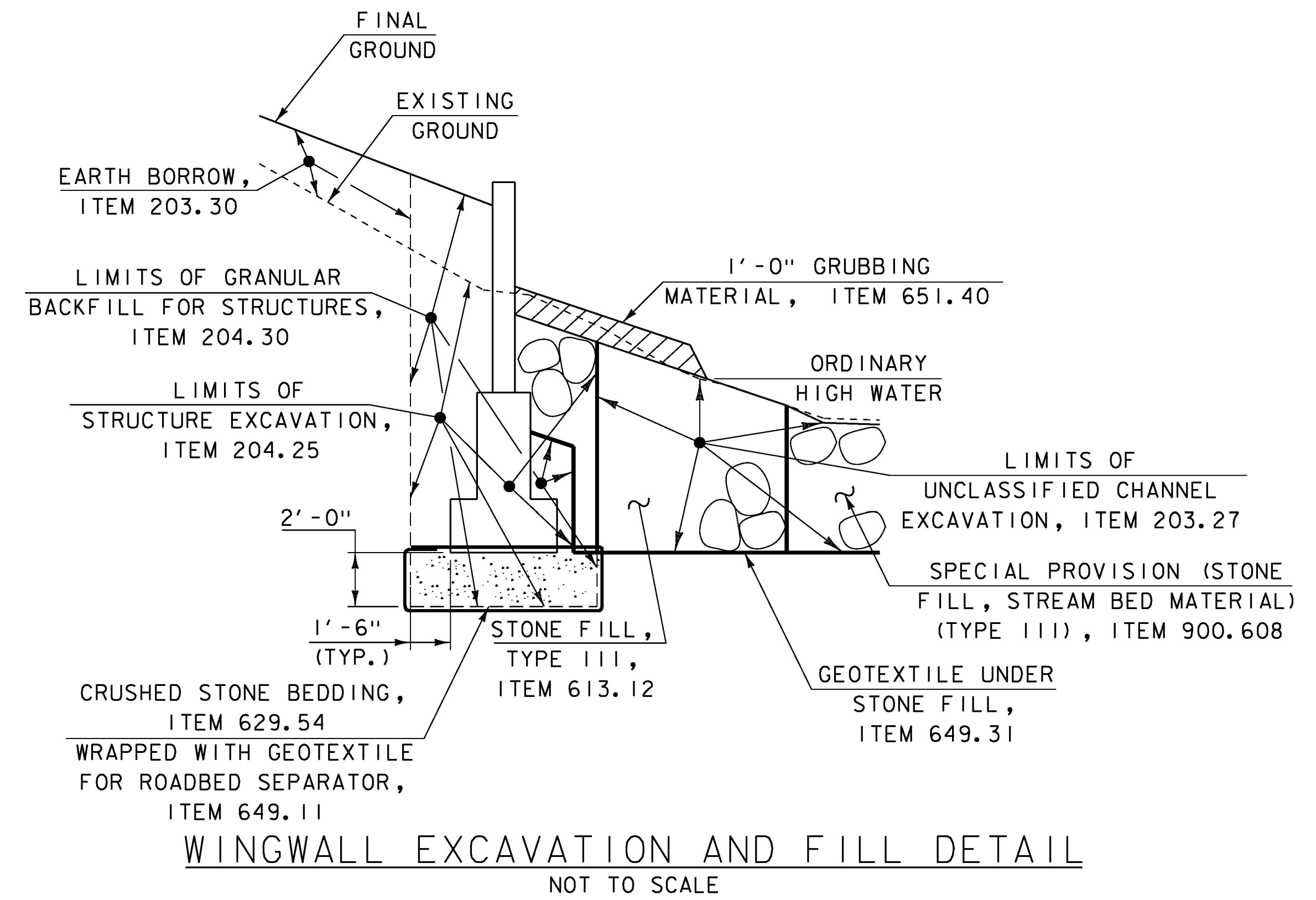
2. SLIDING

i. NOMINAL SLIDING RESISTANCE = 0.7 KIP/KIP VERTICAL LOAD

ii. SLIDING RESISTANCE FACTOR = 0.80 x 0.8 (PRECAST ADJUSTMENT) = 0.64

iii. FACTORED SLIDING RESISTANCE FACTOR = 0.45 KIP/KIP VERTICAL LOAD

3. MINIMUM FOOTING EMBEDMENT = 4'-0" BELOW STREAM BED



4 LOCATIONS PER JOINT
2 PER WALL, EXACT
LOCATION PER FABRICATOR

PERMANENT CLOSURE DETAIL
NOT TO SCALE

PROJECT NAME: CHARLOTTE	PLOT DATE: 15-MAR-2016
PROJECT NUMBER: F EGC 019-4(20)	DRAWN BY: L. BUXTON
FILE NAME: z78d062_PLAN_WINGS.dgn	CHECKED BY: G. BOGUE
DESIGNED BY: T. KNIGHT	SHEET 246 OF 499
BRIDGE I4I DETAILS AND NOTES SHEET	

