

December 18, 2015

MEMORANDUM TO: Mohammed Mulla, P.E., C.P.M.
Contracts and Statewide Services Manager

K. J. Kim, Ph.D., P.E.
Eastern Regional Geotechnical Manager

Eric Williams, P.E.
Western Regional Geotechnical Manager

FROM: John Pilipchuk, L.G., P.E.
State Geotechnical Engineer

SUBJECT: Revised Rock Embankments Provisions and New Blasting and Rock and Broken Pavements Provisions

DocuSigned by:

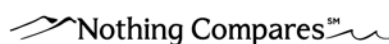
John Pilipchuk

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The Support Services Section has completed the following items:

Prov/ No.	Title/Name	New/ Rev	Standard Type	Custodian	Summary of Changes
14	Rock Embankments	Rev	Provision	Geotech	<ul style="list-style-type: none"> • Formats provision for electronic plans • Revises construction methods and adds rip rap for filling voids in top of rock embankments
SP02 R88 (A&B)	Blasting	New	Provision	Contract Standards	<ul style="list-style-type: none"> • Adds blast design criteria for production and trench blasting to Section 220 • Adds blast design criteria, blasting requirements and a pay item for pre-splitting to Section 220 (SP02 R88A only)
SP02 R85	Rock and Broken Pavement Fills	New	Provision	Contract Standards	<ul style="list-style-type: none"> • Revises construction methods and adds rip rap, stone and geotextiles to Section 235 for filling voids in top of rock and broken pavement fills

The Geotechnical Summary Tables, QtySummary spreadsheet and Page Number database have all been updated for these changes. A new table for Pre-Splitting of Rock has been added to the summary tables. The revised Geotechnical Summary Tables have been attached to this memorandum for your reference and are available on the Geotechnical website and on the S drive under \Shared\Forms & Spreadsheets\Technical\. Also, the provisions listed above are available on the Geotechnical website and the S drive under \Shared\Standards\Provisions, Notes, Details & Cells (2012 Std Specs).



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The Rock Embankments provision is effective with the April 19, 2016 letting and the Contract Standards provisions are effective with the February 16, 2016 letting. Currently, there are 2 rock blasting special provision templates, one with pre-splitting and one without. Since pre-splitting has been added to the SP02 R88A provision, the rock blasting special provision templates have been consolidated into one. All pre-splitting and rock embankment recommendations for previously completed projects that have not yet let are required to be updated due to the scope of changes being implemented. This may include revised summary tables and quantities, revised provision recommendations and updated entries in the Page Number database. If there are any questions, please contact Scott Hidden, P.E. at (919) 707-6856.

Attachments: Geotechnical Summary Tables (2/16/16)

cc: Randy Garris, P.E., State Contract Officer
Andy Gay, P.E., Proposals and Contract Engineer
Ted Walls, Plans and Standards Engineer
Glenn Mumford, P.E., State Roadway Design Engineer
Teresa Bruton, P.E., Design Build Manager
Chris Peoples, P.E., State Materials Engineer
Ron Hancock, P.E., State Construction Engineer
Lamar Sylvester, P.E., State Roadway Construction Engineer

COMPUTED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

(2-16-16)

PROJECT NO. _____ SHEET NO. 3G-?

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY					
				TOTAL LF:	0

*UD = Underdrain
 *BD = Blind Drain
 *SD = Subsurface Drain

**SUMMARY OF GEOTEXTILE
 FOR PAVEMENT STABILIZATION**

LINE	Station	Station	SY
CONTINGENCY			
		TOTAL SY:	0

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS	
CONTINGENCY										
			TOTAL CY/TONS/SY:			0	0	0**	0	0

*ASU = Aggregate Subgrade
 *AST = Aggregate Stabilization
 **Total square yards of "Geotextile for Soil Stabilization" is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.

SUMMARY OF ROCK PLATING

LINE	Beginning Slope (H:V)	Approx. Station	Ending Slope (H:V)	Approx. Station	Location LT/RT	Rock Plating Detail No. 1/2/3/4	Riprap Class* 1/2/B	Rock Plating SY
							TOTAL SY:	0

*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.

SUMMARY OF REINFORCED SOIL SLOPES AND SLOPE EROSION CONTROL

LINE	Beginning Slope/ RSS (H:V)	Approx. Station	Ending Slope/ RSS (H:V)	Approx. Station	Location LT/RT	Reinforced Soil Slope (RSS) SY	Geocells SY	Coir Fiber Mat SY	Matting for Erosion Control SY
						TOTAL SY:	0	0*	0**

*Total square yards of "Coir Fiber Mat" is only the estimated quantity for slopes steeper than 2:1 (H:V) and may only represent a portion of the coir fiber mat quantity shown in the Item Sheets of the Proposal.
 **Total square yards of "Matting for Erosion Control" is only the estimated quantity for RSS and may only represent a portion of the matting quantity shown in the Item Sheets of the Proposal.

SUMMARY OF PRE-SPLITTING OF ROCK

LINE	Beginning Rock Cut Slope (H:V)	Approx. Station	Ending Rock Cut Slope (H:V)	Approx. Station	Location LT/RT	Pre-splitting of Rock SY
						TOTAL SY: 0

**SUMMARY OF SURCHARGES
 AND SURCHARGE WAITING PERIODS**

LINE	Station	Station	Surcharge Height FT	MONTHS

**SUMMARY OF
 SETTLEMENT GAUGES**

Gauge No.	LINE and Station	Offset	
		Distance FT	Direction LT/RT
TOTAL GAUGES (EACH):			

**SUMMARY OF
 EMBANKMENT WAITING PERIODS**

LINE	Station	Station	MONTHS

SUMMARY OF BRIDGE WAITING PERIODS

Bridge Description	End Bent/ Bent No.	MONTHS