

SECTION 203 EXCAVATION & EMBANKMENT

MATERIAL		REF.	PURP.	SAMPLED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
		TESTED BY		METHOD		CONTAINER	DISTR.			
EMBANKMENT, CUT & FILL AREAS	Density	203.12 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met. DOTD TR 415 or TR 418 will be completed by the Department for each section/lift as needed for optimum moisture content and determining % compaction.
		203.07 203.08 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	½ hr.	
		Dist. Lab	I A	Dist. Lab TR 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					
	Embankment Lift (Uncompacted Thickness) or Subgrade Preparation	203.12 Contractor	Quality Control	Contractor	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 203.08 Proj. Engr.	Accept.	*	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	-----	*Proj. Engr. to check lift thickness during placement & thickness of top layer during preparation.
	Moisture Content @ time of compaction	203.12 Contractor	Quality Control	Contractor TR 403	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 203.08 Proj. Engr.	Accept.	Proj. Engr. TR 403	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	1 hr.	Test taken during or just prior to compaction operation.
	Soil on Cut Slope (for pH & PI)	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met. To determine the need for plastic soil blanket or soil modification option.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 lin ft/ slope/soil type	1 full sample sack	-----	-----	5 days	

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		TESTED BY		METHOD		CONTAINER	DISTR.			
GEOTEXTILE FABRIC		1019.01 Mat. Lab	Prelim. Source Approval	Dist. Lab	1/type/lot/source/shipment	3 lin ft/roll width of fabric*	-----	-----	10 days	*Sample a minimum of 18 ft².
		1019.01 Mat. Lab	Accept.	Proj. Engr. S 601	1/type/shipment/source	3 lin ft/roll width of fabric*	CD** 1 & 7	150 yd²	10 days	(QPL 61) Visually inspect seams & UV damage. Seams other than 401 or "J" shall be approved by the Materials & Testing Section. See the QA Manual. *Sample a minimum of 18 ft². **Sample when not accompanied by a CD or questionable.
LIME	Agricultural	1018.17 Mat. Lab	Accept.	Proj. Engr. S 102	SEE SECTION 718 OF THIS MANUAL.					
	Hydrated or Quick Lime	1018.03	Accept./Verif./Prelim. Source Approval	SEE SECTION 304 OF THIS MANUAL.						
NON-PLASTIC EMBANKMENT	Density	203.12 Contractor	Quality Control	Contractor TR 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 Proj. Engr.	Accept.	Proj. Engr. TR 401	1/1000 lin ft/2-lane rdwy/lift	-----	-----	-----	½ hr.	-----
		203.07 Dist. Lab	I A	Dist. Lab TR 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					

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		TESTED BY		METHOD		CONTAINER	DISTR.			
NON-PLASTIC EMBANKMENT (Cont'd)	Embankment Lift (Uncompacted Thickness)	203.12 Contractor	Quality Control	-----	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 Proj. Engr.	Accept.	Proj. Engr.*	1/1000 lin ft/ 2-lane rdwy/ lift	-----	-----	-----	-----	*Check lift thickness during placement.
	Moisture Content @ Time of Compaction	203.12 Contractor	Quality Control	Contractor TR 403	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.07 Proj. Engr.	Accept.	Proj. Engr. TR 403	1/1000 lin ft/ 2-lane rdwy/ lift	1 gal Friction top can	-----	-----	1 hr.	-----
	Sand	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.09 Dist. Lab	Accept.	Proj. Engr.* S 401	1/2000 yd ³	1 full sample sack	-----	500 yd ³	4 days	*The Dist. Lab will sample if material is in borrow pit.
		203.09 Dist. Lab	I A	Dist. Lab S 401	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					
	Shell	203.12 Contractor	Quality Control	Contractor S 101	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.09 Dist. Lab	Accept.	Proj. Engr. S 101	1/2000 yd ³	1 full sample sack	-----	500 yd ³	4 days	-----
		Dist. Lab	I A	Dist. Lab S 101	SEE INDEPENDENT ASSURANCE PROGRAM S 701.					
PLASTIC SOIL BLANKET	Thickness (Compacted)	203.10 Contractor	Quality Control	Contractor	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.10 Proj. Engr.	Accept.	Proj. Engr.	1/1000 lin ft/ slope	-----	-----	-----	-----	Proj. Engr. to check lift thickness after compaction.

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		TESTED BY		METHOD		CONTAINER	DISTR.			
PLASTIC SOIL BLANKET (Cont'd)	Plastic Soil	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.10 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 yd ³ *	1 full sample sack	-----	300 yd ³	5 days	*Not required if tested & approved as excavation or borrow pit material.
SELECTED SOIL	In-place on Roadway	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 lin ft/ 2-lane rdwy or 1/2000 lin ft/ shoulder	1 full sample sack	-----	-----	5 days	-----
	Stockpile	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 yd ³	-----	-----	-----	5 days	-----
USABLE SOIL	Borrow Pits	203.12 Contractor	Quality Control	Contractor S 401	1 boring/ acre*	-----	-----	-----	-----	*Results shall be submitted to Dist. Lab with boring request.
		203.06 Dist. Lab	Accept.	Dist. Lab S 401	1 boring/ acre for first 5 acres 1 boring/ 2 acres there after.	½ sample sack*	-----	100 yd ³	6 days	*Min. 10 lb required for test.
	Excavation	203.12 Contractor	Quality Control	Contractor S 401	As required*	1 full sample sack	-----	-----	-----	May be accepted by subgrade soil survey upon approval of the District Lab. *Sample full depth of excavation.
		203.06 Dist. Lab	Accept.	Dist. Lab S 401	As required*	1 full sample sack	-----	100 yd ³	5 days	
	Stockpile	203.12 Contractor	Quality Control	Contractor S 401	*	-----	-----	-----	-----	*Shall check sufficient to ensure specifications are met.
		203.06 Dist. Lab	Accept.	Proj. Engr. S 401	1/1000 yd ³	1 full sample sack	-----	100 yd ³	5 days	Will be approved in stockpile before placing on project.
WATER		1018.01 Mat. Lab	Accept.	Proj. Engr. S 303	1/source*	1 qt Plastic bottle	-----	-----	21 days	*Drinkable water need not be sampled.