SECTION 701 CULVERTS & STORM DRAINS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
BACKFILL	Density	Quality Control	Contractor ~~TR~~ S 401	Contractor TR 401, TR 415, TR	~~As needed~~*	-----	-----	-----	-----	*~~As needed~~ ~~T~~to ensure density requirements are met for each lift of backfill. ~~DOTD to do TR 415 or TR 418.~~
	Density, when required by specifications	Accept.	Proj. Engr. S 401	Proj. Engr.	1/~~200~~100 LF Pipe/Location/ ~~Side of Pipe/~~ 3' of Backfill* ***(changes per QA manual)***	-----	-----	-----	-----	*Test first lift at 1/3 the pipe height, and at least 1 test for each additional 3' of backfill thickness.
	Density (Non-paved Side Drains)	Accept.	Proj. Engr. S 401	Proj. Engr.	1/100 LF Pipe/Location/ Lift* ***(changes per QA manual)***	-----	-----	-----	-----	*Visual inspection & compaction to the density of the surrounding soil with the exception of plastic pipe.
	~~Granular Material*~~	~~Accept.~~	~~Proj. Engr. S 401~~	~~Dist. Lab~~	~~1/1,000 yd^3~~	~~1 full sample sack~~	~~-----~~	~~-----~~	~~4 days~~	~~*pH and resistivity required for metal pipe. Plastic pipe requires granular material, or Type A backfill material.~~ Not allowed in 2016 specs for backfill.
	Flowable Fill	**SEE SECTION 710 OF THIS MANUAL.**								
	Moisture Content	Quality Control	Contractor ~~TR 403~~S 401	Contractor TR 403	~~As needed~~*	-----	-----	-----	-----	*~~As needed~~ ~~T~~to ensure moisture requirements are met at time of compaction. ~~DOTD to do TR 415 or TR 418.~~
	Moisture Content	Accept.	Proj. Engr. S 401~~3~~	Proj. Engr. TR 403	1/location*	-----	-----	-----	-----	*Test taken during or just prior to compaction.
	~~Plastic Soil Blanket~~	~~Accept.~~	~~Proj. Engr. S 401~~	~~Dist. Lab~~	~~1/1,000 yd^3*~~	~~1 full sample sack~~	~~-----~~	~~300 yd^3~~	~~10 days~~	~~*Not required if tested & approved as required excavation or borrow pit material.~~ ***Not allowed in 2016 specs (was used with granular material).***
	Reclaimed Asphalt Pavement	**SEE SECTION 502 OF THIS MANUAL**								
	Recycled PCC & Stone	**SEE SECTION ~~30~~2301 OF THIS MANUAL (is this appropriate?)**								
	Selected Soil*	Accept.	Proj. Engr. S 401	Dist. Lab	1/1,000 yd^3	1 full sample sack	-----	-----	10 days	*pH and resistivity required for metal pipe. ~~Plastic pipe requires granular material, or type A backfill material.~~

BEDDING MATERIAL		**SEE SECTION 726 OF THIS MANUAL.**								
CONCRETE PIPE AND PIPE ARCH	Non-Reinforced (Concrete Sewer Pipe)	Prelim Source Approval	Const. Fab. Insp. S 601	Mfr. & Const. Fab. Insp.	~~1/160 joints/size~~ 1 / lot	1 joint 5 cylinders*	~~-----~~CC 1	-----	-----	(AML) *Three-edge bearing test may be used in lieu of cylinders with approval of the Construction Fabrication Engineer. Each joint shall be stamped when approved.
		Accept.	~~**Inspected and stamped by Const. Fab. Insp. prior to use.**~~ Proj. Engr.	Proj. Engr.			~~CD~~ CC 1 & 6	-----	-----	Visual inspection by Proj. Engr. ~~CD~~ CC to include lot number for gasket materials for each pipe and gasket size.
	Reinforced	Prelim Source Approval	MFR. S 301 S 601	Mfr.	~~1/300 joints/size or 4 cyl/300 joints/size or 3 consecutive days production/ size*~~ 1 / lot	~~1 joint or 4 cyl 6 in. x 12 in. cylinder mold~~ 5 cylinders*	~~CD~~CC 1	-----	-----	(AML) Three-edge-bearing test or core test may be used in lieu of cylinders with approval of the Construction Fabrication Engineer. ~~or compressive strength test.~~ The placement of elliptical reinforcement must be approved by the Const. Fab. Insp. Unit. Includes concrete pipe arch. ~~*Shall not exceed 30 joints. The use of 6 in. X 12 in. compressive strength cylinders for Source Approval or Verification shall be at the discretion of the Const. Fab. Ins. Unit. Each joint shall be stamped when approved.~~
		Accept.	~~**Inspected and stamped by Const. Fab. Insp. prior to use.**~~ Proj. Engr.	Proj. Engr.			~~CD~~ CC 1 & 6	-----	-----	(AML) Visual insp. by Proj. Engr. ~~CD~~CC to include lot number for gasket materials for each pipe and gasket size.

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
CONCRETE PIPE AND PIPE ARCH (Cont'd)	Absorption Test	Verif.	Const. Fab. Insp. S 601	Const. Fab. Insp.	*	-----	-----	-----	-----	*This test will be conducted at the discretion of the Const. Fab. Insp. Unit in cases where the pipe exhibits visual porosity.
	Admixtures	Verif.	Const. Fab. Insp. S 601	Mat. Lab	*	1 pt friction top can	~~-----~~ CD ~~6 & 7~~	-----	14 days	(AML) *Visual inspection by Const. Fab. Insp. Unit. Sample only if questionable.

	Cement for Concrete Pipe	Verif.*	Const. Fab. Insp. S 102	Mat. Lab	**	1 gal friction top can**	CD 6 ~~& 7~~	-----	16 days	(AML) *See Section 901 of this manual. **Visual inspection by Const. Fab. Insp. Unit. Sample only if questionable.
	Coarse & Fine Aggregate for Concrete Pipe	Verif.	Const. Fab. Insp. S 101	Mat. Lab	*	1 full sample sack	-----	-----	-----	(AML) *Visual inspection by Const. Fab. Insp. Unit. sample only if questionable.
	Hydrostatic Test	**This test shall be used as a basis for source approval of new joint designs and repairs and for evaluation of new products such as gasket materials, etc.**		Const. Fab. Insp.			-----	-----	-----	-----
	Mix Design	Design/ Accept.	Mfr. ASTM C 76	Const. Fab. Insp.	1/plant/ source	-----	-----	-----	-----	-----
	Permeability Test	Verif.	Const. Fab. Insp.	Const. Fab. Insp.	*	1 joint	-----	-----	-----	One pipe per lot of sizes up to and including 48 in. in diameter. *This test will be conducted at the discretion of Const. Fab. Insp. Unit in cases where the pipe exhibits visual porosity.
	Water	~~Accept.~~ Verif.	Const. Fab Insp.	Mat. Lab	1/source	1 qt plastic bottle	-----	-----	11 days	~~Drinkable~~Potable water need not be sampled.
Reinforcing Steel for Concrete Pipe		Verif.	Const. Fab. Insp. S 501	Mat. Lab	1/12 months/ source	36 in. x 36 in.	-----	-----	10 days	Sample shall include an area which will have the welded splice at approximately the midpoint.
		~~Accept.~~Verif.	Const. Fab. Insp.	Mat. Lab	1/shipment*	36 in. x 36 in.	-----	-----	10 days	*Visual Inspection by Construction Fab. Inspection unit. Sample only if questionable.
CONDUIT PLUG & COLLARS	Concrete (Class R)	Accept.	**SEE SECTION 901 OF THIS MANUAL.**							
GASKET MATERIAL (For Pipe)	Flexible Plastic Gasket	Accept.	Proj. Engr.	Mat. Lab	*	3 ft length	CC** 1	-----	11 days	(AML) *Visual inspection by the Proj. Engr. Sample only if questionable. **Gasket lot no. listed on pipe CC. Primer used according to gasket manufacturer's recommendation; sample not required.
	Rubber Gaskets	Accept.	Proj. Engr.	Mat. Lab	*	1 gasket	CC** 1	-----	17 days	(AML) *Visual inspection by the Proj. Engr. Sample only if questionable. **Gasket lot no. listed on pipe CC for each gasket and pipe size. Lubricant used according to gasket manufacturer's recommendation; sample not required.

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
GEOTEXTILE FABRIC		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/source/ shipment	3 lin ft/roll width of fabric*	CC 1	150 yd^2	11 days	(AML) *Sample a minimum 18 ft2. For pipe wrap visual inspection by Proj. Engr. Sample only if questionable.
METAL PIPE		Prelim. Source Approval	MFR	Mat. Lab	1/size/gage/ ~~200 lin ft~~ 1 / heat number	1 -3 in. triangle	CA 6	-----	-----	Connecting bands for metal pipe shall be inspected, approved and the pipe lab no. painted on the band and in the pipe by MFR.
		Verif.	Const. Fab. Insp.	Mat. Lab	1/180 day production per plant	-----	CA 6	-----	-----	-----
	Bituminous Coated Corrugated Steel Pipe & Pipe Arch	Accept.	**Inspected, approved and marked by MFR. prior to use.**	Mat. Lab Proj. Engr.			CD 1 & 6	-----	10 days	Visual inspection by Proj. Engr. CD includes gage, diameter, coupling bands, gasket materials and hardware.
	Corrugated. Aluminum Pipe & Pipe Arch	Accept.	**Inspected, approved and marked by MFR. prior to use.**	Mat. Lab Proj. Engr.			CD 1 & 6	-----	11 days	Visual inspection by Proj. Engr. CD includes gage, diameter, coupling bands, gasket materials and hardware.
	Structural Plate For Pipe & Pipe Arch	Accept.	**Inspected, approved and marked by MFR prior to use.**	Mat. Lab Proj. Engr.			CD 1 & 6	-----	11 days	Visual inspection by Proj. Engr. CD includes gage, diameter, coupling bands, gasket materials and hardware.
	Bituminous Material for Metal Pipe	Prelim. Source Approval	MFR S 601	Mat. Lab	*	1 qt friction top can	CC 6	-----	-----	*Visual inspection. Sample only if questionable.
	Galvanizing Repair Compound	Accept.	Const. Fab Insp. S 601	Mat. Lab	1/type*	1 can	-----	-----	-----	(AML) *Visual inspection. Sample only if questionable.
	Hardware	Prelim. Source Approval	Const. Fab. Insp. S 601	Mat. Lab	1/source/ shipment	1 of each item*	CA 6	-----	-----	Visual inspection. Sample only if questionable. Includes steel rod, lugs, bolts and nuts. *One of each type of hardware used is to be submitted.

	Hydrostatic Test	**This test shall be used as a basis for source approval of new joint designs and repairs and for evaluation of new products such as Gasket Materials, etc.**		Const. Fab. Insp.			-----	-----	-----	-----
	Steel Coils for Metal Pipe	Accept.	Const. Fab. Insp.	Const. Fab. Insp.	-----	-----	CA 6	-----	-----	Const. Fab. Insp. reviews CA.
MORTAR	Cement, Sand & Water	Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 701 CULVERTS & STORM DRAINS (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
PLASTIC CULVERT PIPE		Prelim. Source Approval	MFR	MFR.	1/size/lot	-----	CA 6	-----	-----	(AML)
		Accept.	-----	Proj. Engr.	-----	-----	CC 1	-----	-----	(AML) Visual inspection by Proj. Engr. CC includes split coupling bands, straps and gasket material.
	Hydrostatic Test	**The test shall be used as a basis for source approval of new joint designs and repairs and for evaluation of new products such as Gasket Materials, etc.**		Const. Fab. Insp.			-----	-----	-----	-----
	Mandrel Test	Accept.	Contractor	Contractor	1/line of pipe	-----	-----	-----	-----	For 36 in. diameter or less. Proj. Engr. to observe and approve. For pipe larger than 36 inches in diameter deflection shall be determine by a method approved by the
PLASTIC YARD DRAIN PIPE & JOINTS		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/size/ shipment*	6 ft length	CA 4 & 7	-----	10 days	(AML) *For corrugated Polyethylene 4 pieces 5 ft. length.
FITTINGS FOR PLASTIC YARD DRAIN PIPE &		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/size/ shipment*	1 item	CC 4 & 7	-----	10 days	* Visual Inspection by Proj. Engr. Sample only if questionable.
~~CULVERT SAFETY ENDS~~	~~Pipe Runners & Hardware~~	~~Accept.~~	~~-----~~	~~Proj. Engr.~~	~~-----~~	~~-----~~	~~CA 1~~	~~-----~~	~~-----~~	~~Visual inspection by Proj. Engr.~~

(THIS IS SUPPOSED TO BE IN 702)	~~Epoxy Resin Systems~~	~~Accept.~~	~~Proj. Engr. S 601~~	~~Mat. Lab~~	~~1/lot or shipment*~~	~~1 qt each component friction top can~~	~~CC 1~~	~~1 gal~~	~~11 days~~	~~(AML) *Visual inspection by Proj. Engr. Sample only if questionable.~~
		~~Verif.~~	~~Proj. Engr. S 601~~		~~1/lot or shipment~~	~~1 qt each component friction top can~~	~~-----~~	~~1 gal~~	~~11 days~~	~~(AML)~~
	~~Adhesive Anchor Systems~~	~~Accept.~~	~~Proj. Engr. S 601~~	~~Mat. Lab~~	~~1/lot or shipment*~~	~~1 qt each component friction top can~~	~~-----~~	~~1 gal~~	~~11 days~~	~~(AML) *Visual inspection by Proj. Engr. Sample only if questionable.~~
~~DRY-BATCHED SACKED CONCRETE~~ ***(THIS IS SUPPOSED TO BE IN 702)***	~~Compressive Strength~~	~~Accept.~~	~~Proj. Engr. S 601 TR 226 TR 230~~	~~Dist. Lab~~	~~1 set/1,000 sacks 3 cyl/set~~	~~1 sack 6 in. x 12 in. cylinder mold*~~	~~CC** 1~~	~~-----~~	~~-----~~	~~(AML) *Cylinders made from contents of sack mixed with water to produce a slump of 2 to 5 inches. **CC should shall show mix proportions.~~
~~GASKET MATERIALS~~ *(listed twice)*	~~Flexible Plastic Gasket~~	~~Accept.~~	~~Proj. Engr.~~	~~Mat. Lab~~	~~*~~	~~3 ft length~~	~~CC** 1~~	~~-----~~	~~-----~~	~~(AML) *Visual inspection by Proj. Engr. Sample only if questionable. **Gasket Lot no. listed on precast unit CC.~~
~~GEOTEXTILE FABRIC~~ *(listed twice)*		~~Accept.~~	~~Proj. Engr. S 601~~	~~Mat. Lab~~	~~1/type/ source/ shipment~~	~~3 lin ft/roll width of fabric*~~	~~CC 1~~	~~150 yd^2~~	~~10 days~~	~~(AML) *Sample a minimum of 18ft2.~~

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
FOR DETAILS ON CONCRETE TEST, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) SEE SECTION 901 OF THIS MANUAL. (CLASS M)										
BACKFILL	Density	Accept.	-----	Proj. Engr.	1/location	**SEE SECTION 701 OF THIS MANUAL.**				
	Flowable Fill	**SEE SECTION 710 OF THIS MANUAL.**								
	Reclaimed Asphalt Pavement	**SEE SECTION 502 OF THIS MANUAL**								
	Recycled PCC & Stone	**SEE SECTION ~~302~~301 OF THIS MANUAL (is this appropriate?)**								

	~~Granular Material~~	~~Accept.~~	~~**SEE SECTION 701 OF THIS MANUAL.**~~	~~Dist. Lab~~						
	Selected Soil	Accept.	**SEE SECTION 701 OF THIS MANUAL.**							
BRICK	Sewer	Accept.	Proj. Engr. S 601	Mat. Lab	1/25,000/ type*	5 bricks	-----	-----	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
COVERS, FRAMES & GRATES		Accept.	Proj. Engr. S 601 ~~**When questioned by Proj. Engr.; one tension test bar, ASTM A 48, specimen B, (threaded), representing lot of material from which item is cast to be submitted to Const. Fab. Insp. See section 807 of**~~	Mat. Lab	*		CA 1	-----	10 days	Visual inspection by Proj. Engr. Proj. Engr. to receive form 4148 and CA for physical and chemical properties, from the contractor. When questioned by Proj. Engr.; one tension test bar, ASTM A 48, specimen B, (threaded), representing lot of material from which item is cast to be submitted to Const. Fab. Insp. See section 807 of this manual. ***Should this be placed here instead of under "Method"?***
JOINT FILLER		Accept.	-----	Mat. Lab	-----	36 in.	-----	-----	10 days	Visual inspection by Proj. Engr. Sample only if questionable.
MORTAR	Cement, Sand & Water	Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 702 MANHOLES, JUNCTION BOXES, CATCH BASINS & END TREATMENTS (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
METAL WORK COATINGS	Metal Work Paint	Accept.	Proj. Engr. S 601	Mat. Lab	1/batch	1 qt friction top can	-----	-----	10 days	Visual inspection by Proj. Engr.

	Asphaltic Varnish	Accept.	Proj. Engr. S 601	Mat. Lab	1/batch*	1 qt friction top can	-----	-----	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Galvanized Metal Covering	Accept.	Proj. Engr. S 501	Mat. Lab	1/shipment*	6 in. x 6 in.	-----	-----	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
PRECAST REINFORCED CONCRETE UNITS		Prelim. Source Approval	MFR S 301 S 601	MFR	~~1/300 joints/size or 4 cyl/300 joints/size or 3 consecutive days production/ size*~~ 1 / lot	~~1 joint or 4 cyl 6 in. x 12 in. cylinder mold~~ 5 cylinders*	~~CD~~CC 1	-----	-----	(AML) ~~Three-edge-bearing test may be used in lieu of cylinders with approval of the Construction Fabrication Engineer. or compressive strength test. The placement of elliptical reinforcement must be approved by the Const. Fab. Insp. Unit. Includes concrete pipe arch. *Shall not exceed 30 joints.~~ The use of 6 in. X 12 in. compressive strength cylinders for Source Approval or Verification shall be at the discretion of the Const. Fab. Ins. Unit. ~~Each joint shall be stamped when approved.~~
		Verif.	Const. Fab. Insp. S 601	Const. Fab. Insp.	1/180 day/ production/ plant	1 joint or ~~4~~ 5 cyl. 6 in. x 12 in. cylinder mold	-----	-----	-----	
		Accept.	**Inspected approved and stamped by MFR. prior to use.**	Proj. Engr.			~~CD~~CC 1	-----	-----	(AML) Visual inspection by Proj. Engr. CC to include lot number for Gasket Materials.
REINFORCEMENT	Bars	~~Accept.~~ Verif.	Proj. Engr. or Const. Fab. Insp. S 501	Mat. Lab	1/size/grade/ 150,000 lb/ source*	48 in. length	CA 1	-----	10 days	*If listed on AML, materials with a CA (Distr. 1) need not be sampled. Sample for Verification if questionable.
	Chairs	~~Accept.~~ Verif.	Proj. Engr. S 501	Mat. Lab	1/type*	1 chair	-----	-----	9 days	*Visual inspection by Proj. Engr. Sample only if questionable. Chairs with plastic coated tips need not be sampled.
	Wire Fabric	~~Accept.~~ Verif.	Proj. Engr.* S 501	Mat. Lab	1/shipment	48 in. x 48 in.	-----	-----	~~11~~14 days	*Sampled by Const. Fab. Insp. for precast items. *If listed on AML, materials with a CA (Distr. 1) need not be sampled. Sample for Verification if questionable.
CULVERT SAFETY ENDS	Pipe Runners & Hardware	Accept.	-----	Proj. Engr.	-----	-----	CA 1	-----	-----	Visual inspection by Proj. Engr.
	Epoxy Resin Systems	Accept.	Proj. Engr. S 601	Mat. Lab	1/lot ~~or shipment~~*	1 qt each component friction top can	CC 1	1 gal	11 days	(AML) *Visual inspection by Proj. Engr. Sample only if questionable.
		Verif.	Proj. Engr. S 601	Mat. Lab	1/lot ~~or shipment~~	1 qt each component friction top can	-----	1 gal	11 days	(AML) ***DO WE NEED BOTH ACCEPT. AND VERIF.? (MATLAB indicates YES)***

	Adhesive Anchor Systems	Accept.	Proj. Engr. S 601	Mat. Lab	1/lot or shipment*	1 qt each component friction top can	-----	1 gal	11 days	(AML) *Visual inspection by Proj. Engr. Sample only if questionable.
DRY-BATCHED SACKED CONCRETE	Compressive Strength	Accept.	Proj. Engr. S 601 TR 226 TR 230	Dist. Lab	1 set/1,000 sacks 3 cyl/set	1 sack 6 in. x 12 in. or 4 in. x 8 in. cylinder mold*	CC** 1	-----	-----	(AML) *Cylinders made from contents of sack mixed with water to produce a slump of 2 to 5 inches. **CC shall show mix proportions.
WET-BATCHED SACKED CONCRETE	Compressive Strength	Accept.	Proj. Engr. S 601 TR 226 TR 230	Dist. Lab	1 set/1,000 sacks 3 cyl/set	1 sack 6 in. x 12 in. or 4 in. x 8 in. cylinder mold*	CC** 1	-----	-----	*Cylinders made from contents of sack mixed with water to produce a slump of 4 to 6 inches. **CC shall show mix proportions.
GEOTEXTILE FABRIC		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/source/ shipment	3 lin ft/roll width of fabric*	CC 1	150 yd^2	11 days	(AML) *Sample a minimum 18 ft2. For pipe wrap visual inspection by Proj. Engr. Sample only if questionable.
SACKS		Accept.	Proj. Engr. S 501	Mat. Lab	1/type/ source*	1 sack	-----	-----	9 days	*Visual inspection by Proj. Engr. Sample only if questionable.
~~STONE~~		~~Accept.~~	~~**Visual inspection and/or gradation check (at source, Proj. Site, or both, at Engineer's option).***~~	~~Proj. Engr.~~			~~-----~~	~~-----~~	~~-----~~	~~(AML) *Materials Lab available for assistance prior to use.~~ ~~***DO WE NEED THIS HERE? IS THIS FOR BACKFILL?***~~ ***NO, THIS APPEARS TO BE COVERED UNDER BACKFILL***

SECTION 703 UNDERDRAIN SYSTEMS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
FOR ASPHALTIC CONCRETE BASE COURSE & SURFACING SEE SECTIONS 502 AND 510 OF THIS MANUAL.										
BACKFILL	Aggregate (Size 3)	Accept.	Proj. Engr. S 101	Dist. Lab	1/1,000 yd^3	1 full sample sack	-----	-----	4 days	-----
	Granular Material	Accept.	Proj. Engr. S 101	Dist. Lab	1/1,000 yd^3	1 full sample sack	-----	-----	4 days	-----
GEO-COMPOSITE WALL DRAINS		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/lot*	4 ft^2	CA 7	-----	11 days	(AML) *Sample fittings 1 per type per shipment.

GEOTEXTILE FABRIC		Accept.	Proj. Engr. S 614	Mat. Lab	1/type/ source/ shipment	3 lin ft/roll width of fabric*	CC 1	150 yd^2	10 days	(AML) *Sample a minimum if 18 ft2.
HARDWARE CLOTH	Rodent Screen	Accept.	Proj. Engr. S 601	Mat. Lab	1/shipment*	1 screen	-----	-----	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
METAL PIPE	Perforated Bituminous Coated Corrug. Steel	Accept.	**See Section 701 of this manual for Const. Fab. Insp. sampling.**	Proj. Engr.			CD 1 & 6	-----	-----	Visual inspection by Proj. Engr. CD includes gage, diameter, coupling bands, gasket material and hardware.
	Perforated Corrugated Aluminum	Accept.	**See Section 701 of this manual for Const. Fab. Insp. sampling.**	Proj. Engr.			CD 1 & 6	-----	-----	Visual inspection by Proj. Engr. CD includes gage, diameter, coupling bands, gasket material and hardware.
PLASTIC PIPE		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/size/ shipment	6 ft. length*	CA 4 & 7	less than 1,000 ft	10 days	*For corrugated Polyethylene 4 pieces 5 ft. length.
PLASTIC PIPE FITTINGS		Accept.	Proj. Engr. S 601	Mat. Lab	3/type/size/ shipment	-----	CC 4 & 7	less than 1,000 ft	10 days	Visual inspection by Proj Engr. Sample only if questionable.
PORTLAND CEMENT CONCRETE	Headwalls (Class M)	Accept.	**SEE SECTION 901 OF THIS MANUAL.**	Proj. Engr.				10 yd^3	-----	-----
PRECAST CONCRETE HEADWALLS		Accept.	**Inspected, stamped and approved by MFR prior to use. See Section 805 of this Manual.**	Proj. Engr.			~~CD~~CC 1 & 6	-----	-----	Visual inspection by Proj Engr. If questionable, contact Const. Fab. Insp. Unit prior to use.

SECTION 703 UNDERDRAIN SYSTEMS (Cond't)

MATERIAL	PURP.	SAMPLED BY	TESTED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS

MATERIAL			METHOD			CONTAINER	DISTR.		TIME	REMARKS
REINFORCING STEEL	Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/source*	48 in. length	CA 1	-----	10 days	*If listed on AML material with CA (Distr. 1) need not be sampled. Sample for verification if questionable.
Wire Fabric		Accept.	Proj. Engr. S 501	Mat. Lab	1/shipment*	48 in. X 48 in.	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 704 GUARD RAIL

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
CONCRETE (Class ~~M~~ A1)	Mix Designs, Materials & Tests	**SEE SECTION 901 OF THIS MANUAL.**								Sample only if questionable.
GALVANIZING REPAIR COMPOUND		Accept.	Proj. Engr. S 601	Mat. Lab	1/type*	1 can	-----	-----	-----	(AML) *Visual inspection by Proj. Engr. Sample only if questionable.
HARDWARE	Accessories, Bolts, End Anchor Rods, Fittings, Nuts and Washers	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/type/ shipment*	1 of each item	CC 1	-----	12 days	*Visual inspection sample only if not listed on CC or if questionable.
METAL BEAM RAIL		Accept.	-----	Mat. Lab	-----	-----	CC 3	-----	-----	(AML) Visual inspection by Proj. Engr. Rail shall be stamped with the name or brand of manufacturer, ID symbol or code for heat, no. and coating of lot, AASHTO spec. no., and class and type.
POSTS AND SPACER BLOCKS	Steel	Accept.	-----	Proj. Engr.	-----	-----	CC 1 & 6	-----	-----	Visual inspection by Proj. Engr.
	Timber	Accept.	-----	Proj. Engr.	-----	-----	CC 1 & 6	-----	-----	Visual inspection by Proj. Engr.
REINFORCEMENT	Wire Fabric	Accept.	Proj. Engr. S 501	Mat. Lab	1/shipment*	48 in x 48 in.	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.
WIRE ROPE & FITTINGS		Accept.	-----	Mat. Lab	-----	-----	CC* 3	-----	-----	*Wire rope only. Proj. Engr. visually inspects fittings.

GUARDRAIL END TREATMENTS		Accept.	Proj. Engr.	Proj. Engr.	-----	-----	CC 3	-----	-----	(AML) Visual inspection by Proj. Engr. Certification shall include system name, system drawings, manufacturer, and all necessary documentation to substantiate compliance with NCHRP 350 or MASH requirements.
WELDING	**SEE SECTION 815 OF THIS MANUAL.**									

SECTION 705 FENCES

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
CHAIN LINK FENCE, GATES AND APPURTENANCES	Fabric (Wire)	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/lot or shipment	36 in. length	-----	1,000 lin ft of fence	11 days	-----
	Fittings and Misc. Hardware	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/size*	1 of each item**	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable. **One piece of each type of fitting or hardware used is to be submitted.
	Gate Frames, Posts, Rails	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/lot or shipment	1 post or 7 ft section	-----	1,000 lin ft of fence	11 days	-----
	Hog Rings, Tension Wire, Wire Fabric	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/lot or shipment	48 in. length or 3 pieces*	-----	1,000 lin ft of fence	11 days	*Wire ties, wire fabric ties and hog rings require only 3 precut pieces for samples.
CONCRETE (Class R)	Mix Designs, Materials & Tests	**SEE SECTION 901 OF THIS MANUAL.**						10 yd^3	-----	-----
FIELD & LINE TYPE FENCE	Barbed Wire	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/lot or shipment*	30 ft length	CC or MFR Label	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Gates	Accept.	-----	Standard Plans Proj. Engr.	-----	-----	CC 1	-----	-----	Visual inspection and dimensional check by Proj. Engr.
	Gate Hardware	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type*	1 of each item	-----	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Metal Fasteners	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/ shipment*	12 fasteners	-----	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.

	Staples & Nails	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/size/ shipment*	12 staples	-----	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Steel Braces	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/lot or shipment*	1 brace	-----	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Steel Gate Posts	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/lot or shipment*	1 post	-----	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Steel Gate Stops	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/lot or shipment*	1 stop	-----	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Steel Posts with Anchor Plates	Accept.	Proj. Engr. S 501	Standard Plans Mat. Lab	1/type/llot or shipment*	1 post with plate	CC or MFR Label 1	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Timber Posts	Accept.	-----	Proj. Engr.	-----	-----	CC 1	-----	-----	Visual inspection by Proj. Engr.
	Woven Wire	Accept.	Proj. Engr. S 501	Mat. Lab	1/lot or shipment*	36 in. length	CC or MFR Label 1	1,000 lin ft of fence	10 days	*Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 705 FENCES (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
FIELD & LINE TYPE FENCE (Cont'd)	Timber Gate Posts, Timber Gate Stops, Timber Stop Posts	Accept.	-----	Proj. Engr.	-----	-----	CC 1	-----	-----	Visual inspection by Proj. Engr.
GALVANIZING REPAIR COMPOUND		Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	(AML) Visual inspection by Proj. Engr. See Subsection 1008.05 of the Standard Specifications.
GROUND ROD ASSEMBLY	Ground Rod, Wire & Clamp	Accept.	Proj. Engr. S 501	Mat. Lab	1/item*	1 of each item Wire 18 in. length	-----	-----	9 days	*Visual inspection by Proj. Engr. (Note: Coated steel hardware is not permitted.) Sample only if questionable.

SECTION 706 CONCRETE WALKS, DRIVES AND INCIDENTAL PAVING

MATERIAL	PURP.	SAMPLED BY	TESTED BY	MIN. FREQ.	MIN. QUANT.	CERT.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS

			METHOD			CONTAINER	DISTR.		TIME	
CONCRETE (Class M)	Mix Designs, Materials & Tests	**SEE SECTION 901 OF THIS MANUAL.**								Air entrainment is required for slip forming. If substituting Class A1, B, or D for Class M, use sampling requirements for Class M.
CURING MATERIALS		Accept.	**SEE SECTION 601 OF THIS MANUAL.**							
JOINT FILLER	Preformed Bituminous Type	Accept.	-----	Mat. Lab	-----	36 in. length	-----	-----	10 days	Visual inspection by Proj. Engr. Sample if questionable
REINFORCING STEEL		Accept.	**SEE SECTION 601 OF THIS MANUAL.**							
DETECTABLE WARNING SURFACE FOR HANDICAP RAMPS (Truncated Domes)		Accept.	-----	Mat. Lab	-----	-----	CC 3	-----	-----	Visual Inspection by Proj. Engr. Sample if questionable

SECTION 707 CURBS AND GUTTERS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
ASPHALTIC CURB	**For details on Additives, Aggregates, Asphalt Cement, Asphaltic Concrete, Asphaltic Tack Coat, Asphalt Mix Release Agent and Mineral Filler, See Section 502 of this Manual.**									No requirement for density and surface tolerance.
BACKFILL	Usable Soil	Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr.
CONCRETE (Class ~~M~~A1,B,D)	Compressive Strength	Accept.	Proj. Engr. S 301	Dist. Lab TR 226	3cyl/50yd^3*	6 in. x 12 in. or 4 in. x 8 in. cylinder mold	-----	50 yd^3	30 days	* Minimum 1 set / day **(ADDED REQUIREMENTS FROM SECTION 901 - MINOR STRUCTURE RATHER THAN STRUCTURAL / PAVEMENTS - LOWER SAMPLING REQUIREMENTS FOR CURBS AND GUTTERS)**

	Mix Design	Design/ Accept.	*	Contractor/ Dist. Lab	1/mix class or type/material source/plant	-----	-----	-----	3 days	(AML - Admixtures, AML- Aggregates, AML - Cement, AML Fly Ash and AML Microsilica (Silica Fumes)) *The contractor shall submit to the Dist. Lab Engr. the standard Mix Design form indicating the intended source of all materials and the mix design. Acceptance by the Dist. Lab Engineer is required prior to starting work.
	Slump and Air	Accept.	Proj. Engr. S 301	Proj. Engr.	1/50 yd^3	0.5 ft^3	-----	50 yd^3	1 day	When required in Table 901-3 or individual section.
CURING MATERIALS		Accept.	**SEE SECTION 601 OF THIS MANUAL.**							
FORM RELEASE AGENT		Accept.	Proj. Engr. S 601	Mat. Lab	1/lot	1 qt plastic bottle	-----	-----	9 days	(AML) Visual inspection by Proj. Engr. Sample only if questionable.
JOINT MATERIALS (Sealants, Filler, & Seals)		Accept.	Proj. Engr. S 601	Mat. Lab	1/5,000 lin ft*	36 in. length or 1 gal	-----	-----	17 days	*Visual inspection by Proj. Engr. Sample only if questionable.
REINFORCEMENT	Tie Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/ source*	1 bar	-----	-----	10 days	(AML) *Visual inspection Proj. Engr. Sample only if questionable.

SECTION 708 RIGHT-OF-WAY MONUMENTS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
RIGHT-OF-WAY MONUMENTS	Monuments, Steel Stakes & Witness Posts	Accept.	**Type as shown on plans or approved by the Location & Survey Section Administrator**	Mat. Lab/ Const. Fab. Insp.			-----	-----	-----	Approval letter from Location & Survey Section Administrator required for substitutions. Visual inspection by Proj. Engr.

SECTION 709 STEEL CATTLE GUARDS

MATERIAL	PURP.	SAMPLED BY	TESTED	MIN.	MIN. QUANT.	CERT.	SMALL	TYPICAL HANDLING	REMARKS

MATERIAL		PURP.	METHOD	BY	FREQ.	CONTAINER	DISTR.	QUANTITY	HANDLING TIME	REMARKS
BACKFILL	Density	Accept.	Proj. Engr.	Proj. Engr.	1/location	-----	-----	-----	-----	Six (6) inch layer to density of surrounding soil in the roadway. See Section 203.07.
CONCRETE (Class M)	Mix Designs, Materials & Tests	**SEE SECTION 901 OF THIS MANUAL.**								
HARDWARE	Bolts, Nuts and Washers	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/type/ shipment*	1 of each item**	-----	-----	12 days	*Visual inspection by Proj. Engr. Sample only if questionable. **One piece of each size and type of hardware used is be submitted.
PAINT PROTECTIVE COATINGS		Accept.	**SEE SECTION 811 OF THIS MANUAL.**							
REINFORCING STEEL	Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/ source*	48 in. length	-----	-----	10 days	(AML) *Visual inspection by Proj. Engr. Sample only if questionable.
STEEL CATTLE GUARD	Rails & Pipe Wings	Accept.	**Inspected by Const. Fab. Insp. Prior to use. See Section 807 of this Manual**	Std. Pl. KG-01 Const. Fab. Insp.			-----	-----	-----	Proj. Engr. to receive inspection report form Const. Fab. Insp.
TREATED TIMBER		Accept.	-----	Mat. Lab/ Const. Fab. Insp.	-----	-----	CC 1 & 6	-----	-----	Visual inspection at project site by Proj. Engr.

SECTION 710 FLOWABLE FILL

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
PORTLAND CEMENT		Prelim. Source Approval	**SEE SECTION 901 OF THIS MANUAL.**							
FLOWABLE FILL	Mix Design	Design	*	Contractor/ Dist. Lab	1/mix design	-----	-----	-----	3 days	*Lab Engineer to approve before work begins. Trial batch required.

FLY ASH		Prelim. Source Approval	**SEE SECTION 901 OF THIS MANUAL.**							
MIX DESIGN		Design	Contractor/ Supplier		1/mix design	-----	-----	-----	28 days	Approved trial batch mix design-contractor to submit to Engr. For approval.
SAND		Prelim. Source Approval	**SEE SECTION 901 OF THIS MANUAL.**							
WATER		Prelim. Source Approval	Proj. Engr. S 303		1/source*	1 qt plastic bottle	-----	-----	11 days	*~~Drinkable~~Potable water need not be sampled.

SECTION 711 RIPRAP

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
GEOTEXTILE FABRIC		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/ source/ shipment	3 lin ft/roll width of fabric*	CC 1	150 yd^2	10 days	(AML) *Sample a minimum of 18 ft2.
RECYCLED CONCRETE		Accept.	Proj. Engr. S 601 ~~**Visual inspection and/or gradation check (at source, project site, or both, at Engineer's option.)**~~	Proj. Engr.	*		-----	-----	-----	*Visual inspection and/or gradation check (at source, project site, or both, at Engineer's option.) Gradation and unit weight provided by suppliers. Must be from an approved source.
STONE		Accept.	Proj. Engr. S 601	Proj. Engr.			-----	-----	-----	(AML)

SECTION 712 REVETMENTS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
BACKFILL	Usable Soil	Accept.	Proj. Engr. S 401	Proj. Engr.	1/1,000 yd^3	1 full sample sack	-----	-----	10 days	----- ~~DO WE NEED THIS HERE, WE HAVE USABLE SOIL "REFER TO 203" BELOW.~~
CONCRETE (Class R)	Mix Designs, Materials & Test	**SEE SECTION 901 0F THIS MANUAL.**								
CABLE ARTICULATED CONCRETE BLOCK MATTRESS	Cellular Concrete Blocks	Accept.	-----	Proj. Engr.	-----	-----	CA 3	-----	-----	Visual inspection by Proj. Engr.
	Cable	Accept.	-----	Proj. Engr.	-----	-----	CC 3	-----	-----	Visual inspection by Proj. Engr. to ensure adequate tensile strength for handling.
CURING MATERIALS		Accept.	-----	Mat. Lab	-----	-----	-----	less than 300 yd^2	-----	See Section 601 of this manual.
WET-BATCHED SACKED CONCRETE	Compressive Strength	Accept.	Proj. Engr. S 601 TR 226 TR 230	Dist. Lab	1 set/1,000 sacks 3 cyl/set	1 sack 6 in. x 12 in. or 4 in. x 8 in. cylinder mold*	CC** 1	-----	-----	*Cylinders made from contents of sack mixed with water to produce a slump of 4 to 6 inches. **CC shall show mix proportions.
DRY-BATCHED PREPACKAGED SACKED CONCRETE	Compressive Strength	Accept.	Contractor Proj. Engr. S 601 TR 226 TR 230	Dist. Lab	1 set of 3 cy/set/1,000 sacks*	1 sack 6 in. x 12 in. or 4 in. x 8 in. cylinder mold*	CC 1	-----	-----	(AML) *Cylinders made from contents of sack mixed by contractor. Water to produce a slum of 2 to 5 inches. CC should show mix proportions.
GEOTEXTILE FABRIC		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/source/ shipment	3 lin ft/roll width of fabric*	CC 1	150 yd^2	10 days	(AML) *Sample a minimum of 18 ft2.
~~REFER TO SPECIFICATIONS FOR DETAILS ON NCHRP 350 REQUIREMENTS FOR PORTABLE WORK ZONE DEVICES~~ *(Why is this here?)*										
JOINT FILLER		Accept.	Proj. Engr. S 601	Mat. Lab	1/5,000 lin ft/ type*	36 in. length	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.
RECYCLED CONCRETE & STONE		**SEE SECTION 711 OF THIS MANUAL.**								
SACKS		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/ source*	1 sack	-----	-----	9 days	*Visual inspection by Proj. Engr. Sample only if questionable.
~~USABLE SOIL~~		~~**SEE SECTION 203 OF THIS MANUAL.**~~ *(LISTED UNDER BACKFILL)*								

SECTION 713 TEMPORARYTRAFFIC CONTROL

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
ADVANCE WARNING ARROW PANEL		Accept.	-----	Proj. Engr.	-----	-----	CC 1	-----	-----	Visual inspection by Proj. Engr.
BARRICADE WARNING LIGHTS		Accept.	Proj. Engr. S 601	Mat. Lab	1/type*	1 unit	CC** 1	-----	-----	(AML) *Visual inspection by Proj. Engr. Sample only if questionable. **See Specification Subsection 1018.~~12(c)~~ 13 for certification requirements.
DRUMS, CONES, TUBULAR MARKERS, AND FLEXIBLE DELINEATORS		Accept.	-----	Std. Pl. TC Series Mat. Lab	-----	-----	CC* 1	-----	-----	(AML for plastic drums and flexible delineators) Visual inspection by Proj. Engr. Sample only if questionable. * CC to show compliance with NCHRP 350 / MASH requirements and include FHWA approval if required.
	Sheeting	Accept.	Proj. Engr. S 601	Mat. Lab	-----	-----	CC 1	-----	-----	(AML) Visual inspection by Proj.. Engr. Sample only if questionable.
GLASS BEADS FOR THERMOPLASTIC PAVEMENT MARKINGS AND TRAFFIC PAINT	Drop-on Application	Prelim. Source Approval	Dist. Lab S 608	Mat. Lab	1/lot	1 gallon can or 50 lb bag	-----	-----	10 days	-----
		Accept.	Dist. Lab	Mat. Lab	1/lot	1-50 lb bag	CD* 1 & 7	-----	10 days	*CD issued when presampled by Dist. Lab and preapproved. Sample only if questionable.
PORTABLE FLASHER SUPPORTS		Accept.	-----	Std. Pl. TC Series Proj. Engr.	-----	-----	CC 1	-----	-----	Visual inspection by Proj. Engr.
RAISED PAVEMENT MARKERS & ADHESIVES		Accept.	**SEE SECTION 731 OF THIS MANUAL.**							
TEMPORARY PAVEMENT MARKING TAPE	Temporary Striping Tape (Type I & II)	Accept.	Proj. Engr. S 601	Mat. Lab	1/shipment*	6 ft length	CC 1	-----	10 days	(AML) *Visual inspection by Proj. Engr. Sample only if questionable.

TEMPORARY SIGNS, VERTICAL PANELS & BARRICADES	Barricades, Vertical Panels & Signs	Verif.	**When questioned by Proj. Engr., visual inspection by Const. Fab. Insp.**	MUTCD, Project Plans Const. Fab. Insp.			CA/CC* 1	-----	-----	Visual inspection by Proj. Engr. Const. Fab. Insp. to receive CA/CC when requested. *Required documentation to certify compliance to NCHRP 350 / MASH is detailed in 713.07

SECTION 713 TEMPORARY TRAFFIC CONTROL (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
TEMPORARY SIGNS, VERTICAL PANELS & BARRICADES (con't)	Reflective Sheeting, Paste, Paint, Overlay Film	Verif.	~~**When questioned by Proj. Engr, sample from original lot of reflective sheeting, paste, paint and/or overlay film to be obtained by Const. Fab. Insp. for testing. Random sampling by Const. Fab. Insp. for Quality Assurance. See Section 729 of this Manual.**~~	Mat. Lab	*		~~CA/~~CC 1	-----	-----	(AML) Visual inspection by Proj. Engr. * When questioned by Proj. Engr, sample from original lot of reflective sheeting, paste, paint and/or overlay film to be obtained by Const. Fab. Insp. for testing. Random sampling by Const. Fab. Insp. for Quality Assurance. See Section 729 of this Manual.

	Substrate	Verif.	~~When questioned by Proj. Engr., sample from original substrate lot by the Const. Fab. Insp. for testing. Random sampling by Const. Fab. Insp. for Quality Assurance.~~	Mat. Lab	*		~~CA/~~CC** 1	-----	-----	Visual inspection by Proj. Engr. *When questioned by Proj. Engr., sample from original substrate lot by the Const. Fab. Insp. for testing. Random sampling by Const. Fab. Insp. for Quality Assurance. **Required documentation is detailed in 713.~~0708~~. ~~**CA for aluminum, CC for wood, no certification for and plastics.~~
THERMOPLASTIC PAVEMENT MARKINGS		Accept.	**SEE SECTION 732 OF THIS MANUAL.**							
TRAFFIC PAINT		Accept.	**SEE SECTION 737 OF THIS MANUAL.**							

SECTION 713 TEMPORARY TRAFFIC CONTROL (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING	REMARKS
BARRIERS	Precast Concrete	~~SEE SECTION 733810 OF THIS MANUAL~~ . Accept.	Proj. Engr.	~~Const. Fab. Insp.~~ MFR			CC*			*Required documentation to certify compliance to NCHRP 350 / MASH is detailed in 713.07. ***(CONSTRUCTION FAB. NO LONGER INSPECTING TEMP CONCRETE BARRIERS)***
	Water Filled	Accept.	-----	Std. Pl. TC Series Proj. Engr.	-----	-----	CC** 1	-----	-----	Visual inspection by Proj. Engr. *Required documentation to certify compliance to NCHRP 350 / MASH is detailed in 713.07. ~~**CA for aluminum, CC for wood, no certification for plastics.~~

SECTION 714 SODDING

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGRICULTURAL LIME		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
FERTILIZER		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
SOD		Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	*Visual inspection by Proj. Engr. or Roadside Development personnel.
WATER		Accept.	Proj. Engr. S 303	Mat. Lab	1/source*	1 qt plastic bottle	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 715 TOPSOIL

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGRICULTURAL LIME		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
TOPSOIL		Accept.	Contractor*		1/1,000 yd3	1 full sample sack	CA 3	200 yd3	-----	*Contractor to provide report from established soil testing entity.

SECTION 716 VEGETATIVE & FIBER MULCH

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
TACKING AGENTS	Emulsified Asphalt	Prelim Source Approval	**SEE SECTION 506 OF THIS MANUAL.**							
		Accept.	-----	Proj. Engr.	1/shipment	-----	CD* 1 & 7	No CD required if less than 500 gal	4 days	(AML) Visual inspection by Proj. Engr. *Sample when not accompanied by CD or questionable.
	Tacking Agent	Accept.	-----	Proj. Engr.	-----	-----	CA* 1 & 7	-----	-----	Visual inspection. *Must be an approved product for AML items.
VEGETATIVE MULCH		Accept.	-----		-----	-----	-----	-----	-----	Visual inspection by Proj. Engr. or Roadside Development personnel.

FIBER MULCH		Accept.	-----		-----	-----	-----	-----	-----	(AML) Visual inspection by Proj. Engr. or Roadside Development

SECTION 717 SEEDING

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGRICULTURAL LIME		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
FERTILIZER		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
SEED		Accept.	-----	Proj. Engr.	-----	-----	-----	50 lb	-----	Analysis tag plus test report for LA Department of Agriculture. Seed test reports from other states are acceptable provided specification requirements are met. Consult Roadside Development personnel for seed selection.
TOPSOIL		Accept.	Contractor*		1/1,000 yd3	1 full sample sack	CA 3	200 yd3	-----	*Contractor to provide report from established soil testing entity.
WATER		Accept.	Proj. Engr. S 303	Mat. Lab	1/source*	1 qt plastic bottle	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 718 FERTILIZER AND AGRICULTURAL LIME

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGRICULTURAL LIME		Accept.	-----	Mat. Lab	-----	-----	CA 1	10 tons	-----	Visual inspection. Sample only if questionable.
FERTILIZER		Accept.	-----	Proj. Engr.	-----	-----	CA* 1	-----	-----	For bag shipments, visual inspection of bag markings by Proj. Engr. *For bulk shipments, Proj. Engr. to receive CA.

SECTION 719 LANDSCAPING

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS

AGRICULTURAL LIME		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
BACKFILL SOIL	Mortar Sand, Pine Bark, Water Management Gel, Manure, Mycorrhizal Inoculant & Topsoil	Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr. of all ingredients prior to mixing.
FERTILIZER		Accept.	**SEE SECTION 718 OF THIS MANUAL.**							
MULCHING	Other Materials	Accept.	Proj. Engr. S 601	Dist. Lab	1/source*	3 full sample sacks	-----	-----	-----	*Visual inspection by Porj. Engr. Sample only if questionable.
	Pine Bark	Accept.	Proj. Engr. S 601	Dist. Lab	1/source*	3 full sample sacks	-----	-----	-----	*Visual inspection by Porj. Engr. Sample only if questionable.
PLANTS	Containered and Native Stock	-----	* ~~**Documented visual determination of specification compliance by DOTD Landscape Architect at nursery source. All plants shall be legibly tagged. Acceptance is based on inspection at the end of one full growing**~~	Landscape Architect						Documented visual determination of specification compliance by DOTD Landscape Architect at nursery source. All plants shall be legibly tagged. Acceptance is based on inspection at the end of one full growing season.
	~~Native Stock~~	~~-----~~		~~Landscape Architect~~						
SOIL	Planting Area	Accept.	Contractor*		1/planting area	1 full sample sack	CA 3	-----	-----	*Contractor to provide report from established soil testing entity.
TOPSOIL		Accept.	Contractor*		1000 yd 3	1 full sample sack	CA 3	200 yd2	-----	*Contractor to provide report from established soil testing entity.

WATER		Accept.	Proj. Engr. S 303	Mat. Lab	1/source*	1 qt plastic bottle	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 720 EROSION CONTROL SYSTEMS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
EROSION CONTROL SYSTEMS	Rolled Products	Prelim. Source Approval	Dist. Lab. S 613	Mat. Lab	1/200 rolls/ Mfr.'s Lot	3 yd^2*	-----	-----	10 days	(AML) *When sampling moisture sensitive material use moisture proof bag.
		Accept.	Proj. Engr. S 613	Mat. Lab	1/200 rolls/ Mfr.'s Lot	3 yd^2*	CD** 1 & 7	-----	10 days	(AML) *When sampling moisture sensitive material use moisture proof bag. **Sample when not accompanied by a CD or questionable.
	Bagged Products	Prelim. Source Approval	Dist. Lab. S 613	Mat. Lab	1/200 bags/ Mfr.'s Lot	1 bag	-----	-----	10 days	(AML)
		Accept.	Proj. Engr. S 613	Mat. Lab	1/200 bags/ Mfr.'s Lot	1 bag	CD* 1 & 7	-----	10 days	(AML) *Sample when not accompanied by a CD or questionable.
	Hardware	Accept.	Dist. Lab S 601	Mat. Lab	1/item/type/ size	1 item	CD* ~~1 & 7~~	-----	10 days	(AML) ~~Visual inspection by Proj. Engr. ~~*Sample when not accompanied by a CD or if ~~only if~~ questionable.
	Additives	Accept.	Proj. Engr. S 601	Mat. Lab	1 quart/mfr's lot	1 item or 1 quart	CD* 1 & 7	-----	10 days	(AML) *Sample when not accompanied by a CD or questionable.

SECTION 721 MOWING, TRIMMING & DEBRIS COLLECTION

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
HERBICIDES		Accept.	Dist. Roadside Development Coordinator	Mat. Lab	-----	-----	-----	-----	-----	Approval of the District's Roadside Development Coordinator for use, type & rate of application.

SECTION 723 GRANULAR MATERIAL

MATERIAL	PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS

GRANULAR MATERIAL		Design/ Accept.	Proj. Engr. S 101	Dist. Lab	1/1,000 yd^3	1 full sample sack	-----	50 yd^3	4 days	-----
		IA	Dist. Lab S 101	Dist. Lab	**SEE INDEPENDENT ASSURANCE PROGRAM S 701.**					
MATERIAL ON ROADWAY	Density	Accept.	Proj. Engr. TR 401	Proj. Engr.	1/1,000 lin ft/ 2-lane rdwy or 1/2,000 lin ft/	-----	-----	-----	1/2 hr.	-----
	Thickness & Width	Accept.	Dist. Lab TR 602	Dist. Lab	1/1,000 lin ft/ 2-lane rdwy or 1/2,000 lin ft/	-----	-----	300 lin ft per location	3 days	*See DOTD TR 602. For small quantity, Proj. Engr. documents in field book.

SECTION 725 TEMPORARY DETOUR ROADS ~~AND BRIDGES~~

MATERIAL	PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
For details on Temporary Signs, Barricades and Pavement Markings, see Section 713 of this Manual. For details on Gard Rail, see Section 704 of this Manual. For details on Median Roadway Barriers, see Section 733 of this Manual. For details on Seed, see Section 717 of this Manual. For details on Fertilizer, see section 718 of this Manual. For details on Embankments, see section 203 of this Manual.									
BASE COURSE (Roadway)		**SEE PART III OF THIS MANUAL.**							
~~PILES & TIMBER~~		~~Accept.~~	-----	~~Proj. Engr.~~	-----	-----	-----	-----	-----	~~Visual inspection by Proj. Engr.~~ (TEMP BRIDGES NOW IN SECTION 817)
SURFACE COURSE (Roadway)		**SEE PARTS IV, V OR VI OF THIS MANUAL.**							
TEMPORARY CULVERT PIPE		Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr.

SECTION 726 BEDDING MATERIAL

MATERIAL	PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS

AGGREGATES	Bedding Material	Accept.	Proj. Engr. S 101	Dist. Lab	1/1,000 yd^3 stockpile*	1 full sample sack	-----	50 yd^3	4 days	(AML for stone, RPCCexpanded clay, gravel and slag) *Each ingredient may be sampled and approved prior to mixing. Recycled PCC must be from an approved source.
GEOTEXTILE FABRIC		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/source/ shipment	3 lin ft/roll width of fabric*	-----	150 yd^2	10 days	(AML) *Sample a minimum of 18 ft2.
PLASTIC SOIL BLANKET		Accept.	Proj. Engr. S 401	Dist. Lab	1/1,000 yd^3*	1 full sample sack/sample	-----	300 yd^3	10 days	*Not required if tested and approved as required excavation or borrow material.

SECTION 728 JACKED OR BORED PIPE

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
GROUT		Accept.	**SEE SECTION 901 OF THIS MANUAL.**							
PIPE & JOINTS		Accept.	**SEE SECTION 701 OF THIS MANUAL.**							

SECTION 729 TRAFFIC SIGNS AND DEVICES

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
BACKFILL (Soil)		Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr.
CONCRETE	Mix Designs, Materials & Tests	**SEE SECTION 901 OF THIS MANUAL.**								
DELINEATORS		Accept.	Proj. Engr. S 601	Mat. Lab	1/type/ shipment	2 pieces	CC 1	-----	10 days	*Required documentation is detailed in 713.07.
GALVANIZING REPAIR COMPOUND	Ferrous Metal	**SEE SECTION 811 OF THIS MANUAL.**								
GROUND ROD ASSEMBLY	Ground Rod, Wire & Clamp	Accept.	Proj. Engr. S 501	Traffic Sign Plan Details Mat. Lab	1/item	1 of each item wire-10 in. length	-----	-----	9 days	Visual inspection by Proj. Engr. Sample only if questionable. Coated steel hardware is not permitted.

DEAD END ROAD INSTALLATION	Hardware (Guard Rail)	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/type/ shipment	1 of each item**	CC* 3	-----	10 days	*Sample not required if listed on CC for metal beam rail. **One piece of each size and type of hardware used is to be submitted.
	Guard Rail	Accept.	-----	Mat. Lab	-----	-----	CC 3	-----	-----	Fabricator must file Brand Registration and guarantee with Mat. Lab. Visual inspection by Proj. Engr.
	Steel Posts & Spacer Blocks	Accept.	-----	Mat. Lab	-----	-----	CC 3	-----	-----	Visual inspection by Proj. Engr.
	Timber	Accept.	-----	Mat. Lab/ Const. Fab. Insp.	-----	-----	CC 1 & 6	-----	-----	Visual inspection by Proj. Engr.
	Wood Posts & Spacer Blocks	Accept.	-----	Mat. Lab/ Const. Fab. Insp.	-----	-----	CC 1	-----	-----	Visual inspection by Proj Engr.
HARDWARE	Bolts, Nuts & Washers	Accept.	-----	Const. Fab. Insp.	-----	-----	CC 4	-----	-----	Smaller than 3/8 in.
		Accept.	Const. Fab. Insp.	Mat. Lab	1/size/source	2 of each item*	CC 6	-----	11 days	Larger than 3/8 in. *Two bolts, two nuts and two washers are to be submitted.
	Mounting Bracket, Strap, Seal	Accept.	-----	Const. Fab. Insp.	-----	-----	CC 4	-----	-----	Visual inspection by Proj Engr. Sample only if questionable.
	Rivets	Accept.	-----	Const. Fab. Insp.	-----	-----	CC 4	-----	-----	-----
PILING	Timber	Accept.	**Inspected and stamped by Const. Fab. Insp. prior to use. See Section ~~812~~804 of this Manual**	Mat. Lab			CD 1 & 6	-----	-----	Visual inspection by Proj. Engr.
POSTS (Sign, Marker & Delineator)	Flexible	Accept.	Proj. Engr. S 501	Mat. Lab	1/shipment* (not to exceed 500)	1 post	CC 1	-----	10 days	(AML for delineator posts) *Visual inspection by Proj. Engr. Sample only if questionable.

SECTION 729 TRAFFIC SIGNS AND DEVICES (Cont'd)

MATERIAL	PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS

POSTS (Sign, Marker & Delineator)	Steel, U-Channel & Square Post for small signs	Accept.	Proj. Engr. S 501	Mat. Lab	One/ shipment* (not to exceed 500 tons)	1 post	CC 1	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.
	Aluminum, Steel, other than U-Channel & Square posts	Accept.	**SEE STRUCTURAL STEEL & ALUMINUM IN SECTION 807 OF THIS MANUAL.**							
OBJECT MARKERS		Accept.	-----	Mat. Lab	-----	-----	CC 1	-----	-----	Visual inspection by Proj. Engr. Sample only if questionable.
REINFORCEMENT	Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/source*	48 in. length	CA 1	-----	10 days	*If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample for verification if questionable.
	Stirrups	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/source*	2 stirrups	CA 1	-----	10 days	*If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample for verification if questionable.
SIGN MOUNTING		Accept.	**Inspected and stamped by Const. Fab. Insp. prior to use. See Section 807 of this manual.**	Const. Fab. Insp.			CA 4	-----	-----	Proj. Engr. receives report form Const. Fab. Insp.
TRAFFIC SIGNS & MILEPOST MARKERS	All Permanent Signs	Accept.	~~**Inspected and stamped by Const. Fab. Insp. prior to use. See Section 807 of this manual.**~~ Proj. Engr./ Sign Inspection Team	Proj. Engr./ Sign Inspection Team			CC 1	-----	10 days	Visual inspection of all incidental Permanent Signs and Markers by Proj. Engr.
	Sign & Marker Sheeting, Paste, Paint and Overlay Film	Accept.	~~Const. Fab. Insp.~~ Proj. Engr./ Sign Inspection Team S 501	Mat. Lab	1/lot/type/ color	5 ft^2	CA 6	-----	10 days	(AML) For reflective sheeting. ~~When questioned by Const. Fab.~~If questionable, sample form original lot of reflective sheeting, paste, paint and/or overlay film to be obtained for testing.

		Verif.	~~Const. Fab. Insp.~~ Proj. Engr./ Sign Inspection Team S 501	Mat. Lab	1/color/180 days	5 ft^2	-----	-----	10 days	AML for reflective sheeting. ***IS THIS ROW NECESSARY? I DON'T THINK ANYONE IS DOING THIS.***
	Aluminum Panels & Structural Shapes	Accept.	~~Const. Fab. Insp.~~ Proj. Engr./ Sign Inspection Team	Mat. Lab	1/thickness	1 ft x 2 ft or 2 ft. for Structural Shape	CA 6	**-----**	10 days	~~When questioned by Const. Fab.~~If questionable, sample from original lot of aluminum panel and or Structural Shape shall be obtained for testing.
		Verif.	-----	Mat. Lab	1/year/source	1 ft x 2 ft or 2 ft. for Structural Shape	-----	-----	-----	-----
WELDING	**SEE SECTION ~~815~~ 809 OF THIS MANUAL.**									

~~SECTION 730 ELECTRICAL SYSTEMS~~ (MOVED TO SECTION 822)

~~MATERIAL~~		~~PURP.~~	~~SAMPLED BY~~ ~~METHOD~~	~~TESTED BY~~	~~MIN. FREQ.~~	~~MIN. QUANT.~~ ~~CONTAINER~~	~~CERT.~~ ~~DISTR.~~	~~SMALL QUANTITY~~	~~TYPICAL HANDLING~~	~~REMARKS~~
~~ALL ELECTRICAL COMPONENTS & MATERIALS NOT SPECIFICALLY MENTIONED IN THIS SECTION SHALL BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS FOR ELECTRICAL EQUIPMENT BELOW.~~										
~~ANCHOR BOLTS, NUTS AND WASHERS~~		~~Accept.~~	~~Proj. Engr. S 501~~	~~Mat. Lab~~	~~1/size/type~~	~~1 of each item*~~	~~CA 7~~	~~-----~~	~~11 days~~	~~*One of each size and type of bolt, nut and washer is to be submitted.~~
~~BACKFILL~~	~~Soil or Granular Material~~	~~**SEE SECTION 701 OF THIS MANUAL.**~~		~~Dist. Lab~~						
~~CONCRETE~~	~~Mix Designs, Materials &~~	~~**SEE SECTION 901 OF THIS MANUAL.**~~								
~~CONDUIT~~		~~Accept.~~	~~**BRIDGE DESIGN APPROVES AND DISTRIBUTES TO PROJ. ENGR.**~~	~~Bridge Design~~						
~~ELECTRICAL CONDUCTORS~~		~~Accept.~~	~~-----~~	~~Proj. Engr.~~	~~-----~~	~~-----~~	~~CA 1~~	~~-----~~		~~Visual Inspection by Proj. Engr.~~

ELECTRICAL EQUIPMENT	Brochures, Certified Dimension Sheets & Description Data	Accept.	**BRIDGE DESIGN APPROVES AND DISTRIBUTES TO PROJ. ENGR.**	Bridge Design						
GROUND ROD ASSEMBLY	Ground Rod, Wire & Clamp	Accept.	Proj. Engr. S 501	Mat. Lab	1/item	1 of each item Wire - 18 in. length	-----	-----	9 days	Visual inspection by Proj. Engr. Sample only if questionable. Coated steel hardware is not permitted.
GUARANTY	Contractor's Guaranty	Accept.	**PROJ. ENGR. AND BRIDGE DESIGN APPROVES AND FILES.**	Proj. Engr.						
	Manufacturer's Standard Warranty	Accept.	**PROJ. ENGR. AND BRIDGE DESIGN APPROVES AND FILES**	Proj. Engr.						
HIGH MAST POLES		Accept.	**Inspected and stamped by Const. Fab. Insp. Prior to use. See section 807 of this Manual.**	Const. Fab. Insp.			CA 6	-----	-----	Inspection report from Const. Fab. Insp. shall be sent to the Proj. Engr.

SECTION 730 ELECTRICAL SYSTEMS (Cont'd)

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
LIGHT POLES	Brochures, Certified Dimension Sheets &	Accept.	**Bridge Design Approves and distributes to Proj. Engr.**	Bridge Design				-----	-----	-----
REINFORCING STEEL	Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/ source*	48 in. length	CA 1	-----	11 days	*If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample for verification if questionable.
SYSTEM TESTS		Accept.	-----	Contractor	-----	-----	-----	-----	-----	Proj. Engr. to observe tests and receive report of test results

~~TIMBER~~		~~Accept.~~	~~**Inspected stamped by Const. Fab. Insp. Prior to use. See section 812 of this Manual.**~~	~~Mat. Lab/ Const. Fab. Insp.~~			~~CD 1 & 6~~	~~-----~~	~~11 days~~	~~Visual inspection by Proj. Engr.~~

SECTION 731 RAISED PAVEMENT MARKERS

MATERIAL		PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
ADHESIVE (For Pavement Markers)	Bituminous	Prelim. Source Approval	Dist. Lab S 606	Mat. Lab	1/lot	0.5 gal friction top can	-----	-----	21 days	(AML)
		Accept.	Proj. Engr. S 606	Mat. Lab	1/lot *	0.5 gal friction top can	CD 1 & 7	-----	11 days	(AML) *When not accompanied by CD. ~~See S 606 for details.~~
	Epoxy	Prelim. Source Approval	Dist. Lab S 606	Mat. Lab	1/lot/ component	0.5 gal friction top can	-----	-----	21 days	(AML)
		Accept.	Proj. Engr. S 606	Mat. Lab	1/lot *	0.5 gal friction top can	CD 1 ~~& 7~~	-----	11 days	(AML) *When not accompanied by CD. ~~See S 606 for details.~~
RAISED PAVEMENT MARKERS		Prelim. Source Approval	Dist. Lab S 607	Mat. Lab	1/10,000/ type/source	20 markers	-----	-----	10 days	(AML)
		Accept.	Proj. Engr. S 607	Mat. Lab	1/lot *	20 markers	CD 1 & 7	-----	10 days	(AML) *When not accompanied by CD. ~~See S 607 for details.~~
TEMPORARY RAISED PAVEMENT MARKERS		Accept.	Proj. Engr. S 607	Mat. Lab	1/lot *	20 markers	CC 1	-----	10 days	*Sample only if questionable

SECTION 732 PLASTIC PAVEMENT MARKINGS

MATERIAL	PURP.	SAMPLED BY / METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. / CONTAINER	CERT. / DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS

SURFACE PRIMER		Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr. to ensure that manufacturer recommendations are being followed.
GLASS BEADS		Prelim. Source Approval	Dist. Lab	Mat. Lab	1/lot	1 - 50 lb bag	CA*	-----	10 days	*CA must include test results to show compliance with EPA limits on arsenic.
		Accept.	Proj. Engr. S 608 *	Mat. Lab	1/lot	1 - 50 lb bag 1 gal can	CD* & CA ** CD (Project) CA (Chemical) 1 & 7	-----	10 days	*CD issued when presampled by Dist. Lab and preapproved. Sample only if questionable. **CA must include test results to show compliance with EPA limits on arsenic. Use Sampling Method S 608 when glass beads are shipped in 50 lb bags. Use AASHTO ~~TP 97-11~~ T 346 Section 4 when glass beads are shipped in bulk containers. *(REVISE S 608 TO INCLUDE METHOD, THEN REMOVE THIS REFERENCE)*
PREFORMED PLASTIC MARKING TAPE		Prelim. Source Approval	Dist. Lab	Mat. Lab	1/lot	2-6 ft lengths*	-----	-----	10 days	(AML) *Coiled and placed in gallon can.
		Accept.	Proj. Engr. S 609	Mat. Lab	1/lot	2 - 6 ft lengths*	CD** 1 & 7	-----	10 days	(AML) *Coiled and placed in a gallon can. **CD issued when presampled by Dist. Lab and preapproved. Sample only if questionable.
THERMOPLASTIC MARKING (Hot Applied)		Prelim. Source Approval	Dist. Lab S 610	Mat. Lab	1/lot	1 gal can (app. 9 -12 lbs.)	-----	-----	10 days	(AML)
		Accept.	Proj. Engr. S 610	Mat. Lab	1/lot	1 gal can (app. 9 -12 lbs.)	CD* 1 & 7	-----	10 days	(AML) *CD issued when presampled by District Lab. and preapproved. Sample only if questionable.
THERMOPLASTIC MARKING (Preformed)		Accept.	Proj. Engr. S 610	Mat. Lab	1/lot *	2 preformed sections	CC 1	-----	10 days	(AML) *Visual inspection, sample only if questionable.

~~SECTION 733 CONCRETE ROADWAY BARRIERS~~ MOVED TO SECTION 810

~~MATERIAL~~		~~PURP.~~	~~SAMPLED METHOD~~	~~TESTED BY~~	~~MIN. FREQ.~~	~~MIN. QUANT. CONTAINER~~	~~CERT. DISTR.~~	~~SMALL QUANTITY~~	~~TYPICAL HANDLING TIME~~	~~REMARKS~~
~~BARRIER (Precast)~~		~~Accept.~~	~~Inspected and stamped by Const. Fab. Insp. prior to use.~~	~~Proj. Engr.~~			~~CD 1 & 6~~	-----	-----	~~Visual inspection by Proj. Engr.~~

FOR BARRIERS FABRICATION INSPECTION BY PROJECT ENGINEER, SEE BELOW										
CONCRETE	Mix Designs, Materials &	SEE SECTION 901 OF THIS MANUAL.								Air entrainment is required for slip forming.
CURING MATERIALS		SEE SECTION 805 OF THIS MANUAL.		Mat. Lab						
JOINT MATERIALS		Accept.	SEE SECTION 805 OF THIS MANUAL.	Mat. Lab					17 days	-----
REINFORCING STEEL	Deformed Steel Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/ source*	48 in. length	CA 1	-----	10 days	*If listed on AML, materials with a CA (Dist. 1) need not be sampled. Sample for verification if questionable.
SPECIAL SURFACE FINISH	Masonry Finish	Accept.	Proj. Engr. S 601	Mat. Lab	1/lot or shipment	1 qt friction top can	CC 1	-----	11 days	(AML) Sample if not accompanied by CC or if questionable.

SECTION 734 RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT

MATERIAL		PURP.	SAMPLED METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
BACKFILL MATERIAL	Base Course Aggregate	Accept.	Proj. Engr.		1/1,000 yd^3	1 full sample sack	-----	50 yd^3	4 days	-----
ASPHALT CONCRETE PATCHING	SEE SECTION 510 OF THIS MANUAL									
TEST PIT		Accept.	Proj. Engr.	Proj. Engr.	-----	-----	-----	-----	-----	For purpose of approving equipment and pattern. Document in Field Book.

SECTION 735 MAILBOXES AND MAILBOX SUPPORTS

MATERIAL		PURP.	SAMPLED METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
MAILBOXES AND MAILBOX	VISUAL INSPECTION BY PROJECT ENGINEER.									

SECTION 736 TRAFFIC SIGNALS

	PURP.	SAMPLED	TESTED	MIN.	MIN. QUANT.	CERT.	SMALL	TYPICAL	

MATERIAL			METHOD	BY	FREQ.	CONTAINER	DISTR.	QUANTITY	HANDLING TIME	REMARKS
ANCHOR BOLTS		Accept.	Proj. Engr. S 50l	Mat. Lab	1/type/lot or shipment	1 bolt	CA 1	-----	11 days	-----
BACKFILL	Usable Soil	**SEE SECTION ~~701~~ 203 OF THIS MANUAL.**								
CONCRETE	Mix Designs, Materials & Tests	**SEE SECTION 901 OF THIS MANUAL.**								
SURFACE FINISH		**SEE SECTION 805 OF THIS MANUAL.**								
ELECTRICAL CONDUCTORS		Accept.	-----	Proj. Engr.	-----	-----	CA 1	-----	-----	Visual inspection by Proj. Engr.
ELECTRICAL JUNCTION BOX		Accept.	-----	Traffic Services and Operations Engr.	-----	-----	CC 1*	-----	10 days	(TOAPL) *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.
GROUND RODS		Accept.	Proj. Engr. S 50l	Mat. Lab	1/item*	1 of each item Wire - 18 in. length	-----	-----	9 days	*Visual inspection by Proj. Engr. Sample only if questionable. Coated steel hardware is not permitted.
GUY COMPONENTS (Hardware)		Accept.	Proj. Engr. S 50l	Mat. Lab	1/type/lot or shipment	1 of each item*	-----	-----	12 days	*One piece of each type of hardware used is to be submitted.
MANHOLE FRAMES AND COVERS		**SEE SECTION 807 (CASTINGS) OF THIS MANUAL.**								
METAL POLES FOR TRAFFIC SIGNAL SYSTEMS		Accept.	-----	Traffic Services and Operations Engr.	-----	-----	CA 1 & 6*	-----	-----	~~(TOAPL)~~ *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.
PRECAST REINFORCED CONCRETE JUNCTION BOXES & MANHOLES		~~Accept.~~	~~-----~~	~~Traffic Services and Operations Engr.~~	~~-----~~	~~-----~~	~~CC 1*~~	~~-----~~	~~-----~~	~~(TOAPL) *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.~~
		SEE SECTION 702 OF THIS MANUAL.								

REINFORCING STEEL	Bars	Accept.	Proj. Engr. S 501	Mat. Lab	1/size/ source*	48 in. length	CA 1	-----	10 days	*If listed on the AML materials with a CA (Dist. 1) need not be sampled. Sample for verification if questionable.
RIGID METAL ELECTRICAL CONDUIT	Brochures, Drawings, Equipment Submittals	Accept.	-----	Traffic Services and Operations Engr.	-----	-----	CA 1*	-----	-----	~~(TOAPL)~~ *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.
STEEL STANDARDS & MAST ARMS		-----	-----	Traffic Services and Operations Engr.	-----	-----	CC 1*	-----	-----	(TOAPL for single mast arms larger than 50' and dual mast arms larger than 45' x 45') *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.
SUPPORT CABLE		Accept.	-----	Traffic Services and Operations Engr.	-----	-----	CC 1*	-----	-----	~~(TOAPL)~~ *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.
TIMBER POLES		Accept.	**Inspected and stamped by Const. Fab. Insp. prior to use. See Section ~~812~~804 of this Manual**	Mat. Lab			CD 1 & 6	-----	-----	Visual inspection by Proj. Engr.

SECTION 736 TRAFFIC SIGNALS (Cont'd)

MATERIAL		PURP.	SAMPLED METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
~~TRAFFIC~~ SIGNAL CABLE, SIGNAL HEADS, DETECTORS, SIGNAL HARDWARE AND EQUIPMENT	Brochures, Drawings, Equipment Submittals	-----	-----	Traffic Services and Operations Engr.	-----	-----	CC 1*	-----	-----	(TOAPL for signal heads and mast arm brackets) *Submit to Traffic Services. Traffic Services will return approved copy. Visual inspection by Proj. Engr.

SECTION 737 PAINTED TRAFFIC STRIPING

	PURP.	SAMPLED METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS

MATERIAL			METHOD	BY	FREQ.	CONTAINER	DISTR.	QUANTITY	HANDLING TIME	REMARKS
GLASS BEADS		Prelim. Source	Dist. Lab	Mat. Lab	1/lot	1 - 50 lb bag	-----	-----	10 days	-----
		Accept.	Proj. Engr. S 608	737.02 1015.13 Mat. Lab	1/lot	1 - 50 lb bag 1 gal can	CD*&CA CD (Physical)	-----	10 days	*CD issued when presampled by Dist. Lab and preapproved. Sample only if questionable. Use Sampling Method S 608 when glass beads are shipped
TRAFFIC PAINT	Water-based	Prelim. Source Approval	Dist. Lab S 608	Mat. Lab	1/lot	1 pt friction top can	-----	-----	11 days	(AML)
		Accept.	Proj. Engr. S 608	Mat. Lab	1/lot	1 pt friction top can	CD* 1 & 7	-----	11 days	(AML) *CD issued when presampled by the Dist. Lab and preapproved. Sample only if questionable.

SECTION 738 MULCH SODDING

MATERIAL		PURP.	SAMPLED METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGRICULTURAL LIME		SEE SECTION 718 OF THIS MANUAL.								
FERTILIZER		SEE SECTION 718 OF THIS MANUAL.								
MULCH SOD		Accept.	-----	Roadside Development Personnel	-----	-----	-----	-----	-----	*Visual inspection by Roadside Development personnel prior to mulching.
SEEDING		SEE SECTION 717 OF THIS MANUAL.								
WATER		Accept.	Proj. Engr. S 303	Mat. Lab	1/source*	1 qt plastic bottle	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.
TOPSOIL		SEE SECTION 715 OF THIS MANUAL								

SECTION 739 HYDRO-SEEDING

MATERIAL		PURP.	SAMPLED METHOD	TESTED BY	MIN. FREQ.	MIN. QUANT. CONTAINER	CERT. DISTR.	SMALL QUANTITY	TYPICAL HANDLING TIME	REMARKS
AGRICULTURAL LIME		SEE SECTION 718 OF THIS MANUAL.								

FERTILIZER		**SEE SECTION 718 OF THIS MANUAL.**								
MULCHING	Other Materials	Accept.	Proj. Engr. S 601	Mat. Lab	1/source*	3 full sample sacks	-----	-----	-----	*Visual inspection by Proj. Engr. Sample only if questionable.
	Wood Fiber	Accept.	Proj. Engr. S 601	Mat. Lab	1/source*	3 full sample sacks	-----	-----	-----	*Visual inspection by Proj. Engr. Sample only if questionable.
SEED		**SEE SECTION 717 OF THIS MANUAL.**								
WATER		Accept.	Proj. Engr. S 303	Mat. Lab	1/source*	1 qt plastic bottle	-----	-----	11 days	*Visual inspection by Proj. Engr. Sample only if questionable.
WATER MANAGEMENT GEL, POLYACRYLAMIDE TACKIFIER, AND MYCORRHIZAL		Accept.	-----	Proj. Engr.	-----	-----	-----	-----	-----	Visual inspection by Proj. Engr. of all ingredients prior to mixing.
HYDRO-SEEDING SYSTEM		Accept.	Proj. Engr. S 303	Mat. Lab	1/source*	-----	CC 1	-----	-----	(AML) * If all materials are included in a single manufacturer's hydro-seeding system.