PART 542 – SPECIFICATIONS

SUBPART C- EXHIBIT

\$MO542.40

List of Reference Specifications

This exhibit lists the number, current issue date, and title of all reference specifications that are to be maintained by the state office engineering staffs. These are the specifications currently referenced in NRCS Construction Specifications, National Handbook of Conservation Practices, and Section 19 of the National Engineering Handbook.

Specification titles appearing in upper case letters are those that will be maintained by the field engineering staff as designated by the state conservation engineer. **The ASTM Specifications in the field are mostly out of date.** These books will be updated as funds permit. The list of Reference Specifications sent out by NEM Amendment 21 dated April 1995 pages 542-5 through 542-13 shall be discarded.

ASTM's "A series"

A6/A6M-97	General Requirements for Rolled Structural Steel Bars, Plates, Shapes and Sheet Piling				
A27/A27M-95	Steel Castings, Carbon, for General Application				
A29/A29M-93a	Steel Bars, Carbon and Alloy, Hot-Wrought and Cold-Finished, General Requirements for				
A31-95	Steel Rivets and Bars for Rivets, Pressure Vessels				
A36/A36M-96	CARBON STRUCTURAL STEEL				
A47-90 (95)	Ferritic Malleable Iron Castings				
A48-94a	Gray Iron Castings				
A53-97	PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED, WELDED AND SEAMLESS				
A82-97 Steel Wire, Plain, for Concrete Reinforcement					
A90/A90M-95a	Test Method for Weight of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings				
A108-95	Steel Bars, Carbon, Cold Finished, Standard Quality				
A116-95	ZINC-COATED (GALVANIZED) STEEL WOVEN WIRE FENCE FABRIC				
A120-84	DISCONTINUED - REPLACED BY A53				
A121-92a	ZINC COATED (GALVANIZED) STEEL BARBED WIRE				
A123/A123M-97a	A123/A123M-97a Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products				
A126-95	A126-95 Gray Iron Castings for Valves, Flanges and Pipe Fittings				
A134-96	134-96 PIPE, STEEL, ELECTRIC-FUSION (ARC)-WELDED (SIZES NPS 16 AND OVER)				
A135-97	ELECTRIC-RESISTANT-WELDED STEEL PIPE				
A139-96	ELECTRIC-FUSION (ARC)-WELDED STEEL PIPE (NPS 4 AND OVER)				
A143-74 (94)	Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedur	re			
	(210-V-NFM_Supplement MO-9_December_1999) MO-542-6	i (1			

for Detecting Embrittlement

A148/A148M-93b Steel Castings, High, Strength, for Structural Purposes

A153/A153M-95 ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE

A165 DISCONTINUED - REPLACED BY B766

A167-96 Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip

A181/A181M-95b Carbon Steel Forgings for General-Purpose Piping

A184/A184M-96 FABRICATED DEFORMED STEEL BAR MATS FOR CONCRETE REINFORCEMENT

A185-97 STEEL WELDED WIRE FABRIC, PLAIN, FOR CONCRETE REINFORCEMENT

A197-87 (92) Cupola Malleable Iron

A211-75 DISCONTINUED

A216/A216M-93 Steel Castings, Carbon, Suitable for Fusion Welding, for High-Temperature Service

A227/A227M-93 Steel Wire, Cold-Drawn for Mechanical Springs

A234/A234M-97 Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures

A242/A242M-93a High-Strength Low-Alloy Structural Steel

A276-97 Stainless Steel Bars and Shapes

A283/A283M-93a Low and Intermediate Tensile Strength Carbon Steel Plates

A307-94 Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength

A325-97 Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength

A328/A328M-93a Steel Sheet Piling

(96)

A384-76 (96) Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies

A385-80 (96) Providing High-Quality Zinc Coatings (Hot-Dip)

A390-95 Zinc-coated (Galvanized) Steel Poultry Fence Fabric

A392-96 ZINC-COATED CHAIN-LINK FENCE FABRIC

A436-84(97) Austenitic Gray Iron Castings

A444/A444M-89 DISCONTINUED – Replaced by A929/A929

A446/A446M-93 DISCONTINUED – Replaced by A653/653M and A924/A924M

A449-93 Quenched and Tempered Steel Bolts and Studs

A494/A494M-94 Castings, Nickel and Nickel Alloy

A496-97 STEEL WIRE, DEFORMED, FOR CONCRETE REINFORCEMENT

A497-97 STEEL WELDED WIRE FABRIC, DEFORMED, FOR CONCRETE REINFORCEMENT

A501-96 Hot-Formed Welded and Seamless Carbon Steel Structural Tubing

MO 542-6 (2) (210-V-NEM, Supplement MO-9, December, 1999)

A502-93 Steel Structural Rivets

A525 DISCONTINUED - REPLACED BY A653/A653M and A924/A924M

A526/A526M-90 DISCONTINUED – REPLACED BY A A653/A653M and A924/A924M

A538 DISCONTINUED

A563-96 Carbon and Alloy Steel Nuts

A568/A568M-97 Steel, Sheet, Carbon, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General

Requirements for

A569/A569M-97 Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip Commercial Quality

A570/A570M-96 Steel, Sheet and Strip Carbon, Hot-Rolled, Structural Quality

A572/A572M-97 High-Strength Low-Alloy Columbium-Vanadium Steels of Structural Quality

A575-96 Steel Bars, Carbon, Merchant Quality, M-Grades

A582/A582M-95b Free-Machining Stainless Steel Bars

A 584-92 Aluminum-Coated Steel Woven Wire Fence Fabric

A588/A588M-97 High-Strength Low-Alloy Structural Steel with 50 ksi [345 MPa] Minimum Yield Point to 4 in.

[100 mm] Thick

A589-96 SEAMLESS AND WELDED CARBON STEEL WATER-WELL PIPE

A611-97 Steel, Sheet, Carbon, Cold-Rolled, Structural Quality

A615/A615M-96a DEFORMED AND PLAIN BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT

A616/A616M-96a Rail-Steel Deformed and Plain Bars for Concrete Reinforcement

A617/A617M-96a Axle-Steel Deformed and Plain Bars for Concrete Reinforcement

A641/A641M-97 Zinc-Coated (Galvanized) Carbon Steel Wire

A648-95 Steel Wire, Hard Drawn for Prestressing Concrete Pipe

A653/A653M-97 STEEL SHEET, ZINC COATED (GALVANIZED OR ZINC-IRON ALLOY-COATED)

GALVANIZED BY THE HOT DIP PROCESS

A690/A690M-94 High-Strength Low-Alloy Steel H-Piles and Sheet Piling for Use in Marine Environments

A702-89 (94) STEEL FENCE POSTS AND ASSEMBLIES HOT-WROUGHT

A711-92 (96) Steel Forging Stock

A717/A717M-95 Test method for Surface Insulation Resistivity of Single Strip Specimens

A742/A742M-95 STEEL SHEET, METALLIC COATED AND POLYMER PRECOATED FOR CORRUGATED

STEEL PIPE

A760/A760M-97 CORRUGATED STEEL PIPE, METALLIC-COATED FOR SEWERS AND DRAINS

A761/A761M-97 Corrugated steel structural plate, zinc coated for field bolted pipe, pipearches and arches

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A762/A762M-97	CORRUGATED STEEL PIPE, POLYMER PRECOATED FOR SEWERS AND DRAINS				
A775/A775M-97	Epoxy-Coated Reinforcing Steel Bars				
A780-93a	REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT DIP GALVANIZED COATINGS				
A792/A792M-97	STEEL SHEET, 55% ALUMINUM-ZINC ALLOY-COATED BY THE HOT DIP PROCESS				
A796-97	Structural Design of Corrugated Steel Pipe, Pipe-Arches, and Arches for Storm and Sanitary Sewers and Other Buried Applications				
A798/798-97	INSTALLING FACTORY-MADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS				
A806/A806M	DISCONTINUED – Replaced by A929/A929M				
A819-90	DISCONTINUED – Replaced by A929/A929M				
A849-96	POST-APPLIED COATINGS, PAVINGS, AND LININGS FOR CORRUGATED STEEL SEWER AND DRAINAGE PIPE				
A854/A854M-94	Metallic-coated steel smooth High-Tensile Fence and Trellis wire				
A857/A857M-97	Steel Sheet Piling, Cold Formed, Light Gage				
A858/A858M-96	Heat Treated Carbon Steel Fittings for Low Temperature and Corrosive Service				
A865-96	Threaded Couplings, Steel, Black, or Zinc – Coated (Galvanized) welded or seamless, for use in steel Pipe Joints				
A875/A875M-97	Steel sheet, Zinc – 5 Aluminum Alloy – Coated by the Hot-Dip Process				
A885/A885M-96	STEEL SHEET, ZINC AND ARAMID FIBER COMPOSITE COATED FOR CORRUGATED STEEL SEWER, CULVERT, AND UNDERDRAIN PIPE				
A924/A924M-97a	General requirements for steel sheet metallic-coated by the Hot-Dip process				
A929/929M-96	SPECIFICATIONS FOR STEEL SHEET, METALLIC-COATED BY THE HOT-DIP PROCESS FOR CORRUGATED STEEL PIPE				

ASTM's "B Series"

Summer Specification of Test inclined 1011				
B6-97	Zinc			
B21-96	Naval Brass Rod, Bar, and Shapes			
B43-96	Seamless Red Brass Pipe, Standard Sizes			
B98/B98M-97	Copper-Silicon Alloy Rod, Bar, and Shapes			
B103/B103M-93	Phosphor Bronze Plate, Sheet, Strip, and Rolled Bar			
B117-97	Practice for operating Salt Spray Apparatus			
B127-93a	Nickel-Copper Alloy (UNS N04400) Plate, Sheet, and Strip			
B138-96	Manganese Bronze Rod, Bar, and Shapes			
B139-95	Phosphor Bronze Rod, Bar, and Shapes			
B152-97a	Copper Sheet, Strip, Plate, and Rolled Bar			
B164-93	Nickel-Copper Alloy Rod, Bar and Wire			
B209-96	Aluminum and Aluminum-Alloy Sheet and Plate			
B210-95	Aluminum and Aluminum-Alloy Drawn Seamless Tubes			
B211-95a	Aluminum and Aluminum-Alloy Bar, Rod, and Wire			
B221-96	Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes			
B241/B241M-96	Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube			
B248-96	General Requirements for Wrought Copper and Copper-Alloy Plate, Sheet, Strip, and Rolled Bar			
B249-94a	General Requirements for Wrought Copper and Copper-Alloy Rod, Bar, Shapes and Forgings			
B308/B308M-96	Aluminum-Alloy 6061-T6 Standard Structural Shapes			
B313/B313M-95	Aluminum and Aluminum-Alloy Round Welded Tubes			
B316/B316M-96	Aluminum and Aluminum-Alloy Rivet and Cold-Heading Wire and Rods			
B418-95a	Cast and Wrought Galvanic Zinc Anodes			
B429-95	Aluminum-Alloy Extruded Structural Pipe and Tube			
B584-96	Copper Alloy Sand Castings for General Applications			
B633-85 (94)	E1ectrodeposited Coatings of Zinc on Iron and Steel			
B744/B744M-95	ALUMINUM-ALLOY SHEET FOR CORRUGATED ALUMINUM PIPE			
B745/B745M-97	CORRUGATED ALUMINUM PIPE FOR SEWERS AND DRAINS			
B746/B746M-95	Corrugated Aluminum Alloy Structural Plate for Field-Bolted Pipe, Pipe Arches and Arches.			

B766-86 (93) Electrodeposited Coatings of Cadmium

B790/B790M-97 Structural Design of Corrugated Aluminum Pipe, Pipe-Arches, and Arches for Culverts, Storm

Sewers, and Other Buried Conduits

ASTM's "C series"

Standard Specification or Test Method for:

C4-97	Clay Drain Tile				
C12-95	Installing Vitrified Clay Pipe Lines				
C14-95	Concrete Sewer, Storm Drain, and Culvert Pipe				
C25-96a	Chemical Analysis of Limestone, Quicklime, and Hydrated Lime				
C29/C29M-97	JNIT WEIGHT AND VOIDS IN AGGREGATE				
C31/C31M-96	MAKING AND CURING CONCRETE TEST SPECIMENS IN THE FIELD				
C33-97	CONCRETE AGGREGATES				
C39-96	Compressive Strength of Cylindrical Concrete Specimens				
C40-97	Organic Impurities in Fine Aggregates for Concrete				
C42-94	OBTAINING AND TESTING DRILLED CORES AND SAWED BEAMS OF CONCRETE				
C70-94	SURFACE MOISTURE IN FINE AGGREGATE				
C76-98	REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE				
C78-94	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)				
C87-83(95)	Effect of Organic Impurities in Fine Aggregate on Strength of Mortar				
C88-90	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate				
C94-98	READY-MIXED CONCRETE				
C98	DISCONTINUED – USE C170				
C109/C109M-98	Compressive Strength of Hydraulic Cement Mortars Using 2 inch Cube Specimens				
C110-96a	Physical Testing of Quicklime, Hydrated Lime, and Limestone				
C117-95	MATERIALS FINER THAN 75-MM (NO. 200) SIEVE IN MINERAL AGGREGATES BY WASHING				
C118-95	Concrete Pipe For Irrigation or Drainage				
C123-96	Lightweight Pieces in Aggregate				
C125-97	CONCRETE AND CONCRETE AGGREGATES				
C127-88 (93)	SPECIFIC GRAVITY AND ABSORPTION OF COARSE AGGREGATE				
C128-97	Specific Gravity and Absorption of Fine Aggregate				
C131-96	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine				
C136-96a	SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES				

(210-V-NEM, Supplement MO-9, December, 1999)

MO 542-6 (8)

C138-92 UNIT WEIGHT, YIELD, AND AIR CONTENT (GRAVIMETRIC) OF CONCRETE C142-97 CLAY LUMPS AND FRIABLE PARTICLES IN AGGREGATES SLUMP OF HYDRAULIC CEMENT CONCRETE C143/C143M-97 C150-97a PORTLAND CEMENT C170-90(94) Compressive Strength of Dimension Stone C171-97a Sheet Materials for Curing Concrete C172-97 SAMPLING FRESHLY MIXED CONCRETE C173-94a Air Content of Freshly Mixed Concrete by the Volumetric Method C192/C192M-95 Making and Curing Concrete Test Specimens in the Laboratory C207-91 (97) Hydrated Lime for Masonry Purposes C226-96 Air-Entraining Additions for Use in the Manufacture of Air-Entraining Portland Cement C227-97a Potential Alkali Reactivity of Cement-Aggregate combinations (Mortar-Bar Method) C231-97 AIR CONTENT OF FRESHLY MIXED CONCRETE BY THE PRESSURE METHOD C233-97a Testing Air-Entraining Admixtures for Concrete C260-97 AIR-ENTRAINING ADMIXTURES FOR CONCRETE C273-94 Sheer Properties in Flatwise Plane of Flat Sandwich Constructions of Sandwich Cores C289-94 Potential Alkali-Silica Reactivity of Aggregates (Chemical Method) C295-90 Petrographic Examination of Aggregates for concrete C301-97a Vitrified Clay Pipe C309-97 LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE C342-97 Potential Volume Change of Cement-Aggregate Combinations C360-92 Ball Penetration in Fresh Portland Cement Concrete C361-96 Reinforced Concrete Low-Head Pressure Pipe C412-94 Concrete Drain Tile C425-97 Compression Joints for Vitrified Clay Pipe and Fittings C443-94 Joints For Circular Concrete Sewer And Culvert Pipe, Using Rubber Gaskets C444-95 Perforated Concrete Pipe C465-96 Processing Additions for Use in the Manufacture of Hydraulic Cements C470-94 MOLDS FOR FORMING CONCRETE TEST CYLINDERS VERTICALLY C478-97 Precast Reinforced Concrete Manhole Sections

(210-V-NEM, Supplement MO-9, December, 1999)

ASTM's for Area Office	and Project Offices shown in capital letters.			
C494-98	CHEMICAL ADMIXTURES FOR CONCRETE			
C497-97	Concrete Pipe, Manhole Section, or Tile			
C498-95	Perforated Clay Drain Tile			
C505-95	Nonreinforced Concrete Irrigation Pipe with Rubber Gasket Joints			
C506-95a	Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe			
C507-95a	Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe			
C535-96	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine			
C566-97	TOTAL MOISTURE CONTENT OF AGGREGATE BY DRYING			
C593-95	Fly Ash and other Pozzolans for use with Lime			
C595-98	Blended Hydraulic Cements			
C618-98	FLY ASH AND RAW OR CALCINED NATURAL POZZOLAN FOR USE AS A MINERAL ADMIXTURE IN PORTLAND CEMENT CONCRETE			
C655-95a	Reinforced Concrete D-Load Culvert, Storm Drain, and Sewer Pipe			
C666-97	Resistance of Concrete to Rapid Freezing and Thawing			
C684-96	MAKING, ACCELERATED CURING, AND TESTING CONCRETE COMPRESSION TEST SPECIMENS			
C685-97	CONCRETE MADE BY VOLUMETRIC BATCHING AND CONTINUOUS MIXING			
C700-97	Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated			
C702-93	REDUCING FIELD SAMPLES OF AGGREGATE TO TESTING SIZE			
C717-98a	Standard Terminology of Building Seals and Sealants			
C789-95a	Precast Reinforced Concrete Box Sections for Culverts, Storm Drains and Sewers			
C823-95	EXAMINATION AND SAMPLING OF HARDENED CONCRETE IN CONSTRUCTIONS			
C828-90 (96)	Low-Pressure Air Test of Vitrified Clay Pipe Lines			
C850-95a	Precast Reinforced Concrete Box Sections for Culverts, Storm Drains and Sewers with Less Than 2 ft of Cover Subjected to Highway Loadings			
C877-79a(96)	Packaged, Dry, Combined Materials for Surface Bonding Mortar			
C882-91	Bond Strength of Epoxy - Resin Systems used with concrete by slant shear			
C887-79a(96)	Packaged, Dry, Combined materials for Surface Bonding Mortar			
C913-96	Precast Concrete Water and Wastewater Structures			
C920-98	Standard Specifications for Elastomeric Joint Sealants			

C923-96

Laterals

Specifications for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and

C924-89(97) Concrete Pipe Sewer Lines by Low-Pressure Air Test Method

C977-95 QUICKLIME AND HYDRATED LIME FOR SOIL STABILIZATION

C989-98b GROUND GRANULATED BLAST-FURNACE SLAG FOR USE IN CONCRETE AND

MORTARS

C990-96 Joint for concrete Pipe, Manholes and Precast box sections using Preformed Flexible Joint Sealants

C1017/C1017M-97 CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE

C1064-86 (93) TEMPERATURE OF FRESHLY MIXED PORTLAND CEMENT CONCRETE

C1103-94 Joint Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines

C1140-97 Preparing and Testing Specimens from Shotcrete Test Panels

C1193-91(95) USE OF JOINT SEALANTS

ASTM's "D series"

D4-86 (93)	Bitumen Content				
D5-97	Penetration of Bituminous Materials				
D25-91	ROUND TIMBERPILES				
D36-95	Softening Point of Bitumen (Ring-and-Ball Apparatus)				
D75-97	SAMPLING AGGREGATES				
D79-86 (93)	Zinc Oxide Pigments				
D98-95	CALCIUM CHLORIDE				
D113-86 (92)	Ductility of Bituminous Materials				
D168-94	Coke Residue of Creosote				
D244-97	Emulsified Asphalts				
D245-93	Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber				
D360-89 (96)	Shellac Varnishes				
D367-94	DISCONTINUED - USE D4				
D395-97	Rubber Property – Compression Set				
D412-98	Rubber Properties in Tension				
D413-82 (93)	Rubber Properties - Adhesion to Flexible Substrate				
D420-93	Investigating and Sampling Soil and Rock				
D422-63 (90)	Test Method for Particle – size Analysis of Soils				
D471-97	Rubber Property - Effect of Liquids				
D518-86 (97)	Rubber Deterioration - Surface Cracking				
D520-84 (95)	Zinc Dust Pigment				
D523-89	Test Method for Specular Gloss				
D545-84 (1993)	Testing Preformed Expansion Joint Fillers for Concrete Construction (Nonextruding and Resilient Types)				
D558-96	Moisture-Density Relations of Soil-Cement Mixtures				
D559-96	Test method for wetting and drying compacted soil-cement mixtures				
D560-96	Test method for Freezing and Thawing compacted soil-cement mixtures				
D570-95	Water Absorption of Plastics				

MO 542-6 (12)

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D573-88 (94)	Rubber-Deterioration in an Air Oven				
D605-82(96)	Magnesium Silicate Pigment (Talc)				
D609-95	Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products				
D618-96	Conditioning Plastics and Electrical Insulating Materials for Testing				
D624-98	Rubber Property - Tear Resistance				
D638-97	Tensile Properties of Plastics				
D653-97	SOIL, ROCK, AND CONTAINED FLUIDS				
D659	DISCONTINUED – Replaced by D4214				
D698-91	LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT [12,400 ft-lbf/ft³ (600 kN-m/m³)]				
D746-95	Brittleness Temperature of Plastics and Elastomers By Impact				
D751-95	Coated Fabrics				
D792-91	Test methods for Density and specific Gravity (Relative Density) of plastics by displacement				
D846-84	DISCONTINUED				
D882-97	Tensile Properties of Thin Plastic Sheeting				
D883-96	STANDARD DEFINITIONS OF TERMS RELATING TO PLASTICS				
D977-97	Emulsified Asphalt				
D994-94	PREFORMED EXPANSION JOINT FILLER FOR CONCRETE (BITUMINOUS TYPE)				
D1000-93	Pressure-Sensitive Adhesive Coated Tapes Used for Electrical Insulation				
D1002-94	Strength Properties of Adhesives in Shear by Tension Loading (Metal-To-Metal)				
D1004-94a	Initial Tear Resistance of Plastic Film and Sheeting				
D1117-97	Nonwoven Fabrics				
D1149-91 (97)	Rubber Deterioration - Surface Ozone Cracking in a Chamber				
D1153-94	Methyl Isobutyl Ketone				
D1173-53 (97)	Foaming Properties of Surface-Active Agents				
D1186-93	Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base				
D1190-97	CONCRETE JOINT SEALER, HOT-POURED ELASTIC TYPE				
D1203-94	Volatile Loss From Plastics Using Activated Carbon Methods				
D1204-94	Linear Dimensional Changes of Nonrigid Thermoplastic Sheeting or Film at Elevated Temperature				
D1242-95a	Resistance of Plastic Materials to Abrasion				

(210-V-NEM, Supplement MO-9, December, 1999)

D1248-84 (89)	POLYETHYLENE PLASTICS MOLDING AND EXTRUSION MATERIALS				
D1308-87 (93)	Effect of Household chemicals on clear and pigmented organic finishes				
D1452-80 (95)	Soil Investigation and Sampling by Auger Borings				
D1475-96	Density of Paint, Varnish, Lacquer, and Related Products				
D1505-96	Density of Plastics by the Density-Gradient Technique				
D1527-96a	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Schedules 40 and 80				
D1544-80 (89)	Color of Transparent Liquids (Gardner Color Scale)				
D1556-90 (96)	DENSITY AND UNIT WEIGHT OF SOIL IN PLACE BY THE SAND-CONE METHOD				
	LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT [56,000 ft-lbf/ft 3 (2,700 kN-m/m 3)]				
	MOISTURE CONTENT PENETRATION RESISTANCE RELATIONSHIPS OF FINE-GRAINED SOILS				
D1586-84 (92)	Penetration Test and Split-Barrel Sampling of Soils				
D1587-94	Thin-Walled Tube Sampling of Soils				
D1593-92	Nonrigid Vinyl Chloride Plastic Sheeting				
D1603-94	Carbon Black in Olefin Plastics				
D1622-93	Apparent Density of Rigid Cellular Plastics				
D1623-78(95)	Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics				
D1652-97	Epoxy Content of Epoxy Resins				
D1682	DISCONTINUED - REPLACED BY D5034 and D5035				
D1683-90a	Failure in Sewn Seams of Woven Fabrics				
D1693-97	Environmental Stress-Cracking of Ethylene Plastics				
D1709-97	Impact Resistance of Polyethylene Film by the Free Falling Dart Method				
	PREFORMED EXPANSION JOINT FILLER FOR CONCRETE PAVING AND STRUCTURAL CONSTRUCTION (NONEXTRUDING AND RESILIENT BITUMINOUS TYPES)				
()	PREFORMED SPONGE RUBBER AND CORK EXPANSION JOINT FILLERS FOR CONCRETE PAVING AND STRUCTURAL CONSTRUCTION				
D1760-96	PRESSURE TREATMENT OF TIMBER PRODUCTS				
	RIGID POLY(VINYL CHLORIDE) (PVC) COMPOUNDS AND CHLORINATED POLY (VINYL CHLORIDE) (CPVC) COMPOUNDS				
D1785-96b	POLY(VINYL CHLORIDE) (PVC) PLASTIC PIPE, SCHEDULES 40, 80, AND 120				
D1788-81	DISCONTINUED				

D1851-67 (1977)	DISCONTINUED
D1861-88	DISCONTINUED
D1892-81	DISCONTINUED - REPLACED BY D4549
D1922-94a	Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method
D2000-98	Rubber Products in Automotive Applications
D2049	DISCONTINUED - REPLACED BY D4253 AND D4254
D2103-97	Polyethylene Film and Sheeting
D2104-96	POLYETHYLENE (PE) PLASTIC PIPE, SCHEDULE 40
D2113-83 (93)	Diamond Core Drilling for Site Investigation
D2122-97	DETERMINING DIMENSIONS OF THERMOPLASTIC PIPE AND FITTINGS
D2126-94	Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
D2127	DISCONTINUED – REPLACED BY D2842
D2136-94	Coated Fabrics - Low-Temperature Bend Test
D2152-95	Degree of Fusion of Extruded Poly (Vinyl Chloride) (PVC) Pipe and Molded Fittings by Acetone Immersion
D2167-94	DENSITY AND UNIT WEIGHT OF SOIL IN-PLACE BY THE RUBBER BALLOON METHOD
D2216-92	LABORATORY DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL AND ROCK
D2235-96a	Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings
D2239-96a	POLYETHYLENE (PE) PLASTIC PIPE (SIDR-PR) BASED ON CONTROLLED INSIDE DIAMETER
D2240-97	Rubber Property - Durometer Hardness
D2241-96b	POLY(VINYL CHLORIDE) (PVC) PRESSURE-RATED PIPE (SDR SERIES)
D2247-94	Testing Water Resistance of Coatings in 100% Relative Humidity
D2282-96a	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR)
D2290-92	Apparent Tensile Strength of Ring or Tubular Plastics and Reinforced Plastics by Split Disk Method
D2311-88	DISCONTINUED
D2312-88	DISCONTINUED
D2313-88	DISCONTINUED
D2314-80	DISCONTINUED
D2315-80	DISCONTINUED
D2321-89 (95)	UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OF THE GRAVITY FLOW APPLICATIONS

MO 542-6 (14) (210-V-NEM, Supplement MO-9, December, 1999)

Test method for water absorption of Rigid Cellular Plastics

D2842-97

D2852-95	Styrene-Rubber (SR) Plastic Drain Pipe and Fittings				
D2855-96	MAKING SOLVENT-CEMENTED JOINTS WITH POLY(VINYL CHLORIDE) (PVC) PIPE AND FITTINGS				
D2922-96	Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)				
D2937-94	DENSITY OF SOIL IN PLACE BY THE DRIVE CYLINDER METHOD				
D2949-97	3.25-In. Outside Diameter Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings				
D2996-95	Filament-Wound "Fiberglass" (Glass-Fiber-Reinforced Thermosetting Resin) Pipe				
D3017-96	Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)				
D3033-85	DISCONTINUED, 1989				
D3034-97	TYPE PSM POLY (VINYL CHLORIDE) (PVC) SEWER PIPE AND FITTINGS				
D3035-95	POLYETHYLENE (PE) PLASTIC PIPE (DR-PR) BASED ON CONTROLLED OUTSIDE DIAMETER				
D3083-89	DISCONTINUED 1998				
D3122-95	Solvent Cements for Styrene-Rubber (SR) Plastic Pipe and Fittings				
D3138-95	Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Non-Pressure Piping Components				
D3139-96a	JOINTS FOR PLASTIC PRESSURE PIPES USING FLEXIBLE ELASTOMERIC SEALS				
D3212-96a	JOINTS FOR DRAIN AND SEWER PLASTIC PIPES USING FLEXIBLE ELASTOMERIC SEALS				
D3261-97	BUTT HEAT FUSION POLYETHYLENE (PE) PLASTIC FITTINGS FOR POLYETHYLENE (PE) PLASTIC PIPE AND TUBING				
D3350-96	Polyethylene Plastics Pipe and Fittings Materials				
D3361-93	Operating Light – and Water-Exposure Apparatus (unfiltered carbon – Are Type) for testing Paint, Varnish, Laquer and Related using the Dew Cycle				
D3441-94	Deep, Quasi-Static, Cone and Friction-Cone Penetration Tests of Soil				
D3517-96	"Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin Pressure Pipe)				
D3665-94	Random Sampling of Construction Materials				
D3721-83 (91)	Synthetic Red Iron Oxide Pigment				
D3740-96	Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction				
D3754-96	"Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Sewer and Industrial Pressure Pipe				
D3776-96	Mass per Unit Area (Weight) of woven Fabric				
D3786-87	(Discontinued but use until replaced) Hydraulic Bursting Strength of Knitted Goods and non-woven fabrics				

ASTM's for Area	Office and	Project Offices	shown in	capital letters

ASTM's for Area Office a D3787-89	and Project Offices shown in capital letters. (Discontinued but use until replaced) Bursting Strength of Knitted Goods - Constant-Rate-of-Traverse		
D3707 07	(CRT) Ball Burst Test		
D3884-92	Abrasion Resistance of Textile Fabrics (Rotary Platform Double-Head Method)		
D3963/D3963M-97	Epoxy-Coated Reinforcing Steel		
D4060-95	Test method for abrasion Resistance of Organic Coatings by the Taber Abraser		
D4083-89 (94)	Description of Frozen Soils (Visual-Manual Procedure)		
D4146-96	Formability of Zinc – Rich Primer/Chromate Complex Coatings on Steel		
D4161-96	"Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin Pipe Joints Using Flexible Elastomeric Seals		
D4214-97	Evaluating the Degree of Chalking of Exterior Paint Films		
D4220-95	Preserving and Transporting Soil Samples		
D4221-90	Dispersive Characteristics of Clay Soil by Double Hydrometer		
D4253-91 (96)	MAXIMUM INDEX DENSITY OF SOILS USING A VIBRATORY TABLE		
D4254-91 (96)	MINIMUM INDEX DENSITY AND UNIT WEIGHT OF SOILS AND CALCULATION OF RELATIVE DENSITY		
D4318-96	LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOILS		
D4355-92	Deterioration of Geotextiles from exposure to ultraviolet light and water (Xenon – Are Type Apparatus)		
D4491-96	Water Permeability of Geotextiles by Permittivity		
D4549-95	Polystyrene Molding and Extrusion Materials (PS)		
D4632-91 (96)	Grab Breaking Load and Elongation of Geotextiles		
D4643-93	Determination of Water (Moisture) Content of Soil by the Microwave Oven Method		
D4647-93	Identification and Classification of Dispersive Clay Soils by the Pinhole Test		
D4751-95	Determining Apparent Opening Size of a Geotextile		
D4833-88 (96)	Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products		
D4873-97	Identification, Storage, and Handling of Geotextiles		
D4884-96	Seam Strength of Sewn Geotextiles		
D4914-89 (94)	Density of soil and Rock in Place by the Sand Replacement Method in a Test Pit		
D4944-89 (94)	Field Determination of Water (Moisture) Content of Soil by the Calcium Carbide Gas Pressure Tester Method		
D4959-89 (94)	DETERMINATION OF WATER (MOISTURE) CONTENT OF SOIL BY DIRECT HEATING METHOD		
D4992-96	Evaluation of Rock to be Used for Erosion Control		
D5030-89 (94)	Density of Soil and Rock in Place by the Water Replacement Method in a Test Pit		
	(210-V-NEM, Supplement MO-9, December, 1999) MO 542-6 (17)		

D5034-95	Breaking Strength and Elongation of Textile Fabric (Grab Test)
D5035-95	Breaking Strength and Elongation of Textile Fabric (Strip Method)
D5121-90 (95)	PREPARATION OF ROCK SLABS FOR DURABILITY TESTING
D5141-96	TEST METHOD FOR DETERMINING FILTERING EFFICIENCY AND FLOW RATE OF A GEOTEXTILE FOR SILT FENCE APPLICATION USING SITE-SPECIFIC SOIL
D5240-92 (97)	TESTING ROCK SLABS TO EVALUATE SOUNDNESS OF RIPRAP BY USE OF SODIUM SULFATE OR MAGNESIUM SULFATE
D5299-92	Guide of Decommissioning of Groundwater wells, Vadose Zone Monitoring Devices, Boreholes, and other Devices for Environmental Activities
D5312-92 (97)	EVALUATION OF DURABILITY OF ROCK FOR EROSION CONTROL UNDER FREEZING AND THAWING CONDITIONS
D5519-94	TEST METHOD FOR PARTICLE SIZE ANALYSIS OF NATURAL AND MAN-MADE RIPRAP MATERIALS
D5887-95	Measurement of Index Flux Through Saturated Geosynthetic Clay Liner Specimens using Flexible Wall Permeameter
D5596-94	Microscopic Evaluation of the Dispersion of Carbon Black in Polyolefin Geosynthetics
D5890-95	Standard Test method of Swell Index of Clay Mineral Component of Geosynthetic Clay Liners

ASTM's
"E series"

Standard Specification or Test Method for:

E11-95 Wire-Cloth Sieves for Testing Purposes

E12-70 (1991) DISCONTINUED – Replaced by E1547

E96-95 Water Vapor Transmission of Materials

E128-94 Maximum Pore Diameter and Permeability of Rigid Porous Filters for Laboratory Use

E380-93 DISCONTINUED

E1547-93 Terms Relating to Industrial Chemicals

ASTM's "F Series"

F405-97	CORRUGATED POLYETHYLENE (PE) TUBING AND FITTINGS	
F412-94b	PLASTIC PIPING SYSTEMS	
F449-97	SUBSURFACE INSTALLATION OF CORRUGATED THERMOPLASTIC TUBING FOR AGRICULTURAL DRAINAGE OR WATER TABLE CONTROL	
F477-96a	ELASTOMERIC SEALS (GASKETS) FOR JOINING PLASTIC PIPE	
F480-95	THERMOPLASTIC WELL CASING PIPE AND COUPLINGS MADE IN STANDARD DIMENSION RATIOS (SDR), SCH 40 AND SCH 80	
F626-96a	FENCE FITTINGS	
F656-96a	PRIMERS FOR USE IN SOLVENT CEMENT JOINTS OF POLY(VINYL CHLORIDE) (PVC) PLASTIC PIPE AND FITTINGS	
F667-97	LARGE DIAMETER CORRUGATED POLYETHYLENE TUBING AND FITTINGS	
F668-96	POLY (VINYL CHLORIDE) (PVC) – COATED STEEL CHAIN-LINK FENCE	
F679-95	POLY(VINYL CHLORIDE) (PVC) LARGE-DIAMETER PLASTIC GRAVITY SEWER PIPE AND FITTINGS	
F690-86 (94)	UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING IRRIGATION SYSTEMS	
F714-97	POLYETHYLENE (PE) PLASTIC PIPE (SDR-PR) BASED ON OUTSIDE DIAMETER	
F758-95	SMOOTH-WALL POLY(VINYL CHLORIDE) (PVC) PLASTIC UNDERDRAIN SYSTEMS FOR HIGHWAY, AIRPORT, AND SIMILAR DRAINAGE	
F668-96	POLY (VINYL CHLORIDE) PVC-COATED STEEL CHAIN-LINK FENCE FABRIC	
F771-95	POLYETHYLENE (PE) THERMOPLASTIC HIGH-PRESSURE IRRIGATION PIPELINE SYSTEMS	
F789-95a	TYPE PS-46 POLY(VINYL CHLORIDE) (PVC) PLASTIC GRAVITY FLOW SEWER PIPE AND FITTINGS	
F794-97	Poly(Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter	
F800-89	DISCONTINUED	
F810-93	Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields	
F894-95	Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe	
F900-94	Industrial and Commercial Swing Gates	
F949-96a	POLY(VINYL CHLORIDE) (PVC) CORRUGATED SEWER PIPE WITH A SMOOTH INTERIOR AND FITTINGS	

F1043-95 STRENGTH AND PROTECTIVE COATINGS ON METAL INDUSTRUALS CHAIN-LINK

FENCE FRAMEWORK

F1083-97 PIPE,STEEL,HOT-DIPPED ZINC-COATED (GALVANIZED) WELDED, FOR FENCE

STRUCTURES

ASTM's "G Series"

Standard Specification or Test Method for:

G8-96 Cathodic Disbonding of Pipeline Coatings

G14-88 (96) Impact Resistance of Pipeline Coatings (Falling Weight Test)

G20-88 (96) Chemical Resistance of Pipeline Coatings

G23-96 Operating Light – Exposure Apparatus (Carbon Arc Type) with and without water, for exposure of

Non-Metallic Material

PART 542 - SPECIFICATIONS

			§542.40
		Erratum 91	IRON PRESSURE PIPE AND FITTINGS
	erican Concrete Institute	C 115-88	FLANGED DUCTILE-IRON PIPE WITH THREAD FLANGES
ACI 304R-85	GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE	C 150-91	Thickness Design of Ductile-Iron Pipe
ACI 305R-89	HOT WEATHER CONCRETING	C 151-86	DUCTILE-IRON PIPE, CERTIFUGALLY CAST
ACI 306R-88	COLD WEATHER CONCRETING		IN METAL MOLDS OR SAND-LINED MOLDS, FOR WATER OR OTHER LIQUIDS
ACI 308-92	STANDARD PRACTICE FOR CURING CONCRETE	C 153-88	DUCTILE-IRON COMPACT FITTINGS, 3 IN THROUGH 16 IN, FOR WATER AND OTHER LIQUIDS
ACI 315-80	Manual of Standard Practice for detailing Reinforced Concrete Structures	C 200-91	STEEL WATER PIPE 6 IN. AND LARGER
ACI 318-89 REVISED 92	Building Code Requirements for Reinforced Concrete	C 203-91	COAL-TAR PROTECTIVE COATINGS AND LININGS FOR STEEL WATER PIPELINES— ENAMEL AND TAPE—HOT-APPLIED
ACI 350R-89 ACI 506R-95	Environmental Engineering Concrete Guide to Shotcrete	C 205-89	CEMENT-MORTAR PROTECTIVE LINING AND COATING FOR STEEL WATER PIPE—4 IN. AND LARGER—SHOP APPLIED
ACI 530/ 530.1-92	Building Code Requirements for Masonry Structures and Specifications for	C 206-91	FIELD WELDING OF STEEL WATER PIPE
	Masonry Structures and Related Comments	C 207-86	STEEL PIPE FLANGES FOR WATERWOKS SERVICE—SIZES 4 IN. THROUGH 144 IN.
SP-15 89 America	Field Reference Manual: Specifications for Structural Concrete National Standards Institute	C 209-90	COLD-APPLIED TAPE COATINGS FOR THE EXTERIOR OF SPECIAL SECTIONS, CONNECTIONS, AND FITTINGS FOR STEEL
			WATER PIPELINES
B1.1-74	Unified inch Screw Threads (UN and UNR Thread Form)	C 210-92	Liquid Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines)
B2.1-68	Pipe Threads (Except Dryseal)	C 214 00	•
B16.3-71	Malleable-Iron Screwed Fittings, 150 & 300 lb	C 214-89	TAPE COATING SYSTEMS FOR THE EXTERIOR OF STEEL WATER PIPELINES (INCLUDES addendum C214a-91)
B16.5-73	Steel Pipe Flanges, Flanged Valves, and Fittings	C 300-89 Addendum 93	REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, FOR WATER AND OTHER LIQUIDS
B18.2.1-72	Square and Hex Bolts and Screws, Including Askew Head Bolts, Hex Cap Screws, and Lag Screws	C 301-92	PRESTRESSED CONCRETE PRESSURE PIPE, STEEL CLINDER TYPE, FOR WATER AND OTHER LIQUIDS
B18.2.2-72	Square and Hex Nuts	C 302-87	REINFORCED CONCRETE PRESSURE PIPE, NONCYLINDER TYPE, FOR WATER AND
America	an Water Works Association		OTHER LIQUIDS
C 104-90	CEMENT-MORTAR LINING FOR DUCTILE- IRON PIPE AND FITTINGS FOR WATER	C 304-92 C 500-86	Design of Prestressed Concrete Cylinder Pipe
G 405 00			Gate Valves for Water and Sewerage Systems
C 105-88	POLYETHYLENE ENCASEMENT FOR DUCTILE-IRON PIPING FOR WATER AND OTHER LIQUIDS	C 509-87	Resilient-Seated Gate Valves for Water and Sewerage Systems
C 110-87	DUCTILE-IRON AND GRAY-IRON FITTINGS,	C 606-87	Grooved and Shouldered Joints
	3 IN THROUGH 48 IN FOR WATER AND OTHER LIQUIDS	C 704-92	Cold Water Meters—Propeller Type for Main Line Applications
C 111-90	RUBBER-GASKET JOINTS FOR DUCTILE	FVIIIDIT	

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\$542.40	POLYVINYL CHLORIDE (PVC) PRESSURE PIPE, 4 IN. THROUGH 12 IN., FOR WATER	SSPC-SP 1	Solvent Cleaning	
C 900-89		SSPC-SP 2	Hand Tool Cleaning	
C 901-88	POLYETHYLENE (PE) PRESSURE PIPE AND TUBING ½ IN. THROUGH 3 IN. FOR WATER SERVICE	SSPC-SP 5-63	Surface Preparation Specifications No. 5 White Metal Blast Cleaning	
C 905-88	POLY(VINYL CHLORIDE) (PVC) WATER TRANSMISSION PIPE, NOMINAL DIAMETERS 14 IN, THROUGH 36 IN.	SSPC-SP 6	Commercial Blast	
		SSPC-SP 7	Bash-off Blast Cleaning	
D102-97	Coating Steel Water Storage Tanks	SSPC-SP 10	Neon White Blast	
American Welding Society		USDI, Bureau of Reclamation		
AWS A5.1-78	Specifications for Carbon Steel Covered Arc Welding Electrode	8 th Edition Revised 81	CONCRETE MANUAL	
AWS A5.10-69	Specifications for Aluminum and Aluminum-Alloy Welding Rods and Bare Electrodes		AASHTO, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	
]	Federal Specifications	M252	CORRGATED POLYETHYLENE DRAINAGE TUBING	
TT-P-25E(2)- 77	Primer Coating, Exterior Undercoat for Wood, Ready Mixed, White and Tints	M294	CORRUGATED POLYETHELENE PIPE, 12 TO 36 INCH DIAMETER	
TT-P-102E (1)-83	Paint, Oil (Alkyd Modifier, Exterior, White and Tints)	T219	Testing Lime for Chemical Constituents and Particle Size	
TT-P-381E (2)-77	Pigments-in-Oil, Tinting Color			
	Federal Test Methods			
No. 141B-	Paint, Varnish, Lacquer, and Related			
2161 2/1/79 Notice 1-80	Change Materials, Methods of Inspection, Sampling, and Testing			
No. 191 12/31/6	8* (Textile Test Methods)			
*Selected Test N	Methods Only			
Military Specifications				
MIL-C-10578 C-69	Corrosion Removing Metal Conditioning Compound (Phosphoric Acid Base)			
MIL-P-21035 (1) 70	Paint, High Zinc Dust Content, Galvanizing Repair			
	Product Standards			
PS-1-83	FOR CONSTRUCTION & INDUSTRIAL PLYWOOD* WITH TYPICAL APA GRADE-TRADEMARKS			
PS-17-69	Polyethylene Sheeting (Construction, Industrial, and Agricultural Applications)			

Steel Structures Painting