



Material and Product Standards

Modified by: iep2 March 8, 2017

Introduction

ALL ARCHITECTS, CONSULTANTS, and SUB-CONSULTANTS are required to READ and FOLLOW these STANDARDS.

This document defines West Contra Costa Unified School District's material and products standards, for ALL construction projects. In the case of renovation/modernization, coordination with the existing systems in place may govern; this document will assist where there are not similar existing systems, or where the District would like to change a material or product to a District standard. By providing clear and straightforward material and product standards to the Architect or Consultant, the Architect or Consultant will have minimal obstacles in complying with these standards.

This document contains two levels of District preferences. The first level is the NO SUBSTITUTION District Standard or "DS." The Board of Education has approved these items as "sole source." (West Contra Costa Unified School District Resolution 17-0607) . The second level is the “AR” designation or Approval Required. The Architect or Consultant is at liberty to pursue alternative products but must bring the material or products to the District for approval before proceeding with inclusion into the design. The Architect or Consultant will be required to show why the District should change. This proof would include a cost-benefit analysis.

This document follows the CSI (Construction Specifications Institute) table of contents. Divisions with the DS or AR designation are included, while other CSI divisions may apply to a construction project, these are strictly the responsibility of the Architect or Consultant. The District has focused on identifying only the material and products that are critical for maintaining continuity and stocking of material and products for long term maintenance. The Architect or Consultants are expected to synthesize these district standards and provide early feedback to the District on any conflicts and constraints.

The following reference documents are necessary for coordination and continuity:

- The Facilities Master Plan
- Educational Facilities Specifications
- Technology Plan

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<i>DS/AR</i>	<i>Div</i>	<i>CSI No.</i>	<i>Spec Section Name</i>	<i>Item #</i>	<i>Product Type</i>	<i>Basis of Design Manuf.</i>	<i>Basis of Design Model</i>	<i>Product Description</i>	<i>Design Guideline</i>	<i>Standards</i>	<i>Elementary/ Middle/ High</i>
AR	01	19000	COMMISSIONING	1	N/A	N/A	N/A	N/A	Request Commissioning Agent contact information from WCCUSD. Initiate Commissioning process as early as possible, Schematic Design if practical.	N/A	E/M/H

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								Grind: Level A Cream Level Gloss: Level 3, semi-gloss, 800 grit, Slip Resistance 0.6			
								Polished Concrete Floor Finishing: Water-based dye (non-reactive penetrating stain)			
								Penetrating Liquid Floor Treatments: Clear waterborne solution of inorganic silicate or siliconate materials and proprietary components; odorless; that penetrates, hardens, and is suitable for polished concrete surfaces. Comply with California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers.			
AR	03	33510	POLISHED CONCRETE FINISHING	1	N/A	N/A		Coordinate carefully with Cast-In-Place Concrete specification.		Concrete Polishing Council, a specialty council of the American Society of Concrete Contractors.	E/M/H

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AR	05	55000	METAL FABRICATIONS	1	Perforated Metal	N/A	N/A	Perforated steel	Use metal that can be roll-painted.	N/A	E/M/H
AR	05	55000	METAL FABRICATIONS	2	Pipe Handrail	N/A	N/A	Galvanized	Galvanize after fabrication. No field welding. No painted finishes.	N/A	E/M/H
AR	05	55000	METAL FABRICATIONS	3	Pipe Handrail	N/A	N/A	Stainless	No painted finishes.	N/A	E/M/H
AR	05	55113	METAL PAN STAIRS	1	Metal Pan Stairs	N/A	N/A	Concrete-filled metal pan stairs. Cast-in stair nosings. Exposed finish.	At all stairs.	N/A	E/M/H

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AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	0	Casework	N/A	N/A	Institutional grade attachments.	N/A	WI Section Section 10 Custom Grade. WI Certified. WI inspection required.	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	1	Hinges	Rockford Process	374 or 376	Institutional Hinges for Overlay doors, 2-3/4" five knuckle with hospital tips and 2-5/8" extended side panel wing	N/A	N/A	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	2	Cabinetry Locks	Olympus Lock	777 - Doors	Deadbolt with full size Schlage IC Cores	When required provide deadbolt latch lock with metal strikes and trim.	N/A	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	3	Cabinetry Locks	Olympus Lock	888 - Drawers	Deadbolt with full size Schlage IC Cores	When required provide deadbolt latch lock with metal strikes and trim.	N/A	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	4	Cabinetry Locks	Schlage	CL Series		Architect to coordinate with Hardware	N/A	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	5	Drawer slides, 200 lb capacity	Accuride	3640A	Side mount load capacity up to 200 lbs. per pair with drawer width of 42", Adapter rail mount/disconnect	N/A	N/A	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	6	Drawer slides, 350 lb capacity	Accuride	7957	Heavy-duty slide series Up to 350 lb. handed lever disconnect	N/A	N/A	E/M/H
AR	06	64110	EDUCATIONAL/ LIBRARY CASEWORK	7	Drawer slides, 500 lb capacity	Accuride	9301	Load Rating: up to 500, Non-disconnect	N/A	N/A	E/M/H
N/A	06		LAB CASEWORK	N/A	N/A	N/A	N/A	Refer to Div 12	N/A	N/A	N/A

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AR	07	71326	SELF-ADHERING SHEET WATERPROOFING	1	Self-adhering sheet waterproofing	Carlisle Coatings	CCW WIP 300 HT , CCW WIP 403 HR	Two layers of self-adhering underlayment; 1st layer fully adhered to substrate.	Underlayment for sheet metal roofing systems and concrete roof tiles.	N/A	E/M/H
AR	07	71353	BELOW GRADE SHEET WATERPROOFING	1	Below Grade Sheet Waterproofing	Grace Construction Products	Preprufe 300R Membrane	Integrally bonded sheet waterproofing membrane; high density polyethylene film.	For use at elevator pits or below grade utility chase areas.	N/A	E/M/H
AR	07	71413	HOT FLUID APPLIED RUBBERIZED ASPHALT WATERPROOFING	1	Plaza Deck	American Hydrotech	MM6125 Fabric Reinforced System	Hot rubberized asphalt waterproof membrane.	For use at exterior elevated walkway with a concrete topping slab - no habitable space underneath.	N/A	E/M/H
AR	07	71413	HOT FLUID APPLIED RUBBERIZED ASPHALT WATERPROOFING	2	Plaza Deck, Hot Applied.	Tremco, Inc.	Tremproof 150 modified to 215 mils	Hot rubberized asphalt waterproof membrane.	For use at exterior elevated walkway with a concrete topping slab - no habitable space underneath.	N/A	E/M/H
AR	07	71416	COLD FLUID APPLIED RUBBERIZED ASPHALT WATERPROOFING	1	Plaza Deck, Cold Applied.	Siplast, Soprema, or Garland, or approved equivalent.	N/A	2-ply Modified Bituminous Sheet Roofing with PMMA Liquid-Applied Reinforced Coating	For use as a plaza waterproofing system for use over habitable spaces. 30 year warrant and commensurate useful service life.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	71813	PEDESTRIAN TRAFFIC COATINGS	1	Pedestrian Traffic Coatings	Siplast, soprema or Alt, or approved products.	N/A	Liquid-applied Reinforced Terrace & Pedestrian Access Waterproofing System with Aggregate Surfacing	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72216	ROOF BOARD INSULATION	1	Roof Board Insulation	Owens Corning	Foamular	Extruded polystyrene insulation with drainage chanel.	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72500	WEATHER BARRIERS	1	Weather Barriers, WRB	Typar	Metro Wrap	N/A	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72500	WEATHER BARRIERS	2	Weather Barriers, WRB	DuPont Tyvek	Commercial Wrap	N/A	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72612	BUILDING ENVELOPE VAPOR BARRIER	1	Vapor Retarder	Reef Industries, Inc.	Grifffolyn TX-1200FR	Three ply laminate combining two layers of linear low density polyethylene and a high strength cord grid.	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H

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AR	07	72616	ABOVE-GRADE VAPOR RETARDERS	1	Rainscreen	Cosella - Dorken Products	Delta-Dry	Dual Cavity 3-dimensional rain screen membrane with drainage and ventilation channels.	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72616	BELOW GRADE VAPOR RETARDERS	1	Below Slab Vapor Barrier	Stego Industries LLC	Stego Wrap	15 mil	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72726	FLUID APPLIED AIR BARRIER	1	Fluid Applied Air Barrier	Grace Construction Products	Perm-A-Barrier Liquid	Synthetic rubber, cold-vulcanized, fluid applied air and vapor barrier membrane. It cures to form a resilient monolithic elastomeric sheet.	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	72726	FLUID APPLIED AIR BARRIER	3	Fluid Applied Air Barrier	Carlisle Coatings	Barriseal	N/A	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	73113	ASPHALT ROOFING SHINGLES	1	Shingles	CertainTeed or Owens Corning	Presidential	Use Energy Star compliant roofing. 30 year warranty and commensurate useful service life.	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	74626	FIBER CEMENT SIDING SYSTEM	1	Fiber Cement Siding	James Hardie Company	N/A	Trim, siding and sheet goods fabricated from cellulose fiber-reinforced ground sand and Portland cement.	Used as a substitute for redwood or cedar siding. Recommend not using umbossed wood grains or other patterns, which become 'dated' in appearance.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	75113	BUILT-UP ASPHALT ROOFING	3-ply Built Up 1	Roofing	Johns Manville or Soprema	N/A	3 Type VI plies and 1 modified bitumen finish ply. Coordinate with cricket installation and sheet metal flashings.	30 year warranty.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	75216	MODIFIED BITUMINOUS SHEET ROOFING	2-Ply Mod-Bit 1	Roofing	Siplast, Soprema, or Garland, or approved equivalent.	N/A	2-ply Modified Bituminous Sheet Roofing with PMMA Liquid-Applied Reinforced Coating with embedded marble chips.	30 year warranty.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	75552	MODIFIED BITUMINOUS PROTECTED MEMBRANE ROOFING	2-Ply Mod-Bit Roofing, with 1	Pavers	Siplast, Soprema, or Garland, or approved equivalent.	N/A	2-ply Modified Bituminous Sheet Roofing with PMMA Liquid-Applied Reinforced Coating with Pavers.	30 year warranty.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	75600	FLUID APPLIED ROOFING	1-Ply Mod-Bit Roofing, with PMMA coating, 1	with aggregate.	Siplast, Soprema, or Garland, or approved equivalent.	N/A	Liquid-applied Reinforced Coating with embedded marble chips over 1-ply Modified Bituminous Sheet Roofing. Coating to be reflective white.	30 year warranty.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H

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AR	07	76200	SHEET METAL FLASHING AND TRIM	1	Flashing	N/A	N/A	Type 316 stainless steel and/or G90 galvanized where appropriate for the design. For example, G90 may be used at concealed locations.	Use stainless steel if the useful service life of the assembly exceeds 15 years. Wherever prefinished roofing is used, the flashing and gutter assemblies shall be made of the same material, appropriate gauge. 30 year warranty.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	76200	SHEET METAL FLASHING AND TRIM	2	Preformed Parapet Coping	WP Hickman	Permasnap Plus	or approved equivalent	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	76500	ELASTOMERIC SHEET FLASHING	1	Concealed flashing tape	Polyken	627-35 Shadowlastic plus	self-adhering elastic flexible flashing tape	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	76500	ELASTOMERIC SHEET FLASHING	2	Self-Adhered	Polyken	Hardcast BRT-804	self-adhering elastic flexible flashing tape	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	76500	ELASTOMERIC SHEET FLASHING	3	Exposed flashing tape	Carlisle Coatings	Hardcast TPO	self-adhering elastic flexible flashing tape	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	77123	GUTTERS AND DOWNSPOUTS	1	Gutters	N/A	N/A	Gutters: Type 316 stainless steel with potable water interior coating. Downspouts: ASTM A53, Grade B, Schedule 40 galvanized steel pipe, standard weight.	Connect to the site storm drain system to avoid water sheeting across walks and playgrounds. Use concrete splash blocks if planter is used. Use metal pans at roof transitions.	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	77616	ROOF DECKING PAVERS	1	Roof deck pavers	Hanover Architectural Products	N/A	N/A	N/A	Refer to District Waterproofing Details for reference only, and Design Process Standards.	E/M/H
AR	07	79123	EXTERIOR SEALANTS-BACKER RODS	1	Sealants, Backer Rods	N/A	N/A	closed cell polyethylfoam -- ASTM C 1330 Type C	N/A	ASTM C 1330	E/M/H
AR	07	79126	EXTERIOR SEALANTS-JOINT FILLERS	1	Sealants, Joint Fillers	N/A	N/A	Premolded fiber board impregnated with an asphaltic compound.	N/A	ASTM D 1751	E/M/H

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AR	08	81200	METAL FRAMES	1	Hollow Metal Frames, Exterior	N/A	N/A	Custom commerical security grade, fully welded.	Typical exterior openings.	HMMA 862 "Guide Specifications for Commercial Security Hollow Metal Doors and Frames"	E/M/H
AR	08	81200	METAL FRAMES	2	Hollow Metal Frames, Interior	N/A	N/A	Custom commerical grade, fully welded.	Typical interior openings.	HMMA 861 "Guide Specifications for Commercial Hollow Metal Doors and Frames"	E/M/H
AR	08	81300	METAL DOORS	1	Hollow Metal Doors, Exterior	N/A	N/A	Custom, commercial security grade, fully welded.	Typical exterior openings.	HMMA 862 "Guide Specifications for Commercial Security Hollow Metal Doors and Frames"	E/M/H
AR	08	81300	METAL DOORS	2	Hollow Metal Doors, Interior	N/A	N/A	Custom, commercial grade, fully welded.	Typical interior openings.	HMMA 861 "Guide Specifications for Commercial Hollow Metal Doors and Frames"	E/M/H
AR	08	81400	WOOD DOORS	1	Flush Wood Doors	N/A	N/A	Flush Face Solid Core, WI Custom grade. PC-HPDL-5 unless otherwise required.	Interior only.	Wood work Institute "North American Architectural Woodwork Standards" Section 09 Doors Custom Grade	E/M/H
AR	08	83300	COILING DOORS AND COUNTERTOPS	1	Coiling Doors and Grilles	N/A	N/A	Finish: verify with Owner.	Manual operation, unless size dictates otherwise. Review the use of manual or power-operated coiling doors with the District.	N/A	E/M/H
AR	08	84100	ENTRANCES AND STOREFRONTS, CURTAINWALL	1	Entrances and Storefronts, Curtainwall	N/A	N/A	Finish: Clear Annodized.	Vandalism is prevalant. Glass shall be no lower than approx 36". Verify all system elevations with Owner.	N/A	E/M/H

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DS	08	85113	WINDOWS	1	Classroom Windows	Mon-Ray	Modified DeVAC 400 Series	Aluminum unitized interlocking modular system used District wide. Factory installed laminated glass in natural anodized class 1 clear anodic finish frames. Solid frame clearanodized (equivalent 215R Alcoa 7 mil) extruded aluminum window with three sizes of standard interchangeable modular laminated glass replacement panes. Minimum size is 36" wide to ensure replacement cost is efficiently by maintenance department. Frames shall be capable of accommodating insulated glazing units. Sash sizes to be coordinated with District's Maintenance & Operations Department.	All specifications to include an assembly mockup that is not integrated into the building.	Conforming to ANSI/AAMA 101, Section 2.2.3 Vertical Operating Windows designation DHC60.	E/M/H
AR	08	87100	HARDWARE	1	Hinges, Continuous Geared	Bommer, Hager, Ives, Pemko, Zero	Ives 224 HD Series	Provide 3 approved equal manufacturers/model numbers. 180+ degrees of operations	High traffic openings, exterior doors, classrooms. Template to match Ives for maintenance.	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H
AR	08	87100	HARDWARE	2	Hinges, 5 knuckle ball-bearing butt hinge	Bommer, Hager, Ives, Mickinney, Stanley	Ives 5BB1HW x NRP	Provide 3 approved equal manufacturers/model numbers. Heavy Weight, Non-Removable pins at exterior doors.	N/A	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H
DS	08	87100	HARDWARE	3	Owner's exterior Keying System	Allegion - Schlage	Primus	N/A	All high security areas are to receive Primus IC cores.	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H
DS	08	87100	HARDWARE	4	Owner's interior Keying System	Allegion - Schlage	Primus key blank	N/A	Interior only, non-primus cores.	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H
DS	08	87100	HARDWARE	5	Locksets, Mortise	Allegion-Schlage	L Series Vandlgard Lever type 17	N/A	Mortise Locksets at Exterior openings	N/A	
DS	08	87100	HARDWARE	6	Locksets, Cylindrical	Allegion-Schlage	ND Series, Sparta style	N/A	Interior only	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H

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AR	08	87100	HARDWARE	7	Exit Devices	Hager, Precision, Sargent, Von Duprin	Von Duprin 98/99 Series	Provide 3 approved equal manufacturers/model numbers.	N/A	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H
AR	08	87100	HARDWARE	8	Closers	Hager, LCN, Norton, Sargent	LCN 4040XP-TB	Cast Iron Body, minimum 3 approved equal manufacturers. Thru-Bolted. Coordinate with door frame reinforcement for soffit shoe.	N/A	BHMA Grade 1 BHMA certified ANSI A156.4. ADA Compliant ANSI A117.1 UL Listing as applicable	E/M/H
AR	08	87100	HARDWARE	9	Low-Energy Door Operators	Besam, Hager, Horton, LCN, Stanley		Provide 3 approved equal manufacturers/model numbers.	N/A	CBC 1117.6	E/M/H
AR	08	87100	HARDWARE	10	Kick/Mop Plates	Ives	8400 series	Provide 3 approved equal manufacturers/model numbers.	N/A	N/A	
AR	08	87100	HARDWARE	11	Threshold, Weatherstrip	Hager, National Guard, Pemko, Zero		Minimum 3 approved equal manufacturers. Weather/Smoke seal shall be mechanically attached.	N/A	BHMA Grade 1	E/M/H
AR	08	87100	HARDWARE	12	Gate Padlock	Allegion-Schlage	KS Series Brass Padlocks	Interchangeable cores.	N/A	N/A	E/M/H
AR	08	87100	HARDWARE	13	Casework Hardware	Alletion-Schlage, Hager, Ives, Rockwood, Trimco	CL series	Performance Specification open to minimum 3 approved equal manufacturers. Include casework hardware under Division 06 or 12, where applicable	Refer to District standards for keying	BHMA Grade 1, BHMA certified applicable ANSI standard.	E/M/H
AR	08	87100	HARDWARE	14	Door Stops	Trimco	1209 Series	Extra Heavy Duty Stop & Holder with extra strong stainless steel shaft embedded into concrete.	All doors should be designed to accommodate floor stops 2" max from wall.	N/A	E/M/H
AR	08	87100	HARDWARE	15	Door Stop & Holder	Trimco		Coordinate Holder height required for concrete slab elevation. Include Cast-In-Place Plate Anchor.	All doors should be designed to accommodate floor stops 2" max from wall.	N/A	E/M/H

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								Three-coat traditional 7/8" cementitious system per PSDM. Lath shall meet ASTM C993 weight.	Architect shall show joints to control cracks per ASTM C 1063 and PSDM. Architect detail all Cement plaster material transitions to other materials and appurtenances. Require shop drawings showing construction joints per PSDM. Require Mockup.		
AR	09	92400	CEMENT PLASTERING	1	System	Non-Proprietary	N/A	Cement Plaster Finish: Hard trowelled, smooth trowel finish.	Review control joints and transition details with WCCUSD as early as possible. Approval on this particular point may be required by the District.	PSDM Plaster and Drywall Systems Manual	E/M/H
AR	09	92900	GYPSUM BOARD	1	High Impact	N/A	N/A	Mesh reinforced gypsum board. Dense core. Soft Body Impact per ASTM C 1629 Level 3.	Corridors, Multi-purpose rooms, gymnasiums, locker rooms. Install 6" above suspended ceiling height.	N/A	E/M/H
AR	09	93013	TILE	1	Floor Tile	TCNA (Tile Council of North America) Member	N/A	Unglazed colorbody porcelain tile. Tile selection shall accomodate slope to drain. Tile selection shall accommodate grout width not to exceed 1/16 inch. Select grout color to minimize appearance of soil. Specify tile in compliance with Master Grade Certification.	Colors in standard price groups, epoxy grout.	Master Grade Certificate required.	E/M/H
AR	09	93013	TILE	2	Wall Tile	TCNA (Tile Council of North America) Member	N/A	Ceramic Tile. Tile selection shall accommodate grout width not to exceed 1/16 inch. Specify tile in compliance with Master Grade Certification.	Colors in standard price groups.	Master Grade Certificate required.	E/M/H
AR	09	95000	ACOUSTICAL CEILINGS	1	Classroom Ceilings	Armstrong	School Zone Fine Fissured	NRC 0.70 Square Lay-In	Use at classroom ceilings. Consider using Armstrong's reverberation calculator.	ANSI S12.60	E/M/H
AR	09	95000	ACOUSTICAL CEILINGS	2	Ceilings	Armstrong	Optima	Square Lay-In	Use at office & library ceilings.	ANSI S12.60	E/M/H
AR	09	96466	WOOD ATHLETIC FLOORING	1	Wood Flooring	N/A	N/A	3/4 inch by 3/4 inch vertical grain Maple flooring applied directly over wood sheathing.	Use at performance floors where resilience is not required.	N/A	E/M/H
AR	09	96466	WOOD ATHLETIC FLOORING	1	Gymnasium	N/A	N/A	Strip flooring type, MFMA-RL Second Grade or Better. Anchored wood Sleeper system. Meet DIN 18032, part 2. Under-floor ventilation system.	N/A	DIN 18032 part 2	H

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AR	09	96466	WOOD ATHLETIC FLOORING	2	Dance	N/A	N/A	Strip flooring type, 3/34" thick, MFMA-RL Second Grade or Better. Floating type, resilient pad system. Meet DIN 18032, part 2.	N/A	DIN 18032 part 2	H
AR	09	96466	WOOD ATHLETIC FLOORING	3	Finishes	MFMA listed	N/A	Comply with wood floor manufacturer requirements and MFMA.	N/A	MFMA	M/H
AR	09	96513	RESILIENT BASE AND ACCESSORIES	1	Base and Accessories	N/A	N/A	ASTM F 1861 Type TS: rubber, vulcanized thermoset.	N/A	ASTM F 1861	E/M/H
									Review with Owner prior to use.		
AR	09	96519	RESILIENT TILE	1	Marmoleum Composition Tile	Forbo	mct	UV cured finish. Heterogeneous linoleum tile made primarily of natural materials consisting of linseed oil, wood flour, and rosin binders, mixed and calendared onto a polyester backing. Pattern and color shall extend throughout total thickness of material. Thickness: 0.1 inch	supports 'no-wax' maintenance techniques. Review resilient flooring selection with District. Coordinate vapor-emissions testing and sealers.	N/A	E/M/H
AR	09	96519	RESILIENT TILE	3	Luxury Vinyl Tile	Armstrong	Natural Creations	A layered construction consisting of a UV-cured polyurethane finish, embossed clear vinyl wear layer, protecting a high-fidelity print layer on a solid vinyl backing coated with a pressure sensitive, releasable adhesive.	Review resilient flooring selection with District. Coordinate vapor-emissions testing and sealers.	N/A	E/M/H
AR	09	96519	RESILIENT TILE	4	Rubber Tile	N/A	N/A	Thickness: 3 mm min (includes 3 mm, 0.12 inch, 1/8 inch, 3.5 mm, 0.14 inch). Texture: Smooth, hammered, sealskin. Pattern: Marble or fleck Colors: choose from least expensive price group. Sheet goods are acceptable provided they meet mimum thickness above.	supports 'no-wax' maintenance techniques. Review resilient flooring selection with District. Coordinate vapor-emissions testing and sealers.	Specify common manufacturer such as Nora, Mondo, Roppe, Tarkett/Johnsonite, etc.	E/M/H
AR	09	96566	RESILIENT ATHLETIC FLOORING	1	Faux Wood cushioned athletic floor	Connor	SportGrain	Cushioned Vinyl Flooring with wood pattern. cushion thickness: 5-7 mm Vinyl Thickness: 2 mm min	Connor Sportgrain is an example of acceptable material. Specify three products.	N/A	E/M

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AR	09	96723	RESINOUS FLOORING	2	Epoxy Floor, Heat-Tolerant	N/A	N/A	1/4 inch thick fluid applied quartzchip urethane floor and base with epoxy top coat and anti microbial properties. Three-component, integral troweled mortar base consistinf of urethane resin, curing agent, and silica aggregate.	Specify three products.	N/A	E/M/H
AR	09	96816	CARPETING	0	Carpet, Broadloom or Tile	N/A	N/A	Yarn Type: Nylon Type 6,6. Dye Process: 100% Solution Dyed. Lifetime Warranty against raveling. Lifetime warranty against static buildup. CRI Green Label Plus NSF/ANSI 140 Certified Gold	Fully adhered.	CRI Carpet and Rug Institute	E/M/H
AR	09	97200	WALLCOVERING	0	Vinyl Wallcovering	N/A	N/A	NFPA 255 Class A NFPA 286 Corner Burn: Pass ANSI 342		ANSI 342	E/M/H

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								Vinyl per Vinyl Wallcovering factory-applied to 1/2 inch x 4 foot wide industrial insulation board, ironed and prime coated, meeting ASTM C208.			
								4' x 8' unit with aluminum frame.			
					Tackable Wallboard			Minimize openings.			
AR	10	101123	FIXED TACKBOARDS	1	Systems	N/A	N/A	Mount on z-clips for replacement.	N/A	N/A	E/M/H
								Style shall coordinate with signage system. Contains a 8 1/2 x 11 window for District to maintain updated evacuation plans.	per NFPA	N/A	E/M/H
AR	10	101400	SIGNAGE	1	Holder	N/A	N/A	Brushed Aluminum or Stainless Steel.	N/A	N/A	E/M/H
AR	10	101400	SIGNAGE	2	Exterior Signs	N/A	N/A	Exterior -rated acrylic.	N/A	N/A	E/M/H
					Interior Signs, Administration						
AR	10	101400	SIGNAGE	4	Areas	N/A	N/A	Exterior -rated acrylic.	N/A	N/A	E/M/H
DS	10	101463	ELECTRONIC MESSAGE SIGNAGE	1	Electronic Marquee	Stewart Signs	LED School Signs	Verify two CAT6a cables 1-1/4" conduit for future.	N/A	N/A	E/M/H
					Solid Color Reinforced						
AR	10	102113	TOILET COMPARTMENTS	1	Composite	Bobrick	Sierra Series	Stainless steel continuous hinges and hardware. Specify backing plate detail with through bolts/sex-bolt.	N/A	N/A	E/M
								Stalls enclosed on three sides with solid construction. Hollow metal doors per Div 08. Specify backing plate detail with through bolts/sex-bolt.	Verify location with District	N/A	M/H
AR	10	102813	TOILET ACCESSORIES	0	Paper Towel Dispenser, Roll	N/A	N/A	Furnished by District. Verify locations.	N/A	N/A	E/M/H
								Satin-finish stainless steel. Touch-free, pull-towel mechanism dispenses 12" (305mm) length per pull [1.8 lbs (8.0 N)] of universal towels. Accommodates 8" (205mm) wide, up to 8" (205mm) diameter rolls, 800 ft (244m) long, plus 3 1/2" (90mm) dia. stub roll with automatic transfer. Door has tumbler lock and piano-hinge. Unit 11 3/4" W, 15" H, 9" D (300 x 380 x 230mm).	Coordinate backing for all surface mounted equipment/accessories, Typ.	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	1	Paper Towel Dispenser, Sufrace Mounter Roll	Bobrick	B-2860				
AR	10	102813	TOILET ACCESSORIES	2	Electric Hand Dryer,	Xcelerator	N/A	Stainless Steel. 110 volt.	N/A	N/A	

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AR	10	102813	TOILET ACCESSORIES	3	9-inch Diameter Roll Toilet Paper Holder, Surface Mounted	Bobrick, ASI	N/A	Stainless steel.	lockable.	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	4	Toilet Tissue, Multi-Roll, Recessed	Bobrick	B-3888	Satin-finish stainless steel unit and dispensing mechanism. Door has dat face with protruding tumbler lock. Holds two rolls up to 5 1/4" (133mm) diameter (1800 sheets). Extra roll drops in place when bottom roll is depleted. Theft-resistant, heavy-duty spindles. Extends 2 3/4" (70mm) from wall.	N/A	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	5	Toilet Tissue, Dual-Sided	Bobrick	B-386	Satin-finish stainless steel. Mounts centered through toilet partitions, 1/2–2" (12–50mm) thick; used from both sides. Holds four standard core toilet tissue rolls up to 5 1/8" (130mm) diameter; two for each side. Chrome-plated plastic spindles with heavy-duty internal springs. Rough Partition Opening: 11 1/2" W, 10 7/8" H (290 x 275mm).	N/A	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	6	Toilet Tissue, Surface Mounted	Bobrick	B-2888	Satin-finish stainless steel unit with stainless steel dispensing mechanism. Door has flat face with protruding tumbler lock. Holds two rolls up to 5 1/4" (135mm) diameter (1800 sheets). Extra roll automatically drops in place when bottom roll is depleted. Theft-resistant, heavy-duty spindles. Unit 6 1/16" W, 11" H, 5 15/16" D (155 x 280 x 150mm).	N/A	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	7	Foam Soap Dispenser, Surface Mounted	Technical Concepts	Model # 750382	Stainless steel.	Alternative soap dispensers are permitted provided they can dispense the bagged refills.	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	8	Foam Soap Dispenser, Bag Refills	Technical Concepts		Verify product with District	N/A	N/A	E/M/H
AR	10	102813	TOILET ACCESSORIES	9	Toilet Seat Cover Dispenser	Kimberly Clark	#09512	N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	10	Sanitary Napkin Disposal	Bobrick	B-3544	ASI #0473	N/A	N/A	

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AR	10	102813	TOILET ACCESSORIES	11	Sanitary Napkin , recessed	Bobrick	B-352	ASI #464	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	12	Shower Curtain Rod	Bobrick	B-207 x	N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	13	Shower Curtain Hook	Bobrick	B-204-1	N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	14	Folding Shower Seat	Bobrick		N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	15	Clothes Hook	Bobrick	B-983	N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	16	Grab Bar, 36"	Bobrick	B-6806.99	N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	17	Grab Bar, 54"	Bobrick	B-5837	N/A	N/A	N/A	
AR	10	102813	TOILET ACCESSORIES	18	Mop Rack, Shelf	Bobrick	B-239	N/A	N/A	N/A	
AR	10	104100	EMERGENCY ACCESS AND KEY CABINETS	1	Knox Box	Knox Box	3200 Series	Hinged door. 5" W x 4"H x 3-3/4" D. Heavy duty.		N/A	
AR	10	104100	EMERGENCY ACCESS AND KEY CABINETS	2	Knox Gate Lock	Knox Padlock	3770	Exterior, heavy duty padlock with stainless steel shackle, designed for securing perimeter or fire access gate.	N/A	N/A	E/M/H
AR	10	105113	METAL LOCKERS	1	Corridor Locker	N/A	N/A	Integrated locks, 5 combinations. Doors: 14 ga. Backs: 18 ga. End Panels: 16 ga. Fully Welded.	N/A	N/A	M/H
AR	10	105113	METAL LOCKERS	2	Athletic Locker	N/A	N/A	Traditional padlocks Doors: 14 ga. Backs: 13 ga. End Panels: 16 ga. Fully Welded. Vented.	N/A	N/A	M/H
AR	10	107500	FLAGPOLES	1	Flagpoles	N/A	N/A	tapered aluminum, lockable compartment	N/A	N/A	E/M/H
AR	10	116643	INTERIOR SCOREBOARDS	1	Athletic Signs	Daktronics	N/A	N/A	N/A	N/A	M/H
AR	10	116843	EXTERIOR SCOREBOARDS	1	Athletic Signs	Daktronics	N/A	N/A	N/A	N/A	M/H

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								fire-rated, bolt-to-floor. Mechanical function - not electrical.			
AR	11	111616	SAFES	1	Safe	Sentry	N/A	4 cubic feet minimum.		N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	1	GENERAL	N/A	N/A	City of Richmond, Waste Water Department, requests no garbage disposals due to difficulty in processing solid waste materials.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	2	Hand Sinks	Aero Manufacturing	HSD	Stainless steel wall mount 10 inch wide x 14 inch front-to-back x 5 inch deep with 8 inch spash gooseneck splash mount faucet, P-Trap, lever waste, wrist handles and overflow. NSF.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	3	Manual Can Opener	Edlund	S-11	Manual can opener with cast stainless steel base, removable blade assembly, dishwasher safe, NSF.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	4	Pre-Rinse Faucet Unit	T & S Brass	B-0133 with B0107 spray valve with B-0044-H flex stainless steel hose	35 1/2 inch high x 15 inch overhang, x 8 1/4 inch clearance, 18 inch riser	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	5	Pot Filler	T & S Brass	B-0610	Kettle and pot assembly with vacuum breaker, 68 inch long. 1/2 inch wide flexible stainless steel hose, mixing valve, lever handles with squeeze valve and hook nozzle.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	6	Pot Washer	Metcraft Inc.		Polished stainless steel, floor mounted 168 inch long x 30 inch wide complete with all dispensing, drainage systems and controls.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	7	Laundry Sink	Aero Manufacturing	2F1-2424	24 x 24 x 18 inch deep 16 ga stainless steel with 10 inch high backsplash, stainless steel feet and cross bracing. Provide splash mounted 12 inch swivel faucet with aerator and wrist handles and lever waste, no overflow.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	8	Small Grease Exhaust Hood	Greenheck	GXFW Type 1	one section 60 inch long x 60 inch wide x 24 inch high, UL listed, with fire damper, NSF, Type 1 high efficiency baffle filter face supply wall canopy with fire control system.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	9	Large Grease Exhaust Hood	Greenheck	GHFQ Type 1	one section 216 inch long x 60 inch wide x 24 inch high, UL listed, with fire damper, NSF, Type 1 high efficiency baffle filter face supply wall canopy with fire control system.	N/A	N/A	E/M/H

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AR	11	114000	FOODSERVICE EQUIPMENT	10	Stainless Steel Hood Closure Panels	N/A	N/A	20 ga. Closure from top of exhaust hood to finish ceiling, and trim at ceiling and walls, finish to match hoods.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	11	Stainless Steel Tray Shelf	N/A	N/A	12 inch wide x 36 inch long 20 ga. on 14 ga. wall brackets.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	12	Stainless Steel Wall Flashing	N/A	N/A	20 ga to 54 inches above top of base, behind all hot and wet areas.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	13	Stainless Steel Corner Guards	N/A	N/A	14 ga 2 inch x 2 inch x approx. 49 inches long.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	14	Stainless Steel Work Tables, Mobile	N/A	N/A	60 inches long x 30 inches wide with undershelf and 20 inch x 20 inch drawer mounted to the left side near hand sink, with four 5 inch diameter heavy duty non-marking casters	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	15	Stainless Steel Work Tables, Mobile ADA	N/A	N/A	84 inches long, similar to above. ADA compliant.	N/A	N/A	E/M/H
AR	11	114000	FOODSERVICE EQUIPMENT	16	Stem Caster Carts	Metro	A456EC	Adjustable stem caster wire carts 21 inches wide x 48 inches long x 69 inches high with four shelves, posts, split sleeves, donut bumpers, chrome shelves and posts, with 5 inch polyurethane swivel casters all with brakes, 900 pound capacity.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	1	Air Doors	Mars	NHV 42	One pair unheated, high impact type, 42 inch long, with door-operated microswitch. NSF.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	2	Walk In Freezer	Koolstar, RMI Econocold, Pacific Refrigerator Co, Thermalite	N/A	10' 2" long x 8' 6" wide x 9' clear inside, with 3' x 6'8" with entry/exit door hardware with cam lift and spring assisted self-closing hinges	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	3	Walk In Cooler	Koolstar, RMI Econocold, Pacific Refrigerator Co, Thermalite	N/A	10' 10" long x 8' 6" wide x 9' clear inside, with 3' x 6'8" with entry/exit door hardware with cam lift and spring assisted self-closing hinges	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	4	Freezer Strip Door	Aleco	440042 Clear-Flex II	Freezer secondary door assembly of 6 inch wide 0.060 replaceable clear nylon strips.	N/A	N/A	E/M/H

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DS	11	114100	FOOD STORAGE EQUIPMENT	5	Roll In Refrigerator	Beverage Air	N/A	Two-section 34-1/2 inch deep 75 CF for two 27 inch wide x 29 inch deep x 66 inch high carts with two stainless steel doors with cam-lift hinging, lock, digital thermometer, and stainless steel ramp.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	6	Mobile Wire Shelving Units	Metro	A536EC	24 inches wide x 36 inches long x 63 inches high with 4 shelves, chrome plated, plastic split sleeves, and donut bumpers, 5 inch swivel and 5 inch brake polyurethane casters, 900 pound capacity.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	7	Wire Shelving Units, Long	Metro	A466K3	63 inches lonb x 21 inches deep x 63 inches high with 4 wire shelves and 4 posts , with metroseal 3 antimicrobial finish.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	8	Wire Shelving Units, Short	Metro	A456K3	48 inches long, x 21 inches deep x 63 inches high, with 4 wire shelves and 4 posts , with metroseal 3 antimicrobial finish.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	9	Dunnage Racks	Metro	HP35K3	18 inch x 46 inch offset wire design, 1,300 pound capacity, 14-1/2 inches high, including mat, cap and leveling bolt.	N/A	N/A	E/M/H
AR	11	114100	FOOD STORAGE EQUIPMENT	10	Roll-In tray Racks	Sammons Equipment	S-3131-R-13-DE-SS	Heavy duty refrigerator roll-in refrigerator rack unit, stainless steel construction with wraparound bumper and 5 inch diameter polyurethane casters with brakes, 26 inches wide, x 27 inches deep x 69 inches high.	N/A	N/A	E/M/H
AR	11	114400	FOOD COOKING EQUIPMENT	1	Open Burner Electric Range	Vulcan	E24L	24 inch wide x 59 - 1/2 inch high, six burner open range with convection oven and high shelf.	N/A	N/A	E/M/H
AR	11	114400	FOOD COOKING EQUIPMENT	2	Gas Range	Montague	136-5 Legend	36 inch wide heavy duty open burner type, stainless steel front and side, adjustable legs	N/A	N/A	E/M/H
AR	11	114400	FOOD COOKING EQUIPMENT	3	Gas Fry-Top Range	Montague	136-8 Legend	36 inch wide x 37 inch deep x 30 inch high heavy duty open burner type, stainless steel front and dides, on 6 inch flanged (seismic) legs, with 26 inch wide x 28 inch deep x 15 inch high oven, with porcelainized steel finish.	N/A	N/A	E/M/H

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AR	11	114400	FOOD COOKING EQUIPMENT	4	Gas Convection Oven	Montague	2-115B Vectaire	Convection Oven, Baker depth, thermostatic controls, single speed fan, top and bottom vertical opening doors with windows, stainless steel construction, 3 inch high deflector 6 inch adjustable legs, gas pressure regulator. Non-computer controls.	N/A	N/A	E/M/H
DS	11	114600	FOOD DISPENSING EQUIPMENT	1	Mobile Refrigerated Cabinets	Speedee-Serv Speed Line Model EC536-EDSN6336G	GA Systems Inc.	Modular style self-service refrigerated cabinets with side/lift-off lids. 31 inches long x 36 inches wide x 34 inches high, stainless steel, with holding capacity of 15 B13262 baskets.	N/A	N/A	E
DS	11	114600	FOOD DISPENSING EQUIPMENT	2	Mobile Refrigerated Cabinets	Speedee-Serv Speed Line Model EF336-EDSN6336G	GA Systems Inc.	Modular style self-service refrigerated cabinets with side/lift-off lids. 31 inches long x 36 inches wide x 34 inches high stainless steel, with holding capacity of 15 B13262 baskets.	N/A	N/A	M/H
DS	11	114600	FOOD DISPENSING EQUIPMENT	3	Mobile Freezer Cabinet	Speedee-Serve Speedline F336 Modular with DSN 36	GA Systems Inc.	31 inches long x 36 inches wide x 34 inches high. Modular self-service style stainless steel.	N/A	N/A	E/M
DS	11	114600	FOOD DISPENSING EQUIPMENT	3	Mobile Refrigerated Basket Cabinet	C436	GA Systems Inc.		N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	4	Mobile Cash Stand with Locking Cash Drawer	Beverage Air	N/A	31 inches long x 36 inches wide x 34 inches high, stainless steel drawer assembly and cabinet base with 18 ga undershelf.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	5	Mobile Kiosk Cart with Umbrellas	Beverage Air	N/A	78 inches long x 30 1/2 deep x 54 inches high with 7 1/2 foot folding umbrella mounted to center of cart, with two food wells and 18 ga. SS undershelf on 5 inch diameter plate-type casters, with brakes, and top display shelf.	The district is moving past specifying equipment manufactured by True Mfg due to inconsistent performance, Typical.	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	6	Heated Cabinet, Pass-Thru	Beverage Air	N/A	Two-section, 56 cubic feet, pass-thru type, including nine sets of TRKIT1 trays for each section (left and right)	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	7	Trays	Beverage Air	N/A	Trays for heated pass thru cabinet	N/A	N/A	E/M/H

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AR	11	114600	FOOD DISPENSING EQUIPMENT	8	Refrigerator, Roll-Thru	Beverage Air	N/A	2-section 75 cubic foot top mount, 300 series stainless steel exterior and interior, four stainless steel doors with cam hinging lock, digital thermometer and stainless steel ramps.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	9	Reach-In Refrigerator	Beverage Air	N/A	56 CF 34 1/4 inch deep, stainless steel, with two-hinged doors with lock, digital thermometer, and nine sets of trays for each section, leg mounted.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	10	Dual Temperature Refrigerator/Freezer	Beverage Air	N/A	13 CF capacity each section, refrigerator up and freezer down, stainless steel, provide legs with seismic mount.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	11	Heated Cabinets, Roll-In	Beverage Air	N/A	One-section, 34 1/2 inch deep 27CF for 27 inch x 29 inch deep x 66 inch high carts with stainless steel door with cam-lift hinging, lock, digital thermometer, and stainless steel ramp.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	12	Stainless Steel Serving Counter		make to same size and configuration as adjacent units.	14 ga. 34 inch x 36 inch long x 38 inch high, with 16 ga. Under-shelf and master-keyed locking cash drawer assembly, including electric receptacles for POS stations.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	13	Custom fabricated; make to same size and configuration as adjacent units		make to same size and configuration as adjacent units.	14 ga. 64 inches long x 24 inches deep x 34 inches high to conform to ADA, with 16 ga. Under-shelf, left side contains notch for wheelchair access, including electric receptacles, for POS stations.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	14	Mobile Cashier's Counter		N/A	34 inches wide x 36 inches long x 38 inches high, 14 ga. SS with 16 ga undershelf, pl. lam front and side panels per Architect.	N/A	N/A	E/M/H
AR	11	114600	FOOD DISPENSING EQUIPMENT	15	Mobile Cashier's Counter ADA		N/A	Same as above, except 34 inches high.	N/A	N/A	E/M/H
AR	11	114601	FOOD DISPENSING EQUIPMENT	16	Stainless Steel Cashier's Serving Counter		include heavy-duty non-marking casters with brakes and electric receptacles in counter top for power and data lines.	14 ga. 34 inch wide x approx 120 inches long x 38 inches high, with 16 ga. Undershelf.	N/A	N/A	E/M/H

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AR	11	114602	FOOD DISPENSING EQUIPMENT	17	Mobile Milk Coolers	Beverage Air	SM58N	Refrigerated milk storage units with oversized forced-air refrigeration system with 2 sliding self-service doors with stainless steel drop front and 'hold-open' flui-up tops, with white laminate exterior and white aluminum lined interior, standard floor racks and clean-out drains. Capacity: 12 milk crates.	The district is moving past specifying equipment manufactured by True Mfg due to inconsistent performance.	N/A	E/M/H
AR	11	114603	FOOD DISPENSING EQUIPMENT	18	Heated Cabinets, Mobile	Vulcan	VHP7	Insulated, bottom mount forced-air heat system, universal slides for 24 - 12 x 20 inch or 12 18 inch x 26 inch pans at 3 1/2 inch spacing, slides adjustable in 1 1/2 inch increments and 5 inch swivel casters with brakes.	Also Metro approved equal.	N/A	E/M/H
AR	11	114700	ICE MACHINES	1	Ice Maker, Cube Style	Manitowoc		Air Cooled self-contained condenser stainless steel, makes half-dice size cubes		N/A	E/M/H
AR	11	114700	ICE MACHINES	2	Ice Bin	Manitowoc		Top hinged front-opening door, approx. 710 pound storage capacity		N/A	E/M/H
AR	11	114700	ICE MACHINES	3	Ice Maker, Water Filter	Everpure	EV9324-02 Insurice 2000	1/2 micron precoat filtration, sized for most low flow cuber ice machines less than 1200 pounds per day, flaker less than 2,500 lbs per day		N/A	E/M/H
AR	11	116133	RIGGING SYSTEMS AND CONTROLS	1	Rigging Hardware	Protech Theatrical Systems		Framework and mounting for sheaves, blocks, tee bars, arbors, ropes, rope clips, pipe battens, outrigger lights, and motor winches for adjusting light arboars.	N/A	N/A	M/H
AR	11	116133	RIGGING SYSTEMS AND CONTROLS	2	Traverse Tracks and Related Hardware	Automatic Devices Co.					
AR	11	116133	RIGGING SYSTEMS AND CONTROLS	2	Traverse Tracks and Related Hardware	Tru-Roll Inc.		3 inch x 3 inch x 14 gauge track operated bi-parting, with pulleys and ball bearings and non-stretch 1/2 inch sash cord.	N/A	N/A	M/H
AR	11	116143	STAGE CURTAINS	1	Curtain Machines and tracks	H & H Specialties		Floor-mounted drum-drive operator, 1/2 HP, 208v, 3 inch x 3 inch x 14 gauge traverse track bi-parting, with pulleys and ball bearings and non-stretch 1/2 inch sash cord, with operating controls and limit switches.	N/A	N/A	E/M/H

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AR	11	116143	STAGE CURTAINS	2	Curtain Materials	KM Fabrics, Inc.		Cotton Velour, 32 ounc, flame- resistance treated, if required.	N/A	N/A	E/M/H
						KM Fabrics, Inc.					
						JB Martin					
						Frankel Associates		Cotton Velour, 25 ounce with opaque denim lining and 20 ounc masking borders and legs, flame-resistance treated.			
AR	11	116143	STAGE CURTAINS	3	Curtain Materials	Rose Brand			N/A	N/A	M/H
								Electric operation. Coordinate power disconnect voltage. Coordinate exhausting of heat. Coordinate construction sequencing - may be larger than doorway. Coordinate variable sprinklers . Lockable emergency shutoff.			
AR	11	119513	KILNS	1	Kilns	N/A	N/A			N/A	H

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AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	1	Lab Casework	N/A	N/A	Phenolic faced, seismic shelf lips on all laboratory shelving and other storage cabinets where spillage and breakage of contents are of a concern. Do not use these lips for normal book storage shelves. Epoxy Resin countertop. Per SEFA recommended practices.	N/A	WI Section 10 Annex 10D Requirements for Laboratory Casework. WI Certified. WI inspection required.	M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	2	Casework	N/A	N/A	Institutional grade attachments.	N/A	WI Section Section 10 Custom Grade. WI Certified. WI inspection required.	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	3	Hinges	Rockford Process	374 or 376	Institutional Hinges for Overlay doors, 2-3/4" five knuckle with hospital tips and 2-5/8" extended side panel wing	N/A	N/A	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	4	Cabinetry Locks	Olympus Lock	777 - Doors	Deadbolt with full size Schlage IC Cores	When required provide deadbolt latch lock with metal strikes and trim.	N/A	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	5	Cabinetry Locks	Olympus Lock	888 - Drawers	Deadbolt with full size Schlage IC Cores	When required provide deadbolt latch lock with metal strikes and trim.	N/A	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	6	Cabinetry Locks	Schlage	CL Series		Architect to coordinate with Hardware	N/A	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	7	Drawer slides, 200 lb capacity	Accuride	3640A	Side mount load capacity up to 200 lbs. per pair with drawer width of 42", Adapter rail mount/disconnect	N/A	N/A	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	8	Drawer slides, 350 lb capacity	Accuride	7957	Heavy-duty slide series Up to 350 lb. handed lever disconnect	N/A	N/A	E/M/H
AR	12	123553	LABORATORY/ SPECIALTY CASEWORK	9	Drawer slides, 500 lb capacity	Accuride	9301	Load Rating: up to 500, Non-disconnect	N/A	N/A	E/M/H

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AR	21	211119	FIRE DEPARTMENT CONNECTIONS	1	Teflon Fire Connections	N/A		N/A	Use teflon fire connections at FDC.	N/A	E/M/H

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AR	22	221316	SANITARY WASTE AND VENT PIPING	1	Wye with Cleanout	N/A	N/A	N/A	Where two waste lines come to a common vent, install a wye (Y) with cleanout near. Additionally, provide a cleanout and stainless access door in wall and above.	N/A	E/M/H
AR	22	224200	PLUMBING	1	Recessed Box, Hose Bibb	Acorn	8200-1	Stainless Steel Recessed Box with Door and Wall Flange.	Provide self-contained recessed wall box where recessed hose bibbs are used.	N/A	E/M/H
AR	22	224200	PLUMBING	2	Water Closets - Floor Mount	American Standard	Madera Series	or equal by Kohler or other	Use floor mount only in staff restrooms and gang restrooms where wall mount water closets cannot be installed due to spatial constraints.	N/A	E/M/H
AR	22	224200	PLUMBING	3	High Efficiency Carrier System	ZURN	EcoVantage toilet and EZCarry	Evacuates waste 50 feet. Mechanical flush valve: Z6000AV-HET.	Use in all student gang restrooms.	N/A	E/M/H
AR	22	224200	PLUMBING	4	faucets at bathroom lavatory	N/A	N/A	push-button metering faucets, institutional grade	Provide at student restrooms.	N/A	E/M/H
AR	22	224700	DRINKING FOUNTAINS	1	water bottle filler	N/A	N/A	Stainless steel, institutional grade.	Provide industrial-grade water bottle filler at interior drinking fountains.	N/A	E/M/H

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AR	23	230000	HEATING, VENTILATING, AND AIR CONDITIONING	1	HVAC, System, Acoustics	N/A	N/A	N/A	Within reason, design should aspire to reach acoustical values per ANSI S12.60.	N/A	E/M/H
DS	23	230900	ENERGY MANAGEMENT CONTROLS	1	Site EMS for HVAC and Outdoor Building Lighting	Alerton Technologies	BACTalk Series	N/A	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS	0	Exhaust Fans	N/A	N/A	All exhaust shall be direct drive/ beltless drive.	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS	1	In line Ceiling Mounted Exhaust Fan	Greenheck		Beltless direct drive exhaust fan with backdraft damper.	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS	2	Centrifugal Ceiling- wall cabinet fan	Loren Cook Company	GN series	GN Series with backdraft damper and roof cap. Direct drive motor.	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS	3	Roof Mounted Grease exhaust fan.	Penn Barry	Fumex	Direct drive	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS	4	Kitchen Hood Grease Exhaust	Greenheck	N/A	Direct Drive	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS	5	Chemistry Lab Fume Hood exhaust	Greenheck	N/A	Direct drive.	N/A	N/A	E/M/H
AR	23	233416	CENTRIFUGAL HVAC FANS		Gravity Relief Ventilator	Vibro Acoustics	N/A	Sound Attenuation	N/A	N/A	E/M/H
AR	23	233513	DUST COLLECTION SYSTEM	1	Dust collection system	Stern Vent	N/A	N/A	N/A	N/A	E/M/H
AR	23	238000	DECENTRALIZED HVAC EQUIPMENT	6	High Efficiency Rooftop Gas Packaged A/C Unit	Carrier	Carrier 48HJ Series.	Carrier 48HJ Series. Complete with 2 inch filters, time delay relay, stainless steel heat exchanger, condenser coil corrosion resistant coating, factory roof curb (2 inch isolation curb if necessary).	For new construction only in locations such as library, computer, and media rooms.	N/A	E/M/H
AR	23	238000	DECENTRALIZED HVAC EQUIPMENT	7	Large High Efficiency Rooftop Gas Packaged A/C Unit	Carrier	Carrier 48PJ Centurion Series	Carrier 48PJ Centurion Series. Complete with 2 inch filters, time delay relay, stainless steel heat exchanger, condenser coil corrosion resistant coating, 2 inch isolation curb, Premierlink controls. Inlet drip gas line to be galvanized.	For theater, assembly/ multi-purpose rooms.	N/A	E/M/H

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									Power always by data.		
AR	26	260000	ELECTRICAL	0	N/A	N/A	N/A	N/A	Pre-school exiting requirements regarding exit alarms.	N/A	E/M/H
AR	26	260000	ELECTRICAL	1	N/A	N/A	N/A	N/A	Multi-function copiers require two data ports, one power outlet on dedicated circuit, labeled accordingly.	N/A	E/M/H
AR	26	260926	PANELBOARDS	1	Controls	Lutron	Quantum Series	Bi-level switching, daylighting, occupancy sensors in classrooms	N/A	N/A	E/M/H
AR	26	261800	PANELBOARDS/SWITCHBOARDS	1	ards	N/A	N/A	Copper Busses	N/A	N/A	E/M/H
									Mount pendant fixtures 1/3 down from ceiling, 2/3 up from floor.		
									Coordinate light fixtures, with all ceiling fixtures, such as ceiling mounted projectors and exit signs.-- pendant lights may be in the way.		
									Suspended lighting 1/3 up, 2/3 down.		
AR	26	265100	INTERIOR LIGHTING	1	Interior Light Fixtures	N/A	N/A	LED luminaires.	Avoid integration of emergency lighting and battery backup.	N/A	E/M/H
									Architect shall coordinate detailing of exterior penetrations. Coordinate with waterproofing guidelines. No generic 'quick flash' details.		
AR	26	265200	EXTERIOR LIGHTING	2	Exterior Lighting Fixtures	N/A	N/A	Wall lights where possible. 5,000 kelvin light temperature.		N/A	E/M/H

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			DATA						Refer to latest WCCD BOE Resolution.		
DS	27	272000	COMMUNICATIONS	1	Voice over IP	Cisco	N/A	N/A	Request latest WCCD Technology Plan	N/A	E/M/H
			DATA		Switches and				Refer to latest WCCD BOE Resolution.		
DS	27	272000	COMMUNICATIONS	2	Routers	Cisco	N/A	N/A	Request latest WCCD Technology Plan	N/A	E/M/H
			DATA		Wireless Access				Refer to latest WCCD BOE Resolution.		
DS	27	272000	COMMUNICATIONS	3	Points	Cisco	N/A	N/A	Request latest WCCD Technology Plan	N/A	E/M/H
			DATA		Network Cabling				Refer to latest WCCD BOE Resolution.		
DS	27	272000	COMMUNICATIONS	4	Manufacturer	Belden	N/A	N/A	Request latest WCCD Technology Plan	N/A	E/M/H
			DATA		Uninterruptable						
			DATA		Power System				Refer to latest WCCD BOE Resolution.		
DS	27	272000	COMMUNICATIONS	5	Manufacturer	APC	N/A	N/A	Request latest WCCD Technology Plan	N/A	E/M/H
			DATA		Network						
			DATA		equipment				Refer to latest WCCD BOE Resolution.		
DS	27	272000	COMMUNICATIONS	6	cabinet	APC	N/A	N/A	Request latest WCCD Technology Plan	N/A	E/M/H
			PUBLIC ADDRESS AND								
			MASS NOTIFICATION								
DS	27	275116	SYSTEMS	1	Paging System	Bogen	Quantum	N/A	Refer to latest WCCD BOE Resolution.		
									Request latest WCCD Technology Plan	N/A	E/M/H

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DS	28	282300	ACCESS CONTROL & VIDEO SURVELIENCE	1	System	Gentec	Confirm with District	N/A	N/A	N/A	E/M/H
DS	28	283000	DETECTION AND ALARM SYSTEM	1	Main Panel	Honeywell Intrusion	Ademco	N/A	N/A	N/A	E/M/H
DS	28	283100	FIRE ALARM SYSTEM	1	Fire Alarm Control Panel (FACP)	Gamewell Fire Control Instruments by Honeywell	E3 Series	N/A	N/A	N/A	E/M/H

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AR	32	321813	SYNTHETIC GRASS SURFACING	1	Synthetic Grass, Elementary Playgrounds	N/A	N/A	Synthetic grass surfacing with infill selection that avoids black crumb rubber.	Per Education Specification.	N/A	E/M
AR	32	321919	ORNAMENTAL METAL	1	Ornamental Metal, System	N/A	N/A	Hot-dipped galvanized after fabrication.	N/A	N/A	E/M/H
AR	32	321919	ORNAMENTAL METAL	2	Ornamental Metal, Gate	N/A	N/A	Size and locate gates to support load of gate plus 400 lbs. Provide header and sufficient post to support gate weight.	N/A	N/A	E/M/H
AR	32	323111	AUTOMATIC GATES	1	Automatic gates	N/A	N/A	Rails to be located in out-of-reach areas for safety. The U-shaped receiver to be located outside of reach areas for safety, welded chains and IC core padlocks should be provided.	N/A	N/A	
AR	32	328000	IRRIGATION SYSTEMS	0	General	N/A	N/A	N/A	The West Contra Costa Unified School District standard for all campuses is for landscapes that incorporate water and energy conservation methods, including appropriate irrigation equipment, selection of drought resistant plant materials and minimal lawn and other water and maintenance-intensive areas. Overall irrigation goals are to: Design low maintenance landscape and irrigation systems, install durable and vandal resistant irrigation equipment and materials, standardize irrigation equipment brands and materials for ease of maintenance and design landscape and irrigation systems that are compatible with existing, renovated and new construction.	N/A	E/M/H
DS	32	328000	IRRIGATION SYSTEMS	1	Master Control System	Rainmaster		Controller to include: Data line to controller, surge protection, on-off switch, exterior GFI outlet, 20% extra capacity, control valve with flow meter and bypass.	Promax is the brand of remote. Match controller to handheld remotes are "signature" for WCCUSD (controller is programmed). Handhelds are programmed to controllers. Provide laminated chart showing 'as-builts' at each controller. John Deer Greentech is warranty and service maintenance group.	N/A	E/M/H

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								Stainless steel, top mount, Strong Box SB16SS. Positioned to face field or irrigated area as possible. Wall mount controller to be installed at eye level, approximately 5'-6" to center of controller. Pedestal enclosure may be used if required and accepted by the District compatible with controller SB16SS. Enclosures to be installed on poured 6 inches deep concrete pad with 6 inch outside clearance on all sides. Provide laminated chart showing 'as-builts' at each controller.			
DS	32	328000	IRRIGATION SYSTEMS	2	Controller Enclosure	VIT Products	Stainless steel, top mount, Strong Box SB16SS.		N/A	N/A	E/M/H
DS	32	328000	IRRIGATION SYSTEMS	3	District lock.	VIT Products	Strong Box SB-16SS	N/A	N/A	N/A	E/M/H
AR	32	328000	IRRIGATION SYSTEMS	4	Controller Cabinet	(707) 448-1700		Strong box with stainless steel pedestal.	N/A	N/A	E/M/H
AR	32	328000	IRRIGATION SYSTEMS	5	Master Control Valve	Rainbird Package System		Control valve with flow meter and by pass. Griswold, always open. Rainmaster flow meter with sensor wire in 1 inch conduit within 2,000 feet of controller.	Specify IDF or MDF room where conduit will end and patch boards are located.	N/A	E/M/H

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AR	32	328000 IRRIGATION SYSTEMS		6	Backflow Preventer			Ball valves each side. In line Y-strainer with clean out at each system, ball valves each side and with or without pressure regulator as required.	N/A	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		7	Backflow Preventer Enclosure	BF 168 Dual Swing Enclosure		Vandal resistant backflow cover in green standard powder-coated color.	Enclosure to be installed on 6" deep concrete pad with 6" outside clearance all sides. Has to accept 'Master' padlock provided by District. Keyed with District ES203 lock.	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		8	Booster Pump	Watertronics Package System	N/A	Electrical emergency shut off switch with lockable hasp with IC core cylinders MF American or Masters.	N/A	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		9	Booster Pump	Rainbird Package System	N/A	N/A	N/A	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		10	Gate Valve	Nibco	N/A	Push on gate valve, sized as required per main line size.	N/A	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		11	Irrigation Control Valve	Rainbird	N/A	Griswold with PVC ball valve upstream. Y-strainer required.	N/A	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		12	Irrigation Control Valve Boxes	Brooks or Carson	N/A	N/A	Buried 6 inches deep with 8 inch x 8 inch, 1/4 inch thick galvanized metal plate bolted to lid.	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		13	Quick Coupler	Rainbird	N/A	N/A	One per valve grouping, every 200 feet maximum. Install on 18 inch Dura swing joint. Install in 9 inch round Brooks or Carson valve box.	N/A	E/M/H

<i>DS/AR</i>	<i>Div</i>	<i>CSI No.</i>	<i>Spec Section Name</i>	<i>Item #</i>	<i>Product Type</i>	<i>Basis of Design Manuf.</i>	<i>Basis of Design Model</i>	<i>Product Description</i>	<i>Design Guideline</i>	<i>Standards</i>	<i>Elementary/ Middle/ High</i>
AR	32	328000	IRRIGATION SYSTEMS	14	Irrigation Spray Heads	Rainbird	Rainbird 1800 SAM PRS	Rainbird 1800 SAM PRS pop-up spray heads with VPC caps, installed on appropriately sized Dura constant pressure swing joints. Matched precipitation rates. Request approval for other heads like Hunter.	Space for head to head coverage at 1.25 to 1.5 times spacing. Use 6 inch pop-up in turf and at edges of shrub beds and 12 inch pop-up in centers of shrub beds. Heads along the face of parking lots to be placed between stall stripes to avoid head stem breakage. Design with spray directed away from buildings so that no over-spray contacts any part of a building and include directive in specification and notes for contractor. Low heads to receive in-line check valve assembly, King Brothers, or approved equal.	N/A	E/M/H
AR	32	328000	IRRIGATION SYSTEMS	15	Irrigation Rotors	Toro Rainbird Hunter	N/A	Toro 340 Rotor Rainbird 700S Hunter I-Series	340-rotor, XP300. Rainbird 700S rotors. 6 inch pop-up in turf, 12 inch pop up in shrub beds on Dura swing joints. Matched precipitation rates. Request approval for other heads like Hunter. Hunter I-Series rotors with stainless steel riser in quarter, half, adjustable or full arcs as required. Installed on appropriately sized Dura constant pressure swing joint. Space for head to head coverage or greater at 1.25 to 1.5 times spacing. Design with spray directed away from buildings so that no over-spray contacts any part of a building and include directive in specifications and notes for contractor. Low heads to receive in-line check valve assembly, King Brothers, or approved equal.	N/A	E/M/H

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AR	32	328000 IRRIGATION SYSTEMS		15	Irrigation Spray Heads	Toro	Toro 570Z	Toro 570Z 6 inch pop-up in turf, 12 inch pop up in shrub beds on Dura swing joints. installed on appropriately sized Dura constant pressure swing joints. Matched precipitation rates. Request approval for other heads like Hunter.	Space for head to head coverage at 1.25 to 1.5 times spacing. Use 6 inch pop-up in turf and at edges of shrub beds and 12 inch pop-up in centers of shrub beds. Heads along the face of parking lots to be placed between stall stripes to avoid head stem breakage. Design with spray directed away from buildings so that no over-spray contacts any part of a building and include directive in specification and notes for contractor. Low heads to receive in-line check valve assembly, King Brothers, or approved equal.	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		16	Sleeves	Cresline, PW, or JM	N/A	PVC schedule 40, Cresline, PW, JM or approved equal, buried at 24" depth.	Double the mainline or lateral line size with 50% capacity. Installation of all sleeves and conduits to be located under paving and through walls prior to placement of those materials. Extend 24 inches beyond edges of paving and walls and cap ends until ready for use. Sleeves to be sized to provide a minimum of 50% extra capacity with the sleeve.	N/A	E/M/H
AR	32	328000 IRRIGATION SYSTEMS		17	Extra Parts	N/A	N/A	N/A	Contractor Supplied: 1 head for every 10 installed, 1 swing joint for every 10 installed, 1 valve per size.	N/A	E/M/H