



# C.U.S.D. Building Standards

**Corrine Folmer, Ed.D.**  
*District Superintendent*

**Denver Stairs**  
*Assistant Superintendent*  
*Facility Services*

**Nick Mele**  
*Administrator*  
*Facility Services*



**Facility Services**

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## Table of Contents

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Building Specifications Process .....	3
Educational Program Specifications.....	4
Division 3 Concrete .....	5
Division 4 Masonry .....	7
Division 5 Metals.....	8
Division 6 Woods, Plastics and Composites .....	9
Division 7 Thermal and Moisture Protection .....	11
Division 8 Openings .....	12
Division 9 Finishes.....	15
Division 10 Specialties.....	17
Division 11 Equipment.....	19
Division 13 Special Construction .....	23
Division 21 Fire Suppression .....	27
Division 22 Plumbing .....	28
Division 23 Mechanical/Plumbing.....	30
Division 25 Integrated Automation.....	31
Division 26 Electrical .....	32
Division 27 Communications.....	33
Division 28 Electronic Safety and Security .....	39
Division 32 Exterior Improvements.....	40
Athletic Specifications Appendix.....	43

## Building Specification Process

The goal of the Building Specification Committee is to create building specifications that provide direction for the initial planning and building of school facilities within the Clovis Unified School District. These building specifications were developed based on the following intentions:

- To create the best possible learning environment for teachers and students
- To facilitate an efficient and effective workplace
- To enhance the use of school facilities for co-curricular, athletics, performing arts and community activities
- To select high quality materials, finishes and equipment in the design of the facilities that will minimize the need for ongoing maintenance
- To maximize energy conservation by the use of maximum “R” value insulation, location and treatment of windows, high efficiency HVAC equipment and lighting systems, and incorporate day lighting when possible.
- To meet all state and federal building codes and requirements related to ADA (American Disabilities Act)
- To design and construct the school within the School Facilities Program (SFP) grant and CUSD matching funds
- To support the utilization of technology by students, staff and the community

The Building Specifications Committee includes representation from a wide array of groups to maximize achievement for all students, to operate with increasing efficiency and effectiveness and to develop, sustain and value a quality workplace. The Building Specifications Committee includes representatives from the following groups:

<ul style="list-style-type: none"><li>• Facility Services</li><li>• Construction and Engineering</li><li>• Plant Operations</li><li>• Custodial</li><li>• Energy Education</li><li>• Teachers</li><li>• Principals</li></ul>	<ul style="list-style-type: none"><li>• Nursing Services</li><li>• Office Managers</li><li>• Library Media Technicians</li><li>• Architectural and Engineering Firms</li><li>• Site Plant Managers</li><li>• Building Consultants</li><li>• Specialists</li></ul>
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To begin gathering input from the various groups, the building specifications review process was initiated by identifying key building team members from construction and engineering, plant operations, custodial, grounds, maintenance and operations, and technology to assist in communicating needs from the lens of their departments.

## Educational Program Specifications

### Introduction

The Educational Specifications are a separate, stand-alone document intended to provide direction to architects, engineers, and consultants for the initial planning of new or modernization of existing elementary school facilities within the Clovis Unified School District. The building standards take the educational specifications to a more specific level as they are provided with the following intentions:

- To select materials, finishes and equipment in the design of the facilities that will minimize the need for ongoing maintenance
- To maximize energy conservation by the use of maximum "R" value insulation, location and treatment of windows, high efficiency HVAC equipment and lighting systems, and incorporate day lighting when possible
- To design and construct the school within the School Facilities Program (SFP) grant and CUSD matching funds
- To support the utilization of technology by students, staff and the community

# 3 CONCRETE

## 033000 CAST-IN-PLACE CONCRETE

### *General condition (Evaluation only)*

- Large cracks from structure failure are not acceptable
- Provide adequate surface drainage to eliminate standing water
- No excessive run-off, grade areas to avoid this
- Eliminate trip hazard.
- Replace from joint to joint where grinding is not an option
- Reduce skateboard damage on raised planter with metal brackets or design concrete seat walls to deter
- When utilities cross concrete no trench caps allowed- must be joint-to-joint
- 12" compacted soil below new flatwork
- All expansion joints must have cap and construction sealant
- When adding a new portable, all surrounding area needs to be engineered to have no standing water

### *ADA Compliance*

- Meet or exceed CBC (Calif. Building Code) and DSA/ADA regulations regarding
- Slope: use 1:13 instead of 1:12 for built in deviance factor. Similar for other slopes, where possible
- Stairs: detectable warning surfaces, tooled nosing of differentiating color

### *Mow strips*

- 18" minimum at exterior building wall face
- 18" at all fence, blacktop and turf locations
- Valley gutter along CMU walls for drainage to perimeter of playfields and playground equipment

### *Concrete collars*

- 18" minimum collar placed around light poles and drainage inlets
- In turf areas add additional 18" mow strip around all elements mowed around

### *Seating Benches*

- Designed to reduce skateboard damage. (Chamfer 24" O.C.)
- Seat wall at 18" depth to act as a root barrier when a tree is present
- All seat walls, when acting as a planter, must have weep holes at grade
- All benches placed in turf areas must be placed on concrete pad with legs (pour in place).

### *Tree wells*

- Tree wells 4'x4' and smaller iron tree grates required. An 8'x8' may be required for larger trees (CUSD Grounds to determine).
- Tree wells 4'x4' or larger shall have an iron tree grate or seat wall, typically 16" to 18" tall depending on how the adjacent grade is sloping to discourage through traffic
- Tree grates must have a pattern that allows for tree growth
- Install root barrier at all trees in confined concrete planter areas and adjacent to sidewalks

### *Planter Boxes*

- *All planter boxes must have 1.5" weep holes for drainage*
- *Building wall may not be used as part of the planter*

### *Concrete Mix*

- Defer to soils engineer and structural engineer for recommendations
- Review concrete strengths, if possible and when cost effective, the strengths can vary between footing, slab, walk, etc

### *Tennis Court Spectator Seating*

- Concrete seating at Intermediate and High School only-architect designed

## **033543 POLISHED CONCRETE FINISHING -See Polished Concrete Specifications**

- Polished concrete in all MPRs

## **033910 TOPICAL CONCRETE VAPOR CONTROL BARRIER**

### *New Concrete*

- Two-component, spray applied product for application to newly poured concrete slabs on grade during final troweling
- Materials shall be polymer-based penetration, film forming barrier that remains compatible with floor adhesives
- Protect from walking traffic for 12 hours, heavy traffic for 36 hours

### *Existing Concrete*

- Shot blast floors to ICR#4 using #420 shot and grind near edges
- Seal all cracks and joints during initial application
- Apply two coats
- Protect from walking traffic for 12 hours, heavy traffic for 36 hours

# 4 MASONRY

## 042200 CONCRETE MASONRY UNIT

- Hollow load-bearing concrete masonry units
- ASTM C90, Grade N, Type 1
- Use precision block at door and window perimeters to provide a smoother, easier joint to seal
- Structural engineer shall determine if block shall be light, medium or heavy weight
- Some color of CMU only comes in one weight
- If project is going to be LEED, research which aggregate is mined locally-may be able to get additional credits if mined within 500 miles of the project
- Use 8' height CMU block fence along perimeter of campuses adjacent to housing (provided by residential developer)
- Use brick where existing buildings have brick. Tie in color, size and style when possible

### *Planter Boxes*

- *All planter boxes must have 1.5" weep holes for drainage*
- *Building wall may not be used as part of the planter*

# 5 METALS

## *PIPE AND TUBE RAILINGS*

- Weep holes to be filled, ground smooth, cold galvanized with silver paint coating
- Exterior rails shall be hot dipped galvanized-no painting
- Interior rails shall be aluminum or stainless steel-no painting
- 1 ¼ "schedule 40 pipe in all handrail/guardrail (must meet Code Requirements)
- ADA access ramps must have railing to signify step down (Architect to review potential locations with District)

## Trash Enclosures/Storage Areas

- Solid metal gate

## **055133 METAL LADDERS**

- Roof hatch access for all roofs with HVAC systems with ladder



# 6 WOOD, PLASTICS, AND COMPOSITES

## 064600 ARCHITECTURAL WOODWORK

- All casework and installation to be AWS certified
- All file drawers / vertical files must provide CompX Timberline file hanging system
- Casework manufacturer/ supplier shall be certified and in good standing with current Woodwork Institute
- The casework manufacturer shall be responsible for notifying the Woodwork Institute inspector that the project has started and call for inspection while the casework is being built
- Installation of casework shall be certified by a WIC Inspector before delivery and after installation to guarantee product meets the most current AWS standards and specifications including CUSD standards and specifications.
- All shelving that exceeds 24" in length shall be made of at least 1" thick material. All standards shall be KV 255 steel or equivalent. Line boring shall not be acceptable in any situation
- Hinges shall be Rockford Process Control 5 knuckle wrap around hinges with hospital tips or district approved equivalent
- Wall units shall not exceed 3' in width unless there is a center divider from the top to the bottom. With a center divider, the cabinetry shall not exceed 4' in width.
- All drawer bottoms shall be made with 1/2" thick particle board as a minimum
- All 72" tall doors or higher shall have a minimum of 4 hinges
- All casework shall be made using Confirmat screws and glue
- Handles shall be 4" wire pulls, brushed aluminum
- Any particle board used shall be industrial grade
- Cabinetry shall be secured to the wall framing or backing by at least (4) #14 screw piercing the framing by at least 2" minimum
- Cabinet installation shall be plumb, level and true
- The base of each unit shall extend to 3/8" minimum under the side of the cabinetry
- Cabinetmaker to supply list of all materials- manufacturer color, and products used in new construction and modernization to CUSD maintenance department after the project completion

### *Cabinets*

- HPDL, vertical surfacing grade
- 0.028" minimum thickness in accordance with PS-1
- Plywood or particle board cores (particle board shall be Industrial grade)
- Exposed ends, panels and back panels shall flush out with face of doors and drawer fronts

### *Interior Surfaces*

- Cabinet liner over 3/4 "thick in accordance with PS-1, Industrial grade particle board core (44-50 lb density)
- Concealed Backs- 1/2" minimum
- Exposed Backs- 1/2" minimum
- Drawer bottoms- cabinet liner- 1/2" minimum thickness

### *Interior of Doors and Drawer Fronts*

- DPL shelves: 0.020" minimum thickness
- Cabinet liner glued to veneer core hardwood plywood/industrial grade particle board (VCHP), 3/4"thick for spans up to 25", and 1 inch thick for spans greater than 24"
- Shelving for Library bookcases shall be 1" thick VCHP in accordance with premium grade AWS, and laminated at front face only and top and bottom surfaces with a minimum 0.028" high pressure decorative thermoplastic laminate
- Exposed shelves with no door fronts, or glass door fronts, shall be high pressure decorative thermoplastic laminate in accordance with high pressure decorative thermoplastic laminate material
- Edge banding - Exposed and semi-exposed edges shall be banded with Polyvinyl Chloride color to match exposed surface at shelves, dividers, and partitions
- 0.5 mm nominal edge banding – width of banding shall match edge condition being banded
- 3 mm nominal edge banding – match edge condition

## Countertops

- HDPL general purpose grade, 0.050" minimum thickness (0.042" minimum thickness for post forming).
- Underside of plywood or particle board core shall have a backing sheet securely glued to core and sealant applied to all exposed plywood and particle board surfaces.
- No drip bullnose waterfall edge, 3/16" maximum deflection with 150 lb. load, core material for top and splashes – minimum ¾" thick industrial grade particle board (44-50 lb. density), solid stock edges of maple hardwood with W-6 finishes, in accordance with NEMA standard LD-3
- Back splash- provide an integral cove splash, 6" tall (minimum), at the classroom locations, the new back splash height shall be at least 1" taller than the existing splashes (expected to be 4" tall). If the existing splashes are 4" tall, provide 6" tall splashes, at window openings where a 6" splash is too tall, provide an appropriate height to align with the windowsill
- End Splash – 6" butt end splash
- Top Splash- square edge
- Administration/LMC: solid surface at high traffic reception areas (architect choice district approved)
- Classrooms: plastic laminate
- Standing counters – 38", Sitting counters – 26", Coat racks – 40", sinks – 34"

## Custom Countertops

### Science Lab

**Manufacturer:** BROADHEAD-GARRET, product number B571047082, or district approved equivalent.

- Chemical resistant countertop
- Provide 1" thick x 6" tall back and end splashes with matching finish
- Field-verify actual dimensions of counter prior to ordering

### Wood/Ceramic Shop

- Maple Top laminated and warp-resistant seasoned and kiln dried hard maple ("Summer-cut" or "Winter-cut") with a moisture content of 6% to 8%, finished with three (3) coats of V.O.C. compliant natural lacquer. Countertop size shall be 1 ¾" thick x 30" deep x 12'-0" (=/-) long
- Provide 1" thick x 6" tall back and end splashes with matching finish. Field-verify actual dimensions of counter prior to ordering

### Solid Surfacing

**Manufacturer:** CORIAN" by E. I. DuPONT DE NEMOURS & CO., or approved equivalent

- Hard surface only used in high traffic areas
- Decorative synthetic marble of solid (mineral and acrylic filled) methyl Methacrylate
- Thicknesses- 1/4" for vertical applications, minimum of 1/2" for horizontal applications
- Backing material - plywood core, Structural 1, CD, Group 1, 5-ply
- Edges- front edge design - rounded edge (top and bottom)
- Finish- BHM A 626 (26D)

### Countertops Supports

**Manufacturer:** RANGINE CORPORATION- RAK K S, EH-Series, flush mount.

- Steel Support angle and Base plate- galvanized, single-piece construction, all welded ground smooth, flush
- Angle material to be A36 (Fy=36ksi), Plate material to be A36 (Fy=36ksi), all welding to conform to AWS and shall be done by certified welders

### Modular Casework - Science Labs

- High Pressure Decorative Laminate- **Manufacturer:** WILSONART
- Low Pressure Thermal-fused- **Manufacturer:** SELPLY
- Solid Surfacing- **Manufacturer:** E.I.DuPONT
- Custom Maple Top- **Manufacturer:** BROADHEAD GARRETT
- Cabinetry hardware- see cabinetry hardware schedule

## 066400 FIBERGLASS REINFORCED PLASTIC PANELING (FRP)

### FRP Sheet Paneling

**Manufacturer:** Kemlite Company Inc., Marlite, Nudo Products Inc.

- No less than .09" thickness
- Surface molded pebble texture
- Color-architect design with district approval

# 7 THERMAL AND MOISTURE PROTECTION

NOTE: Single ply on all flat deck roofs up to 2/12 pitch. Built up roofing or shingle for all other roofs. When patching-match existing roof.

## *PITCH ROOFING*

### **COMPOSITION SHINGLES (ASPHALT)**

- **Manufacturer:** Certaineed, Owens Corning
- Laminated shingle, lifetime warranty
- Underlayment – required, made by manufacturer
- Synthetic underlayment – cap nails only
- Venting – low profile or O'Hagin type vents (1 per 250 sq. ft.)
- Step flashing at walls
- Lead jacks at all pipe vents with cap flashing
- 4 nails per shingle (or manufacture recommendation)
- Title 24 compliant

## *FLAT ROOFING*

### **COLD APPLIED BUILT-UP ASPHALT ROOFING**

- **Manufacturer:** Garland Weather King Plus WC adhesive; Malarkey or Tremco Inc. standard cold adhesive LV or District approved
- Cold process modified built up (asphalt)
- Title 24 complaint
- Flash off time – min. 40 dayss
- All walls applied in hot tar

## *Basesheet*

**Manufacturer:** Garland- HPR Premium Glasbase; Malarkey or Tremco BURmastic Glassply sheet

- Twoply membrane - ASTM D-4601, type 3

## *Coating Materials*

Manufacturer: Garland Pyramic (white); Tremoco FR (white)

- Acrylic latex, highly reflective, elastomeric, compatible with modified bitumen surfaces
- CCRC "cool roof" compliant
- Use cap sheet - granulated

## *PVC Thermoplastic Membrane Roofing*

**Manufacturer:** Sika Sarnafil Inc; John Manville (JM) or Carlisle

- Fully adhered 80 mil single ply thermoplastic roofing membrane
- .6 mil non fleece back at base flashings and walls
- ¼ inch DensDeck prime hardboard
- Install walk-deck around all mechanical units and roof hatches

## *Portable foam roofing*

- Portables with existing foam roof repairs must be done by a foam contractor

## **074112 METAL ROOF PANELS**

- Underlayment required
- Manufacturer provided standing seam

## **077233 ROOF HATCHES**

**Manufacturer:** The BILCO Company or Dur-Red

- Roof hatch access for all roofs with HVAC systems with ladder.
- During re-roof process new roof hatch must be installed

# 8

# OPENINGS

## 081113 HOLLOW METAL DOORS AND FRAMES

**Manufacturer:** Curries; Ceco; or district approved equivalent

- Hollow metal frame and door
- 3" flange at stud walls
- Frames: 14 gauge
- Door: 16 gauge. Reinforcing strike side
- Paint: three coat system (primer and two coats)
- Hollow metal doors and frame at exterior of all buildings
- Narrow glass light to classrooms/offices within door with lock down cover
- **All exterior windows to tinted for safety (comparable to LLumar DL05G SR Gray)**

### *Kitchen*

- Large single or double door
- 4' minimum opening for equipment transporting

## 081416 FLUSH WOOD DOORS

- Solid core wood door laminated plastic with aluminum metal frame at interior administration and library facilities

## 085113 ALUMINUM WINDOWS

- Hollow metal interior, or aluminum frame/storefront at both exterior and interior.
- Dual pane in all exterior windows.
- Tinted glass in windows facing east and west.
- Blinds or roller shade - by District.
- In store front window systems – use storefront doors from same manufacturer (Kawneer **or Old Castle**).
- In all storefront door systems hardware must be to district standard (Schlage lock sets, Von Duprin exit devices, and LCN closers)
- Use heavy duty storefront door system.
- **No urethane set glass**
- **All exterior windows to tinted for safety (comparable to LLumar DL05G SR Gray)**

## 087100 DOORHARDWARE

All door hardware to be supplied by hardware supplier that does all the hollow-metal door work; not by aluminum storefront or entrance door supplier

### *Padlock*

**Manufacturer:** KZW1 Master padlock

- Elementary- 30 locks
- Intermediate-50 locks
- High School-100 locks

### *Locknetics*

**Manufacturer:** Model AD 200

- For cylinder opening AD model 200 CY-70-MT-RHO-626 for all multiple stall bathrooms at snack bar
- For exit device openings use model AD-200-993R-70-MT-RHO-626 gymnasiums

### *Key Blanks:*

**Manufacturer:** Schlage original DND- key blanks 101-131

### *Door Hardware:*

**Manufacturer:** Schlage lockset and mortise locks **only**

- Hagar or Roton – door hinges
- Von Duprin – exit devices – all exits devices need keyed dogging
- Norton – LCN-closers
- Trimco-Pimco-threshold, holdbacks, door shoe, silencer
- **Schlage only**-cylinder

## **Mullions**

- All mullions are to be removable with lockable cylinder- district approved keying
- Should be I/C Schlage cylinders and housing

## **Exterior Hollow Metal Openings**

### ***Storeroom lock function/single door/ non-rated***

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND80PD RHO 626SC
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10inch x 2 inch L.D.W 630TR
- Stop holder- FS432 626IVE
- Plate Anchor- 1268 626TR
- Seals- S88D at HEAD & JAMBS-PEM
- Threshold- 195A EXT. Reducer/mitered ends
- Threshold- 228A Safety tread (192A at 4inch framed walls)
- Threshold- 196A Interior reducer-PEM
- Door Shoe- 222AV-PEM

### ***Classroom lock function/single door/non-rated***

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND73PD RHO 626SC
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10inch x 2 inch L.D.W 630TR
- Stop holder- 1214 or vary from door to door
- Plate Anchor- 1268 or 1268CK (not installed in wet cement)
- Silencer- GJ64
- Threshold- 196A Interior reducer-PEM

### ***Exterior Restroom***

- Lockset-ND70 RHO 626
- Wall stop and holder 1254 or floor stop and holder 1267 626 anchor (for floor stop) 1268
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10inch x 2 inch L.D.W 630TR
- Threshold- 196A Interior reducer-PEM

## **Interior Hollow Metal Openings**

### ***Bathroom Lock function/single door/non-rated***

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND40 S RHO 626
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10" x 2" L.D.W 630TR
- Plate Anchor- 1268 TR
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268
- Silencer- GJ64

### ***Store lock function/single door/non-rated***

- Hinge- Roton/Hagar, continuous hinge.
- Lockset-ND80PD RHO 626SC.
- Cylinder – Schlage.
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10' x 2" L.D.W
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268
- Silencer- GJ64

### ***Classroom/Institution Lock function/single door /non-rated***

- Hinge- Roton/Hagar, continuous hinge
- Lockset-ND73PD RHO 626
- Cylinder – Schlage
- Kick plate- 37 10inch x 2 inch L.D.W
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268

- Silencer-GJ64

*Corridor lock function/single door/ non-rated*

- Hinge- 5BB1HW
- Lockset-ND66PD RHO 626
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10" x 2" L.D.W 630
- Silencer-GJ64
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268

*Storeroom lock function/single door/ non-rated*

- Hinge- 5BB1HW
- Lockset-ND80PD RHO 626SC
- Cylinder – Schlage
- Closer- 4040XP RW/PA/689
- Kick plate- 37 10" x 2" L.D.W
- Silencer-GJ64
- Wall stop and holder 1254 and floor stop and holder 1267 626 anchor (for floor stop) 1268

*Automatic Doors (if required)*

- Auto Operator - 9542/689
- Mounting Plate - 9540-18/689
- Receiver - 8310-865
- Wireless Actuator - 8310-3853TWF
- Key Switch with L2 option – 653-04
- IC Mortise Cylinder – 20-061/626
- voltage
- Hard wired
- AC powered/ battery backup

**LOCK AND KEY**

- Contact CUSD locksmith before ordering hardware and any keying to be done

# 9 FINISHES

## 092400 CEMENT PLASTERING

- Standard three coat stucco system (must meet performance spec)
- New Construction – Colored stucco finish - paint required
- Modernization/Repaint – Elastomeric used as a mid-coat on a three-coat system for new stucco

## 092713 GLASS-FIBER-REINFORCED GYPSUM FABRICATIONS

### *Student Restrooms, Janitor Closets, Other Wet Areas*

**Manufacturer:** Marlite, Acrovyn

- Wall finishes: Fiberglass stalls in lieu of tile (one piece)
- FRP at custodial closet
- Epoxy (4" min up wall).
- Bullnose at top and paint above epoxy

### *Kitchen*

- FRP – floor to ceiling over water resistant gypsum board with aluminum or stainless-steel trim

### *MPR*

- FRP – 4' starting from floor around the perimeter of the building **with chair rail**

## 092900 GYPSUM BOARD

### *Interior Wall Finishes*

**Manufacturer:** American Gypsum, Certain Teed, USG

- Typical gypsum board with medium stipple texture
- Use water resistance gypsum board in wet areas (kitchens, restrooms, locker rooms, janitor closets)
- Fiberglass in lieu of paperbacked

## 093000 TILING

### *Staff Restrooms and Auxiliary Buildings*

**Manufacturer:** Flooring- ceramic tile: Epoxy or Dal Tile, American Olean; 2x2 with medium to dark gray grout

- Walls: 4x4 or larger with 1/8" grout joints
- If larger tile, make sure of slip resistance

### *Kitchen Flooring*

- Quarry tile with dark/medium gray grout (spec gray tile)

## 095113 ACCOUSTICAL PANEL CEILINGS

### *Classroom*

**Manufacturer:** 2x4, Armstrong 755B; or district approved equivalent

- Suspended acoustical tile system
- Access door under HVAC/FAU (if in attic)

### *Auxiliary buildings (Office, Library, Reading Room)*

- Same as above but ok for some special ceiling products in limited areas **(must be District approved)**

## 096410 HARDWOOD FLOORING

### *Multi-Purpose Room*

- Stage flooring – ¾ Maple T&G with Valspar WP14 finish

## 096516 RESILIENT SHEET FLOORING

*Auxiliary buildings (Office, Library, Reading Room, MPR, Classroom near sinks)*

**Manufacturer:** Vinyl sheet flooring: Mondo, Congolum, or Forbo

- Remove adhesive completely by industrial grinding or heavy sanding

## 096519 RESILIENT TILE FLOORING

*Auxiliary buildings (Office, Library, Reading Room)*

**Manufacturer:** VCT: Armstrong: Standard Excelon

- All floor tiles to be glued down (including LVT)
- Remove adhesive completely by industrial grinding or heavy sanding

## 096723 RESINOUS FLOORING

*Student Restroom*

**Manufacturer:** Resinous epoxy stonehard, stone shield HRI or UTS; or district approved equivalent (see District spec)

- Sherwin Williams / General Ploymers Fastops
- Return up wall 4" minimum
- Remove adhesive completely by industrial grinding or heavy sanding

## 096800 CARPETING

\*Remove adhesive completely by industrial grinding or heavy sanding

*Classrooms*

**Manufacturer:** Tandus or district approved equivalent

- District to select and go direct to mill. Store at District
- 4" rubber top set base (Burke, Roppe) – coordinate color with adjacent flooring

*Auxiliary buildings (Office, Library, Reading Room)*

- Tandus Abrasive Action (charcoal)
- Walk-off mats at all exterior to interior doorways of all buildings

## 97723 VINYL COVERED TACKBOARD PANELS

*Classrooms (Elementary), Administration, Library, MPR*

- Fabric- wrapped tackable wall panels (tackboard)
- 4x8 sheets with extended plastic trim
- Fabric: Koroseal RCV School Collection or Highlander
- Take tackboard up to a certain height
- Painting gypsum board up to 4'-0" and then Vertech above that (fur 4'-0")

## 099100 PAINTING

**Manufacturer:** Sherwin Williams

- Color: "Swiss coffee" interior finish (Frazee #487)
- Interior- light sanding on flat surfaces, 3 coat system - primer, (2) coats of finish semi-gloss
- Exterior- light sanding on flat surfaces (doors, trim, frames, etc) - 3 coat system - primer, (2) coats of finish semi-gloss
- No flat finish surfaces sc
- Play surface (asphalt) – State Wide Traffic Paint, (no semi-gloss) Yellow- basketball – all other lines white
- Concrete- State Wide Traffic Paint
- Curb- State Wide Traffic Paint
- Basketball backboards- Sherwin Williams- Pro-Cryl Acrylic primer, 2 coats Multi-Surface Acrylic (gloss white) shooting square (orange)
- Interior paint upgrades in large High School gym only
- Baseball and softball backstops – repaint using flat paint only



# 10 SPECIALTIES

## 101419-DIMENSIONAL LETTER SIGNAGE

- ADA compliant on all buildings/offices
- Use existing sign program when designing new schools or remodeling existing. Contact District for copy
- Mechanically fastened to the building using theft resistant stainless-steel fasteners

## 107316 CANOPIES

**Manufacturer:** Custom Canopies

- DSA approved shade structures

## 107333 MARQUEES

- Elementary- 7'6" top of marquee to concrete baseplate (no DSA approval required)
- Intermediate - same
- High School - Same
- Reader board, electric with computerized input. Can be hard wired or wireless
- Sign verbiage shall be individual cast letter or "negative" letter cut using CNC machine on plate metal

### *Base*

- Concrete.
- (2)- ¾" electrical conduit (data and power)
- Wireless capable
- Direct line of sight from antennae to marquee
- Stubbed out conduit run to designated panel
- Christy box at marquee pedestal
- Add 18" mow strip if placed in turf

## 101116 MARKER BOARDS

**Manufacturer:** liquid chalk dry - white marker boards with marker trays by Claridge, LCS Deluxe, or district approved equivalent

- 16 linear feet of marker board per classroom. Minimum of (1) 4' x 8' length on teaching wall (no section longer than 8')
- Kindergarten- mount at 24" from floor to bottom of marker board
- Elementary/intermediate- mount at 30" from floor to bottom of marker board
- High School-mount at 36" from floor to bottom of marker board
- Short throw projector mounting - Coordinate with AV specifications

## 102113 19 TOILET COMPARTMENTS

### *All Restrooms*

**Manufacturer:** Santana, Comtec, or Capital

- Must meet current fire code
- Partitions: floor mounted, overhead braced, heavy duty aluminum continuous wall mount bracket with non-corrosive door panels and pilasters, high density polyethylene HDPE
- Wall brackets and overhead rails must be fastened to the framing/backing
- Wall panels or pilasters must be inset at least 1 ½" into heavy duty aluminum continuous wall mount bracket
- Pilasters over 10" require aluminum stiffener

**Manufacturer:** Santana, Comtec, or Capital

- Door panels and pilasters – 1" thick HDPE resin
- Must meet current fire code
- Plastic components covered w/protective plastic masking
- Edges rounded to ¼" radius
- 55" high and mounted at 14" above floor finish

## 102813 TOILET, BATH AND LAUNDRY ACCESSORIES

### *Student*

- Electric hand dryers- Excellerator by Excel Dryer Inc. (only in student bathrooms)
- Railings- ADA grab bars by Bobrick, ASI, or district approved equivalent

- Individual mirrors over sinks
- Lighting, exhaust, AC: connect light switch to exhaust so exhaust goes on when light is turned

### Accessories

Soap Dispenser (**owner provided/contractor installed**)

**Manufacturer:** Impact # 9326 Foameeze, Archer 1015-01G

Toilet Tissue Dispenser (secondary student, all handicap accessible stalls, public, and athletic)

**Manufacturer:** Royce Rolls Ringer, #TP-2 (boys) #T22 (girls)

Toilet Tissue Dispenser with Pin (elementary and staff)

**Manufacturer:** Bradley #5241, ASI #0264-1

- Surface mounted

Sanitary Napkin Disposal

**Manufacturer:** Bobrick #B270

- Elementary – 1/3 of upper grade stalls, nurse’s restroom, women’s staff restroom
- Intermediate/HS – all stalls, nurse’s restroom, women’s staff restroom

Sanitary Napkin Dispenser

**Manufacturer:** Bobrick, B-2706 25 Model

- Intermediate/HS and Faculty Restroom – one per restroom

Toilet Seat Cover Dispenser

**Manufacturer:** Bobrick #B4221

- Not recessed in wall

Paper towel dispensers (**owner provided/contractor installed**)

**Manufacturer:** Palmer Fixture T215, Georgia Pacific #54338 (Elem)

- District provided/contractor installed

## 105113 Gyms

- Use wooden bleachers

### Kitchen

**Manufacturer:** Republic Storage Systems

- 12” wide, 15” deep and 36” tall metal lockers
- Elem (4), Inter/HS (16)- depending on type of kitchen
- Locker: type, number and size will vary greatly based upon exact use.

General information to be concerned with are:

- Material: Frames 16 gauge formed steel, doors 14 gauge with high grade enamel finish
- Hardware: Heavy duty, stainless steel
- Design: Built on unit principle - each door has individual door and frame
- Hinges: 2” high, 5 - knuckle, 2 hinges on doors under 42” high; 3 hinges over 42” high
- Lock and latching: ADA accessible, 48” above floor finish maximum
- Recessed handle: non-protruding 14 gauge trigger with 20 gauge stainless steel pocket
- Interior Equipment: Over 42” High - hat/book shelf, double pronged hook
- Number plates: polished aluminum with 1/2” high number

# 11 EQUIPMENT

## 114000 FOODSERVICE EQUIPMENT

### *Appliances*

Refrigerator: True or Traulsen

- Elementary: 10x12 fridge/freezer
- Intermediate: 20x20 fridge /freezer
- HS: 20x20 fridge/freezer

Dishwasher:

**Manufacturer:** Champion 44 DR, E-Series

- 44" long rack conveyor dishwasher
- Dual Rinse™ feature

Electric Booster Heater:

**Manufacturer:** Hatco S-24. Imperial Booster Heater

- Electric
- 16-gallon storage capacity
- 24-KW stainless steel front
- Castone tank

Disposal Unit @ dishwasher:

**Manufacturer:** InSinkErator model SS-500-18A-AS101

- 18" diameter bowl, 6-5/8" diameter inlet, with re- movable splash baffle and reversible bowl cover
- 5 HP motor
- stainless steel construction
- only add a disposal in dishroom

Convection Oven:

**Manufacturer:** Montague, Wolf, Hobart

- Montague Company HX2-63AH
- Vectaire Convection oven
- Features: gas, double-deck, bakery depth, cook- and-hold, two-speed motor, electronic ignition and solid-state controls, stainless steel front, top and sides

Combi Oven:

**Manufacturer:** Rational CombiPro, Groen, Hobart (start up included in the installation)

### *Elementary*

**Manufacturer:** Rational CombiPro SCC WE 102 NG SelfCooking Center® 5 Senses Combi Oven/Steamer,Control with stand UG II

- Double stack
- 5 programmable proofing stages
- 7 cleaning stages
- Automatic
- Provide in-line filters to all combi-ovens

### *Intermediate/High School*

**Manufacturer:** Rational CombiPro Self cooking Center 202 Gas

Warming Carts: Carter Hoffmann, Wittco, Hobart

**Manufacturer:** Carter Hoffmann PH1840, Height 75 7/8, Depth 38", Width 31½ with 6" casters

- Heating system-top mounted
- Stainless steel
- Base Frame-stainless steel, 12 gauge

Air Curtain: Mars, Berner, Airtecnic

**Manufacturer:** Mars Air Systems PH1272-2UA-PW

- Phantom 12 Series Air Door, for 72" wide door

Sneeze guard (at serving counter)

**Manufacturer:** ADM EP-21 Pass-Over

- 11' opening

Tilt Skillet

**Manufacturer:**

Water Filter Assembly for ice machines and combi oven

**Manufacturer:** Everpure EV927502. QC71-MC<sup>2</sup> Twin Water Filter System

- Features: soda dispenser, cap. 50 syrup tanks or bag-in-box per month
- 1/2 micron precoat cartridges, water shut-off valve, outlet pressure gauge, flushing valve, flow rate: 3.34gpm

Milk Cooler

**Manufacturer:** Beverage-Air or True

- Beverage –Air, SM Series 16 case capacity

Transport Cabinet

**Manufacturer:** Wittco

- High School: IMC-2026-HS
- Full perimeter bumper
- Must have handles

Holding and Transport Cabinet:

**Manufacturer:** Wittco

- Model #2026-60-BC
- full perimeter bumper
- Must have handles

Gas Range

**Manufacturer:** Wolf

- Model # FS-4J-27
- 4 burner gas range with oven

Slicer

**Manufacturer:** Hobart

- Model 2712
- two-speed automatic carriage

Mixer

**Manufacturer:** Hobart or Globe -20 quart

- Model A200
- manual bowl lift, 3 fixed speeds

**Manufacturer:** Hobart or Globe -60 quart

- Legacy HL 600
- power bowl lift

Reach-in Freezer

**Manufacturer:** Traulsen

- Model RLT232WUT
- full length doors, stainless steel

Reach-in Refrigerator:

**Manufacturer:** Traulsen

- Model RHT232NUT
- full length doors, stainless steel

No water softener systems

### *Kitchen Faucet:*

**Manufacturer:** Chicago 100 series with 8" spread

### *Sinks*

#### *Three Compartment Sink*

**Manufacturer:** Advance Tabco model # 94-83-60-36RL

- Features: 28" front-to-back x 20" wide sink compartments, 14" deep, with 11" high splash, stainless steel legs with welded front-to-rear and adjustable left-to-right cross rails, 36" drain boards

#### *Hand Sink:*

**Manufacturer:** Advance Tabco 7-PS-69. Wall model,

- Features: 14"Wx10" front-to-back x5" deep bowl, 20 gauge 304 series stainless steel, heavy duty splash mounted faucet with wrist handles, lever drain with overflow, P-trap, soap and towel dispenser.

#### *Mop Sink*

**Manufacturer:** Advance Tabco 9-OP-40DF-X, floor mounted

- Features: 20" L-R, 16" F-B, drop front design, 12" high water level, free flow drain with 2" IPS outlet, stainless steel construction.

### *Storage*

#### *Wire Shelving*

**Manufacturer:** Metro 2448BR

- Super Erecta® Shelf, wire, 48" Wx24" D, Bright (zinc) finish, plastic split sleeves are included in each carton, NSF.

#### *Locker*

**Manufacturer:** Republic Storage Systems

- 12" wide, 15" deep and 36" tall metal lockers
- Elem (4), Inter/HS (16)- depending on type of kitchen
- Locker: type, number and size will vary greatly based upon exact use. General information to be concerned with are
- Material: Frames 16 gauge formed steel, doors 14 gauge with high grade enamel finish
- Hardware: Heavy duty, stainless steel
- Design: Built on unit principle - each door has individual door and frame
- Hinges: 2" high, 5 - knuckle, 2 hinges on doors under 42" high; 3 hinges over 42" high
- Lock and latching: ADA accessible, 48" above floor finish maximum
- Recessed handle: non-protruding 14 gauge trigger with 20 gauge stainless steel pocket
- Interior Equipment: Over 42" high - hat/book shelf, double pronged hook
- Number plates: polished aluminum with 1/2" high number

### *High efficiency water heater*

- Architect determined based on size of kitchen facility
- No tank-less water heater

### *Prep Counter*

- Electrical access
- 4 drop down outlets over prep area
- 1 ¾" wood top table with under shelf, 3' x 6', and stainless steel table with pot and pan rack with shelving above and below table (consider drawers in configuration)

### *Auto Scrubber*

**Manufacturer:** Tomcat Mini Scrub or district approved equivalent (walk behind)- Elementary

**Manufacturer:** Advance or district approved equivalent (ride on) - Intermediate/ High School

## **116813 PLAY FIELD EQUIPMENT**

### *Primary Play Equipment- 5 Years to 12 Years*

**Manufacturer:** Miracle

- Pit size will vary depending on the size of the equipment – designed by civil engineer and approved by CUSD (no circular design)
- No rusted, bent, broken, worn-out, or damaged items
- ADA accessible sidewalk path to pit
- ADA accessible ramp to pit
- Engineered wood fiber fill (18" deep & filled to the top) (engineered by civil engineer and locations approved by CUSD Grounds)
- Pit designed with 18" deep curb
- 18" valley gutter on all sides of the pit, slope dependent on grass

- Sub grade slope from bottom of curb to top of dry well
- Dry well drain-filter fabric on inlets w/in pit area
- Components: 8-10 play components - age appropriate

*Kindergarten Play Equipment - 2-12 when Kindergarten shared with Preschool*

*Same as 5 Years to 12 Years Primary Play with the following additions*

- Main gate w/ panic bar hardware (dependent upon location of playground equipment)
- Double-wide gate 10' wide (maintenance)

*Preschool Play Equipment - 2 Years to 5 Years*

**Manufacturer:** Miracle

- Pit size will vary depending on the size of the equipment – designed by civil engineer and approved by CUSD (no circular design)
- No rusted, bent, broken, worn-out, or damaged items
- ADA accessible sidewalk path to pit
- ADA accessible ramp to pit
- Engineered wood fiber fill (18" deep)(engineered by civil engineer and approved by CUSD)
- Pit designed with 18" deep curb
- 18" valley gutter on all sides of the pit, slope dependent on grass
- Sub grade slope from bottom of curb to top of dry well
- Dry well drain-filter fabric on inlets w/in pit area
- Main gate w/ panic bar hardware
- Double-wide gate 10' wide (maintenance)
- Components: 5-6 play components
- Shade canopy required as part of equipment

**Shade Structure**

- Each school will receive a 30'x40' shade structure near the playground

**Athletic Specifications**

- See appendix at the end of Building Specifications document.

# 13 SPECIAL CONSTRUCTION

## 131100 SWIMMING POOLS

### *Construction*

- Deck construction – coated rebar at cantilever deck or skimmer deck approximately for 4'
- Deck finish medium broom, approved by the district
- Sample finishes must be provided to CUSD

### *Heater/Boiler*

**Manufacturer:** Pentair (No Lochinvar)

- Designed by aquatic engineer and approved through CUSD
- Cooling tower lock out w/ boiler @ HS, not necessary @ Intermediate
- Solar when possible for pre-heating purpose

### *Filtration*

**Manufacturer:** Eco3, high rate sand

- Covers to protect system (indoor or sheltered)
- Automatic backwash
- Size varied by pool volume
- NO D.E. systems
- Minimum 15 year for filter system

### *CO2PHsystem*

**Manufacturer:** Carbo Max 750 tank/ TEK feed unit

- Fill valve and injectors
- No heated tank and booster pumps

### *Chemical controller*

**Manufacturer:** BEC system 7

- Keyed enclosure at the pool control panel locations
- Must be located in covered area

### *Chlorine Pump and Tank*

**Manufacturer:** PPG, LMI pump, Stenner pump

- Sodium hypochlorite feeders
- Chemical storage must be contained in a fully enclosed room

### *Pool Equipment Eye Wash/Shower*

**Manufacturer:** Haws

- ADA compliant

### *Flow Meter*

**Manufacturer:** Signet or must be compatible to chemical controller

- Must have indicator light

### *Acid Feeder*

**Manufacturer:** PPG, LMI pump, Stenner pump

- Separate room from chlorine feeder

### *Exhaust Fans*

**Manufacturer:** Greenheck

- TEFC motor
- Hi Pro polyester finish
- CUBE fan (out of airstream) or GB series (in airstream)
- In chemical room
- Size depends on square footage

### *Auto Fill*

- Easy to calibrate

### *VFDDrive*

**Manufacturer:** KNORR systems Inc. or district approved equivalent

- Smart pump control system

### *Underwater Lights*

**Manufacturer:** Pentair

- LED technology 3400 lumens equivalent to 500 watt incandescent
- Replace terminal connection with new connection
- Brass mounting rings

#### *Lane Lines*

**Manufacturer:** Competitor

- 6" lane lines @ CWHS and CNHS
- CW/CN dedicated 50m lane lines in addition to yard lines
- 4" lane lines @ all other facilities
- Reels – enough to handle all lanes and polo sidelines out of the pool
- Reel covers for lane lines

#### *Backstroke Poles*

**Manufacturer:** Paragon

- With collars
- Stainless steel

#### *Diving Boards*

**Manufacturer:** Durafirm, Maxiflex B

- Aluminum
- Height – HS (3M and 1M), Intermediate (2 1M)

#### *Starting Blocks (Site Funded)*

**Manufacturer:** Paragon

- HS – dual post
- Intermediate – single post

#### *Block Anchors*

**Manufacturer:** Paragon

- HS – dual post anchor
- Intermediate – single post anchor

#### *Timing System*

**Manufacturer:** Colorado timing, systems 6

- HS – touch pads
- In-deck timing @ CW, CN, CE, BHS
- Speakers- one per lane for competition
- Starter – Infinity @ all sites
- 2 Champ starts @ CW and CN
- Number of lanes is dependent on size of pool

#### *Scoreboard (site funded)*

**Manufacturer:** Colorado Timing or VividLED- full color board

- Alphagraphic or Video

#### *Drains*

- Main drain must be Virginia Baker Act compliant
- Gutter drains need to be accessible from deck with enough room for a 12"x16" access panel

#### *Storage facility*

- HS – 1500 sq feet
- Intermediate – 500 sq feet
- Gated and covered with rolling gates
- Surrounding fence and roof of storage facility needs to be slated

#### *Safety Storage*

- Ca. Health Code compliant
- ADA compliant

#### *Fencing*

**Manufacturer:** Valley Fence

- Chain link 1" mesh, hot dipped
- Considerations for wind exposure
- County health department approved



### *Lane Line/Reel*

**Manufacturer:** Paragon

- Stainless steel

### *Lane Line Anchors/Water Polo Anchors*

- ½" stainless steel eyebolt
- Per USWP rules – 25M/30M courses

### *Racing Line Tiles*

- Architect designed and CUSD approved
- Black tile
- Turn T's at pool floor at 2M

### *Water polo Boundary Lines/Tethers*

**Manufacturer:** Competitor

- Per USWP rules 25M/ 30M courses

### *Handrails and Ladders*

**Manufacturer:** Paragon

- Stainless steel
- Escutcheon plate
- ADA compliant

### *Water polo Goals*

**Manufacturer:** Kieffer or district approved equivalent

- Stationary or Floating- site discretion (site funded)
- Stainless steel- stationary
- Fiberglass- floating

### *Disable Lift with Anchor*

**Manufacturer:** Paragon #20302

- Quantity depends on the size of the pool

### *Strainer*

**Manufacturer:** MerMaid or district approved equivalent

- Acrylic lid
- Stainless steel

### *Thermal Pool Cover/Reel*

- Triple winder
- Protective tarps for pool covers

### *Warranty*

- Start-up training and field service
- Chemical balanced pool once filled

### *Deck Shower*

- Number of nozzles depended on pool occupancy and on size of pool.
- Must have hot water
- Showers must be located away from path of travel
- Must drain toward shower base

### *Bathrooms /Office*

- Sealed concrete, slip-resistant floors
- Tinted windows

### *Gate*

- Self-closing with panic bar devise
- Meet all county health code requirements

### *Emergency Vehicle Access*

- Concrete pathway – 20' wide, 8" thick – architect/engineer designed
- Double gate access
- Fire code compliant

### *Pool Design Consultants/Architect*

- Preferred Consultants: Aquatics Design Group and Arch Pac

### *Signage*

- Signage compliant with county health requirements

## **131100 SNACK BARS**

### *Appliances*

- Refrigerator (site funded)
- Tankless water heater
- Soda dispensers (provided by distributor)

### *Ice Machine*

**Manufacturer:** Scottsman, Manitowoc

- 300-500lb capacity
- Remote condensers
- No flakers or nuggets

### *Casework/Countertops*

- Open shelves at counter
- Lockable storage
- Countertop serving area – stainless steel
- Code compliant serving area

### *Electrical power*

- 110/220

### *Sink*

- Dual sink
- Hand wash station w/ large basin

### *Cooling*

- Swamp/evaporative cooler

### *Flooring*

- Bare sealed concrete

### *Wall finish*

- FRP

# 21 FIRE SUPPRESSION

## 210000 FIRE SPRINKLER SYSTEMS

- The sprinkler system shall be designed and sized (by hydraulic calculations for mains) in accordance with NFPA No.13 and fire authority requirements
- All materials shall be in accordance with NFPA No. 13 “standard for the installation of sprinkler systems”, underground mains shall be in accordance with NFPA No. 24

### *Sprinkler heads*

- Semi-recessed in areas with finished ceilings, standard heads elsewhere
- Chrome finish in areas with finished ceilings, standard finish in areas with exposed piping

### *Alarm Valve Assembly*

- Standard wet type alarm valve assembly and water motor gong
- Provide flow switch for connection to alarm system
- Provide tamper switch

### *Post Indicator Valve*

- Lockable operating handle, tamper switch
- Target visible through a glass covered post – “open” or “shut”

### *Fire Hydrant*

- In accordance with fire authority

### *Interior Fire Station*

- Open house rack with 1 ½ inch valve
- 100 feet of 1 ½ inch woven jacket, rubber lined hose and 1 ½ adjustable nozzle

### *Escutcheons*

- Chrome plated where piping penetrates walls, ceilings or floors in finished areas

### *Sprinkler Pattern*

- Symmetrical pattern with lighting fixtures and ceiling pattern
- Heads located in lay-in ceiling shall be centered within panel

### *Pipe Installation*

- Pipes passing through fire rated surfaces shall have the annular space surrounding the pipe sealed with fire rated materials
- Pipe passing through concrete shall be provided with pipe sleeves

### *Concrete Thrust Blocks*

- Constructed at all valves, T’s, elbows, bends, crosses, reducers, and dead ends in loose-joint pipes
- Concrete shall be 2500 psi mix
- Size of block based on 1500 psi undisturbed soil bearing capacity

### *Access*

- Provide access doors as required for all valves, devices, etc.

# 22 PLUMBING

## 220000 PLUMBING

### Faucets

**Manufacturer:** Student – Chicago Metering 3400-ABCP Cold only

**Manufacturer:** Break room/nurses office –Chicago #1100 GN8AE35-317 AB

**Manufacturer:** Staff - Moen 8813 Hot and Cold

- Push action metering (self-closing) faucets in the restrooms
- Hot and cold water for staff restrooms

### Classroom Faucets

**Manufacturer:** Chicago 350 Series

- Single Hole Faucet
- Cold only

### Toilets

**Manufacturer:** Kohler or American Standard

- Floor -mount with manual flush valve system
- Sp. Ed. rooms with battery operated flush system
- All water closets at full size (no mini toilets at Kindergarten)

### Tank toilets

**Manufacturer:** Kohler “Cimarron”

- Floor mounted

### Urinals

**Manufacturer:** Kohler K4991-ET-0

- No waterless urinals
- Wall mounted
- Urinal screen at each urinal
- Battery/sensor flush drive (Staff only)
- **Clean-out in wall above urinal flush with wall finish**

### Flush valves

**Manufacturer:** Sloan Royal #111 for toilets #186 for urinals, Zurn Aqua Advantage Z6000 series

- Manual- toilet
- Meet ADA requirement

### Mounting

- All sinks and urinals are to be wall mounted
- All toilets to be floor mounted
- Sink/Urinal/Toilets: meet ADA requirements

### Drinking fountains

**Manufacturer:** HAWS model #3300G exterior hi/lo, HAWS for all other fountains (HAWS 1900 for water bottle fillers)

- Meet ADA requirement
- Athletic fields: locate near backstops when possible
- Hook up to sewer if fountain within 100 ft. and sanitary slope allows
- Winterize outdoor pipes
- Required at all baseball fields
- Center location between fields
- Hose bib with lockable access door
- In-ground shut-off valve for all outdoor drinking fountains

### Water Heater

- No tankless water heaters
- No instant hot water heater (EEMax – EMT 2.5 only)
- **No water heaters above ceiling – to be located in accessible areas only**

### Hose bibs

**Manufacturer:** Woodford Loose Key or district approved equivalent

- No recessed type wall box where possible
- Bibs located in landscaped areas

- Provide at rooftop HVAC units
- Provide near amphitheater

### *Student Bathroom Sinks*

**Manufacturer:** Kohler

- 4" spread K2005-0 with mounting arms (no brackets)

### *Classroom Sinks*

**Manufacturer:** Elkay or district approved equivalent

- Stainless steel
- Gooseneck faucet with drinking bubbler (separate shutoffs)
- Cold water only

### *Eye Wash Station*

**Manufacturer:** Guardian/HAWS

- Stainless steel
- Models G1101, G1200, G1774, G1849 dependent on replacement of sink or retro-fit
- Eye Wash/Shower Stations- HAWS only
- In nurse's office and custodial yard

### *Custodial Closet*

**Manufacturer:** Chicago C897CP (mop sink)

- Hot water access
- Wall finish FRP or tile (no FRP around mop sink)
- Flooring - bare concrete
- Mop sink with rack
- Shelving for supply storage
- Storage in MPR for auto scrubber

### *Hot water access locations*

- Custodial closets and sinks
- All kitchen sinks
- Nurses office sinks
- Kindergarten work room sinks
- Administration office work room sinks
- Snack bar sinks
- Teacher lounge sinks
- All staff restroom sinks
- Staff shower at locker room
- District approved locations

### *Shut-off valves*

**Manufacturer:** Nibco or district approved equivalent

- In ground valves to have #2 square key shut off **within 5' of building brought to grade and in-cased in concrete (2' sq. pad) – not in flower beds**
- In ground valves larger than 2 inches to have rising stem gate valve **within 5' of building brought to grade and in-cased in concrete (2' sq. pad) – not in flower beds**
- Above ground valves 2 inches or larger to have rising gate valve
- Valves less than 2 inches to be ball valves- above ground
- **Shut off valve within 5' of building and brought to grade in a marked Christy box**

### *Sewer Clean Out*

- Two way clean outs every 100'
- **Clean out located at within 5' of building and brought to grade in a marked Christy box**
- **End of line cleanouts at every restroom in accessible wall location**

### *Washout Drains*

- Drainage system which separates the solids from the liquids
- Located in grounds shop area (high school or district office grounds shop)

### *General*

- Flow direction indicators on piping – above ground

### *Floor Drains*

- Trap primers to be connected to flush valves and not installed in a 12X12 panel when they are serving restroom with floor drains

### *Gas Regulator*

- Above ground in a lockable cage

# 23 MECHANICAL/PLUMBING

## 237413 PACKAGED OUTDOOR, CENTRAL STATION AIR HANDLING UNITS

### *Package Unit*

**Manufacturer:** Trane or district approved equivalent

- 14 Seer
- HPI= 16+ Seer
- Equipped with Economizers
- Gas fired heat
- Rooftop 110V power
- Water/electricity accessible- water and electricity access for every two units within 20'
- All panels and doors must maintain clearance for service men to access for repairs

### *Chiller*

**Manufacturer:** Trane or district approved equivalent

- Efficiency- .60 kwh/ton hr.
- Air cooled

### *Boiler*

**Manufacturer:** RayPac, Cleaver Brooks, or Camus

- No air cooled module boilers
- No pulse style boilers
- Less than 2M BTU / unit
- Efficiency – 90% condensing
- Expansion tank sized for site
- Pump Manufacturer: Bell Gossett or district approved equivalent
- All plumbing and drains terminated outside of footprint should be ran to a floor drain

### *Variable Frequency Drives*

**Manufacturer:** ABB, Daikin or district approved equivalent

- Where applicable – pumps and fans
- 5 HP or greater

### *Custodial Room-Air/Cafeteria Manager Officer-Air*

**Manufacturer:** Gree (mini split) or district approved equivalent

**Manufacturer:** Trane (package unit)

- Package unit or mini-split

### *Exhaust Fans*

- Roof mount when possible

### *Pool Chemical Room:* pool guy

**Manufacturer:**

### *Restrooms Fans*

**Manufacturer:** Cook, Broan or district approved equivalent

### *Kitchen Fans*

**Manufacturer:** Cook or district approved equivalent

- Designed for size of kitchen

### *Unit Ventilators*

**Manufacturer:** Changeaire

- Blowers are serviceable

### *Gymnasium Fans*

**Manufacturer:** Cook or district approved equivalent

- Designed for size of gymnasium
- HVAC unit in large gymnasium on high school campus and one gymnasium on intermediate campus
- If evaporative cooler is at its useful end of life, replace with HVAC

### *Data Room-Cooling*

**Manufacturer:** Gree, Sanyo, (mini split)

**Manufacturer:** Trane (package unit)

- Do not use cassette style or wall mount (air handler on ground)

- Not to be on central plant
- Condensation lines to terminate to outside

#### *Evaporative Coolers*

**Manufacturer:** Western Air, AirEase or Gouvernaire

- CFM- designed for room size
- Stainless steel sumps where available

#### *General Maintenance of HVAC*

- Vacuum all interior surfaces
- Replace all bearings with high grade seals
- Replace any missing or damaged interior insulating materials
- Replace blower motor with energy efficient rated motor
- Replace pulleys and belts
- Pressure flush all condensation drains and wash pans
- Clean blower wheel to remove all dirt, dust and debris to a “like new” condition (no dirt in the blades)
- Repair or replace all necessary door hardware
- Roof access on every building to include mechanical wells
- No Greenheck or Aaon equipment

#### *Hydronic*

- Chemically wash to remove all debris from water coils
- Flush to ensure maximum flow through coils
- Replace damaged or missing mesh guards on supply air grills
- Rebalance blower wheels
- Properly insulate hydronic lines in U/V and attic spaces
- Test and replace any malfunctions actuating valves

#### *Gas/Heat*

- Vacuum heat section to remove all dirt and debris
- Replace inducer assembly (i.e. motor, blower wheel, gaskets)
- Test all limit safety devices, replace defective components

#### *Air Conditioning*

- Chemically wash all evaporative coils, condensate pans, drains (to be free of all dirt and debris)
- Test all connections for compressors, contractors, pressure safety devices. Repair or replace as needed

#### *Make-up Air Units*

**Manufacturer:** Dayton Cook, Alliance, Sterling

- Gas line hook up should be staggered away from vent/flue pipe

#### *Duct Cleaning*

- Modernizations- no duct cleaning in drawings

# 25 INTEGRATED AUTOMATION

## 255000 DIRECT DIGITAL CONTROL AND ENERGY MANAGEMENT SYSTEM

### *System*

- The system shall be Niagara N4 with open license supervisory controller(s) and shall be compatible with the existing district-wide system. The use of Niagara AX or Niagara will be determined by CUSD during project design based on the project's scope of work. Only BacNET or LON network protocols are allowed. All BacNET and LON network wires will be green.
- A Graphic User Interface (GUI) must be integrated into the District's server
- District Operators must have direct access to override all control outputs (digital and analog) at the JACE level of control. All control outputs and inputs must be clearly named with a function and point description.
- The programmable control requirements of the DDC/EMS shall include (based on equipment design and sequence of operations), but not limited to:
  - Heating and Cooling set point adjustments
  - Scheduled occupancy routines including holidays
  - Custom tailored reporting
  - Critical condition alarming
  - PID control on analog outputs
  - Hot water reset
  - Economizer/Purge
  - Separate Modes as required by control sequence

### *HVAC Equipment Control*

- All HVAC equipment must be controlled by EMS – exceptions are allowed but only with district approval (Kitchens, IDF rooms)
- Control sequences must be Title 24 compliant

### *Interior Lighting*

- Shall not be controlled by EMS – only by exception of and with District approval

### *Exterior Lighting*

- All exterior lighting (except athletic fields) must be controlled by EMS incorporating photocell, schedule, and override capabilities
- If lighting control panels (LCP's) are installed in addition to the EMS controls, the LCP must be compatible with and integrated into the District's EMS

### *Relocatable Portables*

- Shall not be controlled by EMS – local programmable thermostats will be used. Wireless thermostats are acceptable with CUSD approval.



# 26 ELECTRICAL

## 260000 ELECTRICAL

**NOTE: STRANDED WIRE ONLY-NO SOLID WIRE THROUGH OUT ENTIRE PROJECT (Except MC cable)  
Through conduits ½ diameter or larger**

All interior device face-plates to be stainless steel

### *Main power*

Manufacturer: Square D, GE, or district approved equivalent

- Vary depending on location
- Engineer specified and approved by district

### *Portables*

- Stand-alone TC can for all low voltage connections
- Power distribution panel for all portables panelboards
- Provide security fencing around main disconnects and/or fire risers

### *PlayFields*

- Power pedestal located near fields/courts (locking cabinets)
- Weather tight and waterproof 110 access
- Track finish line - Christy box (N18) with extension, J hooks, (both sides of finish line)

### *Interior classroom walls*

- Commercial spec grade

### *Projection walls*

- Quad outlet

### *Conference Room*

- GFI floor boxes with power and data

### *Amphitheater*

- Weather tight and waterproof GFI receptacle mounted at light pole or pedestal when possible

### *MPR*

- Lighting control should allow to dim lights near the projection screen and still allow lighting in other sections of the MPR
- Power in center of ceiling for projector
- House lighting to be independent of theatrical lights

### *Light standards*

- Meet Title 24 requirements
- Wall mounted or pole mounted lights
- No exterior bollard lighting (path lighting)
- No in-ground lighting
- Able to receive an "Automatic Demand" signal from ISO (Independent System Operator) in structures exceeding 10,000 sf. Per Title 24

### *Marquee/school sign*

- Stubbed out conduit run to designated 120-208v panel
- Christy box at marquee pedestal
- Pathway back to main office – 2 separate conduit (1 data and 1 electricity) - 1" minimum or larger PVC

### *Internal campus*

- Title 24 compliant
- LED 4000K to 5000K fixtures
- Lighting Contactor controlled by EMS for exterior lighting
- One exterior lighting zone

- 24 " depth for all conduit
- ¾" or larger PVC conduit underground

#### *Parking lot*

- Title 24 compliant
- LED 4000K to 5000K fixtures
- Lighting Contactor controlled by EMS for exterior lighting
- 24 "depth for all conduit

#### *Office*

- Title 24 compliant
- LED 4000K to 5000K fixtures
- Lighting zones
- LED technology

#### *Classroom*

- Title 24 compliant
- LED technology 4000K-5000K fixtures
- Lighting zones
- Hardwired controls, preferred
- Use drop-in light fixtures (2'x4') for t-bar ceilings
- *No CREE smartcast*
- **Use one dedicated circuit for laptop charging stations**
- *Power above whiteboard and center of ceiling*

#### *Christy box lids*

- Lockable with tamper proof lid

#### *Power Density Values by location (W/sf)*

- Auditorium / MPR Building– 1.5 maximum allowed lighting power
- Classroom Building– 1.1 maximum allowed lighting power
- Library Building– 1.3 maximum allowed lighting power
- Office Building – .08 maximum allowed lighting power
- School Building – 1.0 maximum allowed lighting power

#### *Daylight Harvesting sensor (California Energy Building Standards)*

- Designed by electrical engineer and approved by district
- Title 24 compliant- address mandatory requirements for daylighting
- Additional lighting controls are required in daylight zones to automatically shut off lighting when sufficient daylight is available

#### *Color rendition index/contrast*

**Manufacturer-** N-Lighting or district approved equivalent (**not Cree**)

- 10 year warranty preferred if cost effective
- 80 CRI minimum/ 2:1 target uniformity (prefer 90 CRI when possible)

#### *Electronic Theater Controls- Color Source Series*

**Manufacturer:** ETC or district approved equivalent

- ColorSource Spot – Spot fixture for "front lighting"
- Mounted in the ceiling above the audience
- ColorSource PAR – wash fixture for "down light and back light"
- Mounted in the ceiling area above the stage / platform area

#### *Solar Asset Management*

**Manufacturer:** DECK monitoring system or district approved equivalent

- Solar-ready sites per Title 24
- No ground mount, no roof mount
- Data cable to connect to network
- Use as shade structures whenever possible
- Cleaning – as needed based on drop in performance

# 27 COMMUNICATIONS

## 270000 COMMUNICATIONS

### Power

#### Uninterrupted Power Supply (UPS)

**Manufacturer:** N1 Critical Technologies Lithium-Ion UPS System or district approved equivalent

#### Main Crossconnect/ Horizontal Cross Connect

**Manufacturer-** Leviton or district approved equivalent

### Miscellaneous Equipment- Rack surge suppression power strip

**Manufacturer-** Triplite

- Metal housing with LED
- Adjustable rack mount hardware

### Conduit

- Underground communication boxes- contractor provided
- Communication Vaults- district approved
- Underground cable rack hooks/ extensions/ J hook cradle-  
**Manufacturer:** Inwesco
- Surface mount entrance cabinets- contractor provided
- Metallic pillboxes and terminal can-  
**Manufacturer:** Hoffman
- Conduit- see detailed specs.
- Textile inner duct –  
**Manufacturer:** Maxcell- Carlon
- Riser-  
**Manufacturer:** Carlon
- Duct bank locating cable – 3” wide, orange, 4 mils
- Inter-duct-  
**Manufacturer:** Carlon
- Outlet Boxes-  
**Manufacturer:** RANDL Inc.
- Floor boxes-  
**Manufacturer:** Wiremold
- Surface mount raceway (SMR)- all cables inside walls when possible
- Cable tray system-  
**Manufacturer:** B-Line
- Ladder rack cable runway-  
**Manufacturer:** Cooper
- Wire basket cable runway –  
**Manufacturer:** Chatsworth
- Cabling support system-  
**Manufacturer:** Erico, Cooper B-Line
- Fire stop systems-  
**Manufacturer:** Specified Technologies, 3M, Hilti
- Single entry system/ re-enterable fire stop –  
**Manufacturer:** STI
- Grounding/ bonding systems-  
**Manufacturer:** Chatsworth

## *Structured Cabling System*

### Work Area Subsystem

- Patch cords – Cat-6
- Modular inserts and jacks- data (blue), voice (white), wireless (yellow), A/V (gray), camera (purple), **lighting control (green)**
- Wall plates- white, keystone opening.
- Blank Insert- match raceway or device plate.
- Blank wall plate- stainless steel.
- Surface mount raceway insert-

**Manufacturer:** Wiremold or Panduit

## *Horizontal Distribution Cabling*

### Copper station cable-

**Manufacturer:** Superior Essex or District Approved

### Horizontal copper cross-connect cabling

**Manufacturer:** Superior Essex or District Approved

- Backbone Cabling

### Fiber optic backbone cabling –

**Manufacturer:** Berk-Tek or District Approved

### Copper system backbone cabling

**Manufacturer:** Superior Essex or District Approved

## *Telecommunications Room*

### Patch cords – Cat-6 owner provided and owner installed

### Horizontal cable termination equipment

**Manufacturer:** Leviton

### Backbone cable termination equipment

**Manufacturer:** Leviton

### Fiber termination panels

**Manufacturer:** Leviton Opt X Ultra (no exceptions)

### MDF rack mount fiber panel-

**Manufacturer:** Leviton Opt X Ultra (no exceptions)

### Fiber optic OSP Splice Enclosures

**Manufacturer:** Leviton

### Copper terminal panels

**Manufacturer:** Circa Enterprise Inc

### OSP protection fuse

**Manufacturer;** Circa Enterprise Inc

## *Cabinets, Racks and Enclosures*

### Remote equipment cabinet

**Manufacturer:** Chatsworth or district approved equivalent

### Wall mounted cabinets

**Manufacturer:** Chatsworth

### Floor mount 2 post, 4 post racks

**Manufacturer:** Chatsworth

### Floor mount cabinets-

**Manufacturer:** Chatsworth

### Outdoor wireless access point enclosure

**Manufacturer:** Pentair

### Cable support system

### Ladder rack cable runway

**Manufacturer:** Chatsworth

## Intercom/PA

**Manufacturer:** – Valcom, Bogen

- School safety paging and evacuation tones, distributed MDF/IDF electronic architecture atomic timing synchronization with class change tones, multiple programmable schedules for each zone, two-way loud speaking internal communication and paging, program distribution- user friendly
- VoIP based controller (Gateway)
- Contractor must provide accurate reference list for all speakers indicating either architectural number (room number) or port number (site speaker map)
- Audio paging amplifier – minimum of ½ watt to all intercom speakers, 2 watts to paging speakers and 15 watts to paging horns
- Interior recess mounted wall/ceiling speakers- 8” cone, with transformer- 25- or 70-volt installations, speaker – 65Hz- 17KHz w power rating of 8W, sensitivity- 93 dB, 1 W, 1 meter, voice coil – ¾” with 5 oz. magnet
- Recess Wall Mounted or Flush Mount Horns- double re-entrant type horn loudspeaker with integral driver, impervious to weather and vandalism, constructed of ABS plastic, drivers @ 15 W, frequency response @ 480Hz-14 KHz, sensitivity @ 106 dB, 1 W, 1 meter, transformer – dual voltage multi-tap 25 or 70 volt installation, 180 degree conical

## Speaker Housings/Horn

**Manufacturer:** Atlas Sound or district approved equivalent

## Phone

**Manufacturer:** District Approved

- District provided and district installed
- Volp technology
- Emergency phone line to be installed in designated location

## Clock

Wireless Clock System

**Manufacturer:** Sappling or Rauland

- Analog synchronous system
- Connect master clock to the network
- Transmitter- FCC part 90 approved
- Secondary 13” analog Clock

## MPR AV System

**Manufacturer:** Extron 200H

- Architect designed and district approved
- Projector is district approved

## Assistive Listening Systems

**Manufacturer:** Telex, Williams Sound, Shure

- **Infrastructure only** for use of portable system in all areas of campus
- Do not include devices in project (district provided, district installed)
- ADA compliant
- FM wireless, 57 channels (frequency agile with seek button), 80 dB SNR or greater end-to-end, mono or stereo headset jack
- **If purchased** system shall include: carrying case, LT-700 port FM. display transmitter, LA 261 lavalier microphone or LA-278 behind-the-head microphone, LR-400 port display FM receiver, LA-164 ear speaker or optional LA-166 neck loop, complete set of AA NiMH batteries and charging system

## Engineer Specified System (MPR sound system)

Speakers

**Manufacturer:** Renkus-heinz, Electrovoice Evis series- ZX3

DSP Controller:

**Do not spec – only with CUSD prior approval**

Audio mixer/switcher-

**Manufacturer:** Allen & Heath Digital, Personus, Yamaha

Audio video controller

**Manufacturer:** Extron

Wiring

**Manufacturer:** Belden, West Penn Wire.

Audio amplifier

**Manufacturer:** QSC, Yamaha or Electrovoice, Model# CPS4.5.

Hand Held Wireless microphone-

Wall mounted UST projector – Owner furnished, contractor installed and configured.

Actiontek Screenbeam 750W - Owner furnished, contractor installed and configured.

Wallplate with USB/**two HDMI**/3.5mm audio – **contractor** furnished, contractor installed and configured. **Both sides of teaching wall.**

COVID – W1408-WH-P-A-ALT

COVID – CWP 0010-USB-BA-Ac8”

- Contractor to provide 3.5mm, USB, and active HDMI cable that connects from this wallplate to the audio input on the projector.
- The 3.5mm cable is to be provided by the contractor and is to be connected to the wallplate to the audio input on the projector.

Two ceiling mounted speakers - contractor furnished, contractor installed and configured.

Extron 42-120-13, FF 120T Speakers (1 pair)

Extron Amp -contractor furnished, contractor installed and configured.

**Manufacturer:** Shure

Hand held Wireless Microphone

**Manufacturer:** Shure, Model# SM86

Microphone stand

**Manufacturer:** Atlas Sound, Model # MS-12CE

Microphone cables

**Manufacturer:** Shure, Model# C25B.

**Manufacturer:** Denon DN-300Z Media Player w/ Bluetooth Receiver

Personal listening system

**Manufacturer:** Telex, Model# ST-300 and battery charger Telex# BC-100.

Power sequencer

**Manufacturer:** Surge X, Model # SEQ

Secondary power strip sequencer –

**Manufacturer:** Surge X, Model# SX1115RL.

Sound equipment cabinet

**Manufacturer:** Middle Atlantic, Model# SR-44-32.

Master and remote location to overhead speakers- Multi-Point Array System w audio mixing and switching of multiple inputs

# 28 ELECTRONIC SAFETY AND SECURITY

## 282300 VIDEO SURVEILLANCE

**Manufacturer:** Axes, or district approved equivalent

- Camera minimum per site- Elementary (25), Intermediate (40) and HS (50) camera locations
- Able to transmit over the LAN
- IP based camera (no analog)
- Shall terminate in the IDF room or Telecom closets
- Vandal resistant
- WDR (Wide dynamic range)- 90 dB
- Drivers compatible with Exacq Vision Enterprise VMS software

Interior/Exterior Mini **Dual** Dome Cameras

- Day/Night with WDR, power over ethernet, 1080p (HD), Varifocal lens, H.264 or better compression
- Flush, surface, pole, wall or corner mounted

Exterior Fixed Megapixel Cameras

- Day/night with WDR, power over ethernet, 3 to 5 MP, Varifocal lens
- H.264 or better compression, outdoor rated (IP66)
- Flush, surface, pole, wall or corner mounted

*Intrusion Alarm and Access System*

**Manufacturer:** Sonitrol

## 283100 FIRE ALARM SYSTEM

**Manufacturer:** Fire Alarm- Gamewell FCI-E3 only

- Meet NFPA 72 level 0 guidelines
- No below-grade splicing

# 32

# EXTERIOR IMPROVEMENTS

## 320000 EXTERIOR IMPROVEMENTS

### *Turf Type and Condition*

- Hybrid 419
- Rototilled @ 6" depth
- Amendment @ 6" depth with recommendation from soil sample. Soil Sample Report delivered to Grounds Manager.
- Sod or stolon application (no stolon application after July 1<sup>st</sup>)
- Hydro seed with district approval only

### *Turf Maintenance*

- Based off of soil sample report, maintain weed-free, fertilize at least 3 applications during growth season. CUSD Grounds to determine fertilizer based on soil sample.
- Weed free for 60 days growth/maintenance period by contractor after final acceptance by district
- Use of reel style mower at 1" height (mowed once a week)
- Turf health maintained during modernization
- 1 year healthy turf warranty after notice of completion

## 329300 PLANTS

### *Plant Type and Condition*

**Manufacturer:** Use local vendors when possible: Belmont, McCalls Nursery, Green Hills

Refer to district approved plant and shrub list

- Planting specs are as recommended by the engineer
- Rototilled 6" depth
- Amendment @ 6" depth with recommendation from soil sample. With final grade 4" lower to allow for mulch. Soil Sample Report should be shared with the District.
- Minimum size- fully rooted but not root bound
- Grade nursery stock – (plant material shall be the size of the container)
- Mulch – 4" compacted depth, walk-on type (1/2 -1" size) without debris (ALW Greens Best)
- Fertilize – commercial homogeneous granular pellet

### *Plant Maintenance*

- 1 year healthy landscape warranty after notice of completion
- Maintain weed-free planter for 60 days
- Landscape health maintained during modernization
- 60 days growth maintenance by contractor after final acceptance by district

### *Tree Types and Condition*

**Manufacturer:** Belmont, McCalls, Green Hills

Refer to district approved tree list

Refer to district approved tree planting zones

- Hole must be twice the size of the root ball
- Amend with recommendation from soil sample
- Seating wall or tree grate required in heavy traffic areas – inner campus (see concrete)
- Design of tree grate – cast iron, circular pattern to allow for growth
- Root barriers must be used along hard-scaped areas (see concrete)
- Inner-campus tree locations, and tree materials to be approved by district representatives before planting and irrigation



## 328400 PLANTING IRRIGATION

### *System Warranty*

- 1 year warranty after notice of completion

### *Control System*

- **Manufacturer:** clock/software- RainMaster, Toro or district approved equivalent
- 2 hand-held remote controllers (Field, Office) (2 for elementary and 5 for Ed Center)
- Evapotranspiration ready
- Coaches controller on all ball fields
- Manual switch with automated valve – located in dugout
- Ethernet needs to be provide to clock

### *Water Supply Flow Meter/Master Valve*

- **Manufacturer:** Netafim hydrometer or district approved equivalent
- 4" model - LHM4FG1-MELNO (for normally open)
- leads back to computer

### *Valve*

- **Manufacturer:** Toro Irritrol 100 series, Hunter or district approved equivalent

### *Booster Pump*

- **Manufacturer:** Site One or district approved equivalent
- Service provider is "Green Tech" if Site One is used. Water Tronics could be used as second option.
- Size determined by the engineer/landscape architect
- Field verify during design
- Variable flow
- Electronic controls located in covered/shaded canopy
- Outside air cooled
- 10 year warranty

### *Matched Precipitation Rates*

- Determined by the landscape engineer

### *Central System*

- Site connected to the central system
- Site connected to District Office
- Site connected to weather station or on-line service

### *Moisture/Rain Sensors*

- **Manufacturer:** To be aligned with clock manufacturer
- 2 remote control hand- held units (per district recommendations)(2 for elementary and 5 for Ed Center)
- Aligned with manufacturer of the control system
- Remote control activation

### *Quick couplers*

- Located in turf along 1<sup>st</sup> and 3<sup>rd</sup> base line on ball fields (as close to dug outs as possible)
- Hose bibs or quick couplers located near amphitheater for custodial use

### **323119 DECORATIVE METAL FENCES AND GATES**

#### *Wrought Iron Fences – For all kindergarten/preschool playground*

- 4 " x 4 " tube steel corner posts
- Pickets are 1" x 1", 4" on center
- Top and bottom rail are 2"x 2"
- Meet current CBC and DSA regulations for ADA accessible gate

### **323113 CHAIN LINK FENCES AND GATES**

**Manufacturer:** Local district preference

- 2" mesh, 9 gauge fabric, galvanized before weaving
- Chain link with knuckle selvage at top and bottom, galvanized before weaving
- 6' Height minimum at perimeter of campus
- Pool fencing – 10' high, mesh at 1" (per county health/safety code)
- Tack-welded post caps at ends and corners
- ADA accessible walk gates
- One "Z" gates at field areas and one per blacktop area
- ADA Accessible hardware and ADA width
- Hardware- heavy duty malleable iron hinge
- Mow strip – 18" at fence base, when used in turf
- Meet current CBC and DSA regulations for ADA accessible gate.
- Example - Von Duprin - exit devices #22 w IC cylinder and housing (see section 087000)

#### *Access Gates*

- Kindergarten gates (1) 10' opening with 2 swing gates
- Parking lot swing gates
- Hot dipped galvanized with reflection tape
- Vehicle access gate for;
  - Elementary -2 access points, 20' opening with double swinging gates including approach for emergency and maintenance vehicles. Add 6'x20' landing after gate with 45-degree angles
  - Intermediate/High School – a single or double A-Frame swing gate depending on road size 12' maximum for swing gate
  - Athletic Fenced Facilities: 20' opening with double swinging gates including approach for emergency and maintenance vehicles
    - Track – 4' High fencing around perimeter of track
    - Finish line fencing – a minimum 20' x 20' cut out for timing and photo station with concrete pad and electrical outlet
    - 2 man gates
    - (2) 20' opening with double swinging gates for emergency and maintenance vehicles

#### *Tennis Courts*

- 15' high perimeter chain link fence with 1 ¾" mesh, 9 gauge fabric, galvanized before weaving with protective fabric wind screen.
- Fencing between courts at 4' height
- Meet current CBC and DSA regulations for ADA accessible gate.
- Example - Von Duprin - exit devices #22 w IC cylinder and housing (see section 087000)
- Spectator seating – raised concrete seating area at high school and intermediate (see section 033000)

### **321216 ASPHALT PAVING**

- Refer to district deferred maintenance program for maintenance information.
- Architect/Engineer team shall use soils report (as a minimum) recommendation for paving sections.
- Meet or exceeds CBC and DSA/ADA regulations with relation to slopes and access.
- Any trenches and cut outs will be slurry sealed
- 12" compacted soil, 4" aggregate base – class 2, soil sterilant, capped with 2" asphalt concrete type B "1/2 aggregate", asphaltic based seal coat
- All asphalt must be striped after being slurry sealed

### **321723 PAVEMENT MARKINGS**

- See Finishes

# **Athletic Specifications Appendix**

	<b>ELEMENTARY</b>
General conditions	<ul style="list-style-type: none"> <li>• Number of fields – 3</li> <li>• Turf- 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete- meet CUSD concrete specifications (see concrete)</li> <li>• Include all bases, pegs, pitching rubber and home plate for ballfields</li> <li>• 4" of native soil to be removed from all ball fields before clean top soil or ball mix is brought in</li> </ul>
Backstop	<ul style="list-style-type: none"> <li>• 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving</li> <li>• All posts have tack-welded post caps</li> <li>• All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts)</li> <li>• ADA access to backstop</li> <li>• Horizontal rails (Top 2 middle, Butt and Bottom)</li> <li>• Composite backboards – 3/4" Hole slotted to 1 1/4" Width <b>elongated bolt hole</b> in galvanized angle (install per Manufacturer specs)</li> <li>• Repaint using flat paint only</li> </ul>
Dugout	<ul style="list-style-type: none"> <li>• 2 un-slatted chain link dugouts per diamond</li> <li>• Concrete should extend from dugout to end of fence</li> <li>• Schedule 40 2" line and 4" end post</li> <li>• 4' wide field access for each dugout</li> <li>• 10' high front, 8' high back, 7'6" wide, 60' long</li> <li>• Concrete floors – slab extended to end of backstop</li> <li>• 36' long aluminum team bench- legs bolted to the concrete.</li> <li>• Coaches controller (see irrigation spec)</li> </ul>
Spectator seating	<ul style="list-style-type: none"> <li>• 5 row aluminum bleacher with concrete slab- home and visitor</li> <li>• Minimum 6' wide concrete walk between bleacher pads in addition to mow strip</li> </ul>
Additional field space	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> <li>• 2 additional portable backstop w side wings, grass fields for B and C softball teams</li> </ul>
Infield	<ul style="list-style-type: none"> <li>• Dirt infield – clean topsoil baseball and softball</li> </ul>
Soccer Fields	<ul style="list-style-type: none"> <li>• 3 fields- varying sizes</li> <li>• Turf- 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> </ul>
Goals	<ul style="list-style-type: none"> <li>• Portable (CJSL purchase)</li> </ul>
Volleyball	<p>Manufacturer: Nets- LA Steelcraft #VBP25-BG or</p> <ul style="list-style-type: none"> <li>• 2 courts</li> <li>• Poles w sleeves and locking caps</li> <li>• Pole storage location on play court surface near fence</li> </ul>
Basketball	<p>Manufacturer: LA Steelcraft Model #1256 (single), #12056 (double)</p> <ul style="list-style-type: none"> <li>• 6 courts</li> <li>• 4 courts @ 9' rims</li> <li>• 2 courts @ 10' rims</li> <li>• Adjustable backboard – LA Steelcraft mounts</li> <li>• Tackwell collar – 4 locations w/ 6 1/2 bolts per collar</li> </ul>
Tetherball	<ul style="list-style-type: none"> <li>• 2 courts</li> <li>• Poles w sleeves and compression cover to fit flush w/ top of sleeve, sleeve w/ cap</li> </ul>
4 square courts	<ul style="list-style-type: none"> <li>• 6 courts</li> </ul>
Hop scotch area	<ul style="list-style-type: none"> <li>• 4 courts</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• No rust, bent, broken, worn out or damaged items</li> </ul>
Striping	<ul style="list-style-type: none"> <li>• See building conditions (Alert-a-Light Traffic Paint, no semi-gloss)</li> </ul>

	<ul style="list-style-type: none"> <li>• Minimal fading or peeling</li> </ul>
Concrete mow strip	<ul style="list-style-type: none"> <li>• 18" surrounding courts</li> <li>• Valley gutter if adjacent to play equipment</li> </ul>
Long jump	<ul style="list-style-type: none"> <li>• 10' x 20' pit w/ 12" concrete border, 18" deep w/ fill sand</li> <li>• Rubber jump board- 6" x 24"</li> <li>• Grass runway</li> <li>• CUSD will install</li> </ul>
Shot Put ring	<ul style="list-style-type: none"> <li>• 8'x8' cement pad, flush w/ grass surface</li> <li>• Aluminum toe board (removable) w painted 7' ring</li> <li>• Grass pit</li> <li>• CUSD will install</li> </ul>
Pull-up Bars	<ul style="list-style-type: none"> <li>• No longer needed</li> </ul>
Athletic storage room (Elementary)	<ul style="list-style-type: none"> <li>• 300 sq. feet minimum</li> <li>• Open shelving w/ adjustable shelving racks</li> <li>• 4 tall cabinets – locking</li> <li>• Space for upper storage of large equipment</li> </ul>

	<b>INTERMEDIATE</b>
Field	<ul style="list-style-type: none"> <li>• Turf – &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete (see concrete)</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Gooseneck goal post- safety yellow</li> <li>• ADA drinking fountain at snack bar/restroom area</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> </ul>
Spectator seating	<ul style="list-style-type: none"> <li>• 580 minimum each side</li> <li>• ADA access to field and seating</li> <li>• Aluminum bleachers</li> </ul>
Electrical Outlets	<ul style="list-style-type: none"> <li>• Each side of field-outlets in Christy boxes</li> </ul>
Backstops 8 <sup>th</sup> grade baseball 7 <sup>th</sup> grade baseball	<ul style="list-style-type: none"> <li>• Number of fields – 2</li> <li>• Turf- &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete- meet CUSD concrete specifications (see concrete)</li> <li>• 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving</li> <li>• All posts have tack-welded post caps</li> <li>• All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts)</li> <li>• ADA access to backstop</li> <li>• Horizontal rails (Top 2 middle, Butt and Bottom)</li> <li>• Composite backboards – 3/4" Hole slotted to 1 1/4" width <b>elongated bolt hole</b> in galvanized angle (install per manufacturer specs)</li> <li>• Repaint using flat paint only</li> </ul>
Infield	<ul style="list-style-type: none"> <li>• Dirt infield- 4" of native soil removed before ball mix is brought in</li> <li>• Turf infield</li> <li>• Build clay pitching mound per District Standards</li> <li>• Install bases, base pegs, mound and home plate</li> </ul>
Dugout	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> <li>• 2 un slatted chain link dugouts per diamond</li> <li>• 4' wide field access for each dugout</li> <li>• 10' high front, 8' high back, 7'6" wide, 60' long</li> <li>• Concrete floors – slab extended to end of backstop</li> <li>• Schedule 40 2" line with 4" end post</li> <li>• 36' long aluminum team bench – legs bolted in concrete</li> <li>• Coaches controller (see irrigation spec)</li> </ul>
Spectator seating	<ul style="list-style-type: none"> <li>• 10 row aluminum bleacher with concrete slab (home and visitor)</li> <li>• Minimum 6' wide concrete walk between bleacher pads</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Batting cages (site funded) - 4 1/2" OD diameter, galvanized post w/ post cap, 6 5/8" OD galvanized corner post w post cap, 3/8"- 16 x 1 1/2" shank length turn eye bolt</li> <li>• Unfenced home and visitor bullpen</li> <li>• Electronic scoreboard (site funded)</li> <li>• Coaches controller</li> <li>• Electrical outlets- both sides of the field, at end of dugout, inside fence</li> </ul>
Drinking fountain	<ul style="list-style-type: none"> <li>• 1 ADA accessible outside each dugout</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> </ul>
Backstops 8 <sup>th</sup> grade softball 7 <sup>th</sup> grade softball	<ul style="list-style-type: none"> <li>• Number of fields- 2</li> <li>• Turf- &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete- meet CUSD concrete specifications (see concrete)</li> <li>• 30' high chain link backstop, 2" mesh, 9 gauge fabric, galvanized before weaving</li> <li>• All posts have tack-welded post caps</li> <li>• All backstop boards at 41" off center of large poles (2 lower posts per 10' span between large posts)</li> </ul>

	<ul style="list-style-type: none"> <li>• ADA access to backstop</li> <li>• Horizontal rails (Top 2 middle, Butt and Bottom)</li> <li>• Composite backboards – 3/4" Hole slotted to 1 1/4" Width <b>elongated bolt hole</b> in galvanized angle (install per Manufacturer specs)</li> <li>• Repaint using flat paint only</li> </ul>
Infield	<ul style="list-style-type: none"> <li>• Dirt infield- clean topsoil</li> <li>• All dirt infield</li> </ul>
Dugout	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> <li>• 2 un slatted chain link dugouts per diamond</li> <li>• 4' wide field access for each dugout</li> <li>• 10' high front, 8' high back, 7'6" wide, 55' long</li> <li>• Concrete floors – slab extended to end of backstop</li> <li>• 36' long aluminum team bench – legs bolted in concrete</li> <li>• Coaches controller (see irrigation spec)</li> </ul>
Spectator seating	<ul style="list-style-type: none"> <li>• 5 row aluminum bleacher with concrete slab (home and visitor)</li> <li>• Minimum 6' wide concrete walk between bleacher pads</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Batting cages (site funded)</li> <li>• Unfenced home and visitor bullpen</li> <li>• Coaches controller</li> <li>• Electrical outlets- both sides of the field, at end of dugout, inside fence</li> </ul>
Drinking fountain	<ul style="list-style-type: none"> <li>• 1 ADA accessible outside each dugout</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> </ul>
	<ul style="list-style-type: none"> <li>• 2 fields</li> <li>• Turf- &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> </ul>
Goals	<ul style="list-style-type: none"> <li>• Portable (district funded)</li> </ul>
Track	<ul style="list-style-type: none"> <li>• Clay mix (70:30 infield ball mix from Rosenbalm's)</li> <li>• 400 meter w/ 9 lanes</li> </ul>
Runways	<ul style="list-style-type: none"> <li>• All-weather polyurethane</li> <li>• Striping and stencils – contractor installed with CUSD approval, minimum fading and peeling</li> </ul>
High jump pits	<ul style="list-style-type: none"> <li>• 2 - all-weather surface "D" end</li> </ul>
Long jump/ Triple jump pits	<ul style="list-style-type: none"> <li>• 2 – 1 competition and 1 practice meeting length requirement</li> <li>• 10'x 30' pit w/concrete border and 18" curb w/ fill sand</li> <li>• 1 wood-embedded jump board- triple jump</li> <li>• 1 wood-embedded jump board- long jump</li> <li>• All-weather polyurethane</li> </ul>
Shot Put ring	<ul style="list-style-type: none"> <li>• 2 shot put rings and grass throwing pits</li> <li>• 10'x10' cement pads w/ aluminum toe board, 12" deep, 84" diameter</li> <li>• Internal boundary ring – 7', aluminum</li> </ul>
Discus ring	<ul style="list-style-type: none"> <li>• 1 discus ring and grass throwing area w/cage and netting</li> <li>• 10'x10' cement pads w/ aluminum toe board, 12" deep, 98 1/2" diameter</li> <li>• Internal boundary ring – aluminum</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Timers and starting blocks</li> <li>• Storage building- "fieldhouse"</li> <li>• Concession stand</li> <li>• Hurdles</li> </ul>
Tennis	<ul style="list-style-type: none"> <li>• Number of courts- 6</li> <li>• Signage- "Rules" on 3/4" plywood backing</li> </ul>
Surface	<ul style="list-style-type: none"> <li>• Concrete- reinforced concrete slab with color textured play surface</li> <li>• See concrete standards</li> </ul>

Fencing/gates	<ul style="list-style-type: none"> <li>• 15' high perimeter chain link fence w/ 1 ¾" mesh, 9 gauge fabric, galvanized before weaving w/ protective fabric wind screen</li> <li>• ADA accessible walk gates</li> <li>• Fencing between courts</li> </ul>
Spectator seating	<ul style="list-style-type: none"> <li>• Raised concrete seating area</li> </ul>
Lighting controls	<p>Manufacturer: Wattstopper, Leviton, Greengate, nLite/Synergy</p> <ul style="list-style-type: none"> <li>• Overhead lights for each court</li> <li>• Automated controls</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Netting apparatus</li> <li>• Drinking fountains</li> </ul>
Basketball	<ul style="list-style-type: none"> <li>• Number of courts- 9 each</li> </ul>
Volleyball	<ul style="list-style-type: none"> <li>• Number of courts- 9 each</li> </ul>
Tennis Court Surface	<ul style="list-style-type: none"> <li>• Single coat - concrete primer, Single coat- Acrylic Resurfacer, 3 coats Sport Court Acrylic color (interior) and 2-3 coats of Sports Court Acrylic on exterior (out of bounds) areas</li> <li>• Concrete seating area</li> <li>• Power at each court light standard</li> <li>• Signage- "Rules" on ¾" plywood backing</li> <li>• Hose bibs secured to fence posts – every other court</li> <li>• Courts to be numbered</li> <li>• Meets or exceeds CBC and DSA/ADA regulations</li> </ul>
Tennis Court Striping	<ul style="list-style-type: none"> <li>• Plexipave</li> <li>Innercourt – Dark Green</li> <li>Outercourt- Medium Green</li> <li>3" baselines in lieu of 4" baselines</li> <li>• Minimal fading, peeling</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Pole configuration</li> <li>• Netting</li> <li>• Sleeve w/ cap</li> </ul>
Concrete mow strip	<ul style="list-style-type: none"> <li>• 18" - see concrete standards</li> </ul>



<b>HIGH SCHOOL</b>	
Field/Stadium	<ul style="list-style-type: none"> <li>• Turf – &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete – meet engineering specification</li> <li>• 6 quick couplers around perimeter (4 @ 25 yard line and 1 at each end zone)</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Gooseneck goal post- safety yellow</li> <li>• ADA drinking fountain</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> </ul>
Spectator seating	<p><b>Stadium</b> - 4,500 min. on home and 2,000 on visiting side</p> <p><b>Varsity practice</b> - 580 seat bleachers on concrete slab</p> <ul style="list-style-type: none"> <li>• Educational Centers have seating on home and visitor</li> <li>• ADA access to field and seating</li> </ul>
Fieldhouse/ Athletic storage	<ul style="list-style-type: none"> <li>• Minimum of 8 electrical and data receptacles</li> <li>• Phone access</li> <li>• Restrooms w/ drinking fountain adjacent</li> <li>• Bare concrete flooring (team room and restroom)</li> <li>• 2 separate meeting rooms at stadiums (1 at sites without stadium)</li> <li>• 2 white boards (4'x16') on opposite long walls of the team room</li> <li>• Office space w/ ice machine infrastructure (power, floor drain/water supply)</li> <li>• Heating/cooling- package unit</li> </ul> <p><b>Storage</b></p> <ul style="list-style-type: none"> <li>• Minimum of 900 sq. ft. for athletic equipment storage</li> <li>• Roll up door – 9' to field</li> <li>• Double door access</li> </ul> <p><b>Fitness Center</b></p> <ul style="list-style-type: none"> <li>• Rubber floor tiles</li> <li>• Power and data raceway along all walls</li> <li>• 2 whiteboards 4'x16'</li> <li>• Double door access w/ center mullion</li> </ul>
Concession Stand	<ul style="list-style-type: none"> <li>• Minimum of 8 electrical receptacle, proper voltage for equipment (separate fuses)</li> <li>• 2 large rollup coiling doors</li> <li>• Infrastructure for ice machine</li> <li>• Infrastructure for soda dispenser</li> <li>• Stainless steel counter tops</li> <li>• Infrastructure for refrigerator</li> <li>• Stainless Steel countertops and sinks</li> <li>• Deep pot sink with swivel faucet</li> <li>• Mounted oscillating fans</li> <li>• Exhaust fans</li> <li>• Flooring – bare concrete w/ 6" cove base</li> <li>• Lighting- weather resistant housing</li> <li>• Signage</li> <li>• Finish- Floor to ceiling FRP</li> <li>• Hose bib at exterior of building</li> <li>• Storage / Custodial area w/ mop sink</li> </ul>
Restrooms	<ul style="list-style-type: none"> <li>• Restrooms w/ drinking fountain</li> <li>• Bare concrete flooring (team room and restroom)</li> <li>• Hand dryers</li> <li>• Sink</li> <li>• Toilet/Urinal</li> <li>• Finish- bare concrete</li> </ul>
Press Box	<ul style="list-style-type: none"> <li>• Power, data, and access point</li> <li>• Scoreboard electrical infrastructure</li> </ul>

	<ul style="list-style-type: none"> <li>• Flooring- bare concrete</li> <li>• Sliding windows or “up-hinged” window facing field</li> <li>• Windows at both sides of press box for air flow</li> <li>• Stainless steel countertops</li> <li>• Banner infrastructure - cabling</li> <li>• Marque signage</li> <li>• ADA access</li> <li>• Elevator to press box</li> </ul>
Stadium Sound System	<p>PA system</p> <ul style="list-style-type: none"> <li>• Sound system in press box (data, power, phone, cabling)</li> <li>• Wired for on-field PA</li> <li>• Wired for wireless coaches headsets</li> </ul>
Electrical Outlets	<ul style="list-style-type: none"> <li>• Each side of field – in concrete wall</li> </ul>
Lighting	<ul style="list-style-type: none"> <li>• Engineer designed</li> </ul>
Flag pole	<ul style="list-style-type: none"> <li>• 1 flag pole w/ ground illumination pointing at flag</li> </ul>
Baseball Backstops	<ul style="list-style-type: none"> <li>• Number of fields – 3 (Varsity, JV, and Freshmen)</li> <li>• Turf- &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete- meet CUSD concrete specifications (see concrete)</li> <li>• 30’ high chain link backstop, 2” mesh, 9 gauge fabric, galvanized before weaving</li> <li>• All posts have tack-welded post caps</li> <li>• All backstop boards at 41” off center of large poles (2 lower posts per 10’ span between large posts)</li> <li>• ADA access to backstop</li> <li>• Horizontal rails (Top 2 middle, Butt and Bottom)</li> <li>• Composite backboards – 3/4” hole slotted to 1 ¼” width <b>elongated bolt hole</b> in galvanized angle (install per manufacturer specs)</li> <li>• Repaint using flat paint only</li> <li>• Varsity Field only- outfield drainage, herring-bone configuration</li> </ul>
Baseball Infield	<ul style="list-style-type: none"> <li>• 4” of native soil removed before ball mix is brought in</li> <li>• JV and Freshmen- clean fill dirt</li> <li>• Varsity – cinder/clay 70:30 mix</li> <li>• Turf infield</li> <li>• Build clay pitching mound per District Standards</li> <li>• Install bases, base pegs, mound and home plate</li> </ul>
Baseball Dugout	<p><b>Varsity, JV, and Freshmen:</b></p> <ul style="list-style-type: none"> <li>• 2 un slatted chain link dugouts per diamond</li> <li>• 4’ wide opening at the end of each dugout</li> <li>• Concrete floors – slab extended to end of backstop</li> <li>• Accessible drinking fountain inside each dugout</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> <li>• Coaches controller (see irrigation spec) at home side of field</li> </ul> <p><b>Varsity only:</b></p> <ul style="list-style-type: none"> <li>• 36’ long aluminum team bench wall mounted</li> <li>• Painting of dugouts site funded and maintained</li> <li>• Open front with protection fabric</li> <li>• 2 - 4’ wide galvanized and vinyl padded front dugout screens, with 4’ opening, and (1) 15’ long, 3’ tall galvanized and vinyl padded coaches screen between backstop and field off dugout</li> <li>• Stairs to spectator section adjacent to the dugout</li> <li>• Dugout dimensions - 10’ high front, 8’ high back, 8’ wide, 60’ long</li> <li>• LED ceiling lighting in dugout</li> <li>• Drainage outside of dugout – valley gutter from left field fence to right field fence w/ drains at both sides of dugout</li> </ul>

	<ul style="list-style-type: none"> <li>• Storage closet – concrete enclosed</li> </ul> <p><b>JV and Freshmen only:</b></p> <ul style="list-style-type: none"> <li>• 2- 4’ wide field access at each end of dugouts</li> <li>• 10’ high front, 8’ high back, 7’6” wide, 60’ long</li> <li>• 36’ long aluminum team bench – legs bolted into the concrete</li> <li>• Schedule 40 2” line with 4” end post</li> </ul>
Baseball Seating	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Stadium type seating for 1,200 minimum</li> <li>• Colored foam protection pad on concrete backstop wall</li> </ul> <p><b>JV and Freshmen:</b></p> <ul style="list-style-type: none"> <li>• 5 row aluminum bleacher w/ concrete slab</li> <li>• 6’ wide concrete walk between bleacher pads</li> </ul>
Baseball Equipment	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Fenced home and visitor bullpen</li> <li>• Electronic scoreboard</li> <li>• Power and data outlets (press box, dugout)</li> <li>• Lockable, slatted storage area- separate from field (portable batting cage, pitching screens)</li> <li>• Field tarp storage area integrated into stadium depending on design</li> </ul> <p><b>JV and Freshmen:</b></p> <ul style="list-style-type: none"> <li>• Batting cages (site funded)</li> <li>• Unfenced home and visitor bullpen</li> <li>• Electrical outlets at home plate on spectator side of fence/at the end of the dugout inside fence</li> </ul>
Drinking fountain	<ul style="list-style-type: none"> <li>• 1 ADA accessible outside each dugout</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> </ul>
Baseball Lighting	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Field lighting at Varsity stadium</li> <li>• Emergency exit lighting</li> <li>• Flag pole illumination- flag pole 30’</li> </ul>
Baseball Accessories	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Press Box</li> <li>• Vertical lift</li> <li>• CMU ticket booth (not portable)</li> <li>• Portable concession stand adjacent</li> <li>• Storage area under stadium seating</li> </ul>
Baseball Fence	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Foul pole with screen</li> <li>• Decomposed granite warning track- 13’ wide</li> <li>• Back fence w/ visibility screen and yellow protection cap</li> <li>• Batters eye (site funded)</li> </ul>
Softball Backstops	<ul style="list-style-type: none"> <li>• Number of fields-3 (Varsity, JV and Freshmen)</li> <li>• Turf- &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> <li>• Concrete- meet CUSD concrete specifications (see concrete)</li> <li>• 30’ high chain link backstop, 2” mesh, 9 gauge fabric, galvanized before weaving</li> <li>• All posts have tack-welded post caps</li> <li>• All backstop boards at 41” off center of large poles (2 lower posts per 10’ span between large posts)</li> <li>• ADA access to backstop</li> <li>• Horizontal rails (Top 2 middle, Butt and Bottom)</li> <li>• Composite backboards – 3/4” hole slotted to 1 1/4” width <b>elongated bolt hole</b> in galvanized angle (install per manufacturer specs)</li> </ul>

	<ul style="list-style-type: none"> <li>• Repaint using flat paint only</li> </ul>
Softball Infield	<ul style="list-style-type: none"> <li>• Varsity – cinder/clay 70:30 mix- site will fund additional infield conditioners</li> <li>• JV/Freshmen – clean fill dirt</li> </ul>
Softball Dugout	<p>Manufacturer: district approved</p> <ul style="list-style-type: none"> <li>• Open front with protection fabric</li> <li>• 2 - 4' wide field access to the field</li> <li>• Back fence at 10' with 6'8" tall dugout opening at field level, 8' high back, 4' high front galvanized protection fence w/ vinyl padding, 7'6" wide, 55' long</li> <li>• 5' bracing in dugout roof – 4' increments</li> <li>• Chain link dugouts per diamond- slatted roof and sides</li> <li>• 4' wide field access for each dugout – 3 field access points</li> <li>• Concrete floors – slab extended to end of backstop</li> <li>• 36' long aluminum team bench legs bolted into concrete</li> <li>• Coaches controller (see irrigation spec) on home side</li> </ul>
Softball seating	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Stadium seating for 750 minimum</li> <li>• CMU Block wall bleacher enclosure</li> <li>• Equipment storage under stadium</li> </ul> <p><b>JV and Freshmen:</b></p> <ul style="list-style-type: none"> <li>• 5 row aluminum bleacher with concrete slab (home and visitor)</li> <li>• Minimum 6' wide concrete walk between bleacher pads</li> </ul>
Softball Equipment	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Batting cages (site funded)</li> <li>• Fenced home and visitor bullpen</li> <li>• Electronic scoreboard</li> <li>• PA system in press box (see existing locations)</li> <li>• Lighting- engineered specifications</li> <li>• Power outlets in dugouts, at ADA drinking faucet area (both sides of the field), and off the field behind home plate spectator side of fence</li> </ul> <p><b>JV and Freshmen:</b></p> <ul style="list-style-type: none"> <li>• Unfenced home and visitor bullpen</li> <li>• Electrical outlets- behind home plate on spectator side, and at first and third base behind fence</li> </ul>
Drinking fountain	<ul style="list-style-type: none"> <li>• 1 ADA accessible outside each dugout</li> <li>• ADA compliant – HAWS model #3300G (hi/lo)</li> </ul>
Softball Lighting	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Field lighting at Varsity stadium</li> <li>• Emergency exit lighting</li> <li>• Flag pole illumination – pole 30'</li> </ul>
Softball Accessories	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Press Box</li> <li>• Vertical lift</li> <li>• CMU ticket booth (not portable)</li> <li>• Portable concession stand adjacent</li> </ul>
Softball Fence	<p><b>Varsity:</b></p> <ul style="list-style-type: none"> <li>• Foul pole with screen</li> <li>• Back fence w/ visibility screen and yellow protection cap</li> </ul>
Restrooms	<ul style="list-style-type: none"> <li>• Separate men's and women's facility</li> </ul>
	<ul style="list-style-type: none"> <li>• 1 Varsity@ HS</li> <li>• Other soccer fields – 9 @ Ed Centers, 2 @ HS</li> <li>• Turf- &gt; 95% coverage</li> <li>• Grade/Drainage- no standing water/soggy areas</li> </ul>
Track	<ul style="list-style-type: none"> <li>• All-weather surface, Mondo or Polyurethane</li> </ul>

	<ul style="list-style-type: none"> <li>• 400 meter w/ 9 lanes</li> </ul>
Runways	<ul style="list-style-type: none"> <li>• All weather surface- Mondo or Polyurethane</li> <li>• Striping and stencils – minimum fading and peeling</li> </ul>
High jump pits	<ul style="list-style-type: none"> <li>• 2 - all-weather surface “D” end</li> </ul>
Long jump/Triple jump pits	<ul style="list-style-type: none"> <li>• 2 competition and 1 practice meeting length requirement</li> <li>• All-weather runway to match track</li> <li>• 10’x30’ pit w/ 18” concrete border w/fill sand</li> <li>• 1 wood jump board and 3 painted boards at competition pits, all painted boards at practice pit</li> <li>• Striping and stencils – minimum fading and peeling</li> </ul>
Pole Vault Pits	<ul style="list-style-type: none"> <li>• 2 pits</li> <li>• Pole vault plant box (44”x23”x16”) w/ cover to match runway</li> <li>• All weather runway to match the track</li> <li>• Striping and stencils – minimum fading and peeling</li> </ul>
Shot Put ring	<ul style="list-style-type: none"> <li>• 2 shot put rings</li> <li>• Concrete slab – 10’x10’ w/ aluminum ring</li> <li>• Fiberglass throw board</li> <li>• DG-filled pits w/ 4”x 6” wood edging</li> </ul>
Discus ring	<ul style="list-style-type: none"> <li>• 2 rings – 1 ring competition 1 practice</li> <li>• Concrete slab- 12’x12’ w/ 8’3” aluminum ring</li> <li>• Discus cage will vary</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Timers and starting blocks (site funded)</li> <li>• Adjustable hurdles</li> <li>• Storage building adjacent</li> <li>• Portable concession stand</li> <li>• Adjacent restrooms w/ drinking fountains</li> <li>• Data and electrical receptacle access at inside and outside of finish line w/ weather proof outlet box</li> <li>• Finish line fencing – 4’x 6’ cut out for timing/photo station</li> <li>• 8 row spectator bleachers- ADA accessible</li> <li>• 4’ fencing around perimeter of the track</li> </ul>
	<ul style="list-style-type: none"> <li>• Number of courts- 12</li> <li>• Signage- “Rules” on ¾” plywood backing</li> <li>• Hose bibs secured to fence posts – every other court</li> <li>• Courts to be numbered</li> </ul>
Surface	<ul style="list-style-type: none"> <li>• Concrete- reinforced concrete slab with color textured play surface per engineered specifications</li> <li>• See concrete standards</li> </ul>
Fencing/gates	<ul style="list-style-type: none"> <li>• 15’ high perimeter chain link fence w/ 1 ¾” mesh, 9 gauge fabric, galvanized before weaving w/ protective screen</li> <li>• ADA accessible walk gates</li> <li>• Fencing between courts at 4’ high to allow for movement between courts</li> </ul>
Spectator seating	<ul style="list-style-type: none"> <li>• Raised concrete seating area for 180 minimum w/ shade structure</li> <li>• Shade structure framed w/ top bracing for corrugated metal roofing or protective screen.</li> <li>• Electrical outlets embedded in the ends of seating structure</li> </ul>
Lighting controls	<p>Manufacturer: Wattstopper, Leviton, Greengate, nLite/Synergy</p> <ul style="list-style-type: none"> <li>• Overhead lights for each court</li> <li>• Automated controls- logic control software program</li> <li>• Electrical outlet at light poles</li> </ul>
Equipment	<ul style="list-style-type: none"> <li>• Netting apparatus</li> </ul>
Basketball/Volleyball	<ul style="list-style-type: none"> <li>• Number of courts- 12</li> <li>• Post and sleeves w/ cap and post storage</li> <li>• Backboard and rim- height @ 10’</li> </ul>

	<ul style="list-style-type: none"> <li>• Adjustable backboard – LA Steelcraft mounts</li> <li>• Tackwell collar – 4 locations w/ 6- ½” bolts per collar</li> <li>• Netting apparatus</li> </ul>
Surface	<ul style="list-style-type: none"> <li>• Refer to CUSD deferred maintenance study on paving</li> <li>• Meets or exceeds CBC and DSA/ADA regulations</li> </ul>
Striping	<ul style="list-style-type: none"> <li>• Minimal fading, peeling</li> </ul>
Concrete mow strip	<ul style="list-style-type: none"> <li>• see concrete standards</li> </ul>