### STANDARDS

Category	Minimum Standards	Recommended Standards
SITE AREAS		
Parking and Access - Buses	Quantity: 2 stalls, 12' wide. Type: Asphalt, 20-year life. Location: Bus loading zone close to a building entrance.	Quantity: 3 stalls, 16' wide. Type: Asphalt, 30-year life. Location: Bus loading zone close to a building entrance at a main corridor and separated from visitor and student parking.
Parking and Access - Service / Delivery	Quantity: 1 delivery vehicle stall, 12' wide. 1 maintenance vehicle stall, 10' wide. Type: Asphalt, 20-year life. Location: Delivery stall adjacent to building entrance. Maintenance stall adjacent to building.	Quantity: 1 delivery stall, 14' wide. 1 maintenance vehicle stall, 12' wide. Type: Asphalt, 30-year life. Location: Delivery stall adjacent to building entrance. Maintenance stall close to Mechanical Room.
Parking and Access - Staff	Quantity: 25 stalls, 8'-6" wide. Type: Asphalt, 20-year life. Location: Close to building.	Quantity: 30 stalls, 9' wide. Type: Asphalt, 30-year life. Location: Close to building.
Parking and Access - Students	Quantity: 25 stalls, 8'-6" wide. Type: Asphalt, 20-year life. Location: Separate from visitor parking and buses.	Quantity: 50 stalls, 9' wide. Type: Asphalt, 30-year life. Location: Separate from visitor parking and buses.
Parking and Access - Visitors	Quantity: 2 stalls, 8'-6" wide. Type: Asphalt, 20-year life. Location: At front of building and separated from buses and student parking.	Quantity: 4 stalls, 9' wide. Type: Asphalt, 30-year life. Location: At front of building and separated from buses and student parking.
Student Drop Off - Pick Up	None.	Quantity: 6 parallel parking stalls. Type: Asphalt, 30-year life. Location: Adjacent to sidewalk at front of building.
Street Frontage Sidewalks	Type: 5' wide with ADA compliant curb cuts, asphalt.	Type: 6' wide with ADA compliant curb cuts, concrete.
On-Site Walkways	Type: 5' wide with ADA compliant curb cuts, asphalt.	Type: 6' wide with ADA compliant curb cuts, concrete.
Stairs and Ramps	Type: 5' wide, ADA compliant, concrete.	Type: 6' wide, ADA compliant, concrete with abrasive stair nosings at stairs and detectible warning pattern at ramps.
Exterior Courtyard	<ul> <li>Type: Concrete or brick pavers hard surface plus lawn area.</li> <li>Location: Adjacent to building entrance at a main corridor.</li> <li>Size: 2,000 SF of hard surface.</li> </ul>	Type: Concrete or brick pavers hard surface plus lawn area. Location: Adjacent to Commons. Size: 3,000 SF of hard surface.
Hard Surface Play Areas	None.	Quantity: 1 basketball court. Type: Asphalt. Location: Close to courtyard.
Lawns	Type: Irrigated grass turf. Location: At front of building, street frontage, and adjacent to landscape areas where suitable.	Type: Irrigated grass turf with concrete mow strip around posts and hydrants and where grass is adjacent to building. Location: At front of building, street frontage, and adjacent to landscape areas where suitable.
Grass Athletic Fields	Quantity: One combination softball field and soccer field. Type: Grass turf with automated irrigation system. Location: Close to locker rooms.	Quantity: One softball field and one soccer field. Type: Grass turf with subdrain system, sand topsoil mix and automated irrigation system. Location: Close to locker rooms and parking.

STANDARDS	FACILITY COMPONENTS		
Catagony	Minimum Standards	Pocommondod Standards	
Dumpster Area	Type: Designated area to accommodate one 8 YD garbage dumpster and one 8 YD recycle dumpster. Location: Close to exterior door with direct access for refuse trucks.	Type: Designated area to accommodate one 8 YD garbage dumpster and one 8 YD recycle dumpster with masonry screen walls on three sides. Location: Centrally located and close to exterior door at a main corridor with direct access for refuse trucks.	
Portable Classroom Infrastructure	None.	Type: Asphalt surface with underground vaults with drains to storm system and conduit for power, telephone, intercom, data, fire alarm, EMS and security systems for 2 portable classrooms. Location: Close to classroom area and building entrance. Not readily visible from street.	
SITE IMPROVEMENTS			
Fences and Gates	Type: Chainlink fencing at perimeter of property, at athletic field, and adjacent to other property. 12' wide chainlink gates at all fence areas for direct vehicle access. Height: 6' high at athletic field and perimeter of site except at front of school. 6' high at stormwater detention ponds and wetlands adjacent to play areas. 4' high stormwater detention ponds and wetlands separated from play areas.	Type: Chainlink fencing at perimeter of property, at athletic fields, and adjacent to other property. 16' wide chainlink gates at all fence areas for direct vehicle access. Ornamental metal fencing adjacent to roadways and at stormwater detention ponds and wetlands at front of school with 16' gates for vehicle access. Height: 6' high at athletic fields and perimeter of site except at front of school. 6' high at stormwater detention ponds and wetlands adjacent to play areas. 4' high stormwater detention ponds and wetlands separated from play areas.	
Backstop Fencing	Softball field: 16' high chainlink with wood timbers behind home plate. Increase height or add overhang if needed for foul ball containment close to parking areas and roads.	Softball field: 20' high chainlink with wood timbers behind home plate. Increase height or add overhang if needed for foul ball containment close to parking areas and roads.	
Pipe Rail Gates and Railings	None.	Gates: 12' wide made from galvanized steel pipe with padlock hardware and reflective warning tape. Located at driveway access to staff and student parking lots. Railings: Made from galvanized steel pipe, ADA compliant.	
Retaining Walls	Type: Concrete, segmental block or rockery.	Type: Concrete, segmental block or rockery.	
Bicycle Racks	Quantity: Racks for 8 bikes. Type: Galvanized metal. Location: At courtyard area or near front entrance.	Quantity: Racks for 12 bikes. Type: Galvanized "ribbon" metal. Location: At courtyard area or front entrance.	
Dumpsters	Quantity: One 8 YD garbage dumpster and one 8 YD recycle dumpster. Location: At dumpster area at parking lot.	Quantity: One 8 YD garbage dumpster and one 8 YD recycle dumpster. Location: At dumpster enclosure at service drive.	
Exterior Benches	Quantity: 2 at front of school. Type: Durable non-wood material.	Quantity: 2 at front of school. 4 at courtyard. Type: Prefinished metal "ribbon" bench.	
Exterior Waste Receptacles	Quantity: One at courtyard, one at athletic field, one at bus loading area, and one at each main entry. Type: Heavy-duty galvanized can with push door dome top.	Quantity: One at courtyard, one at each athletic field, one at bus loading area, and one at each main entry. Type: Heavy-duty galvanized can with push door dome top at exterior courtyard, bus loading, athletic fields and main entries except prefinished metal "ribbon" container with push door dome top at front entry.	
Flag Pole	Type: 25' painted metal. Location: Front of school and accessible from hard surface.	Type: 40' spun aluminum with internal halyard. Location: Front of school and accessible from hard surface.	

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Play Area Equipment	None.	Basketball hoops: 2 heavy-duty metal backboards and
		noops with hylon hets.
Play Area Striping	None.	Basketball court: 1 court close to courtyard.
Reader Board	None.	Type: Non-illuminated, 4' high x 8' wide reader board mounted on both sides of site sign with interchangeable letters and locking clear plastic cover. Location: Mounted on site sign at front of school and visible from two directions.
Site Sign	Type: Monument sign with school name and address. Location: At front of school.	Type: Concrete or masonry monument sign with school name and address and built-in reader board. Location: At front of school.
Traffic Control Signs	Type: As needed for traffic and parking control. Location: At HC parking stalls, maintenance parking stalls, delivery vehicle stalls, bus loading area, student drop off / pick up zone, and parking lot.	Type: As needed for traffic and parking control. Location: At HC parking stalls, maintenance parking stalls, delivery vehicle stalls, bus loading area, student drop off / pick up zone, parking lots, and service drive.
Pavement Markings	Type: Painted lines at cross walks, stop bars, traffic arrows, parking stalls, HC parking symbols, and fire lanes. Location: At bus loading area, drop off / pick up zone, parking lots.	Type: Painted lines at parking stalls, HC parking symbols, and fire lanes. Thermoplastic markings at cross walks, stop bars, traffic arrows and numbers at bus stalls. Location: At bus loading area, drop off / pick up zone, parking lots, and service drive.
LANDSCAPING		
Shrubs / Groundcover	Type: As required by landscape ordinance, as needed for attractive appearance, and as approved by school district grounds department with automated irrigation system. Location: At building perimeter, parking lot islands, and perimeter landscape buffers.	Type: As required by landscape ordinance, as needed for attractive appearance, and as approved by school district grounds department with automated irrigation system. Location: At building perimeter, parking lot islands, and perimeter landscape buffers.
Trees	Type: As required by landscape ordinance, as needed for attractive appearance, and as approved by school district grounds department. Location: At lawn areas, street frontage, parking lot islands, and perimeter landscape buffers.	Type: As required by landscape ordinance, as needed for attractive appearance, and as approved by school district grounds department. Location: At lawn areas, street frontage, parking lot islands, and perimeter landscape buffers.
Wetlands	Type: As required by ordinance with temporary irrigation system. Location: As required by ordinance.	Type: As required by ordinance with temporary irrigation system. Location: As required by ordinance.
Irrigation System	Type: Automated system with separate water meter. Location: At lawns, grass athletic fields, landscape areas and wetlands.	Type: Automated system controlled by EMS with separate water meter. Location: At lawns, grass athletic fields, landscape areas and wetlands.
UTILITIES		
Water System	Type: Ductile iron pipe with separate domestic and fire service systems, deduct meter for irrigation system, backflow preventor and FDC on fire system. Size: As required for flow requirements. Location: As required by local water purveyor.	Type: Ductile iron pipe with separate domestic and fire service systems, separate (non-deduct) meter for irrigation system, backflow preventor and FDC on fire system. Supplemental electronic meters for domestic and irrigation systems located in Main Mechanical Room and connected to EMS. Size: As required for flow requirements. Location: As required by local water purveyor with domestic and irrigation meters located close to building.

STANDARDS

Category	Minimum Standards	Recommended Standards
Sanitary Sewer System	Type: PVC or concrete pipe with positive slope in compliance with Dept. of Ecology "Orange Book". Size: 6" diameter side and main sewer. Location: As required by local sewer purveyor with manhole structures easily accessible for maintenance.	Type: PVC pipe with ductile iron pipe where cover is less than 24". Positive slope in compliance with Dept. of Ecology "Orange Book" and locking manhole covers Size: 6" diameter side and 8" diameter main sewer. Location: As required by local sewer purveyor with manhole structures easily accessible for maintenance.
Storm Drainage System	<ul> <li>Type: Concrete pipe, ductile iron, PVC or corrugated polyethylene pipe.</li> <li>Size: 4" diameter footing and roof drains. 8" diameter site storm drains.</li> <li>Location: As required by local jurisdiction with drainage structures easily accessible for maintenance.</li> </ul>	Type: PVC or corrugated polyethylene pipe with ductile iron pipe where cover is less than 24". Locking grates and Type 2 manhole structures where invert is deeper that 60". Clean outs at the base of all downspouts and at ends of roof and footing drain lines. Size: 6" diameter footing and roof drains. 8" diameter site storm drains. Location: As required by local jurisdiction with drainage structures easily accessible for maintenance.
Natural Gas Service	Type: Capacity as required for building gas load provided in inches or pounds. Location: Underground with gas meter adjacent to exterior wall of building.	Type: Capacity in pounds as required for building gas load with a minimum of 2 pounds and supplemental electronic meter located in Main Mechanical Room and connected to EMS. Location: Underground with gas meter adjacent to exterior wall of building.
Fuel Storage Tanks	Underground storage tanks: Not acceptable. Above ground storage tanks: Steel with corrosion protection and secondary containment area. Locate close to equipment receiving fuel.	Underground storage tanks: Not acceptable. Above ground storage tanks: Steel with corrosion protection and secondary containment area. Locate close to equipment receiving fuel.
Electrical Service	Type: As required for calculated electrical load. Location: Underground.	Type: As required for calculated electrical load plus 15% spares with fully coordinated over current protection. Location: Underground.
Telephone Service	Type: 8 voice grade lines comprised of 6 Centrex lines and 2 POTS lines. Size: 2" conduit. Location: Underground.	Type: 8 voice grade lines comprised of 6 Centrex line and 2 POTS lines. Size: Two 4" conduit. Location: Underground.
Cable Television Service	Type: Comcast Basic Cable service. Size: 2" conduit. Location: Underground.	Type: Comcast Basic Cable service. Size: Two 4" conduit. Location: Underground.
Internet Connection	Type: One T1 lines with a 1.544 MB bandwidth. Location: Underground.	Type: One T1 lines with a 1.544 MB bandwidth. Location: Underground with spare 4" conduit for future expansion.
Energy Usage - MBTUs per SF Building Area	Annual usage: .052 MBTUs per SF.	Annual usage: .044 MBTUs per SF.
Water Usage - Domestic Water per SF Building Area	Annual usage: Average of existing elementary school facilities.	Annual usage: Average of lowest two existing elementary school facilities.
Water Usage - Irrigation Water per SF Landscape Area	Annual usage: Average of existing elementary school facilities.	Annual usage: Average of lowest two existing elementary school facilities.
STRUCTURE		
Foundation	Design Criteria: Built in compliance with ASCE 31-03 or Benchmark Buildings standards.	Design Criteria: Built in compliance with building structural code currently in effect.

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Floor Structure	Design Criteria: Built in compliance with	Design Criteria: Built in compliance with building
	ASCE 31-03 or Benchmark Buildings standards.	structural code currently in effect.
Wall Structure - Bearing	Design Criteria: Built in compliance with	Design Criteria: Built in compliance with building
	ASCE 31-03 or Benchmark Buildings standards.	structural code currently in effect.
Wall Structure -	Design Criteria: Built in compliance with	Design Criteria: Built in compliance with building
Non Bearing	ASCE 31-03 or Benchmark Buildings standards.	structural code currently in effect.
	Design Criteria: Built in compliance with	Design Criteria: Built in compliance with building
Roof Structure	ASCE 31-03 or Benchmark Buildings standards.	structural code currently in effect.
BUILDING ENVELOPE		
Floors	Ground level: Wood framing over ventilated crawl	Ground level: Reinforced concrete slab-on-grade with
	space.	vapor retarder and capillary break.
	Upper levels: Wood framing with plywood subfloor.	Upper level: Reinforced concrete over wood or metal
		decking.
Exterior Wall Surface	Type: Cement board siding, metal siding, precast	Type: Masonry.
	concrete of window wall.	
Exterior Wall Insulation	Type: R-11.	Type: R-19 or greater if required by code.
Exterior Windows	Quantity: 48 SF of glazing per classroom.	Quantity: 72 SF of glazing per classroom.
	Type: Operable sash metal frames with dual glazing.	Type: Operable sash prefinished aluminum frames
	Location: At all classrooms.	with 1/4" dual glazing, low E coating, U-value less than
		40, and integral blinds.
Exterior Doors	l ype: 16-gauge painted hollow metal door with hollow metal frame	l ype: 14-gauge hollow painted hollow metal door with hollow metal frame and Livalue less than 40
	Location: As required for ease of circulation and fire	Location: As required for ease of circulation and fire
	exiting.	exiting.
	Size: 3' x 7' and a pair of 3' x 7' doors with removable	Size: 3' x 7' and a pair of 3' x 7' doors with removable
	spaces.	spaces.
Soffits	Type: Painted wood	Type: Painted MDO plywood or prefinished metal
Eleching	Time: Deleted metal	Turney Dra finished 24 gauge sheet matel
Flashing	Type. Fainted metal.	Type. Fle-initistied 24-gauge sheet metal.
Trim	Type: Painted wood.	Type: Pre-finished 24-gauge sheet metal.
Gutters and	Gutters: Painted metal located at edge of roof.	Gutters: Pre-finished 22-gauge sheet metal field
Downspouts	Downspouts: Painted PVC or metal.	formed in continuous lengths located at edge of roof.
		rain diverters at roof vallevs and connected to storm
		drainage system or rain garden.
Roof Membrane	Low-sloped roof: Built-up roofing with mineral cap	Low-sloped roof: Single-ply Hypolon membrane.
	sheet.	Pitched roof: Pre-finished 24-gauge metal.
	Pitched roof: 30-year fiberglass composition shingles.	
Roof Insulation	Type: R-19.	Type: R-38 or greater if required by code, installed at
		roof level.
Roof Accessories	Type: Painted metal.	Type: Pre-finished metal with protected electrical
	Location: Minimum 5' separation from roof drains,	receptacle at all mechanical equipment.
	edges and valleys.	Location: Minimum 10' separation from roof drains,
		eages and valleys.

STANDARDS	FACILITY COMPONENTS	
Cotogory	Minimum Standarda	Becommended Stendards
Skylights	Type: Translucent glazing and 300-pound point load capacity.	Type: Translucent, dual-surface, reinforced plastic glazing with pre-finished aluminum frame and 300-pound point load capacity.
Fall Arrest System	Type: Fall protection roof anchors in compliance with UMC, WISHA and OSHA standards. Location: In compliance with WISHA and OSHA standards.	Type: Fall protection roof anchors and railings in compliance with UMC, WISHA and OSHA standards. Location: In compliance with UMC, WISHA and OSHA standards.
Canopies / Covered Walkways	Type: Metal framed with single-ply Hypolon membrane or built-up roof with mineral cap sheet. Location: At bus loading area.	Type: Metal framed with pre-finished metal roof. Location: At bus loading area and courtyard.
INTERIORS		
Floors - Classrooms	Carpet: Synthetic pile with polypropylene / vinyl backing in standard classrooms. VCT: 12" x 12" tile in specialty classrooms. Concrete: Sealed concrete in Industrial Technology.	Carpet: Synthetic pile with polypropylene / vinyl backing in standard classrooms. VCT: 12" x 12" tile in specialty classrooms. Concrete: Sealed concrete in Industrial Technology.
Floors - Corridors and Stairs	Carpet: Synthetic pile with polypropylene / vinyl backing at corridors. VCT: 12" x 12" tile with abrasive nosing at stair treads. Walk-off mat: Loose-laid mat with synthetic pile at exterior doors.	Carpet: Synthetic pile with polypropylene / vinyl backing at corridors. VCT: 12" x 12" tile with abrasive nosing at stair treads. Walk-off mat: Glue-down mat with synthetic pile and polypropylene / vinyl backing at exterior doors.
Floors - Gymnasium	Type: Seamless rubber flooring.	Type: Maple hardwood flooring on sleeper system.
Floors - Library	Carpet: Synthetic pile with polypropylene / vinyl backing. Walk-off mat: Loose-laid mat with synthetic pile at exterior door.	Carpet: Synthetic pile with polypropylene / vinyl backing in seating area. Walk-off mat: Glue-down mat with synthetic pile and polypropylene / vinyl backing at exterior doors.
Floors - Restrooms	Ceramic tile: Unglazed porcelain tile in student restrooms. Sheet vinyl: Sheet vinyl with coved base in health and staff restrooms.	Ceramic tile: Unglazed porcelain tile in student and staff restrooms. Sheet vinyl: Sheet vinyl with coved base in health restroom.
Floors - Support Spaces	Carpet: Synthetic pile with polypropylene / vinyl backing at office, reception areas and work rooms. VCT: 12" x 12" tile at kitchenette, storage and telecommunications rooms. Concrete: Sealed concrete at custodial, mechanical and electrical rooms. Plywood: Plywood floor deck at catwalks and mechanical attics in wood frame buildings.	Carpet: Synthetic pile with polypropylene / vinyl backing at office, reception areas and work rooms. VCT: 12" x 12" tile at storage and telecommunications rooms. Sheet vinyl: Vinyl sheet flooring at kitchenette and custodial rooms. Concrete: Sealed concrete at mechanical and electrical rooms, and at catwalks and mechanical attics in metal frame buildings. Plywood: Plywood floor deck at catwalks and mechanical attics in wood frame buildings.
Walls - Classrooms	Type: Painted gypsum wallboard.	Type: Painted gypsum wallboard.
Walls - Corridors and Stairs	Gypsum wallboard: Painted wallboard at corridors, stairs and entry areas.	Gypsum wallboard: Painted wallboard above wainscot in corridors, stairs, and entry areas. Wainscot: Painted veneer plaster or MDF or MDO plywood below chair rail at corridors, stairs and entry areas.
Walls - Gymnasium	Wainscot: 7' high painted MDF or sealed masonry. Above wainscot: Painted gypsum wallboard pr sealed masonry.	Wainscot: 7' high painted MDF or sealed masonry. Above wainscot: Painted gypsum wallboard or sealed masonry.

### STANDARDS

Category	Minimum Standards	Recommended Standards
Walls - Library	Type: Painted gypsum wallboard.	Type: Vinyl wall covering.
Walls - Restrooms	Gypsum wallboard: Painted wallboard at classroom	Gypsum wallboard: Painted wallboard above wainscot
	and staff restrooms, and above wainscot in public and student restrooms. Ceramic tile: 7' high porcelain ceramic tile wainscot in public and student restrooms.	at classroom, health, public, staff, and student restrooms. Ceramic tile: 7' high porcelain ceramic tile wainscot in student and public restrooms. Plastic laminate: 40" high wainscot in classroom, health and staff restrooms.
Walls - Support Spaces	Gypsum wallboard: Painted wallboard in custodial, electrical, kitchenette, mechanical, office, reception, staff lounge, storage, and work rooms.	Gypsum wallboard: Painted wallboard in custodial, electrical, kitchenette, mechanical, office, reception, storage, and work rooms. Vinyl wall material: Vinyl wall covering at display walls in offices and staff lounge.
Asbestos-Containing Materials	Criteria: Asbestos-containing building materials present in a facility shall be intact, undisturbed and included in an asbestos management plan in compliance with AHERA regulations.	Criteria: Asbestos-containing building materials shall not be present.
Interior Doors	Classrooms: Hollow metal or solid core doors. Support spaces: Hollow metal or solid core doors. Corridors: Hollow metal at cross-corridor doors.	Classroom: 1-3/4" thick solid core doors with wood veneer. Support spaces: 1-3/4" thick solid core doors with wood veneer. Corridors: 16 gauge hollow metal at cross-corridor doors.
Door Hardware	Locksets: Schlage or Corbin with standard classroom function and keying that matches the school district's Schlage or Corbin Master Key system.	Closures and handles: ADA compliant. Door mullions: Removable and secured with key. Hinges: Continuous at high-use doors. Locksets: Schlage with Primus at exterior doors; standard classroom function plus exterior door locksets with inside cylinders keyed to unlock the outside and outside cylinders keyed to unlatch only; and keying that matches the school district's Schlage Great Grand Master Key system.
Automatic Door Opener	None.	Type: ADA compliant with keyed power shut off at door. Location: At main entry door.
Overhead Doors and Grilles	Interior overhead doors and grilles: Manually operated up to 6' wide. Motorized operation when over 6' wide. Fire-rated overhead doors and grilles shall be activated by local smoke or heat detectors. Exterior overhead doors and grilles: Manually operated.	Interior overhead doors and grilles: Manually operated up to 6' wide. Motorized operation when over 6' wide. Fire-rated overhead doors and grilles shall be activated by local smoke or heat detectors. Exterior overhead doors and grilles: Manually operated up to 10' wide. Motorized operation when over 10' wide.
Interior Windows	Type: Wood or metal frame with glazing in compliance with applicable building codes.	Type: Metal frame with safety glass.
Ceilings - Classrooms	Type: Suspended acoustical ceiling panels. Height: Minimum 9'.	Type: Suspended acoustical ceiling panels. Height: Minimum 9'-6".
Ceilings - Corridors	Type: Suspended acoustical ceiling panels. Height: Minimum 9'.	Type: 2' x 2' suspended acoustical ceiling panels. Height: Minimum 10'.
Ceilings - Gymnasium	Type: Painted gypsum board or exposed structure. Height: Minimum 20'.	Type: Surface applied acoustical ceiling tile. Height: Minimum 23'.
Ceilings - Library	Type: Suspended acoustical ceiling panels. Height: Minimum 10'.	Type: 2' x 2' suspended acoustical ceiling panels. Height: Minimum 10'.

STANDARDS

Category	Minimum Standards	Recommended Standards
Ceilings - Restrooms	Type: Painted gypsum board. Height: Minimum 8' at classroom, health and staff restrooms, and student restrooms.	Type: Painted gypsum board. Height: Minimum 8' at classroom, health and staff restrooms, 9'-6" at student restrooms.
Ceilings - Support Spaces	Gypsum board: Custodial, kitchenette and general storage rooms, minimum 9'-0" high. Gym storage rooms, minimum 9'-6" high. Suspended acoustical ceiling panels: Conference rooms, offices and workrooms, minimum 8'-6" high.	Gypsum board: Custodial and general storage rooms, minimum 9'-0" high. Gym storage rooms, minimum 9'- 6" high. Suspended acoustical ceiling panels (2'x2'): Conference rooms and offices, minimum 9' high. Suspended acoustical ceiling panels (2'x4'): Workrooms, minimum 9' high.
EQUIPMENT AND SPECI	ALTIES	
Marker Boards	Quantity: One 16' board at classrooms. One 4' board at conference rooms. Type: Ceramic coated steel. Location: Classrooms and conference rooms.	Quantity: One 16' board and one 8' board at classrooms. One 8' board at conference rooms. Power and data outlets at 16' board in classrooms for future Smartboard connection. Type: Ceramic coated steel.
Tackboards	Quantity: 16' at classrooms, 4' at offices, 8' at lounge, 4' at conference rooms. Type: Cedar, cork or vinyl-covered cork. Location: Classrooms, offices, staff lounge and conference rooms.	Quantity: 16' at lounge, 8' at offices and conference rooms. Type: Vinyl-covered cork at offices, staff lounge and conference rooms. Vinyl wall covering in lieu of tackboards at classrooms. Location: Offices and conference rooms.
Interior Signage	Type: High impact acrylic room signs with room name and number. Cast metal dedication plaque. Location: Room sign at main entry door to all rooms. Dedication plaque at entry lobby.	Type: ADA compliant, high impact acrylic room signs with room name and number. Cast metal dedication plaque. Location: Room sign at main entry door to all rooms. Dedication plaque at entry lobby.
Toilet Partitions	Type: Plastic laminate covered fiber board. Location: Partitions at toilet stalls.	Type: Plastic laminate covered phenolic panels. Location: Partitions at toilet stalls and screens at urinals.
Toilet Accessories	<ul> <li>Type: Mirrors, paper towel dispensers, soap dispensers, grab bars, tampon dispensers and sanitary napkin receptacles.</li> <li>Location: Mirrors at restroom hand wash areas.</li> <li>Paper towel and soap dispensers at all sinks. Grab bars at ADA accessible toilet stalls. Tampon dispenser and sanitary napkin receptacle at women's staff and student restrooms.</li> </ul>	Type: Mirrors, paper towel dispensers, soap dispensers, grab bars, tampon dispensers and sanitary napkin receptacles. Location: Mirrors at restroom hand wash areas. Paper towel and soap dispensers at all sinks. Grab bars at ADA accessible toilet stalls. Tampon dispenser and sanitary napkin receptacle at women's staff and student restrooms.
Lockers	Locker rooms: 50 box metal lockers in Boy's and Girl's Locker rooms secured with padlock. Maintenance Office: 4 double tier metal lockers, each 12" W x 12" D x 36" H, secured with a padlock.	Locker rooms: 50 box and 10 half-height metal lockers in Boy's and Girl's Locker rooms, secured with a padlock. Maintenance Office: 4 double tier metal lockers, each 12" W x 12" D x 36" H, secured with a padlock.

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Residential Appliances	<ul> <li>Type: Residential grade.</li> <li>Ranges: Electric ranges with oven at student stations in Family and Consumer Science classroom.</li> <li>Exhaust hoods: Electric exhaust fan with removable and cleanable filters at student stations in Family and Consumer Science.</li> <li>Microwave ovens: Portable microwaves at student stations in Family and Consumer Science, and in Staff Lounge.</li> <li>Refrigerator: Large capacity free-standing refrigerator in Kitchenette and Family and Consumer Science.</li> <li>Standard size refrigerator in Staff Lounge.</li> <li>Freezer: Large capacity free-standing freezer in Kitchenette.</li> <li>Milk cooler: In Kitchenette.</li> </ul>	<ul> <li>Type: Residential grade, ADA compliant and ENERGY STAR qualified.</li> <li>Ranges: Electric ranges with oven at student stations in Family and Consumer Science classroom.</li> <li>Exhaust hoods: Electric exhaust fan with removable and cleanable filters at student stations in Family and Consumer Science.</li> <li>Microwave ovens: Portable microwaves at student stations in Family and Consumer Science, and in Staff Lounge.</li> <li>Refrigerator: Large capacity free-standing refrigerator in Kitchenette and Family and Consumer Science.</li> <li>Standard size refrigerator in Staff Lounge.</li> <li>Freezer: Large capacity free-standing freezer in Kitchenette.</li> <li>Milk cooler: In Kitchenette.</li> </ul>
Projection Screens	Classrooms: 70" W x 70" H with manual operation.	Classrooms: 70" W x 70" H with manual operation. Commons: 120" W x 120" H with motorized operation. Main Gymnasium: 144" W x 144" H with motorized operation and protective enclosure.
Telescoping Bleachers	Gym: Motorized with 300 seats and portable scorer's table.	Type: ADA compliant, motorized with 400 seats, portable scorer's table, power shut off within room, and outlets for power, data, scoreboard, 30-second clock and sound system at scorer's table.
Window Covering	Classrooms: Roller shades or coated fabric curtains at exterior windows. Horizontal louver mini-blinds at interior relite windows. Conference rooms and offices: Coated fabric curtains or horizontal louver mini-blinds at exterior windows. Horizontal louver mini-blinds at interior relite windows. Gymnasium: None. Library: Roller shades or coated fabric curtains. Interior windows: Horizontal louver mini-blinds at interior relite windows.	Classrooms: Integral blinds between window glass at exterior windows. Horizontal louver mini-blinds at interior relite windows. Conference rooms and offices: Integral blinds between window glass at exterior windows. Horizontal louver mini-blinds at interior relite windows. Gymnasium: Roller shades. Library: Roller shades or integral blinds between window glass at exterior windows. Interior windows: Horizontal louver mini-blinds at interior relite windows.
Cabinets - General Classrooms	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to a master system. Quantity: 3 LF tall storage, 3 LF wardrobe.	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to the building master key system. Quantity: 6 LF tall bookshelves, 3 LF tall storage, 3 LF wardrobe.
Cabinets - Specialty Classrooms	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to a master system. Quantity: As needed to accommodate the instructional program.	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to the building master key system, and epoxy resin counter tops in Science classrooms and Science Prep rooms. Quantity: As needed to accommodate the instructional program.
Cabinets - Offices	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to a master system. Quantity: As needed to accommodate office use.	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, and locks keyed to the building master key system. Quantity: As needed to accommodate office use.
Cabinets - Storage	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to a master system. Quantity: As needed to accommodate storage needs.	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to the building master key system. Quantity: As needed to accommodate storage needs.

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Cabinets - Support Spaces	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to a master system. Quantity: As needed to accommodate support space use.	Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to the building master key system. Quantity: As needed to accommodate support space use.
Display Cases	Quantity: 12 LF at front enter foyer. Type: 3/4" thick panels with plastic laminate surfaces, PVC edge band, locks keyed to a master system for display cases.	Quantity: 24 LF at front enter foyer. Type: Recessed aluminum frame display case with hinged door, tackboard at back surface, keyed to the building master key system.
Equipment - General Classrooms	Computers: One computer per each FTE staff and one computer for each 4 students in the building with computers not exceeding 5 years in age. Printers: One ink jet printer not exceeding 4 years in age per classroom or one laser printer not exceeding 8 years in age per two classrooms.	Computers: One computer per each FTE staff and one computer for each 4 students in the building with computers not exceeding 5 years in age. Printer: One ink jet printer not exceeding 2 years in age per classroom or one laser printer not exceeding 6 years in age per two classrooms. LCD Projector and Camera: One projector with ceiling mount framework and document camera not exceeding 8 years in age.
Equipment - Business Education / Computer Classrooms	Computers: One staff and 24 student computers, not exceeding 5 years in age. Printer: Two ink jet printers not exceeding 4 years in age or two laser printer not exceeding 8 years in age or a combination of two printers.	Computers: One staff and 30 student computers, not exceeding 4 years in age. Printer: One ink jet printer not exceeding 2 years in age plus one color laser printer and one black laser printer not exceeding 6 years in age. LCD Projector and Camera: One projector with ceiling mount framework and document camera not exceeding 8 years in age.
Equipment - Gymnasium	Basketball backboards: 2 ceiling suspended, motorized backboards at main court. 4 side swing manually operated backboards at side walls. Scoreboard and shot clocks: 3' H x 6' W electronic scoreboard. Two 30-second shot clocks.	<ul> <li>Basketball backboards: 2 ceiling suspended, motorized backboards at main court. 4 side swing manually operated adjustable height backboards at side walls.</li> <li>Volleyball standards: Power volleyball posts at center court.</li> <li>Scoreboard and shot clocks: 4'H x 8'W electronic scoreboard with control cable built-in. Two 30-second shot clocks.</li> </ul>
Equipment - Industrial Technology	Wood working: Radial arm saw, lath, drill press, disc sander, planer, table saw, band saw, scroll saw, eye wash, and drill press with master shut-off switch in Technology Lab. Sawdust collection system at dust generating equipment.	Metal working: 1 metal working table, 1 box / pan brake, 1 shear, 1 roller, 1 spot welder in Technology Lab. Wood working: Radial arm saw, lath, drill press, disc sander, planer, table saw, band saw, scroll saw, eye wash, and drill press with master shut-off switch in Technology Lab. 120 / 208 volt equipment with master shut-off switch. Sawdust collection system at dust generating equipment.
Equipment - Library	<ul> <li>Computers: 3 student computers, 1 staff computer, not exceeding 5 years in age.</li> <li>Printers: One ink jet printer not exceeding 4 years in age or one laser printer not exceeding 10 years in age.</li> <li>Television: One television monitor with DVD / VCR player, not exceeding 10 years in age.</li> <li>Copy Machine: One 25 copies per minute machine, not exceeding 8 years in age.</li> <li>Library Management Equipment: Check-out system not exceeding 6 years in age.</li> </ul>	Computers: 6 student computers, 1 staff computer, not exceeding 4 years in age. Printers: One ink jet printer not exceeding 2 years in age or one laser printer not exceeding 6 years in age. Television: One television monitor with DVD / VCR player, not exceeding 8 years in age. Copy Machine: One 25 copies per minute networkable machine, not exceeding 7 years in age. Library Management Equipment: Check-out system not exceeding 4 years in age.

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Equipment - Offices / Workrooms	Computers: Staff computers not exceeding 5 years in age. Printers: Ink jet printers not exceeding 4 years in age and laser printers not exceeding 10 years in age. Copy Machines: Two 60 copies per minute machines not exceeding 8 years in age. FAX Machine: Not exceeding 10 years in age.	Computers: Staff computers not exceeding 4 years in age. Printers: Ink jet printers not exceeding 2 years in age and laser printers not exceeding 6 years in age. Copy Machines: Two 60 copies per minute networkable machines and one 25 copy per minute networkable machine not exceeding 7 years in age. FAX Machine: Not exceeding 6 years in age.
Equipment - Science	Emergency eyewash: In science classroom. Flammable storage cabinet: In science prep room. Acid storage cabinet: In science prep room.	Emergency eyewash: In science classroom. Emergency shower: In science prep room. Evacuation exhaust fan: In science classroom with manual control. Flammable storage cabinet: In science prep room. Acid storage cabinet: In science prep room.
Equipment - Support Spaces	Type: As needed to accommodate the support area activities. Quantity: As needed to accommodate the support area activities.	Type: As needed to accommodate the support area activities. Quantity: As needed to accommodate the support area activities.
Furniture - Classrooms	<ul> <li>Student Chairs: Hard plastic not exceeding 30 years in age.</li> <li>Staff Chairs: Upholstered not exceeding 15 years in age.</li> <li>Student Combo-desks: Hard plastic not exceeding 30 years in age.</li> <li>Teacher Desks: Plastic laminate surfaced not exceeding 30 years in age.</li> <li>Tables: Plastic laminate surfaced not exceeding 30 years in age.</li> </ul>	Student Chairs: Hard plastic not exceeding 20 years in age. Staff Chairs: Upholstered not exceeding 10 years in age. Student Combo-desks: Hard plastic not exceeding 20 years in age. Teacher Desks: Plastic laminate surfaced not exceeding 20 years in age. Tables: Plastic laminate surfaced not exceeding 20 years in age.
Furniture - Library	<ul> <li>Student Chairs: Hard plastic not exceeding 30 years in age. Upholstered seating not exceeding 15 years in age.</li> <li>Staff Chairs: Upholstered not exceeding 20 years in age.</li> <li>Teacher Desks: Plastic laminate surfaced not exceeding 30 years in age.</li> <li>Tables: Plastic laminate surfaced not exceeding 30 years in age.</li> </ul>	<ul> <li>Student Chairs: Hard plastic not exceeding 20 years in age. Upholstered seating not exceeding 10 years in age.</li> <li>Staff Chairs: Upholstered not exceeding 15 years in age.</li> <li>Teacher Desks: Plastic laminate surfaced not exceeding 20 years in age.</li> <li>Tables: Plastic laminate surfaced not exceeding 20 years in age.</li> </ul>
Furniture - Offices / Workrooms	<ul> <li>Staff Chairs: Upholstered not exceeding 15 years in age and hard plastic chairs not exceeding 30 years in age.</li> <li>Teacher Desks: Plastic laminate surfaced not exceeding 30 years in age.</li> <li>Tables: Plastic laminate surfaced not exceeding 30 years in age.</li> <li>File Cabinets: Metal not exceeding 50 years in age.</li> </ul>	<ul> <li>Staff Chairs: Upholstered not exceeding 10 years in age and hard plastic chairs not exceeding 20 years in age.</li> <li>Teacher Desks: Plastic laminate surfaced not exceeding 20 years in age.</li> <li>Tables: Plastic laminate surfaced not exceeding 20 years in age.</li> <li>File Cabinets: Metal not exceeding 30 years in age.</li> </ul>
Furniture - Support Spaces	Type: As needed to accommodate the support area activities. Quantity: As needed to accommodate the support area activities.	Type: As needed to accommodate the support area activities. Quantity: As needed to accommodate the support area activities.
Artwork	School provided: Temporary artwork displays subject to approval by principal. Permanent artwork approved by school principal. Washington State art collection: Protected against damage in a reasonable manner and secured in place to protect against unauthorized removal.	School provided: Temporary artwork displays subject to approval by principal and protected as appropriate. Permanent artwork approved by school principal and secured in place to protect against unauthorized removal. Washington State art collection: Protected against damage in a reasonable manner and secured in place to protect against unauthorized removal.

STANDARDS	FACILITY COMPONENTS	
Vending Machines	Type: Refrigerated and non-refrigerated machines	Recommended Standards           Type: Refrigerated and non-refrigerated machines
	with motion sensitive illumination control. Quantity: 2 machines.	with motion sensitive illumination control. Quantity: 3 machines.
	Location: 2 near Commons.	Location: One at Staff Lounge and 2 near Commons.
MECHANICAL		
Fire Suppression System	Fire sprinkler system: Wet or dry system in compliance with NFPA 13, and local building codes.	Fire sprinkler system: Wet system in compliance with NFPA 13, local building codes and FM Global Data Sheets 2-8 and 3-6.
Plumbing Insulation	Type: Insulation in compliance with building code at time of construction on domestic hot water lines.	Type: Insulation in compliance with current building code on domestic hot water lines and 1/2" insulation on domestic cold water lines.
Domestic Water System	Piping: Type L copper. Pumps: Bronze fitted pumps. Heating: Gas or electric heaters.	Piping: Type L copper. Pumps: All bronze pumps with isolation valves at both sides of pumps. Heating: Gas heaters.
Domestic Water Quality	Criteria: A maximum level of .015 mg/L (15ppb) of lead and 1.3 mg/L (1300 ppb) of copper in tap water.	Criteria: A maximum level of .015 mg/L (15ppb) of lead and 1.3 mg/L (1300 ppb) of copper in tap water.
Soil and Waste	Type: Cast iron pipe and fittings.	Type: Cast iron pipe and fittings.
Plumbing Fixtures	Water closets: Vitreous china. Urinals: Vitreous china. Lavatories: Vitreous china wall-hung sinks and stainless steel counter-mounted sinks. Drinking fountains: Vitreous china or stainless steel. Trap primers: None.	<ul> <li>Water closets: ADA compliant, wall-hung vitreous china with water saving valves .</li> <li>Urinals: ADA compliant, wall-hung vitreous china with water saving valves.</li> <li>Lavatories: ADA compliant, vitreous china wall-hung sinks and stainless steel counter-mounted sinks with self-closing faucets.</li> <li>Drinking fountains: ADA compliant, stainless steel.</li> <li>Trap primers: Electronic trap primers with manual override.</li> </ul>
Compressed Air	Black steel or copper.	Black steel or copper.
Natural Gas Piping	Type: Black steel, Schedule 40 pipe with butt-weld fittings.	Type: Black steel, Schedule 40 pipe with butt-weld fittings.
Chemical Waste	Type: Cast iron pipe and fittings.	Type: Acid resistant poly-propylene pipe and fittings with fusion joints and acid neutralization tank. Location: Acid resistant pipe from science room sinks and drains to acid neutralization tank. Tank located at building exterior in non-traffic location but accessible by maintenance vehicles.
HVAC Duct Insulation	Type: In compliance with building code at time of construction.	Type: In compliance with current building code.
HVAC Pipe Insulation	Type: In compliance with building code at time of construction.	Type: In compliance with current building code.
Hydronic Piping	Type: Type L copper or Schedule 40 black steel.	Type: Type L copper at piping below 2" diameter. Schedule 40 black steel at 2" diameter piping and above with welded or rolled grooved Victualic fittings.
Hydronic Pumps	Type: Vertical in-line or base mounted end-suction pumps.	Type: Vertical in-line or base mounted end-suction pumps with redundant pumps for back-up.
Refrigerant Piping	Type: Type L hard drawn copper tube, refrigeration grade.	Type: Type L hard drawn copper tube, refrigeration grade.

### STANDARDS

Category	Minimum Standards	Recommended Standards
HVAC Ductwork	Metal ducts: Galvanized sheet metal	Metal ducts: Galvanized sheet metal per SMACNA
	Non-metal ducts: Insulated reinforced flexible duct	Standards with welded stainless steel at Kitchen
	with vanor barrier jacket	exhaust boods
		Non motal ducts: Insulated, reinforced flexible duct
		with vapar barrier isoket allowed at leasting approved
		with vapor barrier jacket allowed at locations approved
		by school district.
HVAC Fans	Type: Forward curved or backward inclined units with	Type: Forward curved or backward inclined units with
	1" filters, non-asbestos flexible connections, standard	neoprene flexible connections, high efficiency motors,
	motors, and belt guards.	belt guards, minimum two rows of coils, drain valves,
		and 2" filters contained in factory-built filter rack.
		T
Heating / Ventilation	Type: Individual temperature control and minimum	Type: Individual temperature control, minimum 450
System - Classrooms	450 CFM outside air supply in each classroom.	CFINI outside air supply, and off-nour override switch in
		each classroom
Heating / Ventilation	Type: Individual temperature control and minimum 5%	Type: Individual temperature control minimum 5%
System - Gymnasium	outside air supply	outside air supply CO2 sensor for ventilation control
Oystein - Oynnasian		and manual bypass timer in Maintenance Office
Heating / Ventilation	Type: Individual temperature control and minimum	Type: Individual temperature control, minimum 15%
System - Library	15% outside air supply.	outside air supply, mechanical cooling, and manual
		bypass timer in Maintenance Office.
Heating / Ventilation	Type: Temperature control shared by common areas.	Type: Temperature control shared by common offices.
System - Offices	and minimum 15% outside air supply.	minimum 20% outside air supply, and mechanical
		cooling in main office areas used during summer
		months.
Heating / Ventilation	Type: Individual temperature control and high capacity	Type: Individual temperature control and independent
System - Workrooms	ventilation system where high volume photocopy	high capacity ventilation system where high volume
	machines are used.	photocopy machines are used.
Heating / Ventilation	Type: Heating and ventilation systems canable of	Type: Heating and ventilation systems canable of
System Support	maintaining comfortable temperature range and	maintaining comfortable temperature range and
System - Support	ventilation	provide ventilation supply in compliance with current
Spaces	Ventilation.	codes
Sawdust Collection	Type: Non-recirculating dust collector equipment,	Type: Non-recirculating dust collector equipment,
	ductwork and clean outs in compliance with building	ductwork and clean outs in compliance with current
	code at time of construction with blast gates and spark	building code with blast gates and spark detection.
	detection.	Location: Connected to sawdust producing equipment
	Location: Connected to sawdust producing equipment	in wood shop areas.
	in wood shop areas.	
Air Terminal Unite	Type: Steel or aluminum units	Type: Steel or aluminum units with hird screens at
		intakes Heavy-duty units at Gymnasiums and
		multipurpose rooms
Ventilation Hoods	None.	Kiln room: Down draft hood at kiln.
		Welding area: Galvanized sheet metal back hood at
		solder and welding areas.
Poiloro	Type: Single and fired betweeter as steen beiler	Type: Duel betweeter and first type minimum
DOILETS	i ype. Single gas lired not water or steam boller.	rype. Dual not water, gas-fired, fire-tube, minimum
		oz % emcient, steel pollers each sized for 66% of 10ad.
Furnaces	Type: Gas fired with 80% efficiency.	Type: Gas fired with minimum 80% efficiency.
Heat Exchangers	Type: Plate-type with 50% efficiency.	Type: Plate-type with 66% efficiency.
Defrigerent		Turney, Air apoled units
	i ype: Air cooled Units.	i ype: Air cooled units.
Compressors and	Location: Single unit per system.	Location: Single unit serving multiple systems.
Condensers		

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Water Chillers	Type: Air cooled with dual compressors.	Type: Dual air cooled units with minimum of 2 compressors each and sound attenuation treatment.
Exhaust Fans	Type: Steel utility or aluminum dome type. Location: Easily accessible for maintenance.	Type: Steel utility or aluminum dome type. Location: Non-kitchen exhaust fans located in catwalk or mechanical attic area, not on roof. Kitchen exhaust fans located platform on roof with adjacent roof hatch plus walking platform where roof slope exceeds 3:12 slope.
Heat Pumps	Type: Air cooled units. Location: One unit per zone.	Type: Air cooled units with automatic compressor lock out. Location: One unit per zone.
Fan Coil Units	Type: Units with steel housing, minimal filters, and no outside air.	Type: Units with steel housing, 1" filters, and damper controlled outside air .
Unit Ventilators	Type: Units with heavy-duty steel housing and capacity based on code required CFM.	Type: Units with heavy-duty steel housing, capacity based upon code required CFM, factory installed access panels and filter racks, and NC-35 sound rating.
Unit Heaters	Type: Propeller type gas or hot water units.	Type: Propeller type gas or hot water units.
Automatic Controls	Type: Direct digital control system with individual zone control and thermostat for each instructional space and office area, Local Operator's Station at building's Maintenance Office, and connected to Central Operator's Station at Support Services Center.	Type: Direct digital control system with BACnet automation system, individual zone control and thermostat for each instructional space and office area, Dynamic Data exchange, Local Operator's Station at building Maintenance Office, and connected to Central Operator's Station at Support Services Center.
ELECTRICAL		
Transformers	Type: Dry type with capacity for calculated load.	Type: Low noise, dry type with capacity for calculated load plus 20%.
Switchgear	Type: Fuse or circuit breaker type with capacity for calculated load.	Type: Fuse or circuit breaker type with capacity for calculated load plus 15% and includes 15% spares.
Panelboards	Type: Circuit breaker type.	Type: Circuit breaker type with 15% spares.
Power Distribution	Type: Copper for #1 wire or less. Copper or aluminum for wire greater that #1.	Type: Copper wire.
Power Conditioning	None.	Type: Transient voltage surge suppressors. Location: At panelboards for protection of lighting, receptacles and computers.
Wiring Devices	Type: 15 or 20 amp.	Type: 20 amp.
Electrical Outlets - General Classrooms	Quantity: Six duplex electrical receptacles for student computers, one at teacher's work station, plus one at each wall per classroom.	Quantity: Six duplex electrical receptacles for student computers, two at teacher's work station, one in floor box at front of classroom, one at ceiling for projector, plus two at each wall per classroom.
Electrical Outlets - Specialty Classrooms	Quantity: One duplex electrical receptacles for each student computer station, one at teacher's work station, plus one at each wall per classroom.	Quantity: One duplex electrical receptacles for each student computer station, two at teacher's work station, one in floor box at front of classroom, one at ceiling for projector, plus two at each wall per classroom.

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Electrical Outlets -	Quantity: One duplex electrical receptacle for each	Quantity: One duplex electrical receptacle for each
Library	student computer station, one at check-out station, plus one at each wall.	student computer station, two at check-out station, one in floor box at instructional area, one at ceiling for projector, plus two at each wall.
Electrical Outlets - Offices / Workrooms	Quantity: One duplex electrical receptacle for each staff workstation, one for each copy and fax machine, plus one at each wall.	Quantity: Two duplex electrical receptacles for each staff workstation, one for each copy and fax machine, plus one at each wall.
Electrical Outlets - Support Spaces	Quantity: One duplex electrical receptacle for each electrical equipment item, one at every 80' on center in corridors, plus one at each wall.	Quantity: One duplex electrical receptacles for each electrical equipment item, one at every 50' on center in corridors, plus one at each wall.
Electrical Outlets - Emergency Power	None.	Quantity: Duplex electrical receptacles connected to emergency generator at MC Room, HC Rooms, Main Mechanical Room, Maintenance Office, Principal's Office, Main Office area, mechanical catwalks and attic spaces.
Circuit Protection Devices	Type: Circuit breakers with fuses at selected equipment.	Type: Circuit breakers with fuses at selected equipment.
Packaged Generator	Type: Diesel-fired with belly or above ground tank and minimum 48-hour operation capability with capacity to operate emergency lighting, fire alarm system, telephone, intercom, telecommunications equipment, and selected electrical outlets.	Type: Diesel-fired with belly tank and minimum 48- hour operation capability with capacity to operate emergency lighting, stand-by lighting, fire alarm system, telephone, intercom, telecommunications equipment, and selected electrical outlets plus 10% additional capacity.
Battery Equipment	Type: Uninterrupted power supply for intercom, telephone, and energy management systems. Back-up battery for fire alarm system.	Type: Uninterrupted power supply for intercom, telephone, and energy management systems. Back- up battery for fire alarm system.
Lighting - Exterior - Bus Loading	Type: Pole or building mounted fixtures with 5.0 foot- candle level controlled by photocell and EMS. Location: Between building and bus loading area.	Type: Pole or building mounted fixtures with 5.0 foot- candle level controlled by photocell and EMS. Location: Between building and bus loading area.
Lighting - Exterior - Main Entry	Type: Pole or building mounted fixtures with 5.0 foot- candle level controlled by photocell and EMS. Location: At front entrance between building and entry drive.	Type: Pole or building mounted fixtures with 8.0 foot- candle level controlled by photocell and EMS. Location: At front entrance between building and entry drive.
Lighting - Exterior - Parking	Type: Pole mounted fixtures with 0.8 foot-candle level controlled by photocell and EMS. Location: At parking lots.	Type: Pole mounted fixtures with 1.0 foot-candle level controlled by photocell and EMS. Location: At parking lots.
Lighting - Exterior - Pathways	Type: Pole or building mounted fixtures with 1.0 foot- candle level controlled by photocell and EMS. Location: At pathways around building and between building and parking areas.	Type: Pole or building mounted fixtures with 1.5 foot- candle level controlled by photocell and EMS. Location: At pathways around building and between building and parking areas.
Lighting - Exterior - Service / Delivery	Type: Pole or building mounted fixtures with 3.0 foot- candle level controlled by photocell and EMS with manual bypass timer. Location: At area between building and dumpsters.	Type: Pole or building mounted fixtures with 5.0 foot- candle level controlled by photocell and EMS with manual bypass timer. Location: At area between building and dumpsters.
Lighting - Classrooms	Type: Fluorescent fixtures with a minimum of 50 foot- candle level and maximum of 1.3 watts per SF.	Type: T-8 or T-5 fluorescent fixtures with parabolic louvers to control screen glare, minimum 50 foot-candle level and a maximum of 1.1 watts per SF.
Lighting - Corridors	Type: Fluorescent fixtures with a minimum 15 foot- candle level and a maximum of 0.8 watts per SF.	Type: T-8, T-5 and compact fluorescent fixtures with a minimum 15 foot-candle level and a maximum of 0.6 watts per SF.

STANDARDS	FACILITY COMPONENTS	
Category	Minimum Standards	Recommended Standards
Lighting - Emergency	Interior Pathways: An average of 1 foot-candle level at floor level at all paths of egress with a minimum of 0.3 foot-candle level at the center of paths of egress.	Interior Pathways: An average of 1 foot-candle level at floor level at all paths of egress with a minimum of 0.3 foot-candle level at the center of paths of egress. Standby Lighting: One standby light fixture connected to emergency generator in each classroom, office, restroom and mechanical equipment space.
Lighting - Gymnasium	Type: Fluorescent or metal halide fixtures with a minimum 30 foot-candle level and a maximum of 1.3 watts per SF.	Type: Metal halide fixtures, pendant and hook mounted with instant restart at emergency fixtures with a minimum 30 foot-candle level and a maximum of 1.2 watts per SF.
Lighting - Library	Type: Fluorescent fixtures with a minimum 50 foot- candle level and a maximum of 1.3 watts per SF.	Type: T-8 or T-5 fluorescent fixtures with parabolic louvers to control screen glare with a minimum 50 foot-candle level and a maximum of 1.1 watts per SF.
Lighting - Restrooms	Type: Fluorescent fixtures with a minimum 20 foot- candle level and a maximum of 1.1 watts per SF.	Type: T-8, T-5 and compact fluorescent fixtures with a minimum 20 foot-candle level and a maximum of 0.8 watts per SF.
Lighting - Support Spaces	Type: Fluorescent fixtures with a minimum 50 foot- candle level and a maximum of 1.3 watts per SF.	Type: T-8 or T-5 fluorescent fixtures with parabolic louvers to control screen glare with a minimum 50 foot-candle level and a maximum of 1.1 watts per SF.
Automatic Lighting Control	Exterior lighting: Time clock and photocell control.	Exterior lighting: EMS and photocell control with separate zones. Interior lighting: Occupancy sensors in classrooms and corridors.
Exit Signs	Type: In compliance with building code at time of construction.	Type: In compliance with current building code and connected to emergency generator.
Data Communications Cabling	Backbone: Optical fiber between MC and HC locations. Wiring: Category 3 cable between computer equipment and MC or HC.	Backbone: 6 pair multimode optical fiber between MC and HC locations. Wiring: Category 5e below grade and Category 6 above grade between computer equipment and MC or HC.
Data Communications Equipment	<ul> <li>Filter: Granular grade-level appropriate web content filtering.</li> <li>Router: 10 Mb WAN connectivity.</li> <li>Routing: Layer 3 capability in core switch at MC.</li> <li>Switch: 10 /100 / 1000 host capability.</li> <li>Traffic shaping: Site-based capability.</li> <li>WAN connectivity speed: 10 Mb.</li> <li>UPS: For routers, switches, and servers providing a minimum of 5 minutes of uninterrupted power.</li> </ul>	Filter: Granular grade-level appropriate web content filtering. Router: 100 Mb WAN connectivity. Routing: Layer 3 capability in core switch at MC. Switch: 10 /100 / 1000 host capability. Traffic shaping: Site-based capability. WAN connectivity speed: 1,000 Mb. UPS: For routers, switches, and servers providing a minimum of 10 minutes of uninterrupted power.
Data Communications Outlets - General Classrooms	Quantity: Six data outlets for student computers plus one at teacher's work station per classroom.	Quantity: Six data outlets for student computers, two at teacher's work station, and one in floor box at front of classroom per classroom.
Data Communications Outlets - Specialty Classrooms	Quantity: One data outlets for each student computer station plus one at teacher's work station per classroom.	Quantity: One data outlet for each student computer station, two at teacher's work station, and one in floor box at front of classroom per classroom.
Data Communications Outlets - Commons	None.	Quantity: Four data outlets at perimeter walls located to accommodate special events and registration activities.
Data Communications Outlets - Library	Quantity: One data outlet for each student computer station and one at check-out station.	Quantity: One data outlet for each student computer station, two at check-out station, and one in floor box at instructional area.

#### STANDARDS

Category	Minimum Standards	Recommended Standards
Data Communications Outlets - Offices / Workrooms	Quantity: One data outlet for each staff workstation and one for each printer.	Quantity: Two data outlets for each staff workstation, one for each remote printer, and one for each networked copy machine.
Data Communications Outlets - Support Spaces	Quantity: One data receptacle for each computer station and one for each printer located within the space.	Quantity: One data receptacle for each computer station and one for each printer located within the space.
Wireless Data Communications	None.	Type: Power and data outlets for secure wireless access and free-roaming capability in Library, Commons, Main Office, Gymnasium, and each classroom wing.
Telephone / Intercom / Clock System	Communication system: Rauland Telecenter integrated communications system for telephones, voice mail, intercom, clock, class change tones and Enhanced 911. Clocks: Master clock with analog secondary clocks. Intercom: Voice controlled amplifiers with two-way loud speaking and handsets in all occupied spaces except call button in Gymnasium. Telephones: Digital PBX central exchange, voice mail system.	Communication system: Rauland Telecenter ISC integrated communications system for telephones, voice mail, intercom, clock, class change tones and Enhanced 911. Clocks: Rauland master clock. Analog secondary clocks in corridors, Gymnasium and commons. Digital secondary clocks in classrooms, office and support spaces. Intercom: Voice controlled amplifiers with two-way loud speaking and handsets in all occupied spaces except call button in Gymnasium. Telephones: Digital PBX central exchange, voice mail system.
Telephone Handsets	Single-line handset: Classrooms, conference rooms, Health, Kitchenette, Library, offices (unless otherwise noted), staff lounge, staff workroom. Multi-line handset: Main office aides / secretaries, Registrar, Principal. Multi-line handset with station console: Office manager.	Single-line handset: Classrooms, conference rooms, Health, Kitchenette, Library, offices (unless otherwise noted), staff lounge, staff workroom. Multi-line handset: Main office aides, Main office workroom, Registrar, Principal. Multi-line handset with station console: Office manager.
Sound System	Gymnasium: Public address and stereo music playback system with built-in equipment rack, speakers and microphone outlets.	Commons: Digital audio public address and stereo music playback system with built-in equipment rack, speakers, wireless microphone system, microphone outlets, and assistive listening system. Gymnasium: Digital audio public address and stereo music playback system with built-in equipment rack, speakers with protective cage, wireless microphone system, microphone outlets, and assistive listening system.
Television System	Classrooms: One cable TV outlet in each room. Library office: Television head-end equipment and cable TV outlet. Library: One cable TV outlet.	Classrooms: One cable TV outlet in each room. Library office: Television head-end equipment and cable TV outlet. Conference rooms and Group Study: One cable TV outlet in each room. Library: One cable TV outlet.
Audio - Video System	None.	Classrooms: One ceiling mounted video projector outlet connected to outlet in floor box at front of each general classroom. Commons: One video projector outlet connected to outlet at wall. Library: One ceiling mounted video projector outlets connected to outlet in floor boxes at front of Library instructional areas.

STANDARDS

Category	Minimum Standards	Recommended Standards
Intrusion Detection	<ul> <li>Type: Multi-zone system with NAPCO control panel, keypad activation device, and passive infrared motion detectors.</li> <li>Location: Control panel in office area, keypad at front entry door, and detection devices in Main office, Business Education and Computer classrooms, Library, and corridors.</li> </ul>	Type: Multi-zone system with NAPCO control panel, keypad activation device, and passive infrared motion detectors. Location: Control panel in Maintenance office, keypad at main entry doors, and detection devices in Main office, Business Education and Computer classrooms, Library, corridors and portable classrooms.
Video Surveillance	None.	Type: Surveillance camera system for monitoring of school grounds with surveillance system computer in Principal's office and monitoring station at Counselor's office. Excess capacity in cable trays above corridor ceilings and in catwalk areas for future surveillance system cabling within building. Location: Surveillance cameras at site entry / exit driveways, parking lots, bus loading area, front of school, and courtyard.
Fire Detection and Alarm	<ul> <li>Type: Automatic addressable alarm and detection system in compliance with building code at time of construction. Plastic guards with local alarm at pull stations.</li> <li>Location: Detection and alarm devices located in compliance with building code at time of construction and annunciator at front entry.</li> </ul>	Type: Automatic addressable alarm and detection system in compliance with current building code. Plastic guards with local alarm at pull stations. Location: Detection and alarm devices located in compliance with current building code, control panel and printer in Maintenance Office, graphic annunciator at front entry, and LCD annunciator with controls at Main Office.