**ARCHITECTURAL DESIGN CRITERIA**

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**ARCHITECTURAL DESIGN CRITERIA**

# GENERAL

* 1. The Design Professional shall use this document in conjunction with the Educational Specifications and District Master Specifications (DMS) to develop the design and contract documents.
  2. The Design Professional shall coordinate the work under this section with Civil, Electrical, Mechanical, Plumbing and Structural Design Criteria.
  3. The Design Professional is encouraged to incorporate elements of the following in their designs:
     1. Safe school design principles using “Crime Prevention through Environmental Design” (CPTED) and Florida Safe School Design Guidelines.
     2. Use recycled products when practical and economically feasible, such as recycled plastic wheel stops or crushed recycled concrete road base.
  4. Goals:
     1. Design the project to meet any Green Building Certified agency requirements.
        1. Coordinate with all other disciplines, electrical, mechanical, plumbing and civil.
        2. Evaluate the possibility of using a Green Building Certified agency rating system on all existing buildings.
        3. Use a Green Building Certified rating system for new Construction on non-educational building.
     2. Establish performance-oriented design standards to improve the function, appearance and safety of the school campus.
     3. Establish design guidelines that address architectural elements, building placement, tree preservation and “fit” within the community.
     4. Make a positive and memorable statement to students, faculty, visitors and the community.
     5. Be sensitive to existing neighbors and community.
     6. Promote public health, safety, welfare and “love of learning”.
  5. This division contains requirements for the following elements.
     1. A Green Building Certified rating system - General
     2. Site Requirements
     3. Building Requirements
     4. Casework/Cabinets
     5. Thermal and Moisture Protection
     6. Doors and Windows
     7. Finishes, Floor, Wall and Ceiling
     8. Specialties
     9. Equipment
     10. Furnishing
     11. Special Construction
     12. Conveying Systems
  6. The Architect, or professional as defined by the Contract with the District, is the person responsible for the design and development of all project documents and the coordination of all consultants' documents. In some case maybe a Professional Engineer, Construction Manager, or General Contractor.
  7. Design shall incorporate the latest design requirements and/or code requirements.
     1. Florida Building Code (FBC)
     2. Florida Fire Prevention Code (FFPC)
     3. Educational Specifications (Ed Specs)
     4. State Requirements for Educational Facilities (S.R.E.F.)
     5. Latest version of a Green Building Certified rating system for School, Existing Building, or New Construction as appropriate.
     6. Florida Accessibility Code for Building Construction (F.A.C.B.C.) as referenced in Chapter 11 Florida Building Code.
     7. American Disabilities Act
  8. Submittal requirements as listed – Project Closeout Checklist
  9. The Criteria shall not limit or restrain the performance and liability of the Professional or Professionals responsible for the integrity and performance of the structure.
  10. The Criteria is applicable to new construction and to the remodeling and renovation of existing facilities.
  11. The use of the Criteria in this document does not exempt the Design Professionals from any federal or state code or standards controlling the design and construction of any Facility.
  12. On campus plans containing multiple buildings, for building identification purposes for construction documents, buildings can be titled as follows, Building 1, Building 2, etc.
      1. Multiple building type campuses the electrical power distribution shall be as follows; main primary service shall be to the Main Electrical Room (Switchgear Room) and shall be located in a single building.
      2. The distribution to other buildings shall be from the Main Electrical Room.

# CRITERIA

## GREEN BUILDING – General:

* + 1. The Project Team shall select a Green Building Administrator familiar with the latest version of an appropriate Green Building Certified for Schools rating system.
    2. The Green Building Project Administrator can be anyone on the A/E Team approved by the PCSB Project Manager.
    3. The Green Building Certified Project Administrator (GBCPA) shall report directly to the PCSB Project Manager (PM)
    4. The Green Building PA shall provide the PCSB Project PM with the following:
       1. Evidence that the design team has taken an integrated design approach to unifying site, facility, building envelope and building systems as outlined in a Green Building Certified rating system.
       2. The use of a Green Building Charrette or other organizational approach that facilitates holistic design.
       3. Proof that building computer modeling and energy systems selection and implementation will be used to inform schematic design.
       4. Rationale for life cycle cost decisions.
       5. A Green Building Certified rating system for Schools score sheet indicating that all prerequisites can be met and the credits that the project team will pursue will achieve a Green Building Certified rating no later than the completion of schematic design.
       6. An agreement whether the project team will apply for a Green Building Certification using a unified credit submission or a split Design / Construction credit submission approach.

## SITE REQUIREMENTS

### Site Design:

* + - 1. The site shall function to reinforce the educational philosophy of the schools.
      2. Site design shall address the relationships of site elements to the building, streets and neighbors; as well as the potential for curriculum development, the reduction of municipally supplied potable water used for irrigation, reducing the urban heat island effect and constructing healthier, more energy and resource efficient site plans.
      3. Site design shall maximize the use of the available site area.
      4. Exterior and interior walking surfaces shall have slip resistant finishes.
      5. Design the site allowing for the development of the program playfields. Orient and locate playfields, parking, service drives, drop-off zones and bus loading zones to reduce the cost of construction and facilitate connecting of program elements without requiring pedestrians to cross vehicular traffic lanes.
      6. The site shall comply with CPTED and Florida Safe School Design Guidelines.
      7. The A/E shall work with the District Planning staff in coordinating local zoning requirements with the district requirements and goals. Coordinate building setbacks requirements with the Section 453 FBC and local authority having jurisdiction.
      8. Provide a design, which accommodates space for future classrooms for growth or classroom reduction (permanent or relocatable type construction) with appropriate utility connections.
      9. Provide an accessible route(s) connecting accessible buildings, accessible elements and accessible spaces.
      10. Provide safe bicycle access as required.
      11. Provide landscaping and irrigation in accordance with PCSB standards. Plants must be placed so as to maintain at least 2’ clear distance between the mature plants and the buildings. New oak trees are not to be planted within 25' of new pavement. Salvage existing trees to the extent possible.
      12. Sites are to be graded so as to have no steeper than a 4:1 slope.
      13. All retention areas are to be designed so as to be normally dry unless otherwise approved. Ponds are to be the minimum depth required for storm water retention. Over excavation is not allowed. All retention ponds are to be fenced.
      14. Provide 6’ high chain link perimeter fencing to enclose all student occupied areas of the campus and to enclose all mechanical equipment, transformers and elsewhere as required herein.

### Vehicular Access and Off-street Parking:

* + - 1. Architect shall coordinate traffic circulation and parking with the Schools Police and Civil Engineer.
      2. Accessible parking spaces shall be dispersed around the site’s various parking areas.
      3. See Ed Specs for access, circulation, parking requirements and other vehicle and pedestrian requirements.
      4. See Ed Specs for lighting and other electrical requirements.

### Covered Walkways:

* + - 1. Design covered walkways in conjunction with the building design concept as permanent structures to avoid the look of being an add-on.
      2. Covered walkways shall provide continuous cover along the entire length of the path they protect, but not cross-vehicular drive lanes, parking lots, or loading or service areas.
      3. The covered walkway shall be the width of the walkway (or required width) plus 1foot on each side, minimum 8 feet wide.
      4. Protect column at all vehicle driveways by placing a raised curb or covered Bollards 24 inches from the column.
      5. Covered walkways shall not extend pass the curb into the driveway, unless there is at least 14-foot clearance under the lowest structural element. When possible, hold back 6 to 12 inches from face of curb line.
      6. Provide proper lighting in the canopy system see Electrical Ed Specs for light levels.
      7. Provide for video surveillance along the canopy system as required by School Police.
      8. Place down spout column in or next to non-paved area and direct water away from sidewalk.
         1. If columns are within sidewalk area, place columns so their face is no more than 6 inches to edge of sidewalk, except at vehicle driveways.
         2. Avoid placing column with down spout in cross walk, if necessary, provide either 4 inches drain at the outlet or provide direct connection to the underground storm water system.
         3. Connect downspouts to a drainage system if determined by percolation tests or if located in courtyard areas.
      9. Provide covered exterior walkways connecting student occupied, administration buildings and accessible walks from parent and bus passenger loading/drop-off zones.
      10. Florida professional engineer shall design walkway cover systems to withstand wind velocities per ASCE 7.

### Site Furnishings:

* + - 1. Bicycle Racks shall comply with these requirements:
         1. Locate at the Building entry with direct surveillance from the administrative suite, coordinate with the district Senior Construction Coordinator.
         2. Permanently mount to the concrete paving per manufacturer requirements.
         3. Locate the racks to prevent crossing of bicycle traffic with vehicular or pedestrian traffic.
         4. Provide chain link fencing enclosure 8 feet high.
         5. Explore the possibility of providing staff showers near the bicycle racks.
      2. Design/select the site/exterior light fixtures and poles in conjunction with the building design concept.
      3. Provide one flagpole at a prominent location of the school entrance. Do not place flagpoles to interfere with pedestrian or vehicular traffic or present an obstacle.
      4. See Ed Specs for information on fencing material, height and location.

### Handrails/Guards (in open courtyard areas):

* + - 1. Top rail component on slope handrails/guards shall have vertical element that deters the ability to slide down the rail (a capped vertical component, spaced 48 inches on center), but at the same time allow for continuous graspable handrail.

## OUTDOOR ATHLETIC and PLAY FACILITIES

1. See Civil Design Criteria – Play and Sports Fields.

## BUILDING REQUIREMENTS

### Materials:

* + - 1. Shall be durable, permanent, vandal-resistant, easily maintained and within the limits set by budget, function and code.
      2. To the greatest extent possible materials shall be allergy free and non-toxic, contain recycled content, be rapidly renewable and locally available.

### General Requirements:

* + - 1. The design of each project shall address the following.
         1. Safety of students, faculty, staff and visitors (Florida Safe School Design Guidelines).
         2. Fulfillment of all programmatic requirements and Ed Specs, compliance with applicable elements of the District Design Criteria, District Master Specifications and Green Building Certification for Schools.
         3. Enhancement of the instructional process.
         4. Campus shall be resistant to unauthorized intrusion at any time yet provide for the entry of visitors through a control point during normal operating hours.
         5. Zoning for different day and evening functions and circulation patterns.
         6. Life cycle cost effectiveness.
         7. Accessibility according to FBC Chapter 11, ADAAG and 2004 ADA-ABA guidelines.
         8. Ease of pedestrian and vehicular circulation within and around buildings.
         9. Various District prototypes are to be implemented on new buildings or when possible, on existing buildings.

### Fully sprinkler all new buildings.

1. Renovations and additions to existing facilities are determined on a project-by-project basis.

### Buildings and Entry:

* + - 1. Shall be inviting with a clear, single, central entry to the facility.
      2. The main entry shall be clearly visible and easily identifiable from all major off site access routes to the school.
      3. Locate administrative offices with a clear view of this entry for ease of surveillance and as a clearly identifiable designation for school visitors.
      4. Limit perimeter openings to those required for Life Safety conformance and necessary for independent public use of the project elements e.g. an auditorium, a gymnasium.
         1. These entries should also be visually recognizable and inviting.
         2. Coordinate required openings with security and surveillance system requirements.
      5. Provide separate service access to the Food Service/Kitchen area and Custodial Receiving area.
      6. Group all program elements requiring access by service vehicles to minimize traffic. Provide sufficient space for vehicles to maneuver.

### Building Circulation:

* + - 1. Orientate circulation to provide efficient, convenient access to all spaces.
      2. Introduce natural light in corridors when possible.
      3. Minimize pedestrian congestion at doors, stairs, intersecting corridors and entrances into large rooms off of corridors.
      4. Recess entry doors into classrooms and other interior rooms off corridors in a way that eliminates blind spaces. Or provide wider corridor to swing doors into corridor and meet code requirements.
      5. Provide vision panels in all doors to student occupied spaces.
      6. Design multi-story building to limit the number of elevators required. Elevator required on two stories or more.
      7. Provide impact and abuse resistant materials in all circulation spaces. Finishes shall be cleanable and graffiti resistant.
      8. Elementary school building – provide low and high handrails on stairs and ramps.
      9. Low handrail at maximum of 25 inches to top of rail. High handrail at maximum 36 inches to top of the rail.
      10. Maintain 9 inches minimum between vertical distance between upper and lower handrail.

### Building(s) and Energy:

* + - 1. Green Building Certification for Schools projects must comply with the requirements for all Prerequisites and selected Credits in the Energy and Atmosphere Category.
      2. Minimize glazing, which allows direct sunlight into the building from the west and southwest.
      3. Provide natural light to all student occupied spaces.
      4. Provide natural light to faculty occupied spaces when possible.
      5. The project team shall specify products, equipment and appliances with the most cost-efficient energy star rating.

### Exterior Doors:

* + - 1. Protect all exterior entry doorways by an overhang or recess with an exterior soffit.
      2. Minimum protection shall be 4 feet, perpendicular to the plane of the door(s) and one (1) foot on each side of the doorjamb, parallel to the plane of the door(s).
      3. Design exterior soffits to prevent rainwater traveling horizontally on the underside of the soffit.
      4. Engineer the exterior soffits to resist wind loads per current edition of ASCE 7.

1. Architect may use a rain diverter in place of overhang or soffit above Mechanical, storage, electrical, toilet room and other similar type exterior doors.
2. When using the canopy option over an exterior doorway assure the scupper discharge does not create potential slip-hazard condition on the concrete walking surface below.

### Horizontal Surfaces:

* + - 1. Slope exterior horizontal surfaces to drain according to FBC Section 453 and Chapter 11.
      2. Design horizontal surfaces to prevent ponding.
      3. Provide a minimum slope of ⅛ inch per foot at, but not limited to:
         1. Exterior walkways, stair treads, landings, sidewalks, or other exterior walking surfaces.
         2. Parapet tops, windowsills, tops of walls and slope roofs away from the building.
         3. Parking lots, paved courts, receiving areas, passenger drop-offs and any other paved areas.
         4. Chiller Equipment Enclosure (concrete floor slab-drain via floor drains or thru-wall scuppers).
      4. Exterior and interior walking surfaces shall have textured or other slip-resistant finishes with a maximum cross slope of 2% and slope away from the building.
      5. All walls and floors of elevator pits, or other rooms whose floor level is beneath that of the first (grade level) floor line and sumps. All elevator pits and other such rooms shall be equipped with a sump of approximate 16" x 16" size to which the room or pit floors slope 1/4" to the foot and from which a 4" galvanized pipe threaded and capped at each end leads from a point near the sump to an unobtrusive location on the exterior of the building.
      6. All exterior surfaces walked on which are above interior spaces (whether or not such spaces have ceilings). Such shall include upper story exterior walkways, balconies, etc. For such surfaces, a traffic bearing waterproof surface must be provided. Expansion joints in such surfaces must be avoided if possible but, if such occur, the surface approaching such expansion joints from all directions shall be sloped upward in a manner whereby the top to the surface is 1-1/2" higher than the adjacent areas.
      7. An accessible stainless steel or anodized aluminum rectangular gutter of 4" x 6" minimum size must be positioned beneath such expansion joints for the full length of such expansion joint and the gutter shall have a direct leader to the exterior of the building. Such gutter and leader shall be accessible for maintenance purposes.
      8. All new wood floors (such as for gymnasiums, stages, etc.) shall be protected from below and from sides and edges by specified pre-molded vapor membranes.

### Acoustical Requirements:

1. As a minimum, construct the walls and openings to STC levels appropriate for the areas they are constructed for.
   * + - 1. Use volume and geometry to enhance acoustic properties of the space.
         2. Suspended acoustic tile ceilings in these spaces shall have a CAC value of 35 or greater and an NRC value of 70% or greater.
         3. Wall treatments (acoustical wall panels) and flooring materials to be used in these spaces as necessary, to enhance the acoustic properties of the space.
       1. Substitutions or revisions during construction shall comply with the original acoustical analysis of the space involved or provide a revised analysis.
       2. Sound-insulate spaces containing noise-producing activities from adjacent spaces as required.
       3. Provide appropriate acoustic treatment to control undesirable noise within occupied spaces.
       4. Provide special attention to large spaces, including auditoriums, music rooms, art labs, media centers, dining spaces, multi-purpose rooms and mechanical equipment spaces. (Follow the guidelines established in the Ed Specs).
       5. Locate acoustical treatment susceptible to damage at least 7 feet AFF or provide protection.
       6. Partitions between corridors and classrooms and between classrooms are to be full height with gypsum board on both sides.

### Walls:

* + - 1. Provide details for required fire rated wall assemblies and penetrations through those wall assemblies, such as an UL or GA File test number or other approved testing company's detail. All fire assembly walls are to be permanently stenciled with 3” high contrasting letters at 30’ intervals and within 15 ‘of the end of the wall. Suggested wording “Fire and/or Smoke Barrier- Protect All Openings. Markings to be in accessible concealed floor, floor-ceiling or attic spaces.
      2. At the interior face of all exterior concrete or masonry walls of conditioned spaces provide insulation as required to meet the Energy Code requirements, see E.2 insulation, this document.
      3. Interior Wall Systems:
         1. At all students occupied spaces in middle and high schools provide impact resistant wallboard continuous attached to 24-gauge metal studs(minimum). For student occupied spaces at elementary schools provide impact resistant wallboard to 4’ above finished floor.
         2. All interior walls shall be graffiti and mold resistant in addition to being appropriate for location and use.
         3. All wall systems shall provide the appropriate fire rating and or sound rating.
      4. Provide corner guards in interior corridors at all outside corners and other high traffic areas.
      5. At locations where framing extends to overhead structural supports design and install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
      6. All load bearing and non-load bearing metal stud framing is to be a maximum of 16” on center.
      7. Provide southern yellow pine blocking at all locations required for the installation of wall mounted accessories.

### Ceilings:

* + - 1. Ceilings in individual and group toilet rooms shall be a continuous hard surface.
      2. All acoustical lay-in type ceilings systems shall have square edges (non-tegular) and shall be sag, humidity and mold resistant.
      3. All ceiling/roof or ceiling/floor penetrations that require a fire rating must be meet all requirements of the FBC.
      4. Minimum ceiling heights and types table in the appendix.

### Golf Cart Storage/Charging Area:

* + - 1. Locate Golf Cart Storage/Charging Area in a location near the Central Receiving Area.
      2. Provide proper electrical connections for charging of carts, coordinate with Electrical Engineer.
      3. Provide ventilation in room used for the charging of golf carts to prevent concentration of hydrogen level from exceeding 1% of volume, coordinate with Mechanical Engineer.
      4. Locate in an area convenient to exterior and roads or sidewalks.
      5. Check Ed Specs for number of charging stations and storage capacity.

### Kitchens:

1. Follow the requirements of Ed Specs and Department of Food Services.

### Toilet Rooms, Showers and Changing Areas:

* + - 1. Group toilets should be accessible from the primary function area and made available without causing security breaches of other areas of the campus and they shall comply with the prototype group restroom design found in the Ed Specs. If located in the dining area, provide self-closing doors between the vestibule and the dining area, these doors can have a view panel.
      2. General Requirements:
         1. Avoid locating single use toilet rooms off of the main circulation corridors.
         2. Locate toilet rooms conveniently and appropriately throughout the campus and size the room per FBC requirements based on the occupant use of the room or area, i.e. Cafeteria, gymnasium, stadium auditorium are assembly.
         3. Minimum areas requiring facility/staff toilet rooms, kitchen staff, staff dining, teacher planning areas, administration areas, media center, gymnasium and auditorium.
         4. Minimum student areas requiring group toilet rooms' cafeteria, gymnasium, auditorium, stadium area and media center.
         5. Provide toilet room(s) and shower(s) in clinic per Board approved prototype.
         6. Provide a restroom with shower in ESE room(s) as directed by the Ed Specs.
      3. Elementary Schools Special Requirements below are per the Ed Specs.

Provide one boy's and one girl's restroom for each two instructional spaces, per the Ed Spec prototype and/or building codes. Separate facilities for male and female, except single use may be used when allowed by code.

* + - 1. Design group toilet rooms per prototype in Ed Specs with doors, which staff can close as necessary for security and control. Door may have to be on magnetic hold open connected to the fire alarm system.
      2. All accessible showers shall have fold down seats meeting the accessibility code requirements.
      3. Provide permanent bench meeting FBC chapter 11 requirements in all changing rooms or rooms with showers.

### Main Electrical Room:

* + - 1. The main electrical; room is allowed to use the sprinkler exception of NFPA 13 – 8.14.10
         1. This is the room with the main switchgear and the service entrance.
         2. All equipment is dry type.
         3. Room is dedicated for electrical equipment only.
         4. Room has 2-hour fire rated enclosure, walls, ceiling and/or floor.
         5. Not designed for storage, to have a sign posted inside and outside of the room saying, “NO STORAGE ALLOWED.”
      2. Architect shall coordinate with the Electrical, Fire Protection and Mechanical Engineers

### Electrical Rooms – not the main electrical:

All electric rooms to be separated by other spaces with a 1-hour fire-resistance-rated partitions and be equipped with fire sprinkler protection.

### Chemical Science Storage Room:

* + - 1. Provide one-hour fire rated room (floor, ceilings and walls).
      2. Provide for flammable storage cabinet(s) and if vented, vent directly to the exterior using materials equal to the cabinet.
      3. Provide non-corrosive shelving with minimum ½ inches lip on shelves.
      4. Provide sign in area near storage shelves, where user can readily see sign reading “STORE ALL FLAMMABLE MATERIALS IN FLAMMABLE STORAGE CABINET.”
      5. Coordinate with Mechanical Design Criteria and Mechanical Engineer.

### Science Room Emergency Shower/Eyewash:

* + - 1. See Ed Specs for requirements and information.
      2. Coordinate with Plumbing Engineer.

### Administration Suite:

* + - 1. Staff Mailboxes:
         1. Provide counter directly under the mailboxes per Ed Specs.
         2. Set topmost shelves at maximum 72 inches above finished floor.
         3. Provide area for large packages.
         4. See Ed Specs for number of mail slots, location and other requirements.
      2. Reception Area:

Coordinate the location of fire alarm, communication and other electrical/electronic controls with the Electrical Engineer to provide necessary enclosures for conduits and boxes.

* + - 1. Separate the administrative suite from the student occupied spaces with at least 1-hour fire resistive construction. Purpose is to allow the office doors within the administrative suite to remain open during normal use.

### Data/Communication Rooms:

1. Main Data Room, Main Telephone Room, Communication Service Room and/or Communication Equipment Room, Data/Communication Rooms:
   * + - 1. These rooms are to have a finished ceiling at a minimum of 10 feet AFF.
         2. Coordinate fire sprinkler head coverage with location of equipment rack.
         3. All Data/Communications (MDF, CER, MXC, MC, CC, IDF, IXC, IC) rooms shall have a single point of entry through a card access electric door strike.

### Shops:

* + - 1. Provide specialty shops as outlined in the Ed Specs.
      2. Plan for all specialty equipment and provide the necessary space, electrical connections, water and sewer connections and special HVAC needs for the space.
      3. If wood shop or similar dust producing shop provide:
         1. Exterior central dust collection system.
         2. A high efficiency filtration on the return air duct of the HVAC system for the wood shop and independent of returns from other spaces.
         3. Portable dust collection systems may be used for small portable power tools like sanders.

### Exterior Handrails:

1. Design the top rail component to deter sliding down the rail without preventing a continuous graspable surface. Shall meet the requirements of FBC.

## THERMAL AND MOISTURE PROTECTION (CSI Division 07):

### Waterproofing:

a. Provide waterproofing at floors and walls below grade to prevent water infiltration to the building interior caused by hydrostatic pressure or other water conditions.

1. Provide waterproofing at the inside face of planter walls or planter floors where the outside face is exposed.
2. Do not use planters as part of a finished wall or ceiling assembly.

### Vapor Barriers (including Radon barriers):

* + - * 1. All vapor barriers on exterior walls shall be on the warm side, between the insulation and the exterior wall surface.
        2. Test the soil for Radon, if Radon found or suspected in the area:

Follow the Florida Standard for Radon-Resistant New Commercial Building Construction, or the EPA Handbook for Sub-Slab Depressurization for Low Permeability Fill Material.

As alternate remove the contaminated material.

1. Provide details of perimeter, penetrations and joint conditions.
2. Under concrete slab-on-grade components use a 10mil polyolefin or polyethylene vapor barrier system, including seam taping along sheet joints and pipe penetrations.

### Insulation:

1. Select an appropriate and cost-effective insulation system to comply with the Chapter 13 FBC State Energy Conservation Code.
2. Minimum R-5 exterior walls.
3. Minimum R19 roof.

### Fireproofing and Fire Stopping/Fire Blocking:

* + - 1. Fireproofing and fire stopping methods shall be per FBC and NFPA.
      2. Provide descriptions and approval references for fire stopping systems used.
      3. Specify fire protection at penetrations through fire rated assemblies as required.

Provide description, test number and detail of code approved fire rated system for each type of penetration.

### Joint Sealers (tilt-up walls):

1. Tilt-up concrete wall panel joints:
2. Exterior wall joints-Both sides (outside and inside) of exterior wall joint shall be sealed with an exterior joint sealant system, consisting of a foam backer rod placed into a clean joint cavity and covered with a urethane or other acceptable joint sealant material.
3. Interior wall joints:

In fire resistance rated walls-maintain the fire resistance rating, seal both sides of joint, encapsulating the ceramic fiber blanket protection, similar to the exterior joint sealant system described in the previous item.

In non-fire resistance rated walls:

Exposed concrete panel joints are to be sealed.

Concealed (furred) panel joints need not be sealed.

### Roofing:

1. General
2. The Architect shall select the appropriate roofing membrane system for the project.
3. Acceptable systems include Conventional Built-up Roofing Systems, metal roofing, asphalt shingles and Modified Bitumen Roofing Systems.
4. Gravel ballast systems are not allowed.
5. Coal Tar Pitch type of built-up roofing membrane systems and Asphalt type built-up roofing membrane systems with conventional felts will no longer be installed on Pinellas County School projects.
6. When using asphalt shingles:
7. Provide ventilation cavity under the asphalt shingles as required by the shingle manufacturer (eave, ridge and/or peak).
8. Provide self-adhering ice and water barrier directly to roof sheathing, with a 30-pound roofing paper between the ice/water barrier and the asphalt shingles.
9. Substitutions -- when approved Modified Bitumen Roofing Systems are specified, no systems other than similar modified bitumen systems will be considered as substitute systems.
10. Every modified bitumen membrane roofing system shall be provided with and installed by a slope on all parts of the roof of 1/4" per horizontal foot for new construction; 1/4" per horizontal foot for roofing replacement if such can be practically achieved -- but even in replacement work, no event less than 1/8" per horizontal foot.
11. Metal roofing systems must meet these requirements:
12. Have a proper slope to comply with code and manufacturer's recommendations.
13. Comply with all detailed requirements of the Sheet Metal Manufacturers Associations' published guidelines.
14. All joints or seams in sheet metal roof deck systems shall be of approved raised seam design. No batten seams.

f) Cold fluid applied liquid waterproofing system requirements:

(1) Use this product on your project when instructed to by FD&C.

(2) Include the Alternate (Garland) specification 07 14 17 in addition

to the base bid specification 07 14 16 in your contract documents.

1. Roof designs shall comply with the following:
2. All panels to be continuous in length.
3. UL-790 and ASTM E-108 requirements for Class "A" fire rating of roof coverings.
4. Uplift requirements based on the basic wind velocity pressures for the project according to the most stringent applicable requirements among the following:
5. FBC Chapter 16 and section 453.
6. ASCE 7 – latest edition as approved by FBC.
7. Roofing manufacturer's specifications.
8. All seams (if there must be seams as in the case of single ply systems) should be positioned in a manner that these seams are above a level where standing water has access to such seams.
9. The terminal edges of the roofing membrane must be carried 8” minimum above the level of possible standing water (or wind driven water) to have access to suchedges.
10. The termination of roofing membrane edges at parapets, roof curbs, equipment supports, etc. must be behind and "up under" the metal counter flashing by a minimum of 4". 4” of the 8" is to be covered by counter flashing.
11. The counter flashing must be made of metal to transit from the "horizontal" roofing membrane into other construction. Metal flashing must almost always be utilized for the transition. Such metal flashing should meet these requirements:
12. Be in the maximum single piece lengths practical.
13. Be joined by sizeable overlapping cover plates and designed in a manner to allow considerable expansion and contraction to compensate for extreme limits of temperature change.
14. Must be of a long-life metal, such as copper or aluminum, it should rarely be of galvanized steel.
15. Must, itself, terminate at the top edge behind, beneath (up-under), or integrally with the material it is transiting to i.e. the top terminating edge must itself be vertical or concealed and returned under.
16. PCSB allows for multiple roofing system per campus. If using different roofing systems provide a parapet, change of elevations, or other means of terminations to define warranty/liability limits and maintenance concerns.
17. Design the roof to eliminate ponding with sloping surface to remove rainwater by scuppers, separate overflow scuppers and gutters/downspouts complying with FBC.
18. Products containing asbestos are not allowed (FBC 453.8.6).
19. Traffic Pads shall comply with the following requirements.
20. Traffic pads to completely encircle/surround roof scuttles and roof-mounted equipment requiring routine maintenance.
21. Arrangement of traffic pads shall facilitate safe use by maintenance personnel.
22. Size traffic pad as necessary to facilitate maintenance of large pieces of equipment.
23. Clearly indicate traffic pad layout on the Construction Documents per 6 a) above.
24. Design EHPA facilities with minimum Rooftop Mechanical equipment or fans.
25. Provide the appropriate wind and impact load protect for equipment on the EHPA roofs, which is readily removable by maintenance crews servicing the units.
26. Provide equipment meeting the wind load and impact requirements of the FBC.
27. Roofing system manufacturers shall provide minimum 20-year unlimited warranty covering both material and labor for repairs or replacing the roof if it should fail.
28. Roofing contractors shall provide minimum 2-year warranty for workmanship and materials to run concurrently with manufacturer’s warranty. Each roofing manufacturer specified has previously agreed to furnish the warranty and guarantee on the PCSB form.

### Flashing, Gutters, Down Spouts and Other Accessories:

1. Flashing metal shall be 24-ga. stainless steel (22-ga. for structural supports), complying with SMACNA and NRCA Roofing & Waterproofing Manual.
2. Scuppers, Gutters and Downspouts:
3. Locate downspouts and scuppers to discharge in areas away from student traffic areas.
4. Provide downspouts that are not climbable.
5. Place downspouts in areas limiting exposure to hazards, such as lawn equipment, if not possible use materials resistant to physical damage from such equipment.
6. Gutters: do not use standard Ogee gutters from "off the shelf".
7. Size gutters and downspouts to handle the quantity of water in accord with code. Select gauge, type of metal, support details and finish. Determine support strapping and anchorage clearly detailing and specifying such.
8. Install second sloping bottoms in large gutters leading to down spouts. This allows a level visual appearance concealing the necessary slope. Space downspouts to accommodate water quantity designed for.
9. Downspouts and gutters shall be customized in design rather than the common molded light weight type for residences. Gutters shall be designed to have a higher inner edge (leg) to be installed at least 2" up behind gravel stop and the outer edge must be sufficiently lower so water will spill out of the gutter before it reaches the height of the inner edge (leg) and thus avoid water entering the overhang or roof deck construction.
10. Locate gutters at edge of roof perimeter; do not build gutters behind parapets.
11. Coordinate connections of gutters, downspouts and roof drains to the storm drain systems.
12. Provide supports to prevent downspouts from slipping and disconnecting at joints.
13. Secondary scuppers shall be separate from the primary scuppers.
14. Coping at parapet walls-use either pressure treated nailer or stainless-steel metal clip system.

### Roof Specialties and Accessories:

1. Roof Expansion Joints:
2. Allow for expansion and contraction to minimize cracking and deterioration of building component materials.
3. Provide roof expansion joints complying with NRCA Roofing and Waterproofing Manual and the roof manufacturer's requirements.
4. Roof Scuttles:
5. Provide safe and secure access by scuttles, access hatches, or doors to each low-slope roof:
6. Access, by additional scuttle or access hatch or fixed ladders, is required to adjacent roofs if they are more than 42 inches above or below the accessible roofs.
7. Access hatch covers are required to meet wind loads and impact loads per chapter 16 FBC, can be PE certification or product approval system.
8. Provide for hatch-rail system per OSHA requirements around the roof opening.
9. Do not use fixed external ladders from grade for roof access.

## DOORS AND WINDOWS (CSI Division 08):

### General:

* + - 1. Integrate doors and windows into the design of the facility to provide access, egress, light and ventilation while:
         1. Meeting life safety, wind load, impact load and other code requirements
         2. Meeting concerns of vandalism and heavy usage.
         3. Incorporating safety, security and maintenance concern

### Doors and Frames:

* + - 1. Acoustical doors may be hollow metal or be solid core wood with STC ratings according to program requirements:
         1. Provide sound seals and drop seals, as necessary.
         2. Vision panels in acoustical doors shall be as tested and meet the safety glazing requirements of the FBC, except when other glazing is required to comply with fire rating.
      2. Louvered doors shall be metal with protective coating to prevent corrosion:
         1. Full louvered doors shall have a mid-rail.
         2. Louvers to be V or Y-inverted profile, weather-resistant and equal to thickness of door.
      3. Provide access doors of a size required by the code, equipment manufacturer, or type of access, but in no case less 12 inches x 12 inches where hand access is sufficient.
      4. In doorways or at doors of food service areas, provide 6” high stainless-steel (spats) at doorframes with or without stops, (this is just Food Service area).
      5. Provide sound rated hollow metal doors at mechanical equipment rooms opening to the building interior, where possible open the mechanical door to the exterior of the building. Include sound-seals and aluminum thresholds at mechanical room locations accessed by interior corridors or adjacent to sound sensitive spaces.
      6. Fire and/or smoke separation doors. Provide magnetic hold open devices activated by the fire alarm system on doors dividing corridors and on doors in high traffic stairways.
      7. Doors, general:
         1. Exterior doors are to be metal with protective coating to prevent corrosion; do not use wood doors on building exterior:

Slope grade and sidewalk away from the building and the doors, minimum of 1% and maximum of 2% to prevent water from entering the build at the door openings.

* + - * 1. Interior doors may be flush 5 ply solid core wood with clear birch rotary cut running back face veneer with transparent factory finish. Metal doors may be used at special locations. No particleboard doors are permitted.
        2. Occupant swing doors shall be a minimum size of 3 feet wide x 7 feet high x 1¾ inches thick.
        3. Doors shall be large enough to accommodate the largest piece of equipment or furniture scheduled for the space, see Ed Specs for furniture/equipment requirements.
        4. Kitchen receiving door shall be at least 4 feet-0 inches wide x 7 feet-6 inches high x 1¾ inches thick with a 180° out-swing and 2 pairs of hinges.
        5. Provide a Dutch-Door into the laundry/towel room in P.E. locker rooms of middle and high schools and in early childhood restrooms.
        6. Prefer pocketing, out swinging doors at corridors.
      1. Interior or exterior pairs of doors requiring a mullion shall have a keyed removable center mullion. When used at doors with integral low voltage wiring provide male/female plugs:
         1. Mullions are not preferred in mechanical and storage rooms.
         2. DO NOT use fixed mullions.
      2. Vision Panels:
         1. Provide vision panels at all doors entrances from corridors into classrooms, administration suite, laboratories, clinics, stairways, cafeteria, media center, other student occupied spaces as identified by the project team, smoke stop doors, door from media to the editing room at CCTV, door from classroom into toilet room vestibules, practice rooms at music suites and other areas as required by Ed Specs.

Vision panel shall be 1 ½ inches by 30 inches wide and located at least 6 inches from latch edge of door.

Locate bottom of vision panels at 30 inches – 40 inches AFF and top at 72 inches AFF.

See section F.5 "Glazing" of this document.

* + - * 1. Provide vision panels or glazed areas in doors at main entrances into the building.
        2. Provide vision panels in the doors and or wall between the kitchen manager’s office and the kitchen.

Vision panel in door shall be top half of door.

Vision panel in the wall shall be 34 inches to 40 inches AFF and top at 72 inches to 84 inches width at 24 inches to 48 inches.

### Windows

* + - 1. Exterior Windows shall provide the following:
         1. Required light and ventilation per codes.
         2. Proper attachment/support system to withstand wind loads based on ASCE 7 and FBC.
         3. A passive system to meet the FBC and ASCE 7 requirement for impact protection.
         4. Contain an integral thermal break.
         5. Contractor shall include two window tests per ASTM E 783 and ASTM E1105 standard at no additional cost to the owner. Any re-testing due to failure is to be borne by the window installer.
      2. Accepted Windows:
         1. Operable Exterior Windows:

Single-hung or double-hung window.

Inward or outward-projecting window.

Outward projecting windows are limited to areas where there is no pedestrian activity or to an elevation of 7 feet AFF.

Inward projecting windows are limited to areas over fixed cabinetry or to an elevation of 7 feet AFF.

* + - 1. Maximum head height of windows shall not extend above the ceiling.
      2. Provide insect screens only on operable windows in rooms designed for eating or cooking (Such as Kitchen, Cafeteria and Staff Dining).
      3. The interior sill of a window shall not be below abutting built-ins or FF&E.
         1. CCTV Control Room, observation fixed glass windowsill shall be 34 inches above finish floor.
      4. Provide light control for room darkening for audiovisual presentations at instructional spaces one of the following methods at all windows:
         1. Vertical blinds.
         2. Other systems accepted by PCSB on a per condition basis.
         3. Curtains and window tinting are unacceptable sun control methods for room darkening in instructional spaces.
      5. Muntins, if used, shall be integral with the window framing system and not surface applied.
      6. Glazing shall comply with the requirements of FBC and these criteria. Design to minimize accidental passage through the glass.
      7. Coordinate louver sizes and locations with typical window modulation wherever possible.
      8. Storage rooms, telephone and electric closets, mechanical equipment rooms, toilet rooms, custodial closets and other similar spaces shall be windowless.
      9. Means of egress shall comply with FBC without compromising window security or aesthetics.
      10. Indicate locations of fixed and operable window panels on Contract Document – Floor plans and elevations, coordinate with the window schedule.
      11. Indicate location of Fire Department Access Panels on the Contract Documents - Building floor plans and elevations, if required by code.
      12. Interior observation windows:
          1. Teacher planning area.
          2. Clinic.
          3. CCTV space, angle window 15° angled toward the studio.
          4. Other areas as required by the Ed Specs.
      13. Rough opening for window openings:
          1. Sill profile: the windowsill profile shall be stepped or notched to create a natural water stop.
          2. Provide reveal on jambs and head of all window openings to accept window units with off-set flanges.

### Finish Hardware:

* + - 1. Hardware shall comply with the following and have precedence over PCSB requirements.
         1. Florida Building Code.
         2. Florida Fire Prevention Code.
         3. All hardware shall be consistent with the approved/tested door and window assemblies for impact, fire rating and wind loading.
      2. Hardware sets shall list the appropriate door and building number, the door schedule shall list the appropriate hardware set numbers and hardware sets and the door schedule shall comply with:
         1. Each door or pair of doors, gate, roll-up grill, or other opening shall receive a different numerical designation with hand of each door noted.
         2. Door numbering should be progressive and according to walk paths.
         3. Specified hardware schedule shall note PCSB project number.
      3. Latching Hardware.
         1. Do not use deadbolt locks except as permitted by code and with PCSB approval.
         2. Provide surface mounted exit devices or classroom function locks at student occupied areas according to FBC, FFPC and program requirements.
      4. Controlling Hardware:
         1. Do not use head or foot bolts on any pair of doors of student occupied spaces.
         2. Doorstops:

Install wall-mounted doorstops at all doors with appropriate backing reinforcement.

Avoid floor-mounted doorstops.

* + - * 1. Kick Plates

Provide at all doors except to individual offices at administration areas.

Provide an armor plate at the kitchen receiving door and doors from kitchen to serving line.

* + - * 1. Specify surface mounted door closers and exit devices, do not use floor mounted or concealed overhead closers.
        2. Use special delay action closers at doors serving children with disabilities.
        3. Select removable center hardware mullion type based upon exit device and fire rating requirement.
        4. Provide silencers or program required door seals on doorframes.
        5. Electrical Rooms, Mechanical Rooms and Outdoor Storage Rooms shall be equipped with closers and arm limiters/hold open devices.
        6. Provide door closers on all exterior doors.
      1. Weather Stripping and Seals:
         1. Provide bull nose tile, molded vinyl strip, or marble thresholds at group or single toilet rooms, wet mop rooms adjacent to other spaces, custodial closets with a sink or mop receptor, or any other space where there are two different floor coverings transitioning.
         2. Provide aluminum thresholds at interior accessed mechanical rooms for soundproofing and at exterior doors to prevent water intrusion except at gates, kitchen-receiving doors and other programmed required locations:

Do not provide thresholds at interior doors unless required for soundproofing or carpet separation at labeled doors.

Thresholds at exterior doors shall prevent water intrusion of driving rains and/or rising water.

* + - * 1. Provide rigid weather-stripping at frames of all exterior doors:

Weather stripping at exterior doors shall comply with acoustical requirements.

* + - * 1. Provide sound-seals and auto door bottoms at acoustical doors and sound sensitive areas:

Sound seals shall not protrude more than 3/8 inches from stop surface.

Sound sensitive areas include entrances to media center, auditoriums, band rooms, music suites, practice rooms and CCTV rooms.

* + - * 1. Provide rain drip or other door top protection at exterior doors without overhead protection for full doorframe width.
      1. Hardware Sets:
         1. Meet the requirements of the FBC and the FFPC for operation.
         2. Hardware shall be compatible with existing schools.
         3. Locksets shall meet the district’s master key system.

### Glazing:

* + - 1. Glazing selection shall be optimized for performance, function and orientation in support of achieving the following:
         1. Minimum Acoustical Performance
         2. Optimize Energy Performance
         3. Day lighting
      2. Exterior glass shall be impact resistant and meet resist wind pressures of ASCE7 and FBC.
      3. Glazing in PCSB buildings shall be safety glazing of tempered glass, laminated glass, or PCSB accepted glass block.
      4. Glazing in fire-rated doors and walls shall be:
         1. Fire-rated glazing in all student areas.
         2. No wire glazing shall be used.
      5. Protect glass at all doors where push bar exit devices cross glazing.
      6. Mirrors see toilet accessories section.

## FINISHES (CSI Division 09):

### General:

* + - 1. Provide finish materials durable and suitable for coastal Florida weather conditions.
      2. Architect shall work with the construction Coordinator on color selection for all finish material.
      3. Finishes shall allow for easy cleaning of graffiti or stains by the custodial staff.
      4. Base the design and selection of building finishes on the following:
         1. Vandal resistance
         2. Cost-effectiveness
         3. Durability
         4. Resistance to cracking and peeling
         5. Resistance to fading or discoloration during use or from exposure to weather, or acids and other chemicals.
         6. Weather tightness.
         7. Absence of excessively rough or sharp textures and features.
         8. Do not use finish materials containing or emitting harmful substances into the air, after cured or during occupancy by students or staff:

Building products shall not contain asbestos.

Do not use building products containing lead, formaldehyde, mercury, volatile organic compounds, or any other harmful products that can cause harm to occupants once installed.

* + - * 1. Use materials that resist the growth of mold and comply with the requirements of Mold Prevention.
      1. Do not use vinyl wall coverings on the interior surface of exterior walls.
      2. PVC vertical blinds:
         1. Shall be supplied by a single source manufacturer/supplier and installed by a single source installer.
         2. Manufacturer/Supplier shall be responsible to provide installation providing all fasteners and/or adhesives required in accordance with manufacturer’s recommendations.
         3. Vanes shall be curved 3-1/2” wide, fire retardant, lead free - energy efficient PVC, not less than .030” thick solid material. PVC shall be rated NFPA 101 Class A Interior Finish with a Flame Spread of 0-25 in accordance with ASTM E-84 procedures. Vanes shall be manufactured to resist fading, twisting and brittleness and shall be free of sharp edges, burrs or other defects which may be harmful.
         4. Vane attachment shall be bracket, clip or hook system of proper design for the vane specified and shall be formed of stainless steel or other non-corrosive metal or plastic as standard with the Manufacturer. Assembly shall permit easy removal of vane and shall yield when subjected to interference without damaging the vane or any part of the assembly.
         5. Limit the light gap between the ends of the vanes and the channel track to a maximum of 3/8”.
         6. Installation brackets and fittings shall be Manufacturer’s standards and shall provide secure mounting of tracks to suit the application indicated. Include all hardware, fittings and fasteners necessary for secure attachment of brackets and tracks to adjoining construction.

### Floor Finishes:

* + - 1. Select flooring finishes based on durability, initial costs and maintenance methods/costs.
      2. Polished concrete floors are an option the designer may consider in corridors, media center, cafeteria, main reception area, or other large general gathering areas.
      3. Ceramic Floor Tile:
         1. Provide ceramic tile floors in all toilet and shower areas.
         2. Recess floor slabs receiving ceramic tile the depth of the tile and setting bed to provide a level plane at access points.

Provide slabs with steel trowel and fine broom finishes no curing compounds.

* + - * 1. Provide a tile cove wall base at areas with a ceramic tile floor.
        2. Tile flooring shall be suitable for floor use and easily maintainable.
        3. Select color of tile and grout to conceal dirt for low maintenance, avoid very light colors and very dark colors.
        4. Specify epoxy grout for ceramic tiles.
      1. Quarry Tile:
         1. Provide quarry tile in Kitchen and Culinary Arts Labs.
         2. Recess floor slabs receiving quarry tile the depth of the tile and setting bed to provide a level plane at access points:

Provide slabs with steel trowel and fine broom finishes no curing compounds.

Slab shall be level and at floor drains. Locations shall be sloped 2’ in all directions.

* + - * 1. Quarry tile shall be flat, impervious, slip resistant and be easily cleanable.
        2. Provide 6 inches high quarry tile wall base to match floors.
      1. Resilient Flooring:
         1. Resilient tile may be used in classrooms, corridors, teacher planning, reception area, cafeteria, custodial office communication service room, communication equipment room, main data room, or as directed by the Construction Coordinator.
         2. Resilient flooring may be vinyl composition tile or vinyl planks.
         3. Solid color or raised surface pattern vinyl composition tile are not allowed.
         4. Provide metal or vinyl edge guards at flooring transitions.
         5. Areas with resilient flooring shall receive vinyl cove base with vinyl corner blocks.
         6. Interior stairs shall receive vinyl nosing, treads and risers.
         7. Use of flooring shall be appropriate according to manufacturer's guidelines.
         8. Contractor shall provide the owner an additional 2 percent and no less than 1 case/box of new and unopened product.
      2. Carpet:
         1. Provide carpet tile in the principal’s office, media center, classrooms, music rooms and administration area.
         2. Carpet tile selection shall be a stable, even surface of tufted carpet.
      3. Sealed Concrete Floors:
         1. Provide sealed smooth finished concrete floors in Custodial Closets, Central Receiving, Kiln, Career Academy Shops, Storage Rooms, Mechanical, Electrical, Data Communication and other similar rooms.
         2. Provide a translucent stain sealant that is non-yellowing, resistant to moisture and efflorescence, with slip resistant per the general requirements and does not emit toxins after curing.
         3. Use vinyl cove wall bases at interior sealed concrete floors.
         4. Sealed concrete floors are not an impervious surface.
      4. Polished Concrete:
         1. Provide polished concrete floors in areas as selected by the Architect with the District’s approval.
         2. Any patterns or stain colors are determined by the Architect with District input.
         3. Use rubber cove wall bases.
      5. Wood Flooring:
         1. Provide wood flooring in gymnasiums, dance labs, secondary and high school music suites and stages.
         2. PCS may consider other specialty types of flooring on a per project basis.
         3. Evaluate wood flooring selections for compliance with GBC credits.
         4. Recess floor slabs receiving wood flooring the depth of the wood floor, sleepers and pads to provide a level plane at access points.
         5. Provide tongue and groove, 25/32” select or better maple #2 wood flooring with a 2 ¼” face placed over two layers of ½” x 48” x 96” nominal CD exterior grade plywood with the following:

Provide 3/4” thrust pads.

Provide a continuous 6 mil polyethylene vapor barrier on top of concrete floor. Tape at all seams. Turn vapor barrier up to top of cove base.

Use 4” x 3” vertical vented cove rubber base with pre-molded corners or other base systems as recommended by flooring manufacturer.

Expansion joint covers shall be stainless steel and flush with flooring.

Provide expansion joints per the manufacturer’s recommendations, but do not allow correction rows.

* + - * 1. Provide recessed floor sleeves for volleyball net poles.
      1. Rubber or Vinyl Sports flooring:
         1. May provide alternate rubber or vinyl sports flooring material in Middle School gymnasium.
         2. Provide rubber or vinyl sports flooring in weight rooms and fitness rooms with either a rubber or vinyl base.
      2. To control dirt where exterior doors enter directly into the gymnasium, provide a removeable recessed metal grating system the full width of gymnasium entrance doors.

### Wall Finishes:

* + - 1. Select interior finishes based on required fire resistance ratings, acoustical qualities, initial costs, durability, maintenance methods and maintenance costs.
      2. Standard Interior Wall Finishes.
         1. Paint all gypsum board walls with washable, graffiti and mold resistant paint.
         2. Painted concrete masonry units at interior locations.

Place conduit and plumbing lines within the block cores do not channel the wall face.

UL or STC masonry assembly rating provided to comply with applicable fire-resistive or sound rating requirements.

At interior exposed block at exterior walls.

* + - 1. Standard Exterior Finishes:
         1. Horizontal and vertical surfaces.

Two coat stucco over concrete/masonry.

Exterior board systems reinforced with vinyl-coated, woven glass-fiber mesh only at fascia, soffits and other decorative elements.

Primer textured coating and paint over pre-cast concrete.

* + - * 1. Weather Protected Horizontal and Vertical Surfaces:

Stucco over expanded metal lath or paper-backed hot dipped galvanized welded wire fabric not part of the structural envelope.

* + - * 1. Exposed Concrete (i.e. tilt-up concrete wall panels):

Primer and Acrylic coatings. – See Coating Specifications

* + - * 1. Strike final stucco coat to achieve score patterns, slope bottom edge of horizontal score lines to dispel water.
        2. If brick is used, it shall be graffiti resistant and readily accessible for future replacement.
      1. Ceramic Wall Tile:
         1. Use on all walls in group toilet rooms, group toilet room vestibules, showers/locker rooms, cafeteria kitchens, snack bars, salad bars and serving areas to a height of a minimum of 48 inches with epoxy paint on the remainder of the wall.
         2. Use on walls behind water coolers and electric hand dryers, to a height of at least 48 inches with epoxy paint on the remainder of the wall.
         3. Walls behind sinks in custodial closets shall be ceramic tile to a minimum height of 6 feet above finished floor and extend 12 inches minimum to either side of sink.
         4. In group toilet rooms, showers and kitchens, use tile for the entire length and height of walls.
         5. Provide bull nose trim pieces at exposed corners of tile walls and cove bases at floor line.
         6. Do not install ceramic tile over existing ceramic tile.
         7. Apply tile over:

Cement board or paperless wallboard designed for use in wet areas and installation of tile in staff or individual toilet rooms.

Water resistant concrete backer boards or similar non-paper covered boards, reinforced with vinyl-coated, woven glass-fiber mesh in toilet rooms that include showers.

2 coat cement plaster over metal lath or paper backed welded wire fabric at food service areas, showers/locker rooms and public and group toilet rooms.

* + - 1. Acoustically Absorptive Wall Panels:
         1. Use to achieve acceptable NRC and reverberation characteristics in cafeteria dining rooms, CCTV Labs, media centers, career labs (per Ed Specs), auditoriums, music rooms and gymnasiums.
         2. Panels shall comply with flame-spread ratings.
         3. Provide concealed panel attachments.
         4. Fabric covered panels or any other acoustical treatment susceptible to damage in auditorium, cafeteria dining rooms, music rooms, media center, or any other student occupied spaces shall be at least 7 feet-0 inches AFF or installed with other means of protection.
      2. Windowsills: provide seamed-edge marble sills.

### Ceiling Finishes:

* + - 1. Standard Ceiling Finishes:
         1. Lay-in acoustical panel suspended ceiling systems shall have humidity and mold resistant materials, tile and grid system.
         2. Do not use "Tegular" ceiling tile.
         3. Cafeteria kitchens shall have lay-in style ceiling with vinyl coated washable surfaces.
         4. Salad bars, snack bars and serving areas shall receive 2-foot x 2-foot lay-in vinyl faced gypsum panels, meeting USDA/FSIS requirements, with an aluminum capped or aluminum suspension system. Paperless gypsum board is also acceptable.
         5. Showers, drying and locker rooms, kiln rooms and any other high moisture content spaces shall receive epoxy painted gypsum board ceilings.
         6. Staff, individual toilet rooms and group toilet rooms shall be gypsum board ceilings with epoxy paint.
         7. Provide access panels through gypsum board and plaster ceilings in sufficient size, number and location to above ceiling electrical, mechanical, or other elements requiring access.
         8. Use stucco for exterior soffits to protect from potential damage by weather, vandalism, or excessive wear.
         9. Receiving, custodial, electrical, telephone and mechanical rooms or closets, unfinished rooms and other similar spaces may have an exposed painted structure if allowed by fire codes.
      2. Avoid the use of metal ceilings and metal soffits.
      3. Lay out ceiling tiles to avoid perimeter units of less than ½ unit width.
      4. Contractor shall provide the owner an additional 2 percent and no less than 1 case/box of new and unopened product.

### Paint Finishes:

* + - 1. Paint selection shall be based on the PCS coatings specification and shall appropriate for the application.
      2. Specify a bonding type of primer or acid etching for pre-stressed or other types of smooth concrete to obtain an adequate paint bonding profile.
      3. Painting shall only proceed with the PCSB, Architect and paint manufacturer representative's approvals after the painting preconstruction meeting.
      4. Interior and exterior wall and trim paint finishes shall be graffiti resistant up to approximately 8 feet above adjacent grade or walking surface.
      5. Avoid the use of colors affected by ultraviolet light.
      6. DO NOT use lead-based paints or primers.

## SPECIALTIES (CSI Division 10):

### Instructional Boards:

* + - 1. Instructional boards include white magnetic marker boards, or dry erase wall coverings and tack boards.
      2. Develop a schedule listing sizes, types, mounting heights and methods, colors and other accessories to coordinate program requirements, built-ins and FF&E locations.
      3. Consult the Ed Specs for determining mounting heights of the instructional boards.
      4. Instructional boards shall be at least 24 inches from room corners, if room size allows.
      5. Size and locate Instructional boards according to Ed Specs requirements.
      6. Provide proper wall construction/backing to support instructional board units.
      7. Do not locate instructional boards on operable partitions, unless no other walls are available.

### Toilet Partitions and Privacy Screens:

* + - 1. In-group toilet rooms, provide toilet partitions at each toilet, urinal screens at each urinal and privacy screens at showers.
      2. Toilet stall partitions, privacy screens and urinal screens shall be solid plastic or phenol, providing a waterproof non-absorbent surface resistant to marking with pens, pencils, or other writing instruments (graffiti resistant).
      3. Toilet partitions, privacy screens and urinal screens shall have pilasters floor mounts with overhead bracing and full-length wall brackets.
         1. Wall brackets shall be solid plastic or phenol when available from the manufacturer. PCSB may accept stainless-steel plaster shoes as an alternate.
         2. Overhead bracing shall have a metal anti-grip design.
      4. Pilaster shoes shall be solid plastic or phenol when available from the manufacturer. PCSB may accept stainless steel wall bracket as an alternate.
      5. Top edges of compartment panels and doors shall be at least 70 inches AFF, the bottom edge not more than 12 inches AFF and pilasters minimum 82 inches high.

### Wall Louvers:

* + - 1. Wall louvers shall be integral to the exterior building design.
      2. Provide fixed wall louvers of extruded aluminum that are impact resistant and designed to resist ASCE 7 wind loads.
      3. Wall louvers shall not retain water and they shall prevent water intrusion into the building.

### Flagpoles:

* + - 1. Provide 1 flagpole per site and comply with the following:
         1. Located near the main office (entry) of the school.
         2. Exposed height shall be 35 feet.
         3. Design flagpole to withstand wind velocity pressures in ASCE 7.
         4. Provide a tapered, seamless aluminum pole with an internal halyard system.

### Signs:

* + - 1. General
         1. The Architect shall develop a comprehensive master signage plan for the campus using a way finding approach incorporating CPTED concepts. This includes signage for the site, interior and exterior building and regulatory requirements.
         2. This signage program shall identify a standard graphic system for all signage, designed consistent and in conjunction with the project design concept.

Includes directing all users safely and clearly from the public road to appropriate parking and throughout the campus.

Once parked, provide visitors a layer of way finding information on the pedestrian level.

* + - * 1. A comprehensive sign program should foster safety, facilitate management of an area, provide a learning opportunity for visitors and offer a positive image and identity.
        2. All signs shall focus on the needs of visitors or students and deliver their message through positive terminology.
        3. Signage shall comply with all codes and regulations, such as FBC, FFPC and FDOT.
        4. The designer shall confirm building and room name and FISH numbering starting at Phase I drawings and completing by Phase III documents, work with the district Senior Construction Coordinator.
        5. Sign materials shall be impact, abuse resistant and exterior signs and mountings shall meet wind load requirements.
        6. All signs are to use International Standard Symbols to the greatest extent possible.
        7. The installed heights of signs not otherwise prescribed are to match the needs of the anticipated users – children vs. adults.
        8. Visual Character Heights not otherwise prescribed:

Sign height up to 6 feet - 1/8 inch per foot of anticipated viewing distance but not less than 5/8 inches.

Sign height 6 feet to 10 feet - 1/8 inch per foot of anticipated viewing distance but not less than 2 inches.

* + - * 1. Show the locations, types, sizes and quantity of identifying devices on construction documents.
        2. Provide signs at entrances to corridors indicating the rooms down that corridor.
      1. Exterior Signs:
         1. Coordinate all sign locations with required traffic site triangles.
         2. Provide off-site directional signs along the nearest intersecting street. Provide in a different color than standard traffic signs, coordinated with municipal standards as applicable.
         3. Pedestrian oriented signs shall have text large enough to have readability from 20 feet.
         4. Dedication Plaque:

New schools and additions shall have a 24 inches x 32 inches cast aluminum or bronze plaque locate near the main administration entrance or appropriate addition entry, mounted 60” above grade to the center of the plaque, with:

The names of the School Board Members and the Superintendent of Schools in office the day the construction contract was awarded,

The year the construction contract was awarded and

The name of the contractor and architect of record.

* + - * 1. School Name:

Provide 15 inches to 24 inches high letters cast in dark contrasting colors with the school’s name and 12 inches high address numbers located on the elevation of the facility legible from the street. Coordinate font and height with the Construction Coordinator.

Multi-building campuses - provide signage on the exterior of buildings to identify the building name and number, coordinate with Construction Coordinator. When possible, these signs shall be readily visible from the main visitor entrance.

* + - * 1. Marquee Sign:

Marquee sign shall have approval from the planning and zoning authority having jurisdiction.

Provide for a 2-sided marquee type sign with the school’s name and address.

Address numbers shall be at least 8 inches high.

Locate in prominent location perpendicular to the main street in front of the school site, coordinate with Construction Coordinator.

Sign shall have provisions for electricity.

Provide an electronic changeable sign for high schools.

Specify the height of the marquee sign or electronic changeable sign so it is visible above the fence line and landscaping.

* + - * 1. Traffic Signage:

Provide aluminum signage for traffic control and parking spaces.

Principal Parking.

Visitor Parking, sign each space.

Accessible Parking, sign each space.

Student Parking area, sign the area.

Staff parking, sign the area.

Service area.

Carpool, electric car parking, if provided for Green Building Code (GBC) points.

No cell phone usage in parent pickup loop.

Other areas as defined by the project.

Locate signage away from traffic lanes to be clear of passing buses and cars.

All traffic control signage shall comply with the requirements of PCSB, FBC and FDOT.

Signage shall clearly identify, indicate and provide information by the use of positive instructions.

Provide control of all vehicular and pedestrian traffic, identify the school and its various departments and provide general information.

Signs to be viewed from within vehicles shall have text large enough to have readability from 100 feet.

* + - * 1. Security:

The campus shall be resistant to unauthorized intrusion at any time yet provide for the entry of visitors through a control point during normal operating hours.

Provide perimeter signs prohibiting trespass and loitering see s. 810 Florida Statutes.

Limit perimeter openings to those required for Life Safety conformance and necessary for independent public use of the project elements e.g. an auditorium, a gymnasium, media center.

These entries should also be visually recognizable and inviting.

Coordinate required openings with security and surveillance system requirements.

* + - * 1. Building Entries:

There shall be a single, central visitor entry to the facility.

This main entry shall be clearly visible and easily identifiable.

Directional signs shall be provided from all visitor access points.

* + - 1. Interior Signs:
         1. General, coordinate all signage with the district Senior Construction Coordinator:

Accessibility signage, room identification and life safety signage shall contain raised characters, Braille and symbols and be according to FBC, FFPC and PCSB Signage Spec.

Raised image interior and exterior signage to include proportions, height, finish, contrast and locations according to accessibility code.

Confirm building, room name and numbering with district Senior Construction Coordinator, starting at Phase I drawings and completing by completion of Phase III documents.

* + - * 1. Directional:

The signage system should provide directional signs placed at decision points where significant numbers of users have to make choices or change direction. Consideration should be given to coordinating signs by the use of unique shapes or colors linked to specific destinations.

Signs in corridors shall indicate directions to:

special use rooms.

specific subject areas.

wings of the building.

* + - * 1. Room Identification:

Room names on signage of any classroom or laboratory shall be limited to CLASSROOM or LABORATORY, remaining spaces shall have names on signage according to FISH.

Identify all doors, exterior and interior with FISH numbers and space names.

Provide information for maximum occupancy signs with Phase III documents.

* + - * 1. Evacuation signage.
        2. Provide a floor plan with graphics and text, for contractor's installation, showing the primary and secondary evacuation routes from each space with an occupant load of 6 or more.

The routes of evacuation shall be indicated in contrasting colors and only indicate the evacuation route from the applicable space.

Orient the map so when facing the mounting wall adjacent to the room exit, the "YOU ARE HERE" arrow will point up.

Text and numbers shall read from left to right.

Show route to exterior of the building then to gathering point on site.

Coordinate with district Senior Construction Coordinator.

### Lockers:

* + - 1. Types of metal lockers are located and specified according to program requirements.
         1. Sizes as specified in Ed Specs.
         2. In the main student corridors of middle and high schools, provide a number of lockers equal to the school core capacity, as indicated in the Ed Specs.

Size of lockers is to be approximately 2 cu ft, minimum 2 tiers and maximum 3 tiers high.

12 inches to 15 inches wide and deep.

30 inches to 36 inches high.

* + - 1. Provide a 4 inches high concrete curb for floor mounted locker units.
      2. Provide sloped tops for locker units.
      3. Island lockers in circulation corridors shall be limited to 4 feet-6 inches elevation (with the sloped tops).
      4. Lockers shall have a finish that is:
         1. Long lasting.
         2. Resistant to heat, impact and fading.
         3. Resistant to corrosion.
         4. Available in a variety of colors.
         5. Low maintenance and graffiti resistant.

### Fire Extinguishers:

* + - 1. Locate fire extinguishers as required by codes and standards in corridors, public spaces, instructional spaces and other staff-controlled rooms near primary entrances:
         1. At instructional and staff spaces, low hazard areas and other non-corridor/public spaces fire extinguishers may be wall-mounted with strapped bracket.
         2. In corridors and public/assembly spaces, provide semi-recessed or fully recessed cabinets with tempered glass panel doors.

Extinguisher cabinets in fire rated walls shall be fire rated.

* + - * 1. Mount at heights to comply with all codes, including accessibility codes for mounting heights and projection from walls.
      1. Life safety plans shall show the location of all fire extinguishers and fire blankets:
         1. Flammable areas (Either 2A-40BC or 40BC):

Science laboratories.

Automotive shops.

Boiler rooms.

Air handling unit rooms.

Flammable liquid storage areas.

Duplicating stations.

Teacher lounges.

Kitchens install type K extinguisher, for saponification of greases, within 15 feet of cooking equipment.

Electrical rooms.

Generator rooms.

* + - * 1. Hazardous areas (4A - 60BC):

Woodworking and construction shops.

Storage rooms where wood or paper products are stored.

Portables.

Golf cart storage area.

* + - * 1. Low hazard areas (2A - 10BC):

Corridors and remaining rooms.

Class A or B fire areas.

* + - * 1. Electronic lab areas (carbon dioxide, Class C, 10BC).
        2. Provide fire blankets in laboratories and shops.

### Metal Shelving in areas as indicated in Ed Specs:

* + - 1. Metal shelving shall be clip-type adjustable shelving of modular unit construction on individual bolted frame assemblies with rimmed edge.
      2. Attach fixed shelving units securely to walls, if freestanding to floors.
      3. Provide blocking in walls as necessary.

### Toilet Room Accessories:

* + - 1. Group facilities to follow requirements as indicated in the Ed Specs.
      2. Toilet accessory components, mounting heights and locations shall comply with applicable accessibility codes.
      3. Provide surface mount electric hand dryers and soap dispenser near the sink. Provide impervious panel below electric hand dryer if restroom walls are constructed of gypsum board.
      4. Provide a sanitary napkin receptacle complete with refillable, disposable bag dispensing:
         1. In female staff public toilet rooms.
         2. In student individual toilets – Grades 4 through Vocational School.
         3. In each female group toilet rooms.
      5. Provide stainless steel grab bars with peened surfaces and flanges for exposed mounting at accessible toilets:
         1. Grab bars and the installation of grab bars shall comply with applicable accessibility codes.
         2. Provide vandal resistant fasteners and backing in the partition or wall for sufficient anchoring to resist a 250-pound force applied from any direction.
      6. Mirrors:
         1. Mirrors shall be tempered glass (provide permanent identification, by manufacturer on type glazing) in student toilet and shower rooms:

Provide concealed theft proof mountings, proper anchoring and wall backing according to manufacturer's requirements.

* + - * 1. Install mirrors at heights and sizes to comply with accessibility requirements.
        2. Mirrors in staff toilet rooms may be of glass installed to requirements of chapter 24 FBC.
        3. Mirrors in dressing rooms associated with Auditoriums, Dance Labs and other student occupied spaces shall be safety glazing properly labeled in upper right-hand corner.
      1. Provide rod and heavy-duty white vinyl shower curtains with exposed fasteners in showers in private shower rooms, i.e., clinic or coaches office restrooms:
         1. In locker room group showers, use partitions where possible to create visual baffles to reduce the need for curtains.

### Dust Control – Woodshops and Similar Areas:

* + - 1. In installations, provide central dust collection system in shops or laboratories with five (5) or more machines and/or tools producing fine dust particles such as saw dust.
      2. In spaces with less than 5 machines and/or tools producing fine dust particles such as saw dust.

## EQUIPMENT (CSI Division 11):

### Appliances:

* + - 1. Provide appliances for each grade level as listed in the Ed Specs.
      2. All appliances should carry the most cost-effective Energy Star rating possible.
      3. Provide shop drawings indicating location, type, manufacturers' name, model number, warranty and installation instructions.
      4. Appliances shall conform to FBC, FFPC and accessibility requirements.

### Athletic Equipment:

* + - 1. Provide appropriate athletic equipment in areas per Education Specifications.
      2. Provide shop drawings indicating location, type, manufacturers' name, model number, warranty and installation instructions.

### Gymnasium Dividers:

* + - 1. Provide electrically operated roll-up type gymnasium dividers.
      2. Curtain shall have the following characteristics:
         1. Bottom 12 feet shall be an opaque solid vinyl coated polyester fabric.
         2. Upper portion shall be vinyl coated polyester mesh.
         3. Curtain shall have a self-extinguishing (UL) fire rating.
         4. Curtain shall be resistant to rot, mildew and ultraviolet light.

### Assistive Listening Systems:

1. Provide Assistive Listening System in all assembly areas (per 11-4.1.3 (19) and 11-4.33 FBC.

## FURNISHING (CSI Division 12):

### Auditorium Seating:

* + - 1. When Ed Specs specifies an auditorium, provide the required number of seats.
      2. Seating layout shall comply with the FBC and FFPC:
         1. Layout should provide optimize sight lines.
         2. Disperse accessible seating as evenly as possible.
         3. Stagger seating so there is an offset from seat in front.
         4. Seats to be constructed of injection molded seat and back. Upholstered seats and backs are not permitted.
         5. Exposed metal parts shall have a smooth, durable and cleanable finish.
         6. Provide for highly visible and tamper resistant seat and row numbering system.
         7. Provide certification that seats are designed and built: to withstand 600-pound static load, laterally distributed 3 inches from the leading edge.

### Telescoping Bleachers:

* + - 1. Provide telescoping bleachers in gymnasiums.
      2. Provide electrically operated bleachers with multi-tier rows of seat, deck and risers on interconnected retractable supportive understructure, wall attach.
         1. Locate the electrical disconnect in a readily accessible area, but not readily accessible to the general public.
      3. Bleachers and installation shall comply with all applicable building codes.
      4. Provide the number of wheelchair seating spaces as required by FBC.

### Casework/Cabinets:

* + - 1. See Ed Specs for location of required cabinets, locks and casework, coordinate with the construction Coordinator.
      2. Base cabinet countertop heights in student occupied spaces shall be as listed in table for [mounting](#_bookmark85) [heights](#_bookmark85) in the appendix.
      3. All case work fillers shall be enclosed.
      4. All casework and cabinets shall be free of protruding sharp corners.
      5. Detail both the wall supported cabinetry and the wall support detailing for wall mounted units in a manner that such will safely support an assumed load equal to each cabinet shelf to hold 70 lbs. per lineal foot (31.8 kg) load on a wall supported unit.
      6. Cabinetry shall be designed with a maximum width of 30" unless there is a need for a wider cabinet (Art Room). This 30" width does not apply to sink units.
      7. Sink units or any other water containing cabinet shall be designed without locks and constructed of wood.
      8. Tall storage cabinets will typically be 84" in height and 48" in width with a center vertical partition and a horizontal centered fixed shelf.
      9. All cabinetry 72" or higher regardless of the width shall have a center fixed horizontal shelf unless there is a special need of a full height cabinet.
      10. All cabinetry with locks shall be keyed alike though out the facility.
      11. Provide chase panels to conceal exhaust pipes within and above cabinets to the ceiling height.
      12. All casework shall be specified with a plastic laminate finish with the exceptions of science spaces:
          1. All science spaces shall have the option of wood finish or plastic laminate.
          2. The drawings for lavatory casework shall specify wood finish with a plastic laminate option.

## SPECIAL CONSTRUCTION (CSI Division 13):

### High School Stadiums:

* + - 1. Provide a urethane base, black, rubberized track with the field event areas per the Ed Specs.
      2. Home-side seating area, 3000-seat capacity and visitor side 999-seat capacity.
         1. Steel structure with aluminum treads, riser and bench type seating.
         2. Design the structural system to handle gravity and up-lift loads without a concrete slab under the entire bleacher area.
         3. Design the structure in compliance with structural requirements of the FBC and ASCE - 7 using the geotechnical report information for designing the foundation.
         4. Life safety, exiting, accessibility requirements per the FBC and FFPC:

Provide a guardrail system with chain link fencing.

Provide concrete walkways from all exits.

On the Home side provide:

Exit ramps and stairs:

Provide one 6 feet wide ramp at each end; stairs near ramp are optional.

Minimum three 11 feet wide vomitories evenly spaced along the intermediate cross aisle exiting to the rear of the bleacher consisting of stairs or ramps in each.

Recommend providing one or two ramps equally spaced along the front of the bleachers depending on occupant load.

Widths of the stairs and ramps are minimums; designer shall provide widths as required by the FBC and FFPC.

Provide intermediate cross aisle the entire length of the bleachers.

All areas of bleacher shall be less than 200 feet from the end of exit (stair or ramp end).

Provide non-combustible 8-foot x 30-foot modular press box, with a passenger elevator for exterior use:

Design media viewing platform on the same level as the press box access ramp, between the elevator and the press box, provide appropriate guard rail system, minimum of 200 square feet.

Provide watertight enclosure preventing rain driven water from entering the elevator shaft and cab for elevator if manufacturer does not rate for exterior use.

Provide for minimum 33-wheelchair spaces with companion seats:

Provide at least 4 with up to 8 spaces on upper level with access to these seats directly off of the elevator, do not route through the press box.

Provide access directly to the bleachers from the upper accessible seats without going through the press box.

The number of wheelchair spaces above is based on 3000 seat capacity; adjust as necessary for actual seating capacity.

On the Visitor side provide three exit ramps:

Provide one 6-foot-wide ramp at each end, stairs near ramp are optional.

Provide an additional 6-foot-wide ramp in the midpoint along the front of the bleachers with optional stairs.

Widths of the stairs and ramps are minimums; designer shall provide widths as required by the FBC and FFPC.

All areas of bleacher shall be less than 200 feet form end of exit (stair or ramp end).

Provide for minimum 13-wheelchair spaces with companion seats.

The number of wheelchair spaces and ramps/stairs above are based on 999 seat capacity; adjust as necessary for actual seating capacity.

Architect shall coordinate location of lighting for all areas above and below the bleacher with the Electrical Engineer.

Areas under the bleachers which are not a hard surface and have gravel or stone cover shall have system to keep people from accessing the gravel or stone material.

### Portable Exterior Bleachers:

* + - 1. Provide non-combustible portable exterior bleachers in the areas and numbers required by the Ed Specs.
      2. Design bleacher to meet the requirement of FBC, FFPC and ASCE 7.
      3. Each bleacher section shall be 15 feet long with 5 rows and have a maximum seating capacity of 50.
      4. Provide for temporary anchorage of the bleacher to meet current wind load requirements.
      5. Provide guardrail system with chain link fence.
      6. Provide concrete slab for access and capable of accommodating a minimum of two wheelchair spaces per bleacher section. (2 spaces if 50 or less)

## CONVEYING SYSTEMS (CSI Division 14: 14 20 00 and 14 24 00):

### General:

* + - 1. Regulatory requirements for passenger elevators:
         1. Florida Building Code.
         2. Florida Fire Prevention Code.
         3. Bureau of Elevators of the Department of Business Regulation according to Chapter 399 of the Florida Statutes.
         4. National Electrical Code (NEC): NFPA 70.
         5. National Fire Alarm and Signaling Code: NFPA 72.
         6. Components, accessories, fabricated parts and structure requirements shall comply with ANSI/ASME A17.1.

### Passenger Elevators:

* + - 1. Elevators in schools are not for general use, they are for:
         1. Those with disabilities preventing them from using stairs.
         2. Furniture and equipment transport and custodians.
      2. Locate elevator of multiple story schools in a central location, limit the use of multiple elevators.
      3. Locate elevator in an area protected from the weather, especially driving rain. Locate the enclosure to keep rain, including wind driven rain from entering the shaft.
      4. Design school elevators with the following:
         1. Provide for PCSB electronic security swipe card system or key operation. Keyed switch operation to be factory *master keyed* to campus locking.
         2. Provide vandal-resistant push-button switches at cab interior.
         3. Fire call key switch.
      5. Elevator pits to provide a dry area and include the following:
         1. Sump pit with a metal cover.
         2. Metal ladder, if pit is deeper than 3 feet-0 inches.
         3. Two moisture-proof light fixtures per pit.
         4. One ground fault circuit interrupter (GFCI) protected receptacle.
         5. No PVC or plastic pipes.
         6. Provide sump pump with filter/separator system preventing oil from improper discharge.
         7. Provide a high-water alarm tied into EMS installed in the pit, coordinate with electrical engineer and district master specification requirements.
         8. Provide lighting with a 10-foot candle (fc) light level.
         9. Provide an Emergency Stop switch.
         10. Provide side wall fire sprinkler.
      6. Provide a vandal-proof emergency line-powered speakerphone inside the cab to comply with applicable codes and standards.
      7. Hydraulic elevators shall be used with direct acting hydraulic plunger(s). The plunger(s) shall be either standard hole-less or twin jack design.
      8. Oil viscosity control shall be included in each elevator and modernizations.
      9. Two gate valves shall be installed in the hydraulic line. One in the pit and one adjacent to the hydraulic valve in the machine room.
      10. All new elevators or elevator modernizations shall be equipped with a battery back-up alarm bell/audible device in each cab for the Emergency Communication System.
      11. Modernization and new elevators shall be installed with non-proprietary control systems.
      12. Diagnostic and programming display will be incorporated in the control panel.
      13. Capacity

Provide a 3000-pound capacity elevator serving 2 or 3 stories.

* + - 1. Cab Interior:
         1. Comply with accessibility code for cab size and mounting height of controls.
         2. Elevator cabs shall have durable and low maintenance interior finishes.
      2. Elevator Machine Rooms:
         1. Locate next to or near the elevator hoist way.
         2. Provide at least 7 feet0 inches clear headroom.
         3. Provide adequate ventilation and humidity control while maintaining required fire rating of enclosure.
      3. Exterior elevator hoist way shall have covered vestibules at each landing. Do not place pipes, ducts and conduits not required for elevator operation in the elevator machine room.

### Wheelchair Lifts

* + - 1. Provide wheelchair lifts in locations required by accessibility codes and only when it is impractical for ramps.
      2. Pre-approval is required.

**\*\*\*END OF SECTION\*\*\***