SECTION 2A-4

CIVIL DESIGN CRITERIA

PART 1 GENERAL CRITERIA REQUIREMENTS

A. General Considerations

1. The Project Consultant shall conduct all preliminary investigations relative to development of the proposed project with all applicable regulatory agencies having permitting and approval authority on this project in addition to Broward County, Engineering, Utilities, Environmental Protection Department, Local Drainage District and State Storm Water Pollution Protection, Fire Marshall, B.C. Planning, Zoning, Office of Nature Resource Protection, Health Department and Traffic Engineering. The Consultant, through consultation, shall determine the extent and scope of improvements as it relates to each agency. Specifically, all state agencies at the county level shall be consulted for design conformity.
2. The Project Consultant shall prepare all required construction permit applications, certifications and agreements and shall conduct all coordination meetings and prepare support plans and documents to obtain all necessary approvals for start of construction activity.
3. The Project Consultant shall make all design adjustments deemed necessary during this process to obtain all permits and approvals to begin construction at no additional cost to the owner.

B. Off-Site Improvements:

1. Roads: The Project Consultant shall be responsible for design, permitting, construction, and construction observation of School's Perimeter Roads which includes, but are not limited to, redesign, realignment and construction of three lane newly paved and striped site perimeter roadways with medians, turn lanes into the property at various entrance locations, the maintenance of traffic, relocation and/or demolition of existing property under and over ground utilities, structures or equipment. At minimum, the construction shall consist of:
   a. Approximately ---------- LF of right-of-way improvement along ---------- Street/ Boulevard and approximately ---------- feet of two-lane access road along ---- side of property line connecting the access road. These improvements, shall include but will not be limited to, construction of full width of asphaltic concrete roadway supporting east / west or north / south bound traffic, turn lanes, drainage, and other pertinent structures and facilities.
   b. New overlaid asphalt pavement on full width of existing and proposed roadways, all over-head and ground mounted flashers, and their related equipment, structures and services as required by Broward County/ and City Traffic Engineering Department. All drainage system, sidewalks, curbing and driveways, fencing, fire equipment, irrigation, landscaping, pavement striping and signage as well as lighting shall be based on local Fire Marshall, Utilities, Engineering, Florida D.O.T. and local Surface Water Management authority standards.

C. On-Site Improvements

1. Earthwork/Demolition:
   a. The Contractor shall obtain a Sunshine State One Call of Florida Inc. for Certification Number at least 48 hours prior to any excavation or site work. Tel. 1-800-432-4770.
   b. The Project/ Consultant shall be responsible for coordination and procurement of all applicable demolition permits and approvals, including SWPPP permit by the State EPA office, utility services and preparatory work such as mobilizing, barricading, clearing, grubbing, excavation and removal of all unsuitable materials, trees, shrubs, vegetation, and any existing surface structure and utilities in conflict with this project. Once the preparatory work is complete, all debris shall be disposed of leaving the site clear for filling and leveling for the proposed construction. The site shall be filled and compacted to general elevation of ---------- N.G.V.D. as per outline specification.

c. The Project Consultant shall be responsible for de-mucking any area within the project, which contains muck to the depth of 4 feet below existing elevations, and they shall back fill the area with clean fill to minimum elevation of ---------- N.G.V.D. All muck material excavated shall be disposed off site as per project specifications. Muck material under the building pads shall be removed to its full depth.

2. Fire Protection System: The Project Consultant shall be responsible for design and installation of fire prevention mains and services system capable of delivering the minimum of 1500 GPM at any given points of the proposed school site. This system shall include, but, will not be limited to water meters and back flow equipment, fire hydrants, fire department fire hose connection points, fire pumps and power supply, pressure indicator valves, check valves, fire hose cabinets, fire sprinkler systems, fire detection/activation and control systems, meeting requirements of local fire marshal/ department and the School Board of Broward County Maintenance Department.

3. Water Distribution System: The Project Consultant shall be responsible for installation of potable water distribution system, which will meet consumption requirements of ----- students and ------ staff members. This system shall be designed based on city of ---------- utilities and Department of Health and Environmental Regulation Standards. The system's residual pressure shall not be less than 30 PSI at any given moment of service. The proposed system must be designed for capability of isolation and repair at a minimum of four sections and providing uninterrupted service to the facility.

4. Sanitary Sewer System: The Project Consultant shall be responsible for design of gravity sanitary sewer system capable of handling sewer effluent generated from ----- students and ----- staff members. This system shall be designed based on the City OF ---------- utilities and Office of Planning and Environmental Protection Standards and Specifications. The proposed system shall include but will not be limited to minimum 6 inch diameter laterals, minimum 8 inch diameter gravity mains, cleanouts concrete manholes, full sewer pump station ad sewer force mains for off site discharge if warranted. It will also contain check valves in discharge control systems, high water alarm and emergency service connection and pumping systems.

5. Surface Water Management System: The Project Consultant shall be responsible for design of surface water management system capable of collection, treatment, storage and discharge of storm events of 10 year one day, 25 year three day, and 100 year three day as per South Florida Water Management and ---------- Water Control district flood routing requirements. The proposed system should be designed to operate on the basis of Broward County office of Planning and Environmental Protection Standards and Specifications. This system shall consist but, will not be limited to turbidity barriers, storm discharge pollution control devices per EPA SWPP program, Dry Retention/Detention areas, underground Exfiltration systems, concrete collection culverts, concrete catch basins, concrete aprons, area drains, roof-drain leaders, discharge and pollution control structures, Swales and junction boxes. The proposed system should maintain the pedestrian and vehicular traffic areas free of any standing water or soggy conditions.

6. Paving and Grading Improvement:
   a. The Project Consultant shall be responsible for design of school service parking and drives, bus and parent drop-off interior roads, for 1/3 of student population for each location (bus and parent loading) equipped with covered walkway for the lengths of drop off zone, visitor and staff parking equipped with minimum of ------ parking spaces and traffic circulation areas. All parking/drives and buildings shall be connected and accessible with minimum 8 feet wide concrete sidewalks and ramps conforming to the latest A.D.A. and S.R.E.F. requirements. Minimum of 8 each handicap parking spaces equipped with handicap ramp shall be constructed on various locations adjacent to building access points per A.D.A. requirements. The proposed parking and drives shall conform to the City of ---------- Engineering and Planning Standards and shall be asphaltic concrete, consisting of curbed landscape isles with trees and ground coverage as per S.R.E.F and Broward County E.P.D. requirements. All landscaping and sod areas shall conform to District Maintenance Department Standard be supported with multiphase irrigation system designed to and operate at various zones with

control devices and alternating well and potable water supply sources. All pervious areas shall be covered with St. Augustine solid sod and graded with uniform longitudinal and cross slopes to properly direct surface run-off. The irrigation equipment and systems shall be adequately equipped with lighting fixtures and structures for maintenance of visibility at all times. All paved areas shall be properly sloped to direct surface run-off with minimum 0.5 percent longitudinal and 1 percent cross slope.

b. The Project Consultant shall be responsible for installation of all athletic courts, running track, play areas, play ground equipment, softball fields, 6 feet high fencing encompassing building, parking and drives secured with varying gates sizes of 6 to 24 feet and athletic related structures and equipment in coordination with the School Board of Broward County Athletic Department.
   (1) Softball and Athletic fields shall be constructed with well draining soil material base to prevent soggy field conditions.
   (2) All athletic fields shall be dry to accept physical activity 24 hours after any 10 year one day storm event.
   (3) All Track and Field Athletic areas and components shall meet US Amateur Athletic Association Recommended Standards.

7. Signage and Pavement Markings: The Project Consultant shall be responsible for design and installation of all traffic control devices both On and Off site, which include but are not limited to adjustment or relocation of existing traffic control devices and features, installation of traffic signals, over head and ground mounted school flashers, signage, striping and marking, power supply and control devices. All improvements contained in this section must be designed, coordinated and approved by Broward County and City of ----------, Traffic and Engineering Department, prior to Owner's Phase III plan review and approval and any construction activity.

PART 2 CIVIL DESIGN INFORMATION REQUIREMENTS

A. General Information

1. Upon receipt of the authorization to proceed, the engineer shall:
   a. Visit the site and conduct all necessary investigation to develop the Design documents.
   b. Obtain or be familiar with all regulatory requirements relating to storm water management, traffic flow, water distribution, sanitary sewer, landscaping, planning and zoning.
   c. Provide SBBC with a list of those agencies and the requirements of each.
2. The engineer will receive a concept plan prepared by SBBC personnel. The plan depicts the proposed layout of buildings and site improvements as well as distribution of pedestrian traffic as approved by SBBC Facilities Department and should be adhered to as closely as possible.
   a. In no case shall any deviations from the concept plan be made without the review and approval of the SBBC representatives.
   b. The plan should be discussed in depth with the SBBC representative to determine if conflicts exist between the proposed layout and the requirements of grading, drainage, zoning, building codes, etc., that the engineer may foresee or conditions that he is familiar with.
   c. The plot plan and civil engineering plans shall be drawn at a scale of 1' = 40', unless otherwise advised, and shall be prepared on 24" x 36" (1 ½" border on the left and ½" on all other sides) sheets and shall contain the following information in addition the engineer's name and certification stamp:
      (1) The project title.
      (2) The site address, street, city, and vicinity map.
      (3) The SBBC project number.
3. The engineer must keep the project architect, as well as SBBC informed immediately of any changes to the design through the course of the project and shall coordinate with the architect

regarding common concerns such as utility connection locations, finished slab grades and floor elevations and slopes, etc. Of particular concern is the location of any required steps or ramps in the building slab. All ramps and pedestrian circulation areas and walk shall be design based on A.D.A. and Florida Accessibility Code Requirements.

4. Engineers shall provide a breakdown of required submissions to regulatory agencies. Any fees associated with these submissions will be paid by SBBC.
5. Submission of all documents and drawings will be coordinated through the SBBC Development Coordinator.
6. The engineer shall provide one set of reproducible Mylar and one computer disk copy of the same for the owners use, upon finalization of the plans.

B. Plan Criteria Requirements – Site Plan

Note: The following specifications will be critically reviewed for compliance.

1. Full, horizontally-dimensioned site plan adequate for staking.
2. Proposed right – of – way dedications, easements and improvements with legal descriptions is (accel-decel lanes, sidewalks, road widening, etc.) required.
3. Proposed landscaping, areas for storm water management and minimum requires parking clearly indicated. A legend shall be utilized on the plan sheet to indicate all improvements and instructions.
4. Proposed access road dimensions and frontage street shown with name.
5. Proposed buildings to show floor elevations, names, and numbers.
6. Proposed concrete areas (trash pad (15 x 25), sidewalks, etc.) indicated and dimensioned.
7. Vicinity map at a scale of 1:2000. TO include section township and range.
8. Project statistics consisting of:
   a. Gross land area
   b. Net land area (gross land area less area included in any easement of required dedications that can not be built upon).
   c. Property Identification.
   d. Gross building area
   e. Net impervious area (gross building area, parking, drives, sidewalks, paved play courts).
   f. Gross pervious land coverage
   g. Zoning of adjoining parcels
9. Index of drawings (C1 – Plot plan, C2 – Boundary and Topographic Survey, C3, C4, C5, C6 – Civil Engineering Drawings, and C7 – Details and Specifications).
10. Proposed drives, buildings, sidewalks, play areas, ballparks, and parking to be shown with dimensions.
11. North arrow, plan scale, date, consultants name and company.
12. Complete boundary information transferred from property survey, including any and all basements identified and dimensioned.
13. All setbacks from property lines shown and dimensioned.
14. Proposed fencing, guardrail, and walls identified as to type and height with limits of proposed construction and staging area with limits of each phase of construction.
15. All existing improvements (hydrants, power and telephone poles, manholes, inlets, signs, curb, and driveway cuts, etc.) transferred from topographic survey.

16. Proposed protective features, structures, gates, and fences.
17. Complete title block information including address of project and SBBC project number.
18. Proposed storm retention storage areas and structures.

C. Boundary and Topographic Survey: A copy of the boundary and Topographic survey shall be included in the plans as sheet C2 and shall contain and be prepared as follows:

1. Draw to scale (prefer 1" = 40') on 24" x 36" sheet size and show full legal description of the property and the existing easements and dedications.
2. Establish benchmark on a permanent marker set in concrete within area of survey and show location based on State Plane Coordinates.
3. Install permanent reference marker (set in concrete) at all corners.
4. Indicate dimensional lengths of all lines bounding properly, angles, and radii of any curved lines.
5. Reference distance to nearest street intersections.
6. Show and locate the following:
   a. Fill storage piles.
   b. Guy wires, water lines, sewer lines and pump stations, septic tanks and drain fields, manholes, drainage structures, underground cables for telephone and power.
   c. Fences, canals, or any water bodies.
   d. Electric poles, lamp posts, telegraph poles
   e. Fire Hydrants
   f. Tree Clusters
   g. Any object on property, between property line and curb, or between property line and edge of existing road paving.
   h. Advise of any unusual soil conditions and presence of wet lands or muck in the site by means of subsoil investigation reports.
7. Show any buildings or property encroachments into the school property.
8. Show all public and private sewers, drainage, water and gas mains adjacent to the property. Indicate elevation at top of structures and also invert elevation of pipe.
9. Show the following information regarding sidewalks, curbs, and streets:
   a. Width of paving
   b. Existing elevations
   c. Any proposed widening or change in elevation
10. Show acreage and legal description.
11. Show small-scale vicinity map.
12. Show R/W width of all alleys, streets, etc. bounding property.
13. Show elevation of property, note any unusual elevation changes.
14. Show all utility easements and/or right-of-way of records.
15. Spot elevation at 100 feet grid. Flood criteria elevation as established by Flood Control District and F.E.M.A. maps.
16. Furnish this office with two (2) copies of this survey.

D. Paving, Grading & Drainage

Note: The following specifications will be critically reviewed for compliance. In the event the survey is prepared by another firm, the Engineer shall allow for same to be included when numbering sheets. They shall be drawn at the same scale as the concept plan and shall be prepared in accordance with the following design criteria:

1. The proposed grading shall be in accordance with the details provided by Florida D.O.T. and Broward County Engineering Department for rough grading, parking, and road construction and sections indicating relationship of finished slab elevations to adjacent finished grades.
2. All design calculations for drainage and earthwork shall be submitted separately upon request of the S.B.B.C.
3. A complete estimate of site development costs, to include quantities and costs by item and unit price; this shall be submitted separate from the drawings.
4. The proposed grading and drainage plan shall be designed based on the criteria of the local governing authority. Details of the local storm water design requirements shall be discussed and finalized with the owner prior to starting the design.
5. The engineer shall receive a copy of the Geotechnical engineer's report in the site soil conditions and shall adhere to the recommendations included in this report.
6. Seepage pits/ exfiltration trenches will be allowed where required and should be designed according to S.F.W.M. District Design Standards of Volume IV.
7. Site earthwork shall be made to balance unless particular conditions make this impossible. All earthwork computations shall make allowances for topsoil and other unsuitable fill materials as may be indicated on the topographic survey and soils report provided, as well as from footings and utility excavations.
   a. It is required that any proposed grading plan be reviewed in-depth with the S.B.B.C. representatives prior to finalizing design.
8. The following Paving & Grass Grades will be required:
   a. All paving grades next to buildings shall be set 6" (0.50') below finished floor elevations unless otherwise required.
   b. All grass grades next to buildings shall be set 3" (0.25') below finished floor elevations unless otherwise required.
   c. Finished floor elevations shall be set:
      (1) Minimum 5'-0: above 100-year base flood elevation as indicated in F.E.M.A.
9. Grading of paved areas shall conform to the following criteria:

Area Type	Centerline Grade	Cross Slope
Asphalt or Concrete	0.5% minimum / 1% maximum	1% minimum / 2% maximum
Green Areas	0.5% minimum / 2% maximum	1% minimum (unless otherwise noted)/ 25% maximum (retention areas, canal banks)

10. North arrow and plan scale.
11. Legend of symbols used.

12. All relevant information (boundary data, easements, adjacent building elevations, existing improvements and topography within 25 feet of boundary) accurately transferred from property and topographic survey.
13. All proposed buildings, drives, fencing, entrance gates, trash disposal areas, roadway dedications and widening accurately transferred from site plan.
14. Driveway and parking section for interior drives.
15. Specifications for paving, piping, structures, earthwork, concrete work, excavation & backfilling.
16. Slab/paving, and pavement restoration detail.
17. Slab/landscaping, sidewalks and curbing.
18. Drainage structures, frames and grates and retention/detention sections.
19. Trenching, backfilling, connections and concrete work details.
20. Protective post detail.
21. Additional details may be required on particular projects.
22. Reference is to be made on plans to the Geotechnical engineers' report including Engineer's name and date of report. Test borings and soil logs shall be included in specifications.
23. All of the following grading information must appear on the plans in order to clearly define all drainage patterns:
    a. All high and low points in drives, slabs and landscape areas clearly indicated.
    b. Paving and slab grades at all building corners, breaks in grade and at regular intervals along slab.
    c. Centerline of all swales (not necessarily in the center of drives) clearly indicated and located showing direction of slope, percentage grade, and proposed spot elevations at regular intervals.
    d. For property line or buildings abutting landscape areas, finished landscape grades and slab at regular intervals to insure the required 3" minimum differential is maintained in all cases.
    e. Existing and proposed spot grades throughout the side to depict drainage patterns and to serve as a basis for earthwork computations.
    f. Existing spot elevations along property lines and/or at limits of grading.
    g. For landscape areas:
        (1) Where slope exceeds 3:1, plan shall call for typical section and grading method
        (2) All proposed plant materials shall be clearly indicated on plans including locations, species and sizes.
        (3) Details for plan support, mulching, etc., and specifications shall be included.
24. All required layout information and construction details for curbs, gutters, concrete swales, catch basins, manholes, inlet and outlet structures, retention basins, seepage pits, and other drainage devices may be shown on a separate sheet labeled "Civil Engineering Details".
25. All required layout information (size, type of pipe, and connection point to main and building), and construction details for site sewer or septic tank.
26. All required layout information and construction details for fire hydrants, valves, meters and vaults, connections, etc. for site water distribution and fire systems.
27. Name, address, and telephone number of all utility companies which may become involved, including, but not limited to: water, sanitary sewer, storm water, gas, electric, telephone and CATV.

28. For all utility construction and/or relocations, plans shall clearly indicate those portions of work to be done and materials to be supplied by utility (and/or municipality) and those portions to be done by private contractor.
29. Plans shall include required grading, paving and utility construction specifications.
30. Details and specifications shall be completed for demolition/capping, etc. of wells, septic tanks, gas tanks per survey and/or soils report information.
31. Cross sections and complete earthwork quantity computations for “on-site” as well as “off-site” indicating cut and fill amounts and proposed fill grades.
32. Complete storm and drain design and detention calculations shall be included on detail sheet or submitted separately.
33. Where sanitary, storm and water lines cross, top of pipe(s) grades, inverts, and surface grades shall be shown.
34. To avoid potential conflicts where two (2) or more existing utility lines are in the street R/W, a profile(s) shall be drawn showing proposed connections.
35. Existing water pressure for water main(s) shall be shown.
36. Acceleration/deceleration lanes and entrance drive are to be identified as per city, county, or state standard and details. All limits, materials and thickness shall be indicated.
37. Where improvements beyond site frontage are required, sufficient information for existing grades, obstacles and required restorations (plan(s), details and specifications) shall be shown.
38. Street frontage improvements, when required, shall show existing conditions (grades, elevations, inverts, edge of paving, curbs, driveway cuts, signs, standards, utility poles, guy wires, underground utilities, sanitary storm water, gas, mail boxes, etc.) and required existing and proposed conditions be drawn at a large scale and kept separate from the site development plan.

E. Storm Water Management

1. Quality Control:
   a. Develop a stormwater management plan that provides a strategy to reduce the amount of impervious cover, enhance infiltration, capture, and treat stormwater runoff from 90% of the average annual rainfall using acceptable best management practices (BMPs).
   b. The BMPs used to treat stormwater runoff must be capable of removing 80% of the average annual post development suspended solids (TSS) load based on existing monitoring reports.
   c. BMPs are to be in accordance with standards and specifications from the Florida Department of Environmental Protection.
2. Quantity Control:
   a. For project sites that have an existing impervious surface area of 50-percent or less, develop a stormwater management plan that prevents the post-development peak discharge rate and quantity from exceeding the predevelopment peak discharge rate and quantity for the 1- and 2-year 24-hour design storms.
      (1) As an alternate, implement a stormwater management plan that protects receiving stream channels from excessive erosion. This plan must include strategies for stream channel protection and quantity control.
   b. For project sites with existing impervious surface area greater than 50-percent implement a stormwater management plan that results in a 25% decrease in the volume of stormwater runoff from the 2-year 24-hour design storm.

traditional drainage infrastructure and conveying runoff instead to bioretention areas, swales, and vegetated open spaces.

F. Water Distribution System

1. General -- Water Distribution Plan shall be based on and contain verified existing water facilities information to insure and meet domestic and fire protection water demands of the proposed facility. New water mains, services and meters will be designed based on hardy cross analysis and fixture counts. This plan will indicate location, size and type of water lines, services, valves, Siamese connections with maximum spacing of 350 LF, fire hydrants, sample points, blow offs, fittings, detector check valves, meters, backflow preventors and details and specifications of the proposed improvements. All service check valves and fire department connections (Siamese connections) shall be designed in conjunction with NFPA rules and regulations and in coordination with the mechanical and plumbing plans equipped with electronic markers. All water lines shall have minimum 3 feet of coverage and shall be adequately protected against any utility or drainage pipe crossing as per BROWARD COUNTY E.P.D., H.R.S. Standard specification.
2. Materials – See Material Specification at Section 02660

G. Gravity Sewage Collection System Specifications

1. General
   a. Sanitary Sewer System plan shall be prepared based on verified off site information such as connection capacities, depths, and peak flow demands. Gravity sewer lines, structures and laterals shall be sized to accommodate peak flow demands of the facility having system velocity of 2 F.P.S. Minimum size of the gravity lines shall be 8 inches with 4 feet of cover and minimum slopes of 0.41%. Gravity mains must be no greater than 400 feet between manholes and should have no acute direction changes. There shall be 0.1-foot drop on gravity main inverts across each manhole and size, rims, inverts, lengths and discharge direction of each structure and gravity main shall be indicated. Sewer laterals shall be minimum of 6 inches in size and shall be equipped with cleanouts and electronic markers at intervals of 75 feet. Minimum slope for sewer laterals shall be 0.5% and at no occasion they will be directly connected to sewer manholes. All terminal cleanout locations and inverts shall be coordinated with Architectural and Mechanical plans for proper depth or minimum 30” and size. A profile of the proposed gravity system depicting rims, inverts, pipe lengths and type, slopes, structure sizes and numbers including existing and proposed grades and conflict pipe location and inverts shall be included in the design plans.
   b. Upon completion of construction all sewer systems shall be flushed, television inspected and tested for infiltration. A certified record copy of all testing and inspection shall be provided to the School Board of Broward County.
2. Materials – See Material Specification at Section 02730

H. Signing and Marking

1. All traffic marking and signage shall conform to following regulations and standards as well as specifications of Section 02847.
2. All pavement marking shall be paint manufactured and applied in accordance with FDOT Standard Specifications Section 710.
3. All signs shall be manufactured and installed in accordance with the Manual on Uniform Traffic Control Devices,
4. Reflective pavement markers shall be Class A Markers manufactured in accordance with FDOT Standard Specification 706 and installed in accordance with the manufacturer’s recommended procedures.

I. Earth work Calculations

1. General
   a. Earthwork quantities shall be established for the following four categories based on specifications and guidelines of Section 2200-2280.
   b. Top Soil

c. Cut
d. Fill
e. Muck Removal

2. Stationing: The categories shown below shall be completed for on-site areas as well as off – site areas.
   a. Cross sections for on-site or off-site detention basins or ponds shall be kept separate from building and paving sections. Sections shall be taken through the following areas:
      (1) Centerline of bottom (if Swaled).
      (2) Bottom of Retention Cut.
      (3) Top of Retention Cut.
      (4) Outer Limits.
   b. Detention area(s) are to be boxed out as not to exclude or include site sectioning.
   c. Cross section stationing for on-site shall be parallel to the buildings. Sections shall be drawn through the following areas:
      (1) The long sides (both) of each building.
      (2) Center line of traffic swales (use rough grading detail at 1'-0" undercut).
      (3) Paving edge
      (4) Swales (earth, concrete, etc.) next to property lines.
      (5) Property lines
   d. Cross section stationing for off-site shall be set parallel to center line of street. Sections shall be drawn through the following areas:
      (1) Edge of paving
      (2) Along gutter line
      (3) Along center line
      (4) At bottom of swales or ditches (when shown on drawings).
      (5) At bottom(s) and top of berms (when berms are used).
      (6) Along property lines.

J. Cross Section Profiles

1. Earthwork profiles for on-site and off-site shall be drawn for each section line as laid out on the stationing plan. Each profile shall show the following information:
   a. Station numbers keyed to plan.
   b. Profile scales shall be 1" – 3'-0"
   c. Existing ground level.
   d. Top Soil Line (dashed in the appropriate depth.)
   e. Proposed Construction Level
   f. Slab plus stone depth and length.
   g. Paving specification depth and length.
   h. Paving, 1'-0" undercut (see rough grading detail, where required).
   i. Utility piping when 24" in diameter or greater.
   j. Cut and fill areas labeled with a "C" for "F" respectively.
   k. Numerical readings in square feet shall be shown for cut areas and fill areas.

K. Pump Stations

1. If applicable, full detail plan, specifications and design calculations for the pump stations must be submitted along with electrical plans for review by The School Board of Broward County. All

pump stations shall be designed according to State of Florida D.E.R. and Broward County E.P.D. rules and regulations.

2. Materials for construction of the proposed pump station shall be based on specification section of Section 02730 and S.B.B.C. Maintenance Department.

END OF SECTION