

SOUTH FLORIDA WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT NO. 06-01400-S-24 DATE ISSUED:September 29, 2015

PERMITTEE: CA MIAMI 20700 GR LLC.

3000 OLYMPIC BLVD.

SUITE 2120

SANTA MONICA, FL 90404

PROJECT DESCRIPTION: Modification for the construction and operation of a stormwater management system

and onsite mitigation area to serve a 43.42 acre institutional project known as

Franklin Academy Pembroke Pines Middle and High School.

PROJECT LOCATION: BROWARD COUNTY, SEC 35 TWP 50S RGE 39E

PERMIT See Special Condition No:1.

DURATION:

This is to notify you of the District's agency action for Permit Application No. 131216-12, dated December 16, 2013. This action is taken pursuant to the provisions of Chapter 373, Part IV, Florida Statues (F.S).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit is in effect for this project subject to:

- 1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
- 2. the attached 18 General Conditions (See Pages: 2 4 of 7),
- 3. the attached 21 Special Conditions (See Pages: 5 7 of 7) and
- 4. the attached 4 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the attached distribution list) this 29th day of September, 2015, in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (procedure).

BY:

Ricardo X. Valera, P.E.

Burewhief - Environmental Resource Compliance

Regulation Division

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GENERAL CONDITIONS

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S. (2012).

- 2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
- 3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the "State of Florida Erosion and Sediment Control Designer and Reviewer Manual" (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the "Florida Stormwater Erosion and Sedimentation Control Inspector's Manual" (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
- 4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice" indicating the expected start and completion dates. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.
- 5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
- 6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex-"Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
 - b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
 - c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.
- 7. If the final operation and maintenance entity is a third party:
 - a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Applicant's Handbook Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
 - b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.
- 8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that

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require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

- 9. This permit does not:
 - a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
 - b. Convey to the permittee or create in the permittee any interest in real property;
 - c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
 - d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.
- 10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.
- 11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.
- 12. The permittee shall notify the Agency in writing:
 - a. Immediately if any previously submitted information is discovered to be inaccurate; and
 - b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
- 13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
- 14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.
- 15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
- 16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other

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uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

- 17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
- 18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

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- 1. The construction phase of this permit shall expire on September 29, 2020.
- Operation and maintenance of the stormwater management system shall be the responsibility of CA MIAMI 20700 GR LLC.
- 3. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.
- 4. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
- 5. Minimum building floor elevation: 8.5 feet NAVD
- 6. Minimum parking lot elevation: 6.4 feet NAVD
- 7. Prior to initiating construction activities associated with this Environmental Resource Permit (ERP), the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors, District Environmental Resource Compliance (ERC) staff, and any other local government entities as necessary.

The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties.

To schedule a pre-construction meeting, please contact ERC staff from the West Palm Beach Office at (561) 686-8800 or via e-mail at: pre-con@sfwmd.gov. When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.

- 8. The following are exhibits to this permit. Exhibits noted as incorporated by reference are available on the District's ePermitting website (http://my.sfwmd.gov/ePermitting) under this application number.
 - Exhibit No. 1 Location Map
 - Exhibit No. 2 Grading & Drainage Plans / Erosion Control Plans
 - Exhibit No. 3 Environmental Documents
 - Exhibit No. 4 Functional Assessment Scores
- 9. Prior to April 16, 2016, and prior to the commencement of construction, whichever occurs first, the permittee shall submit the following via ePermitting or to the Environmental Compliance staff at the local District office:
 - -One certified copy of the recorded conservation easement document including exhibits.
 - -A CD or DVD containing the easement data in a digital ESRI Geodatabase (mdb), ESRI Shapefile (shp) or AutoCAD Drawing Interchange (dxf) file format using Florida State Plane coordinate system, East Zone (3601), Datum NAD83, HARN with the map units in feet.
 - -A map depicting the Conservation Easement over the best available satellite or aerial imagery.
 - -Form 1001 ERP REG: Title, Possession, and Lien Affidavit, fully executed by the owner and notarized.

The recorded easement shall utilize the form attached as Exhibit No. 3. This Exhibit may not be modified. The easement must be free of mortgages, liens, easements or other encumbrances or interests in the easement which District staff states are contrary to the intent of the easement. In the event it is later determined that there are encumbrances or interests in the easement which the District determines are contrary to the intent of the easement, the permittee shall be required to provide release or subordination

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of such encumbrances or interests.

- 10. A time zero monitoring report shall be conducted in accordance with Exhibit No. 3 for all created/restored wetlands. The plan shall include a survey of the areal extent, acreage and cross-sectional elevations of the created/restored areas and panoramic photographs for each habitat type. The report shall also include a description of planted species, sizes, total number and densities of each plant species within each habitat type as well as mulching methodology.
- 11. The wetland conservation areas and upland buffer zones may in no way be altered from their natural or permitted state. Activities prohibited within the conservation areas include, but are not limited to:
 - (a) construction or placing of buildings, roads, signs, billboards or other advertising, utilities or other structures on or above the ground;
 - (b) dumping or placing soil or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials;
 - (c) removal or destruction of trees, shrubs, or other vegetation with the exception of exotic and nuisance vegetation removal;
 - (d) excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substances in such manner as to affect the surface;
 - (e) surface use except for purposes that permit the land or water area to remain predominantly in its natural condition;
 - (f) activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation, including but not limited to ditching, diking or fencing;
 - (g) acts or uses detrimental to such retention of land or water areas; and
 - (h) acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance.
- 12. A maintenance program shall be implemented in accordance with Exhibit No. 3 for the wetland areas on a regular basis to ensure the integrity and viability of those areas as permitted. Maintenance shall be conducted in perpetuity to ensure that the conservation areas are maintained free from Category 1 exotic vegetation (as defined by the Florida Exotic Pest Plant Council at the time of permit issuance) immediately following a maintenance activity. Maintenance in perpetuity shall also insure that conservation areas, including buffers, maintain the species and coverage of native, desirable vegetation specified in the permit. Coverage of exotic and nuisance plant species shall not exceed 5% of total cover between maintenance activities. In addition, the permittee shall manage the conservation areas such that exotic/nuisance plant species do not dominate any one section of those areas.
- 13. Weighted turbidity screens or other such turbidity control measures shall be utilized during construction. The selected turbidity control measures shall be weighted to extend to the bottom of the waterway and shall surround the construction/work areas.
- 14. Silt fencing shall be installed at the limits of construction to protect from silt and sediment deposition during the construction of the project. A floating turbidity barrier shall be installed during the construction of the final discharge structure into the adjacent canal/water body. The silt fencing and the turbidity barrier shall be installed in accordance with Exhibit No. 2. The sediment controls shall be installed prior to the commencement of any clearing or construction and the installation must be inspected by the District's Environmental Resource Compliance staff. The silt fencing and turbidity barriers shall remain in place and be maintained in good functional condition until all adjacent construction activities have been completed and all fill slopes have been stabilized.
- 15. A mitigation program for Franklin Academy shall be implemented in accordance with Exhibit No. 3. The permittee shall create/restore 7.1 acres of wetland mitigation and 1.6 acres of associated upland/open

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water buffers.

- 16. The successful completion of the mitigation plan is heavily dependent on proper site grading as shown on Exhibit 2. Therefore, prior to demobilizing equipment from the site and prior to planting, the permittee shall provide an as-built survey in accordance with the work schedule identified as Exhibit 3 and schedule an inspection by District Environmental Resource Compliance staff to ensure that appropriate elevations and slopes have been achieved.
- 17. Permanent physical markers designating the preserve status of the wetland preservation areas and buffer zones shall be placed as shown on Exhibit No. 3. The markers shall be maintained in perpetuity.
- 18. The use of triploid grass carp (Ctenopharygodon idella) for aquatic weed control (e.g. hydrilla) is not approved by the District, due to the presence of palatable wetland mitigation plantings. If grass carp are proposed for weed control in water bodies directly or indirectly connected to the mitigation plantings, the permittee shall apply for a permit modification to install and permanently maintain permanent exclusion barriers to prevent grass carp from entering mitigation area. If grass carp do enter the mitigation area, the permittee shall be responsible for removal of all grass carp specimens and the restoration of any mitigation acareage impacted due to grass carp grazing.
- 19. Activities associated with the implementation of the mitigation, monitoring and maintenance plan shall be completed in accordance with the work schedule attached as Exhibit No. 3. Any deviation from these time frames must be coordinated with the District's Environmental Resource Compliance staff, and may require a minor modification to this permit. Such requests must be made in writing and shall include (1) reason for the change, (2) proposed start/finish and/or completion dates; and (3) progress report on the status of the project development or mitigation effort.
- 20. A monitoring program shall be implemented in accordance with Exhibit No. 3. The monitoring program shall extend for a period of 5 years with annual reports submitted to District staff. At the end of the first monitoring period the mitigation area shall contain an 80% survival of planted vegetation. The 80% survival rate shall be maintained throughout the remainder of the monitoring program, with replanting as necessary. If native wetland, transitional, and upland species do not achieve an 80% coverage within the initial two years of the monitoring program, native species shall be planted in accordance with the maintenance program. At the end of the 5 year monitoring program the entire mitigation area shall contain an 80% survival of planted vegetation and an 80% coverage of desirable obligate and facultative wetland species.
- 21. The District reserves the right to require remedial measures to be taken by the permittee if monitoring or other information demonstrates that adverse impacts to onsite or offsite wetlands, upland conservation areas or buffers, or other surface waters have occurred due to project related activities.

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

• Filings by mail must be addressed to the Office of the District Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to
 the SFWMD's security desk does not constitute filing. It will be necessary to request that the
 SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's
 Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at <u>clerk@sfwmd.gov</u>. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF AN ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

- 1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
- 2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
- 3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
- 4. A statement of when and how the petitioner received notice of the SFWMD's decision.
- 5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
- 6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
- 7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
- 8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
- 9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

Last Date For Agency Action: October 16, 2015

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Franklin Academy Pembroke Pines Middle And High School

Permit No.: 06-01400-S-24

Application No.: 131216-12 Associated File: 131226-15 WU Concurrent

131226-13 WU Related

Application Type: Environmental Resource (Construction/Operation Modification)

Location: Broward County, S35/T50S/R39E

Permittee: Ca Miami 20700 Gr Llc.

Operating Entity: Ca Miami 20700 Gr Llc

Project Area: 43.42 acres
Permit Area: 43.42 acres
Project Land Use: Institutional

Drainage Basin: C-11 WEST

Receiving Body: SBDD Master System Class: N/A

Special Drainage District: South Broward Drainage District

Total Acres Wetland Onsite: 3.50
Total Acres Impacted Onsite: 3.50
Total Acres Presv/Mit Compensation Onsite: 7.10

Conservation Easement To District: Yes

Sovereign Submerged Lands: No

PROJECT SUMMARY:

This application is a request for modification of an Environmental Resource Permit to authorize construction and operation of a 43.42 acre institutional development known as Franklin Academy Pembroke Pines Middle and High School.

The stormwater management system consists of inlets, culverts, exfiltration trench, dry retention areas and a wet detention/mitigation area which will discharge to the South Broward Drainage District (SBDD) master system for the S-9/S-10 Basin.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062 Florida Administrative Code (F.A.C.).

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PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The site is located east of SW 208th Lane, south of Griffin Road, north of SW 54th Place, and west of SW 205th Avenue in the City of Pembroke Pines, Broward County. The site is located within the South Broward Drainage District S-9/S-10 Basin (Permit No. 06-01400-S). The site consists of an open pasture with disturbed wetlands and a small pond on the southern end. The west end of the parcel adjoins a mixed area with development and open pasture lands. The north property boundary is adjacent to a landscape facility with a mixture of non-native trees and shrubs and a single family residential development is located to the south and east. See Wetlands and Other Surface Waters section for additional information.

LAND USE:

Construction

Project:

Total Project

Building Coverage	1.72	acres
Dry Retention Areas	1.82	acres
Impervious	11.62	acres
Lake	8.69	acres
Lake Bank	1.20	acres
Pervious	18.37	acres
Total:	43.42	

WATER QUANTITY:

Discharge Rate:

The proposed project is consistent with the land use and site grading assumptions from the design of the master stormwater management system for the S-9/S-10 Basin. Therefore, the stormwater management system for this project has not been designed to limit discharge for the design event to a specified rate.

Control Elevation:

Basin	Area (Acres)	Ctrl Elev (ft, NAVD 88)	WSWT Ctrl Elev (ft, NAVD 88)	
Site	43.40	2.49	2.49	Previously Permitted
WATER QUALITY:				

Water quality treatment is provided in dry retention areas, exfiltration trench and the wet detention area as part of the overall South Broward Drainage District S-9/S-10 Basin.

WETLANDS:

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Wetlands And Other Surface Waters:

Based upon the results of field evaluations of vegetation, soils, and surface hydrology, the Franklin Academy site contains approximately 3.5 acres of wetlands. The wetlands can be generally described as degraded freshwater marshes. Additional wetland information, including their locations, is included as part of Exhibit 3.

Mitigation Plan:

As a result of the construction of the institutional project, the applicant proposes a total of 3.5 acres of direct impacts to existing degraded wetlands. The applicant has conducted an alternatives analysis which demonstrates that practicable design modifications have been explored to reduce and eliminate wetland impacts (see permit file).

To offset 3.5 acres of wetland impacts associated with construction, the project will restore 7.1 acres of wetlands onsite. Wetland elevations have been specifically designed to accommodate regional variations in water levels. However, an adaptive management plan has also been submitted to provide additional reasonable assurances of mitigation success. A 1.6 acre upland/open water buffer will be constructed. Signs denoting the conservation status of these wetlands will also be installed to minimize potential negative secondary impacts.

A grass carp fence will be constructed at the SW corner of the site. The grass carp fence will be installed prior to initial flooding of the wetland. If grass carp are found to have entered the site, they must be removed.

Based on Chapter 62-345.100 of the Florida Administrative Code, a UMAM assessment (Uniform Mitigation Assessment Method) of both the proposed impact sites and onsite mitigation plan was conducted (Exhibit 4). Based on this assessment, a total of 3.50 acres of direct wetland impacts will be offset by the functional units associated with the 8.7 acre onsite mitigation area.

Based on the provision of onsite mitigation and other project-specific biological data (see permit file), the institutional project will not result in unacceptable cumulative impacts to the New River cumulative impact basin.

No additional wetland impacts and/or construction activities are authorized under this permit.

Monitoring/Maintenance:

The permittee will monitor the onsite mitigation area for a minimum of five years or until District staff determines that mitigation success has been achieved. Monitoring will include vegetative cover, hydrologic conditions, wildlife usage, and recommendations for maintenance work. Success criteria/ maintenance criteria are found in the special conditions and Exhibit 3. Annual reports shall be submitted to the District in accordance with the work schedule. After success is achieved, maintenance will be conducted in perpetuity by the permittee.

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Wetland Inventory:

CONSTRUCTION NEW -FRANKLIN ACADEMY

Site Id	Site Type	Pro Dovolonment			Post-Development							
		Pre Fluc cs	AA Type	.	Current Wo Pres	With Project	Time Lag (Yrs)	Risk Factor	Pres. Adj. Factor	Post Fluccs	Adj Delta	Functional Gain / Loss
Α	ON	641	Direct	3.50	.47	.00				100	470	-1.645
В	ON	211	Restoration/Creation	5.20	.00	.67	5	2.25		641	.261	1.358
С	ON	211	Restoration/Creation	1.90	.00	.57	5	2.25		644	.222	.422
			Total:	10.60								.14

Fluccs Code	<u>Description</u>
100	Urban And Residential
211	Improved Pastures -
	Hydric
211	Improved Pastures -
	Upland
641	Freshwater Marshes
644	Emergent Aquatic
	Vegetation

Fish And Wildlife Issues:

The project site does contain degraded habitat for wetland-dependent endangered or threatened wildlife species or species of special concern. However, no wetland-dependent endangered/threatened species or species of special concern were observed onsite, and submitted information indicates that potential use of the site by such species is minimal. It is expected that the onsite wetland mitigation area will provide enhanced habitat for these species upon completion. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if, in the future, endangered/threatened species or species of special concern are discovered on the site.

LEGAL ISSUES:

A total of 8.7 acres of wetland mitigation and associated buffers will be preserved onsite through the dedication of a joint conservation easement by the applicant to the District and Broward County. The conservation easement will be recorded according to the submitted work schedule. The recorded conservation easement shall utilize the draft conservation easement and legal sketches included as Exhibit 3.

An Irrevocable Letter of Credit in the amount of \$383,130.00, constituting 110% of the estimated cost of construction and subsequent maintenance/monitoring of the onsite mitigation area, has been provided by the applicant and is included as Exhibit 3.

CERTIFICATION, OPERATION, AND MAINTENANCE:

Pursuant to Chapter 62-330.310 Florida Administrative Code (F.A.C.), Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the

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permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be noted that until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1-12.3 of the Applicant's Handbook Volume I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of stormwater management systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity will be responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4 of Applicant's Handbook Volume I for Minimum Operation and Maintenance Standards.

App.no.: 131216-12 Page 5 of 7

RELATED CONCERNS:

Water Use Permit Status:

The applicant has indicated that surface water will be used as a source for irrigation water for the project. Water Use Application Number 131226-15 has been submitted and is being processed concurrently for this project.

The applicant has indicated that dewatering is required for construction of this project. The applicant has indicated that dewatering for this project qualifies as eligible for a General Permit by Rule.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Potable Water Supplier:

City of Pembroke Pines

Waste Water System/Supplier:

City of Pembroke Pines

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

The District has received correspondence on January 6, 2014, from the Florida Department of State, Division of Historical Resources indicating that no significant archaeological or historical resources are recorded in the project area and therefore is unlikely to have an effect upon any such properties.

DEO/CZM Consistency Review:

The issuance of this permit constitutes a finding of consistency with the Florida Coastal Management Program.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

App.no.: 131216-12 Page 6 of 7

STAFF REVIEW:

DIVISION APPROVAL:

)NATURAL RESOURGE MANAGEMENT:

Barbara J. Conmy

28 Sep 2015 **DATE:**

18-Sep-2015

DATE:

SURFACE WATER MANAGEMENT:

Carlos A. de Rojas, P.E.

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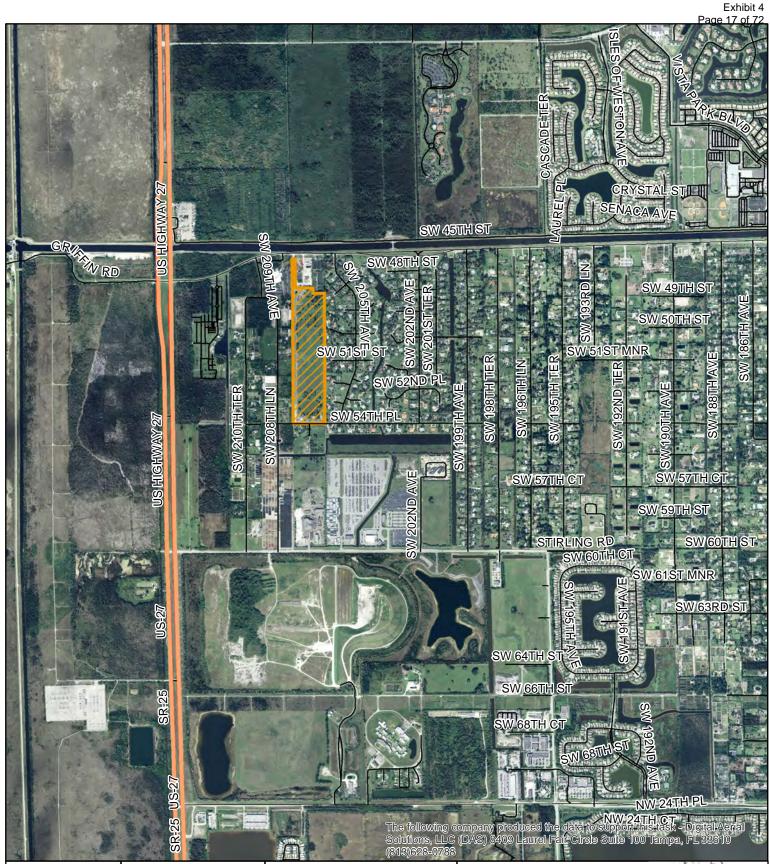


Exhibit No: 1

Exhibit Created On: 2015-09-28

BROWARD COUNTY, FL

REGULATION DIVISION

Project Name: FRANKLIN ACADEMY PEMBROKE
PINES MIDDLE AND HIGH SCHOOL

0 0.325 0.65 Miles





Application

Permit No: 06-01400-S-24

Application Number: 131216-12



South Florida Water Management District

Applica

FRANKLIN ACADEMY - MIDDLE AND AND HIGH SCHOOL (GRIFFIN RD)

PEMBROKE PINES, FLORIDA

LEGAL DESCRIPTION:

ALL THOSE PORTIONS OF TRACTS 56 AND 57, SECTION 26, TOWNSHIP 50 SOUTH, RANGE 39 EAST, EVERGLADES LAND COMPANY SUBDIVISION, AS RECORDED IN PLAT BOOK 2, AT PAGE 1, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, LYING SOUTH OF THE SOUTH RIGHT-OF-WAY LINE OF GRIFFIN ROAD;

TOGETHER WITH: ALL OF TRACTS 8, 9, 24 AND 25 OF SECTION 35, TOWNSHIP 50 SOUTH, RANGE 39 EAST, OF SAID EVERGLADES LAND COMPANY SUBDIVISION, AS RECORDED IN PLAT BOOK 2, AT PAGE 1, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA; ALL LESS THE FOLLOWING TWO (2) PARCELS OF LAND, TO WIT:

PARCEL 1: THE NORTH 603.83 FEET OF SAID TRACTS 56 AND 57, LYING SOUTH OF THE SOUTH RIGHT-OF-WAY LINE OF GRIFFIN ROAD, LESS THE EAST 239.95 FEET, AND LESS THE WEST 60.00 FEET OF SAID SECTION 26 THEREOF.

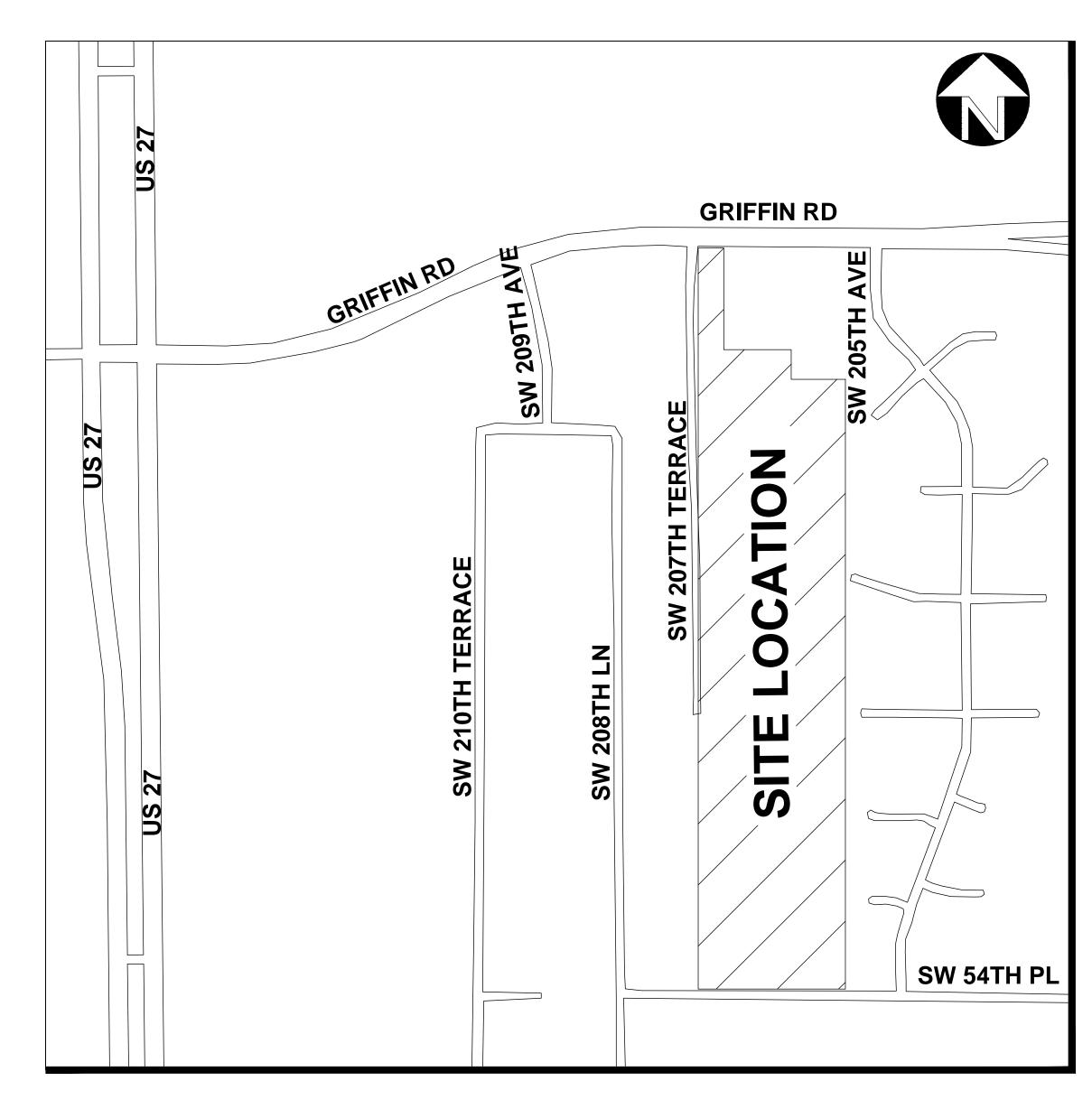
PARCEL 2: THE EAST 239.93 FEET OF THE NORTH 726.00 FEET OF SAID TRACTS 56 AND 57, LYING SOUTH OF THE SOUTH RIGHT-OF-WAY LINE OF GRIFFIN ROAD.

ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF SECTION 35, TOWNSHIP 50 SOUTH, RANGE 39 EAST THENCE NORTH 01°18'14" WEST, ALONG THE WEST LINE OF SECTION 26, TOWNSHIP 50 SOUTH, RANGE 39 EAST, A DISTANCE OF 814.60 FEET; THENCE SOUTH 89°57'06" EAST OF 2,642.93 FEET; THENCE SOUTH 89°52'33" WEST, ALONG THE NORTH LINE OF TRACT 40, SAID EVERGLADES LAND COMPANY, A DISTANCE OF 660.38 FEET; THENCE NORTH 00°13'58 WEST, ALONG THE WEST LINE OF SAID SECTION 35, TOWNSHIP 50 SOUTH, RANGE 39 EAST, A DISTANCE OF 2,642.94 FEET TO THE POINT OF BEGINNING.

SAID LAND SITUATE, LYING AND BEING IN BROWARD COUNTY, FLORIDA

CONTAINING 1,891,485 SQUARE FEET (43.422 ACRES) MORE OR LESS.



LOCATION MAP

NOT TO SCALE SECTION 35, TOWNSHIP 50 SOUTH, RANGE 39 EAST

PREPARED FOR:

FLORIDA CHARTER FOUNDATION, INC.

1120 S.E. 3RD AVENUE FORT LAUDERDALE, FL 33316

SHEET NO:	DWG NO:	DRAWING TITLE
		COVER SHEET
1	C1.1	GENERAL NOTES AND SPECIFICATIONS (1 OF 2)
2	C1.2	GENERAL NOTES AND SPECIFICATIONS (2 OF 2)
3	C2.1	HORIZONTAL CONTROL PLAN (1 OF 4)
4	C2.2	HORIZONTAL CONTROL PLAN (2 OF 4)
5	C2.3	HORIZONTAL CONTROL PLAN (3 OF 4)
6	C2.4	HORIZONTAL CONTROL PLAN (4 OF 4)
7	C3.1	PAVING, GRADING AND DRAINAGE PLAN (1 OF 4)
8	C3.2	PAVING, GRADING AND DRAINAGE PLAN (2 OF 4)
9	C3.3	PAVING, GRADING AND DRAINAGE PLAN (3 OF 4)
10	C3.4	PAVING, GRADING AND DRAINAGE PLAN (4 OF 4)
11	C4.1A	WATER AND SANITARY SEWER PLAN (1A)
12	C4.1	WATER AND SANITARY SEWER PLAN (1 OF 4)
13	C4.2	WATER AND SANITARY SEWER PLAN (2 OF 4)
	C4.3	WATER AND SANITARY SEWER PLAN (3 OF 4)
	C4.4	WATER AND SANITARY SEWER PLAN (4 OF 4)
	C5.1	WATER AND SANITARY SEWER PLAN & PROFILE
	C6.1	LIFT STATION DETAILS
	C7.0	FORCE MAIN KEY MAP PLAN
	C7.1	FORCE MAIN PLAN & PROFILE (10F 4)
20	C7.2	FORCE MAIN PLAN & PROFILE (2 OF 4)
21	C7.3	FORCE MAIN PLAN & PROFILE (3 OF 4)
22	C7.4	FORCE MAIN PLAN & PROFILE (4 OF 4)
23	C8.1	PAVEMENT MARKING AND SIGNAGE PLAN (1 OF 4)
	C8.2	PAVEMENT MARKING AND SIGNAGE PLAN (2 OF 4)
25	C8.3	PAVEMENT MARKING AND SIGNAGE PLAN (2 OF 4)
	C8.4	PAVEMENT MARKING AND SIGNAGE PLAN (4 OF 4)
27	C8.5	PAVEMENT MARKING AND SIGNAGE DETAILS (1 OF 2)
28	C8.6	PAVEMENT MARKING AND SIGNAGE DETAILS (2 OF 2)
	C0.0 C9.1	FIRE ACCESS LANE PLAN (1 OF 4)
30	C9.1	FIRE ACCESS LANE PLAN (2 OF 4)
31	C9.2	
32	C9.3	FIRE ACCESS LANE PLAN (3 OF 4)
33		FIRE ACCESS LANE PLAN (4 OF 4) POLITIFICAL AND EDOSION CONTROL PLAN (1 OF 4)
	C10.1	POLLUTION AND EROSION CONTROL PLAN (1 OF 4)
34	C10.2	POLLUTION AND EROSION CONTROL PLAN (2 OF 4)
35	C10.3	POLLUTION AND EROSION CONTROL PLAN (3 OF 4)
36	C10.4	POLLUTION AND EROSION CONTROL PLAN (4 OF 4)
37	C11.1	PAVING, GRADING AND DRAINAGE DETAILS (1 OF 6)
38	C11.2	PAVING, GRADING AND DRAINAGE DETAILS (2 OF 6)
39	C11.3	PAVING, GRADING AND DRAINAGE DETAILS (3 OF 6)
40	C11.4	PAVING, GRADING AND DRAINAGE DETAILS (4 OF 6)
41	C11.5	PAVING, GRADING AND DRAINAGE DETAILS (5 OF 6)
42	C11.6	PAVING, GRADING AND DRAINAGE DETAILS (6 OF 6)
43	C12.1	WATER AND SEWER DETAILS (1 OF 2)
44	C12.2	WATER AND SEWER DETAILS (2 OF 2)



STORMWATER PERMIT SET

ROBERT J. ROSS, P.E. STATE OF FLORIDA REGISTRATION NO. 59485 DATE: 10/02/2014

3325 SOUTH UNIVERSITY DRIVE, SUITE 111 DAVIE, FLORIDA 33328 (954)318-0624 (954)358-0190 FAX CERTIFICATE OF AUTHORIZATION No. 9808

100% CONSTRUCTION DOCUMENTS

REVISIONS / SUBMISSIONS

CHANGES BASED ON BCHCED

COMMENTS 04.01.14

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GENERAL NOTES

- 1. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988, (N.A.V.D.), UNLESS OTHERWISE NOTED.
- 2. DESIGN PLANS REFLECT PROJECT COMPLETION CONDITIONS.
- 3. ANY EXISTING STRUCTURES AND FENCES NOT SHOWN ON THE PLANS SHALL BE REMOVED AND/OR RELOCATED.
- 4. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL OF FLORIDA, INC. CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION,
- CALL 1-800-432-4770. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES IN CONFLICT WITH PROPOSED WORK, SHOULD ANY CONFLICTS ARISE, CONTRACTOR SHALL NOTIFY THE OR RECORD, OWNER AND CORRESPONDING UTILITY COMPANY, AS NECESSARY.

I. APPLICABLE CODES

A. GENERAL:

ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF PEMBROKE PINES, BROWARD COUNTY DEPARTMENT OF PLANNING AND AND ENVIRONMENTAL PROTECTION (BCDPEP), BROWARD COUNTY HEALTH DEPARTMENT (BCHD), SOUTH BROWARD DRAINAGE DISTRICT (SBDD), SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), AND ALL OTHER LOCAL AND NATIONAL CODES WHERE APPLICABLE.

B. CONSTRUCTION SAFETY:

ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.

C. TRENCH SAFETY ACT

- 1. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT
- WHERE EXCAVATIONS TO A DEPTH IN EXCESS OF FIVE FEET (5') ARE REQUIRED THE CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION IN THE BID.
- A. A REFERENCE TO THE SAFETY STANDARDS THAT WILL BE IN EFFECT DURING THE PERIOD OF CONSTRUCTION OF THE PROJECT.
- WRITTEN ASSURANCES BY THE CONTRACTOR PERFORMING THE TRENCH EXCAVATION THAT SUCH CONTRACTOR WILL COMPLY WITH THE APPLICABLE TRENCH SAFETY STANDARDS. C. A SEPERATE ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH
- SAFETY STANDARDS. 3. WHERE A BID IS NOT SUBMITTED, THE CONTRACTOR SHALL SUBMIT THE INFORMATION LISTED IN ITEM 2, TO THE ENGINEER PRIOR TO STARTING WORK.

D. SURVEY DATA:

ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD88).

II. PRECONSTRUCTION RESPONSIBILITY

- UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE THE CITY OF PEMBROKE PINES ENGINEERING DIVISION, THE OWNER, AND THE ENGINEER, AFTER OBTAINING A CONSTRUCTION PERMIT FROM THE ENGINEERING
- B. THE CONTRACTOR SHALL OBTAIN A "SUNSHINE CERTIFICATION NUMBER" AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.
- C. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH HE FAILS TO REQUEST LOCATIONS SUNSHINE CERTIFICATION NUMBER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY
- E. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, WHO WILL IN TURN NOTIFY THE CITY OF PEMBROKE PINES UTILITIES DEPARTMENT.

III. INSPECTIONS

THE CONTRACTOR SHALL NOTIFY THE CITY OF PEMBROKE PINES ENVIRONMENTAL SERVICES DIVISION (954-435-6511), SBDD (954-680-3337), AND THE ENGINEER OF RECORD AT LEAST 24 HOURS PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS:

- A. 1. STORM DRAINAGE.
- 2. SANITARY SEWER WATER SYSTEM.
- 4. SUBGRADE; SUBMIT AND HAVE APPROVED DENSITIES PRIOR TO PLACEMENT OF ROCK. 5. LIMEROCK BASE; SUBMIT AND HAVE APPROVED DENSITIES AND AS-BUILTS PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- 6. ASPHALTIC CONCRETE. 7. FINAL.

B. ALL INSPECTIONS MADE BY THE CITY OF PEMBROKE PINES, SBDD, AND FDOT THE ENGINEER OF RECORD WILL PROVIDE CONSTRUCTION OBSERVATION SERVICES.

IV. SHOP DRAWINGS

- A. PRIOR TO ISSUANCE OF A CONSTRUCTION PERMIT, A MATERIAL LIST SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD AND THE CITY OF PEMBROKE PINES FOR SANITARY MANHOLES, HYDRANTS, VALVES, PIPING, LIFT STATIONS AND OTHER ACCESSORIES. CATALOGUE LITERATURE SHALL BE SUBMITTED FOR WATER AND SEWER PIPES, FITTINGS AND
- B. ANY PRODUCT THAT IS NOT ON THIS LIST MUST BE APPROVED IN ADVANCE BY THE ENGINEER OF RECORD AND THE CITY OF PEMBROKE PINES ENGINEERING DIVISION. SUCH APPROVAL REQUIRES THE SUBMISSION OF A SHOP DRAWING (SIX COPIES) FOR EACH PRODUCT. SHOP DRAWINGS WILL ASLO BEREQUIRED FOR ALL NON-STANDARD ITEMS.
- C. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

V. TEMPORARY FACILITIES

- A. TEMPORARY UTILITIES:
 - 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEE AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.
 - 2. OBTAIN CONSTRUCTION METER FOR ALL WATER USED ON JOB. ALL WATER USED FOR CLEANING, TESTING, ETC. WILL BE PAID FOR BY THE CONTRACTOR. IF WATER CAN NOT BE METERED THEN IT WILL BE CALCULATED.
- B. TRAFFIC REGULATION:
 - 1. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD AND BCTED. 2. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND
 - 3. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE) BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE CITY OF PEMBROKE PINES.

VI. PROJECT CLOSE OUT

A. CLEANING UP:

KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG

www.callsunshine.com

- 1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS
- 2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER OR THE CITY OF PEMBROKE PINES, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO TH BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL DO AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, SİDEWALK AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.

OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER GRAVITY SEWER, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL ID SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND IN A CLEAN AND NEAT CONDITION.

IN AND AROUND EXISTING DRAINAGE CANALS, APPROPRIATE SILT BE INSTALLED AS REQUIRED BY SOUTH BROWARD DRAINAGE DISTRICT.

B. PROJECT RECORD DOCUMENTS:

- 1. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF ALL WORK ITEMS COMPLETED.
- 2. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO SATISFY THE ENGINEER THAT THE INFORMATION PROVIDED A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
- 3. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF "AS—BUILT" CONSTRUCTION DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS—BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED BY THE CONTRACTOR.
- 4. ALL "AS-BUILT" INFORMATION ON ELEVATIONS, STATIONING OFFSETS AND TIES OF THE WATER SANITARY SEWER, PAVING AND DRAINAGE SHALL BE CERTIFIED BY A REGISTERED LAND SURVEYOR. 5. "AS-BUILT" INFORMATION ON THE WATER SYSTEM SHALL INCLUDE, BUT IS NOT LIMITED TO LOCATIONS OF ALL VALVES, FITTINGS, FIRE HYDRANTS AND WATER SERVICES AND
- TOP-OF-PIPE ELEVATION ON 100-FOOT INTERVALS AT A MINIMUM. 6. PRIOR TO A FINAL INSPECTION BY THE CITY OF PEMBROKE PINES, THE "CONTRACTOR" SHALL SUBMIT TWO (2) SETS OF BLUEPRINTS OF "AS-BUILT" CONSTRUCTION DRAWINGS.
- 7. UPON A FINAL INSPECTION BY THE CITY OF PEMBROKE PINES, THE CONTRACTOR SHAL SUBMIT TO THE CITY ONE (1) COMPLETE SET OF REPRODUCIBLE MYLARS AND THREE (3) SETS OF BLUEPRINTS OF "AS-BUILT" CONSTRUCTION DRAWINGS THAT HAVE BEEN CERTIFIED BY A REGISTERED LAND SURVEYOR AND THE ENGINEER OF RECORD AND COMPUTER FILES OF "AS-BUILT" CONSTRUCTION DRAWINGS ON 3-1/2" FLOPPY DISKS IN AUTOCADD RELEASE RELEASE 14 FORMAT OR LATEST REVISION.
- 8. PRIOR TO PLACEMENT OF ANY ASPHALT OR CONCRETE PAVEMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER "AS-BUILT" PLANS SHOWING LIMEROCK BASE GRADES AND ALL DRAINAGE, WATER, AND SEWER IMPROVEMENTS. PAVING OPERATIONS SHALL NOT COMMENCE UNTIL THE ENGINEER AND THE CITY OF PEMBROKE PINES HAVE REVIEWED AND APPROVED
- THE "AS-BUILTS". 9. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO AND AND APPROVED BY THE ENGINEER AND THE CITY OF PEMBROKE PINES PRIOR TO THE PLACING
- 10. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR LIMEROCK SHALL BE PROVIDED TO AND APPROVED BY THE ENGINEER AND THE CITY OF PEMBROKE PINES PRIOR TO PLACING ASPHALT.

VII. WATER DISTRIBUTION AND/OR SEWAGE FORCE MAIN SYSTEM A. GENERAL:

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF PEMBROKE PINES ENVIRONMENTAL SERVICES DIVISION AND THE ENGINEER OF RECORD NO LATER 24 HOUR PRIOR TO MAKING CONNECTIONS TO EXISTING SYSTEMS. A CITY OF PEMBROKE PINES ENGINEERING DIVISION REPRESENTATIVE AND THE ENGINEER OF RECORD MUST BE PRESENT.

2. SEPARATION OF WATER AND SEWER MAINS:

- a. PARALLEL WATER AND SEWER MAINS SHALL HAVE A MINIMUM 10 FEET HORIZONTAL SEPARATION. WHERE THIS IS NOT POSSIBLE, THE SEWER MAIN SHALL BE IN A SEPARATE TRENCH AND BE AT LEAST 18 INCHES BELOW THE WATER MAIN OR BOTH MAINS SHALL BE DUCTILE IRON WITH A MINIMUM 12' CLEARANCE, PER PRESSURE PIPE SPECIFICATIONS.
- b. THE SEWER MAIN SHALL CROSS BELOW ALL WATER MAINS WITH A MINIMUM OF 18 INCHES VERTICAL CLEARANCE. WHERE THE CLEARANCE IS LESS THAN 18 INCHES THE SEWER MAIN AND THE WATER MAIN SHALL BE DUCTILE IRON PIPE, WITH A MINIMUM 12" CLEARANCE, FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING SHALL BE MECHANICALLY RESTRAINED. c. IF A SEWER MAIN MUST CROSS ABOVE A WATER MAIN, REGARDLESS OF VERTICAL
- CLEARANCE, THE PRECAUTION IN ITEM (b.) ABOVE SHALL BE TAKEN. 3. NO CONNECTIONS TO THE EXISTING LINES SHALL BE MADE UNTIL PRESSURE TESTS FOR THE WATER MAINS AND SEWER FORCE MAINS, AND BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED AND THE SYSTEM IS ACCEPTABLE TO THE CITY OF PEMBROKE PINES AND
- THE BROWARD COUNTY HEALTH DEPARTMENT. 4. CLEANING OF NEWLY INSTALLED PIPING SYSTEMS SHALL BE ACCOMPLISHED USING PIPE PIGGING METHODS. OPEN FLUSHING SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE UTILITIES DEPARTMENT. ALL WATER WILL BE ACCOUNTED FOR.
- 5. ALL EFFORTS SHALL BE MADE SO THAT WATER AND FORCE MAINS CROSS ABOVE DRAINAGE LINES WITH ADEQUATE COVER AND SEPARATION. IF THIS IS NOT POSSIBLE, IT SHALL BE INDICATED ON THE PLANS.
- 6. A THREE (3) FOOT LATERAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER/SEWER LINES AND OBSTRUCTIONS (I.E., CATCH BASINS, CONCRETE POLES, ETC.), FIVE (5) FEET FROM TREES. 7. THE MAXIMUM DEPTH TO THE BOTTOM OF THE PRESSURE MAIN INSTALLED SHALL NOT EXCEED SIX (6) FEET UNLESS APPROVED BY THE CITY OF PEMBROKE PINES
- 8. RESTRAINED JOINTS SHALL BE USED, IN LIEU OF CONCRETE THRUST BLOCKS, AT ALL CHANGES IN DIRECTION OF WATER MAINS, SEWAGE FORCE MAINS AND ELSEWHERE AS INDICATED ON THE DRAWINGS. RESTRAIN ALL PIPE JOINTS WITHIN THE DISTANCES ON EACH SIDE OF FITTINGS AS AS REQUIRED TO PROPERLY RESTRAIN AND SUPPORT BENDS, TEES, VALVES, DEAD ENDS AND OTHER

B. MATERIAL: 1. PIPE:

THE WATER MAIN AND/OR SEWAGE FORCE MAIN SHALL BE EITHER POLYVINYL CHLORIDE (PVC) OR DUCTILE IRON PIPE (DIP) AND SHALL BE DESIGNED FOR A MINIMUM WORKING

SUCH FITTINGS WITH THE EXCEPTION OF FIRE HYDRANTS.

- a. PVC PIPE SHALL BE ASTM 1120 PRESSURE PIPE WITH IRON O.D., CLASS 150 (DR CONFORMING TO ANSI/AWWA C900-97 OR C905-97 AND SHALL HAVE PUSH
- b. DIP SHALL BE CLASS 350 WALL THICKNESS (UP TO 12"), CLASS 300 (14"-18") CLASS 250 (20" OR GREATER) WITH INTERIOR CEMENT LINING AND EXTERIOR COAL OR GREATER) WITH INTERIOR CEMENT LÍNING AND EXTERIOR COA TAR COATING CONFORMING TO ÁNSI/AWWA C151/A21.51-02, SEWAGE PIPE SHALL BE EITHEŔ DOUBLE CÉMENT CONFÖRMING T C104/A21.4-03 OR LATEST REVISION, OR POLYETHYLENE LINED CONFORMING ANSI/AWWA C105/A21.5—99 OR LATEST REVISION, OR APPROVED EQUAL. THE PIP SHAĹL WITHSTANĎ A WORKING PRESSURE OF 350 PSI. THE JOINTS SHALL BE BEL AND SPIGOT PUSH ON TYPE, MECHANICAL JOINT OR FLANGED. FLANGED PIPE SHALL CONFORM WITH THE PHYSICAL AND CHEMICAL REQUIREMENTS AS SET FORTH IN THE HANDBOOK OF DUCTILE IRON PIPE OF THE CAST IRON PIPE RESEARCH

2. FITTINGS:

FITTINGS SHALL BE DUCTILE IRON COMPACT MECHANICAL JOINT AND SHALL BE CLASS 350 THROUGH 24" CONFORMING TO ANSI/AWWA C153/A21.53-00, OR LATEST REVISION, AND CLASS 250 IN SIZES 24" AND LARGER, CONFORMING TO ANSI/AWWA C110/A21.10-93, OR LATEST REVISION, COMPLETE WITH GLANDS, GASKETS, BOLTS AND NUTS. ALL FITTINGS SHALL BE CEMENT LINED AND SEAL COATED WITH THE SAME AS PIPE.

- a. VALVES SHALL BE GATE VALVES FOR WATER (4"-12" SIZE), BUTTERFLY VALVES FOR FOR WATER (16" AND UP SIZE), OR PLUG VALVES FOR FORCE MAIN (ALL SIZES). i. GATE VALVES SHALL BE IRON BODY, FULLY RESILIENT SEAT, BRONZE MOUNTED NON-RISING STEM, DOUBLE DISC, RATED AT 200 PSI AND CONFORMING TO
- ANSI/AWWA C509-01 OR LATEST REVISION. EXPOSED VALVES SHALL BE OUTSIDE i. BUTTERFLY VALVES AND OPERATORS SHALL CONFORM TO ANSI/AWWA C504-00 STANDARD FOR RUBBER SEATED BUTTERFLY VALVES, OR LATEST REVISIONS. VALVES SHALL BE CLASS 150 A OR B.
- iii. PLUG VALVES SHALL BE SEMI—STEEL BODY, NON—LUBRICATED, ECCENTRIC TYPE, WITH RESILIENT FACED PLUGS, AND CAPABLE OF DRIP—TIGHT SHUT OFF AT THE RATED PRESSURE IF APPLIED AT EITHER PORT. VALVES ARE TO BE EQUIPPED WITH ACTUATING NUTS, CAST IRON HANDWHEELS OR CHAIN OPERATORS, WITH GALVANIZED STEEL CHAINS, AS APPROPRIATE FOR THE INSTALLATION AND TYPE OF OPERATOR.

b. AIR RELEASE VALVES

- i. SEWER FORCE MAIN AIR RELEASE VALVES SYSTEM SHALL BE A COMBINATION OF ONE SEWAGE AIR RELEASE VALVE AND ONE SEWAGE AIR/VACUUM VALVE WITH DUAL ISOLATION PLUG VALVES. BOTH VALVE BODIES AND COVERS SHALL BE OF CAST IRON CONSTRUCTION, ASTM A126-B. ALL INTERNAL PARTS SHALL BE STAINLESS STEEL, ASTM A-240 - TYPE 304 AND ASTM A276 - TYPE 303. THE VENTING ORIFICE SHALL BE 5/16" IN DIAMETER WITH STAINLESS STEEL SEAT. THE INLET OPENINGS SHALL BE A MINIMUM OF 2" NPT SCREWED CONNECTION FOR BOTH VALVES. THE VALVES SHALL FULLY CAPABLE OF OPERATION IN SEWAGE FORCE MAIN. BOTH VALVES SHALL INCLUDE A BACK-FLUSHING FEATURE FOR PERIODIC CLEANING OF THE INTERNAL MECHANISM. THE OVERALL HEIGHT SHALL NOT EXCEED 22-1/2 INCHES.
- WATER MAIN AIR RELEASE VALVES VALVE BODY AND COVER SHALL BE OF CAST IRON CONSTRUCTION, ASTM A126—B, ALL INTERNAL WORKING PARTS SHALL BE OF STAINLESS STEEL ASTM A240, TYPE 303 FOR THE FLOAT AND ASTM A296 — TYPE 316 FOR THE LINKAGE. THE VENTING ORIFICE SHALL BE 3/16' IN DIAMETER WITH BRASS SEAT. THE INLET OPENING SHALL BE A 2" NPT SCREWED CONNECTION. THE OVERALL HEIGHT SHALL NOT EXCEED 13 INCHES.
- c. A REFLECTIVE PAVEMENT MARKER SHALL BE INSTALLED IN THE CENTER OF THE NEAREST LANE OF ROAD PAVEMENT ADJACENT TO ALL VALVE LOCATIONS OUTSIDE THE ROAD PAVEMENT. WATER MARKERS SHALL BE WHITE, SEWER MARKERS SHALL BE GREEN.

4. FIRE HYDRANTS

- a. FIRE HYDRANTS SHALL HAVE A MINIMUM 5 1/4" VALVE OPENING AND SHALL OPEN AGAINST THE PRESSURE AND CLOSE WITH THE FLOW. HYDRANTS SHALL MEET OR EXCEED ANSI/AWWA C502-94, C503-97 OR LATEST REVISION, AND SHALL COMPLY WITH FACTORY MUTUAL RESEARCH CORPORATION AND UNDERWRITERS LABORORIES UL246 STANDARD
- b. A BLUE REFLECTIVE PAVEMENT MARKER SHALL BE PROVIDED IN THE CENTER OF THE NEAREST LANES OF ROAD PAVEMENT ADJACENT TO ALL FIRE HYDRANT LOCATIONS.

4. FIRE HYDRANTS:

- a. FIRE HYDRANTS SHALL HAVE A MINIMUM 5 1/4" VALVE OPENING AND SHALL OPEN AGAINST THE PRESSURE AND CLOSE WITH THE FLOW. HYDRANTS SHALL MEET OR EXCEED ANSI/AWWA C502-94, C503-97 OR LATEST REVISION, AND SHALL COMPLY WITH FACTORY MUTUAL RESEARCH CORPORATION AND UNDERWRITERS LABORORIES UL246 STANDARD.
- b. A BLUE REFLECTIVE PAVEMENT MARKER SHALL BE PROVIDED IN THE CENTER OF THE NEAREST LANES OF ROAD PAVEMENT ADJACENT TO ALL FIRE HYDRANT LOCATIONS. 5. DETECTOR TAPE:
- DETECTOR TAPE SHALL BE 3" WIDE BLUE TAPE FOR WATER MAIN AND BROWN TAPE FOR FORCE MAIN, WITH A METALLIZED FOIL CORE LAMINATED BETWEEN 2 LAYERS OF PLASTIC FILM. THE WORDS "CAUTION WATER LINE BURIED BELOW" OR "CAUTION FORCE MAIN BURIED BELOW" SHALL BE PRINTED AT 30" INTERVALS ALONG THE TAPE. TAPE SHALL BE PLACED 18" BELOW GRADE ABOVE ALL PVC MAINS AND SERVICES OR AS RECOMMENDED BY MANUFACTURER. NONMETALLIC TAPE SHALL BE USED ABOVE
- 6. SERVICE CONNECTIONS: a. SERVICE SADDLES SHALL BE DUCTILE IRON EPOXY OR NYLON COATED WITH DOUBLE STAINLESS STEEL STRAPS OR SINGLE WIDE STRAP. SADDLES SHALL CONFORM TO
- b. SERVICE LINES SHALL BE POLYETHYLENE (PE) TUBING AS DESCRIBED IN ANSI/AWWA C901-02 OR LATEST REVISION, WITH A WORKING PRESSURE OF 200 PSI (DR 9). PIPE JOINTS SHALL BE OF THE COMPRESSION TYPE TOTALLY CONFINED GRIP SEAL AND COUPLING NUT. POLYETHYLENE SHALL BE EXTRUDED FROM PE 3408 HIGH MOLECULAR WEIGHT MATERIAL AND MUST CONFORM TO ASTM D-2737.
- c. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE ASTM B-62 WITH THREADED ENDS.
- d. METER STOPS SHALL BE THE 90 DEGREE LOCKWING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM B-62. METER STOPS SHALL BE CLOSED BUTTON DESIGN AND RESILIENT "O" RING SEALED AGAINST EXTERNAL LEAKAGE AT STOPS SHALL BE EQUIPPED WITH A METER COUPLING NUT ON THE
- e. METER AND METER BOXES SHALL BE PURCHASED BY THE CONTRACTOR FROM THE CITY OF PEMBROKE PINES. THE PRICES OF THE METER AND METER BOX SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

7. TAPPING SLEEVES: TAPPING SLEEVES SHALL BE DUCTILE IRON, ASTM GRADE 65-45-12.

- SCREW TYPE WITH 5-1/4" SHAFT, 18 TO 24 INCH EXTENSION, CAST IRON ASTM-A48 CLASS 30 MARKED WATER OR SEWER. b. VALVE BOXES FOR BLOW-OFF ASSEMBLY SHALL BE CAST IRON ASTM A-48 CLASS 30 MARKED "W".

a. VALVE BOXES FOR WATER MAINS AND SEWER FORCE MAINS SHALL BE ADJUSTABLE

9. RETAINER GLANDS:

RETAINER GLANDS SHALL CONFORM TO ANSI/AWWA C111/A21.11-00 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED BY UNDERWRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING.

10. DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY: THE ASSEMBLY SHALL CONFORM TO ANSI/AWWA C510-97, OR LATEST REVISION, AND OF WITHSTANDING A WORKING PRESSURE OF AT LEAST 150 PSI WITHOUT DAMAGE TO WORKING PARTS OR IMPAIRMENT OF FUNCTION. IT SHALL CONSIST OF TWO INTERNALLY LOADED, INDEPENDENTLY OPERATING CHECK VALVES, LOCATED BETWEEN

INSTALLATION:

PLACED RESILIENT-SEATED TEST COCKS.

 GENERAL CONNECTION OF ALL NEW SYSTEMS TO EXISTING MAINS SHALL BE DONE USING ONE OF THE THREE FOLLOWING METHODS:

TWO TIGHTLY CLOSINĠ RESILIENT—SEATED SHUT OFF VALVES, WITH FOUR PROPERLY

- a. METHOD "A" PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A REDUCED SIZE TEMPORARY CONNECTION BETWEEN THE EXISTING MAIN AND THE NEW MAIN.
- b. METHOD "B" PER BROWARD COUNTY PUBLIC HEALTH UNIT STANDARDS, WHICH INVOLVES A DIRECT CONNECTION BETWEEN THE NEW AND EXISTING MAINS USING TWO GATE VALVES SEPARATED BY A SLEEVE WITH A VENT PIPE.
- c. METHOD "C" APPROVED BY THE BROWARD COUNTY PUBLIC HEALTH UNIT, WHICH INVOLVES A TAP WITH ONE GATE VALVE REQUIRING DISINFECTION OF THE NEW SYSTEM PRIOR TO CONDUCTING THE PRESSURE TEST.

BEDDING AND INITIAL BACKFILL (12 INCHES ABOVE PIPE) FOR ALL PIPES SHALL BE SAND WITH NO ROCK LARGER THAN 1" IN DIAMETER. PEAROCK OR 3/4" WASHED ROCK WILL BE IN WATER OR WHERE UNSUITABLE BEDDING EXISTS AT THE DISCRETION OF THE CITY OF PEMBROKE PINES. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6" IN

3. PVC PIPE:

- a. PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UNI-BELL PLASTIC PIPE PLASTIC PIPE ASSOCIATION'S GUIDE FOR INSTALLATION OF PVC PRESSURE PIPE FOR MUNICIPAL WATER DISTRIBUTION SYSTEMS.
- b. PVC PIPE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER. c. DETECTOR TAPE SHALL BE INSTALLED THE FULL LENGTH OF ALL PVC MAINS APPROXIMATELY 18" BELOW GRADE, COLOR SIDE UP.
- 4. DUCTILE IRON PIPE: a. DIP SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600-99 OR LATEST
- b. DIP SHALL BE INSTALLED WITH A MINIMUM OF 30" COVER.
- c. IDENTIFICATION TAPE SHALL BE INSTALLED THE FULL LENGTH OF ALL DIP MAINS APPROXIMATELY 18" ABOVE THE MAIN, COLOR SIDE UP.
- a. ALL VALVES "SHALL BE INSTALLED WITH ADJUSTABLE CAST IRON VALVE BOXES WITH
- THE WORD "WATER" OR "SEWER" CAST IN THE COVER. b. MAIN VALVES SHALL BE LOCATED ON AN EXTENSION OF THE RIGHT-OF-WAY LINE
- UNLESS DIMENSIONED OTHERWISE. c. MAIN VALVES SHALL BE INSTALLED AWAY FROM PARKING AREAS. IF THIS IS UNAVOIDABLE, PROPER MEASURES SHALL BE TAKEN TO AVOID THE PARKING OF VEHICLES OVER THE VALVES. HYDRANT VALVES SHALL BE INSTALLED AS CLOSE TO THE MAIN AS POSSIBLE. VALVES LOCATED IN NON-PAVED AREAS OR IN PARKING STALLS REQUIRE A REFLECTIVE PAVEMENT MARKER ON THE CENTER OF THE NEAREST LANE OF ROAD PAVEMENT. WHITE REFLECTORS FOR WATER MAIN VALVES,
- GREEN REFLECTORS FOR FORCE MAIN VALVES. d. THE DISTANCE FROM THE TOP OF THE VALVE ACTUATOR NUT TO FINAL GRADE SHALL BE A MINIMUM OF 12 INCHES AND A MAXIMUM OF 18 INCHES.
- a. COVER OVER SERVICE LINES SHALL BE 18 INCHES MINIMUM, 24 INCHES MAXIMUM BELOW FINISHED GRADE AND 24 INCHES UNDER PAVEMENT. b. POLYETHYLENE SHALL BE BEDDED IN BACKFILL OF SAND WITH NO ROCK GREATER
- c. METER STOPS SHALL HAVE 8 INCHES TO 10 INCHES COVER OR AS REQUIRED FOR PROPER METER/BOX INSTALLATION.
- d. WATER SERVICES UNDER PAVEMENT SHALL BE ENCASED IN A SCHEDULE 80 PVC SLEEVE FOR THE FULL LENGTH OF THE PAVEMENT AND FOR 2 FEET BEYOND THE
- e. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2" x 4" TREATED STAKE, PAINTED BLUE, EXTENDING 18 INCHES (MINIMUM) ABOVE GRADE UNLESS INDICATED OTHERWISE. 7. COLOR CODING OF PIPING AT DRINKING WATER TREATMENT PLANTS:

ALL NEW OR ALTERED ABOVEGROUND PIPING AT WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED AS RECOMMENDED IN SECTION 2.14 OF "RECOMMENDED STANDARDS FOR WATER WORKS" AS INCORPORATED IN RULE 62-555.330, F.A.C. IN ADDITION, ALL UNDERGROUND WATER MAIN PIPE THAT IS INSTALLED AT DRINKING WATER PLANTS ON OR AFTER AUGUST 28, 2003, AND THAT IS CONVEYING FINISHED DRINKING SHALL BE COLOR CODED AS REQUIRED UNDER SUBPARAGRAPH 62-555.320(21)(B)3. F.A.C. THIS SUBSECTION DOES NOT APPLY TO DRINKING WATER TREATMENT PLANT PIPING INSTALLED OR ALTERED UNDER A CONSTRUCTION PERMIT FOR WHICH THE DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28, 2003.

APPROVAL OF THIS PLAN DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION. A PERMIT FOR CONSTRUCTION MUST BE

OBTAINED FROM THE BROWARD COUNTY

HIGHWAY CONSTRUCTION AND ENGINEERING

DIVISION PRIOR TO COMMENCING

CONSTRUCTION IN THE PUBLIC RIGHT OF

△ BCHCED REF NO.131220101

D. TESTING:

- 1. THE PHYSICAL CONNECTION OF THE NEW SYSTEM TO THE EXISTING SYSTEM SHALL BE DONE IN ACCORDANCE WITH SECTION "C.-1." (THIS DOCUMENT) WHICH WILL DICTATE THE ORDER OF THE PRESSURE TESTING AND DISINFECTION.
- 2. THE COMPLETE WATER SYSTEM SHALL BE PRESSURE TESTED AND DISINFECTED. THE PRESSURE TEST SHALL BE FOR TWO HOURS AT 150 PSI MINIMUM TEST PRESSURE IN ACCORDANCE WITH ANSI/AWWA C600-05 OR LATEST REVISION. THE PRESSURE TEST SHALL NOT VARY MORE THAN 5 PSI DURING THE TEST. LEAKAGE ALLOWANCES WILL NOT BE MADE FOR FITTINGS OR VALVES.
- 3. ALLOWABLE LEAKAGE SHALL NOT EXCEED THE FORMULA OF:

L (GALLONS PER HOUR) = $\frac{S D (P)^{3.3}}{148,000}$

- L = ALLOWABLE LEAKAGE IN GALS/HR (NO ALLOWABLE LEAKAGE FOR VALVES) S = LENGTH OF PIPE TESTED IN FEET= NOMINAL DIAMETER OF PIPE
- P = AVERAGE TEST PRESSURE DURING TEST IN LBS/SQ. IN.4 THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE CITY OF PEMBROKE PINES ENVIRONMENTAL SERVICES DIVISION AND THE ENGINEER OF RECORD. 5. SAMPLING POINTS SHALL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE BROWARD COUNTY HEALTH DEPARTMENT. IF NOT SPECIFIED, SAMPLING POINTS SHALL BE PROVIDED AT INTERVALS OF 1500 FEET MAXIMUM FOR LINES GREATER THAN 1500 FEET IN LENGTH. PROVIDE A MINIMUM OF TWO SAMPLING POINTS FOR ALL OTHER TEST SEGMENTS.
- 6. BEFORE ACCEPTANCE FOR OPERATION, THE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH ANSI/AWWA C651-05 OR LATEST REVISION WITH APPROVED BACTERIOLOGICAL SAMPLES AND PROPER DOCUMENTATION BY BROWARD COUNTY HEALTH DEPARTMENT. COLLECTION OF SAMPLES IS THE CONTRACTOR'S RESPONSIBILITY AND WILL BE WITNESSED BY A CITY OF PEMBROKE PINES ENVIRONMENTAL SERVICES DIVISION REPRESENTATIVE

VIII. GRAVITY SEWAGE COLLECTION SYSTEM

MATERIALS:

A. 1. SEWER PIPE AND FITTINGS:

- a. PVC SEWER PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE PIPE CONFORMING TO ASTM D-3034, SDR 35, WITH PUSH-ON RUBBER GASKET JOINTS UNLESS OTHERWISE NOTED.
- b. DUCTILE IRON PIPE (DIP) SHALL BE DOUBLE CEMENT CONFORMING TO ANSI/AWWA C104/A21.4—95, OR LATEST REVISION, OR POLYETHYLENE LINED INSIDE CONFORMING TO ANSI/AWWA C105/A21.5—93, OR APPROVED EQUAL AND SHALL HAVE A COAL TAR EPOXY COATING. MANUFACTURED IN ACCORDANCE TO ANSI/AWWA C151/A21.51-96, OR LATEST REVISION, MINIMUM WALL THICKNESS CLASS 350 (UNLÉSS OTHERWISE SPECIFIED).
- c. ALL FITTINGS AND ACCESSORIES SHALL BE AS MANUFACTURED OR SUPPLIED BY THE PIPE MANUFACTURER.

- a. MANHOLES SHALL BE PRECAST PER ASTM C-478 TYPE II WITH 4000 PSI CONCRETE AND GRADE 40 STEEL. MONOLITHICALLY POURED BASES ONLY. b. MANHOLE OPENINGS ARE TO BE SEALED WITH ANTI-HYDRO CEMENT OR APPROVED
- EQUAL. NO MOLDING PLASTER WILL BE ALLOWED. c. MANHOLE JOINTS SHALL BE SEALED WITH "RAMNEK" GASKETS OR APPROVED EQUAL AND WITH ANTI-HYDRO CEMENT ON THE INSIDE AND OUTSIDE.

INSTALLATION B. 1. PIPE AND FITTINGS:

- a. SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D-2321, AND THE UNI-BELL PLASTIC PIPE ASSOCIATION'S "RECOMMENDED PRACTICE FOR THE INSTALLATION OF PVC SEWER PIPE".
- b. DIP SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600-93, OR LATEST c. BEDDING AND INITIAL BACKFILL 12 INCHES OVER SEWER MAINS AND SERVICES SHALL BE SAND WITH NO ROCK LARGER THAN 1 INCH IN DIAMETER. PEAROCK OR 3/4"
- WASHED ROCK WILL BE USED IN WATER OR WHERE UNSUITABLE BEDDING EXISTS AT THE DISCRETION OF THE CITY OF PEMBROKE PINES. ALL OTHER FILL SHALL NOT HAVE ROCK LARGER THAN 6 INCH IN DIAMETER. d. PIPE CONNECTION INTO MANHOLE WALL SHALL BE DUCTILE IRON PIPE, GROUTED IN PLACE, OR CAST—IN NEOPRENE RUBBER BOOT, OR EQUAL AS APPROVED BY THE

e. GRAVITY SEWER MAINS INSTALLED DEEPER THAN TWELVE (12) FEET SHALL BE D.I.P. AND

SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600-93 OR LATEST REVISION.

- 2. MANHOLES:
- PROVIDING UNIFORM BEARING UNDER THE BASE.

OUTSIDE THE ROAD PAVEMENT.

b. ALL OPENINGS AND JOINTS SHALL BE SEALED WATER-TIGHT. c. THE ENTIRE INSIDE OF THE MANHOLES SHALL BE PAINTED WITH TWO COATS (8 MILS EACH, DRY) OF KOPPER'S 300-M BITUMASTIC COATING, OR APPROVED EQUAL. FIRST COAT RED, SECOND COAT BLACK. THE OUTSIDE OF EACH MANHOLE REQUIRES

a. MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM CLEAN SUBGRADE

- ONLY ONE COAT (8 MILS, DRY) OF THE SAME TYPE OF COATING.
- d. MANHOLES SHALL BE INSTALLED AWAY FROM PARKING AREAS ON THE CENTERLINE OF THE ROADWAY. IF THIS IS UNAVOIDABLE, PROPER MEASURES SHALL BE TAKEN TO PROHIBIT THE PARKING OF VEHICLES OVER MANHOLES. e. ORANGE REFLECTIVE PAVEMENT MARKERS SHALL BE PROVIDED ON THE CENTER OF THE NEAREST LANE OF ROAD PAVEMENT ADJACENT TO ALL MANHOLE LOCATIONS

f. ALL LIDS SHALL BE PROVIDED WITH A POLYETHYLENE WATER TIGHT MANHOLE INSERT.

- a. MINIMUM SLOPE OF ALL SERVICE LINES SHALL BE AS INDICATED IN THE "SOUTH FLORIDA BUILDING CODE" BROWARD COUNTY EDITION.
- b. SERVICE LATERALS SHALL TERMINATE AT A DEPTH 30" BELOW FINISHED GRADE. c. EACH SERVICE CONNECTION SHALL BE PLUGGED WATERTIGHT WITH AN APPROVED PLUG.
- d. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2" imes 4" TREATED STAKE PAINTED RED, EXTENDING 18 INCHES (MINIMUM) ABOVE GRADE. e. CONTRACTOR SHALL ROUGH IN RISER TO 1 FOOT ABOVE FINISHED GRADE AND PLUG. AT PROJECT COMPLETION, CUT BACK TO FINISHED GRADE.

f. CONNECTION OF SERVICES TO BUILDING'S PLUMBING SHALL BE COORDINATED WITH THE CITY'S BUILDING AND ZONING DEPARTMENT, PLUMBING SECTION.

- TESTING
- C. 1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENTIRE SYSTEM SHALL BE LAMPED.
 SEWER LAMPING SHALL BE WITNESSED BY THE ENGINEER OF RECORD AND A
 REPRESENTATIVE FROM THE CITY OF PEMBROKE PINES ENGINEERING DIVISION.
- 2. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE CITY OF PEMBROKE PINES OR THE ENGINEER OF RECORD MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF.
- 3. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE CITY OF PEMBROKE PINES. 4. MANHOLE EXFILTRATION LEAKAGE SHALL NOT EXCEED 4 GALLONS PER DAY PER UNIT.
- 5. SEWER PIPE EXFILTRATION LEAKAGE SHALL NOT EXCEED 10 GALLONS PER DAY PER INCH DIAMETER PER MILE IN A TWO HOUR TEST PERIOD FOR ANY SECTION TESTED. 6. VISIBLE MANHOLE AND SEWER PIPE INFILTRATION LEAKAGE SHALL NOT BE PERMITTED. 7. SANITARY SEWER SHALL BE TELEVISED, AT DEVELOPER'S EXPENSE, PRIOR TO FINAL APPROVAL OF CONSTRUCTION. VIDEO TAPE AND REPORT SHALL BE EXAMINED BY THE CITY OF PEMBROKE PINES ENGINEERING DIVISION. OWNER / CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING OF ANY DEFICIENCIES PRIOR TO THE CITY'S

CERTIFICATION OF COMPLETION TO ANY AGENCY. PERMIT SET

MUST BE ON JOBSITE AT ALL TIMES DURING CONSTRUCTION ALL MATERIALS USED AND INSTALLATIONS

WITHIN THE PUBLIC RIGHT OF WAY OR

EASEMENTS SHALL BE IN ACCORDANCE WITH

BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION SPECIFICATIONS

INSPECTION REQUIRED 24 HRS. PRIOR TO COMMENCING ANY WORK IN THE PUBLIC R/W CONTACT THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION AT 954-577-4600

FOR INSPECTION.

NOTICE

GRADING AND DRAINAGE

BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION

☐ PLAN CONSISTENT WITH PLAT REQUIREMENTS ☐ PUBLIC RIGHT OF WAY APPROVAL FOR PAVING,

> DATE: ___ DOES NOT INCLUDE APPROVAL OF PAVEMENT

S. Univers Suite 11 e, Florida 954.318.0

IX. WET WELL MOUNTED WASTEWATER PUMPING STATION

PUMP STATION FLOW. REFER TO PLANS FOR OTHER SITE FEATURES.

A. GENERAL

FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED AND INSTALL, PLACE IN OPERATION, AND FIELD TEST A TELEMETRY CONTROLLED WET WELL MOUNTED WASTEWATER PUMPING STATION AND A EMERGENCY GENERATOR OR BYPASS PUMP TO PROVIDE EMERGENCY SERVICE TO THE STATION AND A EMERGENCY GENERATOR OR BYPASS PUMP TO PROVIDE EMERGENCY SERVICE TO THE PUMP STATION. THE STATION SHALL BE COMPLETE WITH PUMPS, MOTORS, PIPING, VALVES, TELEMETRY, ELECTRICAL WORK (INCLUDING MOTOR CONTROLS), STRUCTURES OR CONNECTION AND APPURTENANCES, TESTED AND READY FOR SERVICE. THE GENERATOR OR PUMP SHALL BE TRAILER MOUNTED, DIESEL POWERED SIZED TO MAINTAIN THE

- A. THE CONTRACTOR SHALL FURNISH AND INSTALL ONE FACTORY BUILT, AUTOMATIC PUMPING STATION AS MANUFACTURED BY SMITH & LOVELESS, INC., LENEXA, KANSAS. THE STATION SHALL BE COMPLETE WITH ALL NEEDED EQUIPMENT, FACTORY—INSTALLED ON A WELDED STEEL
- BASE WITH FIBERGLASS COVER. B. THE PRINCIPAL ITEMS OF EQUIPMENT SHALL INCLUDE TWO VERTICAL, CLOSE-COUPLED, MOTOR DRIVEN, VACUUM PRIMED, NON-CLOG SEWAGE PUMPS; VALVES; INTERNAL PIPING; CENTRAL CONTROL PANEL WITH CIRCUIT BREAKERS; MOTOR STARTERS AND AUTOMATIC PUMPING LEVEL CONTROLS; HEATER; VENTILATING BLOWER; PRIMING PUMPS AND APPURTENANCES; AND ALL INTERNAL WIRING
- C. REFER TO PLANS FOR A COMPLETE LIST OF OPERATING CONDITIONS. D. THE PUMPING STATION SHALL PUMP RAW, UNSCREENED, DOMESTIC WASTEWATER INTO A
- FORCE MAIN, WHICH IS PUMPED TO A LOCAL MANHOLE OR TRANSMISSION SYSTEM. E. THE REMOTE TELEMETRY UNIT SHALL INCLUDE AN ENCLOSURE WITH POWER SUPPLY, CENTRAL PROCESSING UNIT, ANALOG AND DIGITAL OUTPUTS, RADIO, DIRECTIONAL ANTENNA AND
- APPURTENANCES AND ALL WIRING. F. THE CONTRACTOR SHALL FURNISH, AT THE CITY OF PEMBROKE PINES DISCRETION, EITHER AN EMERGENCY GENERATOR OR EMERGENCY BYPASS PUMP. THE GENERATOR SHALL BE SIZED TO MEET THE STARTING AMPERAGE OF BOTH PUMPS SIMULTANEOUSLY. THE BYPASS PUMP SHALL BE A MINIMUM SIX (6) INCH SELF-PRIMING PUMP, EITHER SHALL BE DIESEL POWERED. TRAILER MOUNTED WITH NECESSARY TOWING EQUIPMENT INCLUDING, LIGHTS AND HITCH. THE GENERATOR SHALL BE SUPPLIED WITH NECESSARY PLUG AND CABLE FOR SUPPLYING POWER TO THE PUMP STATION CONTROL PANEL. THE BYPASS PUMP SHALL BE SUPPLIED WITH THE NECESSARY HOSES AND CONNECTIONS TO PROVIDE BYPASSING OF THE PUMP STATION.

3. QUALIFICATIONS TO ASSURE UNITY OF RESPONSIBILITY, THE MOTORS AND CONTROL SYSTEM SHALL BE FURNISHED AND COORDINATED BY THE LOCAL PUMP MANUFACTURER REPRESENTATIVE. THE CONTRACTOR AND PUMP MANUFACTURER SHALL ASSUME RESPONSIBILITY FOR THE SATISFACTORY INSTALLATION AND OPERATION OF THE ENTIRE PUMPING SYSTEM INCLUDING PUMPS, MOTORS, CONTROLS, GENERATOR OR BYPASS AS SPECIFIED.

4. SUBMITTALS

- A. COPIES OF ALL MATERIALS REQUIRED ESTABLISHING COMPLIANCE WITH SPECIFICATIONS SHALL INCLUDE AT LEAST THE FOLLOWING: I. SHOP ERECTION DRAWINGS SHOWING ALL-IMPORTANT DETAILS OF CONSTRUCTIONS,
- DIMENSIONS AND ANCHOR BOLT LOCATIONS. II. DESCRIPTIVE LITERATURE, BULLETINS AND CATALOGS OF THE EQUIPMENT. III. DATA ON THE CHARACTERISTICS AND PERFORMANCE OF EACH STATION PUMP, GENERATOR DATA SHALL INCLUDE A CERTIFIED PERFORMANCE TEST, BASED ON ACTUAL SHOP TESTS OF THE SALE UNITS, WHICH SHOW THAT THEY MEET THE SPECIFIED REQUIREMENTS FOR
- HEAD. CAPACITY, EFFICIENCY, AND HORSEPOWER. CURVES SHALL BE SUBMITTED ON 8 1/2 INCH BY 11 INCH SHEETS AT AS LARGE A SCALE AS PRACTICAL. CURVES SHALL BE PLOTTED FROM NO FLOW AT SHUTT OFF HEAD TO PUMP CAPACITY AT MINIMUM SPECIFIED DYNAMIC HEAD. CATALOG SHEETS SHOWING A FAMILY OF CURVES WILL NOT BE ACCEPTABLE. IV.COMPLETE MASTER WIRING DIAGRAMS, TELEMETRY OR CONTROL SCHEMATICS, INCLUDING
- INCLUDING COORDINATION WITH OTHER ELECTRICAL DEVICES OPERATING IN CONJUNCTION WITH THE PUMP CONTROL SYSTEM AND SUITABLE OUTLINE DRAWINGS SHALL BE FURNISHED FOR APPROVAL REFORE PROCEEDING WITH MANUFACTURER STANDARD PRE-PRINTED SHEETS OR DRAWINGS SIMPLY MARKED TO INDICATE APPLICABILITY TO THIS CONTRACT WILL NOT BE ACCEPTABLE V. A DRAWING SHOWING THE LAYOUT OF THE PUMP CONTROL PANEL SHALL BE FURNISHED,
- THE LAYOUT SHALL INDICATE EVERY DEVICE MOUNTED ON THE DOOR WITH COMPLETE IDENTIFICATION. VI. THE TOTAL WEIGHT OF THE EQUIPMENT INCLUDING THE WEIGHT OF THE SINGLE LARGEST
- VII. A COMPLETE TOTAL BILL OF MATERIALS OF ALL EQUIPMENT. VIII. A LIST OF THE MANUFACTURER'S RECOMMENDED SPARE PARTS TO BE SUPPLIED IN ADDITION TO THOSE SPECIFIED IN PARAGRAPH 6.A. WITH THE MANUFACTURER'S CURRENT PRICE FOR EACH ITEM. INCLUDE GASKETS, SEALS, ETC. ON THE LIST. LIST BEARING BY
- THE BEARING MANUFACTURER'S NUMBERS ONLY. X. ALL SUBMITTAL DATES REQUIRED BY THE GENERAL CONDITIONS. X. COMPLETE MOTOR DATA. B. IN THE EVENT THAT IT IS IMPOSSIBLE TO CONFORM TO CERTAIN DETAILS OF THE

SPECIFICATIONS DUE TO DIFFERENT MANUFACTURING TECHNIQUES, DESCRIBE COMPLETELY ALL

NON-CONFORMING ASPECTS. C. UPON RECEIPT OF APPROVAL OF SUBMITTED MATERIAL, PROVIDE FIVE PRINTS.

- 5. OPERATING INSTRUCTIONS A. OPERATING AND MAINTENANCE MANUALS SHALL BE FURNISHED WHICH WILL INCLUDE PARTS LISTS OF COMPONENTS AND COMPLETE SERVICE PROCEDURES AND TROUBLE-SHOOTING GUIDE. THE MANUALS SHALL BE PREPARED SPECIFICALLY FOR THE INSTALLATION AND SHALL INCLUDE ALL REQUIRED CUTS, DRAWINGS, EQUIPMENT LISTS, DESCRIPTION, ETC. THAT ARE REQUIRED TO INSTRUCT OPERATING AND MAINTENANCE PERSONNEL UNFAMILIAR WITH SUCH
- EQUIPMENT. B. A FACTORY TRAINED REPRESENTATIVE OF ALL MAJOR COMPONENT MANUFACTURERS, WHO HAS COMPLETE KNOWLEDGE OF PROPER OPERATION AND MAINTENANCE, SHALL BE PROVIDED FOR ONE (1) DAY AT THE STATION. TO INSTRUCT REPRESENTATIVES OF THE CITY AND THE ENGINEER ON PROPER OPERATION AND MAINTENANCE AND TO PERFORM INITIAL START-UP OF THE PUMP STATION. WITH PERMISSION OF THE CITY, THIS WORK MAY BE CONDUCTED IN CONJUNCTION WITH THE INSPECTION OF THE INSTALLATION AND TEST RUN. IF THERE ARE DIFFICULTIES IN OPERATION OF THE EQUIPMENT DUE TO THE MANUFACTURER'S DESIGN OR FABRICATION, ADDITIONAL SERVICE SHALL BE PROVIDED AT NO COST TO THE OWNER.

A. A COMPLETE REPLACEMENT PUMP SHAFT SEAL ASSEMBLY SHALL BE FURNISHED WITH EACH PUMP STATION. THE SPARE SEAL SHALL BE PACKED IN A SUITABLE CONTAINER AND SHALL

INSTRUCTIONS PROVIDED BY THE MANUFACTURER.

INCLUDE COMPLETE INSTALLATION INSTRUCTIONS. IN ADDITION, A SPARE SEAL GASKET SHALL BE PROVIDED. B. SPARE PARTS SHALL BE PROPERLY BOUND AND LABELED FOR EACH IDENTIFICATION WITHOUT OPENING THE PACKAGING AND SUITABLY PROTECTED FOR LONG TERM STORAGE.

7. GUARANTEE

- A. THE MANUFACTURER OF THE LIFT STATION SHALL GUARANTEE THE STRUCTURE AND ALL EQUIPMENT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF UP TO ONE YEAR FROM DATE OF START-UP, NOT TO EXCEED 18 MONTHS FROM THE DATE
- B. WARRANTIES AND GUARANTEES BY THE SUPPLIERS OF VARIOUS COMPONENTS IN LIEU OF SINGLE-SOURCE RESPONSIBILITY BY THE STATION MANUFACTURER WILL NOT BE ACCEPTED. THE STATION MANUFACTURER SHALL BE SOLE RESPONSIBLE FOR THE GUARANTEE OF THE
- STATION AND ALL ITS COMPONENTS. C. THE REPAIR OR REPLACEMENT OF THOSE ITEMS NORMALLY CONSUMED IN SERVICE, SUCH AS SEALS, GREASE, LIGHT BULBS, ETC., SHALL BE CONSIDERED AS PART OF ROUTINE MAINTENANCE AND UPKEEP.

B. EXECUTION

1. INSTALLATION

- A. INSTALLATION SHALL BE STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS IN THE LOCATIONS SHOWN ON THE DRAWINGS. INSTALLATION SHALL INCLUDE FURNISHING THE REQUIRED OIL AND GREASE FOR THE INITIAL OPERATION. THE GRADES OF OIL AND GREASE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS
- B. THE CONTRACTOR SHALL SUBMIT A CERTIFICATE FROM THE EQUIPMENT MANUFACTURER STATING THAT THE INSTALLATIONS OF THE EQUIPMENT IS SATISFACTORY, THAT THE EQUIPMENT IS READY FOR OPERATION, AND THAT THE OPERATION PERSONNEL HAVE BEEN SUITABLY INSTRUCTED IN THE OPERATION, LUBRICATION AND CARE OF EACH UNIT. C. INSTALLATION OF THE PUMP CHAMBER SHALL BE DONE IN ACCORDANCE WITH THE WRITTEN

2. SHOP PAINTING

- A. BEFORE EXPOSURE TO WEATHER AND PRIOR TO SHOP PAINTING, ALL SURFACES SHALL BE THOROUGHLY CLEANED, DRY AND FREE FROM ALL MILL-SCALE, RUST, GREASE, DIRT AND OTHER FOREIGN MATTER.
- B. ALL PUMPS AND MOTORS SHALL BE SHOP COATED, WITH MANUFACTURER'S STANDARD
- . ALL NAMEPLATES SHALL BE PROPERLY PROTECTED DURING PAINTING.
- D. GEARS. BEARING SURFACES AND OTHER SIMILAR SURFACES OBVIOUSLY NOT TO BE PAINTED SHALL BE GIVEN A HEAVY SHOP COAT OF GREASE OR OTHER SUITABLE RUST-RESISTANT THIS COATING SHALL BE MAINTAINED AS NECESSARY TO PREVENT CORROSION DURING PERIODS OF STORAGE AND ERECTION AND SHALL BE SATISFACTORY TO THE ENGINEER UP TO THE TIME OF THE FINAL ACCEPTANCE TEST.

3. INSPECTION AND TESTING

- A. GENERAL I. THE ENGINEER SHALL HAVE THE RIGHT TO INSPECT, TEST OR WITNESS TEST OF ALL MATERIALS OR EQUIPMENT TO BE FURNISHED UNDER THESE SPECIFICATIONS, PRIOR TO
- THEIR SHIPMENT FROM THE POINT OF MANUFACTURE. II. THE ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO INITIAL SHIPMENT IN AMPLE TIME
- SO THAT ARRANGEMENTS CAN BE MADE FOR INSPECTION BY THE ENGINEER. III. THE ENGINEER OR HIS REPRESENTATIVE SHALL BE FURNISHED ALL FACILITIES, INCLUDING LABOR, AND SHALL BE ALLOWED PROPER TIME INSPECTION AND TESTING OF MATERIAL AND
- IV. MATERIALS AND EQUIPMENT SHALL BE TESTED OR INSPECTED AS REQUIRED BY THE ENGINEER AND THE COST OF SUCH WORK SHALL BE INCLUDED IN THE COST OF THI EQUIPMENT. THE CONTRACTOR SHALL ANTICIPATE THAT DELAYS MAY BE CAUSED BECAUSE OF THE NECESSITY OF INSPECTION, TESTING AND ACCEPTING MATERIALS AND EQUIPMENT
- BEFORE THEIR USE IS APPROVED. V. THE SERVICE OF A FACTORY REPRESENTATIVE SHALL BE FURNISHED FOR ONE (1) DAY, FOR THE STATION, AND SHALL HAVE COMPLETE KNOWLEDGE OF PROPER OPERATION AND MAINTENANCE TO INSPECT THE FINAL INSTALLATION AND SUPERVISE THE TEST RUN OF THE
- VI. FIELD TESTS SHALL NOT BE CONDUCTED UNTIL SUCH TIME THAT THE ENTIRE INSTALLATION IS COMPLETE AND READY FOR TESTING, INCLUDING PERMANENT ELECTRICAL POWER AND TELEMETRY CONTROL
- VII.ALL COMPONENTS OF THE PUMP STATION SHALL BE GIVEN AN OPERATIONAL TEST AT THE PUMP STATION MANUFACTURER'S FACILITY TO CHECK FOR EXCESSIVE VIBRATION. FOR LEAKS IN THE PUMPING OR SEALS AND CORRECT OPERATION OF THE AUTOMATIC CONTROL AND VACUUM PRIMING SYSTEMS AND ALL AUXILIARY EQUIPMENT. INSTALLED PUMPS SHALL TAKE SUCTION FROM A DEEP WET WELL, SIMULATING ACTUAL SERVICE CONDITIONS. THE CONTROL PANEL SHALL UNDERGO BOTH A DRY LOGIC TEST AND A FULL OPERATIONAL
- TEST WITH ALL SYSTEMS OPERATING. VIII.FACTORY TEST INSTRUMENTATION MUST INCLUDE FLOW MEASURING WITH INDICATOR; COMPOUND SUCTION GAUGE; BOURBON TUBE TYPE DISCHARGE PRESSURE GAUGE; ELECTRICAL METERS TO MEASURE AMPERES, VOLTS, KILOWATTS AND POWER FACTOR; SPEED INDICATOR AND VIBROMETER CAPABLE OF MEASURING BOTH AMPLITUDE AND
- I. AFTER ALL PUMPS HAVE BEEN COMPLETELY INSTALLED, WORKING UNDER THE DIRECTION OF THE MANUFACTURER, CONDUCT IN THE PRESENCE OF THE ENGINEER AND THE CITY OF PEMBROKE PINES REPRESENTATIVE, SUCH TESTS AS ARE NECESSARY TO INDICATE THAT PUMPS CONFORM TO THE SPECIFICATIONS. FIELD TESTS SHALL INCLUDE ALL PUMPS INCLUDED UNDER THIS SECTION. SUPPLY ALL ELECTRICAL POWER, WATER OR WASTEWATER
- LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THE FIELD TESTS. II. IF THE PUMP PERFORMANCE DOES NOT MEET THE SPECIFICATIONS, CORRECTIVE MEASURES SHALL BE TAKEN OR PUMPS SHALL BE REMOVED AND REPLACED WITH PUMPS WHICH SATISFY THE CONDITIONS SPECIFIED.

I. THE CONTRACTOR SHALL CHECK ALL MOTORS FOR CORRECT CLEARANCE AND ALIGNMENT AND FOR CORRECT LUBRICATION IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. THE CONTRACTOR SHALL CHECK DIRECTION OF ROTATION OF ALL MOTORS AND REVERSE CONNECTIONS IF NECESSARY.

I. THE CONTRACTOR SHALL DEMONSTRATE THAT THE TELEMETRY SYSTEM IS FUNCTIONAL AND HAS COMMUNICATIONS WITH THE BASE UNIT.

- I. THE CONTRACTOR SHALL PROVIDE FOR A LOAD TEST EQUAL TO THE START UP AMPERAGE OF BOTH PUMPS.
- I. THE CONTRACTOR SHALL DEMONSTRATE THAT THE BYPASS PUMP IS CAPABLE OF MEETING ACTUAL SERVICE CONDITIONS.

BROWARD COUNTY DEPARTMENT OF PLANNING AND ENVIRONMENTAL PROTECTION

1. NOTES ON WATER SEWER SEPARATION:

- A. SANITARY SEWERS AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.
- WHERE SANITARY SEWERS OR FORCE MAINS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES OF VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (D.I.P.) AT THE CROSSING. SUFFICIENT LENGTHS OF D.I.P. MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
- ALL CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUAL DISTANCE FROM THE POINT OF CROSSING (PIPES CENTERED ON
- WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS
- B. A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
- IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
- WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF D.I.P. AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF D.I.P. WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
- C. ALL D.I.P. SHALL BE CLASS 50 OR HIGHER. ADEQUATE PROTECTIVE MEASURE AGAINST CORROSION SHALL BE USED AS DETERMINED BY DESIGN.

GENERAL NOTE:

THE CONTRACTOR SHALL CONFORM TO THE MOST CURRENT AND MOST STRINGENT STANDARDS AND SPECIFICATION REQUIREMENTS FOR THE BROWARD COUNTY DEPARTMENT OF NATURAL RESOURCE PROTECTION AND THE CITY OF PEMBROKE PINES, PERTAINING TO ALL UTILITY PIPE SEPARATIONS AND CLEARANCES

X. EARTHWORK AND COMPACTION

- 1. NONE OF THE EXISTING MATERIAL IS TO BE INCORPORATED IN THE LIMEROCK BASE. 2. ALL SUBGRADE UNDER PAVED AREAS SHALL HAVE A MINIMUM LBR VALUE OF 40 AND AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY
- 3. ALL FILL MATERIAL IN AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
- 4. A 2" BLANKET OF TOP SOIL SHALL BE PLACED OVER ALL AREAS TO BE SODDED. 5. SOD SHALL BE ST. AUGUSTINE, BITTER BLUE OR FLORATAM AND SHALL BE PLACED ON THE GRADED TOP SOIL AND WATERED TO INSURE SATISFACTORY CONDITION UPON FINAL ACCEPTANCE OF THE PROJECT.
- 6. WHEN WORKING IN AND AROUND EXISTING DRAINAGE CANALS OR LAKES, APPROPRIATE SILT BARRIERS SHALL BE INSTALLED.
- 1. ALL ORGANIC AND OTHER UNSUITABLE MATERIAL WITHIN THREE FEET OF AREAS TO BE PAVED SHALL BE
- 2. SUITABLE BACKFILL SHALL BE MINIMUM LBR 40 MATERIAL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 FOR THREE (3) FEET BEYOND THE PERIMETER OF THE PAVING.

XI. STORM DRAINAGE

- A. CONTRACTOR MAY UTILIZE ONE OF THE FOLLOWING MATERIALS.
 - A. PIPE SHALL BE ALUMINUM, MANUFACTURED IN CONFORMANCE WITH ASTM
- B. PIPE SHALL BE SPIRAL RIB DRAINAGE PIPE WITH 3/4" BY 3/4" RIBS, APPROXIMATELY 7-1/2" ON CENTER. GAUGE THICKNESS SHALL MEET FDOT STANDARD 945-1. C. PIPE COUPLING BANDS SHALL BE 12" WIDE STANDARD SPLIT BANDS OF THE SAME
- ALLOY AS THE PIPE AND MAY BE ONE GAUGE LIGHTER THAN THE PIPE. D. POLYURETHANE OR OTHER SEALANT SHALL BE USED WITH COUPLING BANDS ON ALL NON-PERFORATED PIPE.
- - CONCRETE PIPE FOR STORM SEWERS SHALL CONFORM TO ASTM L70—79, TABLE III, WALL B, OR LATEST REVISION. ALL PIPE SHALL HAVE MODIFIED TONGUE AND GROOVE JOINTS, AND HAVE RUBBER GASKETS, UNLESS OTHERWISE SPECIFIED.
- A. BEDDING AND INITIAL BACKFILL OVER DRINAGE PIPES SHALL BE SAND WITH NO
- ROCK LARGER THAN 1" DIAMETER. B. BACKFILL MATERIAL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY ASSHTO T-180.
- C. BACKFILL MATERIAL UNDER AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
- D. CATCH BASINS SHALL BE PRECAST MINIMUM 3000 PSI CONCRETE AND GRADE 40 REINFORCED STEEL.

4. INSTALLATION:

- A. PIPE SHALL BE PLACED ON STABLE GRANULAR MATERIAL FREE OF ROCK FORMATION OTHER FOREIGN FORMATIONS, AND CONSTRUCTED TO UNIFORM GRADE AND LINE. B. BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL WELL TAMPED IN LAYERS NOT TO EXCEED SIX INCHES (6").
- C. PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION D. THE CONTRACTOR SHALL NOTIFY THE LOCAL WATER CONTROL DISTRICT AT LEAST 24 HOURS PRIOR TO THE START OF THE CONSTRUCTION AND INSPECTION.

XII. STORM DRAINAGE PRE-TREATMENT/EXFILTRATION SYSTEM

- A. ANY CONFLICT WITH EXISTING OR PROPOSED UTILITIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY IMPERMEABLE MATERIAL ENCOUNTERED IN THE EXCAVATION FOR THE DRAIN FIELD SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. B. THE TRENCH LINER SHALL BE TYPAR SPUN BONDED POLYPROPYLENE FILTER FABRIC AS MANUFACTURED BY THE DUPONT COMPANY, OR APPROVED EQUAL. IT SHALL BE USED ON THE SIDES AND TOP OF DRAIN FIELD DITCH. THE TOP SECTION OF THE MATERIAL SHALL BE LAPPED A MINIMUM OF 24 INCHES AND THE CONTRACTOR SHALL TAKE EXTREME CARE IN
- BACKFILLING TO AVOID BUNCHING OF THE FABRIC.
- C. PERFORATED PIPE WITHIN THE DRAIN FIELD SHALL HAVE 3/8 INCH PERFORATIONS 360° AROUND THE PIPE WITH APPROXIMATELY 120 PERFORATIONS PER FOOT OF PIPE. D. PERFORATED PIPE SHALL TERMINATE FIVE FEET (5') FROM THE DRAINAGE STRUCTURE. THE REMAINING FIVE FEET (5') SHALL BE NON-PERFORATED PIPE.
- E. PIPES SHALL TERMINATE TWO FEET (2') FROM THE END OF THE TRENCH OR CONNECT TO ADDITIONAL CATCH BASINS.

XIII. PAVING A. GENERAL:

- 1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF OF LIMEROCK BASE AND PRIOR TO PLACEMENT OF THE PAVEMENT.
- 2. ALL EXISTING PAVEMENT CUT OR DAMAGED BY CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
- 3. WHERE PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE
- EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT. 4. ALL STREET CORNER PAVEMENT RADII SHALL BE 25 FEET UNLESS OTHERWISE NOTED ON THE PLANS.
- 5. UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND LIMEROCK BASE CONSTRUCTION (AND BEFORE PLACING ASPHALT PAVEMENT) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD AND THE CITY OF PEMBROKE PINES "AS-BUILT" PLANS FO THESE IMPROVEMENTS, SHOWING THE LOCATIONS AND THE PERTINENT GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROCK GRADES OF THE ROAD CROWN AND EDGE OF PAVEMENT AT 50 FEET INTERVALS. THESE "AS-BUILTS" SHALL BE APPROVED BY THE CITY PRIOR TO THE PLACEMENT OF ASPHALT.

B. MATERIALS:

- 1. BASE COURSE SHALL BE CRUSHED LIMEROCK MIAMI OOLITE WITH A MINIMUM OF 70% CARBONATES OF CALCIUM AND MAGNESIUM (60% FOR LOCAL STREETS AND PARKING AREAS) AND A MINIMUM LIMEROCK BEARING RATIO 100.
- 2. PRIME COAT AND TACK COAT SHALL MEET F.D.O.T. STANDARDS. 3. SURFACE COURSE SHALL BE EQUAL TO F.D.O.T. TYPE S-3 ASPHALT.
- 4. REINFORCED CONCRETE SLABS SHALL BE CONSTRUCTED OF CLASS I CONCRETE WITH A MINIMUM STRENGTH OF 3,000 PSI AND SHALL BE REINFORCED WITH A 6" x 6" No. 6

GAUGE WIRE MESH. C. INSTALLATION:

1. LIMEROCK BASE MATERIAL SHALL BE 8 INCHES THICK AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T80-C. 2. LIMEROCK BASE MATERIAL SHALL BE PLACED IN MAXIMUM 6" LIFTS. BASES GREATER THAN 6" SHALL BE PLACED IN TWO OR MORE EQUAL LIFTS.

3. ASPHALTIC CONCRETE SHALL BE A MINIMUM OF 1 1/2" THICK AND SHALL BE PLACED TWO 3/4" LIFTS. (NOTE: SECOND LIFT TO BE PLACED AFTER A MINIMUM OF 80% OF THE HOUSES HAVE BEEN COMPLETED OR AS DIRECTED BY THE CITY ENGINEER.. 4. PRIME COAT SHALL BE PLACED ON ALL LIMEROCK BASES IN ACCORDANCE WITH F.D.O.T.

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- 5. TACK COAT SHALL BE PLACED AS REQUIRED IN ACCORDANCE WITH F.D.O.T. STANDARDS.
- ALL SUBGRADE, LIMEROCK AND ASPHALT TESTS REQUIRED SHALL BE TAKEN AT THE DIRECTION OF THE ENGINÉER AND/OR THE CITY OF PEMBROKE PINES. 1. THE FINISHED SURFACE OF THE BASE COURSE AND THAT OF THE WEARING SURFACE SHALL NOT VARY MORE THAN 1/4" FROM THE TEMPLET. ANY IRREGULARITIES EXCEEDING
- 2. DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY, CERTIFIED BY THE STATE OF FLORIDA, AND TAKEN AS DIRECTED BY THE ENGINEER AND THE CITY
- OF PEMBROKE PINES. 3. ALL TESTING COSTS (PAVING) SHALL BE PAID FOR BY THE OWNER EXCEPT THOSE TESTS FAILING TO MEET THE SPECIFIED REQUIREMENTS, WHICH ARE TO BE PAID BY THE CONTRACTOR.

XIV. SIGNING AND MARKING

D. TESTING:

- A. ALL PAVEMENT MARKINGS SHALL BE TRAFFIC PAINT MANUFACTURED AND APPLIED IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATION'S AND BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS WHERE APPLICABLE.
- B. ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND BROWARD COUNTY TRAFFIC ENGINEERING DIVISION C. REFLECTIVE PAVEMENT MARKERS SHALL BE CLASS B MARKERS MANUFACTURED IN ACCORDANCE WITH F.D.O.T. STANDARD SPECIFICATIONS 706 AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.

XV. MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN

SATISFACTORILY BARRICADED FROM THE WALK ROUTE.

- THE MAINTENANCE OF TRAFFIC PLAN, PROVIDED BY THE CONTRACTOR, SHALL INCLUDE PROVISIONS FOR PEDESTRIAN AND/OR SCHOOL STUDENT TRAFFIC AS WELL AS VEHICULAR TRAFFIC. THE FOLLOWING ARE MINIMUM REQUIREMENTS.
 - A. THE SAFE WALK ROUTE FOR ALL SCHOOL STUDENTS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING THE TIMES STUDENTS ARE ARRIVING AT OR LEAVING SCHOOL. IF THE CURRENT WALKING SURFACE CANNOT BE MAINTAINED, THEN A TEMPORARY ROAD-ROCK 4' WALK WAY SHALL BE CREATED. THE SAFE WALK ROUTE SHALL BE SEPARATE FROM THE CONSTRUCTION ACTIVITY BY THE 4' HIGH ORANGE CONSTRUCTION FENCE FOR THE ENTIRE LENGTH OF THE PROJECT OR THE LENGTH OF THE WALK ROUTE, WHICHEVER IS LESS.
 - B. ALL CONSTRUCTION EQUIPMENT AROUND ANY DESIGNED CROSSWALK SHALL CEASE TO OPERATE DURING THE TIMES STUDENTS ARE ARRIVING AT OR LEAVING SCHOOL. ALL CONSTRUCTION EQUIPMENT ADJACENT TO A DESIGNATED WALK ROUTE SHALL CEASE OPERATING UNLESS
 - C. IN THE CASE THAT A DESIGNATED CROSSING OR ANY PORTION OF THE DESIGNATED WALK ROUTE CANNOT BE MAINTAINED, THEN THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2671, A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CLOSING THAT ROUTE IN ORDER THAT AN ALTERNATE CROSSING/ROUTE CAN BE ESTABLISHED.
 - D. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ANY NECESSARY PAVEMENT, ROAD ROCK, PAVEMENT MARKING AND SIGNAGE AND/OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN EXISTING OR ALTERNATE WALK ROUTE.
- E. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STATE CERTIFIED SCHOOL CROSSING GUARDS OR OFF DUTY POLICE OFFICERS TO CROSS STUDENTS AT ANY LOCATIONS OTHER THAN THOSE PREVIOUSLY DESIGNATED. THE CONTRACTOR MAY USE FLAGMEN, ONLY IF THEY ARE STATE CERTIFIED AS A SCHOOL CROSSING GUARD.
- F. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY HE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2671, TO ARRANGE A PRE-CONSTRUCTION - SCHOOL SAFETY MEETING.
- G. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT TO ARRANGE A PRE-CONSTRUCTION SCHOOL BUS
- ROUTE MEETING AT THE FOLLOWING: (754)321-4400 EXT.# 2309 RUTH.MASTERS@BROWARDSCHOOLS.COM - VINCENT HARRELL STUDENT TRANSPORTATION & FLEET SERVICE (754)321-4470 EXT.# 2309 MARY.TOCHTERMANN @BROWARDSCHOOLS.COM
 - MARY TOCHTERMANN STUDENT TRANSPORTATION & FLEET SERVICE (754)321-4470 EXT.# 2309 MARY.TOCHTERMANN@BROWARDSCHOOLS.COM
- THIS MEETING IS TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THIS MEETING SHALL INCLUDE THE SPECIAL PROJECTS COORDINATOR FROM BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954)847-2671.
- H. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE AND ADEQUATE WALKING SURFACE FOR ALL SCHOOL CHILDREN/PEDESTRIANS. THE SAFE WALK ROUTE SHALL BE PART OF THE MAINTENANCE OF TRAFFIC PLAN.
- I. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN APPROVED MAINTENANCE OF TRAFFIC PLAN (MOT), INCLUDING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS, THROUGH BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THE CONDITIONS OUTLINED IN THE MOT ARE IN FORCED AND FULLY EFFECTIVE AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORK ASSOCIATED WITH THIS PROJECT IS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE APPROVED MOT, INCLUDING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS.
- J. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SCHOOL ZONE, AT ANY TIME THROUGHOUT THE PROJECT.

PERMIT SET MUST BE ON JOBSITE AT ALL

TIMES DURING CONSTRUCTION

ALL MATERIALS USED AND INSTALLATIONS WITHIN THE PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE IN ACCORDANCE WITH BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION SPECIFICATIONS



A PERMIT FOR CONSTRUCTION MUST BE OBTAINED FROM THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION PRIOR TO COMMENCING CONSTRUCTION IN THE PUBLIC RIGHT OF

NOTICE

WAY.

INSPECTION REQUIRED

24 HRS. PRIOR TO COMMENCING ANY WORK IN THE PUBLIC R/W CONTACT THE BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION AT 954-577-4600 FOR INSPECTION.

BROWARD COUNTY HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION

☐ PLAN CONSISTENT WITH PLAT REQUIREMENTS ☐ PUBLIC RIGHT OF WAY APPROVAL FOR PAVING. GRADING AND DRAINAGE

DATE: _____ DOES NOT INCLUDE APPROVAL OF PAVEMENT REVISIONS / SUBMISSIONS CHANGES BASED ON BCHCED COMMENTS 04.01.14 CHANGES BASED ON BC TRAFF \angle ENG. COMMENTS 04.01.14

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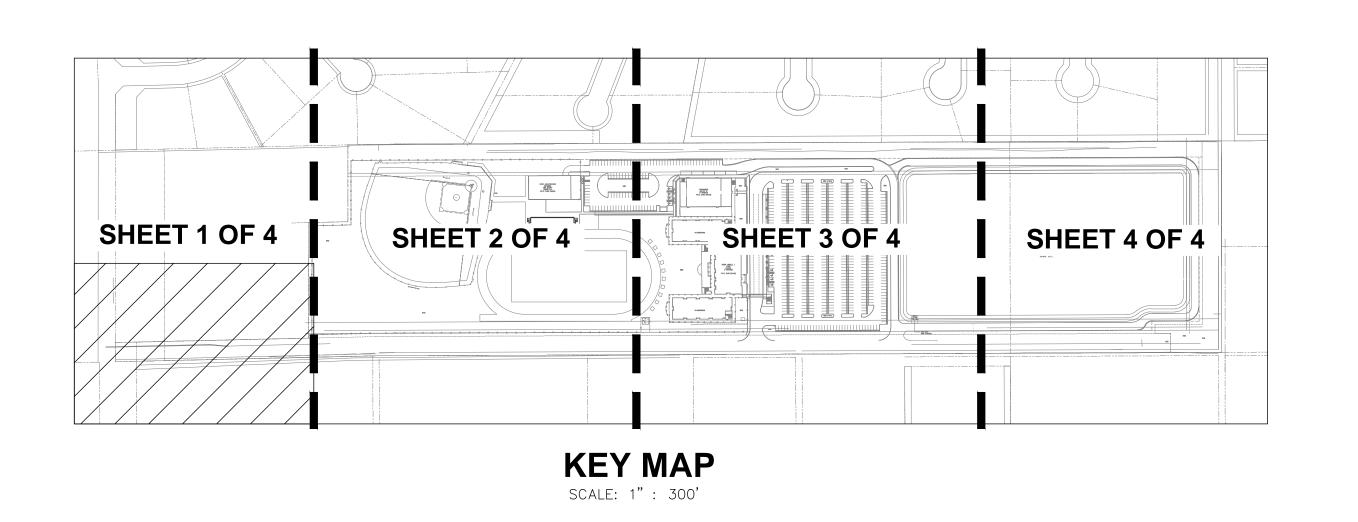
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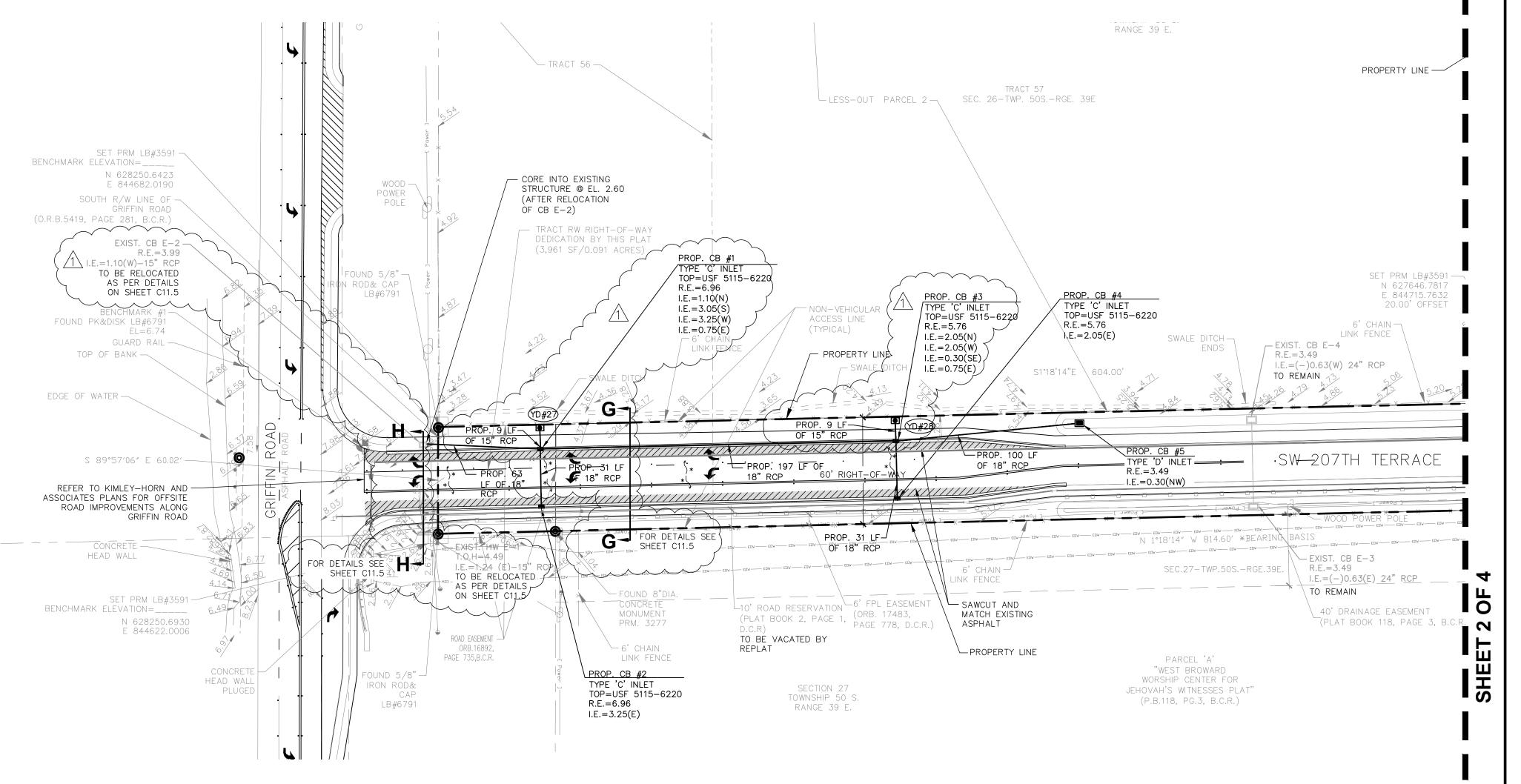
BCHCED REF NO.131220101



LEGEN)		
	PROPERTY LINE	<u> </u>	SLOPE
<u></u>	EXISTING GRADE PROPOSED DRAINAGE	5.50	PROPOSED GRADE
	EXIST. DRAINAGE		FLOW ARROW
	PROPOSED CATCH BASIN	*/	FLOW ARROW (MATCH SLOPE)
	PROPOSED CURB INLET		PROPOSED MANHOLE
	EXISTING CATCH BASIN EXISTING HEADWALL		207TH ROADWAY MODIFICATIONS: PROPOSED ASPHALT 2" TYPE S-III IN 2-1" LIFTS, 8" LIMEROCK BASE, 12" STABALIZED SUBGRADE (40 LBR MIN.) W/TENSAR TRIAXIAL TX-160 GEOGRID

NOTES:
1. ALL ELEVATIONS DATUM SHOWN ON THE CONSTRUCTION DOCUMENTS ARE
BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). 2. NAVD TO NGVD CONVERSION FACTOR
NAVD = NGVD - 1.51 3. OFF-SITE DRAINAGE ACROSS PROPERTY SHALL BE MAINTAINED AT ALL
TIMES.
4. FIRE DEPARTMENT ACCESS ROADS HAVE BEEN DESIGNED AND ARE TO BE
MAINTAINED TO SUPPORT IMPOSED LOADS OF FIRE APPARATUS (WEIGHING
A MINIMUM OF 32 TONS).
5. REFER TO SHEET C3.1 FOR YARD DRAIN INFORMATION
6. ALL CATCH BASINS WITHIN RETENTION/SOD AREAS SHALL BE PROVIDED
7. REFER TO KIMLEY—HORN AND ASSOCIATES PLANS FOR MODIFICATIONS
ALONG GRIFFIN ROAD.

- 1	DENTIFICATION NUMBER	TYPE	SIZE	RIM EL.		INVERT ELE		
					N	S	E	W
	YD#D	DRAIN BASIN	15.0"	5.50	2.00(NW)	2.00		
<u> </u>	\(\sqrt{D}\)#2\(\sqrt{2}\)	INLINE DRAIN	15.0"	5.50	3.05			
	(D#3)	ĎŘAIŇ BASIN	15.0"	5.00		-0.12	-0.12	
$\overline{}$	\(\text{D}\)\(\psi\)	INLINE DRAIN	15.0"	3.50				0.25
_	0#5	TNLINE DRAIN	15.0	6.00		3.55(SE)		
	YD#6	DRAIN BASIN	15.0"	6.30	2.85	2.85		
	<u>(D#7)</u>	INLINE DRAIN	15.0"	7.00			3.80	
	(D#8)	DRAIN BASIN	15.0"	6.70		3.51		3.51
	(D#9)	DRAIN BASIN	18.0"	6.80	3.10	1.45	3.10	
	YD#10	INLINE DRAIN	15.0"	7.60	2.00			
	YD#11	DRAIN BASIN	15.0"	3.80	-0.65	1.15		
	YD#12	INLINE DRAIN	15.0"	6.50		4.00		
	YD#13	DRAIN BASIN	18.0"	6.50	3.40	3.40	0.30	4.00
	YD#14)	DRAIN BASIN	15.0"	6.50	3.80			4.00
	YD#15	DRAIN BASIN	15.0"	7.20			4.30	
	YD#16)	DRAIN BASIN	15.0"	4.80	2.35			1.35
	YD#17)	INLINE DRAIN	15.0"	3.00				0.75
	YD#18)	INLINE DRAIN	15.0"	3.00				0.75
_	YD#19	INLINE DRAIN	15.0"	3.20				0.75
	YD#20 *	INLINE DRAIN	15.0"	7.95	V V V	5.40		
	YD#2D	INLINE DRAIN	15.0	7.00				4.50
	YD#22	DRAIN BASIN	15.0"	7.00			4.25	4.25
	YD#23	DRAIN BASIN	15.0"	7.15	4.00		4.00	
	YD#24	DRAIN BASIN	15.0"	7.30	3.65(NW)	3.65		
	YD#25	INLINE DRAIN	15.0"	3.20				0.75
	VD#262	INLINE DRAIN	15.0"	3.20				0.75
<u> </u>	VD#27)	INLINE DRAIN	15.0"	3.50		\\\\\		0.75
	, VD#28	INLINE DRAIN	15.0"	3.50				0.75





CHANGES BASED ON SBDD
COMMENTS 06.04.14

ENGINEERING REVISION
06.24.14

CHANGES BASED ON SBDD
COMMENTS 07.31.14

COMMENTS 07.31.14

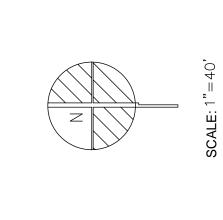
COMMENTS 07.31.14

REVISIONS / SUBMISSIONS

FRANKLIN ACADEMY - MIDDLE
AND HIGH SCHOOL (GRIFFIN RD)
PEMBROKE PINES, FLORIDA

100% CONSTRUCTION DOCUMENTS

GRADING AND DRAINAGE PLAN (1 OF 4)



ROSS ENGINEERING, INC.
3325 S. University Drive
Suite 111
Davie, Florida 33328
O: 954.318.0624
F: 954.358.0190
ERTIFICATE OF AUTHORIZATION No. 9808



 CF
 09/05/2013

 DESIGNED BY
 DATE

 CF
 09/05/2013

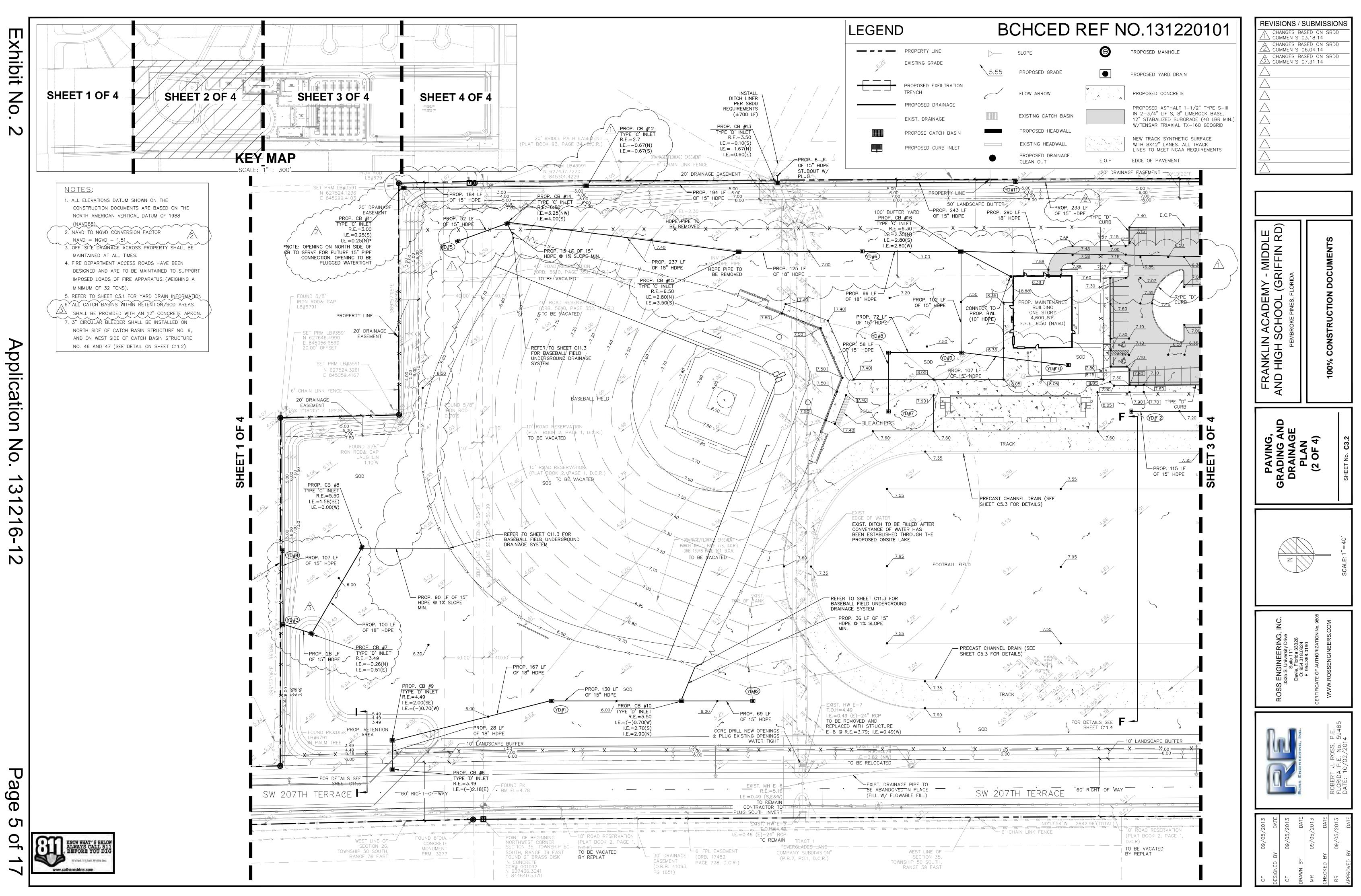
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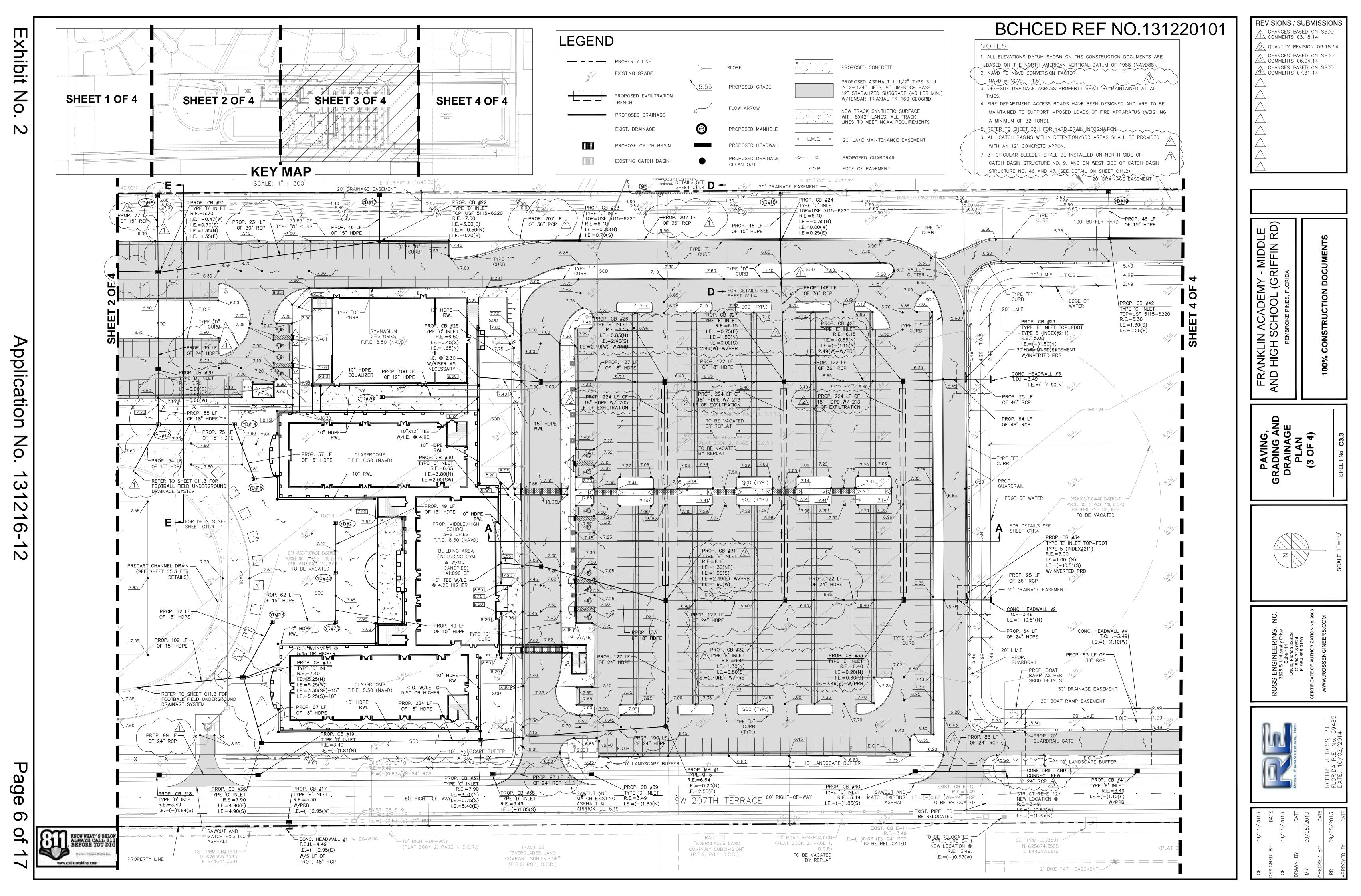
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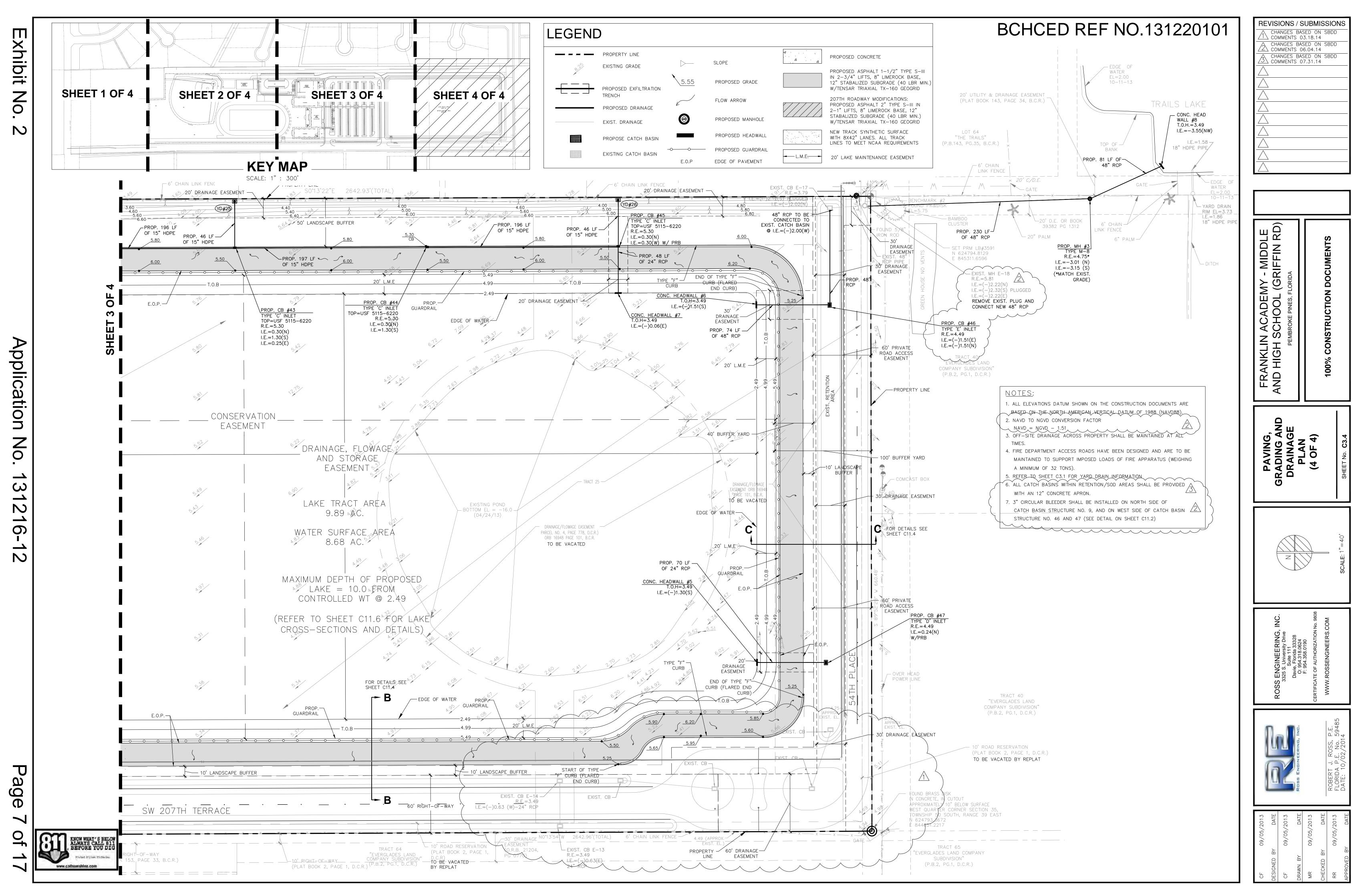
 CHECKED BY
 DATE

 RR
 09/05/2013

 APPROVED BY
 DATE





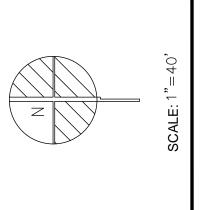


RD S

HIGH SCHOOL (GRIFFIN RD PEMBROKE PINES, FLORIDA

30% CONSTRUCTION DOCUMENTS

AND EROSION CONTROL PLAN (1 OF 4)



ROSS ENGINEERING, INC.
3325 S. University Drive
Suite 111
Davie, Florida 33328
O: 954.318.0624
F: 954.358.0190
SERTIFICATE OF AUTHORIZATION No. 9808
WWW.ROSSENGINEERS.COM



 CF
 09/05/2013

 DESIGNED BY
 DATE

 CF
 09/05/2013

 DRAWN BY
 DATE

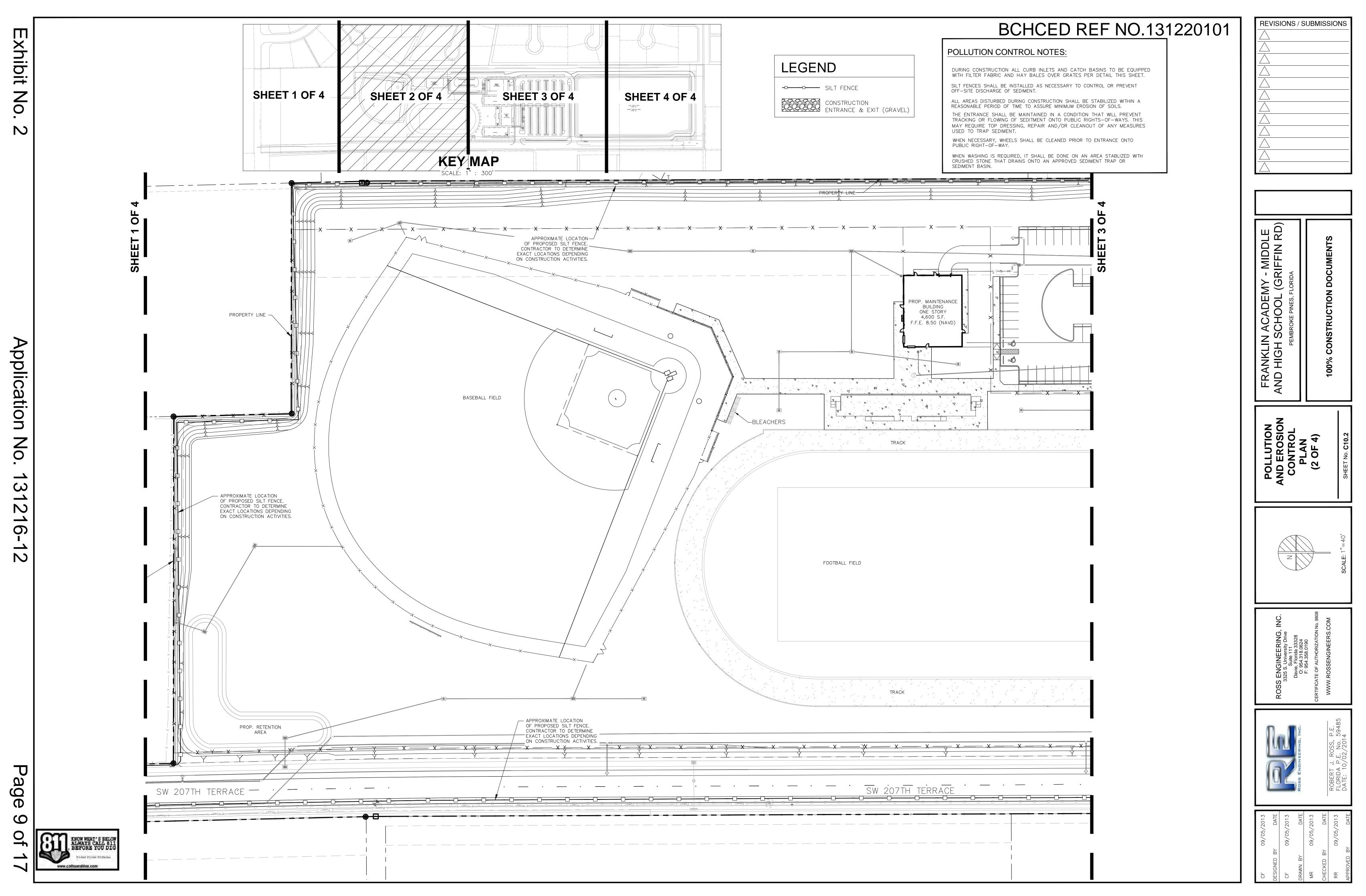
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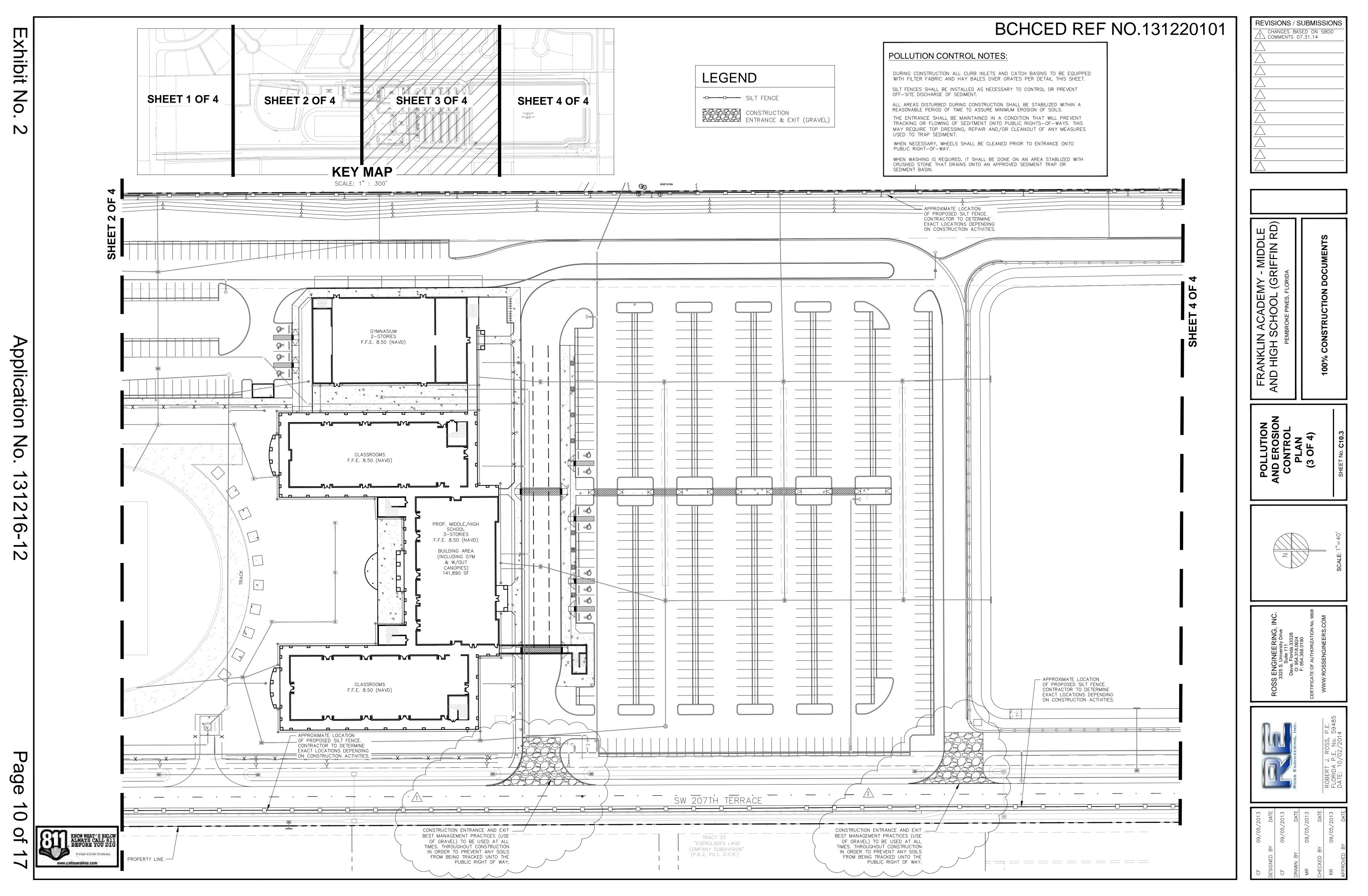
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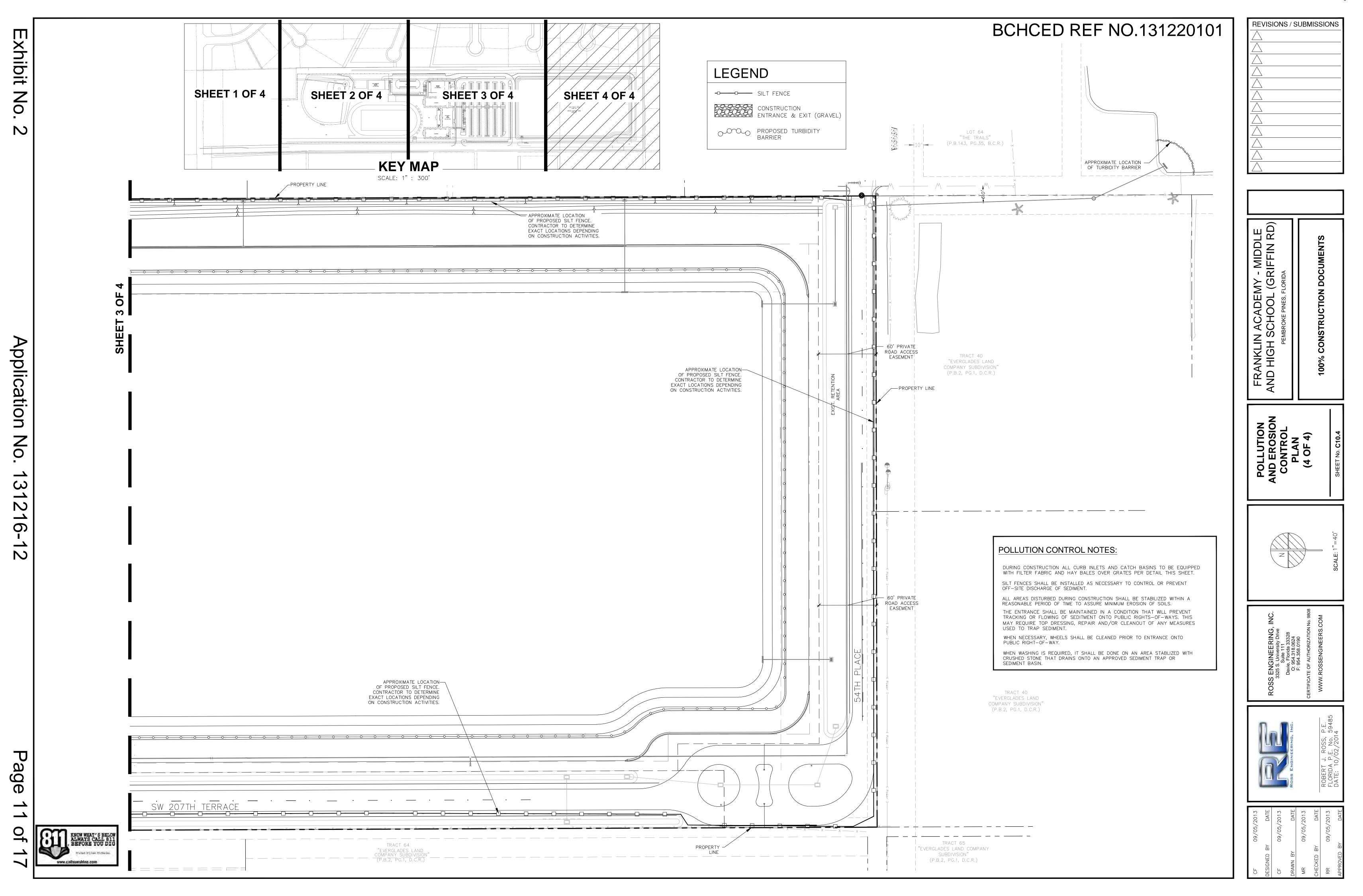
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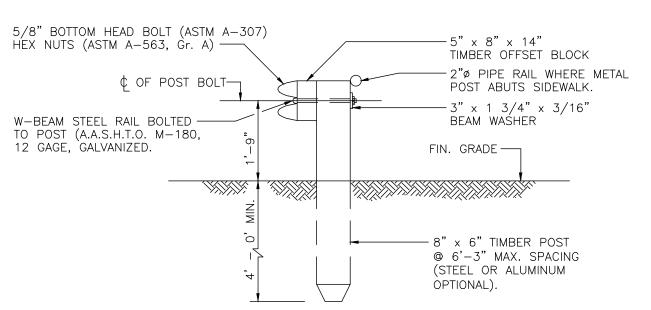
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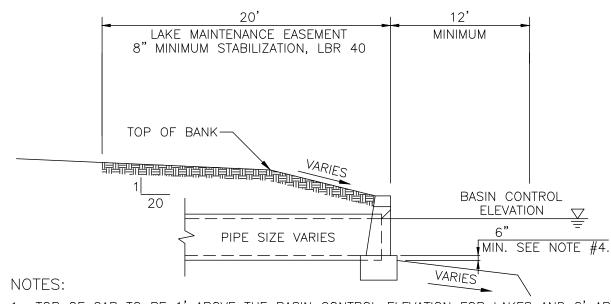




<u>NOTES:</u>

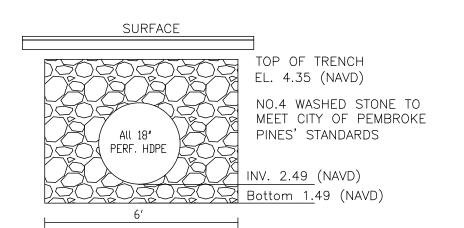
- 1. TIMBER POSTS AND OFFSET BLOCKS MAY BE EITHER ROUGH OR DRESSED TIMBER. DIMENSION TOLERANCES SHALL BE NO MORE THAN 1/4".
- 2. GUARDRAIL INSTALLATION SHALL MEET OR EXCEED F.D.O.T. SAFETY CRITERIA INDEX 400.

GUARDRAIL SECTION N.T.S

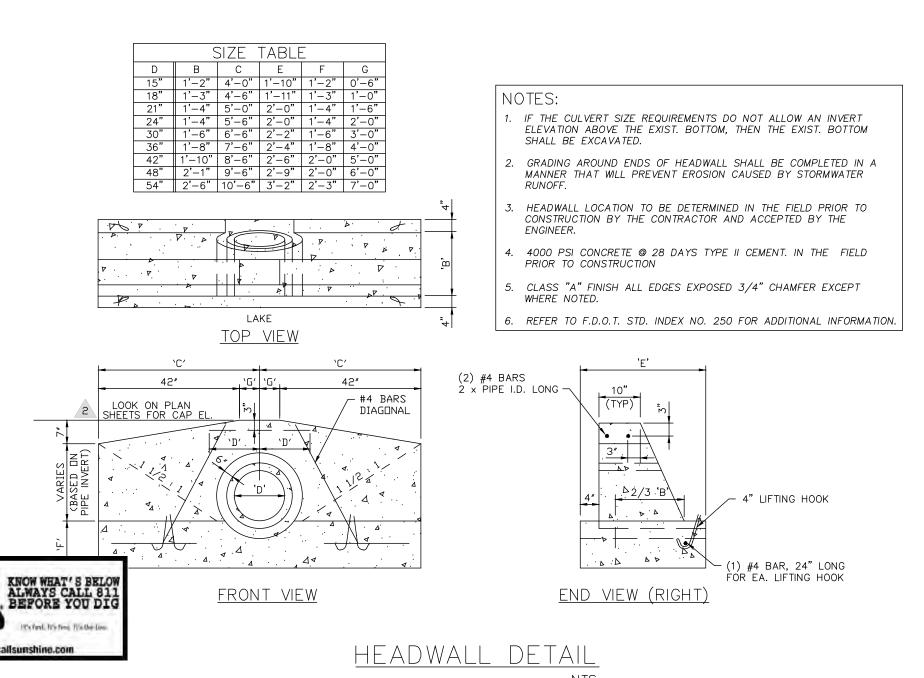


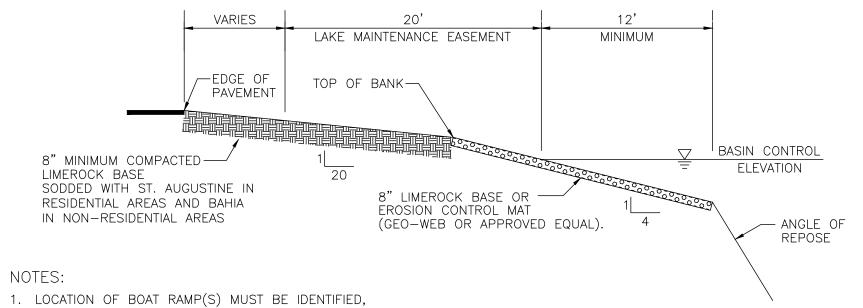
- 1. TOP OF CAP TO BE 1' ABOVE THE BASIN CONTROL ELEVATION FOR LAKES AND 2' ABOVE BASIN CONTROL ELEVATION FOR CANALS, UNLESS OTHERWISE APPROVED BY THE DISTRICT. 2. REQUIRED FOR ALL LAKE AND CANAL INTERCONNECTS.
- 3. CONCRETE AND RIP-RAP ENDWALLS ARE ACCEPTED PER FDOT INDEX 250-255 AND INDEX 258 WITH EXCEPTIONS AS NOTED IN SECTION 2.15 OF THE SBDD DESIGN CRITERIA MANUAL.
- 4. CHANNEL IN FRONT OF PIPE TO BE MIN 6" BELOW THE INVERT OF THE PIPE AND AT LEAST 1 1/2 TIMES THE DIA. OF THE PIPE TO THE DEEP CUT LINE AND CENTERED ON THE PIPE.

LAKE OUTFALL DETAIL WITH HEADWALL



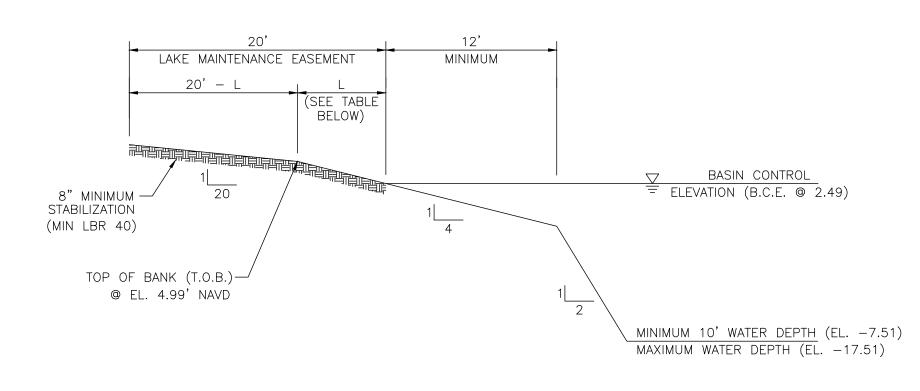
EXFILTRATION TRENCH CROSS SECTION





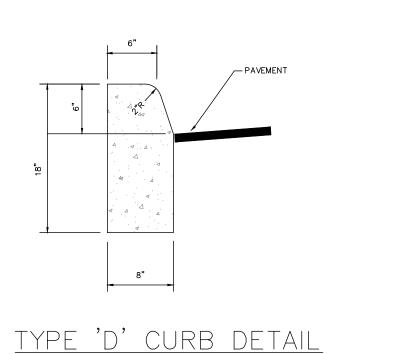
- INSPECTED AND APPROVED BY SBDD PRIOR TO CONSTRUCTION
- 2. SLOPE DETAILS AS OUTLINED ABOVE MUST BE INSPECTED AND APPROVED BY THE DISTRICT PRIOR TO INSTALLATION OF EROSION CONTROL MAT.
- 3. UPON COMPLETION OF BOAT RAMP, DISTRICT MUST BE NOTIFIED FOR FINAL APPROVAL.
- 4. BOAT RAMP MUST INTERSECT ADJACENT ROAD AND WATER
- BODY AT 90° ANGLE UNLESS OTHERWISE APPROVED. 5. THE BOAT RAMP(S) MUST BE MINIMUM 12' WIDE.
- 6. PROVIDE DROP CURB AT PAVEMENT WHERE APPLICABLE
- 7. FOR BOAT RAMP CONSTRUCTED ON AN SBDD CANAL A SLOPE OF 3:1 CAN BE USED FROM EDGE OF WATER UP TO TOP OF BANK.
- 8. BOAT RAMPS SHALL BE CONSTRUCTED OF LIMEROCK OR EROSION CONTROL MAT, AT THE DISCRETION OF THE DISTRICT.
- 9. IF SBDD OPTS FOR AN EROSION CONTROL MAT, THE MAT SHALL BE FILLED WITH AT LEAST 4" OF 3/4" ROCK.

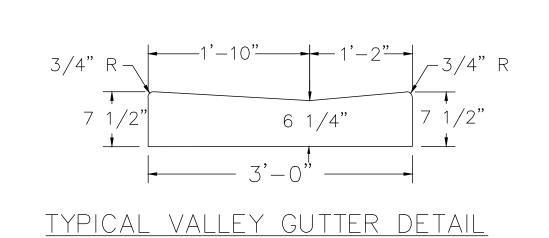
BOAT RAMP DETAIL

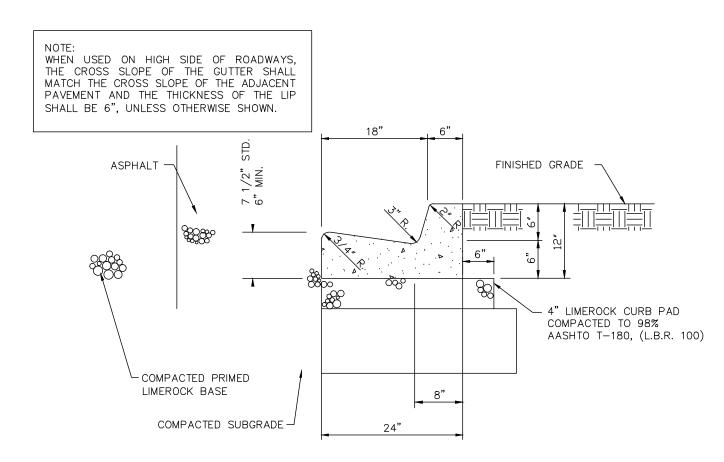


BASIN	B.C.E.	T.O.B.	L
No.	(FT-NAVD)	(FT-NAVD)	(FT)
S-10	2.49	4.99	

LAKE CROSS SECTION AND LAKE MAINTENANCE EASEMENT







TYPE "F" CURB AND GUTTER

BCHCED REF NO.131220101

GENERAL NOTES

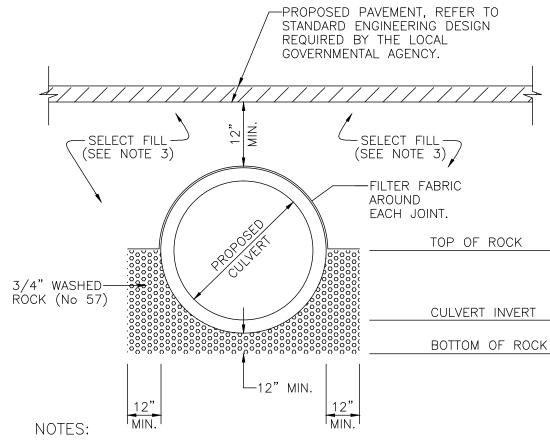
CORRECTION/REMEDY.

- 1 THE FOLLOWING GENERAL NOTES ARE REQUIRED BY THE SOUTH BROWARD DRAINAGE DISTRICT (SBDD). THEY ARE NOT MEANT TO BE ALL INCLUSIVE. IT IS THE ENGINEER'S RESPONSIBILITY TO ADD ANY NOTES WHICH WILL INFORM THE OWNER AND THE CONTRACTOR OF ANY ADDITIONAL REQUIREMENTS OF SBDD.
- 2 THE CONTRACTOR SHALL CONTACT SBDD 48 HOURS OR TWO (2) WORKING DAYS PRIOR TO ANY REQUIRED INSPECTION. TO SCHEDULE INSPECTIONS, PLEASE CALL SBDD AT (954)680-3337. SBDD'S WORKING HOURS ARE FROM 8:00 AM TO 4:30 PM. MONDAY THROUGH FRIDAY EXCEPT HOLIDAYS.
- 3 ANY REVISIONS TO PLANS PERMITTED BY SBDD MUST BE APPROVED BY SBDD PRIOR TO CONSTRUCTION.
- 4 A PRECONSTRUCTION MEETING SHALL BE SCHEDULED AND HELD AT LEAST FIVE (5) DAYS PRIOR TO BEGINNING CONSTRUCTION.
- 5 A SET OF SHOP DRAWINGS SHALL BE SUBMITTED TO SBDD AFTER APPROVAL BY THE ENGINEER OF RECORD.
- 6 DURING CONSTRUCTION, SBDD PERSONNEL WILL INSPECT THE FOLLOWING: INSTALLATION OF ALL UNDERGROUND DRAINAGE FACILITIES BEFORE BACKFILLING, BACKFILLING OF DRAINAGE TRENCHES,
- SHAPING OF CANAL AND LAKE BANKS FROM THE DEEP CUT TO THE UPLAND EASEMENT LINE OR AS REQUIRED BY SBDD, AND ANY OTHER DRAINAGE RELATED CONSTRUCTION WORK. RE-INSPECTIONS OR EXTRAORDINARY INSPECTIONS WILL BE SUBJECT TO ADDITIONAL FEE
- 7 THE CONTRACTOR CONSTRUCTING OR EXCAVATING LAKES OR OTHER WATER BODIES SHALL EXCERCISE EXTREME CAUTION TO ENSURE THAT THE SIDE SLOPES AND DEEP CUT LINES ARE CONSTRUCTD IN ACCORDANCE WITH THE APPROVED PLANS FOR THE DEVELOPMENT. THE CONTRACTOR OR OWNER SHALL PERIODICALLY, OR AS REQUIRED BY SBDD, OBTAIN A SURVEY, FROM A FLORIDA REGISTERED SURVEYOR OF THE LOCATION OF THE DEEP CUT LINES PRIOR TO FORMING THE SIDE SLOPES. THIS SURVEY SHALL BE PERFORMED PRIOR TO THE OWNER/CONTRACTOR BEGINNING CONSTRUCTION OF ANY BUILDING PADS ADJACENT TO THE WATER BODY. IN THE EVENT THAT THE CONTRACTOR OVER DIGS THE WATER BODY, THE OWNER/CONTRACTOR SHALL SUBMIT TO SBDD ITS SOLUTION TO CORRECT THE OVER DIGGING. ANY SUGGESTED REMEDY OR CORRECTION MUST BE APPROVED BY SBDD BEFORE THE CONTRACTOR BEGINS THE PROPOSED
- 8 PAVING AND DRAINAGE "AS-BUILT" PLANS CERTIFIED BY THE ENGINEER OF RECORD AND APPROVED BY SBDD'S ENGINEER AND DIRECTOR WILL BE REQUIRED BEFORE THE RELEASE OF THE BOND OR LETTER OF CREDIT. AS-BUILTS SHALL BE PROVIDED AS AN OVERLAY OF THE APPROVED CONSTRUCTION DRAWINGS AND AT THE SAME SCALE AS ORIGINALLY SUBMITTED. AS-BUILT SUBMITTALS SHALL CONFORM TO THE REQUIREMENTS OF SECTION SIX (6) OF SBDD'S CRITERIA MANUAL. AS-BUILTS MUST ALSO BE PROVIDED ON AN AUTOCAD DISC.
- 9 AS-BUILT DRAWINGS OF WATER BODIES SHALL INCLUDE THE DATA ADDRESSED IN THE "AS-BUILT LAKE SECTION" IN EXHIBIT 26 OF SBDD'S CRITERIA MANUAL. THE AS-BUILT CROSS SECTIONS SHALL BE PROVIDED AT NOT MORE THAN 100 FOOT INTERVALS AND AT ALL OUTFALL PIPES CONSTRUCTED WITHOUT HEADWALLS.
- 10 SBDD WILL NOT COMPLETE THE FINAL INSPECTION UNTIL THE AS-BUILT PACKAGE WHICH MUST INCLUDE THE ENGINEER'S CERTIFICATION AND TEST RESULTS FOR STABILIZATION OF LAKE/CANAL MAINTENANCE EASEMENTS, ARE RECEIVED.

NOTE TO THE DESIGN ENGINEER FROM THE SBDD DISTRICT ENGINEER:

YOU ARE WELCOME TO REVISE DETAILS ON THIS SHEET TO MEET THE SPECIFIC REQUIREMENTS OF A PROJECT PROVIDED THAT THE FOLLOWING CONDITIONS ARE MET.

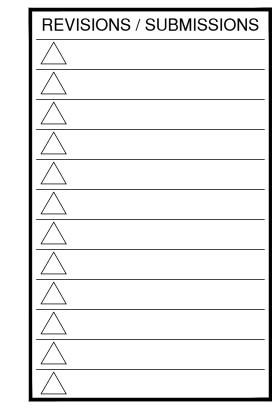
- 1 REVISIONS MUST NOT BE IN CONFLICT WITH THE DISTRICT'S DESIGN CRITERIA.
- 2 YOU MUST CLOUD EACH REVISION AND NOTE IT IN THE REVISION BOX BELOW.

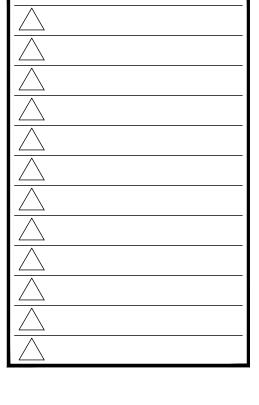


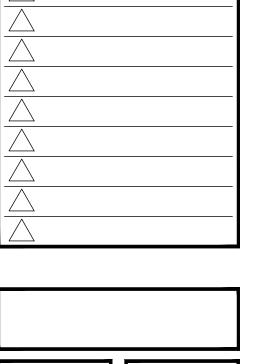
- 1. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE,
- PROVIDE APPROVED METHOD OF CONSTRUCTION. 2. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
- 3. BACKFILL IN 6"-12" LAYERS, TO 98% COMPACTION, WITH
- MATERIALS NOT LARGER THAN 3 1/2". 4. IF A CULVERT IS CORRUGATED ALUMINUM STRUCTURAL PLATE, FILTER FABRIC SHALL BE PLACED THE ENTIRE LENGTH OF THE PIPE.
- 5. FILTER FABRIC SHALL BE PLACED THE FULL LENGTH OF ANY SECTION OF CULVERT UNDER ASPHALT.

LAKE/CANAL INTERCONNECT BEDDING DETAIL

, A FLORIDA REGISTERED PROFESSIONAL ENGINEER WHOSE FLORIDA PROFESSIONAL LICENSE NUMBER IS _ CERTIFY THAT I HAVE REVIEWED THE PLANS WHICH ACCOMPANY THIS CERTIFICATION AND THAT THE DESIGN OF THIS PROJECT AS SHOWN ON THESE PLANS MEET OR EXCEED THE REQUIREMENTS OF THE SOUTH BROWARD DRAINAGE DISTRICT CRITERIA MANUAL ISSUED MAY 1997, REVISED MARCH 1999 AND FEBRUARY 2002.





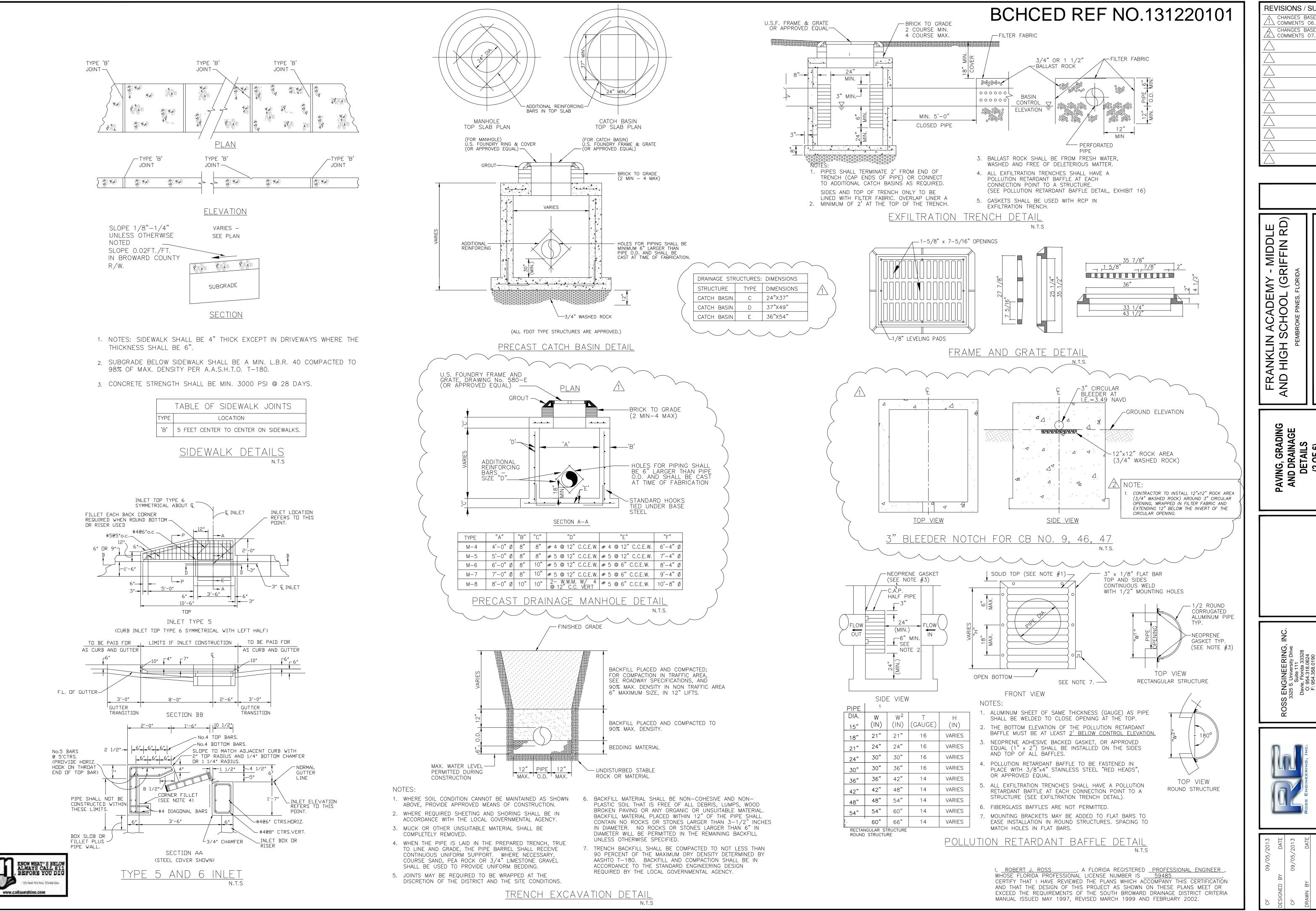








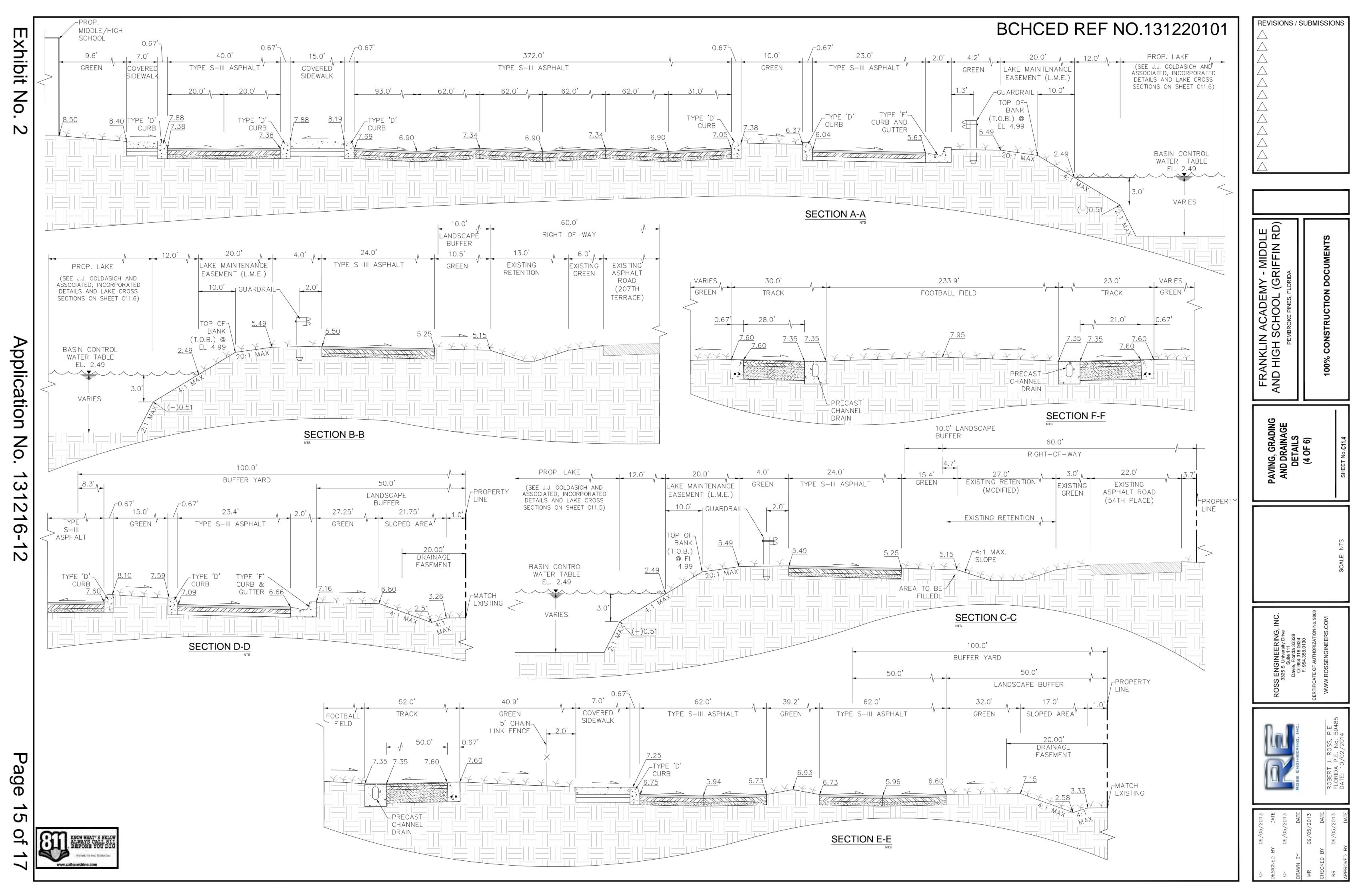


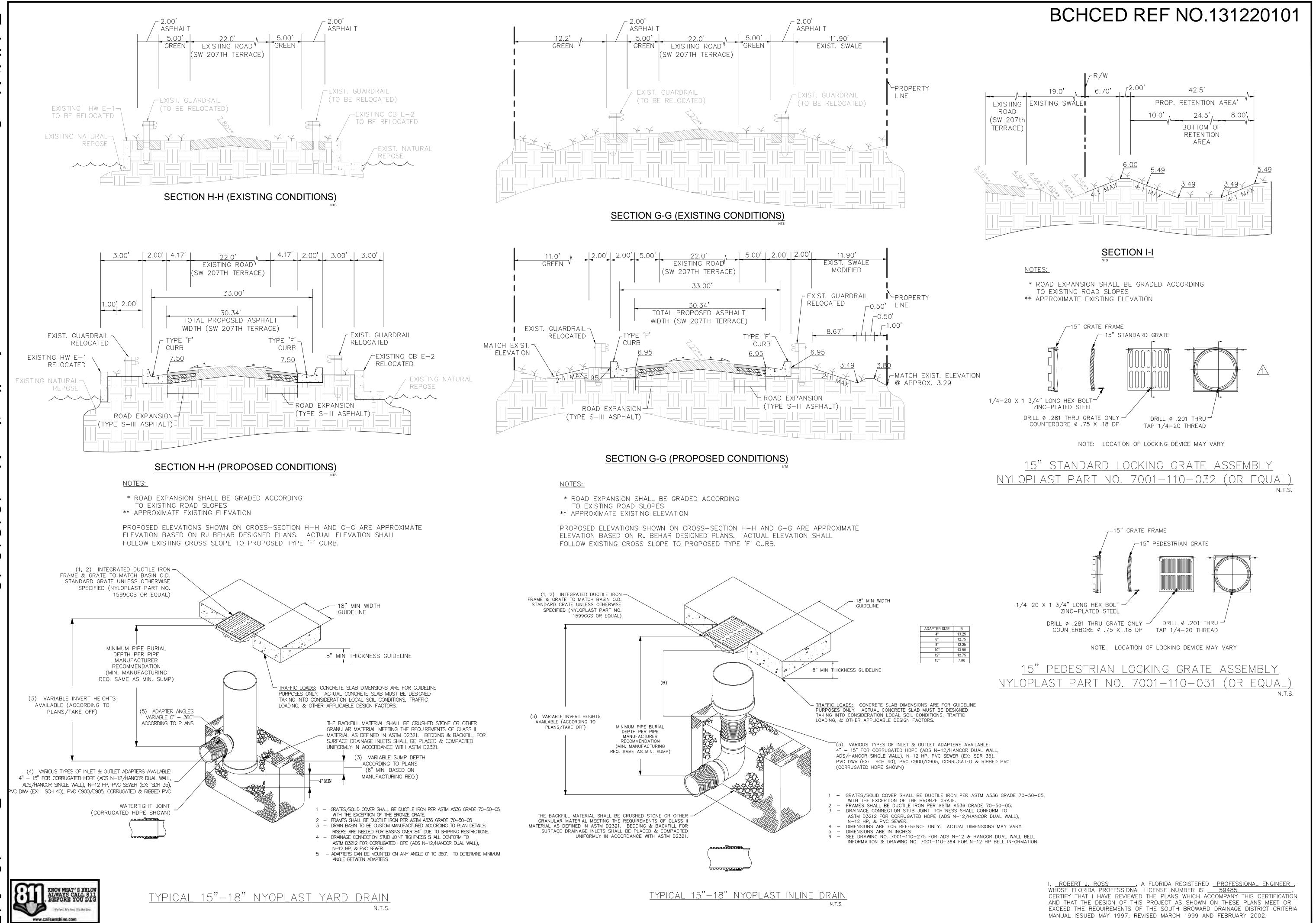


REVISIONS / SUBMISSIONS CHANGES BASED ON SBDD COMMENTS 06.04.14 CHANGES BASED ON SBDD COMMENTS 07.31.14

ENG 325 S. 8 Davie, O: 99







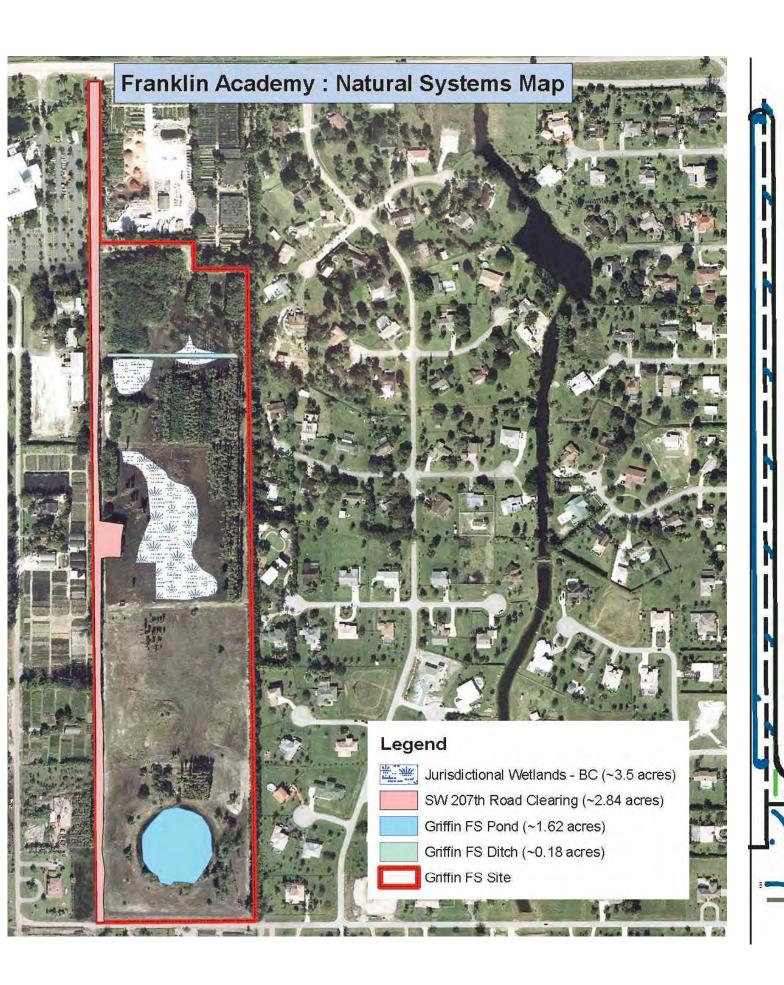
CHANGES BASED ON SBDD COMMENTS 06.04.14

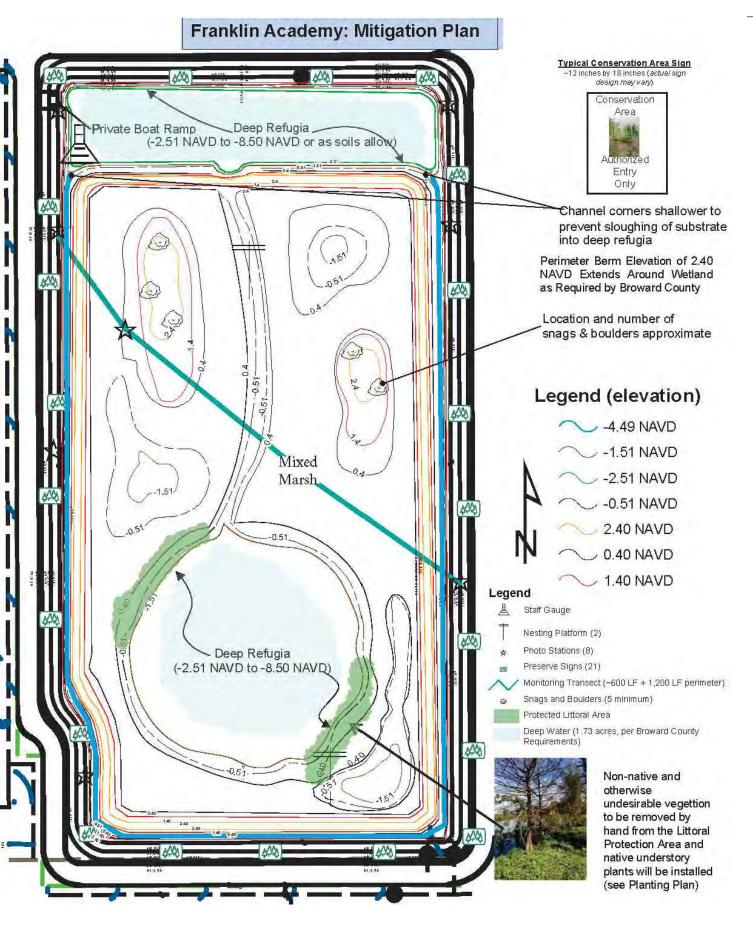
REVISIONS / SUBMISSIONS

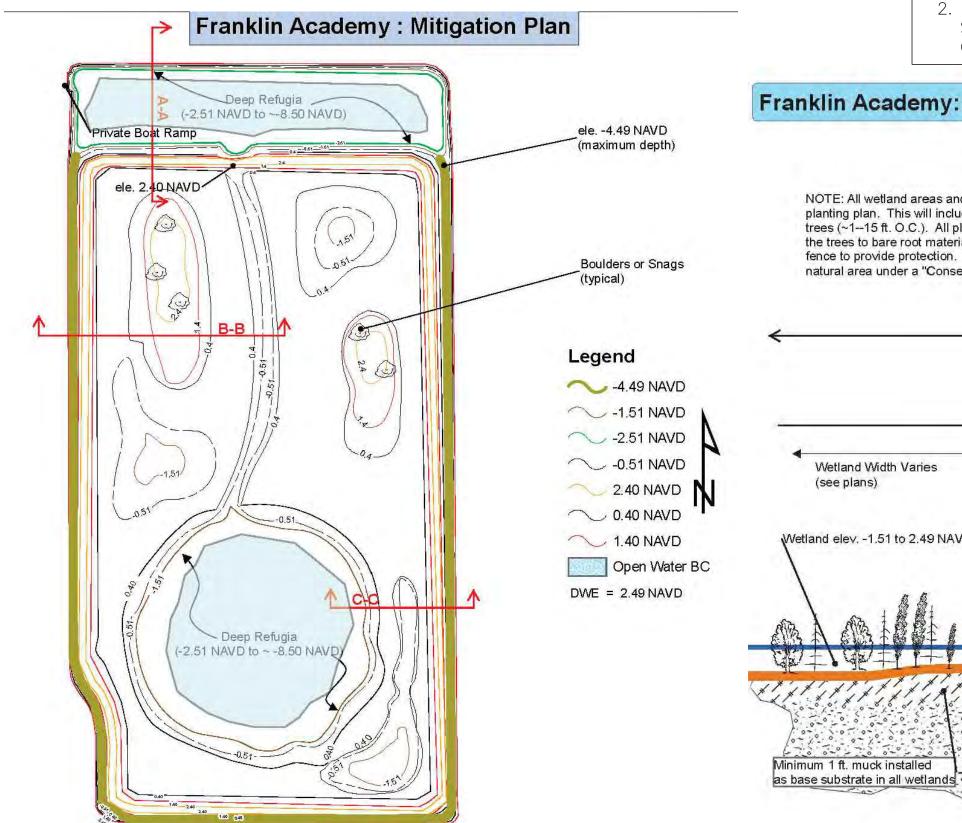
FRANKLIN ACADEMY - MIDDLE ND HIGH SCHOOL (GRIFFIN RD)

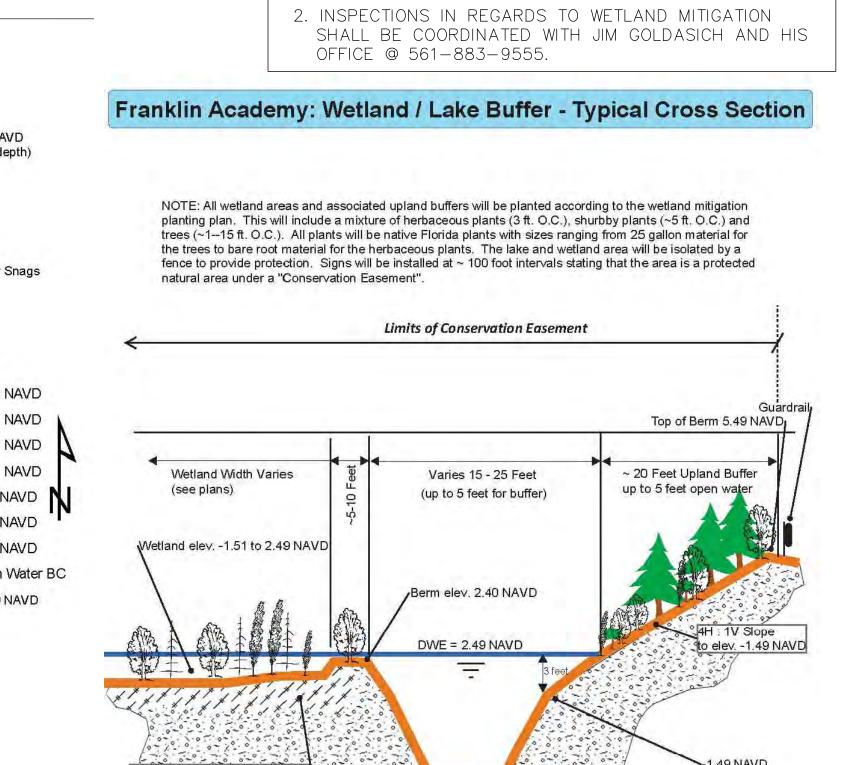
ENG 325 S. S Davie, O: 96







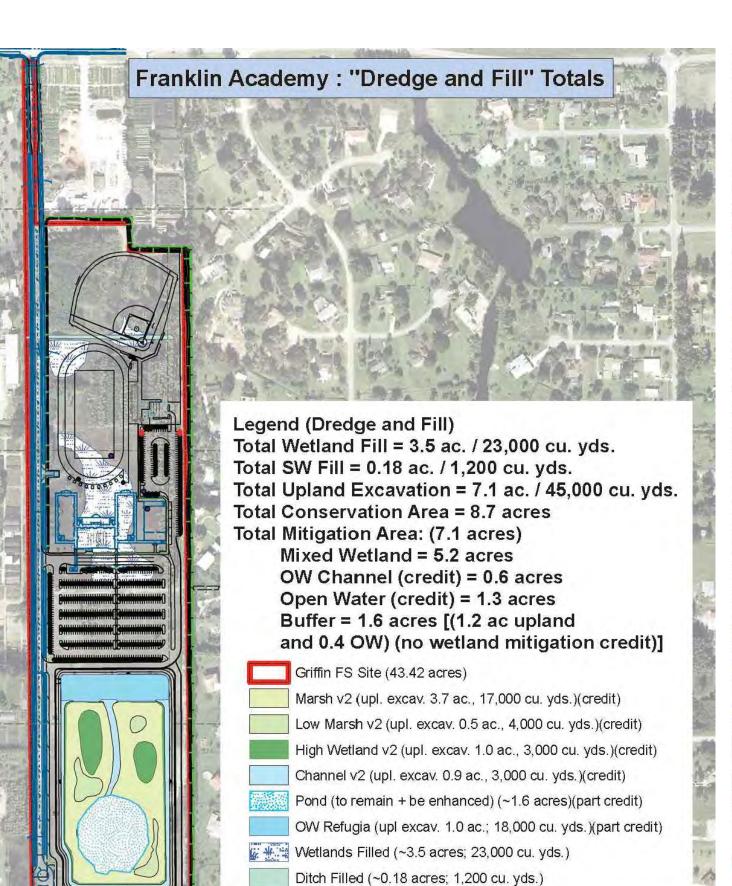


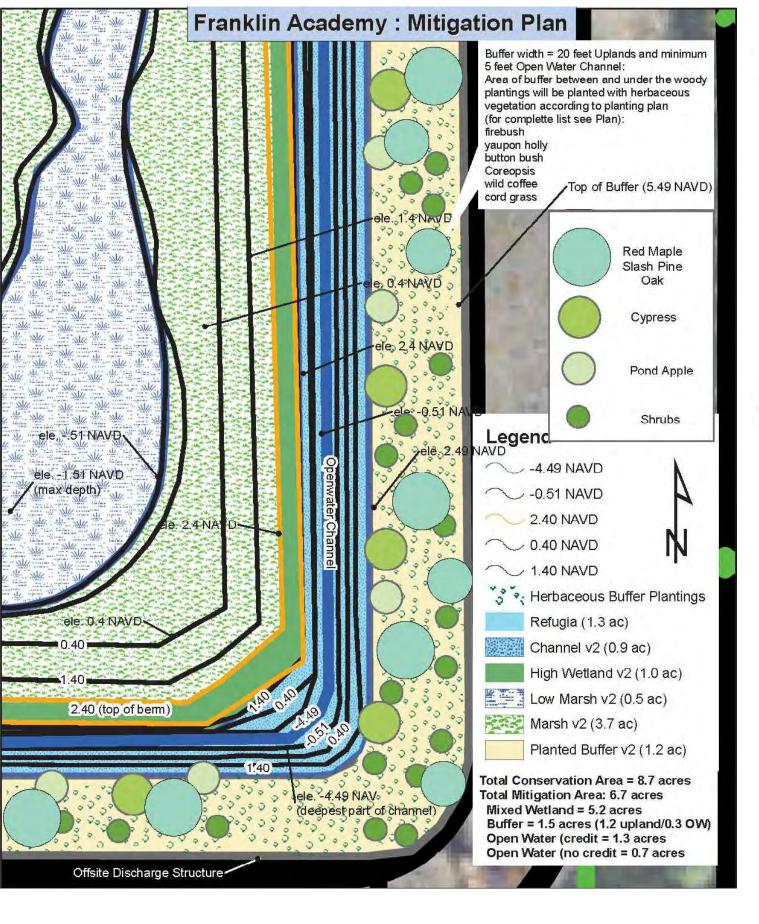


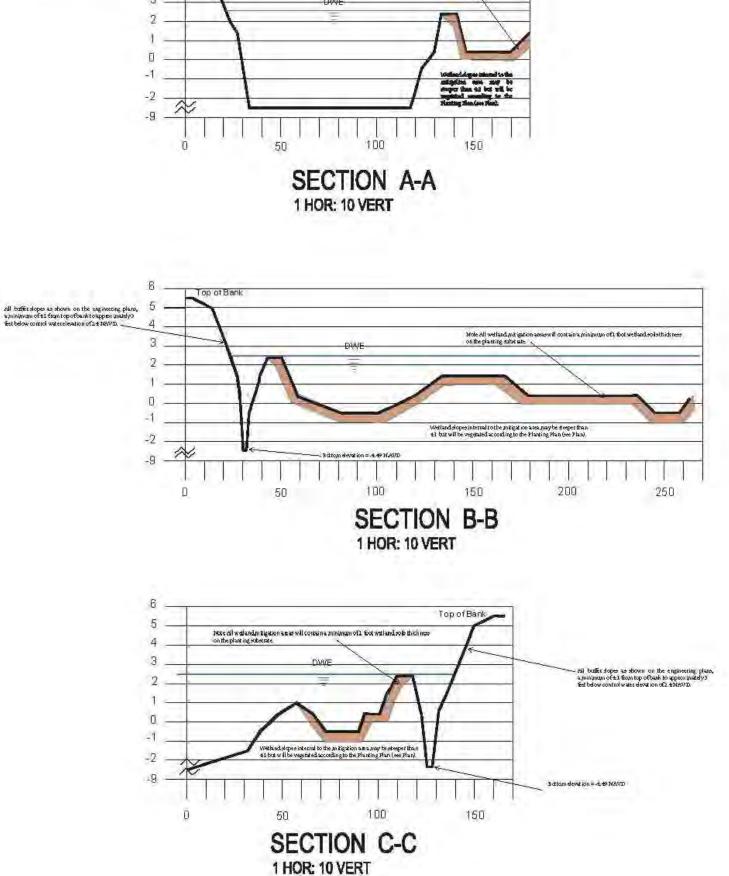
1. WETLAND MITIGATION PLAN VIEW AND CROSS-SECTIONS DESIGNED BY J.J. GOLDASICH AND ASSOCIATES, INC.

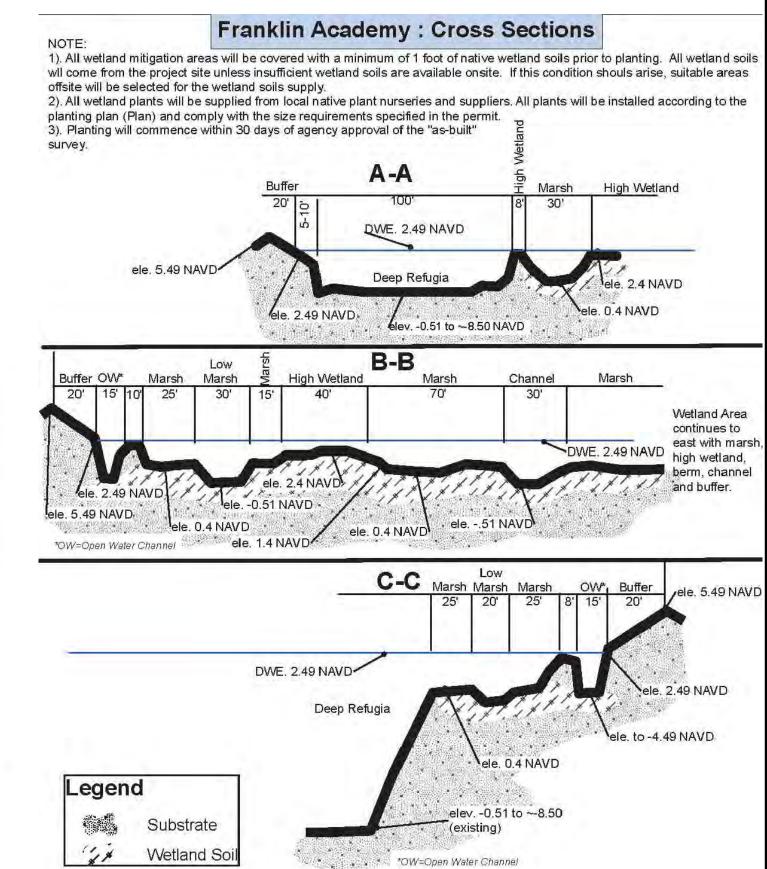
Wp to a depth of -4.49 NAVD

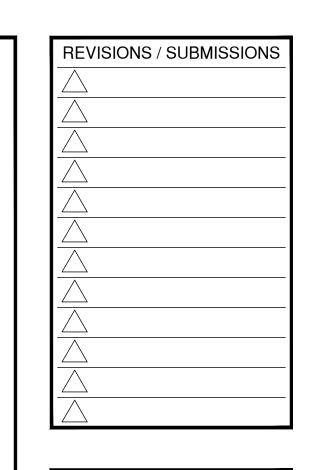
(may vary due to site conditions)

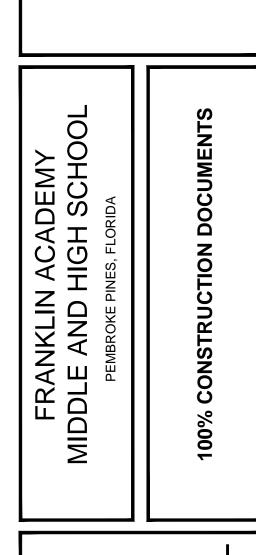


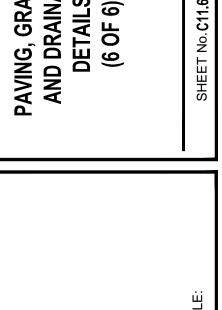




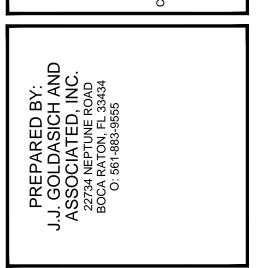




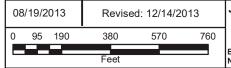








00/10/2010	DATE	08/13/2013	DATE	08/13/2013	DATE	08/13/2013	DATE
9	DESIGNED BY	97C	DRAWN BY	97C	CHECKED BY	970	APPROVED BY



J. J. Goldasich and Associates, Incorporated

Ecological Services Natural System Analysis

(561) 883-9555 jjg@jjgoldasich.com

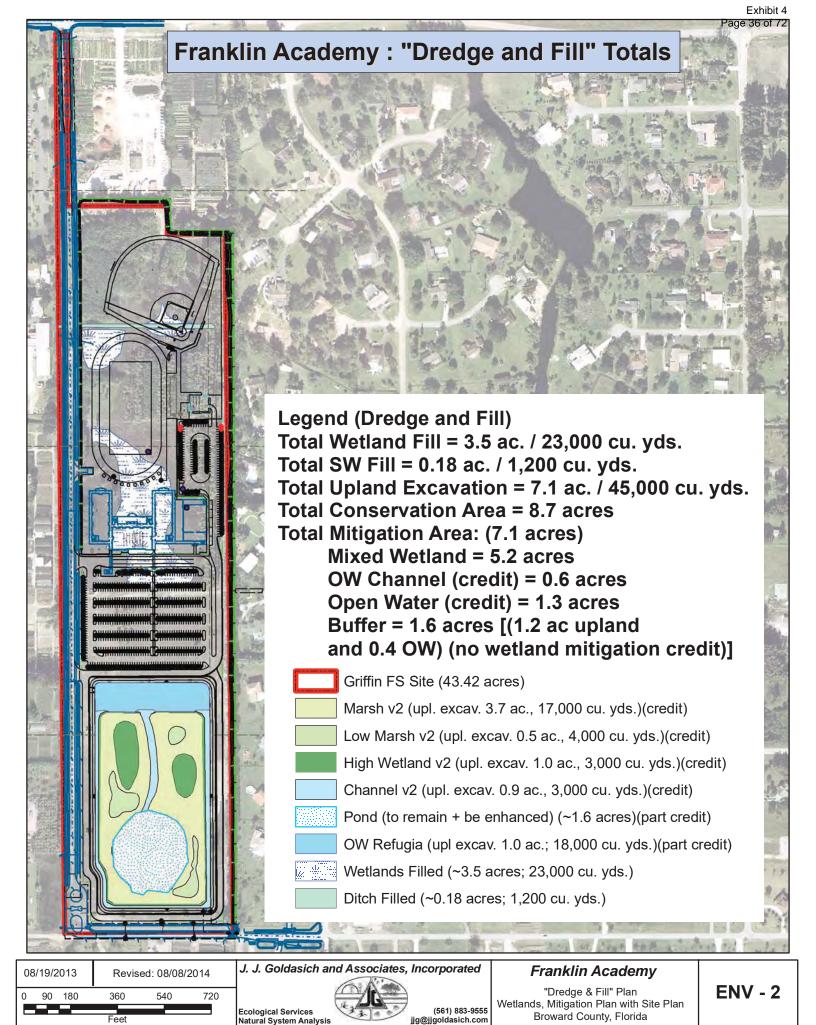
Franklin Academy

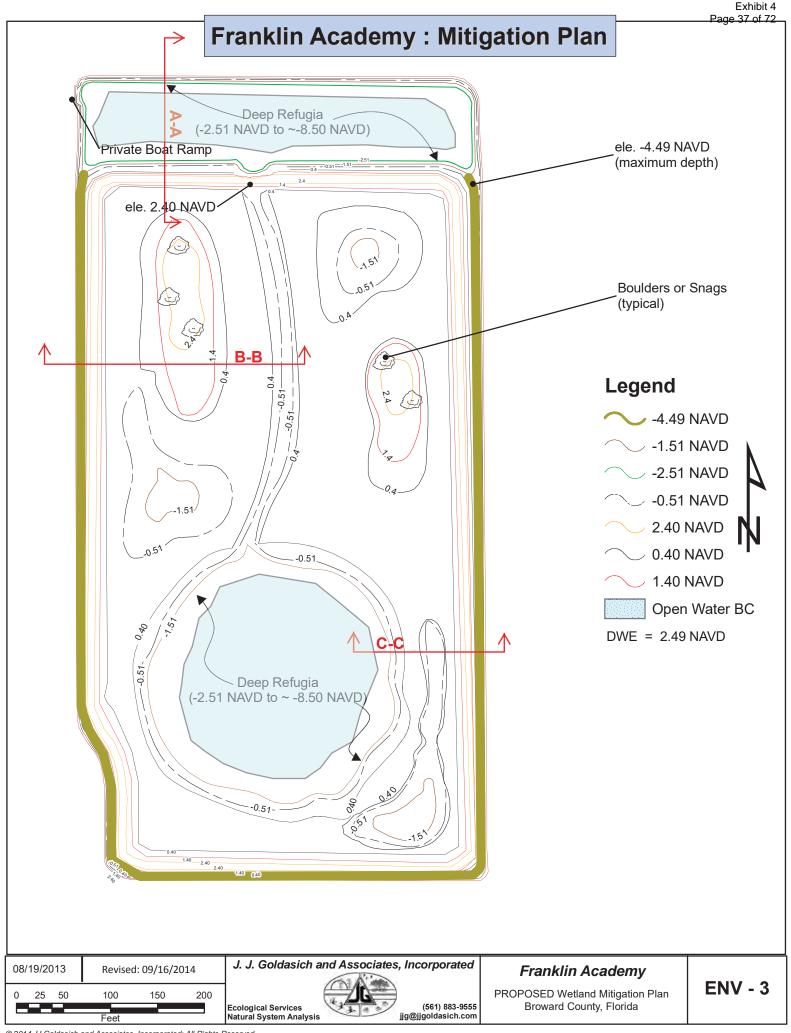
Griffin FS Ditch (~0.18 acres)

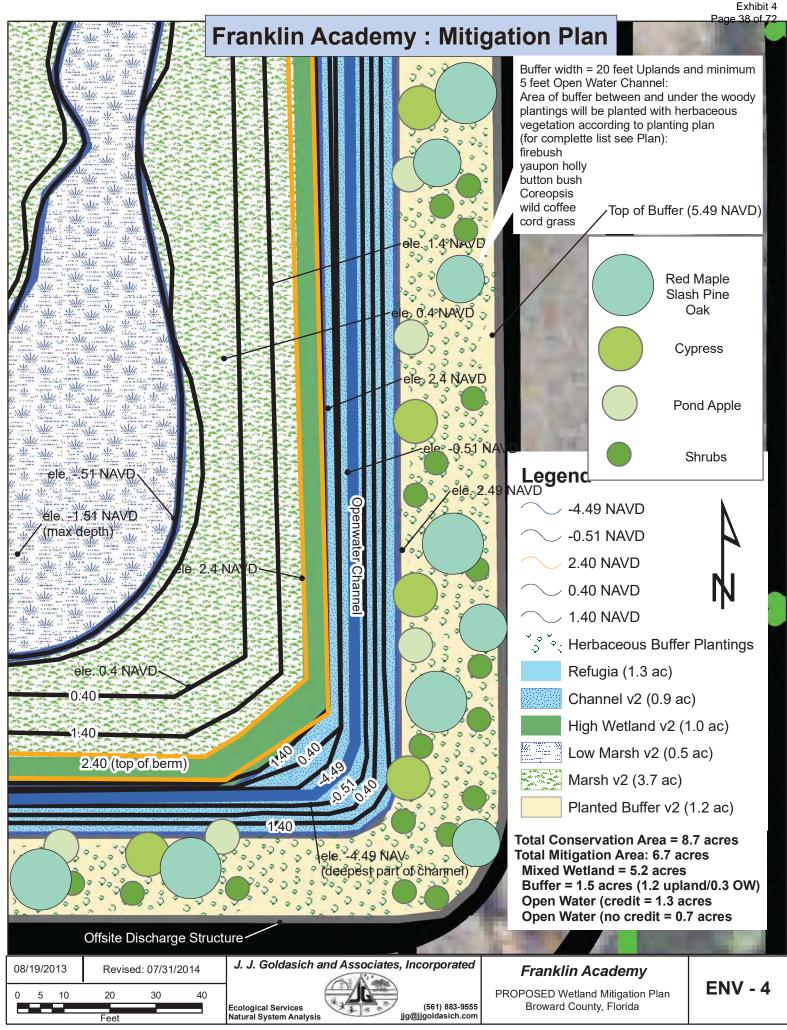
Griffin FS Site

Broward County JD Wetlands and Natural System Map Broward County, Florida

ENV - 1

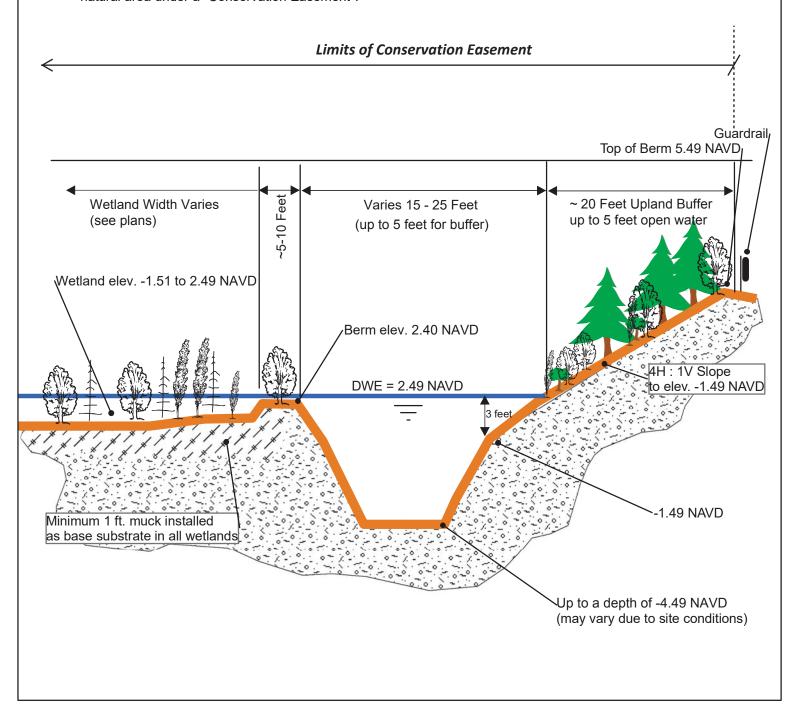






Franklin Academy: Wetland / Lake Buffer - Typical Cross Section

NOTE: All wetland areas and associated upland buffers will be planted according to the wetland mitigation planting plan. This will include a mixture of herbaceous plants (3 ft. O.C.), shurbby plants (~5 ft. O.C.) and trees (~1--15 ft. O.C.). All plants will be native Florida plants with sizes ranging from 25 gallon material for the trees to bare root material for the herbaceous plants. The lake and wetland area will be isolated by a fence to provide protection. Signs will be installed at ~ 100 foot intervals stating that the area is a protected natural area under a "Conservation Easement".



08/19/2013

Revised: 2/9/2014

J. J. Goldasich and Associates, Incorporated

Ecological Services Natural System Analysis Franklin Academy

PROPOSED Wetland Mitigation Buffer Broward County, Florida

ENV - 5

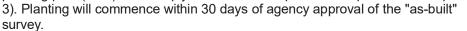
(561) 883-9555

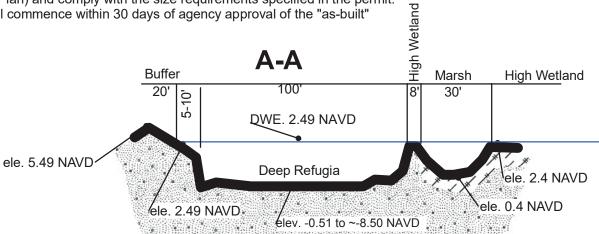
Franklin Academy: Cross Sections

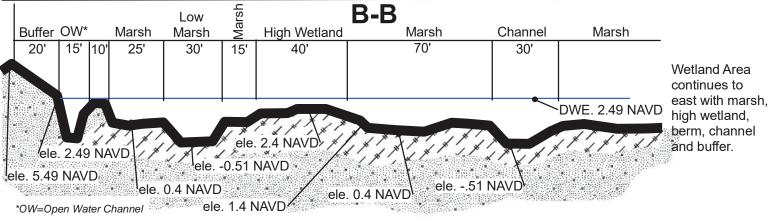
NOTE:

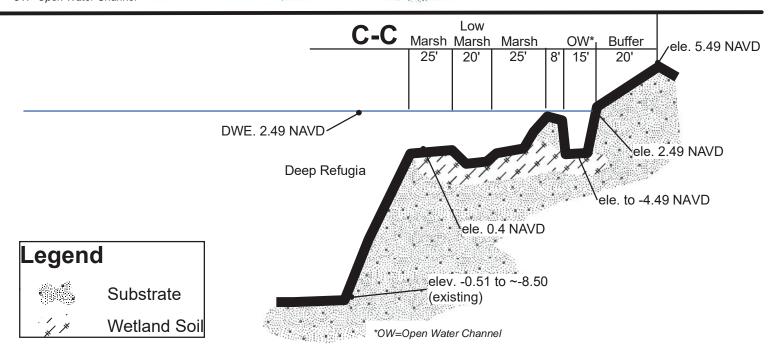
1). All wetland mitigation areas will be covered with a minimum of 1 foot of native wetland soils prior to planting. All wetland soils wll come from the project site unless insufficient wetland soils are available onsite. If this condition shouls arise, suitable areas offsite will be selected for the wetland soils supply.

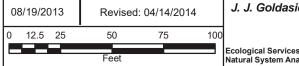
2). All wetland plants will be supplied from local native plant nurseries and suppliers. All plants will be installed according to the planting plan (Plan) and comply with the size requirements specified in the permit.











J. J. Goldasich and Associates, Incorporated

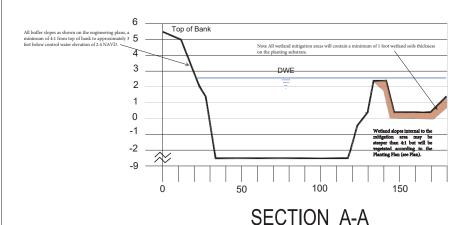
(561) 883-9555 Natural System Analysis jjg@jjgoldasich.com

Franklin Academy

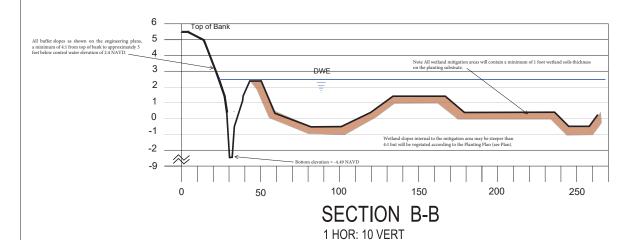
PROPOSED Wetland Mitigation Plan Cross Sections - Wetland Area Broward County, Florida

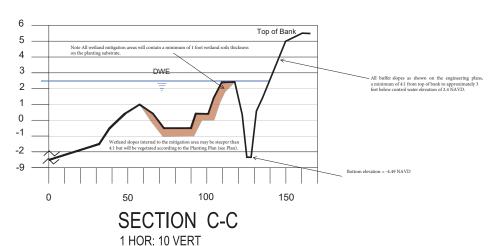
ENV - 6

FRANKLIN SCHOOLS: PINES 6 - 12



1 HOR: 10 VERT





0 25 50 100 150 200 Feet

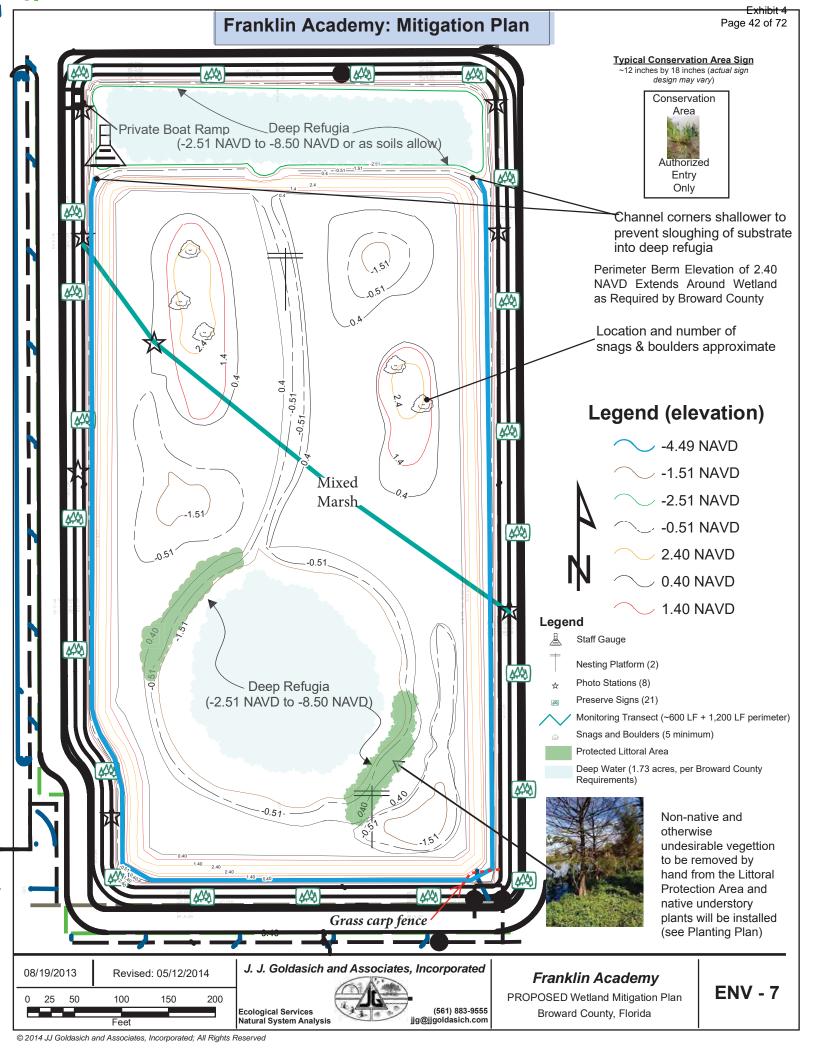
Current Drawing Date: 06/24/2014							
Revisions # / Date:	Add Wetland Soils / 15 MAY 2014						
Add SFWMD slope notes / 24 JUNE 2014							
	Add SFWMD channel notes / 16 SEP	2014					

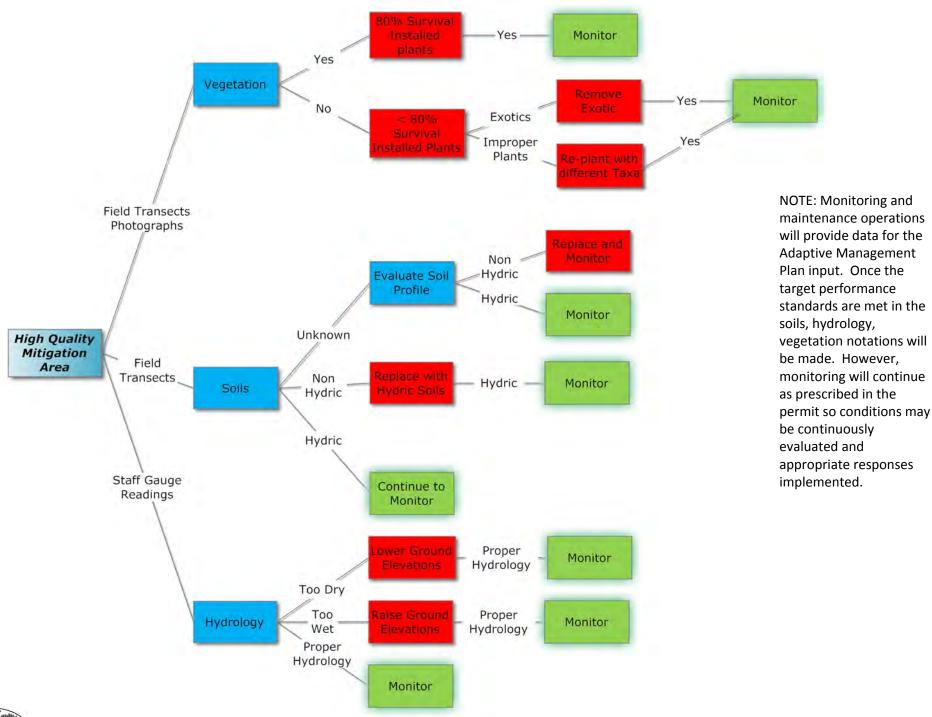
	J. J. Goldasich and Associates, In	corporated
_		
	jjg@jjgoldasich.com	561.883.9555

Franklin schools : Pines 6 - 12
Typical Wetland Mitigation Area Cross Sections Pembroke Pines, Broward County, Florida

Wetland Cross Sections

ENV 6a





Mitigation Area Materials and Methods, Relative Schedule and Mitigation Area Success Criteria:

A) Mitigation Area Construction Methodology:

- Scrape surface soils and store wetland soils adjacent to the proposed wetland mitigation area.
- The mitigation area will be lowered to the proposed final design elevations, allowing for a minimum of 1 foot of final wetland soils re-placement on the underlying limestone base.
- Re-placed wetland soils will be allowed to settle ~30 days.
- Conduct preliminary survey to define mitigation area grade for final surface grading
- Final grading will be conducted to establish the proposed final mitigation area communities and grades.
- Final survey to define mitigation area grades and ensure consistency with the proposed plan (community types and approximate extents will be as proposed, but the areas and dimensions may vary due to construction operations).
- Once the surveyed areas are accepted by the agencies, planting will be conducted. All
 plants, except the ferns, will be installed within 60 days of final mitigation area survey
 acceptance. Ferns will be installed within 6 months of initial planting to ensure suitable
 shaded habitat for normal growth and survival.

B) Mitigation Area Monitoring:

- Ongoing monitoring by a biologist will be conducted during the earthwork phases discussed above, during the survey of the mitigation area and at the completion of plant installations.
- Sampling procedures will be by pedestrian transects through each of the various community types to generate vegetative of coverage data in each of the strata.
- Percent survival for each species will be estimated during the monitoring for the first 6 months following plantings.
- Total community cover by type and total mitigation area coverage will be estimated from areal coverage data for the remainder of the monitoring period.
- Exotic and undesirable vegetation will be identified with respect to location and percent coverage and targeted for removal or approved herbicide treatment within 30 days of identification.
- Non-native and undesirable vegetation will be removed or sprayed with an approved herbicide to ensure a maximum of 2% cover between monitoring and maintenance events and near 0% immediately following maintenance events.

- Monitoring and maintenance event frequency will be one time per month during the first year and quarterly during the following four years.
- Success criteria will be less than 2% non-native and undesirable vegetation cover, a minimum of 80% survival of installed plants for a minimum of 6 months and a minimum of 80% cover of the mitigation area marsh, hydric island, berms and shallow vegetated habitat at the end of year number 3 through year number 5.
- Monitoring reports will be provided to SFWMD on an annual basis within 45 days of the end of each monitoring year. Broward County will be provided quarterly reports within 30 days of each quarterly monitoring event and within 45 days of the year end monitoring event. Each report will have wildlife utilization estimates, hydrology by continuous monitoring method of the staff gauge data, percent survival, percent exotic cover, percent vegetative cover of native wetland vegetation and community type areal extent. Any remedial actions taken during the monitoring period (if any) will also be discussed.

C) Mitigation Area Management Plan

- Ongoing operation and maintenance of mitigation area will be by Permittee according to the agreement and CE language.
 - Area to be maintained in perpetuity to meet permit conditions of a minimum of 80% cover by native wetland vegetation in all areas of the mitigation area except deep open water channels as shown on the plan.
- Vegetation establishment will be monitored according to the monitoring plan, should vegetation criteria not be met the Adaptive Management Plan will be implemented until the area meets permit criteria.
 - The Adaptive Management Plan provides for changes in the plant palate, additional soils augmentation, revisions to the maintenance and monitoring schedule specifically needed to address any identified non-compliance areas in the mitigation area. It is used to target and remediate any non-compliance areas in the shortest possible time so that the mitigation area will return to a high quality wetland area as predicted by the permit.
- Non-native plants will be maintained by herbicide treatment or physical removal for the vegetation and electro-shocking and/or physical removal for the grass carp.
- The grass carp exclusion fence will be evaluated each monitoring event and maintained in good condition to effectively eliminate grass carp entry into the mitigation areas.
- Management plan for operation and maintenance
 - See above discussion
- Vegetation establishment

- Vegetation will be monitored by biologists to ensure a minimum of 80% survival after planting and a minimum of 80% cover of native wetland plants after three years throughout the five year monitoring period.
- Exotic and nuisance species control
 - Exotic vegetation will be controlled by physical removal or herbicide treatment.
 - Maintenance operations will be on a monthly basis for the first year and quarterly thereafter for the remaining 5 year monitoring period. Maintenance will continue in perpetuity to ensure the mitigation area remains within permit criteria.
 - If routine maintenance operations reveal a compliance problem, monitoring and maintenance activities will be increased until the issue is resolved.
 - Grass Carp will be controlled by the grass carp exclusion fence.
 - If grass carp are found within the mitigation area they will be removed.
- Access Control
 - Mitigation area access will be controlled by the planted buffer and fencing (see plans).
 - Preserve area signs will be installed as shown on the plans

D) Detailed schedule for implementation

Mitigation Earthwork / Grading

	 Surface soils removed 	April 2014
	 Surface soils stored adjacent to mitigation area 	April 2014
	Mitigation area scraped	April 2014
	 Mitigation soils replaced 	May 2014
	 Mitigation soils settling 	June 2014
•	Mitigation area survey	June 2014
•	Wetland planting – general	July 2014
•	Time Zero Report	August 2014
•	Year 1 Report	January 2015
•	Year 2 Report	January 2016
•	Year 3 Report	January 2017
•	Year 4 Report	January 2018
•	Year 5 Report	January 2019

		1.2 Acre	Planted Up	land Buffer	(trees				
T	Between Manage	Constant	c:			Total	Number		ov Eleventions (NIAN/D)
Таха	Botanical Name	Spacing	Size		Trees	Herbs	Vines	Shrubs	~ Elevations (NAVD)
red maple	Acer rubrum	10	7 gallon		29				2.4 to 3.0
red maple	Acer rubrum	10	10 gallon		15				2.4 to 5.0
cypress	Taxodium distichum	10	7 gallon		15				2.4 to 3.0
cypress	Taxodium distichum	10	10 gallon		15				2.4 to 3.0
laurel oak	Quercus laurifolia	10	10 gallon		73				3.0 to 5.49
laurel oak	Quercus laurifolia	10	7 gallon		15				3.0 to 5.49
slash pine	Pinus elliottii	10	7 gallon		73				3.0 to 5.49
slash pine	Pinus elliottii	10	10 gallon		73				3.0 to 5.49
Pond apple	Annona glabra	10	7 gallon		44				2.4 to 3.0
Total Trees - Upland B		10	, ganon		350				2.1.000.0
		Acre Plante	ed Upland B	uffer (Shurk		Herbs)			
coco plum	Chrysobalanus icaco	5	3 gallon					40	2.5 to 3.0
button bush	Cephalanthus occidentalis	5	3 gallon					503	2.4 to 3.0
sunshine mimosa	Mimosa strigillosa	5	1 gallon				101	505	3.0 to 5.0
coreopsis	Coreopsis lavenworthii	5	liner			503	101		2.49 to 4.0
· ·	,	Spread				303			
native wildflower mix	various (see notes)	Throughout	seed-5 lbs						2.49 to 5.49
Spanish stopper	Eugenia foetida	5	3 gallon					40	3.0 to 5.0
yaupon holly	Ilex vomitoria	5	3 gallon					40	4.0 to 5.49
cord grass	Spartina bakerii	5	1 gallon			805			3.0 to 4.0
muhly grass	Muhlenbergia capillaris	5	1 gallon			402			2.0 to 2.4
firebush	Hamelia patens	5	3 gallon					302	3.0 to 5.0
Myrsine	Myrsine cubana	5	7 gallon					201	4.0 to 5.49
Total Shrubs / Herbace	eous Plants - Planted Buffer					1,710	101	1,127	
			ligh Wetlan	d (1.0 Ac.)					
red maple	Acer rubrum	10	10 gallon		29				2.0 to 2.4
red maple	Acer rubrum	10	7 gallon		15				2.4
cypress	Taxodium distichum	10	7 gallon		58				2.0 to 2.4
cypress	Taxodium distichum	10	10 gallon		29				2.4
red bay	Persea borbonia	10	7 gallon		15				2.4
dahoon holly	Ilex cassine	10	7 gallon		29				2.4
dahoon holly	Ilex cassine	10	10 gallon		29				2.4
Pond apple	Annona glabra	10	7 gallon		15				2.0
marsh horsetail	Equisetum hyemale	3	1 gallon			559			2.0 to 2.4
leather fern	Acrostichum danaeifolium	3	1 gallon			559			2.0
swamp fern	Blechnum serrulatum	3	1 gallon			1,676			3.0 to 3.5
pickerel weed	Pontederia cordata	3	bare root			2,793			1.0 to 2.4
cord grass	Spartina bakerii	3	1 gallon					1006	2.4
canna lily	Canna x generalis	3	1 gallon			279			2.4
spider lily	Hymenocallis latifolia	3	1 gallon			279			2.0 to 2.4
button bush	Cephalanthus occidentalis	3	3 gallon					279	2.0 to 2.4
blue flag iris	Iris virginica	3	1 gallon			279			2.0 to 2.4
Total Plants - High We	tland	•			219	6,423	0	1,285	
		3.7 Ac. I	Marsh and (0.5 Ac. Low	Marsh				
blue flag iris	Iris virginica	3	1 gallon			1,117			2.0 to 2.4
duck potato	Sagittaria latifolia	3	bare root			1,676			0.4 to 2.0
pickerel weed	Pontederia cordata	3	bare root			4,189			1.0 to 2.4
gator flag	Thalia geniculata	3	bare root			2,793			-0.51 to 1.0
spike rush	Eleocharis cellulosa	3	bare root			5,585			0.4 to 2.0
canna lily	Canna x generalis	3	bare root			1,117			2.0 to 2.4
marsh horsetail	Equisetum hyemale	3	1 gallon			279			2.4
giant bulrush	Schoenoplectus californicus	3	bare root			1,676			-0.51 to 2.0
sawgrass (Jamaica)	Cladium jamaicense	3	liner			1,117			2.0 to 2.4
softstem bulrush	S. tabernaemontani	3	bare root			1,117			2.0 to 2.4
	- Marsh and Low Marsh	<u> </u>	Date 1001			20,665	0	0	2.0 10 2.4
rotal Emergent Fidilis		O Ac Cham	nol Aross I	OW March	and Da		U	<u> </u>	
_			nel Areas, L	ow iviarsh a	ına ke				
Tape grass	Vallisneria americana	5	bare root			503			-1.0 to 0.4
Bladderwort	Utricularia spp.	5	bare root			503			-1.0 to 0.4
Water lily	Nymphaea odorata	5	bare root			101			-1.0 to 0.4
Total Submergent Plan	nts - Channels, Low Marsh and R	efugia				1,107	0	0	

Total Submergent Plants - Channels, Low Marsh and Refugia 1,107 0 0 NOTE: Total acreage for each community type should be taken from the environmental and engineering drawings and the community type planting headers shown on this Table. Plants may migrate to elevations other than those shown for initial planting elevations. Plant substitutions allowed only with District approval. <u>DWE = 2.49 NAVD.</u>

Installed plant density will be as follows: 15' OC = 224 plants / acre; 10' OC = 292 plants/acre; 5' OC= 2,012 plants/acre; 3' OC=5,585 plants/acre; 2' OC=12,590 plants/acre. Florida Native Wildflower seed mix will include the following species: Chamaecrista fasciculata, Cereopsis Inaceolata, C. leavenworthii, Gaillanda pulchella, Soldago stricta, Andropogon virginicus, Eragrostis elliottii, Eragrostis spectabilis, Hibiscus grandiflorus, Chamaecrista fasciculata, Polygonella polygama, Sorphastrum secundum, Solidago fistulosa, Verbesina virginica, Gaillardia pulchella, Liatris graciidis, Schizachyrium soprairum.



Franklin Schools; Pines Onsite Mitigation Planting Quantities

Table 2 8/15/2015

Таха	Botanical Name	Spacing	Size		Total N	lumber		~ Elevations
Tuxu	Botumeur Nume	Spacing	3120	Trees	Herbs	Vines	Shrubs	(NAVD)
red maple	Acer rubrum	10	7 gallon	29				2.4 to 3.0
red maple	Acer rubrum	10	10 gallon	15				2.4 to 5.0
cypress	Taxodium distichum	10	7 gallon	15				2.4 to 3.0
cypress	Taxodium distichum	10	10 gallon	15				2.4 to 3.0
laurel oak	Quercus laurifolia	10	10 gallon	73				3.0 to 5.4
laurel oak	Quercus laurifolia	10	7 gallon	15				3.0 to 5.4
slash pine	Pinus elliottii	10	7 gallon	73				3.0 to 5.4
slash pine	Pinus elliottii	10	10 gallon	73				3.0 to 5.4
Pond apple	Annona glabra	10	7 gallon	44				2.4 to 3.0
l 1.2 acre Upland B	uffer Trees			350				

	1.2 Acre Planted Upland Buffer (Shurbs and Herbs)									
coco plum	Chrysobalanus icaco	5	3 gallon					40	2.5 to 3.0	
button bush	Cephalanthus occidentalis	5	3 gallon					503	2.4 to 3.0	
sunshine mimosa	Mimosa strigillosa	5	1 gallon				101		3.0 to 5.0	
coreopsis	Coreopsis lavenworthii	5	liner			503			2.49 to 4.0	
native wildflower mix	various (see notes)	Spread throughout	seed-5 lbs						2.49 to 5.49	
Spanish stopper	Eugenia foetida	5	3 gallon					40	3.0 to 5.0	
yaupon holly	Ilex vomitoria	5	3 gallon					40	4.0 to 5.49	
cord grass	Spartina bakerii	5	1 gallon			805			3.0 to 4.0	
muhly grass	Muhlenbergia capillaris	5	1 gallon			402			2.0 to 2.4	
firebush	Hamelia patens	5	3 gallon					302	3.0 to 5.0	
Myrsine	Myrsine cubana	5	7 gallon					201	4.0 to 5.49	
Total Shrubs / Herbace	ous Plants - Planted Buffer			1,710	101	1,127				

	High Wetland (1.0 Ac.)								
		-	(1.0 At.)						
red maple	Acer rubrum	10	10 gallon		29				2.0 to 2.4
red maple	Acer rubrum	10	7 gallon		15				2.4
cypress	Taxodium distichum	10	7 gallon		58				2.0 to 2.4
cypress	Taxodium distichum	10	10 gallon		29				2.4
red bay	Persea borbonia	10	7 gallon		15				2.4
dahoon holly	Ilex cassine	10	7 gallon		29				2.4
dahoon holly	Ilex cassine	10	10 gallon		29				2.4
Pond apple	Annona glabra	10	7 gallon		15				2.0
Total 1 Acre High Wet	otal 1 Acre High Wetland @ 10' OC Spacing								

marsh horsetail	Equisetum hyemale	3	1 gallon	559		2.0 to 2.4
leather fern	Acrostichum danaeifolium	3	1 gallon	559		2.0
swamp fern	Blechnum serrulatum	3	1 gallon	1,676		3.0 to 3.5
pickerel weed	Pontederia cordata	3	bare root	2,793		1.0 to 2.4
cord grass	Spartina bakerii	3	1 gallon		1006	2.4
canna lily	Canna x generalis	3	1 gallon	279		2.4
spider lily	Hymenocallis latifolia	3	1 gallon	279		2.0 to 2.4
button bush	Cephalanthus occidentalis	3	3 gallon		279	2.0 to 2.4
blue flag iris	Iris virginica	3	1 gallon	279		2.0 to 2.4
Total 1 Acre High Wetl	land @ 3' OC Spacing			279	1,285	

		3.7 Ac. l	Marsh and 0.5 A	c. Low Marsh			
blue flag iris	Iris virginica	3	1 gallon	1,11	7		2.0 to 2.4
duck potato	Sagittaria latifolia	3	bare root	1,67	ō		0.4 to 2.0
pickerel weed	Pontederia cordata	3	bare root	4,189	9		1.0 to 2.4
gator flag	Thalia geniculata	3	bare root	2,79	3		-0.51 to 1.0
spike rush	Eleocharis cellulosa	3	bare root	5,58	5		0.4 to 2.0
canna lily	Canna x generalis	3	bare root	1,11	7		2.0 to 2.4
marsh horsetail	Equisetum hyemale	3	1 gallon	27:	9		2.4
giant bulrush	Schoenoplectus californicus	3	bare root	1,67	5		-0.51 to 2.0
sawgrass (Jamaica)	Cladium jamaicense	3	liner	1,11	7		2.0 to 2.4
softstem bulrush	S. tabernaemontani	3	bare root	1,11	7		2.0 to 2.4
Total Emergent Plants	- Marsh and Low Marsh			20,66	0	0	

0.9 Ac. Channel Areas, Low Marsh and Refugia									
Tape grass	Vallisneria americana	5	bare root			503			-1.0 to 0.4
Bladderwort	Utricularia spp.	5	bare root			503			-1.0 to 0.4
Water lily	Nymphaea odorata	5	bare root	Ť		101			-1.0 to 0.4
Total Submergent Plar	otal Submergent Plants - Channels, Low Marsh and Refugia 1,107 0 0								

NOTES

Installed plant density will be as follows: 15' OC = 224 plants / acre; 10' OC = 292 plants/acre; 5' OC= 2,012 plants/acre; 3' OC=5,585 plants/acre; 2' OC=12,590 plants/acre. Florida Native Wildflower seed mix will include the following species: Chamaecrista fasciculata, Coreopsis lanceolata, C. leavenworthii, Gaillarida pulchella, Soildago stricta, Andropogon virginicus, Eragrostis elliottii, Fragrostis spectabilis, Hibiscus grandifforus, Chamaecrista fasciculata, Polygonella polygoma, Sorghastrum secundum, Soildago fistulosa, Verbesina virginica, Gaillardia pulchella, Liatris gracilis, Schizachyrium scoparium. Plants may migrate to elevations other than those shown for initial planting elevations. Plant substitutions allowed only with District approval. DWE = 2.49 NAVD.



Franklin Academy Mitigation Cost Estimate Pembroke Pines 6 - 12 School 7/29/2014

Action	Site	Cost	Project Total
Clear Vegetation	Throughout mit area	\$2,500.00	
Mitigation Area Scraping	Throughout mit area (~10K cu. yd.)	\$120,000.00	
Final (touch-up) Grade Mitigation Area	Throughout mit area	\$10,000.00	
Install New Vegetation	FW Marsh (2 & 3 ft. O.C.)(0.4 - 1.4 NAVD)	\$74,000.00	
Install New Vegetation	Low Marsh (2 ft. OC) (-1.51 to 0.40 NAVD)	\$37,000.00	
Install New Vegetation	High Marsh (2 ft. OC)(3.0 - 3.8 NGVD)	\$28,000.00	
Install New Vegetation	Upland Buffer (3-10 ft. OC)(2.49 to 5.49 NAVD)	\$24,000.00	
Install Irrigation for Upland Buffer	Upland Buffer (as needed)	\$500.00	
Total Planting & Construction			\$296,000.00
Ongoing Irrigation / Maintenance (5 yrs)	Marsh, Berm, Buffer	\$40,000.00	
Monitoring Year 1	Marsh, Berm, Buffer	\$5,500.00	
Monitoring Years 2 - 3	Marsh, Berm, Buffer	\$4,400.00	
Monitoring Years 4 - 5	Marsh, Berm, Buffer	\$2,400.00	
Total Monitoring & Maintenance (5 yrs)			\$52,300.00
Project Total			\$348,300.00
Total + Contingency 10%			\$383,130.00

NOTE: Vegetative maintenance of the mitigation area will be conducted on a monthly basis for the first year and quarterly for the remaining four years of the five year mitigation area monitoring period.



Name and address of Issuing Institution

Irrevocable letter of Credit No	Dated
Beneficiaries: County Administrator Broward County Board of County	Applicant: <u>CA MIAMI 20700 GR LLC</u> (Developer)
Commissioners Governmental Center, Room 409 115 South Andrews Avenue	Amount: \$383,130.00 (In United States Funds)
Fort Lauderdale, Florida 33301	Expiry:(Date)
And Deputy Executive Director South Florida Water Management	License No.: <u>DF13-1229</u> (Broward County Environmental Protection and Growth Management Department's Environmental Resource License Number)
District 3301 Gun Club Road West Palm Beach, Florida 33406	Permit No.: 131216-12(app. Number) (South Florida Water Management District Environmental Resource Permit Number)
Dear Sir or Madam:	
We hereby establish our Irrevocable Standby	Letter of Credit No in
your favor, at the request and for the account	of CA MIAMI 20700 GR LLC, 3000 Olympic
Boulevard 2120, Santa Monica, CA 90404	
up to the aggregate amount of Three hundre	d eighty three thousand, one hundred thirty
dollars and 00 cents.	
U.S. dollars \$ 383,130.00 , av	vailable upon presentation of:
(1) your sight draft, bearing reference	to this letter of credit No, and
(2) your signed statement reading as	follows "I certify that the amount of the draft is
payable pursuant to that certain Pe	ermit No. SFWMD Application No. 131216-
12	, dated (00/00/0000)

, issued by the South Florida
Water Management District.
and/or
(3) your signed statement reading as follows "I certify that the amount of the draft is
payable pursuant to that certain License No. <u>DF13-1229</u> , dated (00/00/0000)
, issued by the Broward
County Environmental Protection & Growth Management Department".
Drafts may be drawn by either beneficiary provided that the drawing is accompanied by:
A letter from the beneficiary that is not drawing, purportedly signed by an
authorized individual stating that: "We are aware that _(Drawing Beneficiary's
Name) is drawing under said letter of credit with
our agreement for the amount of \$ and
we do not expect payment for this amount."
It is understood that any payments made hereunder to either beneficiary will
automatically reduce the letter of credit and the issuing bank's liability to the other
beneficiary by that amount drawn thereunder. We hereby agree with the drawers,
endorsers, and bona fide holders of all drafts drawn under and in compliance with the
terms of this credit, that such drafts will be duly honored upon presentation to the
drawee.
This letter of credit is effective as of <u>00/00/0000</u> and shall expire on <u>00/00/0000</u> but
such expiration date shall be automatically extended without amendment for additional
periods of one year from the present or future expiration date unless, at least 120 days
before the current expiration date, we notify both you and [
] by certified mail that we have decided not to extend this letter
of credit beyond the current expiration date. In the event you are so notified, any unused
portion of the credit shall be available upon presentation of your sight draft for 120 days

after the date of receipt by both you and [] as shown on the signed
return receipts.
Whenever this letter of credit is drawn on under and in compliance with the terms of this
credit, we shall duly honor such draft upon presentation to us, and we shall deposit the
amount of the draft directly into the (Name of Trust Fund)
, in accordance with your instructions.
We certify that the wording of this letter of credit is in substantial conformance with that
specified in Form No. 62-330.301(2) which has been incorporated by reference in
paragraph 62-330.301(5)(b) of the Florida Administrative Code. Permittee shall note all
deviations from the form on the face of the instrument and identify to the agency such
changes for Agency's review and approval.
Signature(s), Title(s) of Official(s) of Issuing Institution Date
The Letter of Credit is for the proposed onsite wetland mitigation required pursuant to the SFWMD Environmental Resource Permit (ERP) and Broward County Environmental Resource License (ERL) as shown on the project onsite wetland mitigation cost estimate (attached).
This credit is subject to
Insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code of Florida"

Document prepared by:

JJ Goldasich and Associates, Incorporated

Return recorded document to:
Broward County Environmental Protection and
Growth Management Department
Development and Environmental Regulation Division
1 North University Drive, Suite 301
Plantation, Florida 33324

JOINT DEED OF CONSERVATION EASEMENT AND AGREEMENT

THIS DEED OF CONSERVATION EASEMENT ("Conservation Easement") is given this _____ day of _____, 2015_ by CA MIAMI 20700 GR LLC_ ("Grantor") whose mailing address is 3000 Olympic Boulevard, Suite 2120, Santa Monica, CA 90404

to the South Florida Water Management District, 3301 Gun Club Road, West Palm Beach, Florida 33406, and Broward County, a political subdivision of the state of Florida, (collectively referred to as "Grantees"), 115 South Andrews Avenue, Room 423, Fort Lauderdale, Florida 33301. As used herein, the term "Grantor" shall include any and all heirs, assigns, successors, or successors-in-interest of the Grantor, and all subsequent owners of the "Property" and "Conservation Area(s)" (as hereinafter defined) and the term "Grantees" shall include any successors, successors-in-interest or assignees of Grantees.

WITNESSETH

WHEREAS, the Grantor is the owner of certain lands situated in Broward County, Florida, and more specifically described in Exhibit A, attached and incorporated herein by reference and referred to as the ("Property"); and

WHEREAS, the Grantor desires to construct <u>School, associated parking,</u> <u>sports fields, roadways, stormwater management facilities and wetland mitigation</u> ("Project") on the Property, which Project is subject to regulatory jurisdiction of the South Florida Water Management District ("District") and the Broward County Environmental Protection and Growth Management Department ("EP&GMD or the County"); and

WHEREAS, EP&GMD License No. <u>DF13-1229</u> as may be modified or reissued and District Permit No. <u>App. #:131216-12</u> ("District Permit") as may be modified authorize certain activities which affect waters in or of the State of Florida, and/or regulated aquatic or wetland resources located in Broward County, Florida.

WHEREAS, the Grantor has developed and proposed as part of the license and permit conditions a conservation tract, and buffers, as described in Exhibit B attached hereto and incorporated by reference, involving creation, restoration, enhancement and/or preservation of the wetland and/or upland systems ("Conservation Area"); and

WHEREAS, the Grantor, in consideration of the consent granted by the EP&GMD License and District Permit, is agreeable to granting and securing to the Grantees a perpetual Conservation Easement as defined in Section 704.06, Florida Statutes, over the Conservation Area.

NOW, THEREFORE, in consideration of the issuance of the EP&GMD License and District Permit, to construct and operate the permitted activity, and as an inducement to Grantees in issuing the EP&GMD License and District Permit, together with other good and valuable consideration, the adequacy and receipt of which are hereby acknowledged, Grantor hereby grants, creates, and establishes a perpetual Conservation Easement for and in favor of the Grantees upon the Conservation Area which shall run with the land(s) as described in Exhibits A and B, and be binding upon the Grantor, and shall remain in full force and effect forever.

The scope, nature, and character of this Conservation Easement shall be as follows:

- 1. Recitals. The recitals hereinabove set forth are true and correct and are hereby incorporated into and made a part of this Conservation Easement.
- 2. Purpose. It is the purpose of this Conservation Easement to retain land and/or water of the Conservation Area in their natural, vegetative, hydrologic, scenic, open, agricultural or wooded condition and to retain such areas as suitable habitat for fish, plants or wildlife. It is the purpose and intent of this Conservation Easement to assure that the Conservation Area will be retained and maintained forever predominantly in the vegetative and hydrologic condition as specified in the EP&GMD License and District Permit. The Conservation Area shall be maintained forever by the Grantor, in the enhanced, restored, preserved and/or created conditions required by the EP&GMD License and District Permit. To carry out this purpose, the following rights are conveyed to Grantees by this Conservation Easement:
 - (a) To enter upon and cross such portions of the Property and the Conservation Area in a reasonable manner and at reasonable times with any necessary equipment or vehicles to ensure compliance and to enforce the rights herein granted.
 - (b) To enjoin any activity on or use of the Conservation Area that is inconsistent with this Conservation Easement and to enforce the restoration of such areas or features of the Conservation Area that may be damaged by any inconsistent activity and/or use.
- 3. <u>Prohibited Uses.</u> Except for the restoration, creation, enhancement, maintenance and monitoring activities, surface water management improvements, or other activities and improvements related to the Conservation

Area that are permitted or required by the EP&GMD License and the District Permit, the following activities are prohibited in or on the Conservation Area:

- (a) Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;
- (b) Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;
- (c) Removal or destruction of trees, shrubs, or other vegetation, except for the removal of nuisance or exotic vegetation as approved by EP&GMD and District;
- (d) Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such manner as to affect the surface;
- (e) Surface use except for purposes that permit the land or water area to remain in its natural or enhanced vegetative and hydrologic condition as specified in the EP&GMD License and District Permit;
- (f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation, including but not limited to ditching, diking, and fencing;
- (g) Acts or uses detrimental to said aforementioned retention and maintenance of land or water areas; and
- (h) Acts or uses detrimental to the preservation of any features or aspects of the Conservation Area having historical, archeological or cultural significance.
- 4. <u>Grantor's Reserved Rights.</u> Grantor reserves all rights as owner of the Conservation Area, including the right to engage in uses of the Conservation Area that are not prohibited herein and which are not inconsistent with the intent and purpose of this Conservation Easement, or any District rule, criteria, or permit, or any County ordinance, license or approval.
- 5. <u>No Dedication.</u> No right of access by the general public to any portion of the Conservation Area is conveyed by this Conservation Easement.
- 6. <u>Grantees' Liability.</u> Grantees shall not be responsible for any costs or liabilities related to the operation, upkeep, and maintenance of the Conservation Area and Grantor does hereby indemnify and hold harmless the Grantees from the same.

- 7. Acts Beyond Grantor's Control. Should any Conservation Area be injured or changed from natural causes, including but not limited to fire, flood, storm and earth movement, the Grantor shall be provided notice and a reasonable opportunity to restore the affected Conservation Area to a condition that satisfies the EP&GMD License and District Permit requirements prior to either Grantee bringing any action for noncompliance with the EP&GMD License and District Permit.
- 8. Property Taxes. Grantor shall pay any and all real property taxes and assessments levied by competent authority on the Conservation Area. Grantor shall keep the payment of taxes and assessments on the Conservation Area or Property current and shall not allow any lien on the Conservation Area or Property superior to this Conservation Easement. In the event Grantor fails to extinguish or obtain a subordination of such lien, in addition to any other remedy, the Grantees may, but shall not be obligated to, elect to pay the lien on behalf of the Grantor and Grantor shall reimburse Grantees for the amount paid by the Grantees, together with Grantees' reasonable attorney's fees and costs, with interest at the maximum rate allowed by law, no later than thirty days after such payment. In the event the Grantor does not so reimburse the Grantees, the debt owed to Grantees shall constitute a lien against the Conservation Area and/or Property which shall automatically relate back to the recording date of this Conservation Easement. Grantees may foreclose this lien on the Conservation Area or Property in the manner provided for mortgages on real property.
- Enforcement. The terms and conditions of this Conservation Easement may be enforced by the Grantees by injunctive relief and other available remedies. In any action in which the Grantees prevail, the Grantees shall be entitled to recover the cost of restoring the Conservation Area to the natural vegetative, hydrologic, scenic, open, agricultural or wooded condition existing at the time of execution of this Conservation Easement or to the vegetative and hydrologic condition required by the aforementioned EP&GMD License and District Permit. Venue for said actions shall be exclusively in the Seventeenth Judicial Circuit, in and for Broward County, Florida. These remedies are in addition to any other remedy, fine or penalty which may be applicable under the most recent versions of Chapter 27 of the Broward County Code of Ordinances, Chapter 40E-4, F.A.C., et. seg., Chapter 373, Florida Statutes, or as otherwise provided by law. Enforcement of the terms, provisions, and restrictions of this Conservation Easement shall be at the reasonable discretion of Grantees, and any forbearance on behalf of Grantees to exercise their rights hereunder in the event of any breach hereof by Grantor, shall not be deemed or construed to be a waiver of Grantees' rights hereunder.
- 10. <u>Assignment.</u> Grantees will hold this Conservation Easement exclusively for conservation purposes. Grantees will not assign their rights and obligations under this Conservation Easement except to another organization or entity qualified to hold such interests under the applicable state laws.

- 11. <u>Restoration.</u> Grantor agrees to restore the Conservation Area to the vegetative and hydrologic condition required by the aforementioned EP&GMD License and District Permit if any third party exercises any easement right or property interest or conducts any other activity on the property that causes damage, degradation or negative impacts to the Conservation Area.
- 12. <u>Maintenance.</u> Grantor's obligation to retain and maintain the Conservation Area forever predominantly in the vegetative and hydrologic condition as herein specified shall run with the lands(s) described in Exhibits A and B, and shall be binding upon the Grantor, and shall inure to the benefit of the Grantees, and more particularly set forth herein. The intent of this Conservation Easement is that the responsibilities and liabilities associated with the Conservation Easement shall run with the land(s) described in Exhibits A and B, and be binding upon the fee simple title holder of those land(s) as required hereunder.
- 13. <u>Severability.</u> If any provision of this Conservation Easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this Conservation Easement shall not be affected thereby, as long as the purpose of the Conservation Easement is preserved.
- 14. <u>Written Notice.</u> All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest.
- 15. <u>Terms and Restrictions</u>. The terms, conditions, restrictions and purpose of this Conservation Easement shall be inserted by Grantor in any subsequent deed or other legal instrument by which Grantor divests itself of any interest in the land(s) described in Exhibit A or B. Any future holder of the Grantor's interest in the land(s) described in Exhibit A or B shall be notified in writing by Grantor of this Conservation Easement.
- 16. <u>Modifications.</u> This Conservation Easement may be amended, altered, released or revoked only by written agreement between the Grantor and Grantees.

TO HAVE AND TO HOLD unto Grantees forever. This Conservation Easement shall be recorded in the Public Records of Broward County and the covenants, terms, conditions, restrictions and purpose imposed with this Conservation Easement shall not only be binding upon Grantor, but also its agents, heirs, assigns, successors and successor-in-interest and shall continue as a servitude running in perpetuity with the land(s) described in Exhibits A and B.

Grantor hereby covenants with said Grantees that Grantor is lawfully seized of said Conservation Area in fee simple; that the Conservation Area is free and clear of all

Page 5 of 10

encumbrances that are inconsistent with the terms of this Conservation Easement and all mortgages have been joined or subordinated; that Grantor has good right and lawful authority to convey this Conservation Easement; and that it hereby fully warrants and defends the title to this Conservation Easement hereby conveyed against the lawful claims of all persons whomsoever.

(INTENTIONALLY LEFT BLANK)

OWNER - CORPORATION/PARTNERSHIP

Signed, Sealed and Delivered in the Presence of:	
in the Fresence of.	CA MIAMI 20700 GR LLC, a Delaware limited
	liability company
	By:
Print Name:	Print Name: Daniel Millman
	Title: Vice President
Print Name:	
A notary public or other officer	
completing this certificate verifies only the identity of the individual who signed	4
the document to which this certificate is	
attached, and not the truthfulness,	
accuracy, or validity of that document.	
State of California)	
County of LOS Angeles)	
on August 10, 2015 before me, L. L	
the officer) personally appeared Da	(Here insert name and title of
	to be the person(s)-whose name(s) is/are
	acknowledged to me that he/she/they executed
	city(ies), and that by his/her/their signature(s)
on the instrument the person(s), or the er executed the instrument.	ntity upon behalf of which the person(s) acted,
70,7 = 22.24 10.2 11.5 11.5 11.5 11.5 11.5	
	under the laws of the State of California that the
foregoing paragraph is true and correct.	LIOVASCO
WITNESS my hand and official seal.	L. LOVASCO Commission No. 2064434
Mark	NOTARY PUBLIC-CALIFORNIA
Signature	LOS ANGELES COUNTY My Comm. Expires APRIL 14, 2018

IN WITNESS WHEREOF, hereunto set its authorized hand this	day of	has
		, 20
OWN	ER - INDIVIDUAL	
Signed, sealed and delivered		
in our presence as witnesses:	Name of Own	er (Individual)
(Signature)	(Signat	
Print Name	Print Name	
	Print Address	
(Signature)		
Print Name		
ACKNOWLEDGMENT - INDIVIDUAL		
STATE OF FLORIDA)		
) ss		
COUNTY OF)		
The foregoing instrument was a		
, 20, by [] personally known to me, or		who is:
produced identification. Type of id	entification produced	
	NOTARY PUBLIC-STATE (OF FLORIDA:
	Signature of Notary Public-S	State of Florida
	Print, type, or stamp Comm My commission expires: Affix Seal Below	issioned Name

IN WITNESS WHEREOF,	day of, 20	has
hereunto set its authorized hand this _	day of, 20	4
OWNER - CORP	ORATION/PARTNERSHIP	
Witnesses (if partnership)		
4.00	Name of Owner (corporation/partners	ship)
	Ву	
(Signature)	By(Signature)	
Print Name	Print Name:	
	TitleAddress	
(Signature)	71441000	
Print Name		
	day of	20
ATTEST (if corporation)		
	(CORPORATE SE	(14
Corporate Secretary Signature	(GON GNATE GE	-11
Print Name of Corporate Secretary		
STATE OF FLORIDA)) ss COUNTY OF)		
The foregoing instrument was	acknowledged before me thisas	
of	, a	
corporation/partnership, on behalf of the [] personally known to me, or [] produced identification. Type of ide	e corporation/partnership. He or she is:	
	NOTARY PUBLIC-STATE OF FLORID	A:
	Signature of Notary Public-State of Flor	rida
	Print, type, or stamp Commissioned Na My commission expires: Affix Seal Below	ame
P	age 8 of 10	

Standard Joint Broward, Revised 2/2009 Prepared by the Broward County Attorney's Office and SFWMD's Office of Counsel

Mortgagee Subordination

By signing below mortgage holder agrees the lien of any mortgage on the real property described in Exhibit "A" and Exhibit "B" shall be subordinate to the subject conservation easement.

MORTGAGEE

Witnesses (if partnership)	Name of Mortgagee (corporation/partnership)	
	P.	
(Signature) Print Name	By(Signature) Print Name:	
	Title	
(Signature) Print Name	Address	
	day of, 20	
ATTEST (if corporation)		
	(CORPORATE SEAL)	
Corporate Secretary Signature Print Name of Corporate Secretary		
ACKNOWLEDGMENT - CORPORAT	TON/PARTNERSHIP	
STATE OF FLORIDA)) ss COUNTY OF)		
, 20, by	s acknowledged before me this day ofas	
of	, a	
[] personally known to me, or	he corporation/partnership. He or she is:	
	NOTARY PUBLIC-STATE OF FLORIDA:	
	Signature of Notary Public-State of Florida	
	Print, type, or stamp Commissioned Name My commission expires: Affix Seal Below	
18	Page 9 of 10	

Standard Joint Broward, Revised 2/2009 Prepared by the Broward County Attorney's Office and SFWMD's Office of Counsel

ACCEPTANCE BY BROWARD COUNTY

The Broward County Board Conservation Easement	for EP&GMD	ers hereby accepts this License No.
ATTEST;	BROWARD COUNTY BOARD OF COUNTY	
County Administrator and	By	Mayor
Ex-Officio Clerk of the Board of County Commissioners of Broward County, Florida	day of	, 20
	Approved as to form by Office of County Attorn Broward County, Florid JEFFREY J. NEWTON Governmental Center, 115 South Andrews Av Fort Lauderdale, Florid Telephone: (954) 357 Telecopier: (954) 357	ey la I, County Attorney Suite 423 enue a 33301 -7600
	Assistant County Attorn	ney

ACKNOWLEDGMENT OF AND AGREEMENT TO JOINT DEED OF CONSERVATION EASEMENT AND AGREEMENT

The undersigned, being the Tenant under that certain Lease and Development Agreement dated as of June 29, 2015, between Grantor, as Landlord, and the undersigned, as Tenant, a Memorandum of Lease of which was recorded as Instrument Number 113140654, in the applicable public records of Broward County, Florida, hereby acknowledges and agrees to this Joint Deed of Conservation Easement and Agreement as of the date and year first written above:

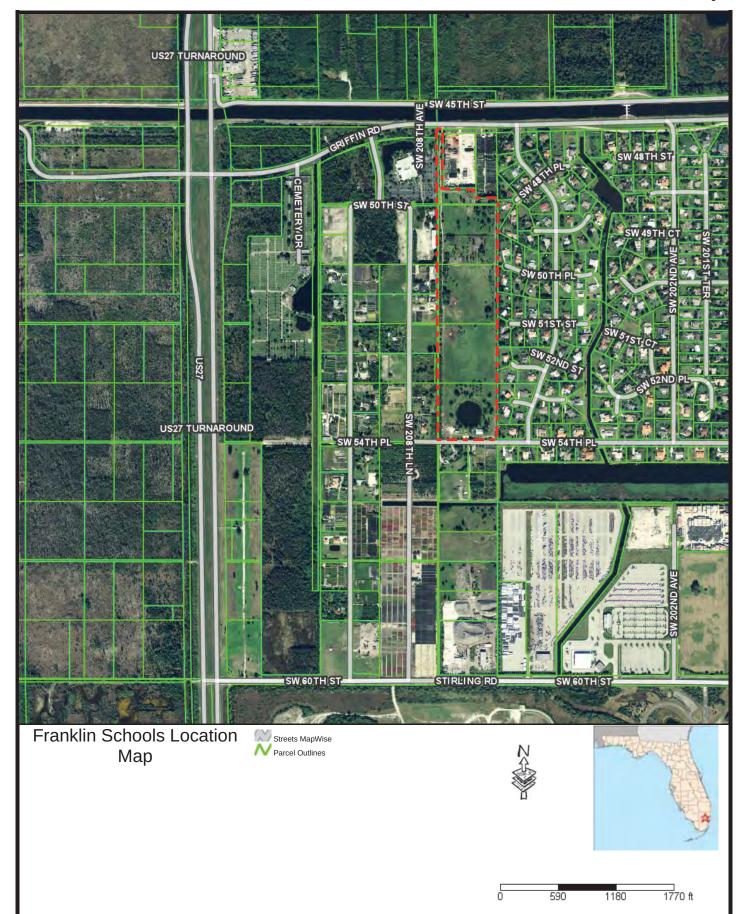
Signed, sealed and delivered in the presence of:

"Tenant" Printed Name: FLORIDA CHARTER FOUNDATION, INC., Witness a Florida not-for-profit corporation By: Printed Name: Printed Name: Title: Witness STATE OF FLORIDA COUNTY OF BROWARD The foregoing Acknowledgement of and Agreement to Joint Deed of Conservation Easement and Agreement was acknowledged before me this day of August, 2015, by as of Florida Charter Foundation, Inc., a Florida not-for profit corporation, as Tenant, who is personally known to me or who has produced as identification. Witness my hand and official seal in the county and state last aforesaid this day of August, 2015. (NOTARY SEAL OR STAMP) Printed Name: Notary Public State of Florida at Large

EXHIBIT A

Parcel A, FRANKLIN ACADEMY 6-12, according to the Plat thereof recorded in Plat Book 181, Page 189, of the Public Records of Broward County, Florida.

EXHIBIT A



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DESCRIPTION:

FXHIBIT

A CONSERVATION EASEMENT, BEING A PORTION OF PARCEL A OF FRANKLIN ACADEMY 6-12, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 181, PAGES 189 THROUGH 193 OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST ONE-QUARTER CORNER OF SECTION 35, TOWNSHIP 50 SOUTH, RANGE 39 EAST BROWARD COUNTY, FLORIDA; THENCE, ALONG THE WEST LINE OF SAID SECTION 35 NORTH 00'13'54" WEST, A DISTANCE OF 144.68 FEET; THENCE, DEPARTING SAID WEST LINE, NORTH 89'46'06" EAST, A DISTANCE OF 146.00

FEET TO THE POINT OF BEGINNING:

THENCE, NORTH 00"13'54" WEST, A DISTANCE OF 74.22 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE WEST HAVING A RADIUS OF 66.00 FEET; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 40°47'55", A DISTANCE OF 47.00 FEET TO THE POINT OF REVERSE CURVATURE OF A CURVE CONCAVE TO THE EAST HAVING A RADIUS OF 41.00 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 40'47'55". A DISTANCE OF 29.19 FEET TO THE POINT OF TANGENCY; THENCE NORTH 00"13"54" WEST, A DISTANCE OF 681.94 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 15.00 FEET; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90'06'22", A DISTANCE OF 23.59 FEET TO THE POINT OF TANGENCY; THENCE NORTH 89°52'28" EAST, A DISTANCE OF 392.66 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHWEST HAVING A RADIUS OF 33.00 FEET; THENCE EASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 89'54'10", A DISTANCE OF 51.78 FEET TO THE POINT OF TANGENCY; THENCE SOUTH 00'13'22" EAST, A DISTANCE OF 824.04 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 9.00 FEET; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90'05'50", A DISTANCE OF 14.15 FEET TO THE POINT OF TANGENCY: THENCE SOUTH 89'52'28" WEST, A DISTANCE OF 380.53 FEET TO THE POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 25.00 FEET; THENCE WESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 89'53'38". A DISTANCE OF 39.22 FEET TO THE POINT OF BEGINNING.

CONTAINING 377,530 SQUARE FEET OR 8.7 ACRES, MORE OR LESS.

LEGEND/ABBREVIATIONS

Δ - DELTA (CENTRAL ANGLE)

L - ARC LENGTH

R - RADIUS

B.C.R. - BROWARD COUNTY RECORDS

SBDD - SOUTH BROWARD DRAINAGE DISTRICT

DCR. - DADE COUNTY RECORDS

O.R.B. - OFFICIAL RECORDS BOOK

P.B. - DENOTES PLAT BOOK

PG. - DENOTES PAGE

P.O.C. - POINT OF COMMENCEMENT

P.O.B. - POINT OF BEGINNING

NOTES:

- REPRODUCTIONS OF THIS SKETCH ARE NOT VALID UNLESS SEALED WITH AN EMBOSSED SURVEYOR'S SEAL.
- LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS-OF-WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD.
- BEARINGS SHOWN HEREON ARE BASED ON THE WEST LINE OF SECTION 35, TOWNSHIP 50 SOUTH, RANGE 36 EAST HAVING A BEARING OF NORTH 00'13'54" WEST.
- THE "LAND DESCRIPTION" HEREON WAS PREPARED BY THE SURVEYOR
- DATA SHOWN HEREON WAS COMPILED FROM INSTRUMENTS OF RECORD AND DOES NOT CONSTITUTE A BOUNDARY SURVEY AS SUCH.

CERTIFICATE:

I HEREBY CERTIFY THAT THE ATTACHED SKETCH OF DESCRIPTION OF THE HEREON DESCRIBED PROPERTY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS PREPARED UNDER MY DIRECTION ON AUGUST 4, 2015. I FURTHER CERTIFY THAT THIS SKETCH OF DESCRIPTION MEETS THE STANDARDS OF PRACTICE SET FORTH IN CHAPTER 5J-17 ADOPTED BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS PURSUANT TO FLORIDA STATUTES 472.027.

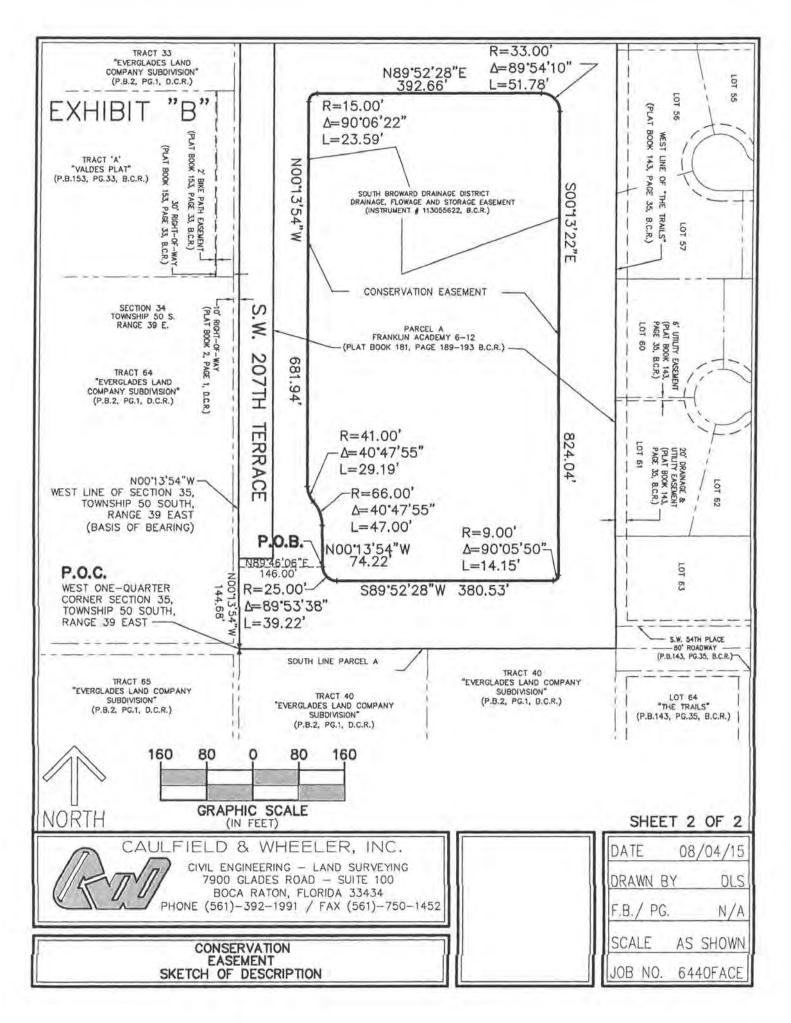
SHEET 1 OF 2

CAULFIELD & WHEELER, INC.

CIVIL ENGINEERING - LAND SURVEYING 7900 GLADES ROAD - SUITE 100 BOCA RATON, FLORIDA 33434 PHONE (561)-392-1991 / FAX (561)-750-1452

CONSERVATION EASEMENT SKETCH OF DESCRIPTION DAVID P. LINDLEY REGISTERED LAND SURVEYOR NO. 5005 STATE OF FLORIDA B# 3591

DATE	08/04/15
DRAWN B	Y DLS
F.B./ PG.	N/A
SCALE	AS SHOWN
JOB NO.	6440FACE



South Florida Water Management District Work Schedule Requirements

Application No : 131216-12 Page 1 of 1

Mitigation Plan ID: FRANKLIN ACADEMY

Activity	Due Date
SUBMIT ORIGINAL FINANCIAL ASSURANCE DOCUMENTATION	16-NOV-15
SUBMIT RECORDED CONSERVATION EASEMENT	16-JAN-16
SITE INSPECTION	16-MAR-16
SUBMIT AS-BUILT SURVEY OF MITIGATION AREA	16-MAR-16
COMPLETE PLANTING MITIGATION AREA	16-APR-16
SUBMIT TIME ZERO MONITORING REPORT	16-MAY-16
SUBMIT FIRST MONITORING REPORT	16-MAY-17
SUBMIT SECOND MONITORING REPORT	16-MAY-18
SUBMIT THIRD MONITORING REPORT	16-MAY-19
SUBMIT FOURTH MONITORING REPORT	16-MAY-20
SUBMIT FIFTH MONITORING REPORT	16-MAY-21

FRANKLIN ACADEMY PEMBROKE PINES MIDDLE AND HIGH SCHOOL

Permit No: 06-01400-S-24

Exhibit 4 – UNIFORM WETLAND MITIGATION - Incorporated by Reference

(See ePermitting System)

STAFF REPORT DISTRIBUTION LIST

FRANKLIN ACADEMY PEMBROKE PINES MIDDLE AND HIGH SCHOOL

Application No: 131216-12

Permit No: 06-01400-S-24

INTERNAL DISTRIBUTION

- X Joseph D. Santangelo
- X Robert F. Hopper
- X Carlos A. de Rojas, P.E.
- X Barbara J. Conmy
- X A. Waterhouse

EXTERNAL DISTRIBUTION

- X Permittee Ca Miami 20700 Gr Llc.
- X Applicant Florida Charter Foundation
- X Engr Consultant Ross Engineering Inc
- X Env Consultant J J Goldasich And Associates Inc

GOVERNMENT AGENCIES

- X Broward County Director, Water Mgmt Div
- X City of Pembroke Pines
- X Div of Recreation and Park District 5 Miranda Cunningham, FDEP
- X South Broward Drainage District

OTHER INTERESTED PARTIES

X Audubon of Florida - Charles Lee

STAFF REPORT DISTRIBUTION LIST

ADDRESSES

Florida Charter Foundation 1120 S E 3rd Avenue Fort Lauderdale FL 33316

J J Goldasich And Associates Inc P O Box 811988 Boca Raton FL 33481-1988

Broward County - Director, Water Mgmt Div 2555 W Copans Rd Pompano FL 33069 jcrouse@broward.org

Div of Recreation and Park - District 5 - Miranda Cunningham, FDEP 13798 Se Federal Highway Hobe Sound FL 33455 miranda.cunningham@dep.state.fl.us

Audubon of Florida - Charles Lee 1101 Audubon Way Maitland FL 32751 chlee2@earthlink.net Ross Engineering Inc 3325 S Univesity Drive Davie FL 33328

Ca Miami 20700 Gr Llc. 3000 Olympic Blvd. Suite 2120 Santa Monica FL 90404

City of Pembroke Pines 13975 Pembroke Road Pembroke Pines FL 33027

South Broward Drainage District 6591 Sw 160 Ave Southwest Ranches FL 33331 kevin@sbdd.org

Application No: 131216-12 Page 2 of 2