August 31, 2020

VIA ELECTRONIC MAIL

Ben Scott
County Manager
P.O. Box 1529
Lake City, Fl 32056

Re: SE 0622 "Columbia County Detention Facility"
Determination Letter

Dear Mr. Scott,

At the August 27, 2020 Board of Adjustment ("Board") hearing, the Board approved the application for a Special Exception to allow for a Detention Facility as a Public Building and Facility Use use as permitted in Section 4.17.5(14) of the County's Land Development Regulations ("LDRs") in accordance with Section 12.2 of the County's LDRs. Per Section 12.1.1 of the County's LDRs, there is a thirty (30) day appeal period for all Special Exceptions. If no appeal is filed within thirty (30) days, the decision of the Board shall become final. No permits shall be issued until the thirty (30) day appeal period has expired.

Attached for your records is a copy of Resolution BA SE 0622.

If you have any questions, please do not hesitate to contact me at bstubbs@columbiacountyfla.com or (386) 754-7119.

Sincerely,

Brandon M. Stubbs
Community Development Coordinator
Land Development Regulation Admin.

RESOLUTION NO. BA SE 0622

A RESOLUTION OF THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, GRANTING A SPECIAL EXCEPTION WITH APPROPRIATE CONDITIONS AND SAFEGUARDS AS AUTHORIZED UNDER SECTION 4.17.5 (14) OF THE LAND DEVELOPMENT REGULATIONS TO ALLOW FOR A PUBLIC BUILDING AND FACILITY WITHIN THE INDUSTRIAL ("I") ZONE DISTRICT ON CERTAIN LANDS WITHIN THE UNINCORPORATED AREA OF COLUMBIA COUNTY, FLORIDA; PROVIDING FOR REVOCATION OF THE SPECIAL EXCEPTION; REPEALING ALL RESOLUTIONS IN CONFLICT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Columbia County Land Development Regulations, hereinafter referred to as the Land Development Regulations, empowers the Board of Adjustment of Columbia County, Florida, hereinafter referred to as the Board of Adjustment, to grant, to grant with appropriate conditions and safeguards or to deny special exceptions as authorized under Section 3.2 of the Land Development Regulations;

WHEREAS, a petition for a special exception, as described below, has been filed with the County;

WHEREAS, pursuant to the Land Development Regulations, the Board of Adjustment held the required public hearing, with public notice having been provided, on said petition for a special exception, as described below, and considered all comments received during said public hearing and the Concurrency Management Assessment concerning said petition for a special exception, as described below;

WHEREAS, the Board of Adjustment has found that they are empowered under Section 3.2 of the Land Development Regulations to grant, to grant with appropriate conditions and safeguards or to deny said petition for a special exception, as described below;

WHEREAS, the Board of Adjustment has determined and found that the granting with appropriate conditions and safeguards of said petition for special exception, as described below, would promote the public health, safety, morals, order, comfort, convenience, appearance, prosperity or general welfare;

WHEREAS, the Board of Adjustment has determined and found that the special exception is generally compatible with adjacent properties, other property in the district and natural resources; and

WHEREAS, the Board of Adjustment has determined and found that:

(a) The proposed use would be in conformance with the Comprehensive Plan and would not have an undue adverse effect on the Comprehensive Plan;

(b) The proposed use is compatible with the established land use pattern;

(c) The proposed use will not materially alter the population density pattern and thereby increase or overtax the load on public facilities such as schools, utilities, and streets;

(d) The proposed use will not have an undue adverse influence on living conditions in the neighborhood;

(e) The proposed use will not create or excessively increase traffic congestion or otherwise affect public safety;

(f) The proposed use will not create a drainage problem;

(g) The proposed use will not seriously reduce light and air to adjacent areas;

(h) The proposed use will not adversely affect property values in the adjacent areas;

(i) The proposed use will not be a deterrent to the improvement or development of adjacent property in accord with existing regulations; and

(j) The proposed use is not out of scale with the needs of the neighborhood or the community.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, THAT:

Section 1. Pursuant to a petition SE 0622, a petition by Ben Scott, County Manager, agent for the Board of County Commissioners, owner, to request a special exception be granted as provided for in Section 4.17.5(14) of the Land Development Regulations to allow for Public Building and Facility use within the Industrial ("I") Zone District. The special exception has been filed in accordance with a site plan dated July 15, 2020 and submitted as part of a petition dated July 15, 2020, as amended, to be located on property described, as follows:

A PORTION OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 3 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHEAST CORNER OF SAID SECTION 19; THENCE S03°39'05"E, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 1167.12 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF NORTHWEST QUINTEN STREET; THENCE DEPARTING SAID EAST LINE, RUN S87°57'42"W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 618.50 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN N03°40'46"W, A DISTANCE OF 1154.39 FEET TO A POINT ON THE NORTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE N86°46'54"E, ALONG SAID NORTH LINE OF SAID SECTION 19, A DISTANCE OF 618.83 FEET TO THE POINT OF BEGINNING.

Containing 16.48 acres, more or less.

Tax Parcel Number 19-3s-17-05068-000

Section 2. A site plan, as described above, is herewith incorporated into this resolution by reference, shall govern the development and use of the above described property. Any deviation from the site plan shall be deemed a violation of the Land Development Regulations.

Section 3. The use of land approved by this special exception shall be in place, or a valid permit shall be in force for the construction of such land use within twelve (12) months of the effective date of this resolution. If such land use is not in place or if a valid permit for the construction of such land use is not in effect, within twelve (12) months of the effective date of this resolution, this resolution granting with appropriate conditions and safeguards such special exception is thereby revoked and of no force and effect.

Section 4. If the use of land approved by this special exception ceases for any reason for a period of more than six (6) consecutive months, this resolution shall be thereby revoked and of no force and effect.

Section 5. All resolutions or portions of resolutions in conflict with this resolution are hereby repealed to the extent of such conflict.

Section 6. This resolution shall become effective upon adoption.

PASSED AND DULY ADOPTED, in special session with a quorum present and voting, by the Board of Adjustment this 27th day of August 2020.

Attest:

Brandon M. Stubbs, Secretary to the Board of Adjustment

BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA

Robert F. Jordan, Chairman

Columbia County
Gateway to Florida

FOR PLANNING USE ONLY
Application # SE 0622
Application Fee $750.00
Receipt No. N/A
Filing Date July 15, 2020
Completeness Date _____

Special Exception Application

A. PROJECT INFORMATION

1. Project Name: Columbia County Detention Facility
2. Address of Subject Property: 533 Quinten Street, Lake City, FL 32055
3. Parcel ID Number(s): 19-3s-17-05068-000
4. Future Land Use Map Designation: Industrial
5. Zoning Designation: Industrial ("I")
6. Acreage: +/-16.48
7. Existing Use of Property: Detention Facility
8. Proposed use of Property: Detention Facility
9. Section of the Land Development Regulations ("LDRs") for which a Special Exception is requested (Provide a Detailed Description): 4.17.5(14) Public Buildings and Facilities - Columbia County Detention Facility

B. APPLICANT INFORMATION

1. Applicant Status ■ Owner (title holder) □ Agent
2. Name of Applicant(s): Ben Scott Title: County Manager
   Company name (if applicable): Columbia County
   Mailing Address: P.O. Box 1529
   City: Lake City State: FL Zip: 32056
   Telephone: (386) 758-1326 Fax: (___)_____ Email: ben_scott@columbiacountyfla.com

   PLEASE NOTE: Florida has a very broad public records law. Most written communications to or from government officials regarding government business is subject to public records requests. Your e-mail address and communications may be subject to public disclosure.
3. If the applicant is agent for the property owner*.
   Property Owner Name (title holder):_____
   Mailing Address:_____
   City:_____ State:_____ Zip:_____
   Telephone: (___)_____ Fax: (___)_____ Email:_____

   PLEASE NOTE: Florida has a very broad public records law. Most written communications to or from government officials regarding government business is subject to public records requests. Your e-mail address and communications may be subject to public disclosure.

   ***Must provide an executed Property Owner Affidavit Form authorizing the agent to act on behalf of the property owner.**

C. ADDITIONAL INFORMATION

1. Is there any additional contract for the sale of, or options to purchase, the subject property?
   If yes, list the names of all parties involved:_____
   If yes, is the contract/option contingent or absolute: □ Contingent □Absolute
2. Has a previous application been made on all or part of the subject property:
   Future Land Use Map Amendment: □Yes _____ ■No _____
   Future Land Use Map Amendment Application No. CPA_____
   Rezoning Amendment: □Yes _____ ■No _____
   Rezoning Amendment Application No. Z_____
   Site Specific Amendment to the Official Zoning Atlas (Rezoning): □Yes _____ ■No _____
   Site Specific Amendment to the Official Zoning Atlas (Rezoning) Application No. Z_____
   Variance: □Yes _____ ■No _____
   Variance Application No. V_____
   Special Exception: □Yes _____ ■No_____
   Special Exception Application No. SE_____

D. ATTACHMENT/SUBMITTAL REQUIREMENTS

1. Analysis of Section 12.2.1.(3)(h) of the Land Development Regulations ("LDRs"):
   a. Whether the proposed use would be in conformance with the county's comprehensive plan and would have an adverse effect on the comprehensive plan.
   b. Whether the proposed use is compatible with the established land use pattern.
   c. Whether the proposed use would materially alter the population density pattern and thereby increase or overtax the load on public facilities such as schools, utilities, and streets.
   d. Whether changed or changing conditions find the proposed use to be advantageous to the community and the neighborhood.
   e. Whether the proposed use will adversely influence living conditions in the neighborhood.
   f. Whether the proposed use will create or excessively increase traffic congestion or otherwise affect public safety.
   g. Whether the proposed use will create a drainage problem.
   h. Whether the proposed use will seriously reduce light and air to adjacent areas.
   i. Whether the proposed use will adversely affect property values in the adjacent area.
   j. Whether the proposed use will be a deterrent to the improvement or development of adjacent property in accord with existing regulations.
   k. Whether the proposed use is out of scale with the needs of the neighborhood or the community

2. Vicinity Map – Indicating general location of the site, abutting streets, existing utilities, complete legal description of the property in question, and adjacent land use.

3. Site Plan – Including, but not limited to the following:
   a. Name, location, owner, and designer of the proposed development.
   b. Present zoning for subject site.
   c. Location of the site in relation to surrounding properties, including the means of ingress and egress to such properties and any screening or buffers on such properties.
   d. Date, north arrow, and graphic scale not less than one inch equal to 50 feet.
   e. Area and dimensions of site (Survey).
   f. Location of all property lines, existing right-of-way approaches, sidewalks, curbs, and gutters.
   g. Access to utilities and points of utility hook-up.
   h. Location and dimensions of all existing and proposed parking areas and loading areas.
   i. Location, size, and design of proposed landscaped areas (including existing trees and required landscaped buffer areas).
   j. Location and size of any lakes, ponds, canals, or other waters and waterways.
   k. Structures and major features fully dimensioned including setbacks, distances between structures, floor area, width of driveways, parking spaces, property or lot lines, and percent of property covered by structures.
   l. Location of trash receptacles.

4. Stormwater Management Plan—Including the following:
   a. Existing contours at one foot intervals based on U.S. Coast and Geodetic Datum.
   b. Proposed finished elevation of each building site and first floor level.
   c. Existing and proposed stormwater management facilities with size and grades.
   d. Proposed orderly disposal of surface water runoff.
   e. Centerline elevations along adjacent streets.
   f. Water management district surface water management permit.

5. Fire Department Access and Water Supply Plan: The Fire Department Access and Water Supply Plan must demonstrate compliance with Chapter 18 of the Florida Fire Prevention Code, be located on a separate signed and sealed plan sheet, and must be prepared by a professional fire engineer licensed in the State of Florida. The Fire Department Access and Water Supply Plan must contain fire flow calculations in accordance with the Guide for Determination of Required Fire Flow, latest edition, as published by the Insurance Service Office ("ISO") and/or Chapter 18, Section 18.4 of the Florida Fire Prevention Code, whichever is greater.

6. Concurrency Impact Analysis: Concurrency Impact Analysis of impacts to public facilities. For commercial and industrial developments, an analysis of the impacts to Transportation, Potable Water, Sanitary Sewer, and Solid Waste impacts are required.

7. Comprehensive Plan Consistency Analysis: An analysis of the application's consistency with the Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies of the Comprehensive Plan and detail how the application complies with said Goals, Objectives, and Policies).

8. Legal Description with Tax Parcel Number (In Microsoft Word Format).

9. Proof of Ownership (i.e. deed).

10. Agent Authorization Form (signed and notarized).

11. Proof of Payment of Taxes (can be obtained online via the Columbia County Tax Collector's Office).

12. Fee. The application fee for a Special Exception Application is $750. No application shall be accepted or processed until the required application fee has been paid.

NOTICE TO APPLICANT

All twelve (12) attachments are required for a complete application. Once an application is submitted and paid for, a completeness review will be done to ensure all the requirements for a complete application have been met. If there are any deficiencies, the applicant will be notified in writing. If an application is deemed to be incomplete, it may cause a delay in the scheduling of the application before the Board of Adjustment.

For submittal requirements, please see the Columbia County Building and Zoning Development Application Submittal Guidelines.

Before any Special Exception shall be granted, the Board of Adjustment shall make a specific finding that it is empowered under Article 4 of the Land Development Regulations to grant the Special Exception described in the petition, and that the granting of the Special Exception will not adversely affect the public interest. Before any Special Exception shall be granted, the Board of Adjustment shall further make a determination that the specific rules governing the individual Special Exception, if any, have been met by the petitioner and that, further, satisfactory provision and arrangement has been made.

In granting any Special Exception to the provisions of Article 4 of the Land Development Regulations, the Board of Adjustment may prescribe appropriate conditions and safeguards in conformity with such regulations, including but not limited to, reasonable time limits within which the action for which the Special Exception requested shall be begun or completed, or both. Violation of such conditions and safeguards, when made a part of the terms under which the Special Exception is granted, shall be deemed a violation of the Land Development Regulations.

The Board of Adjustment requires that the applicant or representative be present at the public hearing to address and answer any questions the Board may have during the public hearing. The application may be continued to future dates if the applicant or representative is not present at the hearing.

The Columbia County Land Development Regulations require that a sign must be posted on the property ten (10) days prior to the Board to Adjustment hearing date. Once a sign has been posted, it is the property owner's responsibility to notify the Planning and Zoning Department if the sign has been moved, removed from the property, torn down, defaced or otherwise disturbed so the property can be reposted. If the property is not properly posted until all public hearings before the Board of Adjustment are completed, the Board reserves the right to continue such public hearing until such time as the property can be property posted for the required period of time.

There is a thirty (30) day appeal period after the date of the decision. No additional permitting will be issued until that thirty (30) day period has expired.

I (we) hereby certify that all of the above statements and the statements contained in any papers or plans submitted herewith are true and correct to the best of my (our) knowledge and belief.

APPLICANT ACKNOWELDGES THAT THE APPLICANT OR REPRESENTATIVE MUST BE PESENT AT THE PUBLIC HEARING BEFORE THE BOARD OF ADJUSTMENT, OTHERWISE THE REQUEST MAYBE CONTINUED TO A FUTURE HEARING DATE.

Ben Scott

Applicant/Agent Name (Type or Print)

Ben Scott

Applicant/Agent Signature

7-10-20

Date

Columbia County Detention Facility
Special Exception Application
Analysis of Land Development Regulations
July 14, 2020

1. Analysis of Section 12.2.1(3)(h) of the Land Development Regulations (LDRs):

(1) Whether the proposed use would be in conformance with the County's Comprehensive Plan and would have an adverse effect on the comprehensive plan;

The subject property has an Industrial (I) zoning district. The subject property has a FLUM Designation of Industrial. Policy I.1.5 of the Future Land Use Element regulates the Industrial designation and states that in addition to industrial operations, "...other similar uses compatible with industrial uses may be approved as special exceptions." Section 4.17.5 of the LDR for Industrial zoning districts states that public buildings and facilities may be permitted as a Special Exception; the proposed detention facility is a public building and facility and would therefore be permitted as a Special Exception.

(2) Whether the proposed use is compatible with the established land use pattern;

The subject property surrounded by properties with zoning designations of I and RSF/MH-2. The western boundary is adjacent to Columbia County Public Works, the northern boundary is adjacent to a wetland, the eastern boundary is adjacent to single family homes and mobile homes, and the southern boundary is adjacent to NW Quinten Street, which serves as the access point into the property. The proposed expansion of the detention facility is compatible with the established land use pattern.

(3) Whether the proposed use would materially alter the population density pattern and thereby increase or overtax the load on public facilities such as schools, utilities, and streets;

The special exception is for an existing detention facility and the proposed expansion and will not generate any new population demands which would alter the density pattern and/or increase or overtax the load on public facilities. Please see the completed Concurrency Impact Analysis for details on impacts to utilities and roads.

(4) Whether changed or changing conditions find the proposed use to be advantageous to the community and the neighborhood;

As the County population continues to grow, the demand for additional space to hold law offenders is also needed.

(5) Whether the proposed use will adversely influence living conditions in the neighborhood;

The subject property is located in an area that is predominately used for residential and industrial operations, as well as pockets of conservation. The proposed use will not adversely affect the living conditions of the neighborhood.

(6) Whether the proposed use will create or excessively increase traffic congestion or otherwise affect public safety;

The proposed use does not create any impacts to public facilities, including traffic, as indicated in the Concurrency Impact Analysis.

(7) Whether the proposed use will create a drainage problem;

The subject property and proposed use are required to comply with all applicable regulations of the Suwannee River Water Management District and the County's LDRs regarding drainage. A complete analysis and design is supplied for review by the WMD and the County. The proposed design does not create a drainage problem.

(8) Whether the proposed use will seriously reduce light and air to adjacent areas;

The proposed use includes a maximum building height of 31 feet (approximately 2 stories) and will not reduce light to surrounding areas. The proposed use does not include activities that would result in air pollution or decreased air circulation and will therefore not result in reduced area to surrounding areas.

(9) Whether the proposed use will adversely affect property values in the adjacent area;

The subject property is located in an area that is predominately used for residential and industrial operations, as well as large land areas of conservation. The proposed use will not adversely affect the property values of the neighborhood. Generally, the continued presence of the Detention Facility should result in lower crimes rates and safer neighborhoods.

(10) Whether the proposed use will be a deterrent to the improvement or development of adjacent property in accord with existing regulations; and

The subject property is located in an area that is predominately used for residential and industrial operations, as well as pockets of conservation. The proposed use will not adversely affect future development or improvement of adjacent properties.

(11) Whether the proposed use is out of scale with the needs of the neighborhood or the community.

Public uses and facilities such as a Detention Center are integral to the safety and well-being of every community. The proposed use is compatible with the surrounding properties and includes building standards, such as height, that provide consistency with the scale of adjacent uses.

Drawing Index

Civil

Legal Description:

A PORTION OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 3 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHEAST CORNER OF SAID SECTION 19; THENCE S03°39'05"E, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 1167.12 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF NORTHWEST QUINTEN STREET; THENCE DEPARTING SAID EAST LINE, RUN S87°57'42"W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 618.50 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN N03°40'46"W, A DISTANCE OF 1154.39 FEET TO A POINT ON THE NORTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE N86°46'54"E, ALONG SAID NORTH LINE OF SAID SECTION 19, A DISTANCE OF 618.83 FEET TO THE POINT OF BEGINNING.

CONTAINING 717,962 SQUARE FEET OR 16.48 ACRES MORE OR LESS.

COLUMBIA COUNTY DETENTION FACILITY

Colombia County, Florida

DESIGN DEVELOPMENT

100% CONSTRUCTION DOCUMENT

July 2020

Parcel ID. Number
19-3S-17-05068-000

Prepared For

COLUMBIA COUNTY SHERRIF'S DEPARTMENT
4917 E. US HIGHWAY 90
LAKE CITY, FLORIDA 32055
PHONE: 386-752-9212

Civil Engineer / Planner

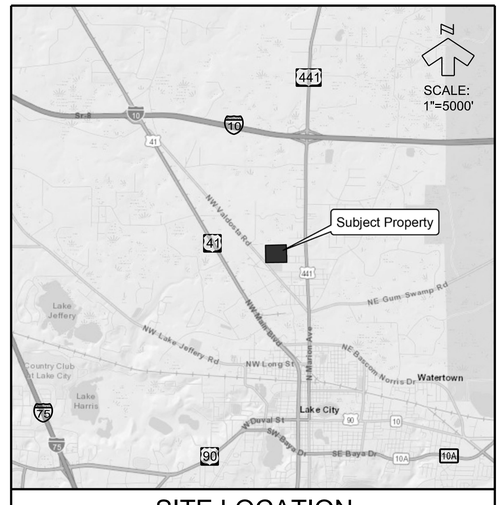
DEWBERRY ENGINEERS INC.
800 NORTH MAGNOLIA AVENUE
SUITE 1000
ORLANDO, FLORIDA 32803
CONTACT: CHRISTOPHER J ALLEN, P.E.
PHONE: 321-359-9739

Surveyor (Boundary & Topo)

DEWBERRY
131 WEST KALEY STREET
ORLANDO, FLORIDA 32806
CONTACT: WILLIAM D. DONLEY, PLS
PHONE: 407-843-5120

Geotechnical

AMERICAN INFRASTRUCTURE DEVELOMENT, INC.
3810 NORTHDALE BOULEVARD
SUITE 170
TAMPA, FLORIDA 33624
CONTACT: NABIL O. HMEIDI, P.E.
PHONE: 813-374-2200



SITE LOCATION

THIS IS TO certify THAT THE ROADWAY CONSTRUCTION PLANS AND SPECIFICATIONS AS CONTAINED HEREIN WERE DESIGNED TO APPLICABLE STANDARDS AS SET FORTH IN THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" AS PREPARED BY FLORIDA DEPARTMENT OF TRANSPORTATION.

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS -8794

COLUMBIA COUNTY DETENTION FACILITY
533 NW QUINTEN STREET
LAKE CITY, FL 32055

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

CIVIL COVER SHEET

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C01

11:59:54 AM Q:\CCDC-1_50101397\CAD\Civil\Final\dgn\CCDC-Cover.dgn

GENERAL

1. UNLESS OTHERWISE SPECIFIED, ALL CONSTRUCTION SHALL BE PERFORMED CONSISTENT WITH THE MOST RECENT PUBLICATION OF THE FOLLOWING CODES, STANDARDS AND SPECIFICATIONS AS WELL AS THE LATEST EDITIONS OF ALL OTHER APPLICABLE SPECIFICATIONS & STANDARDS:
   CITY OF LAKE CITY UTILITIES
   COLOMBIA COUNTY
   SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD)
   FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
   FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)
   AMERICANS WITH DISABILITIES ACT (ADA) BY U.S. DEPARTMENT OF JUSTICE
   "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION
2. ALL CONSTRUCTION IS TO BE GOVERNED BY ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, BUILDING AND SAFETY CODES.
3. IN THE EVENT THAT ANY STANDARDS OR SPECIFICATIONS AS DESCRIBED HEREIN ARE IN CONFLICT WITH EACH OTHER, OR THAT SHOWN IN THE PLANS, THE MORE STRINGENT CRITERIA WILL APPLY. CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY AND IN WRITING SHOULD THE MORE STRINGENT CRITERIA BE UNCLEAR, FOR ENGINEER'S INTERPRETATION OF THE MORE STRINGENT CRITERIA TO BE USED.
4. THESE PLANS WERE BASED ON THE BOUNDARY AND TOPOGRAPHIC SURVEY BY DEWBERRY INC., AND GEOTECHNICAL REPORT PROVIDED BY AMERICAN INFRASTRUCTURE DEVELOPMENT (AID REPORT NUMBER DEI20006, DATED MAY 18, 2020) NABIL O. HMEIDI, P.E./ 3810 NORTHDALE BLVD. SUITE 170/ TAMPA, FL 33624/ 813-374-2200.
5. ALL ELEVATIONS SHOWN ON THESE DRAWINGS REFER TO NORTH AMERICA VERTICAL DATUM (NAVD 88).
6. THESE PLANS WERE BASED ON THE GEOTECHNICAL REPORT(S) AID PROJECT NO. DEI20006 PROVIDED BY AMERICAN INFRASTRUCTURE DEVELOPMENT, INC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE A COPY OF THE REPORT(S) FROM THE GEOTECHNICAL ENGINEER, FAMILIARIZE THEMSELVES WITH THE CONDITIONS AS DESCRIBED IN THE REPORT(S), AND COMPLY WITH ALL RECOMMENDATIONS MADE IN THE REPORT(S) SPECIFICALLY FOR SOIL PREPARATION ON THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY ALL SUPPLEMENTAL REPORTS FOR THIS PROJECT FROM THE OWNER AND TO FOLLOW THE SUPPLEMENTAL REPORTS' RECOMMENDATIONS.
7. GEOTECHNICAL RECOMMENDATIONS OR RECOMMENDATIONS AS PROVIDED IN SUPPLEMENTAL REPORTS BY OTHERS ARE NOT THE RESPONSIBILITY OF DEWBERRY INC., WHO HAS RELIED UPON THE REFERENCED GEOTECHNICAL REPORT(S) IN THE PREPARATION OF THE PLANS. ANY CONFLICT BETWEEN INFORMATION CONTAINED IN THE REPORT(S) AND THESE PLANS SHALL BE REPORTED TO THE ENGINEER AND OWNER IMMEDIATELY AND IN WRITING. DEWBERRY INC. ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS, OR ACCURACY OF THE REPORT(S). WHEN THE PLANS AND/OR SPECIFICATIONS CONTAIN THE RESULTS OF A SOILS SURVEY, THE CONTRACTOR SHALL NOT ASSUME THE INFORMATION IS A GUARANTEE OF THE DEPTH, EXTENT OR CHARACTER OF MATERIAL PRESENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE A NECESSARY EXAMINATION OF THE SITE AND OF ANY MATERIAL SOURCES INDICATED ON THE PLANS TO BE INFORMED OF THE CONDITIONS UNDER WHICH CONSTRUCTION IS TO OCCUR.
8. THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF PERMITS FOR ALL AGENCIES HAVING JURISDICTION, SUCH AS GOVERNMENTAL, REGULATORY OR LOCAL ENTITIES. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE TERMS, CONDITIONS, REQUIREMENTS AND LIMITATIONS SET FORTH IN ALL OF THESE PERMITS. A COPY OF THE PERMITS SHALL BE KEPT ON THE CONSTRUCTION SITE AND MADE AVAILABLE FOR REVIEW AT ALL TIMES.
9. THE STANDARDS AND SPECIFICATIONS AS LISTED HEREIN, THE GEOTECHNICAL REPORT(S), BOUNDARY AND TOPOGRAPHIC SURVEY(S), AND REQUIRED PERMITS ARE HEREBY INCORPORATED ALONG WITH THE PLANS BY DEWBERRY INC. AS THE COMPLETE "SITE CIVIL CONSTRUCTION DOCUMENTS."
10. IF ITEMS APPEARING TO BE HISTORICAL OR ARCHEOLOGICAL ARTIFACTS ARE DISCOVERED AT ANY TIME DURING CONSTRUCTION WITHIN THE PROJECT LIMITS, IMMEDIATE NOTIFICATION SHALL BE PROVIDED TO THE OWNER, THE ENGINEER, AND THE BUREAU OF HISTORICAL PRESERVATION, DIVISION OF HISTORICAL RESOURCES R.A. GRAY BUILDING, 500 S. BRONOUGH ST. TALLAHASSEE, FLORIDA 32399-0250.

CONTRACTOR RESPONSIBILITIES

1. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE, INCLUDING ALL SURFACE AND SUBSURFACE CONDITIONS, THE WORK REQUIRED AND ALL OTHER CONDITIONS THAT MAY EFFECT THE SUCCESSFUL COMPLETION OF THE JOB PRIOR TO COMMENCEMENT OF WORK.
2. THE LOCATION OF EXISTING UTILITY SERVICES, FACILITIES, AND STRUCTURAL FEATURES SHOWN ON THESE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF THE LOCATION INFORMATION PROVIDED. ANY INACCURACY OR OMISSION IN SUCH INFORMATION SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROTECT THE EXISTING FEATURES FROM DAMAGE OR UNSCHEDULED INTERRUPTION OF SERVICE. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR SHALL STOP ALL CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.
3. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND PERMIT CONDITIONS BEARING ON THE CONDUCT OF THE WORK, AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER, IN WRITING, AND ANY NECESSARY CHANGES SHALL BE ADJUSTED, AS PROVIDED IN THE AGREEMENT FOR CHANGES IN THE WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFERS, RETENTION AND DETENTION FACILITIES UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE OWNER. ALL DISTURBED AREAS SHALL BE RETURNED TO EQUAL OR BETTER CONDITION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER AND THE ENGINEER FOR THE ACTS AND OMISSIONS OF CONTRACTOR'S EMPLOYEES AND ALL HIS SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.
6. ALL WORK AND FURNISHED MATERIALS SHALL BE IN REASONABLE CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT, PLANS, DETAILS OR SPECIFICATIONS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH GOVERNMENTAL DEPARTMENTS, PUBLIC UTILITIES, PUBLIC CARRIERS, SERVICE COMPANIES, AND CORPORATIONS OWNING OR CONTROLLING ROADWAYS, RAILWAYS, WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, AND TELEGRAPH FACILITIES SUCH AS PAVEMENTS, TRACKS, PIPING, WIRES, CABLES, CONDUITS, POLES, GUYS, OR OTHER SIMILAR FACILITIES, INCLUDING INCIDENTAL STRUCTURES CONNECTED THEREWITH THAT ARE ENCOUNTERED IN THE WORK IN ORDER THAT SUCH ITEMS MAY BE PROPERLY SUPPORTED, PROTECTED OR LOCATED.
8. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, LIGHTS, WARNING SIGNS, AND PAVEMENT MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC THROUGH THE CONSTRUCTION ZONE IN CONFORMITY WITH THE ALL AGENCIES HAVING JURISDICTION STANDARDS TO EFFECTIVELY PREVENT ACCIDENTS AT ALL LOCATIONS WHERE CONSTRUCTION CAUSES AN OBSTRUCTION TO THE NORMAL FLOW OF TRAFFIC OR CREATES A HAZARD IN ANY WAY TO THE PUBLIC.
9. IN THE EVENT THE CONTRACTOR DISCOVERS ANY ERRORS OR OMISSIONS IN THE PLANS HE SHALL IMMEDIATELY NOTIFY THE OWNER OR OWNER'S AGENT.
10. THE CONTRACTOR SHALL COMPLY WITH ALL LEGAL LOAD RESTRICTIONS IN THE HAULING OF MATERIALS ON PUBLIC ROADS BEYOND THE LIMITS OF THE WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR ANY DAMAGE THAT MAY RESULT FROM THE MOVING OF MATERIALS AND EQUIPMENT.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION, SUCH AS THE PRESERVATION OF ALL PERMANENT REFERENCE MONUMENTS, PERMANENT CONTROL POINTS, PERMANENT BENCH MARKS, PROPERTY CORNERS, POINTS OR MARKERS. IN THE EVENT ANY MONUMENTATION IS DISTURBED, IT SHALL BE RESTORED BY A FLORIDA LICENSED SURVEYOR AND MAPPER SELECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE.
12. THE OWNER, OWNER'S REPRESENTATIVES AND INSPECTORS OF APPLICABLE GOVERNMENT AGENCIES HAVING JURISDICTION, SHALL AT ALL TIMES HAVE ACCESS TO THE WORK SITE WHEREVER AND WHENEVER IT IS IN PREPARATION OR PROGRESS. THE CONTRACTOR SHALL PROVIDE PROPER FACILITIES FOR SUCH ACCESS AND INSPECTIONS.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL REASONABLE AND PRUDENT PRECAUTIONS TO INSURE THAT ALL COMPLETED WORK, MATERIALS AND EQUIPMENT STORED ON SITE ARE SAFE AND SECURED FROM UNAUTHORIZED ACCESS OR USE. SUCH PRECAUTIONS MAY INCLUDE INSTALLATION OF SIGNS, FENCES, OR POSTING OF SECURITY GUARDS.
14. CONTRACTOR SHALL, AT ALL TIMES, UTILIZE ALL NORMALLY ACCEPTED AND REASONABLY EXPECTED SAFETY PRACTICES AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND GUIDELINES PERTAINING TO SAFE UTILIZATION OF EQUIPMENT OR MATERIALS AS PUBLISHED BY MANUFACTURER.
15. ADEQUATE TRAFFIC CONTROL, SIGNAGE, BARRICADES AND FLAGMAN SERVICES SHALL BE FURNISHED AND MAINTAINED BY THE CONTRACTOR AT ALL POINTS WHERE CONSTRUCTION EQUIPMENT ENGAGED IN WORK ENTERS ONTO OR CROSSES FUNCTIONING TRAFFIC-CARRYING ROADWAY.
16. THOSE PARTS OF WORK IN PLACE THAT ARE SUBJECT TO DAMAGE BECAUSE OF OPERATIONS BEING CARRIED ON ADJACENT THERETO SHALL BE COVERED, BOARDED UP OR SUBSTANTIALLY ENCLOSED WITH ADEQUATE PROTECTION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE, PROTECTING WORK COMPLETED.
17. THE CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE FEDERAL OCCUPATIONAL HEALTH AND SAFETY ACT OF 1970 AND ALL RULES AND REGULATIONS NOW OR HEREAFTER IN EFFECT UNDER SAID ACT, AND THE CONTRACTOR FURTHER AGREES TO COMPLY WITH ANY AND ALL APPLICABLE STATE LAWS AND REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH.
18. THE CONTRACTOR SHALL PROTECT AND KEEP OWNER (INCLUDING THEIR AGENTS AND EMPLOYEES) FREE AND HARMLESS FROM ANY AND ALL LIABILITY, PUBLIC OR PRIVATE, PENALTIES, CONTRACTUAL OR OTHERWISE, LOSSES, DAMAGES, COSTS, ATTORNEY'S FEES, EXPENSES, CAUSES OF ACTION, CLAIMS OR JUDGMENTS RESULTING FROM THE FEDERAL OCCUPATIONAL HEALTH AND SAFETY ACT OF 1970 AS AMENDED OR ANY RULE OR REGULATION PROMULGATED THEREUNDER OR OF ANY STATE LAWS OR REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF WORK OR WORK TO BE PERFORMED UNDER THIS CONTRACT, AND CONTRACTOR SHALL INDEMNIFY OWNER FROM ANY SUCH CLAIMS, PENALTIES, SUITS OR ACTIONS, PUBLIC OR PRIVATE, ADMINISTRATIVE OR JUDICIAL, INCLUDING ATTORNEY'S FEES PAID OR INCURRED BY OR ON BEHALF OF OWNER, JOINTLY OR SEVERALLY, AND/OR THEIR AGENTS AND EMPLOYEES. THE CONTRACTOR FURTHER AGREES, IN THE EVENT OF A CLAIMED VIOLATION OF ANY FEDERAL OR STATE SAFETY AND HEALTH LAW OR REGULATION ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF WORK OR WORK TO BE PERFORMED UNDER THIS CONTRACT, OWNER MAY IMMEDIATELY TAKE WHATEVER ACTION IS DEEMED NECESSARY BY OWNER TO REMEDY THE CLAIMED VIOLATION. ANY AND ALL COSTS OR EXPENSES PAID OR INCURRED BY OWNER IN TAKING SUCH ACTION SHALL BE BORNE BY CONTRACTOR, AND CONTRACTOR AGREES TO PROTECT, HOLD HARMLESS AND INDEMNIFY OWNER AGAINST ANY AND ALL SUCH COSTS OR EXPENSES.
19. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO:
   A. ALL EMPLOYEES ON THE WORK SITE AND ALL OTHER PERSONS WHO MAY BE AFFECTED THEREBY;
   B. ALL THE WORK AND ALL MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE, UNDER THE CARE, CUSTODY OR CONTROL OF THE CONTRACTOR OR ANY OF ITS SUBCONTRACTORS; AND
   C. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS WALKS, PAVEMENTS, ROADWAY, STRUCTURES AND UTILITIES NOT DESIGNATED FOR DEMOLITION IN THE COURSE OF CONSTRUCTION.
20. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC, QUASI PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR FOR THEIR PROTECTION AGAINST DAMAGE, INJURY OR LOSS, OR DESIGNED TO PROTECT THE ENVIRONMENT. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING CONDITIONS AND PROGRESS OF THE WORK, ALL REASONABLE SAFEGUARDS FOR SAFETY AND PROTECTION, INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS, PROMULGATING SAFETY REGULATIONS AND NOTIFYING OWNERS AND USERS OF ADJACENT UTILITIES OF THE EXISTENCE OF HAZARDS AND OF THE SAFETY REGULATIONS.
21. ALL DAMAGE OR LOSS TO ANY PROPERTY REFERRED TO IN HEREIN CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, A SUBCONTRACTOR, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL BE REMEDIED BY THE CONTRACTOR, EXCEPT DAMAGE OR LOSS PROPERLY ATTRIBUTABLE SOLELY TO THE ACTS OR OMISSIONS OF THE OWNER, OR THE ENGINEER OR ANYONE EMPLOYED BY THEM, OR FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, AND NOT PROPERLY ATTRIBUTABLE IN WHOLE OR IN PART, TO THE FAULT OR NEGLIGENCE OF THE CONTRACTOR.
22. UNTIL FINAL ACCEPTANCE OF THE WORK BY OWNER, THE CONTRACTOR SHALL HAVE THE CHARGE AND CARE OF AND SHALL BEAR THE RISK OF INJURY OR DAMAGE, LOSS OR EXPENSE TO ANY PART THEREOF, OR TO ANY MATERIALS STORED ON SITE, BY THE ACTION OF THE ELEMENTS OR FROM ANY OTHER CAUSE WHETHER ARISING FROM THE EXECUTION OR NON-EXECUTION OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD ALL INJURIES OR DAMAGES TO ANY PORTION OF THE WORK OCCASIONED BY ANY OF THE ABOVE CAUSES BEFORE FINAL ACCEPTANCE AND SHALL BEAR THE EXPENSES THEREOF.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA AND SCHEDULES, AND SIGNING FOR SAID INSPECTIONS.
24. THE CONTRACTOR SHALL CONTROL AND BE RESPONSIBLE FOR THEIR OPERATIONS AND THOSE OF THEIR SUBCONTRACTORS AND ALL SUPPLIERS, TO ASSURE THE LEAST INCONVENIENCE TO THE PUBLIC. THE CONTRACTOR SHALL MAINTAIN FREE AND UNOBSTRUCTED MOVEMENT OF VEHICULAR TRAFFIC AND SHALL LIMIT THEIR OPERATIONS IN RELATION TO THE SAFETY AND CONVENIENCE OF THE TRAVELING PUBLIC. UNDER ALL CIRCUMSTANCES, SAFETY SHALL BE THE MOST IMPORTANT CONSIDERATION.
25. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE POLICIES AND GUIDELINES ESTABLISHED BY ALL AGENCIES HAVING JURISDICTION FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY OF ANY CHARACTER, DURING THE EXECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLECT, OR MISCONDUCT IN THEIR MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANYTIME DUE TO DEFECTIVE WORK OR MATERIALS.
26. THE CONTRACTOR SHALL NOT EXCAVATE, REMOVE, OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES OR GRADING SECTIONS ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATION OR REMOVAL IS PROVIDED FOR IN THE CONTRACT, PLANS OR SPECIFICATIONS.
27. THE CONTRACTOR SHOULD VERIFY THE QUANTITIES AND LENGTHS OF MATERIALS SHOWN ON THE PLANS. ANY DISCREPANCY BETWEEN MATERIAL CALLOUTS AND ACTUAL SHOWN IN PLAN VIEW IS TO BE BROUGHT TO THE ENGINEER'S ATTENTION BY THE CONTRACTOR PRIOR TO BIDDING. IT IS THE ENGINEER'S INTENTION TO CONSTRUCT WHAT IS SHOWN ON THE PLANS.
28. ANY DISCREPANCY BETWEEN THE DIMENSIONS AND MEASUREMENTS SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION. FAILURE TO DO SO AND TO CONTINUE CONSTRUCTION SHALL MAKE THE CONTRACTOR RESPONSIBLE FOR ALL ERRORS AND NECESSARY CORRECTIONS THAT MAY SUBSEQUENTLY ARISE.

EROSION CONTROL

1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND ALL REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT.
2. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ACCORDING TO EPA/FDEP NPDES CRITERIA TO MINIMIZE EROSION AND INSURE PROPER FUNCTIONING OF STORM WATER MANAGEMENT SYSTEM UPON COMPLETION OF CONSTRUCTION. IN ADDITION TO MEETING EPA/FDEP NPDES CRITERIA, THE SWPPP SHALL BE SUBMITTED TO AND COMPLY WITH LOCAL AGENCY HAVING JURISDICTION'S MINIMUM EROSION CONTROL CRITERIA.
3. CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORTATION OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT AS THOSE THAT EXIST PRIOR TO COMMENCEMENT OF CONSTRUCTION. THIS CONDITION MUST BE SATISFIED UNTIL PROJECT IS FULLY COMPLETED AND ACCEPTED. CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE ON TEMPORARY EROSION CONTROL FEATURES AT HIS EXPENSE. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGH OUT THE LIFE OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE HAY BALES, SILT BARRIERS, MURAFI FILTERS, TEMPORARY GRASSING, ETC., AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION. CONTRACTOR SHALL PROVIDE CONTINUOUS MONITORING OF EROSION AND SEDIMENT CONTROLS TAKEN AND SHALL DOCUMENT ALL CORRECTIVE MEASURES. A COPY OF THE APPROVED SWPPP SHALL BE KEPT ON SITE AT ALL TIMES FOR REVIEW BY OWNER'S REPRESENTATIVE AND BY NPDES INSPECTORS. THIS PERMIT MUST BE SUBMITTED TO CITY OF ORLANDO BY THE CONTRACTOR PRIOR TO THE ISSUANCE OF PERMITS.
4. THE OWNER AND/OR CONTRACTOR SHALL PROVIDE A NOTICE OF INTENT IN ACCORDANCE WITH CRITERIA SET FORTH IN THE NPDES PERMIT REQUIREMENTS 48 HOURS PRIOR TO BEGINNING CONSTRUCTION, CLEARING, OR DEMOLITION.
5. PROVIDE EFFECTIVE TEMPORARY AND PERMANENT EROSION CONTROL FOLLOWING THE REQUIREMENTS IN SECTION 104 OF THE STATE DEPT. OF TRANSPORTATION STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. (F.D.O.T. SECTION 104)
6. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENTATION RESULTING FROM SURFACE RUNOFF UNTIL COMPLETION OF ALL CONSTRUCTION OPERATION THAT MAY CAUSE SEDIMENT RUNOFF. FILTER FABRIC SHALL BE PLACED AND MAINTAINED UNDER THE GRATE AND FILTER SOCKS PLACED IN FRONT OF THE THROAT OF CURB INLETS, DURING CONSTRUCTION.
7. TURBIDITY BARRIERS MUST BE INSTALLED AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SEDIMENTS AND SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO CONSTRUCTION. TURBIDITY BARRIERS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED, SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.
8. ALL SLOPES 5:1 OR GREATER SHALL BE SODDED. ALL POND SLOPES AND RIGHTS-OF-WAY SHALL BE SODDED.
9. IN ACCORDANCE WITH FDEP AND WATER MANAGEMENT DISTRICT PERMITS, ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS OF NO CONSTRUCTION ACTIVITES.

DEMOLITION AND CLEARING

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CLEARLY DESIGNATE THE LIMITS OF CONSTRUCTION ON-SITE. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE THE LIMITS OF CONSTRUCTION.
2. THE CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES THAT ARE TO BE SAVED, WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD.
3. ALL PRACTICAL AND NECESSARY EFFORT SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL.
4. ANY PROPOSED CUT OR FILL MATERIAL TO BE REMOVED OR PLACED WITHIN THE DRIP LINE OF SPECIMEN TREES TO REMAIN, INCLUDING TRENCHING FOR PROPOSED IMPROVEMENTS SUCH AS UTILITIES, WILL REQUIRE THE ADVANCED PRE-TREATMENT OF EACH IMPACTED TREE BY A QUALIFIED ARBORIST OR AT THE DIRECTION OF THE LANDSCAPE ARCHITECT TO MINIMIZE THE POTENTIALLY ADVERSE IMPACTS OF CONSTRUCTION.
5. TREE PROTECTION BARRICADES OR EQUIVALENT PROTECTIVE MEASURES WILL BE CONSTRUCTED ACCORDING TO THE LOCAL JURISDICTION'S CRITERIA FOR TREES TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION.
6. IN AREAS REQUIRING FILL MATERIAL, THE CONTRACTOR SHALL STRIP OR OTHERWISE REMOVE ALL VEGETATION SUCH AS BRUSH, HEAVY SODS, HEAVY GROWTH OF GRASS, DECAYED VEGETATION MATTER, RUBBISH AND ANY OTHER DELETERIOUS MATERIAL BEFORE EMBANKMENT IS PLACED. IMMEDIATELY PRIOR TO THE PLACING OF FILL MATERIAL, THE ENTIRE AREA UPON WHICH FILL IS TO BE PLACED, SHALL BE SCARIFIED IN A DIRECTION APPROXIMATELY PARALLEL TO THE AXIS OF FILL. THE GEOTECHNICAL ENGINEER SHALL APPROVE THE AREA PRIOR TO THE PLACEMENT OF FILL.

PAVING, GRADING & DRAINAGE

1. THE CONTRACTOR SHALL PERFORM ALL WORK PERTAINING TO DRAINAGE INCLUDING EXCAVATION OF STORMWATER MANAGEMENT PONDS OR EQUIVALENT FACILITIES PRIOR TO THE COMMENCEMENT OF OTHER WORK INCLUDED IN THESE PLANS.
2. THE CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE RECORD PLAT. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT THE PLAT IS CORRECT PRIOR TO ANY CONSTRUCTION. IF A PLAT DOES NOT EXIST, CONTRACTOR IS TO VERIFY USE OF THE SURVEY FOR LAYOUT WITH ENGINEER PRIOR TO STARTING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO INSURE CORRECT POSITIONING, BOTH HORIZONTAL AND VERTICAL, INCLUDING MINIMUM BUILDING SETBACKS PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT. ANY DISCREPANCY BETWEEN PLATTED INFORMATION AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY AND IN WRITING.
3. PRIOR TO INITIATING ANY EXCAVATION (INCLUDING BUT NOT LIMITED TO TUNNELS, DITCHES, STORM WATER PONDS, CANALS, ARTIFICIAL LAKES) CONTRACTOR SHALL INSTALL FENCES AND TAKE ALL OTHER REASONABLE AND PRUDENT STEPS TO INSURE THAT ACCESS TO EXCAVATION BY UNAUTHORIZED PERSONNEL IS PREVENTED.
4. ALL DRAINAGE STRUCTURES ARE TO BE TRAFFIC BEARING UNLESS OTHERWISE NOTED. ALL PRECAST CIRCULAR STRUCTURES SHALL BE CONSTRUCTED WITH A MINIMUM 5-INCH WALL THICKNESS.
5. ALL PROPOSED PAVING SURFACES IN INTERSECTIONS AND ADJACENT EXISTING SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE PROPOSED GRADES AND FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS IN GRADE, AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS MAY REQUIRE MINOR LOCAL FIELD ADJUSTMENTS SHOULD ACTUAL CONDITIONS VARY FROM THE SURVEYED INFORMATION THE DESIGN WAS BASED UPON IN ORDER TO ACCOMPLISH THE INTENT OF THE PLANS. IN ADDITION, THE STANDARD CROWN WILL HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND CONSULT THE ENGINEER AS NEEDED TO MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTIONS SHOULD THE INTENT OF THE PLANS BE UNCLEAR.
6. CONSTRUCTION OF ROADWAYS SHALL MEET THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE LOCAL AGENCY(S) HAVING JURISDICTION AND THE MINIMUM SUGGESTED SECTIONS AS OUTLINED IN THE SOILS REPORT'S RECOMMENDATIONS, UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY EXCESS CUTS OR SUPPLYING FILL AS NECESSARY TO GRADE THE SITE TO THE PROPOSED ELEVATIONS AS DESIGNED WITHIN THE CONSTRUCTION DOCUMENTS.
8. IF LIMESTONE BEDROCK IS ENCOUNTERED DURING EXCAVATION OF THE RETENTION BASINS OR A SINKHOLE OR SOLUTION CAVITY FORMS DURING CONSTRUCTION, EXCAVATION OF THE BASIN MUST BE HALTED IMMEDIATELY, THE OWNER, ENGINEER, AND WATER MANAGEMENT DISTRICT MUST BE NOTIFIED, AND REMEDIAL ACTION WILL BE REQUIRED. THE PERMITEE MUST INSPECT ALL PERMITTED SURFACE WATER MANAGEMENT BASINS MONTHLY FOR THE OCCURRENCE OF SINKHOLES AND DOCUMENT THESE INSPECTIONS ON WATER MANAGEMENT DISTRICT CONDITION COMPLIANCE FORM NUMBER EN-33. TWO COPIES OF THE COMPLETED FORMS MUST BE SENT TO THE WATER MANAGEMENT DISTRICT AND THE LOCAL AGENCY HAVING JURISDICTION ANNUALLY BY MAY 31ST. OF EACH YEAR. THE PERMITEE MUST REPORT ANY SINKHOLE THAT DEVELOPS WITHIN THE SURFACE WATER MANAGEMENT SYSTEM. THE PERMITEE MUST NOTIFY THE WATER MANAGEMENT DISTRICT AND LOCAL AGENCY HAVING JURISDICTION OF ANY SINKHOLE DEVELOPMENT IN THE SURFACE WATER MANAGEMENT SYSTEM WITHIN 48 HOURS OF ITS DISCOVERY AND COMPLETE SINKHOLE REPAIR WITHIN 10 DAYS OF SUCH DISCOVERY USING A DISTRICT APPROVED METHODOLOGY.
9. AFTER THE ROADWAY HAS BEEN CONSTRUCTED TO SUBGRADE, IT SHALL BE PROOF-ROLLED TO ASSURE THAT PROPER COMPACTION HAS BEEN ATTAINED. THE PROOF-ROLLING AND COMPACTION OPERATIONS SHALL BE INSPECTED AND TESTED BY A FLORIDA LICENSED GEOTECHNICAL ENGINEER TO ASSURE THAT THE SPECIFIED COMPACTION IS MAINTAINED AND ALL DELETERIOUS MATERIALS HAVE BEEN REMOVED.
10. THE CONTRACTOR SHALL INSURE THAT A MINIMUM SOIL DENSITY OF 98% COMPACTION IS ACHIEVED UNLESS OTHERWISE NOTED FOR PLACEMENT OF ALL HEADWALL/ENDWALL FOOTINGS, RETAINING WALL FOOTINGS, AND IN GENERAL, ANY FOOTING SUPPORT DESCRIBED ON THESE PLANS. IT WILL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT SUFFICIENT GEOTECHNICAL TESTING AND DESIGN HAS BEEN PERFORMED PRIOR TO CONSTRUCTION.
11. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN THE CENTER OF THE DRIVING LANE OPPOSITE EACH FIRE HYDRANT.
12. STORM PIPE LENGTHS SHOWN ON THE PLANS INCLUDE MITERED END SECTIONS. IF THE CONTRACTOR ELECTS TO USE AN APPROVED ALTERNATE, THE PIPE LENGTHS MUST BE ADJUSTED.
13. INLET OFFSETS ARE TO THE CENTERLINES SHOWN ON F.D.O.T. DESIGN STANDARDS INDEXES.
14. THE CONTRACTOR IS RESPONSIBLE FOR PAVING ALL ROADWAYS TO DRAIN POSITIVELY. INTERSECTIONS SHALL BE TRANSITIONED TO PROVIDE A SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. IF AN AREA OF POOR DRAINAGE IS OBSERVED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PAVING SO THAT A SOLUTION OR RECOMMENDATION FOR CORRECTION MAY BE MADE.
15. ALL REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE MINIMUM CLASS III , UNLESS OTHERWISE APPROVED OR NOTED ON THE PLANS OR SPECIFICATIONS.
16. ALL STORMWATER PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC.

PUBLIC RIGHTS-OF-WAY

1. THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY WITH THE RESPECTIVE LOCAL AGENCY(S) HAVING JURISDICTION (CITY OR COUNTY) DIRECTOR OF PUBLIC WORKS AND THE JURISDICTION'S ENGINEER. IN ADDITION, ANY WORK WITHIN A STATE ROAD RIGHT-OF-WAY MUST BE APPROVED AND COORDINATED WITH THE FDOT THROUGH THE LOCAL MAINTENANCE OFFICE FOR EACH DISTRICT.
2. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC OR UTILITY RIGHT-OF-WAY, CONTRACTOR SHALL OBTAIN AUTHORIZATION AND PERMIT FROM ALL JURISDICTIONS RESPONSIBLE FOR SUCH RIGHT-OF-WAY.
3. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL DEVELOP AND SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE LOCAL AGENCY HAVING JURISDICTION OVER SAID ROW FOR THEIR APPROVAL. THIS PLAN MUST MEET THE MINIMUM REQUIREMENTS AS OUTLINED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION AND THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS.

UTILITIES

UTILITY PROVIDERS:
WATER: -------------------------- CITY OF LAKE CITY
SANITARY SEWER: ---------- CITY OF LAKE CITY
SOLID WASTE: ---------------- CITY OF LAKE CITY
ELECTRIC: ---------------------- CLAY ELECTRIC
TELEPHONE: ----------------- AT&T
CABLE: --------------------------- COMCAST
GAS: ------------------------------ CITY OF LAKE CITY

1. THE EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AS TO SIZE, LOCATION, AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING SIZE, TYPE, LOCATION, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFYING THE INVOLVED UTILITY PROVIDERS TO MAKE ANY NECESSARY ARRANGEMENTS FOR RELOCATION, DISRUPTION OF SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. THE RESPECTIVE UTILITY PROVIDERS SHALL RELOCATE UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY PROVIDERS DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED BY THE INVOLVED UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL CONFORM TO FLORIDA STATUTE CHAPTER 556 AND THE SUNSHINE STATE ONE-CALL OF FLORIDA.
3. CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS AND THE SUNSHINE UNDERGROUND UTILITIES NOTIFICATION CENTER AT 1-800-432-4770 AT LEAST 72 HOURS PRIOR TO START OF WORK. CONTRACTOR IS RESPONSIBLE FOR CONTINUAL MAINTENANCE OF ALL UTILITY LOCATES, FLAGS, MARKING, ET CETERA THROUGH THE ENTIRE DURATION OF CONSTRUCTION.
4. UTILITY SERVICES TO THE PROPOSED BUILDING(S) SHALL TERMINATE 5 FEET OUTSIDE OF THE BUILDING UNLESS OTHERWISE NOTED. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL REVIEW BUILDING ARCHITECTURAL AND PLUMBING PLANS TO VERIFY PROPER CONTINUATION OF THE PROPOSED UTILITIES FOR LOCATION, ALIGNMENT AND ELEVATION(S) FOR EACH SERVICE TO THE BUILDING(S). SHOULD UTILITY SERVICE LATERALS SHOWN ON THE SITE CIVIL CONSTRUCTION PLANS NOT CORRESPOND WITH BUILDING ARCHITECTURAL OR PLUMBING PLANS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
5. THE POWER DISTRIBUTION SYSTEM SHALL BE DESIGNED AND INSTALLED BY THE POWER SERVICE PROVIDER. THE CONTRACTOR SHALL COORDINATE WITH SAID POWER SERVICE PROVIDER TO INSURE PROPER CONSTRUCTION PHASING IS ACHIEVED, AND TO ALLOW THE INSTALLATION OF STREET CROSSINGS, SLEEVES, CONDUITS, POLES, TRANSFORMERS, AND OTHER REQUIRED EQUIPMENT. IT IS THE OWNER'S RESPONSIBILITY TO ACQUIRE ANY NECESSARY EASEMENTS AS A RESULT OF THE POWER SERVICE PROVIDER'S DESIGN AND RESPECTIVE INSTALLATION LOCATIONS.
6. THE TELEPHONE, CABLE TV, DATA, AND/OR COMMUNICATION SYSTEMS SHALL BE DESIGNED AND INSTALLED BY THEIR RESPECTIVE SERVICE PROVIDER. THE CONTRACTOR SHALL COORDINATE WITH SAID SERVICE PROVIDER TO INSURE PROPER CONSTRUCTION PHASING IS ACHIEVED, CONFLICT FREE, AND TO ALLOW THE INSTALLATION OF STREET CROSSINGS, SLEEVES, CONDUITS, POLES, AND OTHER REQUIRED EQUIPMENT. IT IS THE OWNER'S RESPONSIBILITY TO ACQUIRE ANY NECESSARY EASEMENTS AS A RESULT OF THE SERVICE PROVIDERS' DESIGNS AND RESPECTIVE INSTALLATION LOCATIONS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY COORDINATE THE FINAL DESIGNS AND SUBSEQUENT INSTALLATIONS OF ALL SERVICE PROVIDERS' UTILITIES AND THEIR MINIMUM CRITERIA AS SET FORTH THEREIN FOR ITEMS SUCH AS MAINTAINING THE MINIMUM SEPARATION DISTANCES BETWEEN THE VARIOUS UTILITIES.
8. UNLESS OTHERWISE NOTED, THE TOP 24 INCHES OF ALL UTILITY TRENCHES WITHIN ROADWAYS IN MAXIMUM 12" LIFTS, SHALL BE COMPACTED TO 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY; ALL OTHER UTILITY TRENCHES SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DENSITY.
9. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE UTILITIES CONSTRUCTION DEPARTMENT FOR THE CORRESPONDING LOCAL UTILITY PROVIDED A MINIMUM OF 48 HOURS PRIOR TO STARTING ANY UTILITIES CONSTRUCTION.
10. PIPE ALIGNMENT, DEFLECTION, AND INTEGRITY TESTING SHALL BE PERFORMED BY THE 'LAMPING' METHOD AND UTILIZING VIDEO INSPECTION. THE CONTRACTOR SHALL PERFORM INTERNAL VIDEO INSPECTION FOR THE GRAVITY SEWER TO CHECK PIPE ALIGNMENT AND DEFLECTION.
11. ALL FIRE HYDRANTS AND APPARATUS MUST COMPLY WITH FFPC SECTION 3-5.6 AND SECTION 3-7.1 WHEN APPLICABLE.
12. MAXIMUM SPACING OF FIRE HYDRANTS IS 500' IN ACCORDANCE WITH CITY CODE 24.30 (F)(L).
13. UNDERGROUND MAIN CONTRACTOR MUST APPLY FOR A FIRE PERMIT FOR THE INSTALLATION OR MODIFICATION OF ANY UNDERGROUND MAINS SERVING FIRE HYDRANTS AND/OR FIRE PROTECTION SYSTEMS PRIOR TO ANY INSTALLATION. IF THE WATER DISTRIBUTION SYSTEM AND FIRE HYDRANTS ARE LOCATED IN A RIGHT-OF-WAY OR RECORDED EASEMENT AND OWNED/INSTALLED/MAINTAINED BY THE WATER PURVEYOR, WE WILL ONLY REQUIRE INSTALLATION TO THE WATER PURVEYOR'S STANDARDS FOR UNDERGROUND COMPONENTS AND CONNECTIONS. HOWEVER, HYDRANTS MUST BE IN COMPLIANCE WITH HYDRANT SPACING, LOCATION, DISTRIBUTION, COLOR CODING, AND NEEDED FIRE FLOW MINIMUS AS SPECIFIED IN CITY FIRE CODE, UNDERGROUND MAIN AND FIRE HYDRANT INSTALLATIONS ON PRIVATE PROPERTY WILL REQUIRE AN FIR PERMIT AND FULL COMPLIANCE WITH NFPA 24. [CITY FIRE CODE, SECTION 24.13(T)(13)].

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BOARD OF COUNTY
COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

GENERAL NOTES

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C02

POTABLE WATER

1. ALL PVC WATERMAINS 2" OR LESS SHALL BE SDR21 (200 PSI) UNLESS OTHERWISE NOTED.

2. WATER MAINS SHALL COMPLY WITH AWWA STANDARDS. ALL PVC PIPE 3 TO 12 INCHES SHALL BE AWWA C900 DR18; ALL PVC PIPE 14 INCHES AND LARGER SHALL COMPLY WITH AWWA C905 DR25. ALL WATER MAINS SHALL BEAR THE NSF LOGO AND SHALL BE COLOR-CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM OTHER WATER LINES.

3. WHERE DUCTILE IRON PIPE IS REQUIRED FOR WATER MAINS, IT SHALL CONFORM TO ANSI/AWWA A21.51. A MINIMUM THICKNESS FOR PRESSURE CLASS 350 PER ANSI/AWWA SHALL BE SUPPLIED. DIP SIZES UP TO 12 INCHES IN DIAMETER SHALL BE PRESSURE CLASS 350. DIP SIZES 14 INCHES AND LARGER SHALL BE PRESSURE CLASS 250.

4. ALL WATER MAIN FITTINGS, VALVES, RESTRAINTS, COUPLINGS, PIPE, AND IN GENERAL, THOSE MATERIALS REQUIRED FOR INSTALLING THE WATER SUPPLY SYSTEM, SHALL COMPLY WITH THE MINIMUM MATERIAL STANDARDS, RATINGS AND CLASSIFICATIONS ESTABLISHED BY THE RESPECTIVE UTILITY PROVIDER. ALL WATER MAIN FITTINGS SHALL BE DIP FOR ALL 3" THRU 12" PVC AND DIP WATER MAINS CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C153/A21.53 AND EPOXY COATED EXTERIOR, UNLESS NOTED OTHERWISE. .THESE FITTINGS SHALL INCORPORATE RESTRAINING RINGS, MEGA-LUGS OR OTHER APPROVED EQUIVALENT MECHANICAL DEVICES.

5. DUCTILE IRON PIPE AND FITTINGS SHALL HAVE A CEMENT MORTAR INTERIOR LINING CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C104/A21.4.

6. VALVES FOR POTABLE AND RAW WATER MAINS SHALL BE DUCTILE IRON (D.I.) EPOXY COATED GATE VALVES OR BUTTERFLY VALVES. SEE SPECIFICATIONS FOR DETAILS.

7. ALL POLYETHYLENE PRESSURE PIPE AND FITTINGS 4-INCH AND LARGER SHALL CONFORM TO AWWA STANDARD C906-99 (DR11) PRESSURE CLASS 160 AND ASTM STANDARD D3350, D2837 PE 3408.

8. ALL POLYETHYLENE PIPES FOR SERVICE TUBING SHALL CONFORM TO AWWA STANDARD C901 (DR9) PRESSURE CLASS 200 AND STANDARD D2737 PE 3408.

9. ALL PIPE AND POLYETHYLENE SERVICE TUBING SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL OF APPROVAL FOR POTABLE WATER SERVICE.

10. PVC PIPE LESS THAN 2-INCHES SHALL CONFORM TO ASTM D1785. THREADED PIPE AND FITTINGS SHALL BE SCH. 80 AND CONFORM TO ASTM D2464. UNTHREADED PIPE AND FITTINGS SHALL BE SCH. 40 WITH SOLVENT-CEMENTED JOINTS. CEMENTED JOINTS AND FITTINGS SHALL COMPLY WITH ASTM D2466 AND D2855.

11. 2", 2.5 " AND 3" PVC PIPE SHALL CONFORM TO ASTM D2241. PIPE SHALL BE FURNISHED IN 20-FOOT LENGTHS, SHALL HAVE DIMENSION RATIO (DR21) AND A WATER PRESSURE RATING OF 200 PSI.

12. PIPE MEASUREMENTS SHALL BE CENTER TO CENTER OF FITTINGS OR VALVES.

13. CONTRACTOR SHALL PROVIDE TEMPORARY THRUST RESTRAINTS, BRACING, TEST PLUGS AND/OR OTHER DEVICES NECESSARY TO SUCCESSFULLY COMPLETE PRESSURE TESTING OF ALL PRESSURE PIPING SYSTEMS, ANCILLARY TO THE WORK.

14. AUTOMATIC AIR RELASE/VACUUM AIR RELEASE VALVES FOR UNDERGROUND INSTILLATION SHALL CONFORM WITH 62-555.320(21)(B)FAC & RSWW 8.4.2.

15. ALL BURIED PIPING SPECIFIED FOR PRESSURE SERVICE SHALL BE PROVIDED WITH RESTRAINING DEVICES AT ALL DIRECTIONAL CHANGES, UNLESS NOTED OTHERWISE.

16. ALL FASTENERS SHALL BE MANUFACTURED OF NON-CORROSIVE MATERIALS.

17. LOCATIONS AND DIMENSIONS OF EXISTING RIGHTS-OF-WAY AND EASEMENTS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ALL THE LIMITS OF RIGHTS-OF-WAY AND EASEMENTS IN ORDER TO AVOID ENCROACHMENTS.

18. THE CONTRACTOR SHALL REPAIR OR REPLACE WITH EQUAL MATERIALS IN KIND OR AS DIRECTED BY THE OWNER OR INSPECTOR ANY ITEMS DISTURBED OR DAMAGED BY THE UTILITY CONSTRUCTION OR ITS RELATED ACTIVITIES FOR ITEMS SUCH AS BUT NOT LIMITED TO, PAVING, STABILIZED EARTH, DRIVEWAYS, ETC.

19. CONTRACTOR SHALL PAINT THE HYDRANTS ACCORDING TO FIRE DEPARTMENT REQUIREMENTS.

20. WHERE APPLICABLE FIRE HYDRANTS SHALL BE INSTALLED WITHIN THE ROW.

21. PROPER BACKFLOW PREVENTION ASSEMBLIES SHALL BE PROVIDED IN ACCORDANCE WITH RULE 62-555.360, F.A.C. AND AWWA MANUAL M14, "RECOMMENDED PRACTICE FORBACKFLOW PREVENTION AND CROSS CONNECTION CONTROL" (LATEST EDITIONS) AS INCORPERATED IN RULE 62-555-330 FAC. THE METHOD OF CONNECTION TO THE EXISTING ACTIVE MAIN SHOULD BE CHOSEN TO ENCSURE THAT THE PRESSURE DOES NOT DROP BELOW 20PSI OTHERWISE A BOIL WATER NOTICE IS REQUIRED TO BE ISSUED BY THE UTILITY SUPPLYING THE WATER.

22. CONTRACTOR SHALL COORDINATE WITH AGENCY HAVING JURISDICTION AND WATER SERVICE PROVIDER TO HAVE WATER SAMPLES TAKEN AT LOCATIONS AS SPECIFIED BY THEIR MINIMUM STANDARDS AND AS OUTLINED IN THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT FOR CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM (IF PERMIT IS REQUIRED). DOCUMENTATION OF THE MINIMUM TESTING RESULTS SUCH AS BACTERIOLOGICAL REPORTS WITH RESIDUAL CL LEVELS SHALL BE SUBMITTED TO THE ENGINEER WITHIN 4 DAYS FROM THE DAY OF SAMPLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND VERIFY THE RESULTS AS PASSING PRIOR TO SUBMITTAL TO THE ENGINEER.

23. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS, LATEST REVISIONS. HYDROSTATIC TESTING FOR PVC MAINS SHALL BE 150 PSI FOR MINIMUM OF 2 HOURS AND MEET AWWA STANDARD C605/M23. DUCTILE IRON MAINS SHALL BE TESTED AT 150 PSI FOR 2 HOURS PER AWWA C600. ALL NEW MAINS SHALL BE DISINFECTED PER AWWA STANDARD C651. BACTERIOLOGICAL TESTS FOR 2 CONSECUTIVE DAYS SHALL BE APPROVED PRIOR TO PLACING SYSTEM INTO SERVICE.

24. ALL WATER MAINS SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE INSTALLED CONTINUOUSLY ALONG THE ENTIRE LENGTH. THE PROTECTION TAPE SHALL BE INSTALLED DURING THE BACKFILLING 6 TO 12 INCHES BELOW FINISH GRADE DIRECTLY OVER THE PIPE AND BE CONTINUOUSLY MARKED WITH "CAUTION - WATER MAIN BURIED BELOW". THE TAPE SHALL HAVE AN EMBEDDED METALLIC DETECTABLE STRIP AND BE BLUE IN COLOR FOR POTABLE WATER.

25. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS FOR APPROVAL TO THE ENGINEER AND WATER SERVICE PROVIDER PRIOR TO PROCUREMENT.

WATER LINE CONSTRUCTION NOTES PER FDEP

1. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED WILL CONFIRM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.

2. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE INSTALLED AND THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61 AS ADOPTED IN RULE 62-555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATIONS, OR REQUIREMENTS REFERENCED IN PARAGRAPH 62-55.320 (3)(B), F.A.C.

3. ALL PIPE AND PIPE FITTINGS INSTALLED WILL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LEAD.

4. ALL PIPE AND PIPE FITTINGS INSTALLED WILL BE COLOR-CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320 (21)(B) 3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR-CODED OR MARKED LIKE UNDERGROUND PIPE.)

5. ALL FIRE HYDRANTS THAT HAVE UNPLUGGED, UNDERGROUND DRAINS WILL BE LOCATED AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., OR VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-10, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM".

6. NEW OR ALTERED CHAMBERS, PITS, OR MANHOLES THAT CONTAIN VALVES, BLOW-OFFS, METERS, OR OTHER SUCH WATER DISTRIBUTION SYSTEMS APPURTENANCES WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER, AND BLOW-OFFS OR AIR RELIEF VALVES INSTALLED UNDER THIS PROJECT WILL NOT BE CONNECTED DIRECTLY TO ANY SANITARY OR STORM SEWER.

7. NEW OR ALTERED WATER MAINS WILL BE INSTALLED IN ACCORDANCE WITH APPLICABLE AWWA STANDARDS OR IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDED PROCEDURES.

8. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE; AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE.

9. ALL WATER MAIN TEES, BENDS, PLUGS, AND HYDRANTS INSTALLED WILL BE PROVIDED WITH RESTRAINED JOINTS TO PREVENT MOVEMENT.

10. WATER MAINS THAT ARE CONSTRUCTED OF ASBESTOS-CEMENT OR POLYVINYL CHLORIDE PIPE WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C., AND ALL OTHER NEW OR ALTERED WATER MAINS INCLUDED IN THIS PROJECT WILL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-555.330 FAC.

11. WATER MAINS, INCLUDING FIRE HYDRANT LEADS AND INCLUDING SERVICE LINES THAT WILL BE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER, WILL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62-555.340, F.A.C.

12. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY-SEWER.

13. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY-OR VACUUM-TYPE SANITARY SEWER, SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 6 INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

14. AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY-OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

15. WHERE AUTOMATIC AIR RELIEF VALVES ARE INSTALLED THE ARV WILL BE EXTENDED SUCH THAT THE OPEN END OF THE AIR RELIEF PIPE WILL BE SEPARATED FROM THE GROUND BY AT LEAST ONE FOOT AND WILL BE PROVIDED WITH A SCREENED, DOWNWARD FACING ELBOW.

SANITARY GRAVITY & FORCE MAINS

1. ALL PVC GRAVITY SANITARY SEWER SHALL BE SDR35, UNLESS OTHERWISE NOTED; AND ALL PVC SANITARY SEWER FORCEMAIN 4" THRU 12" SHALL BE C900/DR18, UNLESS OTHERWISE NOTED.

2. LEAKAGE TESTS FOR THE SANITARY SEWER SYSTEM SHALL MEET PROVIDER'S SPECIFICATIONS USING THE LOW PRESSURE AIR TEST METHOD, 5 PSI FOR 5 MINUTES AND SHALL NOT EXCEED 400 FEET IN LENGTH AND SHALL BE TESTED BETWEEN ADJACENT MANHOLES AND SHALL INCLUDE ALL LATERALS.

3. ALL PVC SANITARY FORCE MAINS SHALL BE COLOR-CODED OR MARKED USING GREEN AS A PREDOMINANT COLOR TO DIFFERENTIATE THE FORCE MAIN FROM OTHER UTILITY LINES.

4. MINIMUM SLOPE ALLOWED FOR SANITARY SEWER PIPE IS 0.40%.

5. PVC PIPE AND FITTINGS 4-INCHES THROUGH 15-INCHES SHALL CONFORM TO ASTM D3034, SDR35 OR 26.

6. PVC PIPE AND FITTINGS 18-INCHES THROUGH 27-INCHES SHALL CONFORM TO ASTM F679-T1, SDR35.

7. PVC PIPE AND FITTINGS SHALL BE SOLID GREEN IN COLOR.

8. DUCTILE IRON PIPE FOR GRAVITY OR NON-PRESSURE SERVICE SHALL BE DESIGNED IN ACCORDANCE WITH AND CONFORMING TO THE REQUIREMENTS OF ASTM A746 FOR INSTALLATION WITH TRENCH TYPE II, OR IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51.

9. DUCTILE IRON FITTINGS FOR USE IN GRAVITY OR NON-PRESSURE SERVICE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C153/A21.53, COMPACT DUCTILE IRON FITTINGS.

10. DUCTILE IRON PIPE AND FITTINGS FOR GRAVITY OR NON-PRESSURE SERVICE SHALL HAVE AN INTERIOR LINING CONSISTING OF A MINIMUM 40 MILS OF A CERAMIC EPOXY COATING. REFER TO SPECIFICATIONS FOR DETAILS.

11. MATERIAL FOR GRAVITY SEWER PIPE AND FITTINGS SHALL BE AS SHOWN FOR THE FOLLOWING DEPTHS OF EXCAVATION: A. 5' TO 12' PVC, ASTM 3034/ASTM F679, SDR 35 B. LESS THAN 5' OR GREATER THAN 12': PVC, ASTM 3034, SDR 26

12. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS FOR APPROVAL BY THE ENGINEER AND SERVICE PROVIDER PRIOR TO PROCUREMENT.

13. PIPE MEASUREMENTS ON THE MAIN "TRUNK" SEWER SHALL BE FROM CENTER TO CENTER OF MANHOLES OR CLEANOUTS, UNLESS OTHERWISE NOTED.

14. PIPE MEASUREMENTS FOR SERVICE LATERALS SHALL BE FROM THE MAIN "TRUNK" SEWER TO THE PROPERTY LINE. THE DEPTH OF THE LATERAL AT THE PROPERTY LINE SHALL BE MEASURED AND RECORDED ON THE RECORD DRAWINGS.

15. FOR A SCHEDULED INTERRUPTION OF SANITARY SEWER MAIN FLOW, THE CONTRACTOR SHALL PROVIDE TO THE AGENCY HAVING JURISDICTION AND SERVICE PROVIDER FOR REVIEW A WRITTEN SCHEDULE AS TO THE METHOD AND DURATION OF FLOW INTERRUPTION.

16. DURING NORMAL SANITARY SEWER MAIN FLOW INTERRUPTION, THE CONTRACTOR SHALL PROVIDE UNINTERRUPTED BY-PASS FLOW AND SHALL PROVIDE ALL EQUIPMENT NECESSARY TO ACCOMPLISH THE SAME IN THE FORM OF, BUT NOT LIMITED TO, THE FOLLOWING: POWER, PUMPS, PIPING, APPURTENANT VALVES AND FITTINGS AND/OR SEPTIC TANKER TRUCK PUMPING, HAULING AND DISPOSAL SERVICES.

17. CONTRACTOR SHALL PAY FOR INSPECTION OF THE GRAVITY SEWER LINE BY A TV CAMERA SYSTEM. A VHS TAPE AND REPORT SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FINAL INSPECTION BY SERVICE PROVIDER'S AUTHORIZED REPRESENTATIVE.

HAZARDOUS MATERIALS

1. HAZARDOUS MATERIAL MEANS ANY SUBSTANCE: (A) THE PRESENCE OF WHICH REQUIRES INVESTIGATION OR REMEDIATION UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, ORDINANCE, RULE, CODE, ORDER, ACTION, POLICY OR COMMON LAW, OR (B) WHICH IS OR BECOMES DEFINED AS A "HAZARDOUS WASTE," "HAZARDOUS SUBSTANCE," POLLUTANT OR CONTAMINANT UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, RULE OR ORDINANCE OR AMENDMENTS THERETO INCLUDING, WITHOUT LIMITATION, THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (42 U.S.C. SECTIONS 9601 ET SEQ.) AND/OR THE RESOURCE CONSERVATION AND RECOVERY ACT (42 U.S.C. SECTIONS 6901 ET SEQ.), OR (C) WHICH IS TOXIC, EXPLOSIVE, CORROSIVE, FLAMMABLE, INFECTIOUS, RADIOACTIVE, CARCINOGENIC, MUTAGENIC, OR OTHERWISE HAZARDOUS AND IS REGULATED BY ANY GOVERNMENTAL AUTHORITY, AGENCY, DEPARTMENT, COMMISSION, BOARD, AGENCY OR INSTRUMENTALITY OF THE UNITED STATES, THE STATE IN WHICH THE PREMISES ARE LOCATED OR ANY POLITICAL SUBDIVISION THEREOF, OR (D) THE PRESENCE OF WHICH ON THE PREMISES CAUSES OR THREATENS TO CAUSE A NUISANCE UPON THE PREMISES OR TO ADJACENT PROPERTIES OR POSES OR THREATENS TO POSE A HAZARD TO THE HEALTH OR SAFETY OF PERSONS ON OR ABOUT THE PREMISES, OR (E) WHICH CONTAINS GASOLINE, DIESEL FUEL OR OTHER PETROLEUM HYDROCARBONS, OR (F) WHICH CONTAINS POLYCHLORINATED BIPHENYLS (PCBS), ASBESTOS, LEAD OR UREA FORMALDEHYDE FOAM INSULATION.

2. CONTRACTOR AND ITS SUBCONTRACTORS SHALL USE, HANDLE, TRANSPORT, AND DISPOSE OF ALL HAZARDOUS MATERIALS (AS DEFINED HEREIN) IN COMPLIANCE WITH ALL PRESENT FEDERAL, STATE AND LOCAL ENVIRONMENTAL, HEALTH OR SAFETY LAW, INCLUDING, BUT NOT LIMITED TO, ALL SUCH STATUTES, REGULATIONS, RULES, ORDINANCES, CODES, AND RULES OF COMMON LAW.

3. CONTRACTOR FURTHER AGREES THAT CONTRACTOR AND ITS SUBCONTRACTORS SHALL NOT CAUSE THE DISCHARGE, RELEASE OR DISPOSAL OF ANY HAZARDOUS MATERIAL CREATED BY ITS WORK ON OR ABOUT THE JOB SITE. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCY AND SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECT OF SUCH SPILL ON PERSONS OR PROPERTY.

4. CONTRACTOR AND ITS SUBCONTRACTORS SHALL, UPON COMPLETION OF PERFORMANCE OF ALL DUTIES UNDER THIS CONTRACT, REMOVE ALL SUPPLIES, MATERIALS, AND WASTE CONTAINING ANY HAZARDOUS MATERIAL FROM THE JOB SITE. CONTRACTOR SHALL BEAR FULL FINANCIAL RESPONSIBILITY, AS BETWEEN THE PARTIES OF THIS CONTRACT, FOR THE COMPLIANCE OF CONTRACTOR AND ITS SUBCONTRACTORS WITH THE PROVISIONS AS OUTLINED HEREIN.

5. CONTRACTOR AGREES TO INDEMNIFY, DEFEND, PROTECT AND HOLD THE OWNER HARMLESS FROM AND AGAINST ANY CLAIMS INCLUDING, WITHOUT LIMITATION, ACTUAL ATTORNEY'S FEES AND ANY COSTS OF INVESTIGATION, SOILS TESTING, GOVERNMENTAL APPROVALS, REMEDIATION AND CLEANUP ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FAILURE OF CONTRACTOR OR ITS SUBCONTRACTORS, OR THEIR AGENTS, EMPLOYEES, OFFICERS, OR REPRESENTATIVES, TO COMPLY WITH THE TERMS AS DESCRIBED HEREIN.

6. SHOULD CONTRACTOR OR ITS SUBCONTRACTORS DISCHARGE, RELEASE OR DISPOSE OF ANY HAZARDOUS MATERIAL ON OR ABOUT THE JOB SITE IN VIOLATION OF THIS PARAGRAPH, CONTRACTOR SHALL IMMEDIATELY INFORM THE OWNER IN WRITING. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCY(S) AND SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECT OF SUCH SPILL ON PERSONS, PROPERTY OR THE ENVIRONMENT.

7. IN THE EVENT CONTRACTOR OR ITS SUBCONTRACTORS ENCOUNTER ON THE PREMISES ANY PIPELINE, UNDERGROUND STORAGE TANK OR OTHER CONTAINER, OF ANY KIND, THAT MAY CONTAIN A HAZARDOUS MATERIAL, OR ENCOUNTER MATERIAL REASONABLY BELIEVED TO BE A HAZARDOUS MATERIAL, CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THE AREA AFFECTED AND REPORT THE CONDITION TO THE OWNER IN WRITING.

8. IF CONTRACTOR OR ITS SUBCONTRACTORS DO NOT COMPLY WITH THE REQUIREMENTS AS OUTLINED HEREIN, OWNER MAY, BUT IS NOT OBLIGATED TO, GIVE WRITTEN NOTICE OF VIOLATION TO CONTRACTOR. SHOULD CONTRACTOR OR ITS SUBCONTRACTORS FAIL TO COMPLY WITH THE REQUIREMENTS OF THE PARAGRAPH WITHIN TWENTY-FOUR (24) HOURS FROM THE TIME OWNER ISSUES SUCH WRITTEN NOTICE OF NONCOMPLIANCE OR WITHIN THE TIME OF AN ABATEMENT PERIOD SPECIFIED BY ANY GOVERNMENTAL AGENCY, WHICHEVER PERIOD IS SHORTER, CONTRACTOR SHALL BE IN MATERIAL DEFAULT OF THIS CONTRACT.

9. ALL AREAS USED FOR FUEL STORAGE SHALL HAVE THE PROPERTY OWNER'S PRIOR APPROVAL AND APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE PROTECTION OF GROUNDWATER AND SOIL RESOURCES.

PRE-CONSTRUCTION

1. CONTRACTOR SHALL ATTEND A MANDATORY PRE-CONSTRUCTION MEETING WITH THE ENGINEER OF RECORD AND APPLICABLE STAFF OF THE LOCAL AGENCY HAVING JURISDICTION (E.G. CITY OR COUNTY) PRIOR TO ANY DISTURBANCE OF LAND, CLEARING OR DEMOLITION. CONTRACTOR MUST PROVIDE WRITTEN NOTICE OF THE PRE-CONSTRUCTION MEETING'S TIME, DATE AND LOCATION TO THE OWNER AND ENGINEER OF RECORD A MINIMUM OF 48 HOURS PRIOR TO.

2. IF ANY TESTING, INSPECTION OR APPROVAL UNDER THIS PARAGRAPH REVEAL DEFECTIVE WORK, CONTRACTOR SHALL NOT BE ALLOWED TO RECEIVE ANY ASSOCIATED COSTS AND THE OWNER SHALL BE ENTITLED TO DEDUCT FROM THE CONTRACT PRICE, BY ISSUING A CHANGE ORDER, OWNER'S COSTS ARISING OUT OF THE DEFECTIVE WORK, INCLUDING COSTS OF REPEATED PROCEDURES, COMPENSATION FOR ENGINEER'S AND DESIGN ENGINEER'S SERVICES AND OTHER RELATED COSTS.

3. SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

4. THE CONTRACTOR SHALL PROVIDE THE ENGINEER 48-HOUR ADVANCE NOTIFICATION FOR THE FOLLOWING CONSTRUCTION AND OBSERVATION ACTIVITIES:

   SANITARY SEWER LAMPING AND VIDEO INSPECTION
   CONNECTIONS TO EXISTING SYSTEMS
   STORM DRAINAGE LAMPING
   INLET TOP POURS (REINFORCING STEEL CHECK)
   WATER AND FORCE MAIN PRESSURE TESTS
   BACTERIOLOGICAL SAMPLING
   BASE OBSERVATION & SOUNDING
   ASPHALT PLACEMENT
   PRE-FINAL OBSERVATION
   FINAL OBSERVATION

RECORD DRAWINGS & CERTIFICATION

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL OBTAIN A COPY OF THE MINIMUM REQUIREMENTS FOR AS-BUILT RECORD DRAWING ACCEPTANCE FOR THE AGENCY HAVING JURISDICTION (SUCH AS THE CITY OR COUNTY) AND/OR UTILITY SERVICE PROVIDER, FAMILIARIZE THEMSELVES WITH THESE REQUIREMENTS, AND PRODUCE AS-BUILT RECORD DRAWINGS THAT SUBSTANTIALLY COMPLY WITH OR EXCEED THESE REQUIREMENTS, INCLUDING ANY REQUIRED ELECTRONIC DATA SUBMITTALS.

2. AS-BUILT DRAWINGS SHALL BE ACCURATELY RECORDED AND CERTIFIED BY A LICENSED LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA AND SHALL MEET THE MINIMAL TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF SURVEYOR'S AND MAPPERS IN CHARTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027 FLORIDA STATUTES.

3. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE SUFFICIENT AS-BUILT INFORMATION TO CONVEY THAT THE CONSTRUCTION HAS BEEN COMPLETED WITHIN ACCEPTABLE TOLERANCES TO THE APPROVED DESIGN AND SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:

   SANITARY SEWER:
   1. TOP ELEVATION OF EACH MANHOLE FRAME AND COVER.
   2. INVERT OF EACH LINE ENTERING AND LEAVING EACH MANHOLE/STRUCTURE.
   3. LENGTH OF EACH RUN OF MAIN BETWEEN MANHOLES (CENTER TO CENTER).
   4. ACTUAL GRADE OF PIPE BETWEEN MANHOLES.
   5. LOCATE ALL SERVICE WYES FROM DOWNSTREAM MANHOLE WITH DEPTH AT LOT LINE AND DISTANCE FROM THE MAIN LINE.
   6. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS/ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).

   WATER AND REUSE SYSTEM AND FORCE MAINS :
   1. ACTUAL LENGTHS OF PIPE BETWEEN BRANCHES AND VALVES IN THE RUN.
   2. LOCATE WITH MEASUREMENTS FROM PERMANENT VISIBLE OBJECTS ALL FITTINGS/ACCESSORIES NOT VISIBLE FROM THE SURFACE (MINIMUM TWO POINT TIES).
   3. LIST THE DEPTHS OF THE LINES AT ALL VALVES, FITTINGS AND FIRE HYDRANTS.

   OTHER IMPROVEMENTS:
   BUILDING(S), SIDEWALKS, PAVEMENT, CURB & GUTTER. SUBMIT CERTIFIED DRAWINGS TO THE ENGINEER TWO WEEKS PRIOR TO FINAL INSPECTION OF THE WORK TO BE CERTIFIED.

4. THE ENGINEER STRONGLY RECOMMENDS THAT THE CONTRACTOR KEEP A DAILY "AS-BUILT" SET OF DRAWINGS WHILE THE WORK BEING DONE IS VISIBLE EXPOSED ACCORDING TO THE CRITERIA OUTLINED HEREIN.

5. THE ENGINEER RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER, RETEST AND/OR PERFORM ANY ACTION NECESSARY TO ENSURE THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

6. FINAL "AS-BUILT" DRAWINGS FOR POTABLE WATER SHALL CLEARLY INDICATE COMPLIANCE TO MINIMUM SEPARATION DISTANCES OR REQUIRED PIPE UPGRADES. ALL WATER MAIN AND FORCE MAIN PIPE FITTINGS SHALL BE REFERENCED TO AT LEAST TWO VISIBLE REFERENCE POINTS (SWING TIES) AND THE NEAREST DISTANCE TO THE CENTERLINE OF ROAD.

7. THE CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL CERTIFY ALL SITE, UTILITY, AND ROADWAY COMPACTION AND ALL UNDERDRAIN AND PAVEMENT CONSTRUCTION TO BOWYER-SINGLETON & ASSOCIATES, INC.

8. ALL PVC WATER MAINS AND PVC FORCE MAINS SHALL BE INSTALLED WITH A SOLID COPPER "LOCATING WIRE" WITH SUFFICIENT GROUNDING POINTS AT MAXIMUM 500 FEET SPACING.

Dewberry®

Dewberry Engineers Inc.
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COLUMBIA COUNTY DETENTION FACILITY
533 NW QUINTEN STREET
LAKE CITY, FL 32055

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT # 50101397
DRAWN BY TFS
APPROVED BY CJA
CHECKED BY RM
DATE JULY 2020
DATUM NAVD 88

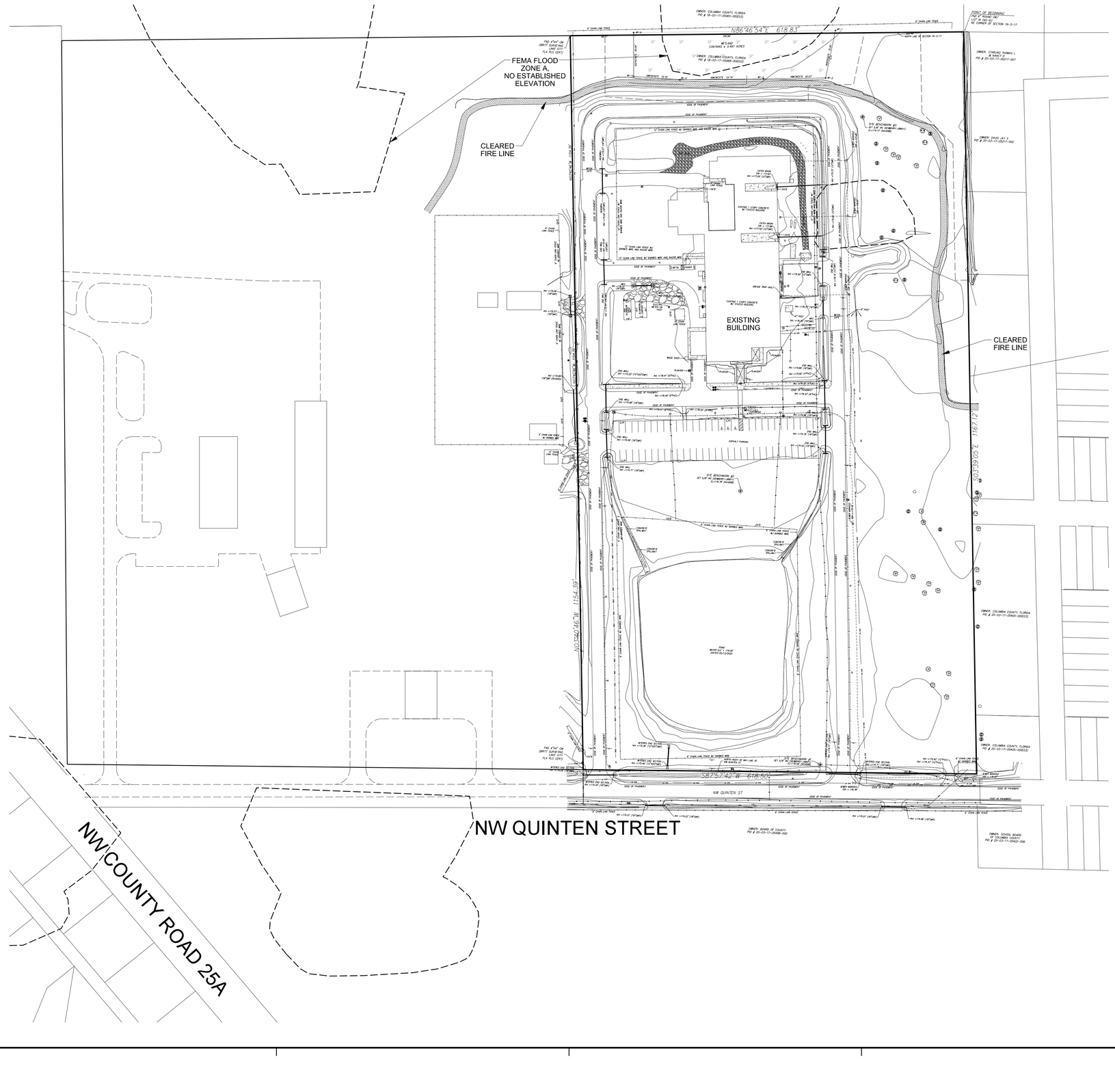
TITLE

GENERAL NOTES

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C03



TREE LEGEND
(SIZE DENOTED INSIDE SYMBOL)

- BAY
- CAMPHOR
- CEDAR
- CHERRY
- CHINABERRY
- CHINESE TALLOW
- CITRUS
- CYPRESS
- DOGWOOD
- ELM
- GUM
- HICKORY
- HOLLY
- LAUREL OAK
- LIVE OAK
- MAGNOLIA
- MAPLE
- MIMOSA
- MISC
- OAK
- PALM
- PECAN
- PINE TREE
- RAIN TREE
- SUGAR HACKBERRY
- SYCAMORE
- WATER OAK
- STUMP

LEGEND AND ABBREVIATIONS:

- ± MORE OR LESS
- EL. ELEVATION
- LB LICENSED BUSINESS
- NO. NUMBER
- LS LAND SURVEYOR
- I.D. IDENTIFICATION
- ORB OFFICIAL RECORDS BOOK
- ℄ CENTERLINE
- R RADIUS
- L ARC LENGTH
- Δ DELTA (CENTRAL ANGLE)
- C.B. CHORD LENGTH
- POC POINT ON CURVE
- POL POINT ON LINE
- PCC POINT OF COMPOUND CURVATURE
- PRC POINT OF REVERSE CURVATURE
- PC POINT OF CURVATURE
- PT POINT OF TANGENCY
- PI POINT OF INTERSECTION
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- FEMA FEDERAL EMERGENCY MANAGEMENT AGENCY
- DIP DUCTILE IRON PIPE
- PVC POLYVINYL CHLORIDE
- CMP CORRUGATED METAL PIPE
- RCP REINFORCED CONCRETE PIPE
- NAVD NORTH AMERICAN VERTICAL DATUM
- NGVD NATIONAL GEODETIC VERTICAL DATUM
- PB PLAT BOOK
- ORB OFFICIAL RECORDS BOOK
- PG(S) PAGE(S)
- R/W RIGHT OF WAY
- ESMT. EASEMENT
- SEC SECTION
- FND FOUND
- REC RECOVERED
- CCR CERTIFIED CORNER RECORD
- RLS REGISTERED LAND SURVEYOR
- CM CONCRETE MONUMENT
- IRC IRON ROD AND CAP
- IR IRON ROD
- IP IRON PIPE
- CLF CHAIN LINK FENCE
- FOUND CONCRETE MONUMENT AS NOTED
- FOUND NAIL AS NOTED
- FOUND NAIL & DISK AS NOTED
- SET NAIL & DISK (LB 8011)
- FOUND IRON ROD & CAP AS NOTED
- FOUND IRON ROD AS NOTED
- SET 5/8" IRON ROD & CAP (LB 8011)
- CONTROL/BENCHMARK AS DESCRIBED
- CURB INLET GRATE
- CATCH BASIN
- STORM MANHOLE
- SANITARY MANHOLE
- SANITARY CLEANOUT
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC RISER BOX
- CABLE TELEVISION RISER BOX
- TELEPHONE RISER BOX
- UTILITY RISER
- WIRE PULLBOX
- WELL
- WATER SPIGOT
- IRRIGATION CONTROL VALVE
- WATER METER
- WATER VALVE
- RECLAIM WATER VALVE
- FIRE HYDRANT
- AIR CONDITIONER PAD
- GAS VALVE
- GAS METER
- GAS LINE MARKER
- CONCRETE UTILITY POLE
- METAL UTILITY POLE
- WOOD UTILITY POLE
- UTILITY POLE GUY ANCHOR
- LIGHT POLE
- SPOT/GROUND LIGHT
- ELECTRIC TRANSFORMER
- WETLAND FLAG
- SIGN
- BOLLARD
- FLAG POLE
- MAILBOX
- HEDGE ROW
- LINE BREAK
- FENCE LINE AS NOTED
- OHU OVERHEAD UTILITY LINE
- T/B APPROXIMATE TOP OF BANK
- T/S APPROXIMATE TOE OF SLOPE
- 100 EXISTING CONTOUR
- PROPERTY BOUNDARY

NOTE:
SEE SURVEY FOR DETAILED DESCRIPTION OF THE EXISTING CONDITIONS.

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533 NW QUINTEN STREET
LAKE CITY, FL 32055

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

7/10/2020

SCALE NORTH
0' 80' 160'
N

REVISIONS

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	7-10-20		100% CONSTRUCTION DOCUMENT

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APPROVED BY	CJA
CHECKED BY	RM
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DATUM	NAVD 88

TITLE

EXISTING CONDITIONS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

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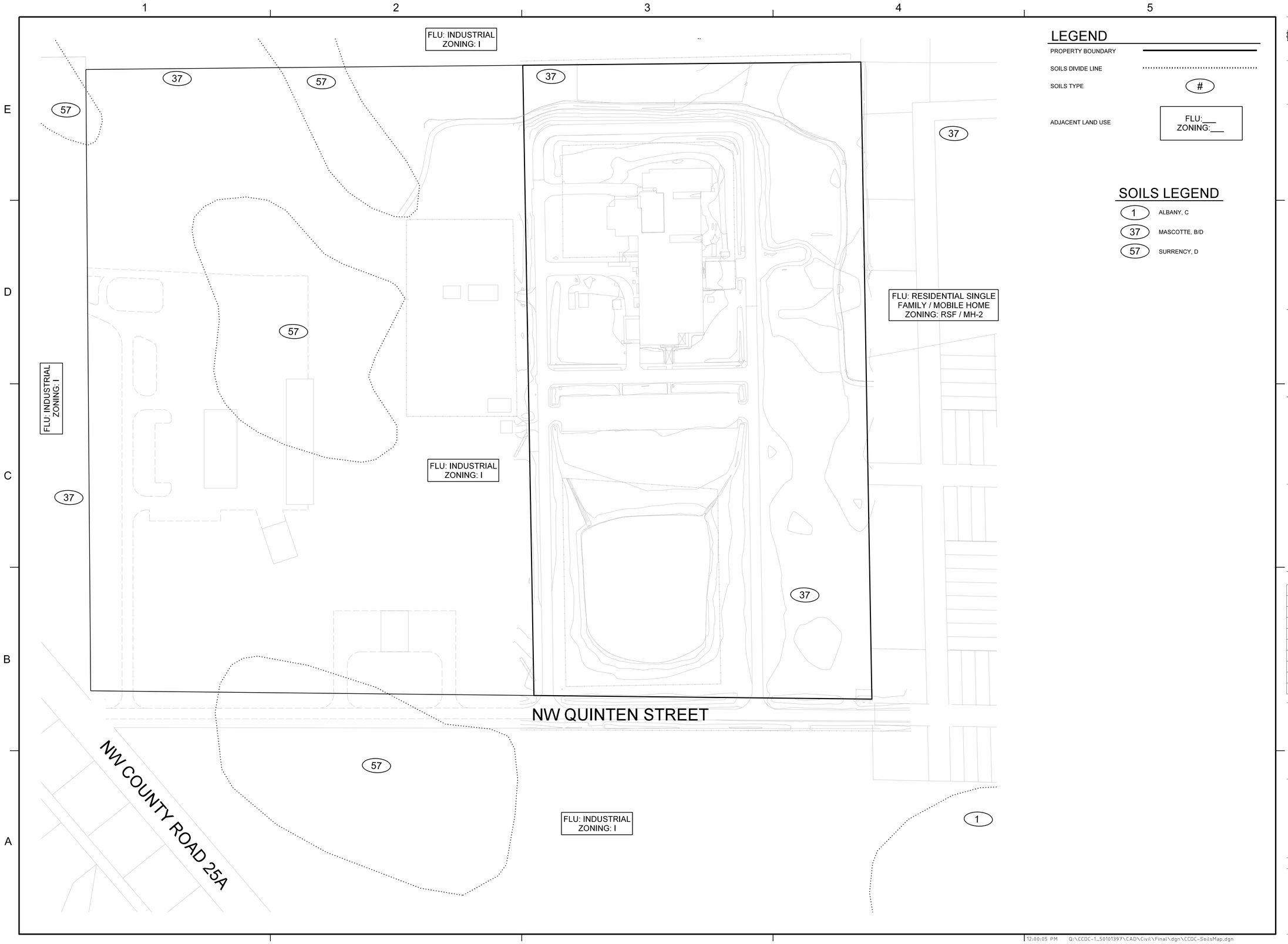

LEGEND

PROPERTY BOUNDARY

SOILS DIVIDE LINE

SOILS TYPE (#)

ADJACENT LAND USE — FLU:___ ZONING:___

SOILS LEGEND

1	ALBANY, C
37	MASCOTTE, B/D
57	SURRENCY, D

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SOILS & ZONING MAP

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

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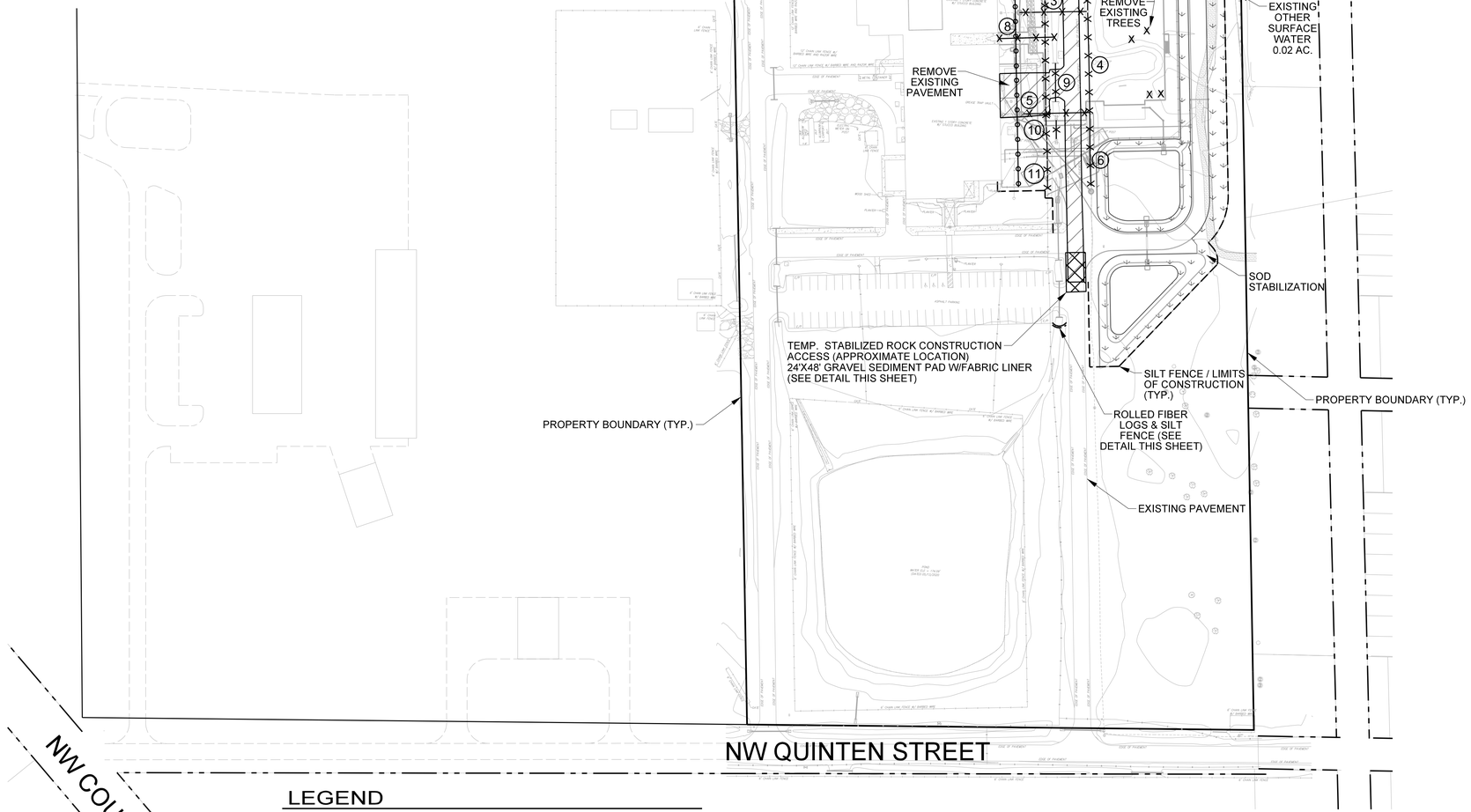
DEMOLITION ITEMS

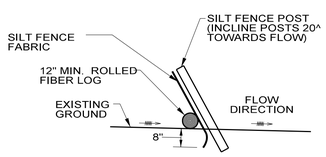
1. SAWCUT & REMOVE 76LF 6" SEWER AFTER PROPOSED SEWER IS CLEARED
2. REMOVE MANHOLE & 85LF 8" SEWER AFTER PROPOSED SEWER IS CLEARED
3. SAWCUT & REMOVE 82LF 6" SEWER AFTER PROPOSED SEWER IS CLEARED
4. REMOVE MANHOLE & 122LF 8" SEWER AFTER PROPOSED SEWER IS CLEARED
5. SAWCUT & REMOVE 81LF 6" SEWER AFTER PROPOSED SEWER IS CLEARED
6. SAWCUT & REMOVE 91LF 8" SEWER & MANHOLE AFTER PROPOSED SEWER IS CLEARED
7. SAWCUT & REMOVE 49LF 12" STORM
8. REMOVE INLET & 68LF 12" STORM
9. REMOVE 47LF 12" STORM & 2 END WALLS
10. REMOVE 24LF 18" STORM & 2 MES
11. CUT, PLUG & REMOVE 403LF 8" WATER AFTER PROPOSED WATER IS CLEARED



LEGEND

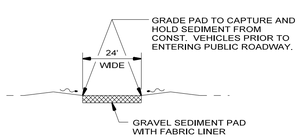
- PROPERTY BOUNDARY
- SILT FENCE / LIMITS OF CONSTRUCTION
- TREE PROTECTION BARRICADE
- EXISTING CONTOURS
- SOD STABILIZATION
- PAVEMENT REMOVAL
- TREE REMOVAL
- PIPE REMOVAL

NOTES:
1.) SILT FENCE / LIMITS OF CONSTRUCTION SHOWN OFFSET FROM PROPERTY LINE FOR CLARITY PURPOSES.
2.) ALL PARCEL AREAS NOT DEPICTED AS SODDED SHALL BE SEEDED AND MULCHED.
3.) THIS FACILITY IS IN ACTIVE USE AND SHALL REMAIN SO DURING CONSTRUCTION. ANY INTERUPTION TO WATER OR SEWER SERVICE SHALL BE COORDINATED WITH THE SHERIFFS OFFICE.

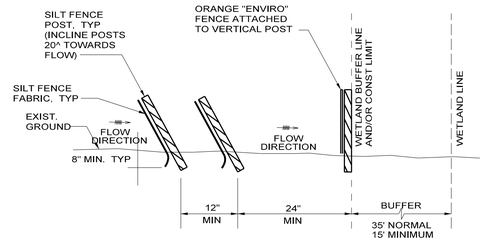


FDOT APPROVED TEMPORARY SILT FENCE PRE-ASSEMBLED IN 100' ROLLS UTILIZING 2" X 2" X 4' WOODEN POSTS @ 8' C/C MAX. w/3' OF WOVEN GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF SEC. 985-4, SIMILAR & EQUAL TO THAT SUPPLIED BY FIFEPIPE CO. OF TAMPA FLA.

TYPICAL SILT FENCE WITH FIBER LOGS DETAIL
N.T.S.



TEMPORARY STABILIZED ROCK CONSTRUCTION ACCESS



FDOT APPROVED TEMPORARY SILT FENCE PRE-ASSEMBLED IN 100' ROLLS UTILIZING 2" X 2" X 4' WOODEN POSTS @ 8' C/C MAX. w/3' OF WOVEN GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF SEC. 985-4, SIMILAR & EQUAL TO THAT SUPPLIED BY FIFEPIPE CO. OF TAMPA FLA.

NOTES:
CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AS FOLLOWS:
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

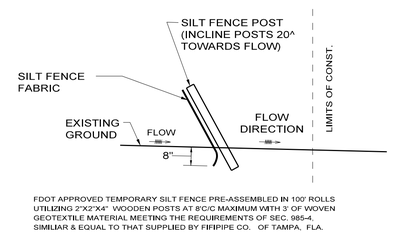
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF ITS USE, IT SHALL BE REPLACED PROMPTLY.

3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.

4. ANY SEDIMENT DEPOSITS LEFT IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE FINISHED GRADE, PREPARED AND SEEDED.

***NOTE:
TEMP. SILT FENCE SINGLE ROW ALONG INSIDE OF PERIMETER OF P/L & ALONG EXISTING PONDS & DOUBLE ROW ALONG WETLAND BUFFERS. THE EROSION CONTROL MEASURES DEPICTED ON THE PLANS ARE THE MINIMUM REQUIRED. ADDITIONAL MEASURES WILL BE UTILIZED BY THE CONTRACTOR AS NEEDED BASED ON ACTUAL SITE CONDITIONS.

WETLAND SILT FENCE DETAIL
N.T.S.



FDOT APPROVED TEMPORARY SILT FENCE PRE-ASSEMBLED IN 100' ROLLS UTILIZING 2"X2"X4" WOODEN POSTS AT 8'C/C MAXIMUM WITH 3' OF WOVEN GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF SEC. 985-4, SIMILIAR & EQUAL TO THAT SUPPLIED BY FIFIPIPE CO. OF TAMPA, FLA.

NOTES:
CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AS FOLLOWS:
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

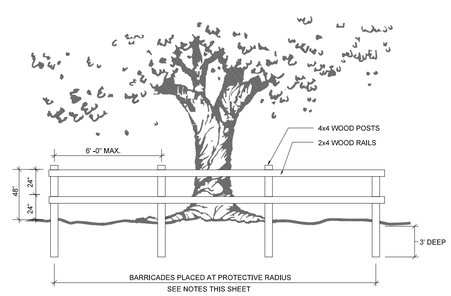
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF ITS USE, IT SHALL BE REPLACED PROMPTLY.

3. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.

4. ANY SEDIMENT DEPOSITS LEFT IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE FINISHED GRADE, PREPARED AND SEEDED.

5. GEOTEXTILE MATERIAL TO MEET THE REQUIREMENTS OF SEC. 985-4.

TYPICAL SILT FENCE DETAIL
N.T.S.



NOTES:
1.) BARRICADE TO BE PLACED AT DRIP LINE OF TREE OR MINIMUM OF 10' FROM TRUNK.
2.) TREE PROTECTION BARRICADE SHALL REMAIN IN PLACE UNTIL CURB AND PAVEMENT IS CONSTRUCTED IN THE IMMEDIATE VICINITY OF TREES TO BE SAVED.

TREE PROTECTION BARRICADE DETAIL

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TITLE

EROSION CONTROL & DEMOLITION PLAN

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C07

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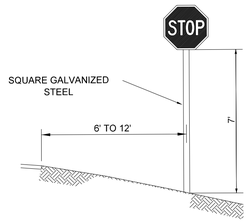
LEGEND

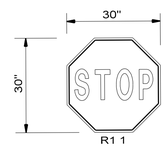
- PROPERTY BOUNDARY
- PROPOSED POND LINE
- EXISTING RIGHT-OF-WAY LINE
- WETLAND LINE
- ROADWAY CENTERLINE
- WETLAND AREA/ OTHER SURFACE WATER
- WETLAND BUFFER AREA
- CONCRETE PAVEMENT (8" THICK, 4000 PSI)
- LIGHT DUTY CONC. PAVEMENT (5" THICK, 4000 PSI)

BUILDING CORNERS

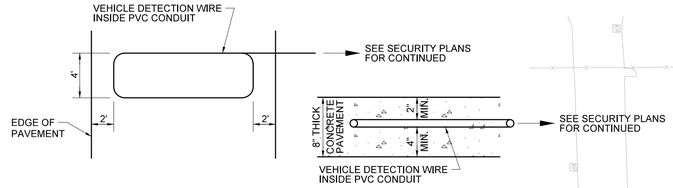
1. N= 448739.25 E= 2554854.78
2. N= 448741.64 E= 2554891.54
3. N= 448747.18 E= 2554891.18
4. N= 448748.34 E= 2554909.02
5. N= 448808.65 E= 2554905.11
6. N= 448813.38 E= 2554977.95
7. N= 448818.37 E= 2554977.63
8. N= 448821.62 E= 2555027.52
9. N= 448816.63 E= 2555027.84
10. N= 448818.25 E= 2555052.79
11. N= 448666.57 E= 2555062.65
12. N= 448664.95 E= 2555037.70
13. N= 448659.96 E= 2555038.03
14. N= 448656.72 E= 2554988.13
15. N= 448661.71 E= 2554987.81
16. N= 448660.28 E= 2554965.85
17. N= 448637.49 E= 2554967.33
18. N= 448634.19 E= 2554916.44
19. N= 448717.28 E= 2554911.04
20. N= 448716.12 E= 2554893.20
21. N= 448726.98 E= 2554892.50
22. N= 448724.67 E= 2554856.81



STOP SIGN DETAIL
TYPICAL TRAFFIC CONTROL SIGN

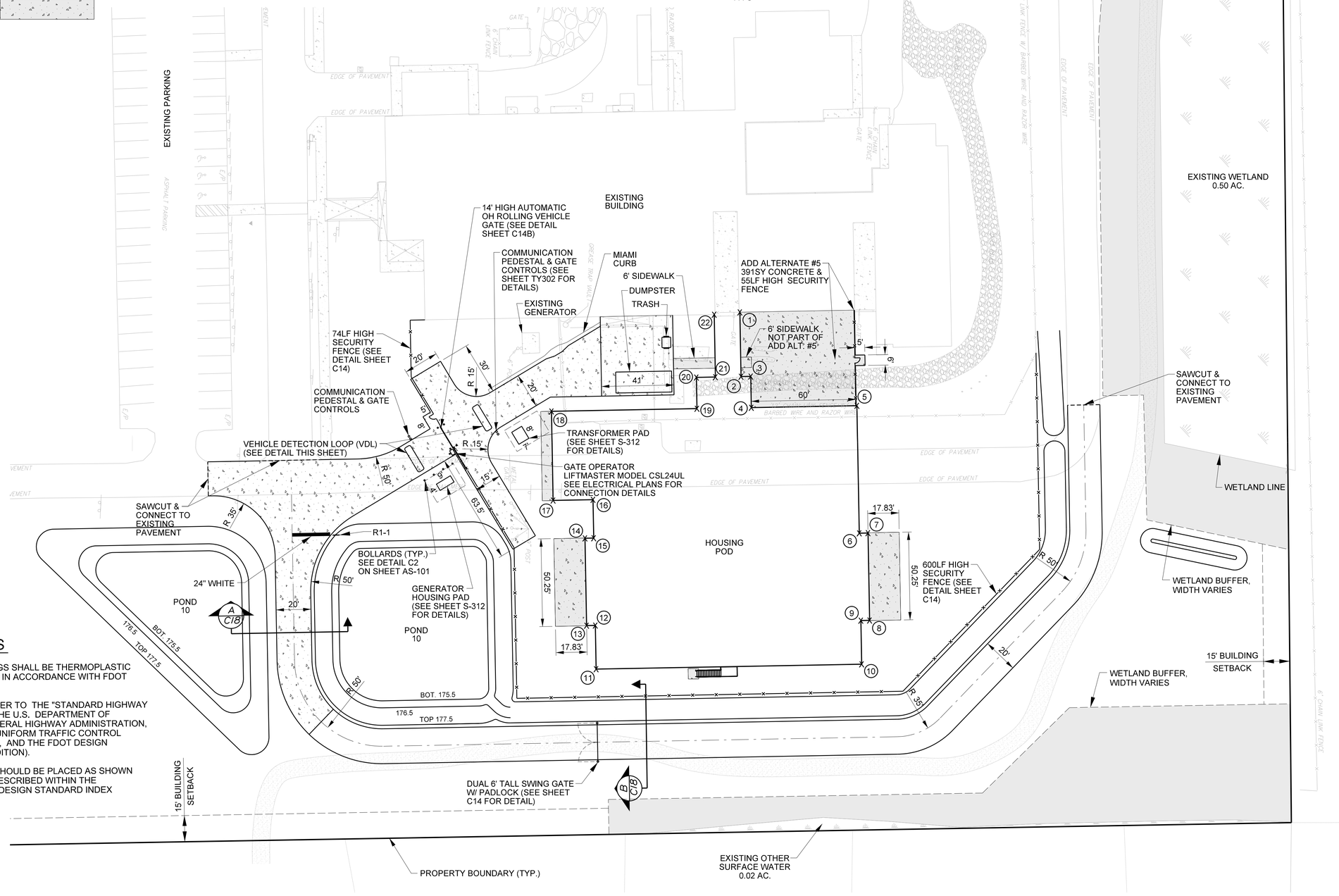


TYPICAL STOP SIGN
(HI-INTENSITY SIGN)



NOTE: SEE SECURITY PLANS FOR VEHIICLE DETECTION WIRE SPECIFICATIONS.

VEHICLE DETECTION LOOP
NTS



STRIPING NOTES

1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC AND WILL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARDS.
2. FOR SIGN DETAILS, REFER TO THE "STANDARD HIGHWAY SIGNS" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, 2004, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2003, AND THE FDOT DESIGN STANDARDS (LATEST EDITION).
3. PAVEMENT MARKINGS SHOULD BE PLACED AS SHOWN IN THE PLANS AND AS DESCRIBED WITHIN THE APPROPRIATE TRAFFIC DESIGN STANDARD INDEX (LATEST EDITION).

NOTE: SEE SHEET C18 FOR TYPICAL SECTIONS.

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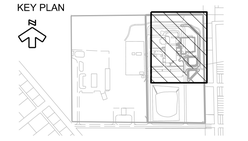
LAKE CITY, FL 32055

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

KEY PLAN



SCALE NORTH

0' 30' 60'

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

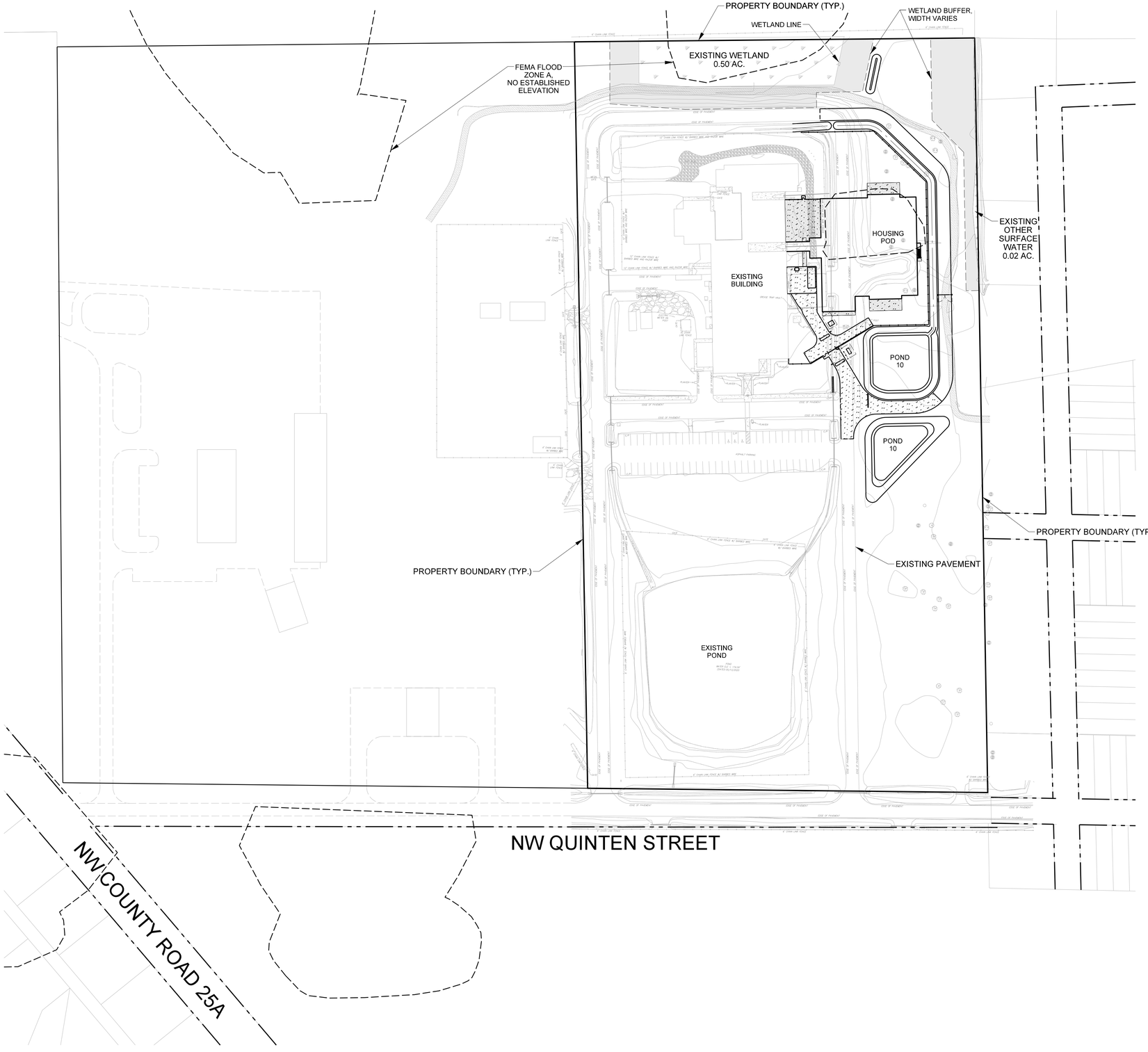
TITLE

GEOMETRY PLAN

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C09



SITE DATA

1. TOTAL PROJECT AREA: 16.48 AC.
   - WETLAND BUFFER 0.74 AC.
   - WETLAND/OTHER SURFACE WATER 0.52 AC.
   - DEVELOPABLE AREA 15.22 AC.
2. SITE AREAS:
   - CONCRETE PAVEMENT: 2.47 AC.
   - IMPERVIOUS AREA:
     - BUILDING FOOTPRINT: 1.45 AC.
     - SIDEWALK: 0.22 AC.
     - WET POND (AT NWL): 1.29 AC.
     - TOTAL: 5.43 AC. (35.68%)
   - PERVIOUS AREA: 9.79 AC. (64.32%)
3. SITE DATA:
   - EXISTING BUILDING AREA: 36,456 S.F.
   - PROPOSED BUILDING AREA: 25,257 S.F.
   - GROSS BUILDING AREA: 61,713 S.F.
   - MAX. BLDG. HEIGHT: 70' ALLOWABLE
   - PROP. BLDG. HEIGHT: 31'
   - FUTURE LAND USE: INDUSTRIAL
   - ZONING: I
   - REQURED BLDG. SETBACKS:
     - NORTH: 15'
     - SOUTH: 20'
     - EAST: 15'
     - WEST: 15'
     - WETLAND: 35'
4. PARKING REQUIREMENTS:
   NO INCREASES IN EMPLOYEE OR VISITOR SPACE IS PROPOSED; THEREFORE NO INCREASE IN PARKING AREA IS PROPOSED.

LEGEND

- PROPERTY BOUNDARY
- PROPOSED POND LINE
- EXISTING RIGHT-OF-WAY LINE
- WETLAND LINE
- ROADWAY CENTERLINE
- WETLAND AREA/ OTHER SURFACE WATER
- WETLAND BUFFER AREA
- CONCRETE PAVEMENT

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7/10/2020

SCALE NORTH
0' 80' 160'

REVISIONS

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OVERALL SITE PLAN

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C08

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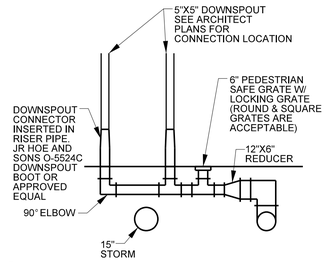
LEGEND

- PROPERTY BOUNDARY
- PROPOSED POND LINE
- EXISTING RIGHT-OF-WAY LINE
- WETLAND LINE
- ROADWAY CENTERLINE
- WETLAND AREA/ OTHER SURFACE WATER
- WETLAND BUFFER AREA
- CONCRETE PAVEMENT



Ⓒ DOWNSPOUT CONNECTION DETAIL

DRAINAGE STRUCTURES

D01
(N 448812.72, E 2554870.14)
12" NYLOPLAST DRAIN & BASIN WITH LOCKING GRATE
TOP 177.99
INV. 175.90(12" HDPE)(S)

D02
(N 448748.87, E 2554874.29)
15" NYLOPLAST DRAIN & BASIN WITH LOCKING GRATE
TOP 177.78
INV. 175.58(12" HDPE)(N &W)
INV. 175.58(15" HDPE)(S)

D03
(N 448717.58, E 448717.58)
15" NYLOPLAST DRAIN & BASIN WITH LOCKING GRATE
TOP 178.02
INV. 175.48(12" HDPE)(W)
INV. 175.48(15" HDPE)(N)
INV. 175.48(15")(S)

D04
(N 448635.38, E 2554881.66)
TYPE "V" INLET (DBI)
WITH LOCKING GRATE
TOP 177.23
INV. 175.18(12" HDPE)(E)
INV. 175.18(15")(N)
INV. 175.18(18")(SE)

D05
(N 448568.22, E 2554939.71)
TYPE "F" INLET (DBI)
WITH LOCKING GRATE
TOP 177.27
INV. 174.99(18")(NW & S)

D06
STD. MIT. END SECTION
W/CONC. SPLASH PAD
INV. 174.92(18")(N)

D07
STD. MIT. END SECTION
W/CONC. SPLASH PAD
INV. 175.50(18")(S)

D08
STD. MIT. END SECTION
W/CONC. SPLASH PAD
INV. 175.50(18")(N)

D09
STD. MIT. END SECTION
W/CONC. SPLASH PAD
INV. 175.50(12" HDPE)(N)

D10
(N 448925.13, E 2554962.31)
MODIFIED TYPE "C" INLET (DBI)
TOP 176.50
INV. 173.50(18")(NE)
SEE SHEET C11 FOR OUTFALL CONTROL STRUCTURE DETAIL

D11
STD. MIT. END SECTION
W/CONC. SPLASH PAD
INV. 172.00(18")(SW)

1. D01 TO D02 64'-12" HDPE @ 0.50%
2. D02 TO D03 31'-15" HDPE @ 0.32%
3. D03 TO D04 82'-15" RCP @ 0.37%
4. D04 TO D05 89'-18" RCP @ 0.21%
5. D05 TO D06 33'-18" RCP @ 0.21%
6. D07 TO D08 55'-18" RCP @ 0.00%
7. D10 TO D11 57'-18" RCP @ 2.63%

EXISTING POND

SITE BENCHMARK #2
SET 5/8" IRC (DEWBERRY LB8011)
EL=176.78' (NAVD88)

EXISTING BUILDING

12" HDPE ROOF DRAIN CONNECTION (SEE DETAIL C THIS SHEET)

12"X6" WYE

22½° BEND WITH CLEANOUT WITH LOCKING COVER

SAWCUT & CONNECT TO EXISTING PAVEMENT

BOLLARDS (TYP) SEE DETAIL C2 ON SHEET AS-101

6" HDPE CONDENSATE DRAIN CONNECTION (SEE DETAIL A THIS SHEET)

MECHANICAL HOUSING PAD SEE DETAIL B ON SHEET S-312

12" HDPE ROOF DRAIN CONNECTION (SEE DETAIL B THIS SHEET)

HOUSING POD
F.F. 179.1

POND 10

45° BEND WITH CLEANOUT WITH LOCKING COVER

FEMA FLOOD ZONE A, NO ESTABLISHED ELEVATION

EXISTING WETLAND 0.50 AC.

WETLAND LINE

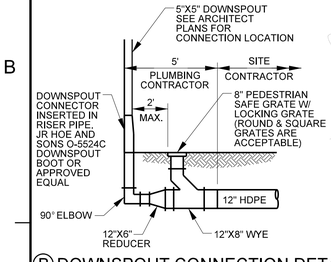
WETLAND BUFFER LINE

SITE BENCHMARK #3
SET 5/8" IRC (DEWBERRY LB8011)
EL=174.77' (NAVD88)

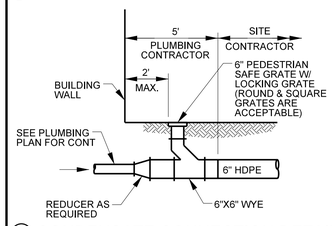
EXISTING TREE LINE

EXISTING OTHER SURFACE WATER 0.02 AC.

PROPERTY BOUNDARY (TYP.)



Ⓑ DOWNSPOUT CONNECTION DETAIL



Ⓐ CONDENSATE CONNECTION DETAIL

NOTE: SEE SHEET C18 FOR TYPICAL SECTIONS.

12:00:13 PM Q:\CCDC-1_50101397\CAD\Civil\Final\dgn\CCDC-GradingPlan01.dgn

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SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

KEY PLAN

SCALE NORTH
0' 30' 60'

REVISIONS

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DATUM	NAVD 88

TITLE

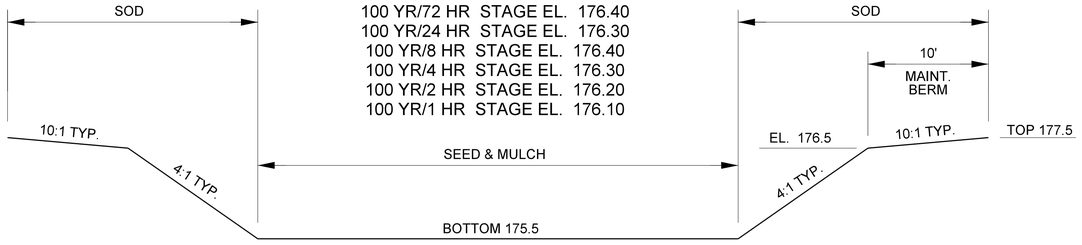
GRADING PLAN & DRAINAGE STRUCTURES

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

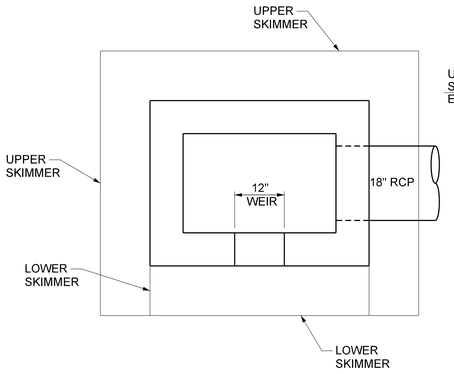
SHEET NO.

C10

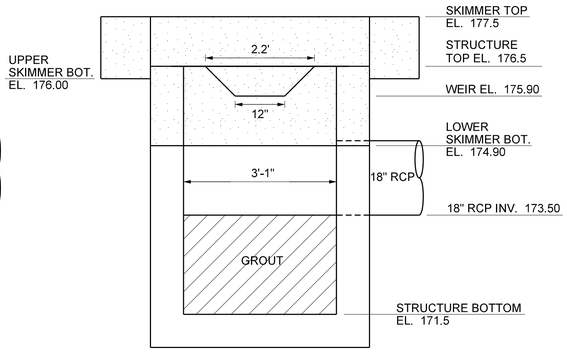
100 YR/240 HR STAGE EL. 176.50
100 YR/168 HR STAGE EL. 176.50
100 YR/72 HR STAGE EL. 176.40
100 YR/24 HR STAGE EL. 176.30
100 YR/8 HR STAGE EL. 176.40
100 YR/4 HR STAGE EL. 176.30
100 YR/2 HR STAGE EL. 176.20
100 YR/1 HR STAGE EL. 176.10



POND 10
TYPICAL SECTION

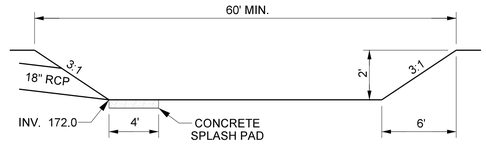


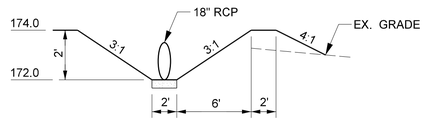
PLAN



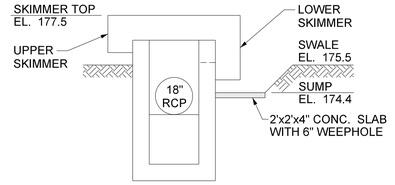
SECTION

OUTFALL CONTROL STRUCTURE (D10)
TYPE "C" INLET PER F.D.O.T. INDEX NO. 425-052

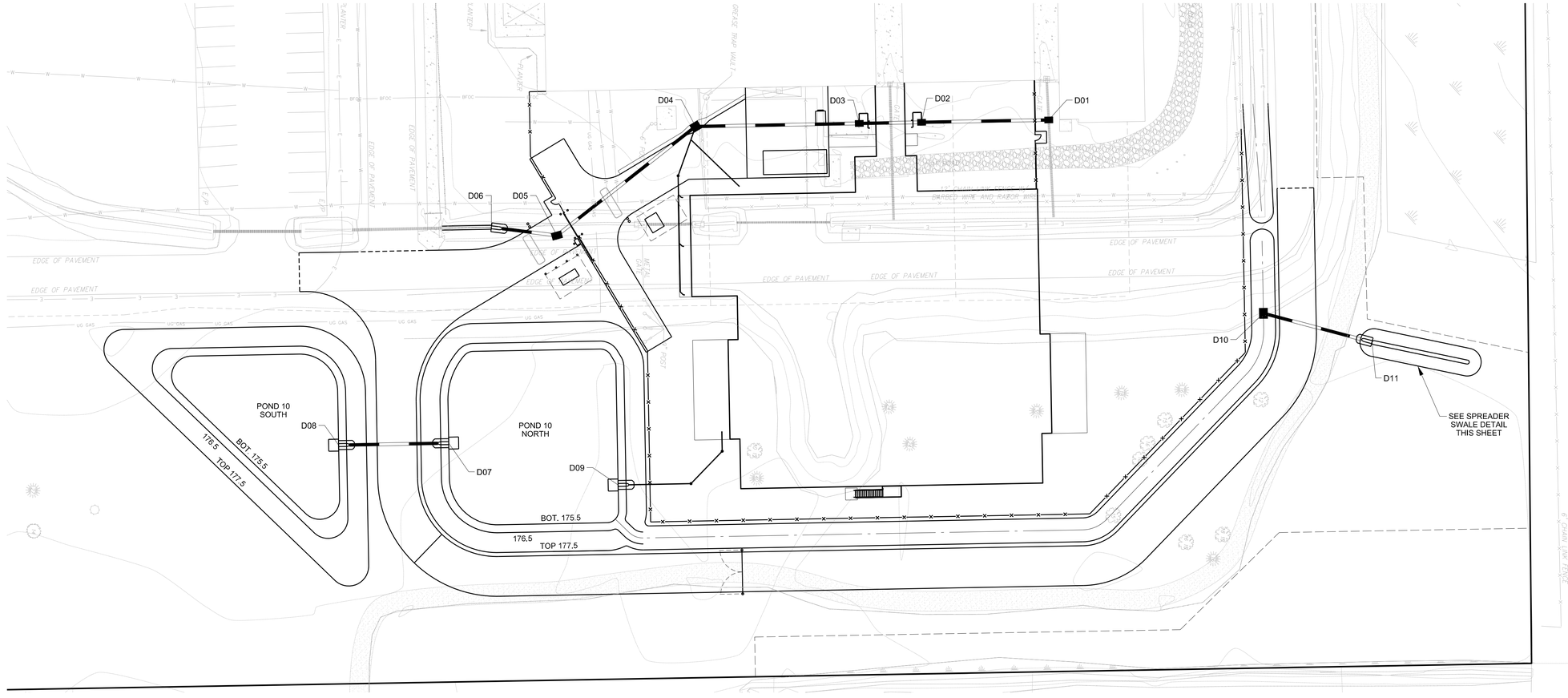




SPREADER SWALE DETAIL



SUMP DETAIL



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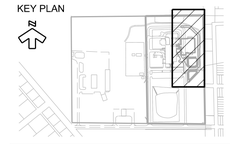
KEY PLAN



SCALE NORTH

0' 30' 60'

REVISIONS

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DATUM	NAVD 88

TITLE

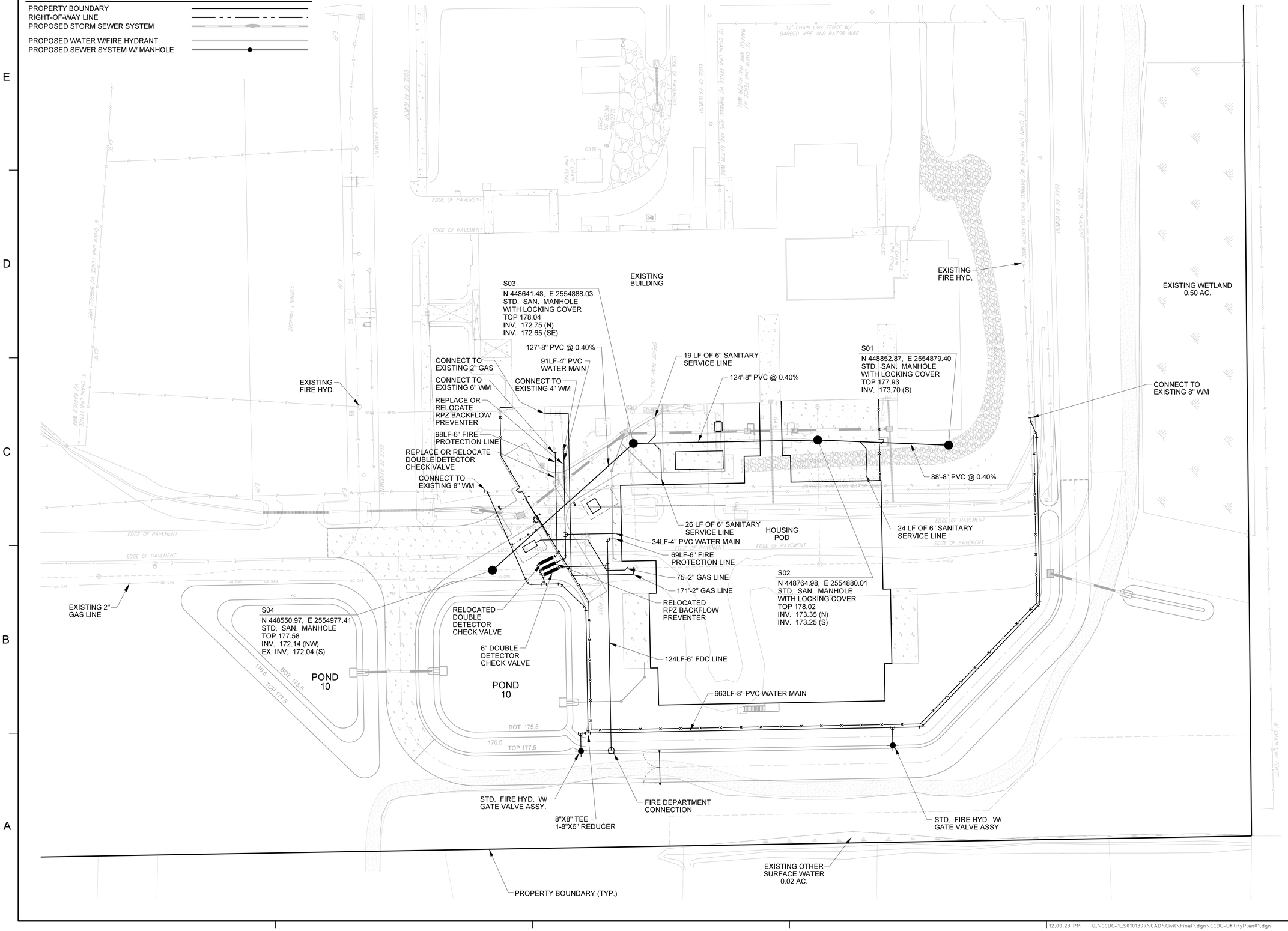
POND 10 PLAN & DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C11

12:00:20 PM Q:\CCDC-1_50101397\CAD\Civil\Final\dgn\CCDC-Pond01.dgn



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KEY PLAN

SCALE NORTH

0' 30' 60'

REVISIONS

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TITLE

UTILITY PLAN

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C12

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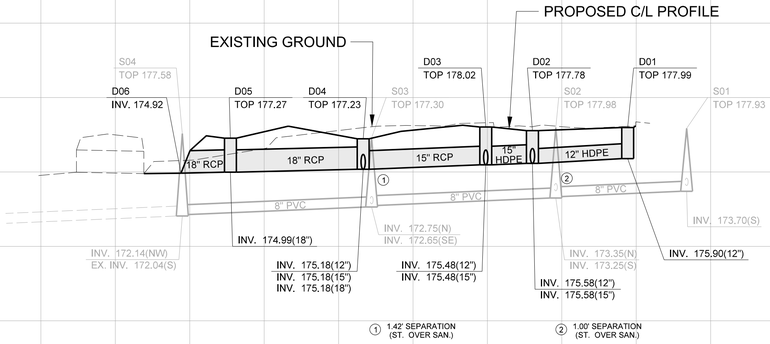
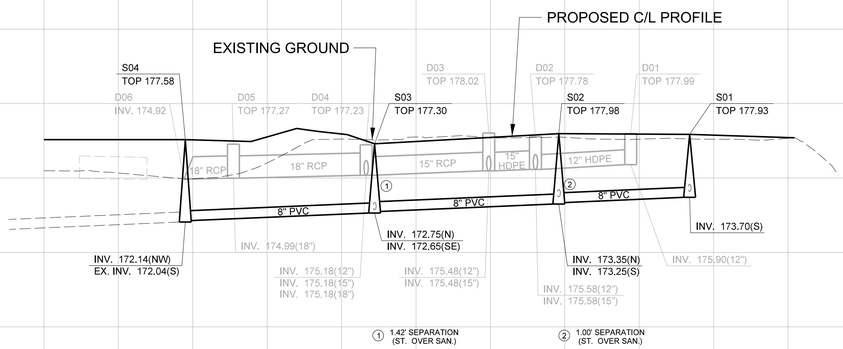


STORM MAIN



8" SANITARY SEWER MAIN

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SCALE NORTH

0' 50' 100'

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TITLE

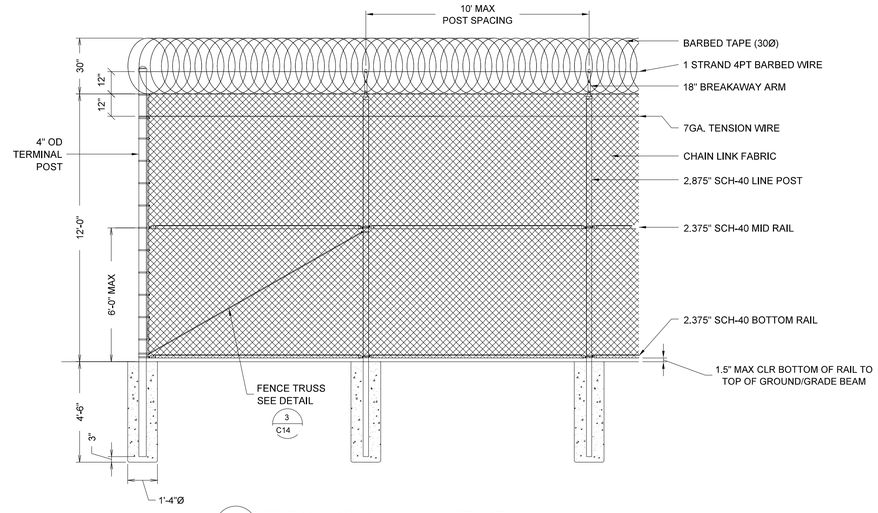
UTILITY PROFILES

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

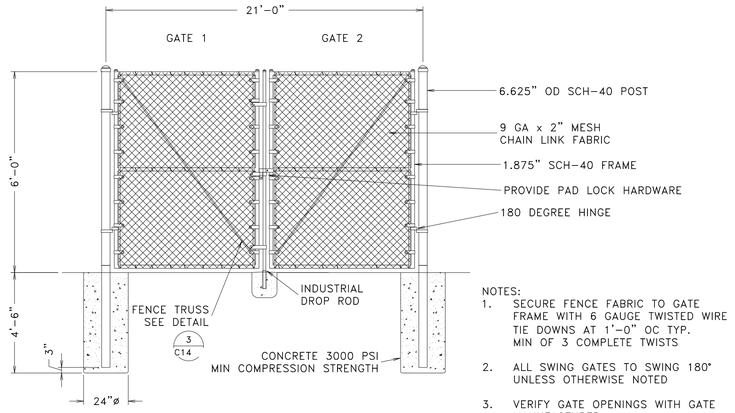
SHEET NO.

C13

12:00:25 PM Q:\CCDC-1_50101397\CAD\Civil\Final\dgn\CCDC-SanitaryProfile.dgn

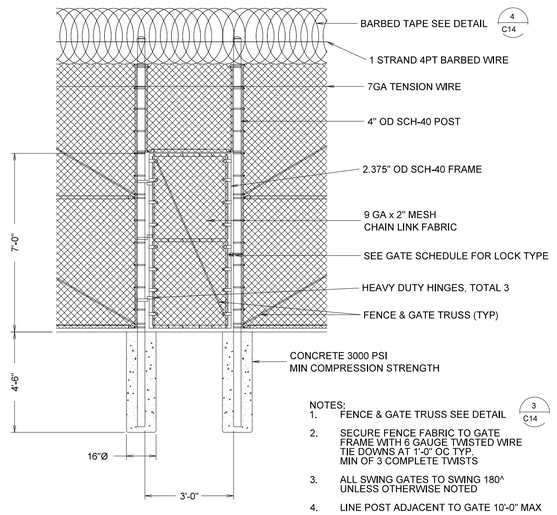


1 TYPICAL 12' CHAIN LINK FENCE
N.T.S.



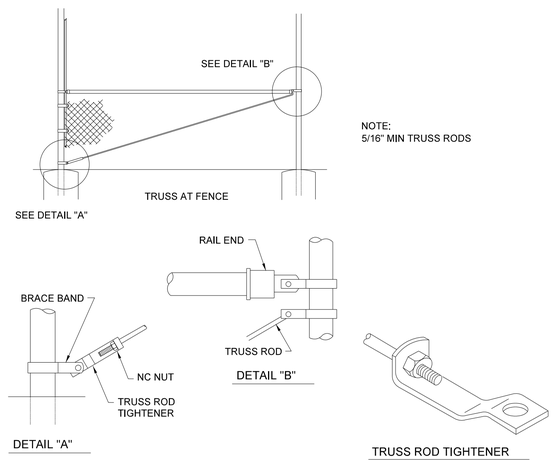
NOTES:
1. SECURE FENCE FABRIC TO GATE FRAME WITH 6 GAUGE TWISTED WIRE TIE DOWNS AT 1'-0" OC TYP. MIN OF 3 COMPLETE TWISTS
2. ALL SWING GATES TO SWING 180° UNLESS OTHERWISE NOTED
3. VERIFY GATE OPENINGS WITH GATE MANUFACTURER

4 DOUBLE LEAF GATE FOR 6' CHAIN LINK FENCE MANUAL OPERATION
N.T.S.

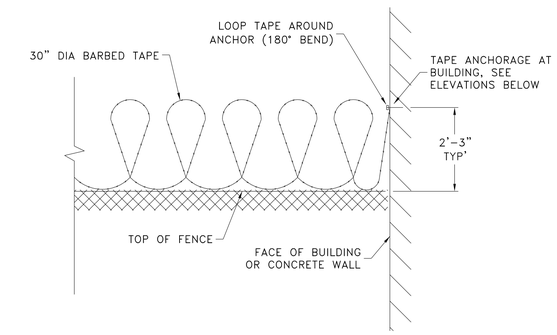


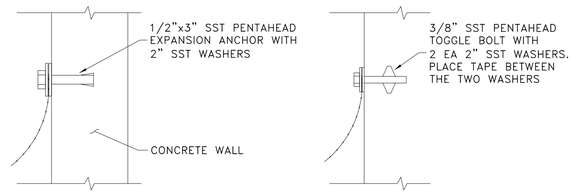
NOTES:
1. FENCE & GATE TRUSS SEE DETAIL 3 C14
2. SECURE FENCE FABRIC TO GATE FRAME WITH 6 GAUGE TWISTED WIRE TIE DOWNS AT 1'-0" OC TYP. MIN OF 3 COMPLETE TWISTS
3. ALL SWING GATES TO SWING 180^ UNLESS OTHERWISE NOTED
4. LINE POST ADJACENT TO GATE 10'-0" MAX

2 7' HIGH MANUAL SWING GATE (MANUAL OR ELECTRIC LOCK)
N.T.S.



3 FENCE TRUSS ROD ASSEMBLY
N.T.S.





AT CONCRETE WALLS AT METAL WALLS

5 TAPE ANCHORAGE AT BUILDINGS & WALLS
N.T.S.

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DATUM	NAVD 88

TITLE

FENCE DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

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C14

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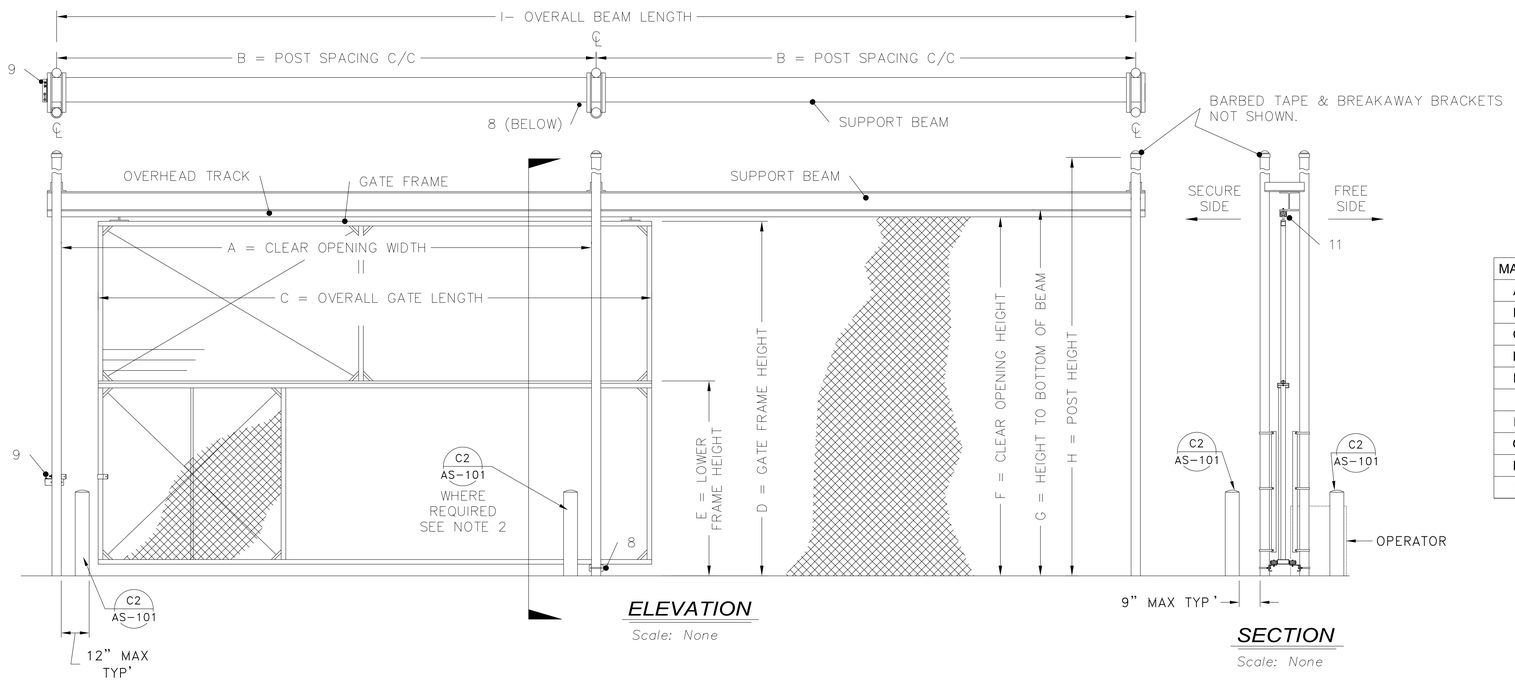
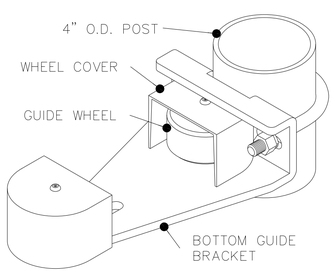


ELEVATION
Scale: None

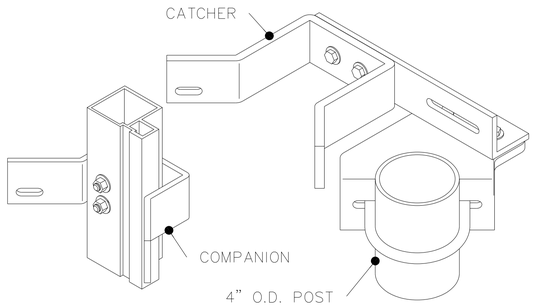
SECTION
Scale: None

CRITICAL DIMENSION CHART

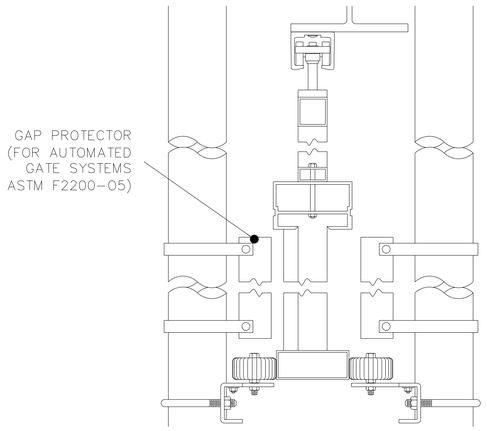
MARK	DESCRIPTION	FORMULA	12 FOOT HIGH FENCE DIMENSION	12 FOOT HIGH FENCE DIMENSION
A	CLEAR OPENING	A	4'-0"	12'-0"
B	POST SPACING C/C	B	4'-4"	12'-4"
C	OVERALL GATE LENGTH	A + 1'-4"	5'-4"	13'-4"
D	GATE FRAME HEIGHT	F - 3"	6'-9"	13'-3"
E	LOWER FRAME HEIGHT	E	4'-2"	6'-11"
	UPPER FRAME HEIGHT 16' GATE		NA	NA
F	CLEAR OPENING HEIGHT	F	7'-0"	13'-6"
G	HEIGHT TO BOTTOM OF BEAM	G	7'-4"	13'-10"
H	POST HEIGHT	H	13'-0"	15'-6"
I	OVERALL BEAM LENGTH	A X 2 + 1'-0"	9'-0"	25'-0"



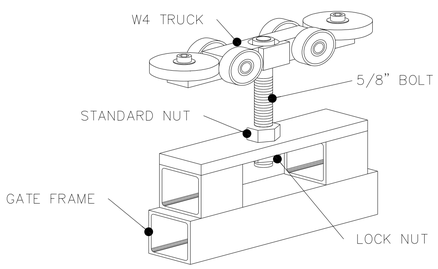
8 BOTTOM GUIDE
Scale: None



9 CATCH ASSEMBLY
Scale: None



ENLARGED SECTION



11 GATE HANGER ASSEMBLY
Scale: None

NOTES:
1. ALL FITTINGS STANDARDLY PROVIDED FOR 4" O.D. POSTS.
2. INSTALL 4 BOLLARDS AT EACH DRIVE GATE OPENNING.
   6' CLEAR OPENING AND LARGER. (TWO ON EACH SIDE OF GATE)
3. VERIFY GATE OPENINGS WITH GATE MANUFACTURER.

5 PEDESTRIAN/VEHICLE OVERHEAD SLIDE GATE (ELECTRIC OPERATED)
N.T.S.

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COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

GATE DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

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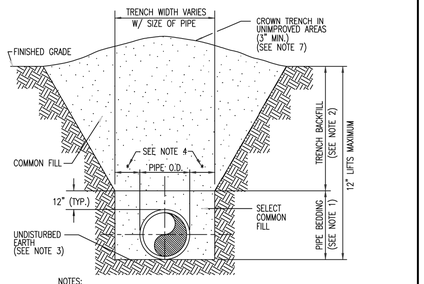
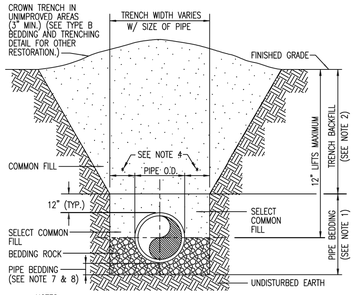


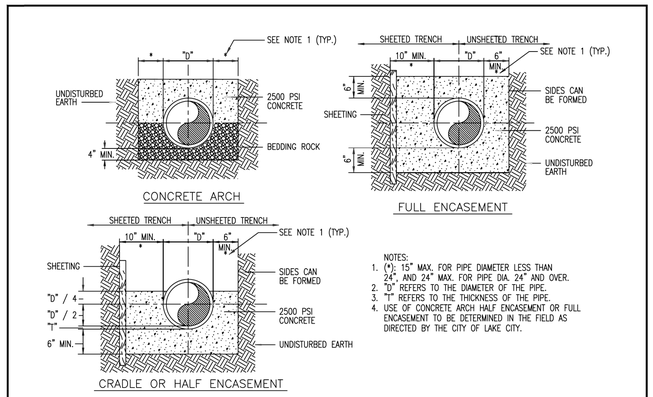
NOTES:
1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY OF LAKE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OR COUNTY RIGHT-OF-WAY SHALL COMPLY WITH THE APPLICABLE REGULATIONS.

Date	Revisions	Appr. by	CITY OF LAKE CITY			
			TYPE B BEDDING AND TRENCHING DETAIL			
			Date: Sept. 1996	Scale: N.T.S.	Dwg: Q100	Fig: 100



NOTES:
1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. USE TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY OF LAKE CITY.
4. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. REFER TO SECTION 32.5 OF THE MANUAL FOR SHEETING AND BRACING IN EXCAVATIONS.
7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING, IF REQUIRED BY THE COUNTY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15", AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL COVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. APPLICABLE GOVERNING AGENCY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.

Date	Revisions	Appr. by	CITY OF LAKE CITY			
			TYPE A BEDDING AND TRENCHING DETAIL			
			Date: Sept. 1996	Scale: N.T.S.	Dwg: Q101	Fig: 101



NOTES:
1. (*): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIA. 24" AND OVER.
2. "D" REFERS TO THE DIAMETER OF THE PIPE.
3. "T" REFERS TO THE THICKNESS OF THE PIPE.
4. USE OF CONCRETE ARCH HALF ENCASEMENT OR FULL ENCASEMENT TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY OF LAKE CITY.

Date	Revisions	Appr. by	CITY OF LAKE CITY			
			WASTEWATER PUMP STATION PLANS, SECTIONS AND NOTES			
			Date: Sept. 1996	Dwg: Q301	Fig: 301	

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *									
	PIPE SIZE								
	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	36	46	55	64	N/A	N/A	N/A	N/A	N/A
45° BEND	15	19	23	26	N/A	N/A	N/A	N/A	N/A
22-1/2° BEND	8	9	11	13	N/A	N/A	N/A	N/A	N/A
11-1/4° BEND	4	5	6	8	N/A	N/A	N/A	N/A	N/A
PLUG OR BRANCH OF TEE	74	97	117	135	N/A	N/A	N/A	N/A	N/A

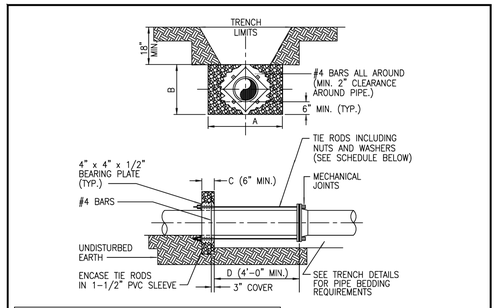
NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:

   WORKING PRESSURE: 150 P.S.I.*
   SOIL DESIGNATION: SM (Sand Silt) *
   LAYING CONDITIONS: 3 *

6. FOR PIPE ENCASED IN POLYETHYLENE, USE VALUES GIVEN IN PARENTHESES OR INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.

* TO BE COMPLETED BY THE ENGINEER.

Date	Revisions	Appr. by	CITY OF LAKE CITY			
			RESTRAINED PIPE DETAIL			
			Date: Sept. 1996	Scale: N.T.S.	Dwg: Q104	Fig: 104



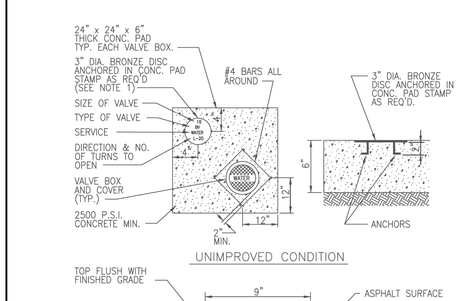
SCHEDULE OF DIMENSIONS AND MATERIALS *

PIPE SIZE (INCHES)	DIMENSIONS (FT)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.5	3.5	1.0		3/4	4
12	5.0	3.0	1.0		3/4	4

NOTE: THRUST BLOCK AREAS TO BE COMPUTED ON BASIS OF LBS. PER SQ. FT. SOIL RESTRAINT BEARING. (1,500 MIN) SEE NOTE 3
* TO BE COMPLETED BY ENGINEER.

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 PSI.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 P.S.I.*

Date	Revisions	Appr. by	CITY OF LAKE CITY			
			WATER MAIN THRUST COLLAR DETAIL			
			Date: Sept. 1996	Scale: N.T.S.	Dwg: Q105	Fig: 105



NOTES:
1. BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES.

Date	Revisions	Appr. by	CITY OF LAKE CITY			
			VALVE COLLAR DETAIL			
			Date: Sept. 1996	Scale: N.T.S.	Dwg: Q107	Fig: 107

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COLUMBIA COUNTY
BOARD OF COUNTY
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7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

LAKE CITY UTILITY DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

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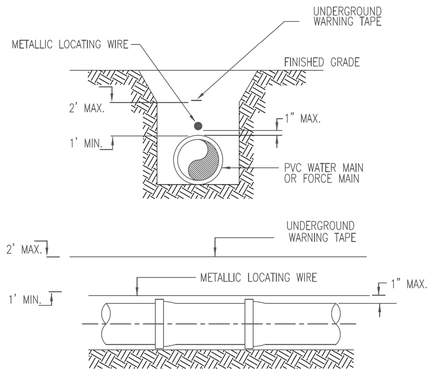


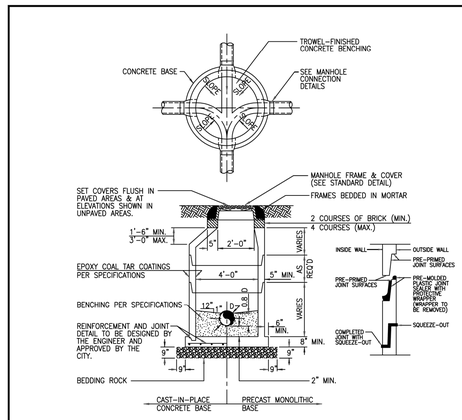
NOTES:
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. USE DUCT TAPE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.
2. PROPERLY COLOR CODED UNDERGROUND WARNING TAPE SHALL BE PLACED AT A MIMIMUM OF 1 FOOT ABOVE THE PIPE AND NO GREATER THAN 2 FEET ABOVE THE PIPE, FOR THE PURPOSE OF IDENTIFYING THE LOCATION OF UNDERGROUND UTILITY LINES.

Date	Revisions	Appr. by

CITY OF LAKE CITY

PVC PIPE LOCATING WIRE DETAIL

Date: FEB. 2010 | Scale: N.T.S. | Dwg: Q108 | Fig: 108



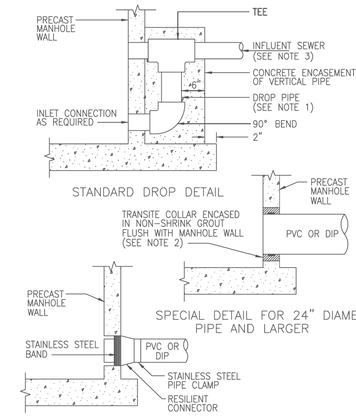
NOTES:
1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE UTILITIES STANDARDS HANDBOOK FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
3. APPROVED CONCENTRIC CONE DESIGN MAY BE USED AS AN ALTERNATIVE.

Date	Revisions	Appr. by

CITY OF LAKE CITY

PRECAST MANHOLE DETAIL

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q200 | Fig: 200



STANDARD DROP DETAIL

SPECIAL DETAIL FOR 24" DIAMETER PIPE AND LARGER

STANDARD PRECAST MANHOLE PIPE CONNECTION

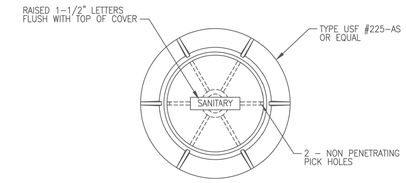
NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATER TIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 2' OR MORE ABOVE THE MANHOLE INVERT.

Date	Revisions	Appr. by

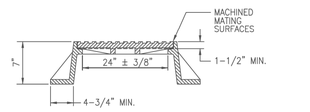
CITY OF LAKE CITY

MANHOLE CONNECTION DETAILS

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q201 | Fig: 201



PLAN



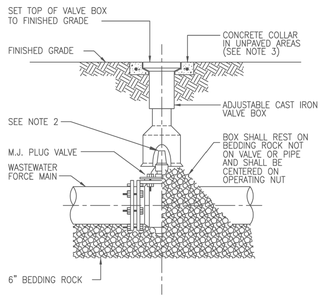
ELEVATION

Date	Revisions	Appr. by

CITY OF LAKE CITY

SANITARY MANHOLE COVER

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q202 | Fig: 202



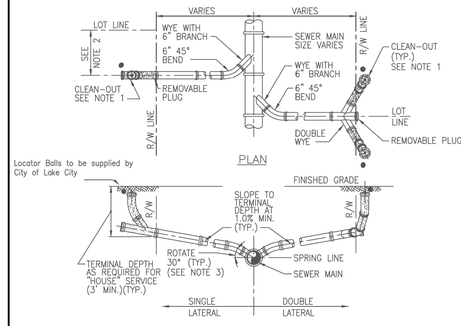
NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.
3. VALVE COLLAR SHALL BE 18"X18"X6" CONCRETE COLLAR W/4 - #4 BARS.

Date	Revisions	Appr. by

CITY OF LAKE CITY

PLUG VALVE AND BOX DETAIL

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q203 | Fig: 203



PROFILE

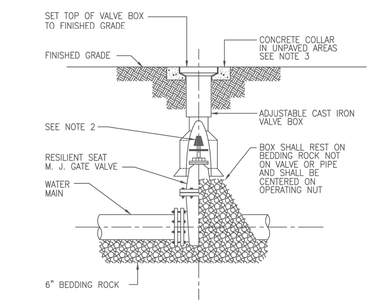
NOTES:
1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE, 25' MAXIMUM.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. SERVICE LATERALS SHALL HAVE A MINIMUM 18" OF COVER BETWEEN R/W TIE-IN AND BUILDING.
5. INDENT CURB WITH 'S' AT EACH SEWER SERVICE LOCATION.

Date	Revisions	Appr. by

CITY OF LAKE CITY

SANITARY SERVICE DETAIL

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q204 | Fig: 204



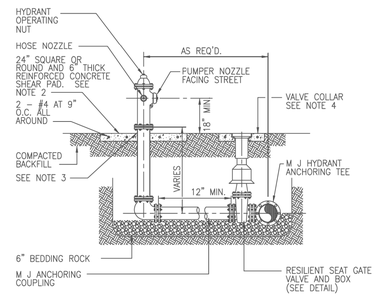
NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.
3. VALVE COLLAR SHALL BE 18"X18"X6" CONCRETE COLLAR W/4 - #4 BARS.

Date	Revisions	Appr. by

CITY OF LAKE CITY

GATE VALVE AND BOX DETAIL

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q400 | Fig: 400



NOTES:
1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
2. THE DEVELOPER MAY INSTALL THE SHEAR PAD RECESSED UP TO 4 INCHES BELOW FINISHED GRADE AND SOD THE RECESSED SECTION.
3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A 6" MINIMUM.
4. VALVE COLLAR SHALL BE 18"X18"X6" CONCRETE COLLAR W/4 - #4 BARS

Date	Revisions	Appr. by

CITY OF LAKE CITY

FIRE HYDRANT ASSEMBLY DETAIL

Date: Sept. 1996 | Scale: N.T.S. | Dwg: Q402 | Fig: 402

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COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT # 50101397
DRAWN BY TFS
APPROVED BY CJA
CHECKED BY RM
DATE JULY 2020
DATUM NAVD 88

TITLE

LAKE CITY UTILITY DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

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C16

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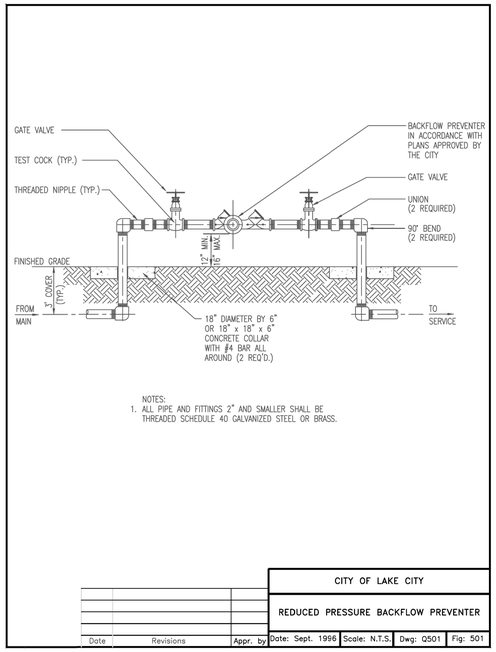
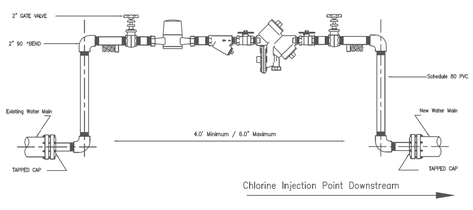


NOTES:
1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL OR BRASS.

			CITY OF LAKE CITY			
			REDUCED PRESSURE BACKFLOW PREVENTER			
Date	Revisions	Appr. by	Date: Sept. 1996	Scale: N.T.S.	Dwg: Q501	Fig: 501

Reduced Pressure Backflow Preventer Assembly
(Provided by Contractor)

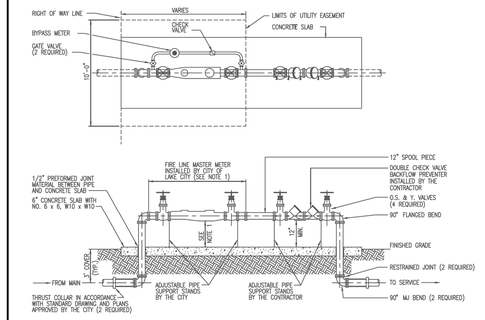
Assembly Must Comply with AWWA M-14 Standards



NOTES:

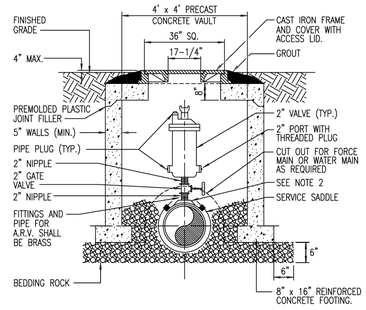
1. FINAL CONNECTION TO BE WITNESSED BY LAKE CITY UTILITIES INSPECTOR
2. INSTALL JUMPER TAP SYSTEM FOR TEMPORARY METER DOWNSTREAM OF BLIND FLANGE FOR CONSTRUCTION WATER
3. TAPPING SADDLES MAY BE EITHER STAINLESS STEEL OR DUCTILE IRON.
4. JUMPER ASSEMBLY MUST BE MINIMUM OF 18 INCHES ABOVE FINISHED GRADE.
5. BACKFLOW ASSEMBLY REQUIRES INITIAL CERTIFICATION BY CERTIFIED BACKFLOW TESTER.
6. THIS ASSEMBLY SHALL ONLY BE USED IF NO COMBUSTIBLES WILL BE ON SITE. IF COMBUSTIBLES ARE BROUGHT ON SITE, THEN THE TEMPORARY BACKFLOW PREVENTERS AND FIRE PROTECTION METER TIE-IN ASSEMBLY WILL BE USED.
7. THIS ASSEMBLY IS NOT APPROVED TO PROVIDE FIRE PROTECTION WATER TO THE SITE DURING CONSTRUCTION. ASSEMBLY NOT TO BE REMOVED AND SPOOL PIECE INSTALLED FOR FINAL CONNECTION UNTIL AFTER TESTING, BACTERIAL CLEARANCE, FINAL INSPECTION AND CITY ACCEPTANCE.
8. GAP CONFIGURATION TO BE INSTALLED WITHIN 24 HOURS OR LESS AT THE DISCRETION OF THE WATER DISTRIBUTION DEPARTMENT

			CITY OF LAKE CITY			
			Jumper Connection Detail			
Date	Revisions	Appr. by	Date: Feb. 2010	Scale: N.T.S.	Dwg: Q501A	Fig: 501A



NOTES:
1. THE CONTRACTOR SHALL CONTACT THE INSPECTOR FOR EXACT ASSEMBLY LENGTH AND HEIGHT ABOVE THE SLAB REQUIRED FOR THE FIRE LINE MASTER METER TO BE INSTALLED BY THE CITY. ALL OTHER PIPE, FITTINGS AND APPURTENANCES SHALL BE INSTALLED BY THE CONTRACTOR.
2. ALL ABOVE GROUND PIPE SHALL BE FLANGED DUCTILE IRON.

			CITY OF LAKE CITY			
			FIRE LINE MASTER METER ASSEMBLY			
Date	Revisions	Appr. by	Date: Sept. 1996	Scale: N.T.S.	Dwg: Q502	Fig: 502



NOTES:
1. ABOVE DETAIL IS BASED ON 2" COMBINATION AIR/VACUUM RELEASE VALVE. CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.

			CITY OF LAKE CITY			
			AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL			
Date	Revisions	Appr. by	Date: Sept. 1996	Scale: N.T.S.	Dwg: Q109	Fig: 109

Dewberry

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ENGINEERING BUSINESS -8794

COLUMBIA COUNTY
DETENTION FACILITY
533 NW QUINTEN STREET
LAKE CITY, FL 32055

COLUMBIA COUNTY
BOARD OF COUNTY
COMMISSIONERS

7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

LAKE CITY UTILITY DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C17

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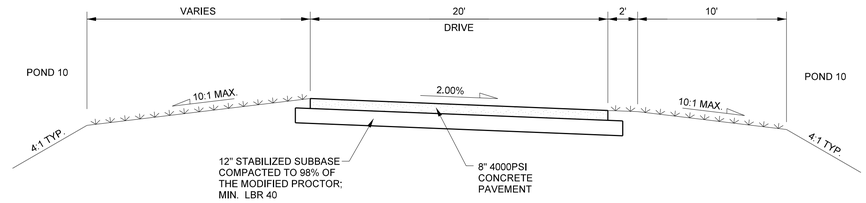
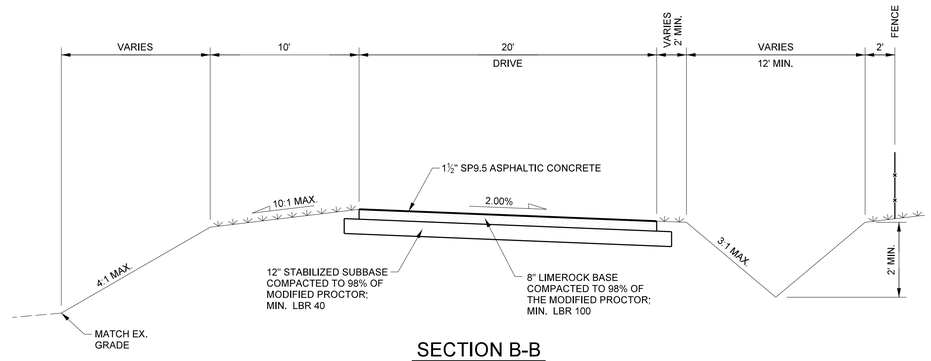


SECTION A-A



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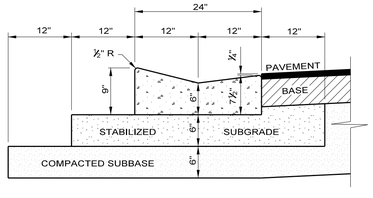
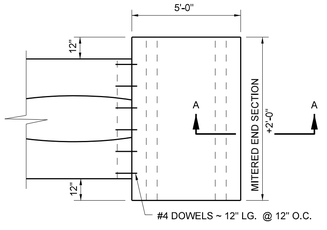
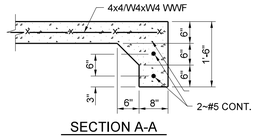


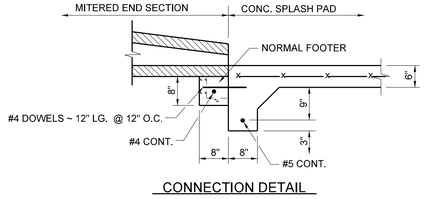
MIAMI CURB & GUTTER DETAIL



PLAN



SECTION A-A



CONNECTION DETAIL

MITERED END SECTION SPLASH PAD DETAIL

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LAKE CITY, FL 32055

COLUMBIA COUNTY
BOARD OF COUNTY
COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
7/10/2020

REVISIONS

No.	DATE	BY	Description
	7-10-20		100% CONSTRUCTION DOCUMENT

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

TYPICAL SECTIONS & GENERAL DETAILS

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

C18

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Dewberry

ARCHITECTS ENGINEERS CONSULTANTS

Drainage Calculations

Columbia County Detention Facility

Columbia County, FL

SRWMD

Job# 50101397 [CCDC-1]

June 2020

PREPARED BY:

Dewberry

800 N Magnolia Ave; Suite 1000
Orlando, FL 32803
321.354.9739

PREPARED FOR:

Columbia County

P.O. Box 1529
Lake City, FL 32056

Dewberry

Drainage Calculations

Columbia County Detention Facility

Columbia County, FL

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PREPARED FOR:

Columbia County
P.O. Box 1529
Lake City, FL 32056

Christopher J Allen, PE
Project Manager
Florida License No.77719

Columbia County Detention Facility Drainage Calculations

TABLE OF CONTENTS

Section A: Project Description and General Information

Columbia County Detention Facility

SRWMD

INTRODUCTION

Columbia County Detention Facility is an expansion to the existing detention facility located on NW Quinten Street in Columbia County, FL. The subject property is located in Section 19, Township 3S, and Range 17. The intent of this report is to provide documentation of the supporting calculations related to the design and construction of all stormwater infrastructure associated with the aforementioned development.

Parcel ID: 19-3S-17-05068-000

PROJECT DESCRIPTION

The Columbia County Detention Facility was previously permitted in 1984 under DER Application #094354 when the site was not under SRWMD jurisdiction. Under this permit, the site was developed with one retention pond designed to service a project area of 11.61 acres. For the purposes of this report, pre-development conditions will be established as the site currently exists. Therefore, new pre-development drainage calculations are included to show that the proposed improvements do not increase the existing staging or discharge criteria.

Project Area: 16.48 acres

Drainage Area: 15.74 acres

The proposed improvements include a 256-bed housing building as an extension to the existing detention center, an access road, and pond.

EXISTING CONDITIONS

Existing Basin Descriptions

The geotechnical report by Cal-Tech, Inc. included with Application #094354 established the water table at the location of the existing pond an elevation of 174'. This matches to the surveyed water elevation of 174.09'. The existing pond discharges excess runoff to the south to swales along NW Quinten St within the County drainage system via an overland weir and discharge pipe.

Please see the appendix of this report for the plans and application for DER App #094354.

Basin Pre 1

Basin Pre 1 consists of 10.08 acres. Plan Sheet SP-1 in the appendix of this report shows details of the constructed retention pond and drainage area. However, based on surveyed grading, the existing pond was constructed with less storage volume and a top of bank of approximately 176.5', lower than the 177.0' top shown in the plans. Runoff generated by this basin is retained in the existing retention pond. An emergency outfall discharges south to swales along NW Quinten St.

Basins Pre 2 & 3

Basins Pre 2 & 3 consist of 2.61 acres and 3.05 acres, respectively. Runoff generated by Basin Pre 3 is partially retained in the existing on-site depression (Node: DEP), which overflows to Basin 2 via overland weir. Basin 2 discharges directly to the on-site wetland to the north (Node: WET).

PROPOSED DEVELOPMENT AND DESIGN CONSIDERATIONS

Proposed Basin Descriptions

Please see Section D for the Post-Development Basin Map.

Basin Post 1

Basin 1 consists of 9.77 acres of land entirely on-site. This includes existing and proposed impervious areas from the detention facility and parking area. Runoff generated by the basin will be directed into the existing retention pond via overland flow and discharges to existing swales on NW Quinten St as it did in pre-development conditions.

Basins Post 2 & 3

Basins 2 & 3 consist of 1.84 acres and 2.26 acres, respectively. Runoff generated by Basins 2 & 3 remain similar to pre-development conditions and discharge to the on-site wetland to the north (Node: WET).

Basin Post 10

Basin 10 consists of 1.87 acres of land entirely on-site, and includes the proposed impervious area from the housing building and road. Runoff generated by the basin will be directed to the proposed dry Pond 10 prior to discharging to the on-site wetland (Node: WET), similar to pre-development conditions. All water quality for the proposed improvements will be treated by proposed Pond 10.

Wetland Impacts

There are no proposed impacts to the on-site wetland.

Water Quantity

Columbia County Requirements

Per Columbia County LDR Article 7.3.7(9), Stormwater management systems shall be designed and constructed to provide retention of runoff volumes such that the peak discharge from the developed site does not exceed the equivalent peak discharge from the undeveloped site.

SRWMD Requirements

The post-developed peak discharge rate must not exceed the pre-developed peak discharge rate for any design storm event. Storage volumes designed into retention or detention systems must recover as follows:

1. One-half of the total volume within seven days following the end of the design storm event, and
2. The total volume within 30 days following the end of the design storm event.

Existing Permit Requirements

Based on the existing DER App#094354, the maximum discharge rate from the retention pond is 23 cfs.

Design Method

Hydrologic soil characteristics were procured from the USDA - NRCS to develop runoff curve numbers by the methodology outlined in SCS TR-55 publication. The time of concentration for the drainage basin was estimated by delineating flow characteristics as overland sheet flow, shallow concentrated flow, or pipe flow, in accordance with the accepted methods presented in the SCS TR-55 publication. Please see Section D for detailed calculations and basin parameters.

The storm events modeled use the total rainfall amounts listed below:

- 100-year 240-hour 16.10 in
- 100-year 168-hour 14.00 in
- 100-year 72-hour 12.40 in
- 100-year 24-hour 9.84 in
- 100-year 8-hour 7.36 in
- 100-year 4-hour 6.08 in
- 100-year 2-hour 5.10 in
- 100-year 1-hour 4.20 in

The total rainfall was based on the rainfall from the SRWMD Design Rainfall Total and corresponds to the rainfall amounts used in the permitted drainage calculations under DER App #094354. Permitted plans are included in the Appendix of this report.

The existing topography according to surveyed data was used as a basis for the pre-development calculations. The stage-storage data for the existing pond as well as the discharge pipe were applied to the pre-development ICPR model along with the current basin area, curve number, and time of concentration. Please refer to Section C for all pre-development ICPR modeling and Section E for post-development ICPR modeling.

Results

A summary of the pre- vs. post-development discharge rates based on the required storm events are shown in the following table. Please note these values are taken from the maximum inflow to the tailwater (Node: Quinten St) in ICPR.

The peak stages resulting from the design storm events are shown in the following table:

Columbia County Detention Facility Post-Development Peak Pond Stages		
Storm Event	Pond 10	Freeboard
100yr/240hr	176.5 ft	1.0 ft
100yr/168hr	176.5 ft	1.0 ft
100yr/72hr	176.4 ft	1.1 ft
100yr/24hr	176.3 ft	1.2 ft
100yr/8hr	176.4 ft	1.2 ft
100yr/4hr	176.3 ft	1.2 ft
100yr/2hr	176.2 ft	1.3 ft
100yr/1hr	176.1 ft	1.4 ft

Link min/max reports are also provided in Section E for the design storms to show there is not an increase in the discharge rate to the drainage outfall from the proposed development.

Water Quality

SRWMD Requirements

The minimum stormwater treatment volume shall be runoff from the first inch of rainfall from the design storm event.

Results

Water quality being provided between the two proposed ponds exceeds the required treatment volume. The table below shows a comparison of the water quality required and water quality provided for the proposed pond.

Columbia County Detention Facility Water Quality Volumes		
Pond	SRWMD WQ Required	WQ Provided
10	0.16 ac-ft	0.19 ac-ft

Flood Protection

No floodplain impacts are included in the proposed development.

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Aerial Exhibit

Columbia County Detention Center

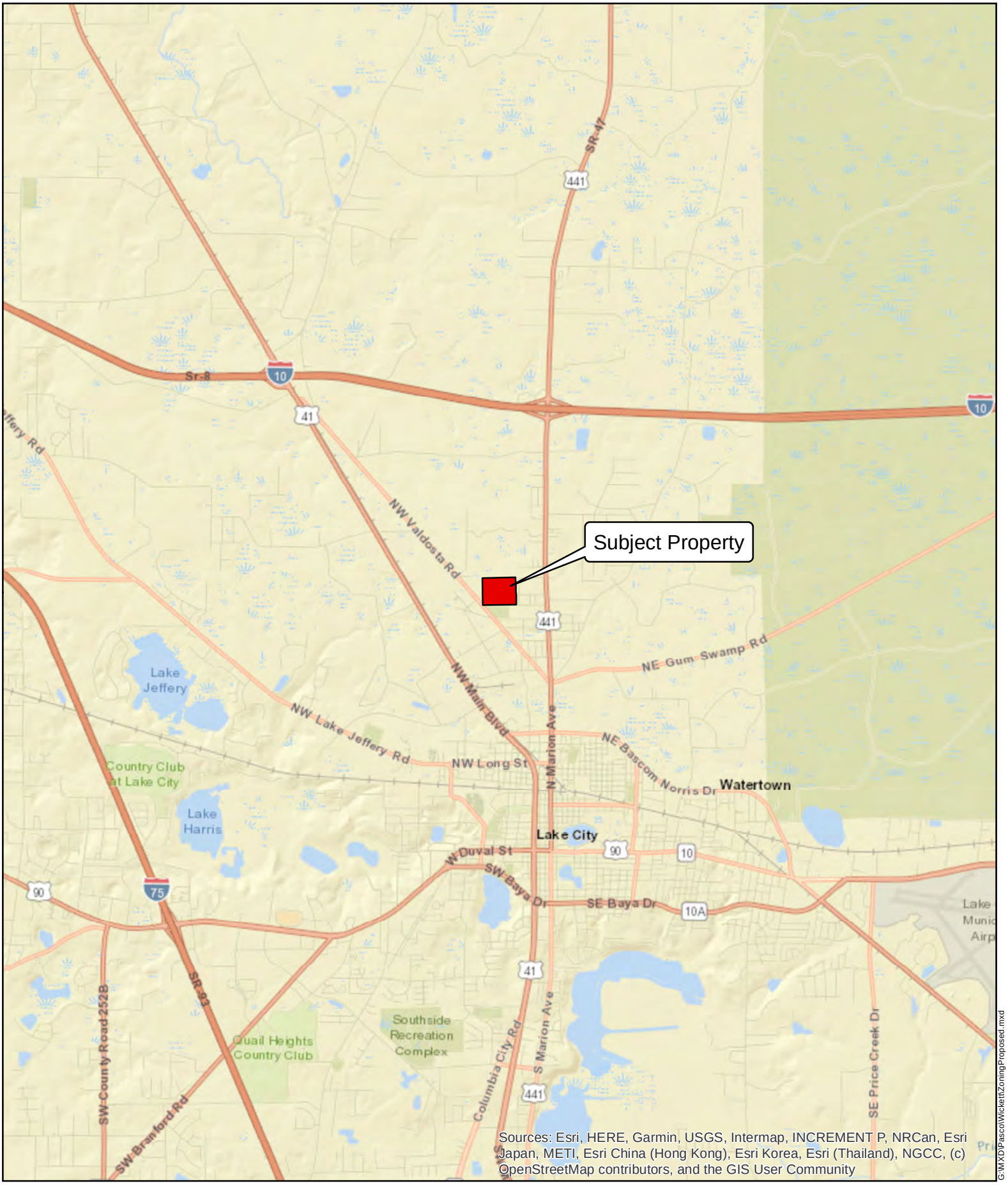
Columbia County, Florida

N

0 200 400 Feet

Data Source: FDOR
Image Source: ESRI

Dewberry



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Regional Location Exhibit

Columbia County Detention Center

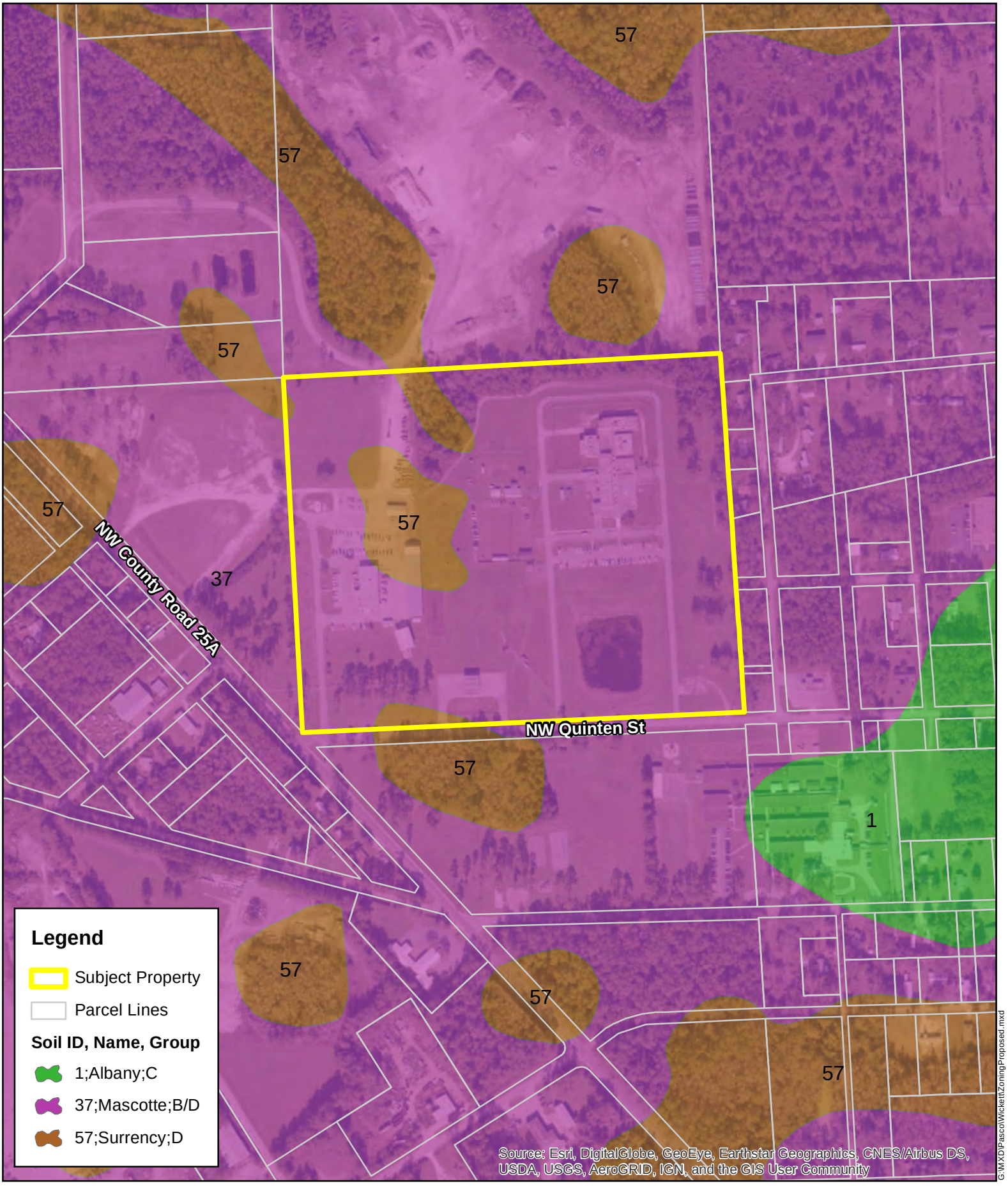
Columbia County, Florida

N

0 0.5 1 Miles

Data Source: FDOR
Image Source: ESRI

Dewberry



Soils Exhibit

Columbia County Detention Center

Columbia County, Florida

N

0 200 400 Feet

Data Source: FDOR, USDA-NRCS
Image Source: ESRI

Dewberry

5' Topographic Contours

Columbia County Detention Center

Columbia County, Florida

N

0 200 400 Feet

Data Source: FDOR, FGDL
Image Source: ESRI

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FEMA Floodzones

Columbia County Detention Center

Columbia County, Florida

N

0 200 400 Feet

Data Source: FDOR, FEMA
Image Source: ESRI

Dewberry

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Wetlands Exhibit

Columbia County Detention Center

Columbia County, Florida

N

0 200 400 Feet

Data Source: FDOR, FGDL
Image Source: ESRI

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Section B: Pre-Development Drainage Calculations

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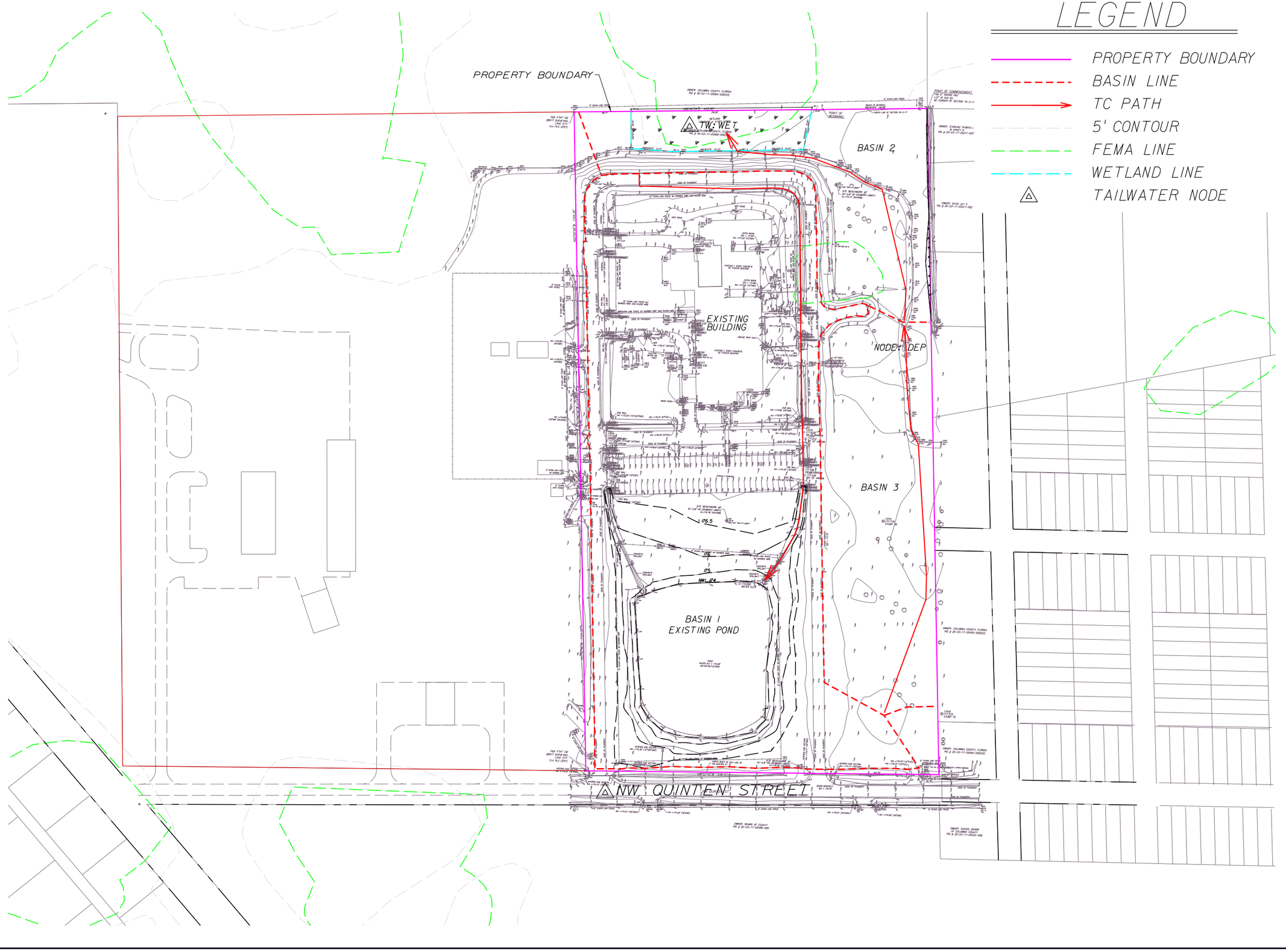

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COLUMBIA COUNTY
DETENTION FACILITY

COLOMBIA COUNTY, FLORIDA

SEAL

6/23/2020

KEY PLAN

SCALE NORTH

0' 80' 160'

N

REVISIONS

No.	DATE	BY	Description

PROJECT #	50101397
DRAWN BY	MDC
APPROVED BY	CJA
CHECKED BY	CJA
DATE	JULY 2020
DATUM	DATUM

TITLE

PRE DEVELOPMENT BASIN MAP

PROJECT: Q:\CCDC-1_50101397\Tech\Drainage

SHEET NO.

EXHIBIT

Columbia County Detention Facility

Pre-Development

Basin Summary

Basin	Total Area (ac)	On-Site (ac)	Off-Site (ac)	CN	TC (min)
1	10.08	10.08	0.00	66	46
2	2.61	2.61	0.00	39	37
3	3.05	3.05	0.00	39	43
TOTAL	15.74	15.74	0.00		

Columbia County Detention Facility

Pre-Development

Basin Curve Number Calculations

Basin #	Area (ac)	Wet Pond (ac)	Wet Pond (%)	Wet Pond CN	Total Impervious (ac)	Total Impervious (%)	Total Impervious CN	Total Pervious (ac)	Total Pervious (%)	Total Pervious CN	Composite CN
1	10.08	1.35	13.4%	100	3.26	32.4%	98	5.46	54.2%	39	66
2	2.61	0.00	0.0%	100	0.00	0.0%	98	2.61	100.0%	39	39
3	3.05	0.00	0.0%	100	0.00	0.0%	98	3.05	100.0%	39	39

Notes:

1. Wet pond area is equal to the area at the surveyed water level for the existing pond.
2. Total impervious area excludes the wet pond area.
3. Impervious area shown includes the existing pavement, detention building, and other impervious areas within the basin based on survey.

Columbia County Detention Facility

Pre-Development

Pre-Development Time of Concentration

FIRST 300' OF PATH								REMAINING PATH								
Drainage Basin	Total Path L (ft)	L1-G (ft)	S1-G (ft/ft)	T1-G (min)	L1-C (ft)	S1-C (ft/ft)	T1-C (min)	L2-G (ft)	S2-G (ft/ft)	T2-G (min)	L2-C (ft)	S2-C (ft/ft)	T2-C (min)	L2-P (ft)	T2-P (min)	TIME Tc (min)
1	998	279	0.006	30.2	21	0.011	0.4	668	0.002	15.6	30	0.023	0.2	0	0.0	46
2	539	300	0.005	33.4	0	0.005	0.0	239	0.004	3.7	30	0.023	0.2	0	0.0	37
3	695	300	0.005	34.6	0	0.005	0.0	395	0.002	8.5	30	0.023	0.2	0	0.0	43

NOTES:

a) L1-G, S1-G & T1-G AND L1-C, S1-C AND T1-C ARE LENGTH, SLOPE AND COMPUTED TIME OF TRAVEL FOR RUNOFF OVER THE FIRST 300 FT OF UNPAVED ("G") AND PAVED ("C") AREAS, USING THE SCS TR-55 SHEET FLOW FORMULA

b) L2-G AND T2-G AND L2-C AND T2-C ARE LENGTH AND COMPUTED TIME OF TRAVEL FOR RUNOFF OVER UNPAVED AND PAVED AREAS USING THE SCS TR-55 EQUATION FOR AVG VELOCITY (SHALLOW CONC. FLOW). THE VELOCITY EQUATION FOR UNPAVED AREAS IS V=16.1345 x SQ RT (SLOPE), AND FOR PAVED AREAS IS V= 20.3282 x SQ RT (SLOPE)

c) L2-P & T2-P ARE LENGTH AND COMPUTED TIME OF TRAVEL FOR RUNOFF THROUGH STORM SEWER PIPES, WHERE THE TRAVEL TIME IS BASED ON A FLOW VELOCITY OF 4 FT/SEC.

d) THE TIME OF CONCENTRATION (Tc) IS THE SUM OF THE OF THE TRAVEL TIMES CALCULATED FOR OVERLAND FLOW AND SHALLOW CONCENTRATED FLOW WITHIN A PARTICULAR BASIN FOR THE FLOW PATH

e) FOR SHEET FLOW (FIRST 300 FT OF TRAVEL PATH) THE FOLLOWING RAINFALL AND N VALUES WERE USED:

N= 0.15 (GRASS) N= 0.011 (PAVEMENT) P2= 4.5 INCHES

Columbia County Detention Facility
Pre-Development
STAGE - STORAGE CALCULATIONS

Existing Pond

ELEVATION (feet)	AREA (acres)	AVG AREA (acres)	DEPTH (feet)	STORAGE (ac-ft)	CUM STORAGE (ac-ft)
174.00	1.35				**0.00**
		1.48	1.00	1.48	
175.00	1.61				**1.48**
		1.96	1.00	1.96	
176.00	2.32				**3.44**
		2.70	0.50	1.35	
176.50	3.08				**4.79**

Section C: Pre-Development ADICPR Routings

Node Max Conditions [Pre-Dev]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
DEP	100yr-168hr	177.00	175.13	0.0010	0.80	0.80	13708
DEP	100yr-1hr	177.00	174.38	0.0007	0.31	0.00	3580
DEP	100yr-240hr	177.00	175.14	0.0010	1.05	1.05	13932
DEP	100yr-24hr	177.00	175.13	0.0010	0.64	0.64	13554
DEP	100yr-2hr	177.00	174.72	0.0009	0.55	0.00	6383
DEP	100yr-4hr	177.00	175.06	0.0010	1.05	0.00	11060
DEP	100yr-72hr	177.00	175.14	0.0010	0.97	0.97	13866
DEP	100yr-8hr	177.00	175.13	0.0010	1.10	0.53	13442
Existing Pond	100yr-168hr	176.50	176.30	0.0010	3.81	3.79	120951
Existing Pond	100yr-1hr	176.50	174.70	0.0010	16.00	0.00	66789
Existing Pond	100yr-240hr	176.50	176.32	0.0010	5.11	5.09	122483
Existing Pond	100yr-24hr	176.50	176.18	0.0010	6.55	1.59	113286
Existing Pond	100yr-2hr	176.50	175.02	0.0010	15.42	0.00	70737
Existing Pond	100yr-4hr	176.50	175.36	0.0010	14.60	0.00	81235
Existing Pond	100yr-72hr	176.50	176.31	0.0010	5.41	4.21	121477
Existing Pond	100yr-8hr	176.50	175.75	0.0010	16.80	0.29	93431
Quinten St	100yr-168hr	175.47	175.46	0.0000	3.79	0.00	0
Quinten St	100yr-1hr	175.47	175.46	0.0000	0.00	0.00	0
Quinten St	100yr-240hr	175.47	175.46	0.0000	5.09	0.00	0
Quinten St	100yr-24hr	175.47	175.46	0.0000	1.59	0.00	0
Quinten St	100yr-2hr	175.47	175.46	0.0000	0.00	0.00	0
Quinten St	100yr-4hr	175.47	175.46	0.0000	0.00	0.00	0
Quinten St	100yr-72hr	175.47	175.46	0.0000	4.21	0.00	0
Quinten St	100yr-8hr	175.47	175.46	0.0000	0.29	0.00	0
WET	100yr-168hr	173.00	172.50	0.0000	1.48	0.00	0
WET	100yr-1hr	173.00	172.50	0.0000	0.30	0.00	0
WET	100yr-240hr	173.00	172.50	0.0000	1.95	0.00	0
WET	100yr-24hr	173.00	172.50	0.0000	1.18	0.00	0
WET	100yr-2hr	173.00	172.50	0.0000	0.48	0.00	0
WET	100yr-4hr	173.00	172.50	0.0000	0.93	0.00	0
WET	100yr-72hr	173.00	172.50	0.0000	1.81	0.00	0
WET	100yr-8hr	173.00	172.50	0.0000	1.00	0.00	0

Link Min/Max Conditions [Pre-Dev]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Over 2	100yr-168hr	0.80	0.00	-0.02	0.00	0.00	0.00
Over 2	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
Over 2	100yr-240hr	1.05	0.00	-0.02	0.00	0.00	0.00
Over 2	100yr-24hr	0.64	0.00	0.01	0.00	0.00	0.00
Over 2	100yr-2hr	0.00	0.00	0.00	0.00	0.00	0.00
Over 2	100yr-4hr	0.00	0.00	0.00	0.00	0.00	0.00
Over 2	100yr-72hr	0.97	0.00	-0.01	0.00	0.00	0.00
Over 2	100yr-8hr	0.53	0.00	0.01	0.00	0.00	0.00
Over Quinten	100yr-168hr	1.74	0.00	-0.03	0.77	0.77	0.77
Over Quinten	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-240hr	2.95	0.00	-0.05	0.87	0.87	0.87
Over Quinten	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-2hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-4hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-72hr	2.13	0.00	0.04	0.81	0.81	0.81
Over Quinten	100yr-8hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-168hr	2.05	0.00	0.01	1.66	3.48	2.57
Pipe	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-240hr	2.14	0.00	0.01	1.71	3.54	2.62
Pipe	100yr-24hr	1.59	0.00	0.00	1.43	3.21	2.32
Pipe	100yr-2hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-4hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-72hr	2.08	0.00	0.01	1.68	3.50	2.59
Pipe	100yr-8hr	0.29	0.00	0.00	0.63	1.96	1.29

Manual Basin Runoff Summary [Pre-Dev]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Basin 1	100yr-168 hr	3.82	160.0000	14.00	9.30	10.0800	66.0	0.00	0.00
Basin 1	100yr-1hr	16.00	1.1000	4.20	1.21	10.0800	66.0	0.00	0.00
Basin 1	100yr-240 hr	5.11	184.0000	16.10	11.25	10.0800	66.0	0.00	0.00
Basin 1	100yr-24h r	6.55	12.2000	9.84	5.57	10.0800	66.0	0.00	0.00
Basin 1	100yr-2hr	15.42	1.3167	5.10	1.80	10.0800	66.0	0.00	0.00
Basin 1	100yr-4hr	14.60	2.8000	6.08	2.50	10.0800	66.0	0.00	0.00
Basin 1	100yr-72h r	5.41	60.0167	12.40	7.84	10.0800	66.0	0.00	0.00
Basin 1	100yr-8hr	16.80	4.2667	7.36	3.50	10.0800	66.0	0.00	0.00
Basin 2	100yr-168 hr	0.68	160.0167	14.00	4.47	2.6100	39.0	0.00	0.00
Basin 2	100yr-1hr	0.30	1.1333	4.20	0.07	2.6100	39.0	0.00	0.00
Basin 2	100yr-240 hr	0.90	184.0167	16.10	5.89	2.6100	39.0	0.00	0.00
Basin 2	100yr-24h r	0.55	15.1667	9.84	2.02	2.6100	39.0	0.00	0.00
Basin 2	100yr-2hr	0.48	1.7500	5.10	0.22	2.6100	39.0	0.00	0.00
Basin 2	100yr-4hr	0.93	3.1667	6.08	0.47	2.6100	39.0	0.00	0.00
Basin 2	100yr-72h r	0.84	60.0500	12.40	3.46	2.6100	39.0	0.00	0.00
Basin 2	100yr-8hr	1.00	4.3167	7.36	0.90	2.6100	39.0	0.00	0.00
Basin 3	100yr-168 hr	0.80	160.0167	14.00	4.47	3.0500	39.0	0.00	0.00
Basin 3	100yr-1hr	0.31	1.2000	4.20	0.07	3.0500	39.0	0.00	0.00
Basin 3	100yr-240 hr	1.05	184.0333	16.10	5.89	3.0500	39.0	0.00	0.00
Basin 3	100yr-24h r	0.64	15.2167	9.84	2.02	3.0500	39.0	0.00	0.00
Basin 3	100yr-2hr	0.55	1.8333	5.10	0.22	3.0500	39.0	0.00	0.00
Basin 3	100yr-4hr	1.05	3.2167	6.08	0.47	3.0500	39.0	0.00	0.00
Basin 3	100yr-72h r	0.97	60.0667	12.40	3.46	3.0500	39.0	0.00	0.00
Basin 3	100yr-8hr	1.10	4.4167	7.36	0.90	3.0500	39.0	0.00	0.00

Manual Basin: Basin 1

Scenario: Pre-Dev
Node: Existing Pond
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 46.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
10.0800	Basin 1	Basin 1			

Comment:

Manual Basin: Basin 2

Scenario: Pre-Dev
Node: WET
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 37.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
2.6100	Pervious	Pervious			

Comment:

Manual Basin: Basin 3

Scenario: Pre-Dev
Node: DEP
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 43.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
3.0500	Pervious	Pervious			

Comment:

Node: DEP

Scenario: Pre-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 174.00 ft
Warning Stage: 177.00 ft

Stage [ft]	Area [ac]	Area [ft2]
174.00	0.0100	436
175.00	0.2000	8712
176.00	1.0500	45738

Comment:

Node: Existing Pond

Scenario: Pre-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 174.00 ft
Warning Stage: 176.50 ft

Stage [ft]	Area [ac]	Area [ft2]
174.00	1.3500	58806
175.00	1.6100	70132
176.00	2.3200	101059
176.50	3.0800	134165

Comment:

Node: Quinten St

Scenario: Pre-Dev
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 175.46 ft
Warning Stage: 175.47 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	175.46
0	0	0	9999.0000	175.46

Comment:

Node: WET

Scenario: Pre-Dev
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 172.50 ft

Warning Stage: 173.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	172.50
0	0	0	9999.0000	172.50

Comment:

Weir Link: Over 2

Scenario: Pre-Dev
From Node: DEP
To Node: WET
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Broad Crested Vertical
Geometry Type: Irregular
Invert: 175.10 ft
Control Elevation: 175.10 ft
Cross Section: 3-2

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients
Weir Default: 3.200
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment:

Weir Link: Over Quinten

Scenario: Pre-Dev
From Node: Existing Pond
To Node: Quinten St
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft
Weir Type: Broad Crested Vertical
Geometry Type: Irregular
Invert: 176.20 ft
Control Elevation: 176.20 ft
Cross Section: Quinten-W

Bottom Clip
Default: 0.00 ft
Op Table:
Ref Node:

Top Clip
Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients
Weir Default: 3.200
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment:

Pipe Link: Pipe

Scenario: Pre-Dev
From Node: Existing Pond
To Node: Quinten St
Link Count: 1
Flow Direction: Both
Damping: 0.0000 ft

Upstream
Invert: 175.36 ft
Manning's N: 0.0120
Geometry: Horizontal Ellipse
Max Depth: 1.00 ft
Bottom Clip
Default: 0.00 ft

Downstream
Invert: 175.46 ft
Manning's N: 0.0120
Geometry: Horizontal Ellipse
Max Depth: 1.00 ft
Default: 0.00 ft

Length:	29.00 ft	Op Table:		Op Table:	
FHWA Code:	30	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 ft	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

Simulation: 100yr-168hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:29:54 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	180.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3

Green-Ampt Set:	ICPR3
Vertical Layers Set:	
Impervious Set:	ICPR3
Roughness Set:	
Crop Coef Set:	
Fillable Porosity Set:	
Conductivity Set:	
Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-168
		Rainfall Amount:	14.00 in
Edge Length Option:	Automatic	Storm Duration:	168.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-1hr

Scenario:	Pre-Dev
Run Date/Time:	6/24/2020 12:32:33 PM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-1
Rainfall Amount: 4.20 in
Storm Duration: 1.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100yr-240hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:33:00 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	255.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-240

		Rainfall Amount:	16.10 in
Edge Length Option:	Automatic	Storm Duration:	240.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-24hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:36:27 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3

Folder:

Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-24
		Rainfall Amount:	9.84 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-2hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:36:50 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-2
Rainfall Amount: 5.10 in
Storm Duration: 2.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100yr-4hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:37:15 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global

Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-4
		Rainfall Amount:	6.08 in
Edge Length Option:	Automatic	Storm Duration:	4.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-72hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:37:42 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	85.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:

Unit Hydrograph Folder:	ICPR3	Curve Number Set:	ICPR3
		Green-Ampt Set:	ICPR3
		Vertical Layers Set:	
		Impervious Set:	ICPR3
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-72
		Rainfall Amount:	12.40 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-8hr

Scenario: Pre-Dev
Run Date/Time: 6/24/2020 12:39:01 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-8
Rainfall Amount: 7.36 in
Storm Duration: 8.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10yr-24hr

Scenario: Pre-Dev
Run Date/Time: 6/23/2020 2:44:41 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global

Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-24
		Rainfall Amount:	6.72 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 10yr-72hr

Scenario: Pre-Dev
Run Date/Time: 6/23/2020 2:45:05 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	85.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3

Lookup Tables

Boundary Stage Set:

Reference ET Folder:		Extern Hydrograph Set:	
Unit Hydrograph Folder:	ICPR3	Curve Number Set:	ICPR3
		Green-Ampt Set:	ICPR3
		Vertical Layers Set:	
		Impervious Set:	ICPR3
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-72
		Rainfall Amount:	8.30 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 25yr-24hr

Scenario:	Pre-Dev
Run Date/Time:	6/23/2020 2:46:08 PM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-24
Rainfall Amount: 7.92 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25yr-72hr

Scenario: Pre-Dev

Run Date/Time: 6/23/2020 2:46:29 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	85.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec
IA Recovery Time: 24.0000 hr
ET for Manual Basins: False

Fact:			
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-72
		Rainfall Amount:	10.00 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: Mean-24hr

Scenario: Pre-Dev
Run Date/Time: 6/23/2020 2:47:29 PM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	999.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

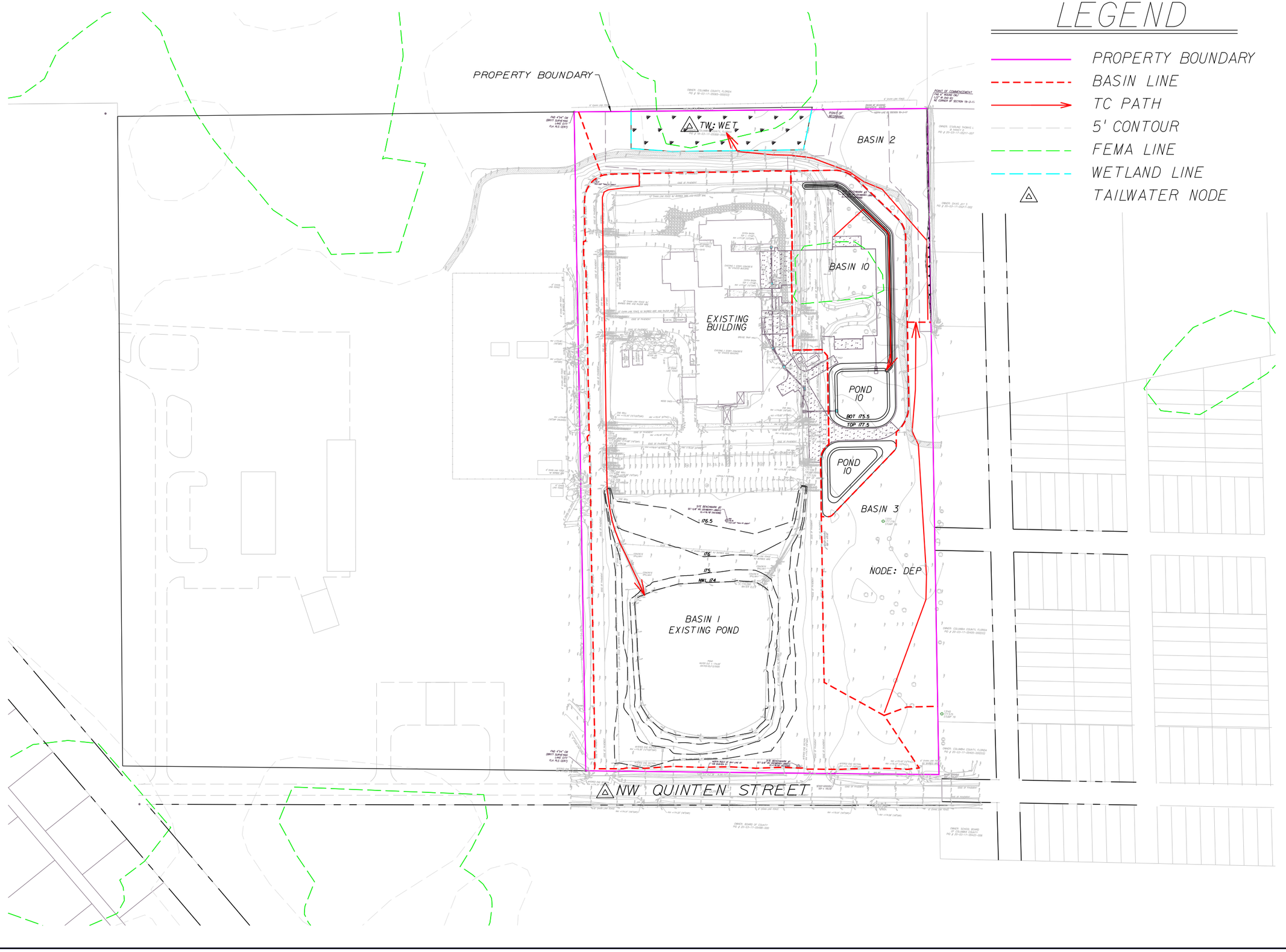
Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:	ICPR3	Boundary Stage Set:	
Reference ET Folder:		Extern Hydrograph Set:	
Unit Hydrograph Folder:	ICPR3	Curve Number Set:	ICPR3
		Green-Ampt Set:	ICPR3
		Vertical Layers Set:	
		Impervious Set:	ICPR3
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options			
Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Flmod
		Rainfall Amount:	3.70 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Section D: Post-Development Calculations



LEGEND

- PROPERTY BOUNDARY
- BASIN LINE
- TC PATH
- 5' CONTOUR
- FEMA LINE
- WETLAND LINE
- TAILWATER NODE

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS #8794

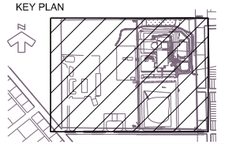
COLUMBIA COUNTY DETENTION FACILITY

COLOMBIA COUNTY, FLORIDA

SEAL

6/24/2020

KEY PLAN



SCALE NORTH

0' 80' 160'

N

REVISIONS

No.	DATE	BY	Description

PROJECT #	50101397
DRAWN BY	MDC
APPROVED BY	CJA
CHECKED BY	CJA
DATE	JUNE 2020
DATUM	DATUM

TITLE

POST DEVELOPMENT BASIN MAP

PROJECT: Q:\CCDC-1_50101397\Tech\Drainage

SHEET NO.

EXHIBIT

Columbia County Detention Facility

Post-Development
Summary Tables

Existing Pond Pre- vs. Post-Development Peak Stages

Storm Event	Existing Pond TOB (ft)	Pre-Dev Peak Stage (ft)	Post-Dev Peak Stage (ft)	Difference (ft)
100yr/240hr	176.5	176.3	176.3	0.0
100yr/168hr		176.3	176.3	0.0
100yr/72hr		176.3	176.3	0.0
100yr/24hr		176.2	176.2	0.0
100yr/8hr		175.8	175.8	-0.1
100yr/4hr		175.4	175.4	0.0
100yr/2hr		175.0	175.0	0.0
100yr/1hr		174.7	174.7	0.0

Pond 10 Post-Development Peak Stages

Storm Event	Pond 10 TOB (ft)	Peak Stage (ft)	Freeboard (ft)
100yr/240hr	177.5	176.5	1.0
100yr/168hr		176.5	1.0
100yr/72hr		176.4	1.1
100yr/24hr		176.3	1.2
100yr/8hr		176.4	1.2
100yr/4hr		176.3	1.2
100yr/2hr		176.2	1.3
100yr/1hr		176.1	1.4

Pre vs Post Discharge to NW Quinten St

Storm Event	Pre-Dev Peak Discharge (cfs)	Post-Dev Peak Discharge (cfs)	Difference (cfs)
100yr/240hr	5.09	4.97	-0.12
100yr/168hr	3.79	3.70	-0.09
100yr/72hr	4.21	3.98	-0.23
100yr/24hr	1.59	1.55	-0.04
100yr/8hr	0.29	0.29	0.00
100yr/4hr	0.00	0.00	0.00
100yr/2hr	0.00	0.00	0.00
100yr/1hr	0.00	0.00	0.00

Pre vs Post Discharge to Wetland

Storm Event	Pre-Dev Peak Discharge (cfs)	Post-Dev Peak Discharge (cfs)	Difference (cfs)
100yr/240hr	1.95	1.67	-0.28
100yr/168hr	1.48	1.41	-0.07
100yr/72hr	1.81	1.15	-0.66
100yr/24hr	1.18	0.58	-0.60
100yr/8hr	1.00	0.75	-0.25
100yr/4hr	0.93	0.71	-0.22
100yr/2hr	0.48	0.38	-0.10
100yr/1hr	0.30	0.21	-0.09

Columbia County Detention Facility

Post-Development

Basin Summary & Permitting Conditions

Basin	Total Area (ac)	On-Site (ac)	Off-Site (ac)	Total Imperv Area (ac)	Imperv (%)	CCN	TC (min)
1	9.77	9.77	0	2.90	30%	67	46
2	1.84	1.84	0	0.00	0%	39	38
3	2.26	2.26	0	0.00	0%	39	44
10	1.87	1.87	0	1.05	56%	72	22
TOTAL	15.74	15.74	0.00	3.95			

Note:

1. Impervious area excludes pond area within each basin.

Columbia County Detention Facility

Post-Development

Basin Curve Number Calculations

Basin #	Area (ac)	Wet Pond (ac)	Wet Pond (%)	Wet Pond CN	Proposed Impervious (ac)	Proposed Impervious (%)	Existing Impervious (ac)	Existing Impervious (%)	Total Impervious (ac)	Total Impervious (%)	Total Impervious CN	Total Pervious (ac)	Total Pervious (%)	Total Pervious CN	Composite CN
1	9.77	1.35	13.9%	100	0.00	0.0%	2.90	29.7%	2.90	29.7%	98	6.15	63.0%	39	67
2	1.84	0.00	0.0%	100	0.00	0.0%	0.00	0.0%	0.00	0.0%	98	1.84	100.0%	39	39
3	2.26	0.00	0.0%	100	0.00	0.0%	0.00	0.0%	0.00	0.0%	98	2.26	100.0%	39	39
10	1.87	0.00	0.0%	100	1.05	56.0%	0.00	0.0%	1.05	56.0%	98	0.82	44.0%	39	72
TOTAL	15.74						2.90		3.95			11.07			

Notes:

1. Wet pond area is equal to the area at the surveyed water level for the existing pond.
2. Total impervious area excludes the wet pond area.
3. Existing impervious area shown includes the existing pavement, detention building, and other impervious areas within the basin based on survey. The value shown above is less than pre-development values because a portion of the existing impervious area is proposed to be demolished or moved to the proposed Basin 10.
4. Total impervious area excludes the pond area.

Columbia County Detention Facility

Post-Development

Post-Development Time of Concentration

FIRST 300' OF PATH								REMAINING PATH								
Drainage Basin	Total Path L (ft)	L1-G (ft)	S1-G (ft/ft)	T1-G (min)	L1-C (ft)	S1-C (ft/ft)	T1-C (min)	L2-G (ft)	S2-G (ft/ft)	T2-G (min)	L2-C (ft)	S2-C (ft/ft)	T2-C (min)	L2-P (ft)	T2-P (min)	TIME Tc (min)
1	998	279	0.006	30.2	21	0.011	0.4	668	0.002	15.6	30	0.023	0.2	0	0.0	46
2	562	300	0.005	33.4	0	0.005	0.0	262	0.004	4.1	100	0.012	0.7	0	0.0	38
3	700	300	0.005	34.6	0	0.005	0.0	400	0.002	8.7	100	0.012	0.7	0	0.0	44
10	364	50	0.001	15.7	0	0.005	0.0	314	0.003	6.0	0	1.005	0.0	0	0.0	22

NOTES:

a) L1-G, S1-G & T1-G AND L1-C, S1-C AND T1-C ARE LENGTH, SLOPE AND COMPUTED TIME OF TRAVEL FOR RUNOFF OVER THE FIRST 300 FT OF UNPAVED ("G") AND PAVED ("C") AREAS, USING THE SCS TR-55 SHEET FLOW FORMULA

b) L2-G AND T2-G AND L2-C AND T2-C ARE LENGTH AND COMPUTED TIME OF TRAVEL FOR RUNOFF OVER UNPAVED AND PAVED AREAS USING THE SCS TR-55 EQUATION FOR AVG VELOCITY (SHALLOW CONC. FLOW). THE VELOCITY EQUATION FOR UNPAVED AREAS IS V=16.1345 x SQ RT (SLOPE), AND FOR PAVED AREAS IS V= 20.3282 x SQ RT (SLOPE)

c) L2-P & T2-P ARE LENGTH AND COMPUTED TIME OF TRAVEL FOR RUNOFF THROUGH STORM SEWER PIPES, WHERE THE TRAVEL TIME IS BASED ON A FLOW VELOCITY OF 4 FT/SEC.

d) THE TIME OF CONCENTRATION (Tc) IS THE SUM OF THE OF THE TRAVEL TIMES CALCULATED FOR OVERLAND FLOW AND SHALLOW CONCENTRATED FLOW WITHIN A PARTICULAR BASIN FOR THE FLOW PATH

e) FOR SHEET FLOW (FIRST 300 FT OF TRAVEL PATH) THE FOLLOWING RAINFALL AND N VALUES WERE USED:

N= 0.15 (GRASS) N= 0.011 (PAVEMENT) P2= 4.5 INCHES

Columbia County Detention Facility
Post-Development
Water Quality Calculations

SRWMD Water Quality Criteria

Basin #	Pond #	Area (ac)	Water Quality 1 in x area (ac-ft)	Normal W.Q. Required (ac-ft)	W.Q. Provided (ac-ft)
1	1	9.77	0.81	0.81	2.38
10	10	1.87	0.16	0.16	0.19

Columbia County Detention Facility
Post-Development
STAGE - STORAGE CALCULATIONS

Existing Pond

ELEVATION (feet)	AREA (acres)	AVG AREA (acres)	DEPTH (feet)	STORAGE (ac-ft)	CUM STORAGE (ac-ft)
174.00	1.35				**0.00**
		1.48	1.00	1.48	
175.00	1.61				**1.48**
		1.96	1.00	1.96	
176.00	2.32				**3.44**
		2.57	0.50	1.29	
176.50	2.83				**4.73**

Required Treatment Volume =	0.81	Ac-ft
Set Weir at or above =	174.55	feet
Weir Set at =	175.46	feet
Provided Treatment Volume =	2.38	Ac-ft

Note:

1. Weir shown above is taken from surveyed elevation of the existing discharge pipe.

Pond 10

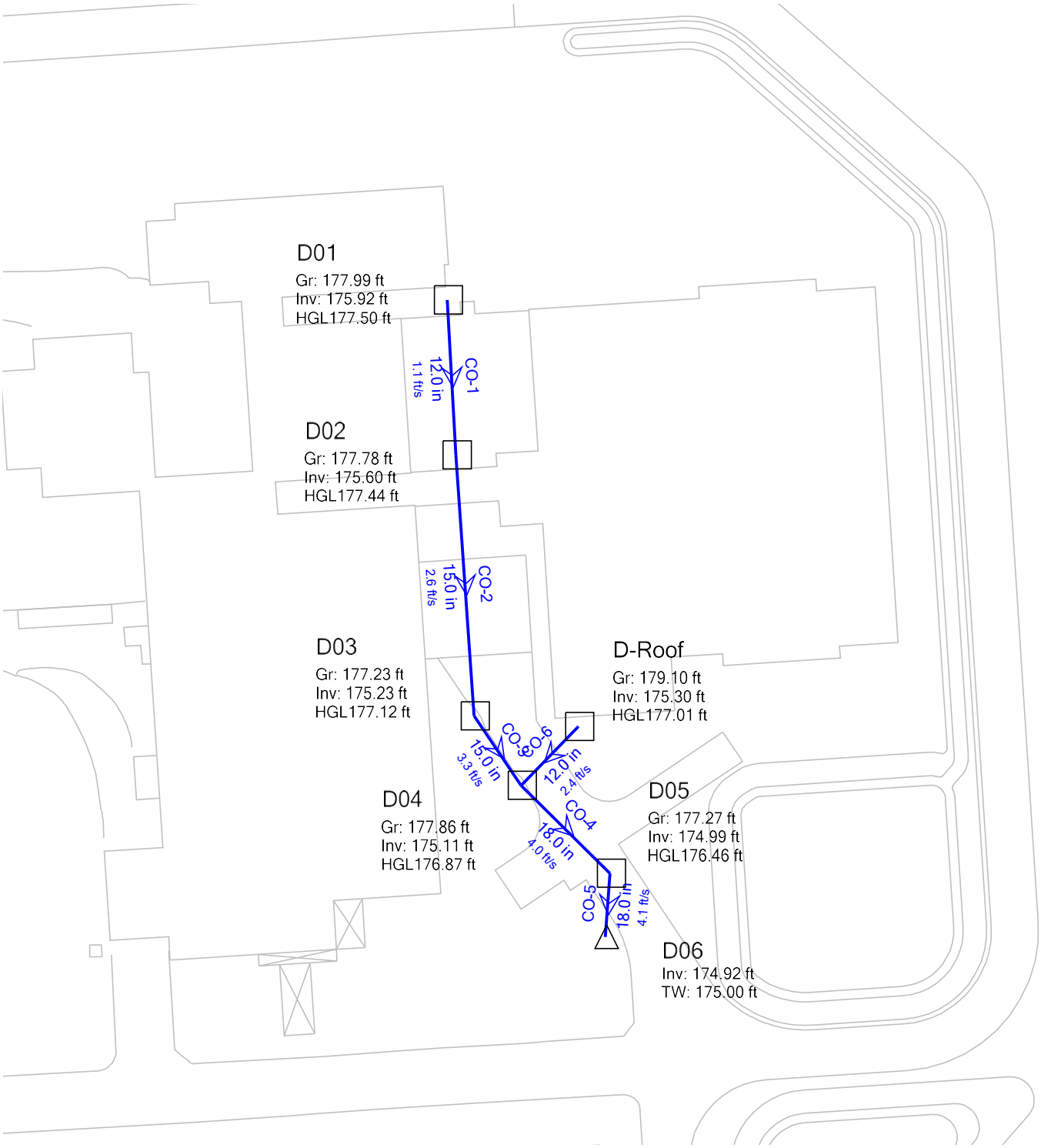
ELEVATION (feet)	AREA (acres)	AVG AREA (acres)	DEPTH (feet)	STORAGE (ac-ft)	CUM STORAGE (ac-ft)
175.50	0.41				**0.00**
		0.48	1.00	0.48	
176.50	0.55				**0.48**
		0.69	1.00	0.69	
177.50	0.83				**1.17**

Required Treatment Volume =	0.16	Ac-ft
Set Weir at or above =	175.83	feet
Weir Set at =	175.90	feet
Provided Treatment Volume =	0.19	Ac-ft

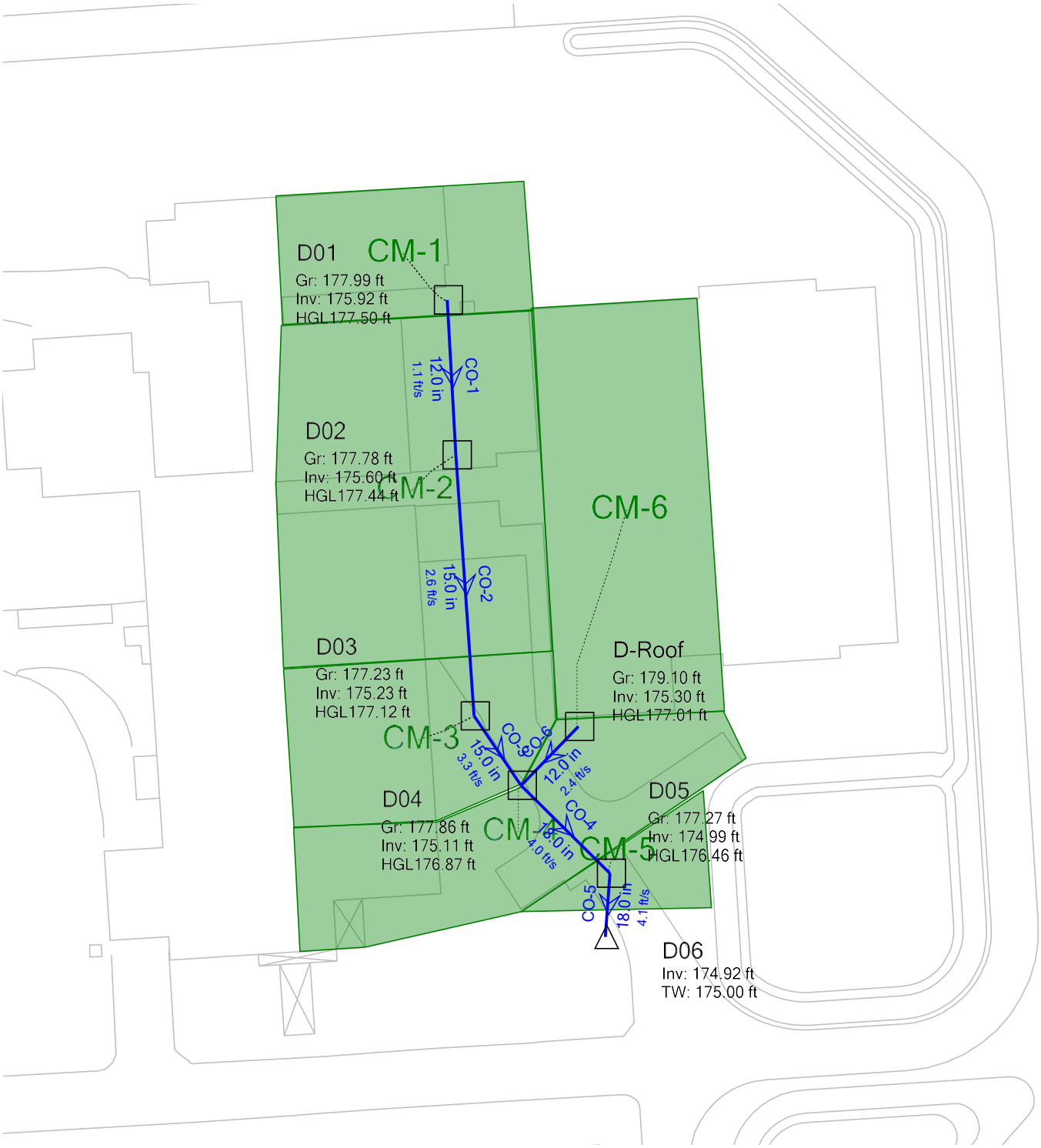
StormCAD: Secondary System Calculations

www.dewberry.com

Scenario: Base



Scenario: Base



FlexTable: Catch Basin Table

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Inlet Drainage Area (acres)	Inlet C	Local CA (acres)	Intercepted Intensity (in/h)	Local Rational Flow (ft^3/s)	Headloss Coefficient (Standard)	Inlet Location
D-Roof	179.10	175.30	177.01	176.93	0.287	0.950	0.273	6.722	1.85	1.000	In Sag
D01	177.99	175.92	177.50	177.48	0.134	0.950	0.127	6.722	0.86	1.000	In Sag
D02	177.78	175.60	177.44	177.39	0.376	0.950	0.357	6.722	2.42	0.500	In Sag
D03	177.23	175.23	177.12	177.02	0.165	0.950	0.156	6.722	1.06	0.600	In Sag
D04	177.86	175.11	176.87	176.70	0.216	0.950	0.205	6.722	1.39	0.700	In Sag
D05	177.27	174.99	176.46	176.26	0.047	0.950	0.044	6.722	0.30	0.600	In Sag

FlexTable: Conduit Table

Label	Start Node	Invert (Start) (ft)	Stop Node	Invert (Stop) (ft)	Slope (Calculated) (ft/ft)	Length (Scaled) (ft)	Size	Manning's n	Velocity (ft/s)	Flow (ft^3/s)	Capacity (Full Flow) (ft^3/s)	Area (Flow) (ft^2)	Headloss (ft)
CO-1	D01	175.92	D02	175.60	0.005	66.3	12 inch	0.013	1.1	0.86	2.48	0.3	0.04
CO-2	D02	175.60	D03	175.23	0.003	111.6	15 inch	0.013	2.6	3.17	3.71	0.9	0.27
CO-3	D03	175.23	D04	175.11	0.003	35.8	15 inch	0.013	3.3	4.09	3.73	1.2	0.14
CO-4	D04	175.11	D05	174.99	0.002	53.3	18 inch	0.013	4.0	7.10	5.00	1.8	0.24
CO-5	D05	174.99	D06	174.92	0.003	27.3	18 inch	0.013	4.1	7.33	5.35	1.8	0.29
CO-6	D-Roof	175.30	D04	175.11	0.005	35.0	12 inch	0.010	2.4	1.85	3.41	0.4	0.06

FlexTable: Catchment Table

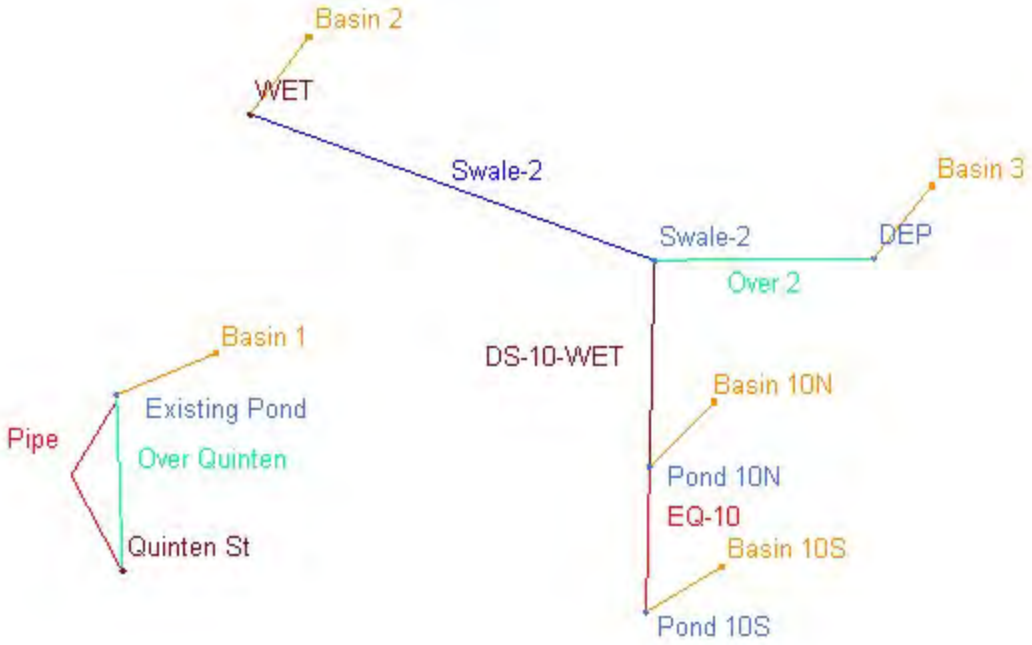
Label	Outflow Element	Runoff Coefficient (Rational)	Use Scaled Area?	Scaled Area (acres)	Time of Concentration (min)	Catchment Intensity (in/h)	Flow (Total Out) (ft^3/s)
CM-1	D01	0.950	True	0.134	10.000	6.722	0.86
CM-2	D02	0.950	True	0.376	10.000	6.722	2.42
CM-3	D03	0.950	True	0.165	10.000	6.722	1.06
CM-4	D04	0.950	True	0.216	10.000	6.722	1.39
CM-5	D05	0.950	True	0.047	10.000	6.722	0.30
CM-6	D-Roof	0.950	True	0.287	10.000	6.722	1.85

FlexTable: Outfall Table

Label	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Elevation (User Defined Tailwater) (ft)	Flow (Total Out) (ft^3/s)
D06	177.40	174.92	175.00	7.30

Section E:

Post-Development ICPR Input & Results


Basin 2
WET
Swale-2
Basin 3
Swale-2
DEP
Over 2
Basin 1
DS-10-WET
Basin 10N
Existing Pond
Pipe
Over Quinten
Pond 10N
EQ-10
Basin 10S
Quinten St
Pond 10S

Node Max Conditions [Post-Dev]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
DEP	100yr-168hr	177.00	176.47	0.0010	0.59	1.13	45738
DEP	100yr-1hr	177.00	175.13	0.0010	0.23	0.00	6345
DEP	100yr-240hr	177.00	176.50	0.0010	1.08	0.99	45738
DEP	100yr-24hr	177.00	176.27	0.0010	1.34	0.42	45738
DEP	100yr-2hr	177.00	175.49	0.0010	0.94	0.00	22524
DEP	100yr-4hr	177.00	175.74	0.0010	1.79	0.00	33903
DEP	100yr-72hr	177.00	176.43	0.0010	1.11	0.92	45738
DEP	100yr-8hr	177.00	176.00	0.0010	2.00	0.00	45738
Existing Pond	100yr-168hr	176.50	176.30	0.0010	3.72	3.70	120823
Existing Pond	100yr-1hr	176.50	174.72	0.0007	16.28	0.00	66933
Existing Pond	100yr-240hr	176.50	176.32	0.0010	4.99	4.97	122350
Existing Pond	100yr-24hr	176.50	176.18	0.0010	6.49	1.55	112725
Existing Pond	100yr-2hr	176.50	175.03	0.0010	15.63	0.00	71045
Existing Pond	100yr-4hr	176.50	175.36	0.0010	14.60	0.00	81392
Existing Pond	100yr-72hr	176.50	176.30	0.0010	5.29	3.98	121194
Existing Pond	100yr-8hr	176.50	175.75	0.0010	16.77	0.29	93386
Pond 10N	100yr-168hr	177.50	176.49	0.0010	0.70	0.62	17825
Pond 10N	100yr-1hr	177.50	176.05	0.0010	5.27	1.06	15730
Pond 10N	100yr-240hr	177.50	176.53	0.0010	0.92	0.95	18144
Pond 10N	100yr-24hr	177.50	176.28	0.0010	1.26	0.93	16861
Pond 10N	100yr-2hr	177.50	176.19	0.0010	4.54	1.02	16427
Pond 10N	100yr-4hr	177.50	176.31	0.0010	3.04	1.15	16995
Pond 10N	100yr-72hr	177.50	176.44	0.0010	0.96	0.70	17615
Pond 10N	100yr-8hr	177.50	176.35	0.0010	3.69	1.34	17200
Pond 10S	100yr-168hr	177.50	176.49	0.0009	0.09	0.07	5682
Pond 10S	100yr-1hr	177.50	176.05	0.0010	0.95	0.03	5109
Pond 10S	100yr-240hr	177.50	176.53	0.0010	0.12	0.10	5835
Pond 10S	100yr-24hr	177.50	176.28	0.0010	0.25	0.12	5420
Pond 10S	100yr-2hr	177.50	176.19	0.0010	1.11	0.12	5301
Pond 10S	100yr-4hr	177.50	176.31	0.0010	1.11	0.18	5458
Pond 10S	100yr-72hr	177.50	176.44	0.0009	0.14	0.07	5625
Pond 10S	100yr-8hr	177.50	176.36	0.0010	1.22	0.20	5513

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Quinten St	100yr-168hr	175.47	175.46	0.0000	3.70	0.00	0
Quinten St	100yr-1hr	175.47	175.46	0.0000	0.00	0.00	0
Quinten St	100yr-240hr	175.47	175.46	0.0000	4.97	0.00	0
Quinten St	100yr-24hr	175.47	175.46	0.0000	1.55	0.00	0
Quinten St	100yr-2hr	175.47	175.46	0.0000	0.00	0.00	0
Quinten St	100yr-4hr	175.47	175.46	0.0000	0.00	0.00	0
Quinten St	100yr-72hr	175.47	175.46	0.0000	3.98	0.00	0
Quinten St	100yr-8hr	175.47	175.46	0.0000	0.29	0.00	0
Swale-2	100yr-168hr	177.94	176.47	0.0010	1.47	0.94	4070
Swale-2	100yr-1hr	177.94	176.04	0.0010	0.20	0.02	2921
Swale-2	100yr-240hr	177.94	176.50	0.0010	1.42	1.08	4190
Swale-2	100yr-24hr	177.94	176.27	0.0010	0.93	0.93	3559
Swale-2	100yr-2hr	177.94	176.08	0.0010	0.62	0.62	3032
Swale-2	100yr-4hr	177.94	176.10	0.0010	1.12	1.12	3076
Swale-2	100yr-72hr	177.94	176.42	0.0010	1.26	0.79	3958
Swale-2	100yr-8hr	177.94	176.11	0.0010	1.33	1.33	3093
WET	100yr-168hr	173.00	172.50	0.0000	1.41	0.00	0
WET	100yr-1hr	173.00	172.50	0.0000	0.21	0.00	0
WET	100yr-240hr	173.00	172.50	0.0000	1.67	0.00	0
WET	100yr-24hr	173.00	172.50	0.0000	0.58	0.00	0
WET	100yr-2hr	173.00	172.50	0.0000	0.38	0.00	0
WET	100yr-4hr	173.00	172.50	0.0000	0.71	0.00	0
WET	100yr-72hr	173.00	172.50	0.0000	1.15	0.00	0
WET	100yr-8hr	173.00	172.50	0.0000	0.75	0.00	0

Link Min/Max Conditions [Post-Dev]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DS-10-WET - Pipe	100yr-168hr	0.61	0.00	-0.07	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-168hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-168hr	0.62	0.00	-0.06	0.88	0.88	0.88
DS-10-WET - Pipe	100yr-1hr	0.20	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-1hr	0.20	0.00	0.00	1.20	1.20	1.20
DS-10-WET - Pipe	100yr-240hr	0.92	0.00	0.14	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-240hr	0.17	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-240hr	0.78	0.00	-0.30	1.61	1.61	1.61
DS-10-WET - Pipe	100yr-24hr	0.93	0.00	-0.03	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-24hr	0.93	0.00	-0.06	1.84	1.84	1.84
DS-10-WET - Pipe	100yr-2hr	0.62	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-2hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-2hr	0.63	0.00	0.00	1.65	1.65	1.65
DS-10-WET - Pipe	100yr-4hr	1.12	0.00	-0.01	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-4hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-4hr	1.12	0.00	0.00	1.93	1.93	1.93
DS-10-WET - Pipe	100yr-72hr	0.70	0.00	0.04	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 2	100yr-72hr	0.70	0.00	-0.06	1.65	1.65	1.65
DS-10-WET - Pipe	100yr-8hr	1.33	0.00	0.00	0.00	0.00	0.00
DS-10-WET - Weir: 1	100yr-8hr	0.00	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DS-10-WET - Weir: 2	100yr-8hr	1.34	0.00	0.00	2.02	2.02	2.02
EQ-10	100yr-168hr	0.07	-0.04	-0.01	-0.44	-0.62	-0.52
EQ-10	100yr-1hr	0.03	-0.90	0.01	-1.64	-2.33	-1.97
EQ-10	100yr-240hr	0.10	-0.06	-0.05	-0.53	-0.82	-0.66
EQ-10	100yr-24hr	0.12	-0.11	-0.01	-0.63	-0.95	-0.75
EQ-10	100yr-2hr	0.12	-0.85	0.01	-1.57	-2.16	-1.85
EQ-10	100yr-4hr	0.18	-0.68	0.03	-1.38	-1.83	-1.59
EQ-10	100yr-72hr	0.07	-0.06	0.01	-0.47	-0.74	-0.61
EQ-10	100yr-8hr	0.20	-0.69	0.01	-1.35	-1.73	-1.52
Over 2	100yr-168hr	1.13	-0.13	-1.13	-0.22	-0.22	-0.22
Over 2	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
Over 2	100yr-240hr	0.99	-0.45	-1.00	-0.48	-0.48	-0.48
Over 2	100yr-24hr	0.42	-0.87	-0.41	-0.62	-0.62	-0.62
Over 2	100yr-2hr	0.00	-0.58	-0.01	0.00	0.00	0.00
Over 2	100yr-4hr	0.00	-1.06	-0.01	0.00	0.00	0.00
Over 2	100yr-72hr	0.92	-0.49	-0.92	-0.48	-0.48	-0.48
Over 2	100yr-8hr	0.00	-1.27	-0.01	0.00	0.00	0.00
Over Quinten	100yr-168hr	1.65	0.00	-0.02	0.76	0.76	0.76
Over Quinten	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-240hr	2.84	0.00	-0.04	0.86	0.86	0.86
Over Quinten	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-2hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-4hr	0.00	0.00	0.00	0.00	0.00	0.00
Over Quinten	100yr-72hr	1.92	0.00	0.03	0.79	0.79	0.79
Over Quinten	100yr-8hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-168hr	2.04	0.00	0.01	1.66	3.48	2.57
Pipe	100yr-1hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-240hr	2.13	0.00	0.01	1.71	3.53	2.62
Pipe	100yr-24hr	1.55	0.00	0.00	1.42	3.19	2.30
Pipe	100yr-2hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-4hr	0.00	0.00	0.00	0.00	0.00	0.00
Pipe	100yr-72hr	2.06	0.00	0.01	1.67	3.49	2.58
Pipe	100yr-8hr	0.29	0.00	0.00	0.62	1.95	1.29
Swale-2	100yr-168hr	0.94	0.00	0.01	0.29	1.84	1.07
Swale-2	100yr-1hr	0.02	0.00	0.00	0.00	0.00	0.00
Swale-2	100yr-240hr	1.08	0.00	-0.01	0.31	1.92	1.11
Swale-2	100yr-24hr	0.35	0.00	0.00	0.21	1.13	0.67
Swale-2	100yr-2hr	0.05	0.00	0.00	0.10	0.00	0.05
Swale-2	100yr-4hr	0.06	0.00	0.00	0.11	0.00	0.06
Swale-2	100yr-72hr	0.79	0.00	-0.01	0.28	1.71	0.99
Swale-2	100yr-8hr	0.07	0.00	0.00	0.12	0.00	0.06

Manual Basin Runoff Summary [Post-Dev]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Basin 1	100yr-168 hr	3.72	160.0000	14.00	9.46	9.7700	67.0	0.00	0.00
Basin 1	100yr-1hr	16.28	1.1000	4.20	1.27	9.7700	67.0	0.00	0.00
Basin 1	100yr-240 hr	4.99	184.0000	16.10	11.42	9.7700	67.0	0.00	0.00
Basin 1	100yr-24h r	6.49	12.2000	9.84	5.70	9.7700	67.0	0.00	0.00
Basin 1	100yr-2hr	15.63	1.3000	5.10	1.88	9.7700	67.0	0.00	0.00
Basin 1	100yr-4hr	14.60	2.7833	6.08	2.60	9.7700	67.0	0.00	0.00
Basin 1	100yr-72h r	5.29	60.0167	12.40	7.99	9.7700	67.0	0.00	0.00
Basin 1	100yr-8hr	16.77	4.2500	7.36	3.60	9.7700	67.0	0.00	0.00
Basin 10N	100yr-168 hr	0.64	160.0000	14.00	10.24	1.6400	72.0	0.00	0.00
Basin 10N	100yr-1hr	5.27	0.8000	4.20	1.60	1.6400	72.0	0.00	0.00
Basin 10N	100yr-240 hr	0.86	184.0000	16.10	12.24	1.6400	72.0	0.00	0.00
Basin 10N	100yr-24h r	1.26	12.0333	9.84	6.35	1.6400	72.0	0.00	0.00
Basin 10N	100yr-2hr	4.54	0.9667	5.10	2.28	1.6400	72.0	0.00	0.00
Basin 10N	100yr-4hr	3.04	2.5667	6.08	3.06	1.6400	72.0	0.00	0.00
Basin 10N	100yr-72h r	0.93	59.9833	12.40	8.73	1.6400	72.0	0.00	0.00
Basin 10N	100yr-8hr	3.69	4.0500	7.36	4.15	1.6400	72.0	0.00	0.00
Basin 10S	100yr-168 hr	0.09	160.0000	14.00	10.24	0.2300	72.0	0.00	0.00
Basin 10S	100yr-1hr	0.94	0.6500	4.20	1.61	0.2300	72.0	0.00	0.00
Basin 10S	100yr-240 hr	0.12	184.0000	16.10	12.25	0.2300	72.0	0.00	0.00
Basin 10S	100yr-24h r	0.18	12.0000	9.84	6.36	0.2300	72.0	0.00	0.00
Basin 10S	100yr-2hr	0.78	0.8333	5.10	2.28	0.2300	72.0	0.00	0.00
Basin 10S	100yr-4hr	0.45	2.0500	6.08	3.07	0.2300	72.0	0.00	0.00
Basin 10S	100yr-72h r	0.13	59.9333	12.40	8.73	0.2300	72.0	0.00	0.00
Basin 10S	100yr-8hr	0.54	4.0000	7.36	4.15	0.2300	72.0	0.00	0.00
Basin 2	100yr-168 hr	0.48	160.0167	14.00	4.47	1.8400	39.0	0.00	0.00
Basin 2	100yr-1hr	0.21	1.1500	4.20	0.07	1.8400	39.0	0.00	0.00
Basin 2	100yr-240 hr	0.63	184.0167	16.10	5.89	1.8400	39.0	0.00	0.00
Basin 2	100yr-24h r	0.39	15.1667	9.84	2.02	1.8400	39.0	0.00	0.00
Basin 2	100yr-2hr	0.34	1.7500	5.10	0.22	1.8400	39.0	0.00	0.00
Basin 2	100yr-4hr	0.65	3.1833	6.08	0.47	1.8400	39.0	0.00	0.00
Basin 2	100yr-72h	0.59	60.0500	12.40	3.46	1.8400	39.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	r								
Basin 2	100yr-8hr	0.70	4.3333	7.36	0.90	1.8400	39.0	0.00	0.00
Basin 3	100yr-168 hr	0.59	160.0167	14.00	4.47	2.2600	39.0	0.00	0.00
Basin 3	100yr-1hr	0.23	1.2167	4.20	0.07	2.2600	39.0	0.00	0.00
Basin 3	100yr-240 hr	0.78	184.0333	16.10	5.89	2.2600	39.0	0.00	0.00
Basin 3	100yr-24h r	0.47	15.2167	9.84	2.02	2.2600	39.0	0.00	0.00
Basin 3	100yr-2hr	0.40	1.8500	5.10	0.22	2.2600	39.0	0.00	0.00
Basin 3	100yr-4hr	0.77	3.2167	6.08	0.47	2.2600	39.0	0.00	0.00
Basin 3	100yr-72h r	0.72	60.0667	12.40	3.46	2.2600	39.0	0.00	0.00
Basin 3	100yr-8hr	0.80	4.4333	7.36	0.90	2.2600	39.0	0.00	0.00

Manual Basin: Basin 1

Scenario: Post-Dev
Node: Existing Pond
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 46.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: Uh484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
9.7700	Basin 1	Basin 1			

Comment:

Manual Basin: Basin 10N

Scenario: Post-Dev
Node: Pond 10N
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: Uh484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
1.6400	Basin 10	Basin 10			

Comment:

Manual Basin: Basin 10S

Scenario: Post-Dev
Node: Pond 10S
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
0.2300	Basin 10	Basin 10			

Comment:

Manual Basin: Basin 2

Scenario: Post-Dev
Node: WET
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 38.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
1.8400	Pervious	Pervious			

Comment:

Manual Basin: Basin 3

Scenario: Post-Dev
Node: DEP
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 44.0000 min
Max Allowable Q: 999999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
2.2600	Pervious	Pervious			

Comment:

Node: DEP

Scenario: Post-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 174.50 ft
Warning Stage: 177.00 ft

Stage [ft]	Area [ac]	Area [ft2]
174.50	0.0010	44
175.00	0.0100	436
176.00	1.0500	45738

Comment: DEP in post-deveopment condition is smaller than pre-development because a portion of the depression is filled by the proposed development.

Node: Existing Pond

Scenario: Post-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 174.00 ft
Warning Stage: 176.50 ft

Stage [ft]	Area [ac]	Area [ft2]
174.00	1.3500	58806
175.00	1.6100	70132
176.00	2.3200	101059
176.50	3.0800	134165

Comment:

Node: Pond 10N

Scenario: Post-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 175.50 ft
Warning Stage: 177.50 ft

Stage [ft]	Area [ac]	Area [ft2]
175.50	0.3000	13068
176.50	0.4100	17860
177.50	0.6000	26136

Comment:

Node: Pond 10S

Scenario: Post-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 175.50 ft

Warning Stage: 177.50 ft

Stage [ft]	Area [ac]	Area [ft2]
175.50	0.1000	4356
176.50	0.1300	5663
177.50	0.2300	10019

Comment:

Node: Quinten St

Scenario: Post-Dev
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 175.46 ft
Warning Stage: 175.47 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	175.46
0	0	0	9999.0000	175.46

Comment:

Node: Swale-2

Scenario: Post-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 173.46 ft
Warning Stage: 177.94 ft

Comment:

Node: WET

Scenario: Post-Dev
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 172.50 ft
Warning Stage: 173.00 ft
Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	172.50
0	0	0	9999.0000	172.50

Comment:

Drop Structure Link: DS-10-WET		Upstream Pipe		Downstream Pipe	
Scenario:	Post-Dev	Invert:	173.50 ft	Invert:	172.00 ft
From Node:	Pond 10N	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	Swale-2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	10	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0120	Manning's N:	0.0120
Length:	57.00 ft	Top Clip			
FHWA Code:	30	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 ft				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	176.50 ft	Ref Node:	
Control Elevation:	176.50 ft	Discharge Coefficients	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Broad Crested Vertical		

Geometry Type:	Trapezoidal		
Invert:	175.90 ft	Default:	0.00 ft
Control Elevation:	175.90 ft	Op Table:	
Max Depth:	0.60 ft	Ref Node:	
Extrapolation Method:	Normal Projection	Discharge Coefficients	
Bottom Width:	1.00 ft	Weir Default:	3.200
Left Slope:	1.000 (h:v)	Weir Table:	
Right Slope:	1.000 (h:v)	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Pipe Link: EQ-10

		Upstream		Downstream	
Scenario:	Post-Dev	Invert:	175.50 ft	Invert:	175.50 ft
From Node:	Pond 10S	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	Pond 10N	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	52.00 ft	Op Table:		Op Table:	
FHWA Code:	30	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 ft	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

Weir Link: Over 2

Scenario:	Post-Dev	Bottom Clip	
From Node:	DEP	Default:	0.00 ft
To Node:	Swale-2	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	176.00 ft	Discharge Coefficients	
Control Elevation:	176.00 ft	Weir Default:	3.200
Cross Section:	3-2	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: Over Quinten			
Scenario:	Post-Dev	Bottom Clip	
From Node:	Existing Pond	Default:	0.00 ft
To Node:	Quinten St	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	176.20 ft	Discharge Coefficients	
Control Elevation:	176.20 ft	Weir Default:	3.200
Cross Section:	Quinten-W	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: Pipe		Upstream		Downstream	
Scenario:	Post-Dev	Invert:	175.36 ft	Invert:	175.46 ft
From Node:	Existing Pond	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	Quinten St	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	29.00 ft	Op Table:		Op Table:	
FHWA Code:	30	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 ft	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

Channel Link: Swale-2		Upstream		Downstream	
Scenario:	Post-Dev	Invert:	176.00 ft	Invert:	172.50 ft
From Node:	Swale-2	Manning's N:	0.1500	Manning's N:	0.1500
To Node:	WET	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	9999.00 ft	Max Depth:	9999.00 ft
Flow Direction:	Positive	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	5.00 ft	Bottom Width:	5.00 ft
Length:	562.00 ft	Left Slope:	4.000 (h:v)	Left Slope:	4.000 (h:v)
Contraction Coef:	0.10	Right Slope:	4.000 (h:v)	Right Slope:	4.000 (h:v)
Expansion Coef:	0.30	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 ft	Manning's N:	0.1500	Manning's N:	0.1500
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.1500	Manning's N:	0.1500

Comment:

Simulation: 100yr-168hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:24:37 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	180.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources		Lookup Tables	
Rainfall Folder:	ICPR3	Boundary Stage Set:	
Reference ET Folder:		Extern Hydrograph Set:	
Unit Hydrograph Folder:	ICPR3	Curve Number Set:	ICPR3
		Green-Ampt Set:	ICPR3
		Vertical Layers Set:	
		Impervious Set:	ICPR3
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-168
		Rainfall Amount:	14.00 in
Edge Length Option:	Automatic	Storm Duration:	168.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-1hr

Scenario:	Post-Dev
Run Date/Time:	6/26/2020 8:25:48 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-1

		Rainfall Amount:	4.20 in
Edge Length Option:	Automatic	Storm Duration:	1.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-240hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:26:00 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	255.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:	ICPR3
Reference ET Folder:	
Unit Hydrograph Folder:	ICPR3

Lookup Tables

Boundary Stage Set:	
Extern Hydrograph Set:	
Curve Number Set:	ICPR3
Green-Ampt Set:	ICPR3
Vertical Layers Set:	
Impervious Set:	ICPR3
Roughness Set:	
Crop Coef Set:	
Fillable Porosity Set:	
Conductivity Set:	
Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-240
		Rainfall Amount:	16.10 in
Edge Length Option:	Automatic	Storm Duration:	240.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-24hr

Scenario:	Post-Dev
Run Date/Time:	6/26/2020 8:27:41 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000

End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global

Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-24
		Rainfall Amount:	9.84 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-2hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:27:53 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-2
Rainfall Amount: 5.10 in
Storm Duration: 2.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100yr-4hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:28:05 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight 0.5 dec

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False

Fact:			
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-4
		Rainfall Amount:	6.08 in
Edge Length Option:	Automatic	Storm Duration:	4.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100yr-72hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:28:18 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	85.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-72
Rainfall Amount: 12.40 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100yr-8hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:28:57 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-8
		Rainfall Amount:	7.36 in
Edge Length Option:	Automatic	Storm Duration:	8.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 10yr-24hr

Scenario: Post-Dev
Run Date/Time: 6/26/2020 8:29:10 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-24
Rainfall Amount: 6.72 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10yr-72hr

Scenario: Post-Dev
Run Date/Time: 6/24/2020 11:53:20 AM

Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	85.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-72
		Rainfall Amount:	8.30 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 25yr-24hr

Scenario: Post-Dev
Run Date/Time: 6/24/2020 11:54:37 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	30.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Fdot-24
Rainfall Amount: 7.92 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25yr-72hr

Scenario: Post-Dev
Run Date/Time: 6/24/2020 11:55:10 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	85.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:

Conductivity Set:	
Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	Fdot-72
		Rainfall Amount:	10.00 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	1 ft2	Min Node Srf Area (1D):	113 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: Mean-24hr

Scenario:	Post-Dev
Run Date/Time:	6/24/2020 11:57:01 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	999.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: ICPR3
Reference ET Folder:
Unit Hydrograph Folder: ICPR3

Lookup Tables

Boundary Stage Set:
Extern Hydrograph Set:
Curve Number Set: ICPR3
Green-Ampt Set: ICPR3
Vertical Layers Set:
Impervious Set: ICPR3
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 1 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: Flmod
Rainfall Amount: 3.70 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 113 ft2
Energy Switch (1D): Energy

Comment:

Section F: Appendix

Design Rainfall Totals for
Suwannee River Water Management District
Critical Duration Analysis
(INCHES)

Counties: **Baker, Columbia, Hamilton, Madison, Suwannee, Union**								
Frequency (years)	Duration (hours)							
	1	2	4	8	24	72	168	240
3	2.50	2.64	3.08	3.52	4.56	5.80	7.30	8.00
10	3.05	3.70	4.40	5.12	6.72	8.30	10.10	11.80
25	3.45	4.30	5.12	6.00	7.92	10.00	12.30	14.00
100	4.20	5.10	6.08	7.36	9.84	12.40	14.00	16.10

Counties: **Alachua, Bradford, Dixie, Gilchrist, Lafayette, Levy, Taylor**								
Frequency (years)	Duration (hours)							
	1	2	4	8	24	72	168	240
3	2.60	3.20	3.80	4.48	6.00	7.60	9.50	10.80
10	3.20	4.00	4.80	5.84	7.92	8.90	11.00	12.50
25	3.60	4.40	5.28	6.56	8.54	11.00	13.00	15.00
100	4.40	5.40	6.72	8.00	11.04	13.80	16.00	18.00

NOAA Atlas 14, Volume 9, Version 2
Location name: Lake City, Florida, USA*
Latitude: 30.1905°, Longitude: -82.5568°
Elevation: 190.5 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.526** (0.430-0.643)	**0.595** (0.486-0.728)	**0.708** (0.578-0.868)	**0.803** (0.652-0.987)	**0.935** (0.741-1.18)	**1.04** (0.808-1.32)	**1.14** (0.866-1.47)	**1.24** (0.918-1.64)	**1.38** (0.992-1.86)	**1.49** (1.05-2.03)
10-min	**0.770** (0.630-0.941)	**0.871** (0.712-1.07)	**1.04** (0.846-1.27)	**1.18** (0.955-1.45)	**1.37** (1.09-1.72)	**1.52** (1.18-1.93)	**1.67** (1.27-2.16)	**1.82** (1.34-2.40)	**2.03** (1.45-2.73)	**2.18** (1.53-2.98)
15-min	**0.939** (0.768-1.15)	**1.06** (0.868-1.30)	**1.26** (1.03-1.55)	**1.43** (1.16-1.76)	**1.67** (1.32-2.10)	**1.85** (1.44-2.35)	**2.04** (1.55-2.63)	**2.22** (1.64-2.93)	**2.47** (1.77-3.33)	**2.66** (1.87-3.63)
30-min	**1.38** (1.13-1.69)	**1.57** (1.28-1.92)	**1.87** (1.52-2.29)	**2.12** (1.72-2.60)	**2.47** (1.95-3.10)	**2.74** (2.13-3.47)	**3.01** (2.29-3.89)	**3.28** (2.42-4.33)	**3.65** (2.62-4.92)	**3.93** (2.76-5.36)
60-min	**1.76** (1.44-2.15)	**2.01** (1.64-2.45)	**2.41** (1.97-2.96)	**2.76** (2.24-3.39)	**3.25** (2.58-4.09)	**3.63** (2.83-4.62)	**4.03** (3.07-5.22)	**4.44** (3.28-5.87)	**4.99** (3.58-6.74)	**5.42** (3.81-7.40)
2-hr	**2.14** (1.77-2.59)	**2.44** (2.02-2.96)	**2.96** (2.44-3.58)	**3.40** (2.79-4.13)	**4.03** (3.23-5.03)	**4.53** (3.57-5.72)	**5.05** (3.88-6.49)	**5.59** (4.16-7.34)	**6.33** (4.58-8.49)	**6.91** (4.89-9.37)
3-hr	**2.33** (1.93-2.79)	**2.66** (2.21-3.19)	**3.23** (2.68-3.89)	**3.74** (3.08-4.51)	**4.47** (3.62-5.57)	**5.07** (4.02-6.37)	**5.69** (4.40-7.29)	**6.35** (4.76-8.32)	**7.27** (5.28-9.73)	**8.00** (5.68-10.8)
6-hr	**2.70** (2.27-3.20)	**3.07** (2.58-3.64)	**3.73** (3.12-4.43)	**4.33** (3.61-5.16)	**5.23** (4.29-6.48)	**5.99** (4.81-7.49)	**6.80** (5.31-8.67)	**7.68** (5.81-10.0)	**8.92** (6.55-11.9)	**9.93** (7.10-13.3)
12-hr	**3.19** (2.70-3.73)	**3.58** (3.03-4.19)	**4.30** (3.64-5.05)	**4.99** (4.20-5.88)	**6.05** (5.04-7.46)	**6.97** (5.67-8.66)	**7.97** (6.30-10.1)	**9.07** (6.94-11.8)	**10.7** (7.89-14.1)	**12.0** (8.61-15.9)
24-hr	**3.70** (3.18-4.28)	**4.18** (3.59-4.84)	**5.08** (4.34-5.89)	**5.91** (5.03-6.89)	**7.21** (6.06-8.80)	**8.33** (6.83-10.2)	**9.54** (7.61-12.0)	**10.9** (8.38-14.0)	**12.8** (9.55-16.9)	**14.4** (10.4-19.0)
2-day	**4.24** (3.68-4.85)	**4.90** (4.25-5.60)	**6.08** (5.26-6.96)	**7.15** (6.16-8.23)	**8.78** (7.43-10.6)	**10.2** (8.39-12.3)	**11.6** (9.33-14.4)	**13.2** (10.3-16.8)	**15.5** (11.6-20.2)	**17.3** (12.6-22.8)
3-day	**4.70** (4.10-5.33)	**5.41** (4.72-6.14)	**6.68** (5.81-7.60)	**7.85** (6.80-8.97)	**9.62** (8.18-11.5)	**11.1** (9.23-13.4)	**12.7** (10.3-15.7)	**14.4** (11.3-18.3)	**16.9** (12.7-22.0)	**18.9** (13.9-24.8)
4-day	**5.11** (4.48-5.76)	**5.84** (5.12-6.59)	**7.16** (6.25-8.10)	**8.36** (7.27-9.50)	**10.2** (8.70-12.1)	**11.7** (9.78-14.1)	**13.4** (10.8-16.5)	**15.2** (11.9-19.1)	**17.7** (13.4-23.0)	**19.8** (14.6-25.8)
7-day	**6.17** (5.47-6.89)	**6.95** (6.15-7.76)	**8.33** (7.34-9.33)	**9.57** (8.39-10.8)	**11.4** (9.82-13.4)	**13.0** (10.9-15.4)	**14.6** (11.9-17.8)	**16.4** (12.9-20.5)	**18.9** (14.3-24.3)	**20.9** (15.4-27.1)
10-day	**7.07** (6.30-7.84)	**7.90** (7.03-8.77)	**9.33** (8.28-10.4)	**10.6** (9.35-11.8)	**12.5** (10.7-14.5)	**14.0** (11.8-16.5)	**15.6** (12.8-18.9)	**17.3** (13.7-21.5)	**19.7** (15.0-25.2)	**21.6** (16.0-28.0)
20-day	**9.55** (8.60-10.4)	**10.6** (9.49-11.6)	**12.2** (11.0-13.4)	**13.7** (12.2-15.1)	**15.7** (13.6-17.9)	**17.3** (14.7-20.0)	**18.9** (15.5-22.5)	**20.5** (16.3-25.2)	**22.8** (17.5-28.8)	**24.5** (18.3-31.5)
30-day	**11.7** (10.6-12.7)	**12.9** (11.7-14.0)	**14.9** (13.4-16.2)	**16.5** (14.8-18.1)	**18.7** (16.3-21.1)	**20.4** (17.4-23.5)	**22.1** (18.3-26.1)	**23.8** (19.0-29.0)	**26.1** (20.0-32.7)	**27.7** (20.8-35.5)
45-day	**14.5** (13.2-15.6)	**16.1** (14.6-17.3)	**18.5** (16.8-20.0)	**20.5** (18.5-22.3)	**23.1** (20.2-25.8)	**25.0** (21.4-28.4)	**26.8** (22.2-31.3)	**28.6** (22.8-34.5)	**30.8** (23.7-38.4)	**32.4** (24.4-41.3)
60-day	**17.0** (15.6-18.3)	**18.9** (17.3-20.3)	**21.8** (19.9-23.5)	**24.1** (21.9-26.1)	**27.1** (23.7-30.0)	**29.2** (25.1-33.0)	**31.2** (25.9-36.2)	**33.1** (26.5-39.6)	**35.3** (27.3-43.7)	**36.9** (27.9-46.8)

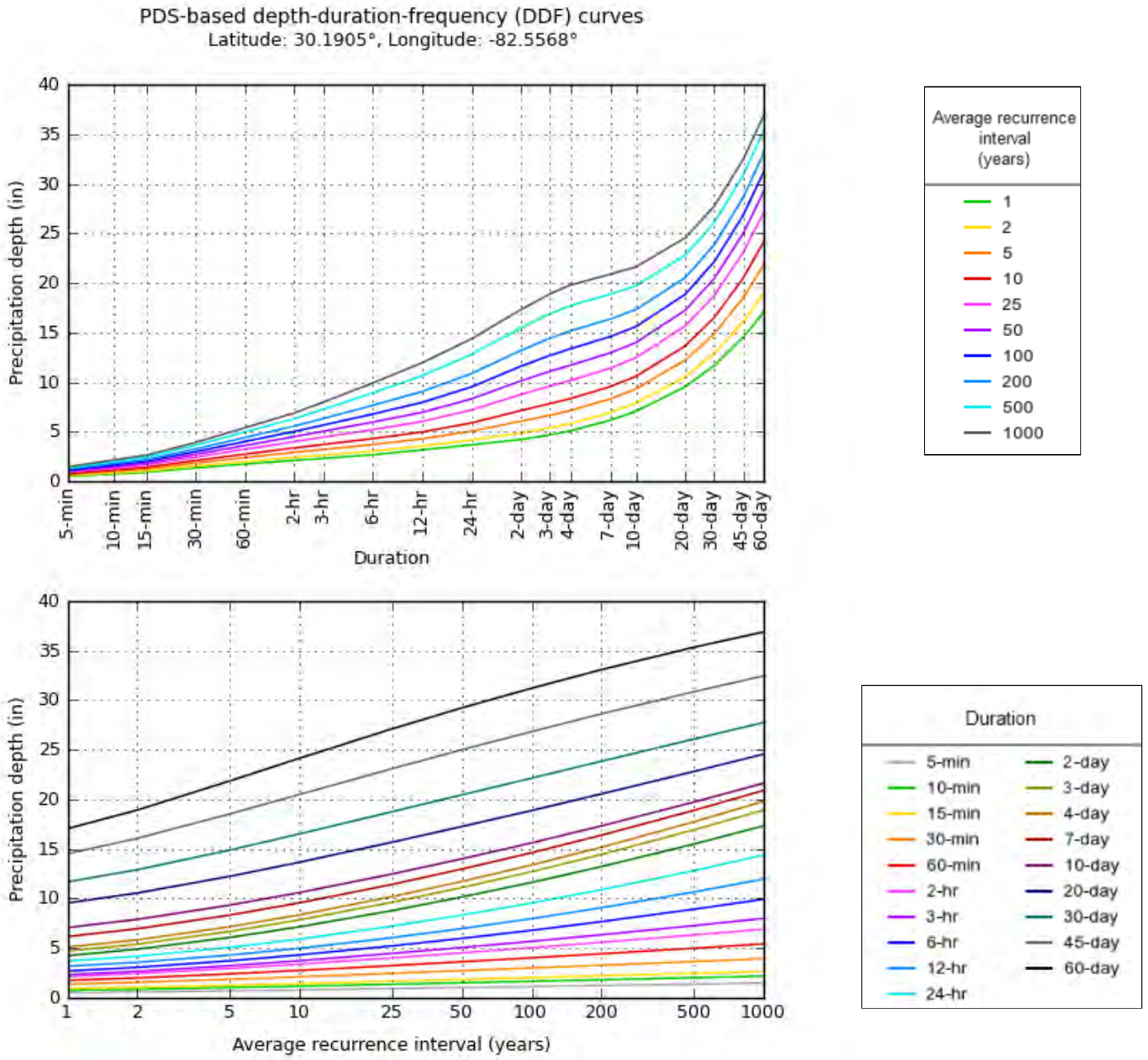
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



NOAA Atlas 14, Volume 9, Version 2

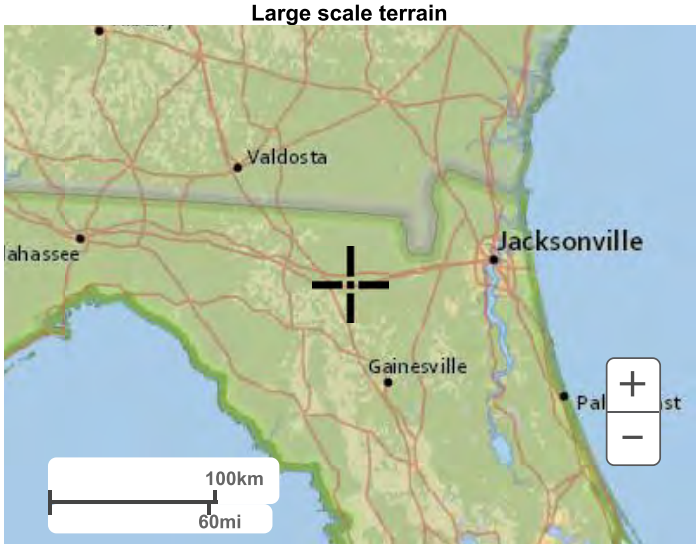
Created (GMT): Mon Jun 3 13:04:29 2019

Back to Top

Maps & aerials

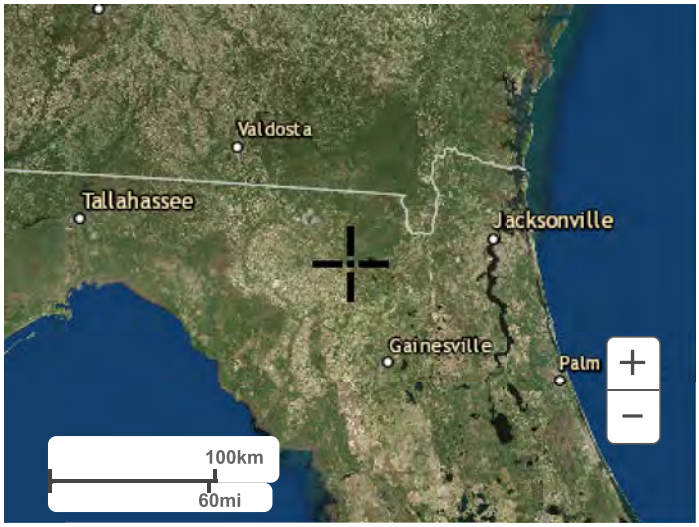
Small scale terrain

Large scale terrain



Large scale map

Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Columbia County Detention Facility
Stormwater Management Facility Operation & Maintenance Plan

General Maintenance

The system shall be kept free of grass, leaves, limbs, trash, or other debris that can impede the free flow of water through the system. Through the months of October through March, inspect the pond bottom bi-monthly at a minimum for signs of high growing vegetation. Trim or mow vegetation as needed. The following items shall be completed weekly or within three days of a significant (> 0.5") rainfall event:

1. Examine the stormwater management facility side slopes looking for evidence of erosion. Repair any bare spots greater than five (5) square feet in area with sod to replace the grass cover.
2. In case of erosion or damage where underlying soil is missing, the missing soil shall be replaced and the area brought back to grade with sodding as required.
3. Debris and litter shall be removed from the stormwater management facility on a regular basis.

Annual General Maintenance

In addition to the General Maintenance, the system shall be thoroughly inspected at least once a year. The annual inspection should include inspection of the following items:

1. Side slopes - Look for erosion of side slopes creating channelization and deposits of sediment in pond bottom. Repair side slopes, compact and provide stabilization with permanent grassing. Remove sediment from pond bottom.
2. Structures – Check concrete outfall structures for cracking and clogging of weirs. Check attachment of skimmer and repair as necessary.

Cost and Equipment

It is not anticipated that inspections will be necessary for the stormwater pond. If cleaning or mowing is needed, Columbia County will be responsible for maintenance.

Maintenance and inspection cost is anticipated to be minimal, demanding 16 man-hours per year for maintenance at a cost of approximately $2,400.00. Additional cost may be incurred if repairs have to be made on the side slopes, and may vary depending on the extent of the repairs. This cost does not include the landscaping associated with the stormwater that will be part of the properties regular landscaping schedule.

Questions concerning the VERTCON process may be mailed to _NGS

Latitude: 30 13 12

Longitude: 082 38 37

NGVD 29 height:

Datum shift(NAVD 88 minus NGVD 29): -0.251 meter

APPLICATION TRACKING SYSTEM 10/19/84

APPL NO:094354
APPL RECVD:10/15/84 TYPE CODE:RC SUBCODE:__ LAST UPDATE:10/19/84
DER OFFICE RECVD:JAX DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:10/18/84
DER PROCESSOR:WATKINS, FRANK GP
APPL STATUS:EX DATE:10/18/84 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:31 COUNTY:12
(Y/N) N DNR REVIEW REQD? LAT/LONG:30.13.00/82.38.30
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) N LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

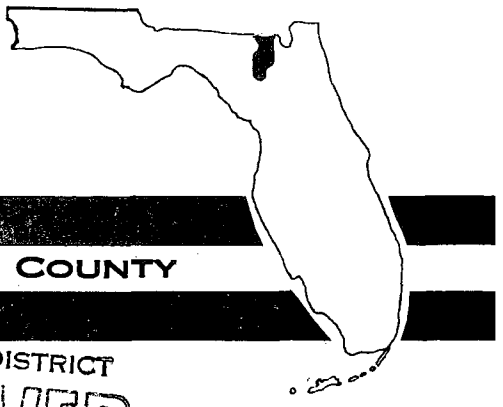
PROJECT SOURCE NAME:COLUMBIA COUNTY JAIL
STREET:FLORIDA CITY:LAKE CITY
STATE:FL ZIP:32055 PHONE:904-755-4100
APPLICATION NAME:COLUMBIA COUNTY JAIL
STREET:FLORIDA CITY:LAKE CITY
STATE:FL ZIP:32055 PHONE:904-755-4100
AGENT NAME:HAHN, PETER M., P.E.
STREET:950 S. RIDGEWAY CITY:LAKE CITY
STATE:FL ZIP:32055 PHONE:904-755-0270
FEE #1 DATE PAID:__/__/__ AMOUNT PAID:____ RECEIPT NUMBER:_____

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - __/__/__
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - __/__/__--__/__/__
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -. __/__/__
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
F DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS - - __/__/__
G DATE FIELD REPORT WAS REQ--REC - - - - - - - - - - - - - __/__/__--__/__/__
H DATE DNR REVIEW WAS COMPLETED - - - - - - - - - - - - - - __/__/__

I DATE APPLICATION WAS COMPLETE - - - - - - - - - - - - - - 10/18/84
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - __/__/__
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - __/__/__--__/__/__
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - - - - __/__/__
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - __/__/__
N WAIVER DATE BEGIN--END (DAY 90) - - - - - - - - - - - - - __/__/__--__/__/__

COMMENTS:NOT IN ST JOHNS WMD JURISDICTION

file



BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

October 18, 1984

Mr. Phillip M. Coran
% D.E.R.
3426 Bills Road
Jacksonville, Florida
32207

Dear Mr. Coran:

Please find enclosed a "letter of authorization" as required on Page Three (3) of the Stormwater Discharge Application. This application (17-1.215(2)) was recently submitted by Columbia County for the proposed Columbia County Jail.

Sincerely,

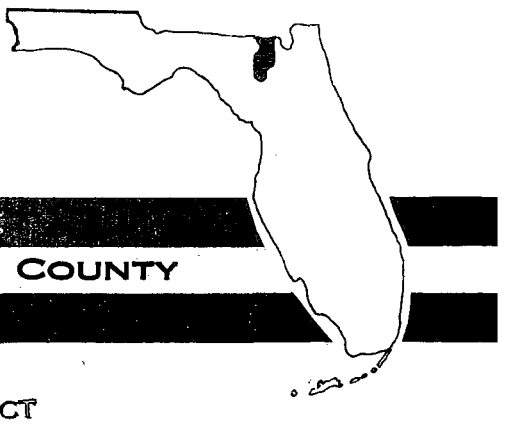
Dale Williams

Dale Williams
County Coordinator
Columbia County

DW:rcc

Enclosure (1)

District No. 1 — Ronald Williams
District No. 2 — Jerry Ward
District No. 3 — Dupree Moody
District No. 4 — Aldine Feagle
District No. 5 — Wayne Hines



BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

NORTHEAST DISTRICT
RECEIVED
OCT 19 1984
DER-JACKSONVILLE

October 18, 1984

Mr. Phillip M. Coran
% D.E.R.
3426 Bills Road
Jacksonville, Florida
32207

Dear Sir:

Please accept this letter as authorization for Dale Williams, County Coordinator, Columbia County, to represent our County and sign any documents necessary for the completion of the stormwater discharge application recently submitted.

Please feel free to call if you have further questions, (904) 755-4100, Ext. 205.

Sincerely,

Jerry V. Ward
Chairman of the Board
Columbia County

JVW:rcc

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207
(904) 396-6959

October 18, 1984

Mr. Peter M. Hahn, P.E.
L. L. Lee & Associates
950 S. Ridgeway
Lake City, Florida 32055

Dear Mr. Hahn:

Columbia County - Stormwater
Columbia County Jail

This letter acknowledges your Notice and attachments received on October 15, 1984 for a proposed stormwater disposal system for the subject project.

Since the proposed stormwater disposal system will provide for retention of the first one inch of runoff for a project of 11.61 acres, it appears that the proposed Columbia County Jail, Columbia County Courthouse Annex, north of Florida Avenue, Lake City, is exempt from this Department's stormwater permitting requirements in accordance with Florida Administrative Code (FAC) Rule 17-25.03(2)(b) provided there will be an entity responsible for maintenance of the system.

Any modification to the plans for this stormwater system should be submitted to this office for review. Future permitting may be required should the current proposal for this system be significantly modified.

Special consideration must be given to the control of sediment-laden runoff resulting from storm events during the construction phase. Best management practices erosion controls should be installed early during the construction period so as to prevent the transport of sediment into surface waters which could result in water quality violations and Departmental enforcement action. Revegetation and stabilization of disturbed areas should be accomplished as soon as possible to reduce the potential for further soil erosion. Should construction phase runoff pose a threat to the water quality of state waters, additional measures such as treatment of impounded runoff or the use of turbidity curtains (screens) in on-site impoundments shall be immediately implemented with any releases to state waters to be controlled.

In accordance with FAC Rule 17-25.03(2), an engineer must provide the Department with certification that the completed new facility has been built to meet the appropriate exemption criteria. Page 4 of the Notice form should be returned to this office within 14 days after construction is completed.

An exemption from this Department's stormwater permitting requirements does not in any way preclude this project from any county, municipal, federal or other state regulation prior to construction.

It is suggested that the St. Johns River Water Management District be contacted concerning this project in view of the adoption of their Rule 40C-4, Management and Storage of Surface Waters.

The Department retains authority under Chapter 403, Florida Statutes, to take appropriate legal action when necessary to prevent a violation of Department standards and rules.

Your cooperation is appreciated.

Sincerely,

Frank Watkins, Jr., P.E.
District Engineer

FW:vk

cc: Mr. Dale Williams

NA
RC12 - 94354

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT
BRANCH OFFICE
825 NORTHWEST 23rd AVENUE
SUITE G
GAINESVILLE, FLORIDA 32601

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY

NOTICE OF NEW STORMWATER DISCHARGE
FLORIDA ADMINISTRATIVE CODE RULE 17-25

PREFACE

This form is designed to supply the Department with information pursuant to the provisions of Florida Administrative Code Rule 17-25.03(2) which lists certain types of stormwater discharge facilities that may be exempt from the licensing provision of Fla. Admin. Code Rule 17-25 provided a notice of intent to construct the facility is submitted to the Department at least 14 days prior to construction.

In order to insure prompt and efficient processing of your notice, please provide the information listed below. Fill in all blanks and answer all questions in Parts I and III and the appropriate sections of Part II. Attach additional sheets if necessary.

PART I: GENERAL INFORMATION

1. Person(s) or entity that owns the discharge facility:

   Name and Title: Dale Williams: County Administrator

   Address: Columbia County Courthouse Annex

   Lake City, Florida 32055

   Phone: (904) 755-4100

2. Stormwater Discharge Facility Identity and Location:

   Source Name: Columbia County Jail

   Source Location: Street Florida

   City Lake City County Columbia

   19 (Section) 3S (Township) 17E (Range) 30° 13' 00"N (Latitude) 82° 38' 30"W (Longitude)

   Name(s) of surface waters of the state into which stormwater will be discharged:

   Columbia County Drainage System

   Please attach a map(s) with sufficient detail to enable someone to locate the subject property for an on-site examination.

3. Stormwater Discharge Facility Basic Hydrologic Data:

   Please provide a brief narrative or other description of the proposed treatment facilities, the approximate physical dimensions of the facilities, the drainage area boundaries, the total acres drained, the type(s) of development proposed, the amount of impervious acreage and the total acreage required for that development, and the point(s) of discharge into waters of the state.

PART II: SPECIAL INFORMATION RELATIVE TO EXEMPTIONS REQUIRING A NOTICE BY FLORIDA ADMINISTRATIVE CODE RULE 17-25.03(2).

1. Please indicate the exemption category for which you qualify.

____ A. Facilities which discharge into a stormwater discharge facility which is permitted pursuant to Fla. Admin. Code Rule 17-25.04 or exempt pursuant to Fla. Admin. Code Rule 17-25.03 where the appropriate treatment criteria specified in this rule and applied to the permitted or exempt facility are not exceeded by the discharge. (Place a check mark in the space provided and proceed to number 2 of this section.)

__X__ B. Facilities which provide retention, or detention with filtration, of the runoff from the first one inch of rainfall; or, as an option, for projects or project subunits with drainage areas less than 100 acres, facilities which provide retention, or detention with filtration, of the first one-half inch of runoff. (Place a check mark in the space provided and proceed to numbers 3 and 4 of this section.

____ C. Facilities serving the developed project area that consist of grassed waterways designed to percolate the runoff resulting from a three-year one-hour design storm within seventy-two hours after a rainfall event, assuming average antecedent condtions. (Place a check mark in the space provided and proceed to numbers 3 and 4 of this section.)

____ D. Modification or reconstruction by a city, county, special district with drainage responsibility, or water mansgement district of an existing stormwater management system which is not intended to serve new development, and which will not increase pollution loading, or change points of discharge in a manner that would adversely affect the designated uses of waters of the state beyond what is reasonably expected from normal operation, maintenance or emergency repairs. (Place a check mark in the space provided and proceed to numbers 3 and 4 of this section.)

2. Please attach a letter of consent signed by the owner or his agent indicating that you have obtained the owner's permission to discharge into the permitted or exempt stormwater discharge facility which you propose to utilize. (Complete numbers 3 and 4 of this section.)

3. Please identify the entity responsible for maintenance of the facility:

Name: Dale Williams:County Administrator

Address: Columbia County Courthouse Annex

Lake City, Florida 32055

Phone: (904) 755-4100

4. The exemptions listed above require that a professional engineer certify that the criteria specified will be met by the facility as designed. You must complete Sections A and B in Part III and have your engineer complete Section C in order to qualify for the exemption.

PART III:

A. STATEMENT BY APPLICANT

The undersigned owner or authorized representative* of Columbia County is fully aware that the statements made in this notice are true, correct and complete to the best of his or her knowledge and belief.

× Dale Williams
Signature of the owner or*authorized representative

Dale Williams, County Administrator
Name and title (Please type.)

*Attach a letter of authorization.

Date: 10/11/84 Phone: (904) 755-4100

B. STATEMENT BY PERSON RESPONSIBLE FOR MAINTENANCE

The undersigned agrees to maintain and operate the discharge facilities in such a manner as to comply with the provisions of Florida Administrative Code Rule 17-25. Responsibility for maintenance and operation may be transferred to another entity upon written notice to the Department from the entity assuming responsibility, certifying that the transfer of responsibility for maintenance and operation in compliance with Fla. Admin. Code Rule 17-25 has been accepted.

× Dale Williams
Signature of the person responsible for maintenance
(May be the applicant)

Dale Williams, County Administrator
Name and title (Please type.)

Date: 10/11/84 Phone: (904) 755-4100

C. STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN FLORIDA
(where required by Chapter 471, Florida Statutes)

This is to certify that the engineering features of this stormwater discharge facility have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and dispoaal of pollutants. I further certify that the facility has been designed in accordance with the specifications required under Florida Administrative Code Rule 17-25.03(2). It is also stated that the undersigned has furnished the applicant with a set of instructions for the maintenance and operation of the stormwater discharge facility.

Company Name: L.L. LEE & ASSOCIATES

Address: 950 S Ridgeway
Lake City Fl. 32055

(Affix Seal)

Signature: Peter M. Hahn

Name: Peter M. Hahn
(Please Type)

Florida Registration No. 16328

Phone No. (904) 755-0270 362-7750

Date: 10/11/84

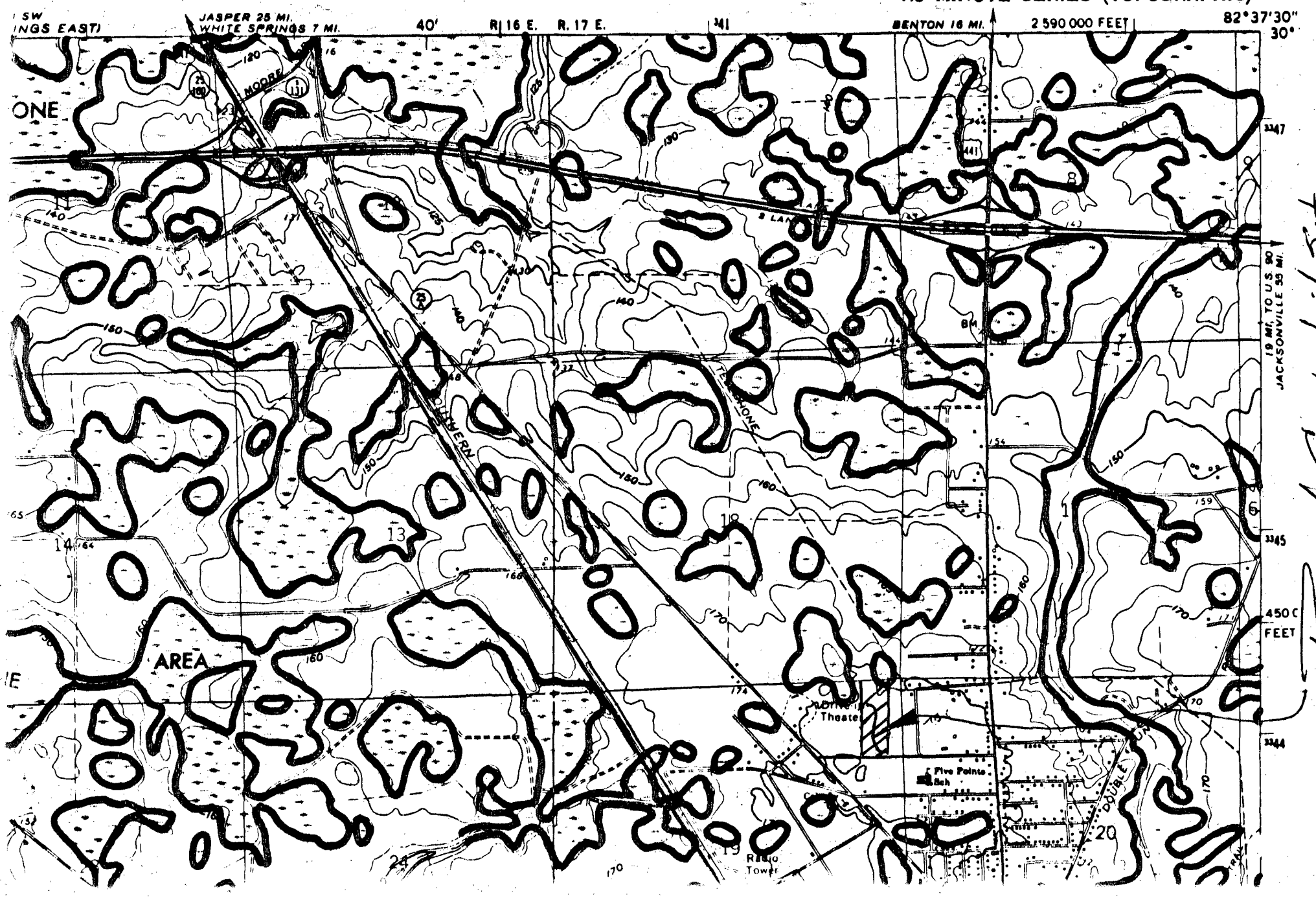
Peter M. Hahn
10/11/84

DER Form 17-1.215(2)
Effective November 30, 1982

01 A

)-PRONE AREAS

1150 x 435



Proposed County Jail Site

L. L. Lee & Associates, Inc.
SURVEYORS - ENGINEERS

950 SOUTH RIDGEWOOD DRIVE
LAKE CITY, FLORIDA 32055
904-755-0270

October 11, 1984

Phillip M. Coram
% D.E.R.
3426 Bills Road
Jacksonville, Fl 32207

Re: Columbia County Jail

Lake City, Fl

Dear Mr. Coram:

The applicant plans to construct a county jail and associated facilities. A site plan (enclosed) has been developed with the intent to retain 1" of rainfall runoff for the entire site. The lot is @ 436' X 1,160' = 505,760 s.f. or 11.611 acres. This area would require storage for 42,147 c.f. to be exempt from the stormwater rule. However, we are providing retention in access of 210,000 c.f. so we may accommodate the difference in runoff between existing conditions and proposed conditions for a 25 year-24 hour storm.

Soil borings were conducted by Cal-Tech, Inc. indicating a water table at an elevation of 174. As you will note by reviewing the proposed plan, a gradually sloping (12:1) retention pond with grassed side slopes will be constructed at the south boundary of the site. The pond will have a 1' "freeboard" prior to discharge of excess runoff to the county drainage system.

If you have any questions please do not hesitate to call.

Sincerely,

Peter M. Hahn

Peter M. Hahn, P.E.

PMH;tjh
Enclosure

CAL-TECH INC.

ENGINEERING & TESTING
LABORATORY
P.O. BOX 1625 LAKE CITY, FLA. 32055

(904) 755-1576

DATE: 8-5-84

REPORT OF: Standard Penetration Test Borings

PROJECT: County Jail

REPORTED TO: Board of County Commissioners
Columbia County
Lake City, Florida 32055

At the request of Mike Null, County Administrator, we have conducted a subsoil investigation and analysis for the proposed Columbia County Jail Site as planned by Frank R. Masiello & Associates, Architects. Our recommendation for foundation capacities are presented along with percolation information at the end of this report. The basis of recommendation is listed initially and the necessary construction requirement for site development is outlined. If the basis of recommendation is altered or if the construction procedures are not followed, then our recommendations are withdrawn and further analysis is recommended.

Basis of Analysis and Recommendation

1. Soil borings were made at locations designated by the county and as requested by the county's architect indicated by the enclosed site plan.

2. The borings were made in accordance with ASTMD-1586-67. The Standard Penetration Tests were run continuously in the top 10 feet and 5 feet apart thereafter for the balance of each boring. Samples of the subsoil strata were obtained by means of a 140 pound drop weight hammer freely falling 30 inches. The penetration resistance data appears on the enclosed boring logs.

Recovered soil samples were visually classified in the field and sealed in glass jars. Unless otherwise requested the samples will be retained in the laboratory for a period of six months.

3. Information obtained from the architect indicates that the structures are to be institutional type buildings not exceeding two floors in height.

General Soil Conditions

The surficial soils typically range from poorly graded sands to silty fine sands as the depth of stratum increases. The sands vary in relative density from loose (less than 5 blows per foot), to compact (5 - 20 blows per foot), to dense (greater than 20 blows per foot). Traces of clay and silt were found throughout but do not indicate a need for special consideration by the results of these borings.

The water table appears to be relatively constant at a depth of less than 2 feet while the site slopes gently to the north end of the property. Although the soils would be relatively permeable, the high water table is the governing factor restricting percolation.

Recommendations

A. Site Preparation

1. Dewater the site with well points through the foundation construction and utility installation phases.

2. Clear and grub the entire site prior to bringing the soil surface to grade.

3. Compact the fill areas for each building to 95% of the laboratory maximum density as determined by ASTMD-1557, Method B, a distance of not less than 8 feet beyond proposed structure limits.

   a. Initial compaction should be with a vibratory roller.
   b. Surface or finish (upper 6 inches) compaction may be accomplished with a traffic roller or steel wheel roller.

B. Wall and Column Footing Design Criteria

1. Wall and column footings should be placed at least 2 feet below the lowest adjacent finished grade and may be designed for a soil pressure of 3,000 p.s.f. At that loading there will be no danger of bearing capacity failure and settlement should be well within tolerable limits provided the site is properly prepared according to our recommendations itemized under Part A above.

Peter M. Hahn
8-5-84

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, FL

DRILLED BY Moody Boring started on 7-31-84
Completed on 7-31-84

BORING NO. B-1 SHEET NO 1 of 2
LOCATION OF BORING See attached Sketch

Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Asim	N Cont's	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
0	1 0						Gray & Brn. F. Sand w/TR. of Silt	
	1 2		1	(1)				
	3 4							
	3 4		7	(2)			Lt. Brn. Fine Sand	
5	1 0							
	0 1		0	(3)			Gray F. Sand w/Some Clay	
	2 2							
	1 1		3	(4)			Brn. Clayey F. Sand	
	6 9							
	11 13		20	(5)			Dk. Brn. F. Sand w/some Silt	
10								
	14 14							
15	16 18		34	(6)			Brn. Clayey Fine Sand	
	11 14		28	(7)			Lt. Brn. F. Sand w/TR of Silt	
20	14							
	8 6							
25	6		12	(8)			Lt. Brn. Clayey Fine Sand	
							Cont. on Sheet #2	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-0"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail
PROJECT LOCATION
DRILLED BY Moody Boring started on 7-31-84
Completed on 7-31-84

BORING NO. B-1 SHEET NO. 2 of 2
LOCATION OF BORING
Spoon data: Inside dia. Outside dia.
Hammer data: drop weight
Casing data: size length
Engineer: Inst. by Rev. by

DEPTH	N per 6"	N Astm	N Cont's	Tons/ft²	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
25								
	2							
30	2 2		4	(9)			Lt. Brn. & Gray Clayey Fine Sand w/Some Gravel (phosphate)	
	4 7							
35	8 14		22	(10)			Brn. & Gray clayey Fine & Medium Sand (Phosphate)	
							End of Boring--35.0	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-0"
GROUND ELEVATION

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail
PROJECT LOCATION Lake City, FL
DRILLED BY Moody Boring started on 7-31-84
Completed on 7-31-84

BORING NO. B-2 SHEET NO. 1 of 2
LOCATION OF BORING See Attached Sketch
Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Astm	N Cont'd	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
0	1 0							
	1 1		1	(1)			Dk. Gr. & Brn. Fine Sand w/ Some Silt	
	1 1							
	1 1		2	(2)			Lt. Brn. Fine Sand w/Some Clay	
5	1 0							
	1 2		1	(3)			Brn. Clayey Fine Sand	
	1 4							
	8 13		12	(4)			Gray & Brn. Fine sand w/Some Clay	
	8 9							
10	9 8		18	(5)			Dk. Brn. F. Sand w/Some Silt	
	13							
15	14 17		31	(6)			Brn. F. Sand w/Some Clay	
	8							
20	9 10		19	(7)			Same	
	11							
25	17 14		31	(8)			Lt. Brn. Sandy Clay	
							Cont. On Sheet #2	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 0'-3"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

C PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, FL

DRILLED BY Moody Boring started on 7-31-84
Completed on 7-31-84

BORING NO. B-2 SHEET NO. 2 of 2
LOCATION OF BORING

Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Astm	N Cont's	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
							Cont. From Sheet #1	
30	3 3 4		7				Lt. Brn. Sandy Fragmented Limestone	
							End of Boring--30.0'	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 0'-3"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO. Ct-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, FL

DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-3 SHEET NO. 1 of 2
LOCATION OF BORING See Attached Sketch

Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Astm	N Cont's	Sample No. & Type	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
0	1 0						Gray f. Sand w/Some Small roots	
	1 2		1	(1)			Brn. F. sand w/Tr. of Clay	
	1 2							
	4 5		6	(2)			Lt. Brn. Clayey Fine sand	
5	2 3							
	6 7		9	(3)			Same	
	6 9							
	8 9		16	(4)			Brn. Fine Sand w/Tr. of Silt	
	16 18							
10	18 30		36	(5)			Dk. Brn. F. Sand w/Some Silt	
	10							
15	13 18		31	(6)			Dk. Brn. F. sand w/Tr of Silt	
	8							
20	16 20		36	(7)			Brn. F. Sand w/Tr. of Clay	
	9							
25	13 13		26	(8)			Lt. Brn. Clayey fine Sand	
							Cont. on Sheet #2	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-2"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO CT-663 CLIENT Columbia County

PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, FL

DRILLED BY Moody Boring started on 8-1-84

Completed on 8-1-84

BORING NO. B-3 SHEET NO. 2 of 2

LOCATION OF BORING

Spoon data: Inside dia. Outside dia.

Hammer data: drop weight

Casing data: size length

Engineer: Inst. by Rev. by

DEPTH	N per 6"	N Astm	N Cont'd	Sample No. & Type	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
25							Cont. From Sheet #1	
							Lt. Brn. Clayey F. Sand	
	2							
30	2 2		4	(9)			Lt. Brn. Clayey Fine Sand w/some Med. Sand (Phosphate)	
	6							
35	6 9		15	(10)			Same	
							End of boring--35.0	

LEGEND FOR SOIL TESTS

1. M C.: Natural Water Content
2. A L: Atterberg Limits
3. G S: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-2"

GROUND ELEVATION

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, FL

DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-4 SHEET NO. 1 of 2
LOCATION OF BORING See Attached Sketch

Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Astm	N Cont'd	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
0	1 2						Gr. F. San w/Tr. of Small roots	
	3 4		5	(1)			Lt. Brn. F. Sand w/some Clay	
	3 5						-1.0	
	6 5		11	(2)			Dk. brn. F. Sand w/Tr. of Silt	
	4 6						1.3	
							Lt. Brn. F. Sand w/TR of Clay	
5	8 10		13	(3)			Lt. Brn. Clayey F. Sand	
	4 6						5.0	
	6 9		12	(4)			Lt. Brn. F. Sand w/Some clay	
	9 9						Same	
							Dk. Brn. F. Sand w/Tr of Silt	
10	9 10		18	(5)				
	9							
	13 14		27	(6)			Brn. Clayey Fine Sand	
15								
	21							
	23 24		47	(7)			Same	
20								
	4							
	3 2		5	(8)			Lt. Brn. Sandy Clay	
25								

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-1"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, Fl

DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-4 SHEET NO. 2 of 2
LOCATION OF BORING See Attached Sketch

Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Asim	N Cont's	Sample No. & Type	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
25							Cont. from Sheet #1	
							Lt. Brn. Sandy Clay	
	8							
30	3 3		6				Same	
							End of Boring--30.0'	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-1"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail

PROJECT LOCATION Lake City, FL

DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-5 SHEET NO 1 of 2
LOCATION OF BORING See Attached Sketch

Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Asim	N Cont'd	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
0	1 1							
	2 2		3	(1)			Dk. Gray F. Sand w/TR. of Silt	
	3 3							
	3 2		6	(2)			Lt. Brn. Clayey Fine Sand	
5	1 0							
	1 2		1	(3)			Lt. Brn. Fine Sand w/Some Clay	
	1 0							
	13 20		33	(4)			Dk. Brn. F. Sand w/Some silt & Clay	
	11 12							
	12 6		24	(5)			Lt. Brn. F. Sand w/Some Clay	
10								
	8							
15	8 9		17	(6)			Brn. F. Sand	
	10							
	19 20		39	(7)			Lt. Gray Fine Sand	
20								
	5							
	4 6		10	(8)			Lt. Gray Clayey Fine Sand	
25							Cont. on Sheet #2	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-3"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail
PROJECT LOCATION Lake City, FL
DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-5 SHEET NO. 2 of 2
LOCATION OF BORING
Spoon data: Inside dia. Outside dia.
Hammer data: drop weight
Casing data: size length
Engineer: Inst. by Rev. by

DEPTH	N per 6"	N Astm	N Cont'd	Tons/ft²	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
25							Cont. From Sheet #1	
							Lt. Gray Clayey Fine Sand	
	2							
	2 2		4	(9)			Same	
30								
	2							
	3 6		9	(10)			Lt. Brn. Clayey Fine Sand	
35							End of Boring--35.0'	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Sheer

GROUND WATER TABLE LEVEL 1'-3"
GROUND ELEVATION

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County jail
PROJECT LOCATION Lake City FL
DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-6 SHEET NO. 1 of 2
LOCATION OF BORING See Attached Sketch
Spoon data: Inside dia. _____ Outside dia. _____
Hammer data: drop _____ weight _____
Casing data: size _____ length _____
Engineer: Inst. by _____ Rev. by _____

DEPTH	N per 6"	N Asim	N Cont's	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
0	1							Rocks
	0						Dk. Gray F. Sand w/Some Saml	
	1		1	(1)			Q.5	
	2						Gray FIne Sand	
	2						1.0	
	3		7	(2)			Brn. F. Sand w/Some Silt & TR.	
	3						of Clay	
	1			2			2.0	
5	1							
	4		6	(3)			Lt. Brn. Fine Sand w/Some Cla	
	5						Same	
	2							
	3							
	3		6	(4)			Same	
	4							
	6							
	5		10	(5)			Dk. Brn. Fine Sand w/Some Sil	
10	9						& TR. of Clay	
	12							
	14							
15	21		35	(6)			Dk. Brn. Fine Sand w/TR of cla	
	16							
	17							
20	33		50	(7)			Brn. F. Sand	
	8							
	12							
25	13		25	(8)			Lt. Brn. Clayey Fine Sand	
							Cont. on Sheet #2	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-10"
GROUND ELEVATION _____

BORING LOG

CAL-TECH, INC.

PROJECT NO. CT-663 CLIENT Columbia County
PROJECT IDENTIFICATION Columbia County Jail
PROJECT LOCATION Lake City, FL
DRILLED BY Moody Boring started on 8-1-84
Completed on 8-1-84

BORING NO. B-6 SHEET NO. 2 of 2
LOCATION OF BORING
Spoon data: Inside dia. Outside dia.
Hammer data: drop weight
Casing data: size length
Engineer: Inst. by Rev. by

DEPTH	N per 6"	N Astm	N Cont's	Sample No.	% Rec.	Soil Tests	DESCRIPTION OF SOIL	REMARKS, OBSERVATIONS SUMMARY OF LAB. TEST
							Cont. From Sheet #1	
25							Lt. brn. Clayey Fine Sand	
	8							
30	11		21	(9)			Same	
							End of Boring--30.0'	

LEGEND FOR SOIL TESTS

1. M.C.: Natural Water Content
2. A.L.: Atterberg Limits
3. G.S.: Grain Size
4. qu: Field UnConf. Comp.
5. Qu: Laboratory UnConf. Comp.
6. Con: Consolidation
7. Tr Sh: Triaxial Shear

GROUND WATER TABLE LEVEL 1'-10"
GROUND ELEVATION

BORING LOG

Cal-Tech, Inc.

1 MAP SCANNED

SEPARATELY

LEGEND

1. □ = 4' X 4' Concrete Monument Property corner
2. = Power Pole
3. = Fire Hydrant
4. ■ = Light Pole
5. —x—x— = Fence line
6. —W— = Underground Water line
7. —SS— = Sanitary Sewer line
8. ● = Standard Manhole (See details)
9. ----G---- = Underground Gas line
10. —KW— = Kitchen wastes
11. —LW— = Liquid wastes
12. (177) = Existing contours
13. 177 = Proposed contours
14. B-2 SOIL BORING LOCATIONS
15. — - — GENERAL CONTRACT CONS. LIMITS OF BUILDING

DRAINAGE DATA

ASSUME: WATER TABLE @ ELEVATION 174.00 per CAL TECH

IMPERMEABLE AREAS

37,000	S.F.	Building
21,000	"	Parking
57,500	"	Roadway
4,500	"	Side Walk
@ 120,000	"	Retention Pond
240,000		

PERMEABLE AREA

218,000	S.F.	Area 1
50,000	"	Area 2

RAINFALL

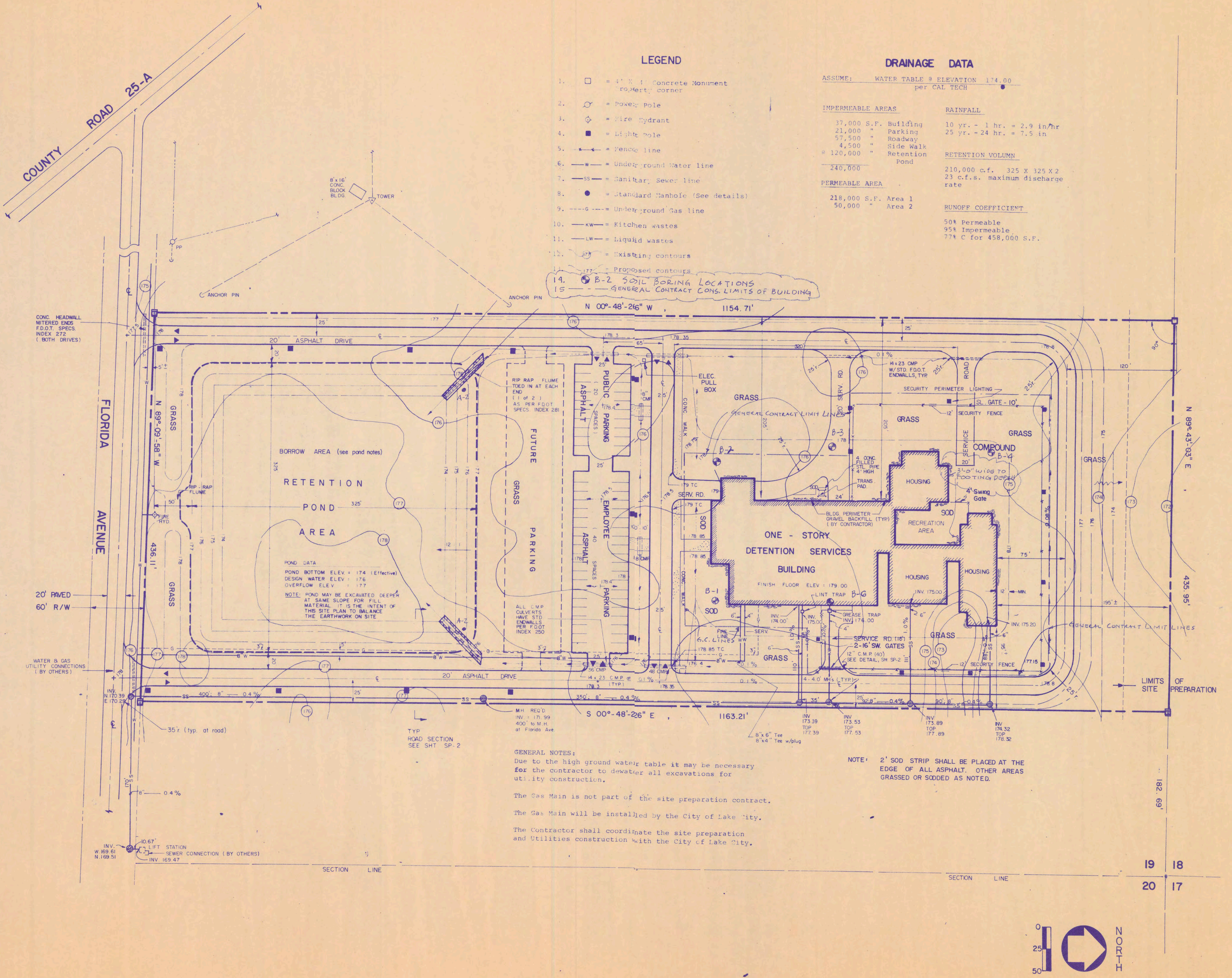
10 yr. - 1 hr. = 2.9 in/hr
25 yr. - 24 hr. = 7.5 in

RETENTION VOLUMN

210,000 c.f. 325 X 325 X 2
23 c.f.s. maximum discharge rate

RUNOFF COEFFICIENT

50% Permeable
95% Impermeable
77% C for 458,000 S.F.



COUNTY ROAD 25-A
FLORIDA AVENUE
20' PAVED
60' R/W
N 00°-48'-26" W, 1154.71'
S 00°-48'-26" E, 1163.21'
N 89°-09'-58" W 436.11'
N 89°-43'-03" E 435.95'
8'x16' CONC. BLOCK BLDG
TOWER
ANCHOR PIN
CONC. HEADWALL MITERED ENDS F.D.O.T. SPECS. INDEX 272 (BOTH DRIVES)
20' ASPHALT DRIVE
GRASS
RIP RAP FLUME
FIRE HYD
BORROW AREA (see pond notes)
RETENTION POND AREA
POND DATA
POND BOTTOM ELEV = 174 (Effective)
DESIGN WATER ELEV = 176
OVERFLOW ELEV = 177
NOTE: POND MAY BE EXCAVATED DEEPER AT SAME SLOPE FOR FILL MATERIAL. IT IS THE INTENT OF THIS SITE PLAN TO BALANCE THE EARTHWORK ON SITE.
RIP RAP FLUME TOED IN AT EACH END (1 of 2) AS PER FDOT SPECS. INDEX 281
FUTURE GRASS PARKING
ALL C.M.P. CULVERTS HAVE STD ENDWALLS PER FDOT INDEX 250
PUBLIC PARKING ASPHALT
EMPLOYEE PARKING ASPHALT
ELEC. PULL BOX
CONC. WALK
SERV. RD.
SECURITY PERIMETER LIGHTING
SL. GATE - 10'
12' SECURITY FENCE
COMPOUND
HOUSING
RECREATION AREA
4' Swing Gate
BLDG. PERIMETER GRAVEL BACKFILL (TYP) (BY CONTRACTOR)
ONE - STORY DETENTION SERVICES BUILDING
FINISH FLOOR ELEV = 179.00
4 CONC FILLED STL. PIPE 4' HIGH
TRANS. PAD
GREASE TRAP INV 174.00
LINT TRAP
SERVICE RD. (18') 2-16' SW. GATES
12" C.M.P. (40) SEE DETAIL, SH SP-2
14 x 23 C.M.P. @ (TYP)
14 x 23 CMP W/ STD. F.D.O.T. ENDWALLS, TYP
4-4.0' MH's (TYP)
GENERAL CONTRACT LIMIT LINES
G.C. LINES
SOD
WATER & GAS UTILITY CONNECTIONS (BY OTHERS)
MH REQ'D INV = 171.99 400' to M.H. at Florida Ave
35' r (typ. at road)
TYP ROAD SECTION SEE SHT SP-2
8"x6" Tee 8"x4" Tee w/plug
LIMITS OF SITE PREPARATION
LIFT STATION
SEWER CONNECTION (BY OTHERS)
SECTION LINE
19 18 20 17
NORTH
0 25 50

GENERAL NOTES:

Due to the high ground water table it may be necessary for the contractor to dewater all excavations for utility construction.

The Gas Main is not part of the site preparation contract.

The Gas Main will be installed by the City of Lake City.

The Contractor shall coordinate the site preparation and Utilities construction with the City of Lake City.

NOTE: 2' SOD STRIP SHALL BE PLACED AT THE EDGE OF ALL ASPHALT. OTHER AREAS GRASSED OR SODDED AS NOTED.

FRANK R. MASIELLO & ASSOCIATES
ARCHITECTS - PLANNERS
NORTH PALM BEACH, FLORIDA 33408
305/793-2112 305/845-2500

COLUMBIA COUNTY JAIL
LAKE CITY, FLORIDA
FOR THE
BOARD OF COUNTY COMMISSIONERS
OF COLUMBIA COUNTY FLORIDA

SITE PLAN

L. L. LEE & ASSOC., INC.
950 S. Ridgewood Dr.
Lake City, FL 32055
(904) 755-0270

Comm No	
Date	9-20-84
Scale	1" = 50'
Drawn	T.A.D.
Checked	P. HAHN
Approved	
Revised	11-6-84 GENERAL CONS. CONTRACT LIMIT LINES BORING LOCATIONS & GRAVEL BACKFILL

Drawing No. SP-1

8-24-26

Dewberry

ARCHITECTS ENGINEERS CONSULTANTS

Master Utility Notebook

Colombia County Detention Facility

Columbia County, FL

City of Lake City Utilities

Job# 50101397 [CCDC-1]

July 2020

PREPARED BY:

Dewberry

800 N Magnolia Ave; Suite 1000
Orlando, FL 32803
321.354.9739

PREPARED FOR:

Columbia County Board of Commissioners

P.O. Box 1529
Lake City, FL 32056

Dewberry

Master Utility Notebook

Columbia County Detention Facility

Columbia County, FL

City of Lake City Utilities

Columbia County

Job# 50101397 [CCDC-1]

PREPARED BY:

Dewberry (Authorization #8794)
800 N Magnolia Ave; Suite 1000
Orlando, FL 32803
321.354.9739

PREPARED FOR:

Columbia County Board of Commissioners
P.O. Box 1529
Lake City, FL 32056

Christopher J Allen, PE
Project Manager
Florida License No.77719

Columbia County Detention Facility
Master Utility Notebook

TABLE OF CONTENTS

Section A:
Project Description & General Information

Columbia County Detention Facility

Lake City Utilities

INTRODUCTION

Columbia County Detention Facility is an expansion to the existing detention facility located on NW Quinten Street in Columbia County, FL. The subject property is located in Section 19, Township 3S, and Range 17. The intent of this report is to provide documentation of the calculations and modeling for the design and construction of all proposed potable and sanitary sewer utilities.

Parcel ID: 19-3S-17-05068-000

POTABLE WATER SYSTEM

Proposed Water System

The proposed development will utilize the existing potable water system consisting of an existing 8" water main, and will develop service lines to facilitate the demands of the proposed building.

Design Criteria

The peak hourly flow rates are based on the capacity of the detention facility in the build-out condition, including total number of employees per 8hr shift and the total inmates. The peak hourly and maximum daily flows are based on peaking factors of 4.0 and 2.0, respectively.

The required fire flow is determined by the ISO Method for Needed Fire Flow, which uses the Fire Suppression Rating Schedule (FSRS). Based on the effective building area, type, and appropriate sprinkler credit, the needed fire flow is 1,000 gpm. A 6" fire protection line, separate from the 8" water main, will be included to provide fire flow to the Detention Center.

Proposed Potable System Demands	
Average Daily Flow	21.0 GPM
Max Daily Flow	41.9 GPM
Peak Hourly Flow	83.9 GPM
Fire Flow	1000 GPM

Please refer to the demand calculations in Section B for the water system based on the total capacity of the detention facility in the build-out condition. Please refer to the Autoturn Exhibit included in this section for all fire truck routings.

Methodology

Using the WaterCAD Computer Program the system was modeled using tested static and residual pressures based on information provided by Lake City Utilities. Please refer to the Water Flow Report from City of Lake City in Section D, which is used to form the Fire Flow Test Results in Section B. All mains were modeled with a C value of 130.

The Fire Flow Scenarios were modeled using the WaterCAD fire flow analysis calculation method to determine the pressures and velocities under the needed fire flows and determine the available fire flow at each junction. A minimum residual pressure above 20 psi was encountered throughout the system.

Results

The potable water system was designed such that no junction resulted in a residual pressure less than 20 psi during any scenario. Pressures provided for the Fire Flow scenario in the following table are the calculated residual pressures @ the total flow needed. Please see section B for all WaterCAD printouts and complete results. The following chart is a summary of the results encountered in the model.

WaterCAD Model Results		
Scenario Name	Minimum Pressure	Maximum Velocity
MDF	72.4 psi	0.27 fps
PHF	72.3 psi	0.54 fps
MDF+FF	54.2 psi	8.00 fps

WASTEWATER SYSTEM

Proposed Wastewater System

The development shall utilize 8" gravity main at the minimum 0.40% slope to collect all the generated wastewater and transfer it to an onsite private lift station.

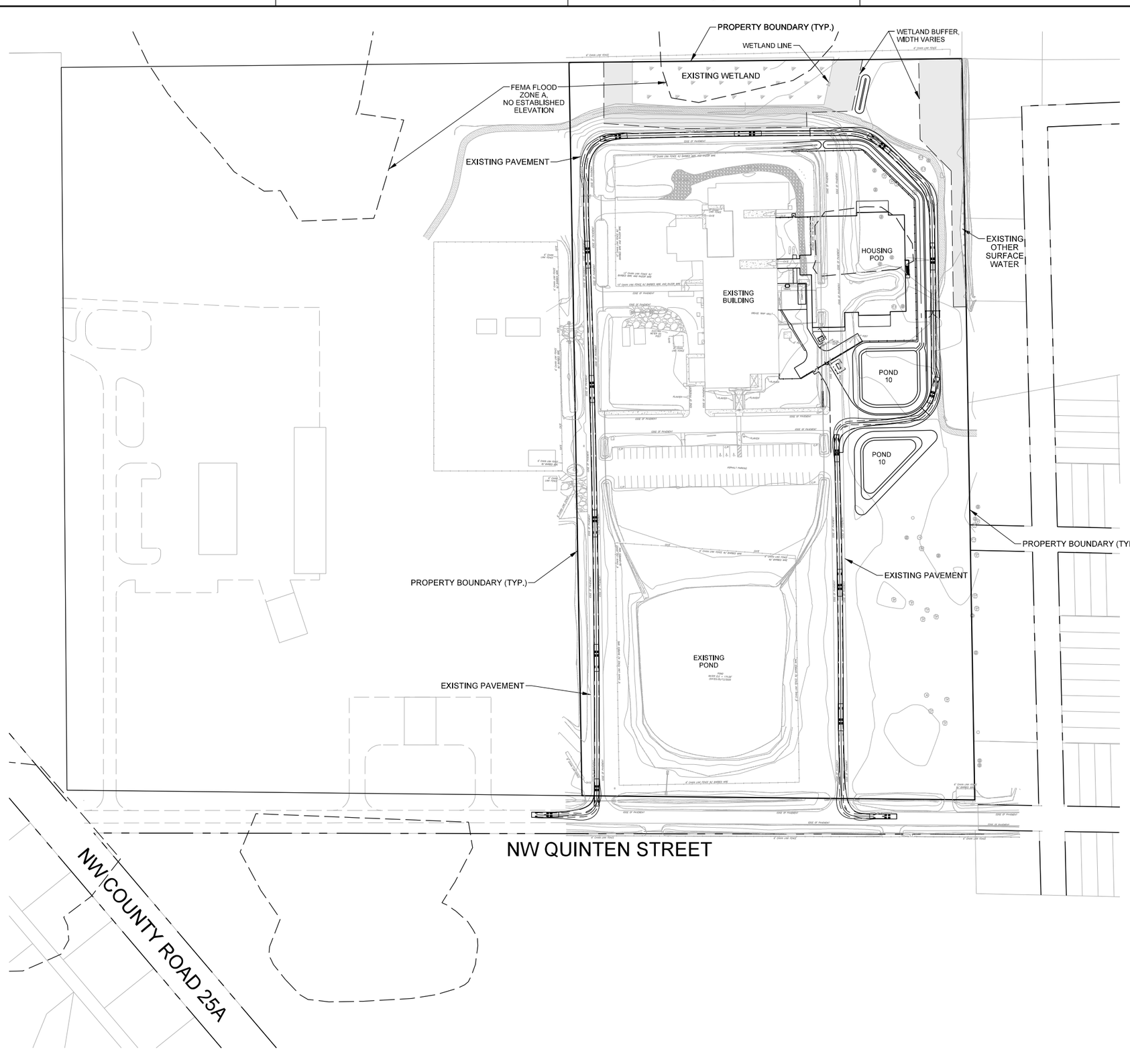
Proposed Wastewater System Demands	
Average Daily Flow	21.0 GPM
Peaking Factor	4.0
Peak Hourly Flow	83.9 GPM

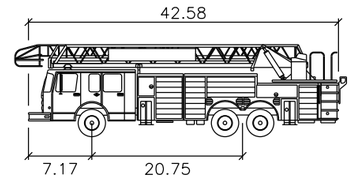
The existing lift station is located at the southeast region of the property near NW Quinten St to service the detention center and associated infrastructure at build-out. An in-line grinder and auger system upstream of the lift station shall be utilized due to the increased possibility of solid objects in the wastewater system. Note that this lift station will be upgraded and designed by others. This system will be operated and maintained by the Detention Center.

Design Criteria

The proposed contributing flows where based on the total capacity of the detention facility in the build-out conditions, including the total number of employees per 8hr shift and the total inmates.

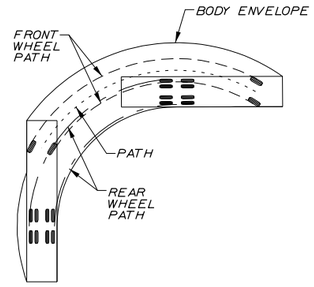
Please refer to the demand calculations in Section D for complete wastewater demands.





AERIAL FIRE TRUCK (TYP.)

	feet
Width	: 8.00
Track	: 6.72
Lock to Lock Time	: 6.0
Steering Angle	: 41.7



LEGEND

- PROPERTY BOUNDARY
- PROPOSED POND LINE
- EXISTING RIGHT-OF-WAY LINE
- WETLAND LINE
- ROADWAY CENTERLINE
- WETLAND AREA/ OTHER SURFACE WATER
- WETLAND BUFFER AREA

Dewberry

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS #8794

COLUMBIA COUNTY DETENTION FACILITY
533 NW QUINTEN STREET
LAKE CITY, FL 32055

COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS

SEAL

Christopher J. Allen
FL PE # 77719
07/14/20

SCALE NORTH

0' 80' 160'

N

REVISIONS

No.	DATE	BY	Descrpttion

PROJECT #	50101397
DRAWN BY	TFS
APPROVED BY	CJA
CHECKED BY	RM
DATE	JULY 2020
DATUM	NAVD 88

TITLE

AUTOTURN EXHIBIT

PROJECT: Q:\CCDC-1_50101397\CAD\Civil\Final\dgn

SHEET NO.

1 OF 1

15:03:15 Q:\CCDC-1_50101397\CAD\Civil\Final\dgn\CCDC-AutoTurn Exhibit.dgn

G:\MXD\Pasco\Wickett\ZoningProposed.mxd

Aerial Exhibit

Columbia County Detention Center

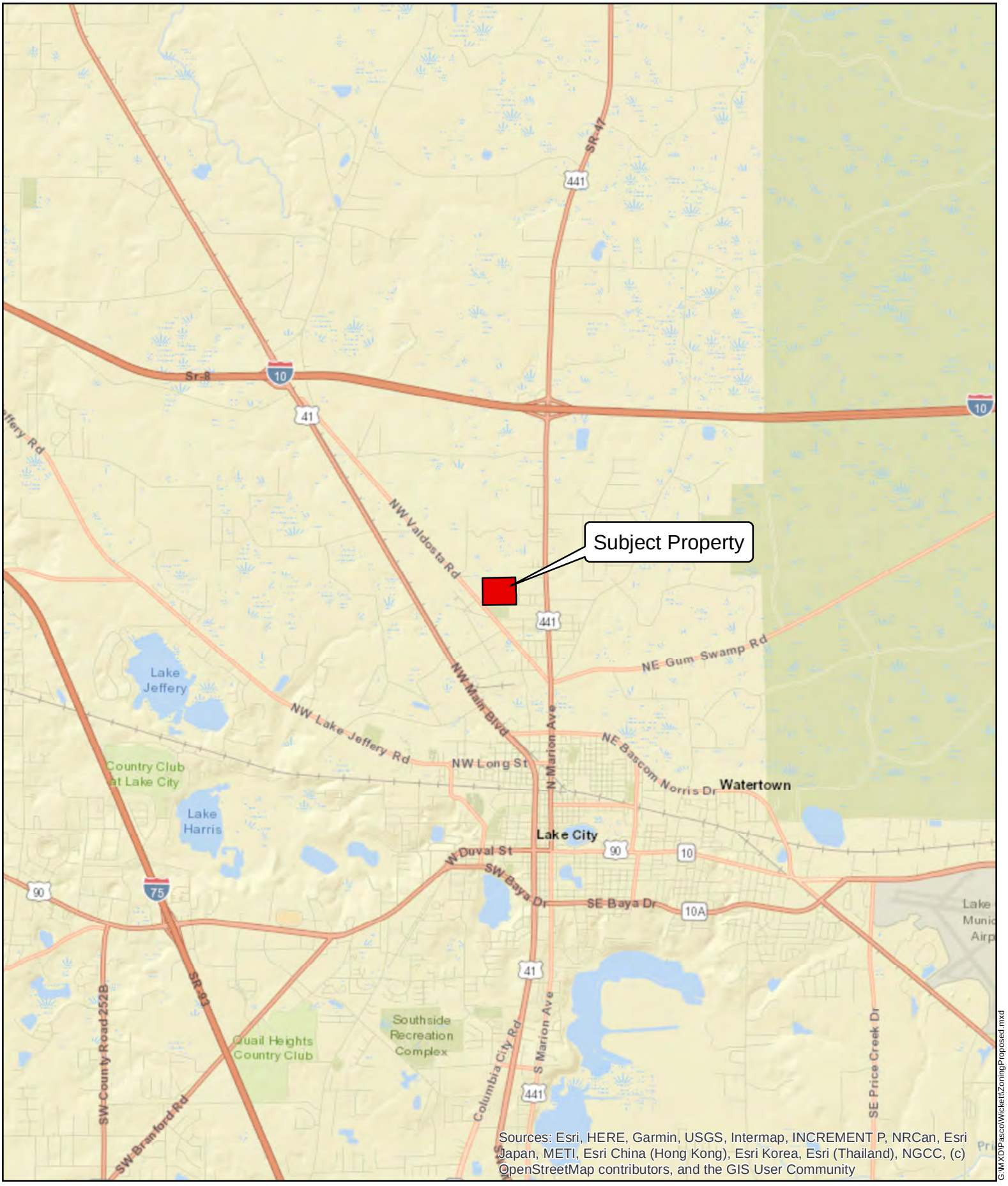
Columbia County, Florida

N

0 200 400 Feet

Data Source: FDOR
Image Source: ESRI

Dewberry



G:\MXD\Pasco\WickettZoningProposed.mxd

Regional Location Exhibit

Columbia County Detention Center

Columbia County, Florida

N

0 0.5 1 Miles

Data Source: FDOR
Image Source: ESRI

Dewberry

Section B: Potable Water

Columbia County Detention Facility

Lake City Utilities
Potable System Demands

Demand Calculation

Demand Source	Units (#)	ADF/Unit (GPD)	Total ADF (GPD)	Total ADF (GPM)	Maximum Daily Flow (GPM)	Peak Hourly Flow (GPM)
Inmates	256	115	29,440	20.4	40.9	81.8
Employee/8hr Shift	50	15	750	0.5	1.0	2.1
TOTAL	306		30,190	21.0	41.9	83.9

Notes:

1. Maximum Daily and Peak Hour Peaking Factors are 2.0 and 4.0, respectively.
2. No increase in employees or inmates is proposed with the proposed detention facility.

Columbia County Detention Center

Lake City Utilities
Fire Flow Determination

Detention Center Build-Out

ISO Method
NFF = (C)*(O)*(1+(X+P))

Building Area

1st Floor	61713	sf	X	100%	=	61713 sf
2nd Floor	61713	sf	X	50%	=	30857 sf
3rd Floor		sf	X	50%	=	0 sf
4th Floor		sf	X	50%	=	0 sf
5th Floor		sf	X	50%	=	0 sf
6th Floor		sf	X	50%	=	0 sf
7th Floor		sf	X	50%	=	0 sf
	123426					

Effective Building Area = 92569.5 sf

$C = 18F(A)^{0.5}$
where F = 0.8 for Construction Class 3 (noncombustable construction)

C = 4381 gpm
C = 4500 gpm (rounded to the nearest 250 gpm)

O = 0.85 (Limited-Combustible C-2)

X + P = 0.00

NFF = 3,825 gpm
Sprinkler Credit = 75%
Sprinklered NFF = 956 gpm
Required NFF = 1,000 gpm (rounded to the nearest 250 gpm)

Notes:
1. The construction class coefficient (F), Occupancy Factor (O), Exposure Factor (X), and Communication Factor (P) are taken from "Guide for Determination of Needed Fire Flow" https://www.isomitigation.com/downloads/ppc3001.pdf
2. Sprinkler credit of 75% per NFPA Fire Code 18.4.5.3.
3. Building floor areas are taken from the build-out model of the proposed detention center and includes all future expansion.

Fire Flow Test Results

Project: **Columbia County Detention Facility**

Date: 2/27/2020 Time: 1:30 PM

Hydrant Location: NW Quinten Street

Static Pressure: 73 psi
Residual Pressure: 63 psi Flow Rate: 943 gpm

Flow Test Performed by: Al/Penny with Lake City Utilities

$$Q_x = Q_r[(P_s-P_x)^{0.54}/(P_s-P_r)^{0.54}]$$

Total MDF Demand: 41.9 gpm
Max. Fire Demand: 1000 gpm

Total FF Demands: 1041.9 gpm (MDF + Fire Demands)

Tie-in Pressure for domestic demands (MDF):	**73 psi**	168.4 feet
Tie-in Pressure for fire-flow (MDF+FF):	**61 psi**	140.7 feet

Note:

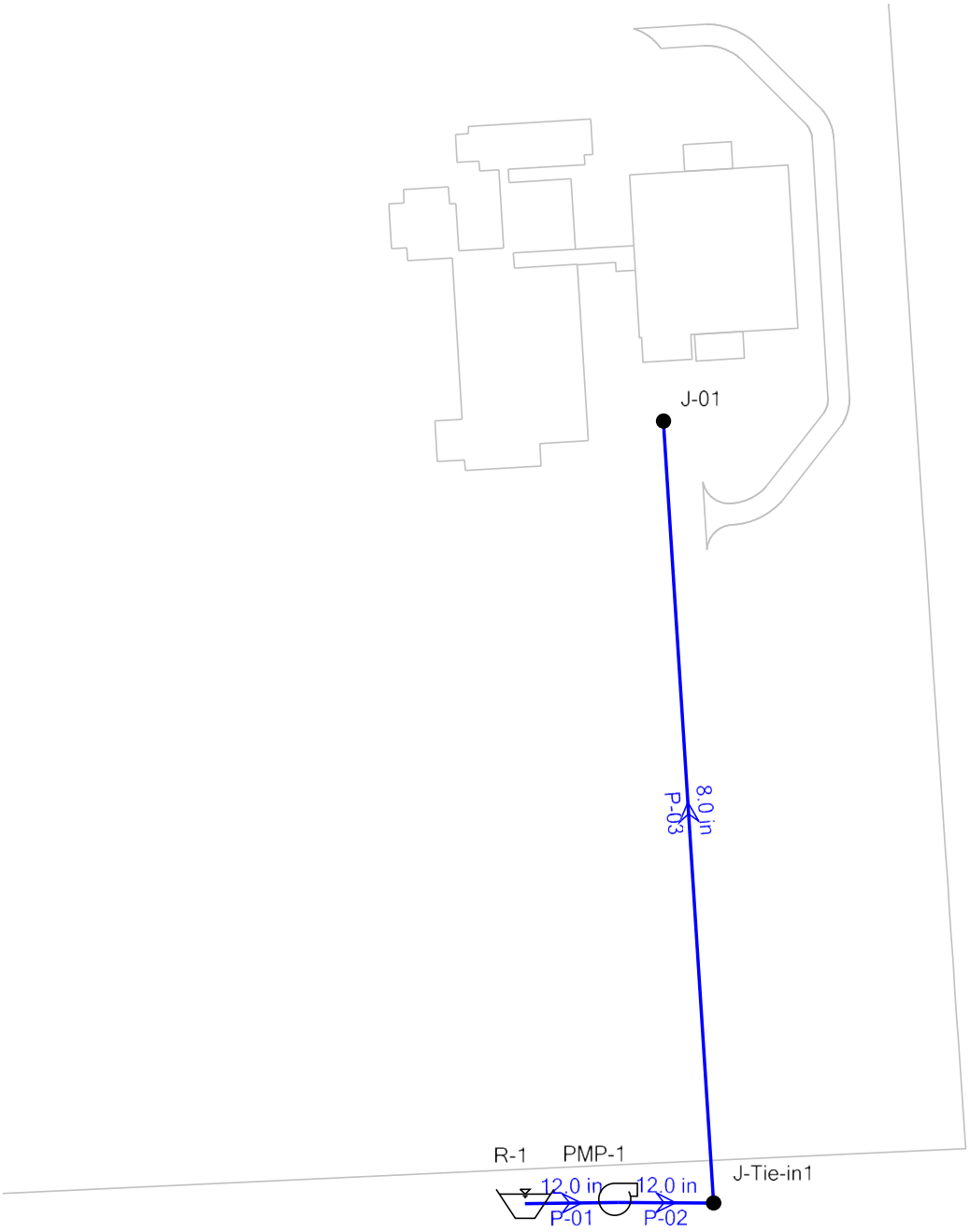
1. Pressures and flow rate listed above are taken from Lake City Water Flow Report, included in the appendix.

Flow (gpm)	Pressure (psi)	
1	**73.00**	168.5 feet
50	**72.96**	168.4 feet
100	**72.84**	168.1 feet
150	**72.67**	167.7 feet
200	**72.43**	167.2 feet
250	**72.14**	166.5 feet
300	**71.80**	165.7 feet
350	**71.40**	164.8 feet
400	**70.96**	163.7 feet
450	**70.46**	162.6 feet
500	**69.91**	161.3 feet
550	**69.32**	160.0 feet
600	**68.67**	158.5 feet
650	**67.98**	156.9 feet
700	**67.24**	155.2 feet
750	**66.46**	153.4 feet
800	**65.63**	151.4 feet
850	**64.75**	149.4 feet
900	**63.83**	147.3 feet
950	**62.86**	145.1 feet
1000	**61.85**	142.7 feet
1050	**60.80**	140.3 feet
1100	**59.70**	137.8 feet
1150	**58.56**	135.1 feet
1200	**57.37**	132.4 feet
1250	**56.15**	129.6 feet
1300	**54.88**	126.6 feet
1350	**53.57**	123.6 feet
1400	**52.21**	120.5 feet
1450	**50.82**	117.3 feet
1500	**49.38**	114.0 feet
1550	**47.90**	110.5 feet
1600	**46.38**	107.0 feet
1650	**44.82**	103.4 feet
1700	**43.22**	99.7 feet
1750	**41.58**	95.9 feet
1800	**39.89**	92.1 feet
1850	**38.17**	88.1 feet
1900	**36.41**	84.0 feet
1950	**34.60**	79.9 feet
2000	**32.76**	75.6 feet

Water Flow Chart

Scenario: MDF

Active Scenario: MDF



FlexTable: Junction Table

Active Scenario: MDF

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-01	177.00	42	344.38	72.4
J-Tie-in1	176.00	0	344.41	72.9

FlexTable: Pipe Table

Active Scenario: MDF

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
P-01	R-1	PMP-1	1	12.0	PVC	130.0	42	0.12
P-02	PMP-1	J-Tie-in1	0	12.0	PVC	130.0	42	0.12
P-03	J-Tie-in1	J-01	731	8.0	PVC	130.0	42	0.27

FlexTable: Reservoir Table

Active Scenario: MDF

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	176.00	42	176.00

FlexTable: Pump Table

Active Scenario: MDF

Label	Elevation (ft)	Pump Definition	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	176.00	CCDC Hydrant Test 2/27/2020	On	176.00	344.41	42	168.41

Pump Definition Detailed Report: CCDC Hydrant Test 2/27/2020

Active Scenario: MDF

Element Details			
ID	1736	Notes	
Label	CCDC Hydrant Test 2/27/2020		

Pump Curve

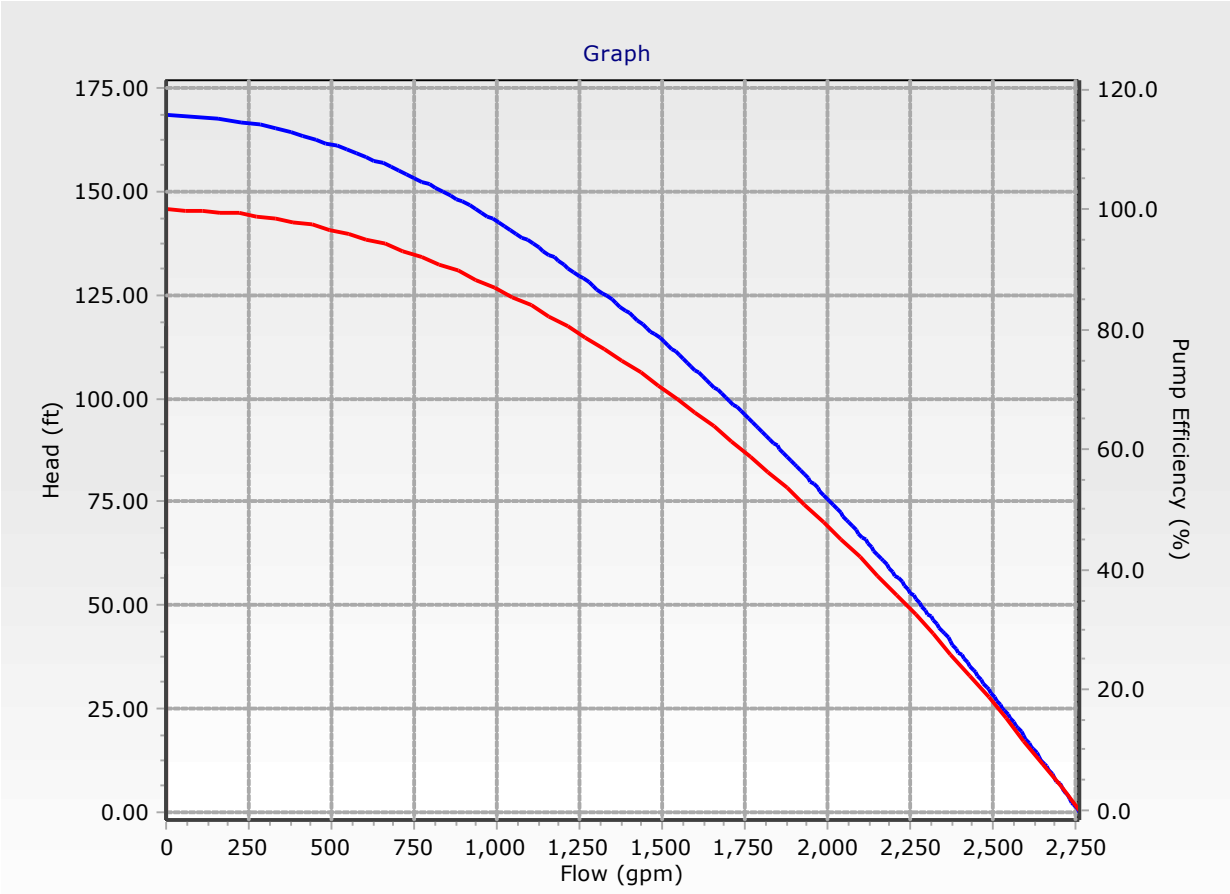
Flow (gpm)	Head (ft)
1	168.50
200	167.20
400	163.70
600	158.50
800	151.40
1,000	142.70
1,200	132.40
1,400	120.50
1,600	107.00
1,800	92.10
2,000	75.60

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0 gpm		

Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

Pump Definition Detailed Report: CCDC Hydrant Test 2/27/2020

Active Scenario: MDF



Fire Flow Node FlexTable: Fire Flow Report

Active Scenario: MDF

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated Residual) (psi)	Pressure (Calculated Zone Lower Limit) (psi)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone)	Velocity of Maximum Pipe (ft/s)	Pipe w/ Maximum Velocity
J-01	True	1,000	1,042	1,211	1,253	20.0	46.8	56.0	54.2	J-Tie-in1	8.00	P-03
J-Tie-in1	True	1,000	1,000	1,500	1,500	20.0	48.1	47.6	60.9	J-01	4.37	P-02

FlexTable: Junction Table

Active Scenario: PHF

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-01	177.00	84	344.09	72.3
J-Tie-in1	176.00	0	344.22	72.8

FlexTable: Pipe Table

Active Scenario: PHF

Label	Start Node	Stop Node	Length (ft)	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)
P-01	R-1	PMP-1	1	12.0	PVC	130.0	84	0.24
P-02	PMP-1	J-Tie-in1	0	12.0	PVC	130.0	84	0.24
P-03	J-Tie-in1	J-01	731	8.0	PVC	130.0	84	0.54

FlexTable: Reservoir Table

Active Scenario: PHF

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	176.00	84	176.00

FlexTable: Pump Table

Active Scenario: PHF

Label	Elevation (ft)	Pump Definition	Status (Initial)	Hydraulic Grade (Suction) (ft)	Hydraulic Grade (Discharge) (ft)	Flow (Total) (gpm)	Pump Head (ft)
PMP-1	176.00	CCDC Hydrant Test 2/27/2020	On	176.00	344.22	84	168.22

Pump Definition Detailed Report: CCDC Hydrant Test 2/27/2020

Active Scenario: PHF

Element Details			
ID	1736	Notes	
Label	CCDC Hydrant Test 2/27/2020		

Pump Curve

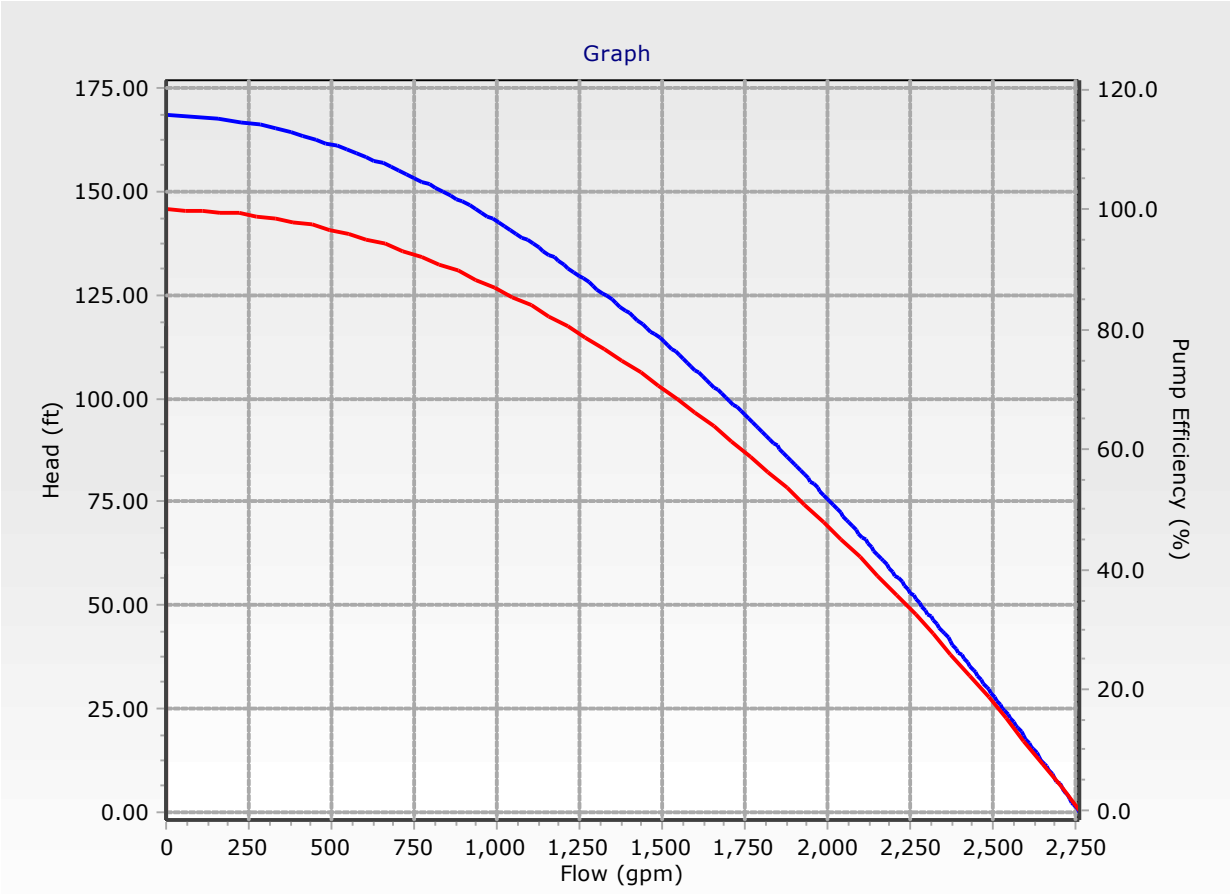
Flow (gpm)	Head (ft)
1	168.50
200	167.20
400	163.70
600	158.50
800	151.40
1,000	142.70
1,200	132.40
1,400	120.50
1,600	107.00
1,800	92.10
2,000	75.60

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0 gpm		

Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

Pump Definition Detailed Report: CCDC Hydrant Test 2/27/2020

Active Scenario: PHF



Section C: Sanitary Sewer

www.dewberry.com

Columbia County Detention Facility

Lake City Utilities
Sewer System Demands

Demand Calculation

Demand Source	Units (#)	ADF/Unit (GPD)	Total ADF (GPD)	Total ADF (GPM)	Peak Hourly Flow (GPM)
Inmates	256	115	29,440	20.4	81.8
Employee/8hr Shift	50	15	750	0.5	2.1
TOTAL	306		30,190	21.0	83.9

Notes:

1. Peak Hour Peaking Factor is 4.0.
2. No increase in employees or inmates is proposed with the proposed detention facility.

Section D: Supporting Documentation

SECTION 5

WATER DISTRIBUTION SYSTEMS

5.01 GENERAL

A. This Section sets forth the general requirements for design and installation of water distribution systems for potable water and irrigation service. Pipe used in water distribution or irrigation systems shall be either polyvinyl chloride (PVC), or ductile iron (DI) pipe as specified in Section 4 of this Handbook.

The Contractor shall be responsible for all materials furnished and storage of same, until the date of substantial completion. The Contractor shall replace at the Contractors expense all material found to be damaged or defective in handling or storage. The Contractor shall, if requested by the City, furnish certificates, affidavits of compliance, test reports, or samples for check analysis for any of the materials specified in this Handbook as it relates to water and irrigation systems. All pipe delivered to the project site for installation is subject to random testing for compliance with the designated specifications.

5.02 DESIGN STANDARDS

A. Required Reference: The Builder shall comply with the design and installation requirements as established by the Florida Department of Environmental Protection (FDEP) and additional specific requirements stated in this handbook. The criteria set forth in the most recent edition of "Recommended Standards for Water Works (Ten States Standards)" and Insurance Services Office should be used as a design guide, if not in conflict with State, County or other regulatory agency requirements.

B. Water mains shall be located in dedicated rights-of-way or utility easements. When installed in rights-of-way, water mains shall, in general, maintain a consistent alignment with respect to the centerline of the road. All water mains located outside of dedicated rights-of-way shall require a 20-foot easement or as required by the City. Water mains shall not be located beneath permanent sturctures. Placement of a water main along side or rear lot line may be allowed on a case by case basis if such a water main configuration results in efficient placement and utilization of the water distribution system. Easement widths shall be on a case by case basis and shall provide sufficient width to provide for access by heavy equipment for repair and maintenance of lines.

C. System Design:

1. Off-site water mains necessary to extend water service to a development shall be sized in accordance with the City's Water Distribution System Master Plan (current edition). On-site mains shall be minimum 6-inch diameter where on-site fire protection (fire hydrants, sprinklers, etc.) is provided.

2. Fire Hydrant Location: Spacing for hydrants shall in no case exceed 600 feet (measured along the roadway). Exact locations of fire hydrants will be in complete conformance with local and state fire code regulations. Hydrants on off-site water mains in rural areas shall be at general 2,000 foot spacings or as directed by the City.

3. System Size Computation: System design shall be based on FDEP minimum conditions of 20 psi in the mains during fire demands and 35 psi during peak domestic demands.

4. Isolation Valve Locations: Isolation valve locations shall be coordinated with fire hydrants and in general shall be located at distances not greater than 600-feet along the water main. Isolation valves in off-site water mains in rural areas shall be generally 2,000 foot spacings or at the descretion of the City.

5.03 STANDARD REQUIREMENTS

A. Approved Pipe, Fittings and Valves: All polyvinyl chloride (PVC) pipe shall be manufactured in accordance with AWWA Standard C-900 and shall meet the requirements of Section 4.02C. of this Handbook. The PVC pipe shall have a minimum working pressure rating of 150 psi and shall have a dimension ratio (DR) of 18. The pipe shall be the same outside diameter as DI pipe. The DI pipe shall conform to ANSI/AWWA A21.51/C-151. A minimum of Class 50 shall be supplied for all sizes of pipe. The types tabulated below, within the size range indicated and for the applicable service, are approved for water distribution system construction:

Pipe and Fittings	Size Range (Inches)
DI Pipe & Fittings - Cement Mortar Lined	No Limit
Polyvinyl Chloride	20 inch or Less
Polyethylene Plastic Pipe and Brass Fittings	Service Connections Only
Gate Valves (GV)	No Limit
Butterfly Valves (BFV)	No Limit
Corporation Stops and Curb Stops (brass)	Service Connections Only

1. Joints: PVC pipe shall have integral bell push on type joints conforming to ASTM D3139. Joints for DI pipe and fitting joints shall be push-on or mechanical joints conforming to ANSI/AWWA A21.11/C-111. Restrained joints shall meet the requirements of Section 4.02F. of this Handbook. Flanged joints shall conform to ANSI Standard B16.1, 125 lb.

SECTION 6

SANITARY GRAVITY SEWERS

6.01 GENERAL

This Section includes general technical criteria for the design and installation of sanitary gravity wastewater systems.

6.02 DESIGN STANDARDS

A. Required Reference: The Builder shall comply with the applicable requirements as established by the FDEP. Additionally, the criteria set forth in the most recent edition of "Recommended Standards for Wastewater Facilities (Ten States Standards)", may generally be used as a design guide, if not in conflict with State, County or other regulatory agency requirements.

B. Gravity sewers shall be located in dedicated rights-of-way or utility easements. Whenever possible, sewers shall be located under pavement in dedicated rights-of-way. All sewers located outside of dedicated rights-of-way shall require a minimum 20-foot easement (30' if available). If a gravity sewer is located adjacent to a road rights-of-way, a minimum 10-foot easement shall be provided. Additional easement widths shall be provided when the pipe size or depth of cover so dictate., in both cases. No gravity sewers shall be placed under retention ponds or drainage ditches, tennis courts, or other structures. In general, gravity sewers shall not be located along side or rear lot lines. Placement of a gravity sewer along side or rear lot line may be allowed on a case by case basis if such a sewer configuration results in efficient placement and utilization of the sewer system, and must be approved by City. In addition, no manholes shall be placed along side or rear lot lines.

C. System Design:

1. Diameter: On-site gravity sewers shall be 8-inch diameter on minimum slope per FDEP standards (0.4% based on n=0.013 for v=2 fps). Larger diameter gravity mains shall be considered regional mains and sized by the city based on area-wide wastewater flow projections.

2. Design Considerations:

a. Sewers shall be installed with straight alignment and grade between manholes, with manhole spacing not to exceed 350 feet for all sewers; however, special provisions may be considered for sizes 30-inches and larger.

b. All sanitary sewers shall initiate and terminate at manholes (4-ft diameter).

c. Sewers of diverse sizes shall always join at manholes, with no size conversions between manholes. Where different sizes join, the pipes shall be placed at elevations where the 0.8 depth points are equal. If the entrance pipe elevation exceeds 2.0 feet above the effluent sewer, drop manhole connections shall be provided.

d. Flow direction changes in excess of 90 degrees shall not be included in sewer alignments without special consideration.

e. Where design velocities greater than 10 feet per second are attained, due to topography or other reasons, special provisions shall be provided for sewer protection.

f. The minimum cover over gravity sewers shall be no less than 3 feet calculated from the finished grade.

g. All sewer extensions for future connections shall terminate at a manhole.

h. Main drain and backwash systems for pools and spas, and storm drain systems shall not connect to the gravity system.

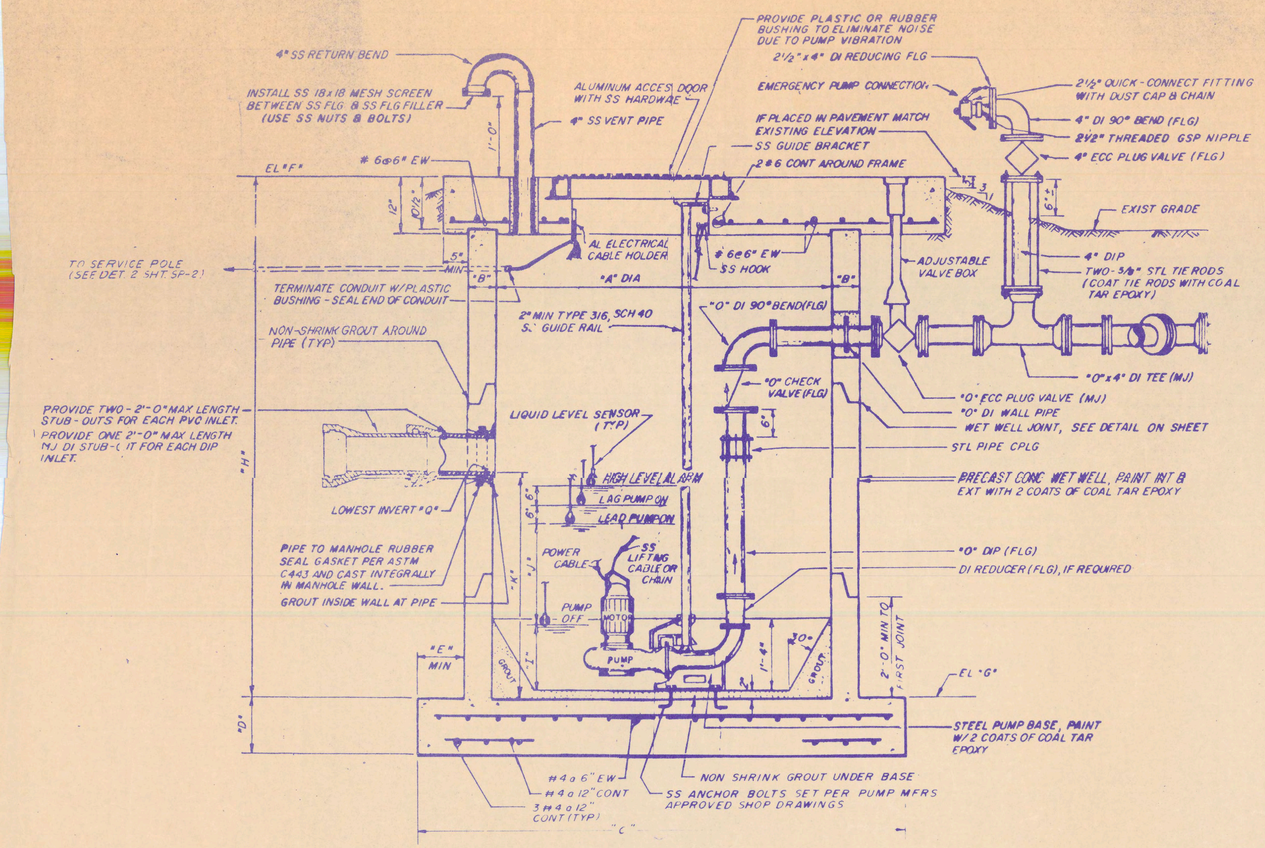
i. The Engineer shall submit signed, sealed and dated design calculations in accordance with FDEP (10 State) requirements.

6.03 STANDARD REQUIREMENTS

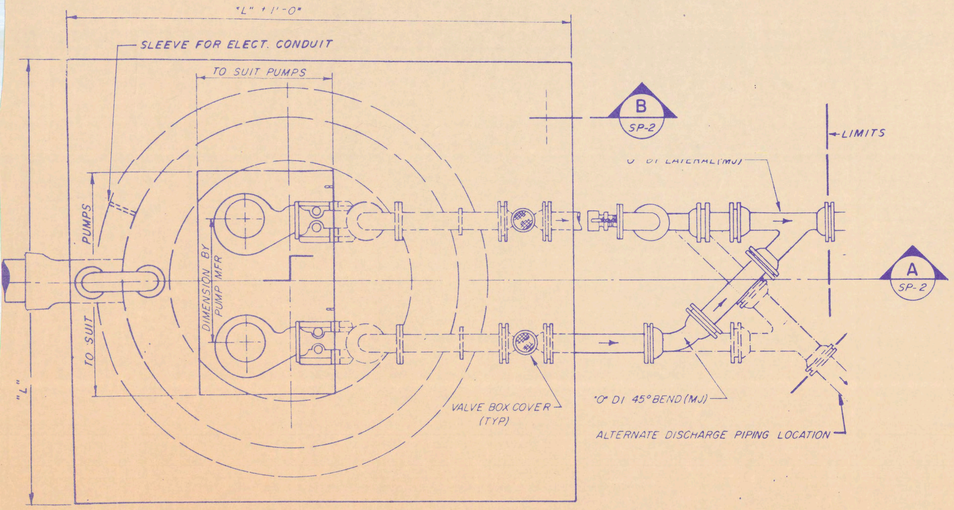
A. Approved Pipe and fittings: All gravity sewer pipe shall be PVC pipe unless otherwise approved by the City. Pipe 15-inches in diameter and less shall meet the requirements for ASTM D3034, SDR 35. Pipe 18-inches and larger shall meet ASTM F679, SDR 35. The joints shall be integral bell elastometric gasket joints manufactured in accordance with ASTM D3212 and ASTM F477. Pipe wall thickness shall be based on mnimum safe loads for depths of installation. Unless otherwise specified, wye branches shall be provided in the gravity sewer main for service lateral connections. Wyes shall be 6-inches inside diameter, unless otherwise approved by City. All fittings shall be the same material as the pipe. Plugs for stub outs shall be of the same material as the pipe, and gasketed with the same gasket material as the pipe joint

B. Sanitary Sewer Manholes:

1. Manholes shall be precast concrete, as detailed herein. Alternate manhole materials and designs shall receive prior approval. The minimum inside diameter of manholes shall be 48-inches for sewer sizes to 24-inches in diameter or less.



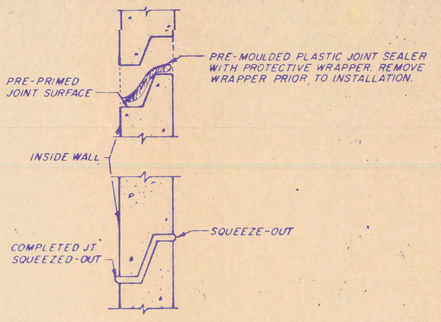
A SP-2 **SECTION**
N.T.S



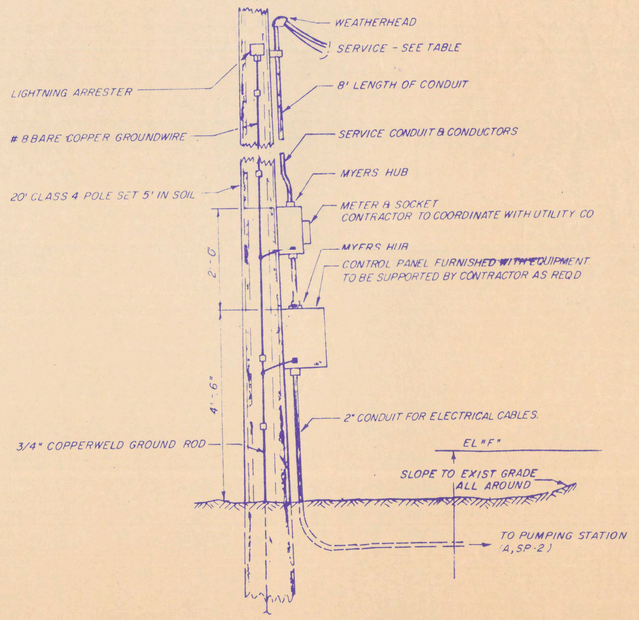
1 SP-2 **PUMP STATION PLAN DET.**
N.T.S

PUMPING STATION SCHEDULE

DESCRIPTION	GPM	TDH	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	"O"	"Q"	
N.W. TRENTON	100	23'	5'-0"	6"	6'-10"	12"	5"	177	164.47	12.53	1'-4"	1'-4"	5'-0"	7'-0"	4"	169.47	



B SP-2 **TYP. PRECAST WET WELL JNT. DET.**
N.T.S

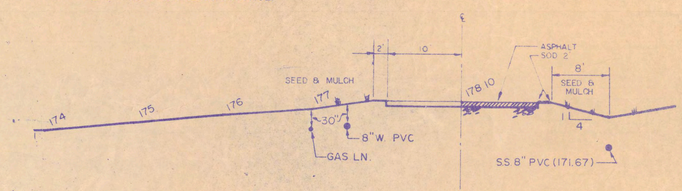


2 SP-2 **SERVICE POLE**
N.T.S.

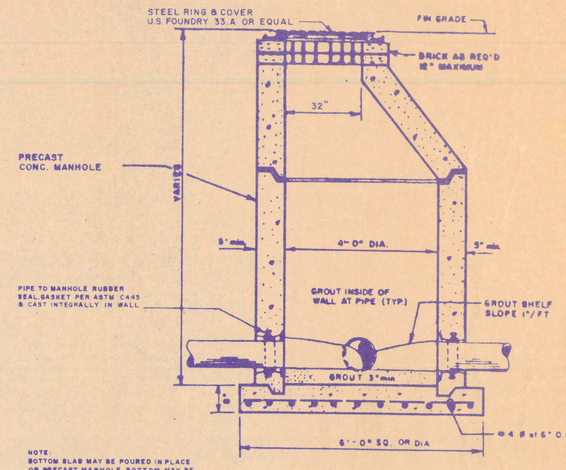
SERVICE POLE SCHEDULE

PUMP STATION	SERVICE VOLTAGE	SERVICE CONDUIT	SERVICE CONDUCTORS	MAX. PUMP H.P.	LIGHTNING ARRESTER
N.W. TRENTON	120/240 V. 3 Ø, 4W DELT.	1"	4 # 8 THWN.	5	IN CONTROL PANEL.

NOTES:
12" SUBGRADE 95% DENSITY LBR 40.
8" LIMEROCK BASE. PRIME COAT.
1-1/2" TYPE S-1 ASPHALT CONC. SURFACE.



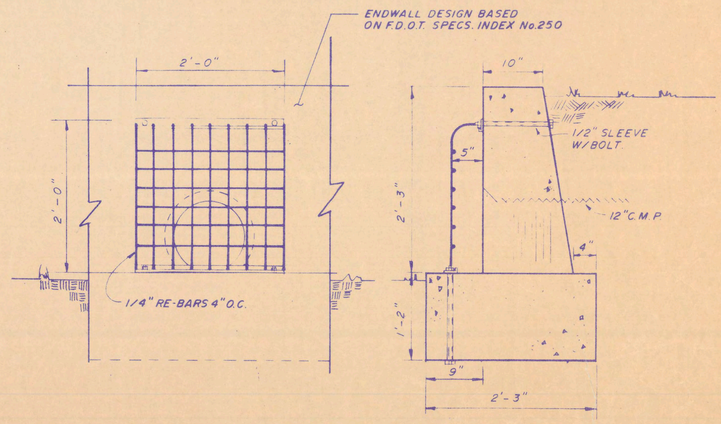
3 SP-2 **TYPICAL ROAD SECTION**
1" = 10'



NOTE:
BOTTOM SLAB MAY BE POURED IN PLACE OR PRECAST MANHOLE BOTTOM MAY BE USED AT CONTRACTORS OPTION.

ELEVATION

4 SP-2 **TYPICAL PRECAST MANHOLE**
N.T.S.



5 SP-2 **CULV. DET. UNDER SECURITY FENCE**
1" = 1'-0"

FRANK R. MASIELLO & ASSOCIATES
ARCHITECTS - PLANNERS
NORTH PALM BEACH, FLORIDA 33408
305/793-2112 305/845-2500

COLUMBIA COUNTY JAIL
LAKE CITY, FLORIDA
FOR THE
BOARD OF COUNTY COMMISSIONERS
OF COLUMBIA COUNTY FLORIDA

SITE DETAILS

9/20/84
AS SHOWN
L. RUIZ
J. P. HAHN

SP-2

City of Lake City
Water flow report

HYDRANT # & LOCATION: Columbia County Detention NW Quinten — DATE: 2/27/2020

TEST BY: Al/Penny — Day: Thursday — Time: 13:30 — Minutes: 3

WATER SUPPLIED BY: Municipal

PURPOSE OF TEST: request

DATA

FLOW HYDRANT(S)	A1	A2	A3
SIZE OPENING:	2.5	2.5	2.5
COEFFICIENT:	0.8		
PITOT READING:	40		
GPM:	943	0	0

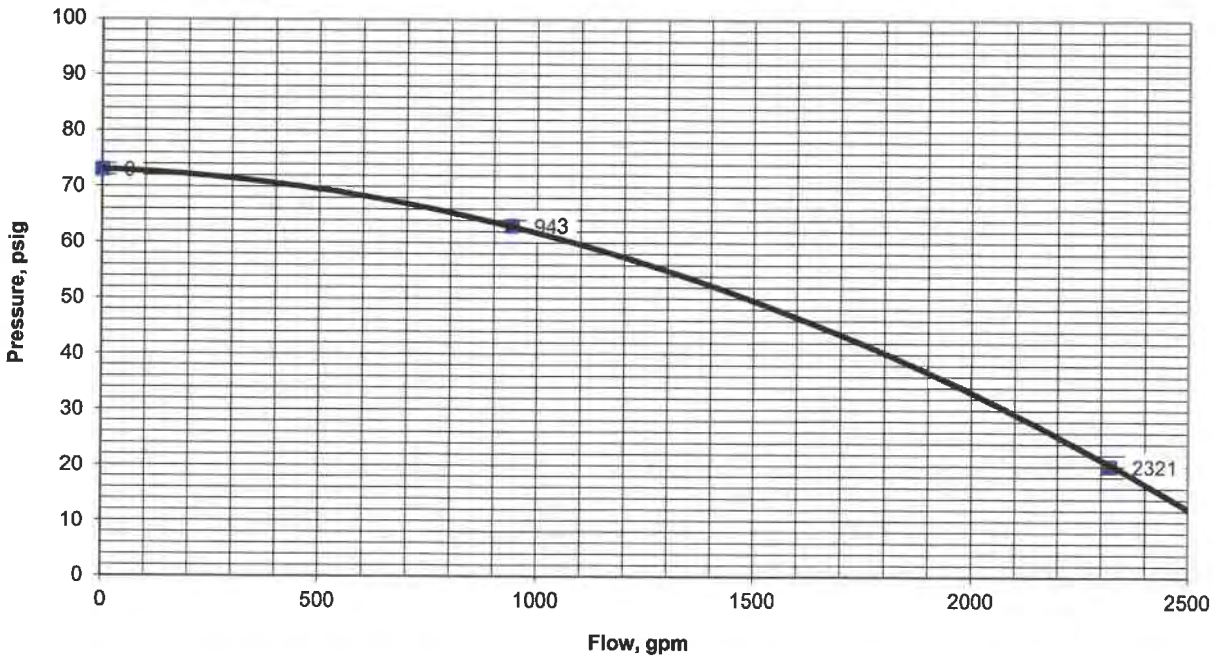
TOTAL FLOW DURING TEST: 943 GPM

STATIC READING: 73 PSI — RESIDUAL: 63 PSI

RESULTS: AT 20 PSI RESIDUAL 2321 GPM — AT 0 PSI 2760 GPM

ESTIMATED CONSUMPTION: 2830 GAL.

REMARKS:



Concurrency Impact Analysis

Columbia County Detention Facility

Traffic Impact

Existing							
ITE Code	ITE Use	Units	Independent Variable	ADT Multiplier	PM multiplier	Calculated ADT	Calculated PM Trips
571	Prison	Employees	50	1.8	0.48	90	24
					Totals =	90	24

Proposed							
ITE Code	ITE Use	Units	Independent Variable	ADT Multiplier	PM multiplier	Calculated ADT	Calculated PM Trips
571	Prison	Employees	50	1.8	0.48	90	24
					Totals =	90	24

Potable Water Impacts

Existing						
Demand Source	Units	Independent Variable	ADF/Unit (GPD)	Peak Hourly Multiplier	Calculated ADF (GPD)	Calculated PHF (GPM)
Existing Detention Facility	Employee 8/hr Shift	50	15	4	750	2
Existing Detention Facility	Inmates	256	115	4	29,440	82
				Totals =	30,190	84

Proposed						
Demand Source	Units	Independent Variable	ADF/Unit (GPD)	Peak Hourly Multiplier	Calculated ADF (GPD)	Calculated PHF (GPM)
Proposed Detention Facility	Employee 8/hr Shift	50	15	4	750	2
Proposed Detention Facility	Inmates	256	115	4	29,440	82
				Totals =	30,190	84

Notes: 1) Flow Rates are per Table I in FAC 64E-6.008.
2) No increase in employees or inmates is proposed with the proposed detention facility.

Concurrency Impact Analysis

Columbia County Detention Facility

Sanitary Sewer Impacts

Existing						
Demand Source	Units	Independent Variable	ADF/Unit (GPD)	Peak Hourly Multiplier	Calculated ADF (GPD)	Calculated PHF (GPM)
Existing Detention Facility	Employee 8/hr Shift	50	15	4	750	2
Existing Detention Facility	Inmates	256	115	4	29,440	82
				Totals =	30,190	84

Proposed						
Demand Source	Units	Independent Variable	ADF/Unit (GPD)	Peak Hourly Multiplier	Calculated ADF (GPD)	Calculated PHF (GPM)
Proposed Detention Facility	Employee 8/hr Shift	50	15	4	750	2
Proposed Detention Facility	Inmates	256	115	4	29,440	82
				Totals =	30,190	84

Notes: 1) Flow Rates are per Table I in FAC 64E-6.008

2) No increase in employees or inmates is proposed with the proposed detention facility.

Solid Waste Impacts

Existing				
Demand Source	Units	Independent Variable	Waste Generation Rate (lbs/day)	Calculated Waste Generated (lbs/day)
Existing Detention Facility	ksf	36.46	5.5	201
			Totals =	201

Proposed				
Demand Source	Units	Independent Variable	Waste Generation Rate (lbs/day)	Calculated Waste Generated (lbs/day)
Existing Detention Facility	ksf	36.46	5.5	201
Proposed Detention Facility	ksf	25.26	5.5	139
			Totals =	339

Concurrency Impact Analysis

Columbia County Detention Facility

Recreation Facilities

The proposed development is nonresidential in nature; therefore, there are no impacts to recreation facilities. The development will have no impact to the Level of Service (LOS) of recreation facilities.

Public School Facilities

The proposed development is nonresidential in nature; therefore, there are no impacts to public school facilities. The development will have no impact to the Level of Service (LOS) of public school facilities.

Columbia County Detention Facility
Special Exception Application
Comprehensive Plan Consistency Analysis
July 14, 2020

Comprehensive Plan Consistency Analysis: An analysis of the application's consistency with the Comprehensive Plan (analysis must identify specific Goals, Objectives, and Policies of the Comprehensive Plan and detail how the application complies with said Goals, Objectives and Policies).

The proposed Special Exception is consistent with the following Elements of the Comprehensive Plan:

- Future Land Use Element
- Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element

Future Land Use Element

The subject property has an Industrial (I) zoning district and a FLUM Designation of Industrial. Policy I.1.5 of the Future Land Use Element regulates the Industrial designation and states that in addition to industrial operations, "...other similar uses compatible with industrial uses may be approved as special exceptions." Section 4.17.5 of the LDR for Industrial zoning districts states that public buildings and facilities may be permitted as a Special Exception; the proposed detention facility is a public building and facility and would therefore be permitted as a Special Exception.

Furthermore, POLICY I.1.5 states that public uses shall be limited to an intensity of 1.0 floor area ratio. The proposed use has a floor area ratio of 0.09.

Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element

The following are some of the Goals and Objectives of this Element of the County's Comprehensive Plan.:

> GOAL IV-1 - Ensure the provision of public facilities in a timely, orderly, efficient and environmentally sound manner at an acceptable level of service for the population of the County.
>
> OBJECTIVE IV.2 The County shall coordinate the continued extension of, or increase in, the capacity of sanitary sewer facilities by scheduling the completion of public facility improvements concurrent with projected demand.
>
> OBJECTIVE IV.5 The County shall continue to coordinate the extension of, or increase in the capacity of, potable water facilities by scheduling the completion of public facility improvements and requiring that they are concurrent with projected demand.

The proposed project is an expansion of the existing Detention Facility. Additional demands to public facilities will be address through the site plan review process and permit approvals. The proposed project is consistent with the general intent of the Goals, Policies and Objectives related to public utilities such as sanitary sewer, drainage, potable water, and solid waste. Coordination with Lake City Utilities is ongoing, however, it is anticipated that capacity of the existing potable

water systems in the area are sufficient for the demand generated by the proposed project. An upgrade to the lift station is required in order for the project to connect into Lake City Utilities' system, however, capacity is available once connected. The site plan review process includes an evaluation of drainage and no issues have been identified.

Intergovernmental Coordination Element

The following are some of the Goals and Objectives of this Element of the County's Comprehensive Plan.:

> OBJECTIVE VII.4 The County shall coordinate with the water management district regarding all development proposals with the potential for impacting the water resources of the County.
>
> OBJECTIVE VII.7 All development shall be located in a manner which does not diminish the level of service of public facilities less than the level of service standard established within the comprehensive plan.

The proposed project is currently undergoing review with the Suwannee River Water Management (WMD) through the required Environmental Resource Permit (ERP) process. The WMD has assigned ERP Application No. 023-237584-1 to the proposed project. Any impacts to the water resources of the County will be addressed through the ERP process.

The demands on public facilities such as sanitary sewer, drainage, potable water, and solid waste are currently being reviewed as part of the site plan review process and permit approval. Coordination with Lake County Utilities is ongoing to ensure that demands generated by the proposed project are accounted for and that capacity is available to serve the project.

The existing Detention Facility and the proposed expansion are generally consistent with the Goals, Objectives, and Policies of the County's Comprehensive Plan. The FLUM Designation and zoning designation are compatible. The proposed use is permitted as a Special Exception within the current zoning designation. Demands on public facilities are currently being evaluated and addressed as part of the site plan review process with the County. The site plan review process requires coordination with Lake City Utilities for potable water and sanitary sewer. Stormwater review and permitting is being coordinated with the WMD. The proposed use and Special Exception are consistent will the applicable Goals, Objectives and Policies of the County's Comprehensive Plan.

Columbia County Property Appraiser

Jeff Hampton

2020 Working Values
updated: 2/11/2020

Parcel: << **19-3S-17-05068-000** >>

Owner & Property Info

Result: 1 of 1

Owner	**COLUMBIA COUNTY, FLORIDA** P O BOX 1529 LAKE CITY, FL 32056		
Site	533 QUINTEN ST,		
Description*	NE1/4 OF NE1/4 EX RD R/W. (NEW JAIL & COUNTY BARN)		
Area	38 AC	S/T/R	19-3S-17
Use Code**	COUNTY (008600)	Tax District	2

*The Description above is not to be used as the Legal Description for this parcel in any legal transaction.
**The Use Code is a FL Dept. of Revenue (DOR) code and is not maintained by the Property Appraiser's office. Please contact your city or county Planning & Zoning office for specific zoning information.

Aerial Viewer | Pictometery | Google Maps

Property & Assessment Values

2019 Certified Values		2020 Working Values	
Mkt Land (3)	$365,108	Mkt Land (3)	$365,108
Ag Land (0)	$0	Ag Land (0)	$0
Building (2)	$1,960,425	Building (2)	$1,906,519
XFOB (7)	$117,477	XFOB (7)	$117,477
Just	$2,443,010	Just	$2,389,104
Class	$0	Class	$0
Appraised	$2,443,010	Appraised	$2,389,104
SOH Cap [?]	$0	SOH Cap [?]	$0
Assessed	$2,443,010	Assessed	$2,389,104
Exempt	OTHER $2,443,010	Exempt	OTHER $2,389,104
Total Taxable	county:$0 city:$0 other:$0 school:$0	Total Taxable	county:$0 city:$0 other:$0 school:$0

Sales History

Sale Date	Sale Price	Book/Page	Deed	V/I	Quality (Codes)	RCode
N O N E						

Building Characteristics

Bldg Sketch	Bldg Item	Bldg Desc*	Year Blt	Base SF	Actual SF	Bldg Value
Sketch	1	GOVT BLDG (009300)	1991	47032	47982	$1,847,197
Sketch	2	PREF M B A (008700)	1976	7376	8896	$59,322

*Bldg Desc determinations are used by the Property Appraisers office solely for the purpose of determining a property's Just Value for ad valorem tax purposes and should not be used for any other purpose.

Extra Features & Out Buildings (Codes)

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
0296	SHED METAL	0	$500.00	1.000	12 x 25 x 0	(000.00)
0040	BARN,POLE	0	$12,852.00	9180.000	45 x 204 x 0	(000.00)
0296	SHED METAL	0	$9,000.00	1800.000	30 x 60 x 0	(000.00)
0260	PAVEMENT-A	0	$2,000.00	1.000	0 x 0 x 0	(000.00)
0160	CLFENCE 10	0	$18,000.00	1.000	0 x 0 x 0	(000.00)

Land Breakdown

Land Code	Desc	Units	Adjustments	Eff Rate	Land Value

009105	TOWER SITE (MKT)	1.000 AC	1.00/1.00 1.00/1.00	$8,593	$8,592
008600	COUNTY (MKT)	37.000 AC	1.00/1.00 1.00/1.00	$9,548	$353,266
009945	WELL/SEPT (MKT)	1.000 UT - (0.000 AC)	1.00/1.00 1.00/1.00	$3,250	$3,250

Search Result: 1 of 1

APPLICATION AGENT AUTHORIZATION FORM

TO: Columbia County Zoning Department
135 NE Hernando Avenue
Lake City, FL 32055

Authority to Act as Agent

On my/our behalf, I appoint Christopher J. Allen , P.E. (Name of Person as Agent) Dewberry Engineers Inc. (Company Agent is representing, if applicable)

to act as my/our agent in the preparation and submittal of this application for Site Plan Application (Type Application).

I acknowledge that all responsibility for complying with the terms and conditions for approval of this application, still resides with me as the Applicant.

Applicant Title: Ben Scott/ County Manager

On Behalf of: Columbia County Board of County Commissioners
(Company Name, if applicable)

Telephone: 386-758-1005 Date: 7-10-20

Applicant Signature: Ben Scott

STATE OF FLORIDA
COUNTY OF Columbia

The Foregoing instrument was acknowledged before me this 10th day of July, 2020, by Ben Scott, whom is personally known by me ✓ OR produced identification _____. Type of Identification Produced _____

Elizabeth Gregory
Notary Signature (SEAL)

ELIZABETH GREGORY
Notary Public - State of Florida
Commission # GG 215568
My Comm. Expires Jun 4, 2022
Bonded through National Notary Assn.

The Board of Adjustment requires that the applicant or representative be present at the public hearing to address and answer any questions the Board may have during the public hearing. The application may be continued to future dates if the applicant or representative is not present at the hearing.

The Columbia County Land Development Regulations require that a sign must be posted on the property ten (10) days prior to the Board to Adjustment hearing date. Once a sign has been posted, it is the property owner's responsibility to notify the Planning and Zoning Department if the sign has been moved, removed from the property, torn down, defaced or otherwise disturbed so the property can be reposted. If the property is not properly posted until all public hearings before the Board of Adjustment are completed, the Board reserves the right to continue such public hearing until such time as the property can be property posted for the required period of time.

There is a thirty (30) day appeal period after the date of the decision. No additional permitting will be issued until that thirty (30) day period has expired.

I (we) hereby certify that all of the above statements and the statements contained in any papers or plans submitted herewith are true and correct to the best of my (our) knowledge and belief.

APPLICANT ACKNOWELDGES THAT THE APPLICANT OR REPRESENTATIVE MUST BE PESENT AT THE PUBLIC HEARING BEFORE THE BOARD OF ADJUSTMENT, OTHERWISE THE REQUEST MAYBE CONTINUED TO A FUTURE HEARING DATE.

Ben Scott

Applicant/Agent Name (Type or Print)

Ben Scott

Applicant/Agent Signature

7-10-20

Date

Columbia County Tax Collector

generated on 7/14/2020 8:49:14 AM EDT

Tax Record

Last Update: 7/14/2020 8:46:50 AM EDT

Register for eBill

Ad Valorem Taxes and Non-Ad Valorem Assessments

The information contained herein does not constitute a title search and should not be relied on as such.

Account Number	Tax Type	Tax Year
R05068-000	REAL ESTATE	2019

Mailing Address
COLUMBIA COUNTY, FLORIDA
P O BOX 1529
LAKE CITY FL 32056

Property Address
533 QUINTEN NW

GEO Number
193S17-05068-000

Exempt Amount	Taxable Value
See Below	See Below

Exemption Detail 03 2443010

Millage Code 002

Escrow Code

Legal Description (click for full description)
19-3S-17 8600/860038.00 Acres NE1/4 OF NE1/4 EX RD R/W. (NEW JAIL & COUNTY BARN)

Ad Valorem Taxes

Taxing Authority	Rate	Assessed Value	Exemption Amount	Taxable Value	Taxes Levied
BOARD OF COUNTY COMMISSIONERS	8.0150	2,443,010	2,443,010	$0	$0.00
COLUMBIA COUNTY SCHOOL BOARD					
DISCRETIONARY	0.7480	2,443,010	2,443,010	$0	$0.00
LOCAL	3.9880	2,443,010	2,443,010	$0	$0.00
CAPITAL OUTLAY	1.5000	2,443,010	2,443,010	$0	$0.00
SUWANNEE RIVER WATER MGT DIST	0.3840	2,443,010	2,443,010	$0	$0.00
LAKE SHORE HOSPITAL AUTHORITY	0.9620	2,443,010	2,443,010	$0	$0.00

Total Millage	15.5970	Total Taxes	$0.00

Non-Ad Valorem Assessments

Code	Levying Authority	Amount
FFIR	FIRE ASSESSMENTS	$0.00

Total Assessments	$0.00

Taxes & Assessments	$0.00

If Paid By	Amount Due
	$0.00

Prior Years Payment History

Prior Year Taxes Due

NO DELINQUENT TAXES

The Lake City Reporter
PO Box 1709
Lake City, FL 32056
Phone: 386-752-1293
Fax: 386-752-9400
Email: kriotto@lakecityreporter.com

AFFIDAVIT OF PUBLICATION

Legal Reference: SE 0622
NOTICE OF PUBLIC HEARING

STATE OF FLORIDA
COUNTY OF COLUMBIA

Before the undersigned notary public personally appeared Todd L. Wilson, who on oath says that (s)he is Publisher of the Lake City Reporter, a newspaper published at Lake City, Columbia County, Florida; confirms that the attached legal advertisement was published in the Lake City Reporter on the following date(s):

08/14/2020

Affiant

Sworn to and subscribed before me this 14th day of August, 2020

Kathleen A. Riotto

My commission expires August 20, 2022

KATHLEEN A RIOTTO
Commission # GG 229945
Expires August 20, 2022
Bonded Thru Budget Notary Services

NOTICE OF PUBLIC HEARING
CONCERNING A SPECIAL EXCEPTION AS PROVIDED FOR IN THE
COLUMBIA COUNTY LAND DEVELOPMENT REGULATIONS
BY THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, NOTICE IS HEREBY GIVEN that, pursuant to the Columbia County Land Development Regulations as amended, hereinafter referred to as the Land Development Regulations, comments, objections and recommendations concerning the special exception, as described below, will be heard by the Board of Adjustment of Columbia County, Florida, at a public hearing on August 27, 2020 at 6:00 p.m., or as soon thereafter as the matter can be heard, in the School Board Administrative Complex located at 372 West Duval Street, Lake City, Florida.
SE 0622, a petition by Ben Scott, County Manager, agent for the Board of County Commissioners, owner, to request a special exception be granted as provided for in Section 4.17.5 (14) of the Land Development Regulations to allow for Public Building and Facility use within the Industrial (I) Zone District.
The special exception has been filed in accordance with a site plan dated July 15, 2020 and submitted as part of a petition dated July 15, 2020, as amended, to be located on property described, as follows:
A PORTION OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 3 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGIN AT THE NORTHEAST CORNER OF SAID SECTION 19; THENCE S03°39'05"E, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 1167.12 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF NORTHWEST QUINTEN STREET; THENCE DEPARTING SAID EAST LINE, RUN S87°57'42"W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 618.50 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN N03°40'46"W, A DISTANCE OF 1154.39 FEET TO A POINT ON THE NORTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE N86°46'54"E, ALONG SAID NORTH LINE OF SAID SECTION 19, A DISTANCE OF 618.83 FEET TO THE POINT OF BEGINNING.
Containing 16.48 acres, more or less.
Tax Parcel Number 19-3s-17-05068-000
The public hearing may be continued to one or more future date. Any interested party shall be advised that the date, time and place of any continuation of the public hearing shall be announced during the public hearing and that no further notice concerning the matter will be published, unless said continuation exceeds six calendar weeks from the date of the above referenced public hearing.
At the aforementioned public hearing, all interested parties may appear to be heard with respect to the special exception.
Copies of the special exception are available for public inspection at the Office of the County Planner, County Administrative Offices, 135 Northeast Hernando Avenue, Lake City, Florida, during regular business hours.
All persons are advised that if they decide to appeal any decision made at the above referenced public hearing, they will need a record of the proceedings, and that, for such purpose, they may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.
In accordance with the Americans with Disabilities Act, persons needing a special accommodation or an interpreter to participate in the proceeding should contact Lisa K. B. Roberts, at least forty-eight (48) hours prior to the date of the hearing. Ms. Roberts may be contacted by telephone at (386) 758-1005 or by Telecommunication Device for Deaf at (386) 758-2139.

592975
August 14, 2020

MOST ADS LESS THAN $5.00 PER DAY

LAKE CITY REPORTER
CLASSIFIED
ADVANTAGE

Take ADvantage of the Reporter Classifieds!
755-5440

General Information

Advertising copy is subject to approval by the Publisher who reserves the right to edit, reject, or classify all advertisements under appropriate headings. Copy should be checked for errors by the advertiser on the first day of publication. Credit for published errors will be allowed for the first insertion for that portion of the advertisement which was incorrect. Further, the Publisher shall not be liable for any omission of advertisements ordered to be published, nor for any general, special or consequential damages. Advertising language must comply with Federal, State or local laws regarding the prohibition of discrimination in employment, housing and public accommodations. Standard abbreviations are acceptable; however, the first word of each ad may not be abbreviated.

GARAGE SALE $17.50 4 LINES • 3 DAYS *Includes 2 Signs* Each additional line $1.65

Placing An Ad >

You can call us at 755-5440, Monday through Friday from 8:00 a.m. to 5:00 p.m. Some people prefer to place their classified ads in person, and some ad categories will require prepayment. Our office is located at 180 East Duval Street. You can also fax or email your ad copy to the Reporter. FAX: 386-752-9400 Please direct your copy to the Classified Department. EMAIL: classifieds@lakecityreporter.com

Ad to Appear:	Deadline:
Tuesday	Mon., Noon
Wednesday	Tues., Noon
Thursday	Wed., Noon
Friday	Thurs., Noon
Saturday	Fri., Noon

These deadlines are subject to change without notice.

Cancellations, Changes, and Billing Questions

Ad Errors: Please read your ad on the first day of publication. We accept responsibility for only the first incorrect insertion, and only the charge for the ad space in error. Please call **755-5440** immediately for prompt correction and billing adjustments. **Cancellations:** Normal advertising deadlines apply for cancellation. **Billing Inquiries:** Call 755-5440. Should further information be required regarding payments or credit limits, your call will be transferred to the accounting department.

ADVERTISEMENT FOR BIDS
HAMILTON COUNTY BOARD OF COUNTY COMMISSIONERS
HAMILTON COUNTY WILL RECEIVE BIDS FOR THE FOLLOWING:
CR 137 WIDENING AND RESURFACING
NORTH FLORIDA PROFESSIONAL SERVICES, INC.
PROJECT NO.: L19102HAM
Date & Time for Receiving Bids:
2:00 PM, LOCAL TIME
Thursday, October 1, 2020
Late bids will not be considered.
Deadline for Questions:
Thursday, September 24, 2020, 5:00 PM
Date & Time for Bid Opening:
Thursday, October 1, 2020, 2:00 PM
Place for Receiving Bids:
Hamilton County Clerk of Courts
207 Northeast First Street, Room 106
Jasper, Florida 32052
Bid Documents Available from:
NORTH FLORIDA PROFESSIONAL SERVICES, INC.
P O Box 3823
Lake City, Florida 32056
PH (386) 752-4675, FAX (386) 752-4674
Contact: Debbie Motes (dmotes@nfps.net)
Deposit for Bid Documents:
Payment of $200.00 per paper set with a two (2) set maximum. Payments from contractors are non-refundable. The bidding documents may be retrieved at no cost to the contractor via the NFPS website at http://www.nfps.net/bid-opportunites. Bidders using partial sets of documents are fully responsible for any errors or omissions made due to not reviewing the entire set of Construction Documents.
Project Description:
This project consists of widening and resurfacing CR 137 from US 41 to McNeil Lake entrance. Major items of work include clearing & grubbing, basework, asphalt paving, drainage improvements, turnout construction, guardrail installation, updating signs and pavement markings, and grassing & sodding all disturbed areas.

593272
August 14, 2020

NOTICE OF PUBLIC HEARING
CONCERNING AN AMENDMENT TO THE
COLUMBIA COUNTY COMPREHENSIVE PLAN
BY THE PLANNING AND ZONING BOARD OF COLUMBIA COUNTY, FLORIDA, SERVING ALSO AS THE LOCAL PLANNING AGENCY OF COLUMBIA COUNTY, FLORIDA, NOTICE IS HEREBY GIVEN that, pursuant to Sections 163.3161 through 163.3248, Florida Statutes, as amended, and the Columbia County Land Development Regulations, as amended, hereinafter referred to as the Land Development Regulations, objections, recommendations and comments concerning the amendment, as described below, will be heard by the Planning and Zoning Board of Columbia County, Florida, serving also as the Local Planning Agency of Columbia County, Florida, at a public hearing on August 27, 2020 at 6:00 p.m., or as soon thereafter as the matter can be heard, in the School Board Administrative Complex located at 372 West Duval Street, Lake City, Florida.
CPA 20 02, an application by the Board of County Commissioners to amend the text of the Comprehensive Plan by amending Policy I.1.6 of the Future Land Use Element to amend the Mixed Use District to Mixed Use District Intermodal, to increase the maximum residential density within the Mixed Use District Intermodal land use district from four dwelling units per acre to ten dwelling units per acre, and to create a Mixed Use District Commercial land use district, Policy I.2.2 of the Future Land Use Element to amend the Mixed Use District to Mixed Use District Intermodal and to increase the maximum residential density within the Mixed Use District Intermodal land use district from four dwelling units per acre to ten dwelling units per acre; Policy I.2.4 of the Future Land Use Element to amend Hurricane Bay to North Florida Mega Industrial Park and increase the maximum number of dwelling units from 300 to 1,200; and, Policy I.3.3 of the Future Land Use Element to amend the Floor Area Ratio from 0.25 to 1.0. for the Commercial Neighborhood district.
The public hearing may be continued to one or more future date. Any interested party shall be advised that the date, time and place of any continuation of the public hearing shall be announced during the public hearing and that no further notice concerning the matter will be published, unless said continuation exceeds six calendar weeks from the date of the above referenced public hearing.
At the aforementioned public hearing, all interested parties may appear to be heard with respect to the amendment.
Copies of the amendment are available for public inspection at the Office of the County Planner, County Administrative Offices located at 135 Northeast Hernando Avenue, Lake City, Florida, during regular business hours.
All persons are advised that if they decide to appeal any decision made at the above referenced public hearing, they will need a record of the proceedings, and that, for such purpose, they may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.
In accordance with the Americans with Disabilities Act, persons needing a special accommodation or an interpreter to participate in the proceeding should contact Lisa Roberts, at least forty-eight (48) hours prior to the date of the hearing. Ms. Roberts may be contacted by telephone at 386.758-1005 or by Telecommunication Device for Deaf at 386.758-2139.

592974
August 14, 2020

IN THE CIRCUIT COURT FOR THE THIRD JUDICIAL CIRCUIT IN AND FOR COLUMBIA COUNTY, FLORIDA
IN RE: ESTATE OF
KAREN B. PAUL-BENNETT
Deceased.
File No.: 2020-CP-000093
Division: Probate
NOTICE TO CREDITORS
The administration of the estate of Karen B. Paul-Bennett deceased, whose date of death was October 22, 2019, is pending in the Circuit Court for Columbia County, Florida, Probate Division, the address of which is Clerk of the Circuit Court & Comptroller, Probate Division, 173 NE Hernando Avenue, Lake City, Florida 32055. The names and addresses of the personal representative and the personal representative's attorney are set forth below.
All creditors of the decedent and other persons having claims or demands against decedent's estate on whom a copy of this notice is required to be served must file their claims with this court WITHIN THE LATER OF 3 MONTHS AFTER THE TIME OF THE FIRST PUBLICATION OF THIS NOTICE OR 30 DAYS AFTER THE DATE OF SERVICE OF A COPY OF THIS NOTICE ON THEM.
All other creditors of the decedent and other persons having claims or demands against decedent's estate must file their claims with this court WITHIN 3 MONTHS AFTER THE DATE OF THE FIRST PUBLICATION OF THIS NOTICE.
ALL CLAIMS NOT FILED WITHIN THE TIME PERIODS SET FORTH IN SECTION 733.702 OF THE FLORIDA PROBATE CODE WILL BE FOREVER BARRED.
NOTWITHSTANDING THE TIME PERIODS SET FORTH ABOVE, ANY CLAIM FILED TWO (2) YEARS OR MORE AFTER THE DECEDENT'S DATE OF DEATH IS BARRED.
The date of first publication of this notice is August 7, 2020.
Attorney for Personal Representative:
Haley Hestbeck
Attorney for Personal Representative
Florida Bar No.: 1018582
1732 N. Ronald Reagan Blvd.
Longwood, Florida 32750-3409
Telephone: (407)321-4844
Fax: (407) 321-1494
haley@levylawyers.com
sheila@levylawyers.com
Personal Representative:
John Paul
403 SE Baya Drive
Lake City, Florida 32025

592174
August 7, 14, 2020

NOTICE TO CONTRACTORS
Notice is hereby given that sealed bids will be received in the Columbia County Manager's office until **2:00 P.M.** on **September 8, 2020**, for Columbia County Project No. **2020-08**. This office is located on the second floor of the Courthouse Annex at 135 Hernando Avenue, Room 203 Lake City FL 32055.
Southern 6600 linear feet of SW Birley Ave
Full depth reclamation, resurfacing and widening an existing 20' asphaltic paved road section to 22' wide and placement of new asphalt pavement in two layers: 1) structural (165lbs/sy) and 2) surface (137.5lbs/sy). For approximately 6600 LF, or 1.25 miles.
Northern 3800 linear feet of SW Birley Ave
Milling and Resurfacing of a rural section of 22' wide (2 - 11' travel lanes) and placement of new asphalt pavement in two layers: 1) structural (165lbs/sy) and 2) surface (137.5lbs/sy) of approximately 3800 LF, or 0.72 miles of length.
CR 252W (SW Pinemount Ave)
Milling existing travel lanes and resurfacing with 137.5 lbs/sy asphaltic pavement, widening existing roadway section at signal by constructing 12' lane, (8' limerock base, and placement of new asphalt pavement in two layers: 1) structural (165lbs/sy) and 2) surface (137.5lbs/sy), and miscellaneous signalization items.
Scope of work includes limerock, widening, mixing, grading, asphaltic concrete pavement, stormwater piping, erosion control, grassing, painted pavement markings, constructing vehicle loops, repair loop windows, install 5% section signal (provided by County), and incidental items.
The Bid Forms and Construction specifications may be obtained from the Countys web site at http://www.columbiacountyfla.com/PurchasingBid-s.asp. Deadline for questions regarding construction plans, specifications, and/or bid documents must be received before 2:00 P.M. on September 4, 2020.
The successful bidder will be required to furnish the County Manager with a 5% bid bond with submittal, and if selected, furnish the County Manager with a performance bond and proof of liability insurance prior to commencing work.
The Columbia County Commission reserves the right to reject any or all bids and to add to the contract or delete from the contract to stay within their funding capabilities.
Columbia County Board of County Commissioners

592532
August 7, 14, 2020

Public Auction to be held August 28, 2020 at 8AM at Ozzie's Towing & Auto, LLC, 199 SE Llewellyn Ave. Lake City FL, 32025 (386) 755-0608
Following VIN Numbers:

2002 HONDA
SHHEP335X2U304949

2004 CADI
1GYEC63T74R317078

590055
August 14, 2020

NOTICE OF SALE
Rainbow Title & Lien, Inc. will sell at Public Sale at Auction the following vehicles to satisfy lien pursuant to Chapter 713.78 of the Florida Statutes on September 03, 2020 at 10 A.M.AUCTION WILL OCCUR WHERE EACH VEHICLE IS LOCATED *
2017 RAM
3C6TRVDG7HE545579
2007 DODGE
1D8GU28K27W598895
2009 CHEVROLET
1GCEK29J79Z227251
2003 CHEVROLET
1G1JC52F737294317
Located at: 3720 SISTERS WELCOME RD, LAKE CITY, FL 32024 Columbia
Any person(s) claiming any interest(s) in the above vehicles contact: Rainbow Title & Lien, Inc., (954) 920-6020 ALL AUCTIONS ARE HELD WITH RESERVE * Some of the vehicles may have been released prior to auction.

593233
August 14, 2020

NOTICE OF SALE
Rainbow Title & Lien, Inc. will sell at Public Sale at Auction the following vehicles to satisfy lien pursuant to Chapter 713.78 of the Florida Statutes on September 03, 2020 at 10 A.M. * AUCTION WILL OCCUR WHERE EACH VEHICLE IS LOCATED *
2004 NISSAN
3N1CB51D44L885112
2014 FORD
2FMDK3JC4EBA36569
Located at: 970 HAMILTON AVE, NE, LIVE OAK, FL 32064 Suwanee
Any person(s) claiming any interest(s) in the above vehicles contact: Rainbow Title & Lien, Inc., (954) 920-6020
ALL AUCTIONS ARE HELD WITH RESERVE * Some of the vehicles may have been released prior to auction.

593236
August 14, 2020

NOTICE OF PUBLIC HEARING
CONCERNING A SPECIAL EXCEPTION AS PROVIDED FOR IN THE
COLUMBIA COUNTY LAND DEVELOPMENT REGULATIONS
BY THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, NOTICE IS HEREBY GIVEN that, pursuant to the Columbia County Land Development Regulations as amended, hereinafter referred to as the Land Development Regulations, comments, objections and recommendations concerning the special exception, as described below, will be heard by the Board of Adjustment of Columbia County, Florida, at a public hearing on August 27, 2020 at 6:00 p.m., or as soon thereafter as the matter can be heard, in the School Board Administrative Complex located at 372 West Duval Street, Lake City, Florida.
SE 0622, a petition by Ben Scott, County Manager, agent for the Board of County Commissioners, owner, to request a special exception be granted as provided for in Section 4.17.5 (14) of the Land Development Regulations to allow for Public Building and Facility use within the Industrial (I) Zone District. The special exception has been filed in accordance with a site plan dated July 15, 2020 and submitted as part of a petition dated July 15, 2020, as amended, to be located on property described, as follows:
A PORTION OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 3 SOUTH, RANGE 17 EAST, COLUMBIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGIN AT THE NORTHEAST CORNER OF SAID SECTION 19; THENCE S03°39'05"E, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 1167.12 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF NORTHWEST QUINTEN STREET; THENCE DEPARTING SAID EAST LINE, RUN S87°57'42"W, ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 618.50 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN N03°40'46"W, A DISTANCE OF 1154.39 FEET TO A POINT ON THE NORTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE N86°46'54"E, ALONG SAID NORTH LINE OF SAID SECTION 19, A DISTANCE OF 618.83 FEET TO THE POINT OF BEGINNING.
Containing 16.48 acres, more or less.
Tax Parcel Number 19-3s-17-05068-000
The public hearing may be continued to one or more future date. Any interested party shall be advised that the date, time and place of any continuation of the public hearing shall be announced during the public hearing and that no further notice concerning the matter will be published, unless said continuation exceeds six calendar weeks from the date of the above referenced public hearing.
At the aforementioned public hearing, all interested parties may appear to be heard with respect to the special exception.
Copies of the special exception are available for public inspection at the Office of the County Planner, County Administrative Offices, 135 Northeast Hernando Avenue, Lake City, Florida, during regular business hours.
All persons are advised that if they decide to appeal any decision made at the above referenced public hearing, they will need a record of the proceedings, and that, for such purpose, they may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.
In accordance with the Americans with Disabilities Act, persons needing a special accommodation or an interpreter to participate in the proceeding should contact Lisa K. B. Roberts, at least forty-eight (48) hours prior to the date of the hearing. Ms. Roberts may be contacted by telephone at (386) 758-1005 or by Telecommunication Device for Deaf at (386) 758-2139.

592975
August 14, 2020

245-MISCELLANEOUS

Wanted; Unwanted livestock; horses, goats, cows: Free pick-up call Danny 904-222-5054.

305-GENERAL

Madison County Memorial Hospital Now Hiring
Laboratory Manager
Laboratory Technologists
LPNs and CNAs
Registered Nurses
Operating Room RN Circulator
PACU RN
Respiratory Therapists
Insurance Biller
EVS/Housekeepers
Apply Online MCMH.US or Call (850)973-2271
MCMH is an Equal Opportunity Employer
Drug Free Workplace

The Meadows Apartments Now Hiring Apartment Maintenace Person. We offer health benefits & 410k. Must have own tools. Call 386-362-6397. 1600 Helvenston St. SE. Live Oak, FL. 32064

WEEKEND WORKER: 7:30am – 3:30pm. Tie tubes on vehicles. Call 386-433-6051.

405-YARD SALES

PUBLISHER'S NOTE
All Yard Sale Ads
Must be Pre-Paid.

425-FARM & HEAVY EQUIPMENT

Registered Brangus Bulls 1-3 years old, certified, gentle, ready to breed. $2000-$2500. 352-215-1018.

605-PETS & ANIMALS FOR SALE

Cows for Sale, 10 head, all bred, some with calves, $7,500 for all. Can delv. 352-575-7498.

Buy It • Sell It • Find It
Lake City Reporter
Classifieds

605-PETS & ANIMALS FOR SALE

PUBLISHER'S NOTE
Florida Law 828.29 requires dogs and cats being sold to be at least 8 weeks old and have a health certificate from a licensed veterinarian documenting they have mandatory shots and are free from intestinal and external parasites. Many species of wildlife must be licensed by Florida Fish and Wildlife. If you are unsure, contact the local office for information.

620-WANTED TO BUY PETS & ANIMALS

Want to buy cattle. All kinds 352-339-3018

Wanted to lease pasture for cattle. 352-339-3018

805-HOMES FOR SALE

PUBLISHER'S NOTE
All real estate advertising in this newspaper is subject to the fair housing act which makes it illegal to advertise "any preference, limitation, or discrimination based on race, color, religion, sex, disability, familial status or national origin; or any intention to make such preference, limitation or discrimination." Familial status includes children under the age of 18 living with parents or legal custodians, pregnant women and people securing custody of children under the age of 18. This newspaper will not knowingly accept any advertising for real estate which is in violation of the law. Our readers are hereby informed that all dwellings advertised in this newspaper are available on an equal opportunity basis. To complain of discrimination call HUD toll free at 1-800-669-9777, the toll free telephone number to the hearing impaired is 1-800-927-9275.

810-LAND & LOTS FOR SALE

4.5 acres on Lake Jeffrey Rd, gorgeous oaks, great area, site built homes only. Owner Financing! NO DOWN! $49,900. $513/mo 352-215-1018. www.LandOwnerFinancing.com

In Print & Online
www.lakecityreporter.com

Posted on 8/14/20

Brandon M. Stubbs Digitally signed by Brandon M. Stubbs Date: 2020.08.14 10:18:13 -04'00'

PUBLIC NOTICE:

NOTICE OF PUBLIC HEARING BEFORE THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA.

BY THE BOARD OF ADJUSTMENT OF COLUMBIA COUNTY, FLORIDA, NOTICE IS HEREBY GIVEN that, pursuant to the Columbia County Land Development Regulations as amended, hereinafter referred to as the Land Development Regulations, comments, objections and recommendations concerning the special exception, as described below, will be heard by the **Board of Adjustment** of Columbia County, Florida, at a public hearing on **August 27, 2020 at 6:00 p.m.**, or as soon thereafter as the matter can be heard, in the School Board Administrative Complex located at 372 West Duval Street, Lake City, Florida.

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Containing 16.48 acres, more or less.

Tax Parcel Number 19-3s-17-05068-000

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FOR MORE INFORMATION, CONTACT BRANDON M. STUBBS, COMMUNITY DEVELOPMENT COORDINATOR AT (386) 754-7119


PUBLIC NOTICE
LAND USE ACTION

Dewberry

Dewberry Engineers Inc.
800 N. Magnolia Ave, Suite 1000
Orlando, FL 32803

407.843.5120
407.649.8664 fax
www.dewberry.com

August 24, 2020

File No.: 50101397 (CCDC)

Mr. Brandon M. Stubbs
Columbia County Board of County Commissioners
P.O. Box 1529
Lake City FL 32056

Subject: **Columbia County Detention Facility**
Special Exception SE 0622
Response to Comments- Review #1

Dear Mr. Stubbs:

We offer the following information and supporting documentation in response the email dated July 31, 2020 regarding the above referenced project. We have included the named attachments to accompany our responses, which correspond to the order your comments were presented and appear in bold type.

1. The applicant must address concerns related providing an Emergency Responder Radio Repeater System in accordance with Chapter 663.202, Florida Statutes. See attached comments related to Emergency Responder Radio Repeater via Lawrence Wilson, Central Communications, and Tad Cervantes, Assistant Fire Chief.

   Response: The emergency responder radio repeater has been noted on the Geometry Plan Sheet C09 in accordance with the requirement. Please refer to the note in the lower right corner of Sheet C09 included in this submittal.

Should you have any questions or require additional information, please contact me at (321) 354-9739.

Sincerely,

Christopher J. Allen, P.E.
Project Engineer
Dewberry Engineers, Inc.

CJA:drq
Q:\CCDC-1_50101397\Adm\Correspondence\Letters\4005

c: Ben Scott, Columbia County Board of County Commissioners
Tommy Matthews, Columbia County Board of County Commissioners
Chad Williams, Columbia County Board of County Commissioners
Tad Cervantes, Assistant Fire Chief, Columbia County
Lawrence Wilson, Central Communications, Columbia County
Brad Hall, R.A., Dewberry Engineers Inc.
Jim Beight, R.A., Dewberry Engineers Inc.
Mitchell Callaway, E.I., Dewberry Engineers Inc.

July 31, 2020

VIA ELECTRONIC MAIL

Ben Scott, County Manager
Columbia County, Florida
P.O. Box 1529
Lake City, FL 32056

Re: SE 0622 – Review Comments

Dear Mr. Scott,

The above referenced application was review for sufficiency in accordance with Columbia County's Comprehensive Plan and Land Development Regulations ("LDRs"). Please address all insufficiencies detailed below in writing and provide detail as to how each insufficiency has been addressed by 3:00 PM on Thursday, August 6, 2020. If any additional submittals are required, please submit them digitally via the County's Digital Submittal Portal at:
https://www.columbiacountyfla.com/PermitSearch/UploadLogin.aspx

1) The applicant must address concerns related providing an Emergency Responder Radio Repeater System in accordance with Chapter 663.202, Florida Statutes. See attached comments related to Emergency Responder Radio Repeater via Lawrence Wilson, Central Communications, and Tad Cervantes, Assistant Fire Chief.

If the applicant has not demonstrated compliance with the above comments by the date listed above, then staff will request a conditional approval of the application to the Board of Adjustment.

If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

Brandon M. Stubbs
Community Development Coordinator
Land Development Regulations Admin.

CC: Mitchell Callaway, Dewberry
Tad Cervantes, Assistant Fire Chief
Lawrence Wilson, Central Communications

MEMORANDUM

Date: July 28, 2020

To: Ben Scott, County Manager
Kevin Kirby, Assistant County Manager
David Kraus, Assistant County Manager
Joel Foreman, County Attorney
Jeff Crawford, Fire Chief
Chad Williams, County Engineer
Lawrence Wilson, Central Communications
Matt Crews, 911 Addressing Director
Sallie Ford, Environmental Health
Troy Register, FDOT District 2 Permits Manager

From: Brandon M. Stubbs, Community Development Coordinator/LDR Admin.

Re: SE 0622 – Special Exception for Columbia County Detention Facility

---

Please review for compliance with the County's Land Development Regulations, as well as the County's Comprehensive Plan and any other applicable ordinances, as applicable to your department /area of concern and forward any recommendations, objections or comments.

Recommendations: Central Communications recommend the new section adhere to FL. Statute 633.202 for in building radio coverage.

Objections: No Objections

Comments: _____

To insure that we comply with the timetable set forth in the County's Land Development Regulations and/or Ordinance #95-40, I respectfully request that your recommendations, Objections, or Comments be forwarded to the Building and Zoning Department within five (5) days of this memorandum. Thank you.

Brandon Stubbs

To: Tad Cervantes
Subject: RE: SE 0622 - Columbia County Detention Facility

Brandon,

The new jail section shall comply with Florida Statue 633.202. the building most have appropriate signal strength for public safety personnel.

Thank you,

Tad J Cervantes
Assistant Fire Chief
Columbia County Fire Rescue
P.O. Box 1529
Lake City, Florida 32056
Office 386-754-7071
Mobile (386) 365-4810

MEMORANDUM

Date: July 28, 2020

To: Ben Scott, County Manager
Kevin Kirby, Assistant County Manager
David Kraus, Assistant County Manager
Joel Foreman, County Attorney
Jeff Crawford, Fire Chief
Chad Williams, County Engineer
Lawrence Wilson, Central Communications
Matt Crews, 911 Addressing Director
Sallie Ford, Environmental Health
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Re: SE 0622 – Special Exception for Columbia County Detention Facility

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Subject: RE: SE 0622 - Columbia County Detention Facility

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Thank you,

Tad J Cervantes
Assistant Fire Chief
Columbia County Fire Rescue
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