

City of Cocoa

*65 Stone Street
Cocoa, FL 32922*



Meeting Agenda

Wednesday, December 7, 2022

6:00 PM

Cocoa City Council Chambers

Planning and Zoning / Local Planning Agency

I. CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

II. APPROVAL OF AGENDA, ELECTION OF CHAIR & VICE CHAIR AND MINUTES:

AGENDA:

[22-728](#) Approval of the December 7, 2022 Regular Meeting Agenda

Attachments: [December 7 2022- PZ Short Agenda.pdf](#)

Election of Chair & Vice Chairperson

MINUTES:

[22-727](#) Approval of the September 7, 2022 Regular Meeting Minutes

Attachments: [09-07-2022 DRAFT.pdf](#)

III. NEW BUSINESS:

[22-719](#) Consideration of a Large-Scale Site Plan consistent with Appendix A, Zoning, Article XI, Section 12, General Commercial District (C-G) to allow construction of a self-storage facility with recreational vehicle parking with associated infrastructure on a ±6.38-acre portion of a site identified as Parcel 24-35-23-00-505 through the Brevard County Property Appraiser.

Attachments: [Exhibit A - Location Map.pdf](#)
[Exhibit B - Zoning Map.pdf](#)
[Exhibit C - FLUM.pdf](#)
[Exhibit D - Site Layout.pdf](#)
[Environmental Assessment Report.pdf](#)
[StorQuest Civil Site and Landscaping Plans.pdf](#)
[2022.04.14 Site Application.pdf](#)
[Traffic Impact Study.pdf](#)
[WWG-1 Drainage Report.pdf](#)
[Legal Ad.pdf](#)

IV. UPDATES AND STAFF REPORTS:

Recent Development Updates

Open Discussion by Board Members

V. NEXT MEETING DATE:

The next regularly scheduled meeting of the Planning & Zoning Board will be on Wednesday, January 4, 2023 at 6:00 PM at Cocoa City Hall, 65 Stone Street, Cocoa, Florida.

VI. ADJOURNMENT

NOTICE TO THE PUBLIC:

This is a public meeting. All interested parties may attend in person. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

Additionally, interested persons may view or listen to the meeting electronically at the following internet sites:

- (1) <https://tinyurl.com/s5e875r> or
- (2) <https://cocoa.legistar.com/DepartmentDetail.aspx?ID=26365&GUID=FF9D3369-D354-4FAB-800A-57D0AEE30153&Mode=MainBody>

However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

Interested persons may submit their written comments or questions regarding the meeting prior to the meeting through Email at meetings@cocoafl.org, or via E-comments through the online agenda. Any electronic comments submitted will be made part of the meeting record. Written comments or questions not relevant to the Council meeting agenda will not be made part of the meeting record but will be maintained as public record.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that: if a person decides to appeal any decision made by the City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

Although members of the public are entitled to be heard by the City Council on certain items on the meeting agenda pursuant to the City Council Rules of Procedure, members of the public are not entitled to an immediate response by either administrative staff members or Council; however, the City Council or administrative staff may provide a response at their discretion. When presenting before the City Council, all comments or questions should be directed to the Mayor or the chair of the meeting. Comments or questions should not be made directly to administrative staff without permission from the Mayor or chair.

Public debate by individual speakers from the audience on public hearing items shall be limited to three (3) minutes. Applicants or representatives of recognized groups with special interests in a matter shall be limited to ten (10) minutes; and total debate on a single issue shall be limited to thirty (30) minutes. Only one presentation per person per item shall be allowed.

A Council member may add an item to the agenda during the meeting only at the time the agenda is approved. If the item requires action by the Council, then it may be added to the agenda by an affirmative vote of the Council, and written documentation must be submitted at the time the item is added to the agenda. Matters may also be raised by the Council, City Manager or City Attorney under reports and acted upon by the City Council.

This agenda is posted on the Municipal Bulletin Board and at the Central Brevard Library and Reference Center in Cocoa for public review.



Legislation Details (With Text)

File #: 22-728 **Version:** 1 **Name:**
Type: Agenda **Status:** Agenda Ready
File created: 12/2/2022 **In control:** City Council
On agenda: 12/7/2022 **Final action:**
Title: Approval of the December 7, 2022 Regular Meeting Agenda
Sponsors:
Indexes:
Code sections:
Attachments: [December 7 2022- PZ Short Agenda.pdf](#)

Date	Ver.	Action By	Action	Result
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PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY AGENDA ITEM

Memo Date: December 2, 2022
Agenda Date: December 7, 2022
Prepared By: Bryant Smith, Interim Growth & Economic Development Director
Through:
Requested Action:
Approval of the December 7, 2022 Regular Meeting Agenda as written or with amendments.

BACKGROUND:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Approval of the December 7, 2022 Regular Meeting Agenda as written or with amendments.



CITY OF COCOA
Planning & Zoning Board /
Local Planning Agency
City Council Chambers

Cocoa City Hall
65 Stone Street
Cocoa, FL 32922

AGENDA
Regular Meeting
December 7, 2022
6:00 p.m.

I. OPENING MATTERS:

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE

II. APPROVAL OF AGENDA, ELECTION OF CHAIR & VICE CHAIR AND MINUTES:

1. *AGENDA*: Meeting of December 7, 2022
2. *ELECTION OF CHAIR & VICE CHAIRPERSON*
3. *MINUTES*: Meeting of September 7, 2022

III. OLD BUSINESS: None

IV. NEW BUSINESS:

- A. **PZ-22-00200010 - StorQuest Express Self Storage:** Consideration of a Large-Scale Site Plan consistent with Appendix A, Zoning, Article XI, Section 12, General Commercial District (C-G) to allow construction of a self-storage facility with recreational vehicle parking with associated infrastructure on a ±6.38-acre portion of a site identified as Parcel 24-35-23-00-505 through the Brevard County Property Appraiser.

V. OTHER BUSINESS:

1. Tree Board Update: (none)
2. Recent Development
 - a. Quail Ridge Apartments Reapplication (Otterbein Road)
 - b. Tri-City Crane Storage (Tri-City Avenue)
 - c. SMR Concrete Batch Plant (Grissom Parkway)
 - d. Grissom Parkway Storage (Grissom Parkway)
3. Open Discussion by Board members

VI. NEXT MEETING DATE:

Wednesday, January 4, 2023

VII. ADJOURNMENT

General Notice Information:

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the BOA, P&Z Board/LPA or City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The BOA or PZ Board/LPA meeting may include the attendance of one (1) or more members of the Cocoa City Council who may or may not participate in the Board discussions held at this public hearing. The BOA, PZ Board/LPA and City Council reserve the right to continue or postpone hearings to a date certain without re-advertising.

Public Participation Information:

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting:

- City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

Documents pertaining to the above may also be inspected at the Community Services Department, between 8:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Interested persons may submit their written comments or questions prior to the meeting through Email at meetings@cocoafl.org, or via E-comments through the online agenda at the link above. Any electronic comments submitted will be made part of the meeting record.

Viewing In Real Time. Interested persons are encouraged to view and listen to the hearings live by accessing the meetings at the following internet address:

- City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

Special Information for Quasi-Judicial Hearings:

Any person that (1) can demonstrate that they may suffer special damages different in kind and degree from that of the general public at large; and (2) wishes to present factual or expert witnesses and/or evidence at the quasi-judicial hearing is highly encouraged to immediately contact Dodie Selig, Planning and Zoning Manager, at (321) 433-8510 or dselig@cocoafl.org, to make proper arrangements for presentation of witnesses and/or evidence. All witnesses should be identified and all evidentiary documents and exhibits that are intended to be distributed to the BOA, P&Z/LPA and City Council should be submitted to Ms. Selig via email or mail at least three (3) days prior to the hearing.



Legislation Details (With Text)

File #: 22-727 **Version:** 1 **Name:**
Type: Minutes **Status:** Agenda Ready
File created: 12/2/2022 **In control:** City Council
On agenda: 12/7/2022 **Final action:**
Title: Approval of the September 7, 2022 Regular Meeting Minutes
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PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY AGENDA ITEM

Memo Date: December 2, 2022
Agenda Date: December 7, 2022
Prepared By: Monica Arsenault, Recording Secretary
Through:
Requested Action:
Approval of the September 7, 2022 Regular Meeting Minutes as written or with amendments.

BACKGROUND:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Approve the September 7, 2022 Regular Meeting Minutes as written or with amendments.

**MINUTES
CITY OF COCOA
PLANNING & ZONING BOARD/ LOCAL PLANNING AGENCY
REGULAR MEETING
September 7, 2022**

A Regular meeting of the Planning & Zoning Board Local Planning Agency was held on September 7, 2022 at City Hall, 65 Stone Street, Cocoa, FL, as publicly noted.

I. CALL TO ORDER:

Chairperson Sengel called the meeting to order at 6:00 PM.

ROLL CALL:

Russell Sengel	Chairperson
Marilyn Green	Vice Chairperson
Todd Anderson	Board Member
Michael Dobrin	Board Member
Aleck Greenwood	Board Member
Veronica Lopez	Board Member
Justin Simpson	Board Member
Susan Mock	Board Member
Al Washington	Board Member
Merrybeth Burgess	Alternate Member
Thomas Barton	Alternate Member
Debbie Joyce	School Board Representative

PRESENT:

Russell Sengel	Chairperson
Marilyn Green	Vice Chairperson
Michael Dobrin	Board Member
Aleck Greenwood	Board Member
Veronica Lopez	Board Member
Justin Simpson	Board Member
Susan Mock	Board Member
Thomas Barton	Alternate Member
Debbie Joyce	School Board Representative

ABSENT:

Todd Anderson	Board Member
Al Washington	Board Member
Merrybeth Burgess	Alternate Member

STAFF PRESENT:

Kristin Eick, Board Attorney; Angela Essing, Growth & Economic Development Director; Charlene Neuterman, Community Services Director; Lori Chabot, Redevelopment Coordinator; Michael Blake, Mayor; Alex Goins, Councilmember; Lorraine Koss, Councilmember; Sandra Leone, Planner; and Monica Arsenault, Recording Secretary.

Chairperson Sengel led the assembly in the Pledge of Allegiance.

II. APPROVAL OF AGENDA AND MINUTES:

1. AGENDA: Meeting of September 7, 2022

- * **MOTION BY BOARD MEMBER GREENWOOD; SECONDED BY BOARD MEMBER SIMPSON TO APPROVE THE AGENDA WITH AN AMENDMENT TO MOVE ITEM IV.7 TO ITEM IV.1.**

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, MOCK, BARTON

MOTION PASSED UNANIMOUSLY (8-0)

- * **MOTION BY BOARD MEMBER GREEN; SECONDED BY BOARD MEMBER SIMPSON TO APPROVE THE AGENDA AS AMENDED.**

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, MOCK, BARTON

MOTION PASSED UNANIMOUSLY (8-0)

2. MINUTES: Meeting of August 3, 2022

- * **MOTION BY BOARD MEMBER SIMPSON; SECONDED BY BOARD MEMBER GREEN TO APPROVE THE AUGUST 3, 2022 MINUTES AS WRITTEN.**

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, MOCK, BARTON

MOTION PASSED UNANIMOUSLY (8-0)

III. OLD BUSINESS:

None.

IV. NEW BUSINESS:

1. The Cocoa Redevelopment Agency Community Policing Program

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING CHAPTER 8 – COMMUNITY DEVELOPMENT; ADOPTING AN AMENDMENT TO THE COCOA REDEVELOPMENT AGENCY REDEVELOPMENT PLAN TO AUTHORIZE THE CITY AND AGENCY TO ESTABLISH AND IMPLEMENT A COMMUNITY POLICING PROGRAM; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

Ms. Neuterman explained that the requested action is a recommendation on whether the draft of the updated Cocoa Redevelopment Agency Redevelopment Plan is consistent with the City's Comprehensive Plan pursuant to the requirements of the law. The CRA has requested that the CRA Plan be amended to include some components related to community policing. She referenced the City's Comp Plan policy 1.1.4.9 and explained the item in further detail.

Ms. Neuterman shared that the Cocoa CRA approved the draft of the updated Cocoa Redevelopment Agency Redevelopment Plan at their meeting last night. If the Land/Planning Agency makes any changes to the Plan than the CRA will make those adjustments as necessary and a final hearing will be held at the next Cocoa CRA meeting next Tuesday, September 13th prior to the City Council meeting. After that, two Public Hearings will be held at the City Council meetings on September 27th and October 11th.

Ms. Neuterman mentioned that the City would like to redevelop the Business District as a viable district and the community policing efforts being proposed will help maintain that viability. The City will buffer and protect residential areas from uses of high-density and the City shall review and update the redevelopment area plans and coordinate redevelopment issues with the private sector to promote mobilization of public and private resources.

Additionally, it is staff's belief that the proposed amendments brought forward to the CRA last night and that have been brought before the P&Z Board this evening are consistent with the Comprehensive Plan.

Staff is requesting direction from the Board as to whether or not it agrees with the amendments and whether or not they find them to be consistent with the Comprehensive Plan.

Vice Chairperson Green mentioned that a pilot program was proposed by one of the City's Councilmembers that would extend bar hours in the Village to 4am. She pointed out that in the staff report it mentions overtime costs for two officers on Thursday, Friday and Saturday nights between the hours of 10pm to 3am. She asked if the purpose of this was to narrow the hours down. In response, Ms. Neuterman shared that

the pilot program was initially pitched back in April and has not come back since then for staff to conduct any type of research regarding 4am bar closures.

Vice Chairperson Green asked what it would take to change the hours. In response, Ms. Neuterman explained that another minor amendment would have to be made which may or may not have to come before the Land Planning Agency.

Additionally, Ms. Eick agreed that she believed that an amendment would need to be done or the Board could make a suggestion to include hours up to 5am in order to save time on having to do an amendment later. Further discussion was held on hours.

Board member Greenwood added that he agrees, however he hopes that this does not send the message that the Board is in support of having later hours in the Village. He asked if the Board should consider adding a time limit. In response, Ms. Neuterman noted that she can bring this before the CRA next week at their next meeting when they present for their final recommendation. She explained that since this Board's recommendation is not part of the consistency with the Comprehensive Plan, meaning the time frame, that is more of a desire that should come from the Cocoa CRA.

When it is presented before the CRA next week, Ms. Neuterman stated that she will mention the request to them and ask them to either note the hours from 10pm to 3am or add the one hour after the bars close and let the Agency decide what they would like to do.

Board member Simpson pointed out that Cocoa Village attracts a lot of traffic on Thursdays, Fridays and Saturdays. He asked if two officers are enough to cover the Village during that time. In response, Ms. Neuterman shared that at this time only two officers have been approved. She explained that the ordinance allows for an increase as a need arises, however it would need to come back before the CRA to approve additional funding.

Vice Chairperson Green asked if the police presence in the Village will be funded by the Cocoa CRA. In response, Ms. Neuterman stated that this will be solely funded by the Cocoa CRA.

Further discussion was held on funding additional officers.

*** CONSENSUS BY THE BOARD TO APPROVE A THREE MINUTE TIME LIMIT ON PUBLIC COMMENTS.**

Chairperson Sengel opened the discussion for public comment. There being no additional questions or comments, the public portion of the item was closed.

*** MOTION BY BOARD MEMBER SIMPSON; SECONDED BY VICE CHAIRPERSON GREEN TO APPROVE THE ITEM WITH AN AMENDMENT TO ADD ONE HOUR PAST BAR CLOSURE.**

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, MOCK, BARTON

MOTION PASSED UNANIMOUSLY (8-0)

2. **PZ-20-0200003 – Arbours At Cocoa Landing – Large-Scale Site Plan Approval Extension**

Ms. Essing gave a presentation¹ and explained that this item is for the consideration of an extension of the duration of the PZ-20-0200003 Arbours at Cocoa Landing Large-Scale Site Plan approval previously approved on December 15, 2020 – December 15, 2022.

The Board is being asked to consider approving an extension that staff had already granted, however the extension was not authorized by the Board which is why it is being brought forward tonight. Ms. Essing pointed out that the applicant received initial approval from the Board back in December, 2020 for a two hundred and eighty (280) unit apartment project located on SR 524. She added that the applicant has the right to request an extension to their site plan after one year or within the one-year time frame, and in accordance with the Code, they requested an extension. The request was processed and approved on December 3, 2021.

Ms. Essing explained that unfortunately, the letter that went out had an error in it that was not caught until about a month ago and it was that staff had the ability to authorize a six-month extension, however a one-year extension was granted. Ms. Essing noted that the Assistant City Attorney recommended that this be brought to the Board's attention. Therefore, staff is asking the Board to consider approving a one-year extension for the applicant to move forward.

Board member Simpson asked if the applicant plans on being finished by December 15th. In response, the applicant, Gabe Ehrenstein from Arbor Valley Communities, stated that they will not be done with the project by December 15th but they are looking forward to having their building permits in hand by then which was in their original plan.

Mr. Ehrenstein explained that this was a scrivener's error in the letter and thanked Ms. Essing for correcting the issue.

Chairperson Sengel opened the discussion for public comment. There being no additional questions or comments, the public portion of the item was closed.

*

MOTION BY BOARD MEMBER GREENWOOD; SECONDED BY VICE CHAIRPERSON GREEN TO APPROVE THE EXTENSION.

¹ Exhibit A: Arbours at Cocoa Landing

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, MOCK, BARTON

MOTION PASSED UNANIMOUSLY (8-0)

3. PZ-21-0500001 – Small-Scale Comprehensive Plan Amendment (Dixon Four-Plex)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING THE FUTURE LAND USE MAP FOR ONE (1) PARCEL OF REAL PROPERTY WITH THE CITY OF COCOA, CONSISTING OF APPROXIMATELY .59 ACRES, MORE OR LESS, LOCATED SOUTHWEST OF THE INTERSECTION OF NORTH INDIAN RIVER DRIVE AND DIXON BOULEVARD, BEING LEGALLY DESCRIBED ON EXHIBIT “A” ATTACHED HERETO; CHANGING THE FUTURE LAND USE DESIGNATION OF THE REAL PROPERTY FROM VERY LOW DENSITY RESIDENTIAL TO MEDIUM DENSITY RESIDENTIAL, PROVIDED THAT THE MAXIMUM DENSITY ALLOWABLE SHALL BE EIGHT (8) DWELLING UNITS PER ACRE; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE AND LEGAL STATUS OF THE PLAN AMENDMENT. NUMBER :24-36-21-BM-*5 FROM BREVARD COUNTY PROPERTY APPRAISER RECORDS.

Board member Greenwood announced that he would be recusing himself from the next two items as he has an invested interest in the project.

Ms. Essing provided a presentation². She explained that this item is for consideration of Ordinance No. 11-2022, a Future Land Use Map Amendment consistent with the Florida Statute Chapter 163, to change the Future Land Use Map designation of one parcel from very low density residential to medium density residential provided that the maximum density allowable shall be eight dwelling units per acre. Thus, meaning that on this site, the maximum dwelling units will be four because the parcel is only a half of an acre.

Ms. Essing shared that if this is approved, the applicant plans to apply to have a multi-family fourplex built on the property. She showed a location map and a conceptual drawing of the property.

Additionally, staff has reviewed this petition according to the criteria contained in Chapter 15, Article II, Sections 15-10 and 15-11. Based upon the detailed

² Exhibit B: Dixon Boulevard Small-Scale Comprehensive Plan Amendment (Four-Plex)

analysis in the staff report, this petition meets the requirements for amending the City of Cocoa Future Land Use Map.

Staff finds the proposal consistent with Comp. Plan Future Land Use Element Policy 1.1.2.4 regarding consistency with intent of the Medium Density Residential future land use classification. Staff and review agencies have examined the petition for meeting level of service standards for potable water, sewer, stormwater, solid waste and transportation and the project was found to meet the standards for these services. There are also no budgetary impacts to the City.

Staff is recommending that the Planning and Zoning Board recommend approval to the City Council of Ordinance 11-2022, a Future Land Use Amendment consistent with Florida Statute Chapter 163, to change the Future Land Use Map designation of one (1) parcel of real property totaling approximately 0.59 acres from “Very Low Density Residential” to “Medium Density Residential” with a maximum density of eight (8) dwelling units per acre.

Aleck Greenwood, 640 Brevard Avenue, wished to suggest that this is a project that will further enhance what is being proposed across the street which was approved. He pointed out a nearby apartment complex and noted that multi-family has also been approved in the area around it.

Mr. Greenwood discussed the site plan in detail and mentioned that the majority of the property will be left natural and will be heavily wooded. He added that this will be a top-class project and he is also planning on living in one of the units.

William Coates, 655-659 Dixon Blvd., Cocoa, has no problem with this other than he is concerned about the ground water there which is pretty much a swamp. He asked what will happen with the springs and the wetlands that exist there and how the water will be controlled so it does not flood the other surrounding properties. He spoke with the Deputy Mayor previously about this and he thought that maybe an impact study could be done.

Kasey Claytor, 1201 Indian River Dr., Cocoa, is adjacent to this parcel. There are four parcels altogether and were broken up back in 1999. She talked about the history of the area and the historical homes that remain there. She, like Mr. Coates, is also concerned about the wetlands behind her property. Additionally, she is concerned with the aesthetics of a modern home going in next to these historical homes. She has spoken with a few of the neighbors in the area who also share the same concerns.

Frank Sullivan, 1705 N. Indian River Dr., Cocoa, wished to make everyone aware of an article in Southern Living magazine about Cocoa and quoted from the article. He spoke about the history there and noted that the majority of the homes are single family and hoped the board would take that into consideration.

Todd Riggs, 1629 N. Indian River Dr., Cocoa, noted that Cocoa is a diamond in the rough and feels we should protect what makes Cocoa special. When all that work was done on US1 it permanently changed the way the water flows and he is concerned about what this project may do. He also mentioned the foxes that live in the area. He hoped the Board would consider this carefully and consider the history there.

Donna Manfredi, 1209 N. Indian River Dr., Cocoa, shared that her and her husband reside in the first house south of Dixon Boulevard. Their house was built in 1901 and is one of the two Dixon properties that is still left.

Ms. Manfredi explained that they already experience water issues on their property which was significantly impacted by the work that was done on US1 when the previous homeowners lived there. She is concerned that the water could change not only the viability of their house but also the value. There are many people that walk this area to view the scenery and hoped the Board would carefully consider this when voting. She is also in support of what her neighbors have previously stated.

Mr. Greenwood talked about the drainage issues and how they can be addressed. He pointed out that all of the drainage issues will need to be fixed when they apply for permits.

He further mentioned the estate use which will not change. This will also not be a modern home. As a developer, he wants this building to blend with what is already there. This will bring in extra infrastructure tax dollars to the City. He will also address the concerns regarding the wildlife that live in the area. He has no intention of harming the environment and will make sure that they meet all of the City's code requirements.

Board member Mock asked how he will address the wetlands. She also asked how many stories will be built. He noted there will be four stories with a garage underneath. Water retention was also discussed. He noted that this will also be completely fenced in and his goal is to keep as much of the vegetation as possible.

Chairperson Sengel asked about the current zoning. In response, Ms. Essing shared it is currently zoned residential estate which only allows for single family residential. The height requirement is thirty-five (35) feet. It was

clarified that Mr. Greenwood is not asking to change the height, it would still remain at thirty-five feet.

- * **MOTION BY VICE CHAIRPERSON GREEN TO APPROVE THE ITEM TO INCLUDE A SPECIFICATION THAT A MAXIMUM OF ONLY FOUR UNITS BE ALLOWED.**

MOTION FAILED DUE TO LACK OF SECOND.

Board member Simpson asked if a live well was found on the property if anything could be done. In response, Aleck explained that the SJWMD looked at this and determined there was not one.

- * **MOTION BY BOARD MEMBER SIMPSON; SECONDED BY BOARD MEMBER MOCK TO APPROVE THE ITEM AS RECOMMENDED BY STAFF.**

AYES: MOCK, SIMPSON

NAYES: SENDEL, GREEN, BARTON, DOBRIN, LOPEZ

MOTION FAILED (2-5)

- * **MOTION BY VICE CHAIRPERSON GREEN; SECONDED BY CHAIRPERSON SENDEL TO RECOMMEND DENIAL OF THIS ITEM TO THE CITY COUNCIL.**

AYES: SENDEL, GREEN, BARTON, DOBRIN, LOPEZ

NAYES: MOCK, SIMPSON

MOTION PASSED (5-2)

Chairperson Sendel explained that he is concerned with the height and the fact that the neighbors are adamantly opposed to the project.

In response to a question posed by Ms. Eick, Ms. Essing is not aware of any applications that have been turned in for the property across the street.

Vice Chairperson Green provided an explanation as to why she is opposed to the project.

It was clarified that this will still be brought before the City Council for final approval.

4. **PZ-21-02100001 – Zoning Map Amendment (Dixon Four-Plex)**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; CHANGING THE ZONING MAP DESIGNATION OF ONE (1) PARCEL OF REAL PROPERTY, APPROXIMATELY .59 ACRES, MORE OR LESS, LOCATED SOUTHWEST OF THE INTERSECTION OF NORTH INDIAN RIVER DRIVE AND DIXON BOULEVARD IN COCOA, FLORIDA, MORE PARTICULARLY DESCRIBED ON EXHIBIT “A” ATTACHED HERETO; FROM RE (RESIDENTIAL ESTATE) TO RU-2-15 (MULTI-FAMILY DWELLING DISTRICT); PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, AND AN EFFECTIVE DATE. NUMBER :24-36-21-BM-*-5 FROM BREVARD COUNTY PROPERTY APPRAISER RECORDS.

Ms. Essing gave a presentation³. She explained that staff is changing their recommendation based on the previous motion made by the Board.

Chairperson Sengel opened the hearing to the public.

Todd Riggs, 1629 N. Indian River Dr., Cocoa, spoke briefly on the item and thanked the Board for their consideration and their motion.

William Coates, 655-659 Dixon Blvd., Cocoa, wished to address something that was previously said. He also spoke about the wildlife and the wells in the area.

There being no further questions or comments, the public portion of the hearing was closed.

* **MOTION BY VICE CHAIRPERSON GREEN; SECONDED BY ALTERNATE MEMBER BARTON TO RECOMMEND DENIAL TO CITY COUNCIL.**

Ms. Eick asked the Board to clarify their reasonings for denial. In response, Chairperson Sengel stated that he is denying the item because staff recommended denial. Further discussion was held.

AYES: SENDEL, GREEN, BARTON, DOBRIN, LOPEZ

NAYES: MOCK⁴, SIMPSON

MOTION PASSED (5-2)

³ Exhibit C: Dixon Boulevard Zoning Map Amendment (Four-Plex)

⁴ Board member Mock left at 7:31pm

5. **PZ 22-00200003 – Large Scale Site Plan (Diamondback Marine Division)**

APPROVAL OF A LARGE-SCALE SITE PLAN (DIAMONDBACK MARINE DIVISION) CONSISTENT WITH APPENDIX A, ZONING, ARTICLE XI, SECTION 19, M-2 ZONING, TO ALLOW FOR THE CONSTRUCTION OF TWO (2) INDUSTRIAL MANUFACTURING BUILDINGS TOTALING 210,000 SQUARE FEET IN TWO (2) PHASES AND ASSOCIATED INFRASTRUCTURE ON A ±29.25-ACRE SITE. PARCEL ID NUMBER: 24-35-12-00-506 FROM BREVARD COUNTY RECORDS.

Ms. Essing gave a presentation⁵. She pointed out that the subject property is northeast of Grissom Parkway across the road from Diamondback's current facility at 3400 Grissom Pkwy.

The applicant is requesting approval of a site plan for an industrial manufacturing site with 210,000 sq. ft. of manufacturing space and infrastructure. The project will be completed in two phases.

Additionally, on August 23, 2022 the City Council approved a Pre-Development Agreement. The agreement includes language allowing the Tree Mitigation Contribution to be recalculated and adjusted should the P&Z Board require changes to the landscape plans.

Staff recommends approval of the project, subject to the following conditions:

1. Prior to the commencement of project construction, the Utility Department shall have approved the connection to the lift station to the east.
2. The Arbor Plan, Sheet A-002, shall be revised to reflect that trees removed within the "Future Building" area in the northeast corner of the property shall not be exempt. The Tree Mitigation tables shall be further revised and updated to include the trees removed in the "Future Building" area as those that must be mitigated. A revised landscape architect's estimate of the tree mitigation contribution shall be provided to the City, and the Pre-Development Tree Mitigation Contribution Deferral Agreement shall be updated in accordance with the landscape architect's revised estimate.
3. Update the parking calculations to be consistent with the Development Agreement.

Dave Glunt, Spruce Creek Civil Engineering Inc., provided further information about the project. They currently have about 330 employees throughout the

⁵ Exhibit D: Diamondback Marine Manufacturing Plant Site Plan Approval

seven various divisions. This is an industrial zoned property. He pointed out the wetlands and talked about the areas that will be placed under a conservation easement.

Chairperson Sengel opened to the hearing to the public.

Michael DiChristopher, 1765 Rochelle Pkwy., Merritt Island, FL pointed out that he owns a piece of property adjacent to the subject property on the southeast corner. He has no objections, he is only concerned about secondary impacts to his property. He asked that it be considered that when the site plan is approved that no adverse secondary impacts effect his property.

There being no further questions or comments, the public portion of the hearing was closed.

Chairperson Sengel asked about the Tree Mitigation fund and when it started. In response, Ms. Essing provided clarification and noted the Board approved it about two years ago.

In response to a statement made by Chairperson Sengel, Ms. Essing noted there is a flaw in the City's code and believes an item will be brought back before the board for consideration at a later time. Further discussion was held. Ms. Eick also clarified that in the DA the Council can reconsider the costs.

Board member Greenwood asked how many oak trees were being removed. In response, Mr. Glunt provided clarification and noted maybe only three or four would be removed out of thousands of trees on the property.

* **MOTION BY BOARD MEMBER GREENWOOD; SECONDED BY VICE CHAIRPERSON GREEN TO APPROVE WITH STAFF RECOMMENDATIONS.**

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, BARTON

MOTION PASSED UNANIMOUSLY (7-0)

6. **PZ 22-00200001 – Large Scale Site Plan (Orchid Lake)**

APPROVAL OF A LARGE-SCALE SITE PLAN (ORCHID LAKE) CONSISTENT WITH APPENDIX A, ZONING, ARTICLE XI, SECTION 19, GENERAL COMMERCIAL ZONING, TO ALLOW FOR THE CONSTRUCTION OF FOUR (4) APARTMENT BUILDINGS CONSISTING OF 90-UNITS OF AFFORDABLE MULTIFAMILY RENTAL HOUSING WITH RELATED FACILITIES AND ASSOCIATED INFRASTRUCTURE

ON A ±7.63-ACRE SITE. PARCEL ID NUMBER: 24-36-20-00-289 FROM BREVARD COUNTY RECORDS.

Ms. Leone gave a presentation⁶. She provided project information, explaining that Orchid Lake is a 90-unit garden style complex consisting of four residential buildings with a clubhouse and related amenities.

The City Council previously approved Resolution 2022-32 at its April 12, 2022 meeting, authorizing an affordable housing land use on the property which is currently zoned Commercial (C-G).

Ms. Leone further discussed the consistency with the City of Cocoa's code. She added that the applicant is also here to answer any questions.

Board member Simpson asked how many units per acre are currently allowed. In response, Ms. Essing shared fifteen (15).

Board member Greenwood asked what type of construction material and what the square footage is for each type of unit. In response, the applicant, Jason Larson⁷, HTG Orchid Lake, LTD., shared they are wood constructed. Ms. Leone also shared information about the square footage.

Board member Greenwood inquired about rent. Mr. Larson shared the ranges depending on the size of the unit.

Board member Greenwood also asked if there were any oak trees being removed. In response, Mr. Larson noted that there were not, mostly pine trees.

Chairperson Sengel opened to the hearing to the public.

Linnette Daniels, 1706 University, #605, is concerned that with all of the development going in around this same area that it is going to become too crowded. She would like the city to consider spreading out these multi-unit homes in other areas that have more room. In response, Ms. Leone provided clarification and explained that if the code allows for a developer to do what they want to do all staff can do is present the request to the Board and it is up to the Board to approve or deny the request. Further discussion was held regarding security and management of the property.

Linda Bender, 1606 University Ln., Unit 1401, Cocoa, asked a question about impacts to the neighboring condos. She asked the Board to consider the impacts to the community.

⁶ Exhibit E: Orchid Lake

⁷ Exhibit F: Orchid Lake – City of Cocoa, Florida

There being no further questions or comments, the public portion of the hearing was closed.

Ms. Eick noted that what is on the presentation is the most up to date version of the conditions proposed by staff.

* **MOTION BY BOARDMEMBER GREENWOOD; SECONDED BY ALTERNATE MEMBER BARTON TO APPROVE ITEM AS STAFF RECOMMENDED WITH THE CONDITION TO SAVE ANY OAK TREES IF POSSIBLE.**

AYES: SENDEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, BARTON

MOTION PASSED UNANIMOUSLY (7-0)

7. Planning User Charges and Fee Ordinance

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, REPEALING APPENDIX A, ZONING, ARTICLE XX OF THE ZONING ORDINANCE OF THE CITY OF COCOA; REPEALING THE SCHEDULE OF FEES, CHARGES AND EXPENSES TO BE PAID TO THE CITY UPON RECEIPT OF PLANNING AND ZONING RELATED APPLICATIONS CONTAINED THEREIN; PROVIDING FOR THE ADOPTION OF FUTURE PLANNING AND ZONING FEE SCHEDULES BY RESOLUTION.

Ms. Essing provided a presentation⁸. She provided a Space Coast Development Fee comparison to show Small-Scale Comp Plan Amendment fees, Site-plan Review fees and Final Plat fees that are charged by other cities in Brevard County in comparison to what Cocoa is charging.

She added that staff recommends approval of Ordinance 13-2022 to allow City Council to repeal the existing Appendix A, Zoning, Article XX of the Zoning Ordinance containing a schedule of planning and zoning application fees, and to adopt future fee schedules by resolution.

Chairperson Sengel opened the hearing to the public. There being no questions or comments, the public portion of the hearing was closed.

⁸ Exhibit G: City of Cocoa Planning Fees

- * **MOTION BY ALTERNATE MEMBER BARTON; SECONDED BY BOARD MEMBER GREENWOOD TO RECOMMEND APPROVAL TO CITY COUNCIL OF ORDINANCE 13-2022.**

AYES: SENGEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, BARTON

MOTION PASSED UNANIMOUSLY (7-0)

Tree Board Update:

Board member Greenwood talked about the guidelines on various projects and how vague they are. Ms. Essing noted that the City counts each oak tree 4 inches or bigger. Board member Greenwood asked if the Board could revisit the guidelines and asked if the Board would consider a consensus. Further discussion was held. Discussion was held on the Sustainability Advisory Board's plan.

Open Discussion:

Ms. Eick provided an explanation and a memo on the appropriate topics that the Board should discuss under Open Discussion.

Board member Greenwood talked about façade materials and paint colors and the related ordinance and he would like to see if staff could look into it and clarify further when they have time. (8:38-further clarification on what he is asking)

VII. NEXT MEETING DATE:

The next scheduled meeting for the Planning and Zoning Board will be held on Wednesday, October 5, 2022 at 6pm in Cocoa City Hall, 65 Stone St, Cocoa, FL 32922.

VIII. ADJOURNMENT:

- * **MOTION BY BOARD MEMBER SIMPSON; SECONDED BY VICE CHAIRPERSON GREEN TO ADJOURN THE REGULAR MEETING OF SEPTEMBER 7, 2022.**

AYES: SENGEL, GREEN, DOBRIN, GREENWOOD, LOPEZ, SIMPSON, BARTON

MOTION PASSED UNANIMOUSLY (7-0)

MEETING WAS ADJOURNED AT 8:43 PM.

Respectfully Submitted By:

Russell Sengel, Chairperson

Monica Arsenault, Recording Secretary



Legislation Details (With Text)

File #: 22-719 **Version:** 1 **Name:**
Type: Agenda **Status:** Agenda Ready
File created: 12/1/2022 **In control:** Planning and Zoning / Local Planning Agency
On agenda: 12/7/2022 **Final action:**
Title: Consideration of a Large-Scale Site Plan consistent with Appendix A, Zoning, Article XI, Section 12, General Commercial District (C-G) to allow construction of a self-storage facility with recreational vehicle parking with associated infrastructure on a ±6.38-acre portion of a site identified as Parcel 24-35-23-00-505 through the Brevard County Property Appraiser.

Sponsors:

Indexes:

Code sections:

Attachments: [Exhibit A - Location Map.pdf](#)
[Exhibit B - Zoning Map.pdf](#)
[Exhibit C - FLUM.pdf](#)
[Exhibit D - Site Layout.pdf](#)
[Environmental Assessment Report.pdf](#)
[StorQuest Civil Site and Landscaping Plans.pdf](#)
[2022.04.14 Site Application.pdf](#)
[Traffic Impact Study.pdf](#)
[WWG-1 Drainage Report.pdf](#)
[Legal Ad.pdf](#)

Date	Ver.	Action By	Action	Result
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PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY AGENDA ITEM

Memo Date: December 1, 2022
Agenda Date: December 7, 2022
Prepared By: Bryant Smith III, P.E., CFM - Interim Growth and Economic Development Director
Through: Bryant Smith III, P.E., CFM - Interim Growth and Economic Development Director
Requested Action:

Consideration of a Large-Scale Site Plan consistent with Appendix A, Zoning, Article XI, Section 12, General Commercial District (C-G) to allow construction of a self-storage facility with recreational vehicle parking with associated infrastructure on a ±6.38-acre portion of a site identified as Parcel 24-35-23-00-505 through the Brevard County Property Appraiser.

BACKGROUND:

Project Name:	StorQuest Express Self Storage
Project No:	PZ-22-00200010
Applicant:	The William Warren Group, LLC Alyssa Parker 959 South Coast Dr, Ste 350 Costa Mesa, CA 92626
Property Owner:	Fulcher Realty Investments, LLLP Debra Gutierrez 1334 W. Deer Creek Rd. Phoenix, AZ 85045
Project Location:	The subject property is comprised of two separate parcels located on both the east and west sides of Friday Road. The portion of the parcel proposed as part of this development is located east of Friday Road and north of SR 524. The property is identified by the Brevard County Property Appraiser as Parcel ID 24-35-23-00-505 and is depicted within Exhibit A - Location Map.
Public Notice	Advertised in the newspaper on November 29, 2022.

Project Information:

The applicant is proposing to construct a self-storage facility within the General Commercial Zoning District. Self-Storage is allowed through a Special Exception. A Special Exception was previously approved by the Board of Adjustment on April 20, 2022. The project proposes five storage buildings, an office, recreational vehicle storage, and the associated infrastructure related to the construction of this site. The building area includes 329 storage units and an office that totals approximately 57,735 square feet (SF) along with 34,155 SF of recreational equipment storage. The site provides 19 parking spaces, exceeding the minimum 17 parking spaces required per the City Code. The site overview is provided as Exhibit D.

Future Land Use Designation: Commercial

Zoning District: General Commercial (C-G)

Existing Land Use: Vacant Land

Council District: District 3 - Councilmember Rip Dyal

Please see the existing site and surrounding zoning and future land uses on the map included as Exhibits "B" and "C"

Overview of Surrounding Area:

	Future Land Use Designation	Zoning Districts	Land Uses
North	Unincorporated County	Unincorporated County	Residential
South	Commercial	General Commercial	Vacant Commercial
East	Unincorporated County	Unincorporated County	Religious; Residential
West	Commercial	General Commercial	Vacant Commercial

I. Site Plan Analysis

“Consistent with Appendix A, Article XIII, Section 1(D), “All site plans shall be required to meet all current applicable code requirements.”

Consistency with the Code of the City of Cocoa

The Development Review Committee, consisting of the Building Official, the Code Enforcement Manager, the Environmental Control Coordinators, the Fire Department Chief and/or Inspector, the Planning & Zoning Manager and/or staff, the Public Works Director, and the Utilities Director, have reviewed the site plan and determined that it generally meets the minimum requirements of all applicable City Code requirements.

The site is 6.38 acres. The lot coverage is allowable at a maximum of 50% and 20.78% is provided. The maximum impervious area is 90% and 66.55% is provided. A maximum of 1.0 FAR is allowed, and 0.21 is provided.

Building setbacks required are:

Front:	25 feet
Side Interior:	None
Rear:	20 feet

These setbacks have been satisfied.

The maximum height allowed by the zoning code is 66 feet and the highest building is 26 feet.

The project is required to provide parking in accordance with Appendix A, Zoning, Article XII, Off Street Parking, Section 1 (d)(41): *Storage facilities*. One (1) space for every thousand (1,000) gross square feet of floor area. Self-service storage facilities shall have one (1) parking space for the office manager, one (1) parking space for each six hundred (600) square feet of office space, one (1) parking space for each fifty (50) storage units, and one (1) parking space for each five hundred (5,000) square feet of major recreational equipment storage area. The site plan provides 1 handicapped parking, 18 regular parking, and 74 recreational vehicle parking spaces.

Landscaping and tree removals are addressed in the Site Plan. While a number of tree inches are being mitigated onsite, there is a shortfall of 204” that will be mitigated through a contribution to the Arbor Mitigation Fund in the amount of \$37,200.

Landscaping has been provided to concentrate trees on the frontage of the property along Friday Road and SR 524, the stormwater pond, and the perimeter of the site. A landscape buffer of 5’ as required by the applicable zoning code has been provided along the public rights-of-way.

Additional requirements for self-service storage facilities, as provided Appendix A, Section 12(C)(14) are as follows:

- (14) Self-service storage facilities, subject to the following provisions:
 - a. Minimum lot area: An area not less than twenty thousand (20,000) square feet having a minimum width of one hundred (100) feet and a minimum depth of two hundred (200) feet.
 - b. There shall be a minimum of one (1) parking space for the office manager, one (1) parking space for each 600 square feet of office space, one (1) parking space for each fifty (50) storage units, and one (1) parking space for each five thousand (5,000) square feet of major recreational equipment storage area.
 - c. Where a self-service storage facility abuts residentially-zoned property, an opaque fence or wall, at least six (6) feet in height, shall be provided.
 - d. All lights shall be shielded to focus and direct light onto the uses established, and away from adjacent property or street/roads. The lighting may be of sufficient intensity to discourage vandalism and/or theft.

- e. The structure shall not be utilized as a place of business by renters or lessors of space and no local business tax receipt shall be approved where the business operation takes place on the property other than that of the self-service storage facility owner/operator.
- f. Outdoor storage of major recreational equipment shall be permitted with the following conditions:
 - 1. Outdoor storage areas shall be screened from view on all sides visible from rights-of-way and adjoining property by either a solid wall or opaque fence at least ten (10) feet in height or an on-site building. Where such outdoor storage area abuts a right-of-way, the required wall or fence shall be set back a minimum of five (5) feet from the property line and a landscape buffer installed between the property line and the fence. See subsection (g) below on landscaping.
 - 2. Gates in fencing shall be of the same opaque material as the fence. Gates in a wall shall be of an opaque material.
 - 3. Gate width for vehicle entry/exit and interior drive access aisles shall be sized to accommodate the turning radius needed for large vehicles.
 - 4. Outdoor storage of vehicles such as cars or trucks shall not be permitted.
 - 5. Outdoor storage of major recreational equipment exceeding thirteen and one-half (13½) feet in height shall not be permitted.
 - 6. On-site light, minor maintenance and cleaning of any major recreational equipment permitted by this section is allowed. However, the following shall be strictly prohibited: refueling, oil and engine fluid changes, major restoration, part salvage, major part replacement, engine repair, transmission repair, body repair, and other heavy and major repairs.
 - 7. No major recreational equipment may be stored which is wrecked, being stripped for parts, awaiting salvage or recycling, or inoperable.
 - 8. Major recreational equipment permitted under this section shall not be used as living quarters.
- g. Landscaping: A five-foot landscape buffer shall be provided along all road rights-of-way and shall consist of trees and high profile shrubs together with suitable ground cover to include native grasses and mulching, where appropriate. Landscaping shall be designed, placed and maintained in such a manner as not to impair vehicle visibility at corner intersections. The landscaping requirements shall conform to article XIV, Landscaping Requirements of the zoning code, of the city.
- h. When the application for special exception is submitted, it shall be accompanied by a site plan addressing specific provisions identified herein, and shall be considered binding upon use as a self-service storage facility.

The above-referenced requirements have been satisfied. A 10-foot landscape buffer is provided around the perimeter of the site. The outdoor RV storage parking area is screened on all sides by an on-site building. Because this proposed facility abuts residentially-zoned property to the north and east, an opaque fence, six (6) feet in height, is provided on the northern and eastern property boundary. In addition, a 10-foot landscape buffer and stormwater pond are located on the north end of the subject property.

Consistency with Comprehensive Plan Policies and Objectives

Future Land Use Element, Comprehensive Plan, Policy 1.1.2.9: Commercial (COMM): Commercial areas are intended to be areas that serve several neighborhoods, sub-regional and regional areas, and provide an array of retail, personal and professional uses.

Staff Response: The proposed use of Self-Storage will serve the surrounding neighborhoods to provide additional storage options in this area.

Conservation Element, Policy 12.1.6.15: Wetlands and wetland functions shall be protected and conserved by

restricting direct and indirect development impacts.

C. New development and redevelopment with no significant impact. New development and redevelopment having no significant impact on the net wetland functions shall be permitted.

Staff Response: The proposed project has no wetland impacts.

E. Upland buffers.

1. General. Upland buffers are considered an integral component of a functioning wetland and shall be afforded the same types and levels of protection as the wetland itself. Upland buffers shall not be developed, cleared, or landscaped that would decrease their effectiveness in supporting wetland functions, and shall not include turfed, landscaped, or impervious surfaces.

2. Minimum width. Where wetlands exist, upland buffers shall be provided at a minimum width of fifteen (15) feet and an average width of twenty-five (25) feet beyond the perimeter of the wetland.

Staff Response: The property does not contain isolated wetlands within 25 feet of the uplands onsite.

Conservation Element, Objective 12.1.9: Floodplain Management. The City shall protect the flood storage and conveyance functions of the 100-year floodplain.

Policy 12.1.9.1: In order to reduce the adverse consequences of floodplain development and simultaneously encourage the conservation of natural habitat, the City's Flood Damage Prevention ordinance shall be updated as needed to maintain compliance with the National Flood Insurance Program and to discourage construction in the floodplain, unless the proposed construction is expressly authorized by this Comprehensive Plan. Developmental plans shall preserve the natural functions of floodplains when practical. The provision of compensatory storage for fill placed within the floodplain shall be allowed only when the applicant demonstrates the absence of adverse consequences of compensatory storage and demonstrates compliance with other applicable provisions of this Comprehensive Plan.

Policy 12.1.9.2: Developers shall be encouraged to incorporate those portions of sites that are within the 100-year floodplain as open space preservation.

Staff Response: The proposed site is not within the 100-year floodplain.

Conservation Element, Policy 12.1.6.6: The City shall protect species which are listed as Endangered, Threatened or a Species of Special Concern by the Florida Fish and Wildlife Conservation Commission, the U.S. Fish and Wildlife Service or the Florida Committee on Rare and Endangered Plants and Animals (FCREPA) and shall not approve any development which proposes to destroy natural vegetative communities known to provide habitat to listed species except where the developer has submitted a management plan which minimizes adverse effects on the species to the greatest extent possible. The management plan shall be approved by St. John's River Water Management District.

Policy 12.1.6.12: The City shall protect the habitat of gopher tortoises, gopher frogs, eastern indigo snakes, eagles, ospreys, alligators, pileated woodpeckers, manatees, and river otters.

Staff Response: An Environmental Report was provided indicating that the project does not anticipate impacting the species listed as part of the US Fish and Wild Service, Florida Fish and Wildlife Conservation Commission, and Florida Department of Agriculture and Consumer Services Regulatory Reviews.

Concurrency Management/Adequate Public Facilities

Wastewater

The proposed project will not exceed the City of Cocoa Wastewater System capacity.

Stormwater Management

The Level of Service (LOS) for Stormwater Management is as follows:

Design Storm Event	25-year frequency/24-hour duration event
--------------------	--

On-site Stormwater Management:	Retention of the first one inch of rainfall for areas of more than one acre.
Stormwater Quantity:	Post development Stormwater runoff flow rates, quantities, peaks, and velocities shall be equal to or less than levels that existed prior to development.
Stormwater Quality:	No significant degradation of water quality in receiving water bodies.

Staff Response: The proposed project meets or exceeds the City of Cocoa Stormwater Requirements. The project will require a SJRWMD Permit prior to the start of construction.

Potable Water

Policy 7.1.1.3:

The City shall issue no development orders or permits without first determining whether adequate water supplies to serve the development will be available no later than the anticipated date of issuance by the City of a certificate of occupancy or its functional equivalent. The City will also ensure that adequate water supplies and facilities are available and in place prior to issuing a certificate of occupancy or its functional equivalent.

Staff Response: The Utilities Department has reviewed the proposed project and capacity is available.

Solid Waste

Policy 5.1.1.3: The City shall ensure adequate equipment to maintain the following level of service standard for solid waste collection:

Solid Waste	Disposal (Brevard County Landfill) Cocoa Distribution Rate: 1.2 tons per capita per year
	Collection Residential: 1 to 2 times per week as needed, each household Non-residential: 2 to 6 times per week as needed, each location Green Waste and Recyclable: Once per week

Staff Response: Staff finds that this project will not exceed this LOS standard.

Roadways (Transportation)

The main entry/exit location for this project is located on Friday Road. This will reduce potential traffic impacts to SR 524 by reducing delays related to those turning movements. A "Right Turn Exit Only Lane" is provided on SR 524.

Policy 2.1.1.1 of the City's Transportation Element: The City shall maintain for the purpose of issuing

building permits and development orders the following list of major roadway facilities: SR 524 has Minimum LOS D. Utilizing the ITE Code 151 Self-Storage (ITE Trip Generation, 11th Edition), the following is the Engineer's Trip Generation Estimate for the Project:

- Average Daily Trips: 87
- PM Peak Hour Trips: 9
- AM Peak Hour Trips: 5

A Traffic Impact Analysis was performed for this project and indicated all study segments will continue to operate at a satisfactory LOS.

BUDGETARY IMPACT:

None.

PREVIOUS ACTION:

The Board of Adjustment approved a special exception for Self-Service Storage Facilities within the General Commercial (C-G) Zoning District at the April 20, 2022, Board of Adjustment Meeting.

RECOMMENDED MOTION:

Staff recommends APPROVAL of the Large-Scale Site Plan for the StorQuest Express Self Storage, subject to the following conditions:

1. A Post Indicator Valve, upstream of the fire hydrant, will be installed for Building E as part of the Fire Underground Permit.
2. A sidewalk access easement is to be granted to the City of Cocoa for the sidewalk along the SR 524 frontage that is within the property. This easement will allow for public use of the sidewalk. Maintenance and repair of the sidewalk will be the responsibility of the property owner.
3. The sliding gate on Friday Road will be opaque to match the sliding gate on SR 524.
4. Verification of Force Main Tie-In Pressure is required to be provided to the Utilities Department.

Exhibit A – Location Map

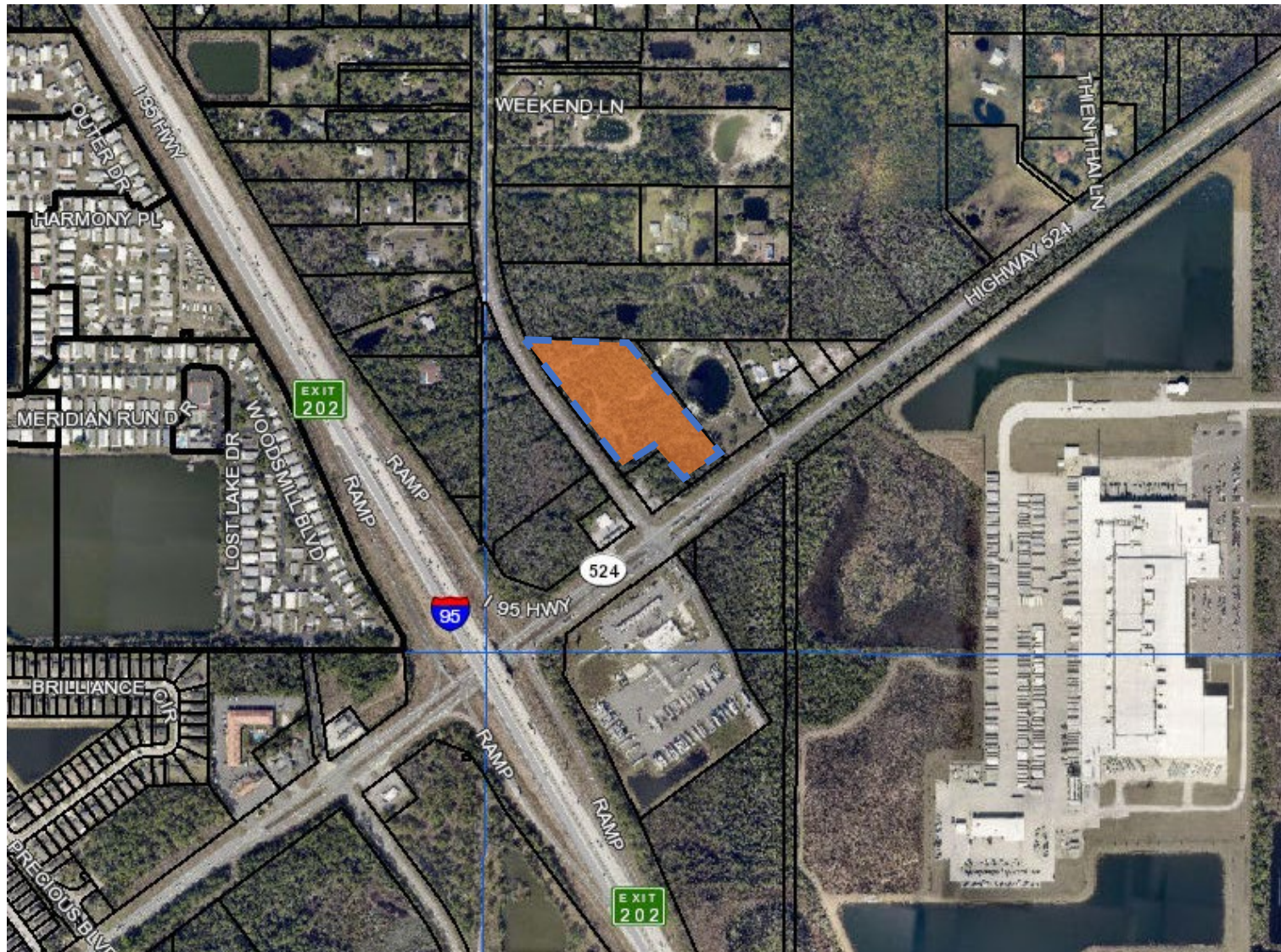
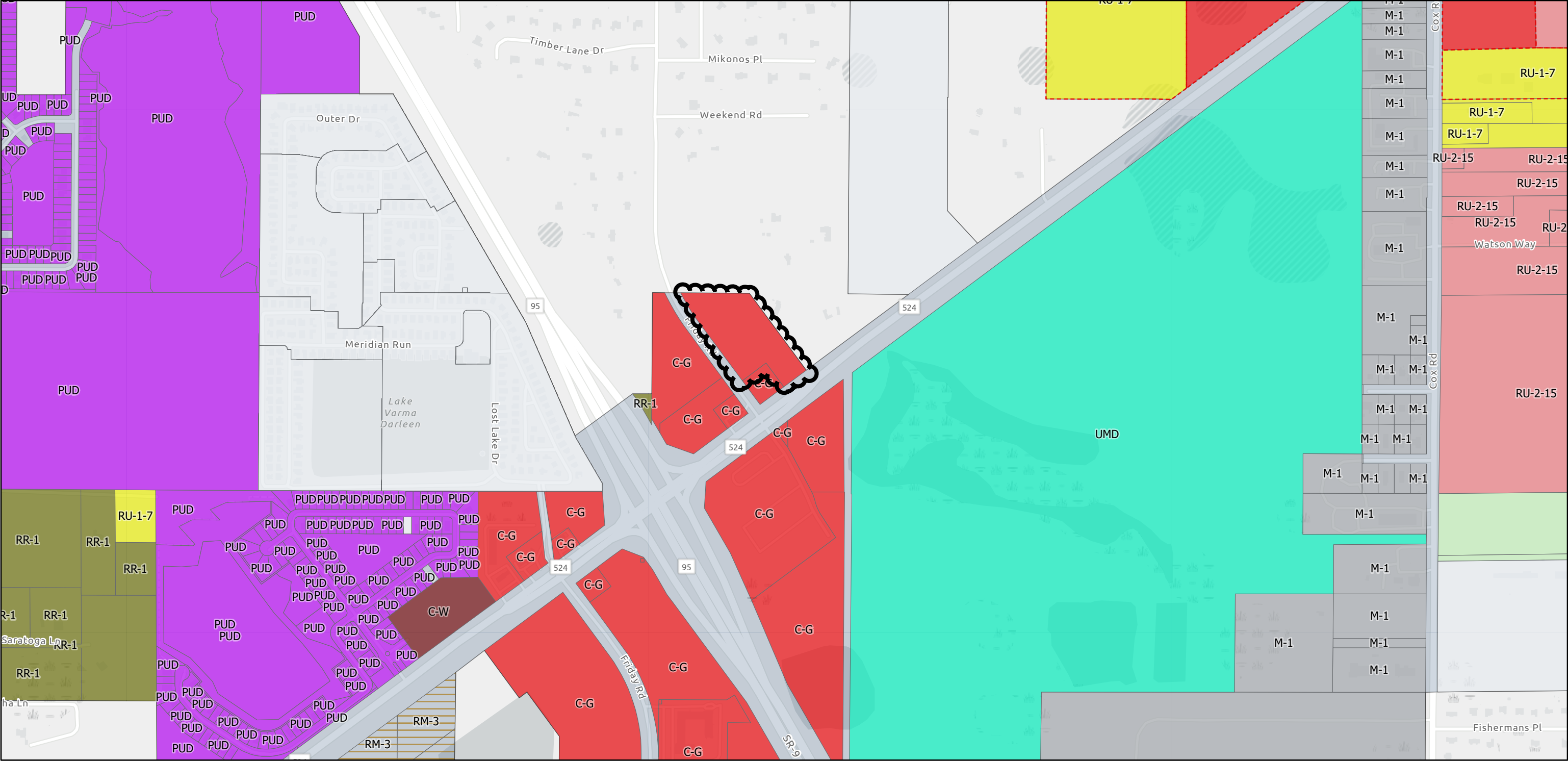
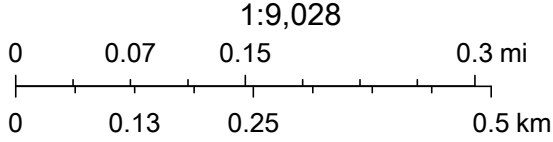
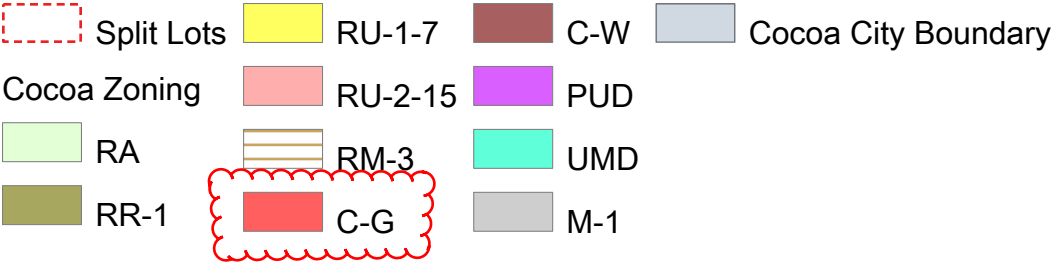


Exhibit B - Zoning Map



11/29/2022, 5:03:04 PM



Esri Community Maps Contributors, Brevard County, FDEP, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Exhibit C - FLUM

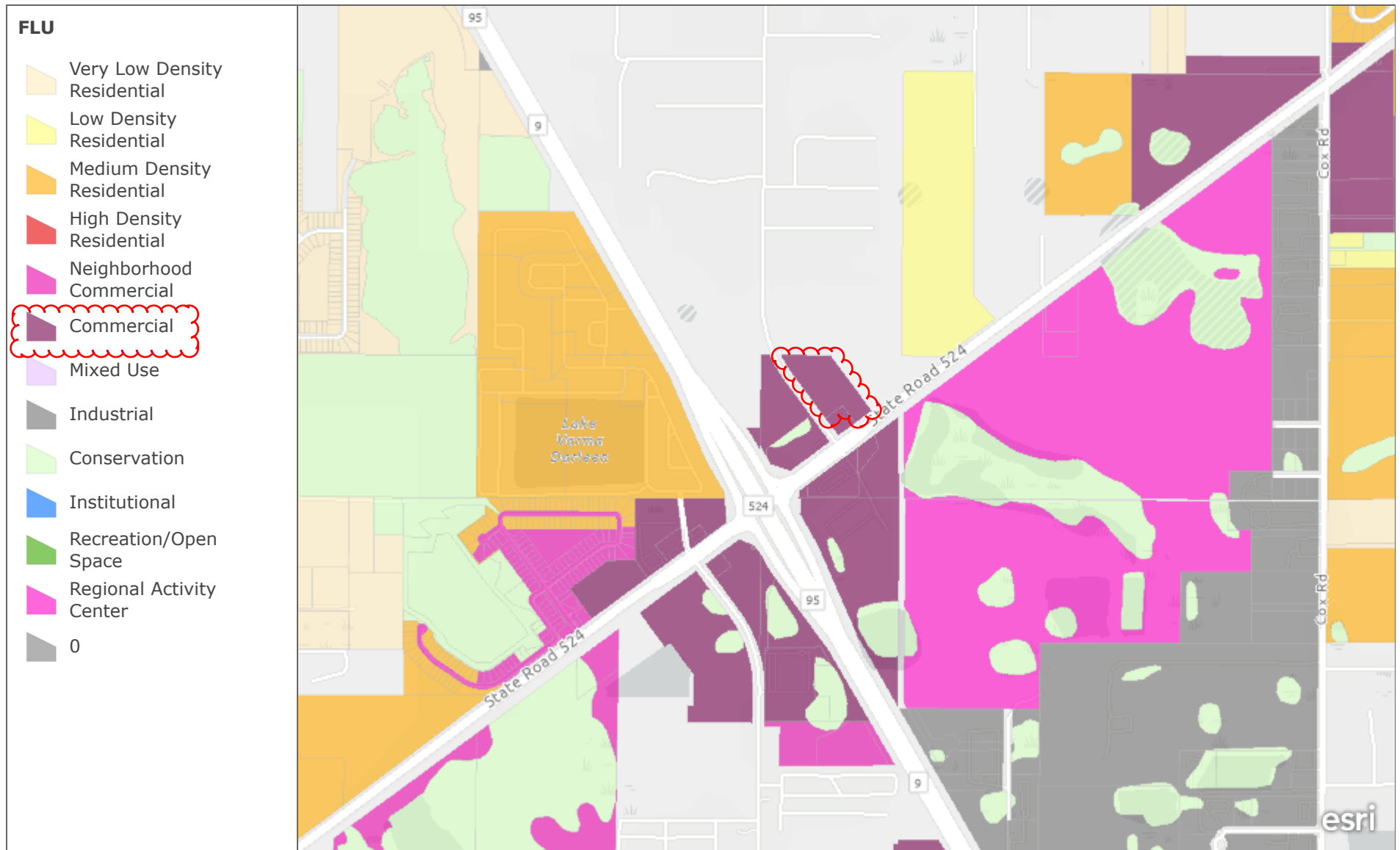
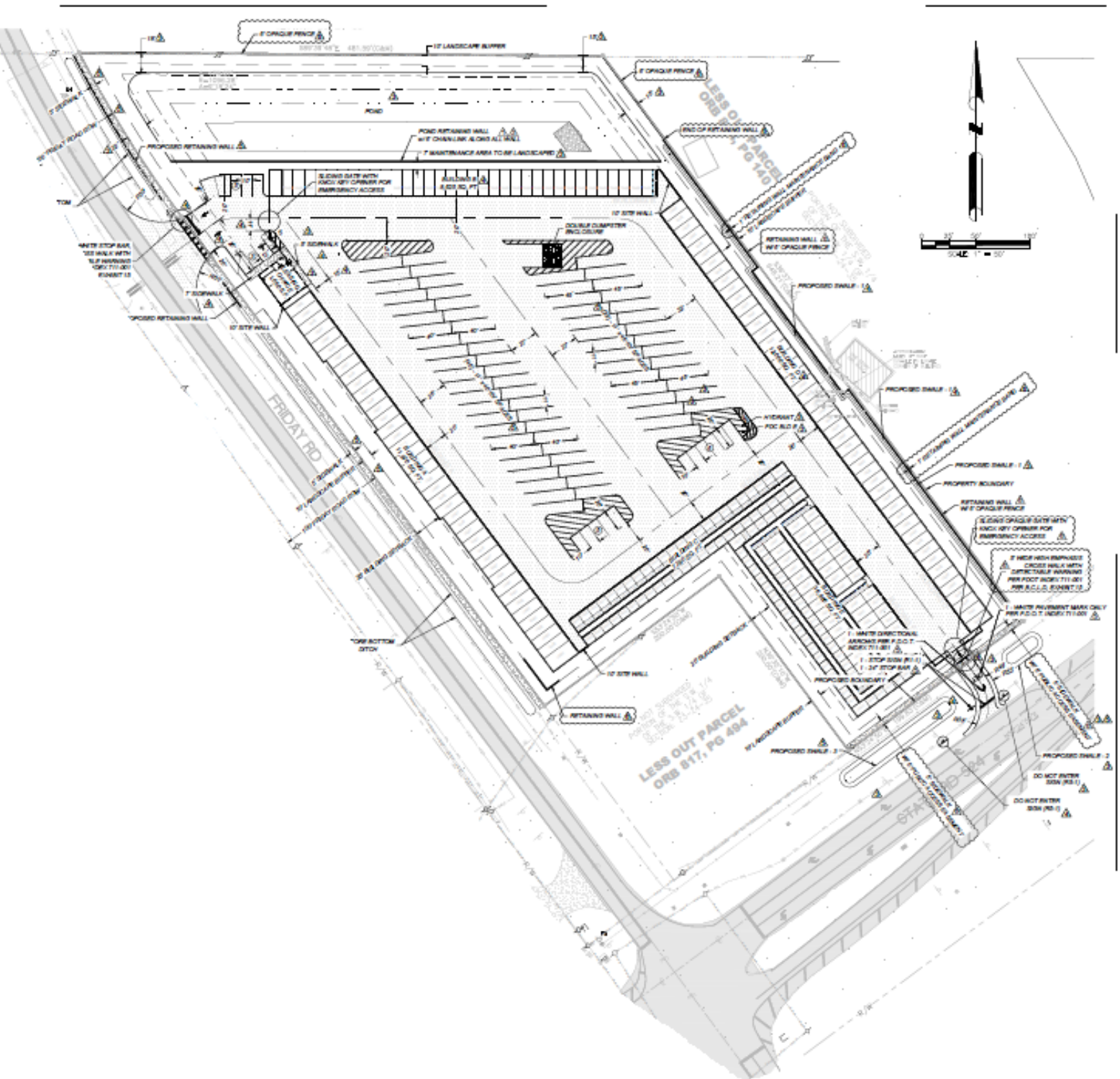


Exhibit D – Site Layout



**SQX FRIDAY ROAD PROPERTY
FRIDAY ROAD & S.R 524, COCOA, FL 32926
BREVARD COUNTY, FLORIDA**



ENVIRONMENTAL ASSESSMENT REPORT

Prepared for:

**THE WILLIAM WARREN GROUP c/o
DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD, SUITE 241
ORLANDO, FL 32828**

Prepared by:

**Stillwater Environmental, Inc.
971 Smokerise Blvd.
Port Orange, Florida 32127
File No. 982.01.21**

November 19, 2021

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FIGURE 2: Aerial Photograph

FIGURE 3: USGS Topography Map

FIGURE 4: USDA-NRCS Soils Map

FIGURE 5: Florida Land Use, Cover and Forms Classification System Map

FIGURE 6: Listed Species Survey Routes

FIGURE 7: Wildlife Proximity Map

FIGURE 8: *Wood Stork Nesting Colonies and Core Foraging Areas Active Within 2009-2018 in Florida*

LIST OF TABLES

Table 1: Protected Fauna Found in Lake County, Florida and Their Expected Occurrence on the SQX Friday Road Property

Table 2: Protected Flora Found in Lake County, Florida and Their Expected Occurrence on the SQX Friday Road Property.

APPENDICES

Appendix A: Lake County Property Appraiser's Record Cards

Appendix B: National Wetlands Inventory Map

Appendix C: Photographs of the Subject Property

SQX FRIDAY ROAD PROPERTY
FRIDAY ROAD & S.R 524, COCOA, FL 32926
BREVARD COUNTY, FLORIDA

ENVIRONMENTAL ASSESSMENT REPORT

1.0 INTRODUCTION

The SQX Friday Road Property is approximately 6.06 +/- acres in size. The Brevard County Property Appraiser's website lists the Parcel ID Number as 24-35-23-00-505 (11.35 acres) (Appendix A). The property that is the subject of this report is the approximately 6.06 acres of the parcel located on the east side of Friday Road. The project is located at the northeast corner of the intersection of Friday Road and State Road 524 in Section 23, Township 24 South, Range 35 East at latitude 28.377561 North and longitude -80.802398 West, Cocoa, Brevard County, Florida (Figure 1). An aerial image of the property is provided on Figure 2.

Review of historical and current aerial photography, the Natural Resources Conservation Service/National Cooperative Soil Report for Brevard County, National Wetland Inventory maps, and examination of existing site conditions revealed that the site has historically remained undeveloped. Historic aerials were researched back to 1964 and USGS topographic maps were researched back to 1951. The subject property has changed little over the years with the pine-mesic oak community transitioning into a denser more vegetated habitat over the years. All of the USGS Topographic maps show the property as undeveloped land. The National Wetland Inventory map (Appendix B) does not show any wetlands on the subject property.

The project site was reviewed to determine the geological features of the landscape (e.g. soils and topography), to identify the vegetative communities that occur within the project boundary, and to determine the occurrence of threatened and endangered flora and fauna within the project boundary.

2.0 NATURAL RESOURCE ANALYSIS

2.1 Topography

According to the U.S.G.S. 7.5 Minute Topographic Map, "Cape Canaveral FL" Quadrangle 2018, the project area elevations range from approximately 23' feet msl to 25' msl (Figure 3). The higher elevations are found in the western portions of the site with the lower elevations being found in the eastern portions of the site.

2.2 Soils

Soil composition information for the subject property was obtained from the U.S. Department of Agriculture Natural Resource Conservation Service Web Soil Survey for Brevard County (Figure 4). Three (3) soil types lie within the subject property boundary. A brief description of this soil type is presented below.

7) Basinger sand (1.06 ac/17.49%)

The Basinger series consist of very deep, very poorly and poorly drained, rapidly permeable soil found in low flats, sloughs, depressions and poorly defined drainageways in Southern Florida Flatwoods. They formed in sandy marine sediments. The water table is at depths of less than 12 inches for 2 to 6 months annually and at depths of 12 to 30 inches for periods of more than 6 months in most years. Depressions are covered in standing water for periods of 6 to 9 months or more in most years. Most areas of Basinger soils have been cleared and are used for improved pasture and rangeland. With water control, they are used for winter truck crops and tame pasture. The natural vegetation consists of scattered slash pine (*Pinus elliottii*), longleaf pine (*Pinus palustris*), scattered cypress (*Taxodium sp.*) with an understory dominated by gallberry (*Ilex glabra*), pineland threeawn (*Aristida stricta*), cabbage palm (*Sabal palmetto*), scattered saw palmetto (*Serenoa repens*), St. Johnswort (*Hypericum sp.*), cutthroat grass (*Panicum abscissum*), blue maidencane (*Panicum hemitomom*), wax myrtle (*Myrica cerifera*), and cordgrass (*Spartina bakerii*). This soil type is found in the northeastern portion of the subject property.

36 – Myakka sand, 0 to 2 percent slopes (4.82 ac/79.54%)

This soil type consists of very deep, very poorly or poorly drained, moderately rapid or moderately permeable soils that occur primarily in mesic flatwoods on peninsular Florida. Typically, this Myakka soil has a very dark gray fine sand surface layer about 3 inches thick. Most areas of Myakka soils are used for commercial forest production or native range. Large areas with adequate water control measures are used for citrus, improved pasture, and truck crops. Native vegetation includes longleaf and slash pine with an undergrowth of saw palmetto (*Serenoa repens*), running oak (*Quercus pumila*), inkberry, wax myrtle (*Myrica cerifera*), huckleberry, pineland threeawn (*Aristida stricta*), and scattered fetterbush (*Lyonia lucida*). This soil type is located throughout the majority of the property. This area is mostly classified as a pine-mesic oak community.

38 – Myakka sand, depressional (0.18 ac/2.97%)

This soil type is similar to the previous soil type and consists of very deep, very poorly or poorly drained, moderately rapid or moderately permeable soils that occur primarily in mesic flatwoods on peninsular Florida. Typically, this Myakka soil also has a very dark gray fine sand surface layer about 3 inches thick. Most areas of Myakka soils are used for commercial forest production or native range. Large areas with adequate water control measures are used for citrus, improved pasture, and truck crops. Native vegetation includes longleaf and slash pine with an undergrowth of saw palmetto (*Serenoa repens*), running oak (*Quercus pumila*), inkberry, wax myrtle (*Myrica cerifera*), huckleberry, pineland threeawn (*Aristida stricta*), and scattered fetterbush (*Lyonia lucida*). This soil type is located in a small area in the southwestern corner of the property.

2.3 Vegetative Community Analysis – Habitat Characterizations

Pedestrian surveys of the subject property were conducted on November 15, 2021 to qualitatively document the existing vegetation and to assess the present land use patterns according to the *Florida Land Use, Cover and Forms Classification System, Department of Transportation* (FLUCFCS; DOT). One land-use type was determined for the subject property (Figure 5). A brief description of the FLUCFCS community follows. Photographs are provided in Appendix C:

FLUCFCS No. 414 –Pine-Mesic Oak (6.06 ac./100%)

On moister sites, slash (*Pinus elliottii*), longleaf (*Pinus palustris*), and loblolly pine (*Pinus taeda*) grow in strong association with a wide variety of mesic oaks and other hardwood species. Southern red oak (*Quercus falcate*), water oak (*Quercus nigra*), white oak (*Quercus alba*) and laurel oak (*Quercus laurifolia*) in addition to hickories (*Carya sp.*), sweetgum (*Liquidambar styraciflua*), and dogwood (*Cornus sp.*) commonly grow along side these pine species under mesic conditions. The common understory species include saw palmetto (*Sereno repens*), wax myrtle (*Myrica cerifera*), gallberry (*Ilex glabra*) and a wide variety of herbs and brush. This community is located throughout the subject property.

3.0 THREATENED AND ENDANGERED SPECIES

Preliminary ecological investigations included review of published and unpublished literature concerning the subject property and surrounding areas, solicitation of databases on protected species, field investigations to generally delineate and characterize the habitats, and a preliminary field survey for the occurrence of protected flora and fauna.

The following is a list of all wildlife species identified during the evaluation of the site:

Reptiles and Amphibians

Brown anole (*Norops sagrei*)
Eastern black racer (*Coluber constrictor*)
Green anole (*Anolis carolinensis*)

Birds

Mourning Dove (*Zenaida macroura*)
Northern Mockingbird (*Agelaius phoeniceus*)
Red-Shouldered Hawk (*Buteo lineatus*)

Mammals

Eastern Cottontail Rabbit (*Sylvilagus floridanus*)
Common Raccoon (*Procyon lotor*)

Using methodologies outlined in the Florida's Fragile Wildlife (Wood, 2001); Measuring and Monitoring Biological Diversity Standard Methods for Mammals (Wilson, et al., 1996); and Florida Fish and Wildlife Conservation Commission's (FFWCC) Gopher Tortoise Permitting Guidelines (April 2008 – revised January 2017); an assessment for “listed” floral and faunal species was most recently conducted on the subject property on November 15, 2021 (Figure 6). This assessment included direct observations and indirect evidence, such as tracks, burrows, tree markings, and birdcalls. The assessment focused on species that are “listed” by the FFWCC's Official Lists - Florida's Endangered Species, Threatened Species, and Species of Special Concern (May 2017) that have the potential to occur in Brevard County (Table 1).

Pedestrian transects were established throughout the site to assess the occurrence, or potential for occurrence of flora and fauna listed as a species of special concern (SSC), threatened, or endangered by the Florida Fish and Wildlife Conservation Commission (FFWCC), the United State Fish and Wildlife Service (USFWS) and the Florida Department of Agriculture (FDA) (Figure 6). The results of these surveys are presented in the following sections.

Table No. 1 and Table No. 2 list those species that were surveyed for based on their probability of occurrence in Brevard County.

3.1 Regulatory Review

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) is the federal agency responsible for protecting the nation's fish and wildlife resources through implementation of the Endangered Species Act of 1973, as amended ("ESA"), 16 U.S.G. 1531-1543. The USFWS has the responsibility for terrestrial and freshwater species. The Department of Commerce, National Marine Fisheries Service has the responsibility for marine and estuarine species. In Florida, approximately 60 species of animals and 65 species of plants are federally listed by the USFWS as threatened or endangered.

Florida Fish and Wildlife Conservation Commission

Article IV, Section 9 of the Florida Constitution authorizes the FFWCC to "exercise the regulatory and executive powers in the state with regard to wild animal life and fresh water aquatic life." In addition, the FFWCC regulates the taking of species listed as endangered, threatened, or of special concern and their nests through Rules listed in 68A-27 Florida Administrative Code. The FFWCC also provides technical assistance to other agencies that have regulatory authority over activities, which may affect fish and wildlife, and their habitat.

The FFWCC's direct regulatory role is currently restricted to protecting animals, not their habitats. However, current FFWCC policies allow for habitat protection as compensation for the "taking" of individuals of the species. The FFWCC Office of Environmental Services (OES) provides technical assistance to other agencies that regulate development activities. These agencies include the Department of Community Affairs, The Department of Environmental Protection, the U.S. Army Corps of Engineers, the state of Florida Water Management Districts, regional planning councils and local governments.

Florida Department of Agriculture and Consumer Services

In Section 581.185, F.S. the Florida Legislature delegated to the Florida Department of Agriculture and Consumer Service (FDACS) authority to designate and regulate plants listed as "endangered", "commercially exploited", and "threatened". FDACS protection of listed plant species centers around preventing the illegal collection, transport and sale of "listed species". FDACS only issues a permit for collection purposes and neither regulates nor prohibits the destruction of state-listed flora species as a result of development activities. With respect to the USFWS, an endangered/threatened plant on private

property belongs to the landowner so long as it continues to grow on his land. The only exception is if the landowner uses federal funds to develop the land. Then the federal agency participation in the action must ensure that federal funds are not being used to destroy a federally listed plant. If private money is being utilized, there is no such requirement. Otherwise, the endangered species law means little unless/until the plant is moved from the land to be sold, or traded. At that point the plant is no longer part of the land and may be protected by the endangered species law. Additionally, it is illegal to collect or maliciously harm listed plants on Federal land.

3.2 Avian Species

A survey to indicate the presence of listed wading birds such as little blue heron (*Egretta caerulea*), wood stork (*Mycteria americana*), tricolored heron (*Egretta tricolor*), and Florida sandhill crane (*Grus Canadensis pratensis*) was performed on the project site. There is no habitat available for foraging or nesting located on the project site. None of these species were observed during the field surveys.

Red-cockaded Woodpecker (Leuconotopicus borealis)

Federally listed as "Endangered" by the USFWS

No suitable habitat for red-cockaded woodpeckers (*Picoides borealis*) (RCW's) was identified on the project site during the field surveys. The property is considered to be unsuitable for RCW's because of the lack of old growth pine trees necessary for nest cavity construction. The general onsite conditions preclude the establishment of RCW's. No further action is required pertaining to the red-cockaded woodpecker.

Sandhill Crane (Grus Canadensis pratensis)

State Listed as "Threatened" by the FFWCC

FFWCC developed the *Imperiled Species Management Plan* to address the needs of state listed species that did not already have a management plan or specific program in place. These species also have Commission approved *Species Conservation Measures and Permitting Guidelines* that have been developed to clarify what is needed for conservation and permitting of these species. Cranes typically nest from February through April. A survey during this time would be conducted to confirm that no breeding pairs of this species are nesting within the project site boundaries or the adjacent properties. There is no nesting habitat in the form of a freshwater marsh located on the subject property. If

there had been, a survey would need to be initiated in February and continued through April including pedestrian transects and aerial reconnaissance conducted by drone prior to the initiation of any construction activities. The survey methodology prescribed by the FFWCC would be employed. No further action is required pertaining to the Florida sandhill crane at this time.

Bald Eagle (*Haliaeetus leucocephalus*)

Protected Under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

In August of 2007, the USFWS removed the Bald Eagle from the list of federally endangered and threatened species. Additionally, the Bald Eagle was removed from FFWCC's imperiled species list in April of 2008. Although the Bald Eagle is no longer protected under the Endangered Species Act, it is still protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and FFWCC's Bald Eagle rule (F.A.C. 68A-16.002 Bald Eagle (*Haliaeetus leucocephalus*)).

In May of 2007, the USFWS issued the National Bald Eagle Management Guidelines. In April of 2008, the FFWCC adopted a new Bald Eagle Management Plan that was written to closely follow the federal guidelines. Under FFWCC's new management plans, buffer zones are recommended based on the nature and magnitude of the project or activity. The recommended buffer zone is 660 feet or less from the nest tree, depending on what activities or structures are already near the nest. A FFWCC Eagle permit is not needed for any activity occurring outside of the 660-foot buffer zone. No activities are permitted within 330 feet of a nest during the nesting season, October 1 through May 15 or when eagles are present at the nest.

The Southeastern American kestrel (*Falco sparverius paulus*), Everglade snail kite (*Rostrhamus sociabilis plumbeus*) or other birds of prey were not observed on the project site. Two sources were used to identify any bald eagle nests in the vicinity of the project site. They included the FFWCC Historical Bald Eagle Nesting Areas, which has information for the years of the first observation and last, and the Audobon Florida Eagle Watch Nest App which includes the nesting number and the Latitude and Longitude information. The closest nest located to the subject property that has been located by these sources is nest No: BE 082 located approximately 0.20 miles to the southeast at latitude 28.375040 and longitude -80.800170 (Figure 7). It was first observed in 2015. It was recorded as occupied in the 2021 season. Current USFWS Bald Eagle Management

Guidelines state that if there is sufficient natural or man-made landscape buffers between the proposed construction site and the nest preventing a visual connection between the two and the clearing and external construction that is to occur is more than 660 feet from the location of the nest, then there are no restrictions during breeding season (October 1 through March 15). Nest No. BE 082 is more than 0.20 miles from the proposed project, in addition to the natural vegetative buffer that exists. As a result, it is not necessary to submit a Bald Eagle Management Plan for this nest.

Wood Stork (Mycteria Americana)

Federally Listed as "Threatened" by USFWS and the FFWCC

Wood Storks are also listed as Threatened by FFWCC and USFWS. According to the *FWC Wood Stork Introduction*, due to loss of wetlands, which the storks rely on for foraging, a decline in range and numbers was evident in the early to mid 1990's. Based on statewide surveys conducted by FFWCC personnel, stork colonies increased from 32 colonies during 1976-78 to 52 colonies during 1986-87, but decreased to 34 colonies in 1999. The most recent survey indicated about 7,216 nesting pairs in Florida during 2005. According to the *Wood Stork Nesting Colonies and Core Foraging Areas Active Within 2009-2018 in Florida*, the subject property is located inside a core foraging area for this species and inside the USFWS consultation area (Figure 8). No wood storks were observed foraging on the subject property and there is no nesting habitat on the project site. No further action pertaining to the wood stork is required at this time.

Everglade Snail Kite (Rostrhamus socialbilis)

Federally Listed as "Endangered" by USFWS and FFWCC

The Everglade Snail Kite (*Rostrhamus socialbilis*) is listed as Endangered by the USFWS and the FFWCC. The subject property falls inside the USFWS Consultation Area for the Everglade Snail Kite. Everglade Snail Kites are similar in size to Red-Shouldered Hawks. They have deep red eyes and a white rump patch. Males are slate gray, and females and juveniles vary in amounts of white, light brown, and dark brown. The females always have white on their chin. Kites vocalize mainly during courtship and nesting. Snail kites nest year round in shallow marshes and along grassy shorelines of lakes. They typically nest over water to reduce opportunities for predators to sneak up on them. A survey of any suitable habit is necessary to confirm no nesting activities are present within the project sites boundaries. At the time of the survey, there was no suitable habitat for foraging or nesting and no individual Snail Kites were observed. As no

Snail Kites were observed and there is no nesting or foraging habitat, a formal survey would not be required by the USFWS. No further action is required pertaining to the Everglade Snail Kite.

Florida Scrub-Jay (*Aphelocoma coerulescens*)
Federally Listed as "Threatened" by USFWS and FFWCC

Currently the Florida scrub-jay (*Aphelocoma c. coerulescens*) is listed as "threatened" at state and federal levels. Florida scrub-jays are largely restricted to scattered, often small and isolated patches of sand pine scrub, xeric oak, scrubby flatwoods, and scrubby coastal stands in peninsular Florida (Woolfenden 1978a, Fitzpatrick et al. 1991). They avoid wetlands and forests, including canopied sand pine stands. Optimal scrub-jay habitat is dominated by shrubby scrub, live oaks, myrtle oaks, or scrub oaks from 1 to 3 m (3 to 10 ft.) tall, covering 50% to 90% of the area; bare ground or sparse vegetation less than 15 cm (6 in) tall covering 10% to 50% of the area; and scattered trees with no more than 20% canopy over (Fitzpatrick et al. 1991).

Habitat suitable for scrub jay nesting and foraging activities is not available on the subject property. The subject property falls within the known distribution area for scrub-jays in Brevard County as mapped by the USFWS but as a result of no habitat present, surveys will not need to be conducted for this species per the guidelines outlined in the *Ecology and Development – Related Habitat Requirements of the Florida Scrub Jay, Nongame Wildlife Program, Technical Report No. 8*. No further action should be required pertaining to the Florida scrub-jay.

Audubon's Crested Caracara (*Polyborus plancus audubonii*)
Federally Listed as "Threatened" by USFWS and FFWCC

The subject site falls inside of the USFWS Consultation Areas for the species Audubon's Crested Caracara (*Polyborus plancus audubonii*). Currently the Audubon's Crested Caracara is listed as threatened by the USFWS and the FFWCC primarily due to habitat loss. The Audubon's Crested Caracara commonly occurs in dry or wet prairie areas with scattered cabbage palm, lightly wooded areas with saw palmetto, scrub-oaks, and cypress. The Audubon's Crested Caracara also uses improved or semi-improved pasture with seasonal wetlands. Audubon's Crested Caracaras construct new nest each nesting season, often in the same tree as the previous year. No crested caracaras were observed during the field surveys. Suitable foraging habitat for this species does not exist

within the project boundaries. No further action is required pertaining to this species.

3.3 Amphibians, Reptiles, and Mammals

About thirty (30) species of Florida's amphibians and reptiles are protected. Only a few could occur on this site. A survey was conducted for the presence of these species throughout the habitat of their known distribution (Figure 6). On November 15, 2021 SEI biologists surveyed linear transects throughout portions of the upland habitats in the project area. The project site was surveyed in accordance with the guidelines set forth by the FFWCC and the USFWS. Mr. Timothy Talbot, of Stillwater Environmental, Inc. FWC Authorized Gopher Tortoise Agent Permit No. GTA-14-00053D, participated in all of the surveys including the gopher tortoise surveys. There were no "potentially occupied" gopher tortoise burrows located within the project boundary. The lack of the presence of gopher tortoise burrows decreases the potential for the commensal species, the Florida mouse (*Podomys floridanus*), the gopher frog (*Rana areolata*), and the Eastern indigo snake (*Drymarchon corais couperi*), federally listed as "Threatened", to occur on the property.

3.3.1 Gopher Tortoises

Gopher Tortoise (Gopherus polyphemus)

State Listed as "Threatened" by the FFWCC

Gopher tortoises are listed as threatened by the FFWCC and are protected by state law Chapter 68A-27 and Chapter 39-27.002(4) Florida Administrative Code. The gopher tortoise is found throughout Florida and is generally associated with longleaf pine and xeric oak sand hills but is also found in scrub, xeric hammock, pine flatwoods, dry prairie, coastal grasslands, and dunes. If the gopher tortoise is observed, or signs of the tortoise such as burrows are observed, their presence must be addressed prior to on-site construction activities. The FFWCC is the state agency responsible for overseeing the management of this species.

At the time of the survey there were no "potentially occupied" burrows located. A 100% survey of the subject property is recommended prior to the initiation of construction activities to verify the absence of gopher tortoises. If any are found, the location of each burrow will need to be noted by GPS waypoints and marked with field stakes and surveyors flagging tape.

Currently there are four (4) options to conduct activities that may adversely impact tortoises and they are as follows:

1. Avoid developing the areas occupied by the tortoises.
2. Avoid individual burrow entrances to ensure the protection of the burrow. A radius of 25' surrounding each burrow is required.
3. Capture and relocate each tortoise to a FFWCC Long Term Protected Recipient Site.
4. If ten (10) or fewer burrows are affected and some habitat will exist on the site following construction, tortoises may be captured and released back onto the site.

Based on the future plans for the subject property, option no. 3 is the most viable option should any gopher tortoises be found. If some burrows are located prior to the initiation of any development activities, an application for a relocation permit will need to be prepared and submitted to the FFWCC. Once the permit has been issued and received, relocation efforts would be scheduled. The tortoises would then be excavated and relocated to a FFWCC Long Term Protected Recipient Site.

3.3.2 Florida Sand Skink

Sand Skink (Plestiodon reynoldsi)

Federally Listed as "Threatened" by USFWS

The sand skink was listed as "Threatened" under the Endangered Species Act (ESA) in 1987. The subject property falls outside the USFWS Consultation Area Map for the Florida sand skink. No further actions is required pertaining to the Florida sand skink.

3.4 Flora

There were no protected plant species found on the project site. Currently, there are no technical reports available by the USFWS mentioned in this report for the survey of protected plant species. None of the agencies require relocation or mitigation for protected plant species. Please see Table 2 for a list of plant species that are "listed" for Brevard County.

4.0 REGULATORY CONSIDERATIONS

4.1 St. Johns River Water Management District

The St. Johns River Water Management District (SJRWMD) regulates wetlands that are isolated and those considered within or connected to "Waters of the State" pursuant to Chapter 403 of the Florida Statutes, Rules 62-302 and 62-330

of the Florida Administrative Code (F.A.C.). Development activities altering wetlands and/or drainage will require an Environmental Resource Permit (ERP) from the St. Johns River Water Management District. Different ERP Permits for various activities, General Permits, and exemptions can be found in the *State of Florida Environmental Resource Permit Applicant's Handbook, Volume I*. Specific design standards, basin specific criteria and procedures can be found in the *State of Florida Environmental Resource Permit Applicant's Handbook, Volume II*.

The U.S Environmental Protection Agency (EPA) requires coverage under the National Pollutant Discharge Elimination System (NPDES) generic permit for discharge from large and small construction activities for any project that results in the clearing of one or more acres, pursuant to 40 CFR parts 122 and 124 . The EPA has delegated responsibility to the SJRWMD to administer the NPDES permits for the State of Florida. The primary functions of the NPDES requirements are to ensure that sediment and erosion during construction of the project is controlled. The NPDES usually requires the use of Best Management Practices to ensure compliance with water quality standards. In addition, coverage under the generic permit for discharge of produced ground water from a non-contaminated site activity must be secured for any construction-related dewatering activity pursuant to Rule 62-621.302.

- 4.2 U.S. Army Corps of Engineers/Florida Department of Environmental Protection**
The U.S. Army Corps of Engineers (ACOE) formerly regulated wetlands connected to “Water of the United States” and “Adjacent Waters” pursuant to Section 404 of the Clean Water Act. Based on the U.S. Supreme Court decision Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178 (January 9, 2001) (SWANCC) isolated wetlands are considered non-jurisdictional for the ACOE. Based on the U.S. Supreme Court decision consolidated cases Rapanos v. United States and Carabell v. United States, 126 S. Ct. 2208 (2006) (RAPNOS) the ACOE was required to establish a physical, biological, or chemical nexus of connection to traditional navigable water (TNW) of the United States to claim jurisdiction.

However, on December 17, 2020, the Environmental Protection Agency (EPA) approved the State of Florida’s request to assume administration of a portion of the Clean Water Act Section 404 program. State Assumption became effective as of December 22, 2020. Therefore, the U.S. Army Corps of Engineers transferred all of their pending Section 404 permit applications and requests for

jurisdictional determination proposing discharges into State 'assumed' waters to the Florida Department of Environmental Protection (FDEP) for processing.

After a preliminary review of the subject property there are no wetlands located on the subject property. No further action is required with the ACOE/FDEP.

5.0 WETLAND/SURFACE WATER ANALYSIS

According to wetland delineation methodologies outlined in the *Corps of Engineers Wetland Delineation Manual (1987)*, the *2008 Corps Interim Regional Supplement to the Corps Wetland Delineation Manual: Atlantic & Gulf Coastal Plain Region* and the State of Florida Unified Wetland Delineation Manual (section 62-340.300, F.A.C.), areas classified as wetlands and surface waters were not observed within, or immediately adjacent to, the subject property area during the field investigation.

6.0 SUMMARY AND RECOMMENDATIONS

The SQX Friday Road Property is approximately 6.06 +/- acres in size. The project is located at the northeast corner of the intersection of Friday Road and State Road 524 in Section 23, Township 24 South, Range 35 East at latitude 28.377561 North and longitude -80.802398 West, Cocoa, Brevard County, Florida (Figure 1).

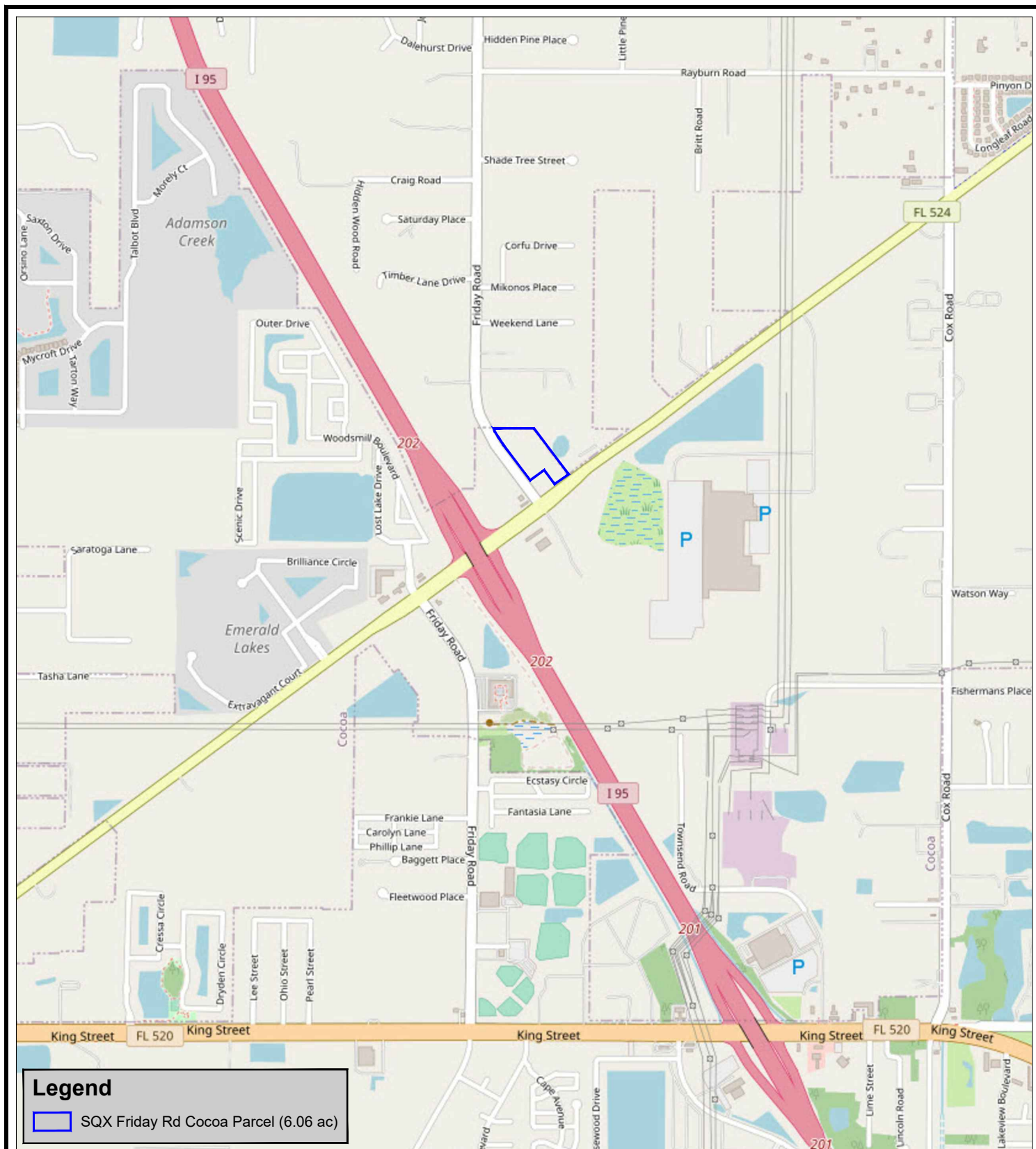
As previously mentioned, habitats classified as wetlands or surface waters do not exist on the subject property and were not observed during the field investigations conducted on November 15, 2021. The ACOE regulates wetlands connected to "Waters of the United States" and "Adjacent Waters" pursuant to Section 404 of the Clean Water Act. However, on December 22, 2020 the FDEP assumed a large portion of the Section 404 permitting from the ACOE. After a review of the subject property it was determined that the ACOE/FDEP will not have jurisdiction on this site as there are no areas that meet the wetland definition as defined by the ACOE/FDEP Guidelines.

On November 15, 2021, the SQX Friday Road property was surveyed for the presence of flora and fauna protected by county, state, and federal government agencies as well as any protected wetland habitats. Targeted fauna species included the gopher tortoise and commensal species, as well as the avian species discussed in Section 3.2. The surveys did not result in the location of any "potentially occupied" gopher tortoise burrows. Another 100% gopher tortoise survey is recommended prior to the initiation of construction activities to confirm that there are no tortoises at that time. If there are any "potentially occupied" burrows located at that time it will be necessary to apply for a gopher tortoise relocation permit with the FFWCC.

There is no available habitat for foraging and nesting for any of the listed avian species, including the tri-colored heron, the little blue heron, and the sandhill crane. There is no available habitat for the Audubon's crested caracara, or the Everglades snail kite, and none were observed. No further action is required at this time. Brevard County does not fall within the USFWS Consultation Area Map for the Florida Sand Skink. A survey for Florida sand skinks will not be required by the USFWS.

The environmental limitations described in this document are based on observations and technical information on the date of the on-site evaluation. Failure to detect a listed species does not necessarily infer species absence as wildlife is mobile and exhibit seasonality of occurrence. It is recommended that the subject property be revisited prior to the initiation of construction activities to determine if there have been any changes related to the listed flora and fauna species found in Brevard County.

FIGURES



Source: OpenStreetMap



971 Smokerise Blvd, Port Orange, FL 32127
Ph: (407) 489-6898
Website: www.stillwaterenvironmental.com

SQX Friday Road Cocoa Property

Friday Road

Cocoa, Florida 32926

Figure #1

Location Map

Environmental Assessment



1500



Feet

Project # 982.01.21

Produced By: MLP

Date: 11/01/2021



Legend

 SQX Friday Rd Cocoa Parcel (6.06 ac)

S23;T24S;R35E

Lat: 28.377561

Long: -80.802398

Source: <https://fdotewp1.dot.state.fl.us/AerialPhotoLookUpSystem>



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SQX Friday Road Cocoa Property

Friday Road

Cocoa, Florida 32926

Figure #2

Aerial Photograph (2020)

Environmental Assessment



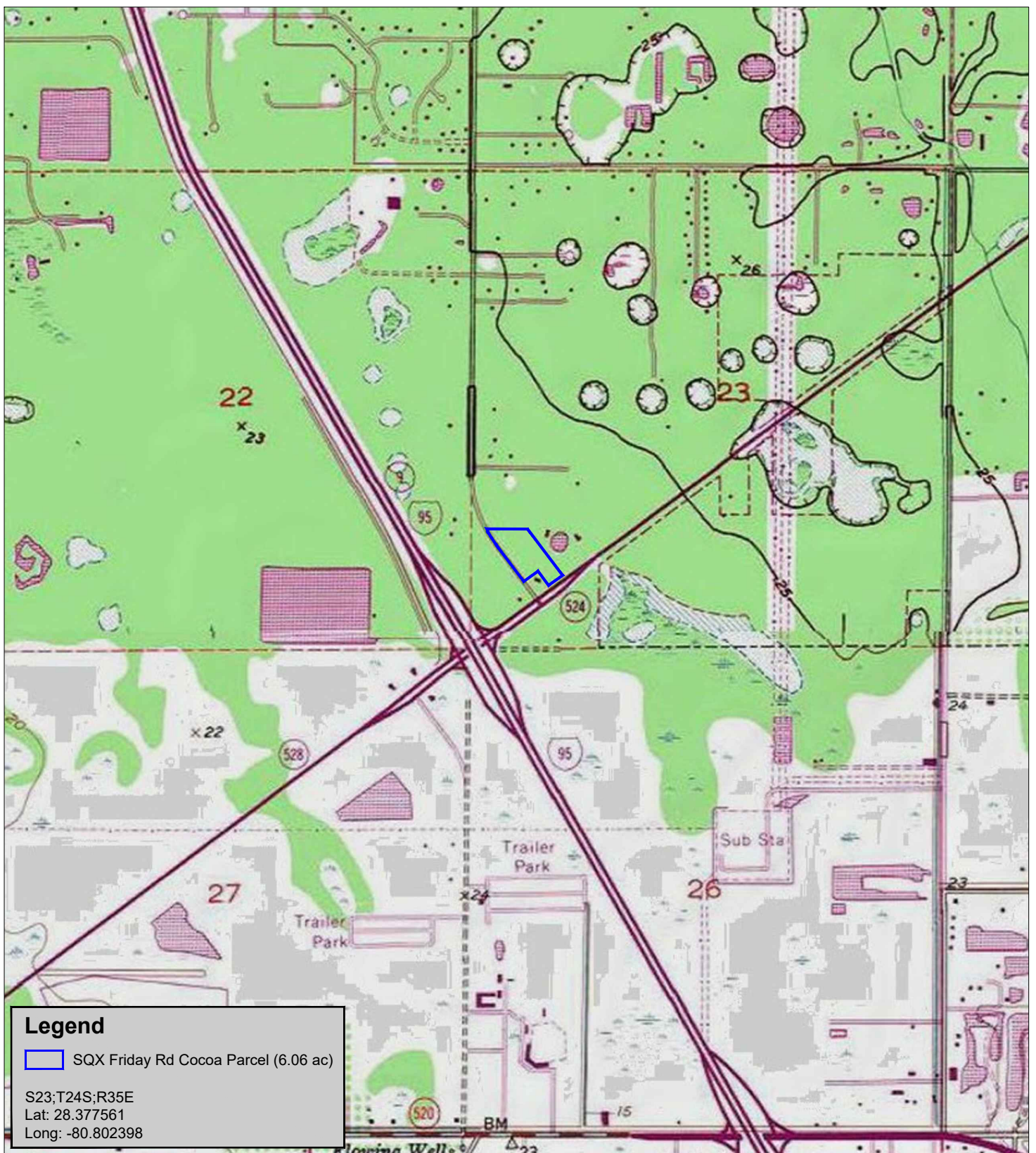
300

Feet

Project # 982.01.21

Produced By: MLP

Date: 11/01/2021



Source: Cape Canaveral, Florida, U.S.G.S Quadrangle Map; Topozone.com



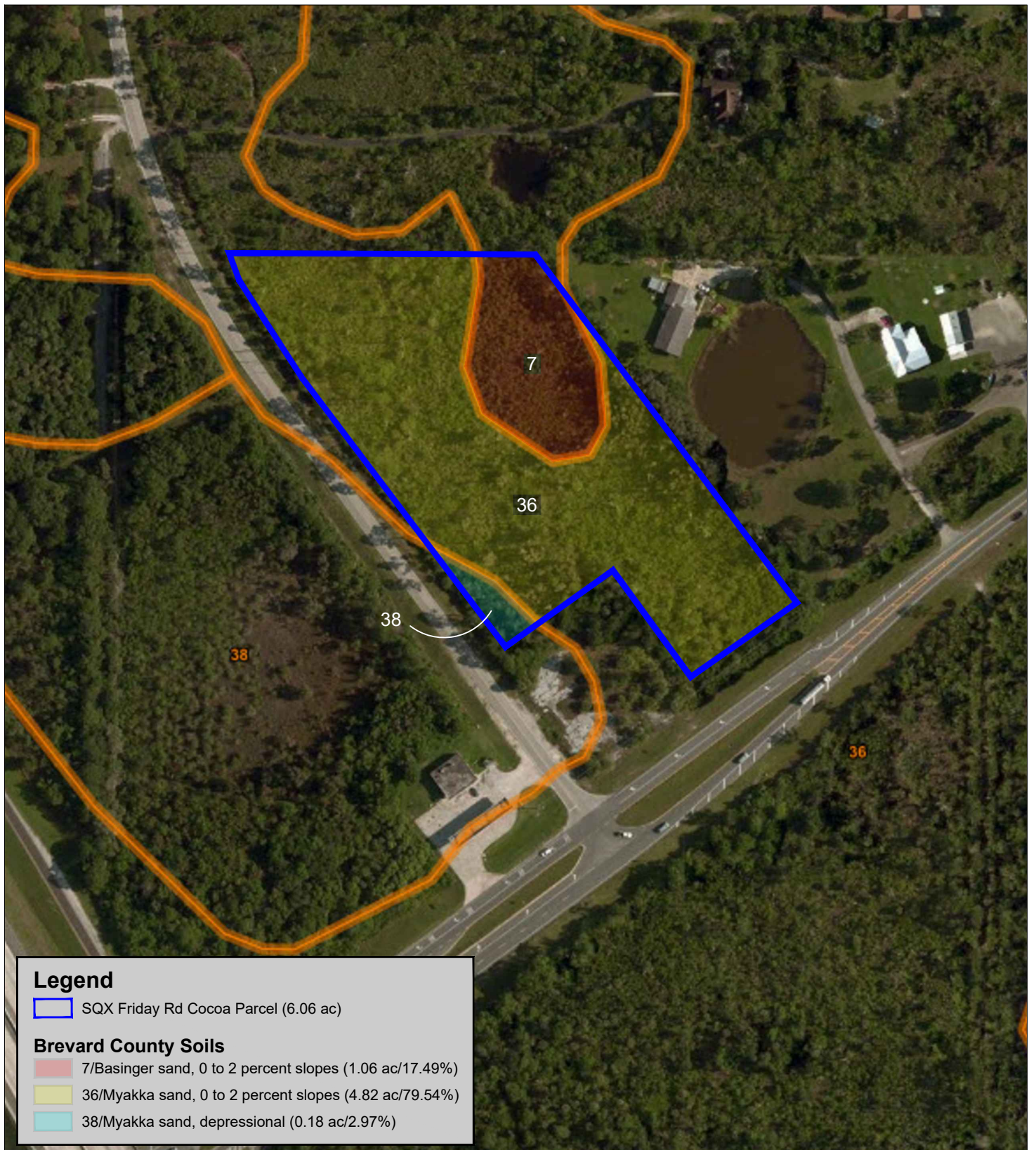
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SQX Friday Road Cocoa Property
 Friday Road
 Cocoa, Florida 32926
 Figure #3
U.S.G.S. Topographic Map
 Environmental Assessment



1500 Feet

Project # 982.01.21
 Produced By: MLP
 Date: 11/01/2021



Source: <https://websoilsurvey.sc.egov.usda.gov>

Legend

 SQX Friday Rd Cocoa Parcel (6.06 ac)

Brevard County Soils

7/Basinger sand, 0 to 2 percent slopes (1.06 ac/17.49%)

36/Myakka sand, 0 to 2 percent slopes (4.82 ac/79.54%)

38/Myakka sand, depressional (0.18 ac/2.97%)



971 Smokerise Blvd, Port Orange, FL 32127
Ph: (407) 489-6898
Website: www.stillwaterenvironmental.com

SQX Friday Road Cocoa Property
Friday Road

Cocoa, Florida 32926

Figure #4

USDA - NRCS Soil Map
Environmental Assessment



200
Feet

Project # 982.01.21

Produced By: MLP

Date: 11/01/2021



Source: <https://fdotewp1.dot.state.fl.us/AerialPhotoLookUpSystem>



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Ph: (407) 489-6898
Website: www.stillwaterenvironmental.com

SQX Friday Road Cocoa Property
Friday Road
Cocoa, Florida 32926
Figure #5
FLUCFCS Map
Environmental Assessment



200 Feet

Project # 982.01.21
Produced By: MLP
Date: 11/13/2021



Legend

-  SQX Friday Rd Cocoa Parcel (6.06 ac)
-  Listed Species Survey Routes
(Survey Date: 11/01/2021)
-  Gopher Tortoise Burrow (0)

Brevard County Florida Land Use, Cover, and Forms Classification System (FLUCFCS)

414/Pine-Mesic Oak (6.06 ac/100%)

Source: <https://fdotewp1.dot.state.fl.us/AerialPhotoLookUpSystem>



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Ph: (407) 489-6898
Website: www.stillwaterenvironmental.com

SQX Friday Road Cocoa Property

Friday Road

Cocoa, Florida 32926

Figure #6

Listed Species Survey Routes
Environmental Assessment

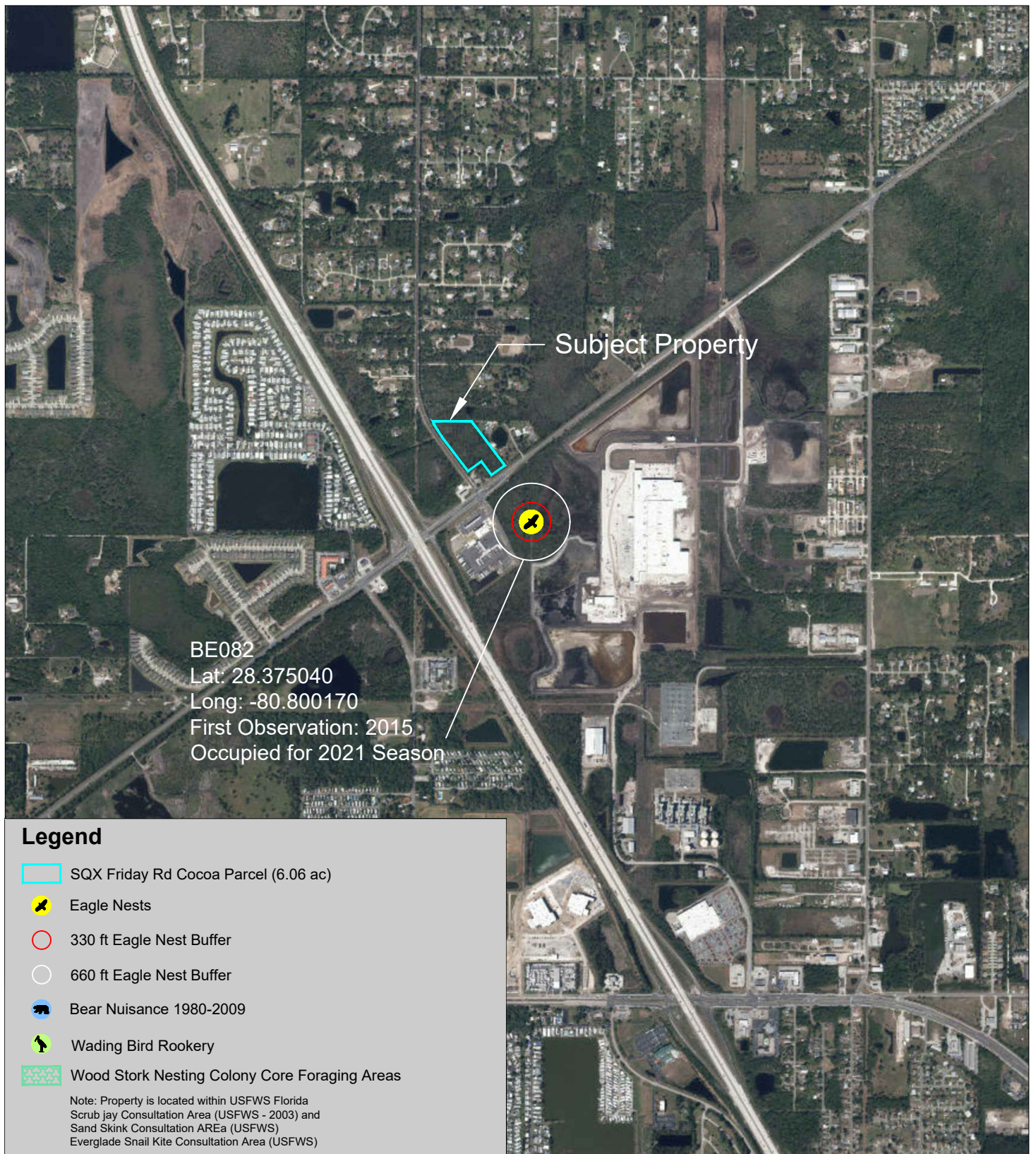


400 Feet

Project # 982.01.21

Produced By: MLP

Date: 11/13/2021



Sources: <https://myfwc.maps.arcgis.com/apps/webappviewer/>; <https://audubon.maps.arcgis.com/apps/webappviewer/>; <https://myfwc.maps.arcgis.com/apps/webappviewer/index.html?id=0c634d5ba4cc47baa82de0ed2782426c>

SQX Friday Road Cocoa Property

0.3

Miles

Friday Road

Cocoa, Florida 32926

Figure #7

Wildlife Proximity Map Environmental Assessment



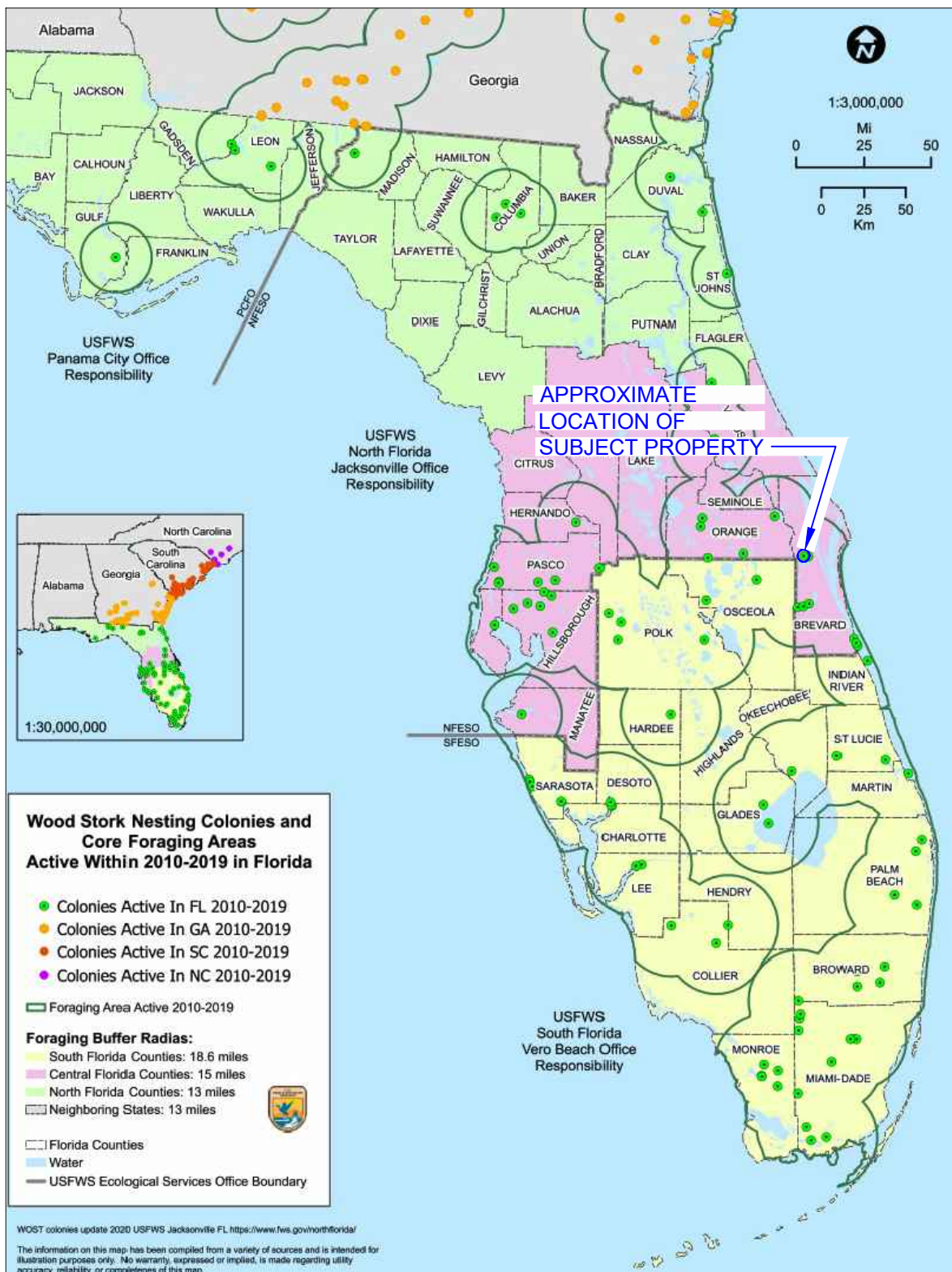
Project # 982.01.21

Produced By: MLP

Date: 11/01/2021



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 Ph: (407) 489-6898
 Website: www.stillwaterenvironmental.com



Source: WOST colonies update 2019 USFWS Jacksonville, FL <https://www.fws.gov/northflorida/>



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Website: www.stillwaterenvironmental.com

SQX Friday Road Cocoa Property

Friday Road

Cocoa, Florida 32926

Figure #8

Wood Stork Foraging Areas
Environmental Assessment



58

Miles

Project # 982.01.21

Produced By: MLP

Date: 11/01/2021

TABLES

TABLE 1

TABLE 1: PROTECTED FAUNA FOUND IN BREVARD COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE SQX FRIDAY ROAD PROJECT SITE

SPECIES	FWC STATUS	USFWS STATUS	PREFERRED HABITAT	PROBABLILITY OF OCCURANCE
REPTILES				
<u>Alligator mississippiensis</u> American alligator	FT(S/A)	T	Vegetated lakes and deepwater swamps	Low: No habitat available, none sighted
<u>Drymarchon corais couperi</u> Eastern indigo snake	FT	T	Dry habitats bordered by water; often occupy <i>G. polyphemus</i> burrows	Low: No habitat available, none sighted
<u>Gopherus polyphemus</u> Gopher tortoise	ST	—	Well drained soil; xeric pine-oak hammocks and scrub; pine flatwoods	Low: Ho habitat available, several burrows located
<u>Pituophis melanoleucus mugitus</u> Florida pine snake	ST	—	Dry, sandy barrens in xeric oak and pine-wooded sandhills	Low: No habitat available
<u>Plestiodon reynoldsi</u> Sand skink	FT	T	Xeric habitats along sandy Florida ridges. Found in Osceola, Polk, Lake, Highlands, Putnam, Orange and Marion counties.	Low: No habitat available, no tracks or skinks observed. Outside USFWS protocol
<u>Stilosoma extenuatum</u> Short-tailed snake	ST	—	Sandy upland ridges; xeric oak pine woods; xeric oak hammocks	Low: No habitat available, none sighted
AMPHIBIANS				
<u>Rana capito</u> Florida gopher frog	SSC	—	Dry, xeric habitats with wetlands such as isolated permanent ponds and cypress domes	Low: No habitat available, no opher tortoise burrows observed
BIRDS				
<u>Aphelocoma coerulescens</u> Florida scrub jay	FT	T	Level, sterile, white sand with low, xeric oak scrub	Low: No xeric habitat available, none sighted
<u>Athene cunicularia floridana</u> Florida Burrowing Owl	ST	—	These areas include golf courses, airports, pastures, agriculture fields, and vacant lots.	Low: No habitat available, none sighted.
<u>Egretta caerulea</u> Little blue heron	ST	—	Lake littorus; shallow ponds and marshes	Low: No habitat available, no birds sighted.

TABLE 1: PROTECTED FAUNA FOUND IN BREVARD COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE SQX FRIDAY ROAD PROJECT SITE

SPECIES	FWC STATUS	USFWS STATUS	PREFERRED HABITAT	PROBABLILITY OF OCCURANCE
BIRDS (cont.)				
<u>Egretta tricolor</u> Tricolored heron	ST	—	Lake littorus; shallow ponds and marshes	Low: No habitat available, no birds sighted
<u>Falco sparverius paulus</u> Southeastern American kestrel	ST	—	Forest edges, and clearings; nests in mature pines	Medium: Habitat available, none sighted
<u>Grus canadensis pratensis</u> Florida sandhill crane	ST	—	Marshes, wet prairies, pastures, and open herbaceous rangeland	Low: No habitat available, no birds sighted
<u>Haliaeetus leucocephalus *</u> Bald eagle	—	—	Open (<60% canopy cover), mature pine forests <2 km from expansive open waters	Low: No habitat available, no nests or birds sighted
<u>Mycteria Americana</u> Wood stork	FT	T	Nests in cypress swamps; forage sites range from shallow marshes to roadway borrow pits	Low: No habitat available for foraging, none sighted
<u>Picoides borealis</u> Red-cockaded Woodpecker	FE	E	Old-growth pine flatwoods with regular fire occurrence are required for nesting	Low: No habitat available, none sighted
<u>Rostrhamus sociabilis plumbeus</u> Everglade snail kite	FE	E	Shallow freshwater marshes; shallow grassy shorelines of lakes.	Low: No habitat available, none sighted
MAMMALS				
<u>Trichechus manatus</u> West Indian manatee (Florida manatee)	FT	T	Coastal waters, rivers and springs.	Low: No habitat available

*Protected under the Bald and Golden Eagle Protection Act (BGEPA), and the Migratory Bird Treaty Act (MBTA).

KEY TO ABBREVIATIONS

FWC Florida Fish and Wildlife Conservation Commission

- FE Federally-designated Endangered
- FT Federally-designated Threatened
- FXN Federally-designated Threatened Nonessential Experimental Population
- FT(S/A) Federally-designated Threatened species due to similarity of appearance
 - ST State-designated Threatened
- SSC State Species of Special Concern

TABLE 2

TABLE 2: PROTECTED FLORA FOUND IN BREVARD COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE SQX FRIDAY ROAD PROJECT SITE

SPECIES	FWC STATUS (1)	USFWS STATUS (2)	PREFERRED HABITAT (3)	PROBABLILITY OF OCCURANCE (4)
<u>Calopogon barbatus</u> – Bearded grass pink	T	-	Damp pinelands	Medium: Habitat available, none found
<u>Calopogon multiflorus</u> – Many flowered grass pink	E	-	Open, damp, occasionally recently burned pinelands and meadows	Low: No habitat available, none found
<u>Deerinfothamnus rugelii</u> – Rugel’s pawpaw	E	E	Mesic flatwoods	Medium: Habitat available, none found
<u>Dennstaedtia bipinnata</u> – Hayscented Fern	E	-	Rare on mucky soil in shaded forests in Seminole, Dunal, and Palm Beach counties	Low: Not found in the area; none found
<u>Encyclia tampensis</u> – Butterfly orchid	CE	-	Cypress swamps, hardwood swamps and hammocks	Low: No habitat available, none found
<u>Epidendrum conopseum</u> – Greenfly orchid	CE	–	Cypress swamps, hardwood swamps, and hammocks	Low: No habitat available, none found
<u>Hartwrightia floridiana</u> – Florida Hartwrightia	T	-	Wet, open areas, moist grasslands, and sphagnum bogs	Low: No habitat available, none found
<u>Lilium catesbaei</u> – Southern red lily	T	–	Mesic flatwoods, wet prairies, usually in graminoid systems	Low: No habitat available on site, none found
<u>Listera australis</u> – southern tway blade	T	–	Hammocks, low moist woods in deep humus, ravines, shady stream banks, sphagnum	Low: No habitat available, none found
<u>Nemastylis floridana</u>	E	–	Marshes, grassy openings of wet hammocks moist flatwoods	Low: No habitat available, none found

TABLE 2: PROTECTED FLORA FOUND IN BREVARD COUNTY, FLORIDA AND THEIR EXPECTED OCCURRENCE ON THE SQX FRIDAY ROAD PROJECT SITE

SPECIES	FWC STATUS (1)	USFWS STATUS (2)	PREFERRED HABITAT (3)	PROBABILITY OF OCCURRENCE (4)
Platanthera blephariglottis – Large white fringed orchid	T	–	Inhabits sphagnum bogs, meadows, damp fields and woods	Medium: Some habitat available, none found
Platanthera cristata – Golden fringed orchid	T	–	Low moist meadows and damp pine woods	Medium: Some habitat available, none found
Platanthera flava – Southern tubercled orchid	T	–	Very wet habitats such as swamps, bogs and wet forests with thick black mud	Low: No habitat available, none found
Platanthera integra – Southern yellow fringeless orchid	E	–	Marshes and wet pine flatwoods	Low: No habitat available, none found
Platanthera nivea – Snowy orchid	T	–	Open bogs and sunny, wet meadows	Low: No habitat available, none found
Pogonia ophioglossoides – Rose pogonia	T	-	Open, wet meadows and sphagnum bogs, poorly drained roadside ditches	Low: No habitat available, none found
Polygala lewtonii – Scrub (Lewtons's) milkwort	E	E	Dry oak woodlands and scrub	Low: No habitat available, none found
Rhapidophyllum hystrix – Needle palm	CE	-	Wet to mesic woods and hammocks; spring fed stream bottoms	Medium: Habitat available, none found
Spiranthes brevilabris floridana – Florida Ladies' tresses	E	–	Open meadows and damp pinelands, road shoulders, ditches	Low: No habitat available, none found
Spiranthes laciniata – Lace-tip ladies tresses	T	–	Marshes and cypress swamps; road banks and ditches	Low: No habitat available, none found
Spiranthes longilabris – Long-tip ladies tresses	T	–	Marshes and prairies	Low: No habitat available, none sighted

APPENDICES

APPENDIX A



Brevard County Property Appraiser

Titusville • Viera • Melbourne • Palm Bay

Phone: (321) 264-6700

<https://www.bcpao.us>

PROPERTY DETAILS

Account	2407122
Owners	FULCHER REALTY INVESTMENTS LTD
Mailing Address	1334 W DEER CREEK RD PHOENIX AZ 85045
Site Address	Not Assigned
Parcel ID	24-35-23-00-505
Property Use	1000 - VACANT COMMERCIAL LAND
Exemptions	NONE
Taxing District	13D0 - COCOA
Total Acres	11.35
Subdivision	--
Site Code	0309 - STATE ROAD 524
Plat Book/Page	0000/0000
Land Description	S 1/2 OF SW 1/4 LYING N OF ST RD NO 524 EX ORB 689 PG 1033,804 PG 140,809 PG 9,817 PG 494,RD R/W

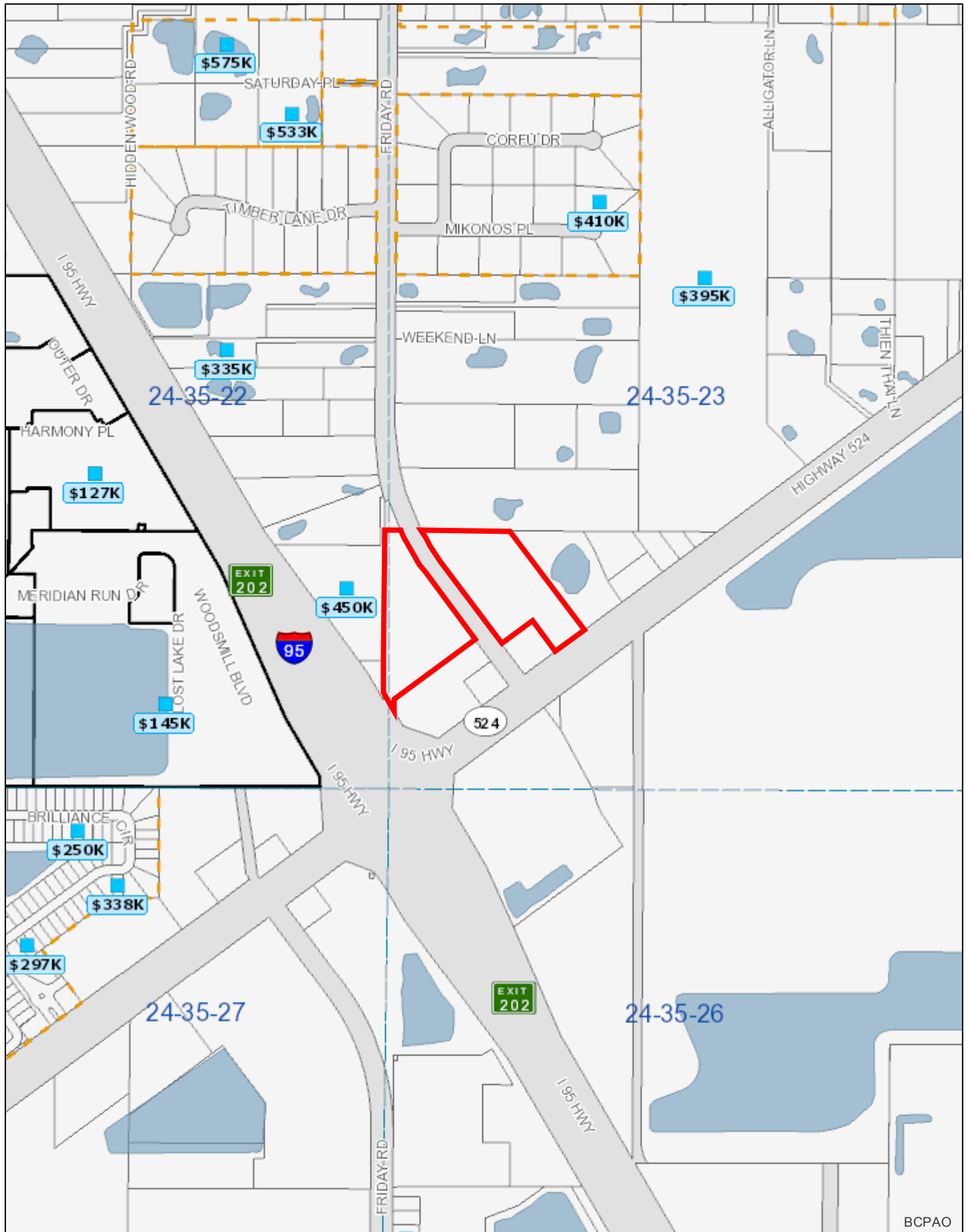
VALUE SUMMARY

Category	2021	2020	2019
Market Value	\$126,460	\$126,460	\$126,460
Agricultural Land Value	\$0	\$0	\$0
Assessed Value Non-School	\$46,400	\$42,190	\$38,360
Assessed Value School	\$126,460	\$126,460	\$126,460
Homestead Exemption	\$0	\$0	\$0
Additional Homestead	\$0	\$0	\$0
Other Exemptions	\$0	\$0	\$0
Taxable Value Non-School	\$46,400	\$42,190	\$38,360
Taxable Value School	\$126,460	\$126,460	\$126,460

SALES/TRANSFERS

Date	Price	Type	Instrument
08/01/1995	\$100,000	09	3510/0723
12/01/1991	--	PT	3255/0764
02/15/1982	--	PT	2353/2658
05/13/1964	\$80,000	WD	0689/1033

No Data Found



All BCPAO maps and/or map applications are maintained for assessment and illustrative purposes only and do not represent surveys, plats, or any other legal instrument. Likewise, measurement and location tools are for assessment and illustrative purposes only and do not necessarily reflect real-world conditions. Due to the nature of Geographic Information Systems (GIS) and cadastral mapping, map layers may not precisely align and may not represent precise location, shape, and/or legal boundaries. Only a Florida-licensed surveyor can determine legally-relevant property boundaries, elevation, distance, area, and/or location in Florida.

APPENDIX B



U.S. Fish and Wildlife Service

National Wetlands Inventory

SQX Friday Road Property



November 20, 2021

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX C



Subject Property



Subject Property



Subject Property



Subject Property – Open Land



Subject Property



Subject Property

CONSTRUCTION PLANS

for

STORQUEST EXPRESS

CITY OF COCOA, FLORIDA

PARCEL ID
24-35-23-00-505

OWNER:
THE WILLIAM WARREN GROUP
959 SOUTH COAST DRIVE, SUITE 350
COSTA MESA, CALIFORNIA 92626
CONTACT: JAMES PREACHER
PHONE: 305 479-7663
EMAIL: JPREACHER@WILLIAMWARREN.COM

ENGINEER:
DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD, SUITE 241
ORLANDO, FL 32828
CONTACT: DAVE SCHMITT, P.E.
PHONE: 407 207-9088
EMAIL: DSEMAILBOX@DSEORL.COM

LANDSCAPE:
BORRELLI + PARTNERS
720 VASSAR STREET
ORLANDO, FL 32804
CONTACT: CHRIS RICE
PHONE: 407 418-1338
EMAIL: CRICE@BORRELLIARCHITECTS.COM

SURVEYOR:
HADONNE
1985 NW 88th COURT, SUITE 101.
DORAL, FL 33172
CONTACT: RAUL IZQUIERDO, PSM
PHONE: 305 266-1188
EMAIL: RIZQUIERDO@HADONNE.COM

ENVIRONMENTAL:
STILLWATER ENVIRONMENTAL, INC.
971 SMOKERISE BLVD.
PORT ORANGE, FL 32127
CONTACT: TIM J. TALBOT
PHONE: 407 489-6898
EMAIL: STILLWATERENV@GMAIL.COM

GEOTECHNICAL:
ARDAMAN & ASSOCIATES, INC.
8008 S. ORANGE AVENUE
ORLANDO, FL 32809
CONTACT: JASON P. MANNING, P.E.
PHONE: 407 855-3860
EMAIL: JMANNING@ARDAMAN.COM

LEGAL DESCRIPTION: ⚠

THAT PORTION OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 23, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, LYING NORTH OF STATE ROAD NO. 524 AND EAST OF STATE ROAD NO. 9 (I -95), EXCEPT LANDS PREVIOUSLY CONVEYED AND DESCRIBED IN OFFICIAL RECORDS BOOK 674, PAGE 309, OFFICIAL RECORDS BOOK 689, PAGE 1033, OFFICIAL RECORDS BOOK 817 , PAGE 494, OFFICIAL RECORDS BOOK 804, PAGE 140, AND OFFICIAL RECORDS BOOK 809, PAGE 9, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA.

AND LESS

THAT PORTION LYING WESTERLY OF THE WESTERLY RIGHT-OF-WAY LINE OF FRIDAY ROAD

THE ABOVE DESCRIBED LANDS CONTAINING A TOTAL OF 278,062 SQUARE FEET, OR 6.4 ACRES (NET AREA), MORE OR LESS, BY CALCULATIONS AND 291,651 SQUARE FEET, OR 6.7 ACRES (GROSS AREA), MORE OR LESS, BY CALCULATIONS.

PROJECT DESCRIPTION: ⚠

PROPOSING 5 STORAGE BUILDINGS, 1 OFFICE AND THE ASSOCIATED UTILITIES AND STORM SYSTEM.

⚠
COUNTY NOTE:
"RIGHT-OF-WAY REVIEW AND APPROVAL DOES NOT CONSTITUTE COUNTY APPROVAL OR REVIEW OF ANY PRIVATE PARTY DEED RESTRICTIONS, COVENANTS, PRIVATE EASEMENTS, OR OTHER PRIVATE AGREEMENTS. ANY CHANGES TO THE APPROVED PLAN MUST BE COORDINATED THROUGH THE PUBLIC WORKS ENGINEERING PROGRAM. THE APPLICANT ASSUMES THE RISK THAT THE RIGHT-OF-WAY PERMIT MAY REQUIRE ADDITIONAL COUNTY REVIEWS INCLUDING ENGINEERING REVISIONS OR OTHER APPLICABLE COUNTY REVIEW PROCESSES SHOULD ANY ACTION TO ENFORCE ANY SUCH RESTRICTIONS REQUIRE REDESIGN OF THE PROJECT."

WATER / SEWER SERVICE:
CITY OF COCOA
UTILITIES DEPARTMENT
351 SHEARER BLVD.
COCOA, FL 32922

ELECTRIC SERVICE:
FLORIDA POWER & LIGHT
1318 W. AVENUE
BELLE GLADE, FL 32930
PHONE: 561 742-2023

GAS SERVICE:
FLORIDA CITY GAS
4180 US HIGHWAY 1
ROCKLEDGE, FL 32955
PHONE: 321 638-3424

TELEPHONE AND CABLE SERVICE:
COMCAST
940 12TH STREET
VERO BEACH, FL 32960
PHONE: 800 266-2278



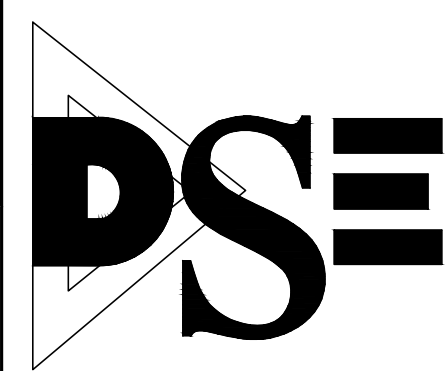
Know what's below.
Call before you dig.

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SITE LOCATION



DAVE SCHMITT
ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

DATE: FEBRUARY, 2022

JOB NO.: WWG-1

SHEET: 01 OF 12

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY
			10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS		⚠
			09-02-2022	BC	REV PER CITY/FDOT COMMENTS		⚠
			08-01-2022	BC	REV PER CITY/SJWMD/FDOT COMMENTS		⚠
			06-16-2022	SAM	REV PER SJWMD COMMENTS		⚠
			11-15-2022	BC	REV PER CITY COMMENTS		⚠
			06-13-2022	SAM	REV PER FDOT COMMENTS		⚠

F:\WWG1\CAD\Planset\Final\02 GENERAL NOTES.dwg,10/16/2022 6:29:45 PM

1. ALL CONSTRUCTION SHALL CONFORM WITH CITY OF COCOA ENGINEERING STANDARDS MANUAL, 2016 F.D.O.T. STANDARDS FOR ROAD & BRIDGE CONSTRUCTION, AND THE CONSTRUCTION OF ALL UTILITIES CONNECTING TO THE CITY OF COCOA UTILITY SYSTEM SHALL BE IN CONFORMANCE WITH THE CITY OF COCOA STANDARDS & CONSTRUCTION SPECIFICATIONS MANUAL APRIL 2011. 2. THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN EXISTING ROAD RIGHTS-OF-WAY WITH CITY OF COCOA ENGINEER. 3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN-HAND BEFORE BEGINNING CONSTRUCTION. 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA AND SCHEDULES, AND FOR SIGNING SAID INSPECTIONS. 5. NO DEFLECTION OR BENDING IS ALLOWED IN PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY CITY OF COCOA. ALIGNMENT CHANGE SHALL BE MADE ONLY WITH FITTINGS. LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED WITH STANDARD PIPE BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADII FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION. 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND FOR NOTIFYING THE VARIOUS UTILITY PROVIDERS TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISRUPTION OF SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED, ALL UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY PROVIDERS AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY PROVIDER DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED. 7. THE LOCATION OF ALL EXISTING UTILITIES, STORM DRAINAGE SYSTEMS AND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR WILL HALT ALL CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY. 8. FLORIDA POWER AND LIGHT WILL INSTALL, REGULATE AND MAINTAIN THE PROPOSED POWER DISTRIBUTION SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH FLORIDA POWER AND LIGHT TO INSURE PROPER CONSTRUCTION PHASING, ELIMINATE CONFLICTS IN THE WORK, AND AVOID UNNECESSARY DELAYS. 9. THE LOCAL TELEPHONE COMPANY WILL INSTALL, REGULATE AND MAINTAIN THE PROPOSED COMMUNICATION DISTRIBUTION SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH SAID PROVIDER TO INSURE PROPER CONSTRUCTION PHASING, ELIMINATE CONFLICTS IN THE WORK, AND AVOID UNNECESSARY DELAYS. 10. ALL WORK AND MATERIALS FURNISHED 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 OR SPECIFICATIONS. 11. THE CONTRACTOR SHALL CONTROL HIS OPERATIONS AND THOSE OF HIS SUBCONTRACTORS, AND ALL SUPPLIERS TO ASSURE THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC. THE CONTRACTOR SHALL MAINTAIN FREE AND UNOBSTRUCTED MOVEMENT OF VEHICULAR TRAFFIC AND SHALL LIMIT HIS OPERATIONS FOR THE SAFETY AND CONVENIENCE OF THE TRAVELING PUBLIC. UNDER ALL CIRCUMSTANCES, SAFETY SHALL BE THE MOST IMPORTANT CONSIDERATION. 12. PRIOR TO COMMENCING WORK THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC, IN REASONABLE CONFORMITY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS OR AS DIRECTED BY CITY OF COCOA TRAFFIC ENGINEER, SUCH AS TO EFFECTIVELY PREVENT ACCIDENTS IN ALL PLACES WHERE THE WORK CAUSES OBSTRUCTIONS TO THE NORMAL TRAFFIC OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC. 13. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT. 14. THE CONTRACTOR SHALL COMPLY WITH ALL LOAD RESTRICTIONS IN THE HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF THE WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR THE DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT. 15. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE POLICIES AND GUIDELINES ESTABLISHED BY CITY OF COCOA 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 OMISSION, NEGLIGENCE, OR MISCONDUCT IN HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANYTIME DUE TO DEFECTIVE WORK OR MATERIALS. 16. THE CONTRACTOR SHALL INSURE THAT PROPER SOIL DENSITIES ARE ACHIEVED FOR PLACEMENT OF ALL HEADWALL/ENDWALL FOOTINGS, RETAINING WALLS, AND IN GENERAL, ANY FOOTING SUPPORT DESCRIBED ON THESE PLANS. IT WILL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT SUFFICIENT SOILS TESTING HAS BEEN PERFORMED PRIOR TO CONSTRUCTION. 17. THE CONTRACTOR SHALL COMPLY WITH CITY OF COCOA STANDARDS AND SPECIFICATIONS FOR STRIPPING, CLEARING, GRUBBING, GRADING, BACKFILLING, AND EMBANKMENT PREPARATION WITHIN ALL DESIGNED ROADWAY RIGHT-OF-WAY SECTIONS. 18. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A COPY OF THE GEOTECHNICAL ENGINEER'S REPORT FOR THIS PROJECT FROM DAVE SCHMITT ENGINEERING, INC. AND MEET THE GEOTECHNICAL ENGINEER'S REQUIREMENTS FOR SOIL PREPARATION ON THE SITE. 19. 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 OBSTRUCTIONS TO THE NORMAL TRAFFIC OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC. 20. COMPACT THE TOP 24 INCHES OF UTILITY TRENCHES WITHIN ROADWAYS TO 98% OF THE MODIFIED PROCTOR DENSITY; WITHIN OTHER AREAS TO 95%. 21. IN OTHER AREAS WHICH REQUIRE FILL MATERIAL, THE CONTRACTOR WILL STRIP OR OTHERWISE REMOVE ALL VEGETATION SUCH AS BRUSH, HEAVY SODS, HEAVY GROWTH OF GRASS, DECAYED VEGETABLE MATTER, RUBBISH AND ANY OTHER DELETERIOUS MATERIAL. BEFORE EMBANKMENT IS STARTED, IMMEDIATELY PRIOR TO THE PLACEMENT OF FILL MATERIALS, 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. 22. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY, AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM SITE. 23. RECORD DRAWINGS: AT THE END OF CONSTRUCTION, THE CONTRACTOR WILL PROVIDE ONE SET OF DRAWINGS SHOWING ALL CHANGES MARKED IN WATERPROOF RED WITH THE FOLLOWING CONTRACTOR CERTIFICATION EXECUTED ON EACH SHEET: THE CONTRACTOR HEREBY CERTIFIES TO THE OWNER THAT IMPROVEMENTS COVERED BY THIS DRAWING AND ALL RELATED DETAILS HAVE BEEN CONSTRUCTED AS INDICATED OR AS MODIFIED BY THE NOTES AND GRAPHICS SHOWN. ABSENT A NOTE OR GRAPHIC TO THE CONTRARY, THE IMPROVEMENTS HAVE BEEN CONSTRUCTED MEETING INDUSTRY STANDARD TOLERANCES. SIGNED: _____ DATE: _____ AUTHORIZED CONTRACTOR'S REPRESENTATIVE 24. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. 25. ALL SIDEWALKS, RAMPS, AND CROSSWALKS WILL BE DESIGNED AND BUILT TO MEET ADA REQUIREMENTS. 26. MISCELLANEOUS ENGINEER NOTIFICATIONS A. THE CONTRACTOR SHALL PROVIDE THE ENGINEER 24 HOUR ADVANCE NOTIFICATION FOR THE FOLLOWING CONSTRUCTION AND OBSERVATION ACTIVITIES. a. SANITARY SEWER VIDEO INSPECTION b. CONNECTIONS TO EXISTING SYSTEMS c. THRUST BLOCK POURS AND RESTRAINT CONNECTIONS d. STORM DRAINAGE LAMPING e. INLET TOP POURS (REINFORCING STEEL CHECK) f. WATER & FORCE MAIN PRESSURE TESTS g. BACTERIOLOGICAL SAMPLING h. BASE OBSERVATION & SOUNDING i. ASPHALT PLACEMENT j. PRE-FINAL INSPECTION k. FINAL INSPECTION B. THE CONTRACTOR SHALL KEEP DAILY "AS-BUILT" DRAWINGS AND MAKE THEM READILY ACCESSIBLE. C. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A PROJECT CONSTRUCTION SCHEDULE (BAR GRAPH) AND UPDATE SAID SCHEDULE ON A MONTHLY BASIS. D. ALL FUEL STORAGE AREAS SHALL HAVE THE PROPERTY OWNER'S PRIOR APPROVAL AND APPROPRIATE MEASURES SHALL BE TAKEN TO INSURE PROTECTION OF GROUNDWATER AND SOIL RESOURCES. E. THE CONTRACTOR SHALL COORDINATE ALL BACKFILL OPERATIONS WITH THE PROJECT GEOTECHNICAL ENGINEER AND SUBMIT TEST REPORTS TO THE ENGINEER PRIOR TO BEGINNING WORK ON THE NEXT ITEM OF WORK, I.E. SUBGRADE PRIOR TO CURB. F. 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. WATER 26. THE FOLLOWING UTILITY PROVIDER IS LISTED FOR THE CONVENIENCE TO THE CONTRACTOR. WATER CITY OF COCOA UTILITIES 351 SHEARER BLVD. COCOA, FLORIDA 32922 CITY OF COCOA UTILITIES WILL MAINTAIN THE PROPOSED POTABLE WATER SYSTEM WITHIN THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND DOING ALL OF THE WORK IN ACCORDANCE WITH THE LATEST CITY OF COCOA UTILITIES SPECIFICATIONS AND STANDARDS. 27. ALL WATER MAIN FITTINGS, VALVES, RESTRAINTS, COUPLINGS, PIPE, AND IN GENERAL ALL MATERIALS REQUIRED FOR INSTALLING THE WATER SUPPLY SYSTEM, THAT CONNECT TO THE OCCUPY SYSTEM SHALL CONFORM TO CITY OF COCOA MANUAL OF STANDARDS AND SPECIFICATIONS FOR WASTEWATER AND WATER MAIN CONSTRUCTION. 28. LOCATING TAPE CAPABLE OF REGISTERING ON A METAL LOCATOR SHALL BE INSTALLED DIRECTLY ABOVE THE PIPE CENTERLINE AND BURIED TO A MINIMUM DEPTH OF SIX (6) INCHES AND MAXIMUM DEPTH OF TWELVE (12) INCHES FOR ALL PROPOSED PRESSURE SYSTEMS. THE TAPE SHALL BE LAID CONTINUOUSLY WITHOUT GAPS BETWEEN ENDS OVER ALL INSTALLED PIPING. THE TAPE SHALL HAVE THE WORD "CAUTION" AND THE LINE IDENTIFICATION, SUCH AS, "CAUTION, WATER LINE BURIED BELOW", PRINTED CONTINUOUSLY ALONG ITS LENGTH. THE TAPE SHALL BE COLOR CODED BLUE ACCORDING TO CITY OF COCOA UTILITIES STANDARDS. FULL RANGE MARKERS SHALL ALSO BE USED. 29. WATER AND UTILITY CROSSINGS: UTILITY SEPARATION-VERTICAL CLEARANCE A. WHERE WATER MAINS CROSS A GRAVITY SANITARY SEWER OR STORM SEWER MAIN, A VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) OF AT LEAST SIX INCHES, AND PREFERABLY TWELVE INCHES, ABOVE OR AT LEAST TWELVE INCHES BELOW MUST BE MAINTAINED. WHEREVER POSSIBLE, THE WATER MAIN SHALL BE LAID ABOVE THE OTHER PIPE. B. WHERE WATER MAINS CROSS A SANITARY FORCE MAIN OR RECLAIMED WATER MAIN, A VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) OF AT LEAST 12 INCHES MUST BE MAINTAINED. WHEREVER POSSIBLE, THE WATER MAIN SHALL BE LAID ABOVE THE OTHER PIPE. C. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ON THE OTHER PIPELINE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE JOINTS OF THE OTHER PIPE. UTILITY SEPARATION-HORIZONTAL SEPARATION D. WHEN WATER MAINS PARALLEL, A GRAVITY SEWER MAIN, SANITARY FORCE MAIN, OR RECLAIMED WATER MAIN NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., A SEPARATION (MEASURED OUTSIDE TO OUTSIDE) OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, MUST BE MAINTAINED. THE MINIMUM SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY SANITARY SEWERS SHALL BE THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SANITARY SEWER PIPE. E. WHERE WATER MAINS PARALLEL, A STORM SEWER PIPE OR RECLAIMED WATER MAIN REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., A MINIMUM OF 3 FEET HORIZONTAL SEPARATION (MEASURED OUTSIDE TO OUTSIDE) MUST BE MAINTAINED. F. NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY MANHOLE OR STORM SEWER INLET OR MANHOLE. G. FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM THE A STORM SEWER OR RECLAIMED WATER MAIN REGULATED BY PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM A GRAVITY SANITARY SEWER, SANITARY FORCE MAIN OR RECLAIMED WATER MAIN NOT REGULATED BY PART III OF CHAPTER 62-610, F.A.C. H. THE WATER MAIN PIPE SHALL BE LAID SUCH THAT THE JOINTS ARE STAGGERED AS FAR AS POSSIBLE FROM THE JOINTS OF THE OTHER PIPE. 29. WHERE DUCTILE IRON PIPE IS REQUIRED FOR WATER MAINS, IT SHALL CONFORM TO ANSI/AWWA A21.51 A MINIMUM THICKNESS OF CLASS 50 PER ANSI/AWWA SHALL BE SUPPLIED. DIP PIPE MUST BE IN CONFORMANCE WITH AWWA C150 AND C151. 30. TESTING: THE CONTRACTOR TO TEST ALL WATER MAINS AS PER THE FOLLOWING: HYDROSTATIC TEST PER AWWA-C600 (OR M23) STANDARD, AND DISINFECTION OF WATER MAIN PER AWWA-C651. 31. WATER MAINS SHALL COMPLY WITH AWWA STANDARDS. ALL WATER MAINS WITHIN THE RIGHT-OF-WAY AND EASEMENTS SHALL BE OWNED AND MAINTAINED BY CITY OF COCOA UTILITIES. ALL 4" DIAMETER THRU 12" DIAMETER PVC WATER MAINS SHALL BE AWWA C900-DRIE. ALL WATER MAINS LESS THAN 4 INCHES IN DIAMETER SHALL BE IN ACCORDANCE WITH ASTM 2241 SDR21 CLASS 300. PIPE SIZES 16" THRU 36" SHALL BE IN ACCORDANCE WITH AWWA C-905 S2. ALL WATER MAINS SHALL BEAR THE NSF LOGO INDICATING APPROVAL FOR DRINKING WATER AND SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM OTHER WATER LINES. 32. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER AND RECLAIMED WATER LINES. 33. ALL FIRE HYDRANTS SHALL BE POSITIONED NO MORE THAN 5 FEET FROM THE CURB. 34. A BACKFLOW DEVICE (I.E. JUMPER CONNECTION) IS REQUIRED AT ALL ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS. 35. FIRE PROTECTION SHALL BE IN ACCORDANCE WITH SECTION 9.3.3 OF THE SUBDIVISION REGULATIONS AND ORDINANCE #61.19. SEWER 36. THE FOLLOWING UTILITY PROVIDER IS LISTED FOR THE CONVENIENCE TO THE CONTRACTOR. SEWER CITY OF COCOA UTILITIES 351 SHEARER BLVD. COCOA, FLORIDA 32922 37. UNDERGROUND GRAVITY SEWER PIPING WHICH IS NOT MANUFACTURED OF METAL OR CONCRETE PIPE SHALL BE COLOR CODED GREEN USING LIGHT STABLE COLORANTS. UNDERGROUND METAL PIPE SHALL BE COLOR CODED OR MARKED USING GREEN AS A PREDOMINANT COLOR. 38. ALL PROPOSED SANITARY LINES (EITHER GRAVITY OR PRESSURES SYSTEMS), FITTINGS, VALVES, RESTRAINTS, COUPLINGS, PIPES, AND IN GENERAL, THOSE MATERIALS REQUIRED FOR INSTALLING THE WASTEWATER DISPOSAL SYSTEM SHALL CONFORM TO CITY OF COCOA UTILITIES WATER AND WASTEWATER DIVISION. 39. ALL GRAVITY SEWER LINES SHALL BE A MINIMUM OF 3' FROM THE CURB AT ALL LOCATIONS. 40. RECLAIMED WATER LINES, IF PROPOSED ON THESE PLANS, MAY BE EITHER PVC C900 DR25 OR DUCTILE IRON CLASS 200. 41. UNDERGROUND RECLAIMED WATER PIPING WHICH IS NOT MANUFACTURED OF METAL OR CONCRETE PIPE SHALL BE COLOR CODED PANTONE PURPLE 522C USING LIGHT STABLE COLORANTS. UNDERGROUND METAL AND CONCRETE PIPE SHALL BE COLOR CODED OR MARKED USING PURPLE AS A PREDOMINANT COLOR. STORMWATER/EROSION CONTROL 42. THE STORMWATER SYSTEM FOR THIS PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH APPLICABLE RULES AND DESIGN STANDARDS OF THE WATER MANAGEMENT DISTRICT OR REGULATORY AGENCY WITH THE MOST STRINGENT DESIGN STANDARDS, AS REQUIRED BY THE SAINT JOHN'S RIVER WATER MANAGEMENT DISTRICT AND CITY OF COCOA, FLORIDA. 43. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFERS, RETENTION AND DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE OWNER. ALL DISRUPTED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. 44. ALL REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE MINIMUM CLASS III, ALL HDPE WILL BE SMOOTH INTERIOR AND SHALL MEET OR EXCEED STANDARDS OF ASTM 3350 CELL CLASSIFICATION 34544C. 45. ALL PRECAST DRAINAGE STRUCTURES TO HAVE STEEL ANGLE IRON FRAME. ALL STRUCTURES IN PAVED AREAS TO HAVE STEEL RECTILINEAR GRATES WITH H-20 LOADING. 46. THE CONTRACTOR SHALL PERFORM EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF COCOA STANDARDS, DETAILS CONTAINED IN THE PLANS, THE FOLLOWING NOTES, AND AS DIRECTED BY THE ENGINEER. a. TEMPORARY EROSION CONTROL a. STOCKPILING MATERIAL: NO EXCAVATING MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATERBODY OR STORMWATER COLLECTION FACILITY. b. INLET PROTECTION: INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT-LOADED STORM RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATERBODY OR STORMWATER COLLECTION FACILITY. c. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE DERESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED, AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 POUNDS PER ACRE. d. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN NOTE C ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES. e. TEMPORARY GRASSING: THE SEEDING OR THE SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. f. TEMPORARY REGASSING: IF, AFTER FOURTEEN DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATION COVER. g. THE CONTRACTOR SHALL PLACE HAY BALES AROUND ALL EXISTING AND NEWLY CONSTRUCTED INLETS TO CONTROL EROSION DURING CONSTRUCTION. h. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED. B. PERMANENT EROSION CONTROL a. EROSION CONTROL FACILITIES FOR THE PROJECT SHALL BE DESIGNED TO MINIMIZE THE IMPACT ON OFF-SITE FACILITIES. ALL STORMWATER DISCHARGE FROM THE PROJECT LIMITS SHALL BE ROUTED THROUGH DETENTION BASINS TO TRAP SUSPENDED SEDIMENTS AND DISCHARGE FACILITIES FROM THESE BASINS SHALL BE PROVIDED WITH A SKIMMER DEVICE TO TRAP FLOATABLE DEBRIS. b. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY THE CONSTRUCTION WILL, AS A MINIMUM, BE FERTILIZED AND SEEDDED. THE FERTILIZER SHALL BE OF 10-8-8 PROPORTIONS AND SHALL BE UNIFORMLY SPREAD AT A RATE OF 400-500 POUNDS PER ACRE AND MIXED WITH THE SOIL TO A UNIFORM DEPTH OF FOUR INCHES. INCLUDED WITH THE FERTILIZING OPERATION, WILL BE THE APPLICATION OF AMENDMENTS, IF NECESSARY, SUCH AS DOMOMITIC LIMESTONE OR ALUMINUM SULFATE TO CORRECT THE PH FACTOR TO WITHIN THE LIMITS OF 6.0-7.0. THE GRASS SEED SHALL BE UNIFORMLY SPREAD AT THE RATE OF 100 POUNDS PER ACRE WHILE THE SOIL IS MOIST. THE GRASS SEED MIXTURE SHALL BE OF 20 PARTS BERMUDA AND 80 PARTS BAHIA, WITH THE ADDITION OF 30 PARTS RYE IN THE WINTER SEASON. c. PERMANENT SEEDING AND MULCHING: IN ADDITION TO THE MINIMUM REQUIREMENTS OF NOTE 1, ABOVE, SLOPES OF 6:1 TO 4:1 INCLUSIVE WILL BE MULCHED WITH A UNIFORM THICKNESS OF APPROXIMATELY TWO INCHES, LOOSE MEASURE, OF MULCH MATERIAL, INCORPORATED INTO THE SOIL BY MIXING TO A DEPTH OF FOUR INCHES. c. PERMANENT SODDING: ALL RETENTION/DETENTION BASINS SHALL BE SODDED WITHIN THEIR LIMITS. ALL EXPOSED AREAS WITHIN PUBLIC RIGHT-OF-WAYS WILL BE SOLID SODDED. OTHER AREAS WITH SLOPES STEEPER THAN 4:1 WILL BE SODDED. d. STRIP SODDING: STRIP SOD SHALL BE PLACED ADJACENT TO ALL CURBS, WALKS AND PAVEMENTS. e. REGASSING: ALL GRASSED AREAS WILL BE MAINTAINED TO ASSURE A GOOD STAND AND SUFFICIENT GROUND COVER TO MINIMIZE EROSION. IF, AFTER 60 DAYS AN ADEQUATE GROUND COVER HAS NOT BEEN ESTABLISHED, THE AREA WILL BE REGASSING. f. ADDITIONAL FERTILIZATION: GRASSED AREAS NOT ACCEPTED WITHIN 90 DAYS OF THEIR COMPLETION SHALL BE FERTILIZED AT AN APPLICATION RATE OF 350 POUNDS PER ACRE. 47. ALL PUBLIC STORM DRAINAGE PIPES MUST BE WRAPPED AT THE JOINT WITH FILTER FABRIC. 48. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL RETENTION AND DETENTION FACILITIES AND ALL LANDSCAPE BUFFERS, THROUGH THE DURATION OF THE PROJECT, AND UNTIL THE WORK IS ACCEPTED BY THE OWNER. ALL DISRUPTED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. 49. ROADWAY AND DRAINAGE DESIGN PER CURRENT CITY OF COCOA AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS. 50. UTILITY (SEWER AND WATER) DESIGN PER CURRENT CITY OF COCOA UTILITIES STANDARDS AND SPECIFICATIONS. 51. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO CITY OF COCOA AND OBTAIN PLAN APPROVAL PRIOR TO CONSTRUCTION. 52. AIR RELEASE VALVES SHALL BE REQUIRED AT ALL HIGH POINTS ON PROPOSED FORCEMAINS, RECLAIMED WATER MAINS AND POTABLE WATER MAINS. 53. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS AND RECLAIMED WATER MAINS. MAIN LOCATIONS SHOWN ON PLANS ARE NOT EXACT OR GUARANTEED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS. 54. THE UTILITIES DISPATCH OPERATOR SHALL BE NOTIFIED BY THE CONTRACTOR FOR PIPE EMERGENCIES. 55. ALL EXISTING WATER, FORCE, GRAVITY AND RECLAIMED WATER MAINS AND OTHER FACILITIES WITHIN THE LIMITS OF THE PROJECT SHALL BE SUPPORTED AND PROTECTED AGAINST DAMAGE DURING CONSTRUCTION. 56. CONTRACTOR SHALL ADJUST VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, MANHOLE COVERS, ETC IN CONFLICT WITH ROADWAY. 57. THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL IMMEDIATELY REPAIR ALL DAMAGES TO UTILITIES MAINS AND FACILITIES. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY UTILITIES, UTILITIES MAY PERFORM REQUIRED REPAIRS AND CLEANUP. THE CONTRACTOR WILL BE CHARGED FOR ALL EXPENSES ASSOCIATED WITH THE REPAIR. 58. UTILITIES CONSTRUCTION DIVISION SHALL BE NOTIFIED AT LEAST SEVEN (7) DAYS PRIOR TO ANY CONSTRUCTION ACTIVITY WITHIN PROXIMITY OF ANY UTILITIES. 59. ONLY UTILITIES SHALL OPERATE WATER, WASTEWATER, AND RECLAIMED WATER VALVES. COORDINATE VALVE OPERATION WITH APPROPRIATE UTILITIES INSPECTOR. 60. THE CONTRACTOR SHALL COORDINATE ALL PUMP STATION OPERATION AND SHUT DOWN CONTROL WITH A UTILITIES INSPECTOR. THE CONTRACTOR SHALL PROVIDE FOR BYPASSING AND/OR HAULING OF WASTEWATER DURING THE INTERRUPTION OF FLOWS AND CONNECTIONS WITH EXISTING WASTEWATER SYSTEMS. 61. ALL NEW VALVES BEING INSTALLED SHALL REMAIN CLOSED DURING CONSTRUCTION. KEEP VALVES ON ALL WET TAPS CLOSED UNTIL CLEARED BY FDEP. DO NOT CONNECT ANY PROPOSED WATER MAIN TO ANY EXISTING WATER MAIN UNLESS CLEARED BY FDEP AND UTILITIES. 62. THE UTILITY IMPROVEMENTS AND ADJUSTMENTS SHOWN ON THESE PLANS ARE INTENDED TO MAINTAIN THE INTEGRITY OF THE CITY OF COCOA WATER, WASTEWATER AND RECLAIMED WATER SYSTEMS. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MANUAL. THE PLANS DO NOT INCLUDE WORK PERFORMED ON OR FOR UTILITY SYSTEMS OWNED BY OTHERS UNLESS STATED OTHERWISE ON THE PLANS. 63. ALL EXISTING AND NEW CITY OF COCOA UTILITIES VALVES, VALVE BOXES, AND MANHOLES SHALL BE PROTECTED AND ADJUSTED TO FINISHED GRADE AS SHOWN ON THE DRAWINGS. ALL EXISTING ABOVE GROUND VALVES TO BE RELOCATED, AS REQUIRED. 64. MAKE TEMPORARY CONNECTIONS TO AN EXISTING POTABLE WATER SOURCE. FLUSH OUT NEW WATER MAIN WITH POTABLE WATER (USE "JUMPER" ASSEMBLY WITH BACKFLOW PREVENTER TO MAKE TEMPORARY CONNECTIONS TO AN EXISTING WATER SOURCE). 65. PRESSURE PIPE LENGTHS DO NOT INCLUDE BENDS, AIR RELEASE VALVES OR FIRE HYDRANT ASSEMBLIES. 66. THE CONTRACTOR IS RESPONSIBLE FOR MEETING THE REQUIREMENTS OF EPA AND FDEP AS IT RELATES TO THE NPDES NOTES INCLUDING THE POLLUTION DISCHARGE CONTROL. 67. AN EROSION CONTROL PLAN WILL BE APPROVED BY THE COUNTY ENGINEER PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. 68. THE CONTRACTOR SHALL NOTIFY THE CITY OF COCOA PUBLIC UTILITIES CONSTRUCTION DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION. 69. ALL EXISTING UTILITIES HAVE BEEN FIELD VERIFIED AT ALL POINTS OF CONNECTION TO AND AT ALL AREAS OF CONFLICT WITH CITY OF COCOA MAINS. 70. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER AND RECLAIMED WATER LINES. 71. LIGHTINGS SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI- AND FULL-CUTOFF SHIELDS. FDOT GENERAL NOTES "ALL WORK PERFORMED WITHIN THE FOOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH 2022/22 EDITION OF THE FDOT STANDARDS PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2022 SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE 2017 UTILITY ACCOMMODATION MANUAL." "ALL EXCAVATIONS WITHIN TEN (10) FEET OF THE TRAVEL LANES AND GREATER THAN THREE (3) INCHES DEEP MUST BE FILLED IN OR HAVE A SHOULDER TREATMENT PLACED AT THE DROP-OFF PER INCH #102-260 OF FDOT STANDARDS PLANS INDEXES AT THE END OF THE WORKDAY." "CONTRACTOR SHALL CONTACT FDOT AT LEAST TWO WEEKS IN ADVANCE AND SET UP A PRE-CONSTRUCTION MEETING PRIOR TO STARTING ANY WORK IN FOOT RIGHT OF WAY." "ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE WORK CAN START." "MAINTENANCE OF TRAFFIC TO BE SUPERVISED BY A FDOT CERTIFIED WORK TRAFFIC SUPERVISOR." "IT WILL BE THE RESPONSIBILITY OF THE PERMITTEE TO REPAIR ANY DAMAGE TO FDOT FACILITIES CAUSED BY CONSTRUCTION OF THE PROJECT." "PERMITTEE SHALL NOT BEGIN THE WORK WITHIN THE FOOT RIGHT-OF-WAY UNTIL A FDOT INSPECTOR IS PRESENT AT THE JOB SITE AND AGREES THAT PROPER PREPARATIONS HAVE BEEN MADE." "SOD ALL UNPAVED AREAS WITHIN FOOT RIGHT OF WAY THAT ARE DISTURBED BY CONSTRUCTION PER FDOT STANDARDS PLANS INDEX #570-010" "SAW CUT AND REMOVE EXISTING PAVED SHOULDER INCLUDING WHITE EDGE LINE. DO NOT DISTURB MAINLINE BASE UNDER WHITE EDGE LINE." "ALL PAVEMENT MARKINGS PERTAINING TO FDOT PROPOSED DRIVEWAY CONNECTION SHALL BE THERMOPLASTIC." "ALL RAISED PAVEMENT MARKERS (RPM) INSTALLED WITHIN THE FOOT RIGHT-OF-WAY AND PROPOSED DRIVEWAY CONNECTION SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX #706-001." "ENGINEER'S CERTIFICATIONS TOGETHER WITH AS-BUILT PLANS ARE REQUIRED TO BE SUBMITTED WITHIN 30 DAYS OF COMPLETION WORK WITHIN FOOT RIGHT-OF-WAY." "PERMITTEE SHALL NOT COMMENCE USE OF CONNECTION PRIOR TO FINAL INSPECTION AND FINAL ACCEPTANCE BY DEPARTMENT. FAILURE TO COMPLY WITH PERMIT CONDITION MAY RESULT IN REVOCATION OF THE PERMIT AND CLOSURE OF DRIVEWAY PER FL RULE CHAPTER 19-96." "FOOT ROW GRADE SHALL NOT BE CHANGED". "NO DUMPERS, PORTABLE TOILETS, CARS/TRUCKS TO BE PARKED WITHIN THE FOOT RIGHT OF WAY DURING THE CONSTRUCTION". "ALL SODDING AREAS WITHIN THE FOOT ROW SHALL BE MAINTAINED BY WATERING AND GROWING TO BE ACCEPTABLE BY THE FDOT. ALL DEAD SOD IS TO REMOVE AND REPLACED FOR FDOT ACCEPTANCE".
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Certification of Authorization #27471

DATE

BY

DESCRIPTION

DATE

BY

DESCRIPTION

08-01-2022

BC

REV PER CITY/SJWWMD/FDOT COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

DATE: FEBRUARY, 2022

PROJECT NO.: WWG-1

DRAWN BY: JSK

CHECKED BY: DMS

SCALE: NONE

SHEET: 02 OF 12

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BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

GENERAL

1. ALL CONSTRUCTION SHALL CONFORM TO FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION (LATEST EDITION), BREVARD COUNTY UTILITY SERVICES CRITERIA FOR WATER AND SANITARY SEWER SYSTEMS, AND BREVARD COUNTY CODE OF ORDINANCES.
2. ISSUANCE OF CERTIFICATE OF COMPLETION: UPON COMPLETION OF CONSTRUCTION OF THE PROJECT AND PRIOR TO SCHEDULING OF THE FINAL INSPECTION, THE APPLICANT OR THEIR AUTHORIZED REPRESENTATIVE, SHALL PROVIDE THE FOLLOWING DOCUMENTATION TO BREVARD COUNTY PUBLIC WORKS ENGINEERING:
- a. A CERTIFICATE OF COMPLETION - REQUEST FOR FINAL INSPECTION FORM. THE FORM MUST BE FROM A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA WITH THEIR SEAL AFFIXED. THE FORM CERTIFIES THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS.
- b. A COMPLETE SET OF TESTING REPORTS FOR ALL TESTS PERFORMED ON THE PROJECT WITHIN THE COUNTY RIGHT-OF-WAY AND/OR FOR ALL SUBDIVISION CONSTRUCTION REGARDLESS OF PUBLIC OR PRIVATE.
- c. THREE SETS OF AS-BUILT DRAWINGS MEETING THE REQUIREMENTS OF SECTION 61G17, F.A.C., AND SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA. AT A MINIMUM, ALL AS-BUILT DRAWINGS MUST INCLUDE:
- i. ROAD/PAVEMENT ELEVATIONS; ROADWAY CROSS SLOPES; PAVEMENT WIDTH; PAVEMENT SPOT ELEVATIONS NECESSARY TO CONFIRM STORMWATER DRAINAGE PATTERNS AT INTERSECTIONS AND SIDEWALKS; CURB SLOPES;
- ii. STORMWATER PIPE SIZES AND INVERT ELEVATIONS; LOCATION OF OUTFALL STRUCTURE(S) WITH AS-BUILT ELEVATIONS FOR ALL CONTROL STRUCTURE & SKIMMER ELEVATIONS SHOWN ON THE APPROVED PLANS; TOP OF BANK, GRADE BREAKS, BOTTOM ELEVATIONS FOR ALL STORMWATER PONDS OR BERM AREAS;
- iii. ANY OTHER ADDITIONAL AS-BUILT DATA THAT IS APPLICABLE TO THE PROJECT TO ENSURE COMPLETION IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
- d. PIPE INSPECTION VIDEO PER FDOT REQUIREMENTS, (IF APPLICABLE PER NOTE 4 OF DRAINAGE NOTES)
- e. IF A MUNICIPALITY IS ACCEPTING A PUBLIC WATER AND/OR SEWER SYSTEM, THERE MUST BE DOCUMENTATION INDICATING MUNICIPAL ACCEPTANCE OF THE CONSTRUCTION OF THE WATER AND/OR SEWER SYSTEM.
- f. PUBLIC WORKS ENGINEERING WILL NOT SIGN OFF ON A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) FROM THE BREVARD COUNTY BUILDING DEPARTMENT UNTIL THE AS-BUILT DRAWINGS AND OTHER DOCUMENTATION LISTED ABOVE HAVE BEEN SUBMITTED AND REVIEWED BY PUBLIC WORKS ENGINEERING.
- g. PROJECTS CONNECTED TO THE BREVARD COUNTY WATER, SANITARY SEWER, AND/OR RECLAIMED WATER SYSTEMS MUST OBTAIN FINAL APPROVAL FOR THE PROJECT DIRECTLY FROM BREVARD COUNTY UTILITY SERVICES AS OUTLINED IN THE BREVARD COUNTY CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS.
3. UPON APPROVAL OF FINAL INSPECTION, AN ENGINEER'S CERTIFIED COST ESTIMATE WILL BE REQUIRED ALONG WITH A 2-YEAR MAINTENANCE BOND FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY AS REQUIRED BY CHAPTER 86 OF THE BREVARD COUNTY CODE OF ORDINANCES. THE MAINTENANCE BOND SHALL BE 25% OF THE ENGINEER'S CERTIFIED COST ESTIMATE.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO THE COUNTY INFRASTRUCTURE DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE STRUCTURAL INTEGRITY OF THE ROADWAY ASPHALT, BASE, AND STABILIZED SUB-BASE, SIDEWALKS, STORMWATER DRAINAGE SYSTEM, DRAINAGE STRUCTURES, CURBS, GROUND COVER, WATER SYSTEMS, SANITARY SEWER SYSTEMS, AND RECLAIMED WATER SYSTEMS. ALL REPAIRS SHALL BE COMPLETED IN ACCORDANCE WITH FDOT AND BREVARD COUNTY STANDARDS. ALL REPAIRS SHALL BE COMPLETED PRIOR TO THE FINAL INSPECTION OF THE PROJECT. SIDEWALK PATCHING WILL NOT BE ACCEPTABLE.
5. A VISUAL OR MECHANICAL INTERIOR INSPECTION OF EXISTING CULVERTS WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION.
6. ALL DISTURBED AREAS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE SODDED. SEED & MULCH IS NOT ACCEPTABLE. SOD SHALL MATCH EXISTING SOD TYPE. BAHIA SOD SHALL BE USED IN AREAS ADJACENT TO VACANT PROPERTY. DISTURBED AREAS OUTSIDE THE CONSTRUCTION LIMITS WILL BE SODDED AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTATION. ANY SURVEY MONUMENTATION DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A FLORIDA LICENSED SURVEYOR PRIOR TO ISSUANCE OF A CERTIFICATE OF COMPLETION FOR THE PROJECT.
8. REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE SHALL BE NO UTILITY CONNECTIONS OR METER BOXES WITHIN PROPOSED OR EXISTING SIDEWALKS OR DRIVEWAY AREAS.
9. ALL DIRECTIONAL BORES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 555, DIRECTIONAL BORES AND THE FDOT UTILITIES ACCOMMODATION MANUAL.
10. ALL DIRECTIONAL BORES MUST EXTEND A MINIMUM OF EIGHT(8) FEET PAST THE EDGE OF PAVEMENT OF ANY ROADWAY OR COMMERCIAL DRIVEWAY. FOR RESIDENTIAL DRIVEWAYS AND SIDEWALKS, THE BORE MUST EXTEND THREE (3) FEET PAST THE EDGE ON EITHER SIDE.
11. THE CONTRACTOR SHALL CONTROL DUST GENERATED BY THIS PROJECT AT ALL TIMES, SHALL PROVIDE STREET SWEEPING AS REQUIRED, AND PREVENT SEDIMENT FROM ENTERING INTO THE EXISTING DRAINAGE SYSTEM AT ALL TIMES.
12. THE CONTRACTOR SHALL NOT EXCEED NOISE LEVELS AS SPECIFIED IN BREVARD COUNTY CODE OF ORDINANCES SECTION 62-2271.
13. ALL STRIPING AND PAVEMENT MARKINGS IN THE COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND SHALL NOT BE APPLIED UNTIL A MINIMUM OF 30 DAYS AFTER THE PLACEMENT OF THE FINAL ASPHALT SURFACE. IN THE INTERIM, STRIPING SHALL BE PAINT AND ANY REQUIRED RPM'S INSTALLED PER THE PLANS. DO NOT STRIPE ACROSS MANHOLE LIDS OR DRAINAGE GRATES.
14. REFLECTIVE PAVEMENT MARKINGS (RPM'S) SHALL BE INSTALLED IN ALL LOCATIONS AS REQUIRED BY FDOT DESIGN STANDARD.(LATEST EDITION)
15. ANY PAVEMENT MARKINGS AND RPM'S THAT ARE DESTROYED, DAMAGED, OR DIMINISHED BY CONSTRUCTION ACTIVITIES FOR UP TO 500 FEET IN EITHER DIRECTION BEYOND THE LIMITS OF CONSTRUCTION SHALL BE REPLACED OR REFURBISHED BY THE CONTRACTOR.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE COUNTY RIGHT-OF-WAY FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, THE CONTRACTOR SHALL MOW THE RIGHT-OF-WAY ON AN AS NEEDED BASIS AND MAINTAIN THE DRAINAGE CONVEYANCE SYSTEM. ADDITIONAL MAINTENANCE MAY BE REQUIRED ON A CASE BY CASE BASIS.

TRAFFIC CONTROL

1. MOT PLAN REVIEW: A PROJECT-SPECIFIC MAINTENANCE OF TRAFFIC (MOT) PLAN OR ROADWAY CLOSURE MOT/DETOUR PLAN MUST BE SUBMITTED TO BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) FOR APPROVAL A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. THE MOT PLAN SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARD INDEX 600 SERIES,(LATEST EDITIONS). PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS OR VMS) MAY BE REQUIRED TO SUPPLEMENT THE STANDARD MOT SIGNAGE.
2. ROAD CLOSURES: THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY, FOR EACH PHASE OF CONSTRUCTION, IF APPLICABLE. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. CERTAIN LOCATIONS MAY REQUIRE WORK IN THE RIGHT-OF-WAY TO BE PERFORMED AT NIGHT ONLY.

3. LANE CLOSURES: THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF ONE (1) WEEK IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. NO LANE CLOSURES WILL BE PERMITTED DURING PEAK HOUR TRAFFIC VOLUMES.
4. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MUTCD FOR STREETS AND HIGHWAYS, FDOT STANDARDS (LATEST EDITIONS), AND BREVARD COUNTY LAND DEVELOPMENT EXHIBIT #26.

DRAINAGE - ROADWAYS

1. ALL DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS AND FDOT DESIGN STANDARDS.(LATEST EDITIONS).
2. ALL RETICULINE STEEL GRATES SHALL BE HOT DIPPED GALVANIZED AND HAVE A TRAFFIC BEARING H-20 LOAD RATING.
3. ALL GRATES UTILIZED WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE TRAFFIC BEARING H-20 LOADING.
4. ALL STORMWATER PIPING WITHIN THE ROAD RIGHT-OF-WAY, REGARDLESS OF PUBLIC OR PRIVATE, OR STORMWATER PIPING THAT CONVEYS STORMWATER UNDER THE ROADWAY BETWEEN STORMWATER TREATMENT PONDS, SHALL BE INSPECTED PER SECTIONS 430-4.8, 430-4.8.1, AND 430-4.8.2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION). A COPY OF THE PIPE VIDEO SHALL BE PROVIDED TO THE COUNTY AS PART OF THE SUBMITTAL OF THE CERTIFICATION OF COMPLETION REQUEST FOR FINAL INSPECTION. THE COUNTY SHALL BE NOTIFIED ONE WEEK PRIOR TO THE START OF THE PIPE VIDEO INSPECTION PROCESS.
5. ALL OPEN CUTS SHALL CONFORM TO LAND DEVELOPMENT EXHIBIT #25. FOR ALL OPEN CUTS, THE FLOWABLE FILL AND TEMPORARY ASPHALT SHALL BE INSTALLED WITHIN TWO (2) DAYS OF THE EXCAVATION (UNLESS OTHERWISE APPROVED IN WRITING BY BREVARD COUNTY PUBLIC WORKS ENGINEERING). PERMANENT ASPHALT INCLUDING MILLING AND RESURFACING, IF NEEDED, SHALL BE COMPLETED WITHIN THIRTY (30) DAYS OF EXCAVATION.
6. THE CONTRACTOR SHALL REMOVE THE SHOULDER OF THE ROADWAY TO A POINT WHERE THE BASE MATERIAL OF THE EXISTING ROADWAY MEETS THE MINIMUM THICKNESS OF THE PROPOSED ROADWAY/COMMERCIAL DRIVEWAY CONNECTION.

CONCRETE PAVING AND SIDEWALK

1. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER FDOT INDEX 515 AND/OR BREVARD COUNTY STANDARD EXHIBITS UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL MEET FDOT DESIGN MIX AND SPECIFICATIONS. CURING METHOD SHALL BE IN ACCORDANCE WITH THE FDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION).
3. ALL SIDEWALKS WITHIN THE COUNTY RIGHT-OF-WAY OR WITHIN A PUBLIC SIDEWALK EASEMENT SHALL BE CONSTRUCTED OF 6-INCH THICK, 3000-PSI CONCRETE WITH FIBER MESH REINFORCEMENT. CONCRETE SIDEWALKS (OR PEDWAYS) AND CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED OVER SOILS COMPACTED TO 98% DENSITY, OF AASHTO T -180. SHOULD EXISTING SOILS BE FOUND UNSUITABLE FOR COMPACTION, ADDITIONAL COMPATIBLE MATERIALS SHALL BE BROUGHT TO THE SITE FOR USE AS SUBGRADE. ALTERNATE METHODS OF COMPACTION MAY BE REQUIRED TO AVOID DAMAGE TO SURROUNDING PROPERTIES.
4. CONSTRUCT SIDEWALK JOINTS PURSUANT TO FDOT INDEX 310 (LATEST EDITION). EXPANSION JOINTS SHALL BE EVERY 50 FEET, AND BETWEEN NEW AND OLD CONCRETE.
5. TWO BY FOUR FORM BOARDS SHALL NOT BE USED FOR SIDEWALK/DRIVEWAY CONSTRUCTION. FORM BOARDS SHALL MATCH PROPOSED CONCRETE THICKNESS. SLIP FORMS SHALL NOT BE USED FOR SIDEWALK CONSTRUCTION. FIXED FORMWORK SHALL BE REQUIRED PER FDOT INDEX 300.
6. THE CONTRACTOR SHALL PROVIDE A 3-FOOT CURB TRANSITION AT ALL CURB TERMINATIONS.
7. ALL SIDEWALK AND ACCESS RAMP CONSTRUCTION SHALL COMPLY WITH THE DEPARTMENT OF JUSTICE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, FDOT DESIGN STANDARDS (LATEST EDITION), AND BREVARD COUNTY DEVELOPMENT REQUIREMENTS.

ASPHALT PAVING AND TESTING

THE FOLLOWING TESTING REQUIREMENTS APPLY TO:

- a. ALL PUBLIC AND PRIVATE SUBDIVISION PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT;
- b. ALL SITE PLAN PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT REQUIRING WORK IN THE COUNTY RIGHT-OF-WAY;
- c. ALL PROJECTS PERMITTED THROUGH BREVARD COUNTY PUBLIC WORKS FOR WORK WITHIN THE COUNTY RIGHT-OF-WAY.
- SECTIONS WITHIN THE FDOT STANDARD SPECIFICATIONS LIMITING TESTING REQUIREMENTS BASED ON LOT SIZE, SUB-LOT SIZE, TONNAGE, MINIMUM THICKNESS, OR SPREAD RATE WILL NOT APPLY TO THE PROJECTS LISTED ABOVE. AT A MINIMUM, ONE SET OF TESTS WILL BE REQUIRED FOR ALL PAVING PROJECTS LARGER THAN 50 TONS TOTAL AND ADDITIONAL TESTING MAY BE REQUIRED ON A CASE BY CASE EVALUATION OF THE PROJECT. TESTING REQUIREMENTS AT THE ASPHALT PLANT WILL NOT APPLY.

FOR S-TYPE ASPHALT AS SPECIFIED IN THE 2000-2004 FDOT STANDARD SPECIFICATION :

1. THE CONTRACTOR SHALL PROVIDE A DESIGN MIX SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 331-4 (2000). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE EXTRACTION/GRADATION TESTS IN ACCORDANCE WITH SECTION 331-4.4.2 (2000).
3. THE CONTRACTOR SHALL PROVIDE MARSHALL STABILITY TESTING IN ACCORDANCE WITH SECTION 331-5.5.1 (2000).
4. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-13 (2000).
5. THE CONTRACTOR SHALL PROVIDE SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-13.3 (2000).
6. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS PER SECTION 330-2.2 ROADWAY, (2004) AND DENSITY PER SECTION 330-11, TABLE 330-3 (2000).
7. ASPHALT TEST RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.

FOR SUPERPAVE (SP) ASPHALT AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATION :

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 334-2 & 334-3 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 334-5. (2010) HOWEVER, THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 334-3, 334-4, 334-5, AND 334-5.2.3 (2010).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2010) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2010).

FOR FRICTION COURSE FC-5 AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATION :

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2010). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT, AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
4. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS TESTING USING SECTION 334-5.2.3 (2010).
5. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-12 (2010).

FOR SUPERPAVE FRICTION COURSES FC-9.5 & FC-12.5 AS SPECIFIED IN THE 2010 FDOT STANDARD SPECIFICATIONS:

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2010). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2010). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT, AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 337-1, 337-3, 337-4, 337-6, 337-8, AND 334-5.2.3 (2010).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2010) WILL NOT ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2010).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2010).

CONCRETE BOX CULVERT NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND BREVARD COUNTY STANDARDS.
2. PRIOR TO START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STRUCTURAL ENGINEERING DRAWINGS (SIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED & REGISTERED IN THE STATE OF FLORIDA) FOR ALL COMPONENTS OF THE CONCRETE BOX CULVERTS, INCLUDING WINGWALLS, TOE SLAB & CUTOFF WALLS, AND HEADWALLS. THE DRAWINGS SHALL INCLUDE QUANTITIES TABULATIONS FOR CLASS IV CONCRETE (CUBIC YARDS), AND REINFORCING STEEL (POUNDS). THE DESIGN MUST BE BASED ON FDOT'S LOAD & RESISTANCE FACTOR DESIGN (LRFD) PROGRAM. SEPARATE DRAWINGS ARE REQUIRED FOR ALL WINGWALLS, TOE SLABS & CUTOFF WALLS, AND HEADWALLS, WHICH MUST BE CAST-IN-PLACE PER FDOT SPECIFICATIONS.
3. ALL BOX CULVERT MATERIALS THAT ARE TO BE INSTALLED UNDER ROADWAYS AND/OR DRIVEWAYS ARE TO BE DELIVERED TO SITE (AND PASS INITIAL INSPECTIONS) PRIOR TO START OF DEMOLITION OF EXISTING SYSTEM.
4. CONCRETE (PRECAST OR CAST-IN-PLACE) REQUIREMENTS: CLASS IV (5500 PSI).
5. REINFORCING STEEL REQUIREMENTS: ASTM A615 GRADE 60 DEFORMED BAR UNLESS OTHERWISE NOTED, WITH A MINIMUM CLEARANCE OF 3" (THREE INCHES), UNLESS OTHERWISE SHOWN. EQUAL AREA SUBSTITUTION OF WELDED WIRE (WWR) REINFORCEMENT IS PERMITTED.
6. REFER TO FDOT INDEX 292 FOR PRECAST CONCRETE BOX CULVERT SLAB & WALL THICKNESSES, REINFORCEMENT AREAS, GENERAL NOTES (SHEET 2 OF 14), AND WELDED WIRE REINFORCEMENT BENDING DIAGRAMS (SHEET 14 OF 14).
7. REFER TO FDOT INDEX 289 FOR CONCRETE BOX CULVERT DETAILS RELATED TO LRFD.
8. REFER TO FDOT INDEX 291 FOR SUPPLEMENTAL DETAILS FOR PRECAST CONCRETE BOX CULVERTS.
9. IF REQUIRED, BY-PASS PUMPING AND/OR PIPING SHALL BE APPROVED BY BREVARD COUNTY PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION.

PROJECT NAME/DWG DESIGNED/DRAWN BY: JB CHECKED BY: RBS	DATE: 10/10/22 REVISION: 1. FOR DISTRIBUTION 10-10-12
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PREPARED BY  PUBLIC WORKS DEPARTMENT ENGINEERING PROGRAM BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS 2725 JUDICE FRANK JAMESON BLVD. RM. 204, BLDG. A VERO BEACH, FL 32909 Ph. (321) 633-2077, Fax. (321) 633-6033
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DATE: OCTOBER 2012

APPROVED BY: RICHARD B. SZPYRKA, P.E. ENGINEERING PROGRAM MANAGER

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

SHEET 1 OF 1



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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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FLORIDA REG. NUMBER
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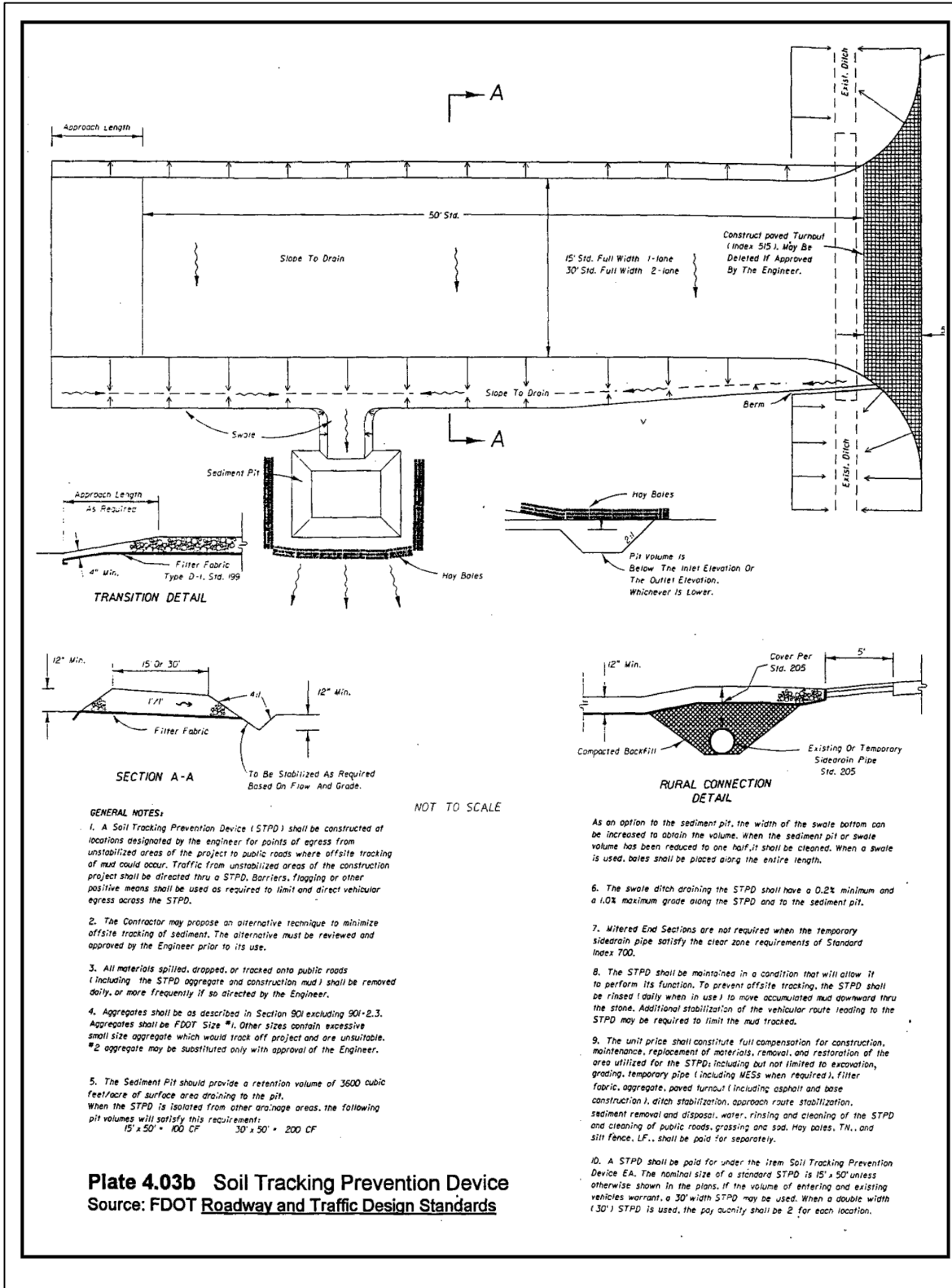
GENERAL NOTES - 2
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: NONE
SHEET: 02A OF 12

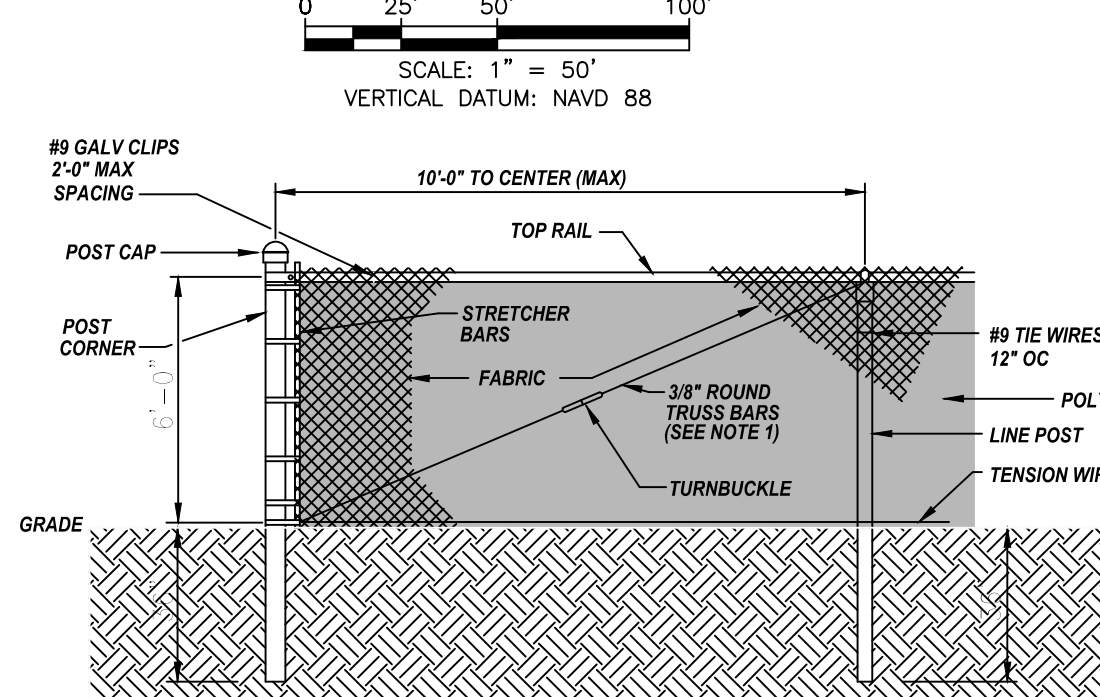
F:\WWG1\CAD\Plans\Set\Final\03 EROSION CONTROL & DEMO PLAN.dwg,10/19/2022 4:41:22 PM

EROSION AND SEDIMENT CONTROL NOTES

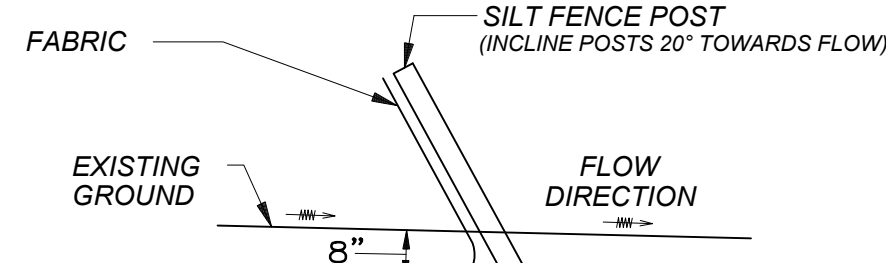
1. CONTRACTOR TO ENSURE SILT FENCING, SEDIMENT BASINS, CONSTRUCTION ENTRANCE ARE INSTALLED ON SITE PRIOR TO ANY LAND DISTURBANCE, CLEARING AND MASS GRADING ACTIVITIES.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL ON-SITE EROSION PROTECTION, TO THAT SHOWN ON THESE PLANS, MUST BE PROVIDED TO ENSURE SILT OR DUST DOES NOT LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN SYSTEM, DITCH, OR CHANNEL. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
5. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT, PLUGGED WHEN REQUIRED AND IN WORKING ORDER AT TIME OF ACCEPTANCE.
6. SILT FENCES, FILTER BARRIERS, ETC. SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
7. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT (WATER OR AIR BORN) LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN GOOD WORKING CONDITION AT THE END OF EACH WORKING DAY.
8. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
9. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
10. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.
11. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
12. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
13. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
14. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
15. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT (SJRWMD).
16. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, VEGETATION AND/OR GRASS SOD. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID GRASS SOD.
17. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
18. ALL EROSION AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
19. THESE PLANS INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
20. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL CITY, WATER MANAGEMENT DISTRICT AND/OR FDOT INQUIRIES, RELATIVE TO COMPLIANCE OF EROSION AND SEDIMENTATION CONTROLS. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT. COPIES OF ALL INQUIRIES SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.
21. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS, ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT (SJRWMD) AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) SPECIFICATIONS AND CRITERIA.
22. CONTRACTOR TO REFER TO THE PROJECT SWPPP FOR ADDITIONAL INFORMATION ON EROSION CONTROL MEASURE.
23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) CHAPTER 6.
24. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AS FOLLOWS:
A. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF ITS USE, IT SHALL BE REPLACED PROMPTLY.
C. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
D. 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 SEED.
25. *WHERE NEW PAVEMENT IS CONSTRUCTED ADJACENT TO EXISTING PAVEMENT, THE EXISTING ASPHALT SHALL BE SAW CUT AND REMOVED 12 INCHES FROM THE EDGE OF THE ASPHALT TO OFFSET THE ASPHALT/BASE COURSE JOINT.



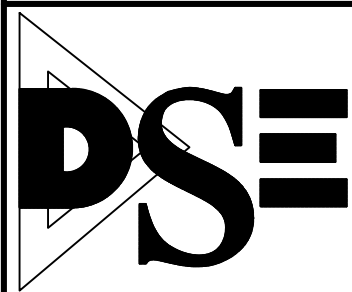
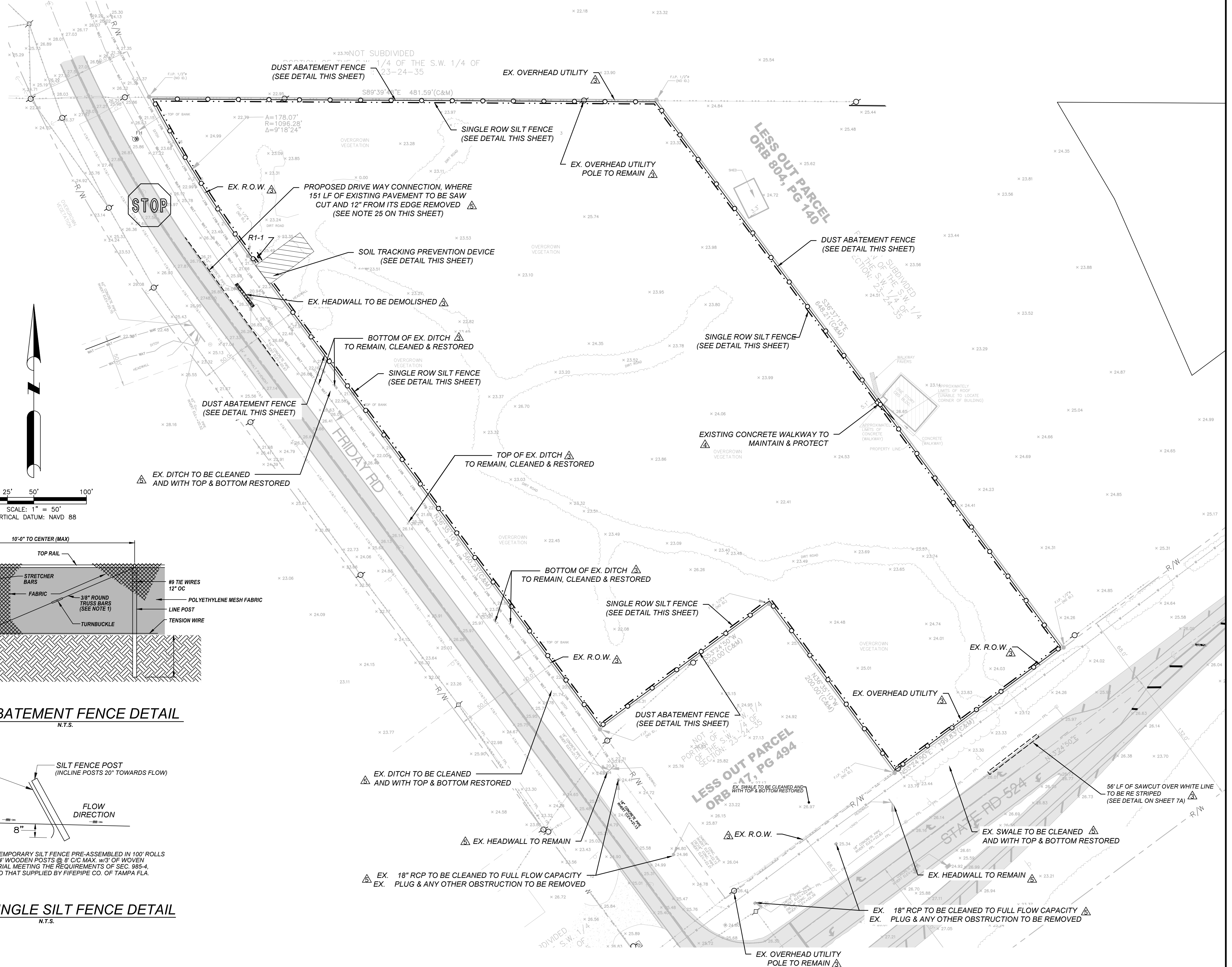
SOIL TRACKING PREVENTION DEVICE
N.T.S.



DUST ABATEMENT FENCE DETAIL
N.T.S.



TYPICAL SINGLE SILT FENCE DETAIL
N.T.S.



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ORLANDO, FL 32828
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Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS			
09-02-2022	BC	REV PER CITY/FDOT COMMENTS			
08-01-2022	BC	REV PER CITY/SJRWMD/FDOT COMMENTS			

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

EROSION CONTROL & DEMO PLAN
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

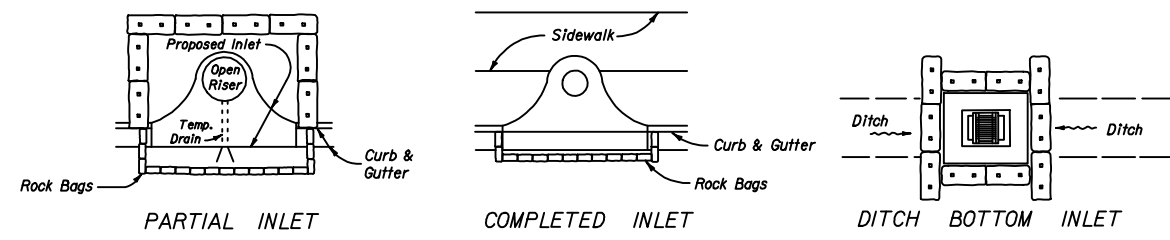
DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 03 OF 12

STORM WATER POLLUTION PREVENTION PLAN

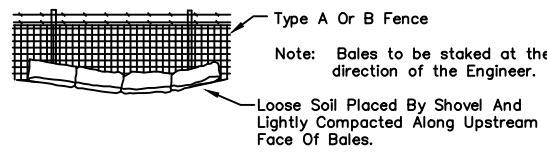
EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINED DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FOOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D-903. THE DEPTH OF STONE SHALL BE AT LEAST 10 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. SYNTHETIC BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. SYNTHETIC BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES AFTER THE SYNTHETIC BALES ARE STAKED. THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH SYNTHETIC BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBAR DRIVEN THROUGH THE BALE.
12. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SYNTHETIC BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
13. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF SYNTHETIC BALES SHALL BE ACCOMPLISHED PROMPTLY.
14. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SYNTHETIC BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
15. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST ONLY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
16. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
17. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.
18. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.
19. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
20. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
21. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
22. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL, REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (D.E.P.) CHAPTER 6.
23. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
24. ALL DISTURBED AREAS SHALL BE GRAZED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
25. SOO SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
26. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
27. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONJUNCTIVE USE PERMIT FROM THE ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT.
28. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, SYNTHETIC HAY BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOO.
29. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
30. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
31. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES RELATIVE TO COMPLIANCE OF SURVIVAL FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.

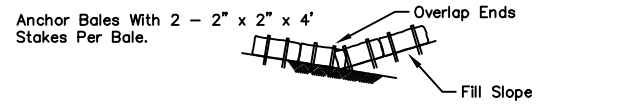
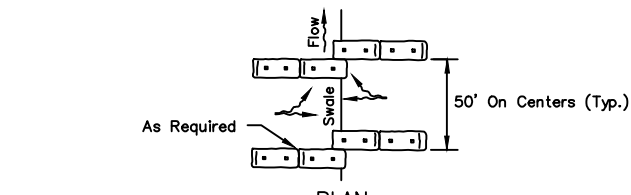
NOTE:
WHEN F.D.O.T. SPECIFICATIONS AND INDEXES ARE REFERENCED, PLEASE REFER TO THE LATEST F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS AND F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



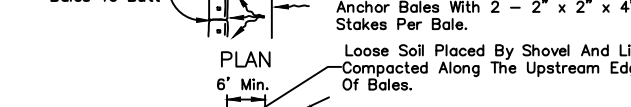
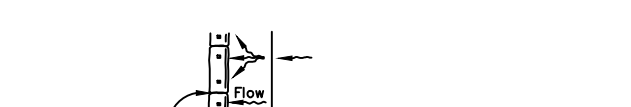
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



SYNTHETIC BALES BACKED BY FENCE



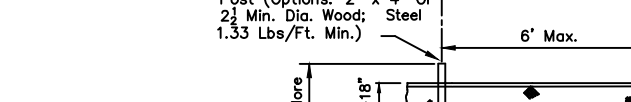
PLAN



PLAN



ELEVATION



PLAN



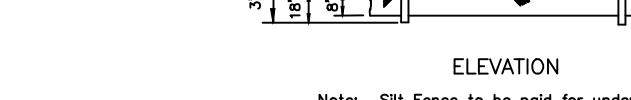
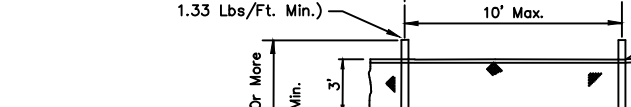
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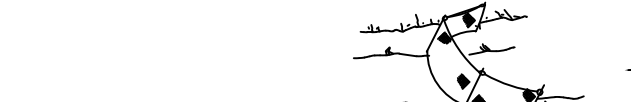
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ELEVATION



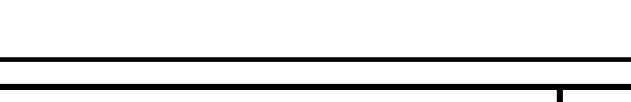
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ELEVATION



PLAN



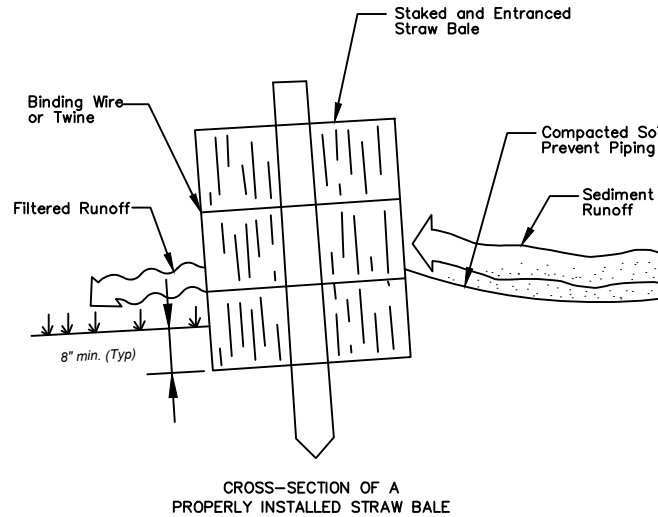
ELEVATION



PLAN



ELEVATION



CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE

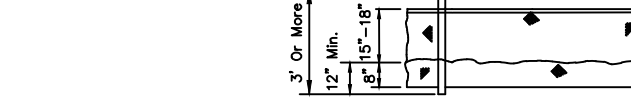
(D-911) N.T.S.



PLAN



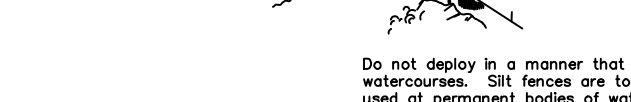
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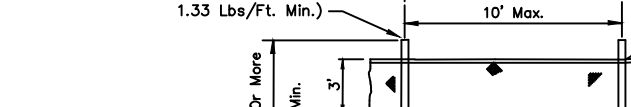
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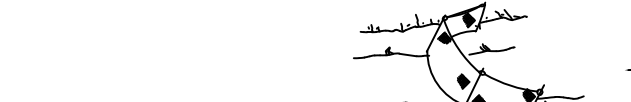
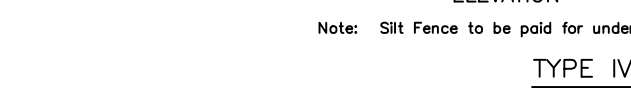
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PLAN



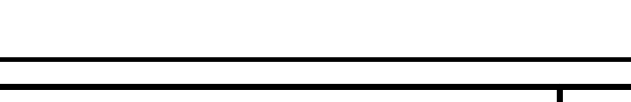
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PLAN



ELEVATION



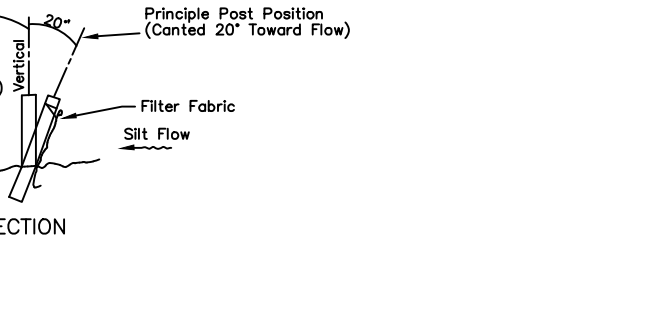
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ELEVATION



PLAN



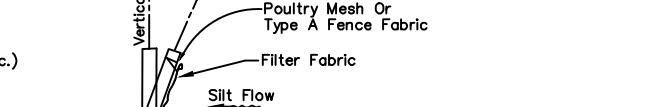
TYPE II SILT FENCE



TYPE III SILT FENCE



TYPE IV SILT FENCE



TYPE V SILT FENCE



TYPE VI SILT FENCE



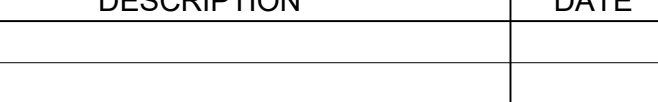
TYPE VII SILT FENCE



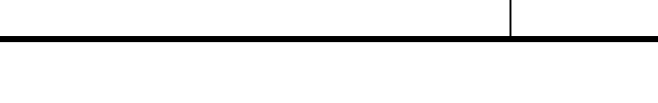
TYPE VIII SILT FENCE



TYPE IX SILT FENCE



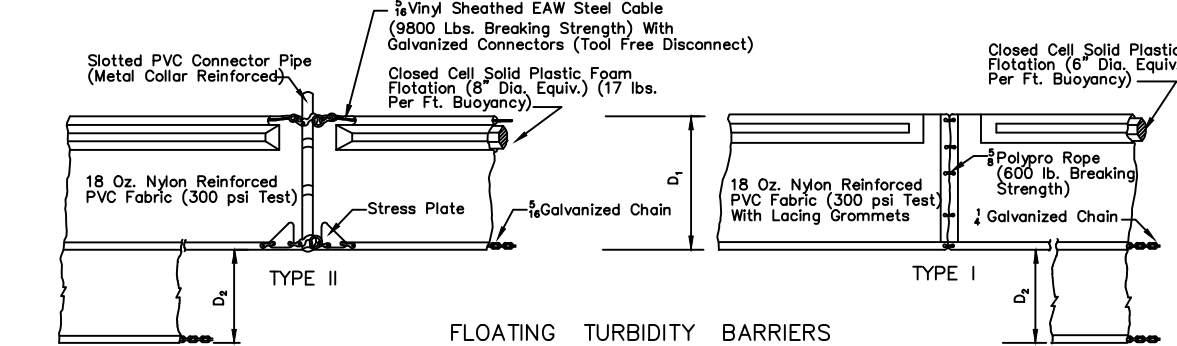
TYPE X SILT FENCE



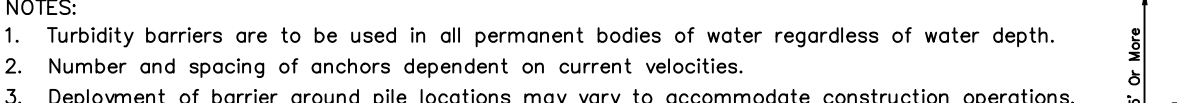
TYPE XI SILT FENCE



TYPE XII SILT FENCE



TYPE I FLOATING TURBIDITY BARRIERS



TYPE II FLOATING TURBIDITY BARRIERS



TYPE III FLOATING TURBIDITY BARRIERS



TYPE IV FLOATING TURBIDITY BARRIERS



TYPE V FLOATING TURBIDITY BARRIERS



TYPE VI FLOATING TURBIDITY BARRIERS



TYPE VII FLOATING TURBIDITY BARRIERS



TYPE VIII FLOATING TURBIDITY BARRIERS



TYPE IX FLOATING TURBIDITY BARRIERS



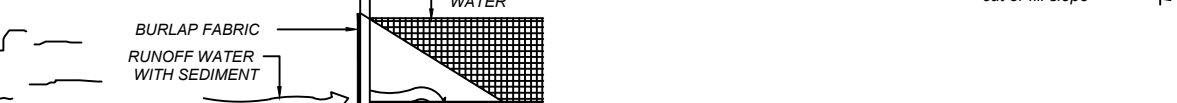
TYPE X FLOATING TURBIDITY BARRIERS



TYPE XI FLOATING TURBIDITY BARRIERS



TYPE XII FLOATING TURBIDITY BARRIERS



TYPE XIII FLOATING TURBIDITY BARRIERS



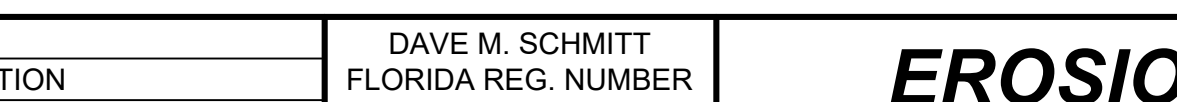
TYPE XIV FLOATING TURBIDITY BARRIERS



TYPE XV FLOATING TURBIDITY BARRIERS



TYPE XVI FLOATING TURBIDITY BARRIERS



TYPE XVII FLOATING TURBIDITY BARRIERS



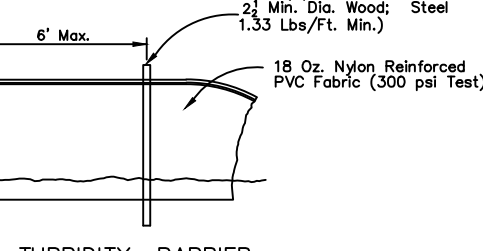
TYPE XVIII FLOATING TURBIDITY BARRIERS



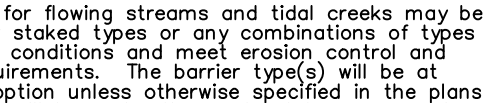
TYPE XIX FLOATING TURBIDITY BARRIERS

TYPE XX FLOATING TURBIDITY BARRIERS

NOTICE:
COMPONENTS OF TYPES I & TYPE II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.



STAKED TURBIDITY BARRIER



TYPE I STAKED TURBIDITY BARRIERS



TYPE II STAKED TURBIDITY BARRIERS



TYPE III STAKED TURBIDITY BARRIERS



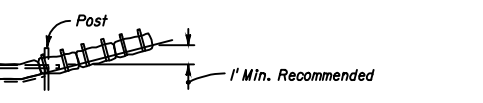
TYPE IV STAKED TURBIDITY BARRIERS



TYPE V STAKED TURBIDITY BARRIERS



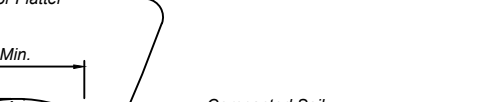
TYPE VI STAKED TURBIDITY BARRIERS



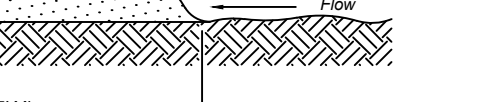
TYPE VII STAKED TURBIDITY BARRIERS



TYPE VIII STAKED TURBIDITY BARRIERS



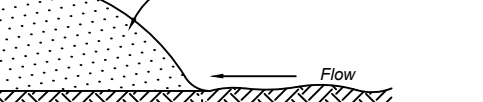
TYPE IX STAKED TURBIDITY BARRIERS



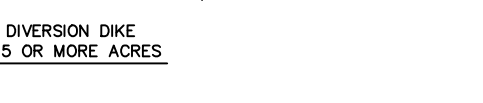
TYPE X STAKED TURBIDITY BARRIERS



TYPE XI STAKED TURBIDITY BARRIERS



TYPE XII STAKED TURBIDITY BARRIERS



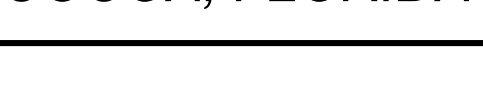
TYPE XIII STAKED TURBIDITY BARRIERS



TYPE XIV STAKED TURBIDITY BARRIERS



TYPE XV STAKED TURBIDITY BARRIERS



TYPE XVI STAKED TURBIDITY BARRIERS



TYPE XVII STAKED TURBIDITY BARRIERS

TURBIDITY BARRIERS

N.T.S.

NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities

STORM WATER POLLUTION PREVENTION PLAN GENERAL REQUIREMENTS

OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

OWNER NAME AND ADDRESS:
THE WILLIAM WARREN GROUP
889 SOUTH COAST DRIVE, SUITE 380
COSTA MESA, CALIFORNIA 92626
CONTACT: JAMES PREACHER
PHONE: 354-475-7653
EMAIL: JPREACHER@WILLIAMWARREN.COM

DESCRIPTION:
THIS PROJECT INCLUDES GRADING, DRAINAGE UTILITIES, AND LANDSCAPING FOR 57,335 SF. STORAGE FACILITY

SOIL DISTURBING ACTIVITIES WILL INCLUDE: 
CLEARING AND GRUBBING, EARTHWORK, GRADING, STORM SEWER UTILITIES, PAVEMENT, AND PREPARATION FOR FINAL PLANTING

RUNOFF CURVE NUMBERS:
1. PRE-CONSTRUCTION = SEE DRAINAGE CALCULATION NOTEBOOK
2. POST-CONSTRUCTION = SEE DRAINAGE CALCULATION NOTEBOOK

SOILS:
SEE SOIL BORING REPORT FOR SOILS DATA

SITE MAPS:
* SEE ATTACHED GRADING PLAN FOR PRE & POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURE, AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.
* SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS.
* SEE GENERAL NOTES FOR REQUIREMENTS FOR TEMPORARY AND PERMANENT STABILIZATION.

SITE AREA:
1. TOTAL AREA OF SITE = 6.70 AC. 
NAME OF RECEIVING WATERS:
PROPOSED POND
LATITUDE: -N 28° 22' 41.51"
LONGITUDE: -W 80° 48' 58.68" W

1. ANTICIPATED START DATE OF CONSTRUCTION: 06/2023 
2. ANTICIPATED END DATE OF CONSTRUCTION: 06/2024 
(CONSTRUCTION DATES ARE TO BE FILLED IN PRIOR TO COMMENCEMENT OF CONSTRUCTION)

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO CONTRACTOR'S RESPONSIBILITY FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT
STORM WATER DRAINAGE WILL BE PROVIDED BY (DESCRIPTION) A SERIES OF PIPES AND INLETS CONVEYING RUNOFF TO THE EXISTING STORM WATER DETENTION POND FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. WHEN CONSTRUCTION IS COMPLETE, A TOTAL OF 321.21 ACRES WILL HAVE BEEN REGRADED. THE SITE DISCHARGES TO A WET DETENTION SYSTEM WHERE PRACTICAL. TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT DETENTION BASIN.

TIMING OF CONTROLS/MEASURES

REFER TO "CONTRACTOR'S REQUIREMENTS" FOR THE TIMING OF CONTROL MEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED (TO BE FILLED IN PRIOR TO COMMENCEMENT OF CONSTRUCTION).

F.D.E.P. DREDGE/FILL PERMIT # _____
A.C.O.E. DREDGE/FILL PERMIT # _____
S.J.R.W.M.D. M.S.S.W. PERMIT # _____
N.P.D.S. PERMIT # _____

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPROBATION FOR KNOWING VIOLATIONS.

SIGNED: _____
OWNER/OPERATOR

DATED: _____

CONTRACTOR'S REQUIREMENTS

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS, DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALES/DOKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER
10. APPLY BASE TO PROJECT
11. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/DOSS AND PLANTING
12. COMPLETE FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
14. WHEN ALL CONSTRUCTION IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DOKES AND RESEED/DOSS AS REQUIRED

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION & TURBIDITY CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES

1. SYNTHETIC HAY BALE BARRIER: SYNTHETIC HAY BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.
2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATION:
WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.
4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT, FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL, AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.

CONTROLS CONT'D.

5. STOCKPILED MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.
6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW, ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
8. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE, BUT IN NO CASE MORE THAN 7 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH A ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDD AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.
10. TEMPORARY GRASSING: THE SEEDD OR SEEDD AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.
11. TEMPORARY REGRESSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 85 PERCENT UNIFORM GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.
12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.
14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION SHALL, AS A MINIMUM, BE SEEDD. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDD AND MULCHED OR SOODED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.
2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA. THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:
A. BLOCK & GRAVEL SEDIMENT FILTER - THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE POUNDING AROUND THE STRUCTURE.
B. GRAVEL SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE POUNDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS.
C. DROP INLET SEDIMENT TRAP - THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 3 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS.
3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY. SILT FENCES & SYNTHETIC HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.
4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME. THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE.

NOTE:

THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LOADED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP/PLANK. OFFSITE VEHICLE TRACKING SHALL BE CONDUCTED DAILY OR MORE FREQUENTLY AS NEEDED.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

- | | | |
|-------------------------------------|---|--|
| ☐ Concrete | ☐ Fertilizers | ☐ Wood |
| ☐ Asphalt | ☐ Petroleum Based Products | ☐ Masonry Blocks |
| ☐ Tar | ☐ Cleaning Solvents | ☐ Roofing Materials |
| ☐ Detergents | ☐ Paints | ☐ Metal Studs |
| ☐ _____ | ☐ _____ | ☐ _____ |

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF:

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT:

- * AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- * ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF FEASIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- * PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- * SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- * WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- * MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- * THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- * PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- * ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED. THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- * IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL PREVENTION CONT'D.

PRODUCT SPECIFIC PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

WHEN THIS TYPE OF VEHICLE SHOULD BE CONDUCTED USING PRACTICES THAT WILL PREVENT DIRECT, UNTREATED DISCHARGES OF WASTEWATER AND HAZARDOUS WASTES TO SURFACE AND GROUND WATERS. A DESIGNATED AREA MUST BE CREATED SPECIFICALLY FOR WASHING VEHICLES THAT WILL BE LAD WITH FILTER FABRIC, CRUSHED STONE (DOT GRAVEL #2 AND #3) AND COVERED WITH LINED BERM.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL. (800) 320-0519

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES
THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.

* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF A 0.5 INCH RAIN EVENT.

* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

* INSPECTIONS SHALL BE CONDUCTED AT A MINIMUM OF EVERY 7 DAYS OR WITHIN 24 HOURS OF A 0.5" RAIN EVENT.

* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.

* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

* PERSONNEL, SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

* WATER FROM WATER LINE FLUSHING

* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LAND AND SHALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER.

RESPONSIBLE FOR/NOTES	GENERAL CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR	SUB-CONTRACTOR
BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS						
DATE						
SIGNATURE						



DAVE SCHMITT
ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

SWPPP
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: NONE
SHEET: 05 OF 12

NOTES

GENERAL:
PROJECT SHALL COMPLY WITH THE COMMERCIAL DESIGN STANDARDS SET FORTH IN THE CITY OF COCOA LAND DEVELOPMENT CODE.

LANDSCAPING:
ALL LANDSCAPING SHALL MEET OR EXCEED THE REQUIREMENTS OF THE CITY OF COCOA LAND DEVELOPMENT CODE.

LIGHTING:
ALL SITE LIGHTING SHALL MEET OR EXCEED THE REQUIREMENTS OF THE CITY OF COCOA LAND DEVELOPMENT CODE. LIGHTING SHALL BE DESIGNED, INSTALLED, MAINTAINED, AND DIRECTED SO AS TO AVOID GLARE ON ADJOINING PROPERTIES AND RIGHTS-OF-WAY THROUGH THE USE OF SEMI-AND FULL CUT-OFF SHIELDS.

SIGNAGE:
POLE SIGNS AND BILLBOARDS SHALL BE PROHIBITED. ALL OTHER SIGNAGE SHALL COMPLY WITH THE CITY OF COCOA LAND DEVELOPMENT CODE.

EASEMENTS:
ANY EASEMENT SHOWN AS PROPOSED WILL BE RECORDED PRIOR TO ISSUING THE CERTIFICATE OF OCCUPANCY.

UTILITY PROVIDERS
WATER: CITY OF COCOA UTILITIES DEPT.
WASTEWATER: CITY OF COCOA UTILITIES DEPT.
ELECTRIC: FLORIDA POWER & LIGHT

PHASING
PROJECT WILL BE CONSTRUCTED IN ONE PHASE.

SOILS
SOIL SYMBOL SOIL DESCRIPTION
7 BASINGER SAND, 0 TO 2 PERCENT SLOPES
36 MYAKKA SAND, 0 TO 2 PERCENT SLOPES
38 MYAKKA SAND, DEPRESSIONAL

VEGETATION
GENERALIZED VEGETATION BASED UPON THE FLORIDA LAND USE, COVER AND FORMS CLASSIFICATION SYSTEM (FLUCFCS) OR THE NATURAL COMMUNITY TYPES AS DEVELOPED BY THE FLORIDA NATURAL AREAS INVENTORY.

STORMWATER MANAGEMENT
STORMWATER FOR THE PROPERTY WILL BE HANDLED BY ON-SITE POND AS REQUIRED BY CITY OF COCOA AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT. BASED ON THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NO. 120009C0320H EFFECTIVE JANUARY 29, 2021 THE DESCRIBED PROPERTY IS WITHIN ZONE "X" AND NO BASE FLOOD ELEVATION HAS BEEN ESTABLISHED.
NO WETLANDS EXIST ON SITE.

FDOT NOTE:
ALL CONSTRUCTION IN THE FDOT ROW SHALL CONFORM WITH THE LATEST EDITIONS OF THE FDOT DESIGN STANDARDS (INDEXES), THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE FDOT UTILITY ACCOMMODATION MANUAL.

SITE DATA
TOTAL GROSS AREA: 11.35 AC.
AREA NOT BEING DEVELOPED: 4.97 AC.
AREA BEING DEVELOPED: 6.38 AC.
EXISTING ZONING: C-G (GENERAL COMMERCIAL)
ADJACENT ZONING: C-G (GENERAL COMMERCIAL)
NORTH: C-G (GENERAL COMMERCIAL)
EAST: C-G (GENERAL COMMERCIAL)
SOUTH: STATE ROAD 524 RIGHT OF WAY
WEST: FRIDAY ROAD RIGHT OF WAY
FUTURE LAND USE: COMMERCIAL
PROPOSED LAND USE: STORAGE UNITS
FLOOR AREA RATIO: 0.21 FAR

PERVIOUS AREA: 1.56 AC. 33.45%
IMPERVIOUS AREA: 4.24 AC. 66.55%
TOTAL PROPERTY AREA: 6.38 AC. 100.00%

TRIP GENERATION
PER 10TH EDITION ITE TRIP GENERATION MANUAL:
MINI-WAREHOUSE (150)
102 ADT 14PM PEAK HOUR TRIP (24% IN / 76% OUT)

PARKING CALCULATIONS
PARKING REQUIREMENT:
1 SPACE / 50 STORAGE UNITS (334 UNITS) 7 SPACES
1 SPACE / 600 SF OFFICE SPACE (1,050 SF) 2 SPACES
1 SPACE / 5000 GSF R.V. STORAGE (34,155) 7 SPACES
1 SPACE / OFFICE MANAGER 1 SPACES
TOTAL PARKING REQUIRED 17 SPACES

PARKING PROVIDED: 18 SPACES
REGULAR PARKING 18 SPACES
HANDICAP PARKING 1 SPACES
TOTAL PARKING PROVIDED 19 SPACES

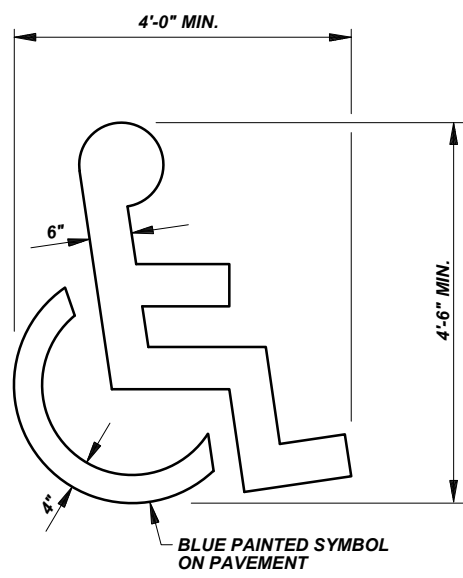
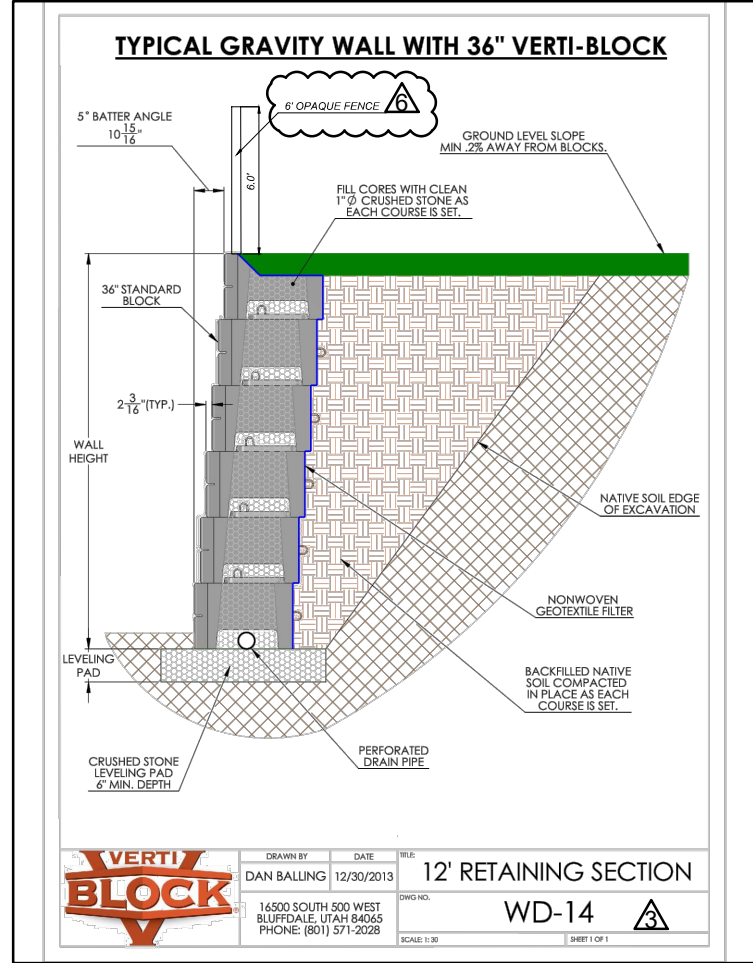
BUILDING ANALYSIS
LEASING OFFICE AREA: 1,050 SF
BUILDING A AREA: 11,970 SF
BUILDING B AREA: 8,625 SF
BUILDING C AREA: 7,290 SF
BUILDING D AREA: 12,000 SF
BUILDING E AREA: 16,800 SF
TOTAL BUILDING AREA: 57,735 SF

RENTAL UNITS DATA
BUILDING A: 41 UNITS
BUILDING B: 39 UNITS
BUILDING C: 75 UNITS
BUILDING D: 48 UNITS
BUILDING E: 126 UNITS
TOTAL UNITS: 329 UNITS

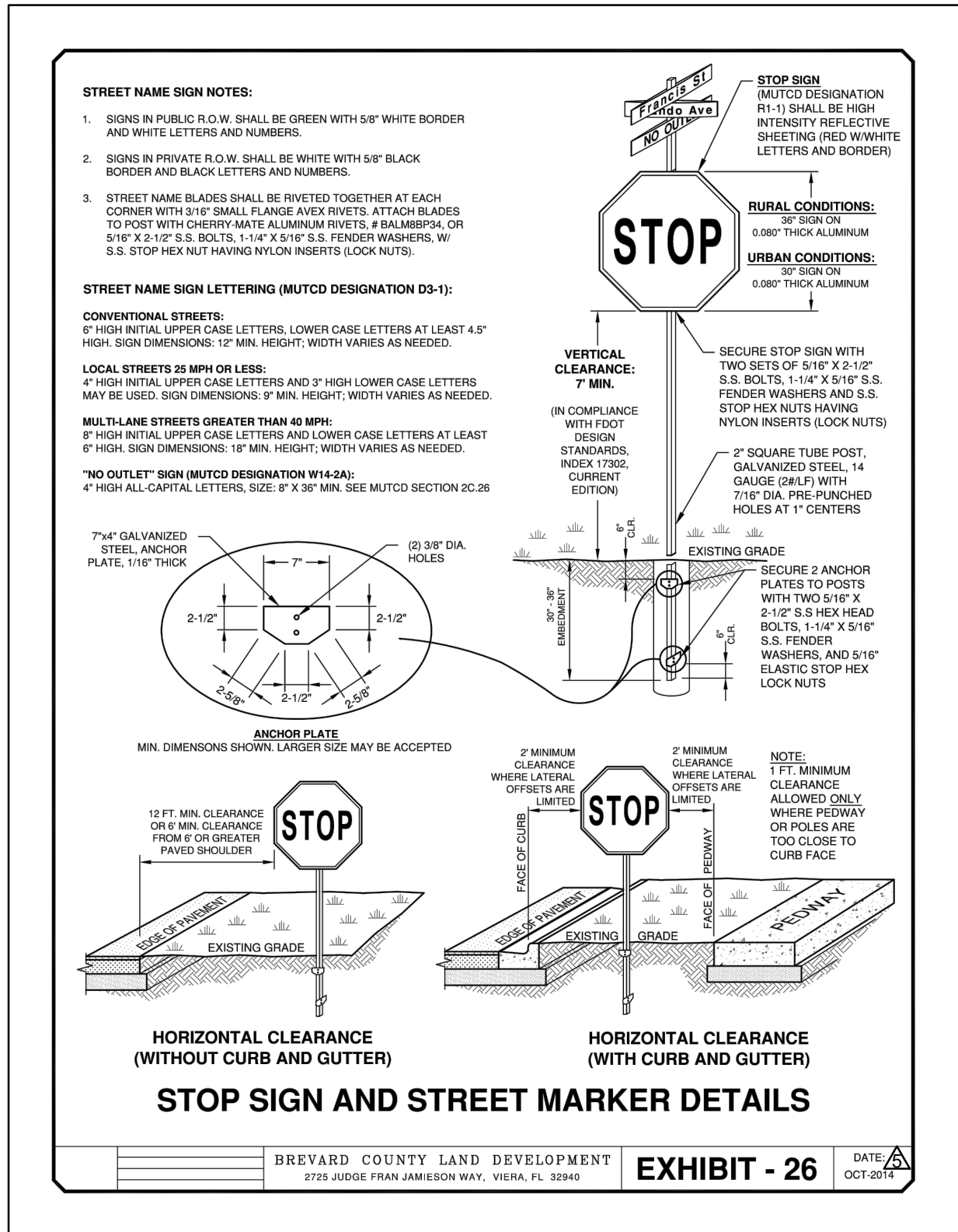
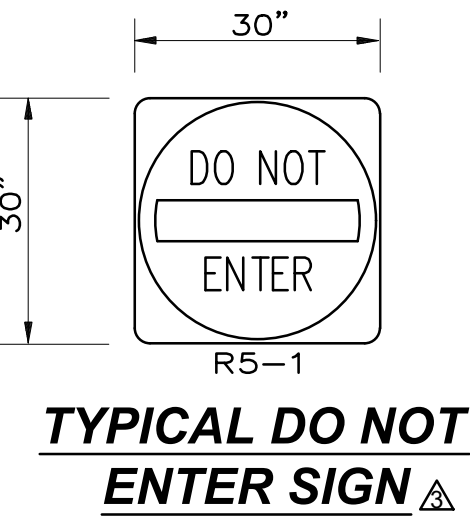
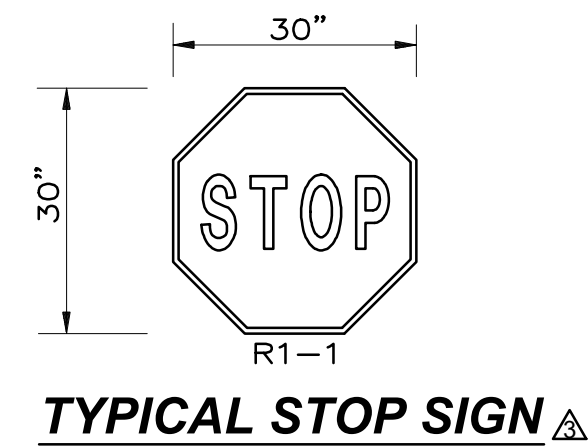
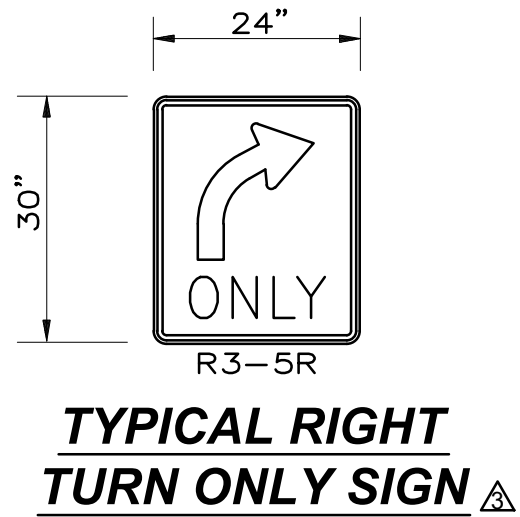
RECREATIONAL EQUIPMENT STORAGE GSF
45 SPACES ~ 11'x40' 19,800 SF
29 SPACES ~ 11'x45' 14,355 SF
TOTAL 34,155 SF

COUNTY NOTES
1 - ANY SIGN, PAVEMENT MARKINGS OR RPM'S THAT ARE DAMAGED DURING THE INSTALLATION OF THE NEW UTILITY SHALL BE REPLACED, RESTRIPE OR REINSTALLED AS PART OF THE PROJECT. IF ANY SIGNS OR POSTS ARE DAMAGED, PLEASE REFER TO BC LD EXHIBIT 26 FOR THE REPLACEMENT REQUIREMENTS. THIS IS ALSO TO INCLUDE ANY PAVEMENT MARKINGS OR RPM'S THAT ARE DAMAGED 100' EITHER SIDE OF THE PROJECT LIMITS.

2 - IF ANY SIGNAGE IN THE BREVARD COUNTY RIGHT-OF-WAY IS REMOVED, IT SHALL BE REPLACED IN ACCORDANCE WITH B.C.L.D. EXHIBIT 26.



INTERNATIONAL HANDICAP SYMBOL HANDICAP SIGN



BREVARD COUNTY LAND DEVELOPMENT
2728 JUDGE FRANK JAMISON WAY, VIERA, FL 32940

EXHIBIT - 26

DATE: OCT 2022

REVISIONS			
DATE	BY	DESCRIPTION	
10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS	
09-02-2022	BC	REV PER CITY/FDOT COMMENTS	
08-01-2022	BC	REV PER CITY/SJWMD/FDOT COMMENTS	
06-16-2022	SAM	REV PER SJWMD COMMENTS	
06-13-2022	SAM	REV PER FDOT COMMENTS	
11-15-2022	BC	REV PER CITY COMMENTS	

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

OVERALL SITE PLAN
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 06 OF 12

F:\WWG1\CAD\Plans\Set\Final\07 GRADING & DRAINAGE PLAN.dwg,11/15/2022 4:07:21 PM

DRAINAGE STRUCTURE DATA

D1 
TYPE MODIFIED (12'x4'-4")
"H" BOX INLET
N: 1470127.81
E: 719349.43
TOP EL: 27.88
(NW) - INV EL: 21.20
(SE) - INV EL: 21.20
(SW) - INV EL: 21.00
(SW) - INV EL: 21.06

D2 
TYPE "P7" MANHOLE
N: 1470156.34
E: 719414.98
TOP EL: 28.85
(SE) - INV EL: 24.45

D3 
TYPE "D" INLET
N: 1470089.62
E: 719564.03
TOP EL: 28.85
(SE) - INV EL: 22.85
(NW) - INV EL: 22.85
(E) - INV EL: 22.85

D4 
TYPE "D" INLET
N: 1470002.90
E: 719628.40
TOP EL: 28.85
(SE) - INV EL: 23.90
(NW) - INV EL: 23.90

D5 
TYPE "D" INLET
N: 1469916.12
E: 719692.81
TOP EL: 28.85
(NW) - INV EL: 24.14

D6 
TYPE "D" INLET
N: 1470108.58
E: 719708.54
TOP EL: 28.65
(W) - INV EL: 22.30
(NE) - INV EL: 21.30
(SE) - INV EL: 22.30

D7 
TYPE "D" INLET
N: 1470040.79
E: 719758.84
TOP EL: 28.65
(NW) - INV EL: 23.25
(SE) - INV EL: 23.25

D8 
TYPE "D" INLET
N: 1469973.03
E: 719788.98
TOP EL: 28.65
(E) - INV EL: 23.90
(NW) - INV EL: 23.40

D9 
TYPE "D" INLET
N: 1469963.79
E: 719904.79
TOP EL: 29.55
(SE) - INV EL: 24.10
(W) - INV EL: 24.10

D10 
TYPE "D" INLET
N: 1469808.08
E: 719953.79
TOP EL: 29.55
(NW) - INV EL: 24.30
(SE) - INV EL: 24.60

D11 
TYPE "D" INLET
N: 1469963.79
E: 719953.79
TOP EL: 29.55
(NW) - INV EL: 24.84

D12 
TYPE "P7" MANHOLE
N: 1470175.21
E: 719788.98
TOP EL: 29.80
(SW) - INV EL: 18.00
(N) - INV EL: 18.00

D13 
TYPE "P7" MANHOLE
N: 1470215.77
E: 719787.21
TOP EL: 28.34
INV EL: 16.00

YD1 
YARD DRAIN
N: 1470218.82
E: 719791.29
TOP EL: 26.20
(SW) - INV EL: 21.50

MES1 
18" ADS UNDER WALL
N: 1470229.70
E: 719712.19
INV EL: 13.00

MES2 
18" MITERED END SECTION
N: 1470234.95
E: 719722.88
INV EL: 21.50

MES3 
42" MITERED END SECTION
N: 1470173.63
E: 719317.12
INV EL: 22.00

MES4 
42" MITERED END SECTION
N: 1470089.76
E: 719376.35
INV EL: 22.00

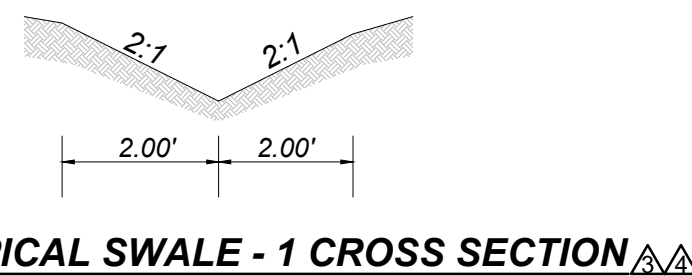
MES5 
18" MITERED END SECTION
N: 1469749.31
E: 720103.67
INV EL: 24.00

MES6 
18" MITERED END SECTION
N: 1469709.91
E: 720050.67
INV EL: 23.80

CS1 
CONTROL STRUCTURE
N: 1470261.44
E: 719316.46
TOP EL: 28.50
INV EL: 22.00
WEIR INV EL = 27.23 
6" ORIFICE INV EL = 25.00 

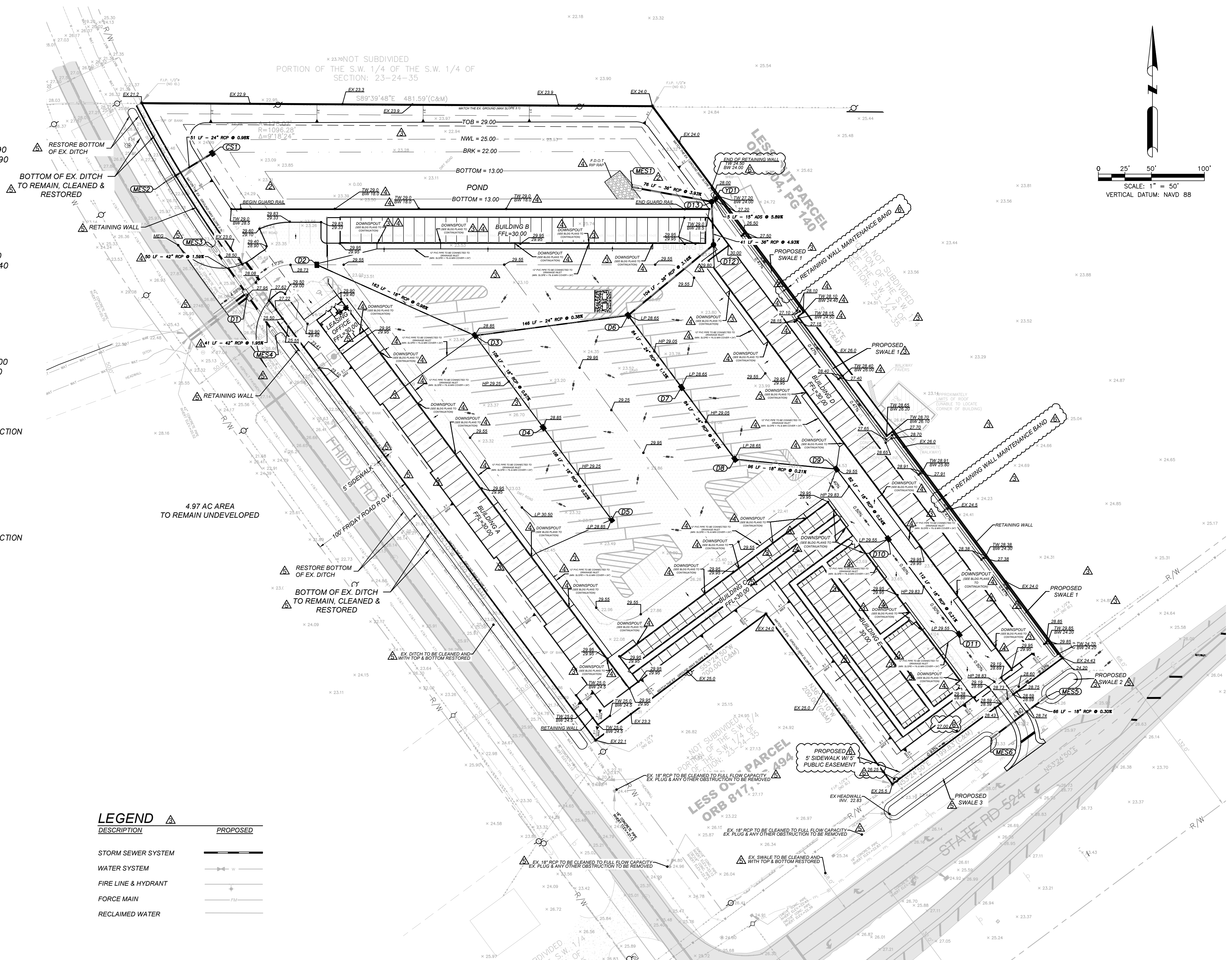
NOTE:

OFF-SITE GRADING ELEVATIONS ARE SHOWN ON SHEETS 7A & 7C
POND DETAILS ARE SHOWN ON SHEET 7B 



LEGEND

DESCRIPTION	PROPOSED
STORM SEWER SYSTEM	
WATER SYSTEM	
FIRE LINE & HYDRANT	
FORCE MAIN	
RECLAIMED WATER	



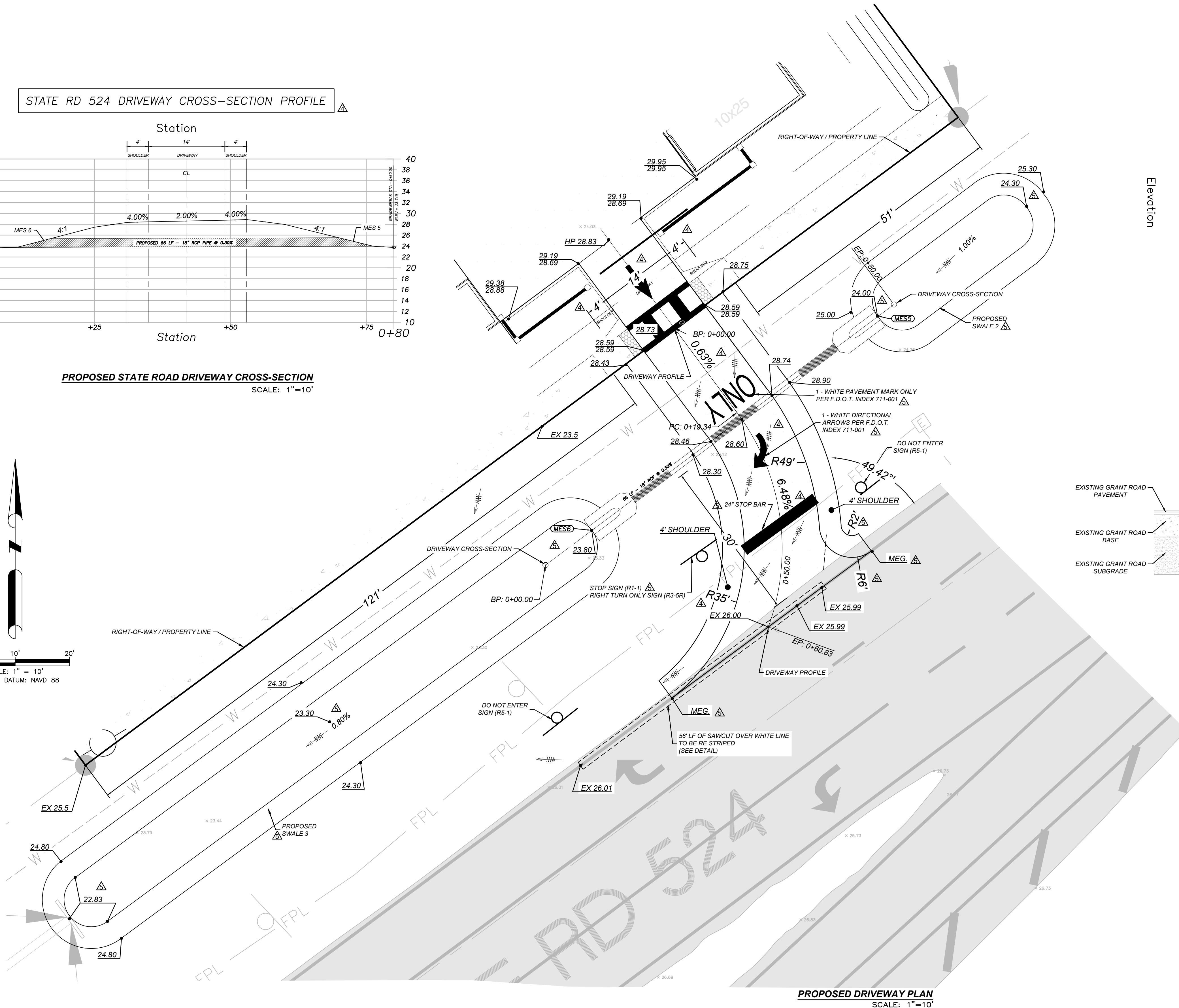
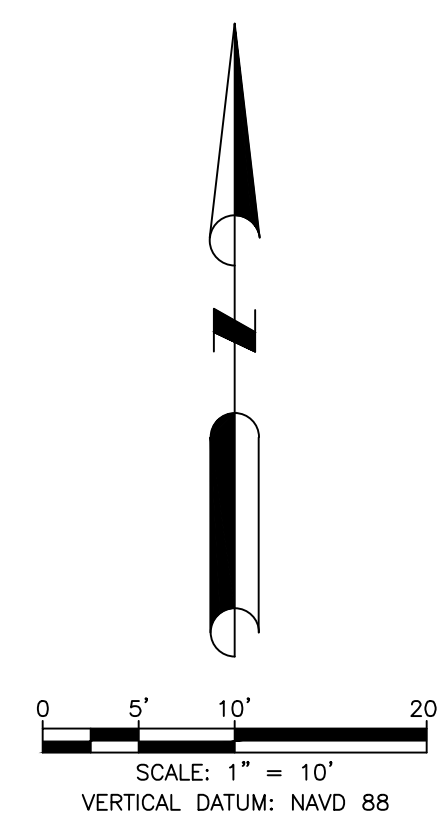
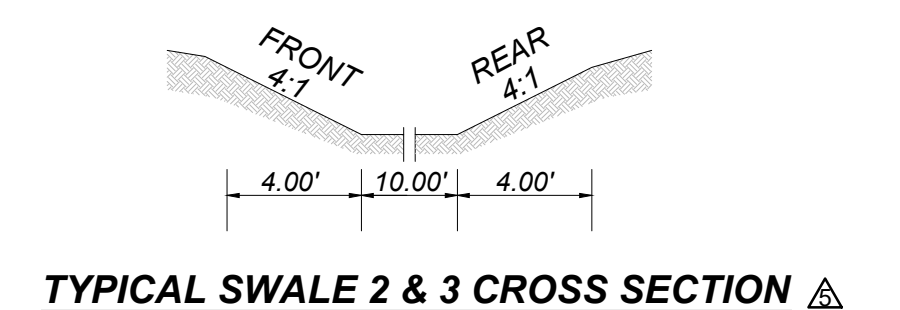
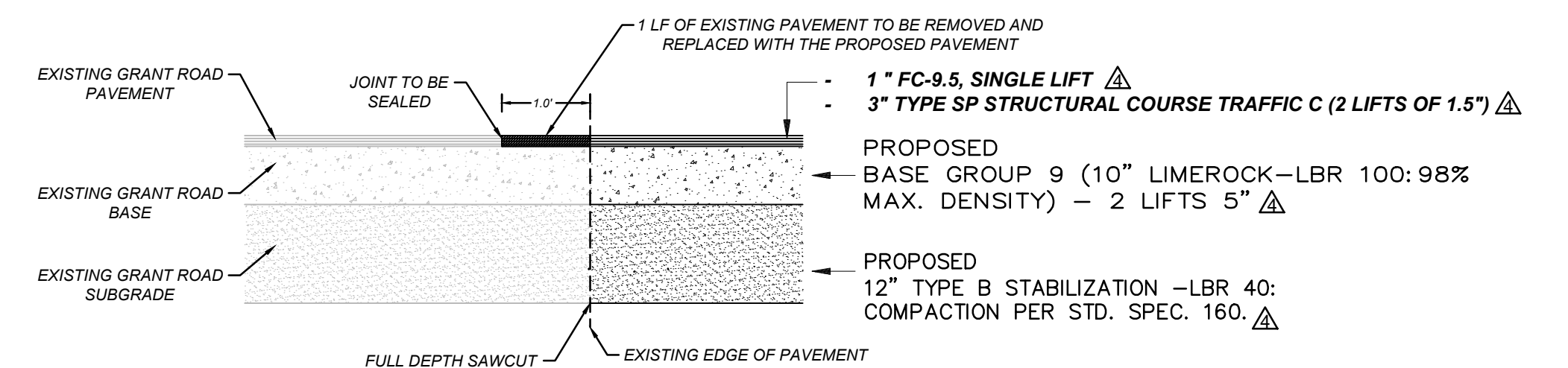
**DAVE SCHMITT
ENGINEERING, INC.**
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS	10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS
09-02-2022	BC	REV PER CITY/FDOT COMMENTS	09-02-2022	BC	REV PER CITY/FDOT COMMENTS
08-01-2022	BC	REV PER CITY/SJWMD/FDOT COMMENTS	08-01-2022	BC	REV PER CITY/SJWMD/FDOT COMMENTS
06-16-2022	SAM	REV PER SJWMD COMMENTS	06-16-2022	SAM	REV PER SJWMD COMMENTS
11-15-2022	BC	REV PER CITY COMMENTS	06-13-2022	SAM	REV PER FDOT COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

GRADING & DRAINAGE PLAN - 1
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 07 OF 12



PROPOSED DRIVEWAY PLAN
SCALE: 1"=10'



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407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

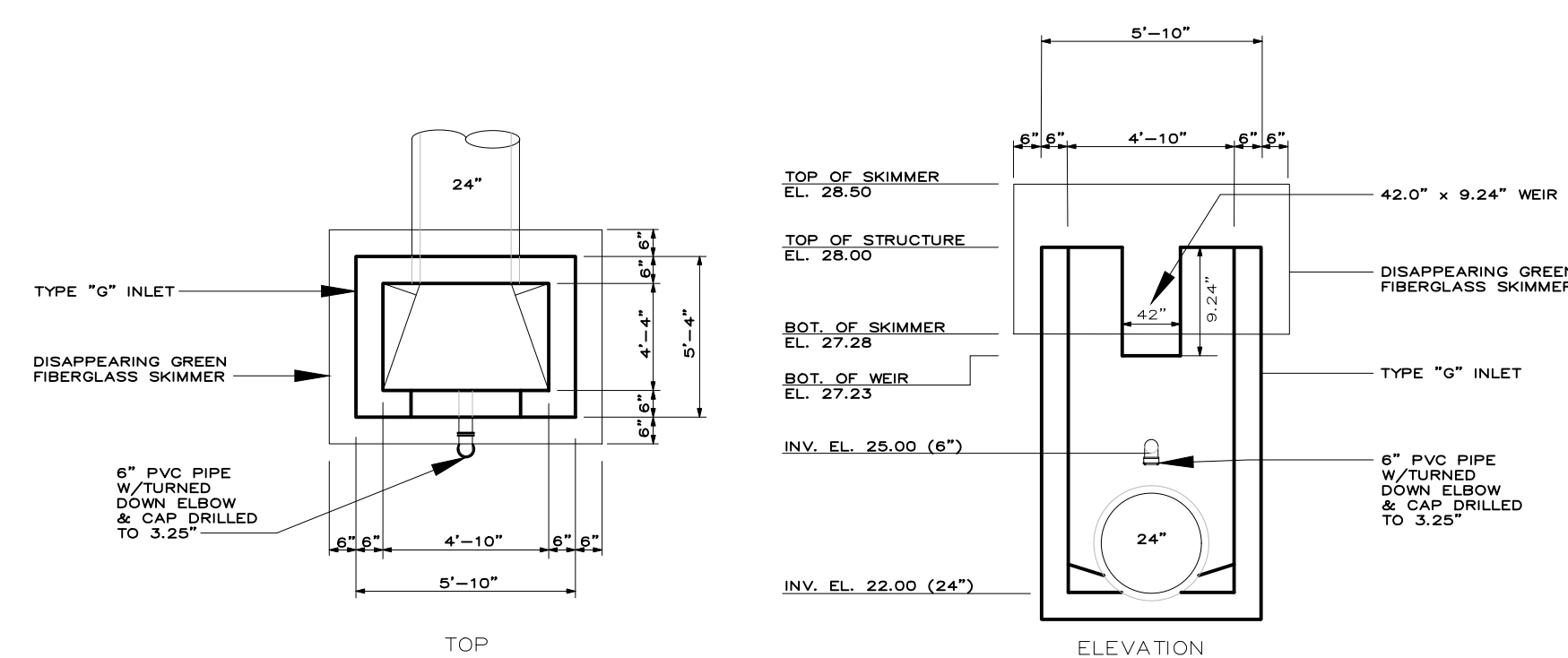
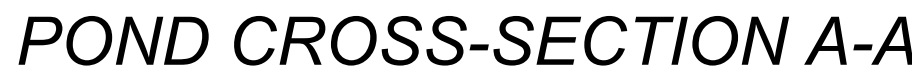
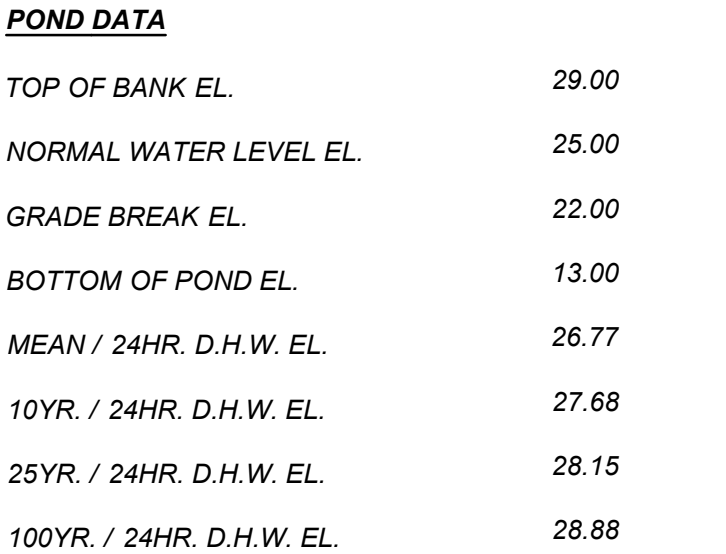
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS
			09-02-2022	BC	REV PER CITY/FDOT COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

GRADING & DRAINAGE PLAN - 2

STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: 1" = 10'
SHEET: 7A OF 12



CS-1 - POND CONTROL STRUCTURE



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Certification of Authorization #27471

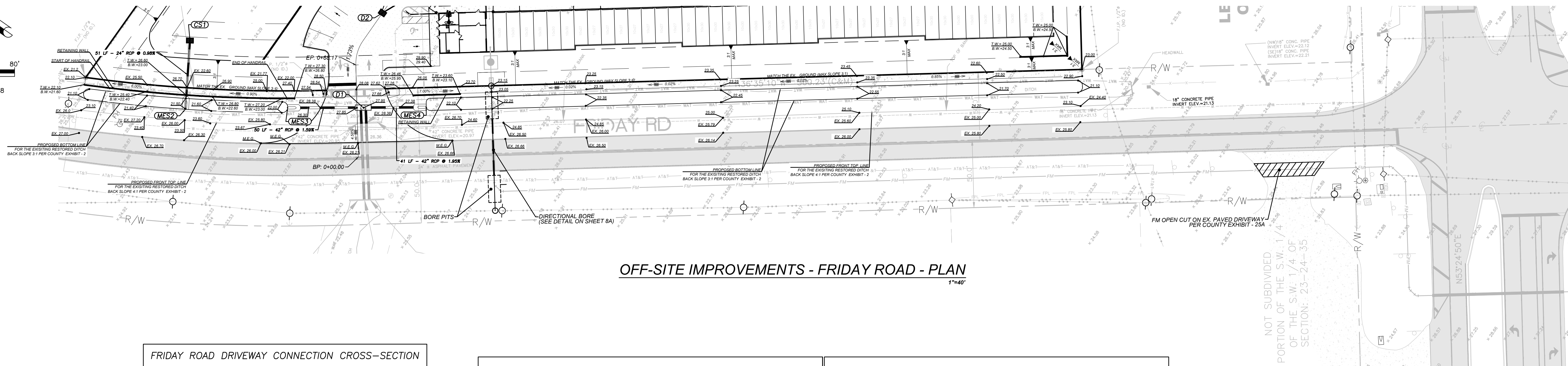
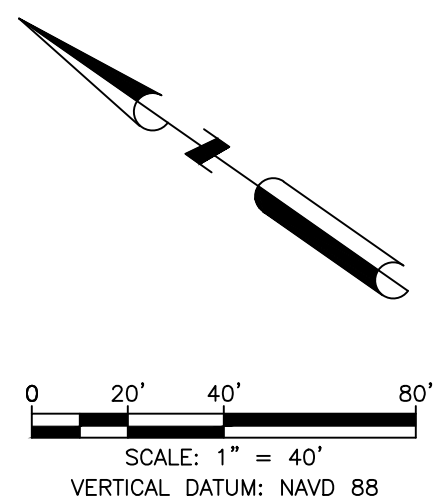
REVISIONS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

POND PLAN
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA.

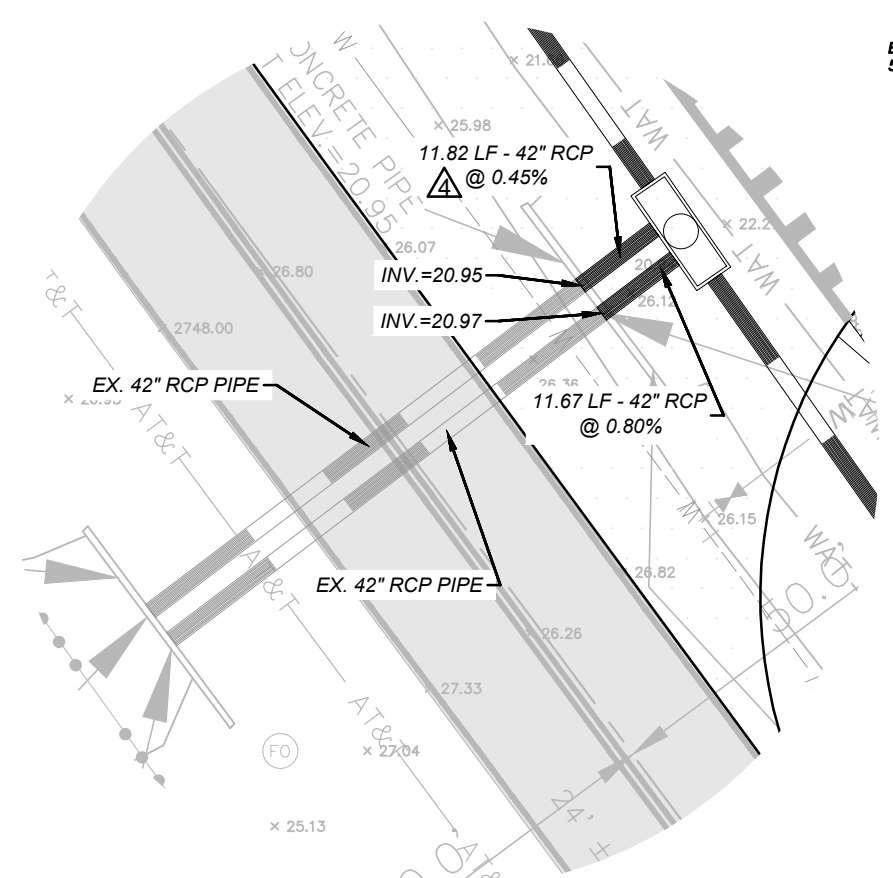
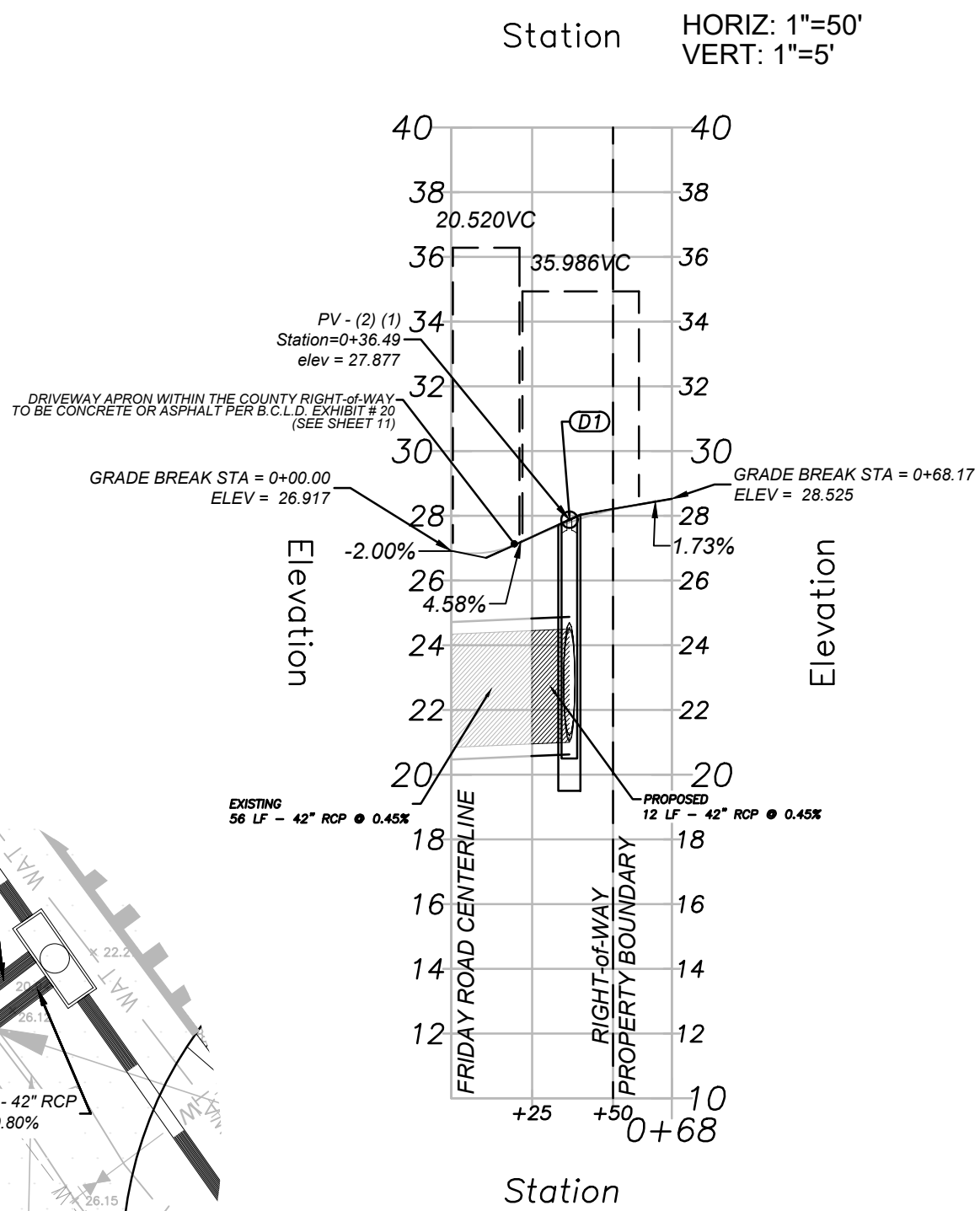
DATE: FEBRUARY, 2021
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: 1" = 20'
SHEET: 7B OF 12

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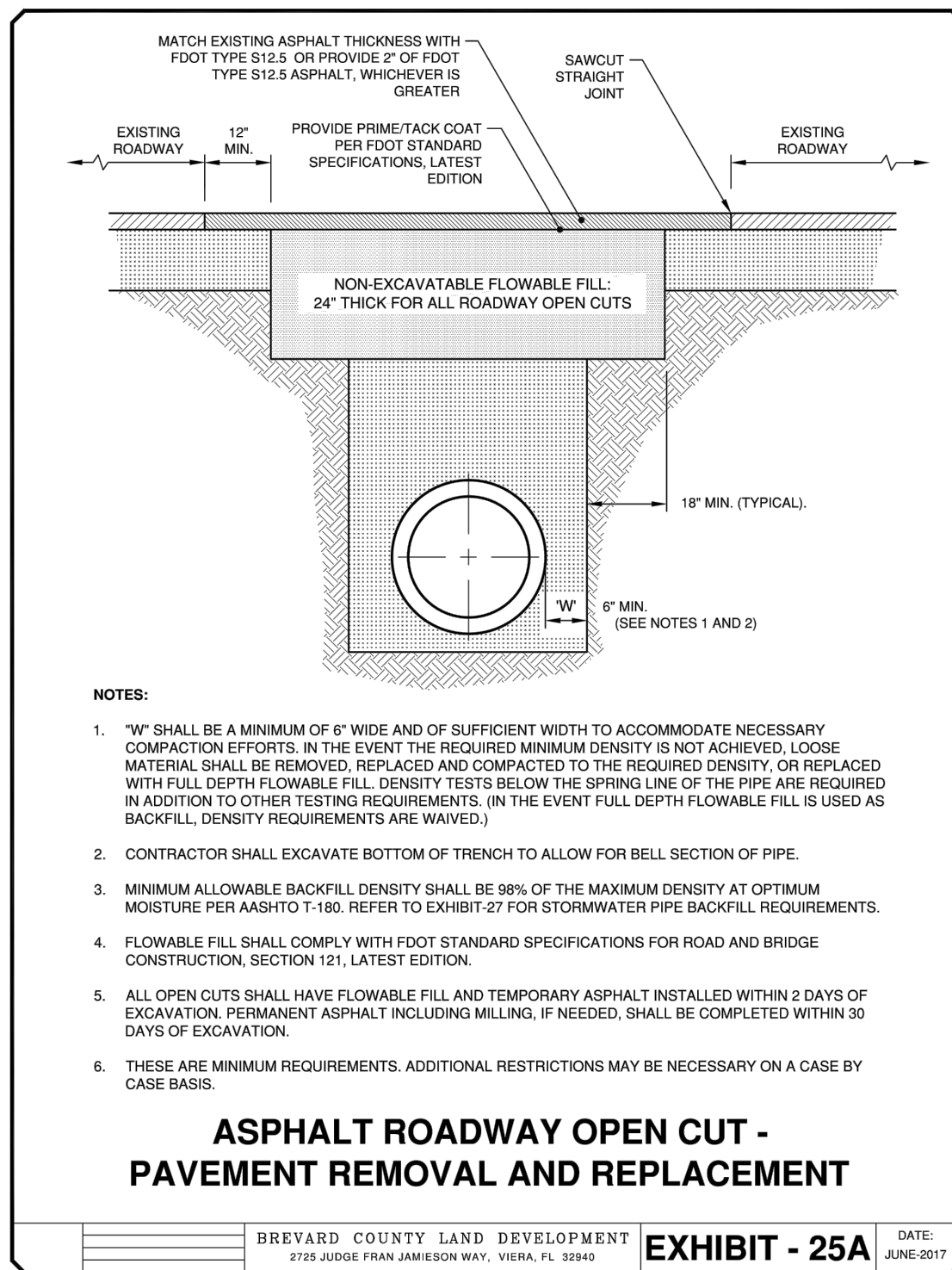


OFF-SITE IMPROVEMENTS - FRIDAY ROAD - PLAN
1"=40'

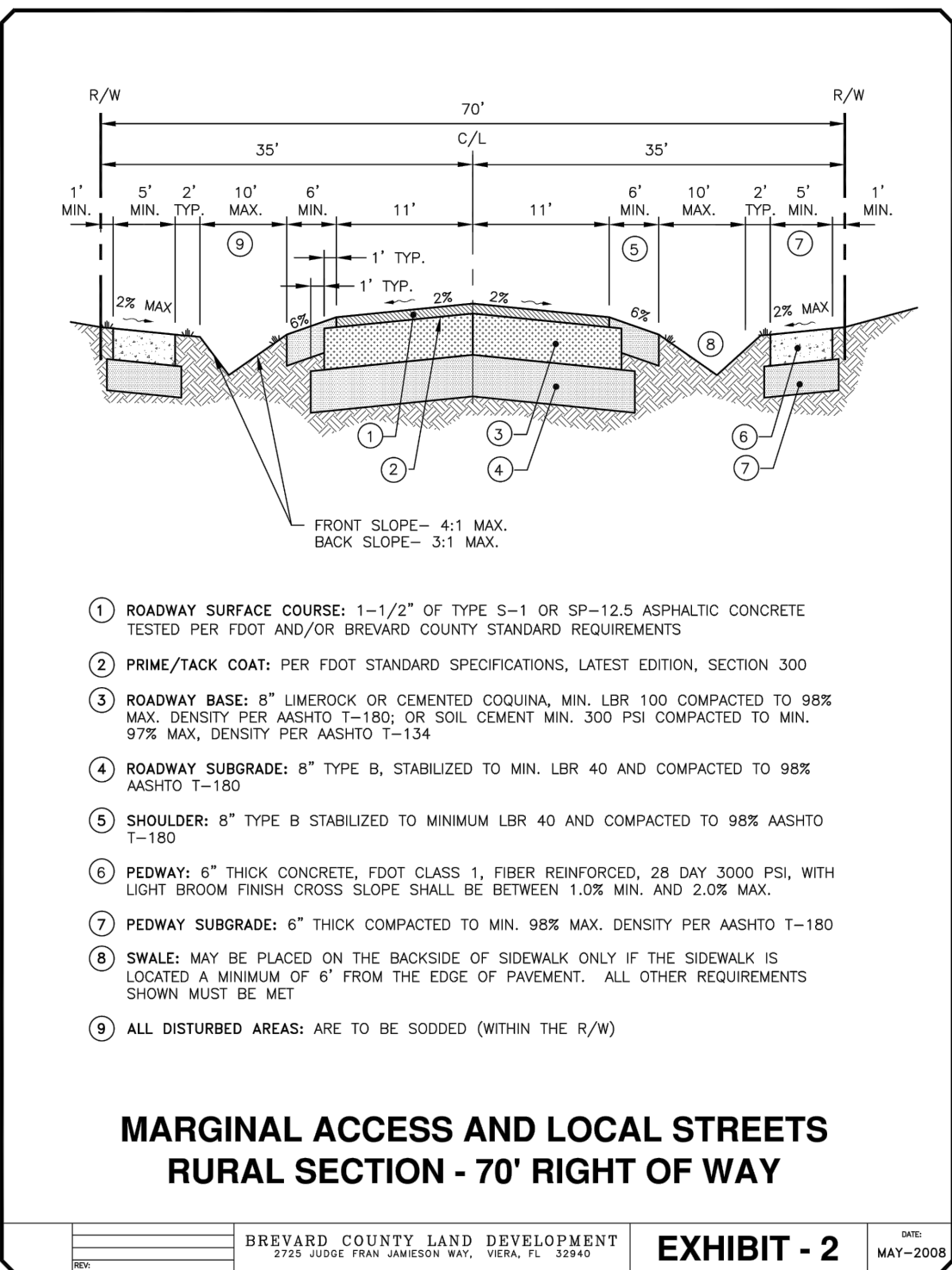
FRIDAY ROAD DRIVEWAY CONNECTION CROSS-SECTION



EXISTING DOUBLE 42" RCP PIPE EXTENSION DETAIL
1"=20'



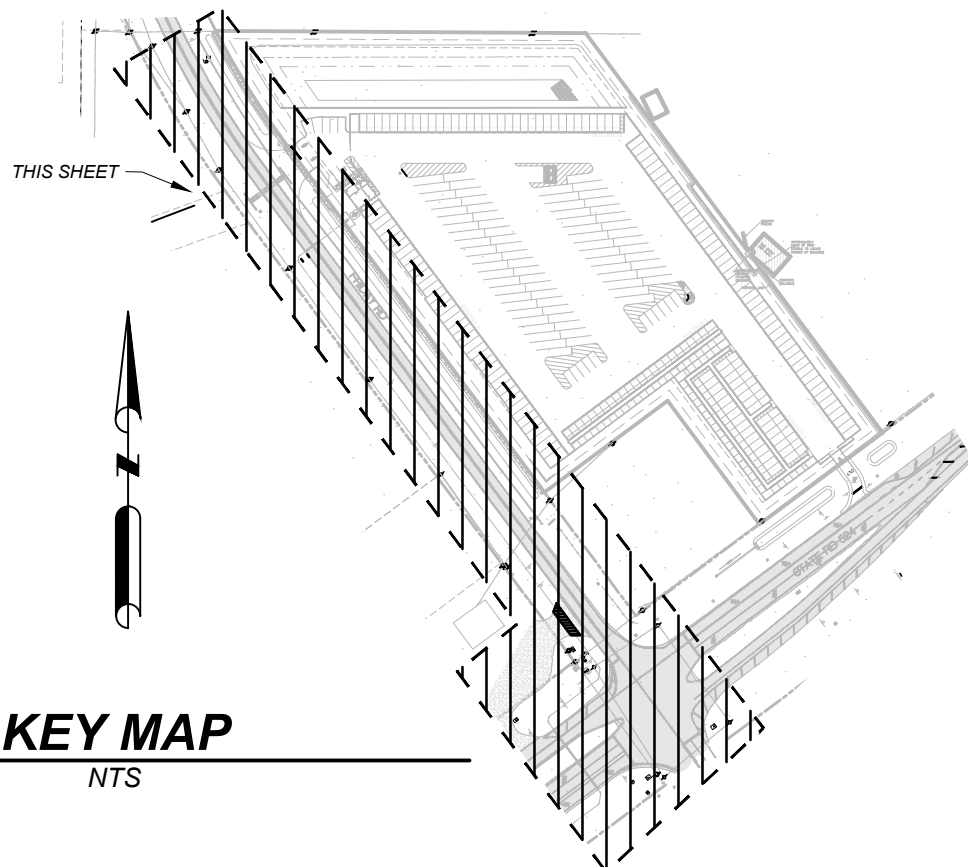
ASPHALT ROADWAY OPEN CUT -
PAVEMENT REMOVAL AND REPLACEMENT



MARGINAL ACCESS AND LOCAL STREETS
RURAL SECTION - 70' RIGHT OF WAY

- NOTES:
1. THE CONTRACTOR SHALL INSTALL, AS PART OF THE INFRASTRUCTURE AND PRIOR TO CERTIFICATE OF COMPLETION, DROP CURBS AND HANDICAP RAMPS AT ALL INTERSECTIONS OF THE SIDEWALK WITH THE PROPOSED PAVEMENT TO MEET CITY OF COCOA AND A.D.A. SPECIFICATIONS.
 2. ALL S/W SHALL INCLUDE HANDICAPPED RAMPS WITH DETECTABLE WARNINGS AT ALL INTERSECTIONS PER FDOT INDEX 304 & 310. DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT FLARED TURNOUTS.
 3. THE CONTRACTOR SHALL UTILIZE DITCHES, PIPES, AND/OR PUMPS AS NECESSARY TO MAINTAIN THE EXISTING DRAINAGE DURING ALL PHASES OF CONSTRUCTION. EXISTING DRAINAGE SHALL NOT BE BLOCKED OR ADVERSELY AFFECTED DURING CONSTRUCTION.
 4. SHORING SHALL BE REQUIRED FOR EXCAVATIONS WITHIN 8 FEET FROM THE EDGE OF PAVEMENT OR 3 FEET FROM THE EDGE OF SIDEWALK.
 5. EXISTING DITCH ALONG FRIDAY ROAD TO BE RESTORED ACCORDINGLY EXHIBIT - 2

LEGEND	
DESCRIPTION	PROPOSED
STORM SEWER SYSTEM	
WATER SYSTEM	
FIRE LINE & HYDRANT	
FORCE MAIN	
RECLAIMED WATER	



KEY MAP
NTS



DAVE SCHMITT
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SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

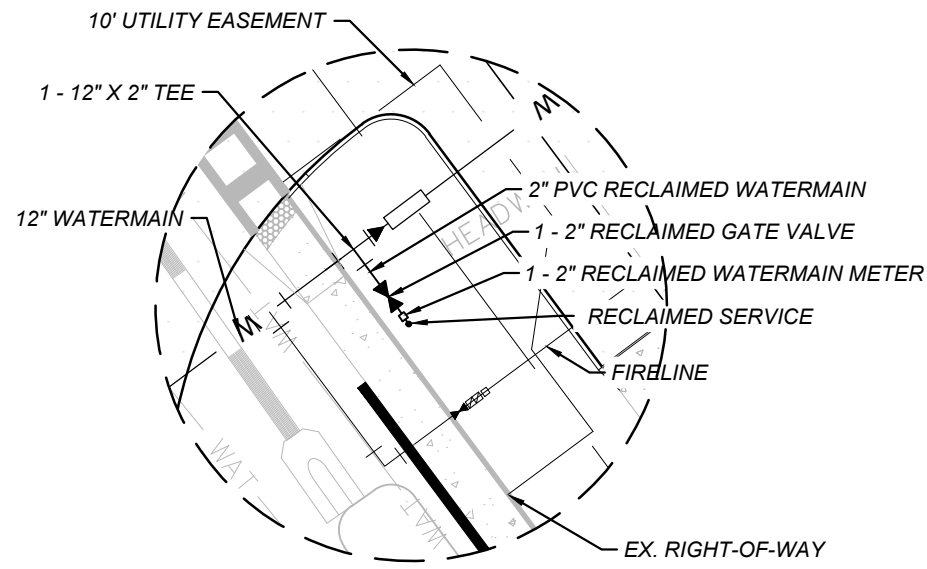
OFF-SITE GRADING & DRAINAGE PLAN
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: 1" = 40'
SHEET: 7C OF 12

F:\WWG1\CAD\Plansets\Final\08 UTILITY PLAN.dwg,10/20/2022 12:14:15 PM

LEGEND

DESCRIPTION	PROPOSED
RECLAIMED WATERMAIN	
STORM SEWER SYSTEM	
WATER SYSTEM	
FIRE LINE & HYDRANT	
FORCE MAIN	



RECLAIMED WATERMAIN

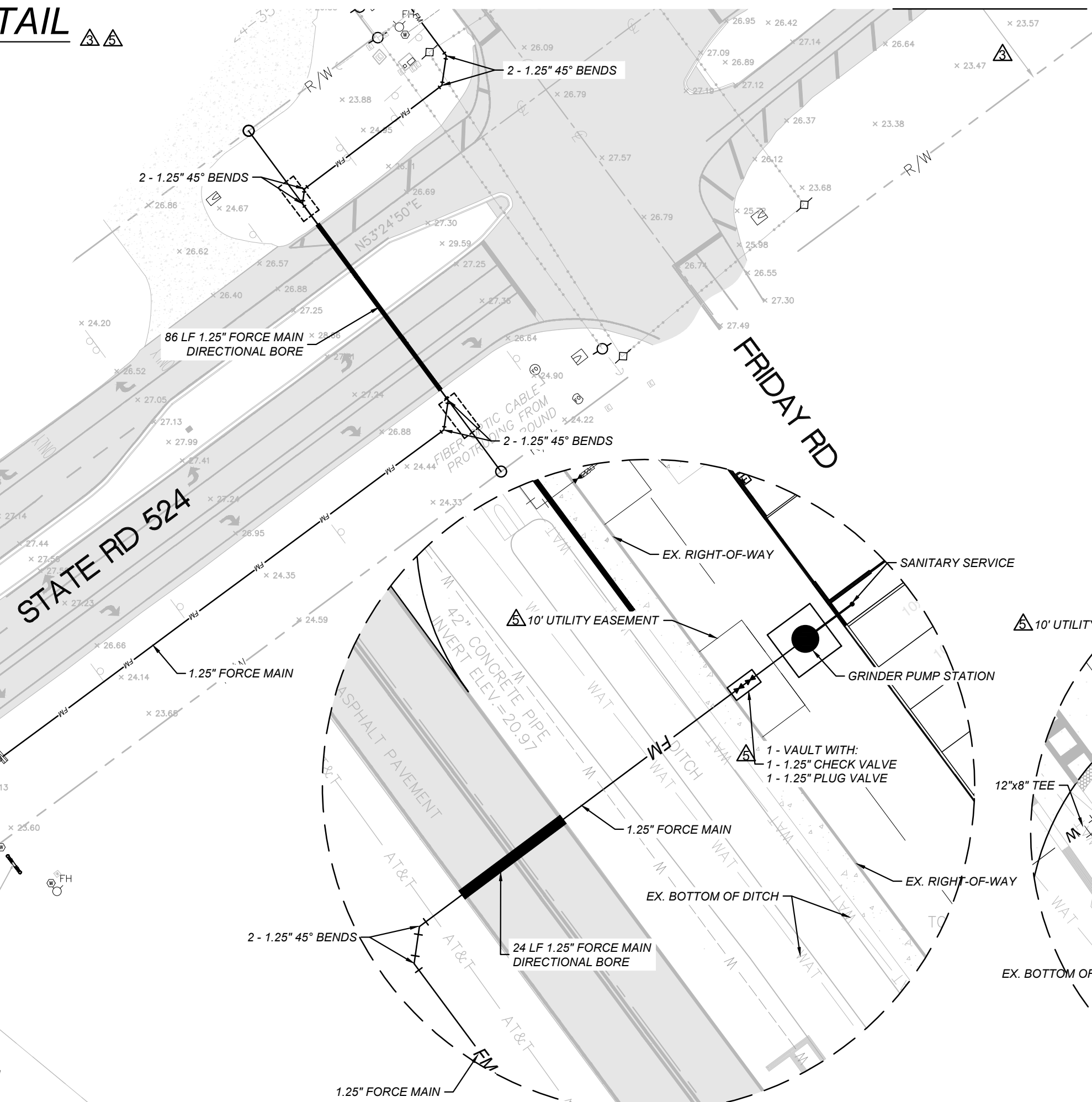
CONNECTION DETAIL

1" = 20'

WATERMAIN CONNECTION DETAIL

1" = 20'

MATCH LINE
SEE LOWER RIGHT



FORCE MAIN CONNECTION DETAIL

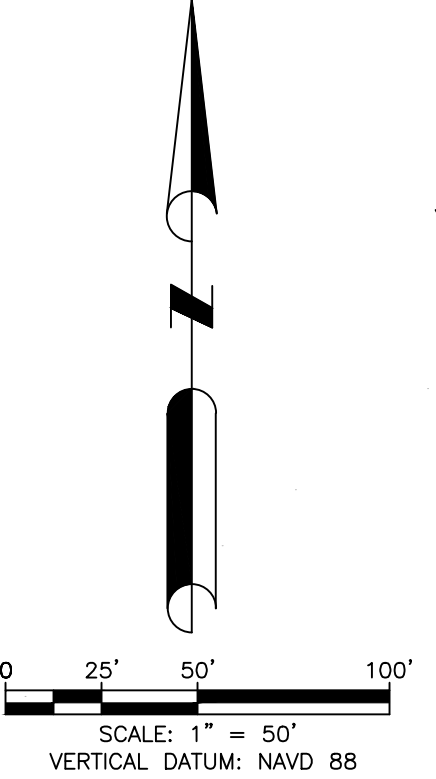
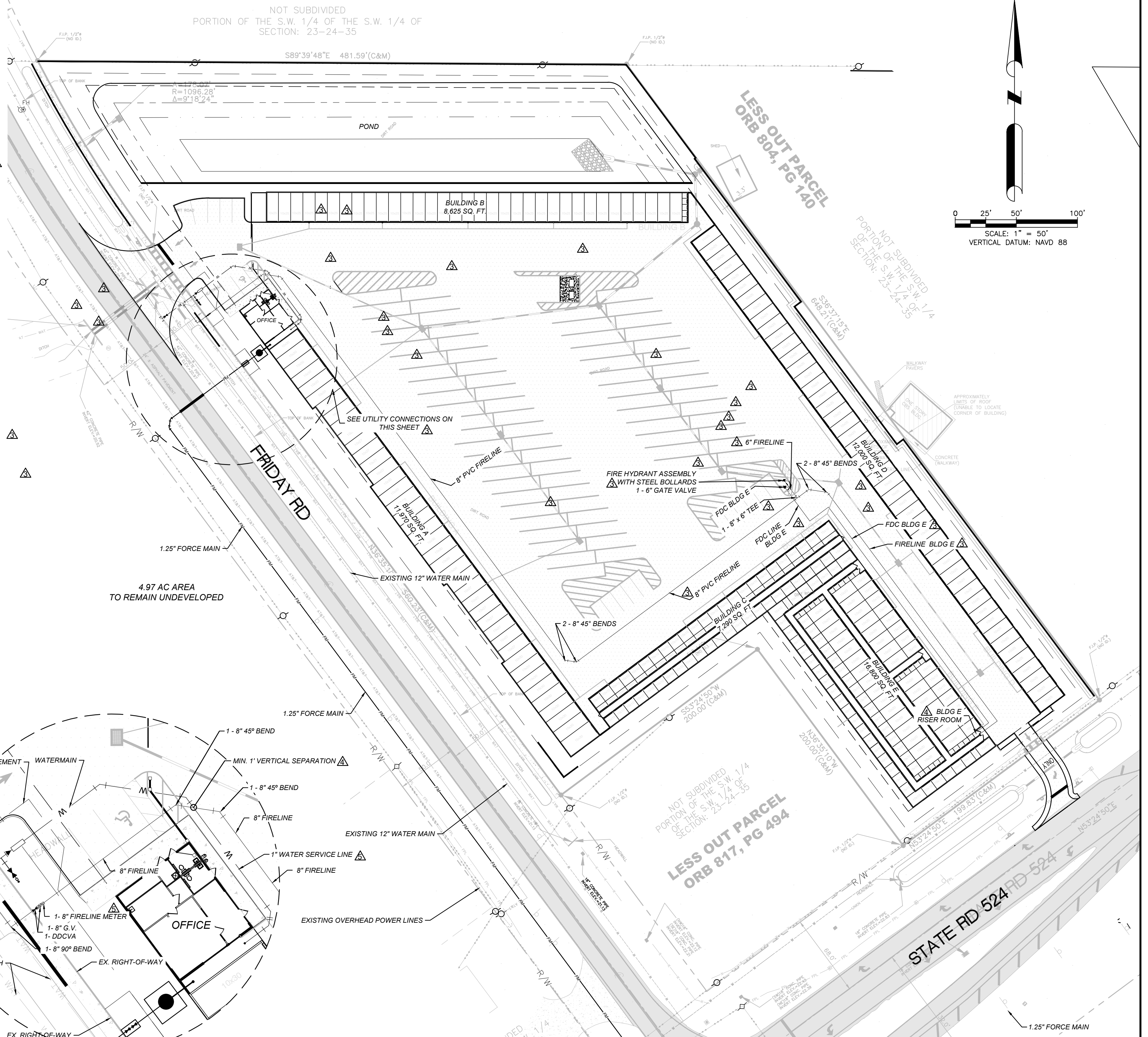
1" = 20'

FIRELINE CONNECTION DETAIL

1" = 20'

NOTE: 1. ANY PROPOSED GATE VALVES AND OTHER UTILITY CONNECTIONS SHALL BE OUTSIDE OF THE SIDEWALKS. REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE SHALL BE NO UTILITY CONNECTIONS WITHIN PROPOSED SIDEWALKS.

NOT SUBDIVIDED
PORTION OF THE S.W. 1/4 OF THE S.W. 1/4 OF
SECTION: 23-24-35



DAVE SCHMITT
ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS			
09-02-2022	BC	REV PER CITY/FDOT COMMENTS			
08-01-2022	BC	REV PER CITY/SJWMD/FDOT COMMENTS			

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

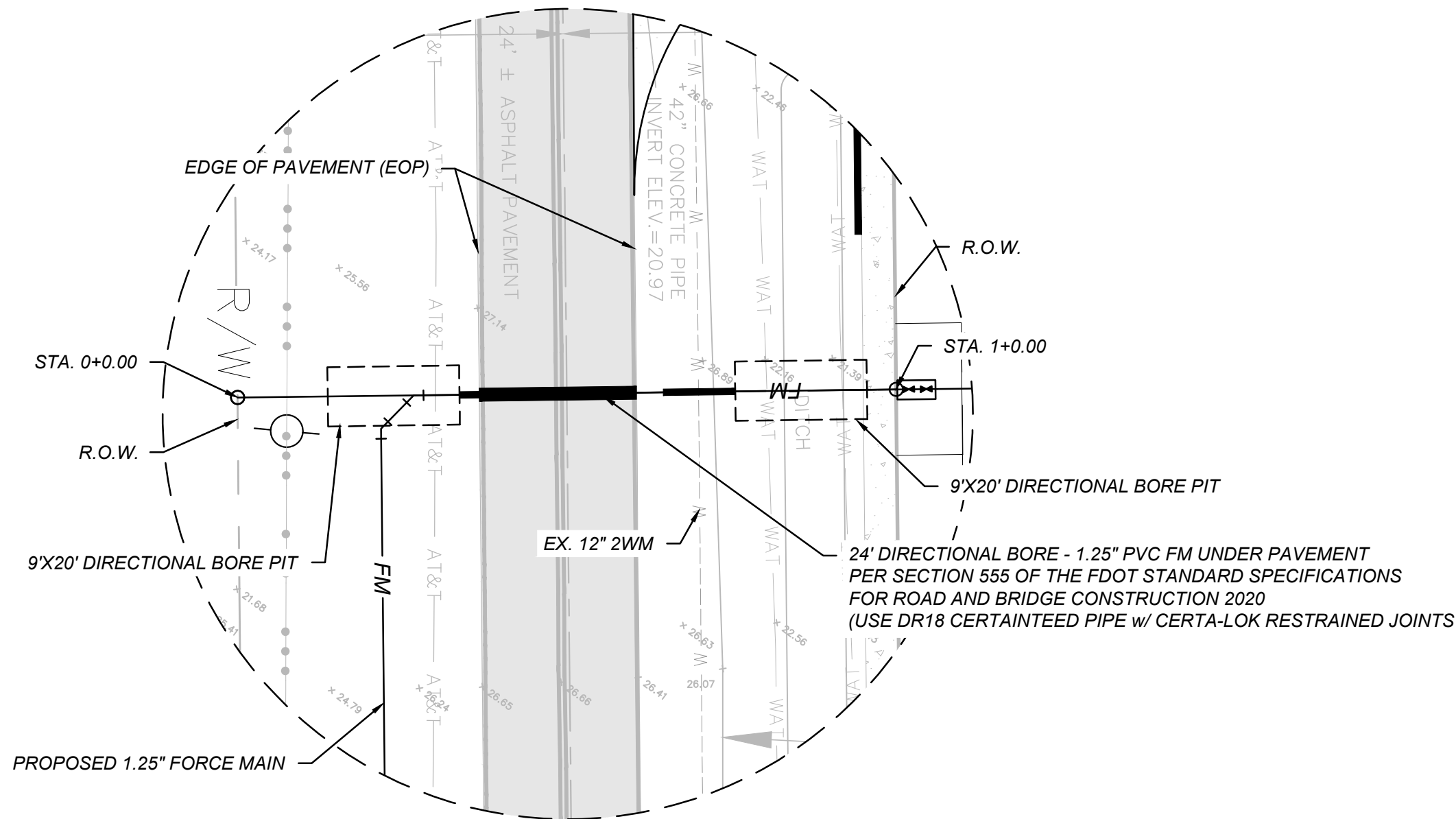
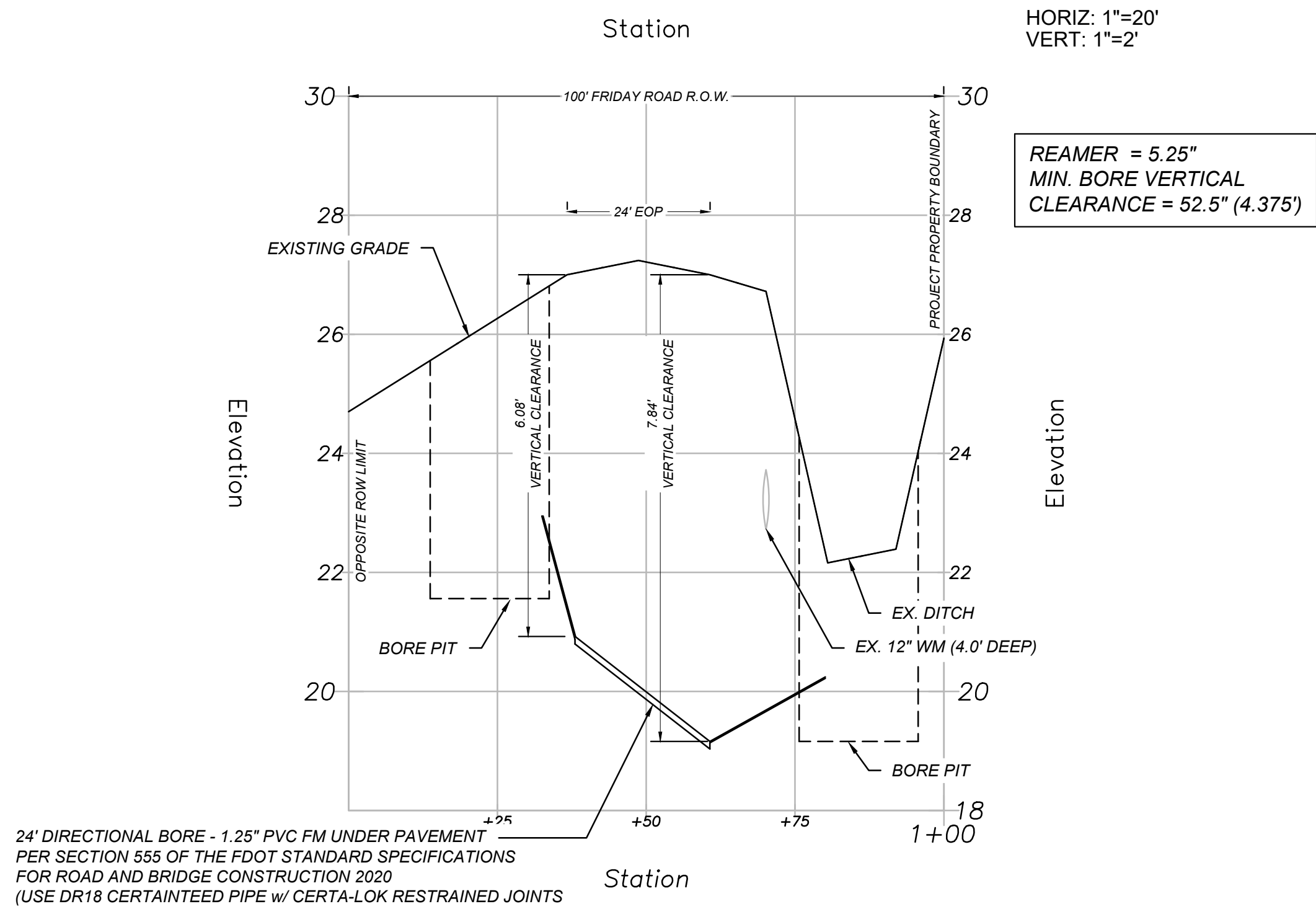
UTILITY PLAN - 1

STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 08 OF 12

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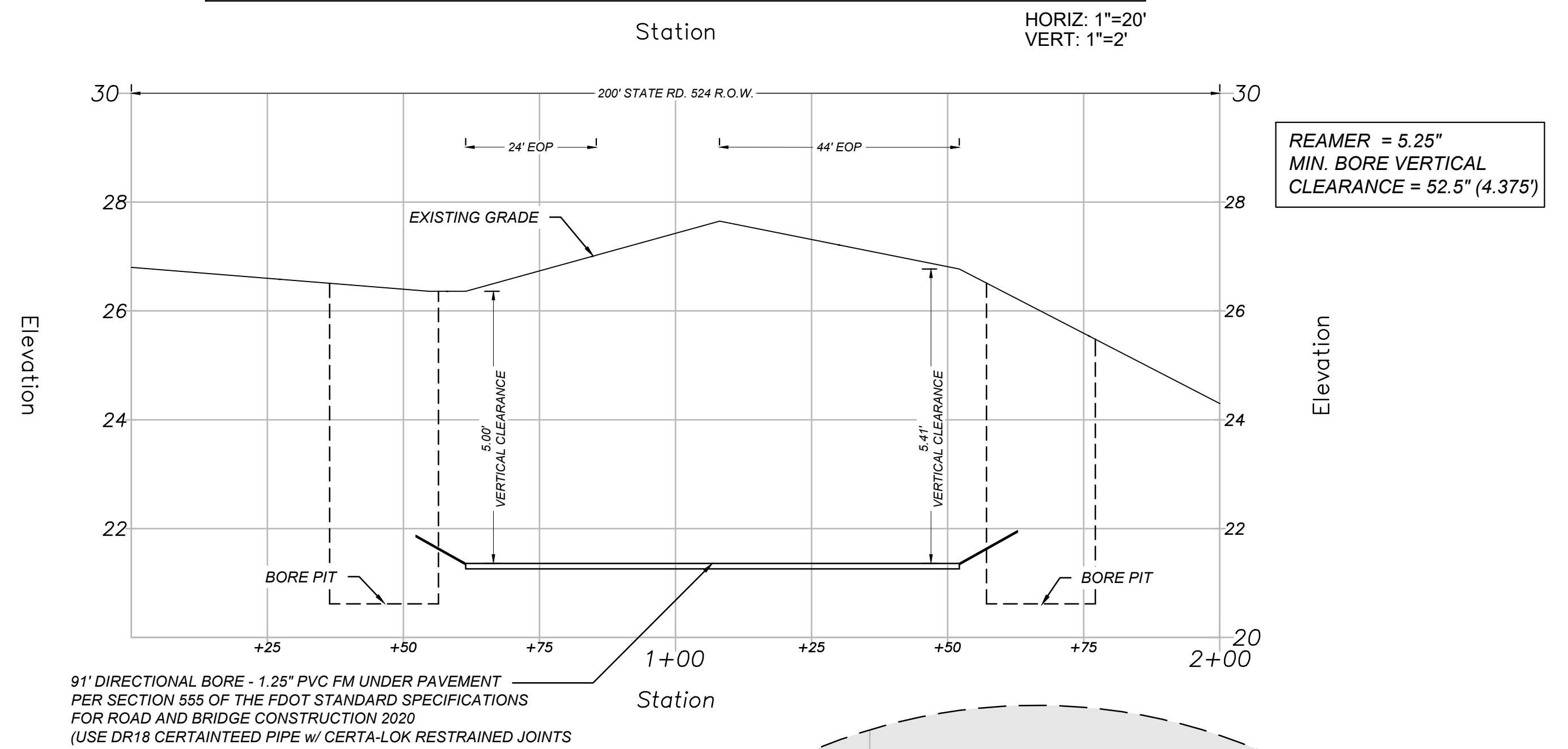
FRIDAY ROAD FM DIRECTIONAL BORE. PROFILE



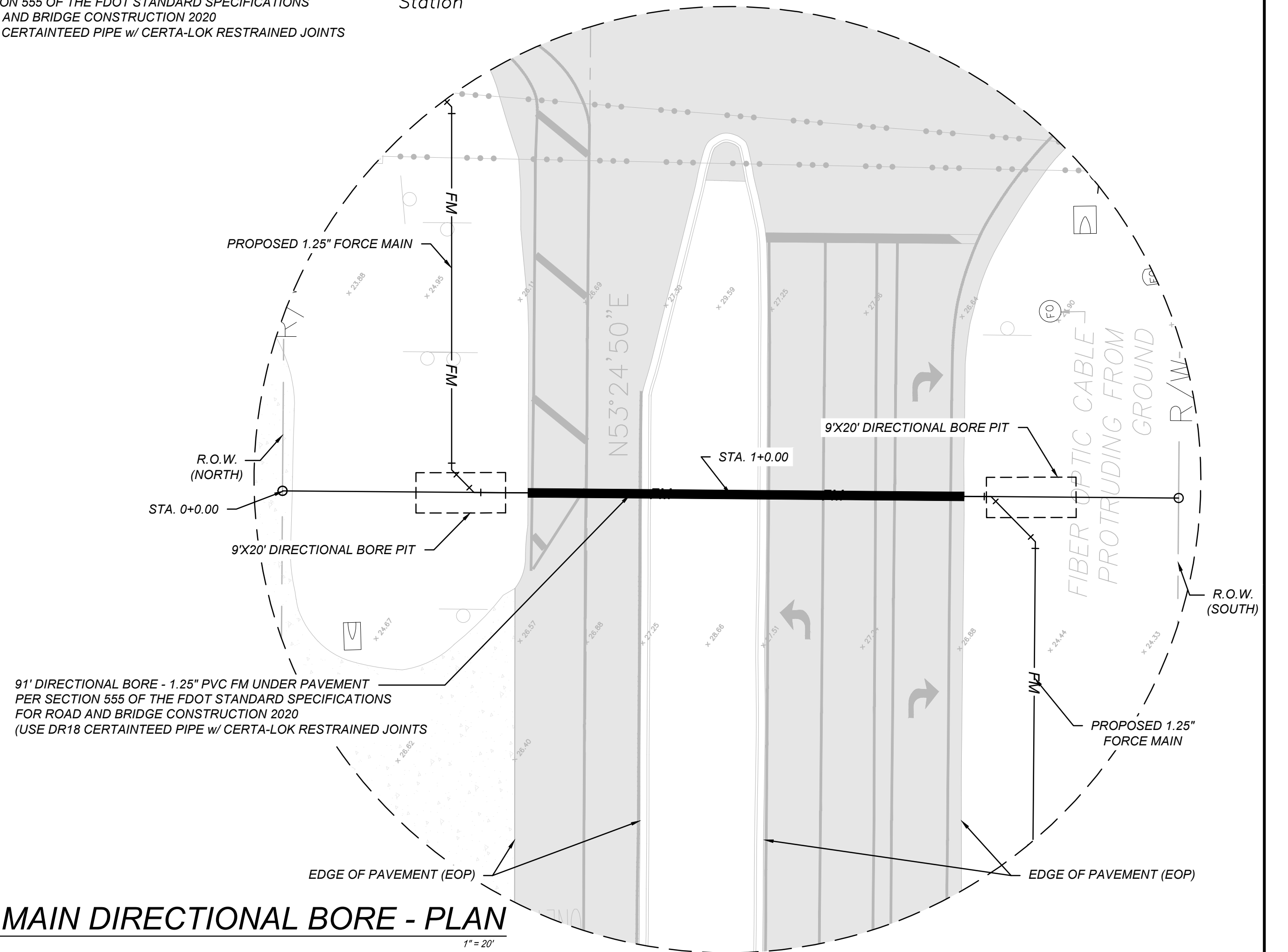
FRIDAY ROAD FORCE MAIN DIRECTIONAL BORE - PLAN

1"= 20'

STATE RD. 524 FM DIRECTIONAL BORE PROFILE



91' DIRECTIONAL BORE - 1.25" PVC FM UNDER PAVEMENT
PER SECTION 555 OF THE FDOT STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION 2020
(USE DR18 CERTAINTIED PIPE w/ CERTA-LOK RESTRAINED JOINTS)



STATE RD. 524 FORCE MAIN DIRECTIONAL BORE - PLAN

1"= 20'



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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT
FLORIDA REG. NUMBER
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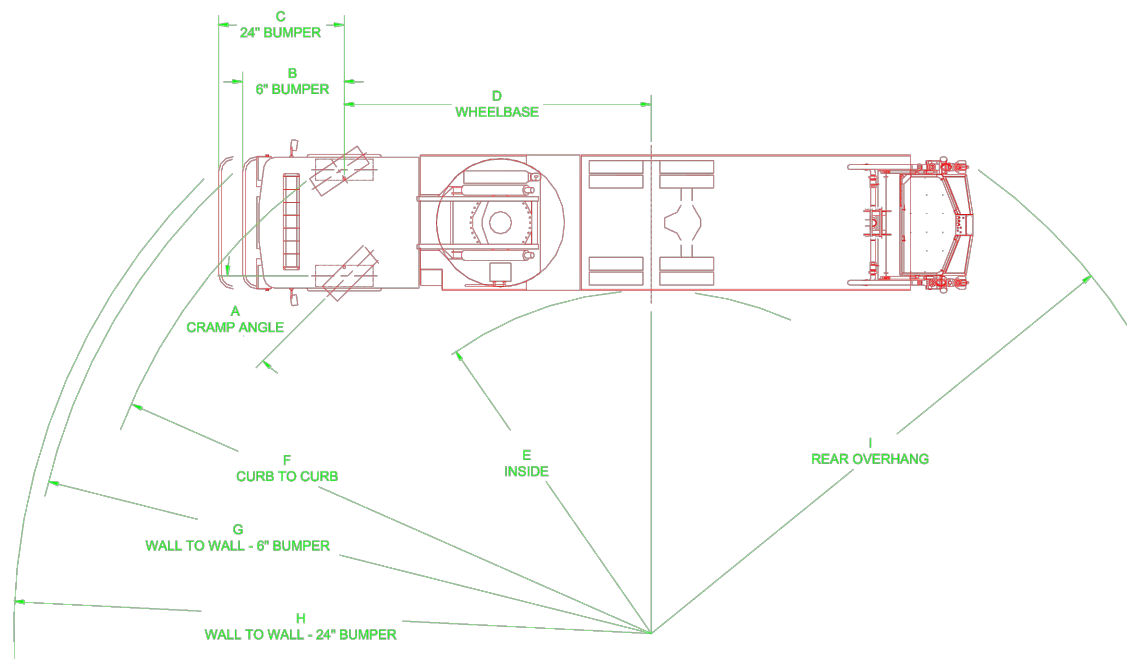
UTILITY PLAN - 2
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: 1" = 20'
SHEET: 08A OF 12

SUTPHEN CORPORATION

Aerial Tower - 236" Wheel Base

Components
Chassis Sutphen 2011 Aerial Tower

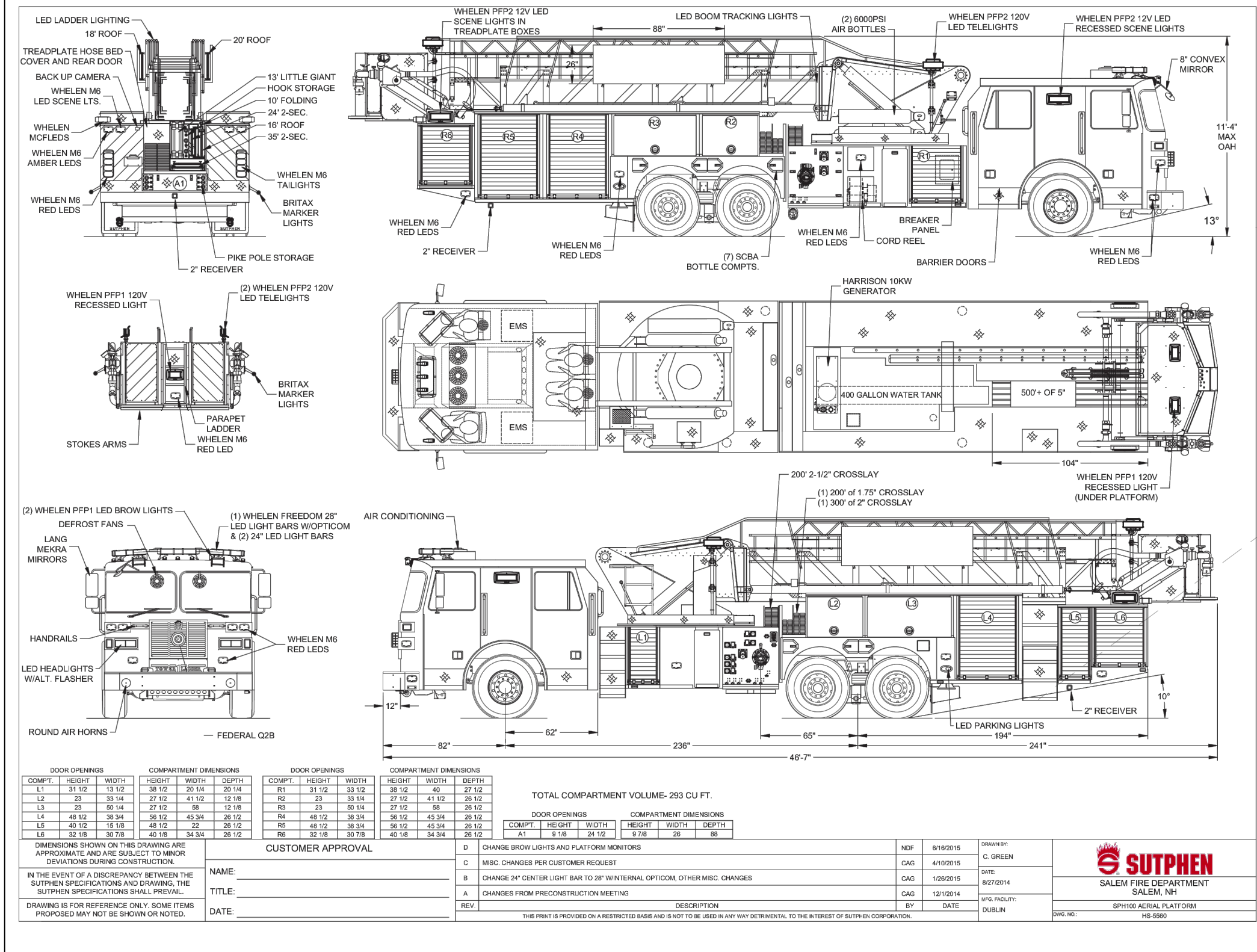
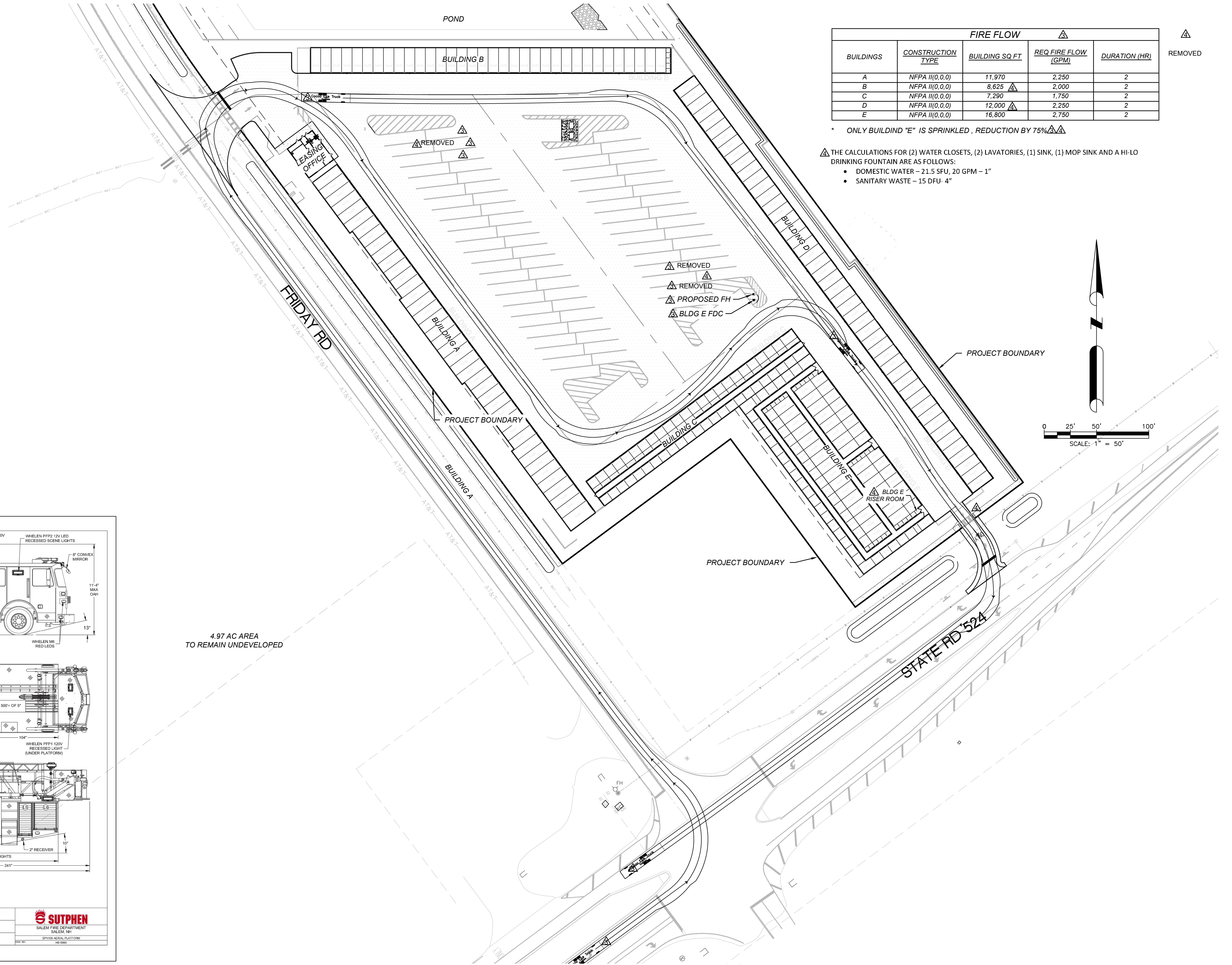


<u>Parameters</u>		
A	Cramp Angle (maximum)	42 deg. 425 Tires
B	Front Overhang 6" Bumper	76"
C	Front Overhang 24" Bumper	94"
D	Wheelbase	236"

Calculated Results		
E	Inside Turning Radius	20'-11"
F	Curb to Curb	34'-4"
G	Wall to Wall 6" Bumper	39'-3"
H	Wall to Wall 24" Bumper	40'-3"
I	Rear Overhang Swing	35'

Cramp Angle may vary due to vehicle configuration.
Curb to Curb based on a 9" curb

Rev A 6/1/11



4.97 AC AREA
TO REMAIN UNDEVELOPED

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407-207-9088 FAX 407-207-9089
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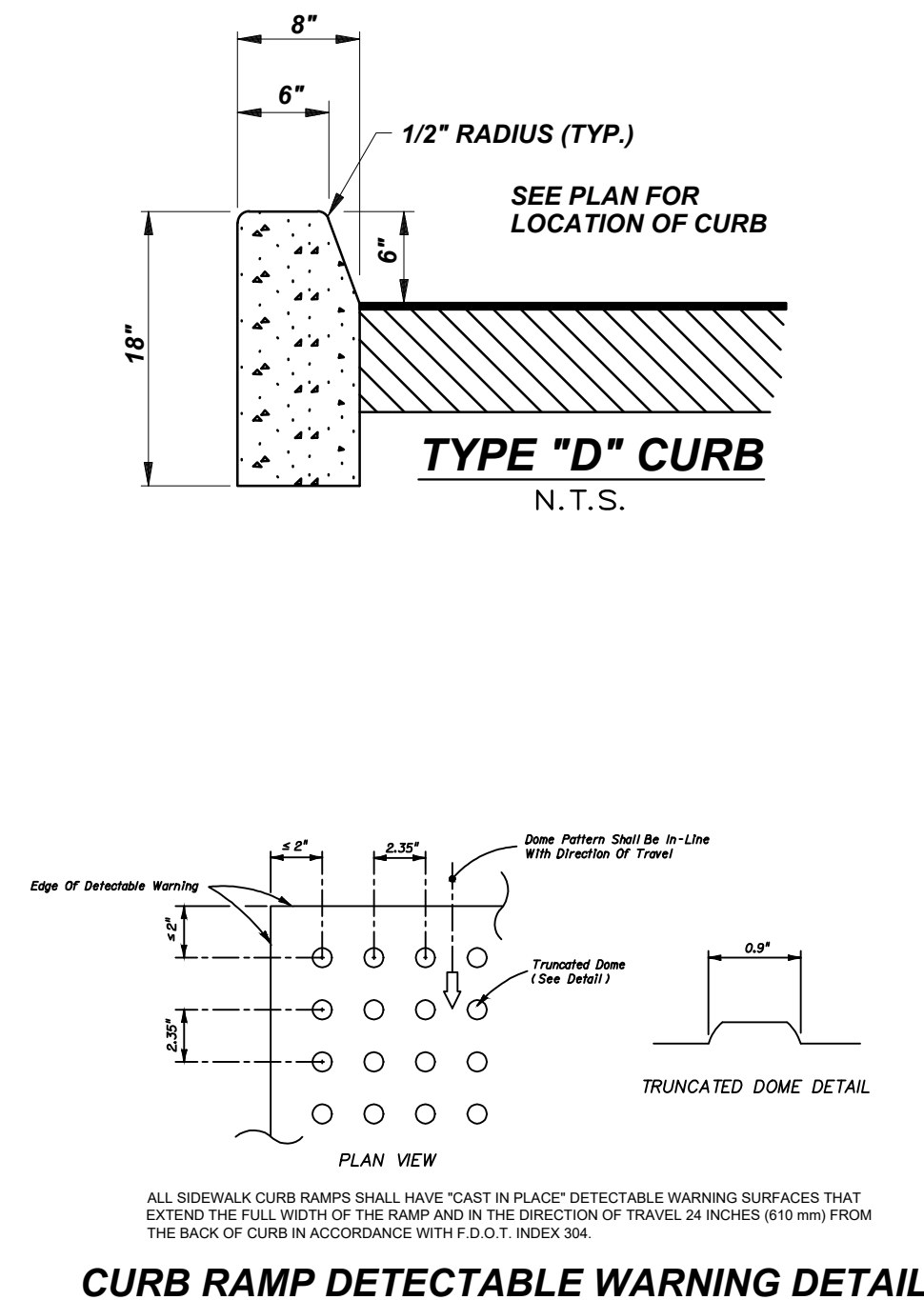
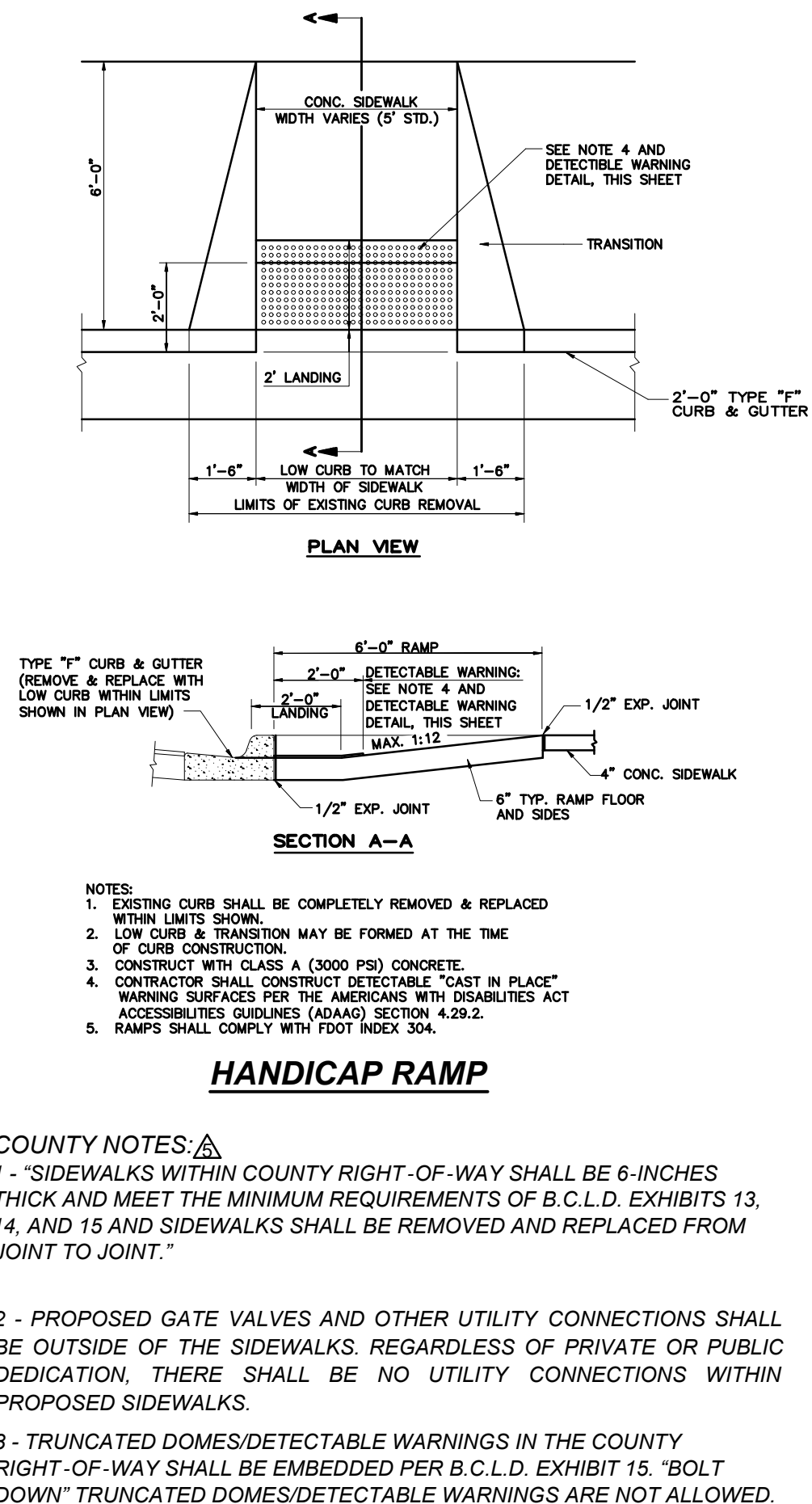
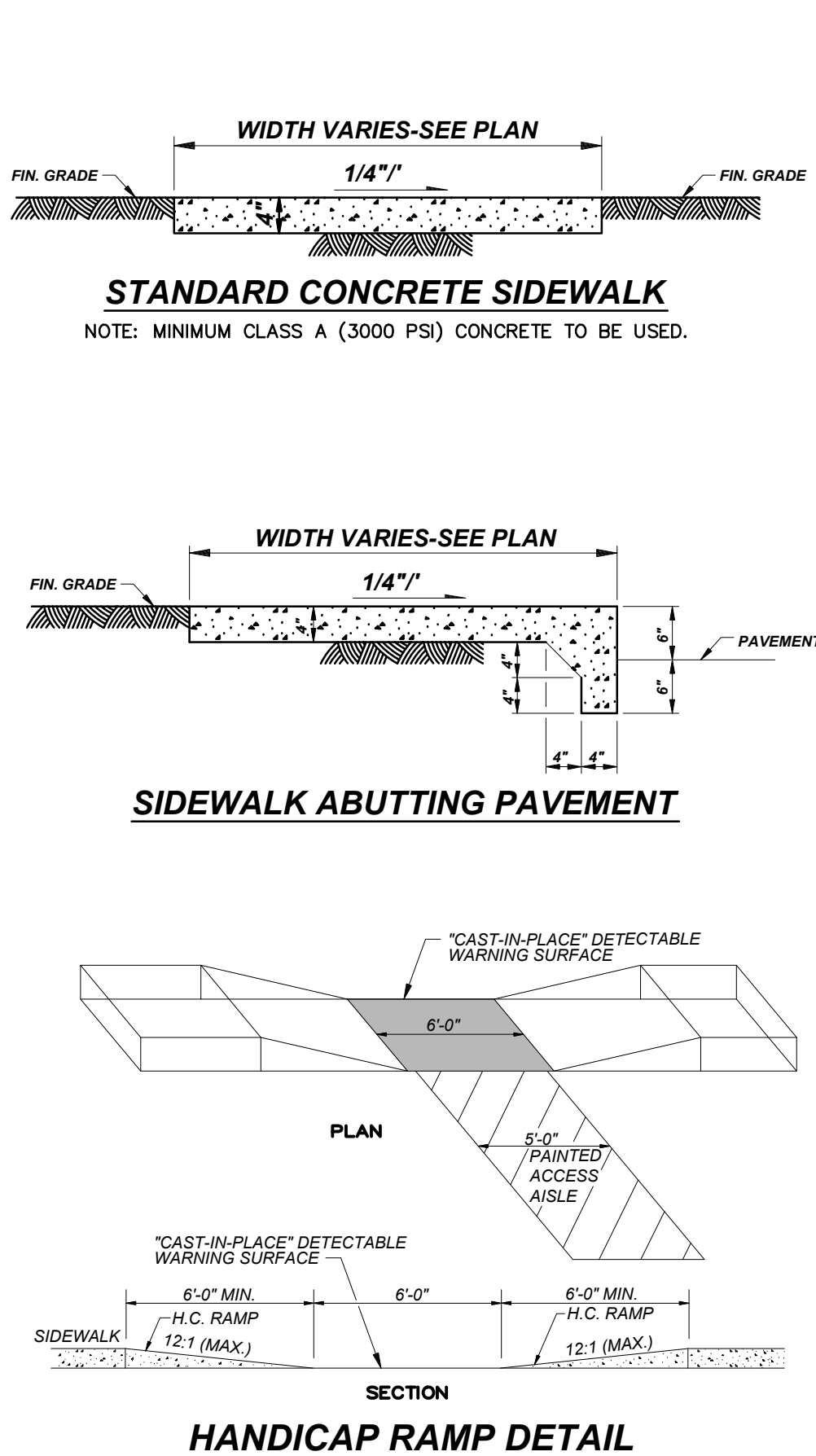
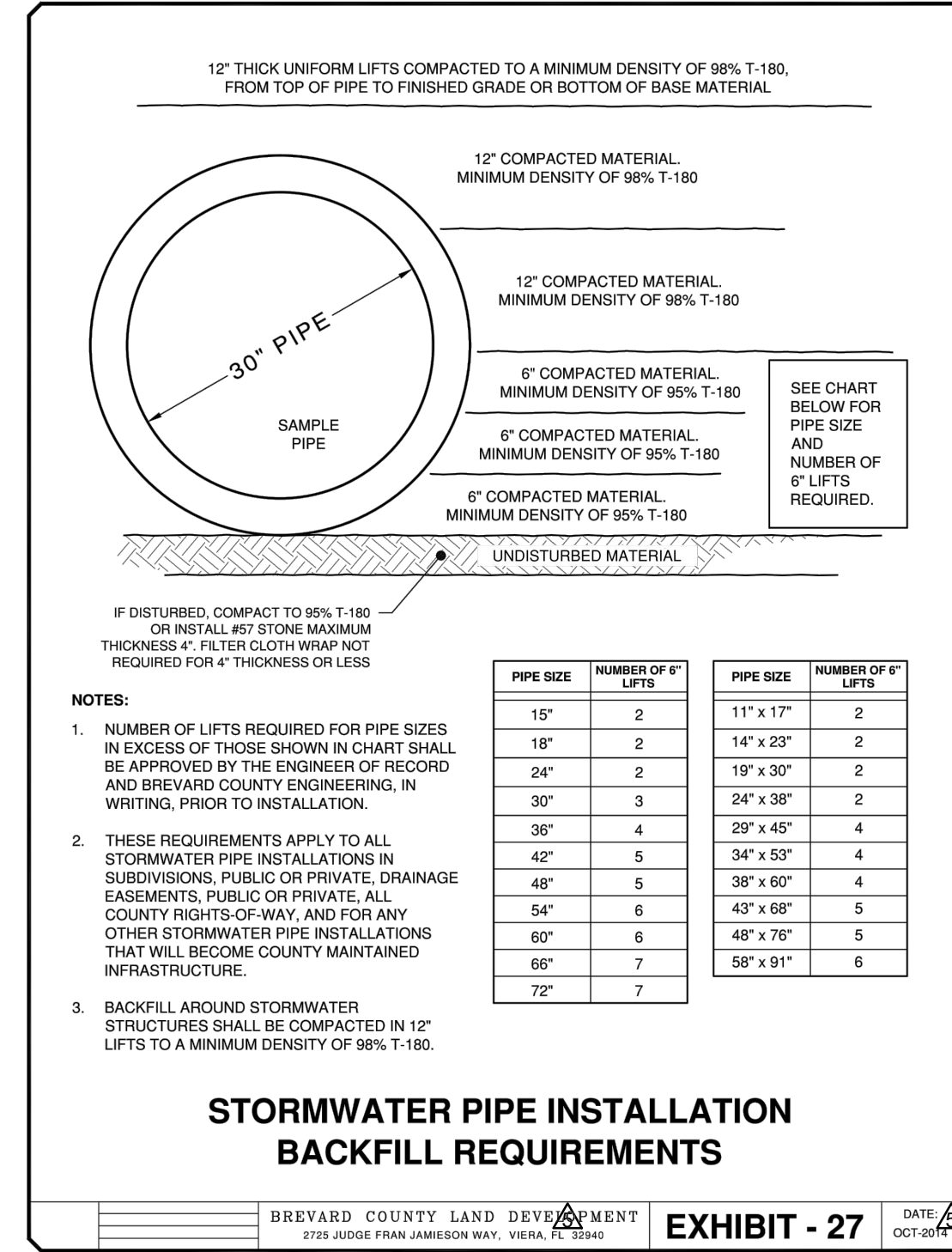
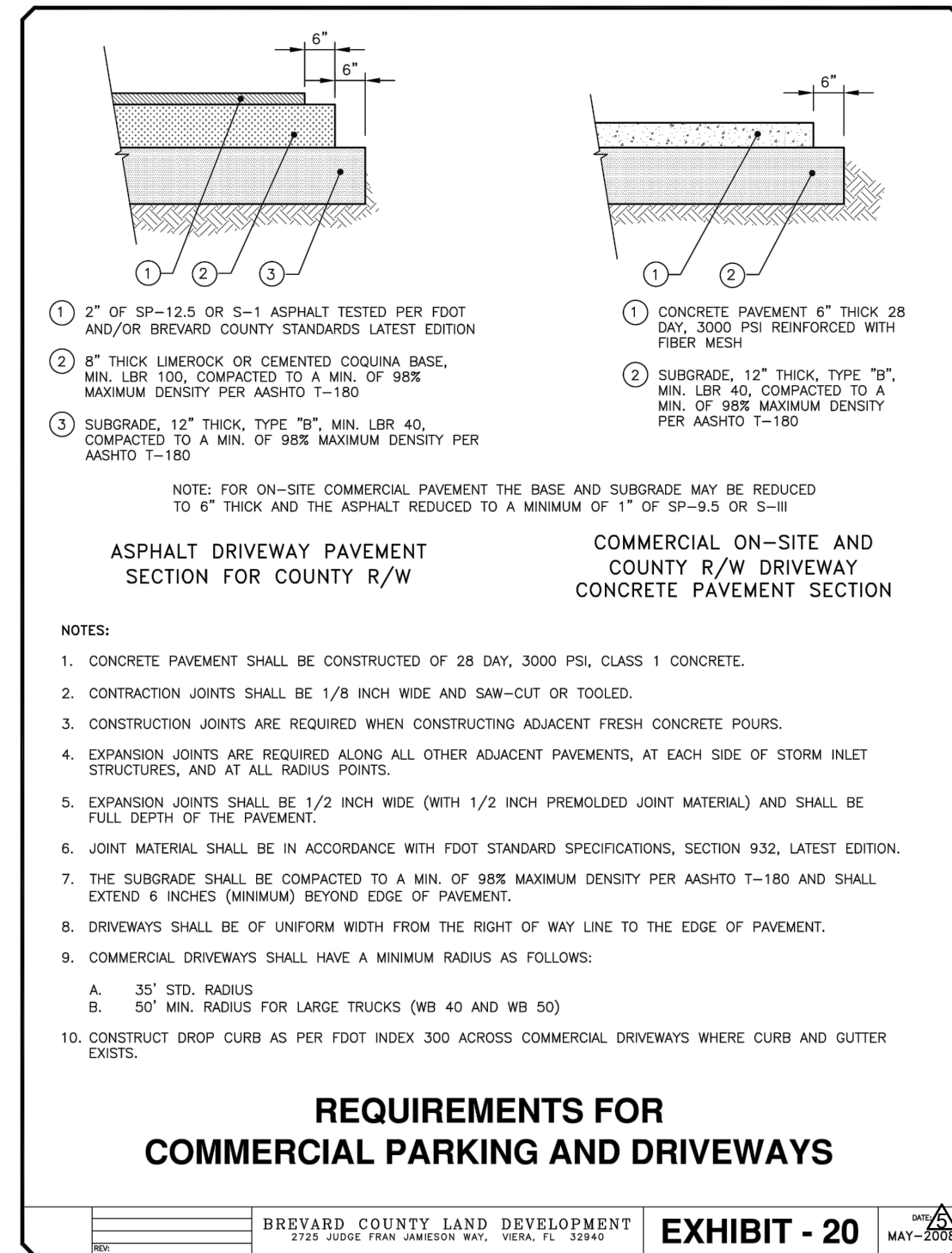
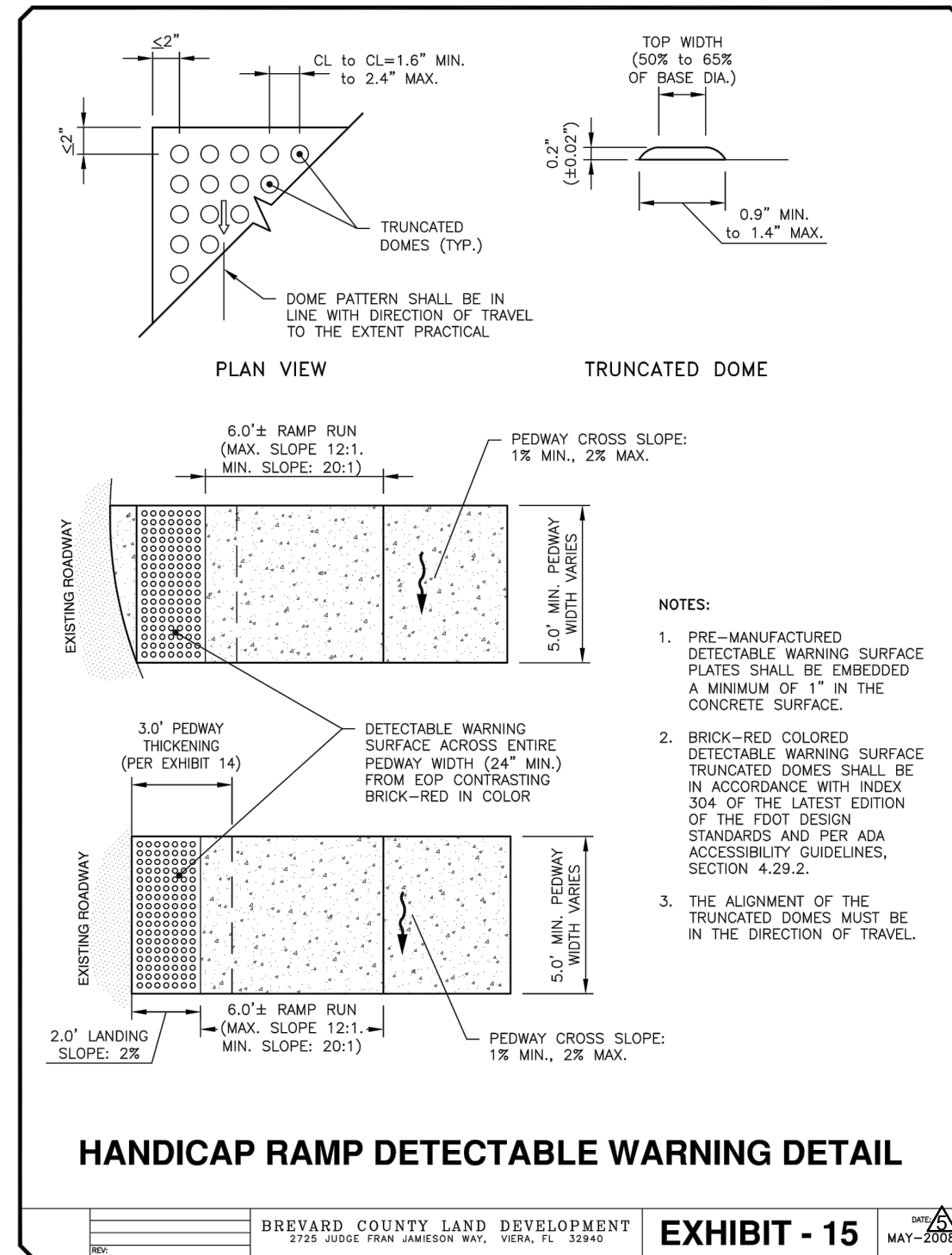
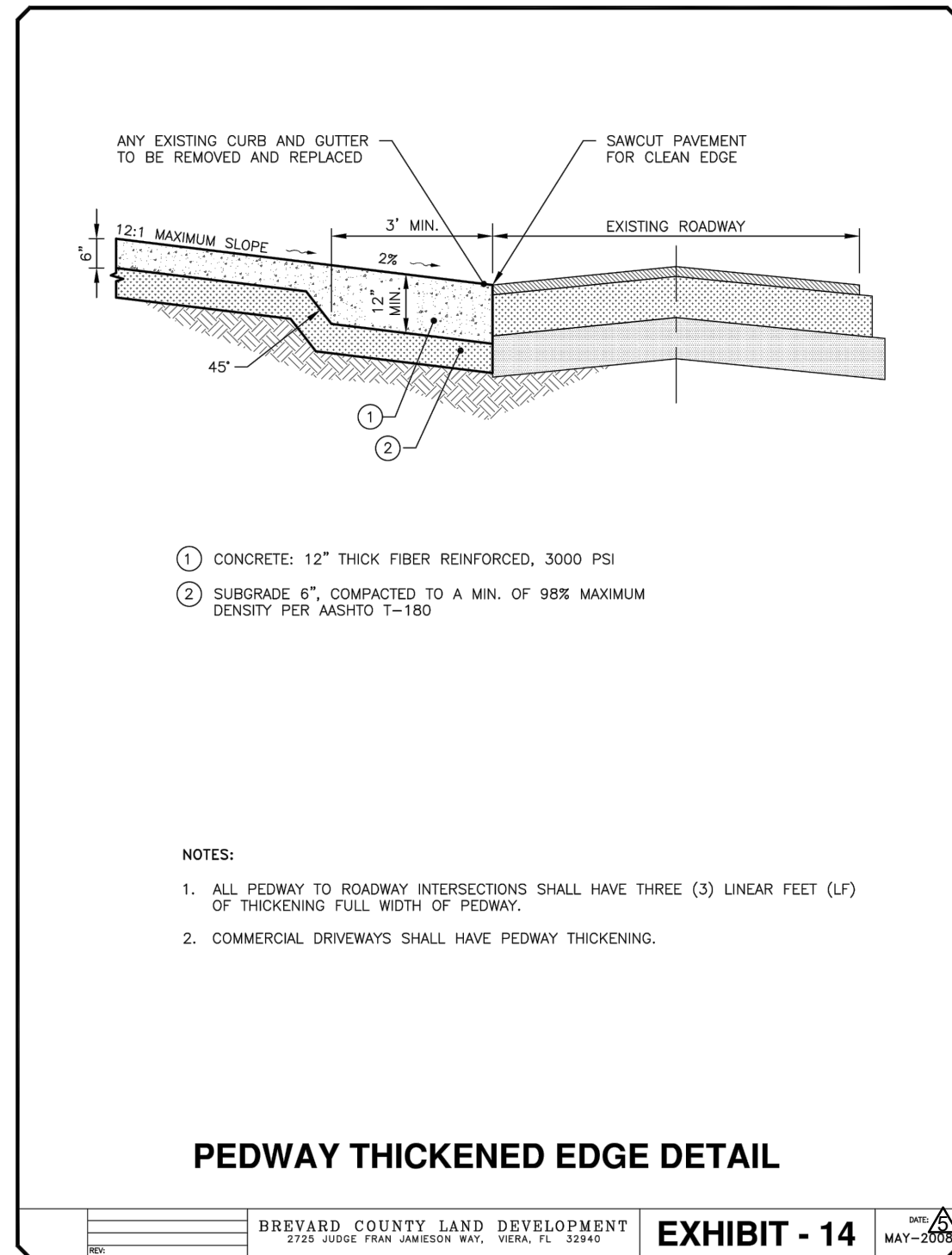
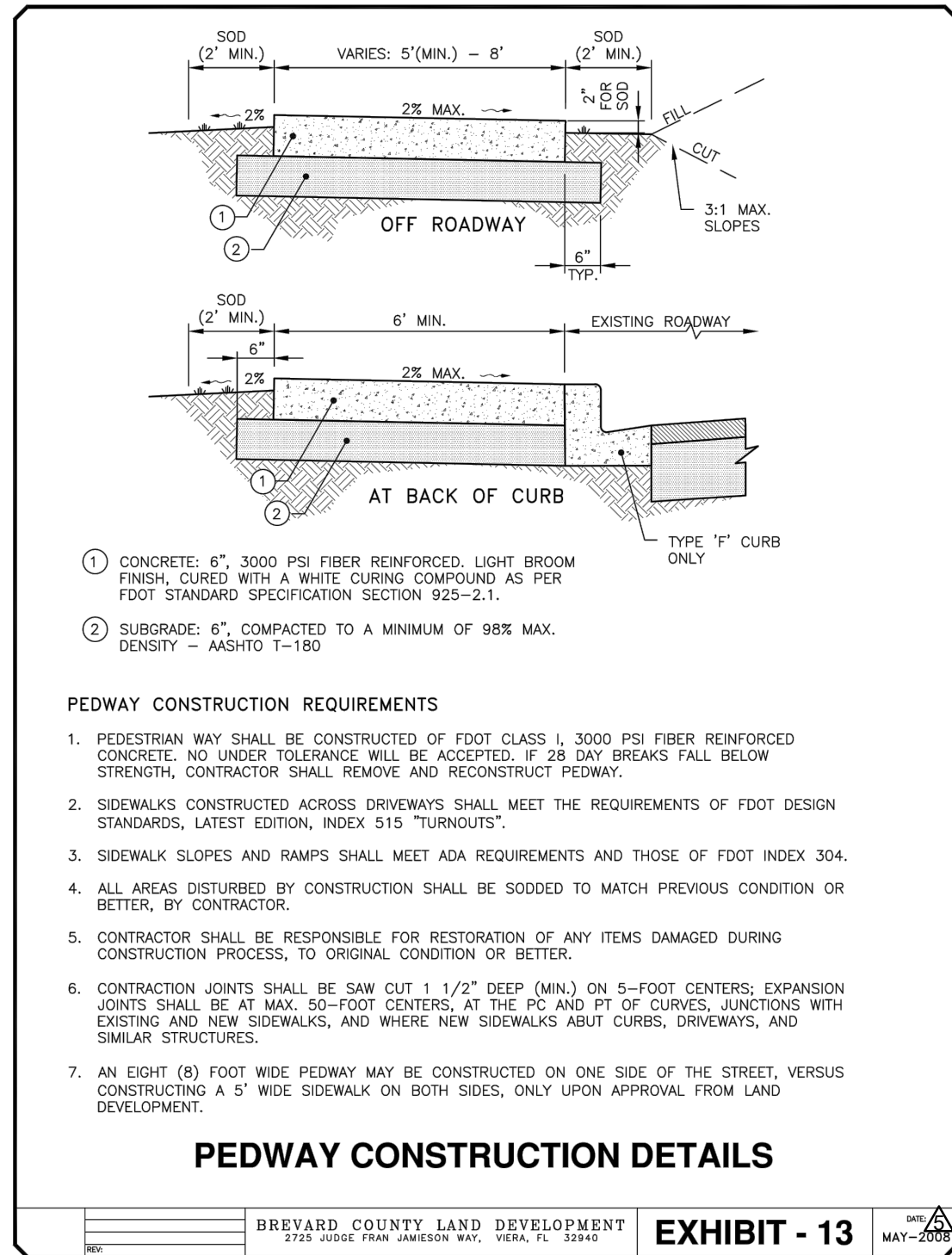
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			09-02-2022	BC	REV PER CITY/FDOT COMMENTS 
			08-01-2022	BC	REV PER CITY/SJWMD/FDOT COMMENTS 

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

FIRE TRUCK ROUTING PLAN
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 09 OF 12

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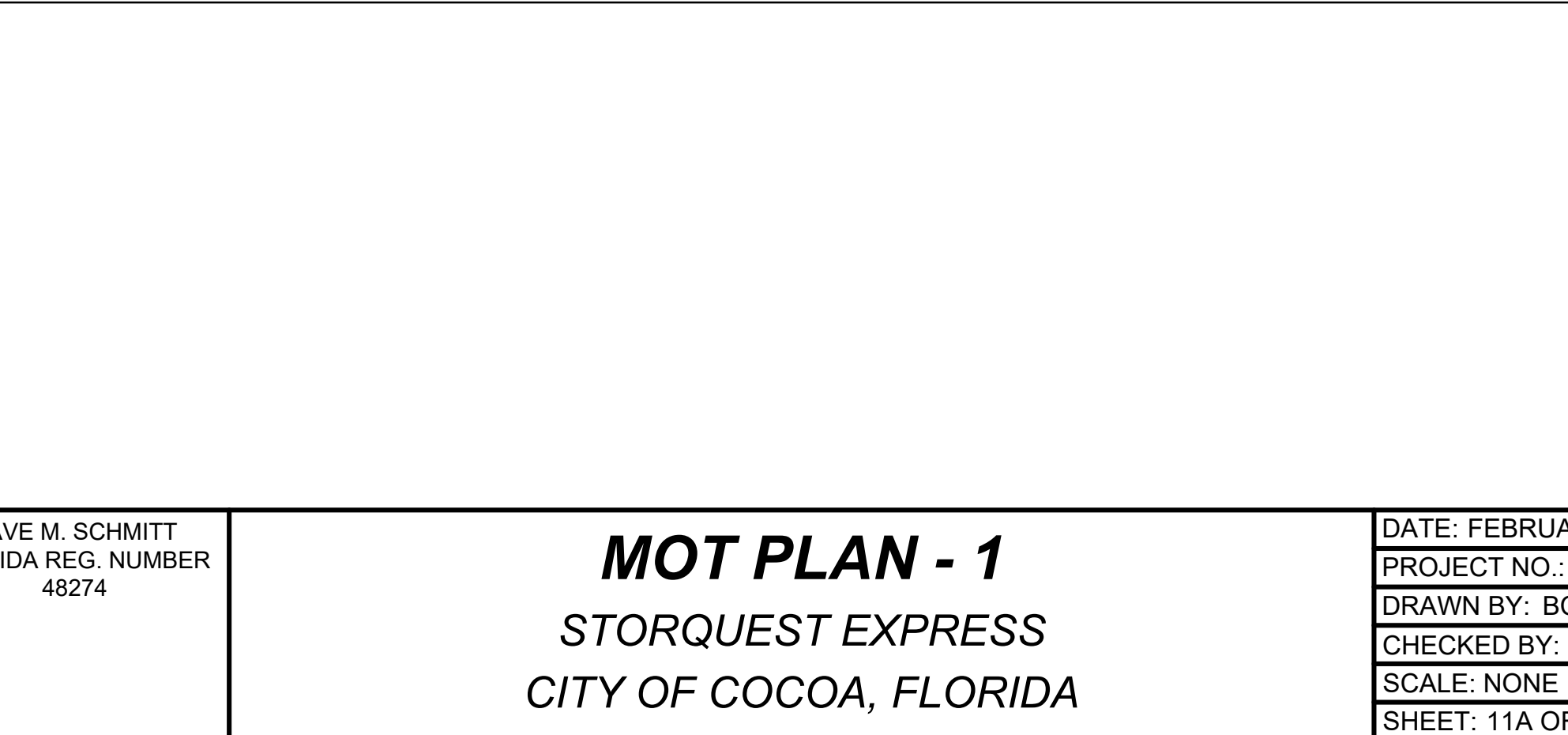
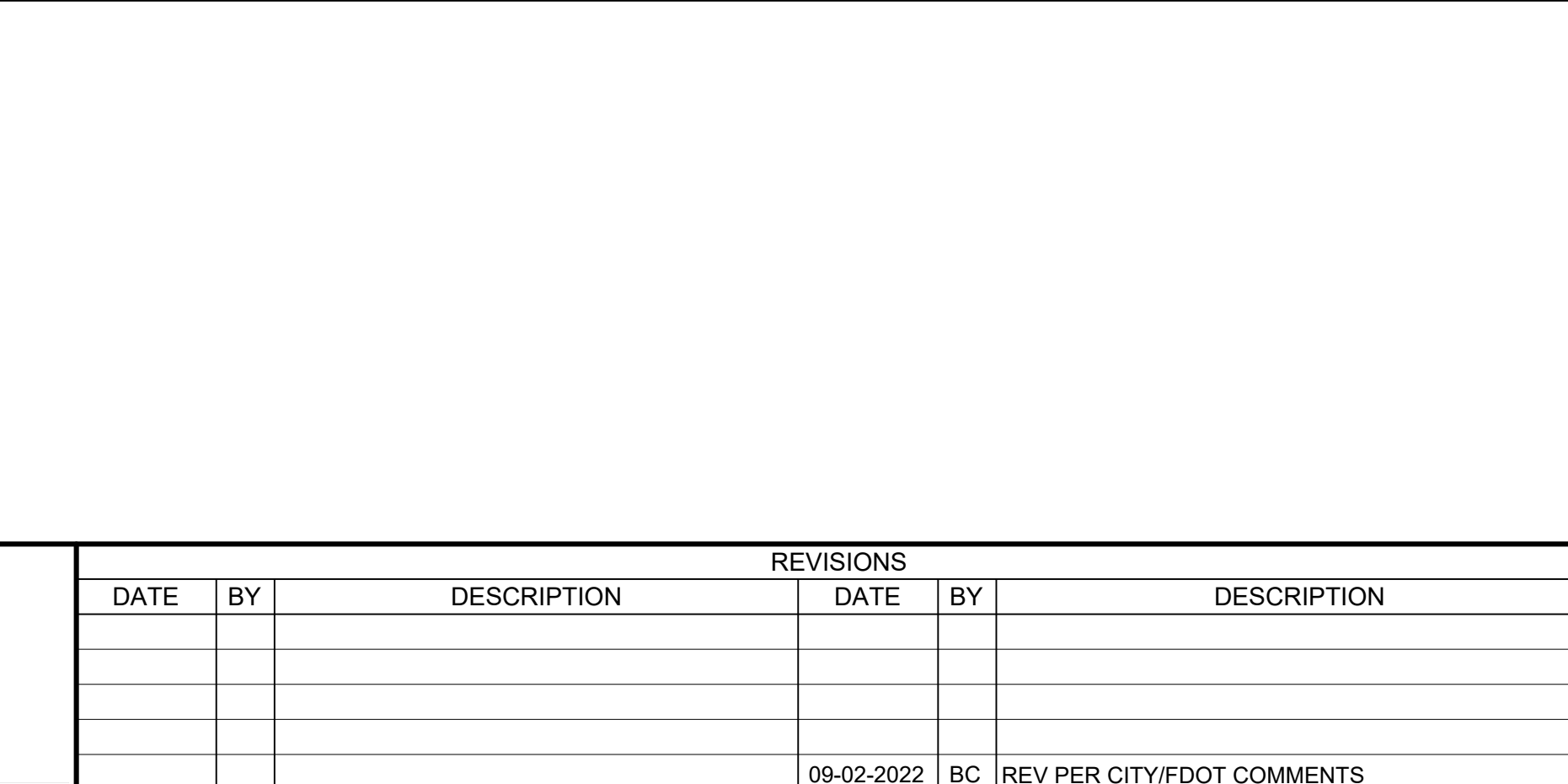
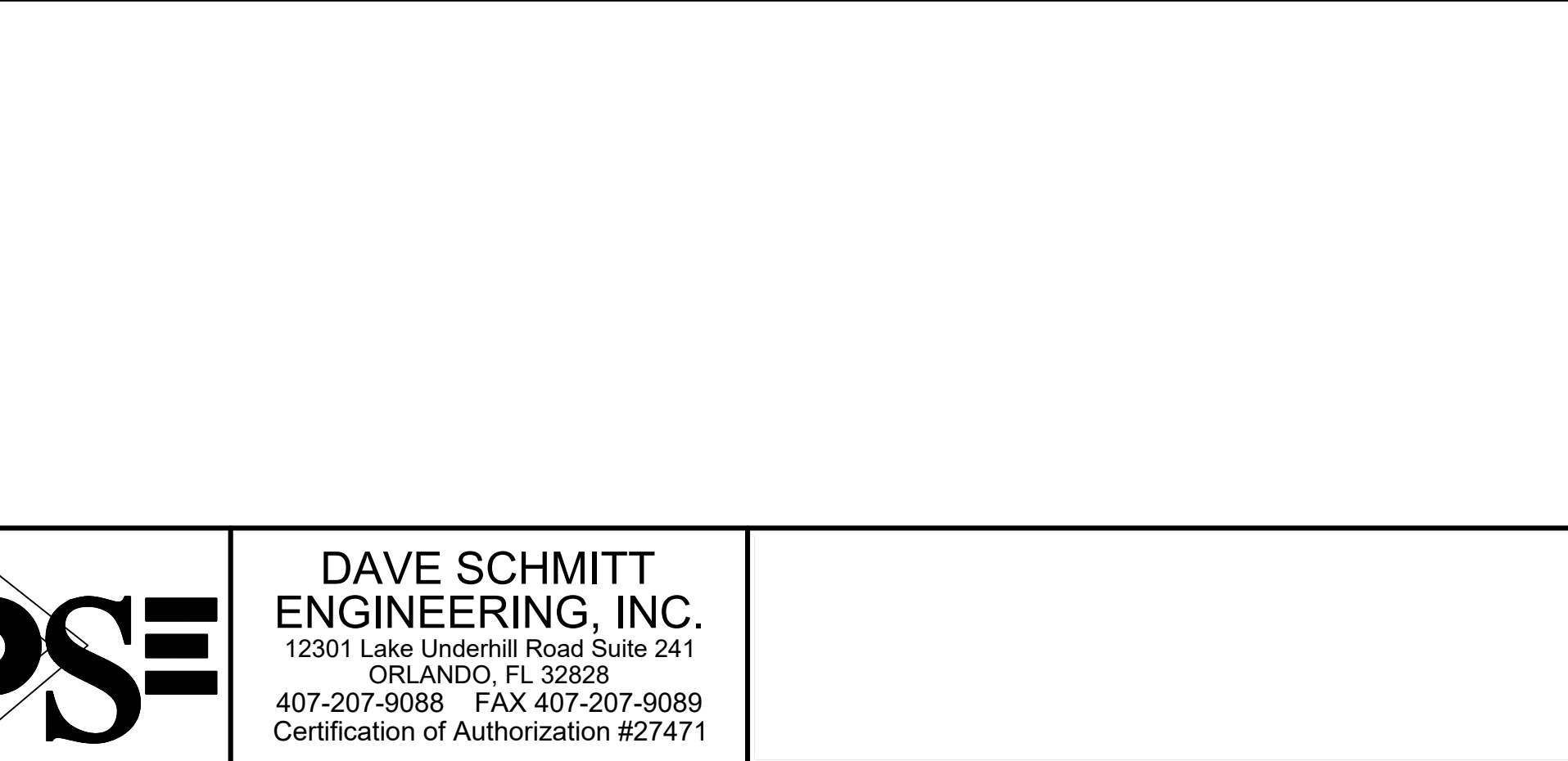
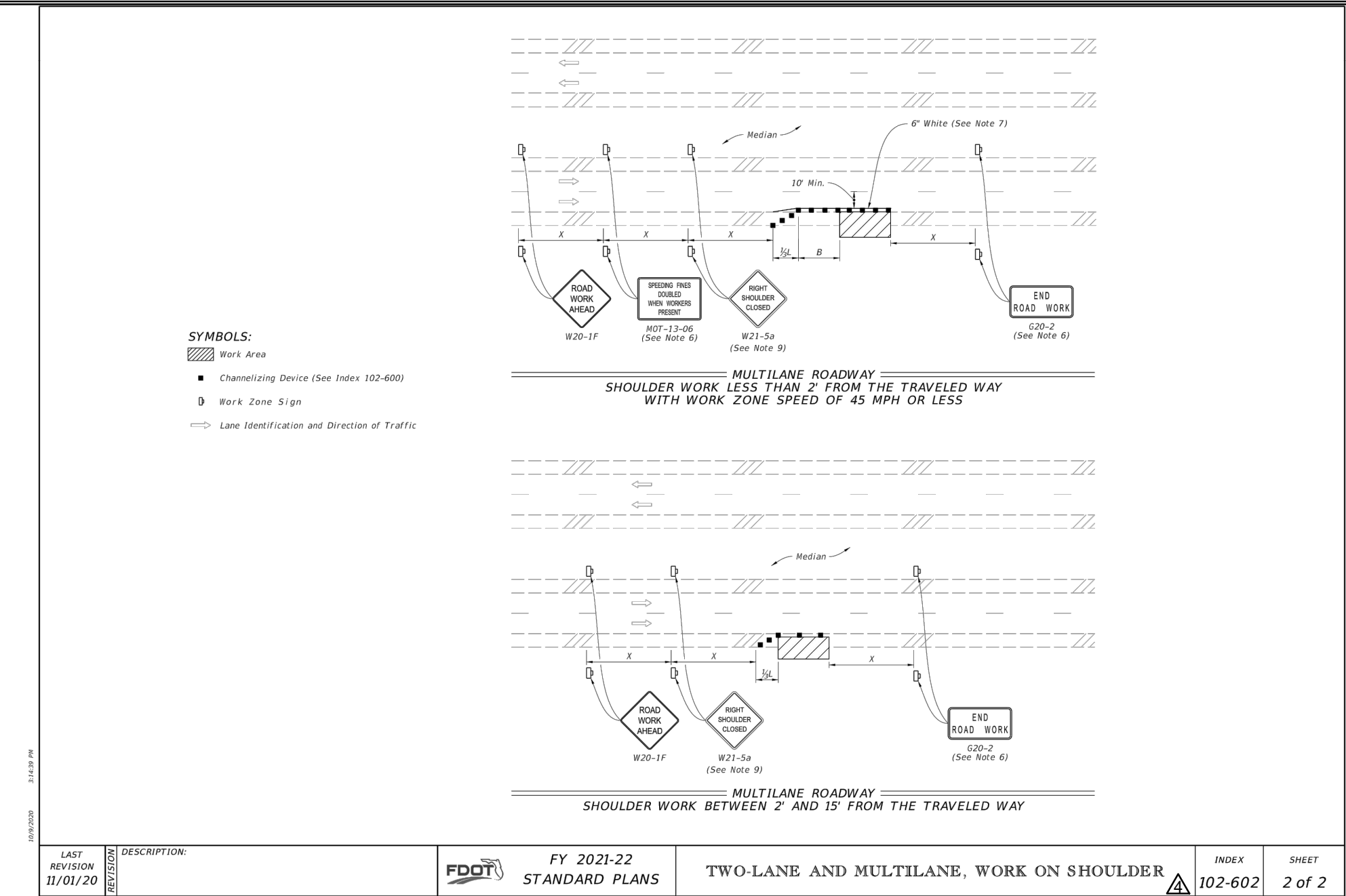
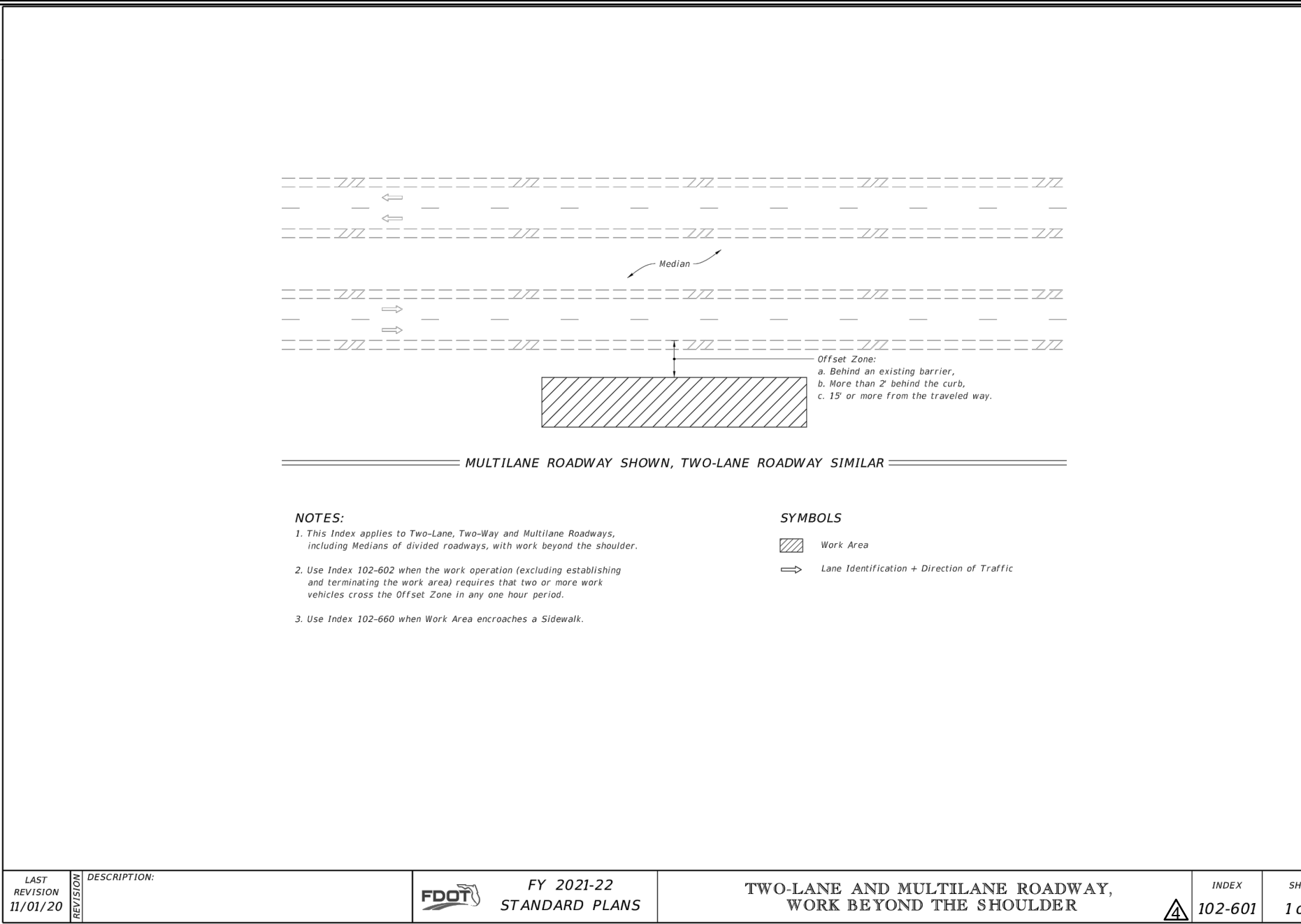
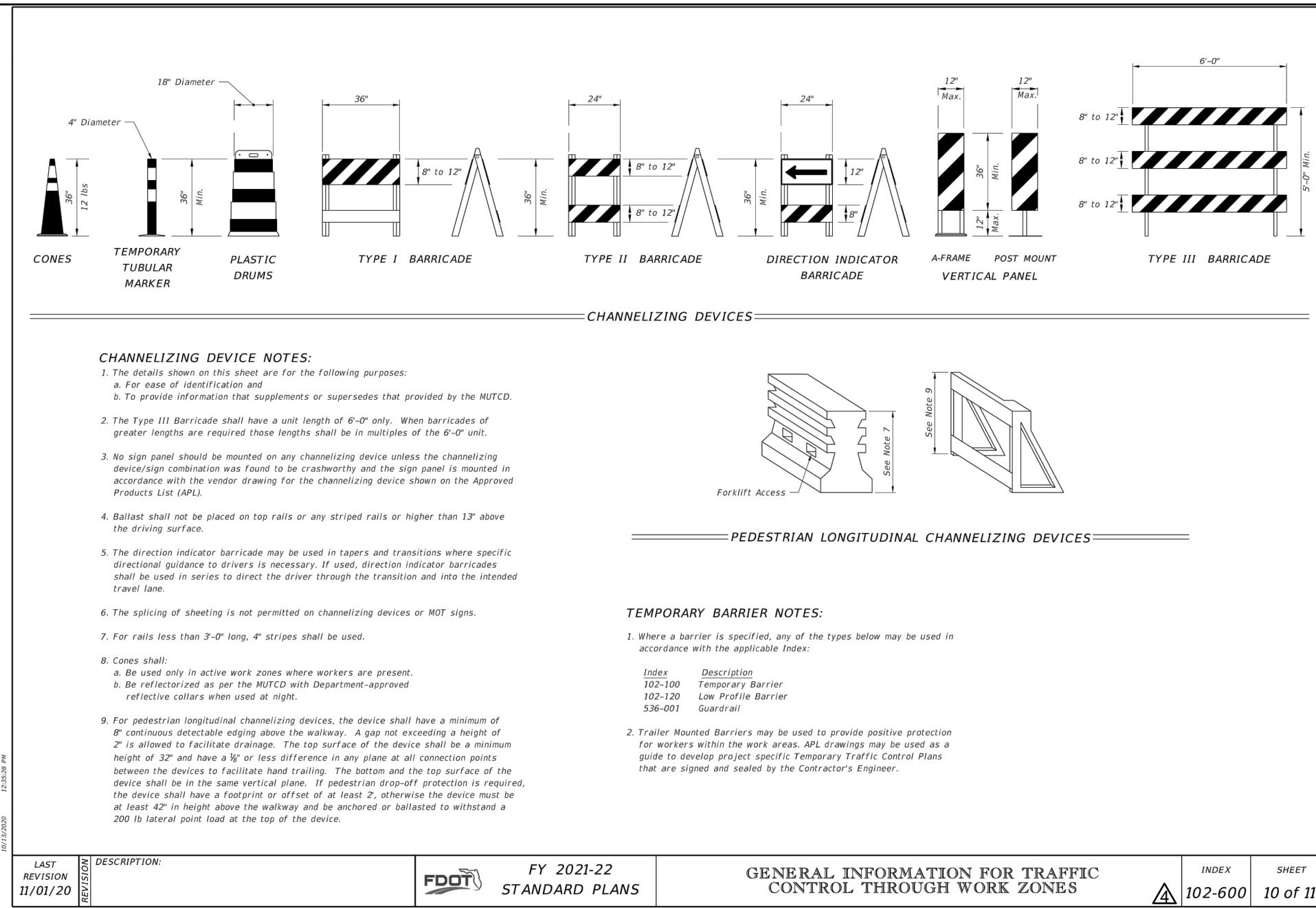
DAVE SCHMITT ENGINEERING, INC.
12301 LAKE UNDERHILL ROAD
SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			10-16-2022	BC	REV PER CITY/COUNTY/FDOT COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

PAVING & DRAINAGE DETAILS - 1
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: NONE
SHEET: 11 OF 12



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			09-02-2022	BC	REV PER CITY/EDOT COMMENTS

MOT PLAN - 1
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: NONE
SHEET: 11A OF 12

101

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DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

DATE: FEBRUARY, 202
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: NONE
SHEET: 11B OF 12

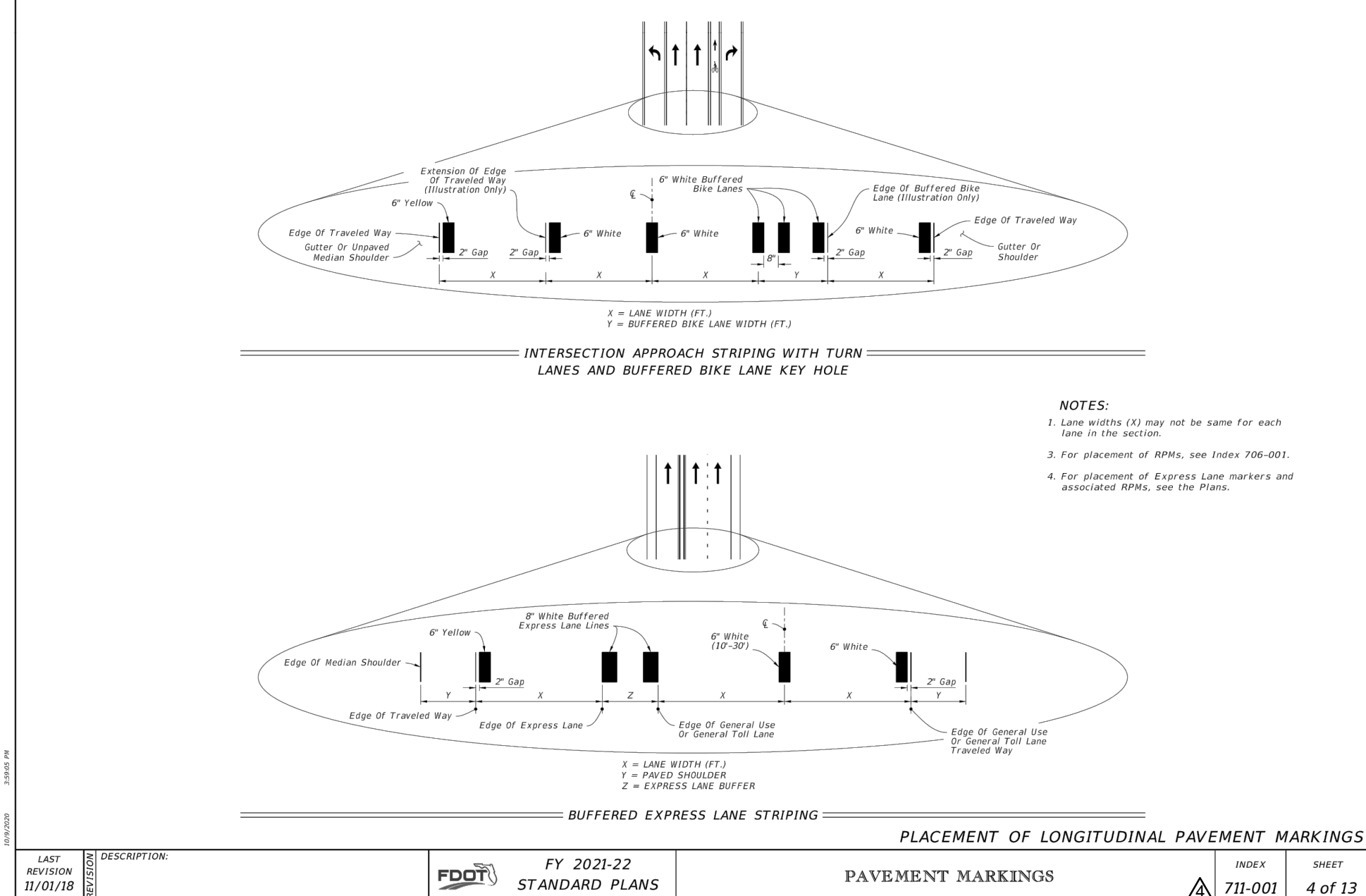
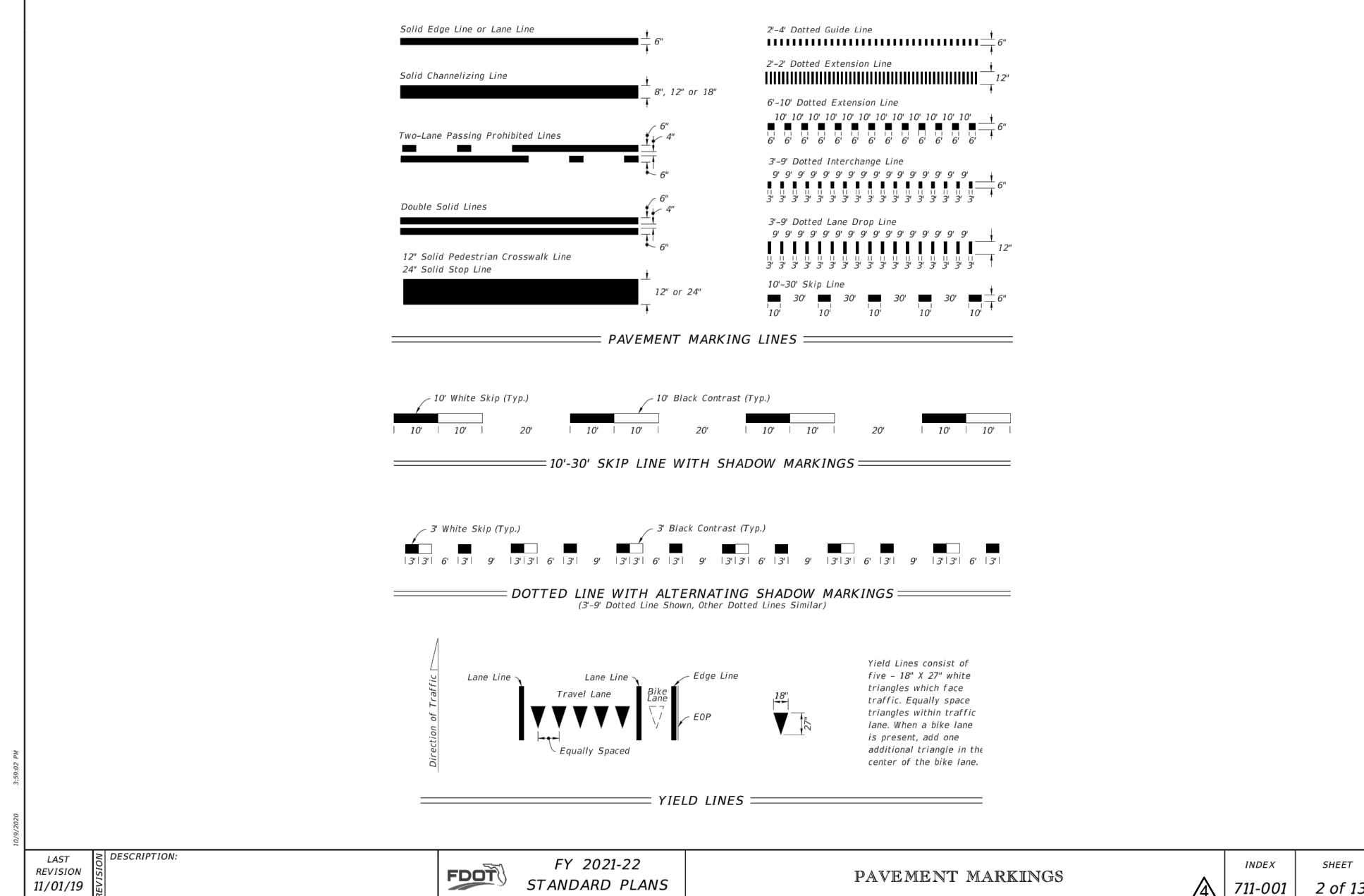
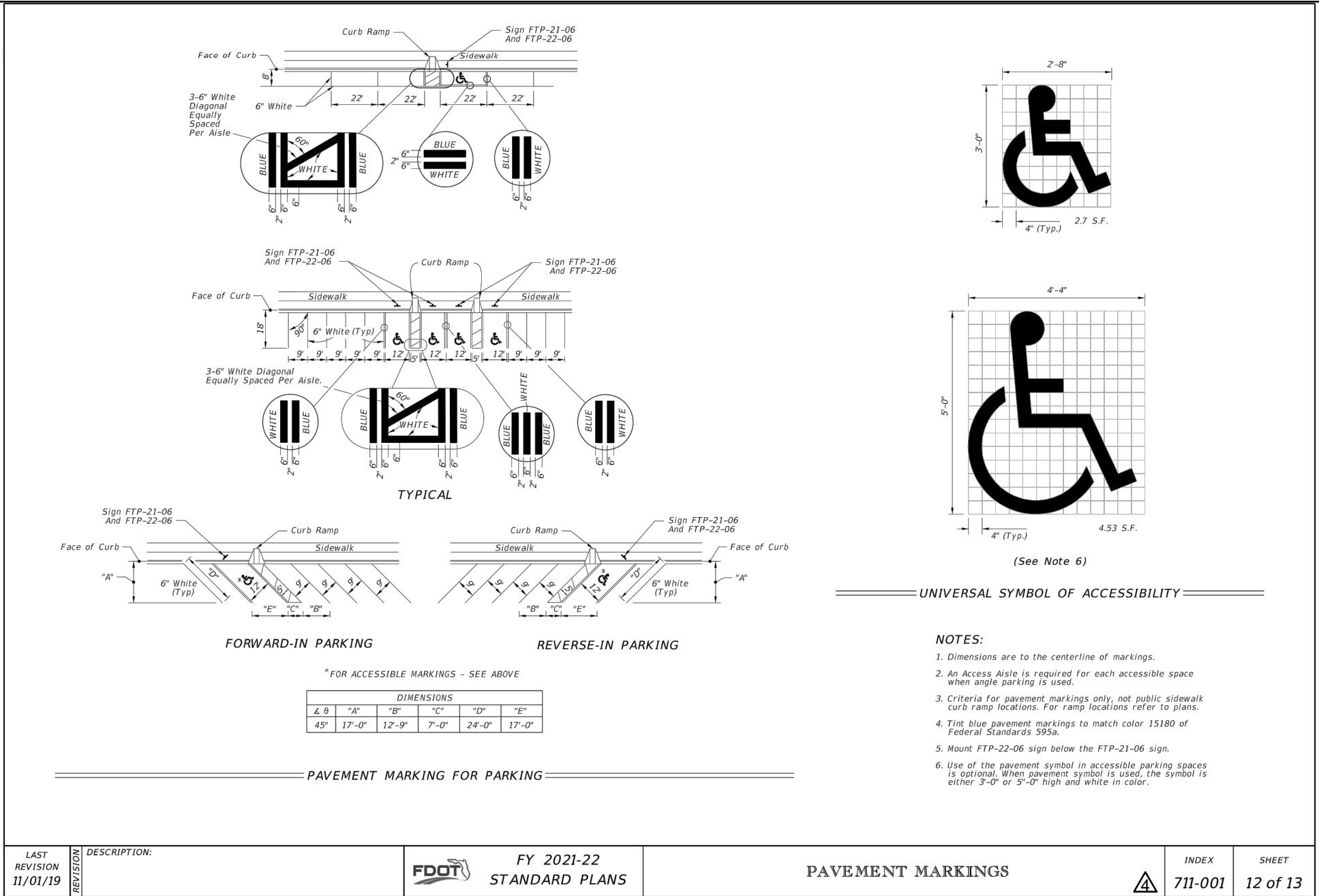
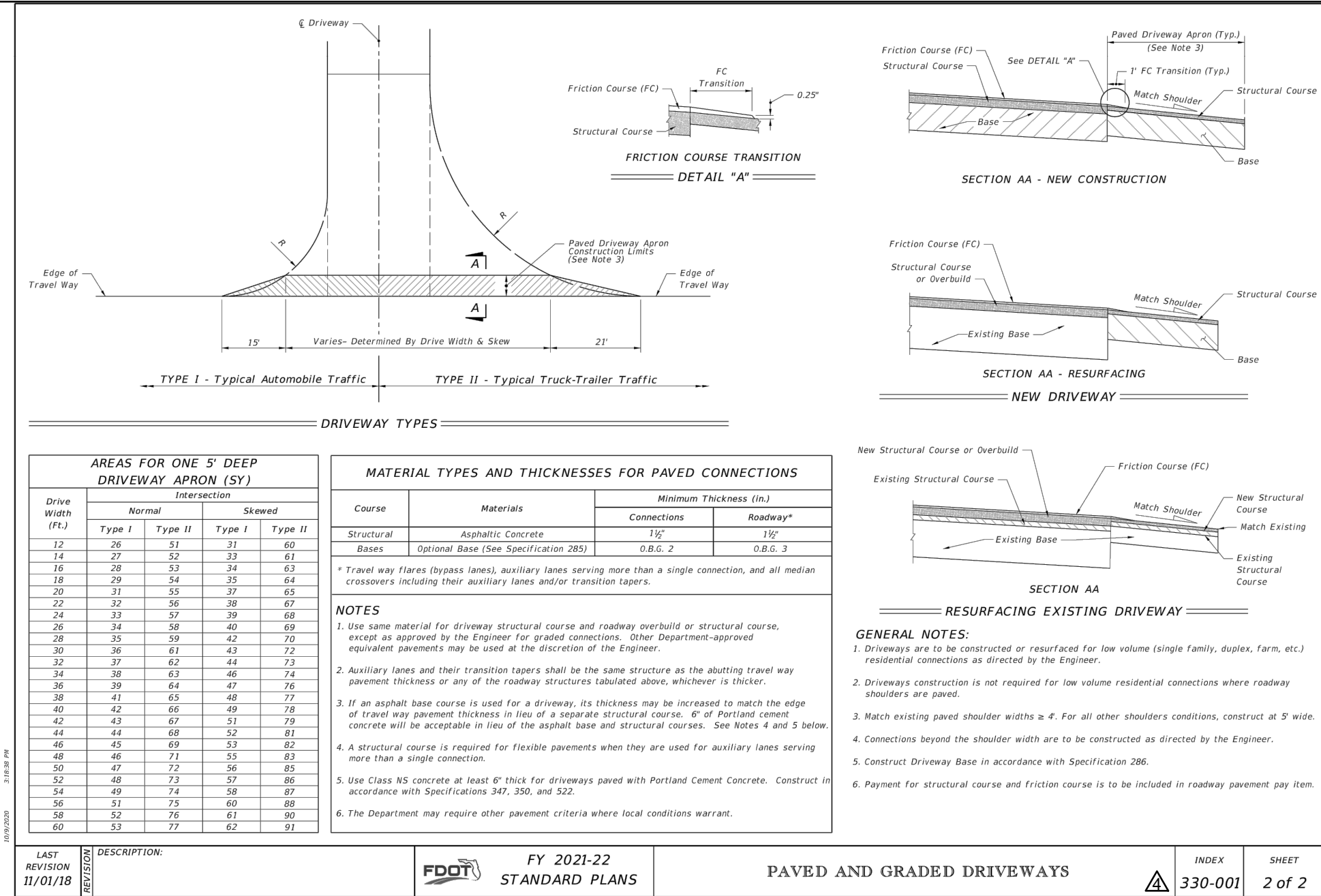
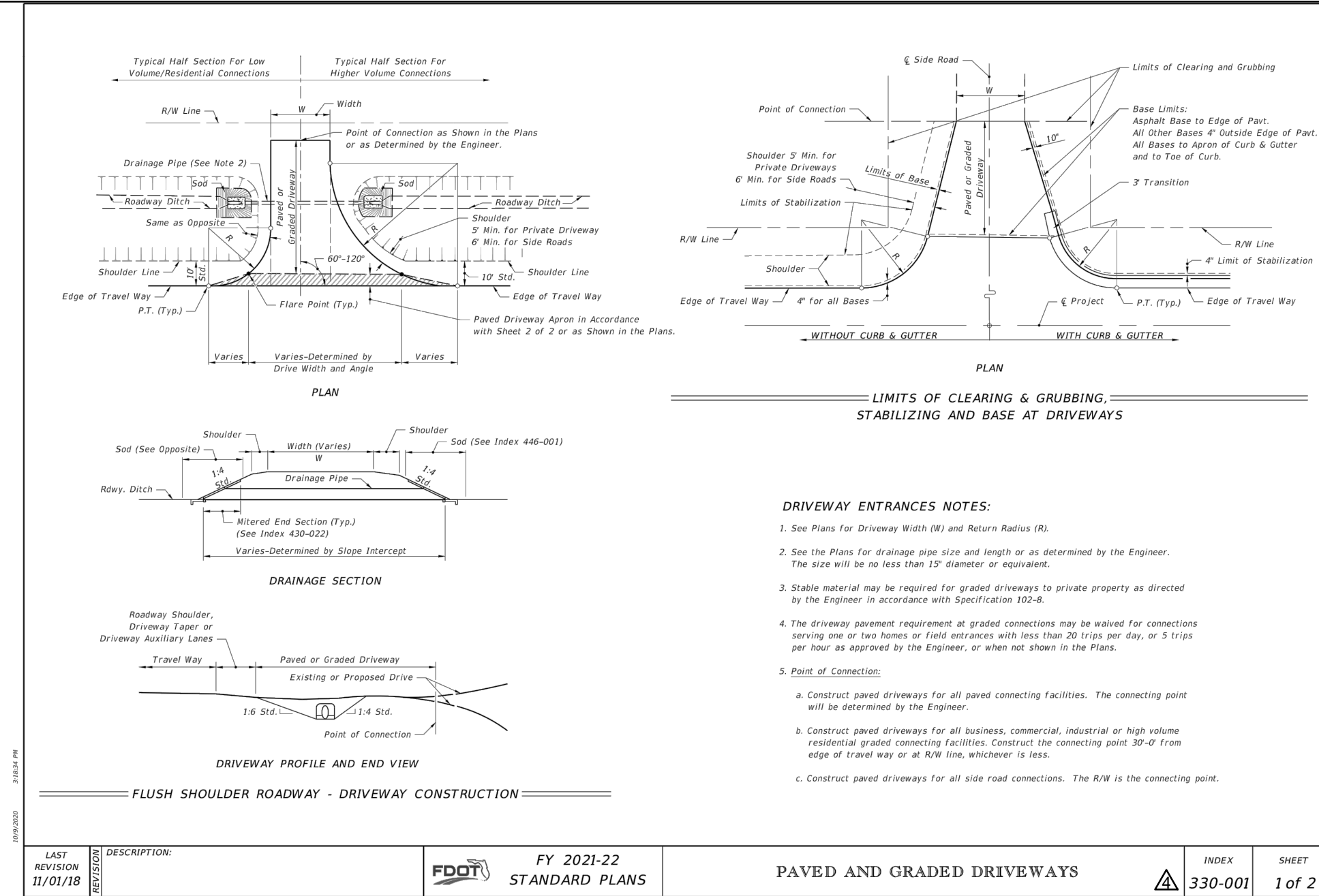
**DAVE SCHMITT
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12301 Lake Underhill Road Suite 241
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Certification of Authorization #27471

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			09-02-2022	BC	REV PER CITY/FDOT COMMENTS

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

FDOT DETAILS - 1
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: NONE
SHEET: 11C OF 12





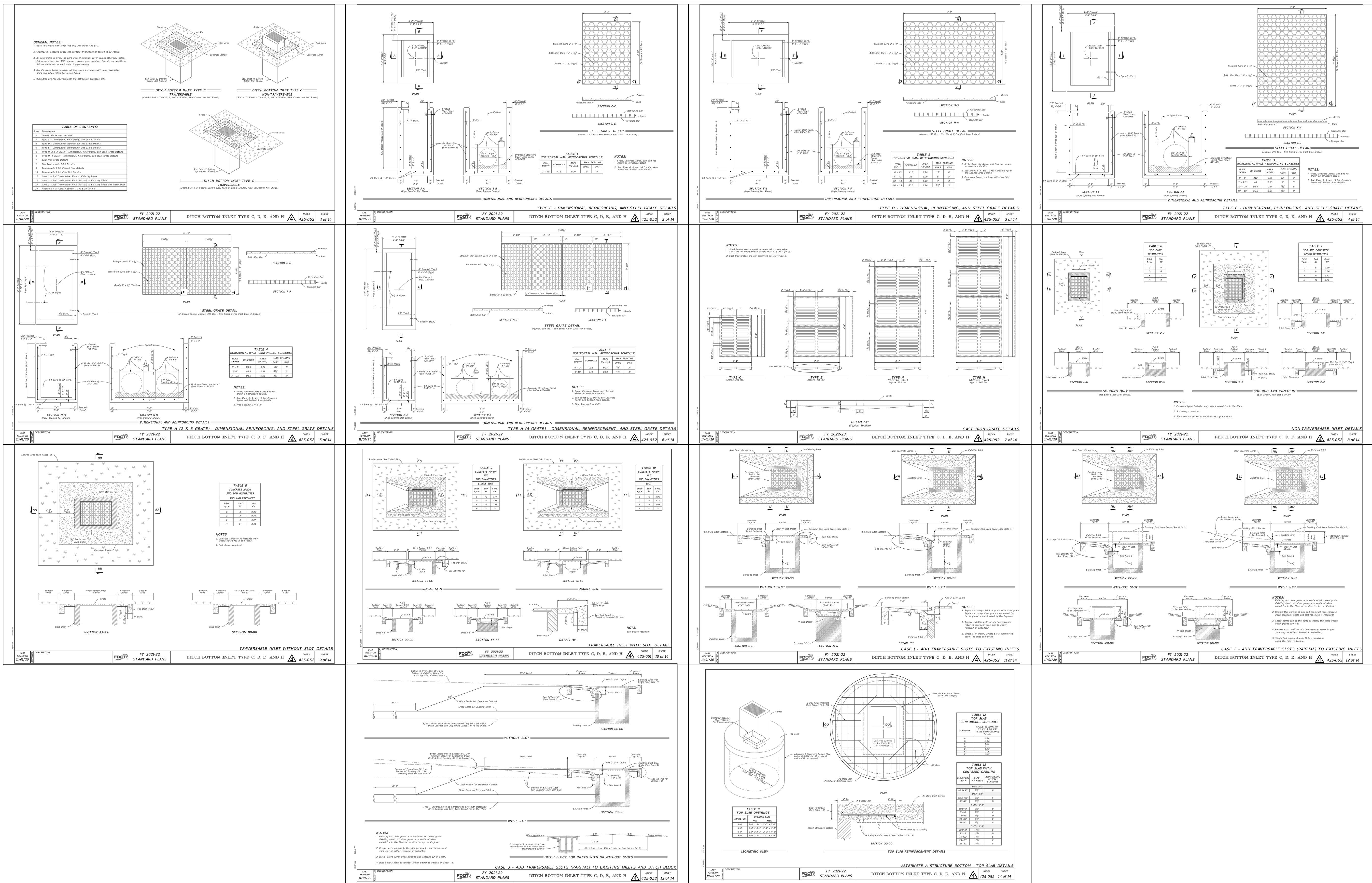
DAVE SCHMITT
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Certification of Authorization #27471

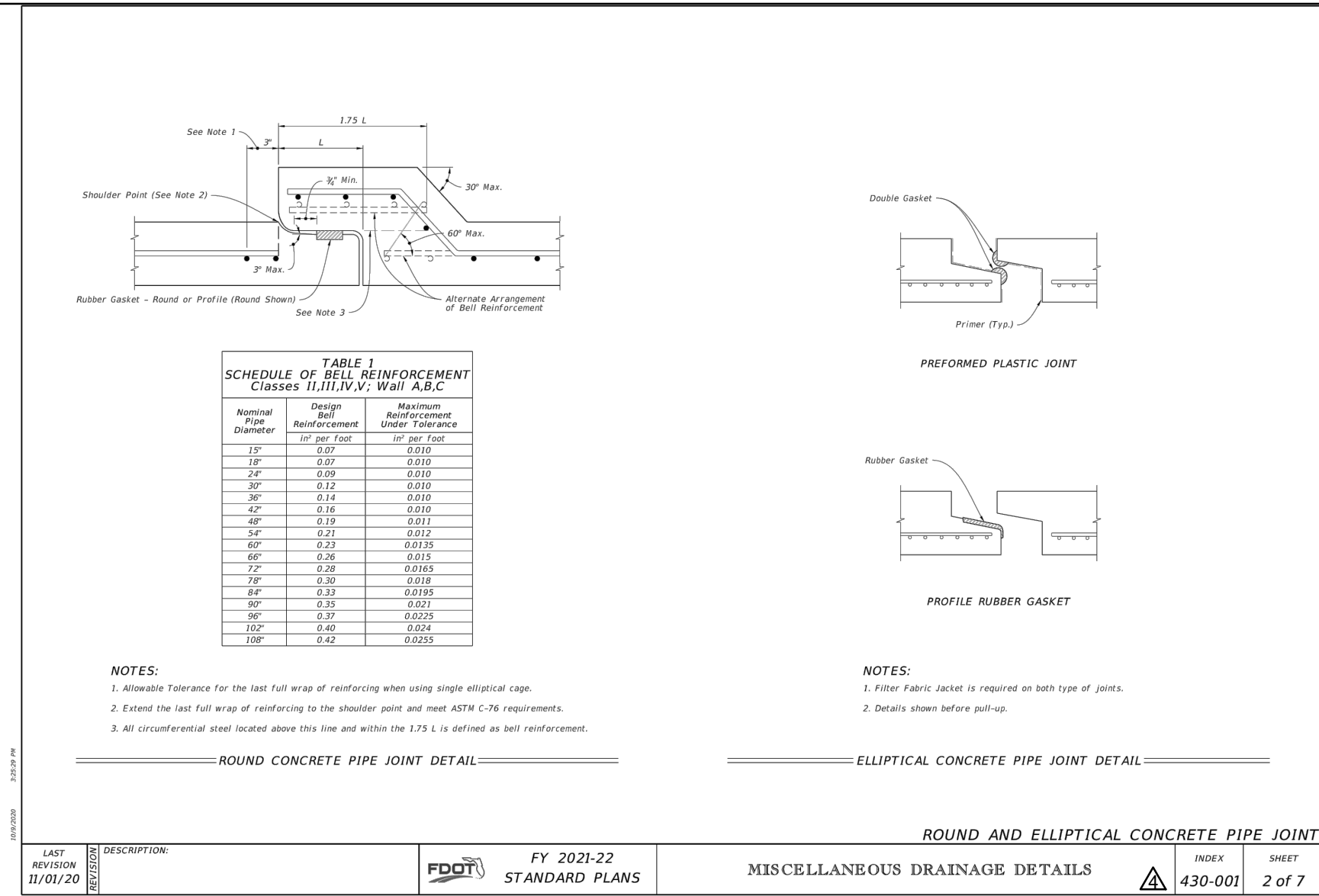
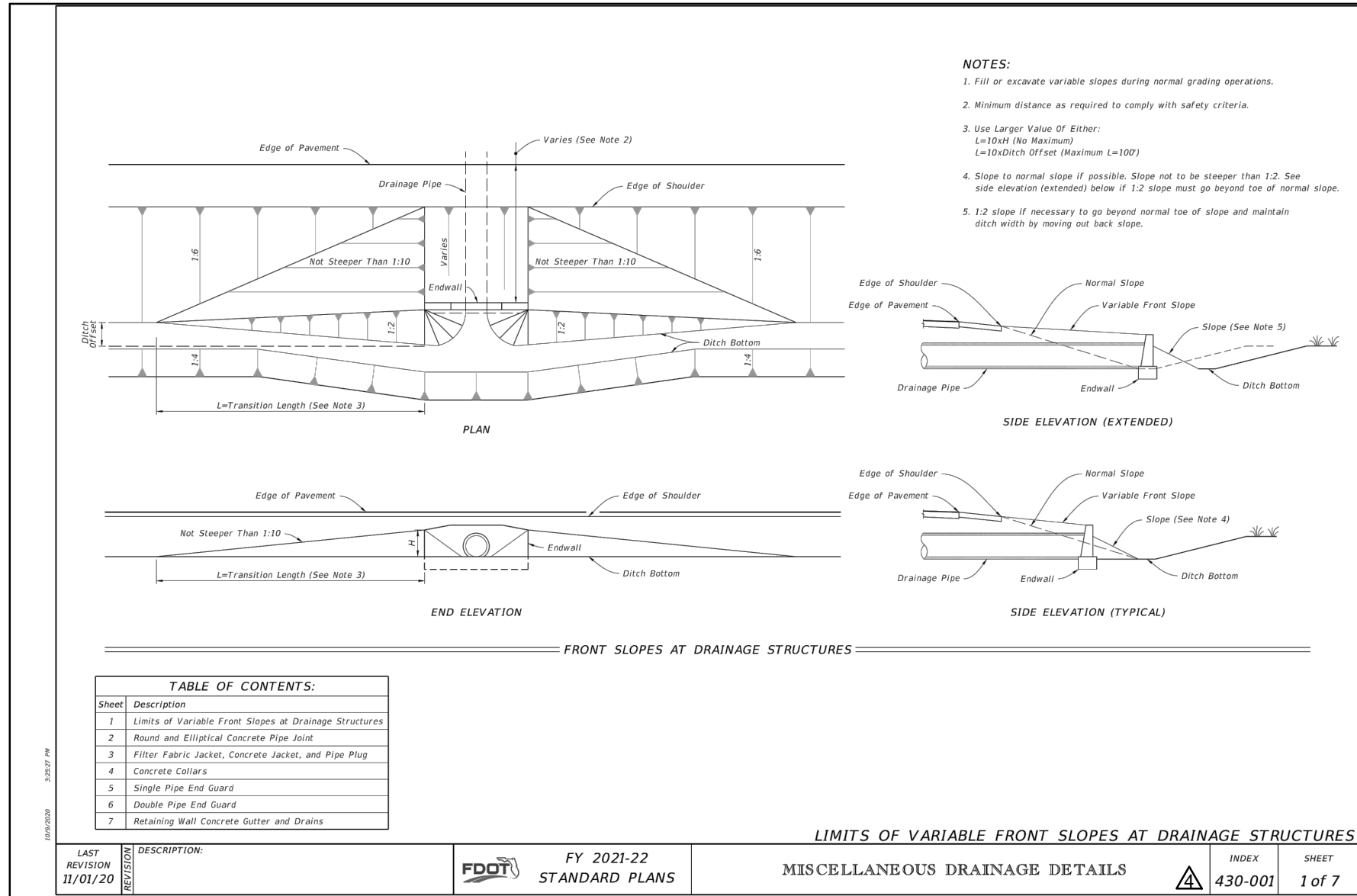
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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
09-02-2022	BC	REV PER CITY/FDOT COMMENTS			

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

FDOT DETAILS - 2
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: BC
CHECKED BY: DMS
SCALE: NONE
SHEET: 11D OF 12



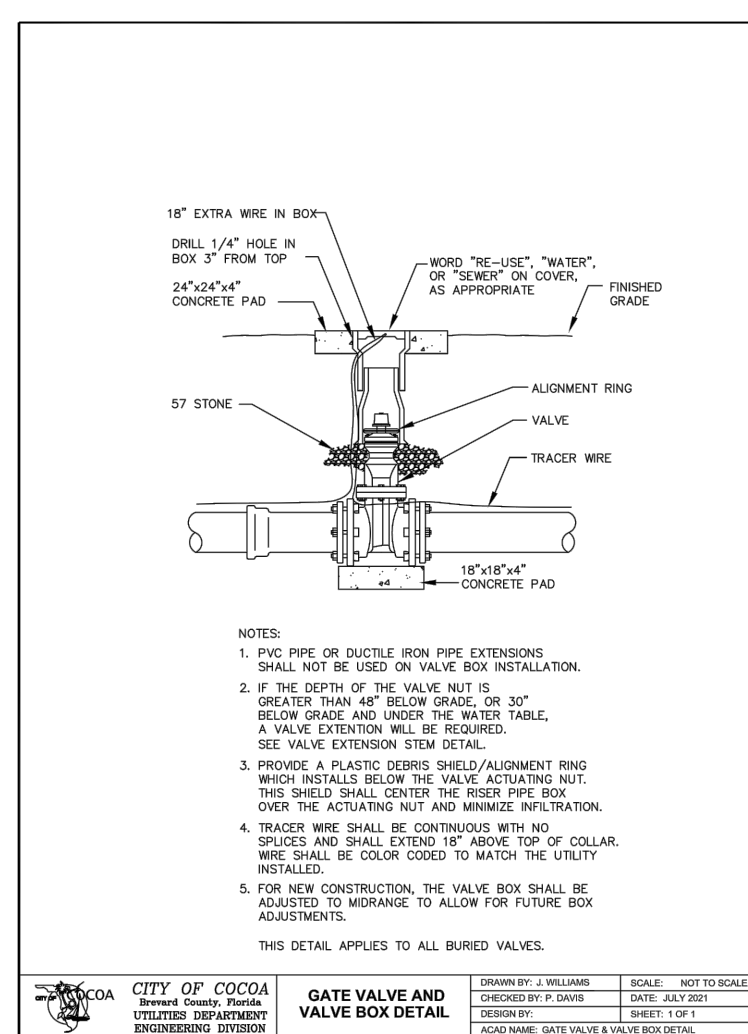
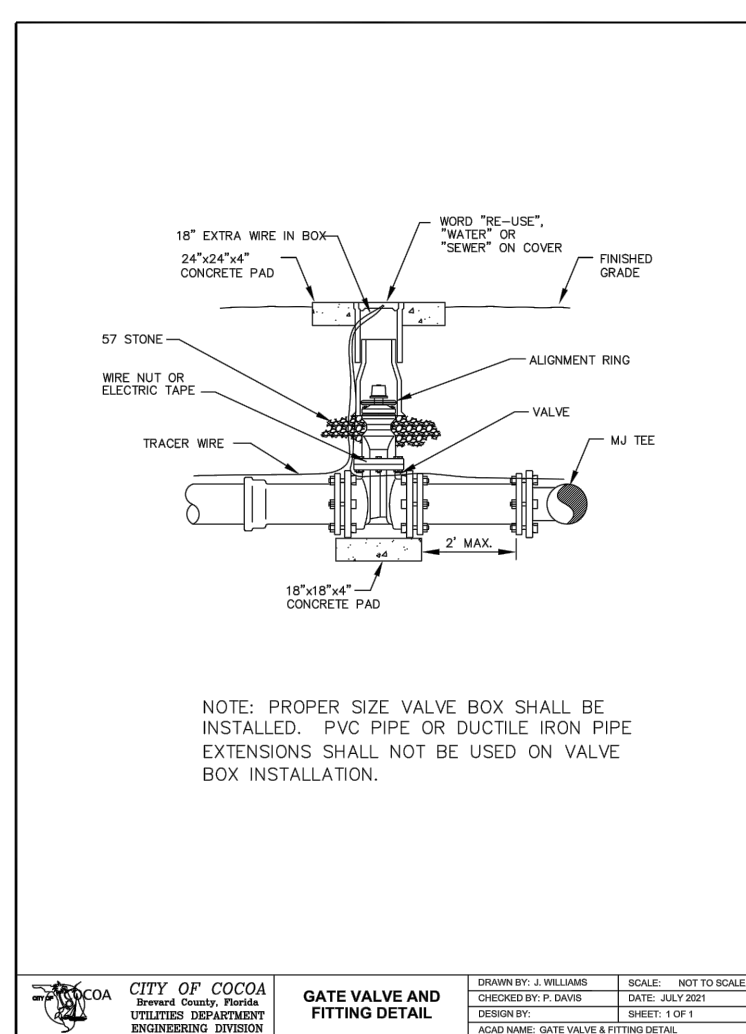
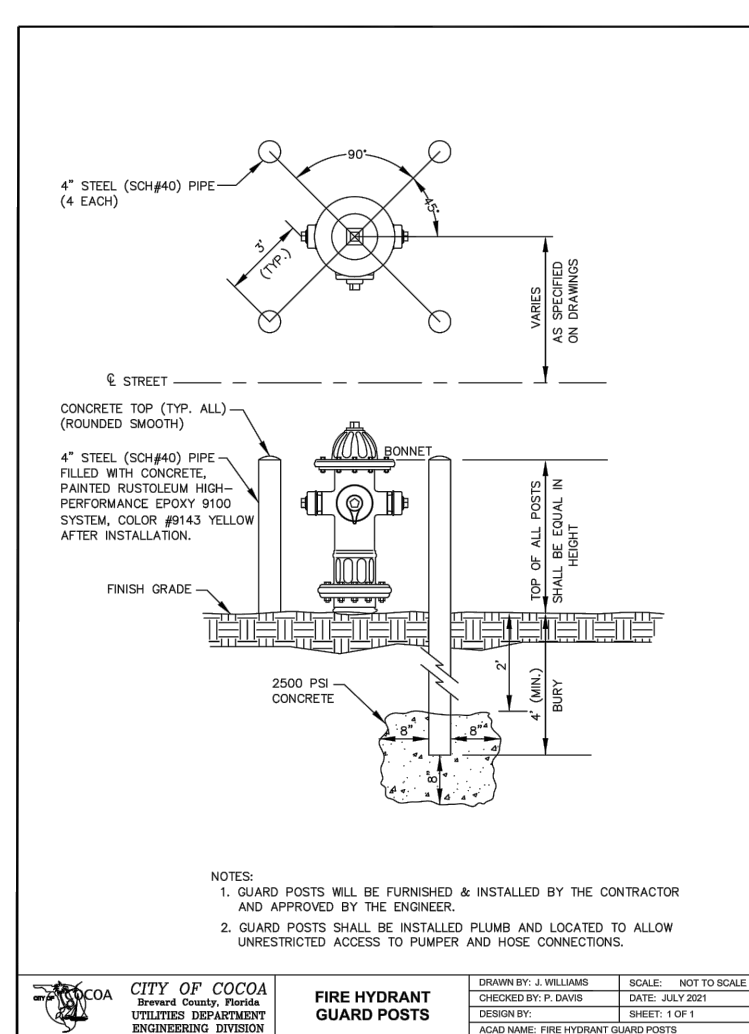
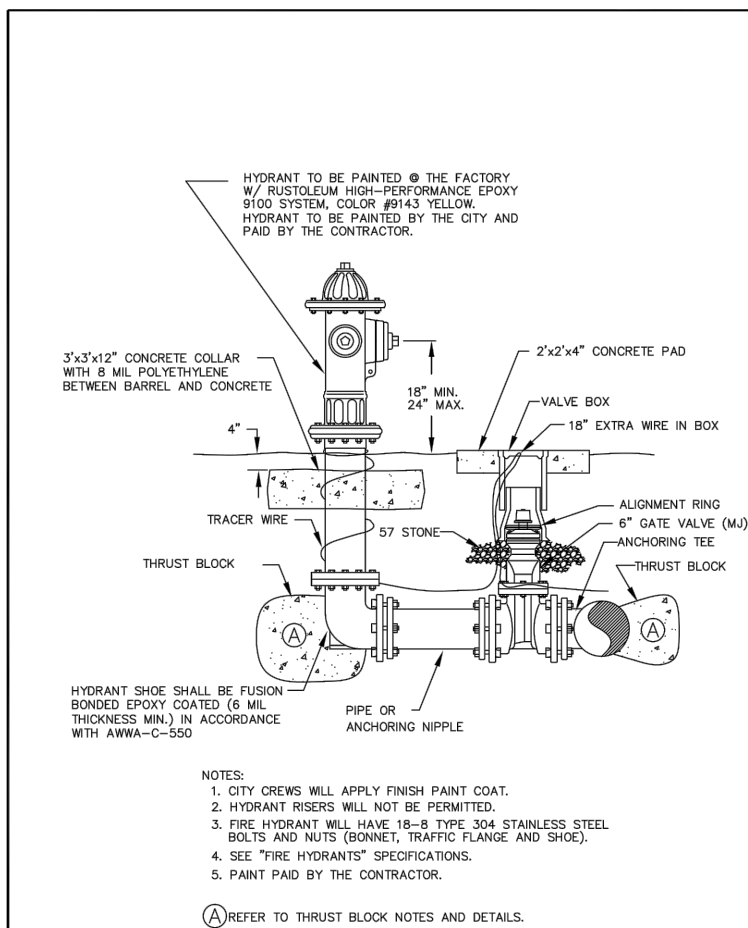
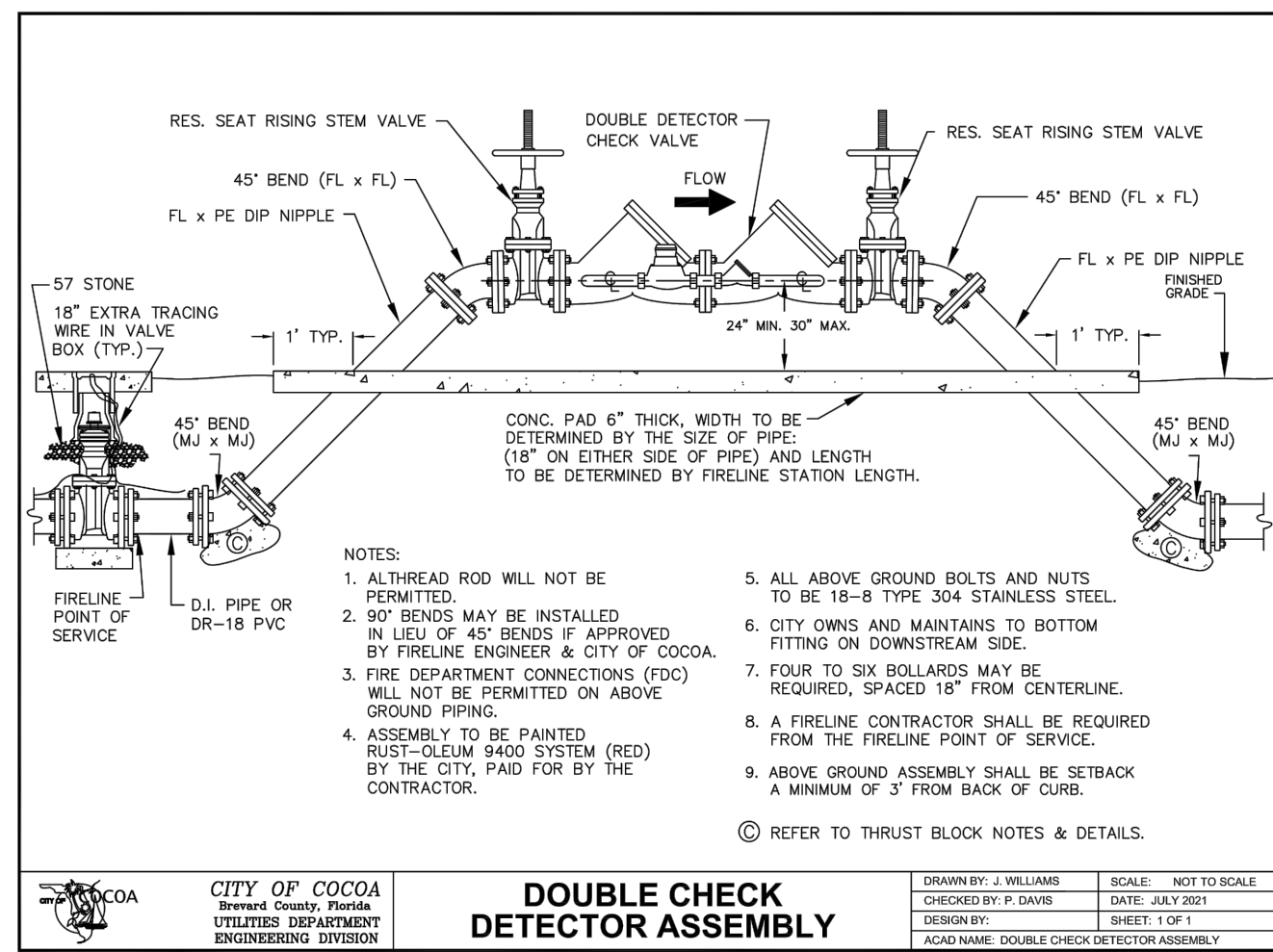


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DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

UTILITY DETAILS
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: FEBRUARY, 2022
PROJECT NO.: WWG-1
DRAWN BY: JSK
CHECKED BY: DMS
SCALE: NONE
SHEET: 12 OF 12



RESTRAINED PIPE TABLE FORCE MOMS

MINIMUM LENGTH (L _F) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)		PIPE SIZE					
TYPE		4"	6"	8"	10"	12"	14"
90° BEND		11	16	20	24	28	36
45° BEND		5	7	9	10	11	15
22-1/2° BEND		3	4	4	5	6	8
11-1/4° BEND		2	2	2	3	3	4
PLUG, BRANCH OF TEE, VALVE		25	35	45	54	64	82

NOTES:

1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INITIAL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS FIRST.
4. ALL LINE WALLS AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN TABLE HAVE BEEN CALCULATED USING THE EBAK IRON STRAIN REDUCTION CALCULATOR WITH THE FOLLOWING ASSUMPTIONS:
 WORKING PRESSURE: 70 PSI
 SOIL DESIGNATION: 305 (CANDY SALT)
 FACTOR SAFETY: 2.0 TO 3.1
 TRUCK TRAY: 3
 DEPTH OF BURIAL: 3 FT

TABLE 15 IS FOR PVC ONLY. RESTRAINED LENGTH FOR ALTERNATE MATERIALS WILL NEED TO BE SUBMITTED TO THE ENGINEERING DIVISION FOR APPROVAL.

CITY OF COCOA
OFFICE OF COMMUNITY
DEVELOPMENT

RESTRAINED PIPE TABLE
FORCE MOMS

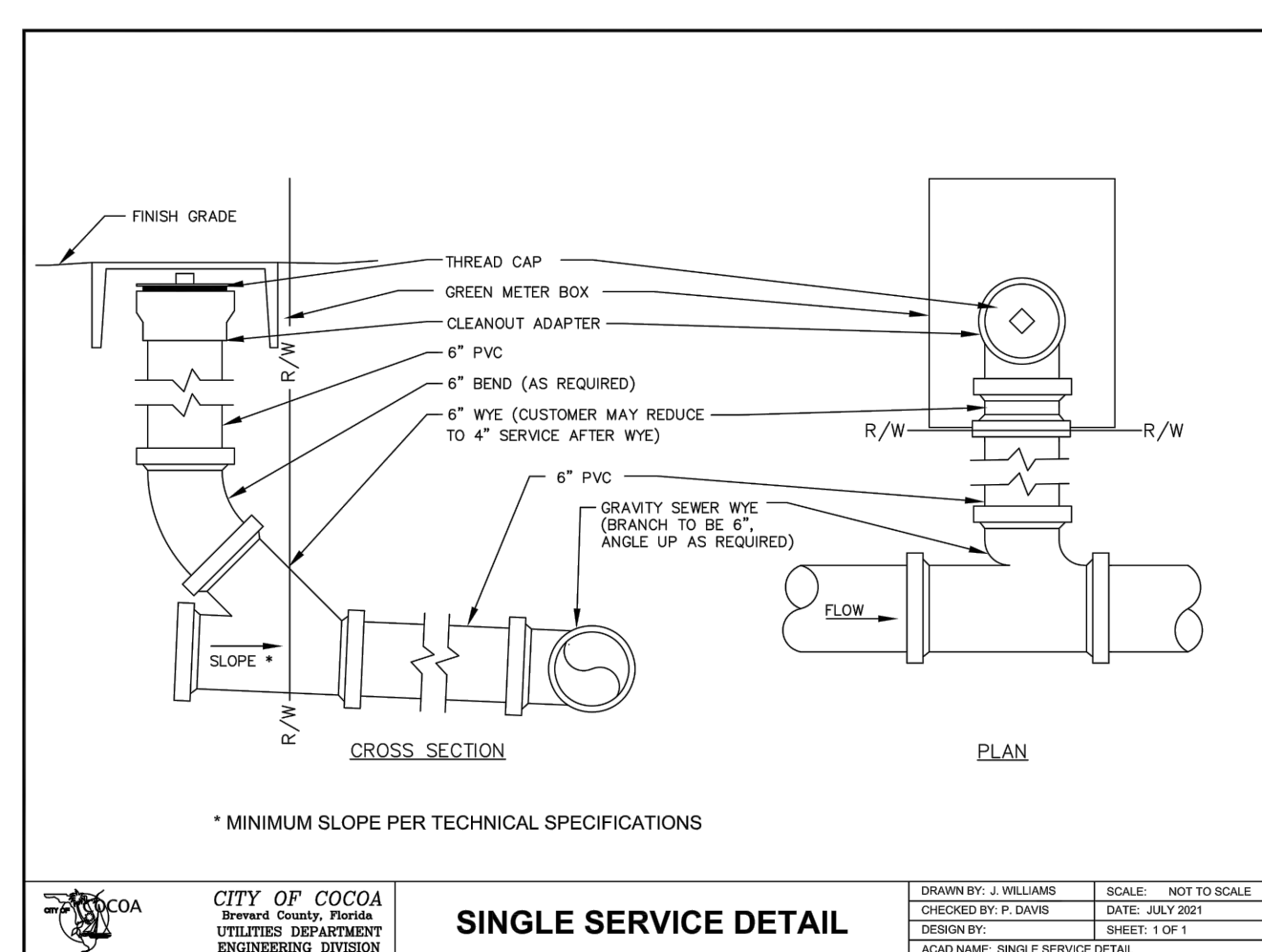
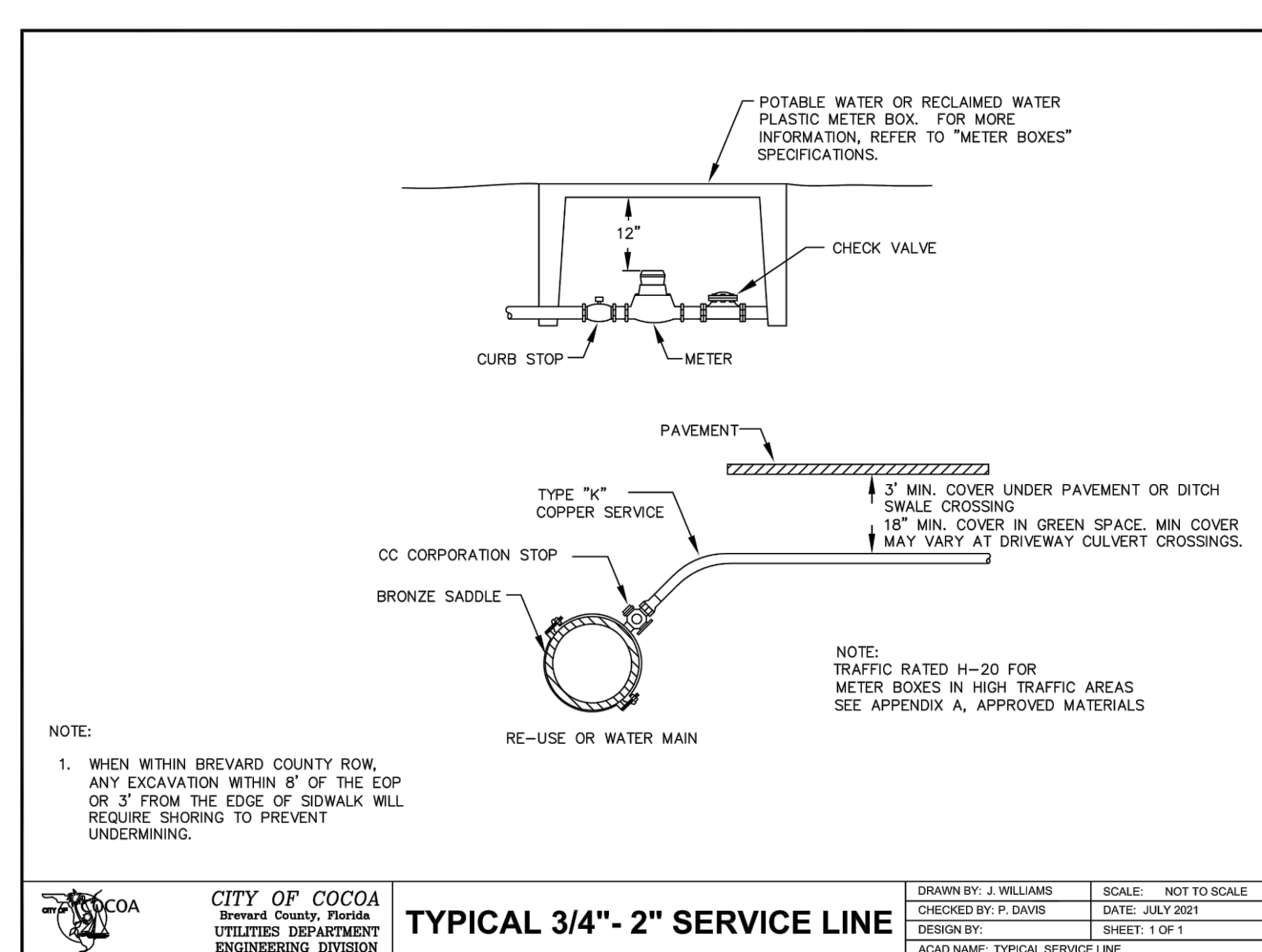
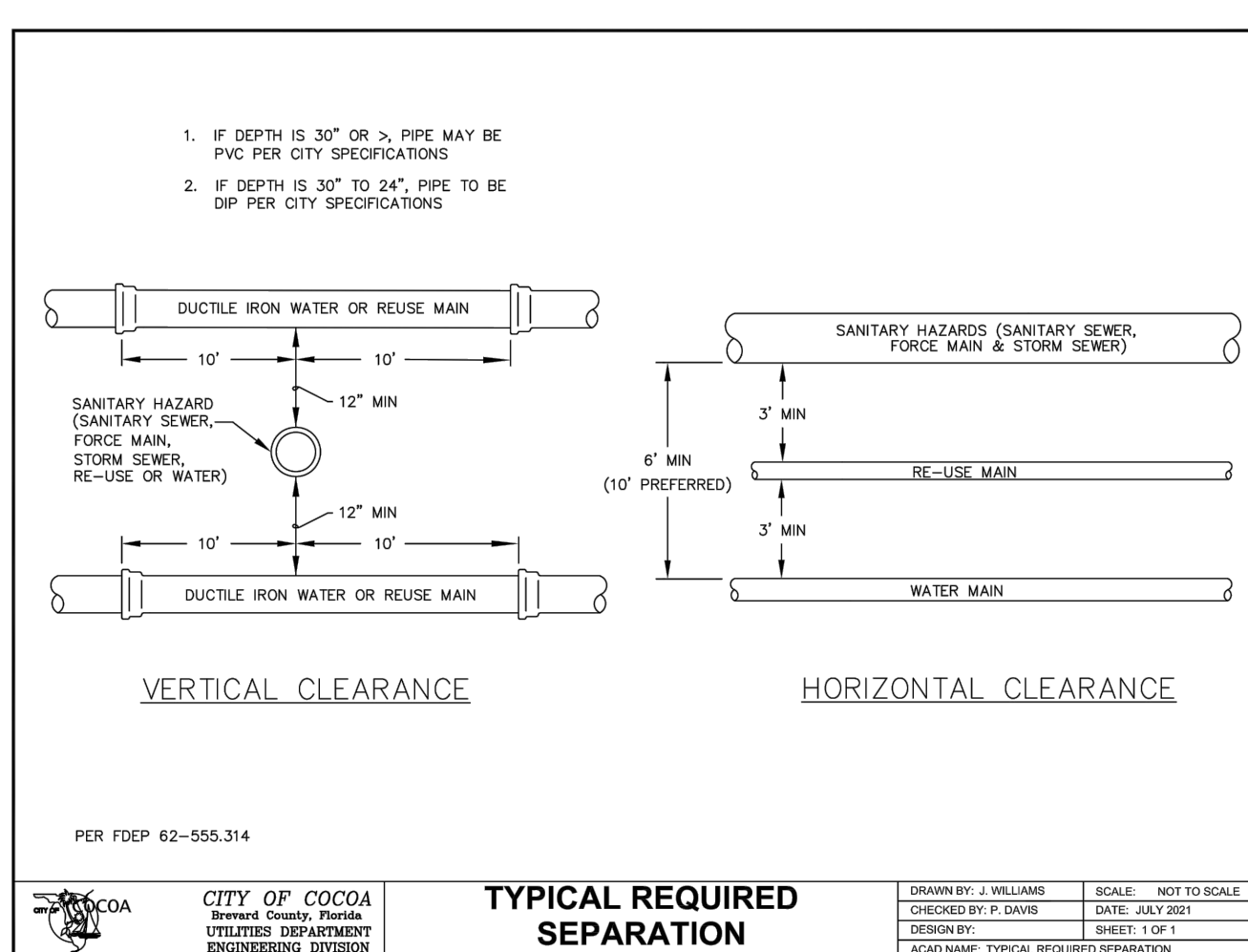
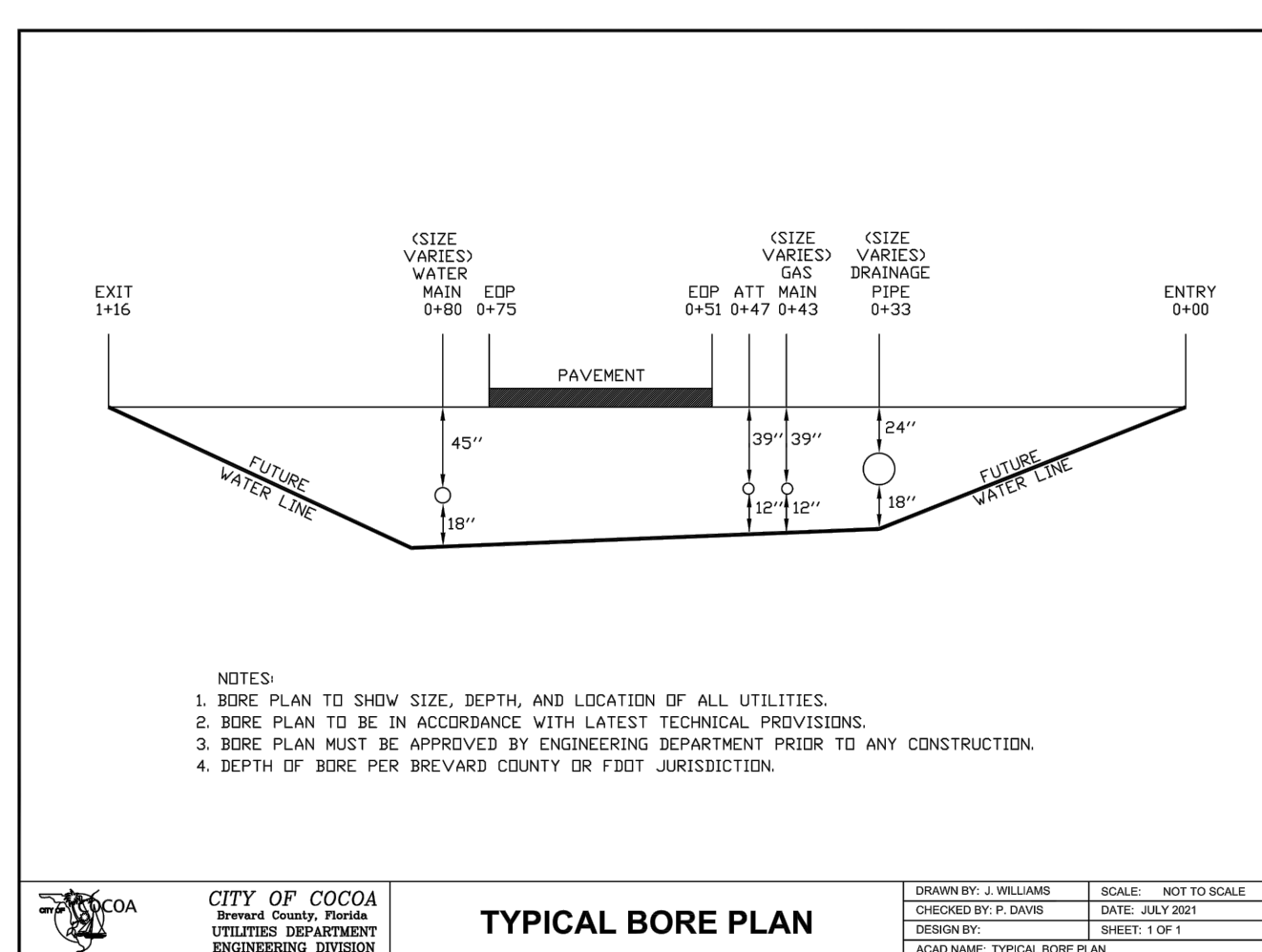
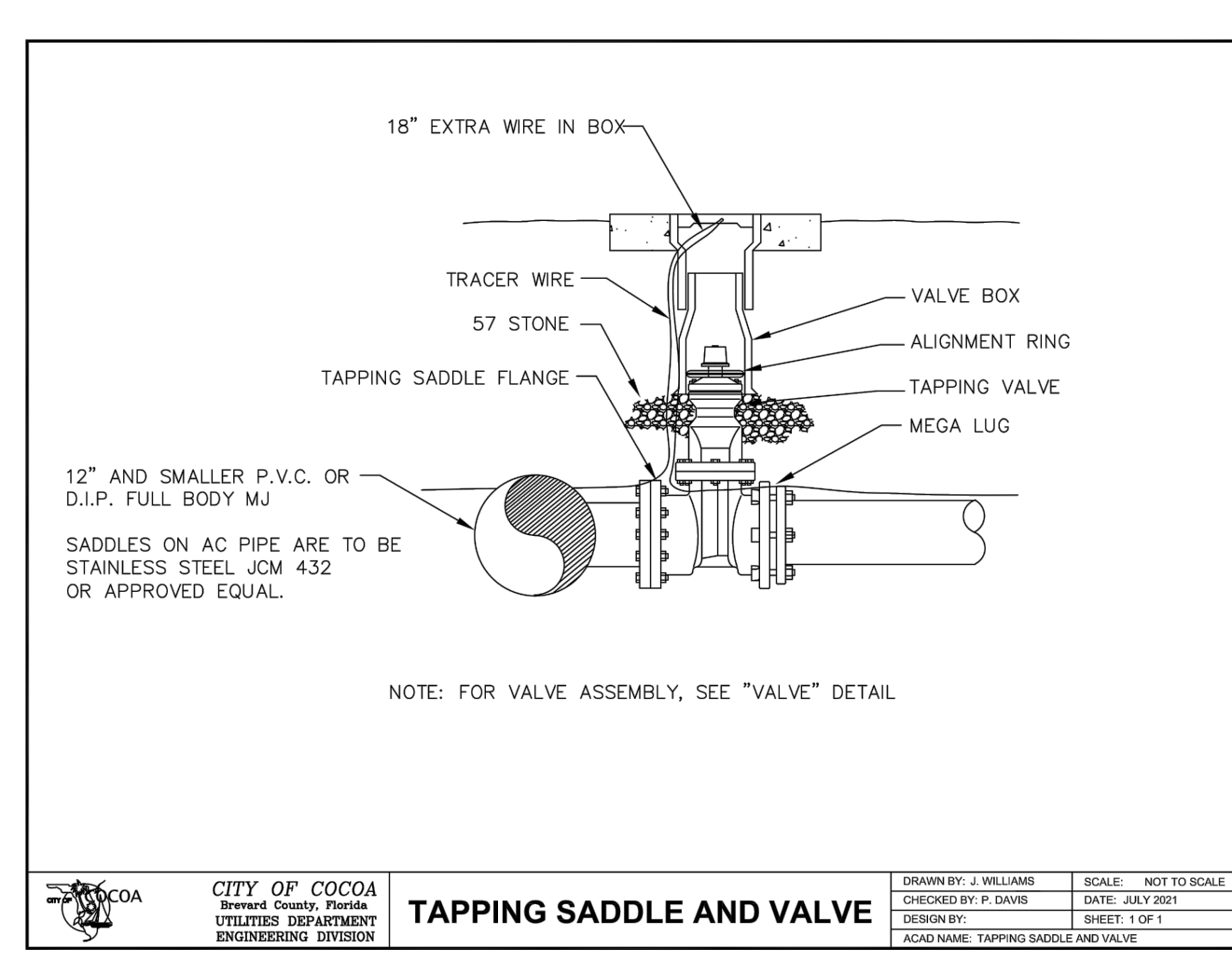
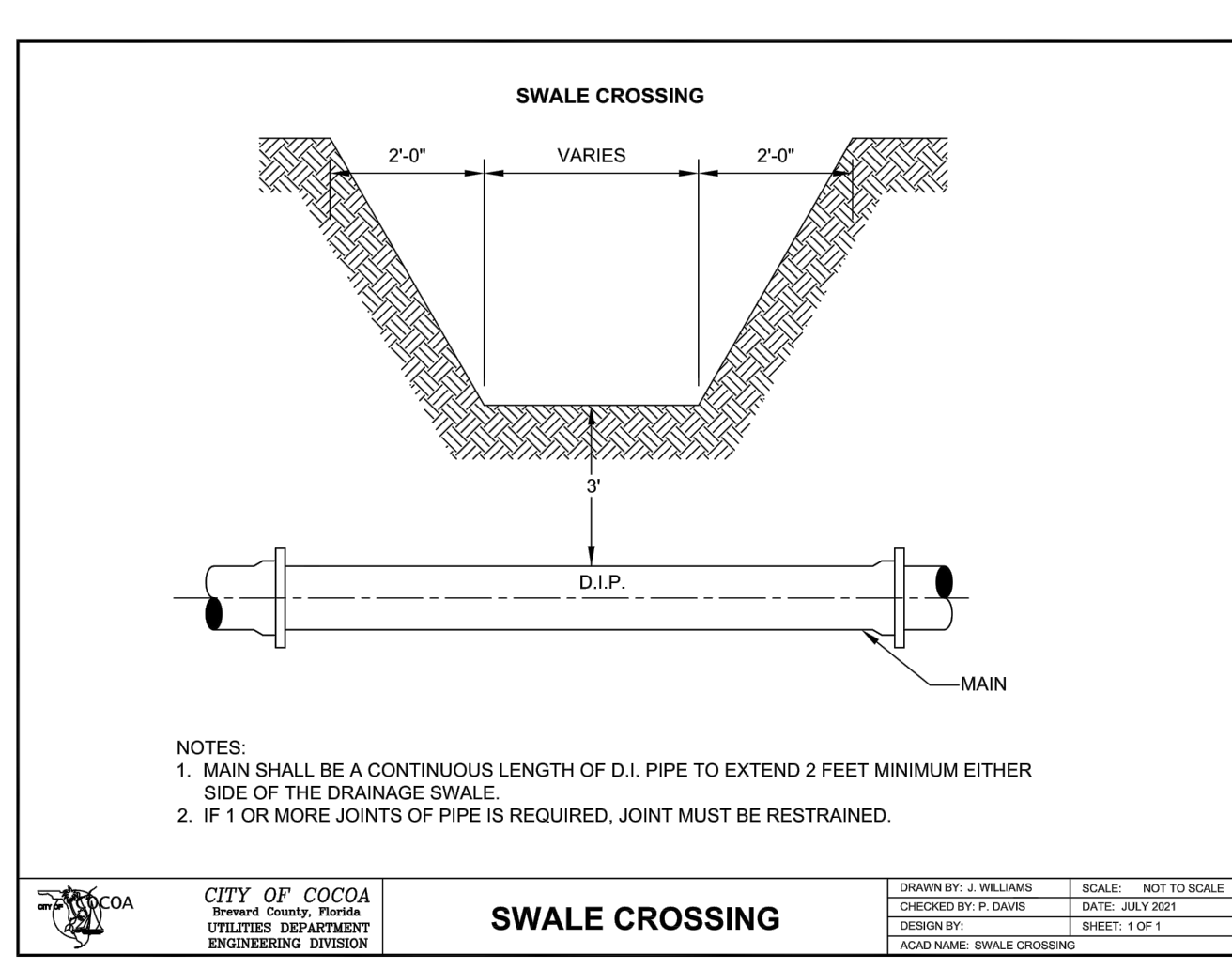
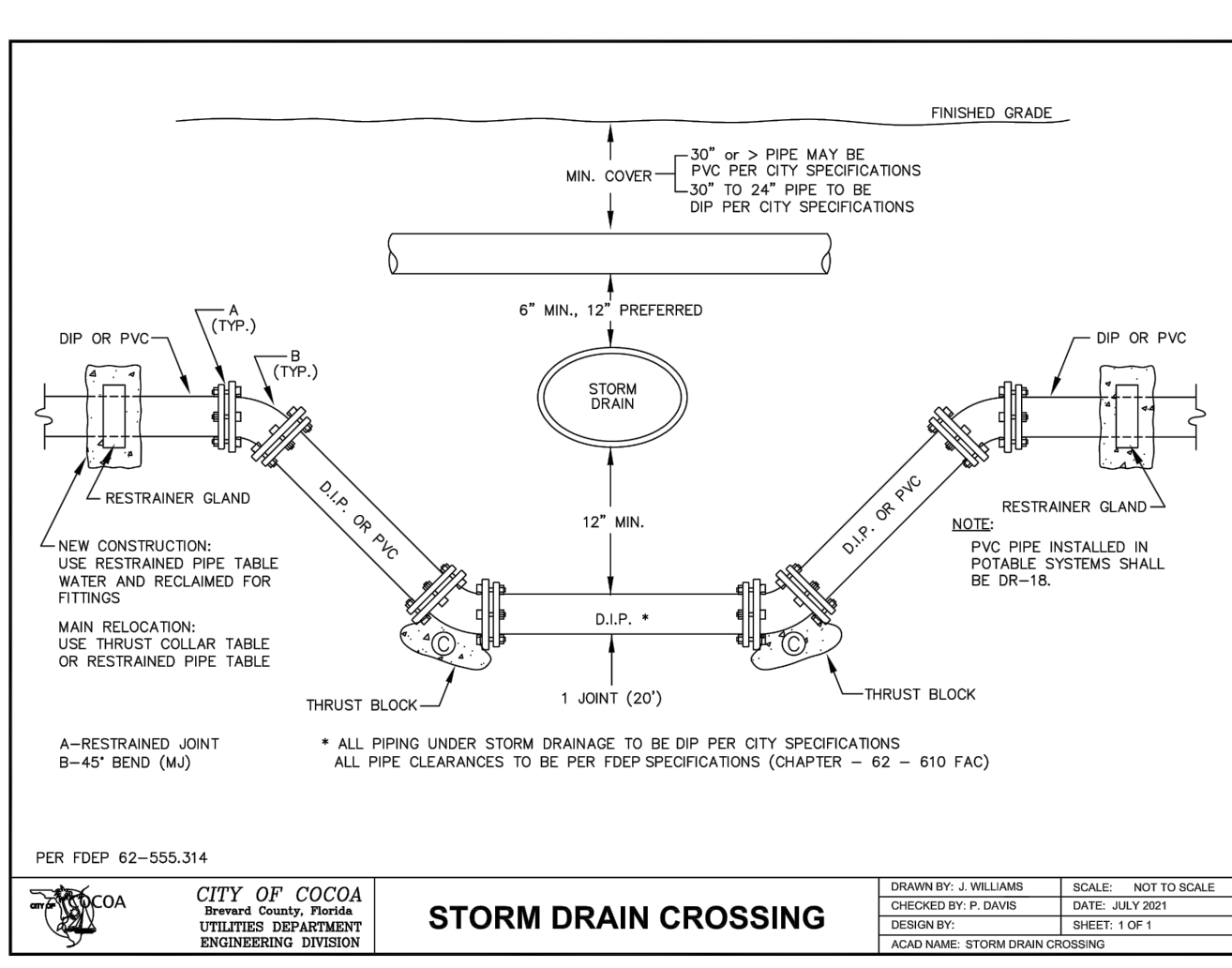
ISSUED BY: J. DAVIS
DATE: 01/11/2017
DESIGNED BY: J. DAVIS
CHECKED BY: J. DAVIS
IN CHARGE: J. DAVIS

SCALE: NOT TO SCALE
PROJECT: 15-00000
SHEET 12 OF 12

RESTRAINED PIPE TABLE WATER AND RECLAIMED WATER MAINS									
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)					PIPE SIZE				
TYPE	4"	6"	8"	10"	12"	16"	20"	24"	
90° BEND	21	29	38	45	53	66	79	91	
45° BEND	9	12	16	19	22	45	33	38	
22-1/2° BEND	5	6	8	9	11	14	16	19	
11-1/4° BEND	3	3	4	5	6	7	8	9	
FLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273	

NOTES:

- FITTINGS SHALL BE RESTRAINED JOINTS.
- INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
- WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING MINIMUM YIELDS PER FITTING OF RESTRAINED PIPE.
- ALL LINE VALVES AND THROUGH RUN TEE'S SHALL BE RESTRAINED.
- LENGTH SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THURST RESTRAINED DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DP&A, WITH THE FOLLOWING ASSUMPTIONS:
 WORKING PRESSURE: 150 PSI
 SOIL DECOMPOSITION: SF (SAND SILT)
 LAYING CONDITIONS: B
- TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.



BOUNDARY AND TOPOGRAPHIC SURVEY



LOCATION MAP
NOT TO SCALE

SURVEYOR'S NOTES:

SECTION 1) DATE OF FIELD SURVEY:

1. The date of completion of the field work ALTA/NSPS LAND TITLE SURVEY was on November 05, 2021.
2. The date of completion of the additional field work was on May 19, 2022.

SECTION 2) LEGAL DESCRIPTION:

That portion of the South one-half of the Southwest one-quarter of Section 23, Township 24 South, Range 35 East, Brevard County, Florida, lying North of State Road No. 524 and East of State Road No. 9 (I -95), except lands previously conveyed and described in Official Records Book 674, Page 309, Official Records Book 689, Page 1033, Official Records Book 817 , Page 494, Official Records Book 804, Page 140, and Official Records Book 809, Page 9, Public Records of Brevard County, Florida.

And Less

That Portion Lying Westerly of the Westerly right-of-way line of Friday Road

The above described lands containing a total of 278,062 Square Feet, or 6.4 Acres (Net Area), more or less, by calculations and 291,651 Square Feet, or 6.7 Acres (Gross Area), more or less, by calculations.

Property Address and Tax Folio Number:

Vacant Land, Cocoa, Florida 32926
Parcel No. 24-35-23-00-505

SECTION 3) ZONING INFORMATION:

Zoning Designation:
C-G (General Commercial)

(Zoning designation was based upon the city of Cocoa, Florida zoning maps).

SECTION 3) ACCURACY:

The accuracy obtained by field measurement methods and office calculations of closed geometric figures meets and exceeds the Standards of Practice requirement for this type of Survey, as defined in Rule 5J-17.051 of the Florida Administrative Code.

Elevations of well identified features as depicted on the Survey Map were measured to an estimated vertical position accuracy of 1/100 of a foot on hard surfaces and 1/10 of a foot on ground surfaces.

Well identified features as depicted on the Survey Map were measured to an estimated horizontal position accuracy of 1/10 of a foot.

This Map of Survey is intended to be displayed at a scale of (1"=50') or smaller.

SECTION 4) SOURCES OF DATA:

North arrow direction is based on an assumed Meridian.

Bearings as shown hereon are based upon the Survey Baseline of State Road 524, as shown on F.D.O.T Right Of Way Map, Section 70220, with an assumed bearing of N53°23'10"E, said line to be considered a well established and monumented line.

Legal Description was furnished by client

Special Warranty Deed, recorded in Official Record Book 3510, at Page 723, Public Records of Brevard County Florida.

F.D.O.T Right Of Way Map, Section 70220, Public Records of Brevard County Florida.

Elevations as shown hereon are based on the North America Vertical Datum of 1988, as per Brevard County's Benchmark Number E5A55, Elevation 25.127 feet.

SECTION 5) LIMITATIONS:

Since no other information were furnished other than what is cited in the Sources of Data, the Client is hereby advised that there may be legal restrictions on the Subject Property that are not shown on the Survey Map that may be found in the Public Records of Brevard County.

The Surveyor makes no legal representation as to ownership or possession of the Subject Property by any entity or individual that may appear in the Public Records of this County. The Surveyor's role is to ascertain the correct location of the boundaries of any real property according to his best knowledge and belief.

No excavation or determination was made as to how the Subject Property is served by utilities.

All visible improvements were located and are reflected on the Survey. No underground foundations, improvements and/or utilities were located or shown hereon.

SECTION 6) SURVEYOR'S CERTIFICATE:

Certify to:
• The William Warren Group, Inc

HADONNE CORP., a Florida Corporation
Florida Certificate of Authorization Number LB7097

Abraham Hadad, PSM
For the Firm
Registered Surveyor and Mapper LS6006
State of Florida
Date: June 3, 2022

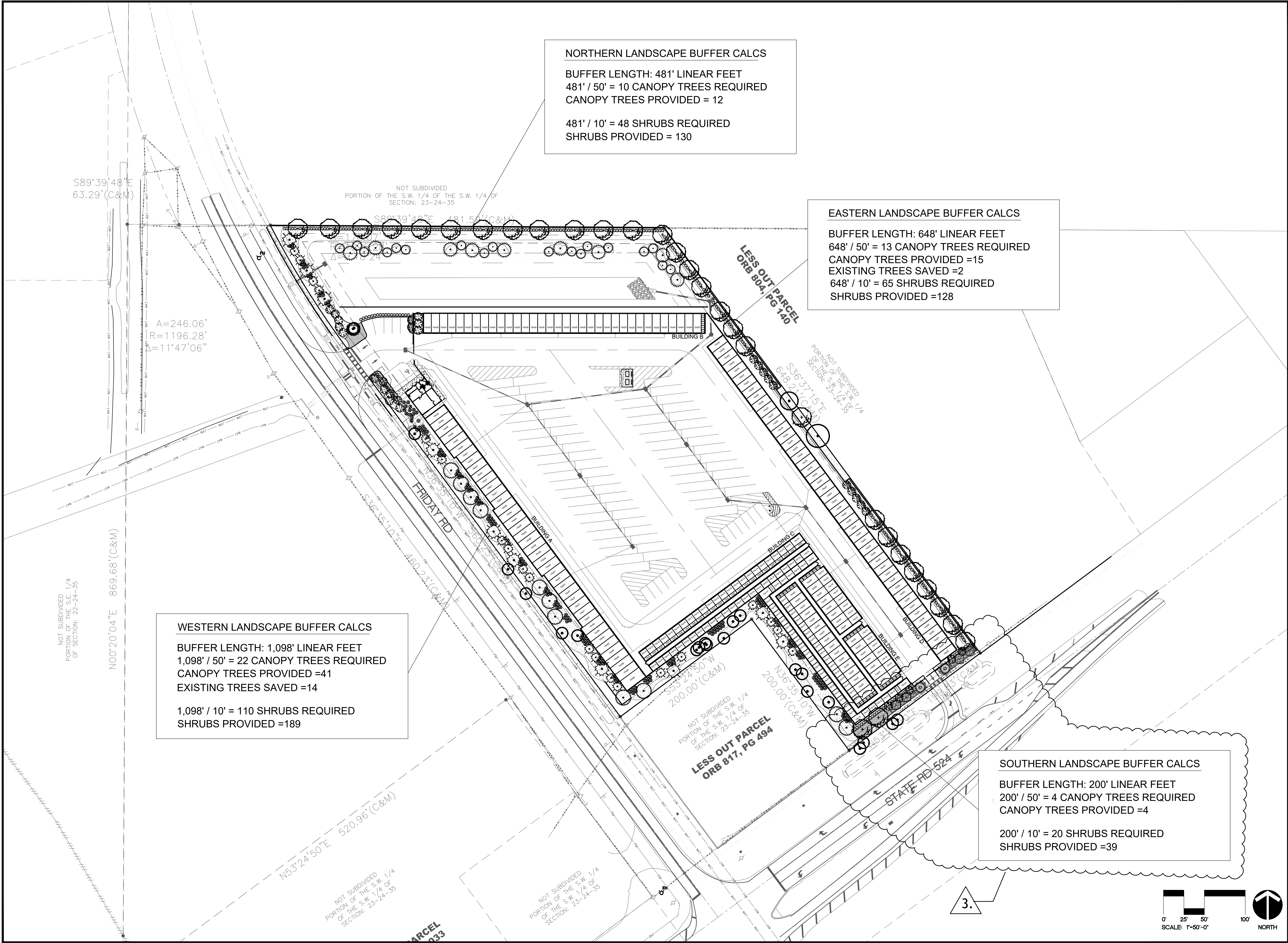
NOTICE: Not valid without the original signature and seal of a Florida Licensed Surveyor and Mapper. Additions or deletions to Survey Maps by other than the signing party are prohibited without the written consent of the signing party.

REVISIONS	Additional field tops (08-03-2022)			
	1	2	3	4

Field Book:	FILE
DRAWN BY:	ER
TECH BY:	RI
QA/QC BY:	JS
Job No.:	21130
	1/2

[illegible]

FILE
AWN BY: ER
CH BY: RI
QC BY: JS
o No.: 21130



NORTHERN LANDSCAPE BUFFER CALCS

BUFFER LENGTH: 481' LINEAR FEET
481' / 50' = 10 CANOPY TREES REQUIRED
CANOPY TREES PROVIDED = 12

481' / 10' = 48 SHRUBS REQUIRED
SHRUBS PROVIDED = 130

EASTERN LANDSCAPE BUFFER CALCS

BUFFER LENGTH: 648' LINEAR FEET
648' / 50' = 13 CANOPY TREES REQUIRED
CANOPY TREES PROVIDED =15
EXISTING TREES SAVED =2
648' / 10' = 65 SHRUBS REQUIRED
SHRUBS PROVIDED =128

WESTERN LANDSCAPE BUFFER CALCS

BUFFER LENGTH: 1,098' LINEAR FEET
1,098' / 50' = 22 CANOPY TREES REQUIRED
CANOPY TREES PROVIDED =41
EXISTING TREES SAVED =14

1,098' / 10' = 110 SHRUBS REQUIRED
SHRUBS PROVIDED =189

SOUTHERN LANDSCAPE BUFFER CALCS

BUFFER LENGTH: 200' LINEAR FEET
200' / 50' = 4 CANOPY TREES REQUIRED
CANOPY TREES PROVIDED =4

200' / 10' = 20 SHRUBS REQUIRED
SHRUBS PROVIDED =39

STORQUEST EXPRESS

PROJECT NO. 18-002		REV. 1		DESCRIPTION	DATE	PROJECT ADDRESS	DRAWING TITLE		3rd PARTY VERIFICATION		SIGNATURE AND DATED SEAL	
PHASE	CONSTRUCTION DOC	1.	CITY COMMENTS	09/15/22	SR 524 & FRIDAY ROAD	CITY OF COCOA	LANDSCAPE BUFFER CALCULATIONS					
SCALE	AS SHOWN	2.	CITY COMMENTS	10/02/22								
FILE NAME	STORQUEST	3.	CIVIL BASE AUL	11/15/22								
DRAWN BY	JTD						OWNER NAME AND ADDRESS					THIS FILE HAS BEEN ELECTRONICALLY SIGNED AND SEALED. ANY ATTEMPT TO MODIFY THE FILE AFTER THE SIGNATURE MUST BE VERIFIED BY THE ARCHITECT. COPYRIGHT BORRELLI & PARTNERS, A.C. 0071
CHECKED BY	CR						LANDSCAPE BUFFER CALCULATIONS					
DATE	03-21-22											ORLANDO, FL 32804 (407) 418-1338

BORRELLI & PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR
720 YASSAR STREET
ORLANDO, FL 32804 (407) 418-1338

SCALE: 1"=50'-0"

A horizontal number line with 11 tick marks. The first tick mark is labeled 0. The last tick mark is labeled 33. There are 10 equal intervals between the tick marks.

A horizontal number line with arrows at both ends. It has 11 tick marks, creating 10 equal intervals. The first tick mark on the left is labeled 115° .

A horizontal number line with arrows at both ends. It has 11 tick marks, creating 10 equal intervals. The first tick mark on the left is labeled '0'. The 4th tick mark from the left is labeled '342'.

TOTAL PROPERTY	6.38 ACRES
TOTAL SURVEYED INCHES	4,937"
TOTAL INVASIVE INCHES	3,092"
TOTAL PROTECTED INCHES	1,845"
TOTAL PROTECTED SAVED INCHES	-258"

FIN

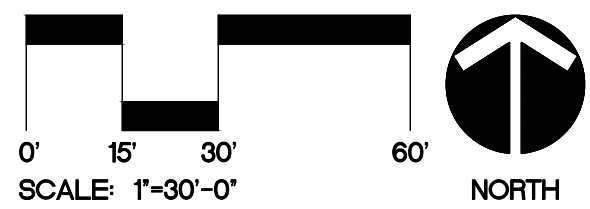
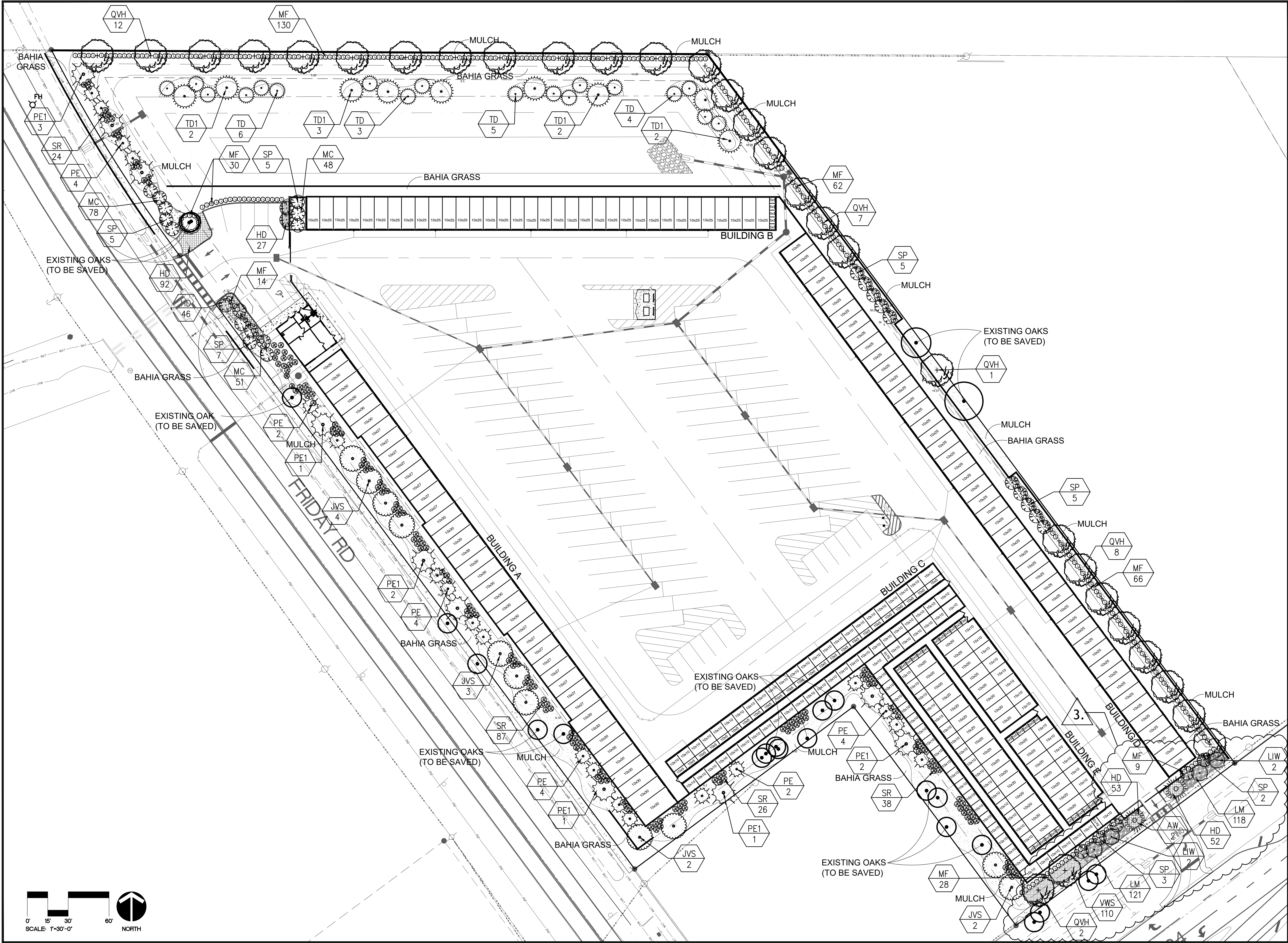
TOTAL TREES PLANTED	136	7
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TREE FLUID CALCULATIONS

TOTAL INCHES 204" ($1/4" = 51$)
 HORTFALL

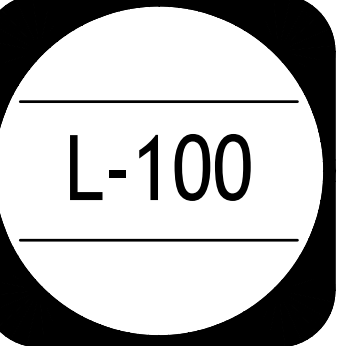
* COSTS REFLECTED ARE AN AVERAGE OF 3 ESTIMATES WE RECEIVED

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STORQUEST EXPRESS

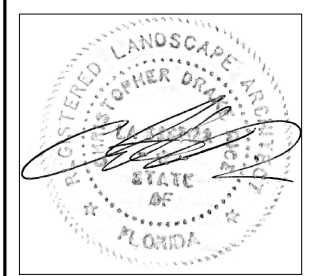
PROJECT NO.		18-002	REV.		DESCRIPTION	DATE	PROJECT ADDRESS		DRAWING TITLE		3rd PARTY VERIFICATION		SIGNATURE AND DATED SEAL	
PHASE		CONSTRUCTION DOC	1.	CITY COMMENTS		09/15/22	SR 524 & FRIDAY ROAD		LANDSCAPE PLAN		SIGNATURE AND DATED SEAL		SIGNATURE AND DATED SEAL	
SCALE		AS SHOWN	2.	CITY COMMENTS		10/03/22	CITY OF COCOA		LANDSCAPE PLAN		SIGNATURE AND DATED SEAL		SIGNATURE AND DATED SEAL	
FILE NAME		STORQUEST	3.	CIVIL BASE AUL		11/15/22	OWNER NAME AND ADDRESS		LANDSCAPE PLAN		SIGNATURE AND DATED SEAL		SIGNATURE AND DATED SEAL	
DRAWN BY		JTD							LANDSCAPE PLAN		SIGNATURE AND DATED SEAL		SIGNATURE AND DATED SEAL	
CHECKED BY		CR							LANDSCAPE PLAN		SIGNATURE AND DATED SEAL		SIGNATURE AND DATED SEAL	
DATE		03-21-22							LANDSCAPE PLAN		SIGNATURE AND DATED SEAL		SIGNATURE AND DATED SEAL	

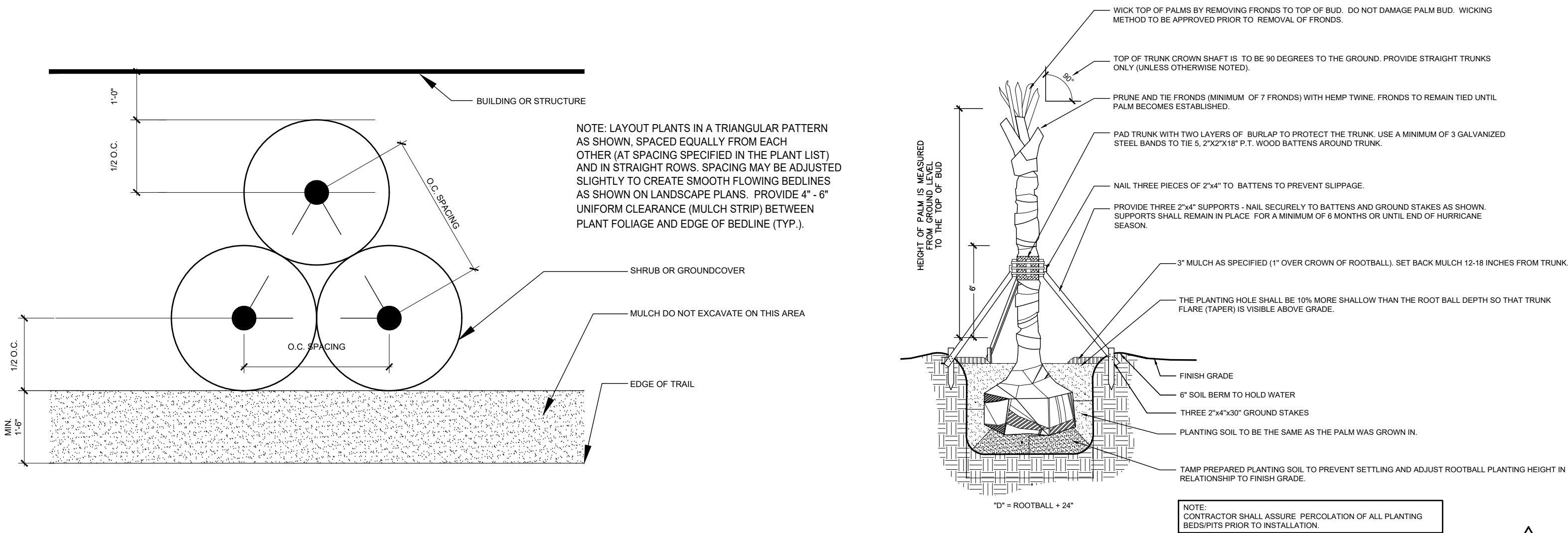


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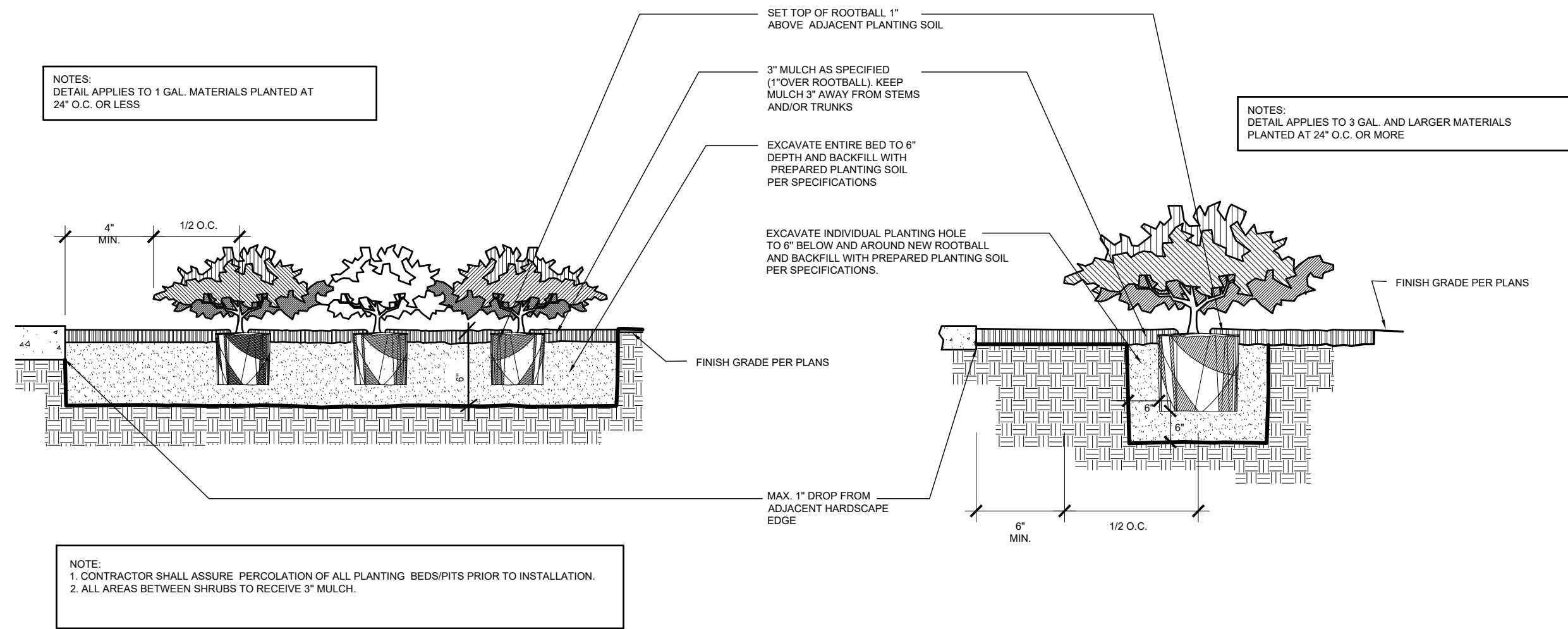
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CHRISTOPHER D. RICE A6667122



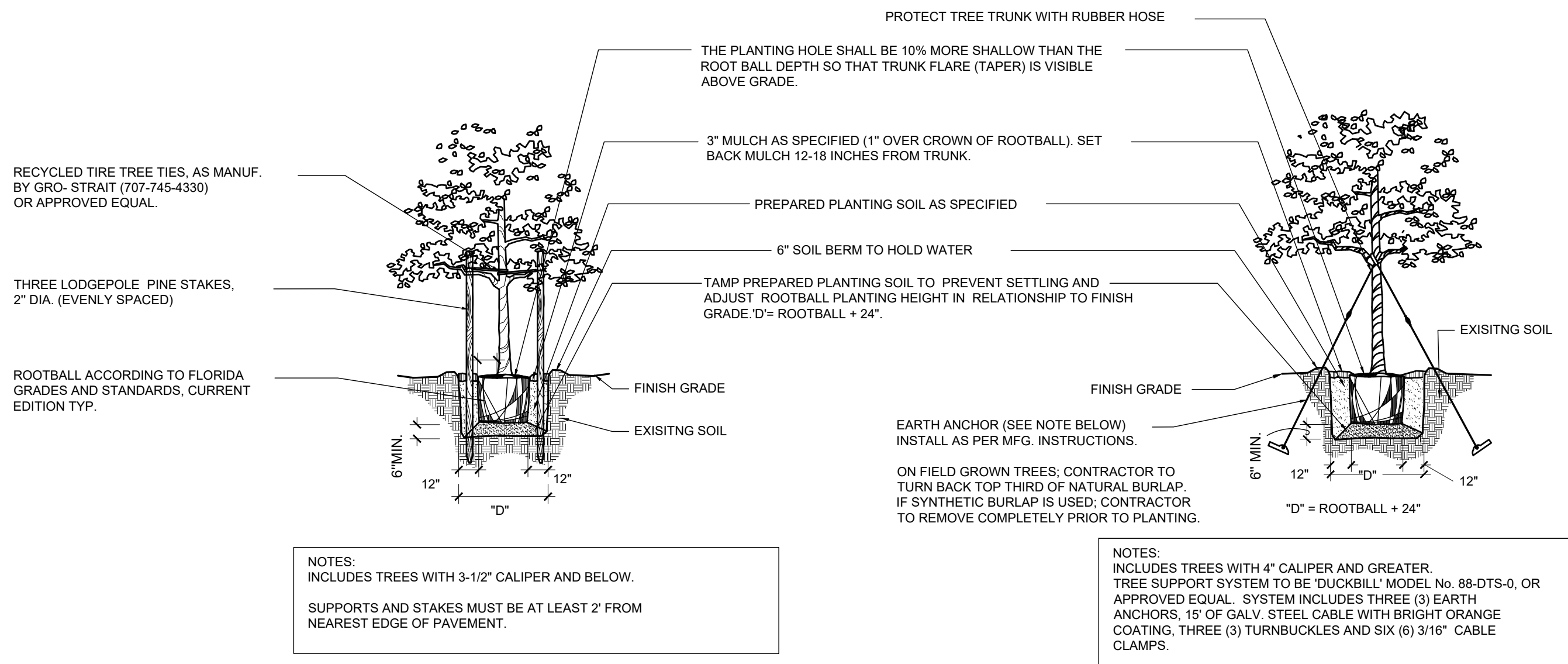
1 ON CENTER PLANTING DETAIL
N.T.S.

2 PALM PLANTING DETAIL
N.T.S.



3 GROUNDCOVER PLANTING DETAIL
N.T.S.

4 SHRUB PLANTING DETAIL
N.T.S.



5 SMALL TREE PLANTING DETAIL
N.T.S.

6 LARGE TREE PLANTING DETAILS
N.T.S.

PLANT LIST					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	DESCRIPTION	WATER USE / NATIVE
TREES					
AW	2	ACOELORRHAPHE WRIGHTII	PAUROTIS PALM	15' O.A. FULL; MIN 5 TRUNKS=15" CAL.; SPECIMEN FORM	SPACE AS SHOWN GUY
JVS	11	JUNIPERUS VIRGINIANA 'SILICICOLA'	SOUTHERN RED CEDAR	12'-14' HT.; 6' SPRD.; 4" CAL., FULL TO GROUND	SPACE AS SHOWN GUY
LIW	4	LAGERSTROEMIA INDICA 'WATERMELON RED'	WATERMELON CREPE MYRTLE	10'-12' HT., 4'-5' SPRD., 3" CAL.; STANDARD	SPACE AS SHOWN GUY
PE	20	PINUS ELLIOTTII	SLASH PINE	10'-12' HT.; 4'-6' SPRD.; 3" CAL.	SPACE AS SHOWN GUY
PE1	10	PINUS ELLIOTTII	SLASH PINE	14'-16' HT.; 6'-8' SPRD.; 4" CAL.	SPACE AS SHOWN GUY
QVH	30	QUERCUS VIRGINIANA 'HIGHRISE'	HIGHRISE LIVE OAK	12'-14' HT. x 5' SPRD.; 4" CAL.	AS SHOWN
SP	32	SABAL PALMETTO	CABBAGE PALM	7 @ 10'; 21 @ 12'; 4 @ 15' C.T.- MIN. 10" CAL.	SPACE AS SHOWN GUY
TD	18	TAXODIUM DISTICHUM	BALD CYPRESS	10'-12' HT.; 4'-6' SPRD.; 3" CAL.	SPACE AS SHOWN GUY
TD1	9	TAXODIUM DISTICHUM	BALD CYPRESS	14'-16' HT.; 6'-8' SPRD.; 4" CAL.	SPACE AS SHOWN GUY
SHRUBS					
MC	177	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	30" O.A.; FULL; 3 GAL.	30" O.C.
MF	341	MYRCIANTHES FRAGRANS	SIMPSON'S STOPPER	36" HT. x 36" SPRD. / FULL / 7G	36" O.C.
SR	175	SERENOA REPENS	SAW PALMETTO	24" O.A. FULL; 3 GAL.	36" O.C.
VWS	110	VIBURNUM OBOVATUM 'MRS. SHILLER'S DELIGHT'	DWARF WALTER'S VIBURNUM	24" HT., 24" SPRD., FULL, 3 GAL.	30" O.C.
GROUNDCOVER					
HD	270	HELIANTHUS DEBILIS	BEACH SUNFLOWER	15" O.A.; FULL; 1 GAL.	24" O.C.
LM	239	LIRIOPE MUSCARI 'EMERALD GODDESS'	BORDER GRASS	15" O.A.; FULL; 1 GAL.	24" O.C.
SOD					
	SEE PLANS	PASPALUM NOTATUM	BAHIA GRASS	SOLID, FREE OF PESTS AND DISEASES	FIELD VERIFY QTY.
MULCH					
	SEE PLANS	MINI PINE BARK NUGGETS	MINI PINE BARK NUGGETS	FREE OF DIRT AND DEBRIS	FIELD VERIFY QTY.

LANDSCAPE PLANTING AND CONTRACTOR NOTES:

- ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL FREE OF PESTS AND DISEASES.
- ALL PLANTS SHALL BE FLORIDA NO. 1 OR BETTER, AS GRADED IN FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.
- ALL PLANTS ARE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT AND OWNER BEFORE, DURING, AND AFTER INSTALLATION.
- ALL SINGLE-TRUNKED TREES SHALL BE STRAIGHT TRUNKED WITH ONE CENTRAL LEADER AND HAVE A FULL, DENSE CROWN.
- ALL TREES SHALL BE STAKED AND GUYED AS SHOWN IN PLANTING DETAILS.
- ALL MULCH PLANTING AREAS SHALL BE A MINIMUM OF 3" IN DEPTH.
- ALL PLANTING AREAS SHALL HAVE A MINIMUM OF 3" TOPSOIL.
- ALL TREES SHALL BE FREE OF OPEN WOUNDS AND WOUND SCARS IN THE CLEAR TRUNK AREA.
- ANY SYNTHETIC BURLAP AND/OR WIRE BASKETS MUST BE TOTALLY REMOVED PRIOR TO INSTALLATION OF PLANT MATERIAL. IF NATURAL BURLAP IS USED, IT MAY BE TURNED DOWN 1/3 OF THE ROOTBALL.
- TREES SHALL NOT BE PLACED WITHIN 7' OF ANY FIRE PROTECTION EQUIPMENT AND NOT WITHIN 5' OF ANY UTILITIES.
- TREES SHALL NOT BE PLACED WHERE THEY WILL OBSCURE ANY VIEWS TO TRAFFIC, PEDESTRIANS OR SIGNAGE. CONTRACTOR TO FIELD ADJUST TREE LOCATIONS TO AVOID CONFLICTS. IF PLANTING IS QUESTIONABLE, CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE TO DISCUSS RELOCATION.
- CONTRACTOR SHALL TAKE CARE TO PROTECT ALL TREES AND LANDSCAPING MATERIAL WITHIN PROJECT LIMITS AS WELL AS EXISTING TREES IMMEDIATELY ADJACENT TO PROJECT LIMITS. IF THE EXISTING LANDSCAPE, TREES OR OTHER RELATED MATERIALS ARE IMPACTED DURING LANDSCAPE INSTALLATION THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPLACEMENTS, AS WELL AS, ALL OTHER ASPECTS OF REMEDIATION INCLUDING BUT NOT LIMITED TO: TREES, SHRUBS, GROUNDCOVERS, SOD, AND ANY OTHER MATERIALS IMPACTED BY CONSTRUCTION.
- SOIL CONDITIONS MAY VARY THROUGHOUT THE SITE AND CONTRACTOR TO SHALL PROVIDE PROPER EQUIPMENT FOR PROPER EXCAVATION.
- CONTRACTOR SHALL INCLUDE THE COSTS OF EXCAVATION, DISPOSAL OF EXCESS MATERIALS, BACKFILL, SOIL AMENDMENTS, SPECIAL BED PREPERATION, MULCH, TREE STAKING AND GUYING, FERTILIZER, WATERING FOR PLANT ESTABLISHMENT, SITE CLEAN-UP AND MAINTAINENCE WITHIN BID NUMBER.
- CONTRACTOR SHALL SOD ALL DAMAGED GRASS AREAS DISTURBED DURING CONSTRUCTION. SEE LANDSCAPE SPECIFICATIONS FOR SOD INSTALLATION.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, IN FULL, ALL LANDSCAPE PLANTING AREAS, UNTIL THE JOB IS ACCEPTED IN FULL BY THE OWNER. "IN FULL" MEANS WATERING, PEST CONTROL, MULCHING, MOWING, FERTILIZING AND RESETTNG TREES THAT ARE OUT OF PLUMB.
- THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL INSTALLED PLANT MATERIAL FOR A PERIOD OF ONE CALENDAR YEAR BEGINNING ON THE DATE OF 100% COMPLETION. ANY AND ALL REQUIRED PLANT REPLACEMENTS SHALL BE MADE PROMPTLY AND AT NO ADDITIONAL COST TO THE OWNER.
- THE LANDSCAPE CONTRACTOR SHALL STAKE THE LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED LINES FOR REVIEW BY THE LANDSCAPE ARCHITECT AND OWNER.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL WRITTEN PLANT QUANTITIES PRIOR TO INITIATION OF THE WORK. IN THE EVENT THAT THE PLANS CONTRADICT THE PLANT LIST, THE PLANS SHALL RULE.
- THE LANDSCAPE CONTRACTOR SHALL BE FAMILIAR WITH AND ACCEPT THE EXISTING SITE CONDITIONS PRIOR TO INITIATION OF THE WORK. ANY VARIATION FROM THE SPECIFIED WORK SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, DRAINAGE STRUCTURES, CURBS, SIDEWALKS, AND ANY OTHER OBJECTS WHICH MIGHT BE DAMAGED DURING THE WORK.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ANY AND ALL NECESSARY REPAIRS TO DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER OR LANDSCAPE ARCHITECT.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND FOLLOWING ALL APPLICABLE LOCAL CODES PERTAINING TO THE PROJECT DURING THE COURSE OF THEIR WORK.

L-500

LANDSCAPE DETAILS

STORQUEST EXPRESS

DRAWING TITLE

3rd PARTY VERIFICATION

SIGNATURE AND DATED SEAL

720 VASSAR STREET
ORLANDO, FL 32804 (407) 418-1338

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BORRELLI + PARTNERS
ARCHITECTURE PLANNING LANDSCAPE INTERIOR

18-002
PHASE
CONSTRUCTION DOC
SCALE
N.T.S.
FILE NAME
STORQUEST
DRAWN BY
JTD
CHECKED BY
CGR
DATE
03-21-22

PROJECT ADDRESS
SPR 524 & FRIDAY ROAD
CITY OF COCOA

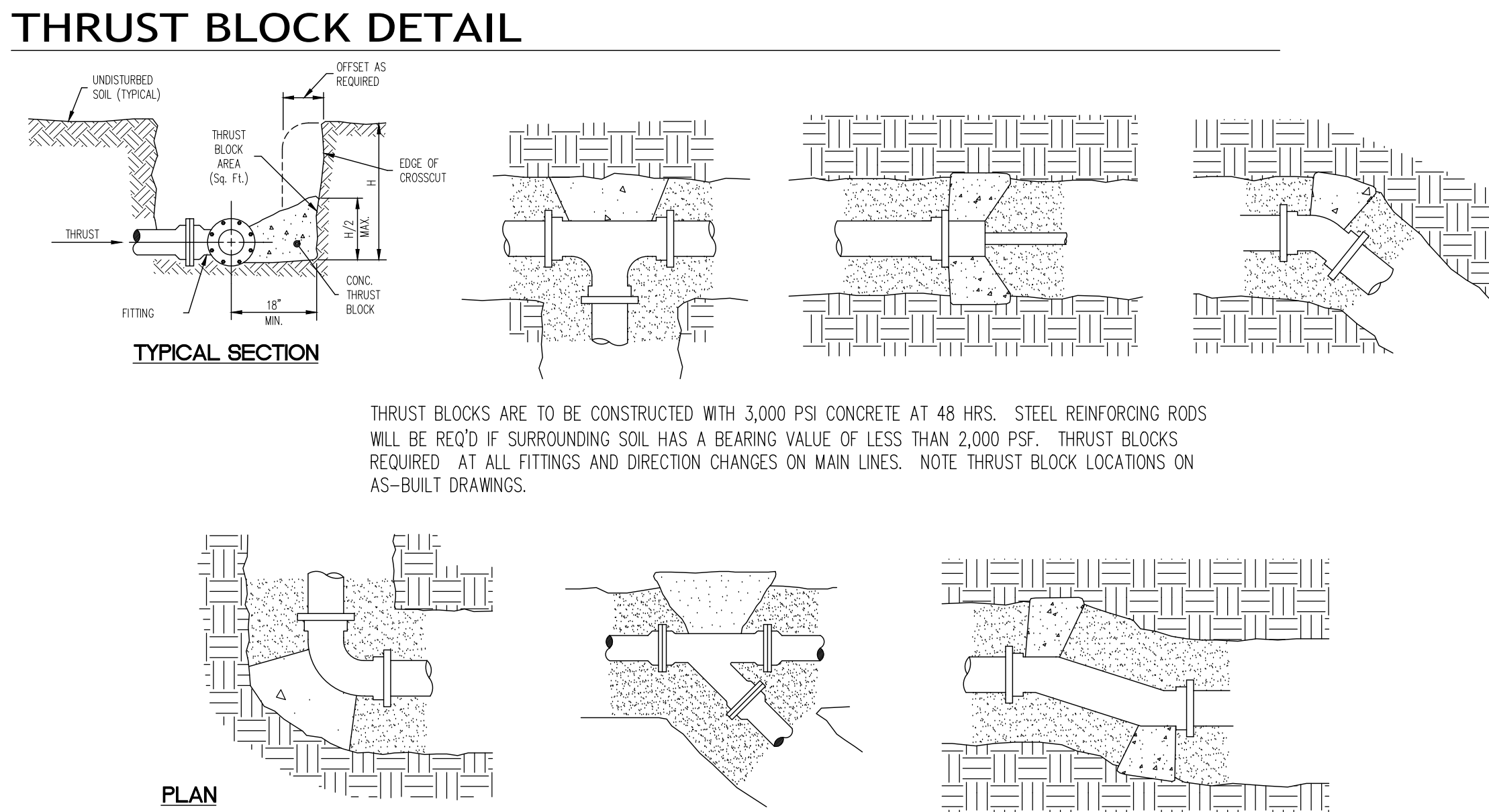
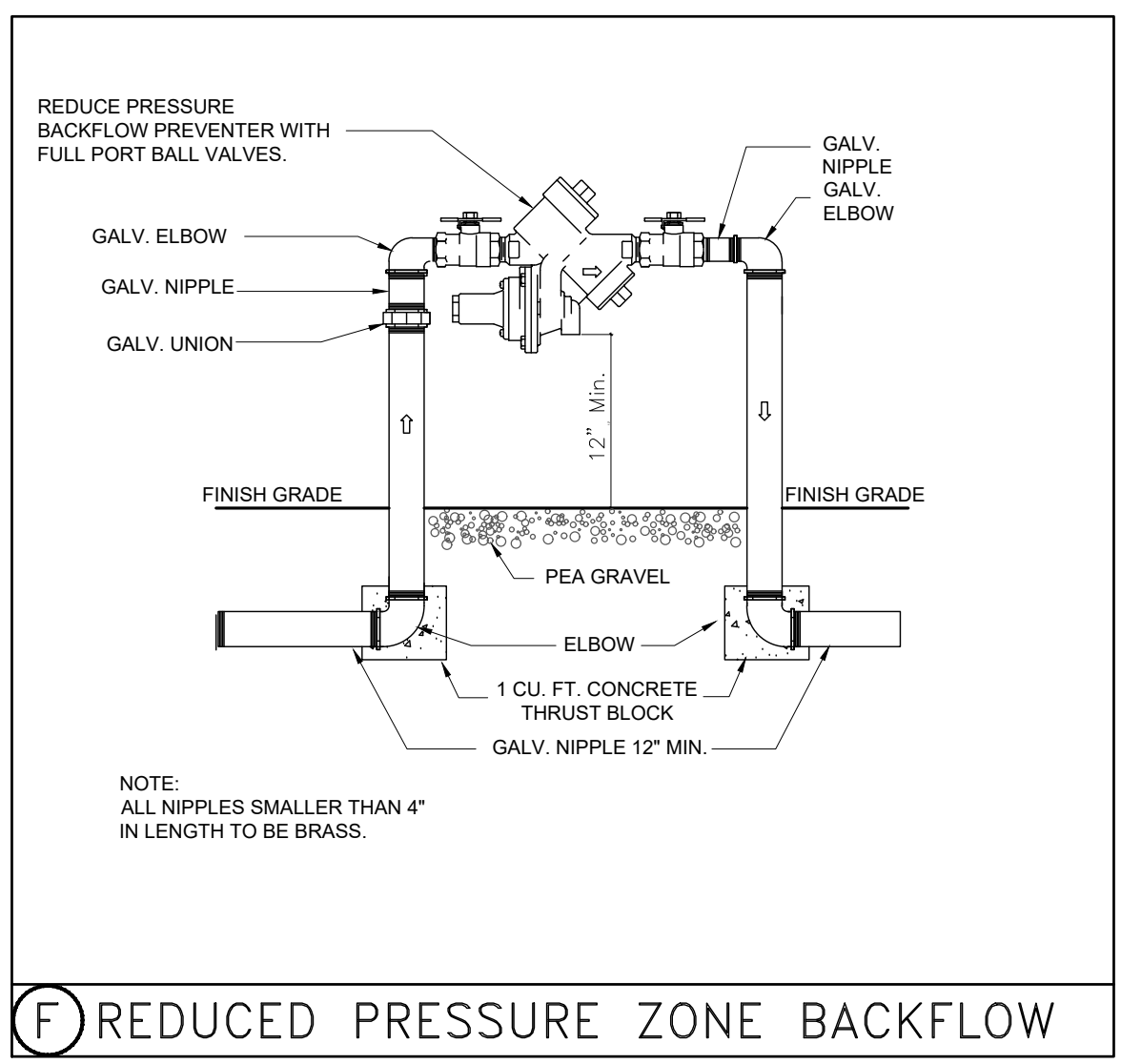
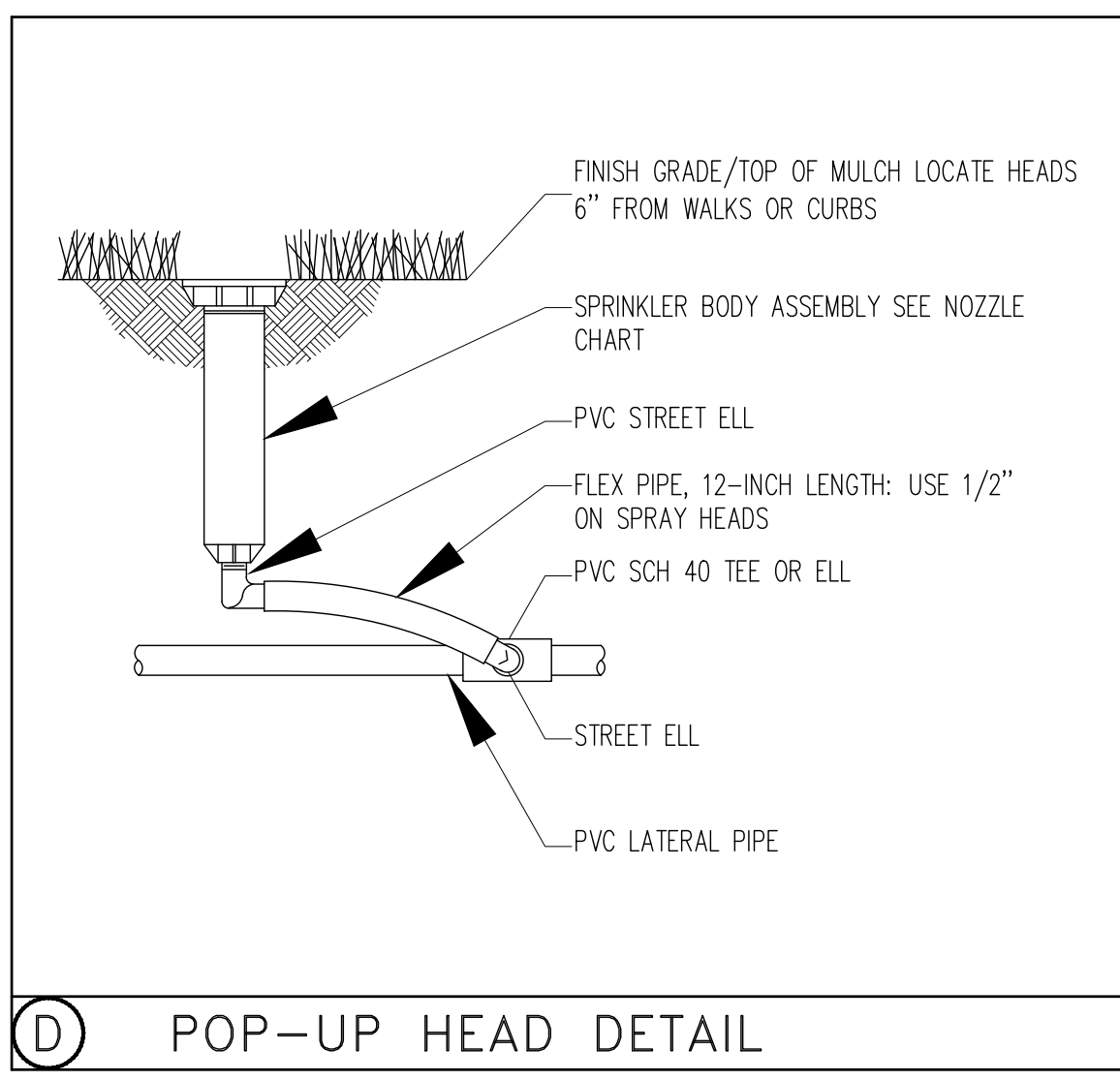
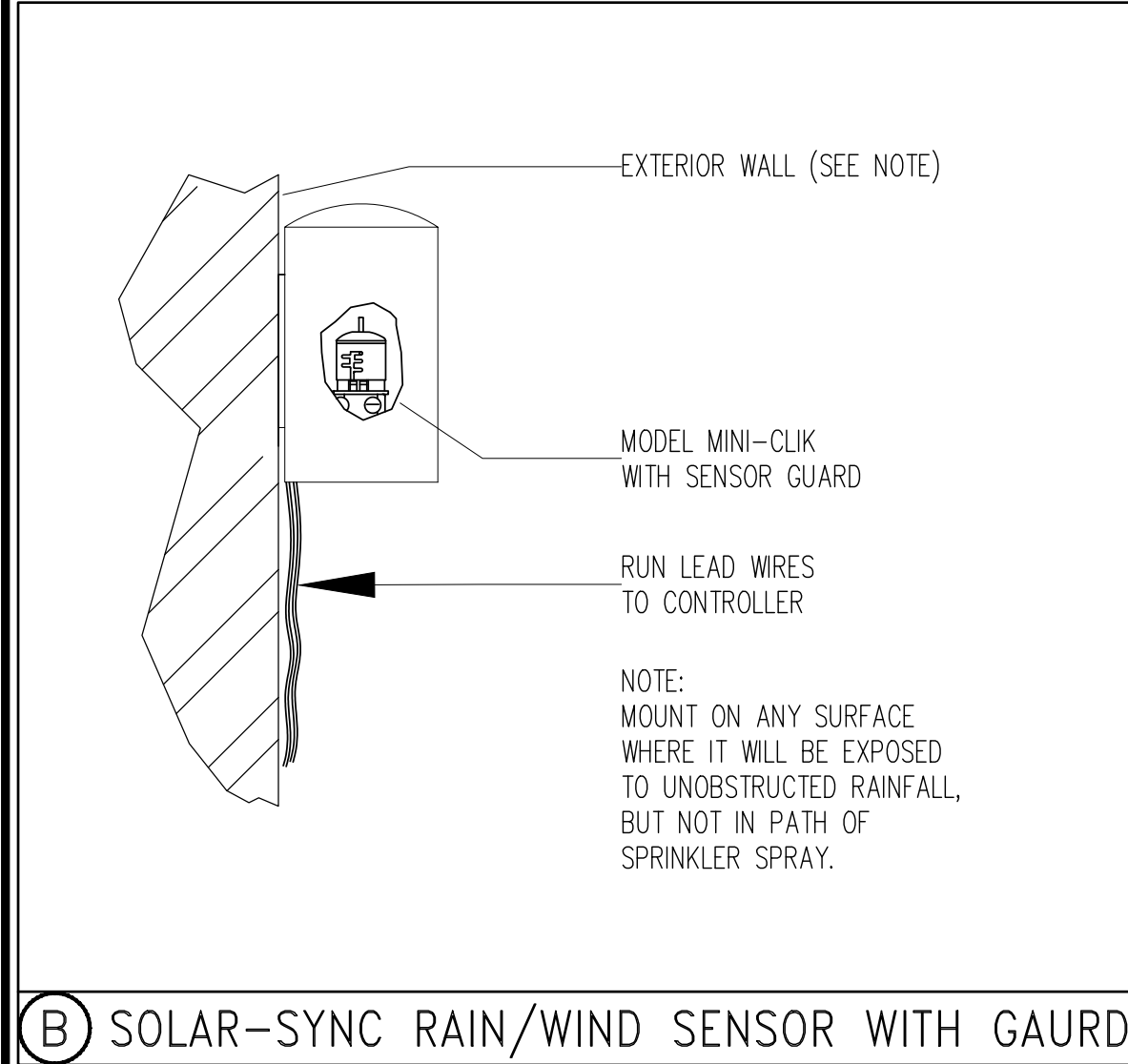
PROJECT NO.
18-002

REV.
1
2
3

DESCRIPTION
CITY COMMENTS
CITY COMMENTS
CIVIL BASE ADJ.

DATE
09/15/22
10/03/22
11/15/22

OWNER NAME AND ADDRESS

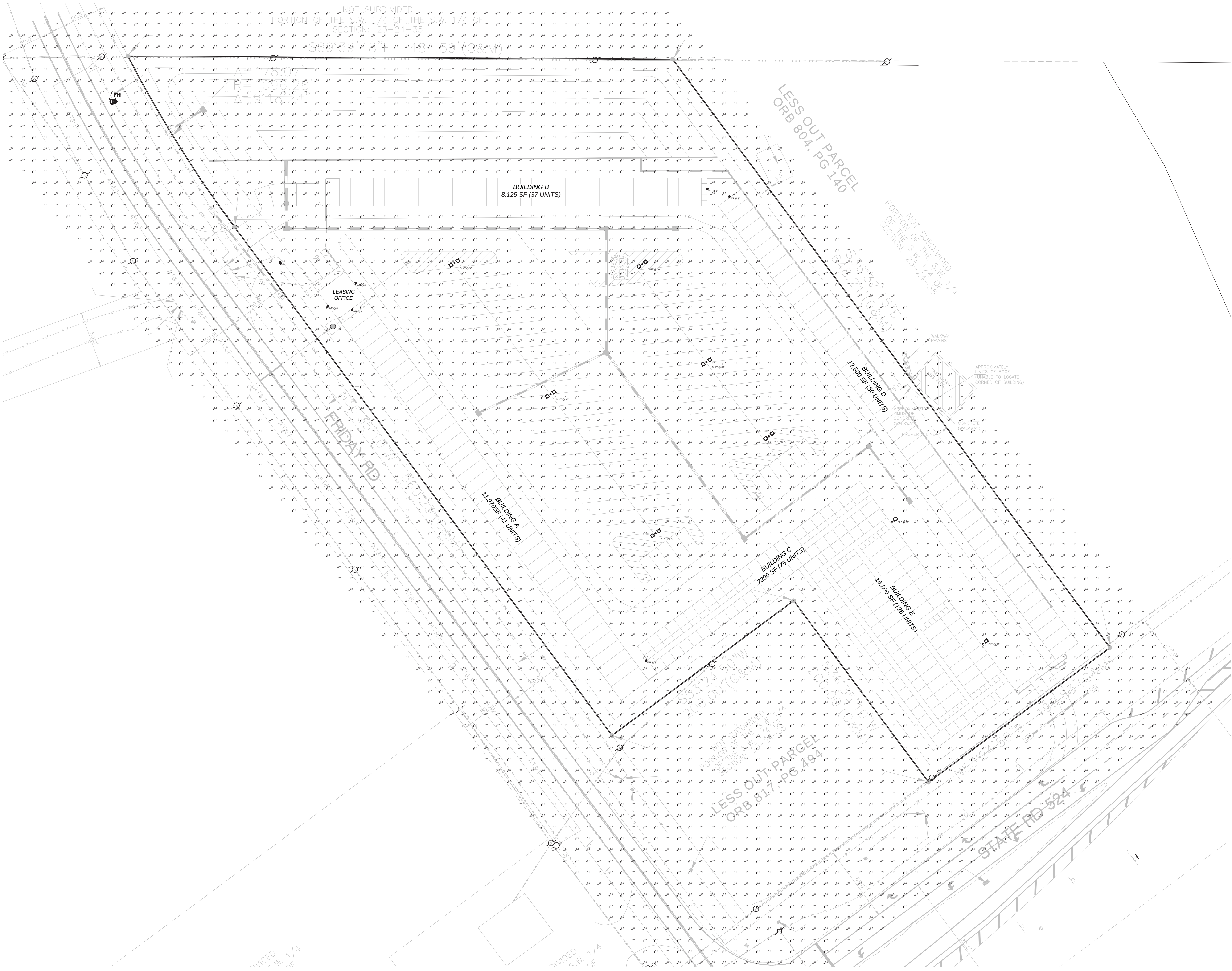


1. REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS.
2. ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
3. ALL POP-UP ROTORS AND SPRAY HEADS SHALL BE INSTALLED USING AN 18" P.V.C. FLEX PIPE CONNECTION. DO NOT USE FUNNY PIPE.
4. ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES AND BUILDING WALLS.
5. THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING.
6. ALL RISERS SHALL BE PAINTED A COLOR CHOSEN BY THE LANDSCAPE ARCHITECT.
7. ALL RISERS SHALL BE STAKED WITH A STEEL ANGLE AND SECURED WITH ULTRA-VIOLET LIGHT PROTECTED P.V.C. CLAMPS.
8. ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING SNAP-TITE CONNECTORS AND SEALANT.
9. THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE PAPER (SEPIA OR MYLAR) SHOWING ALL INSTALLED IRRIGATION. A MYLAR OR SEPIA OF THE ORIGINAL PLAN MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.
10. ALL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES.
11. ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS.
12. ALL RISERS SHALL BE INSTALLED 12" FROM ANY WALL AND A MINIMUM OF 12" FROM ANY SIDEWALK, PATIO OR ROAD.
13. THE EXACT HEIGHT OF ANY 12" POP-UP THAT IS SHOWN IN A SHRUB BED SHALL BE DETERMINED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
14. THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.
15. ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
16. CONTRACTOR TO USE MIN. OF 12 GAUGE WIRE FOR ALL COMMON WIRES AND 14 GAUGE WIRE FOR ALL CONTROL WIRES. CONTRACTOR ALSO TO PROVIDE 3 SPARE CONTROL WIRES FOR ANY FUTURE USE.
17. CONCRETE THRUST BLOCKS ARE TO BE UTILIZED AT ALL MAINLINE DIRECTION CHANGES.
18. ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.

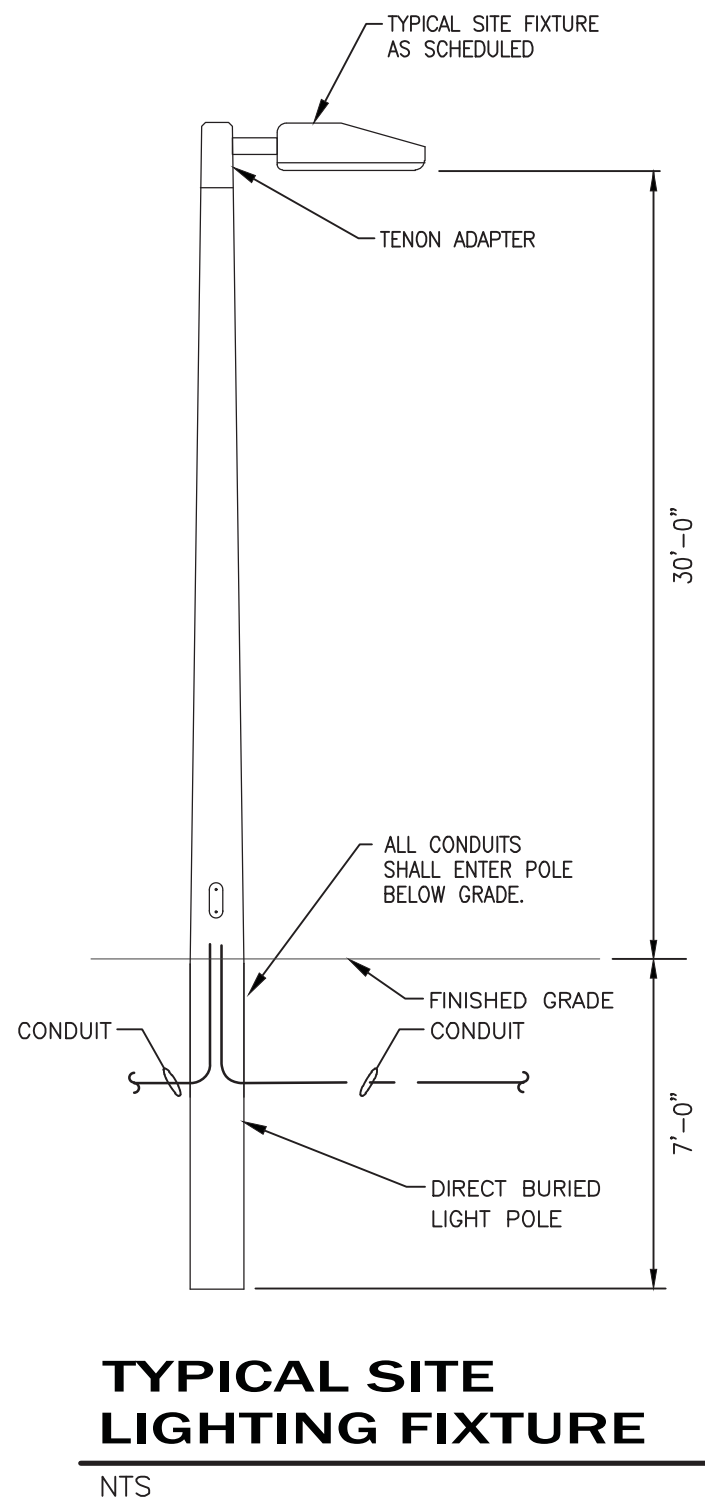
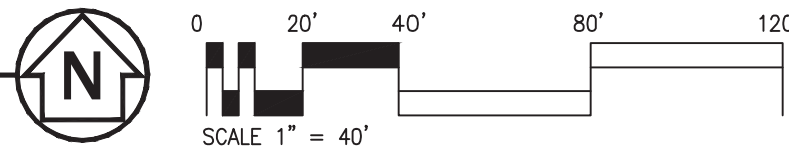
WATERING SCHEDULE

ZONE #	WATER TYPE	WATERING TIME	GAL. PER MINUTE	GAL. PER WATERING	PRECIP. IN INCHES
1	BUBBLERS	20 MIN.	26.00 GPM	520.00 GPW	0.40"
2	SHRUBS	30 MIN.	20.68 GPM	620.40 GPW	0.24"
3	BUBBLERS	20 MIN.	18.00 GPM	360.00 GPW	0.40"
4	SHRUBS	30 MIN.	49.15 GPM	1,368.90 GPW	0.24"
5	BUBBLERS	20 MIN.	34.00 GPM	680.00 GPW	0.40"
	TOTAL	2 HR-0 MIN.	139.83 GPM	3,549.30 GPW	
WATERING SCHEDULE & USAGE CALCULATIONS		7,098.60 GAL / WEEK		- SUMMER (MAR 15-OCT 14 (2 TIMES /WEEK))	
		3,549.30 GAL / WEEK		- WINTER (OCT 15-MAR 14 (1 TIME /WEEK))	
		276,845.40 GAL / YEAR		(78 WATERINGS PER YEAR)	
		193,791.78 GAL / YEAR		W/ 30% REDUCTION FOR SOLAR-SYNC	

IRRIGATION EQUIPMENT LIST		
SYMBOL	DESCRIPTION	QUANTITY
	HUNTER INDUSTRIES PCN BUBBLER	94
	24" POP-UP SPRAY – HUNTER IND. 'PROS-12-PRS40' BODY W/MP800 NOZZLES	10
	12" POP-UP SPRAY – HUNTER INDUSTRIES MPR40 W/MP1000 NOZZELS	30
	SPRAY ON RISER – HUNTER INDUSTRIES INST-00-CV-MP1000	162
	HUNTER "PGV" SERIES ELECTRIC VALVE WITH ACCU-SET PRESSURE REGULATOR <u>1"AND 1.5"</u>	5
	HUNTER PRO-C "PCC-1200" CONTROLLER, 12 STATION UNIT WITH PLASTIC CABINET. (MOUNT ON SIDE OF WALL GC TO PROVIDE POWER)	1
	HUNTER "SOLAR-SYNC" SENSOR SYSTEM	1
	1-1/2" POTABLE IRRIGATION METER PROVIDE 60 GPM AT 40 PSI	1 (BY OWNER)
	2" BACK-FLOW PREVENTER	1
	LATERAL LINE SIZE PER PLAN	SEE PLAN
	2" MAINLINE CLASS 200 P.V.C. SIZE PER PLAN	SEE PLAN
	SLEEVING – SCH. 40 P.V.C. MIN. DEPTH OF 24"	SEE PLAN



SITE PHOTOMETRIC PLAN
SCALE: 1" = 40'



TYPICAL SITE LIGHTING FIXTURE
NTS

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2055 EAU CLAIRE BLVD, SUITE A WEBBDALE, FL 33595 TEL. 321.233.1221 WWW.CSEENGINEERING.COM C.O.A. #000897		CONSTRUCTION ENGINEERING GROUP Consulting Engineers		ELEVEN 18 ARCHITECTURE A WOMEN'S BUSINESS ENTERPRISE LICENSE: ADAMS804 4450 E. US HWY 1 ORLANDO, FL 32801 www.eleven18architecture.com Mark Adams: 407-756-2119 Kim Day: 407-416-9960 Neke White: 407-416-9965		STORQUEST SELF STORAGE STATE ROAD 524 AND FRIDAY ROAD, COCOA FLORIDA DRAWING TITLE SITE PHOTOMETRIC PLAN		ENGINEER OF RECORD DAVID E. ALLEY, PE FL PE #55008 DATE 08-05-22 SCALE AS NOTED PROJ. NO.: 220065 DESIGNED BY: DEA DRAWN BY: DEA CHECKED BY: DEA DRAWING NO. EP1	
REV#	DATE	REVISION							



RSX1 LED
Area Luminaire



Specifications

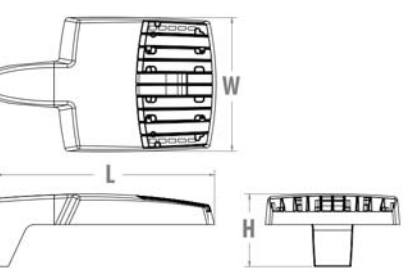
EPA (ft@90°): 0.57 ft² (0.05 m²)

Length: 21.8" (55.4 cm)

Width: 13.3" (33.8 cm)

Height: 3.0" (7.6 cm) Main Body
7.2" (18.4 cm) Arm

Weight (SPA mount): 22.0 lbs (10.0 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral splitter and other mounting configurations are available.

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1 P2 P3 P4	30K 3000K 40K 4000K 50K 5000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Wide R4S Type 4 Short R5 Type 5 Wide R5S Type 5 Short	MVOLT (120V-277V) ¹ HVOLT (247V-480V) ¹ VOLT (277V-480V) ¹ (use specific voltage for options as noted) 120 ¹ 277 ¹ 208 ¹ 347 ¹ 240 ¹ 480 ¹	SPA Square pole mounting (3.0" min. 50 pole for 1 at 90°, 3.5" min. 50 pole for 2, 3, 4 at 90°) RPA Round pole mounting (3.2" min. dia. R80 pole for 2, 3, 4 at 90°, 3.0" min. dia. R60 pole for 1 at 90°, 2 at 180°, 3 at 120°) T Mast arm adaptor (R6-2.3/8" OD horizontal sensor) S Adjustable splitter (R6-2.3/8" OD sensor) WBA Wall bracket ¹ WBAC Wall bracket with surface conduit box AASP Adjustable 90° arm square pole mounting ⁴ AMB Adjustable 90° arm mast pole mounting ⁴ AMBW Adjustable 90° arm with wall bracket ⁴ AMWSC Adjustable 90° arm bracket and surface conduit box ⁴

Options

Shipped installed

HS House side shield¹

PE Photocell, button type¹

PER Photocell external threaded, adjustable^{1,10}

PER7 Seven wire twist lock receptacle only (no controls)^{1,10,11}

CE34 Conduit entry 3/4" NPT (Qty 2)

SF Single fan (120, 277, 347)

DF Double fan (208, 240, 480)¹

SPODKV 20KV Surge pack (10KV standard)

FAD Field adjustable output^{1,11}

DMS 0-10V dimming external not back of housing for external control (control ordered separately)^{1,11}

Shipped installed

*Standard and Networked Sensors/Controls (factory default settings, see table page 9)

NTM2 Weight lift sensor 2" x 1"

PIRHN Networked, Bi-level motion/ambient sensor (for use with NEM2)^{1,11,12}

BAA Buy America(s) Act Compliant

¹Note: PIRHN with light kit is used as a standalone or networked solution. Sensor coverage pattern is affected when luminaire is tilted.

Shipped Separately (requires some field assembly)

EGS External glare shield¹

EGFV External glare full visor (360° around light aperture)¹

BS Bird spikes¹

Finish

DDBD Dark Bronze

DBLD Black

DBND Natural Aluminum

DBWD White

DBDSD Textured Dark Bronze

DBLSD Textured Black

DBNDSD Textured Natural Aluminum

DBWSD Textured White

Lithonia RSX1 Area LED Rev. 03/01/22
Page 2 of 9

TYPICAL POLE MOUNTED FIXTURE



WDGE1 LED
Architectural Wall Sconce



Specifications

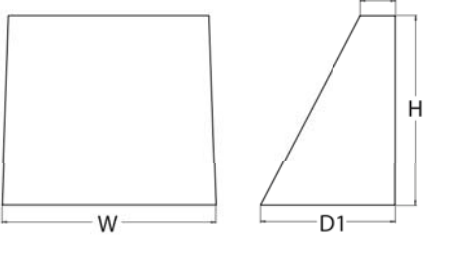
Depth (D1): 5.5"

Depth (D2): 1.5"

Height: 8"

Width: 9"

Weight: 9 lbs (without options)



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing true site-wide solution.

WDGE1 delivers up to 2,000 lumens with a soft, non-polluted light source, creating a visually comfortable environment. The compact size of WDGE1, with its integrated emergency battery backup option, makes it an ideal over-the-door wall-mounted lighting solution.

Ordering Information

EXAMPLE: WDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE1 LED	P1 P2	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	80CRI 90CRI	VF Visual comfort forward throw VW Visual comfort wide	MVOLT 347 ¹	Shipped included SRM Surface mounting bracket ICW Indirect Canopy/Canopy Washer Bracket (shy/damp locations only) Shipped separately ABS Black Architectural wall spacer PBW Surface-mounted back box (top, left, right, center entry) (Use when there is a junction box available)

Options

EWBH Emergency battery backup, Certified in CA Title 20 MAZDBS (40K, 0°C min)

PE Photocell, Button Type

DS Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)

DMS 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)

BCE Bottom conduit entry for back box (PBW). Total of 4 entry points.

BAA Buy America(s) Act Compliant

Finish

DDBD Dark Bronze

DBLD Black

DBND Natural aluminum

DBWD White

DBSD Sandstone

DBDSD Textured Dark Bronze

DBLSD Textured Black

DBNDSD Textured natural aluminum

DBWSD Textured white

DBSDSD Textured sandstone

Lithonia WDGE1 LED Rev. 03/01/22
Page 2 of 9

TYPICAL WALL MOUNTED FIXTURE

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1 P2 P3 P4	30K 3000K 40K 4000K 50K 5000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Wide R4S Type 4 Short R5 Type 5 Wide R5S Type 5 Short	MVOLT (120V-277V) ¹ HVOLT (247V-480V) ¹ VOLT (277V-480V) ¹ (use specific voltage for options as noted) 120 ¹ 277 ¹ 208 ¹ 347 ¹ 240 ¹ 480 ¹	SPA Square pole mounting (3.0" min. 50 pole for 1 at 90°, 3.5" min. 50 pole for 2, 3, 4 at 90°) RPA Round pole mounting (3.2" min. dia. R80 pole for 2, 3, 4 at 90°, 3.0" min. dia. R60 pole for 1 at 90°, 2 at 180°, 3 at 120°) T Mast arm adaptor (R6-2.3/8" OD horizontal sensor) S Adjustable splitter (R6-2.3/8" OD sensor) WBA Wall bracket ¹ WBAC Wall bracket with surface conduit box AASP Adjustable 90° arm square pole mounting ⁴ AMB Adjustable 90° arm mast pole mounting ⁴ AMBW Adjustable 90° arm with wall bracket ⁴ AMWSC Adjustable 90° arm bracket and surface conduit box ⁴

Options

Shipped installed

HS House side shield¹

PE Photocell, button type¹

PER Photocell external threaded, adjustable^{1,10}

PER7 Seven wire twist lock receptacle only (no controls)^{1,10,11}

CE34 Conduit entry 3/4" NPT (Qty 2)

SF Single fan (120, 277, 347)

DF Double fan (208, 240, 480)¹

SPODKV 20KV Surge pack (10KV standard)

FAD Field adjustable output^{1,11}

DMS 0-10V dimming external not back of housing for external control (control ordered separately)^{1,11}

Shipped installed

*Standard and Networked Sensors/Controls (factory default settings, see table page 9)

NTM2 Weight lift sensor 2" x 1"

PIRHN Networked, Bi-level motion/ambient sensor (for use with NEM2)^{1,11,12}

BAA Buy America(s) Act Compliant

¹Note: PIRHN with light kit is used as a standalone or networked solution. Sensor coverage pattern is affected when luminaire is tilted.

Shipped Separately (requires some field assembly)

EGS External glare shield¹

EGFV External glare full visor (360° around light aperture)¹

BS Bird spikes¹

Finish

DDBD Dark Bronze

DBLD Black

DBND Natural Aluminum

DBWD White

DBDSD Textured Dark Bronze

DBLSD Textured Black

DBNDSD Textured Natural Aluminum

DBWSD Textured White

Lithonia RSX1 Area LED Rev. 03/01/22
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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	27K (2700K, 80 CRI)	30K (3000K, 80 CRI)	35K (3500K, 80 CRI)	40K (4000K, 80 CRI)	50K (5000K, 80 CRI)
P1	10W	1,120 112 0 0 0 0	1,194 119 0 0 0 0	1,194 119 0 0 0 0	1,228 122 0 0 0 0	1,228 122 0 0 0 0
P2	15W	1,809 180 1 0 0 0	1,876 187 1 0 0 0	1,876 187 1 0 0 0	1,928 192 1 0 0 0	1,928 192 1 0 0 0

Electrical Load

Performance Package	System Watts	15W	20W	24W	27W	34W
P1	10W	0.062	0.049	0.049	0.038	—
P2	15W	0.132	0.081	0.072	0.064	—

Lumen Multiplier for 90CRI

CT	Multiplier
27K	0.845
30K	0.867
35K	0.845
40K	0.885
50K	0.898

Lumen Output in Emergency Mode (400K, 80 CRI)

System	Discharge	Lumens
EWBH	VF	646
	VW	647

Projected LED Lumen Maintenance

Data references the anticipated performance projections for the platform noted in a 25°C ambient, based on 10,000 hours of LED testing limited per IESNA LM-80-08 and projected per IESNA TM-21-13.

To calculate Lf, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.95	>0.91

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0°C to 50°C (32°F to 122°F).

Ambient	Lumen Multiplier	
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Ordering Information

EXAMPLE: WDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE1 LED	P1 P2	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	80CRI 90CRI	VF Visual comfort forward throw VW Visual comfort wide	MVOLT 347 ¹	Shipped included SRM Surface mounting bracket ICW Indirect Canopy/Canopy Washer Bracket (shy/damp locations only) Shipped separately ABS Black Architectural wall spacer PBW Surface-mounted back box (top, left, right, center entry) (Use when there is a junction box available)

Options

EWBH Emergency battery backup, Certified in CA Title 20 MAZDBS (40K, 0°C min)

PE Photocell, Button Type

DS Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)

DMS 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)

BCE Bottom conduit entry for back box (PBW). Total of 4 entry points.

BAA Buy America(s) Act Compliant

Finish

DDBD Dark Bronze

DBLD Black

DBND Natural aluminum

DBWD White

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DBDSD Textured Dark Bronze

DBLSD Textured Black

DBNDSD Textured natural aluminum

DBWSD Textured white

DBSDSD Textured sandstone

Lithonia WDGE1 LED Rev. 03/01/22
Page 2 of 9

LIGHTING FIXTURE SCHEDULE											
MK	DESCRIPTION	LAMPS			DIFFUSER	MOUNTING	VOLT	MANUFACTURER	REMARKS		
		QTY	WATTS	TYPE							
SL4T	TWIN POLE MOUNTED AREA LIGHT – TYPE 4	–	379	LED	=	POLE AT 30' AFG	120V	LITHONIA LIGHTING #RSX2–LED–P4–40K–R4–DDBXL–PIRHN–NLTAIR2	SEE NOTES BELOW		
SL3	POLE MOUNTED AREA LIGHT – TYPE 3	–	114	LED	=	POLE AT 30' AFG	120V	LITHONIA LIGHTING #RSX2–LED–P2–40K–R3S–EGS–DDBXL–PIRHN–NLTAIR2	SEE NOTES BELOW		
SL2	POLE MOUNTED AREA LIGHT – TYPE 2	–	150	LED	=	POLE AT 30' AFG	120V	LITHONIA LIGHTING #RSX2–LED–P4–40K–R4–DDBXL–PIRHN–NLTAIR2	SEE NOTES BELOW		
WP	WALL MOUNTED AREA LIGHT	–	15	LED	=	WALL AT 8' AFG	120V	LITHONIA LIGHTING #WDGE1–LED–P2–40K–80CRI–VF–DDBXL			
FIXTURE SCHEDULE NOTES:											
1. FIXTURE SCHEDULE IS PROVIDED TO ESTABLISH A LEVEL OF QUALITY AND SET THE BASIS OF DESIGN FOR THIS PROJECT. ALTERNATE PACKAGES OF EQUAL OR GREATER QUALITY WILL BE ACCEPTED ONLY FROM SESCO, GENLYTE, FLORIDA LIGHTING ASSOCIATES AND LIGHTING PARTNERS OF CENTRAL FLORIDA. NO OTHERS WILL BE CONSIDERED FOR THIS PROJECT.											
2. SUBMIT CATALOG CUT SHEETS FOR APPROVAL PRIOR TO ORDERING LIGHTING FIXTURES. SUBMIT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO SUBMITTING BIDS. SUBMISSIONS OF SHOP DRAWINGS TO THE ENGINEER/ARCHITECT THAT DO NOT MEET THE ABOVE REQUIREMENTS WILL NOT BE APPROVED.											
3. EMERGENCY BATTERIES SHALL BE MANUFACTURED BY BODINE, AND OR APPROVED EQUALS AND SHALL BE FACTORY INSTALLED. PROVIDE WITH AN UNCONDITIONAL NON-PRORATED 5 YEAR WARRANTY.											
4. TYPE RSX SERIES LIGHTING FIXTURES SHALL BE SIDE ARM MOUNTED WITH OUT TENON ADAPTERS WHEN USING ROUND FIBERGLASS OR ALUMINUM POLES. PROVIDE TENON ADAPTOR #TSQ/ASTSQ WHEN MOUNTING DSX SERIES LIGHTING FIXTURES TO CONCRETE POLES.											
5. PROVIDE WITH 37' OVERALL DIRECT BURIED TAPERED PRESTRESSED CONCRETE POLE, INSTALLED PER MANUFACTURERS WRITTEN INSTRUCTIONS. PROVIDED POLE MINIMUM EPA LOADING SHALL EXCEED THE FIXTURE AND MOUNTING ARM COMBINED EPA PER THE LOCAL WIND REQUIREMENTS OF 150MPH, 3 SECOND GUST, EXPOSURE B PER THE FLORIDA BUILDING CODE. SUBMIT WRITTEN SIGNED AND SEALED DOCUMENTATION INDICATING COMPLIANCE.											
6. PROVIDE POLE MOUNTED SITE LIGHTING WITH INTEGRAL WIRELESS CONTROLS REQUIRED TO MEET FBC C405.2.6 FOR EXTERIOR POWER REDUCTION REQUIREMENTS.											

REVISION

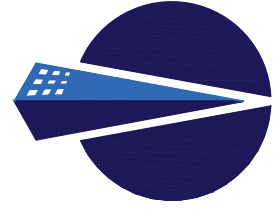
DATE

REV#

2051 EAU GALE BLVD, SUITE A
MELBOURNE, FL 32935

TEL 321.253.1221
WWW.CSGENGINEERING.COM
C.O.A. #008097

CONSTRUCTION
ENGINEERING
GROUP



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ARCHITECTURE

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Orlando, FL 32801
www.eleven18architecture.com
Mark Adams: 407-756-2119
Kim Day: 407-416-9960
Neke Witter: 407-416-9965

STORQUEST
SELF STORAGE

STATE ROAD 524 AND FRIDAY ROAD, COCOA FLORIDA

DRAWING TITLE
LIGHTING FIXTURE DATA SHEETS

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN ARE THE PROPERTY OF STORQUEST SELF STORAGE, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF STORQUEST SELF STORAGE, INC.

ENGINEER OF RECORD

DATE
08-05-22

SCALE
AS NOTED

PROJ. NO.:
220065

DESIGNED BY:
DEA

DRAWN BY:
DEA

CHECKED BY:
DEA

DRAWING NO.
EP2

Digitally signed by
David E. Alley
Date: 2022.08.05
13:34:41 -04'00'



Application # PZ - _____ - _____

SITE PLAN APPLICATION

Community Services Department
Planning and Zoning Division
65 Stone Street

Phone: (321) 433-8535

Fax: (321) 433-8543

Web:

<http://www.cocoafl.org>

This form is divided into steps, which will help you prepare your application and provide supplemental items. A pre-application meeting with Staff is **recommended**.

All applications **MUST** be complete in order to be reviewed by staff. Incomplete applications will be returned.

For Office Use Only - Date Received
Note: Applications received after 3:00 pm will be
date stamped the next day.

Please TYPE or PRINT this application legibly.

1. Type of Application: (select the one that best describes your project)

☐ **Minor Amendment**

- Any site plan amending a previously approved site plan or existing development by 25% or less, being that any structural or impervious surface area is increased by 25% or less of the existing amount of structure or impervious surface area.
- Notwithstanding, any site plan containing a structure greater than 50 feet in height shall be subject to the site plan submittal requirements of a large-scale review.

☐ **Small-Scale**

- Any multi-family structure or combination of structures containing less than 25 units and less than 45,000 square feet; or
- Any non-multi-family structure or combination of structures of less than 45,000 square feet.
- Notwithstanding, any site plan containing a structure greater than 50 feet in height shall be subject to the site plan submittal requirements of a large-scale review.

☒ **Large-Scale**

- Any multi-family structure or combination of structures containing greater than or equal to 25 units and greater than or equal to 45,000 square feet; or
- Any non-multi-family structure or combination of structures of greater than or equal to 45,000 square feet.

2. Project Name: Storquest Express

3. Applicant Information: * NOTE: For Large-Scale the Applicant is the main contact and must attend the meeting.

Company (if applicable): The William Warren Group, LLC

Name: Alyssa Parker

Mailing Address: 959 South Coast Dr. Ste. 350

City: Costa Mesa State: CA Zip Code: 92626

Phone #: 424-832-1761

Fax #:

Mobile #:

E-mail: aparker@williamwarren.com

7. **Minor Site Plan Amendment** - Please submit the following items in order complete a Minor Amendment application only:

- a. ☐ **Notarized application.**
- b. ☐ **Application fee.** Please make checks payable to the 'City of Cocoa' and submit payment **ONLY** to the Community Services Department. See Schedule of Fees, Charges and Expenses for applicable fees.
- c. ☐ **Proof of ownership.** A copy of the most recent recorded warranty deed is required.
- d. ☐ **Letter of authorization.** If the applicant is not the property owner, a notarized letter of authorization or agent affidavit is required, unless the applicant is the Attorney of the owner. Each property owner must complete a separate authorization form or other suitable documentation to allow the agent to act upon his/her behalf.
- e. ☐ **Corporate documents.** If the applicant/owner is representing a company, articles of incorporation which show the applicant/owner is authorized to represent the company is required. A data record printout from the Florida Department of State, Division of Corporations website may also be provided (<http://www.sunbiz.org/corpweb/inquiry/search.html>).
- f. ☐ **Utility plans.** Site plan approval is contingent on approval of your Utility plans. Please submit potable, reclaim and waste water plans along with the following documents directly to the Utilities Department (351 Shearer Blvd., Cocoa, Florida 32922):
 - 1. \$500 Plan Review Fee
 - 2. One hard copy set of signed and sealed plans for the initial review.
 - 3. Hydraulic Analysis Report supporting the Required Fire Flow plus the Max Day Flow.
 - 4. Lift Station Calculations
- g. ☐ **Certified boundary survey.** Submit a certified survey showing all existing structures, easements, driveways, etc.
- h. ☐ **Certified site plan.** Submit 2 paper copies (folded to about 8-1/2 x 11") and 1 electronic file in pdf format of a plan drawn to scale and showing the required site plan elements. See the site plan checklist below for details. **Minor Site Plans shall not be smaller than 11 x 17"**.
- i. ☐ **Additional information (optional).** Submit any information that may be helpful in understanding the request. This may include photos, sketches, elevations, or letters from adjoining property owners.

8. **Small-Scale Site Plan** – In addition to the items in #7 above, please submit the following items in order complete a Small-Scale application:

- a. ☐ **Certified site plan.** **Small Scale Site Plans shall not be smaller than 24" x 36"**.

9. **Large-Scale Site Plan** - In addition to the items in #7 above, please submit the following items in order complete a Large-Scale application:

- a. ☐ **List of owners within 500 feet.** A "radius map package" from Brevard County containing a certified mailing list with mailing labels and a map of all property owners of record who reside within a 500-foot radius of the subject property is required for public notice. **It is the applicant's responsibility to obtain these materials from the following for a nominal fee:**
 - Brevard County Planning and Zoning, Attn: Graphics.
 - Brevard County Government Center, Building A
 - 2725 Judge Fran Jamieson Way
 - Viera, FL 32940
 - Phone: (321) 633-2060 Fax: (321) 633-2152
- b. ☐ **Application fee.** Public notice mailing and legal advertising fees must also be paid a few weeks after application submittal. Contact the Planning and Zoning Division for details.
- c. ☐ **Certified site plan.** **The site plan shall not be smaller than 24" x 36"**.

10. Site plan re-submittals. All changes to the site plan must be bubbled on the re-submitted plans. Site plan re-submittals must be accompanied by a list of changes/responses to staff comments, and a certified statement by the site plan preparer that no other changes have been made to the drawings. Otherwise, delays may be experienced due to extra staff review time. Each resubmittal shall follow the same requirements. An additional 4 paper copies of the plans will be required to be submitted prior to public hearing or staff approval.

Site Plan Elements Checklist Please include the items below in each site plan submittal (combine elements on several sheets where applicable). For Minor Amendments, certain elements may be omitted from being shown on the site plan, if approved by the City.

A. Cover sheet (1st page) (Appendix A, Art. XIII, Sec.1 Site Plans):

- ☐ **Type of Application and Title.**
- ☐ **General vicinity map.** Provide the following:
 - ☐ Principal roads.
 - ☐ City limits.
 - ☐ Other pertinent orientation information.
- ☐ **General statement.** Provide a general description of the project, including but not limited to, the existing uses and site conditions, and proposed uses.
- ☐ **Legal description.** Provide a legal description of the overall site and individual phases, if applicable.
- ☐ **Contact information.** Provide the names, addresses, telephone numbers, fax numbers and e-mail addresses of the following parties:
 - ☐ Owner(s) of the subject property.
 - ☐ Applicant (if different than owner).
 - ☐ Site plan preparers.
- ☐ **Title block.** Provide a title block on each sheet, showing the following:
 - ☐ North arrow.
 - ☐ Date.
 - ☐ Name of project.
 - ☐ Graphic scale (not less than one inch equals fifty feet – 1"=50').
- ☐ **Approval stamp blank.** Provide a minimum 4" x 4" space for the approval stamp, located at the bottom right corner of the cover sheet.
- ☐ **Sheet index.**

B. Surveys and Inventories (after Cover Sheet):

- ☐ **Boundary survey.** Provide a certified and current boundary survey.
- ☐ **Topographic survey.** Provide a certified and current topographic survey, which also includes the delineation of any and all wetlands on the project site. This may be included on the boundary survey if approved by the City.
- ☐ **Tree survey.** Provide a tree survey locating all trees on the property. Include a list of the number of existing trees by species and d.b.h. Trees on the survey shall be depicted as defined in the City Code. (*Appendix A, Art. XIII, Sec. 22*)
- ☐ **Designated animal and plant species inventory.** Provide an inventory of all protected animal and plant species (*City of Cocoa Comprehensive Plan, Chapter 6 Conservation Element, Policy 6.4.6, etc.*).
- ☐ **Soil types and conditions inventory.**
- ☐ **Flood zones.**

C. Demolition and protection plans:

- ☐ **Tree and vegetation preservation plan.** On the landscape plan, indicate all trees that will be removed as well as all trees that will be preserved on the project site. Include a list of all trees removed and trees preserved by species and d.b.h. (*Appendix A, Art. XIII, Sec. 22*)
- ☐ **Demolition plan.** If applicable, provide a demolition plan showing the following details:

- ☐ Limits of demolition.
- ☐ Indicate all structures planned for demolition.
- ☐ Include the following note, "All areas disturbed in the right of way shall be returned to original condition or better."

D. Proposed development plans:

- ☐ **Land use data table.** Provide the following land use data:
 - ☐ Zoning category.
 - ☐ Future land use category.
 - ☐ Previously approved variances, special exceptions, waivers, re-zonings, subdivisions and any other action(s) taken upon the subject property within the past five (5) years.

- ☐ **Site plan data table.** Provide the following (list or table/chart format is sufficient):
 - ☐ Tabulation of gross acreage and square footage.
 - ☐ Tabulation of density (*City of Cocoa Comprehensive Plan, Chapter 1 Future Land Use Element*).
 - ☐ Number of units proposed.
 - ☐ Location and acreage of open space and recreational areas.
 - ☐ Area and percentage of lot covered by structures (separated by type of use).
 - ☐ Floor area of dwelling units by type.
 - ☐ Impervious surface area (*City of Cocoa Comprehensive Plan, Chapter 1, Figure FLU-1*).
 - ☐ Gross floor area (area of lot covered by structure times number of floors).
 - ☐ Floor area ratio (total floor area in square feet divided by gross acre of lot in square feet) (*Appendix A, Art. V Definitions*).
 - ☐ Number of required and proposed parking spaces with formulas and calculations (*Appendix A, Art. XII Off-Street Parking*).
 - ☐ Height of structures and number of floors, including parking garages (*Appendix A, Art. XI, Zoning District Regulations*).
 - ☐ If the project is divided into phases, provide a Site Plan Data Table for the entire project and for each individual phase.

- ☐ **General notes.** Provide the following general notes:
 - ☐ Lighting. Lighting shall be designed, installed, maintained, and directed so as to avoid glare on adjoining properties and rights-of-way through the use of semi- and full-cutoff shields.

- ☐ **Site plan elements.** Provide the following site plan elements:
 - ☐ Property and rights of way lines.
 - ☐ Depiction of abutting aprons
 - ☐ Existing and proposed easements.
 - ☐ Right-of-way improvements.
 - ☐ Open water bodies (lakes, rivers, ponds, canals, etc.).
 - ☐ Jurisdictional wetlands boundary as determined by the St. Johns River Water Management District.
 - ☐ Uplands buffer from wetlands (*City of Cocoa Comprehensive Plan, Chapter 6 Conservation Element, Policy 6.4.16(E)*).
 - ☐ Paving (including typical details) (*Chapter 18, Art. III and Appendix A, Art. XII, Sec. 3*).
 - ☐ Curbs and gutters (*Chapter 18, Art. III and Appendix A, Art. XII, Sec. 3*).
 - ☐ On and off-site sidewalks (*Chapter 18, Art. III and Appendix A, Art. XII, Sec. 3*).
 - ☐ Trash receptacles/dumpsters and enclosures (*Chapter 9, Art. II, Division 3, Sec. 9-29*).
 - ☐ Site lighting fixtures and locations (*Appendix A, Art. XIII, Sec. 10.1*).
 - ☐ Fences and walls including (*Appendix A, Art. XIII, Sec. 5*):
 - i. Height.
 - ii. Type.
 - ☐ All structures and major features fully labeled and dimensioned including (*Depends on Zoning District from Appendix A, Art. XI, Sections 1 thru 20*):
 - i. Setbacks.
 - ii. Distances between structures.
 - iii. Floor area.
 - iv. Addresses of each separate structure and unit numbers within each structure, if applicable.
 - ☐ Proposed parking and circulation plan including (*Appendix A, Art. XII, Sec. 3*):

- i. Width of driveways.
 - ii. Parking spaces, including dimensions.
 - iii. Existing and proposed points of ingress to and egress from the site.
 - iv. Handicap accessible parking spaces.
 - v. Identify paving type and surface.
- ☐ **Landscape plan elements.** Including but not limited to the following (*Appendix A, Art. XIII, Sec. 22 (C), (D) & (E)*):
 - ☐ Location and dimension of all buffers.
 - ☐ Location and dimension of all internal landscaping.
 - ☐ Plant schedule (legend, quantity, specifications, common name and botanical name of all landscape materials).
 - ☐ Property boundary.
 - ☐ Location and area of off-street parking and vehicular use areas.
 - ☐ Location of sprinklers and/or outlet locations.
 - ☐ Calculations for the determination of internal landscaping requirements.
 - ☐ Location of principle structure(s).
 - ☐ Location, size, and type of existing and replacement trees if applicable.
- ☐ **Drainage plan elements.** Including but not limited to the following:
 - ☐ One foot interval contours based upon coast and geodetic data.
 - ☐ Proposed finished elevation of each building site and first floor level.
 - ☐ All existing and proposed drainage facilities with size and grade.
 - ☐ Proposed orderly disposal water runoff.
 - ☐ Center line elevations along adjacent streets.
 - ☐ Cross-sections of stormwater pond slopes.
 - ☐ Compliance with Floodplain requirements (City Code, Chapter 6)
 - ☐ Compliance with Compensatory Storage requirements (City Comprehensive Plan, Stormwater Element)
- ☐ **Potable water, reclaimed water, wastewater, and other utility elements.** Provide a general plan showing the following (detailed plans for permitting must be submitted directly to the Utilities Engineering Department):
 - ☐ All utilities (including utility poles and guy lines, fire mains, fire hydrants, meters, potable water, reclaimed water, and sewer lines).
 - ☐ The location and availability of capacity for potable water, reclaimed water, and wastewater facilities to serve the proposed site, including a description of any required improvements or extensions of existing off-site facilities.
- ☐ **Details.** At a minimum, provide details for the items listed below. Additional details may be required by the City.
 - ☐ Paving and curbing.
 - ☐ Handicap accessible parking space.
 - ☐ Sidewalks.
 - ☐ Trash receptacles/dumpsters and enclosures.
 - ☐ Fences, walls, and gates.
 - ☐ Stormwater conveyance structures.
 - ☐ Cross-section of tree protection devices.

E. Accessory items:

- ☐ **Stormwater permits.** Provide a copy of a St. John's River Water Management District (SJRWMD) stormwater permit or exemption letter for the site.
- ☐ **Driveway permits.** Provide a copy of a City of Cocoa, Brevard County, and/or Florida Department of Transportation (FDOT) driveway permit or exemption letter if a City of Cocoa, Brevard County, and/or FDOT right-of-way is affected.
- ☐ **Land dedications.** Lands to be dedicated or transferred to a public or private entity and the purposes for which lands will be held and used.

LARGE-SCALE SITE PLAN Public Hearing process information - please read this!

- **Dates and locations of public hearings.** All Large-Scale Site Plans require one hearing before the Planning & Zoning Board. All regularly scheduled Planning & Zoning Board hearings are held on the first Wednesday of each month at 6:00 pm in the Cocoa City Council Chambers located at 65 Stone Street, Cocoa, Florida unless otherwise notified.
- **Presence required at the public hearings.** The applicant or his/her representative must be present to answer any questions concerning the application. If there are extenuating circumstances why the applicant or his/her representative cannot attend, he or she must notify the City in writing prior to the public hearing.
- **Preparing for the public hearings.** It is the applicant's responsibility to research and know all laws that may be applicable and may affect the outcome of any decision on the application request. The City assumes no responsibility or liability relating to the applicant's failure to research and know all applicable laws including, but not limited to state, federal, and city laws, codes, land development regulations, and the comprehensive plan.
- **Exhibits at public hearings.** If photographs, documents, maps or other materials are provided to the Board as evidence at the public hearing, the applicant must leave those instruments with the Recording Secretary. By law those instruments automatically become part of the public records and cannot be returned to the applicant.
- **Witnesses at public hearings.** For the purposes of making a decision on the application, the Board shall only consider testimony of qualified witnesses. A witness is determined by the Board and is generally based on:
 1. The witness has personal knowledge of the fact in which the witness will testify; and/or
 2. In the case of testimony consisting of opinions or inferences, the testimony is qualified as the following:
 - Layman witness:* Testimony of a witness other than an expert witness is qualified only if:
 - The witness can readily, and with equal accuracy and adequacy, communicate what he or she perceived to the Board without testifying in the form of opinions or inferences.
 - The opinions and inferences do not require any special knowledge, skill experience or training.
 - Expert witness:* Testimony of an expert witness is qualified only if:
 - The subject matter is proper for expert testimony because scientific, technical, or other specialized skill will help the Board understand the evidence being presented, or helps establish a fact in issue.
 - The witness is adequately qualified to express an opinion on the matter.

Signatures and Notarization.

STATE OF Florida COUNTY OF Brevard I, Alyssa Parker
being first duly sworn, depose and say that:

- ☒ I am the applicant, or if corporation, I am the officer of the corporation authorized to act on this request.
- ☒ I am the legal representative of the applicant of this application and a notarized Letter of Authorization form or agent affidavit accompanies this application giving written, unless the applicant is the Attorney representing the owner.

I hereby certify that I have read, completed and understand this application and understand that if my application and all associated attachments are not complete and accurate in all respects, the application will not be scheduled for a public hearing. I further understand that this application must be complete and accurate prior to the legal advertising of a public hearing.

Alyssa Parker

(APPLICANT SIGNATURE)

Alyssa Parker

(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known ☐ OR Produced Identification ☐

Type of I.D. Produced _____

**See Attached Notary
Jurat Certificate**

(NOTARY PUBLIC SIGNATURE)

STATE OF FLORIDA, COUNTY OF BREVARD

Sworn and subscribed to before me this _____ day of _____, 20____

FOR OFFICE USE ONLY

Fee of \$ _____ in cash ☐ or check ☐ (No. _____) payable to the "City of Cocoa".

Receipt Number: _____

Date: _____

Signature from Planning & Zoning Division:

CALIFORNIA JURAT WITH AFFIANT STATEMENT

GOVERNMENT CODE § 8202

- ☒ See Attached Document (Notary to cross out lines 1–6 below)
☐ See Statement Below (Lines 1–6 to be completed only by document signer[s], not Notary)

1 _____
 2 _____
 3 _____
 4 _____
 5 _____
 6 _____

Signature of Document Signer No. 1

Signature of Document Signer No. 2 (if any)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Los Angeles

Subscribed and sworn to (or affirmed) before me

on this 14th day of April, 2022,
 by Date Month Year

(1) Nyssa L. Parker

(and (2) _____),
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature [Signature]
Signature of Notary Public



Place Notary Seal and/or Stamp Above

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

PATROL ID # 24-35-23-00-505

Title or Type of Document: COCA FL - SITE PLAN Application

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

TRAFFIC IMPACT STUDY
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA



Prepared for:

The William Warren Group
13301 SW 87th Avenue
Miami, Florida 33176

Prepared by:

Traffic Planning and Design, Inc.
535 Versailles Drive
Maitland, Florida 32751
407-628-9955

February 2022

TPD № 5577

PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic Planning & Design, Inc., a corporation authorized to operate as an engineering business, EB-3702, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: StorQuest Express
LOCATION: Cocoa, Florida
CLIENT: The William Warren Group

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

NAME: Turgut Dervish, P.E.

P.E. No: 20400

DATE: February 12, 2022

SIGNATURE:

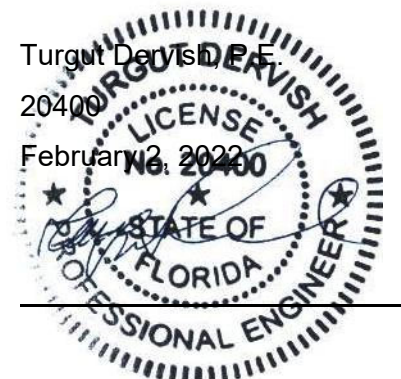


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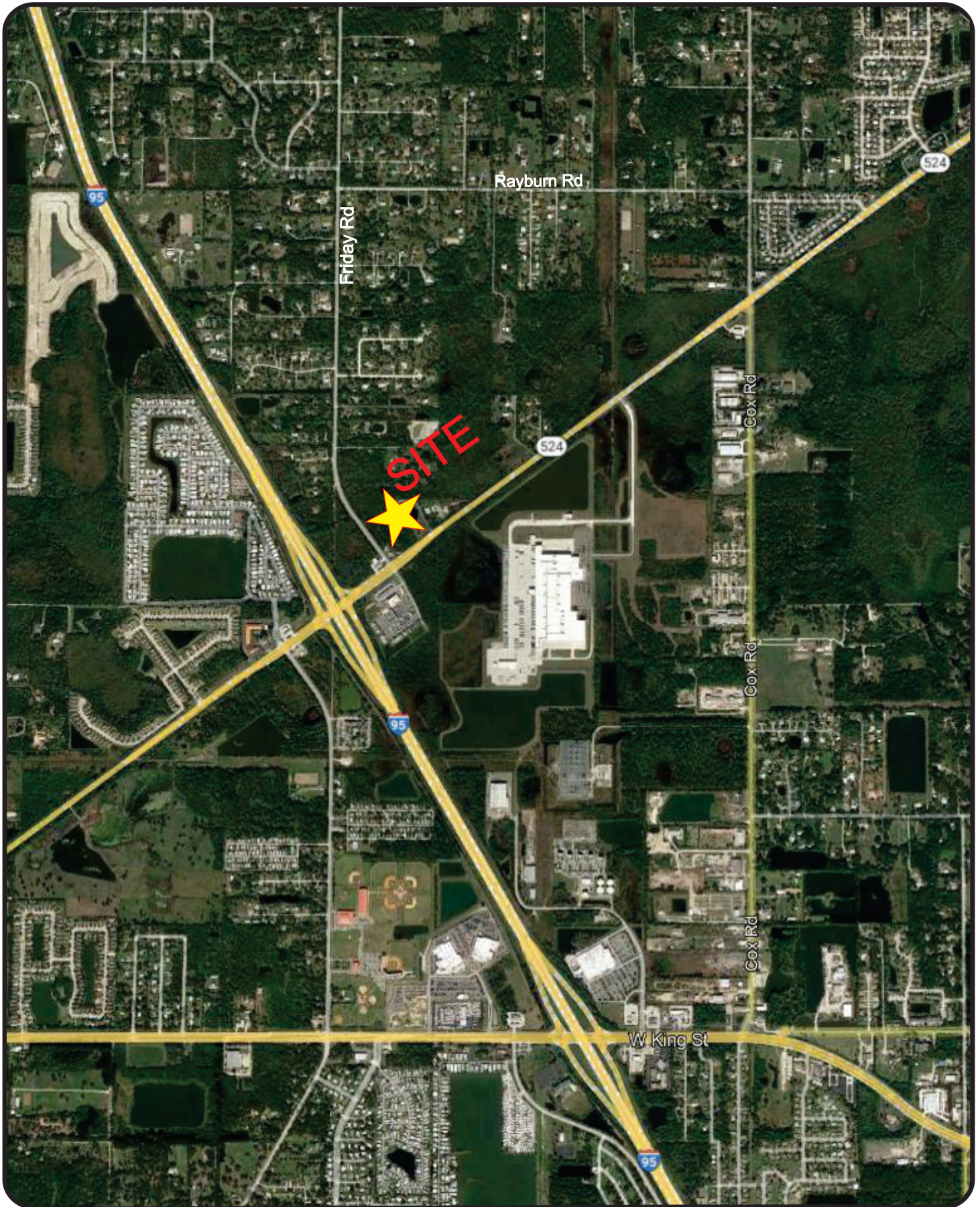
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INTRODUCTION

This analysis was undertaken in order to assess the traffic impact of a proposed self-storage facility in the City of Cocoa, Florida. Located in the northeast corner of SR 524 and Friday Road, the development will consist of 59,745 square feet of building area. **Figure 1** depicts the site location and the area roadways. The anticipated buildout year for the proposed project is 2023.

Data utilized in this study consisted of a site plan provided by Project Engineers, traffic volume data and Level of Service standards obtained from the Space Coast MPO. Additionally, intersection turning movement counts were collected by Traffic Planning and Design, Inc. staff.





Storequest Express
Project № 5577
Figure 1

Site Location



EXISTING CONDITIONS ANALYSIS

A capacity analysis was performed for the adjacent segments of SR 524 and Friday Road, and their intersection in close proximity to the site in order to establish the current operating conditions. The analysis was conducted utilizing existing daily traffic volumes for roadway segments and existing P.M. peak hour traffic volumes for intersections.

Roadway Segment Analysis

The roadway segments were analyzed by comparing their existing traffic volumes with the adopted LOS/capacity values for daily traffic conditions. The existing daily traffic volumes and adopted LOS capacities were obtained from the Space Coast TPO. Pertinent pages from the traffic count database are included in **Appendix A**. The existing capacity analysis is summarized in **Table 1**.

Table 1
Existing Daily Roadway Capacity Analysis

Segment ID	Roadway Segment	No. of Lanes	Functional Classification	Adopted*		Existing Daily Volume	V/C Ratio	LOS Met?
				LOS	MAV			
SR 524								
66	SR 520 to I-95	2	Urban Minor Arterial	D	24,200	6,600	0.27	Y
73	I-95 to Cox Rd	2	Urban Minor Arterial	D	18,590	11,020	0.59	Y
Friday Road								
64	SR 524 to James Rd	2	Urban Local	D	17,700	2,960	0.17	Y

* Based on the Space Coast TPO Traffic Counts

As shown, the existing conditions analysis of daily P.M. peak hour traffic conditions reveals that the study roadway segments currently operate satisfactorily above their adopted Level of Service capacity.



Intersection Analysis

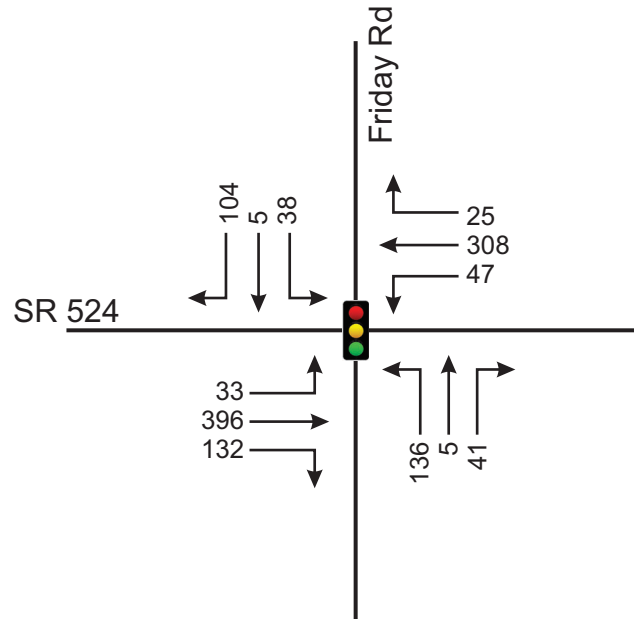
The study intersection was analyzed in accordance with the procedures of the *Highway Capacity Manual (HCM)* and *Highway Capacity Software (HCS7)*. In the analysis, existing P.M. peak hour traffic volumes and intersection geometry were used. The intersection counts were made December 16, 2021, when the seasonal factor for Brevard County was 1.00. Therefore, these counts were not seasonally adjusted. The intersection volumes in the form of turning movement counts are depicted in **Figure 2**. The traffic counts by 15-minute intervals and signal timing sheets are included in **Appendix B**. The results of the intersection capacity analysis are summarized in **Table 2**.

Table 2
Existing Intersection Capacity Analysis

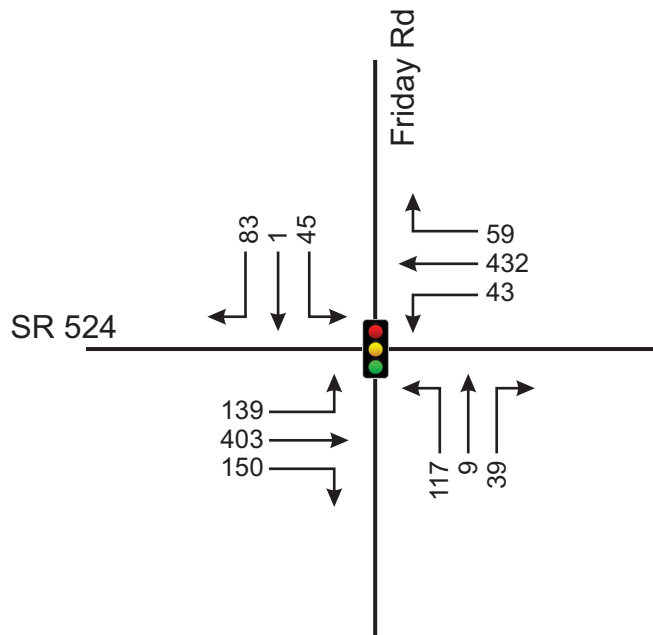
Intersection	Control	Time	EB		WB		NB		SB		Overall	
		Period	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 524 & Friday Rd	Signal	A.M.	20.8	C	19.1	B	36.2	D	50.9	D	26.0	C
		P.M.	18.5	B	21.5	C	44.4	D	60.8	E	26.0	C

The study intersection is currently operating at satisfactory Levels of Service. The *HCS7* capacity analysis worksheet is included in **Appendix C**.





A.M. Peak Hour



P.M. Peak Hour



PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development will consist of a 59,745 square foot self-storage facility. Access to the development is proposed via a right-in/out driveway on SR 524 and a full access driveway on Friday Road. **Figure 3** depicts the site plan and its access configuration. To determine the impact of the development in the area, an analysis of its trip generation characteristics was made. This included the determination of the number of trips generated by the site and their distribution onto the surrounding roadways.

Trip Generation

Trip generation rates were obtained from data contained in the 11th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The trip generation calculation of daily, A.M. and P.M. peak hour volumes is summarized in **Table 3**. The ITE trip generation charts are included in **Appendix D**.

Table 3
Trip Generation Summary

ITE Code	Land Use	Size	Daily		A.M. Peak Hour				P.M. Peak Hour			
			Rate	Trips	Rate	Enter	Exit	Total	Rate	Enter	Exit	Total
151	Self-storage	59.745 KSF*	1.45	87	0.09	3	2	5	0.15	4	5	9

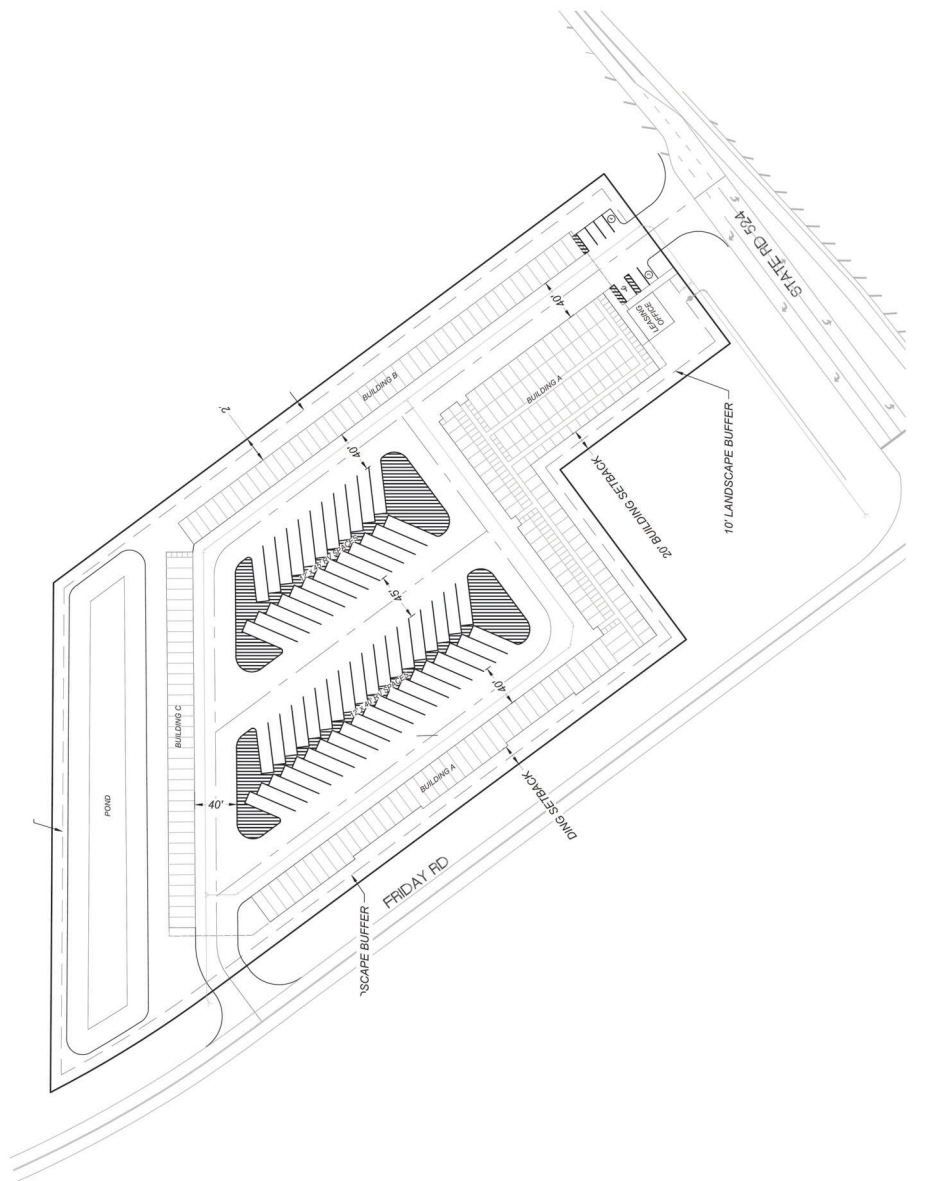
* KSF = 1,000 Square Feet

The proposed development is estimated to generate 87 daily trips, 5 A.M. and 9 P.M. peak hour trips to be added to the area roadways.

Trip Distribution/Trip Assignment

To determine the distribution of the project trips in the area, the FDOT CFRPM was used. A slight modification was made to this model to add a TAZ representing the project and its SE data. Subsequently, the model was run with a Select Zone Analysis which produced a distribution of the project trips in the area. The model-generated distribution is included in **Appendix E**. The project trip distribution in the project vicinity is illustrated in **Figure 4**.





Site Plan

Storequest Express
Project No 5577
Figure 3





PROJECTED TRAFFIC CONDITIONS

Projected traffic conditions were analyzed using projected daily traffic volumes for the roadway segments and A.M./P.M. peak hour volumes for the intersection. To determine the projected traffic volumes for the project's buildout year, background traffic volumes were combined with project trips. Background traffic volumes were estimated with the use of an annual 3% growth plus trips from other approved projects in the area provided by the City. Other development projects consisted of Silvestri Property, a discount variety store, Integra Apartments, Cocoa Landing Apartments, Retreat at Cocoa Commons (including the retail component of Cocoa Commons) and the Cirrus Apartments. The trends analysis charts included in **Appendix F** indicated an average of 3.0% annual growth. Other development project trips compiled from the respective traffic study reports are included in **Appendix G**.

Roadway Segment Analysis

Table 4 is an analysis of the projected traffic conditions for the roadway segments. This table lists the roadway segments along with their number of lanes, functional classification, existing/projected traffic volumes, LOS/capacity and resultant Level of Service. The table reveals that the roadway segments are projected to operate satisfactorily within their adopted LOS standard.

Table 4
Projected Daily Traffic Conditions Analysis

Seg ID	Roadway Segment	No. of Lanes	Functional Classification	Adopted		Background Traffic*	Other Development Trips**	Project Trips**	Total Volume	V/C Ratio	LOS Met ?
				LOS	MAV						
SR 524											
66	SR 520 to I-95	2	Urban Minor Arterial	D	24,200	6,798	1,007	15	7,820	0.30	Y
73	I-95 to Cox Rd	2	Urban Minor Arterial	D	18,590	11,251	5,425	72	16,748	0.90	Y
Friday Road											
64	SR 524 to James Rd	2	Urban Local	D	17,700	3,049	2,821	3	5,873	0.33	Y

* Existing multiplied by growth rate of 1.03.

** Highest trips on the segment.



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* Existing multiplied by growth rate of 1.03.

** Highest trips on the segment.



Intersection Analysis

The projected traffic volumes at the study intersections and site access driveway are depicted in **Figure 5a** and **5b**. The figure shows the background traffic, other development trips and trips generated by the project during the A.M. and P.M. peak hour. The study intersection and driveways were analyzed utilizing *Highway Capacity Software (HCS7)* in accordance with the *Highway Capacity Manual (HCM 6E)*. The results of this analysis as summarized in **Table 5** indicate satisfactory traffic operating conditions at the study intersection and the proposed driveways under projected conditions. The *HCS7* capacity analysis worksheets are included in **Appendix H**.

Table 5
Projected Intersection Capacity Analysis

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 524 & Friday Rd	Signal	A.M.	30.3	C	27.6	C	31.8	C	81.4	F	10.0	D
		P.M.	40.7	D	64.8	E	38.5	D	57.8	E	50.2	D
SR 524 Entrance	Stop	A.M.	--	--	--	--	--	--	13.1	B	--	--
		P.M.	--	--	--	--	--	--	11.1	B	--	--
Friday Rd Entrance	Stop	A.M.	--	--	13.9	B	--	--	8.2	A	--	--
		P.M.	--	--	11.6	B	--	--	7.5	A	--	--

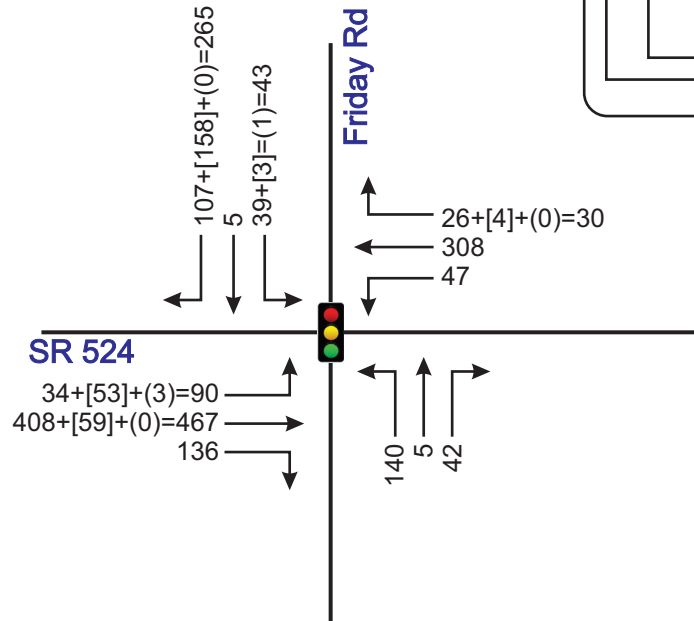
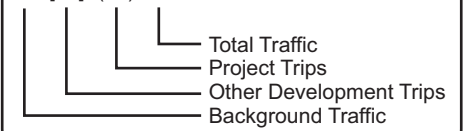
Site Access and Auxiliary Lanes

The site is proposed to be served via a right-in/out access driveway on SR 524 and a full access driveway on Friday Road. Due to the extremely low trip generation of the proposed project, no turn lanes are warranted.

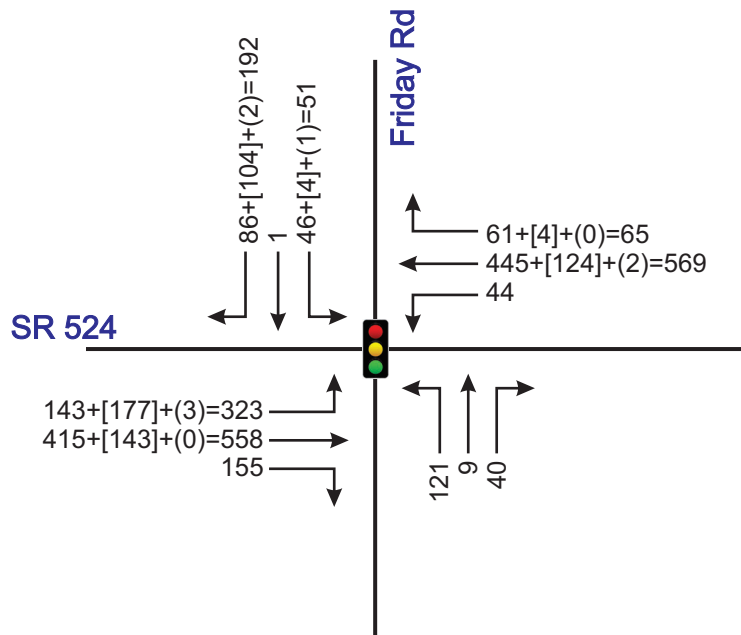


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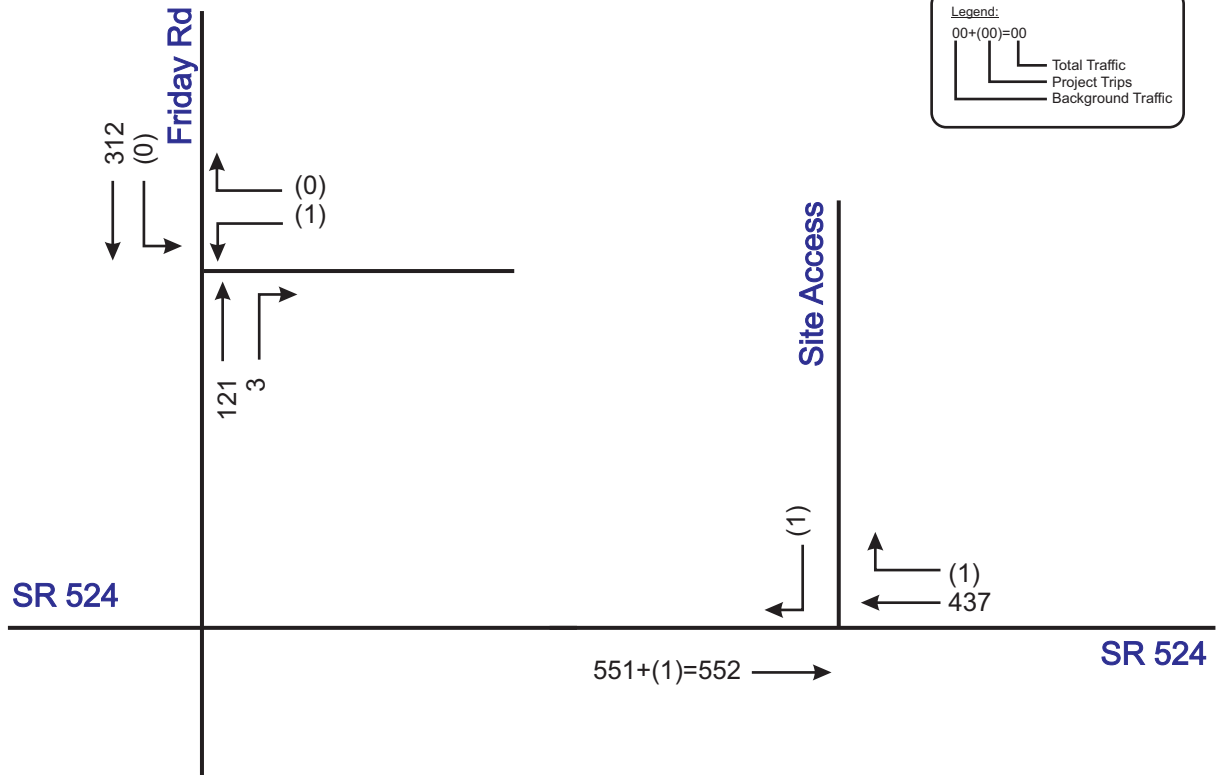


A.M. Peak Hour

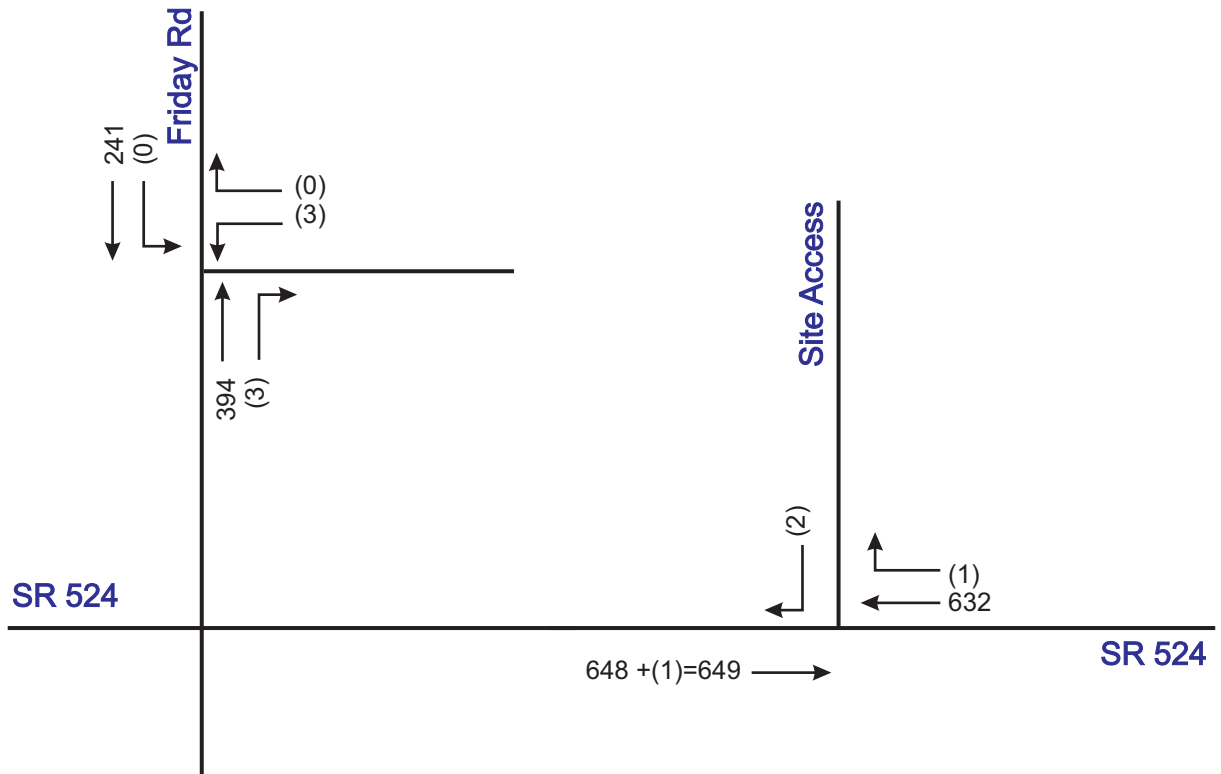


P.M. Peak Hour





A.M. Peak Hour



P.M. Peak Hour



STUDY CONCLUSIONS

This analysis was undertaken in order to assess the traffic impact of the proposed development of the StorQuest Express self-storage facility in the City of Cocoa, Florida. Located on the northeast corner of SR 524 and Friday Road, the development will consist of 59,745 square feet of building area. The findings of this analysis are as follows:

- The proposed development will generate 87 daily trips, 5 A.M. peak hour trips and 9 P.M. peak hour trips.
- The analysis of existing conditions indicates that the adjacent roadway segments and their study intersection currently operates at satisfactory Levels of Service.
- The analysis of projected traffic conditions revealed that the roadway segments, study intersection and the site access driveways will not be deficient in traffic capacity. The roadway segments and the study intersection/driveways are projected to operate at satisfactory Levels of Service with project trips added.
- The site is proposed to be served via a right-in/out access driveway on SR 524 and a full access driveway on Friday Road. Due to the project's extremely low trip generation, turn lanes are not recommended at the proposed driveways.



APPENDICES

APPENDIX A

Space Coast TPO Traffic Count Database

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2011 - 2020

ID	ROAD	SEGMENT (Sections)	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL															
75	ADAMSON	PINE-SR 524	5,220	4,720	4,880	4,700	5,210	5,380	5,340	6,100	5,100	5,830	17,700	2/12/2020	Urban Minor Collector
77	BARNES	FISKE-MURRELL	16,410	15,420	15,060	15,460	15,895	13,145	13,835	17,545	18,660	18,660	39,800	1/29/2020	Urban Principal Arterial-Other
604	BARNES	FISKE-THREE MEADOWS DRIVE	16,410	15,420	15,060	15,460	15,940	UC	13,440	13,750	19,340	15,560	39,800	3/11/2020	Urban Principal Arterial-Other
72	BARNES	THREE MEADOWS DRIVE-MURRELL	NC	9,560	NC	9,720	9,910	8,800	9,560	10,510	10,910	10,480	17,700	1/29/2020	Urban Principal Arterial-Other
49	CLEARLAKE	MURRELL-US 1	5,640	5,130	5,400	4,800	5,050	4,590	4,750	5,910	5,190	5,600	15,600	3/11/2020	Urban Major Collector
29	CLEARLAKE	PLUCKEBAUM-SR 520	18,265	17,620	15,747	15,933	18,307	18,030	16,990	17,407	16,327	15,767	39,800	2/19/2020	Urban Minor Arterial
30	CLEARLAKE	SR 520-MICHIGAN	13,250	12,650	11,550	11,640	14,160	13,400	12,810	14,590	12,870	11,330	39,800	3/11/2020	Urban Minor Arterial
31	CLEARLAKE	Lake-Dixon	17,740	17,010	16,010	16,210	19,620	19,120	18,200	18,010	17,110	18,220	39,800	2/19/2020	Urban Minor Arterial
32	CLEARLAKE	Dixon-Roseline	20,620	20,250	NC	19,950	NC	21,570	NC	19,620	NC	17,750	39,800	3/11/2020	Urban Minor Arterial
39	CLEARLAKE	Roseline-Michigan	21,450	20,570	19,680	NC	21,140	NC	19,960	NC	19,000	NC	39,800	3/5/2019	Urban Minor Arterial
50	CLEARLAKE	MICHIGAN-SR 524	19,460	18,100	17,233	17,727	19,817	19,927	18,193	18,640	17,783	18,933	39,800	2/19/2020	Urban Minor Arterial
95	CLEARLAKE	Michigan-Otterbein	21,620	20,360	18,910	18,410	21,290	21,320	19,970	20,550	19,530	18,070	41,790	2/19/2020	Urban Minor Arterial
61	COX	Otterbein-N. Wal-Mart Ent.	16,580	14,920	14,120	15,520	16,960	16,090	14,810	15,770	15,210	13,840	17,700	3/11/2020	Urban Minor Arterial
69	COX	WAL-MART-SR 524	20,180	19,020	18,670	19,250	21,200	22,370	19,800	19,600	18,610	18,890	17,700	3/3/2020	Urban Major Collector
47	DIXON	SR 520-SR 524	4,180	3,210	4,260	4,100	4,560	4,810	4,240	4,460	4,370	4,850	17,700	2/12/2020	Urban Major Collector
51	DIXON	SR 524-JAMES	2,520	2,550	2,580	2,490	2,760	2,690	2,600	2,660	2,630	2,540	17,700	2/12/2020	Urban Major Collector
46	DIXON	CLEARLAKE-US 1	11,320	10,970	9,855	9,630	10,160	10,415	10,303	10,758	10,340	10,475	39,800	3/11/2020	Urban Minor Arterial
45	DIXON	Clearlake-Pineda St	11,740	11,490	10,280	10,320	11,360	11,290	10,920	11,070	10,620	10,950	39,800	3/11/2020	Urban Minor Arterial
44	FISKE	Pineda St-Fiske	11,250	10,760	9,590	9,420	10,260	10,130	10,240	10,490	10,390	10,590	39,800	3/11/2020	Urban Minor Arterial
96	FISKE	Fiske-Byrd Plaza ent	11,430	NC	10,140	9,800	10,220	10,760	10,560	11,260	10,780	10,940	39,800	3/11/2020	Urban Minor Arterial
42	FISKE	Byrd Plaza Ent-US 1	10,860	10,660	9,410	8,980	8,800	9,480	9,490	10,210	9,570	9,420	39,800	2/19/2020	Urban Minor Arterial
41	FISKE	I-95-BARTON	21,390	20,990	21,360	21,805	23,125	23,310	22,190	24,190	25,015	24,170	41,790	3/3/2020	Urban Principal Arterial-Other
40	FISKE	I-95/Barnes-Eyster	21,050	21,060	21,880	22,160	24,690	25,060	24,190	25,820	27,300	27,750	41,790	1/29/2020	Urban Principal Arterial-Other
38	FISKE	Eyster-Barton	21,730	20,920	20,840	21,450	21,560	21,540	20,190	22,560	22,330	20,590	41,790	1/29/2020	Urban Principal Arterial-Other
37	FISKE	BARTON-SR 520	22,435	20,600	20,578	20,465	21,915	20,000	20,118	20,908	21,038	20,070	41,790	1/29/2020	Urban Principal Arterial-Other
55	FLORIDA	Barton-St Andrews	25,190	23,480	23,250	24,240	24,150	24,200	22,660	24,320	24,130	22,260	41,790	3/11/2020	Urban Principal Arterial-Other
54	FLORIDA	St Andrews-Pluckebaum	25,980	23,650	23,370	22,620	25,300	23,490	23,080	23,970	23,940	23,520	41,790	3/11/2020	Urban Principal Arterial-Other
52	FORREST	Pluckebaum-Rosa Jones	20,030	18,360	18,700	18,130	19,860	18,210	18,920	17,720	18,690	18,960	41,790	3/3/2020	Urban Principal Arterial-Other
53	FORREST	Rosa Jones-SR 520	18,540	16,910	16,990	16,870	18,350	14,100	15,810	17,620	17,390	15,540	41,790	1/22/2020	Urban Principal Arterial-Other
67	FRIDAY	SR 520-DIXON	8,440	8,010	7,490	7,270	8,020	8,220	7,390	7,330	7,300	6,980	15,600	1/22/2020	Urban Minor Arterial
64	FRIDAY	US 1-SR 520	8,200	8,400	7,125	6,665	7,025	6,710	6,280	5,840	5,560	5,560	15,600	3/11/2020	Urban Minor Arterial
593	JDG F JAMIESON	US 1-Rosa Jones	9,750	8,400	8,140	7,580	7,980	7,330	6,910	7,640	7,030	6,560	15,600	3/3/2020	Urban Minor Arterial
80	JDG F JAMIESON	Rosa Jones-SR 520	6,650	NC	6,110	5,750	6,070	6,090	UC	4,880	4,650	4,560	15,600	3/3/2020	Urban Minor Arterial
78	LAKE	SR 520-US1	10,490	9,890	11,090	9,240	8,630	7,880	8,585	8,100	11,500	10,860	15,600	3/3/2020	Urban Minor Arterial
85	LAKE	SR 520-Peachtree	10,290	9,890	12,580	10,170	9,890	8,700	8,930	NC	13,510	12,660	15,600	1/29/2020	Urban Minor Arterial
62	LAKE	Peachtree-US 1	10,090	NC	9,600	8,310	7,370	7,060	8,240	8,100	9,490	9,060	15,600	2/12/2020	Urban Major Collector
68	LAKE	SR 520-SR 524	1,220	1,170	1,150	1,220	1,530	1,390	1,500	1,470	1,780	1,790	17,700	3/5/2019	Urban Local
81	LAKE ANDREW	SR 524-JAMES	3,230	3,080	3,020	NC	3,290	NC	3,210	NC	2,960	NC	17,700	3/4/2020	Urban Local
82	LAKE ANDREW	TAVISTOCK DRIVE-STADIUM	14,310	14,385	14,760	15,795	15,785	16,295	16,400	16,400	16,140	16,570	39,800	1/15/2020	Urban Minor Arterial
86	MICHIGAN	STADIUM-LAKE ANDREW	13,800	13,810	14,310	14,780	15,380	15,970	16,190	16,250	16,210	16,350	39,800	1/15/2020	Urban Minor Arterial
48	MICHIGAN	Stadium-Gov't Ctr./Sch. Bd. Main Entrance	14,820	14,960	15,210	16,810	16,190	16,620	16,610	16,550	16,070	16,790	39,800	1/15/2020	Urban Minor Arterial
83	MICHIGAN	Gov't Ctr./Sch. Bd. Entrance-Lake Andrew	3,797	3,287	3,190	3,133	3,767	4,033	3,870	4,510	3,880	3,927	17,700	2/12/2020	Urban Major Collector
84	MICHIGAN	COX-SR 520	3,180	2,290	2,120	2,150	2,630	2,790	2,890	NC	3,510	3,360	15,600	2/12/2020	Urban Major Collector
85	MICHIGAN	Cox-Range	3,820	3,500	3,470	3,260	3,860	3,750	4,040	NC	4,110	4,110	15,600	3/11/2020	Urban Major Collector
86	MICHIGAN	Range-Clearlake	4,390	4,070	3,980	3,990	4,810	5,560	4,680	4,510	4,020	4,310	15,600	3/11/2020	Urban Major Collector
87	MICHIGAN	Clearlake-SR 520	16,445	16,625	16,555	17,085	17,900	17,350	17,130	18,090	17,280	17,390	39,800	1/15/2020	Urban Minor Arterial
88	MICHIGAN	WICKHAM-JAMIESON	18,070	18,220	18,320	18,810	19,940	18,480	18,990	19,980	19,340	19,460	39,800	1/15/2020	Urban Minor Arterial
89	MICHIGAN	Wickham-The Avenue Main Ent.	14,820	15,030	14,790	15,360	15,860	16,220	15,270	19,200	15,220	15,320	15,600	3/11/2020	Urban Major Collector
90	MICHIGAN	The Avenue Main Ent.-Jamieson	NC	4,180	NC	3,930	4,180	NC	NC	4,450	NC	4,120	15,600	2/19/2020	Urban Major Collector
91	MICHIGAN	RANGE-CLEARLAKE	12,630	11,990	12,070	10,280	8,420	9,940	10,820	11,090	11,500	11,420	39,800	2/19/2020	Urban Minor Arterial
92	MICHIGAN	CLEARLAKE-US 1	12,630	11,990	12,070	10,280	8,420	9,940	10,820	11,090	11,500	11,420	39,800	2/19/2020	Urban Minor Arterial

*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.
 NC=Not Counted; UC=Under Construction

SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2011 - 2020

ID	ROAD	SEGMENT (Sections)	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2017 AADT	2018 AADT	2019 AADT	2020 AADT	Current MAV	Last Count Taken	Functional Classification
AREA: CENTRAL															
528	MURRELL	WICKHAM-BARNES	17,495	17,275	16,630	16,070	17,400	16,978	16,493	17,170	17,998	16,428	33,800	3/4/2020	Urban Minor Arterial
59	MURRELL	Wickham-Spyglass	17,880	17,810	17,800	17,120	18,160	17,710	16,870	17,330	19,070	15,830	39,800	3/4/2020	Urban Minor Arterial
529	MURRELL	Spyglass-Viera	17,470	16,970	16,840	16,230	16,810	17,230	16,910	17,230	18,040	15,370	39,800	3/11/2020	Urban Minor Arterial
57	MURRELL	Viera-Club House Drive	18,370	18,210	16,830	16,310	19,310	17,430	16,510	17,980	18,060	18,690	39,800	1/29/2020	Urban Minor Arterial
592	PEACHTREE	Club House Drive-Barnes	16,260	16,110	15,050	14,620	16,320	15,540	15,680	16,140	16,820	15,820	15,600	3/3/2020	Urban Major Collector
		Lake Dr-Fiske			3,010	2,910	NC	NC	NC	3,380	4,330	NC			
		PINEHURST/HOLIDAY SPRINGS	4,685	4,590	4,543	4,458	4,808	4,928	5,088	5,260	5,265	5,718			
17	PINEHURST	Wickham-Spyglass Hill	6,980	6,670	6,490	6,270	6,810	7,100	7,320	7,340	7,480	7,250	15,600	1/15/2020	Urban Minor Collector
530	PINEHURST	Spyglass Hill-Fargo	5,090	5,130	5,140	5,040	5,340	5,350	5,430	5,810	5,550	6,170	15,600	3/4/2020	Urban Minor Collector
16	PINEHURST	Fargo-Holiday Springs	3,050	3,040	3,000	2,950	3,190	3,340	3,380	3,590	3,750	4,460	15,600	3/4/2020	Urban Minor Collector
94	HOLIDAY SPRINGS	PINEHURST-VIERA BLVD.	3,620	3,520	3,540	3,570	3,890	3,920	4,220	4,300	4,280	4,990	15,600	3/4/2020	Urban Minor Collector
568	PLUCKEBAUM	Clearlake-Fiske	7,400	6,540	5,970	6,240	7,030	6,490	6,560	7,570	7,270	6,820	15,600	1/29/2020	Urban Major Collector
		SR 520-MICHIGAN	4,340	5,150	4,330	5,140	4,760	5,860	4,740	5,970	4,360	5,990			
531	RANGE	SR 520-Lake	3,260	NC	4,330	NC	4,760	NC	4,740	NC	4,360	NC	15,600	1/28/2019	Urban Major Collector
532	RANGE	Lake-Michigan	5,420	5,150	NC	5,140	NC	5,860	NC	5,970	NC	5,990	15,600	2/12/2020	Urban Major Collector
74	ROSETINE	RANGE-CLEARLAKE	2,850	2,680	NC	2,730	NC	NC	NC	2,920	NC	3,140	15,600	3/11/2020	Urban Minor Collector
18	SPYGLASS HILL	MURRELL-PINEHURST	4,250	3,980	3,880	3,780	3,960	4,240	4,720	4,640	4,780	4,410	15,600	1/15/2020	Urban Minor Collector
		ORANGE CO.-I-95	16,157	14,740	15,090	15,167	17,220	16,670	16,637	16,567	17,160	17,767			
534	SR 520	ORANGE CO.-SR 524	14,750	13,480	13,140	12,760	15,950	15,170	15,750	12,240	16,010	18,680	40,300	3/3/2020	Rural Principal Arterial-Other
1	SR 520	SR 524-Friday	15,180	13,290	14,050	13,980	15,720	14,880	14,320	16,610	14,650	14,700	41,790	2/12/2020	Urban Principal Arterial-Other
84	SR 520	Friday-I-95	18,540	17,450	18,080	18,750	19,990	19,960	19,840	20,850	20,820	19,920	41,790	2/12/2020	Urban Principal Arterial-Other
		I-95-CLEARLAKE	19,957	19,850	20,367	20,583	23,857	22,600	21,240	20,573	23,173	21,193			
2	SR 520	I-95-Burnett	19,420	19,910	20,200	21,440	24,190	22,190	21,780	21,740	21,650	24,200	41,790	3/11/2020	Urban Principal Arterial-Other
3	SR 520	Burnett-Range	20,040	20,350	19,980	19,680	24,180	22,970	21,040	20,040	21,280	19,840	41,790	2/12/2020	Urban Principal Arterial-Other
14	SR 520	Range-Clearlake	20,410	19,290	20,920	20,630	23,200	22,640	20,900	19,940	26,590	19,540	41,790	1/22/2020	Urban Principal Arterial-Other
		CLEARLAKE-FISKE	21,390	20,045	20,815	21,385	24,880	24,575	22,915	22,735	22,115	21,730			
4	SR 520	Clearlake-Lake	19,630	18,380	19,160	19,560	22,860	22,870	20,200	20,800	20,400	21,720	39,800	3/3/2020	Urban Principal Arterial-Other
5	SR 520	Lake-Fiske	23,150	21,710	22,470	23,210	26,900	26,280	25,630	24,670	23,830	21,740	39,800	1/22/2020	Urban Principal Arterial-Other
		FISKE-US 1	25,210	23,390	23,775	25,160	28,120	28,250	26,600	25,495	25,275	23,310			
6	SR 520	Fiske-Blake	25,310	23,390	23,820	25,090	28,270	28,430	26,540	25,550	25,280	NC	41,790	1/23/2019	Urban Principal Arterial-Other
7	SR 520	Blake-US 1	25,110	NC	23,730	25,230	27,970	28,070	26,660	25,440	25,270	23,310	41,790	1/22/2020	Urban Principal Arterial-Other
		US 1-CAUSEWAY (EB)	20,125	19,215	19,838	19,020	21,483	18,600	20,718	20,855	21,135	19,265			
8	SR 520	US 1-Forrest	15,200	14,530	15,570	17,090	18,210	13,820	16,750	17,250	16,830	15,460	19,440	1/29/2020	Urban Principal Arterial-Other
9	SR 520	Forrest-Brevard	21,710	20,280	21,020	19,560	21,850	19,620	22,460	20,930	22,250	20,930	19,440	1/22/2020	Urban Principal Arterial-Other
10	SR 520	Brevard-Delannoy	21,450	20,280	20,900	19,450	22,930	22,010	21,670	22,280	22,500	19,990	19,440	1/22/2020	Urban Principal Arterial-Other
11	SR 520	Delannoy-Riveridge	22,140	21,770	21,860	19,980	22,940	18,950	21,990	22,960	22,960	20,680	19,440	1/22/2020	Urban Principal Arterial-Other
		CAUSEWAY-US 1 (WB)	21,085	20,205	20,770	20,643	21,703	20,098	21,220	20,920	21,915	19,093			
12	SR 520	Causeway-Delannoy	23,220	21,860	22,160	21,250	23,700	23,050	21,130	22,990	22,780	20,340	19,440	1/22/2020	Urban Principal Arterial-Other
13	SR 520	Delannoy-Brevard	24,360	23,150	23,970	23,100	23,460	21,900	24,290	22,980	24,250	21,420	19,440	1/22/2020	Urban Principal Arterial-Other
15	SR 520	Brevard-Forrest	21,530	21,080	21,220	21,560	22,400	18,690	21,810	20,660	21,610	19,840	19,440	1/22/2020	Urban Principal Arterial-Other
87	SR 520	Forrest-US 1	15,230	14,730	15,730	16,660	17,250	16,750	17,650	17,050	19,020	14,770	19,440	1/29/2020	Urban Principal Arterial-Other
66	SR 524	SR 520-I-95	4,650	4,400	4,670	4,530	5,690	5,300	5,890	7,200	6,870	6,600	24,200	2/12/2020	Urban Minor Arterial
		I-95-INDUSTRY RD	11,180	10,795	11,220	10,880	12,765	12,605	11,710	13,860	12,540	11,775			
73	SR 524	I-95-Cox	9,810	9,610	9,780	9,670	11,440	11,170	10,460	12,690	11,700	11,020	18,590	2/12/2020	Urban Minor Arterial
76	SR 524	Cox-Industry Rd	12,550	11,980	12,660	12,090	14,090	14,040	12,960	15,030	13,380	12,530	19,470	2/12/2020	Urban Minor Arterial
		ORANGE CO.-I-95	28,240	26,205	27,835	28,320	34,205	31,740	33,780	40,640	37,805	43,810			
91	SR 528	ORANGE CO.-SR 407	31,790	28,950	30,820	30,220	37,830	35,120	37,330	40,640	42,560	49,690	43,000	3/11/2020	Rural Principal Arterial - Freeways & Expressways
90	SR 528	SR 407-I-95	24,690	23,460	24,850	26,420	30,580	28,360	30,230	NC	33,050	37,930	43,000	3/11/2020	Rural Principal Arterial - Freeways & Expressways
		I-95-US 1	25,950	24,945	25,860	25,315	30,165	27,775	28,340	31,000	32,730	37,960			
93	SR 528	I-95-INDUSTRY RD	21,360	20,720	21,000	23,050	23,030	22,810	23,290	29,350	28,880	33,780	74,400	3/11/2020	Urban Principal Arterial - Freeways & Expressways
92	SR 528	INDUSTRY RD-US 1	30,540	29,170	30,720	27,580	37,300	32,740	33,390	32,650	36,580	42,140	74,400	3/11/2020	Urban Principal Arterial - Freeways & Expressways
25	STADIUM PKWY	WICKHAM-JAMIESON	5,090	5,910	6,550	6,890	7,810	8,480	9,150	10,460	11,240	10,620	17,700	1/15/2020	Urban Minor Arterial

*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.
NC=Not Counted; UC=Under Construction

APPENDIX B

Existing Intersection Traffic Counts, Season Factors & Signal Timings

15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: December 16, 2021 (Thursday)

CITY: Cocoa Beach

LATITUDE: 0

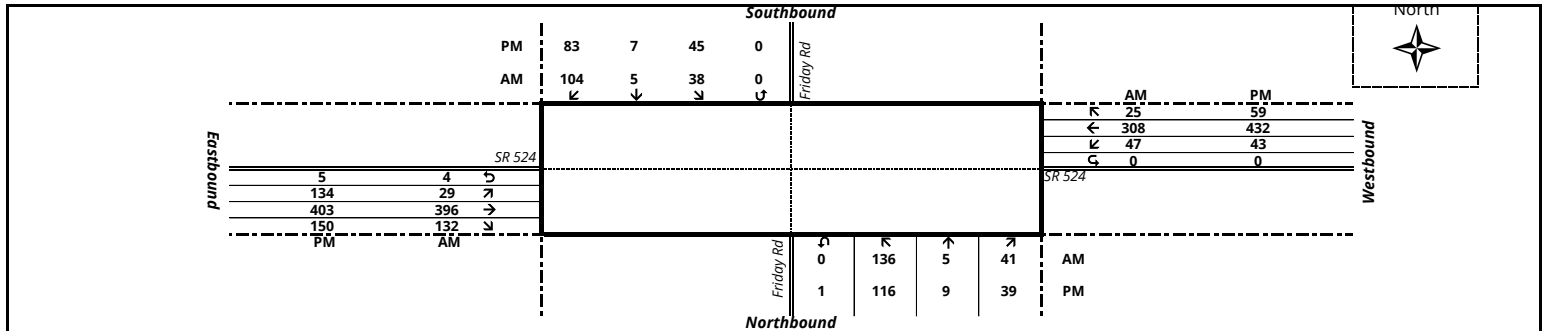
LOCATION: Friday Rd & SR 524

COUNTY: Brevard County

LONGITUDE: 0

Friday Rd						Friday Rd						SR 524						SR 524							
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL		
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL				
07:00 AM	36	0	8	0	44	9	1	23	0	33	77	4	80	33	0	117	2	72	6	0	80	197	274		
07:15 AM	36	0	8	0	44	11	0	30	0	41	85	3	100	26	2	131	16	72	2	0	90	221	306		
07:30 AM	28	1	14	0	43	6	4	33	0	43	86	10	108	36	1	155	11	85	5	0	101	256	342		
07:45 AM	36	3	10	0	49	11	0	19	0	30	79	8	114	35	0	157	9	70	9	0	88	245	324		
TOTAL	136	4	40	0	180	37	5	105	0	147	327	25	402	130	3	560	38	299	22	0	359	919	1,246		
08:00 AM	36	1	9	0	46	10	1	22	0	33	79	8	74	35	1	118	11	81	9	0	101	219	298		
08:15 AM	29	2	11	0	42	10	1	23	0	34	76	9	70	29	0	108	16	62	6	0	84	192	268		
08:30 AM	28	0	13	0	41	9	2	25	0	36	77	9	90	23	2	124	16	80	8	0	104	228	305		
08:45 AM	23	3	17	0	43	4	0	22	0	26	69	7	77	23	1	108	18	86	8	0	112	220	289		
TOTAL	116	6	50	0	172	33	4	92	0	129	301	33	311	110	4	458	61	309	31	0	401	859	1,160		
04:00 PM	31	3	7	0	41	8	2	11	0	21	62	20	87	20	0	127	17	133	14	0	164	291	353		
04:15 PM	35	0	2	0	37	7	1	13	0	21	58	27	83	16	1	127	16	123	20	1	160	287	345		
04:30 PM	22	2	5	0	29	9	0	12	0	21	50	29	101	34	2	166	11	106	10	0	127	293	343		
04:45 PM	31	1	10	1	43	11	5	18	0	34	77	37	104	42	2	185	10	110	13	0	133	318	395		
TOTAL	119	6	24	1	150	35	8	54	0	97	247	113	375	112	5	605	54	472	57	1	584	1,189	1,436		
05:00 PM	35	1	12	0	48	8	0	18	0	26	74	23	101	35	1	160	10	109	13	0	132	292	366		
05:15 PM	29	6	5	0	40	16	2	20	0	38	78	43	99	32	1	175	14	114	18	0	146	321	399		
05:30 PM	21	1	12	0	34	10	0	27	0	37	71	31	99	41	1	172	9	99	15	0	123	295	366		
05:45 PM	33	0	12	0	45	6	2	17	0	25	70	19	83	24	1	127	9	80	10	1	100	227	297		
TOTAL	118	8	41	0	167	40	4	82	0	126	293	116	382	132	4	634	42	402	56	1	501	1,135	1,428		

AM Peak																				Peak Hour Factor: 0.928				
07:15 AM to 08:15 AM		136	5	41	0	182	38	5	104	0	147	329	29	396	132	4	561	47	308	25	0	380	941	1,270
PM Peak																				Peak Hour Factor: 0.956				
04:45 PM to 05:45 PM		116	9	39	1	165	45	7	83	0	135	300	134	403	150	5	692	43	432	59	0	534	1,226	1,526



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: December 16, 2021 (Thursday)

CITY: Cocoa Beach

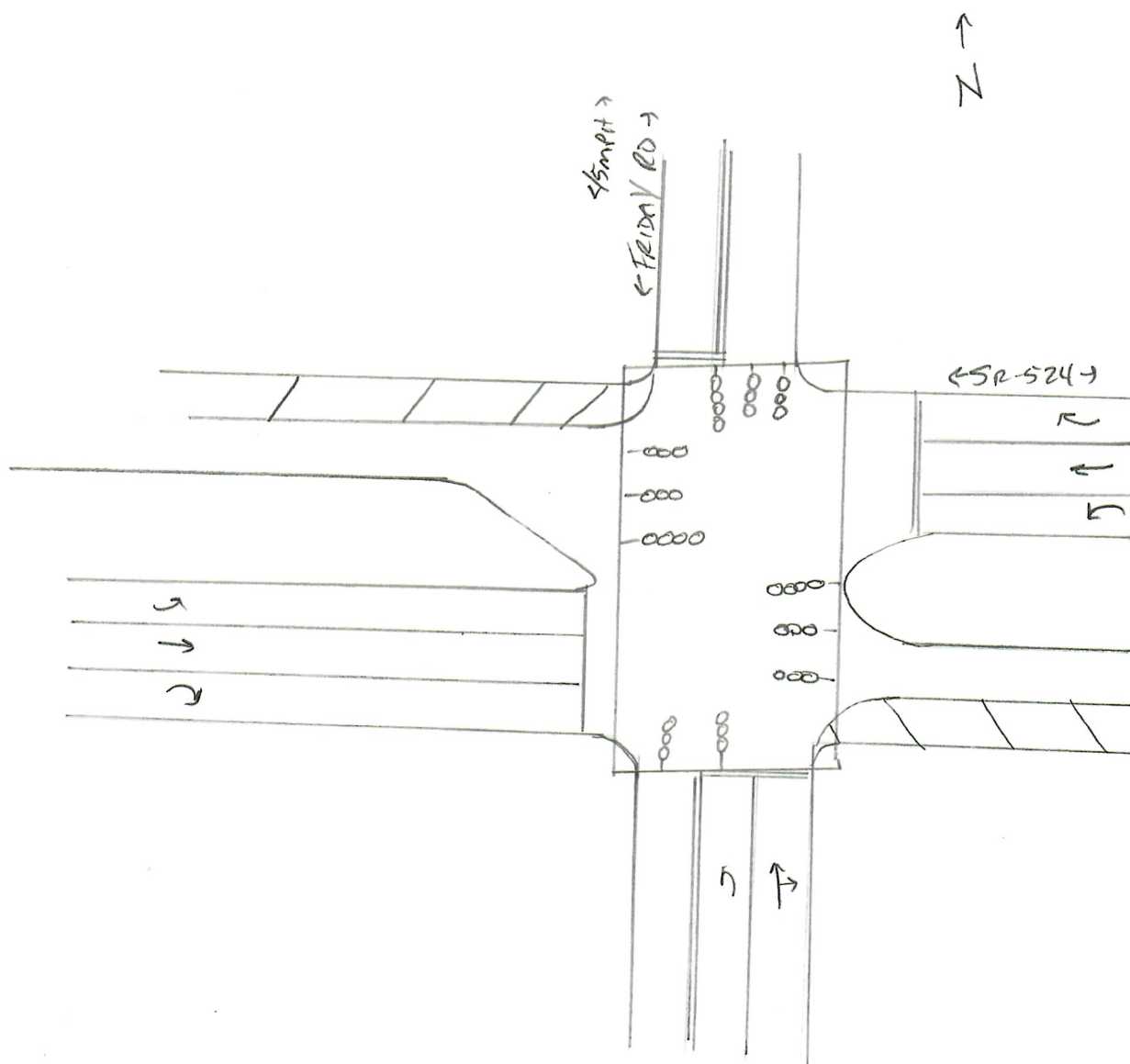
LATITUDE: 0

LOCATION: Friday Rd & SR 524

COUNTY: Brevard County

LONGITUDE: 0

Friday Rd						Friday Rd						SR 524						SR 524							
TIME BEGIN	NORTHBOUND					SOUTHBOUND					N/S TOTAL	EASTBOUND					WESTBOUND					E/W TOTAL	GRAND TOTAL		
	L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL		L	T	R	U-turn	TOTAL	L	T	R	U-turn	TOTAL				
07:00 AM	17	0	3	0	20	0	0	1	0	1	21	0	6	9	0	15	1	10	1	0	12	27	48		
07:15 AM	11	0	0	0	11	0	0	0	0	0	11	0	7	4	0	11	0	7	0	0	7	18	29		
07:30 AM	10	0	2	0	12	0	0	1	0	1	13	1	6	9	0	16	4	8	1	0	13	29	42		
07:45 AM	13	1	0	0	14	0	0	0	0	0	14	1	8	3	0	12	2	8	1	0	11	23	37		
TOTAL	51	1	5	0	57	0	0	2	0	2	59	2	27	25	0	54	7	33	3	0	43	97	156		
08:00 AM	10	0	3	0	13	0	0	1	0	1	14	0	9	9	0	18	3	14	0	0	17	35	49		
08:15 AM	10	0	3	0	13	0	0	0	0	0	13	0	7	5	0	12	2	12	0	0	14	26	39		
08:30 AM	5	0	4	0	9	0	0	0	0	0	9	0	8	6	0	14	5	13	1	0	19	33	42		
08:45 AM	8	0	2	0	10	1	0	0	0	1	11	0	12	9	0	21	5	8	0	0	13	34	45		
TOTAL	33	0	12	0	45	1	0	1	0	2	47	0	36	29	0	65	15	47	1	0	63	128	175		
04:00 PM	10	0	2	0	12	0	0	0	0	0	12	0	5	8	0	13	1	6	0	0	7	20	32		
04:15 PM	10	0	0	0	10	0	0	1	0	1	11	1	6	3	0	10	4	1	1	0	6	16	27		
04:30 PM	4	0	1	0	5	0	0	0	0	0	5	0	8	7	0	15	3	4	0	0	7	22	27		
04:45 PM	9	0	2	0	11	1	0	0	0	1	12	0	8	16	0	24	0	4	0	0	4	28	40		
TOTAL	33	0	5	0	38	1	0	1	0	2	40	1	27	34	0	62	8	15	1	0	24	86	126		
05:00 PM	9	0	1	0	10	0	0	1	0	1	11	0	4	13	0	17	2	4	0	0	6	23	34		
05:15 PM	13	0	1	0	14	0	0	1	0	1	15	0	1	8	0	9	3	6	0	0	9	18	33		
05:30 PM	5	0	2	0	7	0	0	0	0	0	7	0	2	13	0	15	4	2	0	0	6	21	28		
05:45 PM	16	0	4	0	20	0	1	0	0	1	21	0	3	5	0	8	2	3	0	0	5	13	34		
TOTAL	43	0	8	0	51	0	1	2	0	3	54	0	10	39	0	49	11	15	0	0	26	75	129		
AM Peak																									
07:15 AM to 08:15 AM	44	1	5	0	50	0	0	2	0	2	52	2	30	25	0	57	9	37	2	0	48	105	157		
PM Peak																									
04:45 PM to 05:45 PM	36	0	6	0	42	1	0	2	0	3	45	0	15	50	0	65	9	16	0	0	25	90	135		



2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7000 BREVARD COUNTYWIDE

MOCF: 0.92

WEEK	DATES	SF	PSCF
* 1	01/01/2020 - 01/04/2020	1.00	1.09
* 2	01/05/2020 - 01/11/2020	0.95	1.03
* 3	01/12/2020 - 01/18/2020	0.90	0.98
* 4	01/19/2020 - 01/25/2020	0.88	0.96
* 5	01/26/2020 - 02/01/2020	0.87	0.95
* 6	02/02/2020 - 02/08/2020	0.85	0.92
* 7	02/09/2020 - 02/15/2020	0.84	0.91
* 8	02/16/2020 - 02/22/2020	0.86	0.93
* 9	02/23/2020 - 02/29/2020	0.89	0.97
*10	03/01/2020 - 03/07/2020	0.91	0.99
*11	03/08/2020 - 03/14/2020	0.94	1.02
*12	03/15/2020 - 03/21/2020	0.96	1.04
*13	03/22/2020 - 03/28/2020	1.05	1.14
14	03/29/2020 - 04/04/2020	1.14	1.24
15	04/05/2020 - 04/11/2020	1.23	1.34
16	04/12/2020 - 04/18/2020	1.33	1.45
17	04/19/2020 - 04/25/2020	1.26	1.37
18	04/26/2020 - 05/02/2020	1.19	1.29
19	05/03/2020 - 05/09/2020	1.12	1.22
20	05/10/2020 - 05/16/2020	1.05	1.14
21	05/17/2020 - 05/23/2020	1.04	1.13
22	05/24/2020 - 05/30/2020	1.03	1.12
23	05/31/2020 - 06/06/2020	1.02	1.11
24	06/07/2020 - 06/13/2020	1.02	1.11
25	06/14/2020 - 06/20/2020	1.01	1.10
26	06/21/2020 - 06/27/2020	1.02	1.11
27	06/28/2020 - 07/04/2020	1.02	1.11
28	07/05/2020 - 07/11/2020	1.03	1.12
29	07/12/2020 - 07/18/2020	1.04	1.13
30	07/19/2020 - 07/25/2020	1.04	1.13
31	07/26/2020 - 08/01/2020	1.04	1.13
32	08/02/2020 - 08/08/2020	1.04	1.13
33	08/09/2020 - 08/15/2020	1.04	1.13
34	08/16/2020 - 08/22/2020	1.03	1.12
35	08/23/2020 - 08/29/2020	1.03	1.12
36	08/30/2020 - 09/05/2020	1.02	1.11
37	09/06/2020 - 09/12/2020	1.02	1.11
38	09/13/2020 - 09/19/2020	1.01	1.10
39	09/20/2020 - 09/26/2020	1.01	1.10
40	09/27/2020 - 10/03/2020	1.00	1.09
41	10/04/2020 - 10/10/2020	1.00	1.09
42	10/11/2020 - 10/17/2020	0.99	1.08
43	10/18/2020 - 10/24/2020	1.00	1.09
44	10/25/2020 - 10/31/2020	1.00	1.09
45	11/01/2020 - 11/07/2020	1.01	1.10
46	11/08/2020 - 11/14/2020	1.01	1.10
47	11/15/2020 - 11/21/2020	1.02	1.11
48	11/22/2020 - 11/28/2020	1.01	1.10
49	11/29/2020 - 12/05/2020	1.01	1.10
50	12/06/2020 - 12/12/2020	1.00	1.09
51	12/13/2020 - 12/19/2020	1.00	1.09
52	12/20/2020 - 12/26/2020	0.95	1.03
53	12/27/2020 - 12/31/2020	0.90	0.98

* PEAK SEASON

27-FEB-2021 10:30:04

830UPD

5_7000_PKSEASON.TXT

Brevard County Traffic Operations Timing Sheet

Intersection: SR 524 & Friday Rd.



Name																	Phase Mode	STD8	Free Action							
Direction	EL	WT		NT	WL	ET	NL	ST									Free Seq	1	Syn Green							
Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Type	ATC V76	P2P Pattern							
Phase/OL	2	2	3	4	6	6	8	8					2	4	6	8	Comm ID	1035	InSync							
Type	OLP	VEH	VEH	VEH	OLP	VEH	OLP	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	Date	January 11, 2022	Done By	VeronicaChanza						
Phase Times																	Alt Phase Times 1									
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Phase									
Min Green	5	12		7	5	12	10	7									Min Green									
Passage	3	3		3	3	3	3	3									Passage									
Max 1	16	50		30	18	50	15	30									Max 1									
Max 2																	Max 2									
Yellow Clr	4.8	4.8		4.8	4.8	4.8	4.8	4.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	Yel Clr	3.5	3.5	3.5						
Red Clr	2.5	2.5		3.4	2.5	2.5	3.4	3.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Red Clr	1.5	1.5	1.5						
Walk																	Walk									
Ped Clear																	Ped Clr									
Red Revert																	Alt Phase Times 2									
Added Init																	Phase									
Max Initial																	Min Green									
Max 3 Limit																	Passage									
Max 3 Step																	Max 1									
Time B-4																	Max 2									
Cars B-4																	Yel Clr	3.5	3.5	3.5						
Time to																	Red Clr	1.5	1.5	1.5						
Reduce By																	Walk									
Min Gap																	Ped Clr									
Phase Options																	Alt Phase Opt 1									
Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Phase									
Enable	✓	✓		✓	✓	✓	✓	✓									Soft Recall									
Min Recall		✓				✓											Max 2									
Max Recall																	Max Inhibit									
Ped Recall																	Alt Phase Opt 2									
Soft Recall																	Phase									
Lock Call		✓				✓			✓	✓	✓	✓	✓	✓	✓	✓	Soft Recall									
Flash Ent																	Max 2									
Flash Exit																	Max Inhibit									
Dual Entry		✓		✓		✓		✓									Alt Phase Opt 3									
Cond Serv																	Phase									
Reservice																	Soft Recall									
Redirect Ø																	Max2									
LPI Delay																	Max Inhibit									
Type	Included Phase																Modifier Phase				FYA	Gm	Yel	Red		
Overlap - A																										
Overlap - B	FYA-4	1																2				2			3.5	1.5
Overlap - C																										
Overlap - D																										
Overlap - E																										
Overlap - F	FYA-4	5																6						3.5	1.5	
Overlap - G																										
Overlap - H	FYA-4	7																8						3.5	1.5	
Overlap - I																										
Overlap - J																										
Overlap - K																										
Overlap - L																										
Overlap - M																										
Overlap - N																										
Overlap - O																										
Overlap - P																										

Coordination Splits 17-32																	Day Plans 9-16								
Split 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =200	18	130		52	18	130	20	32									P	Hour							
Seq =3						✓												Min							
Mode		MAX				MAX												Action							
Split 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =200	16	132		52	16	132	20	32									N	Hour							
Seq =1						✓												Min							
Mode		MAX				MAX												Action							
Split 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =_																	P	Hour							
Seq =_																		Min							
Mode																		Action							
Split 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =200	18	129		53	18	129	22	31									N	Hour							
Seq =1						✓												Min							
Mode		MAX				MAX												Action							
Split 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =_																	P	Hour							
Seq =_																		Min							
Mode																		Action							
Split 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =_																	N	Hour							
Seq =_																		Min							
Mode																		Action							
Split 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =200	16	130		54	16	130	20	34									P	Hour							
Seq =1						✓												Min							
Mode		MAX				MAX												Action							
Split 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =200	16	130		54	16	130	20	34									N	Hour							
Seq =1						✓												Min							
Mode		MAX				MAX												Action							
Split 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =_																	P	Hour							
Seq =_																		Min							
Mode																		Action							
Split 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =_																	N	Hour							
Seq =_																		Min							
Mode																		Action							
Split 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =_																	P	Hour							
Seq =_																		Min							
Mode																		Action							
Split 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =_																	N	Hour							
Seq =_																		Min							
Mode																		Action							
Split 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =_																	P	Hour							
Seq =_																		Min							
Mode																		Action							
Split 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =_																	N	Hour							
Seq =_																		Min							
Mode																		Action							
Split 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16									
Cycle =_																	P	Hour							
Seq =_																		Min							
Mode																		Action							
Split 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A								
Cycle =_																	N	Hour							
Seq =_																		Min							
Mode																		Action							

	Cycle	Offset	Split	Seq	Coord	Time	Opt	Det	CIR	Short	Long	No S	No S	Yield	Max 2	Float	R-Hld	Y-Inh	Off-1	Off-2	Off-3	Off-4	Off-5	Off-6	Off-7	Off-8
Pattern - 1	100	54	1	1	6					12	22	7														
Pattern - 2	110	14	2	1	6					12	22															
Pattern - 3	130	77	3	2	6					12	22															
Pattern - 4																										
Pattern - 5																										
Pattern - 6																										
Pattern - 7																										
Pattern - 8																										
Pattern - 9																										
Pattern - 10																										
Pattern - 11																										
Pattern - 12																										
Pattern - 13																										
Pattern - 14																										
Pattern - 15																										
Pattern - 16																										
Pattern - 17	200	3	17	3	6					5	17															
Pattern - 18	200	22	18	1	6					5	17															
Pattern - 19																										
Pattern - 20	200	18	20	1	6					5	17															
Pattern - 21																										
Pattern - 22																										
Pattern - 23	200	84	23	1	6					5	17															
Pattern - 24	200	136	24	1	6					5	17															
Pattern - 25																										
Pattern - 26																										
Pattern - 27																										
Pattern - 28																										
Pattern - 29																										
Pattern - 30																										
Pattern - 31																										
Pattern - 32																										
	Cycle	Offset	Split	Seq	Coord	Time	Opt	Det	CIR	Short	Long	No S	No S	Yield	Max 2	Float	R-Hld	Y-Inh	Off-1	Off-2	Off-3	Off-4	Off-5	Off-6	Off-7	Off-8
Pattern - 33																										
Pattern - 34																										
Pattern - 35																										
Pattern - 36																										
Pattern - 37																										
Pattern - 38																										
Pattern - 39																										
Pattern - 40																										
Pattern - 41																										
Pattern - 42																										
Pattern - 43																										
Pattern - 44																										
Pattern - 45																										
Pattern - 46																										
Pattern - 47																										
Pattern - 48																										
BIU-1	Call	Swt	Dly	Lck	Src		BIU-2	Call	Swt	Dly	Lck	Src		BIU-3	Call	Swt	Dly	Lck	Src		BIU-4	Call	Swt	Dly	Lck	Src
Detector 1	1						17							33							49					
Detector 2	2						18							34							50					
Detector 3	2						19							35							51					
Detector 4	4						20							36							52					
Detector 5	5						21							37							53					
Detector 6	6						22							38							54					
Detector 7	6						23							39							55					
Detector 8	7						24							40							56					
Detector 9	8						25							41							57					
Detector 10							26							42							58					
Detector 11							27							43							59					
Detector 12							28							44							60					
Detector 13							29							45							61					
Detector 14							30							46							62					
Detector 15							31							47							63					
Detector 16							32							48							64					

	Enbl	Track Phase				Gm	Track Overlap				Dwell Phase				Dwl	Dwell Overlap				Exit Phase			
Pre Run 1	ON																						
Pre Run 2	ON																						
Pre Run 3	ON																						
Pre Run 4	ON																						
Pre Run 5	ON																						
Pre Run 6	ON																						
Intersection Notes												Time of Day Notes											

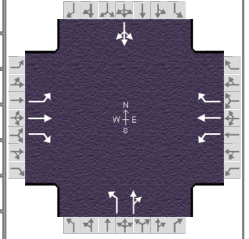
APPENDIX C

Existing Intersection Capacity Analysis Worksheet

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	MJA	Analysis Date	Jan 25, 2022
Jurisdiction	Brevard County	Time Period	A.M. Peak Hour
Urban Street	SR 524	Analysis Year	2022
Intersection	Friday Rd	File Name	5577 - SR 524 & F
Project Description	A.M. Peak Hour - Existing		



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	33	396	132	47	308	25	136	5	41	38	5	104

Signal Information

Cycle, s	110.0	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	3.3	0.6	52.0	9.9	13.1	0.0						
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.8	0.0	4.8	4.8	4.8	0.0						
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.5	0.0	2.5	3.4	3.4	0.0						

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4		8
Case Number	1.1	3.0	1.1	3.0	1.0	4.0		8.3
Phase Duration, s	10.6	59.3	11.2	60.0	18.1	39.4		21.3
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	8.2	8.2		8.2
Max Allow Headway (MAH), s	3.9	0.0	3.9	0.0	4.0	4.2		4.2
Queue Clearance Time (g_s), s	3.2		3.8		9.5	4.9		12.7
Green Extension Time (g_e), s	0.0	0.0	0.1	0.0	0.2	0.8		0.4
Phase Call Probability	0.66		0.79		0.99	1.00		1.00
Max Out Probability	0.00		0.00		0.03	0.00		0.04

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	35	426	142	51	331	27	146	49			158	
Adjusted Saturation Flow Rate (s), veh/h/ln	1711	1781	1372	1541	1722	1510	1810	1382			1580	
Queue Service Time (g_s), s	1.2	18.2	6.7	1.8	13.7	1.0	7.5	2.9			7.8	
Cycle Queue Clearance Time (g_c), s	1.2	18.2	6.7	1.8	13.7	1.0	7.5	2.9			10.7	
Green Ratio (g/C)	0.50	0.47	0.47	0.51	0.48	0.48	0.23	0.28			0.12	
Capacity (c), veh/h	456	843	649	376	824	723	257	392			230	
Volume-to-Capacity Ratio (X)	0.078	0.505	0.219	0.134	0.402	0.037	0.570	0.126			0.687	
Back of Queue (Q), ft/ln (95 th percentile)	19.6	310.6	106.4	30.6	246	16.5	149.7	49.9			193.5	
Back of Queue (Q), veh/ln (95 th percentile)	0.7	11.7	3.7	1.1	9.0	0.6	6.0	1.7			7.7	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	14.9	20.1	17.0	15.3	18.5	15.2	36.5	29.3			47.3	
Incremental Delay (d_2), s/veh	0.1	2.2	0.8	0.2	1.5	0.1	2.0	0.1			3.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Control Delay (d), s/veh	15.0	22.2	17.8	15.5	20.0	15.3	38.5	29.4			50.9	
Level of Service (LOS)	B	C	B	B	B	B	D	C			D	
Approach Delay, s/veh / LOS	20.8		C	19.1		B	36.2		D	50.9		D
Intersection Delay, s/veh / LOS	26.0						C					

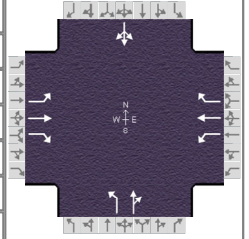
Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.91		B	1.68		B	2.12		B	2.14		B
Bicycle LOS Score / LOS	1.48		A	1.16		A	0.81		A	0.75		A

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	MJA	Analysis Date	Jan 25, 2022
Jurisdiction	Brevard County	Time Period	P.M. Peak Hour
Urban Street	SR 524	Analysis Year	2022
Intersection	Friday Rd	File Name	5577 - SR 524 & F
Project Description	A.M. Peak Hour - Existing		



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	139	403	150	43	432	59	117	9	39	45	1	83

Signal Information

Cycle, s	130.0	Reference Phase	2											
Offset, s	0	Reference Point	End	Green	4.0	3.3	65.8	12.1	13.8	0.0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.8	0.0	4.8	4.8	4.8	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	2.5	0.0	2.5	3.4	3.4	0.0				

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4		8
Case Number	1.1	3.0	1.1	3.0	1.0	4.0		8.3
Phase Duration, s	14.6	76.4	11.3	73.1	20.3	42.3		22.0
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	8.2	8.2		8.2
Max Allow Headway (MAH), s	3.9	0.0	3.9	0.0	4.0	4.2		4.2
Queue Clearance Time (g_s), s	6.9		3.8		12.0	5.4		13.2
Green Extension Time (g_e), s	0.4	0.0	0.1	0.0	0.3	0.7		0.6
Phase Call Probability	0.99		0.80		0.99	1.00		1.00
Max Out Probability	0.00		0.00		0.00	0.00		0.00

Movement Group Results

Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	145	420	156	45	450	61	122	50			134	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1841	1196	1513	1841	1610	1372	1464			1526	
Queue Service Time (g_s), s	4.9	18.0	9.2	1.8	20.8	2.5	10.0	3.4			9.0	
Cycle Queue Clearance Time (g_c), s	4.9	18.0	9.2	1.8	20.8	2.5	10.0	3.4			11.2	
Green Ratio (g/C)	0.56	0.53	0.53	0.54	0.51	0.51	0.21	0.26			0.11	
Capacity (c), veh/h	488	978	636	412	931	815	204	384			199	
Volume-to-Capacity Ratio (X)	0.297	0.429	0.246	0.109	0.483	0.075	0.599	0.130			0.676	
Back of Queue (Q), ft/ln (95 th percentile)	85.3	306.2	141.1	31.4	349.3	41.6	194.9	61.1			200.8	
Back of Queue (Q), veh/ln (95 th percentile)	3.4	11.9	4.5	1.1	13.5	1.7	6.2	2.2			7.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	15.5	18.5	16.4	15.5	21.0	16.5	44.8	36.6			56.9	
Incremental Delay (d_2), s/veh	0.3	1.4	0.9	0.1	1.8	0.2	2.8	0.2			4.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Control Delay (d), s/veh	15.8	19.9	17.3	15.6	22.8	16.7	47.6	36.8			60.8	
Level of Service (LOS)	B	B	B	B	C	B	D	D			E	
Approach Delay, s/veh / LOS	18.5	B		21.5	C		44.4	D		60.8	E	
Intersection Delay, s/veh / LOS	26.0						C					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.90	B		1.68	B		2.13	B		2.15	B	
Bicycle LOS Score / LOS	1.68	B		1.41	A		0.77	A		0.71	A	

APPENDIX D

ITE Trip Generation Sheets

Mini-Warehouse (151)

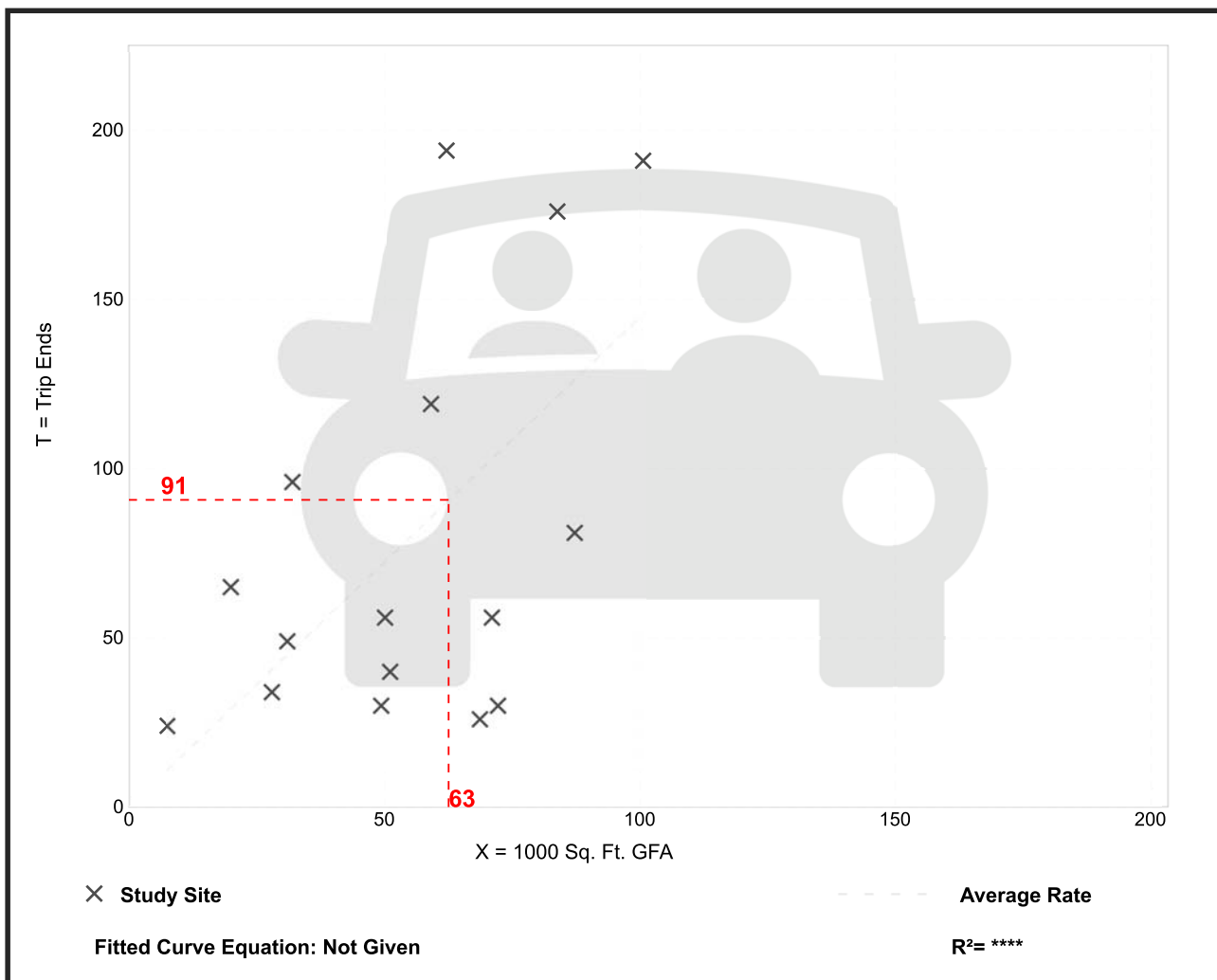
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.45	0.38 - 3.25	0.92

Data Plot and Equation



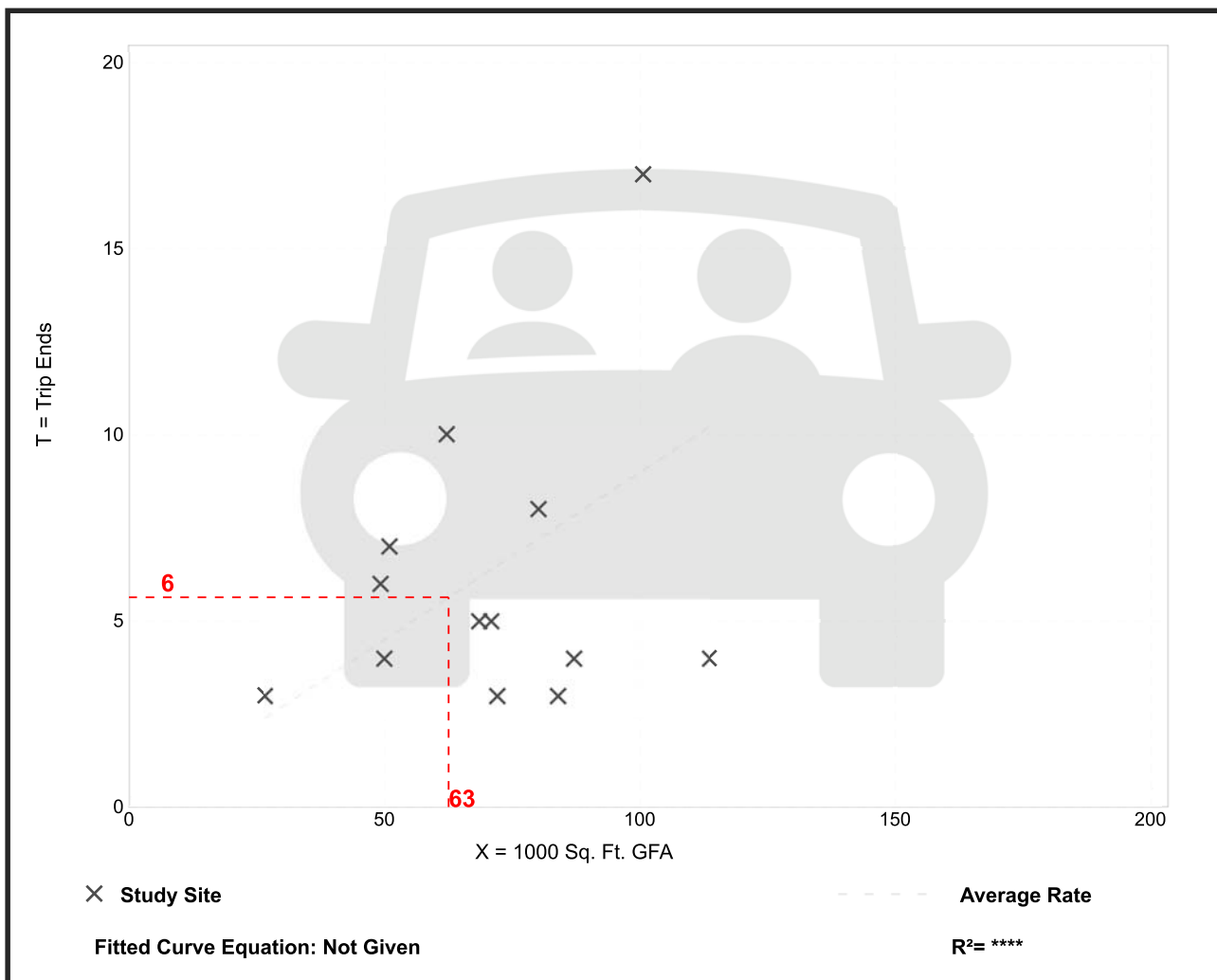
Mini-Warehouse (151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 13
 Avg. 1000 Sq. Ft. GFA: 70
 Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.09	0.04 - 0.17	0.05

Data Plot and Equation



Mini-Warehouse (151)

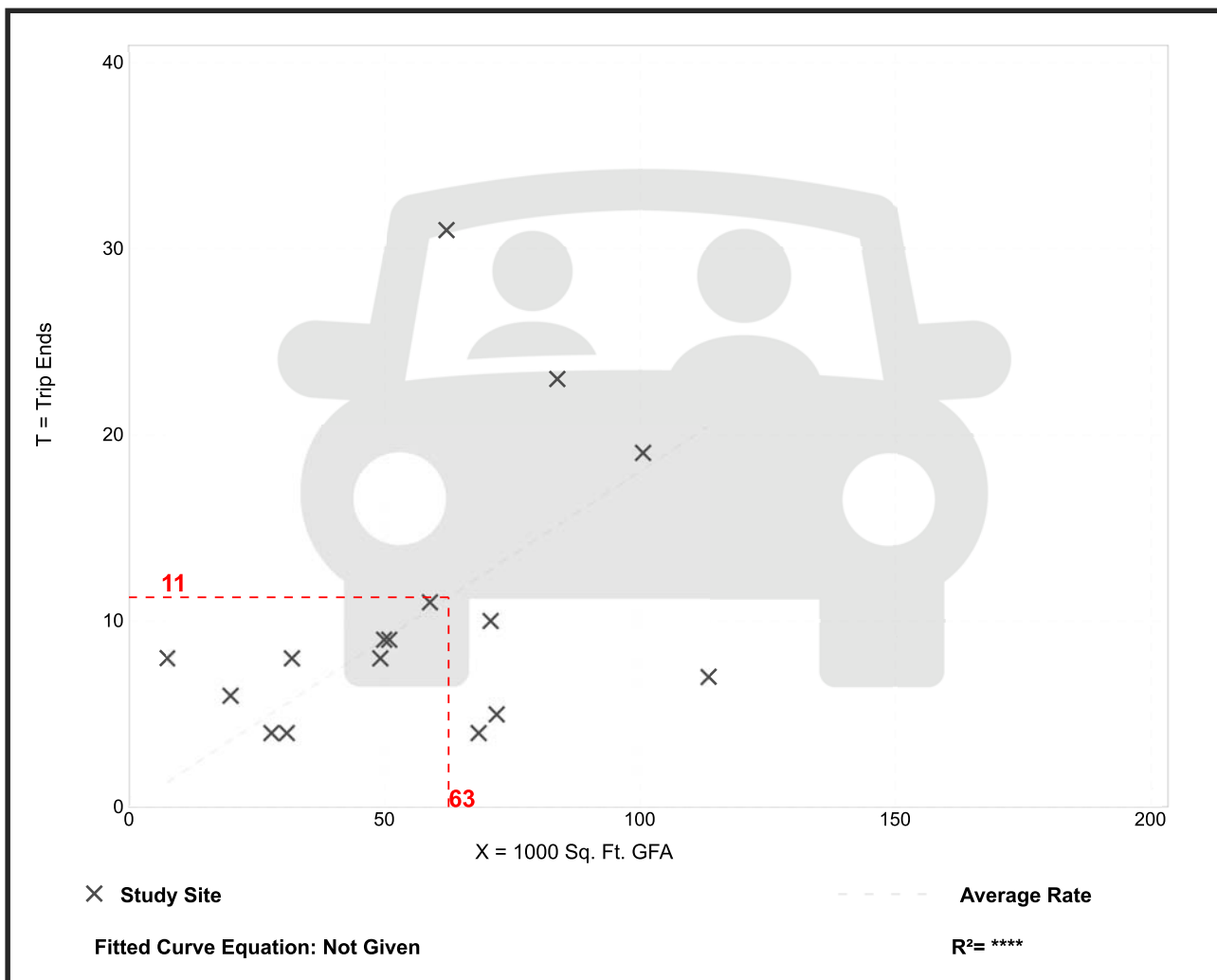
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 56
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

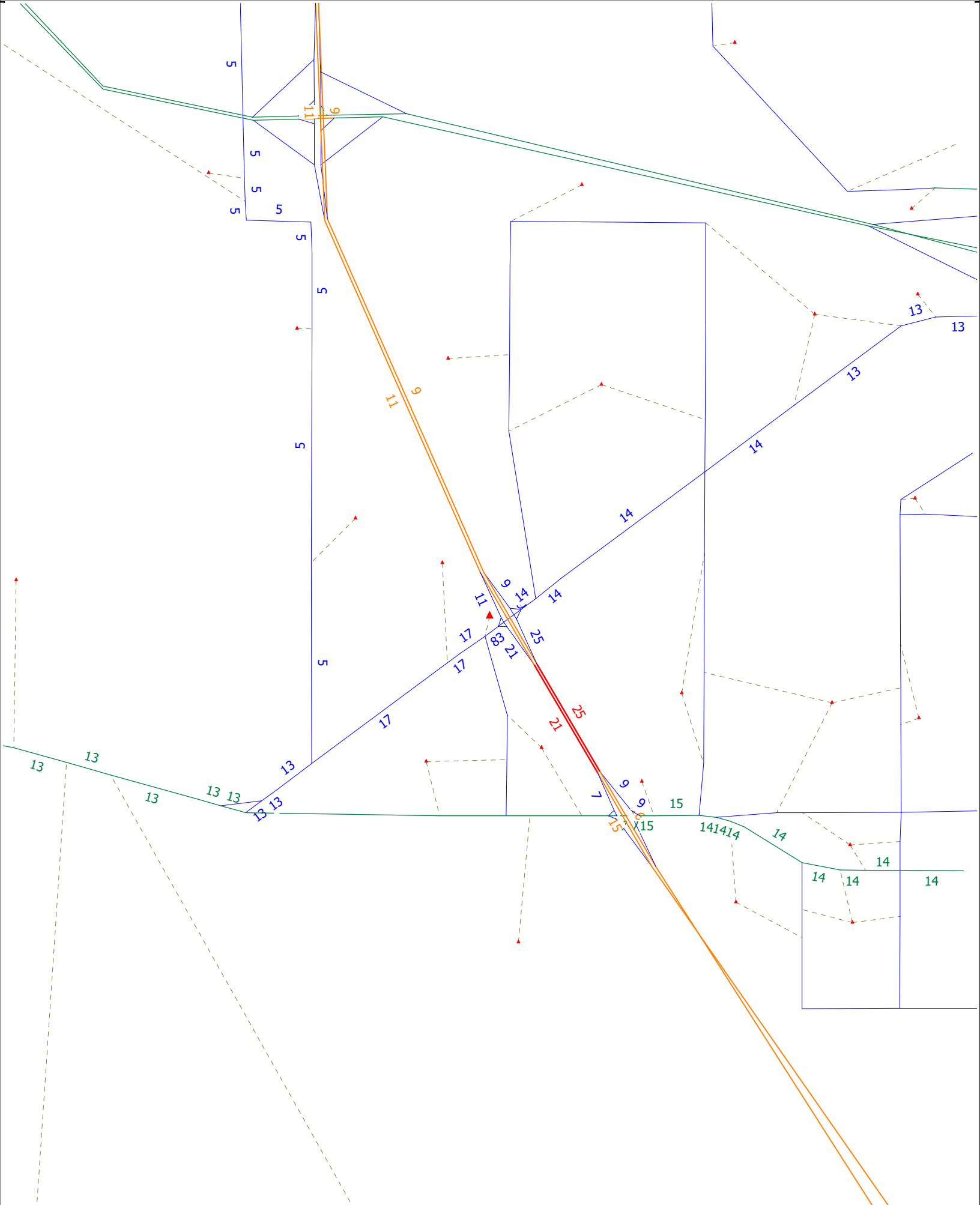
Average Rate	Range of Rates	Standard Deviation
0.18	0.06 - 1.05	0.14

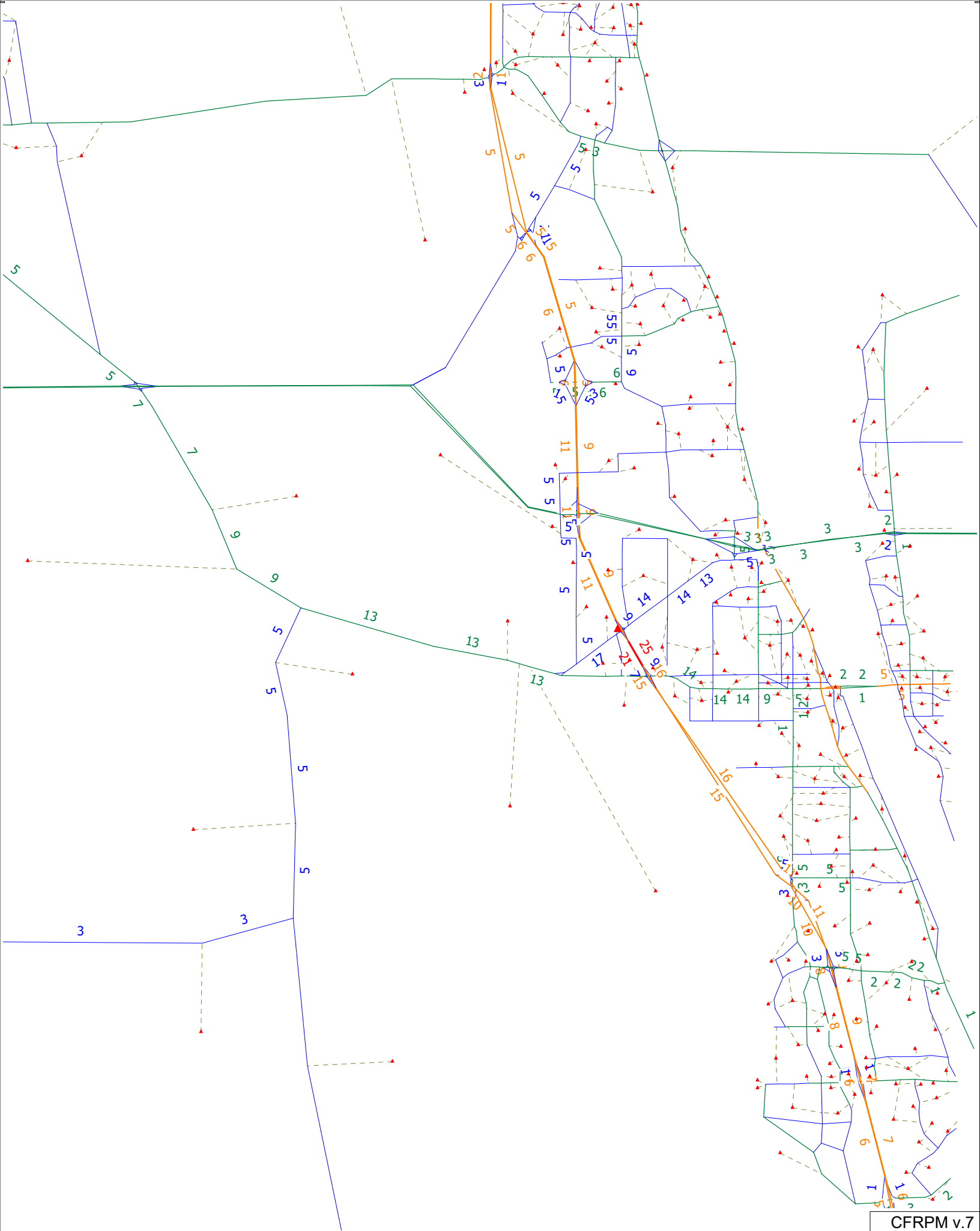
Data Plot and Equation



APPENDIX E

Model Distribution Plot





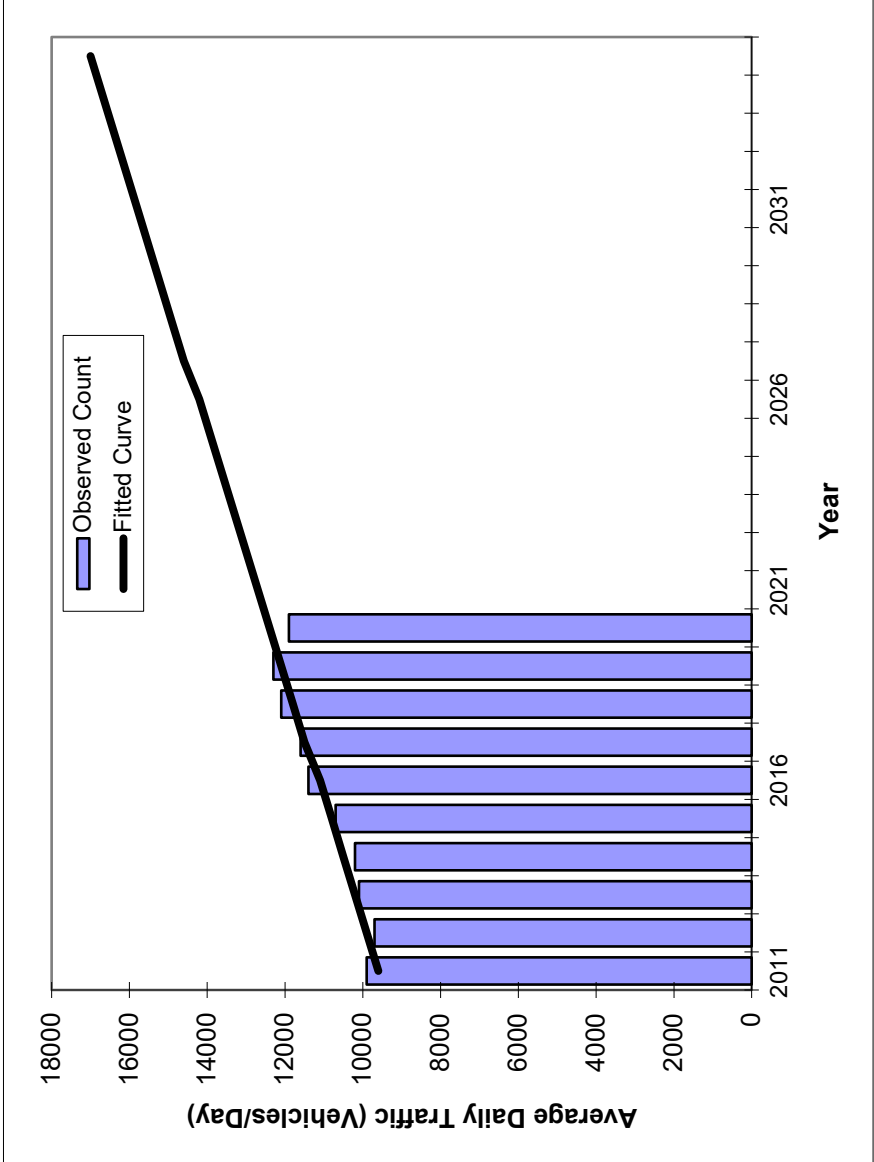
APPENDIX F

Trends Analysis Charts

Traffic Trends - V3.0 SR 524 -- E of I-95 and E of Friday Rd

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	0411
Highway:	SR 524



** Annual Trend Increase:	310
Trend R-squared:	91.28%
Trend Annual Historic Growth Rate:	3.24%
Trend Growth Rate (2020 to Design Year):	2.53%
Printed:	19-Jan-22
Straight Line Growth Option	

Traffic (ADT/AADT)		
Year	Count*	Trend**
2011	9900	9600
2012	9700	9900
2013	10100	10200
2014	10200	10500
2015	10700	10800
2016	11400	11100
2017	11600	11500
2018	12100	11800
2019	12300	12100
2020	11900	12400
2023 Opening Year Trend		
2023	N/A	13300
2025 Mid-Year Trend		
2025	N/A	13900
2027 Design Year Trend		
2027	N/A	14600
TRANPLAN Forecasts/Trends		

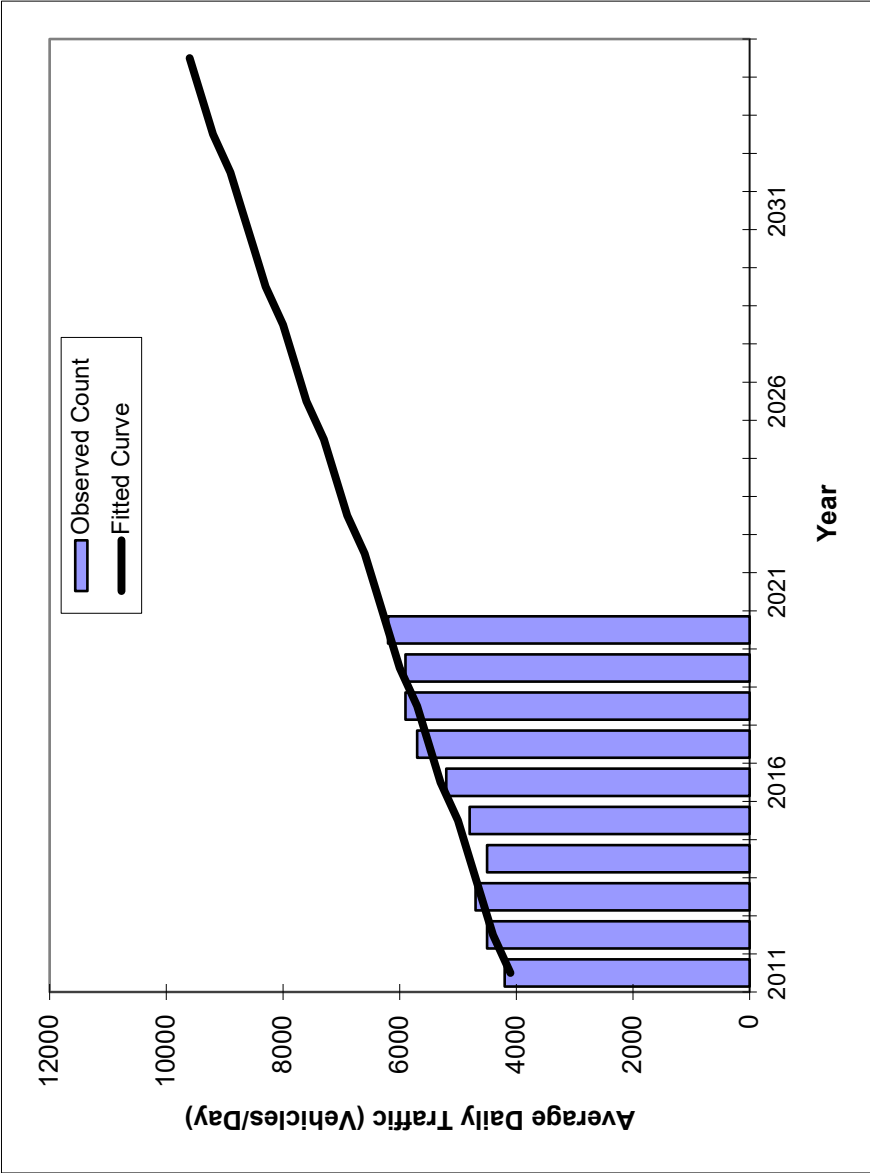
*Axle-Adjusted

Traffic Trends - V3.0

SR 524 -- W of I-95

FIN#	1234
Location	1

County:	Brevard (70)
Station #:	0425
Highway:	SR 524



** Annual Trend Increase:	229
Trend R-squared:	94.04%
Trend Annual Historic Growth Rate:	5.69%
Trend Growth Rate (2020 to Design Year):	3.69%
Printed:	19-Jan-22
Straight Line Growth Option	

Year	Traffic (ADT/AADT)	
	Count*	Trend**
2011	4200	4100
2012	4500	4400
2013	4700	4600
2014	4500	4800
2015	4800	5000
2016	5200	5300
2017	5700	5500
2018	5900	5700
2019	5900	6000
2020	6200	6200
2023 Opening Year Trend		
2023	N/A	6900
2025 Mid-Year Trend		
2025	N/A	7300
2027 Design Year Trend		
2027	N/A	7800
TRANPLAN Forecasts/Trends		

*Axle-Adjusted

APPENDIX G

Other Development Project Trips

**SR 524 & Friday Road
Other Development Trips – A.M. Peak Hour**

Project	Eastbound			Westbound			Northbound			Southbound		
	RT	Thru	LT	RT	Thru	LT	RT	Thru	LT	RT	Thru	LT
Silvestri Property	---	---	53	1	---	---	---	---	---	158	---	2
Variety Retail	---	9	---	---	7	---	---	---	---	---	---	---
Integra Apartments	---	7	---	---	21	---	---	---	---	---	---	---
Cocoa Landing Apartments	---	9	---	3	30	---	---	---	---	---	---	1
Retreat at Cocoa Commons	---	30	---	---	20	---	---	---	---	---	---	---
Cirrus Apartments	---	4	---	---	11	---	---	---	---	---	---	---
All Projects	---	59	53	4	89	---	---	---	---	158	---	3

**SR 524 & Friday Road
Other Development Trips – P.M. Peak Hour**

Project	Eastbound			Westbound			Northbound			Southbound		
	RT	Thru	LT	RT	Thru	LT	RT	Thru	LT	RT	Thru	LT
Silvestri Property	---	---	177	2	---	---	---	---	---	104	---	1
Variety Retail	---	17	---	---	16	---	---	---	---	---	---	---
Integra Apartments	---	21	---	---	14	---	---	---	---	---	---	---
Cocoa Landing Apartments	---	27	---	2	16	---	---	---	---	---	---	3
Retreat at Cocoa Commons	---	62	---	---	60	---	---	---	---	---	---	---
Cirrus Apartments	---	16	---	---	12	---	---	---	---	---	---	---
All Projects	---	143	177	4	124	---	---	---	---	104	---	4

I-95

Friday Rd

Cox Rd

SR 524

A	2,746
B	---
C	---
D	75
E	---
F	---
	<u>2,821</u>

A	464
B	64
C	68
D	93
E	248
F	70
	<u>1,007</u>

A	2,716
B	319
C	338
D	464
E	1,238
F	350
	<u>5,425</u>

Project Legend:

- A = Silvestri Property
- B = Variety Retail
- C = Integra Apts
- D = Cocoa Landing Apts
- E = Cocoa Landing Apts
- F = Cirrus Apts



Storequest Express I
Project № 5577



**Other Development
Daily Trips**

APPENDIX H

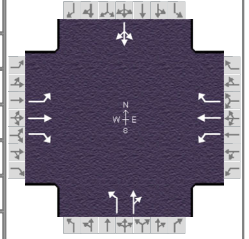
Projected Intersection Capacity Analysis Worksheets

HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.		
Analyst	MJA	Analysis Date	Jan 25, 2022
Jurisdiction	Brevard County	Time Period	A.M. Peak Hour
Urban Street	SR 524	Analysis Year	Projected
Intersection	Friday Rd	File Name	5577 - SR 524 & F
Project Description	A.M. Peak Hour - Projected		

Intersection Information



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	90	467	136	47	308	30	140	5	42	43	5	265

Signal Information

Cycle, s	110.0	Reference Phase	2	</
----------	-------	-----------------	---	---

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4		8
Case Number	1.1	3.0	1.1	3.0	1.0	4.0		8.3
Phase Duration, s	12.8	50.8	11.2	49.2	18.1	48.0		29.9
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	8.2	8.2		8.2
Max Allow Headway (MAH), s	3.9	0.0	3.9	0.0	4.0	4.2		4.2
Queue Clearance Time (g_s), s	5.8		4.2		8.9	4.7		23.7
Green Extension Time (g_e), s	0.1	0.0	0.0	0.0	0.3	1.5		0.0
Phase Call Probability	0.95		0.79		0.99	1.00		1.00
Max Out Probability	0.35		0.03		0.02	0.00		1.00

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	97	502	146	51	331	32	151	51			337	
Adjusted Saturation Flow Rate (s), veh/h/ln	1711	1781	1372	1541	1722	1510	1810	1381			1595	
Queue Service Time (g_s), s	3.8	26.1	7.9	2.2	16.2	1.5	6.9	2.7			16.2	
Cycle Queue Clearance Time (g_c), s	3.8	26.1	7.9	2.2	16.2	1.5	6.9	2.7			21.7	
Green Ratio (g/C)	0.43	0.40	0.40	0.42	0.38	0.38	0.31	0.36			0.20	
Capacity (c), veh/h	387	704	542	229	656	575	229	500			352	
Volume-to-Capacity Ratio (X)	0.250	0.713	0.270	0.220	0.505	0.056	0.658	0.101			0.957	
Back of Queue (Q), ft/ln (95 th percentile)	66.7	447.2	132.3	38.9	297.4	25	139.6	44.3			458.3	
Back of Queue (Q), veh/ln (95 th percentile)	2.5	16.8	4.6	1.4	10.9	0.9	5.6	1.5			18.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	20.2	28.0	22.5	22.8	26.1	21.6	31.5	23.3			44.8	
Incremental Delay (d_2), s/veh	0.3	6.1	1.2	0.5	2.8	0.2	3.2	0.1			36.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Control Delay (d), s/veh	20.5	34.1	23.7	23.2	28.9	21.7	34.7	23.3			81.4	
Level of Service (LOS)	C	C	C	C	C	C	C	C			F	
Approach Delay, s/veh / LOS	30.3		C	27.6		C	31.8		C	81.4		F
Intersection Delay, s/veh / LOS	40.0						D					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.92		B	1.69		B	2.11		B	2.13		B
Bicycle LOS Score / LOS	1.72		B	1.17		A	0.82		A	1.04		A

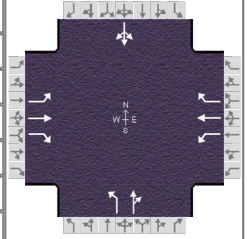
HCS7 Signalized Intersection Results Summary

General Information

Agency	TPD, Inc.
Analyst	MJA
Jurisdiction	Brevard County
Urban Street	SR 524
Intersection	Friday Rd
Project Description	A.M. Peak Hour - Projected

Intersection Information

Duration, h	0.250
Area Type	Other
PHF	0.96
Analysis Period	1> 16:45
File Name	5577 - SR 524 & Friday Rd - PM Projected.xus



Demand Information

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	323	558	155	44	569	65	121	9	40	51	1	192

Signal Information

Cycle, s	130.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Timer Results

	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	1	6	5	2	7	4		8
Case Number	1.1	3.0	1.1	3.0	1.0	4.0		8.3
Phase Duration, s	28.0	66.9	11.3	50.3	19.8	51.7		31.9
Change Period, ($Y+R_c$), s	7.3	7.3	7.3	7.3	8.2	8.2		8.2
Max Allow Headway (MAH), s	3.9	0.0	3.9	0.0	4.0	4.2		4.2
Queue Clearance Time (g_s), s	20.4		4.6		11.4	5.1		22.8
Green Extension Time (g_e), s	0.6	0.0	0.1	0.0	0.4	1.2		0.9
Phase Call Probability	1.00		0.81		0.99	1.00		1.00
Max Out Probability	0.41		0.00		0.00	0.00		0.00

Movement Group Results

	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	1	6	16	5	2	12	7	4	14	3	8	18
Adjusted Flow Rate (v), veh/h	336	581	161	46	593	68	126	51			254	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1841	1196	1513	1841	1610	1372	1463			1552	
Queue Service Time (g_s), s	18.4	32.5	11.0	2.6	41.2	3.8	9.4	3.1			16.3	
Cycle Queue Clearance Time (g_c), s	18.4	32.5	11.0	2.6	41.2	3.8	9.4	3.1			20.8	
Green Ratio (g/C)	0.51	0.46	0.46	0.36	0.33	0.33	0.29	0.33			0.18	
Capacity (c), veh/h	358	844	548	240	614	537	198	490			317	
Volume-to-Capacity Ratio (X)	0.940	0.688	0.294	0.191	0.966	0.126	0.636	0.104			0.803	
Back of Queue (Q), ft/ln (95 th percentile)	469.1	527.7	176.8	48.3	779.8	67.1	182.8	55.2			334.2	
Back of Queue (Q), veh/ln (95 th percentile)	18.8	20.5	5.6	1.7	30.2	2.7	5.9	2.0			13.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	37.6	27.8	22.0	28.4	42.6	30.2	38.7	29.8			51.8	
Incremental Delay (d_2), s/veh	25.8	4.6	1.4	0.4	28.9	0.5	3.4	0.1			6.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Control Delay (d), s/veh	63.3	32.4	23.4	28.8	71.5	30.6	42.0	29.9			57.8	
Level of Service (LOS)	E	C	C	C	E	C	D	C			E	
Approach Delay, s/veh / LOS	40.7		D	64.8		E	38.5		D	57.8		E
Intersection Delay, s/veh / LOS	50.2						D					

Multimodal Results

	EB			WB			NB			SB		
Pedestrian LOS Score / LOS	1.92		B	1.71		B	2.12		B	2.14		B
Bicycle LOS Score / LOS	2.27		B	1.65		B	0.78		A	0.91		A

HCS7 Two-Way Stop-Control Report

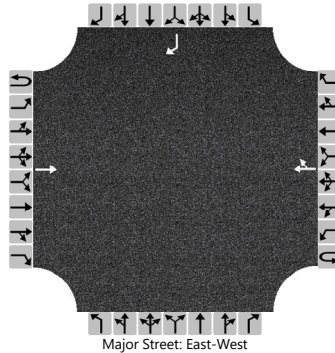
General Information

Analyst	MJA
Agency/Co.	TPD, Inc.
Date Performed	1/25/2022
Analysis Year	2024
Time Analyzed	AM Peak Hour - Projected
Intersection Orientation	East-West
Project Description	5577 Storquest Express

Site Information

Intersection	SR 524 & Access
Jurisdiction	Brevard County
East/West Street	SR 524
North/South Street	Site Access
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration			T					TR								R
Volume (veh/h)			649				632	1								2
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.2
Critical Headway (sec)																6.23
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																2
Capacity, c (veh/h)																445
v/c Ratio																0.00
95% Queue Length, Q ₉₅ (veh)																0.0
Control Delay (s/veh)																13.1
Level of Service (LOS)																B
Approach Delay (s/veh)													13.1			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

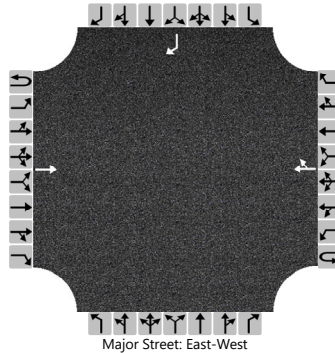
General Information

Analyst	MJA
Agency/Co.	TPD, Inc.
Date Performed	1/25/2022
Analysis Year	2024
Time Analyzed	PM Peak Hour - Projected
Intersection Orientation	East-West
Project Description	5577 Storquest Express

Site Information

Intersection	SR 524 & Access
Jurisdiction	Brevard County
East/West Street	SR 524
North/South Street	Site Access
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	0	0		0	0	1
Configuration			T					TR								R
Volume (veh/h)			552				437	1								1
Percent Heavy Vehicles (%)																3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized													No			
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																6.2
Critical Headway (sec)																6.23
Base Follow-Up Headway (sec)																3.3
Follow-Up Headway (sec)																3.33

Delay, Queue Length, and Level of Service

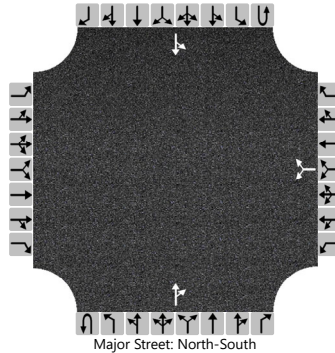
Flow Rate, v (veh/h)																1
Capacity, c (veh/h)																587
v/c Ratio																0.00
95% Queue Length, Q ₉₅ (veh)																0.0
Control Delay (s/veh)																11.1
Level of Service (LOS)																B
Approach Delay (s/veh)													11.1			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

General Information

Analyst	MJA	Intersection	Friday Rd & Access
Agency/Co.	TPD, Inc.	Jurisdiction	Brevard County
Date Performed	1/25/2022	East/West Street	Site Access
Analysis Year	2024	North/South Street	Friday Rd
Time Analyzed	AM Peak Hour - Projected	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	5577 Storquest Express		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						3		0			394	3		0	241	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						3								0		
Capacity, c (veh/h)						408								1123		
v/c Ratio						0.01								0.00		
95% Queue Length, Q ₉₅ (veh)						0.0								0.0		
Control Delay (s/veh)						13.9								8.2		
Level of Service (LOS)						B								A		
Approach Delay (s/veh)					13.9								0.0			
Approach LOS					B											

HCS7 Two-Way Stop-Control Report

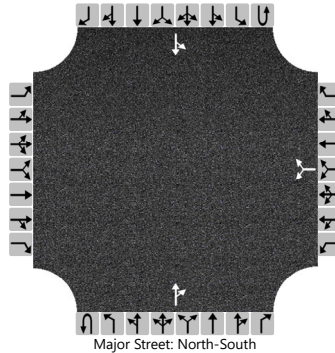
General Information

Analyst	MJA
Agency/Co.	TPD, Inc.
Date Performed	1/25/2022
Analysis Year	2024
Time Analyzed	PM Peak Hour - Projected
Intersection Orientation	North-South
Project Description	5577 Storquest Express

Site Information

Intersection	Friday Rd & Access
Jurisdiction	Brevard County
East/West Street	Site Access
North/South Street	Friday Rd
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						1		0			121	3		0	312	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						1								0		
Capacity, c (veh/h)						548								1443		
v/c Ratio						0.00								0.00		
95% Queue Length, Q ₉₅ (veh)						0.0								0.0		
Control Delay (s/veh)						11.6								7.5		
Level of Service (LOS)						B								A		
Approach Delay (s/veh)					11.6								0.0			
Approach LOS					B											



Drainage Calculations

Storquest Express
Cocoa, Florida

(DSE Job No.: WWG-1)

Prepared By
Dave Schmitt Engineering, Inc.

Prepared For
The William Warren Group

May 2022
June 2022
Revised August 2022



Drainage Calculations

Storquest Express Cocoa, Florida

Prepared For
The William Warren Group

Prepared By
Dave Schmitt Engineering, Inc.

Dave Schmitt, P.E
Fl. Reg. #48274

May 2022
June 2022
Revised August 2022

12301 Lake Underhill Road, Ste 241, Orlando, Florida 32828 (407) 207-9088
State of Florida Board of Professional Engineers
Certification of Authorization #27471

*Drainage Calculations
Storquest Express
Cocoa, Florida*

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SECTION 1

Drainage Summary

Storquest Express is located within the City of Cocoa, Florida. The 6.38-acre development is proposing a 59,745 square-foot storage facility with associated parking spaces and a wet pond for stormwater treatment system.

Existing Conditions

The subject property is about 6.38-acres located at the northeast corner of the intersection of Friday Road and State Road 524. According to the Environmental Report provided by Stillwater Environmental Inc., the project site has remained undeveloped. According to the survey provided by Hadonne Land Surveyor and Mappers the project area elevations range from approximately 23-feet to 25-feet. The higher elevations are found in the western portions of the site with the lower elevations being found in the eastern portions of the site.

According to NRCS Soil survey by the United States Department of Agriculture the soils that have been identified are:

Unit #7 (Type: A/D) – Basinger sand, 0 to 2 percent slopes

Unit #26 (Type: A/D) – Myakka sand, 0 to 2 percent slopes

Unit #38 (Type: A/D) – Myakka sand, depressional

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Panel Numbers: 12009C0320H, Effective: 2021-01-29, the subject property is entirely within Zone X with no risk of flooding. However, a small area to the east of the property is within Zone A with no based elevations.

Based on the National Wetland Inventory and the survey, areas classified as wetlands and surface waters were not observed within, or immediately adjacent to, the subject property area during the field investigation.

Post Development Conditions

The development is 6.38-acres proposing on constructing 59,745 square-foot storage facility with required parking spaces. The design stormwater treatment is a 0.76-acre wet detention pond with a 16-foot deep retaining wall to achieve the required volume. The design pond has a top of bank of 29-feet that slopes down 5:1 to reach the normal water level at 25-feet. From the NWL the pond slopes 4:1 to reach the break elevation of 22-feet. After the break, the pond slopes again at 2:1 to hit the bottom of the pond at 13-feet.

Curve Number

The post development curve numbers were calculated applying the methods defined in SCS-Technical Release 55. (**Section 5 – CN Computations**).

Time of Concentration

Based on the highest point of elevation and the longest route to the wet detention pond, the time of concentration for the overall basin is approximately 15 minutes. (**Section 5 – TC Computations**)

Design Criteria

The project falls within the Saint John's River Water Management District (SJRWMD). The design of the proposed stormwater management system for the proposed site is in accordance with the standards and criteria set forth by all jurisdictions.

SJRWMD Wet detention systems:

1. One inch of runoff over the drainage area
2. 2.5 inches times the impervious area (excluding water bodies)
3. Little Econ = Add 50% to the required water quality
4. Recovery Time – drawdown one-half the required treatment volume within 24 and 30 hours following a storm event, but no more than one-half of this volume will be discharge within the first 24 hours.
5. Permanent Pool shall be sized to provide at least a 14-day average residence time during the wet season.

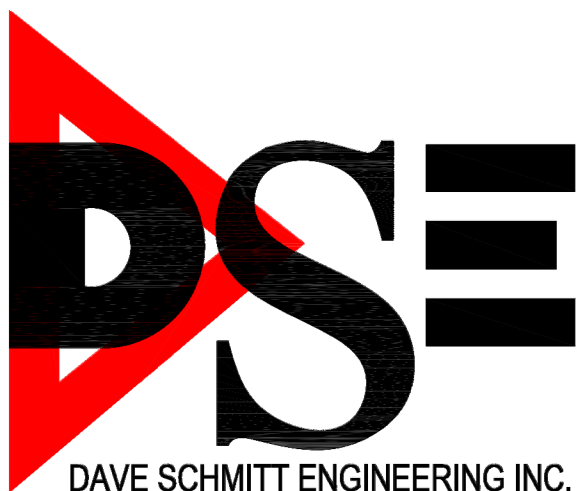
Wet Detention Pond

According to the geotechnical report provided by Ardaman & Associates, Inc., the estimated normal low groundwater level to be approximately 2 feet lower than the water levels encountered in the borings. The boring samples that were used to calculate the seasonal high groundwater table (SHWGT) are AB-1 and AB-2, which is approximately 25-feet. The groundwater level that was encountered ranged from approximately 0.8 to 2.8 feet below the existing ground surface. (**Section 8 – Geotechnical Report**)

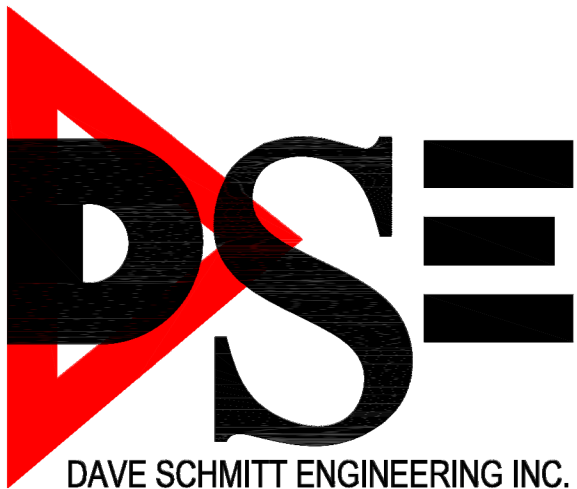
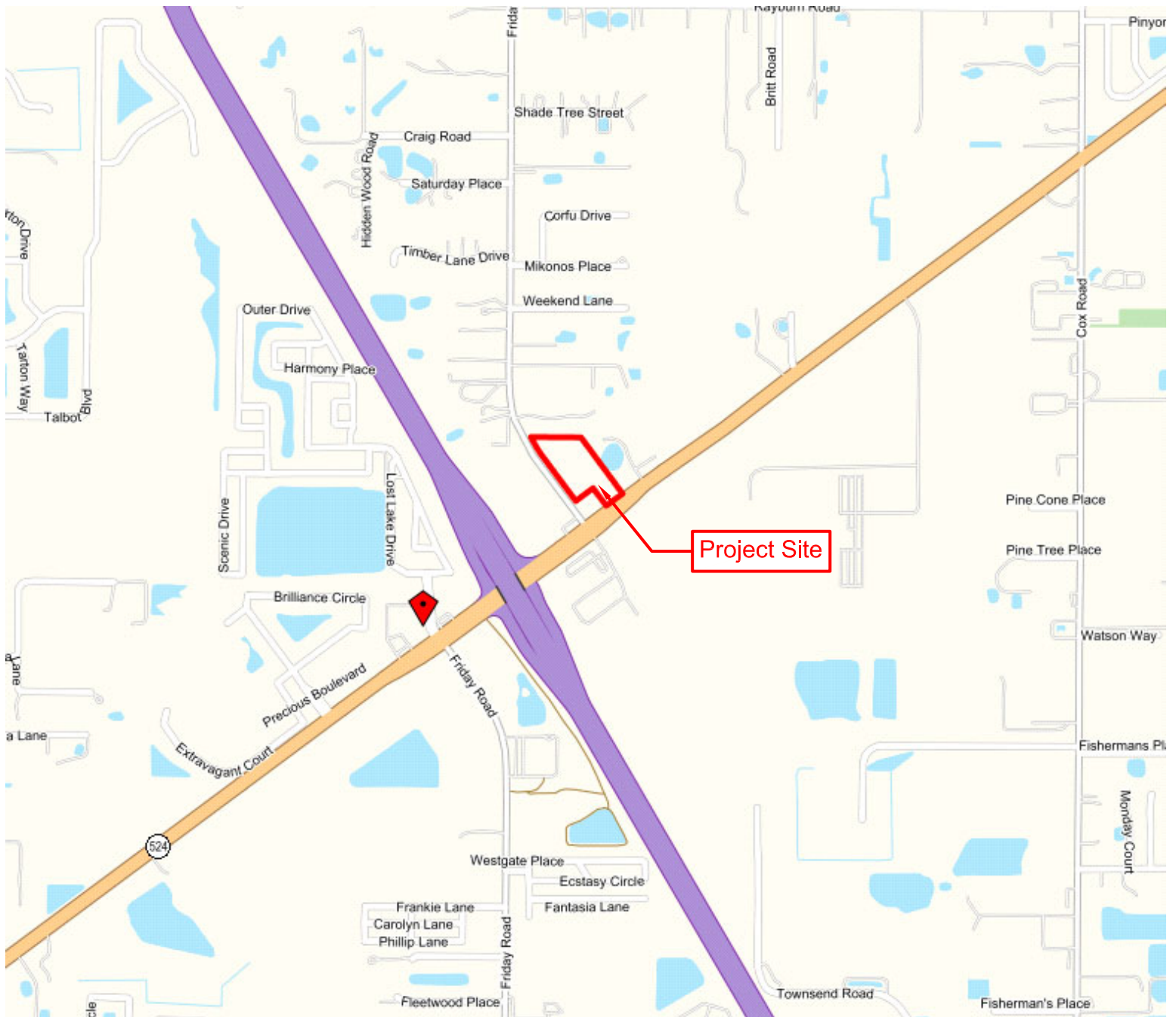
With the given information, the post condition runoff for the subject property is proposing a 0.76-acre wet detention pond. This wet detention system is equipped with a control structure with a given weir set at a control elevation of 27.01-feet. This structure also has a 3-inch orifice at an elevation of 25-feet to help recover between 24 and 30 hours following a storm event. Based on the water quality calculations, the design pond must recover at an elevation of 26.06-feet.

ICPR 3 output simulation is used to run the pre-post design conditions for the 100YR-24HR, 25YR-24HR, 10YR-24HR, and Mean Annual-24HR storm event. All water quality, recovery, and pre-post discharge SJRWMD requirements have been met for all storm events. (***Section 5 – Post-Development Calculations***)

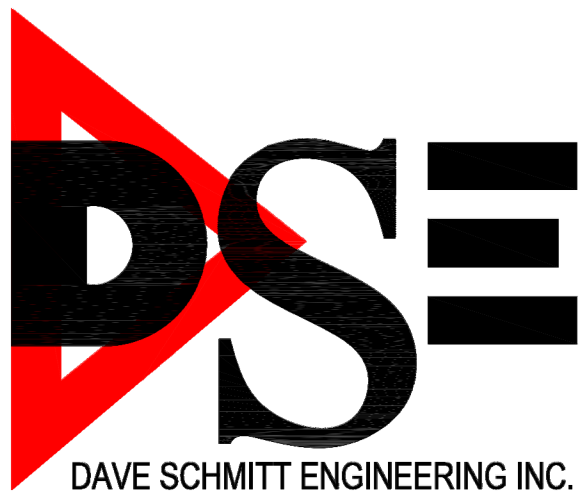
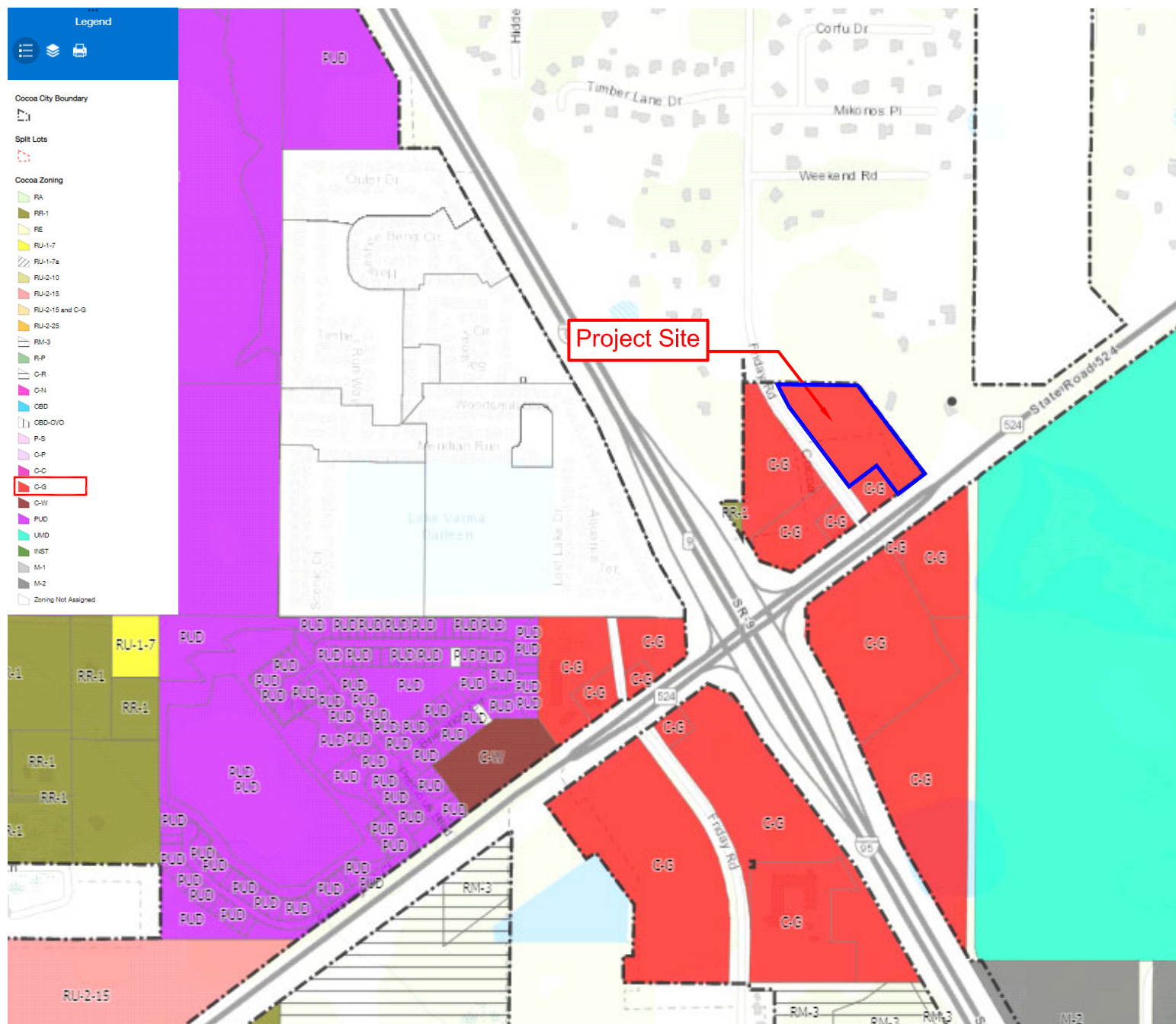
SECTION 2



SQX Florida
City of Cocoa, FL
Aerial Map



SQX Florida
City of Cocoa, FL
Location Map

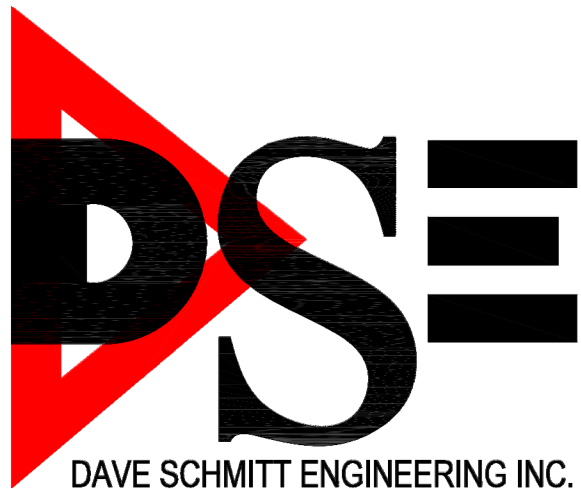
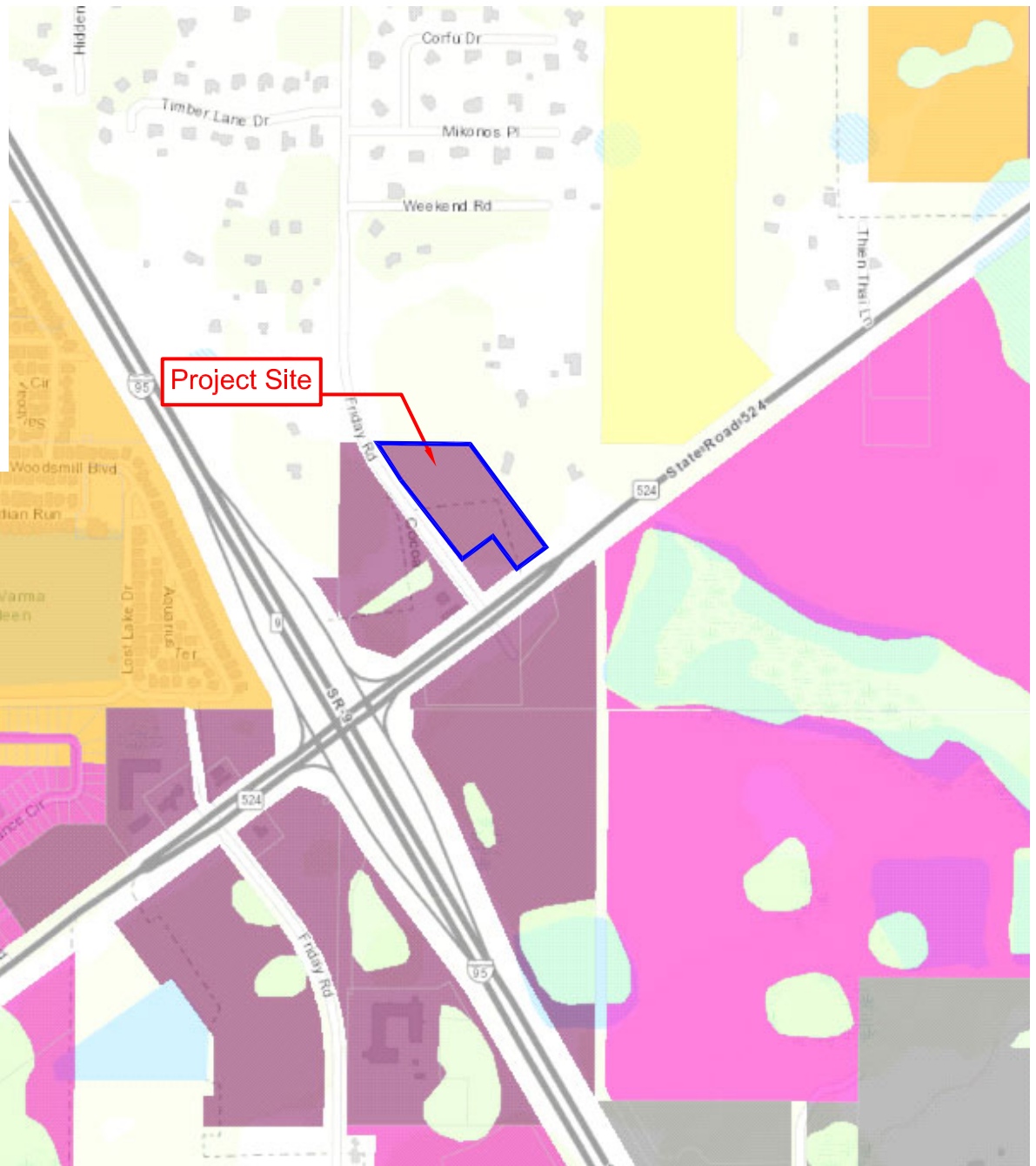


SQX Florida
City of Cocoa, FL
Zoning Map

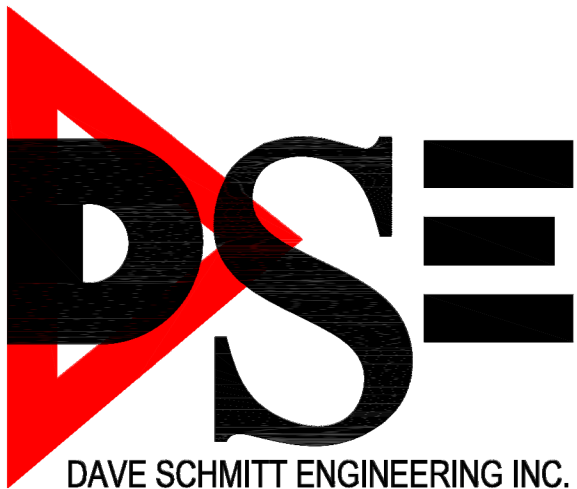
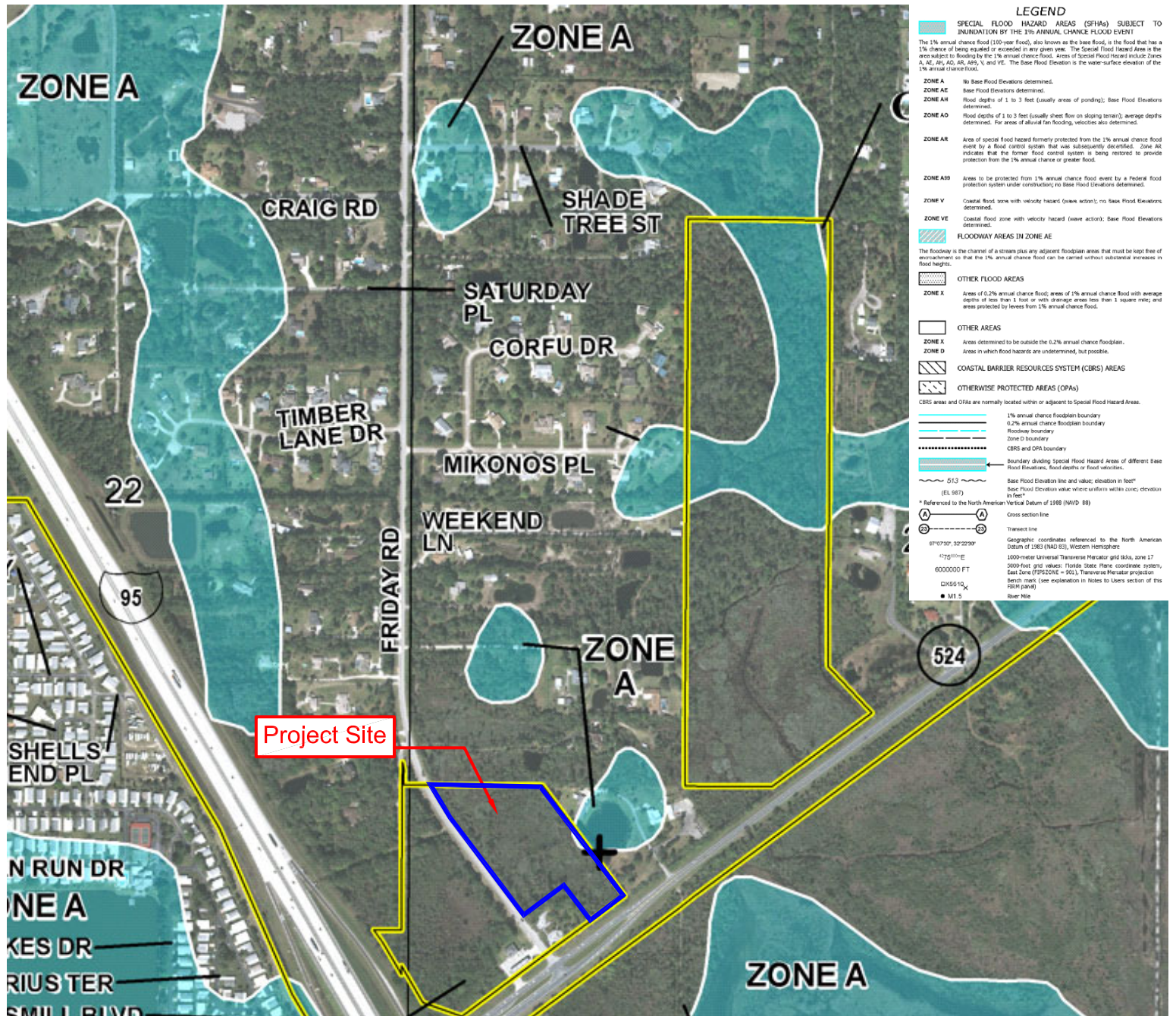
Legend

FLU

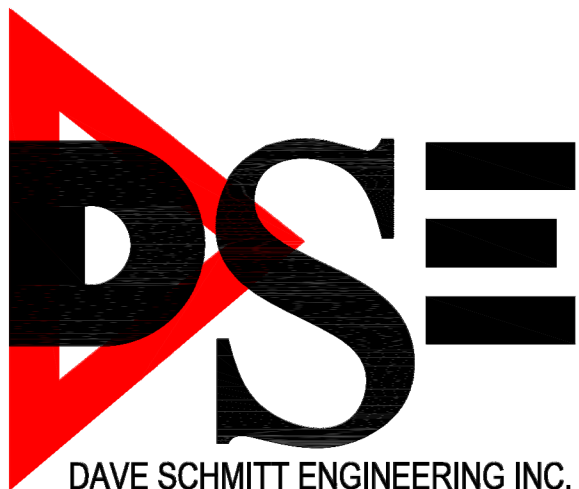
- Low Density Residential
- Medium Density Residential
- Commercial
- Very Low Density Residential
- Neighborhood Commercial
- Mixed Use
- Industrial
- Conservation
- High Density Residential
- Institutional
- Recreation/Open Space
- 0
- Regional Activity Center



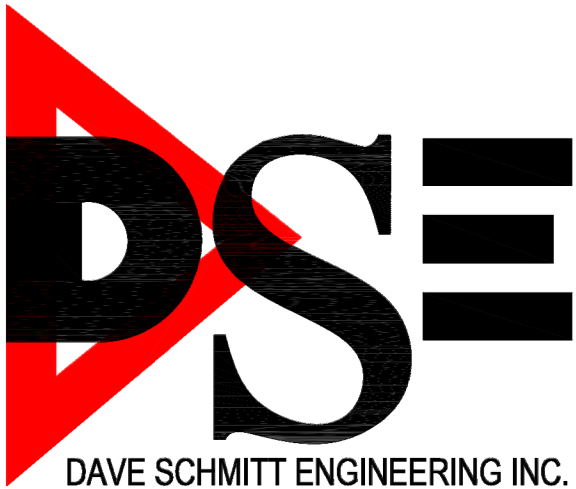
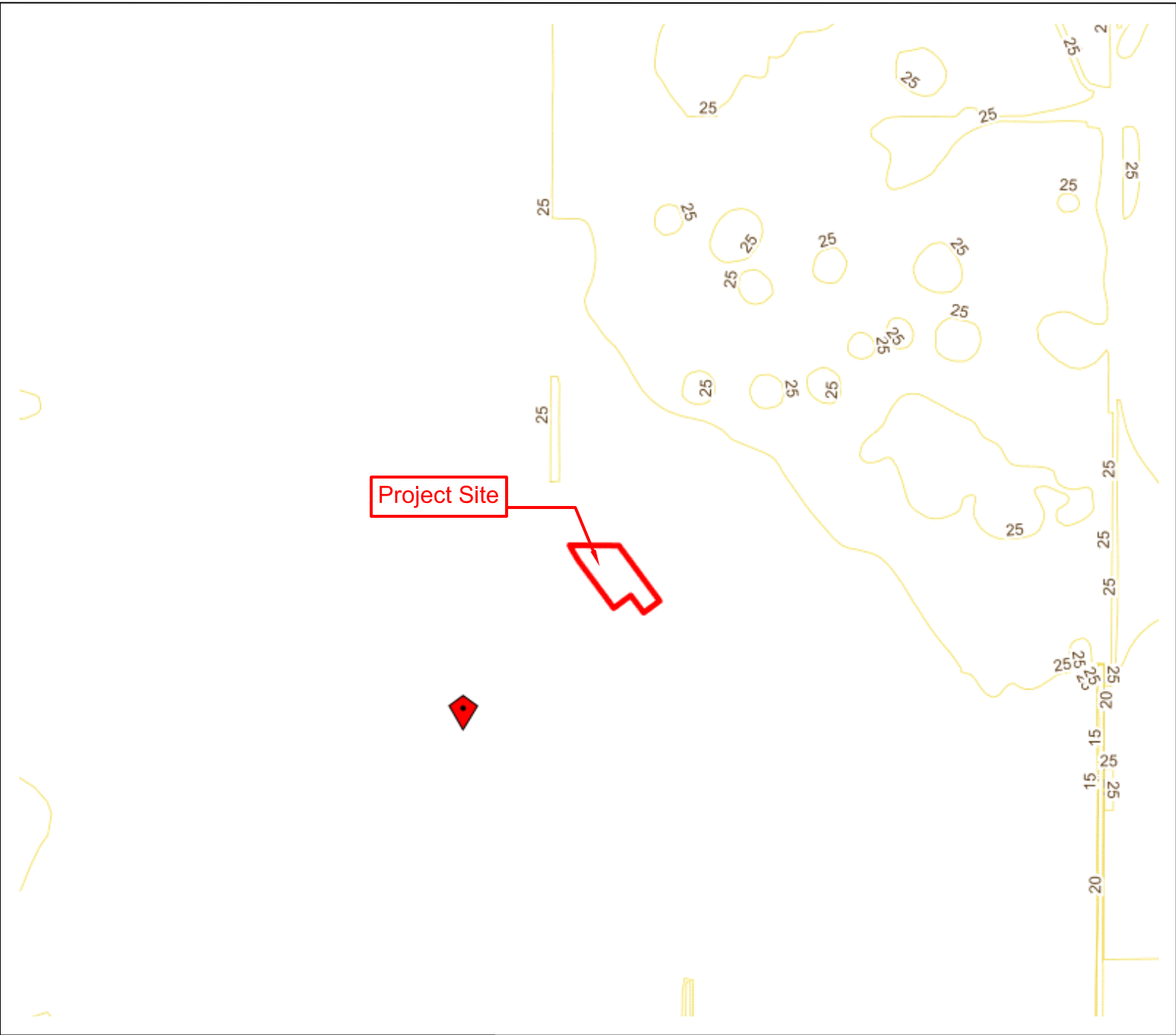
SQX Florida
City of Cocoa, FL
FLU Map



SQX Florida
City of Cocoa, FL
FEMA Map

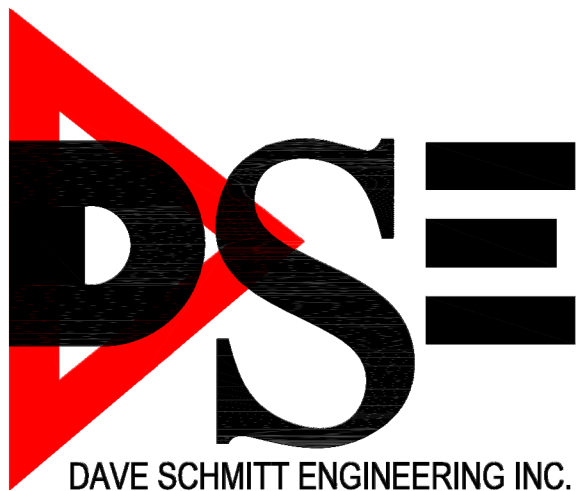


SQX Florida
City of Cocoa, FL
Soils Map



SQX Florida
City of Cocoa, FL
Contour Map

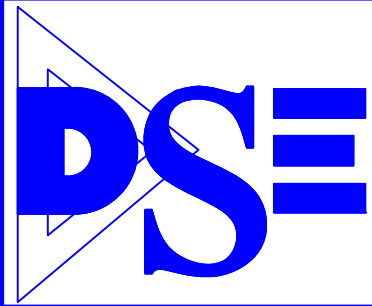
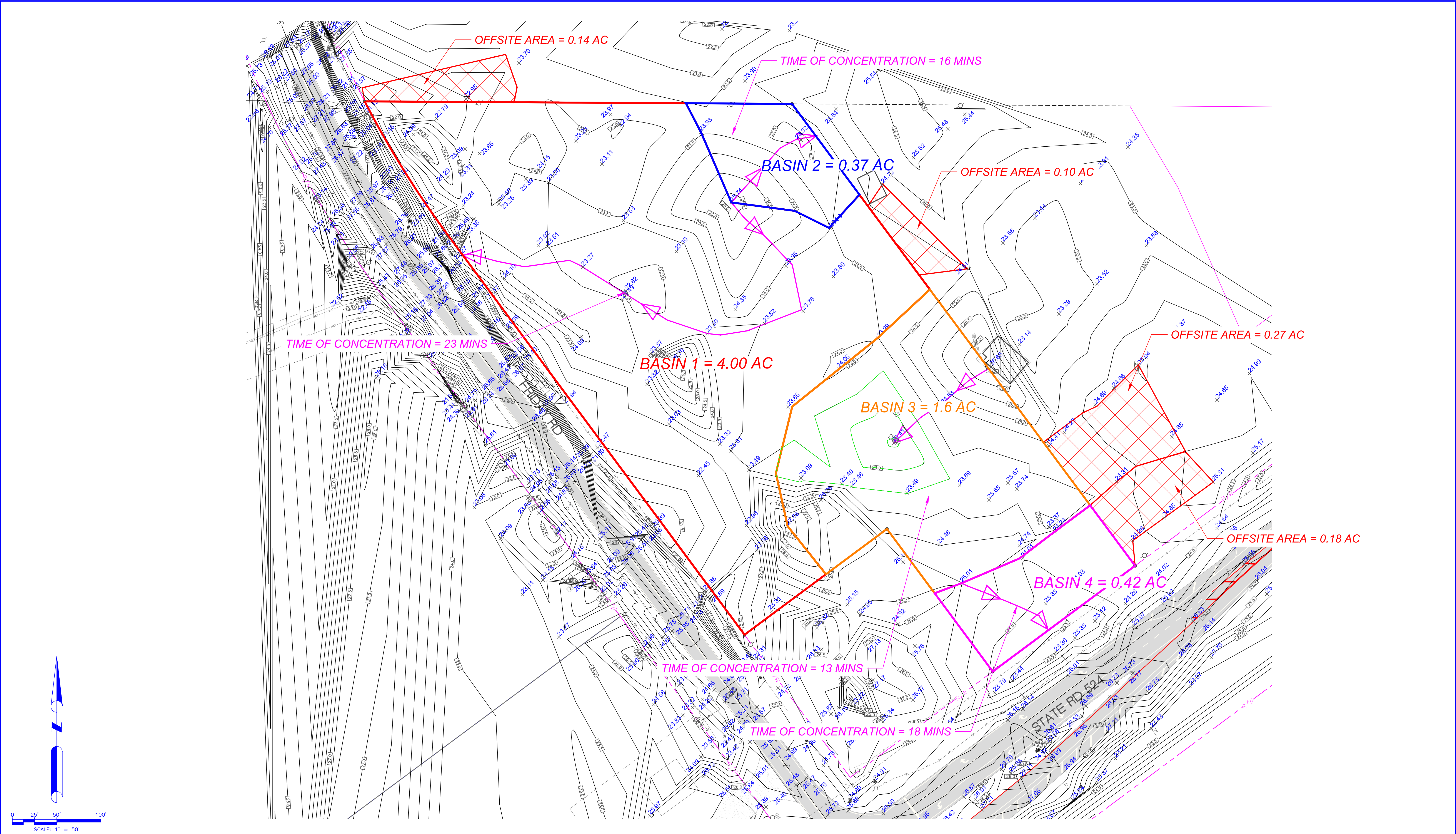
- Wetlands**
- Estuarine and Marine
 - Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine



SQX Florida City of Cocoa, FL Wetland Map

SECTION 3

F:\WWG1\Drainage\Final Engineering\2022-08-XX Final Engineering\Pre\WWG-1 PRE-DEVELOPMENT BASIN 2022-08-XX.dwg,8/8/2022 2:59:05 PM



**DAVE SCHMITT
ENGINEERING, INC.**
12301 LAKE UNDERHILL RD. SUITE 241
ORLANDO, FL 32828
407-207-9088 FAX 407-207-9089
Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Built's" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Built's" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: _____ Engineer: _____
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT
FLORIDA REG. NUMBER
48274

PRE-DEVELOPMENT BASIN EXHIBIT

STORQUEST EXPRESS

CITY OF COCOA BEACH, FLORIDA

DATE: APR. 2022
PROJECT NO.: WWG-1
DRAWN BY: PD
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 1 OF 1

WWG-1 (StorQuest Express)
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Basin Area, Curve Number, and Tc Summary

BASIN #	AREA (ac)	CN	TC (min)
1	4.00	47	23
2	0.37	70	16
3	1.60	40	13
4	0.42	39	18
TOTAL ONSITE	6.39		
TOTAL OFFSITE AREA	0.69		
TOTAL AREA	7.08		

WWG-1 (StorQuest Express)
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Basin Summary

BASIN #	ON SITE AREA (ac)	OFF SITE AREA (ac.)	TOTAL (ac.)
1	4.00	0.24	4.24
2	0.37	0.00	0.37
3	1.60	0.27	1.87
4	0.42	0.18	0.60
TOTAL	6.39	0.69	7.08

WWG-1 (StorQuest Express)
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Curve Number Calculations

Basin ID : 1
Total Acres: 4.24

Name	ID#	Soil Class	Cover Type	CN	% Area	Area	Factor
Basinger sand, 0 to 2 percent slopes	7	A/D	Woods	77	20.3%	0.86	66
Myakka sand, 0 to 2 percent slopes	36	A	Woods	39	77.6%	3.29	128
Myakka sand, depressional	38	A	Woods	39	2.1%	0.09	4

100.0%	4.24
Composite CN:	47

Basin ID : 2
Total Acres: 0.37

Name	ID#	Soil Class	Cover Type	CN	% Area	Area	Factor
Basinger sand, 0 to 2 percent slopes	7	A/D	Woods	77	80.8%	0.30	23
Myakka sand, 0 to 2 percent slopes	36	A	Woods	39	19.2%	0.07	3

100.0%	0.37
Composite CN:	70

Basin ID : 3
Total Acres: 1.87

Name	ID#	Soil Class	Cover Type	CN	% Area	Area	Factor
Myakka sand, 0 to 2 percent slopes	36	A	Woods	39	98.4%	1.84	72
Basinger sand, 0 to 2 percent slopes	7	A/D	Woods	77	1.6%	0.03	2

100.0%	1.87
Composite CN:	40

Basin ID : 4
Total Acres: 0.60

Name	ID#	Soil Class	Cover Type	CN	% Area	Area	Factor
Myakka sand, 0 to 2 percent slopes	36	A	Woods	39	100.0%	0.60	23

100.0%	0.60
Composite CN:	39

WWG-1 (StorQuest Express)
PRE-DEVELOPMENT - STORMWATER ANALYSIS
Time of Concentration Calculations

BASIN	SHEET FLOW SLOPE FT/FT	SHEET FLOW L FT	MAN n	SHEET FLOW Tt MIN	SHALLOW CON SLOPE FT/FT	SHALLOW CON FLOW L FT	P or U	Average Velocity V ft/s	SHALLOW CON FLOW Tt MIN	PIPE FLOW L FT	PIPE FLOW Tt MIN	TC MIN
1	0.0179	100	0.400	15.6	0.0042	460	U	1.05	7.3	0	0.0	23
2	0.0174	100	0.400	15.7	0.0262	26	U	2.609	0.2	0	0.0	16
3	0.0340	100	0.400	12.9	0.0208	36	U	2.329	0.3	0	0.0	13
4	0.0118	100	0.400	17.7	0.0236	14	U	2.477	0.1	0	0.0	18

Kinematic Wave Equation (Sheet Flow), Shallow Conc. Flow & Pipe Flow (SCS TR-55):

$$t = 0.93 * L^{0.6} * n^{0.6} / I^{0.4} * s^{0.3} + L / 60 * V + L / 60 * V$$

t = overland flow travel time (minutes)

L = overland flow length (ft.)

n = mannings roughness coefficient

I = rainfall intensity (4.50 in./hr.)

s = average slope (ft./ft.)

V =average velocity (ft/s)= 20.3282(s^{0.5}) (paved) or 16.1345(s^{0.5}) (unpaved)

60=conversion factor from seconds to minutes

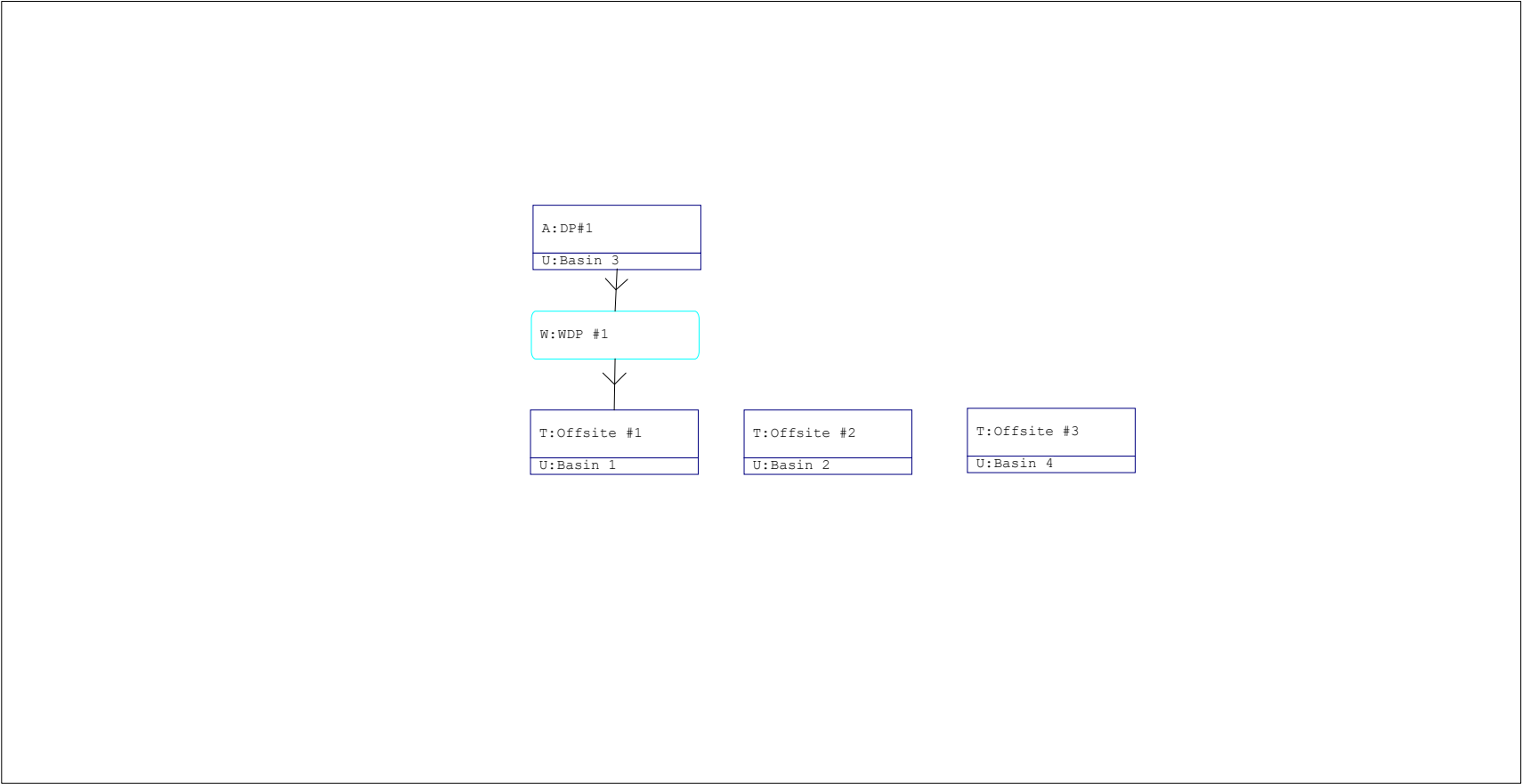
SECTION 4

STORQUEST EXPRESS - WWG-1
PRE-DEVELOPMENT - NETWORK
2022-08-08

Nodes
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins
O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links
P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



=====

Basins

Name: Basin 1 Node: Offsite #1 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Flmod Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 23.00
Area(ac): 4.000 Time Shift(hrs): 0.00
Curve Number: 47.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Basin 2 Node: Offsite #2 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Flmod Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 16.00
Area(ac): 0.370 Time Shift(hrs): 0.00
Curve Number: 70.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Basin 3 Node: DP#1 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Flmod Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 13.00
Area(ac): 1.600 Time Shift(hrs): 0.00
Curve Number: 40.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

Name: Basin 4 Node: Offsite #3 Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256 Peaking Factor: 256.0
Rainfall File: Flmod Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 18.00
Area(ac): 0.420 Time Shift(hrs): 0.00
Curve Number: 39.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

=====

Nodes

Name: DP#1 Base Flow(cfs): 0.000 Init Stage(ft): 22.500
Group: BASE Warn Stage(ft): 23.500
Type: Stage/Area

Stage(ft)	Area(ac)
22.500	0.0020
23.000	0.0900
23.500	0.3340

Name: Offsite #1 Base Flow(cfs): 0.000 Init Stage(ft): 21.500
Group: BASE Warn Stage(ft): 23.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	21.500
12.00	23.000
24.00	21.500

Name: Offsite #2 Base Flow(cfs): 0.000 Init Stage(ft): 26.500
Group: BASE Warn Stage(ft): 27.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	26.500
12.00	27.000
24.00	26.500

Name: Offsite #3 Base Flow(cfs): 0.000 Init Stage(ft): 23.500
Group: BASE Warn Stage(ft): 24.000
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	23.500
12.00	24.000
24.00	23.500

==== Weirs =====

Name: WDP #1 From Node: DP#1
Group: BASE To Node: Offsite #1
Flow: Both Count: 1
Type: Vertical: Mavis Geometry: Rectangular

Span(in): 394.80
Rise(in): 999.00
Invert(ft): 23.500
Control Elevation(ft): 23.500

TABLE

Bottom Clip(in): 0.000
Top Clip(in): 0.000
Weir Discharge Coef: 3.200
Orifice Discharge Coef: 0.600

==== Hydrology Simulations =====

Name: 100Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\100Y-24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 13.20

Time(hrs)	Print Inc(min)
30.000	15.00

Name: 10Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\10Y-24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 7.50

Time(hrs)	Print Inc(min)
30.000	15.00

Name: 25Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\25Y-24H.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 9.57

Time(hrs)	Print Inc(min)
-----------	----------------

30.000 15.00

Name: Mean Anual
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\Mean Anual.R32

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 4.50

Time(hrs) Print Inc(min)

30.000 15.00

==== Routing Simulations =====

Name: 100Y-24H Hydrology Sim: 100Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\100Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

30.000 15.000

Group Run

BASE Yes

Name: 10Y-24H Hydrology Sim: 10Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\10Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

30.000 15.000

Group Run

BASE Yes

Name: 25Y-24H Hydrology Sim: 25Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\25Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

30.000 15.000

Group Run

F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\WWG-1 Pre.ICP

BASE Yes

 Name: Mean Annual Hydrology Sim: Mean Annual
 Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Pre\Mean Annual.I32

 Execute: Yes Restart: No Patch: No
 Alternative: No

 Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
 Time Step Optimizer: 10.000
 Start Time(hrs): 0.000 End Time(hrs): 30.00
 Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
 Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

30.000 15.000

Group Run

BASE Yes

STORQUEST EXPRESS - WWG-1
PRE-DEVELOPMENT - BASIN SUMMARY
2022-08-08

Name: Basin 1	Basin 2	Basin 3	Basin 4	Basin 1
Group: BASE	BASE	BASE	BASE	BASE
Simulation: 100Y-24H	100Y-24H	100Y-24H	100Y-24H	10Y-24H
Node: Offsite #1	Offsite #2	DP#1	Offsite #3	Offsite #1
Type: SCS	SCS	SCS	SCS	SCS
Unit Hydrograph: Uh256	Uh256	Uh256	Uh256	Uh256
Peaking Factor: 256.0	256.0	256.0	256.0	256.0
Spec Time Inc(min): 3.07	2.13	1.73	2.40	3.07
Comp Time Inc(min): 3.07	2.13	1.73	2.40	3.07
Rain File: Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in): 13.200	13.200	13.200	13.200	7.500
Duration(hrs): 24.00	24.00	24.00	24.00	24.00
Status: Onsite	Onsite	Onsite	Onsite	Onsite
TC(min): 23.00	16.00	13.00	18.00	23.00
Time Shift(hrs): 0.00	0.00	0.00	0.00	0.00
Area(ac): 4.000	0.370	1.600	0.420	4.000
Vol of Unit Hyd(in): 1.000	1.000	1.000	1.000	1.000
Curve Num: 47.000	70.000	40.000	39.000	47.000
DCIA(%): 0.000	0.000	0.000	0.000	0.000
Time Max(hrs): 12.22	12.09	12.10	12.16	12.32
Flow Max(cfs): 9.944	1.940	3.820	0.804	2.592
Runoff Volume(in): 5.386	9.159	4.125	3.944	1.663
Runoff Volume(ft3): 78203.700	12300.923	23959.521	6012.718	24149.564

Name: Basin 2	Basin 3	Basin 4	Basin 1	Basin 2
Group: BASE	BASE	BASE	BASE	BASE
Simulation: 10Y-24H	10Y-24H	10Y-24H	25Y-24H	25Y-24H
Node: Offsite #2	Offsite #2	Offsite #3	Offsite #1	Offsite #2
Type: SCS	SCS	SCS	SCS	SCS
Unit Hydrograph: Uh256	Uh256	Uh256	Uh256	Uh256
Peaking Factor: 256.0	256.0	256.0	256.0	256.0
Spec Time Inc(min): 2.13	1.73	2.40	3.07	2.13
Comp Time Inc(min): 2.13	1.73	2.40	3.07	2.13
Rain File: Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in): 7.500	7.500	7.500	9.570	9.570
Duration(hrs): 24.00	24.00	24.00	24.00	24.00
Status: Onsite	Onsite	Onsite	Onsite	Onsite
TC(min): 16.00	13.00	18.00	23.00	16.00
Time Shift(hrs): 0.00	0.00	0.00	0.00	0.00
Area(ac): 0.370	1.600	0.420	4.000	0.370
Vol of Unit Hyd(in): 1.000	1.000	1.000	1.000	1.000
Curve Num: 70.000	40.000	39.000	47.000	70.000
DCIA(%): 0.000	0.000	0.000	0.000	0.000
Time Max(hrs): 12.12	12.31	12.36	12.27	12.09
Flow Max(cfs): 0.854	0.678	0.136	4.952	1.240
Runoff Volume(in): 4.036	1.037	0.955	2.875	5.838
Runoff Volume(ft3): 5421.346	6025.333	1455.511	41747.963	7841.272

Name: Basin 3	Basin 4	Basin 1	Basin 2	Basin 3
Group: BASE	BASE	BASE	BASE	BASE
Simulation: 25Y-24H	25Y-24H	Mean Annual	Mean Annual	Mean Annual
Node: DP#1	Offsite #3	Offsite #1	Offsite #2	DP#1
Type: SCS	SCS	SCS	SCS	SCS
Unit Hydrograph: Uh256	Uh256	Uh256	Uh256	Uh256
Peaking Factor: 256.0	256.0	256.0	256.0	256.0
Spec Time Inc(min): 1.73	2.40	3.07	2.13	1.73
Comp Time Inc(min): 1.73	2.40	3.07	2.13	1.73
Rain File: Flmod	Flmod	Flmod	Flmod	Flmod
Rain Amount(in): 9.570	9.570	4.500	4.500	4.500
Duration(hrs): 24.00	24.00	24.00	24.00	24.00
Status: Onsite	Onsite	Onsite	Onsite	Onsite
TC(min): 13.00	18.00	23.00	16.00	13.00
Time Shift(hrs): 0.00	0.00	0.00	0.00	0.00
Area(ac): 1.600	0.420	4.000	0.370	1.600
Vol of Unit Hyd(in): 1.000	1.000	1.000	1.000	1.000
Curve Num: 40.000	39.000	47.000	70.000	40.000
DCIA(%): 0.000	0.000	0.000	0.000	0.000
Time Max(hrs): 12.10	12.28	12.57	12.12	13.58
Flow Max(cfs): 1.589	0.328	0.330	0.337	0.025
Runoff Volume(in): 1.999	1.878	0.372	1.673	0.136
Runoff Volume(ft3): 11612.314	2863.947	5403.106	2247.238	790.703

Name: Basin 4
Group: BASE
Simulation: Mean Annual
Node: Offsite #3
Type: SCS
Unit Hydrograph: Uh256
Peaking Factor: 256.0
Spec Time Inc(min): 2.40
Comp Time Inc(min): 2.40
Rain File: Flmod
Rain Amount(in): 4.500

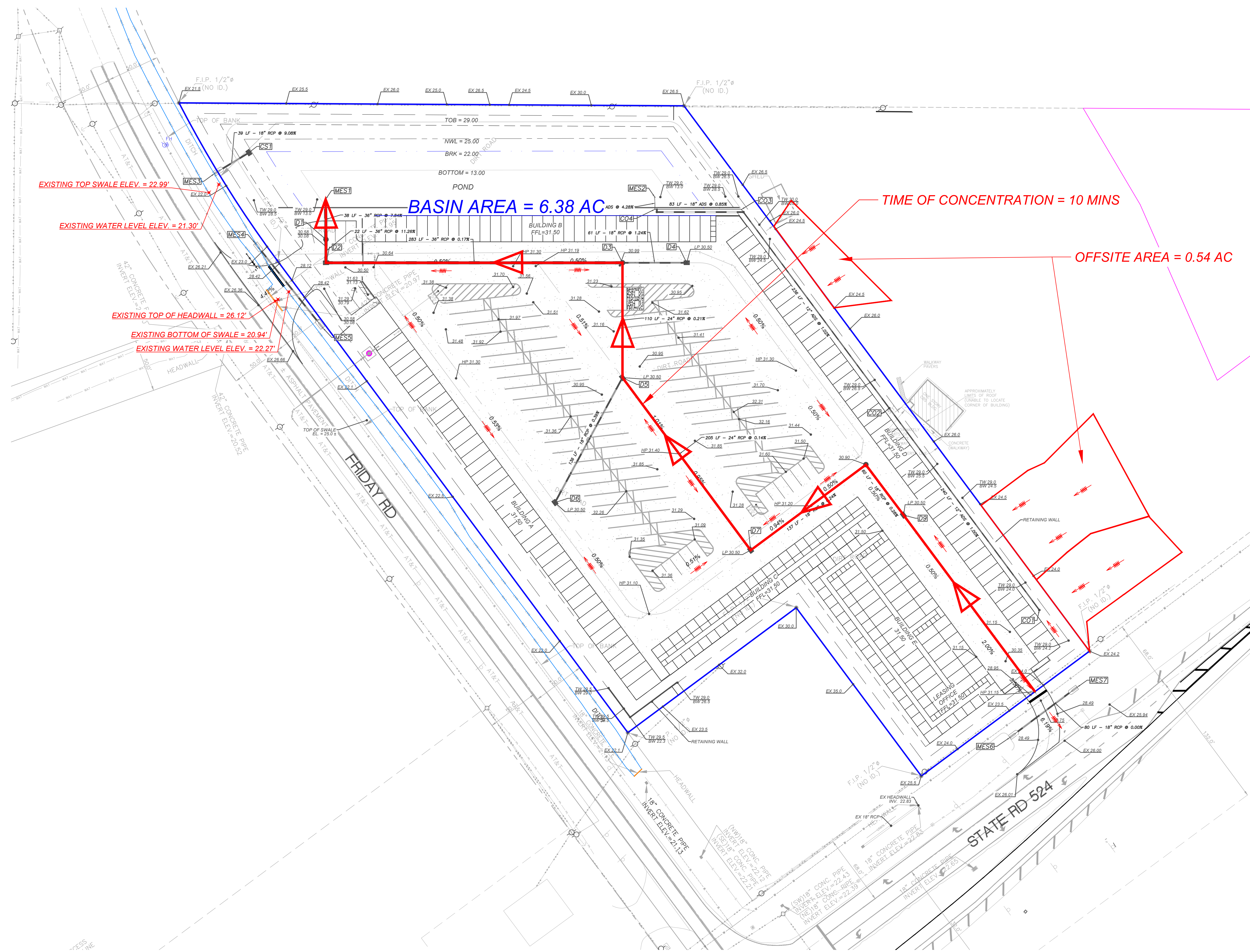
STORQUEST EXPRESS - WWG-1
PRE-DEVELOPMENT - BASIN SUMMARY
2022-08-08

Duration(hrs): 24.00
Status: Onsite
TC(min): 18.00
Time Shift(hrs): 0.00
Area(ac): 0.420
Vol of Unit Hyd(in): 1.000
Curve Num: 39.000
DCIA(%): 0.000
Time Max(hrs): 14.60
Flow Max(cfs): 0.005
Runoff Volume(in): 0.111
Runoff Volume(ft3): 168.577

STORQUEST EXPRESS - WWG-1
PRE-DEVELOPMENT - NODE MIN/MAX
2022-08-08

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
DP#1	BASE	100Y-24H	12.52	23.582	23.500	0.0020	16300	12.25	3.474	12.52	2.489
DP#1	BASE	10Y-24H	23.60	23.507	23.500	0.0012	14690	12.25	0.667	23.60	0.057
DP#1	BASE	25Y-24H	14.15	23.519	23.500	0.0019	14960	12.25	1.536	14.15	0.283
DP#1	BASE	Mean Annual	25.50	22.943	23.500	0.0002	3482	13.50	0.024	0.00	0.000
Offsite #1	BASE	100Y-24H	12.00	23.000	23.000	0.0002	0	12.42	11.194	0.00	0.000
Offsite #1	BASE	10Y-24H	12.00	23.000	23.000	0.0002	0	12.25	2.553	0.00	0.000
Offsite #1	BASE	25Y-24H	12.00	23.000	23.000	0.0002	0	12.25	4.941	0.00	0.000
Offsite #1	BASE	Mean Annual	12.00	23.000	23.000	0.0002	0	12.50	0.329	0.00	0.000
Offsite #2	BASE	100Y-24H	12.00	27.000	27.000	0.0001	0	12.00	1.737	0.00	0.000
Offsite #2	BASE	10Y-24H	12.00	27.000	27.000	0.0001	0	12.25	0.781	0.00	0.000
Offsite #2	BASE	25Y-24H	12.00	27.000	27.000	0.0001	0	12.25	1.123	0.00	0.000
Offsite #2	BASE	Mean Annual	12.00	27.000	27.000	0.0001	0	12.25	0.318	0.00	0.000
Offsite #3	BASE	100Y-24H	12.00	24.000	24.000	0.0001	0	12.25	0.790	0.00	0.000
Offsite #3	BASE	10Y-24H	12.00	24.000	24.000	0.0001	0	12.25	0.128	0.00	0.000
Offsite #3	BASE	25Y-24H	12.00	24.000	24.000	0.0001	0	12.25	0.327	0.00	0.000
Offsite #3	BASE	Mean Annual	12.00	24.000	24.000	0.0001	0	14.50	0.005	0.00	0.000

SECTION 5



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			06-13-2022	SAM	REV PER FDOT COMMENTS

POST-DEVELOPMENT BASIN EXHIBIT
STORQUEST EXPRESS
CITY OF COCOA, FLORIDA

DATE: JUNE 2022
PROJECT NO.: WWG-1
DRAWN BY: PD
CHECKED BY: DMS
SCALE: 1" = 50'
SHEET: 1 OF 1

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
 Basin Area, Curve Number, and Tc Summary

Routing Software used: ICPR	
Storm Frequency	Precip. (in.)
Mean-24hr	4.50
10yr-24hr	7.50
25yr-24hr	9.57
100yr-24hr	13.20

	TOB (ft)
Pond 1	29.00

Total Post Development Peak Stage (ft)	
Storm Frequency	Pond 1
100yr-24hr	28.88
25yr-24hr	28.15
10yr-24hr	27.68
Mean-24hr	26.77

Peak Discharge	
Phase	MEAN ANNUAL (cfs)
Pre-Development	0.65
Post-Development	0.34

Water Quality Drawdown Summary Table				
Pond	Top Elev. At Treatment Vol. (ft)	Elev. At WQ Treatment Vol. (ft)	Stage between 24 - 30 hour (ft)	Normal Water Level (ft)
Pond 1	27.23	26.16	26.16	25.00

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Area, Curve Number, and Tc Summary

BASIN #	AREA (ac)	CN	TC (min)
1	6.38	82	10
TOTAL ONSITE AREA	6.38		
TOTAL OFFSITE AREA	0.54		
TOTAL AREA	6.92		

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Area Summary

BASIN	ON SITE AREA	OFF SITE AREA	TOTAL
#	(ac)	(ac.)	(ac.)
1	6.38	0.54	6.92
TOTAL	6.38	0.54	6.92

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Impervious Area Calculations

Basin	Area (ac)	Building Pad (ac)	Parking/Driveway	Subtotal Impervious Area (ac)	NWL Pond Area (ac)	Total Impervious (ac)
			(ac)			
Basin 1	6.38	1.37	2.86	4.23	0.62	4.85
Total	6.38	1.37	2.86	4.23	0.62	4.85

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Basin Curve Number Calculations

<u>Basin</u> <u>#</u>	CN=98		CN=100						
	<u>Impervious</u> <u>(ac)</u>	<u>Impervious</u> <u>(% of Total)</u>	<u>Pond</u> <u>(ac)</u>	<u>Pond</u> <u>(% of Total)</u>	<u>Pervious</u> <u>(ac)</u>	<u>Pervious</u> <u>(% of Total)</u>	<u>Pervious</u> <u>CN</u>	<u>Total</u> <u>(ac)</u>	<u>Composite</u> <u>CN</u>
1	4.23	61%	0.62	9%	2.07	30%	45.5	6.92	82

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Curve Number Calculations

Basin ID : 1
Total Acres: 6.92

Name	ID#	Soil Class	Cover Type	CN	% Area	Area	Factor
Basinger sand, 0 to 2 percent slopes	7	A/D	Woods	77	17.2%	1.2	92
Myakka sand, 0 to 2 percent slopes	36	A	Woods	39	81.5%	5.6	220
Myakka sand, depressional	38	A	Woods	39	1.3%	0.09	4

100.0%	6.92
Composite CN:	
	46

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Time of Concentration Calculations

Basin	Sheet Flow Slope	Sheet Flow L	MAN	Sheet Flow	Shallow Slope	Shallow Flow L	P or U	Average Velocity	Shallow Flow	Pipe Flow L	Pipe Flow	TC
#	(FT/FT)	(FT)	(n)	(Tt MIN)	(FT/FT)	(FT)		(FT/S)	(Tt MIN)	(FT)	(Tt MIN)	(MIN)
1	0.0100	100	0.15	10.30	0.0091	110	P	1.94	0.52	841	4.00	10

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS

Water Quality Calculations

Basin #	Treatment Type	Treatment Type	Area		Impervious Area (ac)	Water Quality Wet Treatment		Outstand Florida Water Additional (50% more) ac-ft	Phosphorus Requirement *		Normal W.Q. Required (ac-ft)	W.Q. Provided (ac-ft)
			Basin (ac)	Phosphorus Requirement (ac)		1 in. x area (ac-ft)	2.5 in. x imp. (ac-ft)		Remaining ret. (in)	Volume (ac-ft)		
1	Wet	Online	6.92	6.92	4.85	0.58	1.01	1.52	1.98	1.14	1.52	1.52

WWG-1 (Storquest Express)

POST-DEVELOPMENT STORMWATER ANALYSIS

Stage - Storage Calculations

POND 1

ELEVATION <u>(feet)</u>	AREA <u>(acres)</u>	AVG AREA <u>(acres)</u>	DEPTH <u>(feet)</u>	STORAGE <u>(ac-ft)</u>	CUM STORAGE <u>(ac-ft)</u>
25.00	0.62				0.00
		0.65	1.00	0.65	
26.00	0.67				0.65
		0.70	1.00	0.70	
27.00	0.73				1.35
		0.76	1.00	0.76	
28.00	0.78				2.10
		0.81	1.00	0.81	
29.00	0.84				2.91

Required Treatment Volume =	1.52 Ac-ft
1/2 TV =	0.76 Ac-ft
Elevation at which 1/2 TV has recovered (h2) =	26.16 feet
Set Weir at or above =	27.23 feet
Weir Set at =	27.23 feet
Provided Treatment Volume =	1.52 Ac-ft

WWG-1 (Storquest Express)
POST-DEVELOPMENT STORMWATER ANALYSIS
Stage - Storage Calculations

POND 1

BASIN AREA 6.92 ACRES
IMPERVIOUS AREA 4.85 ACRES
AVG RAINFALL 31 INCHES (JUNE-OCTOBER)
WET SEASON 153 DAYS
C - FACTOR 0.69

	ELEV (FEET)	AREA (ACRES)	AVG. AREA (ACRES)	INC. DEPTH (FEET)	INC. STORAGE (AC-FT)	CUM. STORAGE (AC-FT)
	12.00					
BOT	13.00	0.18	0.18	1.00	0.18	0.18
	14.00	0.20	0.19	1.00	0.19	0.37
	15.00	0.22	0.21	1.00	0.21	0.58
	16.00	0.24	0.23	1.00	0.23	0.81
	17.00	0.25	0.25	1.00	0.25	1.06
	18.00	0.27	0.26	1.00	0.26	1.32
	19.00	0.29	0.28	1.00	0.28	1.60
	20.00	0.31	0.30	1.00	0.30	1.90
	21.00	0.33	0.32	1.00	0.32	2.22
GRDBRK	22.00	0.36	0.35	1.00	0.35	2.56
	23.00	0.41	0.39	1.00	0.39	2.95
	24.00	0.45	0.43	1.00	0.43	3.38
NWL	25.00	0.62	0.54	1.00	0.54	3.91
PERMANENT POOL AVAIL.=				3.91	AC-FT	

AVERAGE DAILY RUNOFF VOLUME (USING 153 DAY RAINFALL PERIOD) =
(TOTAL AREA*C)(31"/153 DAYS)(1'/12") =
= 0.08 AC-FT

POND INFLOW = 0 CFD = 0.00 AC-FT/DAY
SEEPAGE INFLOW = 0 CFD = 0.00 AC-FT/DAY
SEEPAGE INFLOW = 0 CFD = 0.00 AC-FT/DAY
TOTAL INFLOW = 0.08 AC-FT

RESIDENCE TIME = $\frac{\text{PERMANENT VOLUME AVAILABLE}}{\text{AVERAGE DAILY RUNOFF VOLUME}}$ = 48.5 DAYS

RESIDENCE TIME = > 14.0 DAYS O.K.
MEAN DEPTH 6.31 FEET

SECTION 6

Nodes

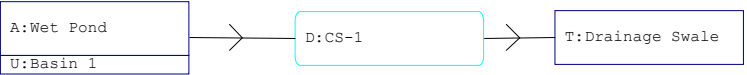
A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins

O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links

P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



=====

Basins =====

Name: Basin 1 Node: Wet Pond Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh323 Peaking Factor: 323.0
Rainfall File: Flmod Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 6.920 Time Shift(hrs): 0.00
Curve Number: 82.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

=====

Nodes =====

Name: Drainage Swale Base Flow(cfs): 0.000 Init Stage(ft): 21.300
Group: BASE Warn Stage(ft): 23.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	21.300
12.00	23.500
24.00	21.300

Name: Wet Pond Base Flow(cfs): 0.000 Init Stage(ft): 25.000
Group: BASE Warn Stage(ft): 29.000
Type: Stage/Area

Stage(ft)	Area(ac)
25.000	0.6200
26.000	0.6700
27.000	0.7300
28.000	0.7800
29.000	0.8400

=====

Drop Structures =====

Name: CS-1 From Node: Wet Pond Length(ft): 45.00
Group: BASE To Node: Drainage Swale Count: 1

UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 24.00	24.00	Flow: Both
Rise(in): 24.00	24.00	Entrance Loss Coef: 0.500
Invert(ft): 25.000	23.500	Exit Loss Coef: 1.000
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 3 for Drop Structure CS-1 ***

	TABLE
Count: 1	Bottom Clip(in): 0.000
Type: Horizontal	Top Clip(in): 0.000
Flow: Both	Weir Disc Coef: 3.200
Geometry: Rectangular	Orifice Disc Coef: 0.600
Span(in): 52.00	Invert(ft): 28.000
Rise(in): 58.00	Control Elev(ft): 28.000

*** Weir 2 of 3 for Drop Structure CS-1 ***

	TABLE
Count: 1	Bottom Clip(in): 0.000
Type: Vertical: Mavis	Top Clip(in): 0.000

Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600
Span(in): 42.00 Invert(ft): 27.230
Rise(in): 9.24 Control Elev(ft): 27.230

*** Weir 3 of 3 for Drop Structure CS-1 ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Horizontal Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Circular Orifice Disc Coef: 0.600
Span(in): 3.25 Invert(ft): 25.000
Rise(in): 3.25 Control Elev(ft): 25.000

==== Hydrology Simulations =====

Name: 100Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\100Y-24H.R32
Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 13.20

Time(hrs)	Print Inc(min)
24.000	15.00

Name: 10Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\10Y-24H.R32
Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 7.50

Time(hrs)	Print Inc(min)
24.000	15.00

Name: 25Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\25Y-24H.R32
Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 9.57

Time(hrs)	Print Inc(min)
24.000	15.00

Name: MEANFL
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\MEANFL.R32
Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 4.50

Time(hrs)	Print Inc(min)
24.000	15.00

==== Routing Simulations =====

Name: 100Y-24H Hydrology Sim: 100Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\100Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000

F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\WWG-1 Post.ICP

Boundary Stages:

Boundary Flows:

Time(hrs) Print Inc(min)

24.000 15.000

Group Run

BASE Yes

Name: 10Y-24H Hydrology Sim: 10Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\10Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

24.000 15.000

Group Run

BASE Yes

Name: 25Y-24H Hydrology Sim: 25Y-24H
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\25Y-24H.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

24.000 15.000

Group Run

BASE Yes

Name: MEANFL Hydrology Sim: MEANFL
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Post\MEANFL.I32

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 24.00
Min Calc Time(sec): 2.0000 Max Calc Time(sec): 5.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

30.000 15.000

Group Run

BASE Yes

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STORQUEST EXPRESS - WWG-1
POST-DEVELOPEMENT - BASIN SUMMARY
2022-08-08

	Basin 1	Basin 1	Basin 1	Basin 1
Name:	Basin 1	Basin 1	Basin 1	Basin 1
Group:	BASE	BASE	BASE	BASE
Simulation:	100Y-24H	10Y-24H	25Y-24H	MEANFL
Node:	Wet Pond	Wet Pond	Wet Pond	Wet Pond
Type:	SCS	SCS	SCS	SCS
Unit Hydrograph:	Uh323	Uh323	Uh323	Uh323
Peaking Factor:	323.0	323.0	323.0	323.0
Spec Time Inc(min):	1.33	1.33	1.33	1.33
Comp Time Inc(min):	1.33	1.33	1.33	1.33
Rain File:	Flmod	Flmod	Flmod	Flmod
Rain Amount(in):	13.200	7.500	9.570	4.500
Duration(hrs):	24.00	24.00	24.00	24.00
Status:	Onsite	Onsite	Onsite	Onsite
TC(min):	10.00	10.00	10.00	10.00
Time Shift(hrs):	0.00	0.00	0.00	0.00
Area(ac):	6.920	6.920	6.920	6.920
Vol of Unit Hyd(in):	1.001	1.001	1.001	1.001
Curve Num:	82.000	82.000	82.000	82.000
DCIA(%):	0.000	0.000	0.000	0.000
Time Max(hrs):	12.02	12.04	12.04	12.04
Flow Max(cfs):	55.640	28.545	38.426	14.269
Runoff Volume(in):	10.893	5.389	7.364	2.637
Runoff Volume(ft3):	273619.420	135362.578	184991.319	66245.120

STORQUEST EXPRESS - WWG-1
POST-DEVELOPEMENT - NODE MIN/MAX
2022-08-08

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
Wet Pond	BASE	100Y-24H	12.42	28.882	29.000	0.0064	36281	12.00	54.726	12.42	24.251
Wet Pond	BASE	10Y-24H	12.97	27.684	29.000	0.0045	33289	12.00	27.905	12.97	3.799
Wet Pond	BASE	25Y-24H	12.50	28.150	29.000	0.0058	34368	12.00	37.691	12.50	13.150
Wet Pond	BASE	MEANFL	22.77	26.772	29.000	0.0024	31203	12.00	13.803	22.77	0.345

SECTION 7

Nodes

A Stage/Area
V Stage/Volume
T Time/Stage
M Manhole

Basins

O Overland Flow
U SCS Unit CN
S SBUH CN
Y SCS Unit GA
Z SBUH GA

Links

P Pipe
W Weir
C Channel
D Drop Structure
B Bridge
R Rating Curve
H Breach
E Percolation
F Filter
X Exfil Trench



=====

Basins =====

Name: Basin 1 Node: Wet Pond Status: Onsite
Group: BASE Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh323 Peaking Factor: 323.0
Rainfall File: Flmod Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 6.920 Time Shift(hrs): 0.00
Curve Number: 82.00 Max Allowable Q(cfs): 999999.000
DCIA(%): 0.00

=====

Nodes =====

Name: Drainage Swale Base Flow(cfs): 0.000 Init Stage(ft): 21.300
Group: BASE Warn Stage(ft): 23.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	21.300
12.00	23.500
24.00	21.300

Name: Wet Pond Base Flow(cfs): 0.000 Init Stage(ft): 27.230
Group: BASE Warn Stage(ft): 29.000
Type: Stage/Area

Stage(ft)	Area(ac)
25.000	0.6200
26.000	0.6700
27.000	0.7300
28.000	0.7800
29.000	0.8400

=====

Drop Structures =====

Name: CS-1 From Node: Wet Pond Length(ft): 45.00
Group: BASE To Node: Drainage Swale Count: 1

UPSTREAM	DOWNSTREAM	
Geometry: Circular	Circular	Friction Equation: Automatic
Span(in): 24.00	24.00	Solution Algorithm: Most Restrictive
Rise(in): 24.00	24.00	Flow: Both
Invert(ft): 25.000	23.500	Entrance Loss Coef: 0.500
Manning's N: 0.013000	0.013000	Exit Loss Coef: 1.000
Top Clip(in): 0.000	0.000	Outlet Ctrl Spec: Use dc or tw
Bot Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
		Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

*** Weir 1 of 3 for Drop Structure CS-1 ***

	TABLE
Count: 1	Bottom Clip(in): 0.000
Type: Horizontal	Top Clip(in): 0.000
Flow: Both	Weir Disc Coef: 3.200
Geometry: Rectangular	Orifice Disc Coef: 0.600
Span(in): 52.00	Invert(ft): 28.000
Rise(in): 58.00	Control Elev(ft): 28.000

*** Weir 2 of 3 for Drop Structure CS-1 ***

	TABLE
Count: 1	Bottom Clip(in): 0.000
Type: Vertical: Mavis	Top Clip(in): 0.000

STORQUEST EXPRESS - WWG-1
RECOVERY - INPUT
2022-08-08

Flow: Both Weir Disc Coef: 3.200
Geometry: Rectangular Orifice Disc Coef: 0.600
Span(in): 42.00 Invert(ft): 27.230
Rise(in): 9.24 Control Elev(ft): 27.230

*** Weir 3 of 3 for Drop Structure CS-1 ***

TABLE

Count: 1 Bottom Clip(in): 0.000
Type: Horizontal Top Clip(in): 0.000
Flow: Both Weir Disc Coef: 3.200
Geometry: Circular Orifice Disc Coef: 0.600
Span(in): 3.25 Invert(ft): 25.000
Rise(in): 3.25 Control Elev(ft): 25.000

==== Hydrology Simulations =====

Name:
Filename:
Override Defaults: Yes
Storm Duration(hrs): 0.00
Rainfall File:
Rainfall Amount(in): 0.00

Time(hrs) Print Inc(min)

30.000 5.00

==== Routing Simulations =====

Name: RECOVERY Hydrology Sim:
Filename: F:\WWG1\Drainage\Ad ICPR\2022-08-XX Final Engineering\Recovery\RECOVERY.I32
Execute: Yes Restart: No Patch: No
Alternative: No
Max Delta Z(ft): 1.00 Delta Z Factor: 0.50000
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 72.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)

72.000 15.000
Group Run

BASE Yes

STORQUEST EXPRESS - WWG-1
RECOVERY - NODE TIME SERIES
2022-08-08

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
RECOVERY	Wet Pond	BASE	0.00	27.230	29.000	32300	0.000	0.390	0.0	0.0
RECOVERY	Wet Pond	BASE	0.26	27.219	29.000	32275	0.000	0.389	0.0	0.0
RECOVERY	Wet Pond	BASE	0.50	27.208	29.000	32252	0.000	0.388	0.0	0.0
RECOVERY	Wet Pond	BASE	0.77	27.197	29.000	32227	0.000	0.387	0.0	0.0
RECOVERY	Wet Pond	BASE	1.02	27.186	29.000	32204	0.000	0.386	0.0	0.0
RECOVERY	Wet Pond	BASE	1.27	27.175	29.000	32180	0.000	0.385	0.0	0.0
RECOVERY	Wet Pond	BASE	1.52	27.164	29.000	32157	0.000	0.384	0.0	0.0
RECOVERY	Wet Pond	BASE	1.77	27.154	29.000	32133	0.000	0.383	0.0	0.1
RECOVERY	Wet Pond	BASE	2.02	27.143	29.000	32110	0.000	0.382	0.0	0.1
RECOVERY	Wet Pond	BASE	2.27	27.132	29.000	32087	0.000	0.381	0.0	0.1
RECOVERY	Wet Pond	BASE	2.52	27.122	29.000	32064	0.000	0.380	0.0	0.1
RECOVERY	Wet Pond	BASE	2.77	27.111	29.000	32040	0.000	0.379	0.0	0.1
RECOVERY	Wet Pond	BASE	3.02	27.100	29.000	32017	0.000	0.378	0.0	0.1
RECOVERY	Wet Pond	BASE	3.27	27.090	29.000	31994	0.000	0.377	0.0	0.1
RECOVERY	Wet Pond	BASE	3.52	27.079	29.000	31971	0.000	0.376	0.0	0.1
RECOVERY	Wet Pond	BASE	3.77	27.068	29.000	31948	0.000	0.375	0.0	0.1
RECOVERY	Wet Pond	BASE	4.02	27.058	29.000	31925	0.000	0.374	0.0	0.1
RECOVERY	Wet Pond	BASE	4.27	27.047	29.000	31902	0.000	0.373	0.0	0.1
RECOVERY	Wet Pond	BASE	4.52	27.037	29.000	31879	0.000	0.372	0.0	0.1
RECOVERY	Wet Pond	BASE	4.77	27.026	29.000	31856	0.000	0.371	0.0	0.1
RECOVERY	Wet Pond	BASE	5.02	27.016	29.000	31833	0.000	0.370	0.0	0.2
RECOVERY	Wet Pond	BASE	5.27	27.005	29.000	31811	0.000	0.369	0.0	0.2
RECOVERY	Wet Pond	BASE	5.52	26.995	29.000	31786	0.000	0.368	0.0	0.2
RECOVERY	Wet Pond	BASE	5.77	26.985	29.000	31759	0.000	0.367	0.0	0.2
RECOVERY	Wet Pond	BASE	6.02	26.974	29.000	31732	0.000	0.366	0.0	0.2
RECOVERY	Wet Pond	BASE	6.27	26.964	29.000	31705	0.000	0.365	0.0	0.2
RECOVERY	Wet Pond	BASE	6.52	26.954	29.000	31677	0.000	0.364	0.0	0.2
RECOVERY	Wet Pond	BASE	6.77	26.943	29.000	31651	0.000	0.362	0.0	0.2
RECOVERY	Wet Pond	BASE	7.02	26.933	29.000	31624	0.000	0.361	0.0	0.2
RECOVERY	Wet Pond	BASE	7.27	26.923	29.000	31597	0.000	0.360	0.0	0.2
RECOVERY	Wet Pond	BASE	7.52	26.912	29.000	31570	0.000	0.359	0.0	0.2
RECOVERY	Wet Pond	BASE	7.77	26.902	29.000	31543	0.000	0.358	0.0	0.2
RECOVERY	Wet Pond	BASE	8.02	26.892	29.000	31517	0.000	0.357	0.0	0.2
RECOVERY	Wet Pond	BASE	8.27	26.882	29.000	31490	0.000	0.356	0.0	0.3
RECOVERY	Wet Pond	BASE	8.52	26.872	29.000	31463	0.000	0.355	0.0	0.3
RECOVERY	Wet Pond	BASE	8.77	26.861	29.000	31437	0.000	0.354	0.0	0.3
RECOVERY	Wet Pond	BASE	9.02	26.851	29.000	31410	0.000	0.353	0.0	0.3
RECOVERY	Wet Pond	BASE	9.27	26.841	29.000	31384	0.000	0.352	0.0	0.3
RECOVERY	Wet Pond	BASE	9.52	26.831	29.000	31358	0.000	0.351	0.0	0.3
RECOVERY	Wet Pond	BASE	9.77	26.821	29.000	31331	0.000	0.350	0.0	0.3
RECOVERY	Wet Pond	BASE	10.02	26.811	29.000	31305	0.000	0.349	0.0	0.3
RECOVERY	Wet Pond	BASE	10.27	26.801	29.000	31279	0.000	0.348	0.0	0.3
RECOVERY	Wet Pond	BASE	10.52	26.791	29.000	31253	0.000	0.347	0.0	0.3
RECOVERY	Wet Pond	BASE	10.77	26.781	29.000	31227	0.000	0.346	0.0	0.3
RECOVERY	Wet Pond	BASE	11.02	26.771	29.000	31201	0.000	0.345	0.0	0.3
RECOVERY	Wet Pond	BASE	11.27	26.761	29.000	31175	0.000	0.344	0.0	0.3
RECOVERY	Wet Pond	BASE	11.52	26.751	29.000	31149	0.000	0.342	0.0	0.3
RECOVERY	Wet Pond	BASE	11.77	26.741	29.000	31123	0.000	0.341	0.0	0.4
RECOVERY	Wet Pond	BASE	12.02	26.732	29.000	31097	0.000	0.340	0.0	0.4
RECOVERY	Wet Pond	BASE	12.27	26.722	29.000	31071	0.000	0.339	0.0	0.4
RECOVERY	Wet Pond	BASE	12.52	26.712	29.000	31046	0.000	0.338	0.0	0.4
RECOVERY	Wet Pond	BASE	12.77	26.702	29.000	31020	0.000	0.337	0.0	0.4
RECOVERY	Wet Pond	BASE	13.02	26.692	29.000	30995	0.000	0.336	0.0	0.4
RECOVERY	Wet Pond	BASE	13.27	26.683	29.000	30969	0.000	0.335	0.0	0.4
RECOVERY	Wet Pond	BASE	13.52	26.673	29.000	30944	0.000	0.334	0.0	0.4
RECOVERY	Wet Pond	BASE	13.77	26.663	29.000	30918	0.000	0.333	0.0	0.4
RECOVERY	Wet Pond	BASE	14.02	26.653	29.000	30893	0.000	0.332	0.0	0.4
RECOVERY	Wet Pond	BASE	14.27	26.644	29.000	30868	0.000	0.331	0.0	0.4
RECOVERY	Wet Pond	BASE	14.52	26.634	29.000	30843	0.000	0.330	0.0	0.4

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STORQUEST EXPRESS - WWG-1
RECOVERY - NODE TIME SERIES
2022-08-08

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
RECOVERY	Wet Pond	BASE	14.77	26.625	29.000	30818	0.000	0.329	0.0	0.4
RECOVERY	Wet Pond	BASE	15.02	26.615	29.000	30793	0.000	0.328	0.0	0.4
RECOVERY	Wet Pond	BASE	15.27	26.605	29.000	30768	0.000	0.326	0.0	0.5
RECOVERY	Wet Pond	BASE	15.52	26.596	29.000	30743	0.000	0.325	0.0	0.5
RECOVERY	Wet Pond	BASE	15.77	26.586	29.000	30718	0.000	0.324	0.0	0.5
RECOVERY	Wet Pond	BASE	16.02	26.577	29.000	30693	0.000	0.323	0.0	0.5
RECOVERY	Wet Pond	BASE	16.27	26.567	29.000	30668	0.000	0.322	0.0	0.5
RECOVERY	Wet Pond	BASE	16.52	26.558	29.000	30644	0.000	0.321	0.0	0.5
RECOVERY	Wet Pond	BASE	16.77	26.549	29.000	30619	0.000	0.320	0.0	0.5
RECOVERY	Wet Pond	BASE	17.02	26.539	29.000	30594	0.000	0.319	0.0	0.5
RECOVERY	Wet Pond	BASE	17.27	26.530	29.000	30570	0.000	0.318	0.0	0.5
RECOVERY	Wet Pond	BASE	17.52	26.520	29.000	30545	0.000	0.317	0.0	0.5
RECOVERY	Wet Pond	BASE	17.77	26.511	29.000	30521	0.000	0.316	0.0	0.5
RECOVERY	Wet Pond	BASE	18.02	26.502	29.000	30497	0.000	0.315	0.0	0.5
RECOVERY	Wet Pond	BASE	18.27	26.493	29.000	30473	0.000	0.313	0.0	0.5
RECOVERY	Wet Pond	BASE	18.52	26.483	29.000	30448	0.000	0.312	0.0	0.5
RECOVERY	Wet Pond	BASE	18.77	26.474	29.000	30424	0.000	0.311	0.0	0.5
RECOVERY	Wet Pond	BASE	19.02	26.465	29.000	30400	0.000	0.310	0.0	0.6
RECOVERY	Wet Pond	BASE	19.27	26.456	29.000	30376	0.000	0.309	0.0	0.6
RECOVERY	Wet Pond	BASE	19.52	26.447	29.000	30352	0.000	0.308	0.0	0.6
RECOVERY	Wet Pond	BASE	19.77	26.437	29.000	30329	0.000	0.307	0.0	0.6
RECOVERY	Wet Pond	BASE	20.02	26.428	29.000	30305	0.000	0.306	0.0	0.6
RECOVERY	Wet Pond	BASE	20.27	26.419	29.000	30281	0.000	0.305	0.0	0.6
RECOVERY	Wet Pond	BASE	20.52	26.410	29.000	30257	0.000	0.304	0.0	0.6
RECOVERY	Wet Pond	BASE	20.77	26.401	29.000	30234	0.000	0.303	0.0	0.6
RECOVERY	Wet Pond	BASE	21.02	26.392	29.000	30210	0.000	0.301	0.0	0.6
RECOVERY	Wet Pond	BASE	21.27	26.383	29.000	30187	0.000	0.300	0.0	0.6
RECOVERY	Wet Pond	BASE	21.52	26.374	29.000	30164	0.000	0.299	0.0	0.6
RECOVERY	Wet Pond	BASE	21.77	26.365	29.000	30140	0.000	0.298	0.0	0.6
RECOVERY	Wet Pond	BASE	22.02	26.357	29.000	30117	0.000	0.297	0.0	0.6
RECOVERY	Wet Pond	BASE	22.27	26.348	29.000	30094	0.000	0.296	0.0	0.6
RECOVERY	Wet Pond	BASE	22.52	26.339	29.000	30071	0.000	0.295	0.0	0.6
RECOVERY	Wet Pond	BASE	22.77	26.330	29.000	30048	0.000	0.294	0.0	0.6
RECOVERY	Wet Pond	BASE	23.02	26.321	29.000	30025	0.000	0.293	0.0	0.7
RECOVERY	Wet Pond	BASE	23.27	26.312	29.000	30002	0.000	0.292	0.0	0.7
RECOVERY	Wet Pond	BASE	23.52	26.304	29.000	29979	0.000	0.290	0.0	0.7
RECOVERY	Wet Pond	BASE	23.77	26.295	29.000	29956	0.000	0.289	0.0	0.7
RECOVERY	Wet Pond	BASE	24.02	26.286	29.000	29934	0.000	0.288	0.0	0.7
RECOVERY	Wet Pond	BASE	24.27	26.278	29.000	29911	0.000	0.287	0.0	0.7
RECOVERY	Wet Pond	BASE	24.52	26.269	29.000	29888	0.000	0.286	0.0	0.7
RECOVERY	Wet Pond	BASE	24.77	26.260	29.000	29866	0.000	0.285	0.0	0.7
RECOVERY	Wet Pond	BASE	25.02	26.252	29.000	29844	0.000	0.284	0.0	0.7
RECOVERY	Wet Pond	BASE	25.27	26.243	29.000	29821	0.000	0.283	0.0	0.7
RECOVERY	Wet Pond	BASE	25.52	26.235	29.000	29799	0.000	0.282	0.0	0.7
RECOVERY	Wet Pond	BASE	25.77	26.226	29.000	29777	0.000	0.280	0.0	0.7
RECOVERY	Wet Pond	BASE	26.02	26.218	29.000	29755	0.000	0.279	0.0	0.7
RECOVERY	Wet Pond	BASE	26.27	26.209	29.000	29733	0.000	0.278	0.0	0.7
RECOVERY	Wet Pond	BASE	26.52	26.201	29.000	29711	0.000	0.277	0.0	0.7
RECOVERY	Wet Pond	BASE	26.77	26.193	29.000	29689	0.000	0.276	0.0	0.7
RECOVERY	Wet Pond	BASE	27.02	26.184	29.000	29667	0.000	0.275	0.0	0.7
RECOVERY	Wet Pond	BASE	27.27	26.176	29.000	29645	0.000	0.274	0.0	0.8
RECOVERY	Wet Pond	BASE	27.52	26.168	29.000	29623	0.000	0.273	0.0	0.8
RECOVERY	Wet Pond	BASE	27.77	26.159	29.000	29602	0.000	0.272	0.0	0.8
RECOVERY	Wet Pond	BASE	28.02	26.151	29.000	29580	0.000	0.270	0.0	0.8
RECOVERY	Wet Pond	BASE	28.27	26.143	29.000	29559	0.000	0.269	0.0	0.8
RECOVERY	Wet Pond	BASE	28.52	26.135	29.000	29537	0.000	0.268	0.0	0.8
RECOVERY	Wet Pond	BASE	28.77	26.127	29.000	29516	0.000	0.267	0.0	0.8
RECOVERY	Wet Pond	BASE	29.02	26.118	29.000	29495	0.000	0.266	0.0	0.8
RECOVERY	Wet Pond	BASE	29.27	26.110	29.000	29474	0.000	0.265	0.0	0.8

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STORQUEST EXPRESS - WWG-1
RECOVERY - NODE TIME SERIES
2022-08-08

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
RECOVERY	Wet Pond	BASE	29.52	26.102	29.000	29453	0.000	0.264	0.0	0.8
RECOVERY	Wet Pond	BASE	29.77	26.094	29.000	29432	0.000	0.263	0.0	0.8
RECOVERY	Wet Pond	BASE	30.02	26.086	29.000	29411	0.000	0.261	0.0	0.8
RECOVERY	Wet Pond	BASE	30.27	26.078	29.000	29390	0.000	0.260	0.0	0.8
RECOVERY	Wet Pond	BASE	30.52	26.070	29.000	29369	0.000	0.259	0.0	0.8
RECOVERY	Wet Pond	BASE	30.77	26.062	29.000	29348	0.000	0.258	0.0	0.8
RECOVERY	Wet Pond	BASE	31.02	26.054	29.000	29328	0.000	0.257	0.0	0.8
RECOVERY	Wet Pond	BASE	31.27	26.047	29.000	29307	0.000	0.256	0.0	0.8
RECOVERY	Wet Pond	BASE	31.52	26.039	29.000	29287	0.000	0.255	0.0	0.8
RECOVERY	Wet Pond	BASE	31.77	26.031	29.000	29266	0.000	0.253	0.0	0.8
RECOVERY	Wet Pond	BASE	32.02	26.023	29.000	29246	0.000	0.252	0.0	0.9
RECOVERY	Wet Pond	BASE	32.27	26.015	29.000	29226	0.000	0.251	0.0	0.9
RECOVERY	Wet Pond	BASE	32.52	26.008	29.000	29205	0.000	0.250	0.0	0.9
RECOVERY	Wet Pond	BASE	32.77	26.000	29.000	29185	0.000	0.249	0.0	0.9
RECOVERY	Wet Pond	BASE	33.02	25.992	29.000	29169	0.000	0.248	0.0	0.9
RECOVERY	Wet Pond	BASE	33.27	25.985	29.000	29152	0.000	0.247	0.0	0.9
RECOVERY	Wet Pond	BASE	33.52	25.977	29.000	29135	0.000	0.246	0.0	0.9
RECOVERY	Wet Pond	BASE	33.77	25.970	29.000	29119	0.000	0.244	0.0	0.9
RECOVERY	Wet Pond	BASE	34.02	25.962	29.000	29102	0.000	0.243	0.0	0.9
RECOVERY	Wet Pond	BASE	34.27	25.955	29.000	29086	0.000	0.242	0.0	0.9
RECOVERY	Wet Pond	BASE	34.52	25.947	29.000	29070	0.000	0.241	0.0	0.9
RECOVERY	Wet Pond	BASE	34.77	25.940	29.000	29054	0.000	0.240	0.0	0.9
RECOVERY	Wet Pond	BASE	35.02	25.932	29.000	29037	0.000	0.239	0.0	0.9
RECOVERY	Wet Pond	BASE	35.27	25.925	29.000	29021	0.000	0.238	0.0	0.9
RECOVERY	Wet Pond	BASE	35.52	25.917	29.000	29005	0.000	0.237	0.0	0.9
RECOVERY	Wet Pond	BASE	35.77	25.910	29.000	28989	0.000	0.236	0.0	0.9
RECOVERY	Wet Pond	BASE	36.02	25.903	29.000	28973	0.000	0.235	0.0	0.9
RECOVERY	Wet Pond	BASE	36.27	25.896	29.000	28958	0.000	0.233	0.0	0.9
RECOVERY	Wet Pond	BASE	36.52	25.888	29.000	28942	0.000	0.232	0.0	0.9
RECOVERY	Wet Pond	BASE	36.77	25.881	29.000	28926	0.000	0.231	0.0	0.9
RECOVERY	Wet Pond	BASE	37.02	25.874	29.000	28911	0.000	0.230	0.0	1.0
RECOVERY	Wet Pond	BASE	37.27	25.867	29.000	28895	0.000	0.229	0.0	1.0
RECOVERY	Wet Pond	BASE	37.52	25.860	29.000	28879	0.000	0.228	0.0	1.0
RECOVERY	Wet Pond	BASE	37.77	25.853	29.000	28864	0.000	0.227	0.0	1.0
RECOVERY	Wet Pond	BASE	38.02	25.845	29.000	28849	0.000	0.226	0.0	1.0
RECOVERY	Wet Pond	BASE	38.27	25.838	29.000	28833	0.000	0.225	0.0	1.0
RECOVERY	Wet Pond	BASE	38.52	25.831	29.000	28818	0.000	0.224	0.0	1.0
RECOVERY	Wet Pond	BASE	38.77	25.824	29.000	28803	0.000	0.223	0.0	1.0
RECOVERY	Wet Pond	BASE	39.02	25.818	29.000	28788	0.000	0.221	0.0	1.0
RECOVERY	Wet Pond	BASE	39.27	25.811	29.000	28773	0.000	0.220	0.0	1.0
RECOVERY	Wet Pond	BASE	39.52	25.804	29.000	28758	0.000	0.219	0.0	1.0
RECOVERY	Wet Pond	BASE	39.77	25.797	29.000	28743	0.000	0.218	0.0	1.0
RECOVERY	Wet Pond	BASE	40.02	25.790	29.000	28728	0.000	0.217	0.0	1.0
RECOVERY	Wet Pond	BASE	40.27	25.783	29.000	28713	0.000	0.216	0.0	1.0
RECOVERY	Wet Pond	BASE	40.52	25.777	29.000	28699	0.000	0.215	0.0	1.0
RECOVERY	Wet Pond	BASE	40.77	25.770	29.000	28684	0.000	0.214	0.0	1.0
RECOVERY	Wet Pond	BASE	41.02	25.763	29.000	28669	0.000	0.213	0.0	1.0
RECOVERY	Wet Pond	BASE	41.27	25.756	29.000	28655	0.000	0.212	0.0	1.0
RECOVERY	Wet Pond	BASE	41.52	25.750	29.000	28640	0.000	0.210	0.0	1.0
RECOVERY	Wet Pond	BASE	41.77	25.743	29.000	28626	0.000	0.209	0.0	1.0
RECOVERY	Wet Pond	BASE	42.02	25.737	29.000	28612	0.000	0.208	0.0	1.0
RECOVERY	Wet Pond	BASE	42.27	25.730	29.000	28597	0.000	0.207	0.0	1.0
RECOVERY	Wet Pond	BASE	42.52	25.724	29.000	28583	0.000	0.206	0.0	1.1
RECOVERY	Wet Pond	BASE	42.77	25.717	29.000	28569	0.000	0.205	0.0	1.1
RECOVERY	Wet Pond	BASE	43.02	25.711	29.000	28555	0.000	0.204	0.0	1.1
RECOVERY	Wet Pond	BASE	43.27	25.704	29.000	28541	0.000	0.203	0.0	1.1
RECOVERY	Wet Pond	BASE	43.52	25.698	29.000	28527	0.000	0.202	0.0	1.1
RECOVERY	Wet Pond	BASE	43.77	25.692	29.000	28514	0.000	0.200	0.0	1.1
RECOVERY	Wet Pond	BASE	44.02	25.685	29.000	28500	0.000	0.199	0.0	1.1

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STORQUEST EXPRESS - WWG-1
RECOVERY - NODE TIME SERIES
2022-08-08

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
RECOVERY	Wet Pond	BASE	44.27	25.679	29.000	28486	0.000	0.198	0.0	1.1
RECOVERY	Wet Pond	BASE	44.52	25.673	29.000	28473	0.000	0.197	0.0	1.1
RECOVERY	Wet Pond	BASE	44.77	25.667	29.000	28459	0.000	0.196	0.0	1.1
RECOVERY	Wet Pond	BASE	45.02	25.660	29.000	28446	0.000	0.195	0.0	1.1
RECOVERY	Wet Pond	BASE	45.27	25.654	29.000	28432	0.000	0.194	0.0	1.1
RECOVERY	Wet Pond	BASE	45.52	25.648	29.000	28419	0.000	0.193	0.0	1.1
RECOVERY	Wet Pond	BASE	45.77	25.642	29.000	28406	0.000	0.192	0.0	1.1
RECOVERY	Wet Pond	BASE	46.02	25.636	29.000	28392	0.000	0.190	0.0	1.1
RECOVERY	Wet Pond	BASE	46.27	25.630	29.000	28379	0.000	0.189	0.0	1.1
RECOVERY	Wet Pond	BASE	46.52	25.624	29.000	28366	0.000	0.188	0.0	1.1
RECOVERY	Wet Pond	BASE	46.77	25.618	29.000	28353	0.000	0.187	0.0	1.1
RECOVERY	Wet Pond	BASE	47.02	25.612	29.000	28340	0.000	0.186	0.0	1.1
RECOVERY	Wet Pond	BASE	47.27	25.606	29.000	28328	0.000	0.185	0.0	1.1
RECOVERY	Wet Pond	BASE	47.52	25.600	29.000	28315	0.000	0.184	0.0	1.1
RECOVERY	Wet Pond	BASE	47.77	25.595	29.000	28302	0.000	0.183	0.0	1.1
RECOVERY	Wet Pond	BASE	48.02	25.589	29.000	28289	0.000	0.182	0.0	1.1
RECOVERY	Wet Pond	BASE	48.27	25.583	29.000	28277	0.000	0.180	0.0	1.1
RECOVERY	Wet Pond	BASE	48.52	25.577	29.000	28264	0.000	0.179	0.0	1.1
RECOVERY	Wet Pond	BASE	48.77	25.572	29.000	28252	0.000	0.178	0.0	1.2
RECOVERY	Wet Pond	BASE	49.02	25.566	29.000	28240	0.000	0.177	0.0	1.2
RECOVERY	Wet Pond	BASE	49.27	25.560	29.000	28227	0.000	0.176	0.0	1.2
RECOVERY	Wet Pond	BASE	49.52	25.555	29.000	28215	0.000	0.175	0.0	1.2
RECOVERY	Wet Pond	BASE	49.77	25.549	29.000	28203	0.000	0.174	0.0	1.2
RECOVERY	Wet Pond	BASE	50.02	25.544	29.000	28191	0.000	0.173	0.0	1.2
RECOVERY	Wet Pond	BASE	50.27	25.538	29.000	28179	0.000	0.172	0.0	1.2
RECOVERY	Wet Pond	BASE	50.52	25.533	29.000	28167	0.000	0.170	0.0	1.2
RECOVERY	Wet Pond	BASE	50.77	25.527	29.000	28155	0.000	0.169	0.0	1.2
RECOVERY	Wet Pond	BASE	51.02	25.522	29.000	28144	0.000	0.168	0.0	1.2
RECOVERY	Wet Pond	BASE	51.27	25.516	29.000	28132	0.000	0.167	0.0	1.2
RECOVERY	Wet Pond	BASE	51.52	25.511	29.000	28120	0.000	0.166	0.0	1.2
RECOVERY	Wet Pond	BASE	51.77	25.506	29.000	28109	0.000	0.165	0.0	1.2
RECOVERY	Wet Pond	BASE	52.02	25.501	29.000	28097	0.000	0.164	0.0	1.2
RECOVERY	Wet Pond	BASE	52.27	25.495	29.000	28086	0.000	0.163	0.0	1.2
RECOVERY	Wet Pond	BASE	52.52	25.490	29.000	28075	0.000	0.162	0.0	1.2
RECOVERY	Wet Pond	BASE	52.77	25.485	29.000	28063	0.000	0.161	0.0	1.2
RECOVERY	Wet Pond	BASE	53.02	25.480	29.000	28052	0.000	0.160	0.0	1.2
RECOVERY	Wet Pond	BASE	53.27	25.475	29.000	28041	0.000	0.159	0.0	1.2
RECOVERY	Wet Pond	BASE	53.52	25.470	29.000	28030	0.000	0.157	0.0	1.2
RECOVERY	Wet Pond	BASE	53.77	25.465	29.000	28019	0.000	0.156	0.0	1.2
RECOVERY	Wet Pond	BASE	54.02	25.460	29.000	28008	0.000	0.155	0.0	1.2
RECOVERY	Wet Pond	BASE	54.27	25.455	29.000	27997	0.000	0.154	0.0	1.2
RECOVERY	Wet Pond	BASE	54.52	25.450	29.000	27986	0.000	0.153	0.0	1.2
RECOVERY	Wet Pond	BASE	54.77	25.445	29.000	27976	0.000	0.152	0.0	1.2
RECOVERY	Wet Pond	BASE	55.02	25.440	29.000	27965	0.000	0.151	0.0	1.2
RECOVERY	Wet Pond	BASE	55.27	25.435	29.000	27955	0.000	0.150	0.0	1.2
RECOVERY	Wet Pond	BASE	55.52	25.430	29.000	27944	0.000	0.149	0.0	1.2
RECOVERY	Wet Pond	BASE	55.77	25.425	29.000	27934	0.000	0.148	0.0	1.2
RECOVERY	Wet Pond	BASE	56.02	25.421	29.000	27923	0.000	0.147	0.0	1.2
RECOVERY	Wet Pond	BASE	56.27	25.416	29.000	27913	0.000	0.146	0.0	1.3
RECOVERY	Wet Pond	BASE	56.52	25.411	29.000	27903	0.000	0.145	0.0	1.3
RECOVERY	Wet Pond	BASE	56.77	25.407	29.000	27893	0.000	0.144	0.0	1.3
RECOVERY	Wet Pond	BASE	57.02	25.402	29.000	27883	0.000	0.142	0.0	1.3
RECOVERY	Wet Pond	BASE	57.27	25.397	29.000	27873	0.000	0.141	0.0	1.3
RECOVERY	Wet Pond	BASE	57.52	25.393	29.000	27863	0.000	0.140	0.0	1.3
RECOVERY	Wet Pond	BASE	57.77	25.388	29.000	27853	0.000	0.139	0.0	1.3
RECOVERY	Wet Pond	BASE	58.02	25.384	29.000	27843	0.000	0.138	0.0	1.3
RECOVERY	Wet Pond	BASE	58.27	25.379	29.000	27834	0.000	0.137	0.0	1.3
RECOVERY	Wet Pond	BASE	58.52	25.375	29.000	27824	0.000	0.136	0.0	1.3
RECOVERY	Wet Pond	BASE	58.77	25.371	29.000	27814	0.000	0.135	0.0	1.3

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STORQUEST EXPRESS - WWG-1
RECOVERY - NODE TIME SERIES
2022-08-08

Simulation	Node	Group	Time hrs	Stage ft	Warning Stage ft	Surface Area ft2	Total Inflow cfs	Total Outflow cfs	Total Vol In af	Total Vol Out af
RECOVERY	Wet Pond	BASE	59.02	25.366	29.000	27805	0.000	0.134	0.0	1.3
RECOVERY	Wet Pond	BASE	59.27	25.362	29.000	27795	0.000	0.133	0.0	1.3
RECOVERY	Wet Pond	BASE	59.52	25.358	29.000	27786	0.000	0.132	0.0	1.3
RECOVERY	Wet Pond	BASE	59.77	25.353	29.000	27777	0.000	0.131	0.0	1.3
RECOVERY	Wet Pond	BASE	60.02	25.349	29.000	27768	0.000	0.130	0.0	1.3
RECOVERY	Wet Pond	BASE	60.27	25.345	29.000	27759	0.000	0.129	0.0	1.3
RECOVERY	Wet Pond	BASE	60.52	25.341	29.000	27750	0.000	0.128	0.0	1.3
RECOVERY	Wet Pond	BASE	60.77	25.337	29.000	27741	0.000	0.127	0.0	1.3
RECOVERY	Wet Pond	BASE	61.02	25.333	29.000	27732	0.000	0.125	0.0	1.3
RECOVERY	Wet Pond	BASE	61.27	25.329	29.000	27723	0.000	0.124	0.0	1.3
RECOVERY	Wet Pond	BASE	61.52	25.325	29.000	27714	0.000	0.123	0.0	1.3
RECOVERY	Wet Pond	BASE	61.77	25.321	29.000	27705	0.000	0.122	0.0	1.3
RECOVERY	Wet Pond	BASE	62.02	25.317	29.000	27697	0.000	0.121	0.0	1.3
RECOVERY	Wet Pond	BASE	62.27	25.313	29.000	27688	0.000	0.120	0.0	1.3
RECOVERY	Wet Pond	BASE	62.52	25.309	29.000	27680	0.000	0.119	0.0	1.3
RECOVERY	Wet Pond	BASE	62.77	25.305	29.000	27671	0.000	0.118	0.0	1.3
RECOVERY	Wet Pond	BASE	63.02	25.301	29.000	27663	0.000	0.117	0.0	1.3
RECOVERY	Wet Pond	BASE	63.27	25.297	29.000	27655	0.000	0.116	0.0	1.3
RECOVERY	Wet Pond	BASE	63.52	25.294	29.000	27646	0.000	0.115	0.0	1.3
RECOVERY	Wet Pond	BASE	63.77	25.290	29.000	27638	0.000	0.114	0.0	1.3
RECOVERY	Wet Pond	BASE	64.02	25.286	29.000	27630	0.000	0.113	0.0	1.3
RECOVERY	Wet Pond	BASE	64.27	25.282	29.000	27622	0.000	0.112	0.0	1.3
RECOVERY	Wet Pond	BASE	64.52	25.279	29.000	27614	0.000	0.111	0.0	1.3
RECOVERY	Wet Pond	BASE	64.77	25.275	29.000	27607	0.000	0.110	0.0	1.3
RECOVERY	Wet Pond	BASE	65.02	25.272	29.000	27599	0.000	0.109	0.0	1.3
RECOVERY	Wet Pond	BASE	65.27	25.268	29.000	27591	0.000	0.108	0.0	1.3
RECOVERY	Wet Pond	BASE	65.52	25.265	29.000	27583	0.000	0.107	0.0	1.3
RECOVERY	Wet Pond	BASE	65.77	25.261	29.000	27576	0.000	0.106	0.0	1.4
RECOVERY	Wet Pond	BASE	66.02	25.258	29.000	27568	0.000	0.105	0.0	1.4
RECOVERY	Wet Pond	BASE	66.27	25.254	29.000	27561	0.000	0.104	0.0	1.4
RECOVERY	Wet Pond	BASE	66.52	25.251	29.000	27553	0.000	0.103	0.0	1.4
RECOVERY	Wet Pond	BASE	66.77	25.247	29.000	27546	0.000	0.102	0.0	1.4
RECOVERY	Wet Pond	BASE	67.02	25.244	29.000	27539	0.000	0.101	0.0	1.4
RECOVERY	Wet Pond	BASE	67.27	25.241	29.000	27532	0.000	0.100	0.0	1.4
RECOVERY	Wet Pond	BASE	67.52	25.238	29.000	27525	0.000	0.099	0.0	1.4
RECOVERY	Wet Pond	BASE	67.77	25.234	29.000	27518	0.000	0.098	0.0	1.4
RECOVERY	Wet Pond	BASE	68.02	25.231	29.000	27511	0.000	0.097	0.0	1.4
RECOVERY	Wet Pond	BASE	68.27	25.228	29.000	27504	0.000	0.096	0.0	1.4
RECOVERY	Wet Pond	BASE	68.52	25.225	29.000	27497	0.000	0.095	0.0	1.4
RECOVERY	Wet Pond	BASE	68.77	25.222	29.000	27490	0.000	0.094	0.0	1.4
RECOVERY	Wet Pond	BASE	69.02	25.219	29.000	27484	0.000	0.093	0.0	1.4
RECOVERY	Wet Pond	BASE	69.27	25.216	29.000	27477	0.000	0.092	0.0	1.4
RECOVERY	Wet Pond	BASE	69.52	25.213	29.000	27470	0.000	0.091	0.0	1.4
RECOVERY	Wet Pond	BASE	69.77	25.210	29.000	27464	0.000	0.090	0.0	1.4
RECOVERY	Wet Pond	BASE	70.02	25.207	29.000	27457	0.000	0.089	0.0	1.4
RECOVERY	Wet Pond	BASE	70.27	25.204	29.000	27451	0.000	0.089	0.0	1.4
RECOVERY	Wet Pond	BASE	70.52	25.201	29.000	27445	0.000	0.088	0.0	1.4
RECOVERY	Wet Pond	BASE	70.77	25.198	29.000	27439	0.000	0.087	0.0	1.4
RECOVERY	Wet Pond	BASE	71.02	25.195	29.000	27432	0.000	0.086	0.0	1.4
RECOVERY	Wet Pond	BASE	71.27	25.192	29.000	27426	0.000	0.085	0.0	1.4
RECOVERY	Wet Pond	BASE	71.52	25.190	29.000	27420	0.000	0.084	0.0	1.4
RECOVERY	Wet Pond	BASE	71.77	25.187	29.000	27414	0.000	0.083	0.0	1.4
RECOVERY	Wet Pond	BASE	72.01	25.184	29.000	27409	0.000	0.082	0.0	1.4

SECTION 8

**Subsurface Soil Exploration and
Geotechnical Engineering Evaluation
Proposed Storage Facility
Friday Road
Cocoa, Florida**



Ardaman & Associates, Inc.

CORPORATE HEADQUARTERS

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American Council of Engineering Companies



Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

November 16, 2021
File No. 21-23-5297

The William Warren Group
959 South Coast Drive, Suite 350
Costa Mesa, California 92626

Attention: Mr. James Preacher

Subject: Subsurface Soil Exploration and
Geotechnical Engineering Evaluation
Proposed Storage Facility
Friday Road
Cocoa, Florida

Dear Mr. Preacher:

As requested, we have completed a shallow subsurface soil exploration and geotechnical engineering evaluation for the subject project. The purposes of performing this exploration were to evaluate the general subsurface conditions within the building and parking/drive areas and to provide recommendations for site preparation, foundation support, and pavement design. In addition, we have explored the soil and groundwater conditions within the proposed wet stormwater detention pond and we have estimated the normal seasonal high groundwater level at the boring locations. This report documents our findings and presents our engineering recommendations.

SITE LOCATION AND SITE DESCRIPTION

The site for the proposed facility is located just northeast of the intersection of Friday Road and State Road 524 in Cocoa, Brevard County, Florida (Section 23, Township 24 South, Range 35 East). The general site location is shown superimposed on the Sharpes, Florida USGS quadrangle map presented on Figure 1.

The project site is currently densely wooded and vegetated with brush. No structures currently exist on the project site. Paths were mowed on the site to provide drill rig access to the boring locations.

PROPOSED CONSTRUCTION AND GRADING

It is our understanding that the proposed development includes several one-story self-storage buildings, asphalt paved parking/drive areas, and one wet stormwater detention pond. For the purposes of our analysis, we have assumed the maximum loading conditions for the self-storage buildings to be on the order of 1 to 2 kips per linear foot for wall foundations and 10 to 20 kips for individual column foundations. Floor loads are assumed to be less than 125 pounds per square foot.

Grading plans are not complete at this time, therefore we have assumed that 1 to 2 feet of fill is required to raise the building and parking/drive areas to final elevations. If actual building loads or fill height exceed our assumptions, then the recommendations in this report may not be valid.

We understand that the stormwater run-off is to be retained on-site by means of a wet detention pond on the north portion of the project site.

REVIEW OF SOIL SURVEY MAPS

Based on the 1974 Soil Survey for Brevard County, Florida, as prepared by the U.S. Department of Agriculture Soil Conservation Service, the project site is located in an area mapped as the "Basinger sand" and "Myakka sand" soil series. A description of these soil types, as obtained from the Soil Survey, is provided below.

Basinger sand (Ba):

"Basinger sand" is a nearly level, poorly drained sandy soil in sloughs and poorly defined drainageways and depressions in the flatwoods. A representative soil profile for Basinger sand consists of sand to a depth of 80 inches. It is occasionally flooded for 2 to 7 days following heavy rains. In most years, the water table is within a depth of 10 inches for 2 to 6 months and between 10 and 40 inches for 6 months or more. In dry seasons it is below a depth of 40 inches for short periods.

Myakka sand (Mk):

"Myakka sand" is a nearly level, poorly drained sandy soil in broad areas in the flatwoods and in areas between sand ridges and sloughs and ponds. A representative profile of the soil consists of 22 inches of dark gray to gray sand followed by 13 inches of dark brown, weakly cemented sand. Below that is gray sand to a depth of 63 inches. In most years, the water table is within a depth of 10 inches for 1 to 4 months and between 10 and 40 inches for more than 6 months. In dry seasons it is below a depth of 40 inches. The soil is flooded for 2 to 7 days in 1 to 5 years.

FIELD EXPLORATION PROGRAM

SPT and Auger Borings

The field exploration program included performing eight Standard Penetration Test (SPT) borings and five auger borings. The SPT borings were performed within the proposed "footprints" of the buildings. The borings were advanced to a depth of 15 feet below the ground surface using the methodology outlined in ASTM D-1586. A summary of this field procedure is included in Appendix I. Split-spoon soil samples recovered during performance of the borings were visually classified in the field and representative portions of the samples were transported to our laboratory in sealed sample jars.

The auger borings were performed in the proposed parking/drive and stormwater detention pond areas. They were drilled using a truck-mounted, 4-inch diameter, continuous flight auger or a 3-inch diameter, hand-held bucket auger to depths of 5 and 15 feet below the ground surface. A summary of the auger boring procedure is included in Appendix I. Representative soil samples were recovered from the auger borings and transported to our laboratory for further analysis.

The groundwater level at each of the boring locations was measured during drilling. Upon completion, the borings were backfilled with soil cuttings.

Test Locations

The approximate locations of the borings are schematically illustrated on a site plan shown on Figure 2. These locations were determined in the field by estimating distances from existing site features and should be considered accurate only to the degree implied by the method of measurement used.

LABORATORY PROGRAM

Representative soil samples obtained during our field sampling operation were packaged and transferred to our laboratory for further visual examination and classification. The soil samples were visually classified in general accordance with the Unified Soil Classification System (ASTM D-2488). The resulting soil descriptions are shown on the soil boring profiles presented in Appendix II.

In addition, we conducted four percent fines analyses (ASTM D1140) on selected soil samples obtained from the borings. The results of these tests are presented adjacent to the sample depth on the boring profiles in Appendix II.

GENERAL SUBSURFACE CONDITIONS

General Soil Profile

The results of the field exploration and laboratory programs are graphically summarized on the soil boring profiles presented in Appendix II. The stratification of the boring profiles represents our interpretation of the field boring logs and the results of laboratory examinations of the recovered samples. The stratification lines represent the approximate boundary between soil types. The actual transitions may be more gradual than implied.

The soils encountered in the SPT borings consisted of very loose to medium dense fine sand (Unified Soil Classification SP), fine sand with silt (SP-SM), silty fine sand (SM), and clayey fine sand (SC) to the termination depth of the borings, 15 feet below ground surface. The auger borings encountered fine sand (SP), fine sand with silt (SP-SM), silty fine sand (SM), and clayey fine sand (SC) to the termination depth of the deepest borings, 15 feet below ground surface. These soil profiles are outlined in general terms only. Please refer to Appendix II for soil profile details.

Groundwater Level

The groundwater level was measured in the boreholes on the day drilled. As shown in Appendix II, groundwater was encountered at depths that ranged from approximately 0.8 to 2.8 feet below the existing ground surface on the date indicated. Fluctuations in groundwater levels should be anticipated throughout the year primarily due to seasonal variations in rainfall and other factors that may vary from the time the borings were conducted.

NORMAL SEASONAL HIGH GROUNDWATER LEVEL

The normal seasonal high groundwater level each year is the level in the August-September period at the end of the rainy season during a year of normal (average) rainfall. The water table elevations associated with a higher than normal rainfall and in the extreme case, flood, would be

higher to much higher than the normal seasonal high groundwater level. The normal high water levels would more approximate the normal seasonal high groundwater levels.

The seasonal high groundwater level is affected by a number of factors. The drainage characteristics of the soils, the land surface elevation, relief points such as drainage ditches, lakes, rivers, swamp areas, etc., and distance to relief points are some of the more important factors influencing the seasonal high groundwater level.

In addition to evaluating the conditions above, we have reviewed annual precipitation data available from the Melbourne Office of the National Weather Service. Based on this data, the annual rainfall to date in Brevard County is approximately 32.7 inches, which is approximately 13.6 inches lower than normal for this time of year.

Based on our interpretation of the site conditions using our boring logs, we estimate the normal seasonal high groundwater level at the boring locations to be approximately 1 foot above the groundwater levels measured at the time of our field exploration. This indicates that the groundwater level may rise above the ground surface in some areas of the site. The level to which the groundwater level may rise above the ground surface should be determined by the project drainage engineer. Also, the groundwater level may temporarily perch at higher levels during or after heavy or prolonged rainfall due to the shallow silty fine sand, clayey fine sand, and hardpan-type soils present on the site.

ENGINEERING EVALUATION AND RECOMMENDATIONS

General

The results of our exploration indicate that, with proper site preparation as recommended in this report, the existing soils encountered within the borings are suitable for supporting the proposed buildings on a conventional shallow foundation system. Spread footings should provide an adequate support system for the one-story structures. The encountered soils are also suitable for support of the proposed parking/drive areas.

The following are our recommendations for overall site preparation, foundation support, and pavement construction which we feel are best suited for the proposed facility and existing soil conditions. The recommendations are made as a guide for the design engineer and/or architect, parts of which should be incorporated into the project's specifications.

Stripping and Grubbing

The "footprints" of the proposed building and the parking/drive areas, plus a minimum margin of 5 feet, should be stripped of all surface vegetation, stumps, debris, organic topsoil or other deleterious materials, as encountered. Buried utilities should be removed or plugged to eliminate conduits into which surrounding soils could erode.

After stripping, the site should be grubbed or root-raked such that roots with a diameter greater than ½ inch, stumps, or small roots in a dense state, are completely removed. The actual depth(s) of stripping and grubbing must be determined by visual observation and judgment during the earthwork operation.

Proof-rolling

We recommend proof-rolling the cleared surface to locate any unforeseen soft areas or unsuitable surface or near-surface soils, to increase the density of the upper soils, and to prepare the existing surface for the addition of the fill soils (as required). Proof-rolling of the building areas should consist of at least 10 passes of a compactor capable of achieving the density requirements described in the next paragraph. Each pass should overlap the preceding pass by 30 percent to achieve complete coverage. If deemed necessary, in areas that continue to "yield", remove all deleterious material and replace with clean, compacted sand backfill. The proof-rolling should occur after cutting and before filling. The number of passes can be reduced to three within the proposed parking/drive areas.

A density equivalent to or greater than 95 percent of the modified Proctor (ASTM D-1557) maximum dry density value for a depth of 2 feet in the building areas and 1 foot in the parking/drive areas must be achieved beneath the stripped and grubbed ground surface. Additional passes and/or overexcavation and recompaction may be required if these minimum density requirements are not achieved. The soil moisture should be adjusted as necessary during compaction.

Care should be exercised to avoid damaging any neighboring structures while the compaction operation is underway. Prior to commencing compaction, occupants of adjacent structures should be notified and the existing condition (i.e. cracks) of the structures documented with photographs and survey (if deemed necessary). Compaction should cease if deemed detrimental to adjacent structures, and Ardaman & Associates should be notified immediately. Heavy vibratory compaction equipment should not be used within 200 feet of existing structures.

Suitable Fill Material and the Compaction of Fill Soils

All fill soil should be free of organic materials, such as roots and vegetation. We recommend using fill with less than 12 percent by dry weight of material passing the U.S. Standard No. 200 sieve size. The fine sand and fine sand with silt (Strata Nos. 1 and 2 as shown in Appendix II) are suitable for use as fill soil and, with proper moisture control, should densify using conventional compaction methods. Soils with more than 12 percent passing the No. 200 sieve (Strata Nos. 3 and 4) can be used in some applications, but will be more difficult to compact due to their inherent nature to retain soil moisture.

We note that the partially cemented hardpan-type soil was encountered in Boring TH-7. Hardpan-type soils can be problematic for several reasons. First, hardpan can be difficult to excavate, often requiring special equipment; especially in confined excavations such as utility trenches, footings, etc. Excavated hardpan-type soils are often boulder-size chunks of cemented soils which are not easily broken down for re-use as structural fill. In addition, when pulverized into fragments that can be compacted to an adequately dense matrix, the in-place soil often fails the relative compaction test because the laboratory test continues to pulverize the soil into smaller particles resulting in a denser laboratory matrix than that which occurs in the field. Alternative acceptance criteria may need to be used for hardpan-type soils used as fill. This criteria would need to be developed on a site specific basis after observing the contractor's earthwork methodology and the nature and condition of the compacted hardpan-type soils.

All structural fill should be placed in level lifts not to exceed 12 inches in uncompacted thickness. Each lift should be compacted to at least 95 percent of the modified Proctor (ASTM D-1557) maximum dry density value. The filling and compaction operations should continue in lifts until

the desired elevation(s) is achieved. If hand-held compaction equipment is used, the lift thickness should be reduced to no more than 6 inches.

Our fill soil recommendations do not apply to the stormwater pond vicinity as the pond designer should recommend types of fill, if any, in the stormwater pond vicinity to be compatible with the pond design.

Foundation Support by Spread Footings and Foundation Compaction Criteria

Excavate the foundations to the proposed bottom of footing elevations and, thereafter, verify the in-place compaction for a depth of 2 feet below the footing bottoms. If necessary, compact the soils at the bottom of the excavations to at least 95 percent of the modified Proctor maximum dry density (ASTM D-1557) for a depth of 2 feet below the footing bottoms. Based on the existing soil conditions and, assuming the above outlined stripping, proof-rolling, and compaction criteria are implemented, an allowable soil bearing pressure of 2,000 pounds per square foot (psf) may as be used in the foundation design. This bearing pressure should result in foundation settlement within tolerable limits (i.e., 1 inch or less).

All bearing wall foundations should be a minimum of 18 inches wide and column foundations 24 inches wide. A minimum soil cover of 18 inches should be maintained from the bottom of the foundations to the adjacent finished grades.

Floor Slab Moisture Reducer and Slab Compaction Requirements

Compaction beneath all floor slabs should be verified for a depth of 12 inches and meet the 95 percent criteria (modified Proctor, ASTM D-1557).

Precautions should be taken during the slab construction to reduce moisture entry from the underlying subgrade soils. Moisture entry can be reduced by installing a membrane between the subgrade soils and floor slab. Care should be exercised when placing the reinforcing steel (or mesh) and slab concrete such that the membrane is not punctured. We note that the membrane alone does not prevent moisture from occurring beneath or on top of the slab.

If interior columns are isolated from the floor slab, an expansion joint should be provided around the columns and sealed with a water-proof sealant.

Dewatering

If the control of groundwater is required to achieve the necessary stripping, excavation, proof-rolling, filling, compaction, and any other earthwork, sitework, and/or foundation subgrade preparation operations required for the project, the actual method(s) of dewatering should be determined by the contractor. Dewatering should be performed to lower the groundwater level to depths that are adequately below excavations and compaction surfaces. Adequate groundwater level depths below excavations and compaction surfaces vary depending on soil type and construction method and are usually 2 feet or more. Dewatering solely with sump pumps may not achieve the desired results.

Typical Asphaltic Concrete Surface Pavement Section

Site Preparation

All areas to be paved should be prepared as previously outlined. Prior to pavement base installation, the subgrade soil compaction should be verified for a depth of 12 inches (i.e.; compacted to at least 95 percent of the modified Proctor (ASTM D-1557, AASHTO T-180) maximum dry density value).

Limerock or Cemented Coquina Base

A limerock or cemented coquina base course 6 inches thick overlying an 8-inch thick stabilized subbase can be used provided that grading and drainage plans preclude periodic saturation of the base material. The periodic saturation of a limerock/coquina base material could lead to premature pavement distress. A minimum clearance of 18 inches must be maintained between the bottom of the limerock/coquina base and the seasonal high groundwater table.

The limerock or cemented coquina should have a minimum Limerock Bearing Ratio (LBR) value of 100 and should be compacted to at least 98 percent of the modified Proctor (ASTM D-1557, AASHTO T-180) maximum density value. For truck parking and drive areas, the base thickness should be a minimum of 8 inches.

An 8-inch thick subbase having a minimum Limerock Bearing Ratio (LBR) value of 40 must be achieved beneath the limerock or cemented coquina base. The natural soils may have to be stabilized with suitable clayey soil in order to achieve the required LBR value. The stabilized subbase must be compacted to at least 98 percent of the modified Proctor maximum dry density (ASTM D-1557, AASHTO T-180).

Recycled Concrete Aggregate Base (Optional)

Recycled concrete aggregate base supported by a free-draining subgrade may be used. Six inches of recycled concrete aggregate base should be used in automobile parking areas and 8 inches of recycled concrete aggregate base should be used in truck parking and drive areas. A minimum clearance of 12 inches should be maintained between the bottom of the recycled concrete aggregate base and the seasonal high groundwater table.

The recycled concrete aggregate base should have a minimum Limerock Bearing Ratio (LBR) value of 150 and should be compacted to at least 98 percent of the modified Proctor maximum dry density (ASTM D-1557, AASHTO T-180). The recycled concrete aggregate should meet gradation requirements according to Section 911-3.4 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition. Other requirements for recycled concrete aggregate base are outlined in Section 334 in the Florida Department of Transportation, Standards for Road and Bridge Construction, latest edition. The subgrade beneath the recycled concrete aggregate base should consist of free draining sand compacted to at least 98 percent of the modified Proctor maximum dry density (ASTM D-1557, AASHTO T-180).

We note that if the contractor's means and methods include stabilizing soils beneath the recycled concrete aggregate base, then the stabilizing material should be coarse material (e.g; gravel). Low permeability soils (e.g; silt and/or clay) should not be used as stabilizing material beneath recycled concrete aggregate base.

Wearing Surface

A minimum 1½-inch layer of Type SP-9.5 or SP-12.5 asphaltic concrete should be used for a wearing surface in automobile parking areas. For truck parking and drive areas, 2 inches of Type SP-9.5 or SP-12.5 asphaltic concrete should be used.

Specific requirements for the Type-SP asphaltic concrete wearing surface are outlined in Section 334 in the Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, latest edition. Equivalent Type S asphaltic concrete may be substituted for Type SP-9.5 or SP-12.5; however, we recommend a minimum Marshall stability of 2,200 pounds if Type S is used.

The latest specifications of Florida Department of Transportation shall govern the placement of the base and asphaltic concrete wearing surface. The above minimum requirements will satisfactorily support Traffic Level A*. If a heavier traffic pattern is anticipated, the design section should be increased accordingly.

Detention Pond

We understand that a wet detention pond is planned for north portion of the site. For this study, soil conditions were explored in the proposed pond area with two auger borings (AB-1 and AB-2) drilled to a depth of 15 feet.

The fine sand and fine sand with silt (Strata Nos. 1 and 2 in Appendix II) encountered in Borings AB-1 and AB-2 are generally considered to be relatively permeable. The silty fine sand and clayey fine sand (Strata Nos. 3 and 4) are anticipated to have significant lower permeability rates and should be considered aquatards for pond drawdown evaluation.

Wet detention ponds should be excavated to depths necessary to obtain a sufficient water depth to limit growth of aquatic vegetation. For the purpose of wet detention pond design, we estimate the normal low groundwater level to be approximately 2 feet lower than the water levels encountered in the borings.

We estimate the average wet season groundwater level (the average level between May and October during a year of normal rainfall) to be approximately at the groundwater levels measured at the time of our field exploration.

QUALITY ASSURANCE

We recommend establishing a comprehensive quality assurance program to verify that all site preparation and foundation and pavement construction is conducted in accordance with the appropriate plans and specifications. Materials testing and inspection services should be provided by Ardaman & Associates.

As a minimum, an on-site engineering technician should monitor all stripping and grubbing to verify that all deleterious materials have been removed and should observe the proof-rolling

* Reference: "Flexible Pavement Design Manual", Florida Department of Transportation. (Latest Edition)

operation to verify that the appropriate number of passes are applied to the subgrade. In-situ density tests should be conducted during filling activities and below all footings, floor slabs and pavement areas to verify that the required densities have been achieved. In-situ density values should be compared to laboratory Proctor moisture-density results for each of the different natural and fill soils encountered.

Additionally, for the pavements, Limerock Bearing Ratio tests should be performed. The base course(s) should be tested for density and thickness. We recommend that Ardaman & Associates be retained to review the asphalt pavement mix design proposed for use on the project prior to pavement placement. During asphalt pavement construction, samples of the asphaltic concrete should be obtained and tested in the laboratory to verify compliance with the mix design, including testing Marshall Stability (Type S asphalt), flow, asphalt content, and aggregate gradation. We also recommend full-time monitoring/testing in the batch plant and on the site during pavement placement. The asphaltic concrete thickness should be verified in the field.

Finally, we recommend inspecting and testing the construction materials for the foundations and other structural components.

IN-PLACE DENSITY TESTING FREQUENCY

In Central Florida, earthwork testing is typically performed on an on-call basis when the contractor has completed a portion of the work. The test result from a specific location is only representative of a larger area if the contractor has used consistent means and methods and the soils are practically uniform throughout. The frequency of testing can be increased and full-time construction inspection can be provided to account for variations. We recommend that the following minimum testing frequencies be utilized.

In proposed parking areas, a minimum frequency of one in-place density test for each 5,000 square feet of area (minimum of three test locations per area) should be used. The existing, natural ground should be tested to a depth of 12 inches at the prescribed frequency. Each 12-inch lift of fill, as well as the stabilized subgrade (where applicable) and base should be tested at this frequency. Utility backfill should be tested at a minimum frequency of one in-place density test for each 12-inch lift for each 200 linear feet of pipe. Additional tests should be performed in backfill for manholes, inlets, etc.

In proposed structural areas, the minimum frequency of in-place density testing should be reduced to one test for each 2,500 square feet of structural area (minimum of five test locations). In-place density testing should be performed at this minimum frequency for a depth of 2 feet below natural ground and for every 1-foot lift of fill placed in the structural area. In addition, density tests should be performed in each column footing for a depth of 2 feet below the bearing surface. For continuous or wall footings, density tests should be performed at a minimum frequency of one test for every 50 linear feet of footing, and for a depth of 2 feet below the bearing surface.

Representative samples of the various natural ground and fill soils, as well as stabilized subgrade (where applicable) and base materials, should be obtained and transported to our laboratory for Proctor compaction tests. These tests will determine the maximum dry density and optimum moisture content for the materials tested and will be used in conjunction with the results of the in-place density tests to determine the degree of compaction achieved.

CLOSURE

The analyses and recommendations submitted herein are based on the data obtained from the soil borings presented on Figure 2 and in Appendix II, and on the assumed loading conditions. This report does not reflect any variations which may occur adjacent to or between the borings. The nature and extent of the variations between the borings may not become evident until during construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations presented in this report after performing on-site observations during the construction period and noting the characteristics of the variations. This study does not include an evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface.

This report has been prepared for the exclusive use of The William Warren Group in accordance with generally accepted geotechnical engineering practices. In the event any changes occur in the design, nature, or location of the proposed facility, we should review the applicability of conclusions and recommendations in this report. We recommend a general review of final design and specifications by our office to verify that earthwork, foundation, and pavement recommendations are properly interpreted and implemented in the design specifications. Ardaman & Associates should attend the pre-bid and preconstruction meetings to verify that the bidders/contractor understand the recommendations contained in this report.

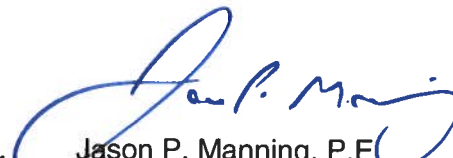
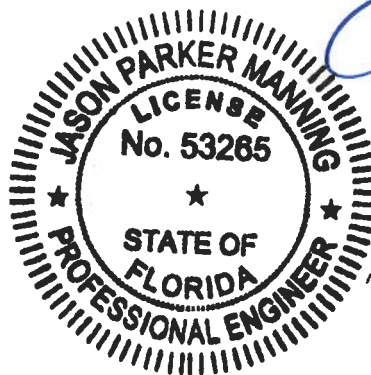
We are pleased to be of assistance to you on this phase of the project. When we may be of further service to you or should you have any questions, please contact us.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.
Certificate of Authorization No. 5950

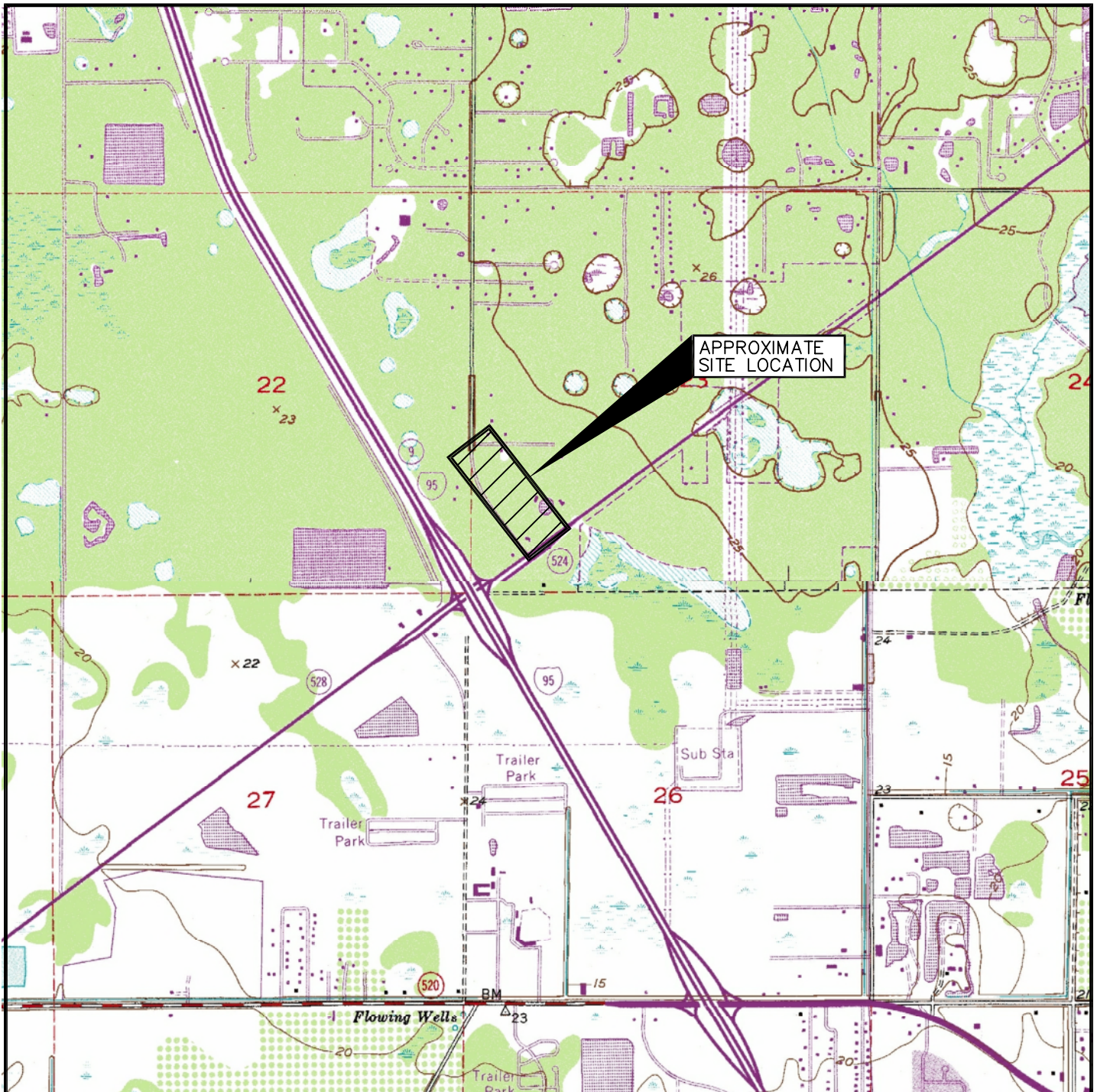


Janie C. Ross
Assistant Project Engineer

JCR/JPM/dk

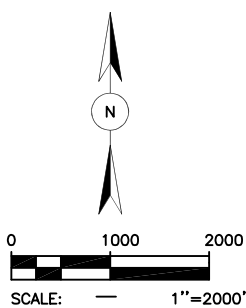


Jason P. Manning, P.E.
Branch Manager
Florida License No. 53265
11/16/21



SECTION 23
TOWNSHIP 24 SOUTH
RANGE 35 EAST

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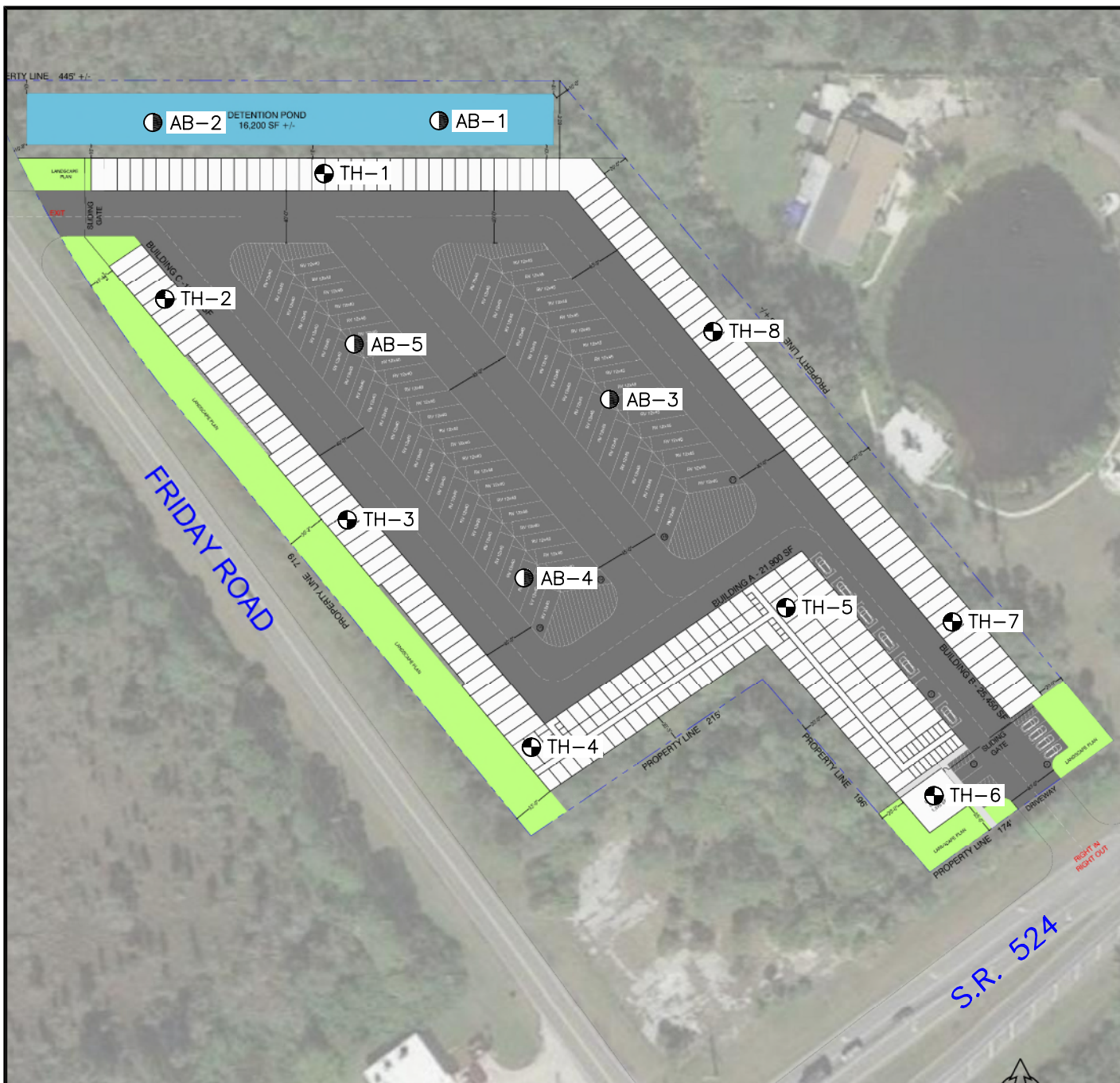
QUADRANGLE LOCATION

SITE LOCATION MAP

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Geotechnical, Environmental and
Materials Consultants

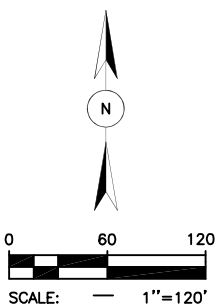
SUBSURFACE SOIL EXPLORATION
PROPOSED STORAGE FACILITY
COCOA, FLORIDA

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LEGEND

- TH STANDARD PENETRATION TEST (SPT)
 BORING LOCATION
- AB AUGER BORING LOCATION



BORING LOCATION PLAN

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 Geotechnical, Environmental and
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SUBSURFACE SOIL EXPLORATION
 PROPOSED STORAGE FACILITY
 COCOA, FLORIDA

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APPENDIX I

Standard Penetration Test and Auger Boring Procedures

STANDARD PENETRATION TEST

The standard penetration test is a widely accepted test method of *in situ* testing of foundation soils (ASTM D 1586). A 2-foot long, 2-inch O.D. split-barrel sampler attached to the end of a string of drilling rods is driven 18 inches into the ground by successive blows of a 140-pound hammer freely dropping 30 inches. The number of blows needed for each 6 inches of penetration is recorded. The sum of the blows required for penetration of the second and third 6-inch increments of penetration constitutes the test result or N-value. After the test, the sampler is extracted from the ground and opened to allow visual examination and classification of the retained soil sample. The N-value has been empirically correlated with various soil properties allowing a conservative estimate of the behavior of soils under load.

The tests are usually performed at 5-foot intervals. However, more frequent or continuous testing is done by our firm through depths where a more accurate definition of the soils is required. The test holes are advanced to the test elevations by rotary drilling with a cutting bit, using circulating fluid to remove the cuttings and hold the fine grains in suspension. The circulating fluid, which is a bentonitic drilling mud, is also used to keep the hole open below the water table by maintaining an excess hydrostatic pressure inside the hole. In some soil deposits, particularly highly pervious ones, NX-size flush-coupled casing must be driven to just above the testing depth to keep the hole open and/or prevent the loss of circulating fluid.

Representative split-spoon samples from the soils at every 5 feet of drilled depth and from every different stratum are brought to our laboratory in air-tight jars for further evaluation and testing, if necessary. Samples not used in testing are stored for 30 days prior to being discarded. After completion of a test boring, the hole is kept open until a steady state groundwater level is recorded. The hole is then sealed, if necessary, and backfilled.

AUGER BORINGS

Auger borings are used when a relatively large, continuous sampling of soil strata close to ground surface is desired. A 4-inch diameter, continuous flite, helical auger with a cutting head at its end is screwed into the ground in 5-foot sections. It is powered by the rotating action of the Kelly bar of a rotary drill rig. The sample is recovered by withdrawing the auger out of the ground without rotating it. The soil sample so obtained, is classified and representative samples put in bags or jars and brought back to the laboratory for classification testing.

APPENDIX II

Soil Boring Profiles

LEGEND

SOIL DESCRIPTIONS

- | | |
|---|-------------------------------|
|  | ① FINE SAND (SP) |
|  | ② FINE SAND WITH SILT (SP-SM) |
|  | ③ SILTY FINE SAND (SM) |
|  | ④ CLAYEY FINE SAND (SC) |

COLORS

- | | |
|---|----------------------------|
| Ⓐ | LIGHT GRAY TO GRAY |
| Ⓑ | DARK GRAY OR
DARK BROWN |
| Ⓒ | LIGHT BROWN TO BROWN |
| Ⓓ | GRAYISH-BROWN |
| Ⓔ | ORANGE-BROWN |

TH STANDARD PENETRATION TEST (SPT) BORING

AB AUGER BORING

N STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT

 GROUNDWATER LEVEL MEASURED ON DATE DRILLED

-200 PERCENT PASSING NO. 200 SIEVE SIZE (PERCENT FINES)(ASTM D-1140)

SP,SP-SM
SM,SC,CH

UNIFIED SOIL CLASSIFICATION SYSTEM

ENGINEERING CLASSIFICATION

I COHESIONLESS SOILS

DESCRIPTION	BLOW COUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	>50

II COHESIVE SOILS

DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH, QU, TSF	BLOW COUNT "N"
VERY SOFT	<1/4	0 TO 2
SOFT	1/4 TO 1/2	2 TO 4
MEDIUM STIFF	1/2 TO 1	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	>4	>30

WHILE THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOGS AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOGS IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATIONS ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR.

SOIL PROFILES LEGEND



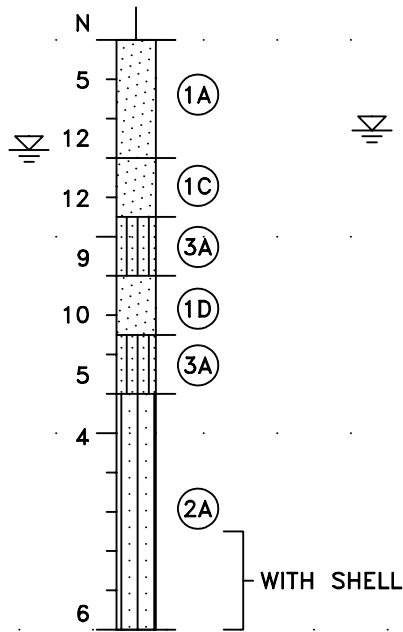
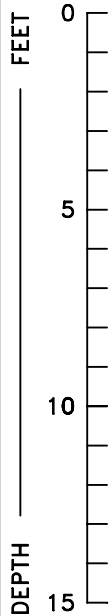
Ardaman & Associates, Inc.
Geotechnical, Environmental and
Materials Consultants

SUBSURFACE SOIL EXPLORATION
PROPOSED STORAGE FACILITY
COCOA, FLORIDA

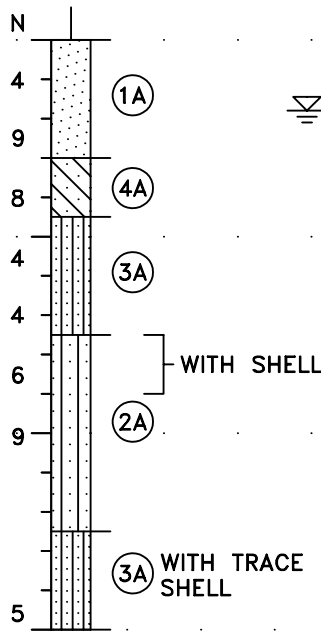
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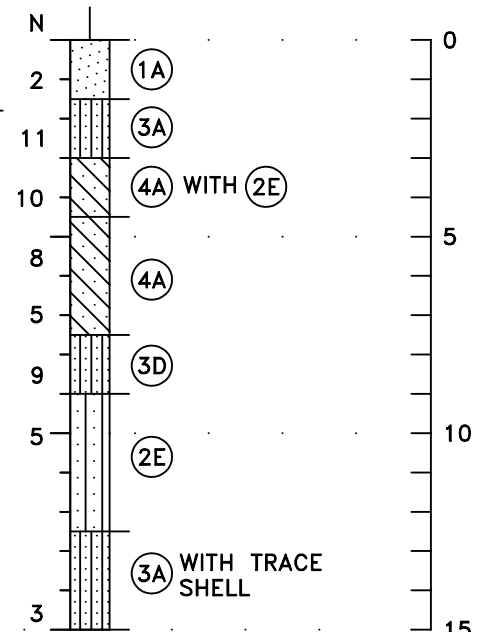
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TH-1



11/4/21
TH-2

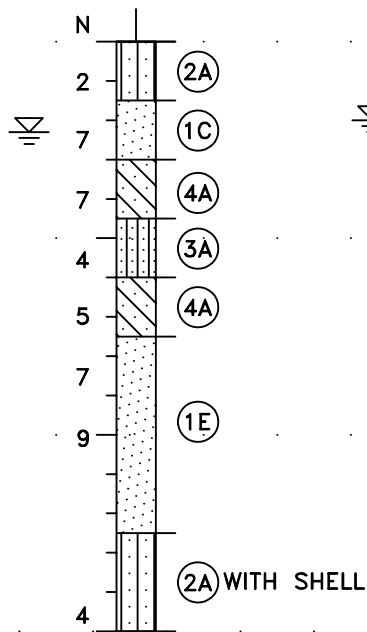
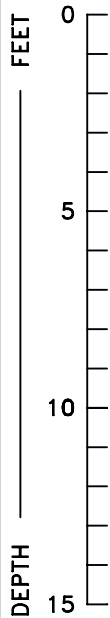


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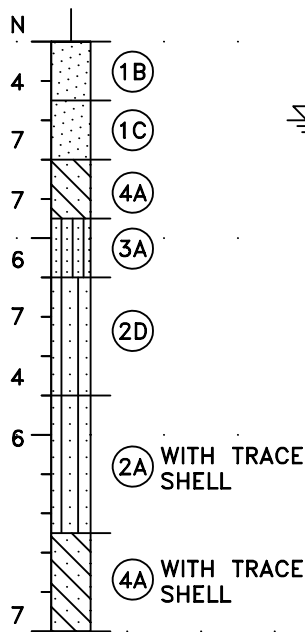


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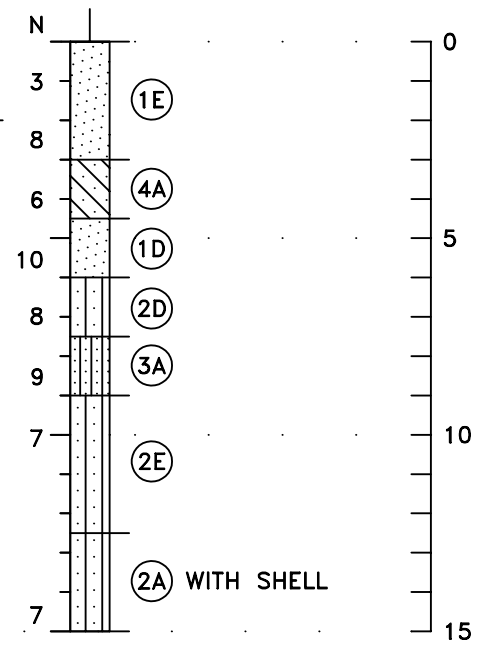
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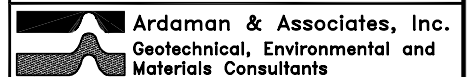
11/3/21
TH-5



11/4/21
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SOIL BORING PROFILES



SUBSURFACE SOIL EXPLORATION
PROPOSED STORAGE FACILITY
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 11/11/21
FILE NO. 21-5297	APPROVED BY:	FIGURE:

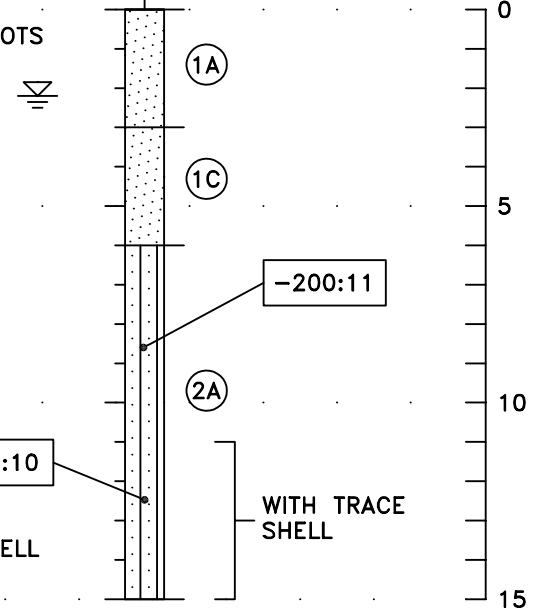
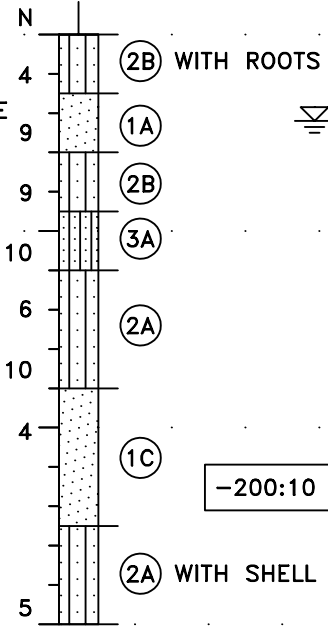
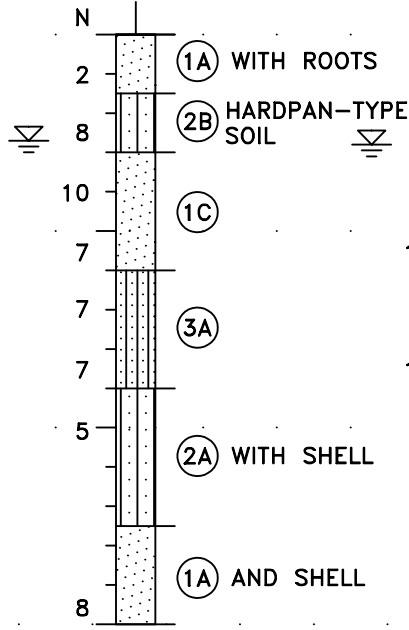
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11/4/21
TH-8

11/4/21
AB-1

FEET
DEPTH



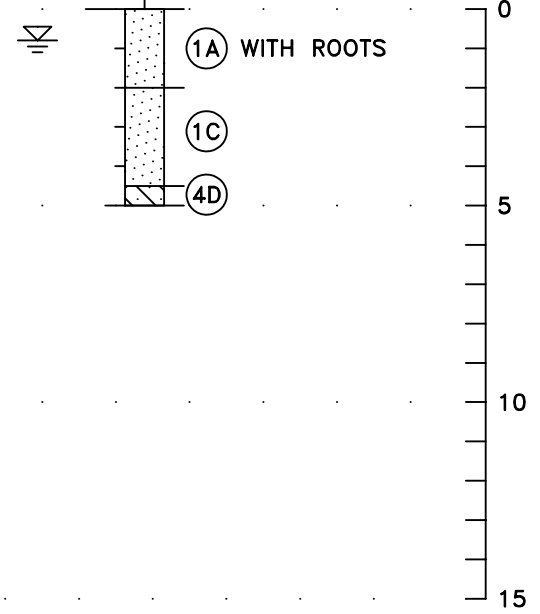
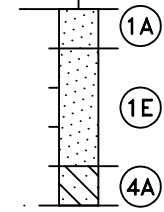
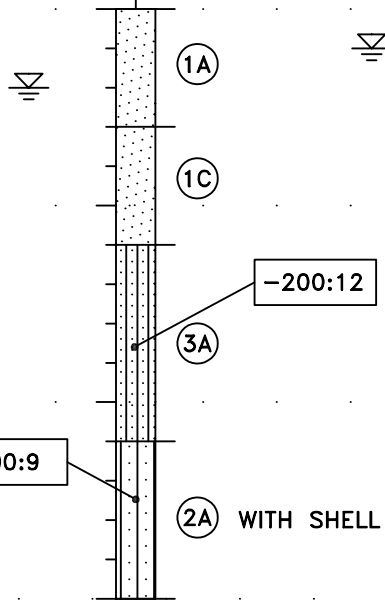
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11/5/21
AB-4

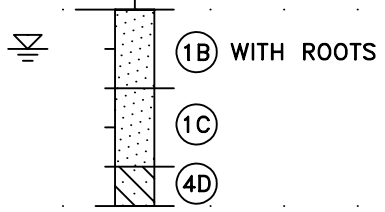
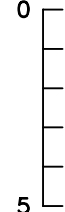
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DRILLED:

11/5/21
AB-5

FEET
DEPTH



SOIL BORING PROFILES

Ardaman & Associates, Inc.
Geotechnical, Environmental and
Materials Consultants

SUBSURFACE SOIL EXPLORATION
PROPOSED STORAGE FACILITY
COCOA, FLORIDA

DRAWN BY: TAT	CHECKED BY:	DATE: 11/11/21
FILE NO. 21-5297	APPROVED BY:	FIGURE:

Final Publication Date

11/29/2022

Ad Number

GCI0979831

Publication

Florida Today

Market

Brevard

Delivery Method

Both

Number of Affidavits Needed

1

Customer Email

cshealy@cocoafl.gov

Customer Name

City Of Cocoa (Te)

Customer Address

cshealy@cocoafl.gov

Account Number (If Known)

CIT180

Name

Carie Shealy, City Clerk

Street

65 Stone Street

City

Cocoa

State

FL

ZIP Code

32922

Your Name

Alex Helmbrecht

Email Address

ahelmbrech@gannett.com



CITY OF COCOA TE
65 STONE ST
COCOA, FL 32922
ATTN: CARIE SHEALY

STATE OF FLORIDA COUNTY OF BREVARD

Before the undersigned authority personally appeared said legal clerk, who on oath says that he or she is a Legal Advertising Representative of the FLORIDA TODAY a daily newspaper published in Brevard County, Florida that the attached copy of advertisement, being a Legal Ad in the matter of

PUBLIC NOTICE

as published in FLORIDA TODAY in the issue(s) of

11/29/2022

Affiant further says that the said FLORIDA TODAY is a newspaper in said Brevard County, Florida and that the said newspaper has heretofore been continuously published in said Brevard County, Florida each day and has been entered as periodicals matter at the post office in MELBOURNE in said Brevard County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he or she has never paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and Subscribed before me this 29TH DAY OF NOVEMBER 2022 by legal clerk who is personally known to me

Affiant

Notary State of Wisconsin County of Brown

My commission expires

PUBLICATION COST: \$623.60
AD NO: GCI0979831
CUSTOMER NO: CIT180
PO#: PUBLIC NOTICE

KATHLEEN ALLEN
Notary Public
State of Wisconsin

CITY OF COCOA

NOTICE OF PUBLIC HEARING

THE PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY PROPOSES TO CONSIDER THE FOLLOWING:

APPROVAL OF A SMALL-SCALE SITE PLAN (STORQUEST) CONSISTENT WITH APPENDIX A ZONING, ARTICLE XIII, SECTION 1 OF THE CITY CODE. THE PROPERTY OWNER DESIRES TO DEVELOP THE EXITING VACANT SITE AS A SELF-STORAGE FACILITY. THE SUBJECT PROPERTY IS LOCATED NEAR THE NORTH EAST CORNER OF SR 524 AND FRIDAY ROAD AND CONTAINS APPROXIMATELY +/- 6.38 ACRES OF PARCEL 24-35-23-00-505 ON THE EAST SIDE OF FRIDAY ROAD.

PLANNING & ZONING BOARD/LOCAL PLANNING AGENCY WILL CONSIDER THIS ITEM ON

DECEMBER 7, 2022

**AT 6:00 P.M. OR SOON THEREAFTER IN THE
COCOA CITY HALL COUNCIL CHAMBERS LOCATED AT
65 STONE STREET, COCOA, FL**

Members of the public may view the meeting agenda, ordinances, project applications, supporting documents, and staff reports on the City's website at the following link prior to attending or commenting: City of Cocoa meeting calendar at <https://cocoa.legistar.com/Calendar.aspx>

These documents and information pertaining to the above may also be inspected at the Community Services Department, between 9:00 a.m. and 5:00 p.m., Monday through Friday, or by phoning (321) 433-8535.

Interested parties are invited to attend this public meeting in person. Additionally, interested persons may view or listen to the meeting electronically at the following internet sites:

- (1) <https://tinyurl.com/s5e875r> or
- (2) <https://cocoa.legistar.com/DepartmentDetail.aspx?ID=26365&GUID=FF9D3369-D354-4FAB-800A-57D0AEE30153&Mode=MainBody>

However, the City is not responsible for technical difficulties that may occur while attempting to view or listen to the meeting on the internet.

Interested parties may also submit their written comments or questions regarding the meeting prior to the meeting through Email at meetings@cocoafl.org, or via E-comments through the online agenda. Any electronic comments submitted will be made part of the meeting record. Written comments may also be mailed to City of Cocoa, Planning & Zoning Manager, 65 Stone Street, Cocoa, Florida 32922. Written comments or questions not relevant to the Council meeting agenda will not be made part of the meeting record but will be maintained as public record.

This is a public meeting. Interested parties are hereby advised that they may appear at said meeting and be heard. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Carie Shealy, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8484 or via email at cshealy@cocoafl.org.

Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that if a person decides to appeal any decision made by the Board with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

The Board reserves the right to continue or postpone hearings to a date certain without re-advertising.