City of Stuart

AGENDA

COMMUNITY REDEVELOPMENT AGENCY
NOVEMBER 24, 2025
AT 4:00 PM
COMMISSION CHAMBERS
121 SW FLAGLER AVE.
STUART, FLORIDA 34994

COMMUNITY REDEVELOPMENT AGENCY
Chair - Campbell Rich
Vice Chair - Christopher Collins
Board Member - Eula R. Clarke
Board Member - Laura Giobbi
Board Member - Sean Reed
Board Member - Mark Brechbill
Board Member - Frederick James

ADMINISTRATIVE
Interim City Manager, Louis J. Boglioli III
City Attorney, Lee J. Baggett
CRA Executive Director, Pinal Gandhi-Savdas
City Clerk, Mary R. Kindel

Agenda items are available on our website at http://www.cityofstuart.us
Phone: (772) 288-5306. Fax: (772) 288-5305. E-mail: mkindel@ci.stuart.fl.us

In compliance with the Americans with Disabilities Act (ADA), anyone who needs a special accommodation to attend this meeting should contact the City's ADA coordinator at 772-288-5306 at least 48 hours in advance of the meeting, excluding Saturday and Sunday.

If a person decides to appeal any decision made by the Board with respect to any matter considered at this meeting, he will need a record of the proceeding, and that for such purpose he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

(RC) next to an item denotes there is a City Code requirement for a Roll Call vote.
(QJ) next to an item denotes that it is a quasi-judicial matter or public hearing.

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA

COMMENTS FROM THE PUBLIC (Non-Agenda Related) (3 Minutes Max.)

COMMENTS BY BOARD MEMBERS (Non-Agenda Items)

ACTION ITEMS

1. MURAL MATCHING GRANT AGREEMENT BETWEEN THE CRA AND PROPERTY OWNER OF 15 SW FLAGLER AVENUE (RC):

RESOLUTION No. 07-2025 CRA; A RESOLUTION OF THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF STUART, FLORIDA, AUTHORIZING THE BOARD CHAIR TO EXECUTE AN AGREEMENT BETWEEN THE STUART COMMUNITY REDEVELOPMENT AGENCY AND DANA SMALL, WHO IS THE PROPERTY OWNER, FOR A MURAL MATCHING GRANT IN THE AMOUNT OF $3,000 TO INSTALL A MURAL ON THE EXTERIOR SOUTHERN WALL OF A BUILDING LOCATED AT 15 SW FLAGLER AVENUE; PROVIDING AN EFFECTIVE DATE; PROVIDING FOR CONDITIONS OF APPROVAL; AND FOR OTHER PURPOSES.

STAFF UPDATE

2. DISCUSSION REGARDING BOYS & GIRLS CLUB REAR ENTRANCE GATE

ADJOURNMENT

WHAT IS CIVILITY? Civility is caring about one's identity, needs and beliefs without degrading someone else's in the process. Civility is more than merely being polite. Civility requires staying "present" even with those persons with whom we have deep-rooted and perhaps strong disagreements. It is about constantly being open to hear, learn, teach and change. It seeks common ground as a beginning point for dialogue. It is patience, grace, and strength of character. Civility is practiced in our City Hall.

PUBLIC COMMENT: If a member of the public wishes to comment upon ANY subject matter, including quasi-judicial matters, please submit a Request to Speak form. These forms are available in the back of the Commission Chambers, and should be given to the City Clerk prior to introduction of the item number you would like to address.

CONSENT CALENDAR: Those matters included under the Consent Calendar are self-explanatory, non-controversial, and are not expected to require review or discussion. All items will be enacted by one motion. If discussion on an item is desired by any City Commissioner that item may be removed by a City Commissioner from the Consent Calendar and considered separately. If an item is quasi-judicial it may be removed by a Commissioner or any member of the public from the Consent Calendar and considered separately.

QUASI-JUDICIAL HEARINGS: Some of the matters on the Agenda may be "quasi-judicial" in nature. City Commissioners will disclose all ex-parte communications, and may be subject to voir dire by any interested party regarding those communications. All witnesses testifying will be "sworn" prior to their testimony. However, the public is permitted to comment without being sworn. Unsworn testimony will be given

appropriate weight and credibility by the City Commission.

CITY OF STUART, FLORIDA
AGENDA ITEM REQUEST
Community Redevelopment Agency

Meeting Date: 11/24/2025 **Prepared by:**

Title of Item:
MURAL MATCHING GRANT AGREEMENT BETWEEN THE CRA AND PROPERTY OWNER OF 15 SW FLAGLER AVENUE (RC):

RESOLUTION No. 07-2025 CRA; A RESOLUTION OF THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF STUART, FLORIDA, AUTHORIZING THE BOARD CHAIR TO EXECUTE AN AGREEMENT BETWEEN THE STUART COMMUNITY REDEVELOPMENT AGENCY AND DANA SMALL, WHO IS THE PROPERTY OWNER, FOR A MURAL MATCHING GRANT IN THE AMOUNT OF $3,000 TO INSTALL A MURAL ON THE EXTERIOR SOUTHERN WALL OF A BUILDING LOCATED AT 15 SW FLAGLER AVENUE; PROVIDING AN EFFECTIVE DATE; PROVIDING FOR CONDITIONS OF APPROVAL; AND FOR OTHER PURPOSES.

Summary Explanation/Background Information on Agenda Request:
Community Redevelopment Board:
On November 4, 2025, the Community Redevelopment Board voted unanimously to approve Resolution No. 07-2025 CRA.

Background:
The Mural Matching Grant Program was approved by Resolution No. 09-2018 to encourage and promote mural artwork on private and public properties within the Community Redevelopment Area.

Each fiscal year, the CRA budgets $20,000 for the Mural Matching Grant Program. The program provides reimbursement of up to 50% of the project cost, not to exceed $3,000, for murals on private and public property.

The applicant is requesting a matching grant in the amount of $3,000 for the proposed mural on Matilda's located at 15 SW Flagler Avenue. The total cost of the proposed project is estimated at $21,836. The applicant is requesting reimbursement of 50% of the total cost of the project, not to exceed $3,000. The attached grant agreement approves the reimbursement of the maximum grant award in the amount of $3,000.

The project is expected to begin upon execution of the grant agreement.

Funding Source:
Mural Matching Grant Program - $3,000

Recommended Action:
Approve Resolution No. 07-2025 CRA to award a grant in the amount of $3,000 for the proposed mural project.

ATTACHMENTS:
1. Resolution No. 07-2025 CRA - Mural Grant Agreement
2. Resolution No. 07-2025 CRA - Exhibit A - Grant Agreement
3. Application Package - 15 SW Flagler Avenue

BEFORE THE COMMUNITY REDEVELOPMENT AGENCY CITY OF STUART, FLORIDA

RESOLUTION NUMBER 07-2025 CRA

A RESOLUTION OF THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF STUART, FLORIDA, AUTHORIZING THE BOARD CHAIR TO EXECUTE AN AGREEMENT BETWEEN THE STUART COMMUNITY REDEVELOPMENT AGENCY AND FIFTEEN FLAGLER LLC., WHO IS THE PROPERTY OWNER, FOR A MURAL MATCHING GRANT IN THE AMOUNT OF $3,000 TO INSTALL A MURAL ON THE EXTERIOR SOUTHERN WALL OF A BUILDING LOCATED AT 15 SW FLAGLER AVENUE; PROVIDING AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

* * * * *

WHEREAS, the City of Stuart created a Community Redevelopment Agency on May 12, 1986 pursuant to Chapter 163, Part III, Florida Statutes, and in 1998, it created a Redevelopment Trust Fund designed to channel funding towards improvements within the Community Redevelopment Area; and

WHEREAS, the Community Redevelopment Agency approved the Mural Matching Grant Program by Resolution No. 09-2018 on September 24, 2019, to encourage and promote mural artwork on private properties and public buildings within the Community Redevelopment Area; and

WHEREAS, the Community Redevelopment Board approved the mural by Resolution No. 02-2025 CRB on November 4, 2025.

NOW THEREFORE, BE IT RESOLVED BY THE COMMUNITY REDEVELOPMENT AGENCY BOARD OF THE CITY OF STUART, FLORIDA that:

SECTION 1: The above recitals are hereby incorporated as if fully set forth herein.

SECTION 2: The Stuart Community Redevelopment Agency authorizes the Board Chairman to execute an agreement between the Stuart Community Redevelopment Agency and Fifteen Flagler LLC., to award a grant in the amount of $3,000 to paint a mural on exterior southern wall of a building located at 15 SW Flagler Avenue, as attached hereto as **"Exhibit A"**.

SECTION 3: This resolution shall take effect immediately upon its adoption.

Board Member _____ offered the foregoing resolution and moved its adoption. The motion was seconded by Board Member _____, and upon being put to a roll call vote, the vote was as follows:

	YES	NO	ABSENT	ABSTAIN
CAMPBELL RICH, CHAIRPERSON				
CHRISTOPHER COLLINS, VICE CHAIRPERSON				
EULA R. CLARKE, BOARD MEMBER				
LAURA GIOBBI, BOARD MEMBER				
SEAN REED, BOARD MEMBER				
MARK BRECHBILL, EX-OFFICIO BOARD MEMBER				
FREDERICK JAMES, EX-OFFICIO BOARD MEMBER				

ADOPTED this _____ day of _____, 2025.

ATTEST:

_____
MARY KINDEL
CITY CLERK

_____
CAMPBELL RICH
CHAIRPERSON

APPROVED AS TO FORM AND
CORRECTNESS:

_____

LEE J. BAGGETT, ESQ
CITY ATTORNEY

MURAL MATCHING GRANT AGREEMENT BETWEEN STUART COMMUNITY REDEVELOPMENT AGENCY AND FIFTEEN FLAGLER, LLC., PROPERTY OWNER, FOR INSTALLATION OF A MURAL IN STUART COMMUNITY REDEVELOPMENT AREA

THIS AGREEMENT ENTERED this ____ day of _____2025 by and between the City of Stuart Community Redevelopment Agency (hereinafter referred to as "CRA") and Fifteen Flagler, LLC. (hereinafter referred to as "Owner").

W I T N E S S E T H:

WHEREAS, in City of Stuart Chapter 62 of the City of Stuart Code of Ordinances, the City Commissioners delegated authority to the CRA to award and administer CRA grants, including contracts with property owners for CRA grants; and

WHEREAS, Owner has applied for a grant through the Stuart Community Redevelopment Agency Mural Matching Grant Program (hereinafter referred to as “Mural Program”) in the amount of $3,000.00 dollars; and

WHEREAS, the CRA has determined that Owner meets the eligibility requirements and was approved for a grant award in the amount of $3,000.00 dollars on November 24, 2025 ("CRA Approval"), which is a minimum of _50__% of the costs to install the mural.

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other valuable considerations, the parties agree as follows:

1. Owner acknowledges to the CRA that Owner has received a copy of the Mural Program that Owner has read the guidelines and requirements for the Mural Program, and that Owner has had ample opportunity to discuss the Mural Program with Owner’s counsel or advisor. Owner further acknowledges to the CRA that Owner understands and agrees to abide by all of the terms and conditions of the Mural Program. Owner agrees to the terms and conditions of the Mural Program, a copy of which is attached as **“Attachment 1”** and incorporated herein.

2. Owner is the business owner at property described as 15 SW Flagler Avenue, Stuart, Florida (hereinafter referred to as “Subject Property”).

3. Owner has agreed to allow Cinthia Santos to install a mural (hereinafter referred to as “Subject Mural”) on the exterior north wall of the Subject Property pursuant to the grant application submitted to the CRA dated May 20, 2025.

4. Owner agrees to complete the Subject Mural within one year of the execution of this Agreement. Owner also agrees to fund at least 100% of the costs of the mural.

5. CRA has approved a reimbursement to Owner in the amount of $3,000.00 to be administered pursuant to the terms of this Agreement based on an estimated cost of $21,836.00. If the actual costs to install the Subject Mural is less than the estimated costs for the Subject Mural, the reimbursement amount shall be reduced accordingly to equal the percentage of the Subject Mural costs approved for funding by the CRA. In no case will the CRA/City of Stuart be obligated to fund anything in excess of the reimbursement amount.

6. Within forty-five (45) days after confirmation that the Subject Mural was installed pursuant to the terms of the approved application, Owner shall be issued a check in the amount of the grant or reduced amount required by paragraph 5. However, if Owner fails to install the Subject Mural pursuant to the terms of the approved application, or if the project is not completed within one year from the approval of the grant, or if Owner fails to fund at least 50% of the cost of the Subject Mural, the reimbursement shall be deemed revoked, and Owner shall be entitled to no funding.

7. The Subject Mural funded by the Mural Program shall be maintained for a minimum of 60 months (5 years) from the date of completion of the Subject Mural and shall be the responsibility of Owner. Owner must reimburse the CRA/City if the Subject Mural is removed prior to the terms of this Agreement. The obligation to maintain the Subject Mural funded with the CRA grant will run with the land.

8. This Agreement shall be governed and construed pursuant to the laws of the State of Florida.

9. This Agreement contains the entire agreement of the parties and their representatives and agents, and incorporates all prior understandings or representations, whether oral or written regarding the subject matter of this Agreement. No change, modification or amendment, or any representation, promise or condition, or any waiver, to this Agreement shall be binding unless in writing and signed by all parties to this Agreement.

10. This Agreement is personal to the Owner and may not be assigned or transferred by Owner or to Owner's respective heirs, personal representatives, successors or assigns without the prior written consent of the CRA. Further, the artist cannot be changed without written consent.

11. Reimbursement is subject to the availability of funds in the CRA Budget for the current fiscal year of the CRA.

12. If the project is not completed within one year from the execution of this Agreement, the grant award shall expire.

13. IN WITNESS WHEREOF, the parties have executed this Agreement on the date and year first written above.

OWNER(S):

(1) _____
Witness Signature

_____
Printed/Typed Name

By: _____
Dana Small, Property Owner
Fifteen Flagler, LLC.

_____
Printed/Typed Name

(2) _____
Witness Signature

_____
Printed/Typed Name

COMMUNITY REDEVELOPMENT AGENCY
STUART FLORIDA

_____
Pinal Gandhi-Savdas, CRA Executive Director

_____
Mark Brechbill, Chair

APPROVED AS TO FORM AND CORRECTNESS:

_____
Mary Kindel, City Clerk

_____
Lee J. Baggett, Esq., City Attorney

Community Redevelopment Agency

MURAL MATCHING GRANT PROGRAM

GUIDELINES

MISSION

The objective of the program is to use murals as a catalyst for redefining our area as a destination for arts and culture. Public art is an essential component to community revitalization. Art strengthens communities, drives tourism, and fosters an environment of creativity and innovation. Through this community revitalization effort, we aim to engage the creative sector to drive economic development within the Community Redevelopment Area.

PROGRAM DESCRIPTION

The applicants are eligible to receive financial assistance, in the form of a 50/50 funds match, not to exceed $3,000, for new mural artwork that are adjacent to the public right-of-way or surface parking lots, or visible from the public right-of-way.

Murals that are funded by the Mural Matching Grant Program may be placed on public buildings and facilities and private property limited to non-residential and mixed-use buildings within the Community Redevelopment Area. (See attached CRA Boundary Map). A map depicting the city-owned public buildings and facilities is attached as a reference for potential opportunity for a mural.

Murals are considered temporary works of art. Murals funded by the Mural Matching Grant Program shall be maintained for a minimum of 5 years and shall be the responsibility of the applicant and/or artist. An agreement, which will clarify terms and conditions of the commitments including maintenance, must be signed by the property owner and the artist. This ensures that murals will continue to look like as their artists and designers intended, and it also ensures opportunities for new murals and mural artists that reflect the changing perspectives and styles of the community.

A mural may not use letters, words, numerals, figures, emblems, logos or any parts or combinations thereof to advertise goods, services, or merchandise. Commercial signs are permitted through the City's Development Department.

ELIGIBILITY AND APPLICATION REQUIREMENTS

- Anyone can propose a mural project including property owners, artists, organizations, neighborhood associations, and government agencies. Ideas for murals will be accepted from anyone, provided it complies with a Minor Conditional Use application review process, public art criteria and public notice requirements in accordance with Section 3.01.08 and Section 11.02.00 of the City's Land Development Code, which shall be processed in conjunction with this grant application.

- Issuance of a Minor Conditional Use Approval shall be granted by the City's Community Redevelopment Board. For a Planned Unit Development (PUD), a minor amendment process for PUDs shall apply and the proposed mural shall be consistent with the terms and conditions of the development agreement.
- Approval shall be granted by the City's Community Redevelopment Board and the City Commission.
- The Mural Matching Grant Program application shall be processed simultaneously with a Minor Conditional Use application approval process.
- Projects will be considered on a case-by-case basis, and any grant is contingent upon the approval by the Community Redevelopment Board.
- Approved projects will require a grant agreement, which will clarify terms and conditions of the commitments between the CRA and the applicant. The number of mural projects funded by the City will depend on the funding availability.

HOW THE MATCH WORKS

The City shall provide funding for no more than 50% of the total cost of the project, not to exceed $3,000. Grant awards shall only be used for costs related to the mural project specified in the proposal. Grant awards shall be inclusive of artist's fees and related expenses for design, supplies, insurance, transportation, installations, minor conditional use application fees/permits and public notification. The applicant shall match the City grant through direct financial contributions, material donations (e.g. equipment, paint or other supplies) and/or volunteer time. The value of volunteer time is updated annually based on the State's wage calculation. Contact the CRA Executive Director if you intend to use volunteer hours as part of your match.

APPLICATION PROCESS

1. Download an application from the City's website, or secure an application at City Hall, Community Redevelopment Agency office located on 121 SW Flagler Avenue, Downtown Stuart.
2. Review the application if you have any questions please call (772) 288-5375 or email jpinkston@ci.stuart.fl.us.
3. Submit a completed application package to City Hall, CRA office, which includes the following:

- ☐ Signed and completed Mural Matching Grant application
- ☐ Signed and completed Minor Conditional Use application
- ☐ Attach a **completed budget worksheet** (use the provided template)
- ☐ Proof of ownership of the property (ex. tax deed) or contract agreement for mural on private property
- ☐ W-9 form (as applicable)
- ☐ Copy of liability insurance
- ☐ Image(s) of a color rendering of the proposed mural

- ☐ Image(s) of site and/or building/structure where the mural will be placed
- ☐ Project timeline
- ☐ If attaching panels to a wall, include a materials list, drawing and attachment of plans must be submitted, and a building permit may be required
- ☐ Any other documentation requested by the CRA Director in the pre-application meeting

The applicant is responsible for all application fees, public notices, building fees, other permits and fees which are associated with the proposed project.

REIBURSEMENT PROCESS

Disbursement of grant funds shall only occur when the following documents are submitted, and all other required conditions are met: Upon project completion, the applicant contacts the CRA office by calling (772) 283-2532 with the project completion date. The applicant submits a "reimbursement package" to the CRA which includes the following:

Proof of payment for improvements (which must be at least as much as the amount indicated in the application

- Completed reimbursement form (provided by the CRA as part of the application).
- Copies of applicable invoices must show "paid in full"; (receipts must CLEARLY show how the project was paid, i.e. check, cash must be made by cashier's check or credit)
- Proof of payment (which must be at least as much as the amount indicated in the application); and photos of mural
- Final approval by the City staff or copies of final inspection if building permit is required.

If the project is not completed or is not approved in its final inspection within one year from the approval of the grant, the grant award shall expire.

If you have any questions regarding this application, please contact the CRA Program Manager at (772) 288-5375 or jpinkston@ci.stuart.fl.us or visit www.cityofstuart.us/CRA.

Community Redevelopment Agency

MURAL MATCHING GRANT PROGRAM

APPLICATION

APPLICANT INFORMATION	
Name: DANA SMALL (DAYNART, INC. DBA MATILDA'S)	
Address: 15 SW FLAGLER AVENUE STUART, FLORIDA	
Phone: 772.834.1814	Tax ID# 65-0747767
Email: dana@matildaslifestyle.com	
Website: matildaslifestyle.com	

PROPERTY INFORMATION	
Lead Artist Name: CINTHIA SANTOS	
Other Artists (if applicable):	
Address: 4771 SW 5TH TERRACE MIAMI, FL 33134	
Phone: 305.204.5923	Tax ID# 81-0986646
Email: cyn@chalkandbrushdesignco.com	
Website: chalkandbrushdesignco.com	

MURAL LOCATION INFORMATION
Name of Business: DAYNART INC. DBA MATILDA'S
Type of Business: RETAIL
Property Owner Name: DANA SMALL, FIFTEEN FLAGLER LLC.
Property Owner Phone: 772.834.1814
Property Owner Email: dana@matildaslifestyle.com
Address of Proposed Project: 15 SW FLAGLER AVENUE STUART, FLORIDA 34994

MURAL PROJECT SUMMARY	
Please provide project concept/description, mission statement and/or mural project name (include detailed summary on a separate attachment):	
WELCOME TO STUART happiest seaside town	
This mural has a vibrant but vintage feel and hospitable approach, welcoming visitors to our beautiful town and historical shopping district, full of Florida flowers, fish and palms.	
Total Project Cost:	$ 21,836.00
Matching Amount Requested:	$ 3,000.00

Additional Instructions: At least one month prior to submitting your Mural Matching Grant application, meet with the CRA Administrator for an initial review of the mural, location, funding and building owner's approval. Contact Pinal Gandhi-Savdas @ (772) 288-5375 or email at pgandhi@ci.stuart.fl.us

Submit a completed application package to City Hall located at 121 SW Flagler Avenue, Development Department's office, which includes the following:

- Completed Mural Matching Grant Application.
- Attach the completed Budget Worksheet (use template provided).
- Attach a copy of the Minor Conditional Use application submitted to the Development Department.
- Attach proof of ownership of the property or contract agreement for mural on private property.
- W-9 form (as applicable).
- Attach a copy of the liability insurance.
- Image(s) of a color rendering of proposed mural project.
- Image(s) of site and/or building/structure where the mural will be placed.
- Project timeline.
- If attaching panels to a wall, a materials list, drawing and attachment plans must be submitted, and a building permit may be required.
- Attach any other documentation requested by the CRA Administrator in the pre-application meeting.

The applicant is responsible for all Development Department application fees, public notice, building and other permits and fees which are associated with the proposed project. Questions, please call 772-288-5375.

CITY OF STUART, FLORIDA
DEVELOPMENT DEPARTMENT
MURAL MINOR CONDITIONAL USE PERMIT

Reviewed By:_____

Application must be legible with all relevant fields completed.

Project ID#_____
(Staff Entry)

Pre-App Conference Date:	Application Date: 5/20/25
Project Name: WELCOME TO STUART MURAL	
Parcel ID#	Project Address: 15 SW FLAGLER AVE STUART, FLORIDA
Zoning/CRA Sub-district:	
Subdivision:	Lot(s): LOT 33 AND PARTIAL LOT 32

Fee: $250.00 – Mural Minor Conditional Use Permit (Community Redevelopment Board)
(This does not include fees for public notice or any required recording fees)

A Mural Minor Conditional Use Permit shall be required for mural on public buildings and facilities within the Community Redevelopment Area and private properties limited to non-residential and mixed-use buildings and structures in the Urban Code District and East Stuart Code District located within the Community Redevelopment Area. For a Planned Unit Development (PUD), a minor amendment process for PUDs shall apply and the proposed mural shall be consistent with the terms and conditions of the Development Agreement.

Submittal Requirements: A completed application form, one (1) copy of all documents on a PDF formatted disc, the payment of fees, and pertinent information as required below.

Approving Authority: The Development Director is required to prepare a staff report and recommendation concerning this application for the Community Redevelopment Board (CRB) public hearing.

Justification: Please provide justification supporting the request for a Mural Conditional Use Permit including artist's resume/portfolio, proposed location of mural (photos of exterior wall), dimensions of mural (size/scale), paint colors, type of paint or other material to be used, description of the proposed mural, color rendering/drawing, and maintenance program (use additional pages if needed).

(over)

General Information
(Please Print or Type)

1. Property Owner, Lessee, Contract Purchaser, or Applicant (circle one):

Name: DANA SMALL	City/State/Zip Code:
Title: OWNER	Telephone Number: 772.834.1814
Company: FIFTEEN FLAGLER LLC	Facsimile Number:
Company Address: 15 SW FLAGLER AVE/STUART, FLORIDA 34994	Email Address (optional):

2. Agent of Record (if any): The following individual is designated as the Agent of Record for the property owner, lessee, or contract purchaser and should receive all correspondence related to the application review.

Name:	City/State/Zip Code:
Title:	Telephone Number:
Company:	Facsimile Number:
Company Address:	Email Address (optional):

3. The Undersigned, as the Property Owner, Lessee, Contract Purchaser, or Applicant (circle one), acknowledges responsibility for all City expenses associated with the referenced application (s) including time spent by the City's consultants and further acknowledges that payment of consultant fees will be made prior to the receipt of the consultant comments.

Name: DANA SMALL	City/State/Zip Code:
Title: OWNER	Telephone Number: 772.834.1814
Company: FIFTEEN FLAGLER LLC	Facsimile Number:
Company Address: 15 SW FLAGLER AVE/STUART, FLORIDA 34994	Email Address (optional):

I hereby certify that all information contained herein is true and correct.

4. Signed this 21 day of JUNE 20 25.

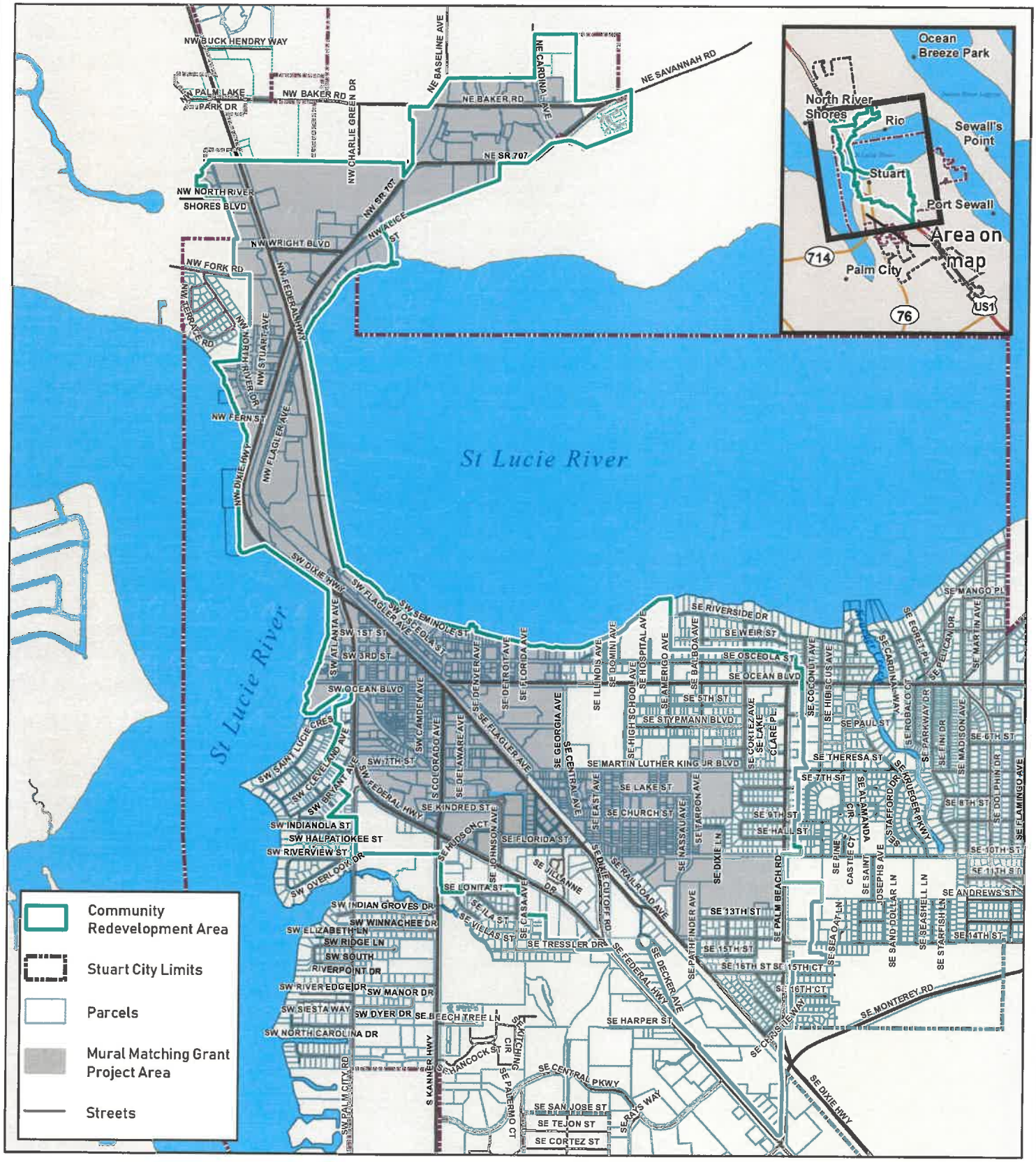
Dana Small
Signature of Property Owner, Lessee, Contract Purchaser or Applicant (circle one)

State of Florida, Martin County The foregoing instrument was acknowledged before me on this 21 day of JUNE 2025 by DANA SMALL who is personally known to me, or who has produced FLA# S540165709300 as identification and who did/did not take an oath.

Notary Signature

Commission expires: 12/03/2025

LARRY POCINO
Notary Public-State of Florida
Commission # HH 171228
My Commission Expires
December 03, 2025



Mural Matching Grant Program Project Area City of Stuart

CITY OF STUART · FLORIDA · SAILFISH CAPITAL OF THE WORLD

0 125 250 500 Meters

0 500 1,000 2,000 Feet

City of Stuart DEVELOPMENT

Mural Matching Grant Project Area boundary is maintained by the City of Stuart. This map is a conceptual planning tool only.

Created By: mjett

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MURAL WALL
SW DIXIE HWY

Chalk And Brush Design
4771 SW 5th Ter
Coral Gables, FL 33134 US
3052045923
info@chalkandbrushdesignco.com

INVOICE

BILL TO
Dana Smal
Matilda's Lifestyle
15 sw flagler avenue
stuart, florida 34994 usa

SHIP TO
Dana Smal
Matilda's Lifestyle
15 sw flagler avenue
stuart, florida 34994 usa

INVOICE # 1636
DATE 07/19/2024
DUE DATE 07/19/2024
TERMS Due on receipt

DATE	ACTIVITY	DESCRIPTION	QTY	RATE	AMOUNT
07/19/2024	**Deposit**	Deposit for mural for exterior facade of Matilda's located in Stuart florida.	1	10,918.00	10,918.00
07/19/2025	**Large Exterior Mural**	Design, materials and labor for large exterior mural.	1	10,918.00	10,918.00

PAID

Payment 1/2:
$10,918.00- This payment is due once the invoice is received and will serve as a deposit for this project.
Payment 2/2:
10,918.00- This payment is due once the project is completed.

SUBTOTAL	21,836.00
TAX	0.00
TOTAL	21,836.00
PAYMENT	21,836.00
BALANCE DUE	**$0.00**

TOTAL PROJECT AMOUNT: $21,836.00

MURAL MATCHING GRANT PROGRAM BUDGET WORKSHEET		
Project Expenses:	**Notes**	**Amount**
Artist Fees		21,836.00
Assistant Fees		
Supplies/Materials		
Insurance		
Wall Preparation		
Scaffolding/Ladders/Lifts		
Sealing		
Maintenance		
Application Fees		250.00
Public Notice/Posting Sign		200.00
Other		
Total Budget		$22,286.00
Match:	**Notes**	**Amount**
Cash		
Foundation Grants		
Business Donations		
Individual Donations		
Fundraisers		
Other		
Total Cash		
In-Kind:	**Notes**	**Amount**
Volunteer Time	Use IS Value*	
Donations of Materials		
Artist Fees	Donated by lead artist	
Assistant Fees		
Wall Preparation		
Publicity/Promotion		
Other		
Total In-Kind:		
Total Match:		$3,000
Funding Request:		$3,000
Does match equal or exceed funding request?		

*Estimated value according to Independent Sector (IS), a coalition of charities, foundations, corporations, and individuals that publishes research important to the nonprofit sector.

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give form to the requester. Do not send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See *Specific Instructions* on page 3.

1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)
Wynwood sign painting

2 Business name/disregarded entity name, if different from above.
Wynwood sign painting DBA Chalk And Brush

3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only one of the following seven boxes.

☐ Individual/sole proprietor ☐ C corporation ☒ S corporation ☐ Partnership ☐ Trust/estate

☐ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) . . . . .

Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.

☐ Other (see instructions)

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any)

(Applies to accounts maintained outside the United States.)

3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . ☐

5 Address (number, street, and apt. or suite no.). See instructions.
4771 sw 5th ter

Requester's name and address (optional)

6 City, state, and ZIP code
Coral gables FL 33134

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number
[ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ]

or

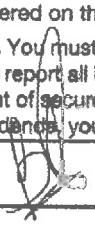
Employer identification number
8 1 - 0 9 8 6 6 4 6

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here Signature of U.S. person  Date 2/10/2025

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/06/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

JMG Insurance Agency
440 N Barranca Ave #9499
Covina, CA 91723

CONTACT NAME: Customer Service
PHONE (A/C, No, Ext): 619-259-5589 FAX (A/C, No):
E-MAIL ADDRESS: service@jmgia.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A :	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E : Assigned Risk	None
INSURER F :	

INSURED

Wynwood Sign Painting LLC DBA Chalk And Brush Design
4771 Southwest 5th Terrace
Miami, FL 33134

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
E	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N	N / A	N	AVWV009000192100	12/04/2024	12/04/2025	☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☑ Y (Mandatory in NH)						E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Jon Grijalva

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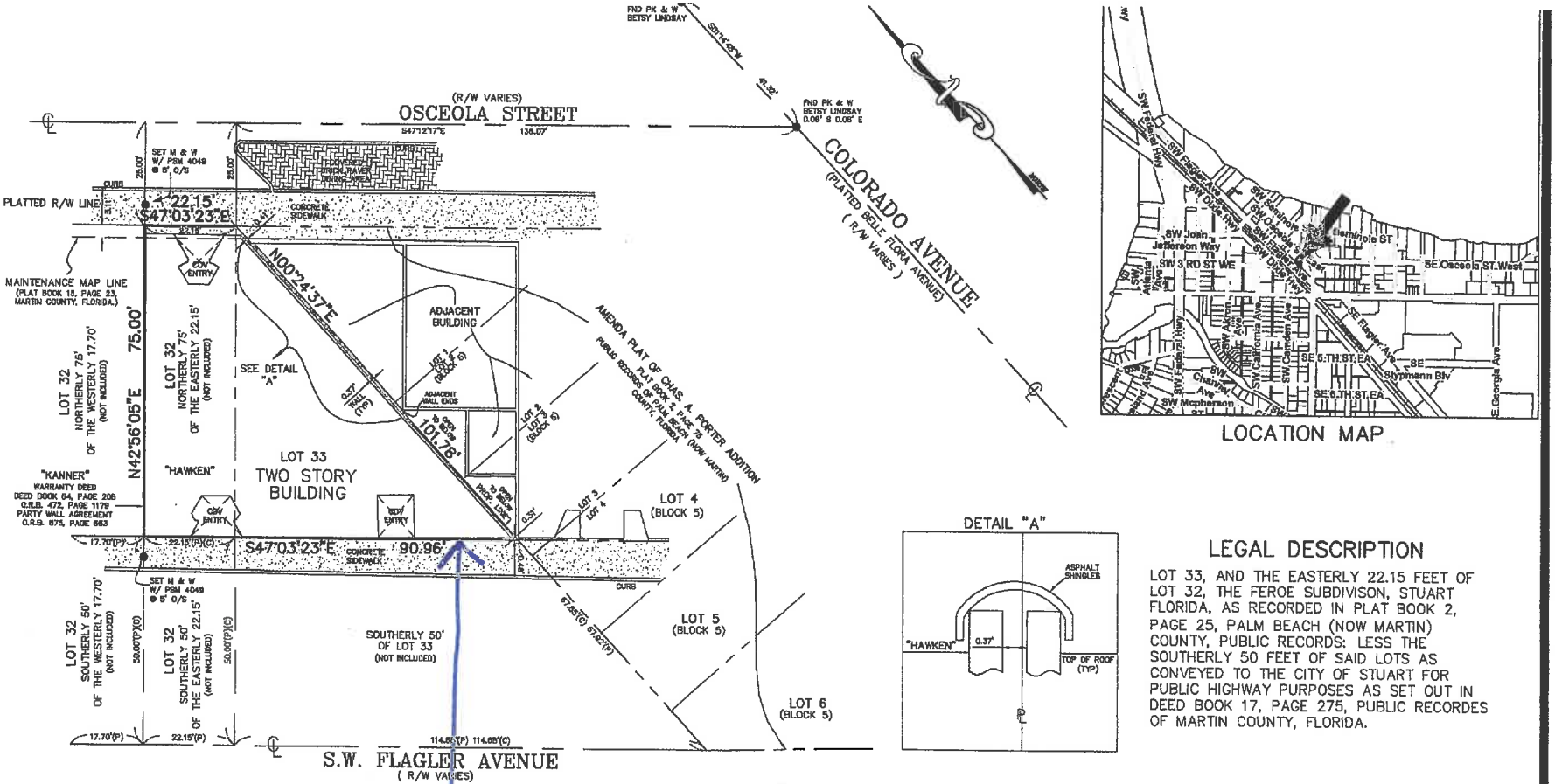
Matilda's City of Stuart Mural
Colorway 1

Welcome to
HAPPIEST SEASIDE TOWN



LOCATION MAP

LEGAL DESCRIPTION

LOT 33, AND THE EASTERLY 22.15 FEET OF LOT 32, THE FEROE SUBDIVISON, STUART FLORIDA, AS RECORDED IN PLAT BOOK 2, PAGE 25, PALM BEACH (NOW MARTIN) COUNTY, PUBLIC RECORDS: LESS THE SOUTHERLY 50 FEET OF SAID LOTS AS CONVEYED TO THE CITY OF STUART FOR PUBLIC HIGHWAY PURPOSES AS SET OUT IN DEED BOOK 17, PAGE 275, PUBLIC RECORDES OF MARTIN COUNTY, FLORIDA.

Date of field survey:
01/27/2014
04/15/2022

ACRE	CHD	CHORD	EOP	EDGE OF PAVEMENT	I & E	INGRESS & EGRESS EASEMENT	N & TT	NAIL & TIN TAB	P	PLAT	PRO	PRORATED	S/D	SUBDIVISION
AIR CONDITIONER	CONC	CONCRETE	EOW	EDGE OF WATER	INV	INVERT	N & W	NAIL & WASHER	PB	PLATBOOK	R	RADIUS	T	TANGENT
ALUMINUM	CBS	CONC. BLOCK STRUCTURE	EM	ELECTRIC METER	IR	IRON BAR	NGVD	NATIONAL GEODETIC VERTICAL DATUM	PCC	POINT OF COMPOUND CURVATURE	RAD	RADIAL	TCE	TEMPORARY CONSTRUCTION EASEMENT
ANCHOR	CM	CONCRETE MONUMENT	ES	ELECTRIC SERVICE	IP	IRON PIPE	NO ID	NO IDENTIFICATION	PC	POINT OF CURVATURE	RRS	RAILROAD SPIKE	TOB	TOP OF BANK
APPROXIMATE	CNR	COULD NOT READ	ELEV	ELEVATION	IR & C	IRON BAR & CAP	NTS	NOT TO SCALE	PI	POINT OF INTERSECTION	RNG	RANGE	TOE	TOE OF SLOPE
									POB	POINT OF BEGINNING	RLS	REGISTERED LAND SURVEYOR	TWP	TOWNSHIP
									POC	POINT OF COMMENCEMENT	RCP	REINFORCED CONCRETE PIPE	TRANS	TRANSFORMER
									POE	POINT OF ENCROACHMENT	R/W	RIGHT OF WAY	TYP	TYPICAL
									PRC	POINT OF REVERSE CURVATURE	SS	SANITARY SEWER	UDE	UTILITY & DRAINAGE EASEMENT
									PT	POINT OF TANGENCY	SECT	SECTION	UE	UTILITY EASEMENT

* PROPOSED WALL FOR MURAL

BOUNDARY SURVEY PREPARED FOR: FIFTEEN FLAGLER, LLC

STEPHEN J. BROWN, INC LICENSED BUSINESS NUMBER: 6484
SURVEYORS • DESIGNERS • LANDPLANNERS • CONSULTANTS
EAST 5TH STREET; STUART, FLORIDA 34994 EMAIL: sjbinc@bellsouth.net PHONE: (772)-288-7178

Old Republic National Title Insurance Company

AMERICAN LAND TITLE ASSOCIATION
COMMITMENT

Schedule A

Transaction Identification Data for reference only:

Commitment Number:	Revision Number:	Issuing Office File Number:	Issuing Office:
1232633	**None**	**21-146**	**7375**
Property Address:	Loan ID Number:	ALTA Universal ID:	Issuing Agent:
17 SW Flagler Avenue, Stuart, FL 34994	**None**	**None**	**Robert A. Burson, P.A.**

1. Commitment Date: February 23, 2022 @ 11:00 PM

2. Policy to be issued: Proposed Policy Amount:

   OWNER'S: ALTA Owner's Policy (6/17/06) (With Florida Modifications) $1,220,000.00

   Proposed Insured: Fifteen Flagler, LLC, a Florida limited liability company

   MORTGAGEE: ALTA Loan Policy (6/17/06) (With Florida Modifications) $

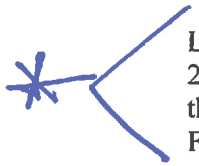
   Proposed Insured:

3. The estate or interest in the Land described or referred to in this Commitment is FEE SIMPLE. (Identify estate covered, i.e., fee, leasehold, etc.)

4. Title to the estate or interest in the Land is at the Commitment Date vested in:

   Gary L. Hawken and Sandra G. Hawken, husband and wife (PREVIOUS OWNERS)

5. The Land is described as follows:



Lot 33, and the Easterly 22.15 feet of Lot 32, the Feroe Subdivision, Stuart, Florida, as recorded in Plat Book 2, page 25, Palm Beach (now Martin) County, Florida, public records; LESS the Southerly 50 feet of said lots as conveyed to the City of Stuart for public highway purposes as set out in Deed Book 17, page 275, public records of Martin County, Florida.

Prepared by and return to:
Robert A. Burson
Attorney at Law
Robert A. Burson, P.A.
Post Office Box 1620
Stuart, FL 34995
772-286-1616
File Number: **21-146**
Will Call No.: **CH Box #39**

Parcel Identification No. **05-38-41-004-000-00330-0**

[Space Above This Line For Recording Data]

Warranty Deed

(STATUTORY FORM - SECTION 689.02, F.S.)

This Indenture made this **26th** day of **April, 2022** between **Gary L. Hawken and Sandra G. Hawken, husband and wife** whose post office address is **1283 NW Spruce Ridge Drive, Stuart, FL 34994** of the County of **Martin**, State of **Florida**, grantor*, and **Fifteen Flagler, LLC, a Florida limited liability company** whose post office address is **17 SW Flagler Ave, Stuart, FL 34994** of the County of **Martin**, State of **Florida**, grantee*,

Witnesseth that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS ($10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Martin County, Florida**, to-wit:

> **Lot 33, and the Easterly 22.15 feet of Lot 32, the Feroe Subdivision, Stuart, Florida, as recorded in Plat Book 2, page 25, Palm Beach (now Martin) County, Florida, public records; LESS the Southerly 50 feet of said lots as conveyed to the City of Stuart for public highway purposes as set out in Deed Book 17, page 275, public records of Martin County, Florida.**
>
> **Subject to taxes for 2022 and subsequent years; covenants, conditions, restrictions, easements, reservations and limitations of record, if any.**

and said grantor does hereby fully warrant the title to said land, and will defend the same against lawful claims of all persons whomsoever.

* "Grantor" and "Grantee" are used for singular or plural, as context requires.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Bill of Sale

This Bill of Sale, made on **April 26, 2022**, between **Gary L. Hawken and Sandra G. Hawken, husband and wife** ("Seller"), and **Fifteen Flagler, LLC, a Florida limited liability company** ("Buyer").

Witnesseth, that Seller, in consideration of the sum of TEN DOLLARS ($10.00) and other good and valuable consideration paid to Seller by Buyer, receipt and sufficiency of which is hereby acknowledged, delivers, grants, bargains, sells and transfers forever to Buyer the following goods and chattels, to wit:

Hurricane Shutters

Said property being located at:

Lot 33, and the Easterly 22.15 feet of Lot 32, the Feroe Subdivision, Stuart, Florida, as recorded in Plat Book 2, page 25, Palm Beach (now Martin) County, Florida, public records; LESS the Southerly 50 feet of said lots as conveyed to the City of Stuart for public highway purposes as set out in Deed Book 17, page 275, public records of Martin County, Florida.

Also known as **17 SW Flagler Avenue, Stuart, FL 34994**

Seller covenants to Buyer that Seller is the lawful owner of the said goods and chattels; that they are free from all encumbrances; that Seller has good right to sell that property, and that Seller will warrant and defend the sale of said property, goods and chattels unto the Buyer against the lawful claims and demands of all persons whomsoever.

"Seller" and "Buyer" shall be used for singular or plural, natural or artificial, which terms shall include the heirs, legal representatives, successors and assigns of Seller and Buyer whenever the context so requires or admits.

Gary L. Hawken

Sandra G. Hawken

State of Florida
County of Martin

The foregoing instrument was acknowledged before me by means of [X] physical presence or [_] online notarization, this 26th day of April, 2022 by Gary L. Hawken and Sandra G. Hawken, husband and wife, who [X] is personally known or [_] has produced a driver's license as identification.

[Notary Seal]

ROBERT A. BURSON
MY COMMISSION # HH 076129
EXPIRES: January 31, 2025
Bonded Thru Notary Public Underwriters

Notary Public

Printed Name: ROBERT A. BURSON

My Commission Expires: _____

CITY OF STUART, FLORIDA
AGENDA ITEM REQUEST
Community Redevelopment Agency

Meeting Date: 11/24/2025 **Prepared by:** Jodi Nentwick

Title of Item:
DISCUSSION REGARDING BOYS & GIRLS CLUB REAR ENTRANCE GATE

Summary Explanation/Background Information on Agenda Request:
At the last CRA meeting, the Board inquired about the approval for the rear entrance gate and traffic pattern.

Funding Source:
N/A

Recommended Action:
Presentation

ATTACHMENTS:
1. Recorded DO - Boys & Girls Club Minor Development Plan (Z22060006)
2. Boys and Girls Club - Z2206006 - Exhibit C

Inst. # 3017459
Bk: 3376 Pg: 1 Pages: 1 of 12
Recorded on:5/23/2023 8:07 AM Doc: ORD
Carolyn Timmann
Clerk of the Circuit Court & Comptroller
Martin County, FL
Rec Fees: $103.50

CITY OF STUART
DEVELOPMENT DEPARTMENT

Prepared by and return to:
City Development Director
121 SW Flagler Avenue
City of Stuart, FL 34994-2139

CITY OF STUART, FLORIDA

MINOR FINAL SITE PLAN APPROVAL ORDER – Z22060006

WHEREAS, Boys and Girls Club of Martin County, Inc., as Keith Fletcher, as the Registered Agent of the below-described real property *("owner")* submitted an application for a Minor Development Final Site Plan approval for the **Boys and Girls Stuart (BGS)** ***("the project")*** located at **500 S.E. Ocean Boulevard** and on lands within the City of Stuart, Martin County, Florida, and as further described in **Exhibit "A"**, attached hereto; and

WHEREAS, pursuant to Section 11.01.03(*A*) Stuart Land Development Code (*LDC*), final action on a non-residential development under 50,000 square feet in area and other Minor Development Plan applications shall be reviewed and approved by the City Development Director.

NOW, THEREFORE, THE DEVELOPMENT DIRECTOR HEREBY DETERMINES THAT:
Copies of which will be kept on file with the City Clerk's Office and shall be referred to as **Exhibit "C" Development Documents**, meeting all requirements of the City code, for a Minor Development Site Plan Order and is hereby **APPROVED,** subject to the following:

1. Project Narrative (Page 1 of 1), dated January 25, 2023, prepared by Architects Designs Collaborative, LLC.
2. Letter of Authorization, dated January 24, 2023, prepared by The School Board of Martin County, Florida.
3. Boundary & Topographic Survey, Sheet 1 of 2 and Sheet 2 of 2, dated November 5, 2020 (*Revised September 20, 2021, and November 1, 2021*), prepared by Bowman Consulting, and digitally signed and sealed on January 18, 2023, by Steven Brickley.
4. Stormwater Management Report, Pages 1-104, dated January 2023, prepared by Klima Weeks Civil Engineering.
5. Stormwater Statement, Pages 1-8, dated January 19, 2023, prepared by Bowman Consulting.
6. Master Site Plan, Sheet A101, dated August 12, 2022 (Revised: October 20, 2022, thru March 7, 2023), prepared by Architects Design Collaborative, LLC, and digitally signed and sealed on April 3, 2023, by Raul Ocampo, Jr.

7. Architectural Site Plan, Sheet A100-A107, dated October 27, 2022, prepared by Architects Design Collaborative, LLC, and digitally signed and sealed by Raul Ocampo, Jr. on January 1, 2023.
8. Site Lighting Study, Sheet LO, dated May 23, 2022, (*Revised: May 24, 2023, thru October 17, 2022*), prepared by Lighting Dynamics, Inc.
9. Landscape Plan, Sheet 1, dated September 12, 2022, prepared by Lucido & Associates.
10. Traffic Impact Study Memorandum, Pages 1-39, dated March 3, 2023, prepared by Bowman Consulting, and digitally signed and sealed by Daniela S. Jurado, P.E.
11. South Florida Water Management District (SFWMD) Individual Environmental Resource Permit No. 43-108245-P issued on February 21, 2023, for the project known as Boys and Girls Club at Stuart Middle School.

A. The construction of a non-residential development under 50,000 square feet shall be in strict accordance with the Site Plan, the Architectural Plans and Elevations and the **Conditions of Approval**, attached hereto as **Exhibit "B"**. No permits for construction or further development activity shall be issued by the City until all required documents, plans and fees, if any, are received and approved as may be required in the Conditions of Approval.

B. The developer, including any successors in interest, is advised as part of this Minor Development Plan, the developer, property owner, or successor shall obtain all applicable development permits and construction authorizations from the appropriate State, Federal, and local regulatory agencies including, but not limited to, the United States Army Corps of Engineers, the Florida Department of Environmental Protection, South Florida Water Management District, Public Works, and Building Departments prior to the commencement of any development activities on the property described in **Exhibit "A"**. Approval by the City of Stuart does not in any way create any rights on the part of the developer, property owner, or successor to obtain a permit from a State or Federal agency and does not create any liability on the part of the City for issuance of this approval if the developer fails to obtain requisite approvals or fulfill the obligations imposed by a State or Federal agency or undertake actions that may result in a violation of State or Federal law.

C. The conditions set forth in **Exhibit "C"** are an integral non-severable part of the site plan approval granted by this Order. If any condition(*s*) set forth in **Exhibit "C"** are determined to be invalid or unenforceable for any reason and the developer declines to comply voluntarily with that condition(*s*), the site plan approval granted by this Order shall become null and void.

D. The approval granted by this Order shall become null and void unless a Building and/or Site Permit is obtained within five (*5*) years of the Minor Development Plan approval, for the use described in **Exhibit "C"** below, or an extension is granted in accordance with Section 8.05.08 of the City of Stuart Land Development Code.

E. This development order shall be recorded in the public records of Martin County.

Signed, Attested, Rendered and Filed

this 22nd day of May, 2023

By: Smelegi, Susey Melegi

APPROVED BY:

Jodi Nentwick-Kugler,
City Development Director

ACCEPTANCE AND AGREEMENT

BY SIGNING THIS ACCEPTANCE AND AGREEMENT, THE UNDERSIGNED HEREBY ACCEPTS AND AGREES TO ALL OF THE TERMS AND CONDITIONS CONTAINED IN THE FOREGOING MINOR SITE PLAN APPROVAL, AND ALL EXHIBITS, ATTACHMENTS AND DEVELOPMENT DOCUMENTS, INTENDING TO BE BOUND THEREBY, AND THAT SUCH ACCEPTANCE AND AGREEMENT IS DONE FREELY, KNOWINGLY, AND WITHOUT ANY RESERVATION, AND FOR THE PURPOSES EXPRESSED WITHIN THE FOREGOING DEVELOPMENT ORDER. IN WITNESS WHEREOF THE UNDERSIGNED HAS EXECUTED THIS ACCEPTANCE AND AGREEMENT:

WITNESSES:

Boys and Girls Club of Martin, Inc.
Keith Fletcher, Registered Agent

Witness #1:
Print Name: Lauren Bubeck

Signature: Lauren Bubeck

Print Name: Keith G Fletcher

Signature:

Title: President & Chief Executive Officer

Witness #2:
Print Name: Andrea Economus

Signature: Andrea Economus

OWNERS ACKNOWLEDGMENT

The above Resolution, Acceptance and Agreement was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 16 day of May, 2023, by Keith Fletcher

Personally Known OR Produced Identification
Type of ID Produced _____

Signature of Notary Public: Kristi D. Jackson
Commission Expires:

Notary Seal:

KRISTI D. JACKSON
Commission # GG 982841
Expires May 10, 2024
Bonded Thru Troy Fain Insurance 800-385-7019

Exhibit "A"
Legal Description

LEASEHOLD PARCEL:

A PARCEL OF LAND BEING A PORTION OF THE PLAT OF STUART HIGH SCHOOL PROPERTY, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 2, PAGE 27 OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA: ALSO BEING A PORTION OF LOTS 21 AND 25, ALL OF LOT 26, BLOCK 13, A PORTION OF LOTS 13, 21 AND 25, ALL OF LOTS 22, 23, AND 24, BLOCK 14, AND A PORTION OF THE CLOSED RIGHTS-OF-WAY OF EAST SIXTH STREET AND OLIVE AVENUE (ALSO KNOWN AS ILLINOIS AVENUE), OF THE 47 ACRE ADDITION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 1, PAGE 27, OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA;

COMMENCE AT THE SOUTHEAST CORNER OF SAID PLAT OF STUART HIGH SCHOOL PROPERTY; THENCE NORTH 00°59'19" EAST ALONG THE EAST LINE OF SAID PLAT, ALSO BEING THE WEST RIGHT-OF-WAY LINE OF HIGH SCHOOL AVENUE, A DISTANCE OF 279.26 FEET TO THE **PONT OF BEGINNING;** THENCE NORTH 00°59'19" EAST, CONTINUING ALONG SAID EAST LINE AND WEST RIGHT-OF-WAY LINE A DISTANCE OF 365.25 FEET; THENCE SOUTH 89°54'19" WEST, A DISTANCE OF 269.14 FEET; THENCE SOUTH 00°57'12" WEST, A DISTANCE OF 152.60 FEET; THENCE SOUTH 89°54'19" WEST, A DISTANCE OF 19.17 FEET; THENCE SOUTH 00°05'41" EAST, A DISTANCE OF 23.92 FEET; THENCE SOUTH 89°54'19" WEST, A DISTANCE OF 150.46 FEET; SOUTH 00°05'41" EAST, A DISTANCE OF 7.59 FEET: THENCE SOUTH 29°54'19" WEST. A DISTANCE OF 45.84 FEET: THENCE SOUTH 00°05'41" EAST, A DISTANCE OF 138.09 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 45.50 FEET; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00", A DISTANCE OF 71.47 FEET TO THE POINT OF TANGENCY; THENCE NORTH 89°54'19" EAST, A DISTANCE OF 369.08 FEET TO THE BEGINNING OF A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 43.00 FEET: THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 88°55'00", A DISTANCE OF 66.73 FEET TO THE **POINT OF BEGINNING**.

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COMMENCE AT THE SOUTHEAST CORNER OF SAID PLAT OF STUART HIGH SCHOOL PROPERTY; THENCE NORTH 00°59'19" EAST ALONG THE EAST LINE OF SAID PLAT, ALSO BEING THE WEST RIGHT-OF-WAY LINE OF HIGH SCHOOL AVENUE, A DISTANCE OF 279.26 FEET TO THE CUSP OF A CURVE CONCAVE TO THE NORTHWEST HAVING A

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SITUATE IN THE COUNTY OF MARTIN, STATE OF FLORIDA.

CONTAINING A TOTAL OF 164,231 SQUARE FEET OR 3.77022 ACRES, MORE OR LESS.

PARCEL I.D.: 04-38-41-004-011-00010-7

Exhibit "B"
Conditions of Approval

Staff Analysis

The approved Minor Development Plan for a 37,807 square foot one (1) story building (facility) consists of 14,918 square foot building, 10,200 square foot gymnasium, and 12,688 square foot Vocational Technical Laboratory to be constructed on a 2.89-acre leased site of the Stuart Middle School Campus to be known as The Boys & Girls Club of Stuart with site access from Martin Luther King Jr. Boulevard, just east of SE Georgia Avenue, and a secondary entrance from SE High School Avenue and proposed site improvements.

The 2.89-acre site is zoned Public within the Community Redevelopment Area (CRA), with a Public Future Land Use designation.

A. Effect on Adjacent Properties

Use & Operations

Based on the applicant's project narrative, the Club consists of BGC Club facilities and adjunct SDMC labs for vocational technologies training. The Club includes a high school sized gymnasium, classroom spaces and performing arts space with a teaching kitchen and cafe gathering space and ancillary administrative offices.

Hours of operation are from 2:00 PM to 6:30-7:00 PM. The SDMC Labs will be used by SMS Students during school hours and the gymnasium will be open to the surrounding community for use on weekday evenings and weekends. There is a bus drop off for students brought to the facility and ample parking based on historical data provided by the architect for 5 previously completed club facilities.

Student Arrival and Departure

Arrival time: The students are expected to be picked up from their respective schools by two (2) school buses between 2:30-3:30 PM and brought to the Boys and Girls Club.

Dismissal times and procedure: after 4:30 PM. Parents will be advised to access the site through the north access along SE High School Avenue and circulate south to the pick-up/drop-off area.

Architectural Design (Building)

This is a one-story facility with a curved (pitched) roof with mediumwave height of 43'-8" ft and an eave height of 42-5½". The building is to be of masonry construction with steel roof structure and equipped with fire sprinkler system throughout.

Access

Access to the site will be provided via two (2) driveways: one (1) existing full-access driveway on SE Martin Luther King, Jr. Boulevard and SE High School Avenue. The existing project driveway on SE Martin Luther King, Jr. Boulevard is proposed to be displaced north of the proposed Boys & Girls Club access.

Parking
The site includes a total of 61 parking space. The parking calculations include 47 spaces, which includes two ADA parking stalls on site, and 14 spaces located off-site.

Signage
One (1) two face monument sign is proposed at the entrance from SE Martin Luther King Jr Boulevard, and one (1) single face monument sign located at the entrance on SE High School Avenue. A wall sign is proposed on the main building along the front elevation (south).

B. Adequacy of Public Facilities

Water/Wastewater:
The site will be served by City of Stuart for water and wastewater.

Sanitation
The site will be served by City of Stuart for sanitation collection.

Stormwater/Drainage
Based on the Stormwater Statement prepared by Bowman Consulting (dated January 19, 2023), in compliance with the Klima-Weeks overall drainage design, the existing direct outfall to the city's lake, which located within the lease area will be removed, replaced by the School Board with a new outfall controlling the entire School property.

Per the Klima-Weeks overall plan, two dry retention areas within the leased area will be constructed and interconnected with the overall drainage system for the school, forming part of the overall system to provide water quality treatment and stormwater attenuation for the entire site.

A small modification to the two retention areas is proposed via this application. We propose that the bottom elevation of the dry retention area be lowered from 5.0' NAVD to 4.5' NAVD. This elevation will match the other dry retention areas proposed within the School and is more than 12" above the wet season water table (2.3' NAVD). The lowering of the retention bottom will provide additional water quality treatment and nutrient reduction by increasing the retention below the weir elevation set at 5.2' NAVD. This change also provides for additional storage area for stormwater attenuation below elevation 7.5, which is the minimum berm elevation. Finally, this also allows the lease area to be lowered 6", with savings on fill.

Dewatering
Dewatering is not required for the construction of the foundations for the building as the finished floor is set 9 feet above the water table. Dewatering is not required for the construction of the dry retention areas. Any minor dewatering required for the construction of the utilities will be performed under a general permit to be obtained by the Contractor.

Traffic Impact Analysis
Kimley-Horn, acting as the City's Traffic Consultant, reviewed the traffic impact study (dated March 3, 2023) prepared by Bowman related to the above-mentioned project. The proposed project consists of a Boys & Girls Club after-school activities center for approximately 200 elementary, middle, and high-school students.

The total trip generation potential for the proposed development is 146 PM peak hour trips (73 entering/ 73 existing). Based upon project volumes, no ingress left or right turn lanes are warranted at the project driveway on SE Martin Luther King Jr Boulevard. There is an existing two-way left turn lane on SE High School Avenue at the project driveway.
The analysis demonstrates that there will be de minims impact on the transportation network within the area of influence of the project site.

C. Environmental Impacts

Irrigation
Portable water will be used for irrigation, no groundwater withdrawals proposed.

Copies of which will be kept on file with the City Clerk's Office and shall be referred to as **Exhibit "C"**, **Development Documents** to meet the requirements of the city code, for a Minor Development Site Plan Order, and is hereby **APPROVED,** subject to the following conditions:

Development and Construction

1. All plans to be reviewed by this Department shall be routed through the Permit Technician in the Development Department. Approval by this department shall not be construed to be a license to proceed with work and shall not be construed as authority to violate, cancel, alter, or set aside any of the provisions of the City Code. Approval shall not prevent this department from thereafter requiring a correction of errors in plans, construction, or violation of City Code.

2. Construction activity shall be limited from 7:00 a.m. to 6:00 p.m., Monday through Saturday.

3. Lighting shall comply with Section 6.07.00 of the Land Development Code and reviewed by the City of Stuart Police for Crime Prevention through Environmental Design (CPTED) recommendations. The applicant, property owner, or successor shall submit a signed and sealed photometric lighting plan as part of the building permit review.

4. The proposed five (5) foot fence along SE Martin Luther King Jr. Boulevard to be placed 30 feet from the existing City's Right-of-Way for the future Community Redevelopment Agency (CRA) Streetscape Improvements.

5. Prior to construction, please confirm the crosswalk design with the Community Redevelopment Agency (CRA) along High School Avenue. The proposed crosswalk should compliment the crosswalk design on the Stypmann Neighborhood Sidewalk Improvement Plan.

6. No temporary or modular buildings are permitted on the property except for permitted temporary construction trailers.

7. Signs are to be approved by separate permit and must comply with the City of Stuart Land Development Code Section 6.11.00.

8. All roof and ground-mounted equipment shall be screened from view.

9. Prior to release of the first building permit, the owner shall pay all applicable impact fees.

10. By acceptance of this Development Order, the applicant acknowledges and agrees to abide by the terms of Florida Statute 166.033. Pertaining to state and federal agency permits.

11. Any changes to this approved site plan will require an application for amendment to the approved Minor Development Plan.

12. Prior to the issuance of a Certificate of Occupancy, the applicant, property owner, or successor shall receive a Zoning Compliance from the City of Stuart.

Prior to Issuance of Site Permit

13. Applicant shall provide a digital boundary survey and civil plan prior to issuance of a site permit.

14. Civil Plans shall be reviewed and approved by all applicable City Departments, including outside review by the City Engineer prior to issuance of a site permit.

City of Stuart Public Works Department

15. All onsite utility infrastructure will remain privately owned and maintained. The City of Stuart shall not take ownership of the proposed roadways, water infrastructure (*fire or potable*), grinder stations or sanitary sewer and stormwater infrastructure located within the private property/parcel.

16. All construction pertinent to this Department shall be installed, inspected, and tested in accordance with the City of Stuart Minimum Design and Construction Standards latest edition and the City of Stuart Specifications and Ordinance where applicable. In case of discrepancies between the construction plans and afore mentioned manuals, the most restrictive shall apply.

17. The property owner is responsible for ensuring drainage will not encroach upon or adversely affect adjacent properties.

18. Site permit and dumpster permit requires a separate building permit.

19. The Developer Is responsible for all costs associated with the construction of proposed utilities; (i.e., water, sanitary sewer) and Public Right-of-Way improvements.

20. Engineer of Record to provide a project cost estimate for water and sanitary items broken out separately.

21. The applicant shall provide a utility plan showing fire hydrant location, fire line, and back flow preventer for review prior to site construction permit approval.

22. Upon an approved site plan, the City of Stuart Utility Availability fees must be paid prior to activation of water and/or sanitary sewer service. Please contact Marc Rogolino at (772) 221-4700 for fee totals. Fees will be based on Equivalent Residential Connection (ERC).

City of Stuart Police Department

23. A photometric lighting plan is required as part of the building permit review.

Exhibit "C"
Development Documents
On File with the
City of Stuart Clerk's Office

ARCHITECTS DESIGN
COLLABORATIVE, LLC

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

January 25, 2023
City of Stuart
121 S.W. Flagler Ave
Stuart, Florida 34994
Re: Boys & Girls Club Stuart

Project Narrative

The Boys & Girls Club of Stuart is a first of its kind for Martin County, a collaboration between the BGC of Martin County and the SDMC. This (37,807) SF Club facilities to be built on a 2.89 Acre leased site of the Stuart Middle School Campus with an entrance from Martin Luther King Jr Blvd. just east of SE Georgia Ave and a secondary entrance from SE High School Avenue, in Stuart.

The Club consists of BGC Club facilities and adjunct SDMC labs for vocational technologies training. The Club includes a high school sized gymnasium, classroom spaces and performing arts space with a teaching kitchen and cafe gathering space and ancillary administrative offices.

Hours of operation are from 2:00 PM to 6:30-7:00 PM. The SDMC Labs will be used by SMS Students during school hours and the gymnasium will be open to the surrounding community for use on weekday evenings and weekends. There is a bus drop off for students brought to the facility and ample parking based on historical data provided by the architect for 5 previously completed club facilities.

This is a one-story facility with a curved (pitched) roof with a maximum eave height of 43'-8" ft and an eave height of 42- 5 ½". The building is to be of masonry construction with steel roof structure and equipped with fire sprinkler system throughout. This project is slated to begin construction in February - March 2023.

Very Truly Yours,
ARCHITECTS DESIGN COLLABORATIVE, LLC

Raúl Ocampo, Jr., NCARB, AIA
Florida Corporate Registration No. AA26002935
RO/lsZ:_All_DWGs_2021_Dwgs\I Dwgs\I-21150 - BGC Stuart\3-Permit Set\PZ\2022-09-09 SET TO PZ\Project Narrative.docx

THE SCHOOL BOARD OF MARTIN COUNTY, FLORIDA
Facilities Department
District Office, 1939 SE Federal Highway, Stuart, FL 34994 • Telephone (772) 219-1200 ex.30131

January 24, 2023

Jodi Nentwick-Kugler
Development Director
City of Stuart
121 SW Flagler Ave
Stuart, FL 34994
jnentwick@ci.stuart.fl.us

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

RE: **Minor Development Plan Application**
Boys & Girls Club of Martin County
City Project ID# Z22060006

Ms. Nentwick-Kugler,

This letter authorizes the Boys & Girls Club of Martin County to process an application for a Minor Development Plan on Parcel ID# 04-38-41-004-011-00010-7 for their Stuart Boys & Girls Club Project.

Sincerely,

Mark Sechrist

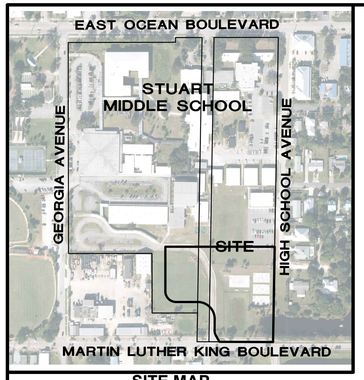
Mark Sechrist
Director of Facilities and Planning
Martin County School District
1939 SE Federal Highway
Stuart, Florida 34994

Signed and sworn to before me on January 24, 2023 by Mark Sechrist. This signature was acknowledged before me on January 24, 2023 by Leslie A. Daly

Notary Public, State of Florida, Martin County

LESLIE A. DALY
Commission # GG 916700
Expires September 25, 2023
Bonded Thru Troy Fain Insurance 800-385-7019

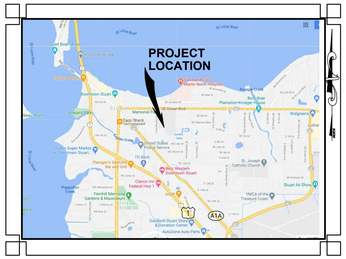
BOUNDARY AND TOPOGRAPHIC SURVEY
LYING IN A PORTION OF THE 47 ACRE ADDITION, PLAT BOOK 1, PAGE 27
AND A PORTION OF THE STUART HIGH SCHOOL PROPERTY, PLAT BOOK 2, PAGE 27
CITY OF STUART, MARTIN COUNTY, FLORIDA



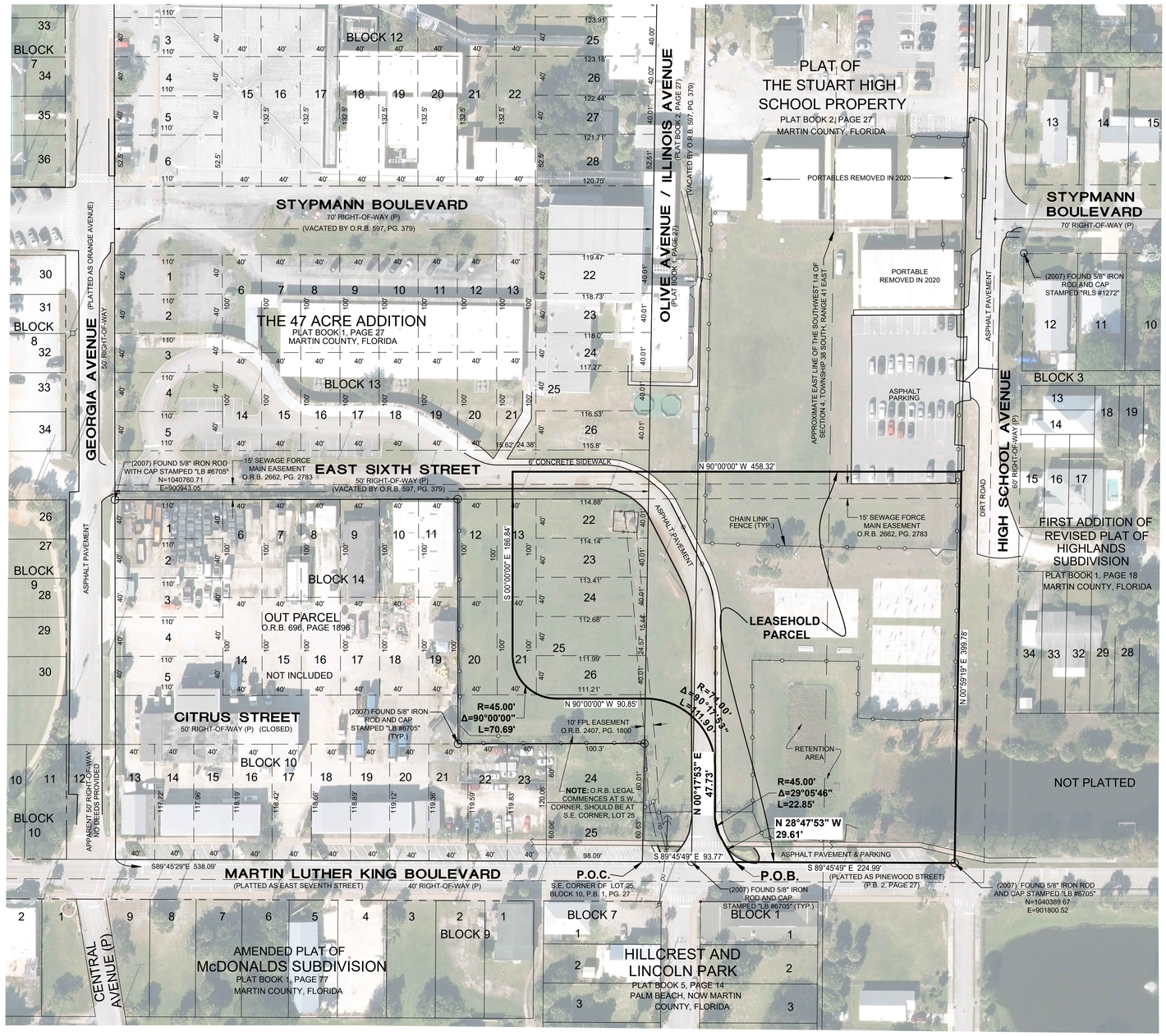
SITE MAP
NOT TO SCALE

0 60 120 FEET
THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1" = 60'

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023



LOCATION MAP
NOT TO SCALE



SURVEYOR'S NOTES:

1. THIS IS A BOUNDARY AND TOPOGRAPHIC SURVEY IN ACCORDANCE WITH CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE. THE BOUNDARY SURVEY SHOWN HEREON WAS PREPARED IN ACCORDANCE WITH THE "STANDARDS OF PRACTICE" FOR SURVEYING AND MAPPING IN THE STATE OF FLORIDA AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. THIS SURVEY WAS PREPARED UTILIZING THE AMERICAN LAND TITLE ASSOCIATION COMMITMENT, COMMITMENT NUMBER 1707910FL-A AND DATED OCTOBER 26, 2020. NO SEARCH OF THE PUBLIC RECORDS WAS PERFORMED BY THIS OFFICE.
2. THE COORDINATES, BEARINGS AND DISTANCES SHOWN HEREON ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83 / 2011 ADJUSTMENT). THIS REFERENCE WAS ESTABLISHED BY THE TRIMBLE NETWORK AND VERIFIED BY MULTIPLE MEASUREMENTS ON SITE CONTROL POINTS.
3. COORDINATES AND BEARINGS SHOWN HEREON REFER TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83 / 2011 ADJUSTMENT) AND ARE BASED UPON THE FOLLOWING MONUMENTS:

   "GCY D21"
   PID: AJ5263
   HORIZONTAL CONTROL DISK SET IN TOP OF CONCRETE MONUMENT STAMPED "GCY D21 2001"
   N = 1,053,539.040
   E = 894.581.31

   THE BEARINGS SHOWN HEREON ARE GRID BEARINGS BASED UPON THE MONUMENTS DESCRIBED ABOVE. THE BEARING ALONG THE WEST RIGHT-OF-WAY LINE OF HIGH SCHOOL AVENUE BEING NORTH 00°59'19" EAST.
4. THIS SURVEY WAS PERFORMED UTILIZING G.P.S.-R.T.K. PROCEDURES AND TRADITIONAL SURVEY PROCEDURES WITH MULTIPLE MEASUREMENTS, AND HAS A STATISTICAL HORIZONTAL AND VERTICAL POSITIONAL PRECISION LESS THAT 0.10 FEET.
5. ALL DISTANCES SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMALS THEREOF.
6. THE ELEVATIONS ON THE SITE CONTROL POINTS SHOWN HEREON REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 88) AND ARE BASED UPON THE FOLLOWING MARTIN COUNTY BENCHMARK:

   "MLK-TC"
   PK NAIL AND WASHER STAMPED "M.C. BENCHMARK MLK-TC"
   EL. = 8.42' (N.A.V.D. 88)
   N = 1040397
   E = 900114

   "MLK-GA"
   PK NAIL AND WASHER STAMPED "M.C. BENCHMARK MLK-GA"
   EL. = 9.74' (N.A.V.D. 88)
   N = 1040410
   E = 900954
7. APPARENT PHYSICAL USES:
   1) PROPERTY IS IN USE AS SCHOOL ACCESS, PLAYGROUND AND WATER RETENTION.
8. THE LANDS BOUND BY THIS SURVEY ARE LOCATED IN FLOOD ZONES "X" AND "AE" (EL. 5) PER FLOOD INSURANCE RATE MAP NUMBER 12085C0153H, DATED FEBRUARY 19, 2020.
9. THE IMAGERY SHOWN HEREON WAS ACQUIRED FROM THE FDOT A PLUS WEBSITE (FDOTEWP1.DOT.STATE.FL.US) AND IS FOR INFORMATIONAL PURPOSES ONLY.
10. NO INSTUMENTS OF RECORD WERE PROVIDED TO THIS OFFICE SHOWING THE ABANDONMENT OF RIGHTS-OF-WAY.
11. NO UNDERGROUND UTILITIES WERE LOCATED.
12. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
13. THIS SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OR ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

LEGEND

= BENCHMARK	BTM = BOTTOM
= CATCH BASIN	CBS = CONCRETE BLOCK AND STUCCO
= CENTRAL ANGLE	EL. = ELEVATION
= CLEANOUT	F.F.E. = FINISHED FLOOR ELEVATION
= CHAIN LINK FENCE	G.P.S. = GLOBAL POSITIONING SYSTEM
= CONCRETE UTILITY POLE	HDPE = HIGH DENSITY POLYETHYLENE PIPE
= CONTOUR ELEVATION	INV. = INVERT
= ELECTRIC BOX	L = ARC LENGTH
= ELECTRIC HAND HOLE	LB = LICENSED BUSINESS
= ELECTRIC METER	LTD. = LIMITED
= FLAG POLE	N.A.V.D. = NORTH AMERICAN VERTICAL DATUM
= FIRE HYDRANT	O.R.B. = OFFICIAL RECORDS BOOK
= GUY WIRE & ANCHOR	P.B. = PLAT BOOK
= HANDICAPPED PARKING	PG. = PAGE
= IRRIGATION VALVE OR BOX	PVC = POLYVINYL CHLORIDE PIPE
= LIGHT POLE	R = RADIUS
= OVERHEAD UTILITY LINE	RCP = REINFORCED CONCRETE PIPE
= STORM MANHOLE	R.T.K. = REAL TIME KINEMATIC
= SIGN	TYP. = TYPICAL
= SEWER VALVE	X14.52 = EXISTING ELEVATION
= WATER METER	= FOUND IRON ROD
= WATER VALVE	
= WELL	
= WOOD SIGN	
= WOOD UTILITY POLE	

LEGAL DESCRIPTION

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SITUATE IN THE COUNTY OF MARTIN, STATE OF FLORIDA.

CONTAINING A TOTAL OF 164,231 SQUARE FEET OR 3.77022 ACRES, MORE OR LESS.

SURVEYOR'S CERTIFICATION:

TO: BOYS AND GIRLS CLUB OF MARTIN COUNTY

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE BOUNDARY SURVEY SHOWN HEREON WAS PREPARED IN ACCORDANCE WITH THE "STANDARDS OF PRACTICE" FOR SURVEYING AND MAPPING IN THE STATE OF FLORIDA AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

STEVEN N. BRICKLEY
FLORIDA SURVEYOR AND MAPPER
REGISTRATION No. 6841

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Phone: (772) 283-1413
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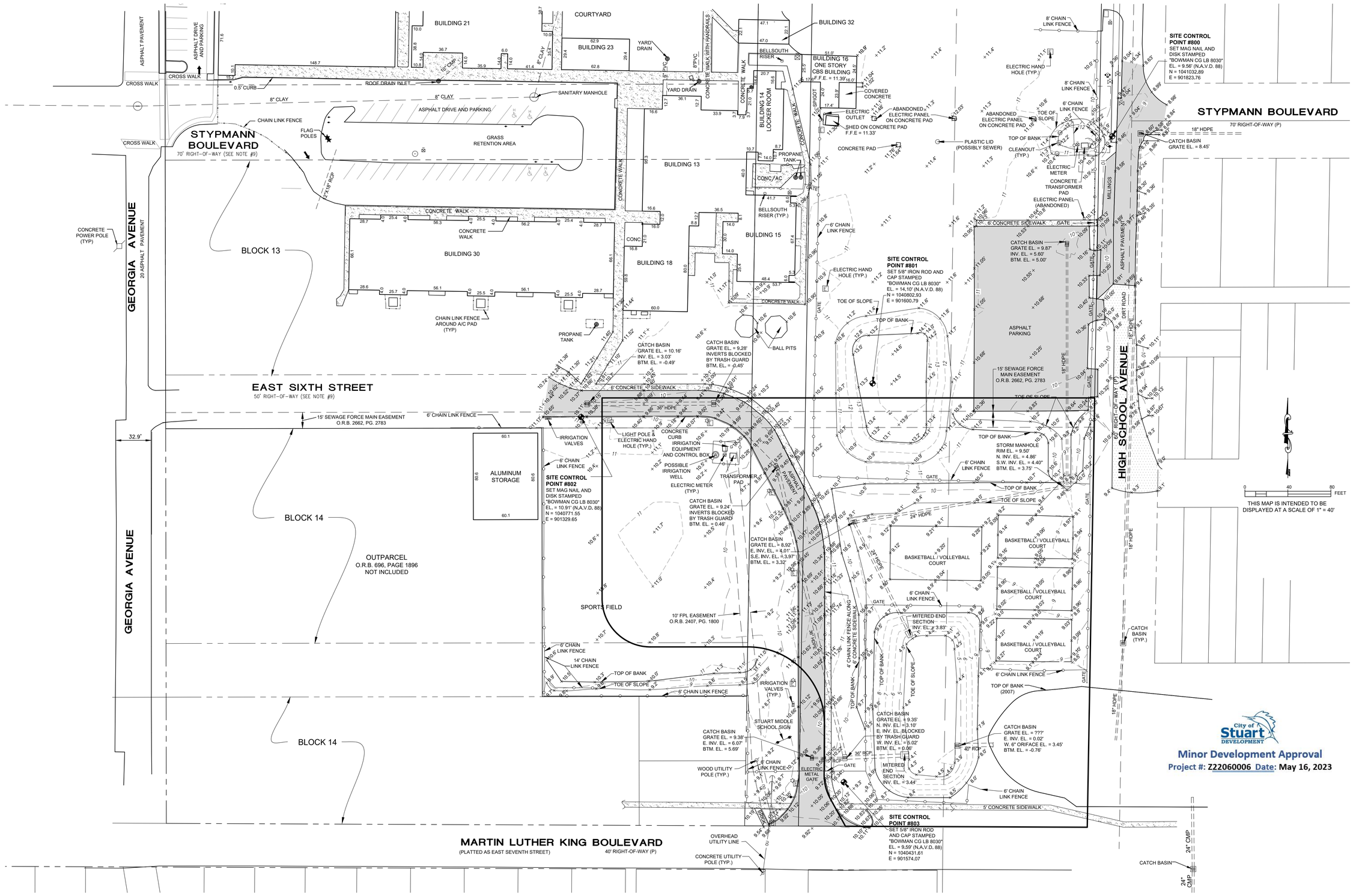
STUART MIDDLE SCHOOL
CITY OF STUART
BOUNDARY AND TOPOGRAPHIC SURVEY
MARTIN COUNTY FLORIDA

PROJECT NO
010772-01-001

PLAN STATUS

11/1/21	REV. PER B.L. BNDRY
9/20/21	REV. FPL ESMT LOC.
DATE	DESCRIPTION

FIELD BOOK 20-202 PAGE 28-36
CREW: CS, JT, ZV, NH
D.A.L. S.N.B.
DRAWN CHKD
SCALE H: 1" = 40' V: N/A
JOB No. 010772-01-001
DATE NOV. 5, 2020
FILE No. STU MIDDLE BNDY
SHEET 1 OF 2



City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Bowman Consulting Group, Ltd., Inc.
301 S.E. Ocean Blvd., Suite 301
Stuart, FL 34994
Phone: (772) 283-1413
Fax: (772) 220-7881
www.bowmanconsulting.com

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STUART MIDDLE SCHOOL
CITY OF STUART
BOUNDARY AND TOPOGRAPHIC SURVEY
MARTIN COUNTY FLORIDA

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D.A.L. DRAWN | S.N.B. CHKD
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FILE No. STU MIDDLE BNDY

SHEET 2 OF 2

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Cad file name: P:\010772 - Boys and Girls Clubs of Martin County\010772-01-001 (SUR) - Proposed Stuart Club Survey\Survey\Topo Boundary\STU MIDDLE BNDY_BLver.dwg 10/29/2021

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

STORMWATER MANAGEMENT CALCULATIONS

STUART MS REPLACEMENT – PHASE 2

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT MAJOR MODIFICATION

January 2023

Klima Weeks
CIVIL ENGINEERING

Prepared by: Klima Weeks Civil Engineering, Inc.
385 Douglas Avenue, Suite # 2100
Altamonte Springs, Florida 32714

Prepared for: Martin County Public Schools
South Florida Water Management District

Stuart MS Replacement – Phase 2
SFWMD Environmental Resource Permit Application Major Modification

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Stuart MS Replacement – Phase 2
SFWMD Environmental Resource Permit Application Major Modification

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3. Water Quality/Quantity Calculations
4. ICPR Routing Analyses
5. BMPTrains Nutrient Loading Analyses
6. Treatment Volume Recovery Analysis

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Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

SECTION 1

EXECUTIVE SUMMARY

1.1 PROJECT INFORMATION

1.1.1 Project Applicant

Name:	Mr. Mark Sechrist, Director of Facilities and Planning
Company Name:	Martin County School District
Address:	1939 SE Federal Highway, Stuart, FL 34994
Telephone:	(772) 219-1200 x 30221
Email:	sechrim@martinK12.fl.us

1.1.2 Project Information

Project Name: Stuart MS Replacement – Phase 2

Project Location: City: Stuart County: Martin
Section 4 , Township 38 South, Range 41 East
Site Area: 21.74 acres
Project Area: 19.99 acres
Address: 575 SE Georgia Avenue Stuart, FL

1.2 GENERAL PROJECT DESCRIPTION

The applicant proposes to renovate a portion of the Stuart Middle School (MS) campus in the second of two phases of re-development. Three existing buildings (Buildings 1, 11, and 12) will be demolished, and a new Building 1 will be constructed. Covered walkways, courtyard, and a chiller enclosure are also proposed. Additional parking and driveways will also be provided in portions of the location of former Buildings 1 and 11.

Phase 1 of the Stuart MS renovations was permitted in 2008 under Application 080606-7 for a 16.94-acre project area. A 3.34-acre drainage area to the east with its existing impervious area was not considered in the permitted design.

With this application, the drainage area for the Stuart Middle School (SCHOOL) has been increased from the original 16.94- acre project area to 17.10 acres. The remainder of the 19.99-acre project area is the 2.89-acre drainage area associated with the Boys & Girls Club (BGC) parcel.

The BGC parcel is, and will continue to be, wholly owned by Martin County School District.

The proposed modifications to the permitted stormwater management system also include:

- Removal of the southern portion of the existing exfiltration system and existing dry pond (Pond B), currently located on the BGC parcel, from the school's on-site stormsewer system;

- Extension of the existing exfiltration system along the school's south property line, construction of a new outfall structure at the end of the proposed extension, and construction of an outfall pipe along the east property line to the City of Stuart's wet pond (OS-1);

- Construction of two interconnected dry retention ponds on the BGC parcel with a pipe connection upstream of the new outfall structure;

- Addition of a 48" stormwater conveyance/attenuation pipe within the proposed entrance roadway alignment.

- Construction of a new dry retention pond along the school's east property line – Pond B.

No other modifications to the system, and no other construction activities, are proposed. The impervious areas for the BGC parcel, as well as the associated dry retention pond system design, was provided by others for the expected future buildout of the BGC parcel.

1.3 DRAINAGE DESIGN CRITERIA

Agency South Florida Water Management District (SFWMD)

The required treatment volume is based on SFWMD retention criteria for water quality and recovery. As the receiving waterbody is impaired for nutrients, an additional 50% water quality volume is also provided in the treatment volume calculations.

The stormwater management system must attenuate the post-development peak rate of discharge in the 25-year, 72-hour storm event to that in pre-development. As the system is not located within a special basin or otherwise restricted to a pre-determined peak discharge rate, there are no additional attenuation requirements. Maximum stages within the stormwater management system must not exceed the minimum roadway/pavement elevation in the 10-year, 24-hour storm event, and must not exceed the minimum finished floor elevation in the 100-year, 72-hour storm event.

Agency City of Stuart

The stormwater management system must demonstrate no adverse flood impacts on the receiving system; limited at this time to the City's pond system along Martin Luther King Jr, Boulevard.

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1.4 SUMMARY OF PROPOSED DESIGN

1.4.1 Design Methodology

The proposed stormwater management system for the Stuart Middle School and the Boys & Girls Club on the BGC parcel has been designed to meet the District's dry retention criteria for water quality and recovery. The two systems are interconnected upstream of the outfall structure, D40 (see Sheet C405 of the plans for location).

The post-development 10-year, 24-hour and 100-year, 72-hour storm events were modeled to determine peak stages in the proposed system for comparison to existing/proposed road and building elevations, summarized in the table below. As no placement of impervious surface on the BGC parcel is proposed under this application, Minimum Road and Building Finished Floor elevations for the BGC parcel are set equal to the respective peak stages.

BASIN	10-YR, 24-HR PEAK STAGE (ft, NAVD)	MINIMUM ROAD ELEVATION (ft, NAVD)	100-YR, 72-HR PEAK STAGE (ft, NAVD)	MINIMUM BUILDING FFE (ft, NAVD)	25-YR, 72-HR PEAK STAGE (ft, NAVD)
SCHOOL	6.35	8.15	7.58	10.05	7.15
BGC	6.37	6.37	7.50	7.50	7.00

The peak stages reported above for the School represent the peak stages of Pond A. Note that the peak stage of Pond A was the highest of all of the storage nodes on the School campus for all storm events. Note also that the lowest surveyed berm elevation in Pond A is elevation 7.45 ft, NAVD. The peak stage in Pond A of 7.15 indicates no discharge to Ocean Boulevard in the 25-year, 72-hour storm event.

The proposed system is also designed to attenuate the post-development peak rate of discharge in the 25-year, 72-hour storm event to a pro-rated allowable discharge rate based on the pre-development peak rate of discharge calculated for the Stuart Middle School Phase 1 project.

The pre-development peak rate of discharge is 25.605 cfs for the 16.94-acre Phase 1 project. For the 20.28-acre Phase 2 project, the pro-rated allowable discharge rate would be 30.22 cfs (19.99 ac / 16.94 ac * 25.605 cfs = 30.22 cfs). The post-development peak rate of discharge is presented in the table below.

BASIN	25-YR, 72-HR PEAK RATE APPROVED BY SFWMD	25-YR, 72-HR PEAK RATE POST-DEVELOPMENT
SCHOOL and BGC	30.22 cfs	22.28 cfs

For more information, see **Attachments 3 and 4** for the water quantity calculations and ICPR analyses.

1.4.2 Water Quality Treatment Volume

The required treatment volume for the Stuart Middle School campus and the Boys & Girls Club parcel is provided in existing Pond A (located in Basin A in the northern portion of the campus), new Pond B (located in Basin B in the eastern portion of the campus), and in two inter-connected dry retention ponds located on the BGC parcel.

The table below compares the retention water quality volume required to that provided for both the proposed Stuart Middle School improvements and the expected future development for the Boys & Girls Club. See **Attachment 3** for the water quality calculations.

BASIN	WATER QUALITY VOLUME REQUIRED (AC-FT)	WATER QUALITY VOLUME PROVIDED (AC-FT)
SCHOOL and BGC	1.25	1.265

1.4.3 Stormwater Management Recovery Analysis

The data from the geotechnical report (see **Attachment 1** for excerpts from the geotechnical report and **Attachment 6** for the recovery analysis) was used in the calculations for the recovery (PONDS) model input parameters. The results indicate that the retention ponds two inter-connected dry retention ponds located on the BGC parcel recover immediately, while the existing (Pond A) and proposed (Pond B) dry retention ponds on the school campus recover the provided treatment volume within 60 hours. The groundwater table returns to the invert elevation of the exfiltration system (starting storage/water elevation of 3.14 ft, NAVD) within 7 days. Finally, note that neither the modeled treatment volume storage nor the recovery analysis considers the storage or recovery capabilities of the exfiltration system. See **Attachments 1, 3, and 6** for more information.

1.5 100-YEAR FLOODPLAIN ANALYSIS

The project area does not contain any areas that lie within the 100-year floodplain. See **Figure 5** of this report for more information.

1.6 WETLANDS / SURFACE WATERS

There are no wetland areas on the property. Furthermore, this project does not propose impacts to existing wetlands or surface waters beyond those which have already been permitted.

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SECTION 2

POST-DEVELOPMENT CONDITIONS

2.1 OUTFALL FOR POINT DISCHARGES

In the pre-development condition, stormwater excess from the existing system currently discharges via a connection from the existing southeast dry detention pond into the on-site portion of a wet pond (OS-1) owned by the City of Stuart. Modeling results indicate that the existing system also discharged to the northwest into Ocean Boulevard in large storm events (100-year, 72-hour).

In the post-development condition, a new outfall structure and discharge pipe will be constructed on the Boys & Girls Club parcel and will extend south to the City's wet pond, as in the pre-development condition.

2.2 ON-SITE STORMWATER MANAGEMENT SYSTEMS

The proposed stormwater management system will collect the runoff from the existing and proposed improvements and retain the water quality volume within the existing system, modified as proposed. The system will continue to direct the discharge into the existing City system. Refer to **Attachment 2** for the post-development basin delineations.

2.3 WATER AND WASTEWATER SERVICE PROVIDERS

The current water and wastewater service provider, City of Stuart Utilities, will continue to serve the Stuart MS campus.

2.4 PROPOSED DEWATERING

Short-term dewatering is anticipated, and the contractor has been notified that a dewatering permit may be required. Considering the dewatering is limited to modification of a portion of the stormwater management system, the project will qualify for a General Permit by Rule. The contractor will be responsible for determining if a permit is necessary, the type of permit required, as well as the means and methods of dewatering and disposal in accordance with the permit required.

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SECTION 3

OPERATION AND MAINTENANCE

All existing and proposed improvements will be owned by the Martin County School District, who will be responsible for routine maintenance of the on-site stormwater management system.

SECTION 4

ALTERNATIVE STORMWATER TREATMENT

This project does not propose to use any alternative stormwater treatment methods.

FIGURES

FIGURE 1

USGS QUAD MAP

USGS Quad Map

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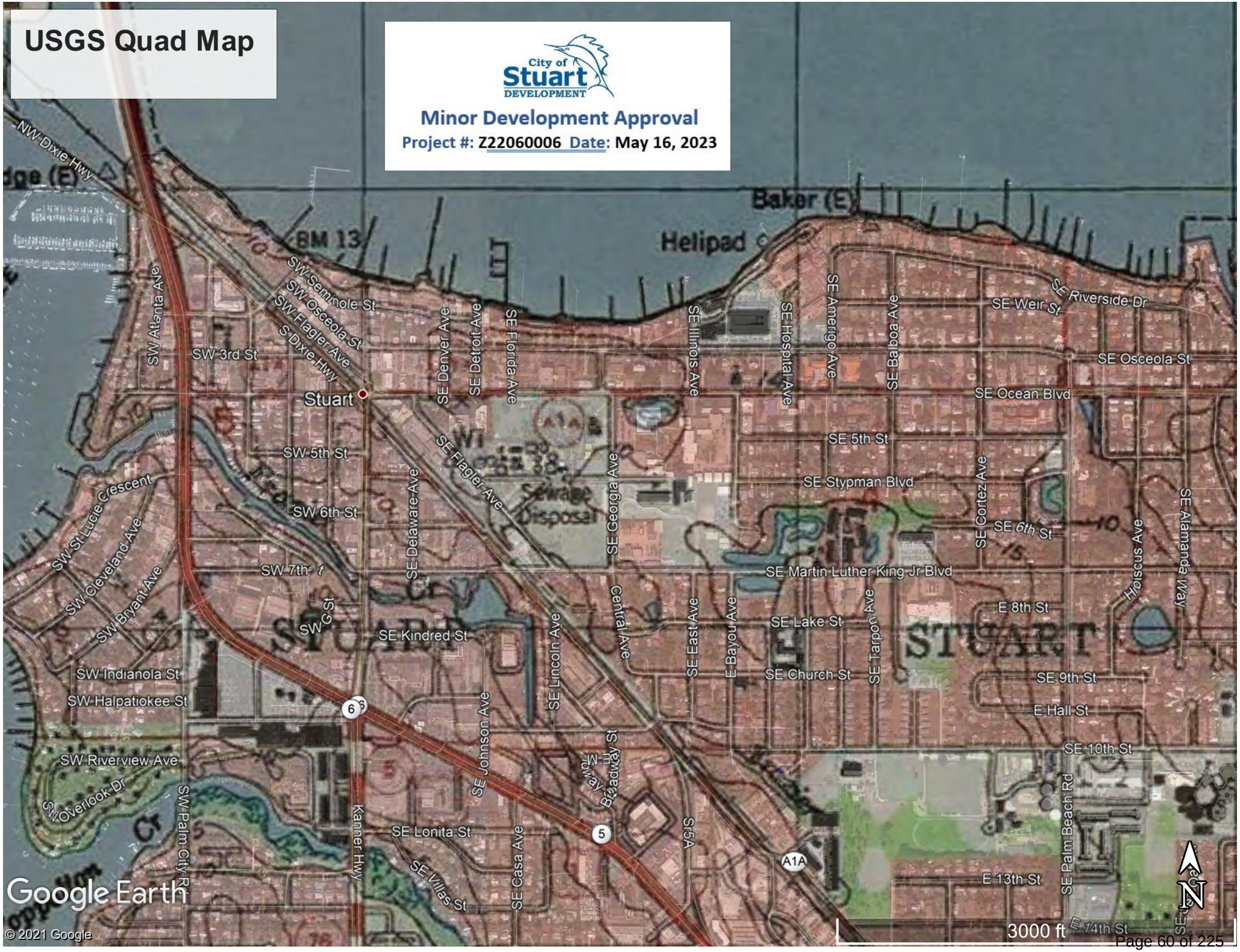

FIGURE 2

VICINITY MAP

Vicinity Map

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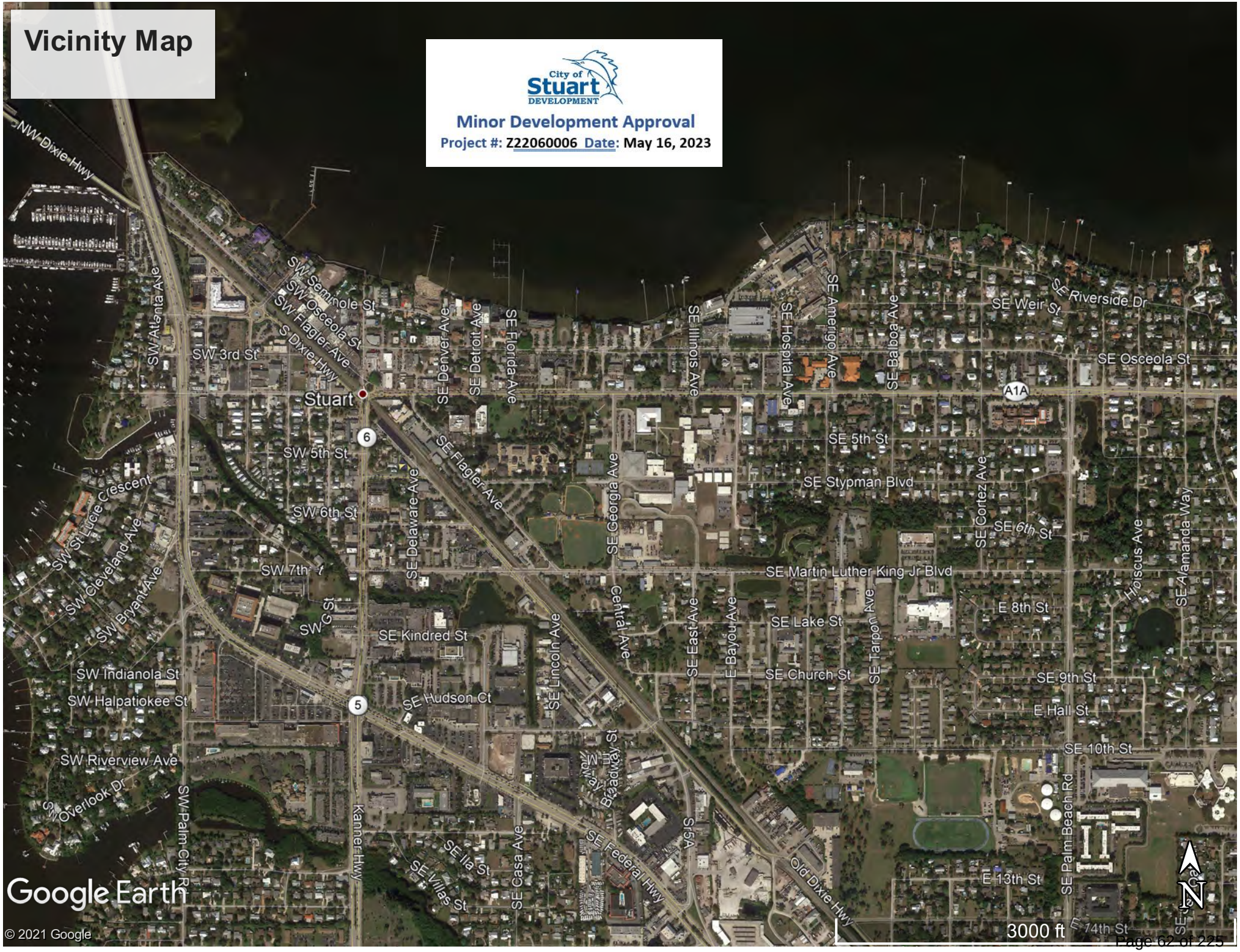

FIGURE 3

AERIAL MAP

Aerial Map

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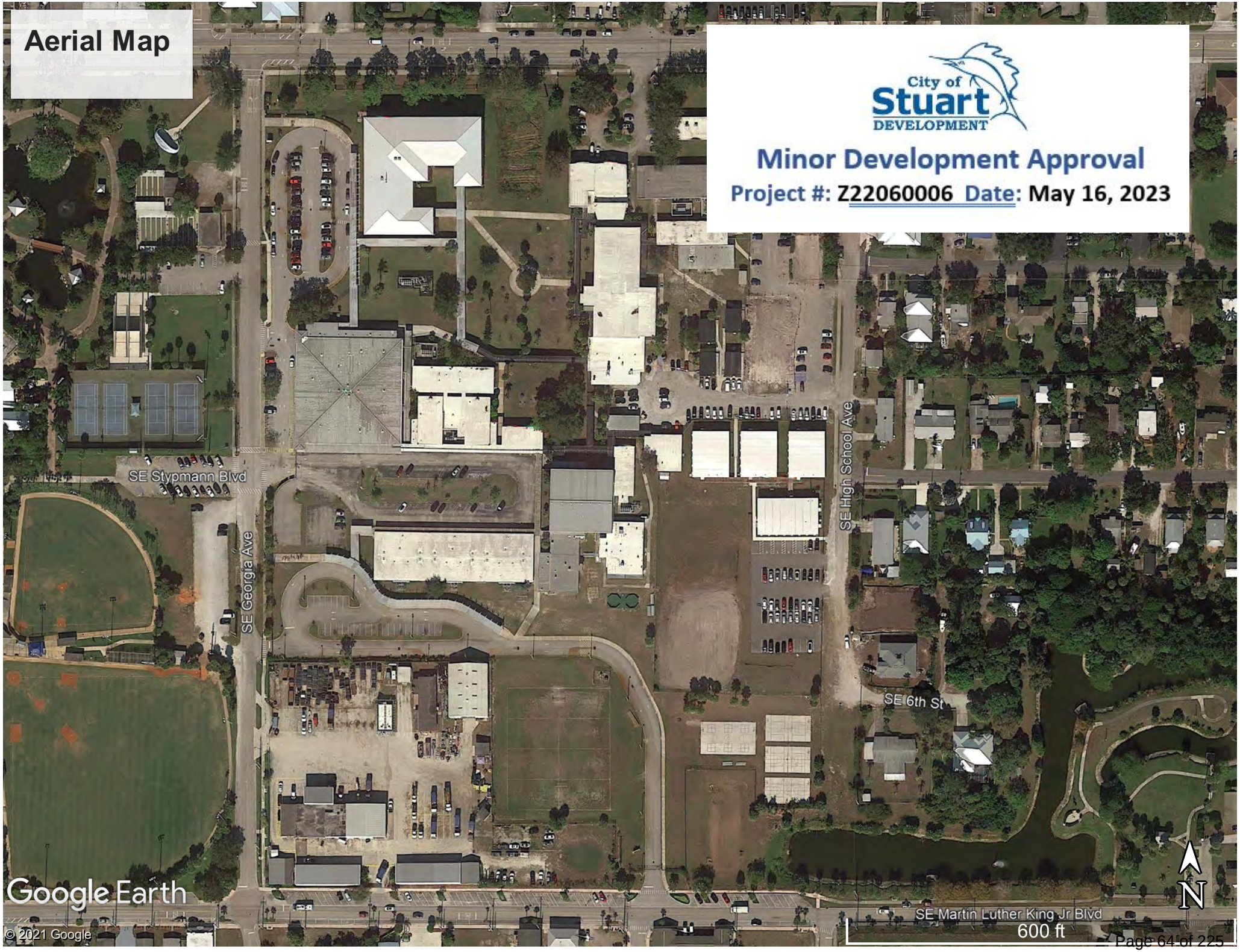

FIGURE 4

SOILS MAP

Map Scale: 1:2,270 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N W

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Project #: Z22060006 Date: May 16, 2023

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

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MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Martin County, Florida
Survey Area Data: Version 19, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 8, 2019—Mar 28, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

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Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
23	Urban land, 0 to 2 percent slopes		22.8	88.2%
36	Arents, 0 to 2 percent slopes	A	1.7	6.7%
41	Jonathan sand, 0 to 5 percent slopes	A	1.3	5.1%
Totals for Area of Interest			**25.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

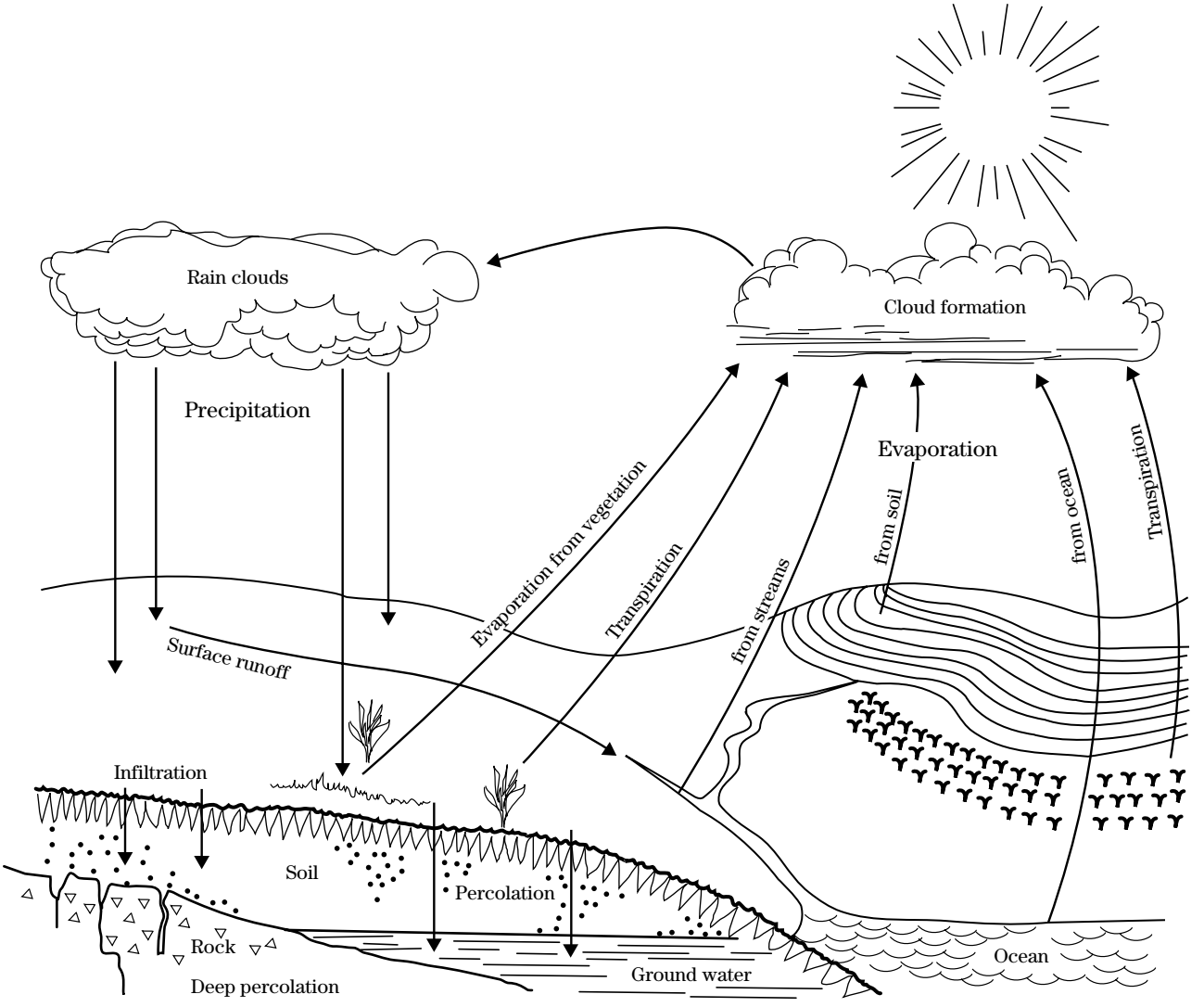
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

United States
Department of
Agriculture

**Natural
Resources
Conservation
Service**

Part 630 Hydrology
National Engineering Handbook

Chapter 7 Hydrologic Soil Groups



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Acknowledgments

Chapter 7 was originally prepared by **Victor Mockus** (retired) and reprinted with minor revisions in 1972. This version was prepared by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) under guidance of **Jon Werner** (retired), NRCS; with assistance from **Donald E. Woodward** (retired), NRCS; **Robert Nielsen** (retired), NRCS; **Robert Dobos**, soil scientist, NRCS; and **Allen Hjelmfelt** (retired), Agricultural Research Service. It was finalized under the guidance of **Claudia C. Hoeft**, national hydraulic engineer.

City of Stuart DEVELOPMENT

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Preface

This chapter of the National Engineering Handbook (NEH) Part 630, Hydrology, represents a multi-year collaboration between soil scientists at the National Soil Survey Center (NSSC) and engineers in the Conservation Engineering Division (CED) at National Headquarters to develop an agreed upon model for classifying hydrologic soil groups.

This chapter contains the official definitions of the various hydrologic soil groups. The National Soil Survey Handbook (NSSH) references and refers users to NEH630.07 as the official hydrologic soil group (HSG) reference. Updating the hydrologic soil groups was originally planned and developed based on this perspective.

Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and re-defined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, no such lists will be maintained. All such references are obsolete and their use should be discontinued.

Instructions for obtaining HSG information can be found in the introduction of this chapter.

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Chapter 7 Hydrologic Soil Groups

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630.0702	Disturbed soils	7–5
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Chapter 7 Hydrologic Soil Groups

630.0700 Introduction

This chapter defines four hydrologic soil groups, or HSGs, that, along with land use, management practices, and hydrologic conditions, determine a soil's associated runoff curve number (NEH630.09). Runoff curve numbers are used to estimate direct runoff from rainfall (NEH630.10).

A map unit is a collection of areas defined and named the same in terms of their soil components or miscellaneous areas or both (NSSH 627.03). Soil scientists assign map unit components to hydrologic soil groups. Map unit components assigned to a specific hydrologic soil group have similar physical and runoff characteristics. Soils in the United States, its territories, and Puerto Rico have been assigned to hydrologic soil groups. The assigned groups can be found by consulting the Natural Resources Conservation Service's (NRCS) Field Office Technical Guide; published soil survey data bases; the NRCS Soil Data Mart Web site (*http://soildatamart.nrcs.usda.gov/*); and/or the Web Soil Survey Web site (*http://websoilsurvey.nrcs.usda.gov/*).

The state soil scientist should be contacted if a soil survey does not exist for a given area or where the soils within a watershed have not been assigned to hydrologic groups.

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630.0701 Hydrologic soil groups

Soils were originally assigned to hydrologic soil groups based on measured rainfall, runoff, and infiltrometer data (Musgrave 1955). Since the initial work was done to establish these groupings, assignment of soils to hydrologic soil groups has been based on the judgment of soil scientists. Assignments are made based on comparison of the characteristics of unclassified soil profiles with profiles of soils already placed into hydrologic soil groups. Most of the groupings are based on the premise that soils found within a climatic region that are similar in depth to a restrictive layer or water table, transmission rate of water, texture, structure, and degree of swelling when saturated, will have similar runoff responses. The classes are based on the following factors:

- intake and transmission of water under the conditions of maximum yearly wetness (thoroughly wet)
- soil not frozen
- bare soil surface
- maximum swelling of expansive clays

The slope of the soil surface is not considered when assigning hydrologic soil groups.

In its simplest form, hydrologic soil group is determined by the water transmitting soil layer with the lowest saturated hydraulic conductivity and depth to any layer that is more or less water impermeable (such as a fragipan or duripan) or depth to a water table (if present). The least transmissive layer can be any soil horizon that transmits water at a slower rate relative to those horizons above or below it. For example, a layer having a saturated hydraulic conductivity of 9.0 micrometers per second (1.3 inches per hour) is the least transmissive layer in a soil if the layers above and below it have a saturated hydraulic conductivity of 23 micrometers per second (3.3 inches per hour).

Water impermeable soil layers are among those types of layers recorded in the component restriction table of the National Soil Information System (NASIS) database. The saturated hydraulic conductivity of an impermeable or nearly impermeable layer may range

from essentially 0 micrometers per second (0 inches per hour) to 0.9 micrometers per second (0.1 inches per hour). For simplicity, either case is considered impermeable for hydrologic soil group purposes. In some cases, saturated hydraulic conductivity (a quantitatively measured characteristic) data are not always readily available or obtainable. In these situations, other soil properties such as texture, compaction (bulk density), strength of soil structure, clay mineralogy, and organic matter are used to estimate water movement. Tables 7–1 and 7–2 relate saturated hydraulic conductivity to hydrologic soil group.

The four hydrologic soil groups (HSGs) are described as:

Group A—Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil. Group A soils typically have less than 10 percent clay and more than 90 percent sand or gravel and have gravel or sand textures. Some soils having loamy sand, sandy loam, loam or silt loam textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.

The limits on the diagnostic physical characteristics of group A are as follows. The saturated hydraulic conductivity of all soil layers exceeds 40.0 micrometers per second (5.67 inches per hour). The depth to any water impermeable layer is greater than 50 centimeters [20 inches]. The depth to the water table is greater than 60 centimeters [24 inches]. Soils that are deeper than 100 centimeters [40 inches] to a water impermeable layer are in group A if the saturated hydraulic conductivity of all soil layers within 100 centimeters [40 inches] of the surface exceeds 10 micrometers per second (1.42 inches per hour).

Group B—Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded. Group B soils typically have between 10 percent and 20 percent clay and 50 percent to 90 percent sand and have loamy sand or sandy loam textures. Some soils having loam, silt loam, silt, or sandy clay loam textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.

The limits on the diagnostic physical characteristics of group B are as follows. The saturated hydraulic conductivity in the least transmissive layer between the surface and 50 centimeters [20 inches] ranges from 10.0 micrometers per second (1.42 inches per hour) to 40.0 micrometers per second (5.67 inches per hour). The depth to any water impermeable layer is greater than 50 centimeters [20 inches]. The depth to the water table is greater than 60 centimeters [24 inches]. Soils that are deeper than 100 centimeters [40 inches] to a water impermeable layer or water table are in group B if the saturated hydraulic conductivity of all soil layers within 100 centimeters [40 inches] of the surface exceeds 4.0 micrometers per second (0.57 inches per hour) but is less than 10.0 micrometers per second (1.42 inches per hour).

Group C—Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted. Group C soils typically have between 20 percent and 40 percent clay and less than 50 percent sand and have loam, silt loam, sandy clay loam, clay loam, and silty clay loam textures. Some soils having clay, silty clay, or sandy clay textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.

The limits on the diagnostic physical characteristics of group C are as follows. The saturated hydraulic conductivity in the least transmissive layer between the surface and 50 centimeters [20 inches] is between 1.0 micrometers per second (0.14 inches per hour) and 10.0 micrometers per second (1.42 inches per hour). The depth to any water impermeable layer is greater than 50 centimeters [20 inches]. The depth to the water table is greater than 60 centimeters [24 inches]. Soils that are deeper than 100 centimeters [40 inches] to a restriction or water table are in group C if the saturated hydraulic conductivity of all soil layers within 100 centimeters [40 inches] of the surface exceeds 0.40 micrometers per second (0.06 inches per hour) but is less than 4.0 micrometers per second (0.57 inches per hour).

Group D—Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted. Group D soils typically have greater than 40 percent clay, less than 50 percent sand, and have clayey textures. In some areas, they also have high shrink-swell potential. All soils with a depth to a water impermeable layer less than 50 centimeters [20 inches] and all soils with a water table

within 60 centimeters [24 inches] of the surface are in this group, although some may have a dual classification, as described in the next section, if they can be adequately drained.

The limits on the physical diagnostic characteristics of group D are as follows. For soils with a water impermeable layer at a depth between 50 centimeters and 100 centimeters [20 and 40 inches], the saturated hydraulic conductivity in the least transmissive soil layer is less than or equal to 1.0 micrometers per second (0.14 inches per hour). For soils that are deeper than 100 centimeters [40 inches] to a restriction or water table, the saturated hydraulic conductivity of all soil layers within 100 centimeters [40 inches] of the surface is less than or equal to 0.40 micrometers per second (0.06 inches per hour).

Dual hydrologic soil groups—Certain wet soils are placed in group D based solely on the presence of a water table within 60 centimeters [24 inches] of the surface even though the saturated hydraulic conductivity may be favorable for water transmission. If these soils can be adequately drained, then they are assigned to dual hydrologic soil groups (A/D, B/D, and C/D) based on their saturated hydraulic conductivity and the water table depth when drained. The first letter applies to the drained condition and the second to the undrained condition. For the purpose of hydrologic soil group, adequately drained means that the seasonal high water table is kept at least 60 centimeters [24 inches] below the surface in a soil where it would be higher in a natural state.

Matrix of hydrologic soil group assignment criteria—The decision matrix in tables 7–1 and 7–2 can be used to determine a soil's hydrologic soil group. Check both tables before making a final decision. If saturated hydraulic conductivity data are available and deemed to be reliable, then these data, along with water table depth information, should be used to place the soil into the appropriate hydrologic soil group. If these data are not available, the hydrologic soil group is determined by observing the properties of the soil in the field. Factors such as texture, compaction (bulk density), strength of soil structure, clay mineralogy, and organic matter are considered in estimating the hydraulic conductivity of each layer in the soil profile. The depth and hydraulic conductivity of any water impermeable layer and the depth to any high water table are used to determine correct hydrologic soil group for the soil. The property that is most limiting to water movement generally determines the soil's hydrologic group. In anomalous situations, when adjustments to hydrologic soil group become necessary, they shall be made by the NRCS state soil scientist in consultation with the state conservation engineer.

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Table 7–1 Criteria for assignment of hydrologic soil groups when a water impermeable layer exists at a depth between 50 and 100 centimeters [20 and 40 inches]

Soil property	Hydrologic soil group A	Hydrologic soil group B	Hydrologic soil group C	Hydrologic soil group D
Saturated hydraulic conductivity of the least transmissive layer	>40.0 µm/s (>5.67 in/h)	≤40.0 to >10.0 µm/s (≤5.67 to >1.42 in/h)	≤10.0 to >1.0 µm/s (≤1.42 to >0.14 in/h)	≤1.0 µm/s (≤0.14 in/h)
	and	and	and	and/or
Depth to water impermeable layer	50 to 100 cm [20 to 40 in]	50 to 100 cm [20 to 40 in]	50 to 100 cm [20 to 40 in]	<50 cm [<20 in]
	and	and	and	and/or
Depth to high water table	60 to 100 cm [24 to 40 in]	60 to 100 cm [24 to 40 in]	60 to 100 cm [24 to 40 in]	<60 cm [<24 in]

Note: 1 in/h = 2 fpd

Table 7–2 Criteria for assignment of hydrologic soil groups when any water impermeable layer exists at a depth greater than 100 centimeters [40 inches]

Soil property	Hydrologic soil group A	Hydrologic soil group B	Hydrologic soil group C	Hydrologic soil group D
Saturated hydraulic conductivity of the least transmissive layer	>10 µm/s (>1.42 in/h)	≤10.0 to >4.0 µm/s (≤1.42 to >57 in/h)	≤4.0 to >0.40 µm/s (≤0.57 to >0.06 in/h)	≤0.40 µm/s (≤0.06 in/h)
	and	and	and	and/or
Depth to water impermeable layer	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]
	and	and	and	and/or
Depth to high water table	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]

Note: 1 in/h = 2 fpd

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630.0702 Disturbed soils

As a result of construction and other disturbances, the soil profile can be altered from its natural state and the listed group assignments generally no longer apply, nor can any supposition based on the natural soil be made that will accurately describe the hydrologic properties of the disturbed soil. In these circumstances, an onsite investigation should be made to determine the hydrologic soil group. A general set of guidelines for estimating saturated hydraulic conductivity from field observable characteristics is presented in the Soil Survey Manual (Soil Survey Staff 1993).

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630.0703 References

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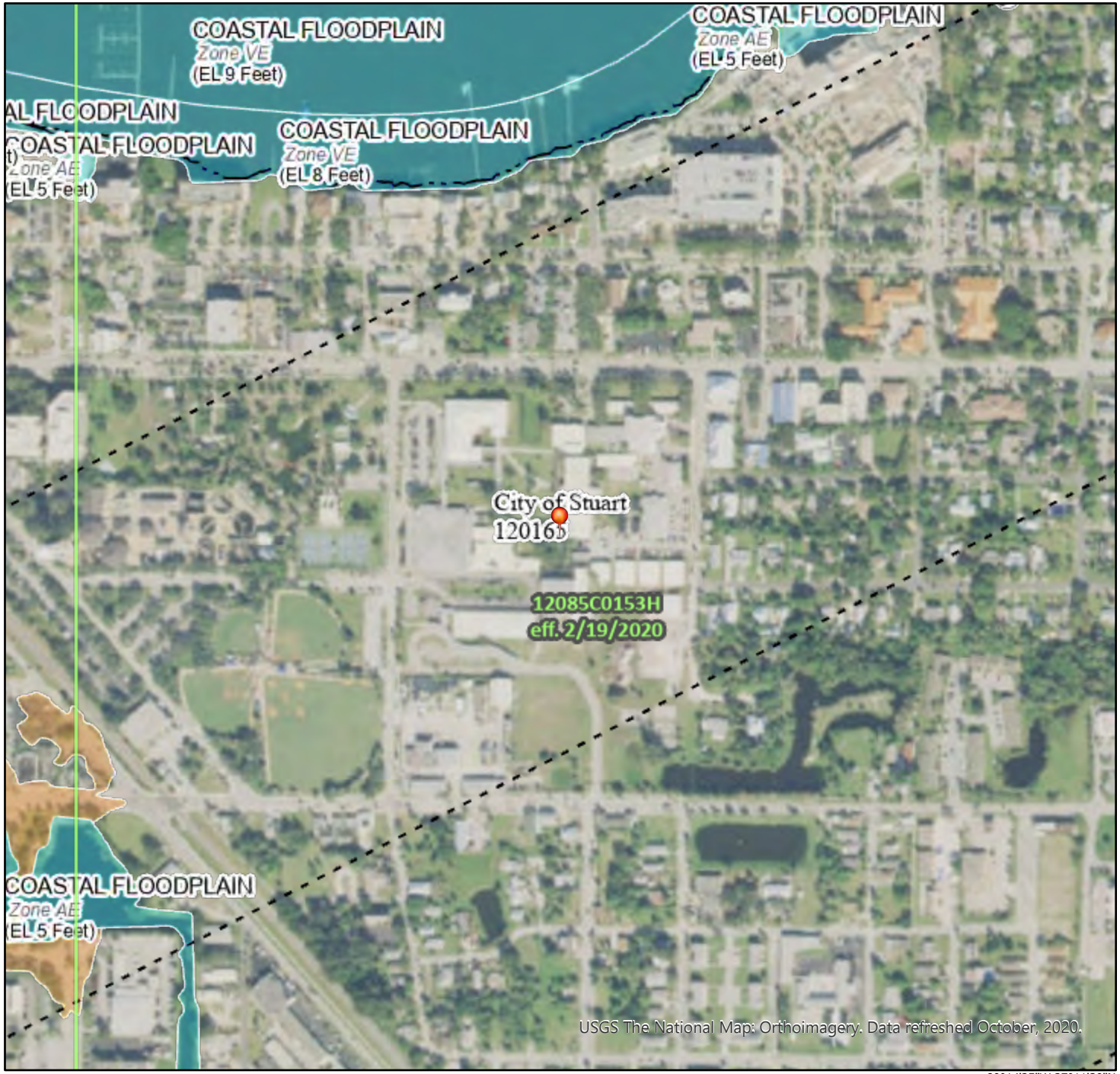
FIGURE 5

FEMA MAP

National Flood Hazard Layer FIRMette

FEMA

80°15'2"W 27°12'2"N



80°14'25"W 27°11'30"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/4/2021 at 11:45 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

City of Stuart DEVELOPMENT

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ATTACHMENT 1

EXCERPTS FROM PERMIT FILES
SFWMD PERMIT # 43-02250-P

DRAINAGE REPORT w/
PRE-DEVELOPMENT
PEAK DISCHARGE RATE

STAFF REPORT w/
CONSTRUCTION PLANS EXHIBIT

GEOTECHNICAL EVALUATION REPORT

080606-7

ORIGINAL SUBMITTAL

JUN 6 2008

M / SL

June 2008

School Board of Martin County
Stuart Middle School
Stuart, Florida

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Drainage Report
Project Number 07SRIA017

Prepared for:
School Board of Martin County
1050 East 10th Street
Stuart, Florida 34996

Prepared by:
Klima Weeks Civil Engineering, Inc.
385 Douglas Avenue, Suite 21000
Altamonte Springs, Florida 32714
Certificate of Authorization No. 9230

RECEIVED
JUN 06 2008
MSLSC

Robert A. Soriano, P.E.
JUN 04 2008
PE #58258

Table Three: Storm Event Total Peak Discharge Summary

STORM EVENT	PRE-DEVELOPMENT CONDITIONS	POST-DEVELOPMENT CONDITIONS
	cfs	cfs
5-YEAR/24-HOUR	11.194	0.00
10-YEAR/24-HOUR	15.393	0.00
10-YEAR/72-HOUR	18.314	0.00
25-YEAR/72-HOUR	25.605	16.945
100-YEAR/72-HOUR	54.375	27.813

Table Four: Proposed Pond Stage-Storage*

ELEVATION	AREA	VOLUME
feet NGVD	acres	acres-feet
3.00	1.060	0.000
4.00	1.149	1.105
5.00	1.552	2.455
6.00	1.740	2.869
7.00	1.984	4.731
8.00	2.264	6.855
9.00	2.628	9.301

*Note the stage storage function of the proposed pond system takes into account the proposed underground wet retention of the proposed exfiltration trench system; see the attached Exfiltration Discharge Function calculation sheet.

As noted in the above tables, the stormwater runoff generated by the project will be collected and discharged into the proposed the dry retention pond and exfiltration trench system, which will attenuate and treat the runoff. The values shown in Table Three illustrate that the proposed school campus while discharge less runoff than the allotted permitted value. Based on the above values, the proposed system meets the permit requirements.

The drainage structures shall be placed according to the attached Construction Drawings prepared by Klima Weeks Civil Engineering, Inc. All underground piping, catch basins, concrete and asphalt pavement shall be designed and constructed to conform to Florida Department of Transportation and the City of Stuart Public Works Department Minimum Standards.

WASTEWATER & WATER SERVICES

It is understood that that wastewater and water services will be obtained from the City of Stuart Public Works Department.

Last Date For Agency Action: 16-NOV-2008

GENERAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Stuart Middle School Improvements

Permit No.: 43-02250-P

Application No.: 080606-7

Application Type: Environmental Resource (New General Permit)

Location: Martin County, S4/T38S/R41E

Permittee : School District Of Martin County

Operating Entity : Permitttee

Project Area: 16.94 acres

Project Land Use: Institutional

Drainage Basin: SOUTH COASTAL

Receiving Body: City of Stuart Stormwater System **Class:** N/A

Special Drainage District: NA

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for an Environmental Resource Permit to authorize construction and operation of a surface water management system to serve 16.94 acres of institutional development known as Stuart Middle School.

City of Stuart DEVELOPMENT

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Project #: Z22060006 Date: May 16, 2023

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The site is located southeast of the intersection of SE Ocean Boulevard and SE Georgia Avenue in the City of Stuart, Martin County.

The site contains several buildings, associated parking areas, drainage features, including a 0.76-acre pond, and ball fields. There are no wetlands located within or affected by the proposed project. The onsite pond, an other surface water, will be filled and dredged to construct the school improvements.

PROPOSED PROJECT:

The proposed project is for construction of a surface water management system to serve 16.94 acres of the existing 21.74 acre school site. The project will consist of demolition of exisitng buildings and associated walkways and pavement, the filling of a 0.76 acre wet retention pond, and the construction of buildings and associated infrastructure and pavement (see Exhibit 2).

Surface water generated from this site will be directed via site grading and a network of inlets and culverts, including exfiltration trench, to two dry detention areas prior to discharging to the City of Stuart stormwater system at the southeast corner of the school site. This outfall to the City of Stuart system was permitted as the E. Stuart Infrastructure Improvements/Frazier Creek SWIM RP, Permit No. 43-00819-S. Calculations submitted by the applicant's engineer demonstrate that there will be no significant impacts to this system from the proposed discharge from the school site.

LAND USE:

The land use breakdown shown in the table below is for the proposed site. The existing site within the 16.94 acre basin contains 3.20 acres of buildings, 3.96 acres of impervious area, and 9.78 acres of pervious area.

Construction:
Project:

	Total Project	
Building Coverage	3.25	acres
Impervious	5.70	acres
Pervious	7.99	acres
Total:	**16.94**	

City of Stuart DEVELOPMENT

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Project #: Z22060006 Date: May 16, 2023

WATER QUANTITY :

Discharge Rate :

As shown in the table below, the proposed project discharge is within the allowable limit for the area.

Discharge Storm Frequency : 25 YEAR-3 DAY Design Rainfall : 10.87 inches

Basin

Basin	Allow Disch (cfs)	Method Of Determination	Peak Disch (cfs)	Peak Stage (ft, NGVD 29)
Site	17.7	Pre Vs Post	17.7	8.49

Finished Floors :

Building Storm Frequency : 100 YEAR-3 DAY Design Rainfall : 13.59 inches

Basin	Peak Stage (ft, NGVD 29)	Proposed Min. Finished Floors (ft, NGVD 29)	FEMA Elevation (ft, NGVD 29)
Site	8.68	12	N/A

Road Design :

Road Storm Frequency : 25 YEAR-3 DAY Design Rainfall: 10.87 inches

Basin	Peak Stage (ft, NGVD 29)	Proposed Min. Road Crown (ft, NGVD 29)
Site	8.49	9.42

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NGVD 29)	WSWT Ctrl Elev (ft, NGVD 29)	Method Of Determination
Site	16.94	3.8	3.80	Wet Season Soil Borings

Receiving Body :

Basin	Str.#	Receiving Body
Site	D-28	City of Stuart Stormwater System

Discharge Structures: Note: The units for all the elevation values of structures are (ft, NGVD 29)

Bleeders:

Basin	Str#	Count	Type	Width	Height	Length	Dia.	Invert Angle	Invert Elev.
Site	D-28	1	Circular Orifice				6"		5

Inlets:

Basin	Str#	Count	Type	Width	Length	Dia.	Crest Elev.
Site	D-28	1	Fdot Mod E Drop Inlet				8

WATER QUALITY :

Water quality treatment is provided in two dry detention areas and exfiltration trench. No adverse water quality impacts are anticipated as a result of the proposed project. The applicant has provided reasonable assurances that water quality standards will not be violated during construction as a result of the proposed work. Best Management Practices (BMPs) will be implemented and silt screens will be placed so as to contain turbidity during construction of the proposed project (refer to Exhibit 2.0 and the Special Conditions). All erosion and turbidity control measures shall remain in place until the completion of onsite construction.

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Project #: Z22060006 Date: May 16, 2023

Basin		Treatment Method		Vol Req.d (ac-ft)	Vol Prov'd
Site	Treatment	Dry Detention	.28 acres	.99	.99
Site	Treatment	Exfiltration Trench	1671 LF	.43	.43

Wildlife Issues:

The project site does not appear to contain preferred habitat for wetland-dependent endangered or threatened wildlife species or species of special concern. No wetland-dependent endangered/threatened species or species of special concern were observed onsite, and submitted information indicates that potential use of the site by such species is minimal. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if, in the future, endangered/threatened species or species of special concern are discovered on the site.

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Planning and Architecture Inc
AA0002984
820 West Broadway Street, Suite 3000
Oviedo, Florida 32765
ph: 407.977.1000 fl: 407.977.1019

Certificate of Authorization No.: 9439

ROBERT A. SORIANO 58178

CONSULTANT

Klima Weeks

REVISIONS

PROJECT NAME
PHASE ONE - SITE IMPROVEMENTS
STUART MS
MARTIN COUNTY, FLORIDA
PROPOSED CONDITION BASIN MAP

DATE 03-14-08
DESIGN RRC
DRAWN RRC
CHECKED JAK
CAD FILE
SCALE NTS

PROJECT NUMBER 05030

DRAWING NUMBER EXHIBIT 2

EAST OCEAN BOULEVARD

N

GRAPHIC SCALE
(IN FEET)
1 inch = 60 ft.

PROPERTY LINE

BASIN ONE

GEORGIA AVENUE

BASIN TWO

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

MARTIN LUTHER KING BOULEVARD

MARTIN LUTHER KING BLVD.

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EAST OCEAN BOULEVARD

GEORGIA AVENUE

BENCHMARK
SET PK NAIL WITH DISK
STAMPED "LB #6705"
ELEVATION = 6.34'

PROJECT CONTROL POINT #1
N: 1041668.0950
E: 900940.5490

PHASE 1A CONSTRUCTION LIMITS

PROPOSED 2 STY. CLASSROOM BLDG.
24,724 S.F.
F.F. = 12.00

STORMWATER POND A

BUILDING 1
F.F.E.= 12.64'

BUILDING 2
F.F.E.= 10.77'

BUILDING 5 - CLASSROOMS
F.F.E.= 10.35'

BUILDING 6
RESTROOMS
F.F.E.= 11.46'

BUILDING 7 - CLASSROOMS
F.F.E.= 9.49'

BUILDING 9
MUSIC
F.F.E.= 12.03'

BUILDING 10
CAFETORIUM
F.F.E.= 11.53'

BUILDING 25
VOC/TECH LABS
F.F.E.= 12.72'

PLANTERS

EXISTING BUILDING

COVERED WALK

CONCRETE WALK

CONCRETE PADS

CROSS WALK

RE-ROUTE EX. 12" AND 18" STORM PIPES TO POND 'A' AS NECESSARY TO MAINTAIN EX. DRAINAGE FLOW

ANYWHERE PROPOSED STORM SEWER PASSES THRU PAVED AREAS, CONTRACTOR SHALL REPLACE EX. PAVING REMOVED IN KIND AND RETURN TO ORIGINAL CONDITION.

CONTRACTOR SHALL FIELD VERIFY EX. GRADES AROUND THE CENTRAL PLANT TO ENSURE DRAINAGE AWAY FROM PROP. BLDG. PRIOR TO CONSTRUCTION.

PROJECT CONTROL POINT #2
N: 1041670.5970
E: 901500.8480

BENCHMARK
SET PK NAIL WITH DISK
STAMPED "LB #6705"
ELEVATION = 10.88'

N89°54'18"E 450.00'

N89°54'19"E 431.00' (C)

N00°05'41"W 20.00'

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

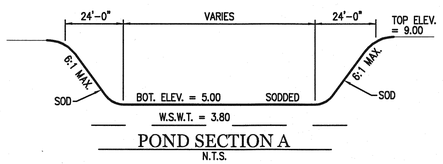
STORM STRUCTURE TABLE

D-1	TYPE 'E' INLET T/C = 8.00 W 36" INV. = 4.65 S 8" INV. = 6.00
ST-1	130 L.F. 36" HDPE @ 0.50%
D-2	STORM MANHOLE T/C = 10.10± SET AT GRADE E 36" INV. = 4.65 S 36" INV. = 4.65
ST-2	156 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-3	TYPE 'E' INLET T/C = 9.42 N 36" INV. = 4.65 S 36" INV. = 4.65 E 15" INV. = 6.09
ST-3	199 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-4	TYPE 'E' INLET T/C = 9.78 N 36" INV. = 4.65 S 36" INV. = 4.65
ST-4	223 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-14	MITERED END SECTION W 15" INV. = 5.00
ST-13	93 L.F. 15" HDPE @ 0.50%
D-15	TYPE 'C' INLET T/C = 10.69 E 15" INV. = 5.47 S 15" INV. = 5.55
ST-14	70 L.F. 15" HDPE @ 0.43%
D-16	TYPE 'C' INLET T/C = 10.25 N 15" INV. = 5.85 W 6" INV. = 8.25 S 6" INV. = 7.25
D-17	MITERED END SECTION N 8" INV. = 7.00
D-18	MITERED END SECTION SE 12" INV. = 5.00
ST-15	EXTEND EX. 12" C.M.P. TO D-18
D-19	MITERED END SECTION W 24" INV. = 5.00
ST-16	EXTEND EX. 24" C.M.P. TO D-19
D-20	MITERED END SECTION W 12" INV. = 5.00
ST-17	EXTEND EX. 12" C.M.P. TO D-20
ST-18	50 L.F. 15" HDPE @ 0.50%
D-21	TYPE 'C' INLET T/C = 9.69 W 15" INV. = 6.34 E 15" INV. = 6.44
ST-19	50 L.F. 15" HDPE @ 0.50%
D-22	TYPE 'C' INLET T/C = 9.69 W 15" INV. = 6.69
D-26	TYPE 'C' INLET T/C = 9.00 NE 12" INV. = 6.00 EX. S INV. UNKNOWN, FIELD VERIFY DEPTH AND LOCATION PRIOR TO CONST.
ST-22	108 L.F. 12" PVC @ 0.93%
D-27	MITERED END SECTION 15" INV. = 5.00

Point Table		
Pnt	Northing	Easting
300	1041619.20	901094.41
301	1041615.67	900964.62
302	1041458.89	900964.59
303	1041259.24	900964.55
304	1041416.73	901221.96
305	1041487.47	901221.96
306	1041487.47	901315.32
330	1041458.90	901014.59
331	1041458.90	901064.59
332	1041486.04	901363.33
333	1041540.96	901369.01
334	1041557.60	901366.72
335	1041623.05	901219.44
336	1041486.55	901328.43

KEYNOTES

1. CONNECT TO D.S. W/ 6" PVC AND EXTEND AS SHOWN AT 1.0% MIN. (TYP. OF ALL D.S. CONNECTIONS)
2. CLEANOUT INV. = 9.50
3. CLEANOUT INV. = 7.85
4. CLEANOUT INV. = 8.85
5. 236 L.F. 8" PVC @ 2.33%
6. CLEANOUT INV. = 8.80
7. CLEANOUT INV. = 8.65
8. CLEANOUT INV. = 7.55
9. CLEANOUT INV. = 8.74
10. 30 L.F. 6" PVC @ 1.0%
11. 19.7 L.F. 8" PVC @ 2.0%
12. 110 L.F. 6" PVC @ 1.0%
13. CLEANOUT INV. = 10.00
14. CLEANOUT INV. = 9.50
15. 37.5 L.F. 8" PVC @ 8.0%
16. CLEANOUT INV. = 8.17
17. 13.5 L.F. 8" PVC @ 1.0%
18. 70 L.F. 8" PVC @ 1.0%
19. 63 L.F. 8" PVC @ 1.13%
20. 65 L.F. 6" PVC @ 1.0%
21. 95 L.F. 6" PVC @ 1.0%
22. CLEANOUT INV. = 8.55



POND SECTION A
N.T.S.

NOTE:
CONTRACTOR SHALL MAINTAIN FLOW OF EX. STORM SEWERS UNTIL NEW STORM SEWER AND BASINS ARE INSTALLED.

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

APPLICATION 080606-7
EXHIBIT 2.1G

PHASE 1A

Planning and Architecture Inc
AA0002984
820 West Broadway Street, Suite 3000
Oviedo, Florida 32765
ph 407.977.1080 fx 407.977.1019

Certificate of Authorization No.: 9230
Jay A. Klima
SEP 12 2008
PE # 49945
Jay A. Klima 49945

CONSULTANT
Klima Weeks CIVIL ENGINEERING

REVISIONS

PROJECT NAME
CLASSROOM BUILDING
STUART MIDDLE SCHOOL
MARTIN COUNTY PUBLIC SCHOOLS
PAVING, GRADING & DRAINAGE PLAN

AUG. 08 2008 100% SUBMITTAL

DATA	
DATE:	09-12-08
DESIGN:	RRC
DRAWN:	RRC
CHECKED:	JAK
CADD FILE:	C5.1-07SRIA017.DWG
SCALE:	1" = 30'

PROJECT NUMBER
05033

DRAWING NUMBER
C5.1

STORM STRUCTURE TABLE

D-5	STORM MANHOLE T/C = 12.15 N 36" INV. = 4.65 S 36" INV. = 4.65
ST-5	98 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-6	STORM MANHOLE T/C = 13.10 N 36" INV. = 4.65 W 36" INV. = 4.65
ST-6	185 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-7	TYPE 'E' INLET T/C = 10.71 N 15" INV. = 8.30 E 36" INV. = 4.65 W 36" INV. = 4.65
ST-7	184 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-8	TYPE 'E' INLET T/C = 11.70 E 36" INV. = 4.65 W 36" INV. = 4.65 N 8" INV. = 8.70
ST-8	117 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-9	TYPE 'E' INLET T/C = 10.76 W 36" INV. = 4.65 SE 36" INV. = 4.65
ST-9	85 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-10	TYPE 'E' INLET T/C = 10.76 NW 36" INV. = 4.65 S 36" INV. = 4.65
ST-10	269 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH
D-11	TYPE 'E' INLET T/C = 10.94 N 36" INV. = 4.65 E 36" INV. = 4.65
ST-11	68 L.F. 36" RCP @ 0.51%
D-12	MITERED END SECTION W 36" INV. = 5.00
D-13	TYPE 'C' INLET T/C = 11.64 S 15" INV. = 8.00 N 8" INV. = 8.50
ST-12	50 L.F. 15" HDPE @ 0.40%
D-23	STORM MANHOLE T/C = 13.40 N 36" INV. = 4.65 S 36" INV. = 4.65 E 8" INV. = 9.00
ST-5A	155 L.F. 36" PERF. HDPE @ 0.00% IN EXFILTRATION TRENCH

STORM STRUCTURE TABLE

D-24	12" DRAIN BASIN T/C = 11.75 S 8" INV. = 8.30 NW 8" INV. = 8.50 E 8" INV. = 8.50
ST-20	30 L.F. 8" PVC @ 1.0%
D-25	12" DRAIN BASIN T/C = 12.00 S 10" INV. = 8.90 NW 6" INV. = 9.25
ST-21	40 L.F. 10" PVC @ 0.50%
D-26	TYPE 'E' INLET W/ SKIMMER (OUTLET CONTROL STRUCTURE) T/C = 8.00 W 6" ORIFICE INV. = 5.00 E 36" INV. = 1.50
ST-23	85 L.F. 36" RCP @ 2.35%
D-29	MITERED END SECTION 36" INV. = -0.50

N

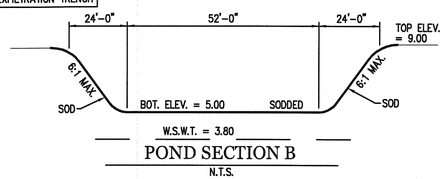
GRAPHIC SCALE

20 0 10 20 40 80

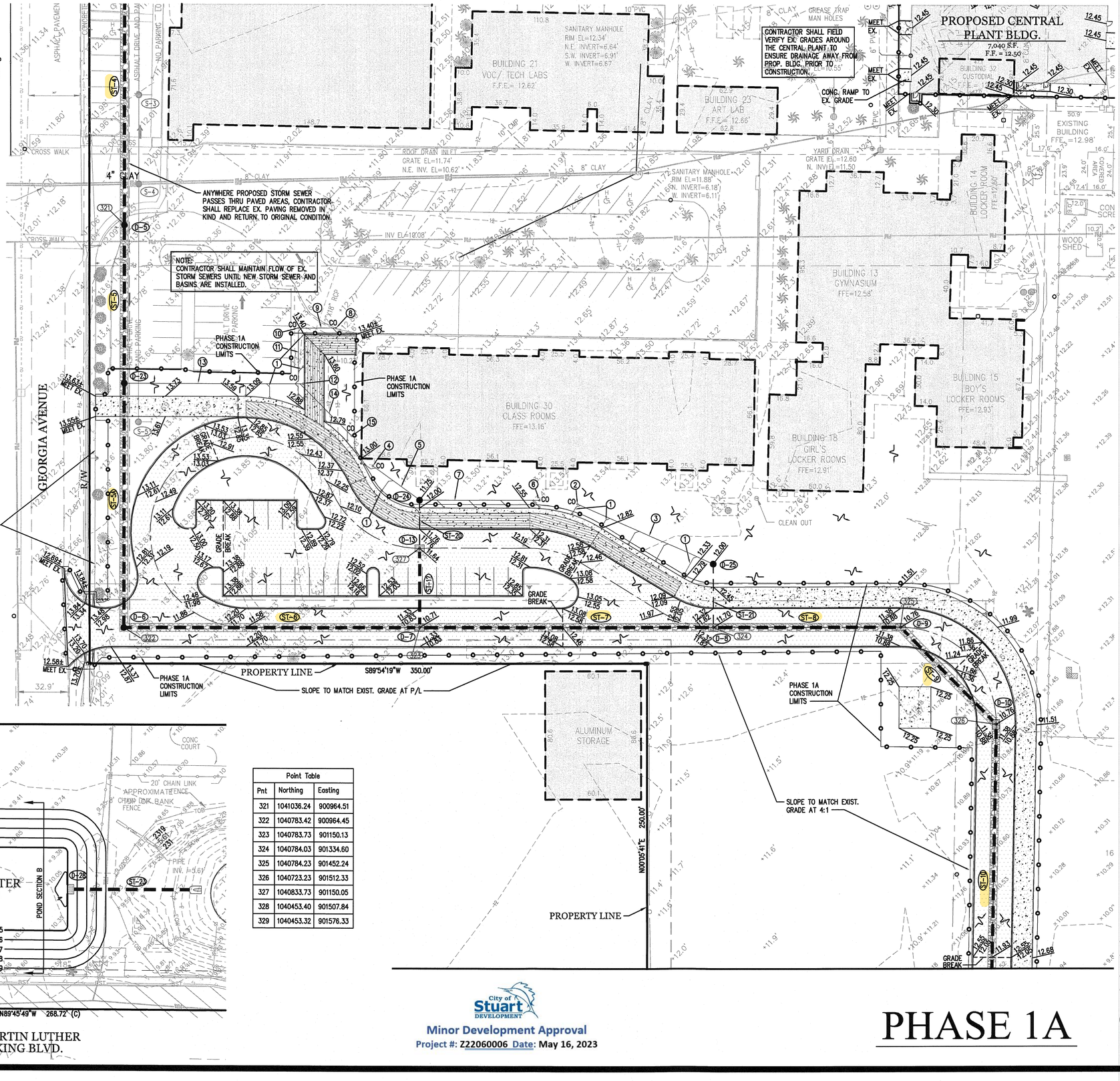
(IN FEET)
1 inch = 30 ft.

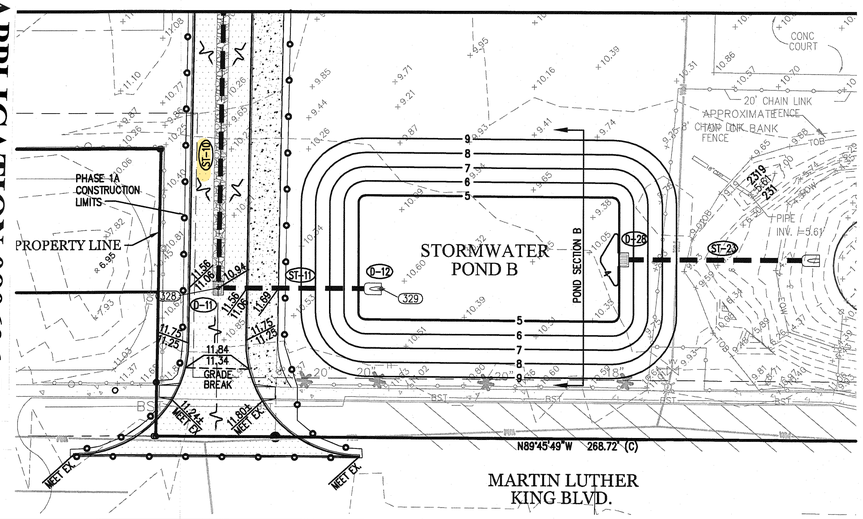
KEYNOTES

1. CONNECT TO D.S. W/ 6" PVC AND EXTEND AS SHOWN AT 1.0% MIN. (TYP. OF ALL D.S. CONNECTIONS)
2. CLEANOUT INV. = 10.15
3. 93 L.F. 6" PVC @ 1.0%
4. CLEANOUT INV. = 10.00
5. 36 L.F. 6" PVC @ 4.17%
6. CLEANOUT INV. = 10.00
7. 75 L.F. 6" PVC @ 2.0%
8. CLEANOUT INV. = 10.65
9. 23 L.F. 6" PVC @ 1.0%
10. CLEANOUT INV. = 10.40
11. 35 L.F. 6" PVC @ 1.0%
12. CLEANOUT INV. = 10.45
13. 109 L.F. 6" PVC @ 1.0%
14. 46 L.F. 6" PVC @ 1.0%
15. CLEANOUT INV. = 10.89



POND SECTION B
N.T.S.





Point Table		
Pnt	Northing	Easting
321	1041036.24	900964.51
322	1040783.42	900964.45
323	1040783.73	901150.13
324	1040784.03	901334.60
325	1040784.23	901452.24
326	1040723.23	901512.33
327	1040833.73	901150.05
328	1040453.40	901507.84
329	1040453.32	901576.33

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

PHASE 1A

EXHIBIT 2.1H
APPLICATION 080606-7

Starmer Ranaldi
Planning and Architecture Inc
AA0002984
820 West Broadway Street, Suite 3000
Oviedo, Florida 32765
ph 407.977.1080 fx 407.977.1019

Certificate of Authorization No.: 9230

Jay A. Klima
SEP 12 2008
PE # 49945
Jay A. Klima 49945

CONSULTANT

Klima Weeks CIVIL ENGINEERING

REVISIONS

PROJECT NAME
CLASSROOM BUILDING
STUART MIDDLE SCHOOL
MARTIN COUNTY PUBLIC SCHOOLS
PAVING, GRADING & DRAINAGE PLAN

AUG. 08 2008 100% SUBMITTAL

DATA	
DATE:	09-12-08
DESIGN:	RRC
DRAWN:	RRC
CHECKED:	JAK
CADD FILE:	C5.1-07SRIA017.DWG
SCALE:	1" = 30'

PROJECT NUMBER
05033

DRAWING NUMBER
C5.2

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

REPORT OF GEOTECHNICAL EXPLORATION

STUART MIDDLE SCHOOL RENOVATIONS
575 SE GEORGIA AVENUE
STUART, FLORIDA

FOR

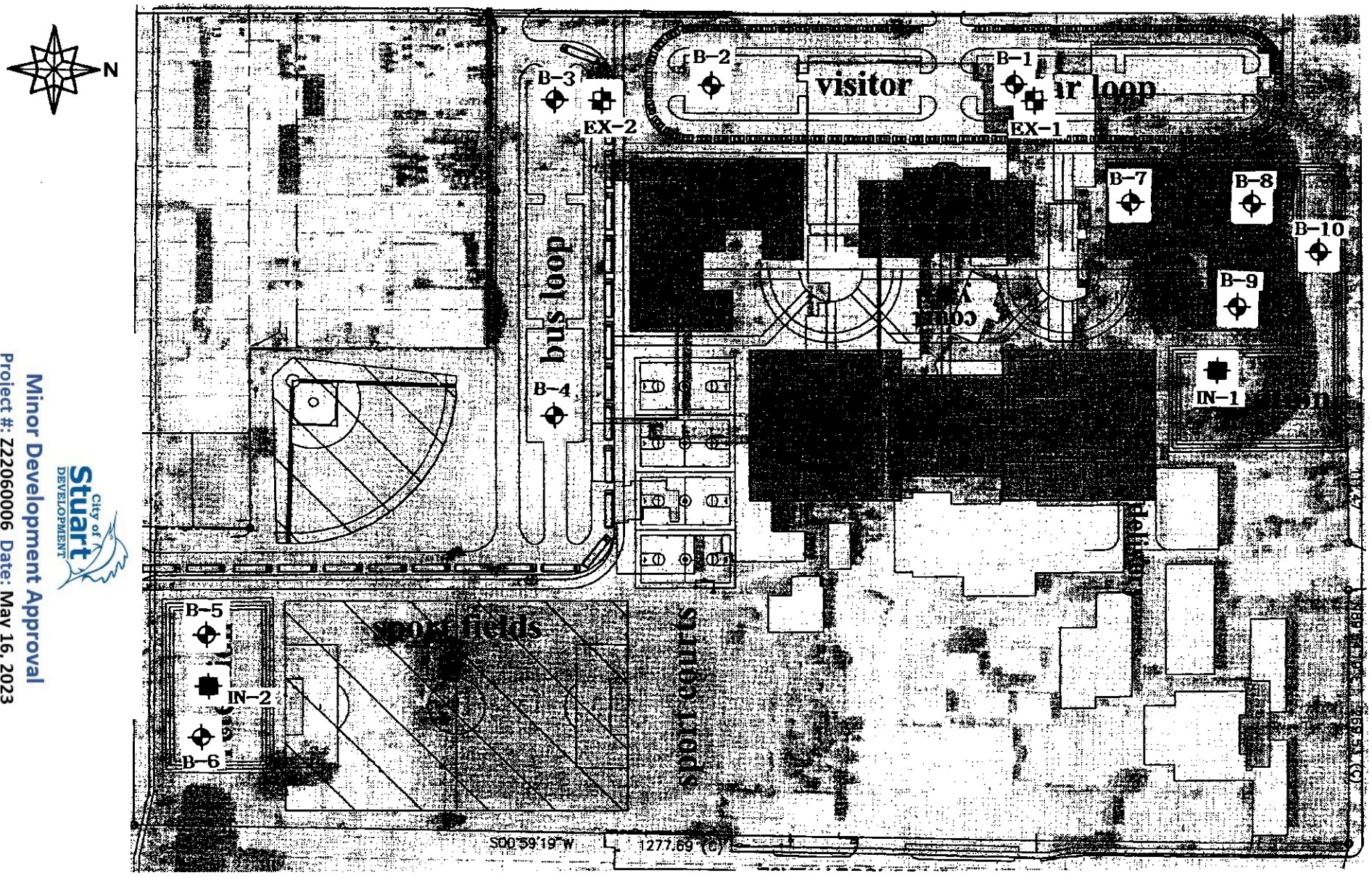
THE SCHOOL BOARD OF MARTIN COUNTY
500 EAST OCEAN BOULEVARD
STUART, FLORIDA 34994-2572

PREPARED BY

NUTTING ENGINEERS OF FLORIDA, INC.
615 SW BILTMORE STREET
PORT ST. LUCIE, FLORIDA 34983

ORDER NO. 221.1

FEBRUARY 2008



Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

City of Stuart DEVELOPMENT

NUTTING ENGINEERS OF FLORIDA, INC. ESTABLISHED 1967	SCHOOL BOARD OF MARTIN COUNTY STUART MIDDLE SCHOOL 575 SE GEORGIA AVENUE STUART, FLORIDA *PROJECT NO.* 221.1	*GEOTECHNICAL EXPLORATION*	*NOT TO SCALE*	FIG. 1

Nutting Engineers of Florida Inc. | Established 1967
Your Project is Our Commitment
1310 Neptune Drive
Boynton Beach, 33426
Telephone: 561-736-4900
Fax: 561-737-9975

BORING NUMBER B-1

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 7.0 ft

APPROXIMATE LOCATION OF BORING Approx. 227' S. and 48' E. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / □ FINES CONTENT (%) □ 20 40 60 80
0		Gray quartz fine SAND	SS 1	3-4-5-6	9	▲
		Light tan quartz fine SAND	SS 2	4-5-5-5	10	▲
5			SS 3	4-4-5-6	9	▲
		▽ Reddish brown quartz fine SAND	SS 4	5-5-6-7	11	▲
10		Gray clayey quartz fine SAND	SS 5	12-9-7-7	16	▲
		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY- STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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BORING NUMBER B-2

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 8.4 ft

APPROXIMATE LOCATION OF BORING Approx. 634' S. and 55' E. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / □ FINES CONTENT (%) □ 20 40 60 80
0		Gray quartz fine SAND Light brown quartz fine SAND Light tan quartz fine SAND	SS 1	2-3-4-6	7	▲
			SS 2	5-6-5-5	11	▲
5			SS 3	5-6-6-6	12	▲
		Dark brown quartz fine SAND	SS 4	6-6-5-4	11	▲
		▽ Slightly clayey orange quartz fine SAND	SS 5	3-2-2-2	4	▲
10		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY - STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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BORING NUMBER B-3

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 9.0 ft

APPROXIMATE LOCATION OF BORING Approx. 798' S. and 50' E. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / □ FINES CONTENT (%) □ 20 40 60 80
0		Gray quartz fine SAND				
		Light tan quartz fine SAND	SS 1	2-3-3-4	6	▲
			SS 2	3-5-4-5	9	▲
5			SS 3	5-5-6-5	11	▲
		Brown quartz fine SAND	SS 4	4-3-3-2	6	▲
		▽ Light brown quartz fine SAND	SS 5	2-2-2-2	4	▲
10		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY - STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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Boynton Beach, 33426
Telephone: 561-736-4900
Fax: 561-737-9975

BORING NUMBER B-4

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 7.0 ft

APPROXIMATE LOCATION OF BORING Approx. 798' S. and 410' E. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / □ FINES CONTENT (%) □ 20 40 60 80
0		Slightly clayey brown quartz fine SAND	SS 1	3-4-5-7	9	▲
		Light tan quartz fine SAND	SS 2	5-5-6-7	11	▲
5			SS 3	5-6-5-4	11	▲
		▽ Brown quartz fine SAND	SS 4	3-2-2-2	4	▲
		Gray clayey SAND	SS 5	2-2-2-2	4	▲
10		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY - STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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Boynton Beach, 33426
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Fax: 561-737-9975

BORING NUMBER B-5

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 6.4 ft

APPROXIMATE LOCATION OF BORING Approx. 50' S. and 165' E. of the SE Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / ☐ FINES CONTENT (%) ☐ 20 40 60 80
0		Gray quartz fine SAND				
		Light brown quartz fine SAND	SS 1	5-4-4-6	8	▲
		Light tan quartz fine SAND	SS 2	4-5-7-9	12	▲
5			SS 3	6-6-5-4	11	▲
		▽ Dark brown quartz fine SAND	SS 4	3-7-12-10	19	▲
10			SS 5	9-13-15-17	28	▲
		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY- STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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Boynton Beach, 33426
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Fax: 561-737-9975

BORING NUMBER B-6

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 6.7 ft

APPROXIMATE LOCATION OF BORING Approx. 50' S. and 30' W. of the SE Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / ☐ FINES CONTENT (%) ☐ 20 40 60 80
0		Gray quartz fine SAND				
		Gray and brown quartz fine SAND	SS 1	1-2-3-2	5	▲
			SS 2	2-2-2-2	4	▲
5			SS 3	2-2-2-2	4	▲
		▽ Slightly silty dark gray quartz fine SAND	SS 4	2-2-2-2	4	▲
		Light tan quartz fine SAND				
10		Dark reddish brown quartz fine SAND	SS 5	2-3-2-3	5	▲
		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY- STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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Boynton Beach, 33426
Telephone: 561-736-4900
Fax: 561-737-9975

BORING NUMBER B-7

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/15/08 COMPLETED 2/15/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 5.0 ft

APPROXIMATE LOCATION OF BORING Approx. 168' E. and 200' S. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / ☐ FINES CONTENT (%) ☐ 20 40 60 80
0		Gray quartz fine SAND	SS 1	3-3-4-4	7	
		Light brown quartz fine SAND				
		Light tan quartz fine SAND	SS 2	4-4-5-6	9	
5		▽	SS 3	5-5-5-5	10	
			SS 4	4-4-5-8	9	
		Dark brown quartz fine SAND				
		Reddish brown quartz fine SAND	SS 5	6-9-8-6	17	
10						
		Light gray quartz fine SAND				
			SS 6	3-6-9	9	
15						
			SS 7	7-7-8	14	
20						
			SS 8	9-8-9	17	
25						
			SS 9	6-5-5	11	
30		Bottom of hole at 30.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY - STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

Disclaimer Nutting Engineers of Florida, Inc. accepts no liability for the consequences of the independent interpretation of drilling logs by others.

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Your Project Is Our Commitment
1310 Neptune Drive
Boynton Beach, 33426
Telephone: 561-736-4900
Fax: 561-737-9975

BORING NUMBER B-8

PROJECT NUMBER 221.1
CLIENT School Board of Martin County
PROJECT NAME Stuart Middle School
PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/15/08 COMPLETED 2/15/08
SURFACE ELEVATION REFERENCE @ Road Crown
DRILLING METHOD Standard Penetration Boring
GROUND WATER LEVELS:
LOGGED BY T. Simmons CHECKED BY C. Gworek
▽ AT TIME OF DRILLING 2.3 ft
APPROXIMATE LOCATION OF BORING Approx. 168' E. and 90' S. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / ☐ FINES CONTENT (%) ☐ 20 40 60 80
0		Gray and brown quartz fine SAND				
		Light gray quartz fine SAND	SS 1	2-2-3-3	5	▲
		Dark gray quartz fine SAND	SS 2	3-5-6-5	11	▲
5		Light gray quartz fine SAND	SS 3	3-4-4-6	8	▲
		Light brown quartz fine SAND	SS 4	4-5-7-7	12	▲
			SS 5	6-8-9-11	17	▲
10		Brown quartz fine SAND				
		Slightly silty grayish brown quartz fine SAND	SS 6	4-4-6	8	▲
15						
		Light tan quartz fine SAND	SS 7	12-12-11	24	▲
20						
		Slightly silty light gray quartz fine SAND	SS 8	8-8-8	16	▲
25						
		Light tan quartz fine SAND	SS 9	6-5-5	11	▲
30		Bottom of hole at 30.0 feet.				

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY- STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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Boynton Beach, 33426
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Fax: 561-737-9975

BORING NUMBER B-9

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/16/08 COMPLETED 2/16/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 3.0 ft

APPROXIMATE LOCATION OF BORING Approx. 410' E. and 150' S. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / □ FINES CONTENT (%) □ 20 40 60 80
0		Gray quartz fine SAND				
		Brown quartz fine SAND	SS 1	2-3-4-4	7	▲
		▽	SS 2	4-4-2-2	6	▲
		Light gray quartz fine SAND, little root				
5		Brown quartz fine SAND	SS 3	2-3-3-4	6	▲
			SS 4	4-4-5-4	9	▲
		Reddish brown quartz fine SAND	SS 5	4-4-5-8	9	▲
10						
		Light gray quartz fine SAND				
			SS 6	4-5-6	9	▲
15						
		Slightly silty grayish brown quartz fine SAND				
			SS 7	7-9-9	16	▲
20						
		Light brown quartz fine SAND				
			SS 8	7-8-6	15	▲
25						
			SS 9	5-5-6	10	▲
30		Bottom of hole at 30.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY - STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/21/08

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BORING NUMBER B10

PROJECT NUMBER 221.1

CLIENT School Board of Martin County

PROJECT NAME Stuart Middle School

PROJECT LOCATION 575 SE Georgia Avenue, Stuart, Florida

DATE STARTED 2/14/08 COMPLETED 2/14/08

SURFACE ELEVATION REFERENCE @ Road Crown

DRILLING METHOD Standard Penetration Boring

GROUND WATER LEVELS:

LOGGED BY T. Simmons CHECKED BY C. Gworek

▽ AT TIME OF DRILLING 6.0 ft

APPROXIMATE LOCATION OF BORING Approx. 218' E. and 30' S. of the NW Property Corner

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	Blows	N-Value	▲ SPT N VALUE ▲ 10 20 30 40 / PL MC LL 20 40 60 80 / ☐ FINES CONTENT (%) ☐ 20 40 60 80
0		Gray quartz fine SAND	AU 1			
		Light tan quartz fine SAND				
		Light gray quartz fine SAND	AU 2			
		Light tan quartz fine SAND, slight trace of root				
5		▽	SS 3	3-3-4-3	7	▲
			SS 4	3-3-3-4	6	▲
10		Dark brown quartz fine SAND	SS 5	3-4-9-16	13	▲
		Bottom of hole at 10.0 feet.				

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

TEST NUTTING BOREHOLE 221.1 SCHOOL BOARD OF MARTIN COUNTY- STUART MIDDLE SCHOOL.GPJ GINT US.GDT 2/18/08

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Broward 954-941-8700
St. Lucie 772-408-1050
Miami-Dade 305-557-3083
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Exfiltration Test

Client: School Board of Martin County
Project: Stuart Middle School
Location: 575 SE Georgia Avenue, Stuart, Florida
Test: Usual Type Open Hole Exfiltration Test
Surface Elevation: Approx. @ Road Crown
Water table from ground surface: 9'

Order No 221.1
Report No 1
Date: 2/16/08

Casing Diameter: 6"
Tube Depth: 15'

Sample Location: Approx. 634' S. and 70' E. of the NW Property Corner

Material:

0'-0.3'	Gray quartz fine SAND
0.3'-1'	Light brown quartz fine SAND
1'-6.7'	Light tan quartz fine SAND
6.7'-8.1'	Dark brown quartz fine SAND
8.1'-10.8'	Slightly silty orange quartz fine SAND
10.8'-15'	Tan quartz fine SAND

One Minute Increme	Pump Rate in Gal/Min
1	27.0
2	27.0
3	27.0
4	27.0
5	26.5
6	26.5
7	26.5
8	26.0
9	26.0
10	26.0

$K = 3.94 \times 10^{-4}$ cfs/ft^{2}ft.head

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Reza Javidan 2/22/08
Reza Javidan, P.E., #60223

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Exfiltration Test

Client: School Board of Martin County
Project: Stuart Middle School
Location: 575 SE Georgia Avenue, Stuart, Florida
Test: Usual Type Open Hole Exfiltration Test
Surface Elevation: Approx. @ Road Crown
Water table from ground surface: 9'

Order No 221.1
Report No 2
Date: 2/16/08

Casing Diameter: 6"
Tube Depth: 15'

Sample Location: Approx. 798' S. and 50' E. of the NW Property Corner

Material:

0'-0.8'	Gray quartz fine SAND
0.8'-6.8'	Light tan quartz fine SAND
6.8'-8.2'	Brown quartz fine SAND
8.2'-11'	Light brown quartz fine SAND
11'-15'	Tan quartz fine SAND

One Minute Increme	Pump Rate in Gal/Min
1	28.0
2	28.0
3	26.5
4	26.0
5	25.0
6	25.0
7	25.0
8	25.0
9	25.0
10	25.0

$K = 3.83 \times 10^{-4}$ cfs/ft^{2}ft.head

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

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City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

DOUBLE RING INFILTROMETER TEST - ASTM D3385

CLIENT: SCHOOL BOARD OF MARTIN COUNTY
TEST NO. 1 TEST DATE: 2/19/08
PROJECT: STUART MIDDLE SCHOOL
575 GEORGIA AVENUE, STUART, FLORIDA

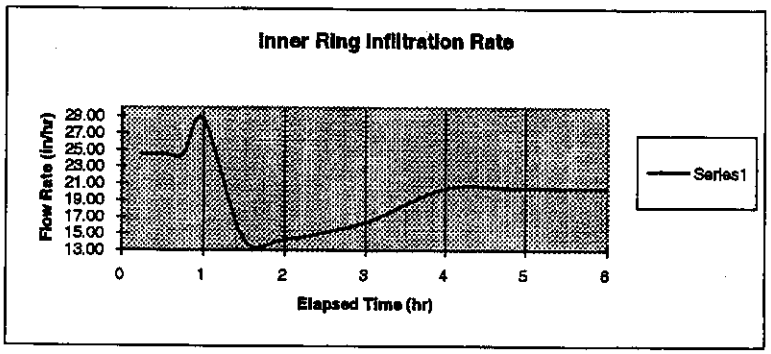
SOIL DESCRIPTION: 0-2' TOPSOIL(4") DARK GRAY FINE SAND
NOTE: TEST PERFORMED BEGINNING AT 6 INCHES; I.E. BELOW TOPSOIL.
GROUNDWATER DEPTH: N/A USING 12" & 24" DIAMETER RINGS

AREA: INNER RING: 113.1 IN^2 (729.7 CM^2)
ANNULAR RING: 339.3 IN^2 (2189.2 CM^2)

Testing was performed on February 19, 2008 according to procedures specified in ASTM D3385-88. As ASTM procedure recommends, data from inner ring was used to determine infiltration rate.

ELAPSED TIME (HR)	QUANTITY OF WATER INNER(in^3)	RATE INNER (IN/HR)	QUANTITY OF WATER ANNULAR(in^3)	RATE ANNULAR (IN/HR)
0.25	693	24.51	924	10.89
0.5	693	24.51	1040	12.26
0.75	693	24.51	1040	12.26
1	809	28.61	1155	13.62
1.5	809	14.31	1155	6.81
2	809	14.31	1502	8.85
3	1848	16.34	3812	11.23
4	2310	20.42	4158	12.25
5	2310	20.42	4158	12.25
6	2310	20.42	4158	12.25

STEADY STATE INFILTRATION RATE = 20.42 INCH/HOUR



INFIL STUART MIDDLE-1 CEG

Reza Javidan, P.E. #60223
Senior Geotechnical Engineer

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City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

DOUBLE RING INFILTROMETER TEST - ASTM D3385

CLIENT: SCHOOL BOARD OF MARTIN COUNTY
TEST NO.2 TEST DATE: 2/19/08
PROJECT: STUART MIDDLE SCHOOL
575 GEORGIA AVENUE, STUART, FLORIDA

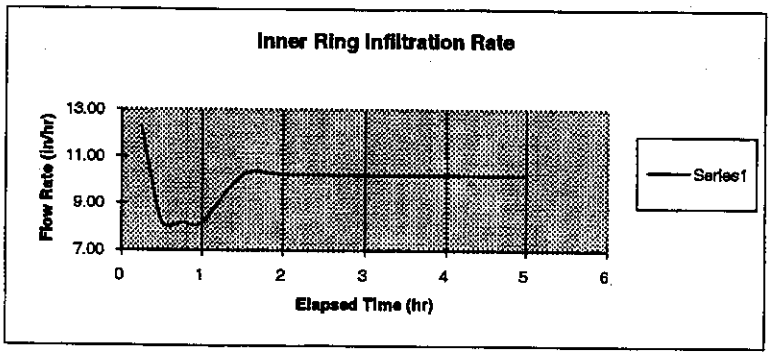
SOIL DESCRIPTION: 0-2' TOPSOIL(4") DARK GRAY FINE SAND
NOTE: TEST PERFORMED BEGINNING AT 6 INCHES; I.E. BELOW TOPSOIL.
GROUNDWATER DEPTH: N/A USING 12" & 24" DIAMETER RINGS

AREA: INNER RING: 113.1 IN^2 (729.7 CM^2)
ANNULAR RING: 339.3 IN^2 (2189.2 CM^2)

Testing was performed on February 19, 2008 according to procedures specified in ASTM D3385-88. As ASTM procedure recommends, data from inner ring was used to determine infiltration rate.

ELAPSED TIME (HR)	QUANTITY OF WATER INNER(in^3)	RATE INNER (IN/HR)	QUANTITY OF WATER ANNULAR(in^3)	RATE ANNULAR (IN/HR)
0.25	347	12.27	578	6.81
0.5	231	8.17	693	8.17
0.75	231	8.17	693	8.17
1	231	8.17	809	9.54
1.5	578	10.22	1155	6.81
2	578	10.22	1271	7.49
3	1155	10.21	2310	6.81
4	1155	10.21	2310	6.81
5	1155	10.21	2310	6.81

STEADY STATE INFILTRATION RATE = 10.21 INCH/HOUR



INFIL STUART MIDDLE-2 CEG

Reza Javidan, P.E. #60223
Senior Geotechnical Engineer

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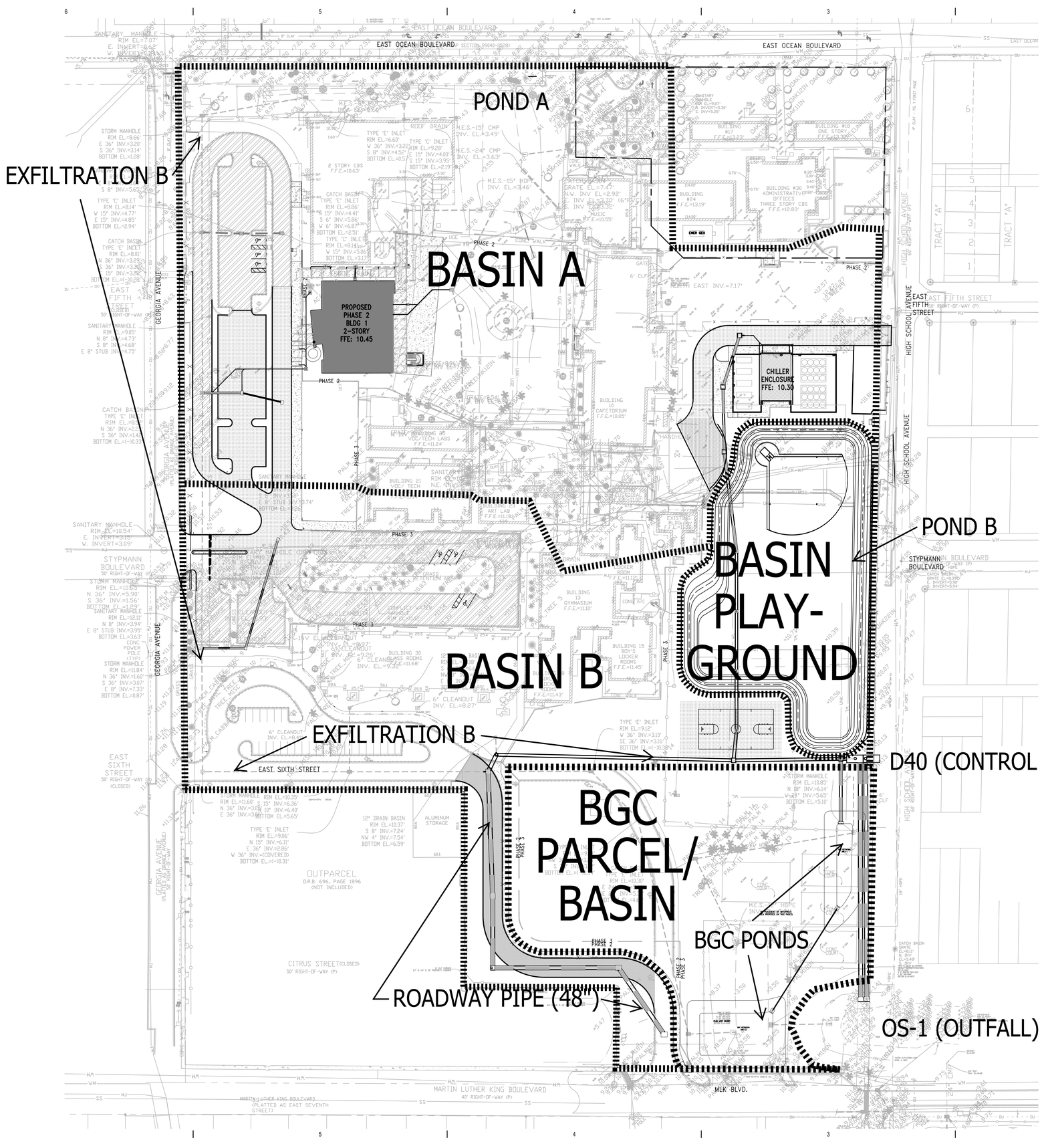
ATTACHMENT 2

POST-DEVELOPMENT BASIN MAP



N

0' 30 60 120

GRAPHIC SCALE IN FEET
NAVD88

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

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MARTIN COUNTY SCHOOL DISTRICT
STUART MIDDLE SCHOOL
NEW ADMIN/MEDIA, FOODSERVICE AND ENERGY PLANT BUILDINGS
575 SE GEORGIA AVENUE, STUART, FLORIDA 34994
100% CONSTRUCTION DOCUMENTS

Comm. No:	17021.01
Date:	05/28/2021
Drawn:	J.K.

Revisions

No.	Date	Note

"TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND FIRE-SAFETY, MEDICAL GAS AND ZONING STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH THIS SECTION AND CHAPTER 633, FLORIDA STATUTES."

JAY A. KLIMA, P.E.
FL P.E. # 49945

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POST DEVELOPMENT MAP

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Filename:S:\Projects\Land Projects 2017\17HARV012 - Stuart MS Additions\DWG\C400 P&G SMS Plot Date:5.2.2022 Plotted By:John O'Neall

ATTACHMENT 3

WATER QUALITY/QUANTITY CALCULATIONS

Runoff Curve Number Worksheet

Project:	Stuart MS Ph 2	By:	KAL	Date:	5/21/2022
Basin:	School A (Stuart MS)	Checked:		Date:	

Circle One: **Post-Development**

1. Runoff Curve Number (CN)

Land Use	Cover Description Cover Type (Impervious Areas) Soil Type, Cover Type, and Condition (Pervious Areas)	CN Table 2-2a	CN Table 2-2b	CN Table 2-2c	Area **Acres** Mi2 %	Product of CN x Area
Water Surface		98			0.26	25
Impervious	Roof	98			2.95	289
Impervious	Non-Roof	98			1.88	184
Pervious	Type A, Grass, Good Condition	39			2.79	109
			Total		7.88	608

CN (weighted) = Total Product / Total Area: 77

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Runoff Curve Number Worksheet

Project:	Stuart MS Ph 2	By:	KAL	Date:	12/21/2022
Basin:	School B (Stuart MS)	Checked:		Date:	

Circle One: **Post-Development**

1. Runoff Curve Number (CN)

Land Use	Cover Description Cover Type (Impervious Areas) Soil Type, Cover Type, and Condition (Pervious Areas)	CN Table 2-2a	CN Table 2-2b	CN Table 2-2c	Area **Acres** Mi2 %	Product of CN x Area
Water Surface		98			0.00	0
Impervious	Roof	98			1.36	133
Impervious	Non-Roof	98			3.09	302
Pervious	Type A, Grass, Good Condition	39			3.01	117
			Total		7.45	553

CN (weighted) = Total Product / Total Area: 74

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Runoff Curve Number Worksheet

Project:	Stuart MS Ph 2	By:	KAL	Date:	12/21/2022
Basin:	Playground (Stuart MS)	Checked:		Date:	

Circle One: **Post-Development**

1. Runoff Curve Number (CN)

Land Use	Cover Description Cover Type (Impervious Areas) _____ Soil Type, Cover Type, and Condition (Pervious Areas)	CN Table 2-2a	CN Table 2-2b	CN Table 2-2c	Area **Acres** Mi2 %	Product of CN x Area
Water Surface		98			1.25	123
Impervious	Roof	98			0.00	0
Impervious	Non-Roof	98			0.00	0
Pervious	Type A, Grass, Good Condition	39			0.52	20
			Total		1.77	143

CN (weighted) = Total Product / Total Area: 81

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Stuart Middle School
Proposed Land Use Data Table
with
Required Treatment Volume Calculation

Land Use Data			
Basin	**Land Type**	**Area**	
On-Site System	Roofs	4.31	
	Impervious	4.96	
	Pervious	6.32	
	Water Surface	1.51	
	Wetlands	0.00	
	Total:	17.10	
	Wet Detention	Dry Detention	**Dry Retention**
1-Inch	1.43	1.07	0.71
2.5"x % Impervious	1.43	1.07	0.71
Add'l 50% WQ Volume	0.71	0.54	0.36
WQ Required	2.14	1.61	**1.07**
0.5-inches	0.650		
% Impervious:		44%	percent

Treatment Volume (Wet Detention) = 2.5" / 12 * (Total Drainage Area - Pond Area) * WQ Impervious % * 1.5 (for OFW)
WQ Impervious % = Other Impervious Area / (Total Drainage Area - Pond Area - Roof Impervious Area)
Pond Area = Area at Control/Weir Elevation (Water Surface)
Dry Retention Treatment Volume = Wet Detention Treatment Volume * 0.50

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Runoff Curve Number Worksheet

Project:	Stuart MS Ph 2	By:	KAL	Date:	12/21/2022
Basin:	BGC (B&GC Parcel)	Checked:		Date:	

Circle One: **Future**

1. Runoff Curve Number (CN)

Land Use	Cover Description Cover Type (Impervious Areas) _____ Soil Type, Cover Type, and Condition (Pervious Areas)	CN Table 2-2a	Table 2-2b	Table 2-2c	Area **Acres** Mi2 %	Product of CN x Area
Water Surface		98			0.19	19
Impervious	Roof	98			0.88	86
Impervious	Non-Roof	98			0.73	72
Pervious	Type A, Grass, Good Condition	39			1.09	43
			Total		2.89	219

CN (weighted) = Total Product / Total Area: 76

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Boys & Girls Club
Proposed Land Use Data Table
with
Required Treatment Volume Calculation

Land Use Data			
Basin	**Land Type**	**Area**	
On-Site System	Roofs	0.88	
	Impervious	0.73	
	Pervious	1.09	
	Water Surface	0.19	
	Wetlands	0.00	
	Total:	2.89	
	Wet Detention	Dry Detention	**Dry Retention**
1-Inch	0.24	0.18	0.12
2.5"x % Impervious	0.23	0.17	0.11
Add'l 50% WQ Volume	0.12	0.09	0.06
WQ Required	0.36	0.27	**0.18**
0.5-inches	0.113		
% Impervious:		40%	percent

Treatment Volume (Wet Detention) = 2.5" / 12 * (Total Drainage Area - Pond Area) * WQ Impervious % * 1.5 (for OFW)
WQ Impervious % = Other Impervious Area / (Total Drainage Area - Pond Area - Roof Impervious Area)
Pond Area = Area at Control/Weir Elevation (Water Surface)
Dry Retention Treatment Volume = Wet Detention Treatment Volume * 0.50

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Storage Volume Calculations

Pond A Stage/Area/Storage

Elevation (ft, NAVD)	Area (ac)	Delta Storage (af)	Total Storage Volume (af)
7.54	0.59	0.50	1.26
6.54	0.41	0.35	0.76
5.54	0.28	0.24	0.42
4.54	0.20	0.18	0.18
3.54	0.15	0.00	0.00

BGC Ponds Stage/Area/Storage

Stage	Area (sf)	Area (ac)	Total Storage Volume (af)
10.00	24504	0.56	1.84
7.50	16069	0.37	0.92
5.00	7633	0.18	0.00

Pond B Stage/Area/Storage

Elevation (ft, NAVD)	Area (ac)	Delta Storage (af)	Total Storage Volume (af)
7.50	1.50	0.73	4.00
7.00	1.44	1.39	3.27
6.00	1.33	1.28	1.88
5.00	1.23	0.60	0.60
4.50	1.18	0.00	0.00

Total Stage/Area for PONDS Analysis

Elevation (ft, NAVD)	Area (sf)
7.50	106999
5.00	71604
4.50	51289
3.54	6534

City of Stuart DEVELOPMENT
Minor Development Approval
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Proposed Weir Elevation (ft, NAVD) **5.20**

Required Treatment Volume (ac-ft) **1.25**

Proposed Storage Volume (ac-ft) **1.265**

Soils Data and Calculations

Permeability Rate (K) Calculation

Boring	K, in/hr	K, ft/day
IN-1	20.42	40.84
IN-2	10.21	20.42
Average	**15.3**	**30.6**

Seasonal High Groundwater Table Calculation

Boring Number	Approximate Elevation (NGVD)	Approximate Elevation (NAVD)	Depth to Water Table	Seasonal High Groundwater Elevation (NGVD)	Seasonal High Groundwater Elevation (NAVD)
B-1	10.3	8.8	7.0	3.3	1.8
B-2	12.2	10.7	8.5	3.7	2.2
B-3	14.0	12.5	9.0	5.0	3.5
B-4	12.1	10.6	7.0	5.1	3.6
B-5	10.5	9.0	6.5	4.0	2.5
B-6	10.0	8.5	7.0	3.0	1.5
B-7	9.5	8.0	5.0	4.5	3.0
B-8	5.5	4.0	2.2	3.3	1.8
B-9	6.2	4.7	3.0	3.2	1.7
B-10	9.1	7.6	6.0	3.1	1.6
Average				**3.8**	**2.34**

Base of Aquifer Calculation

Boring Number	Approximate Elevation (NGVD)	Approximate Elevation (NAVD)	Depth to Bottom of Boring	Base of Aquifer Elevation (NGVD)	Base of Aquifer Elevation (NAVD)
B-1	10.3	8.8	10.0	0.3	-1.2
B-2	12.2	10.7	10.0	2.2	0.7
B-3	14.0	12.5	10.0	4.0	2.5
B-4	12.1	10.6	10.0	2.1	0.6
B-5	10.5	9.0	10.0	0.5	-1.0
B-6	10.0	8.5	10.0	0.0	-1.5
B-7	9.5	8.0	30.0	-20.5	-22.0
B-8	5.5	4.0	30.0	-24.5	-26.0
B-9	6.2	4.7	30.0	-23.8	-25.3
B-10	9.1	7.6	10.0	-0.9	-2.4
Average				**-6.1**	**-7.52**

United States
Department of
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**Natural
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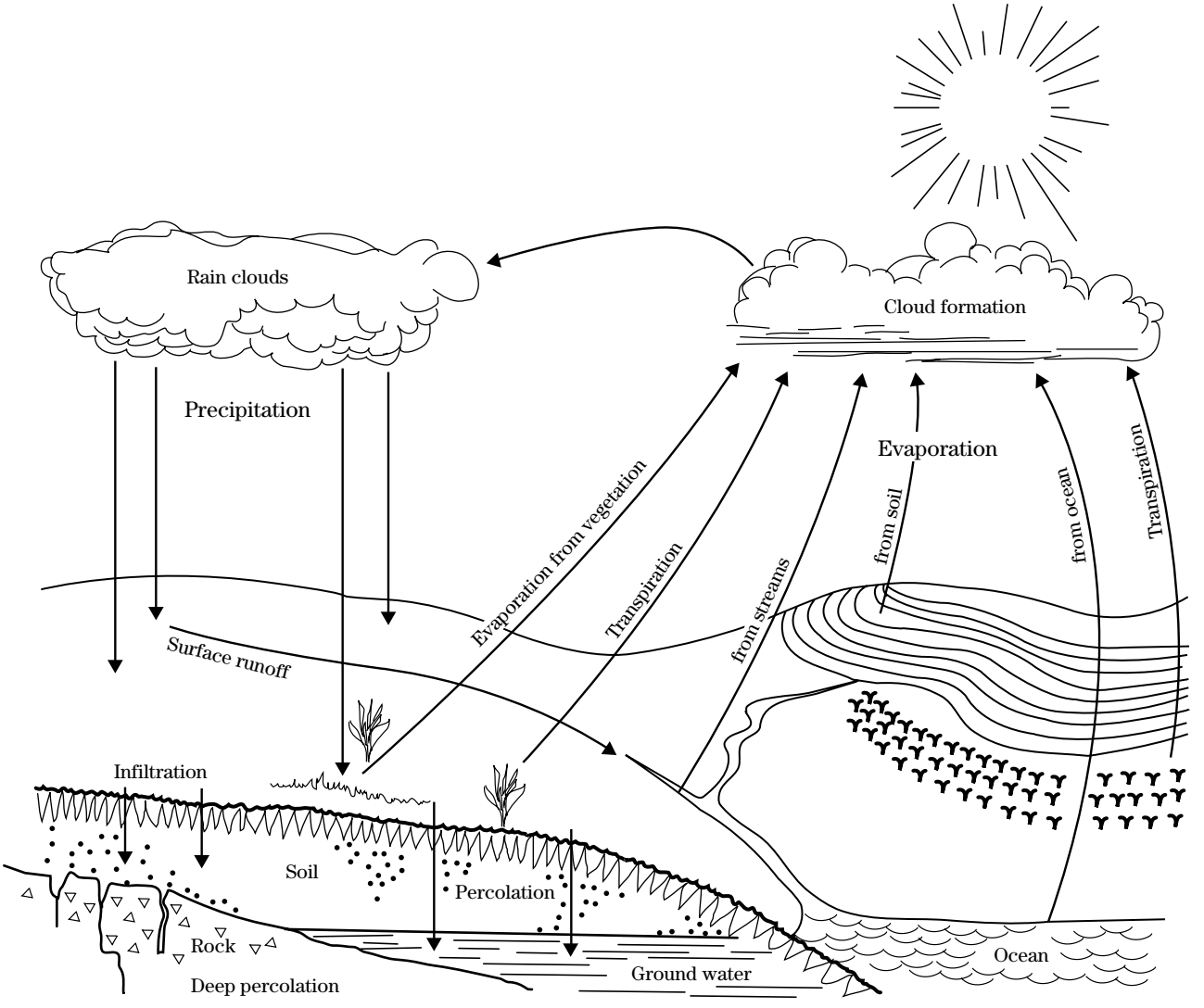
Conservation
Service**

Part 630 Hydrology
National Engineering Handbook

Chapter 7 Hydrologic Soil Groups



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within 60 centimeters [24 inches] of the surface are in this group, although some may have a dual classification, as described in the next section, if they can be adequately drained.

The limits on the physical diagnostic characteristics of group D are as follows. For soils with a water impermeable layer at a depth between 50 centimeters and 100 centimeters [20 and 40 inches], the saturated hydraulic conductivity in the least transmissive soil layer is less than or equal to 1.0 micrometers per second (0.14 inches per hour). For soils that are deeper than 100 centimeters [40 inches] to a restriction or water table, the saturated hydraulic conductivity of all soil layers within 100 centimeters [40 inches] of the surface is less than or equal to 0.40 micrometers per second (0.06 inches per hour).

Dual hydrologic soil groups—Certain wet soils are placed in group D based solely on the presence of a water table within 60 centimeters [24 inches] of the surface even though the saturated hydraulic conductivity may be favorable for water transmission. If these soils can be adequately drained, then they are assigned to dual hydrologic soil groups (A/D, B/D, and C/D) based on their saturated hydraulic conductivity and the water table depth when drained. The first letter applies to the drained condition and the second to the undrained condition. For the purpose of hydrologic soil group, adequately drained means that the seasonal high water table is kept at least 60 centimeters [24 inches] below the surface in a soil where it would be higher in a natural state.

Matrix of hydrologic soil group assignment criteria—The decision matrix in tables 7–1 and 7–2 can be used to determine a soil's hydrologic soil group. Check both tables before making a final decision. If saturated hydraulic conductivity data are available and deemed to be reliable, then these data, along with water table depth information, should be used to place the soil into the appropriate hydrologic soil group. If these data are not available, the hydrologic soil group is determined by observing the properties of the soil in the field. Factors such as texture, compaction (bulk density), strength of soil structure, clay mineralogy, and organic matter are considered in estimating the hydraulic conductivity of each layer in the soil profile. The depth and hydraulic conductivity of any water impermeable layer and the depth to any high water table are used to determine correct hydrologic soil group for the soil. The property that is most limiting to water movement generally determines the soil's hydrologic group. In anomalous situations, when adjustments to hydrologic soil group become necessary, they shall be made by the NRCS state soil scientist in consultation with the state conservation engineer.

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Table 7–1 Criteria for assignment of hydrologic soil groups when a water impermeable layer exists at a depth between 50 and 100 centimeters [20 and 40 inches]

Soil property	Hydrologic soil group A	Hydrologic soil group B	Hydrologic soil group C	Hydrologic soil group D
Saturated hydraulic conductivity of the least transmissive layer	>40.0 µm/s (>5.67 in/h)	≤40.0 to >10.0 µm/s (≤5.67 to >1.42 in/h)	≤10.0 to >1.0 µm/s (≤1.42 to >0.14 in/h)	≤1.0 µm/s (≤0.14 in/h)
	and	and	and	and/or
Depth to water impermeable layer	50 to 100 cm [20 to 40 in]	50 to 100 cm [20 to 40 in]	50 to 100 cm [20 to 40 in]	<50 cm [<20 in]
	and	and	and	and/or
Depth to high water table	60 to 100 cm [24 to 40 in]	60 to 100 cm [24 to 40 in]	60 to 100 cm [24 to 40 in]	<60 cm [<24 in]

Note: 1 in/h = 2 fpd

Table 7–2 Criteria for assignment of hydrologic soil groups when any water impermeable layer exists at a depth greater than 100 centimeters [40 inches]

Soil property	Hydrologic soil group A	Hydrologic soil group B	Hydrologic soil group C	Hydrologic soil group D
Saturated hydraulic conductivity of the least transmissive layer	>10 µm/s (>1.42 in/h)	≤10.0 to >4.0 µm/s (≤1.42 to >57 in/h)	≤4.0 to >0.40 µm/s (≤0.57 to >0.06 in/h)	≤0.40 µm/s (≤0.06 in/h)
	and	and	and	and/or
Depth to water impermeable layer	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]
	and	and	and	and/or
Depth to high water table	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]	>100 cm [>40 in]

Note: 1 in/h = 2 fpd

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Exfiltration Stage/Storage Derivation

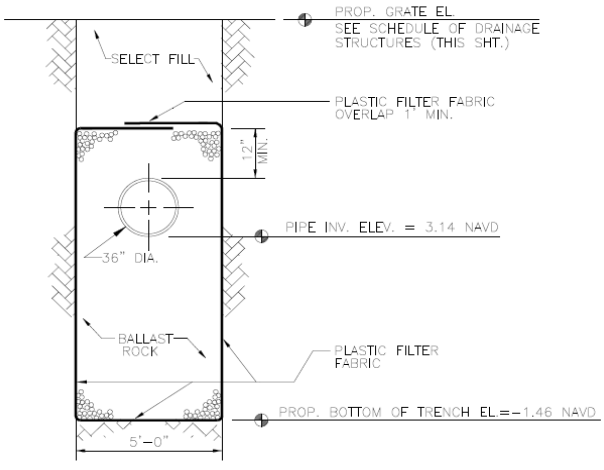
Legend:

1. The Cross-Sectional Area of the Trench, as reduced by the Cross-Sectional Area of the Pipe, then reduced by the assumed stone porosity (40%).
2. The Cross-Sectional Area of the Pipe, with a 36-inch diameter and assumed "porosity" of 100%.
3. Total of the Stone and Pipe Cross-Sectional Areas
4. Multiply the Total Cross-Sectional Area by the Total Exfiltration Length for the Total Exfiltration Volume.

Notes: Dimensions, Elevations from Permitted Plans (App # 080606-7)
Elevations Converted to NAVD (NAVD = NGVD - 1.46 ft)
Trench Width = 5.0 ft, Stone Porosity = 40%, Pipe Diameter = 36 in

Exfiltration Stage/Area/Storage

	Elevation (ft, NAVD)	1 X-Sectional Area, Stone (sf)	2 X-Sectional Area, Pipe (sf)	3 X-Sectional Area, Total (sf)	Total Exfiltration Length (ft)	4 Total Exfiltration Volume (af)
Pond A Top	7.54	0.00	0.00	0.00	1664	0.468
Trench Top	7.14	1.00	0.00	1.00	1664	0.468
	6.64	1.00	0.00	1.00	1664	0.429
Pipe Crown	6.14	1.59	3.53	5.12	1664	0.391
	4.64	1.59	3.53	5.12	1664	0.196
Pipe Invert	3.14	1.60	0.00	1.60	1664	0.000
SHGWT	2.34	0.00	0.00	0.00	1664	0.000



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Total Exfiltration Trench Length

Existing Pipes (ST-X)
Proposed Pipes (DXX to DXX)

Pipe/Inlets	Length
ST-2	156
ST-3	199
ST-4	223
ST-5	98
ST-5A	155
ST-6	185
ST-7	184
D37 to D38	0
D38 to D39	298
D39 to D41	134
D41 to D40	32
Total Length	**1664**

Existing Pipes from Permitted Plans
Proposed Pipes from Sheet C405

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Roadway Pipe Stage/Storage Derivation

Total Roadway Pipe Length

Inlets	Length
D37 to D38	23
D36 to D37	156
D35 to D36	90
D34 to D35	158
D43 to D34	101
Total Length	**528**

Pipe Stage/Area/Storage

Elevation (ft, NAVD)	Total X-Sectional Area, Pipe (sf)	Total Pipe Length (ft)	Total Pipe Volume (af)
7.14	12.57	528	0.152
5.14	6.28	528	0.076
3.14	0.00	528	0.000

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ATTACHMENT 4

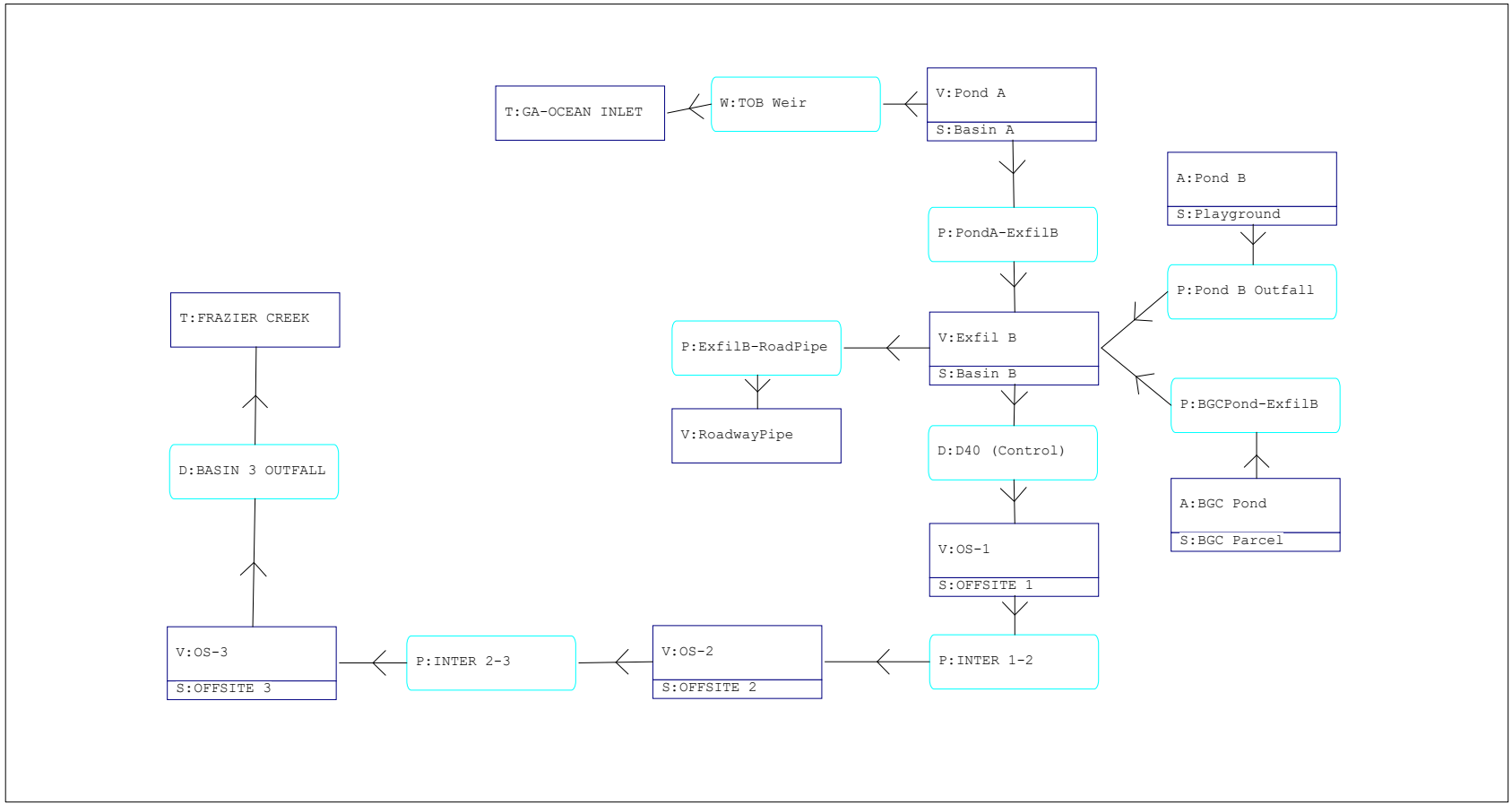
ICPR ROUTING ANALYSES

Stuart MS Phase 2
All Elevations in NAVD

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



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Stuart MS Phase 2
All Elevations in NAVD

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
BGC Pond	100yr72hr	7.50	8.00	0.0020	16132	16.73	19.96
Exfil B	100yr72hr	7.54	7.54	-0.0138	137	38.32	45.63
FRAZIER CREEK	100yr72hr	3.54	4.54	0.0003	0	18.08	0.00
GA-OCEAN INLET	100yr72hr	6.50	6.50	0.0000	0	9.96	0.00
OS-1	100yr72hr	7.05	8.14	0.0034	405651	96.96	4.01
OS-2	100yr72hr	6.57	8.14	0.0036	241184	81.58	6.78
OS-3	100yr72hr	5.43	9.14	0.0029	154082	54.44	18.08
Pond A	100yr72hr	7.58	7.45	0.0049	25536	40.12	30.72
Pond B	100yr72hr	7.49	7.50	0.0011	65305	10.60	7.28
RoadwayPipe	100yr72hr	7.48	7.54	0.0050	295	23.98	0.00
BGC Pond	1024	6.37	8.00	0.0024	12414	7.53	4.05
Exfil B	1024	6.28	7.54	0.0050	4277	16.42	12.29
FRAZIER CREEK	1024	3.04	4.54	0.0003	0	6.78	0.00
GA-OCEAN INLET	1024	6.50	6.50	0.0000	0	0.00	0.00
OS-1	1024	5.28	8.14	0.0049	251483	49.89	2.99
OS-2	1024	5.00	8.14	0.0048	154564	36.96	4.27
OS-3	1024	4.52	9.14	0.0041	96162	23.99	6.78
Pond A	1024	6.35	7.45	0.0050	17201	19.84	13.42
Pond B	1024	5.79	7.50	0.0009	57043	5.14	1.30
RoadwayPipe	1024	6.28	7.54	0.0050	1187	3.69	0.00
BGC Pond	25-72	7.00	8.00	0.0016	14478	12.89	20.12
Exfil B	25-72	7.00	7.54	0.0042	2226	37.01	28.84
FRAZIER CREEK	25-72	3.54	4.54	0.0003	0	13.94	0.00
GA-OCEAN INLET	25-72	6.50	6.50	0.0000	0	0.00	0.00
OS-1	25-72	6.44	8.14	0.0028	353181	76.72	3.80
OS-2	25-72	6.02	8.14	0.0029	210750	62.15	6.13
OS-3	25-72	5.13	9.14	0.0025	134751	41.73	13.94
Pond A	25-72	7.15	7.45	-0.0040	22527	30.97	19.61
Pond B	25-72	7.00	7.50	0.0009	62724	8.28	5.10
RoadwayPipe	25-72	6.99	7.54	0.0049	891	8.36	0.00

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Stuart MS Phase 2
All Elevations in NAVD

Name	Simulation	Max Flow cfs	Max Delta Q cfs	Max US Stage ft	Max DS Stage ft
D40 (Control)	100yr72hr	23.681	-0.482	7.540	7.046
TOB Weir	100yr72hr	9.958	0.039	7.578	6.500
D40 (Control)	1024	16.088	0.055	6.277	5.277
TOB Weir	1024	0.000	0.000	6.345	6.500
D40 (Control)	25-72	22.821	-0.068	6.997	6.444
TOB Weir	25-72	0.000	0.000	7.146	6.500

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==========
==== Basins ==========
==========

Name: Basin A Node: Pond A Status: Onsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 14.80
Area(ac): 7.880 Time Shift(hrs): 0.00
Curve Number: 77.00 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

Name: Basin B Node: Exfil B Status: Onsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 48.34
Area(ac): 7.450 Time Shift(hrs): 0.00
Curve Number: 74.00 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

Name: BGC Parcel Node: BGC Pond Status: Onsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 2.890 Time Shift(hrs): 0.00
Curve Number: 76.00 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

Name: OFFSITE 1 Node: OS-1 Status: Offsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 20.00
Area(ac): 17.500 Time Shift(hrs): 0.00
Curve Number: 73.58 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

OFFSITE BASIN 1 FROM EAST STUART DRAINAGE PROJECT

Name: OFFSITE 2 Node: OS-2 Status: Offsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 20.00
Area(ac): 18.500 Time Shift(hrs): 0.00
Curve Number: 73.58 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

OFFSITE BASIN 2 FROM EAST STUART DRAINAGE PROJECT

Name: OFFSITE 3 Node: OS-3 Status: Offsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 20.00
Area(ac): 11.750 Time Shift(hrs): 0.00
Curve Number: 73.58 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

OFFSITE BASIN 3 FROM THE EAST STUART DRAINAGE PROJECT

Name: Playground Node: Pond B Status: Onsite
Group: BASE Type: Santa Barbara CN

Rainfall File: Storm Duration(hrs): 0.00
Rainfall Amount(in): 0.000 Time of Conc(min): 10.00
Area(ac): 1.770 Time Shift(hrs): 0.00
Curve Number: 81.00 Time Increment(min): 15.00
DCIA(%): 0.00 Max Allowable Q(cfs): 999999.000

==========
==== Nodes ==========
==========

Name: BGC Pond Base Flow(cfs): 0.000 Init Stage(ft): 5.000
Group: BASE Warn Stage(ft): 8.000
Type: Stage/Area

Stage(ft)	Area(ac)
5.000	0.1800
10.000	0.5600

Name: Exfil B Base Flow(cfs): 0.000 Init Stage(ft): 3.140
Group: BASE Warn Stage(ft): 7.540
Type: Stage/Volume

Stage(ft)	Volume(af)
3.140	0.0000
4.640	0.1960
6.140	0.3910
6.640	0.4290
7.140	0.4680
7.540	0.4690

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Name: FRAZIER CREEK Base Flow(cfs): 0.000 Init Stage(ft): 2.540
Group: BASE Warn Stage(ft): 4.540
Type: Time/Stage

Elevations converted from NGVD to NAVD (-1.46')

Time(hrs)	Stage(ft)
0.00	2.540
60.00	3.540
72.00	3.040

Name: GA-OCEAN INLET Base Flow(cfs): 0.000 Init Stage(ft): 6.500
Group: BASE Warn Stage(ft): 6.500
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	6.500
72.00	6.500

Name: OS-1 Base Flow(cfs): 0.000 Init Stage(ft): 3.140
Group: BASE Warn Stage(ft): 8.140
Type: Stage/Volume

Elevations converted from NGVD to NAVD (-1.46')

Stage(ft)	Volume(af)

3.140	0.0000
4.140	2.5000
5.140	7.0000
6.140	13.5000
7.140	22.0000
8.140	32.5000

Name: OS-2 Base Flow(cfs): 0.000 Init Stage(ft): 3.140
Group: BASE Warn Stage(ft): 8.140
Type: Stage/Volume

Elevations converted from NGVD to NAVD (-1.46')

Stage(ft)	Volume(af)
3.140	0.0000
4.140	1.8300
5.140	4.9300
6.140	9.2800
7.140	14.9100
8.140	21.7900
10.500	29.9400
11.500	49.3500
12.500	50.0200
13.500	61.9600
14.000	68.4000

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Name: OS-3 Base Flow(cfs): 0.000 Init Stage(ft): 3.140
Group: BASE Warn Stage(ft): 9.140
Type: Stage/Volume

Elevations converted from NGVD to NAVD (-1.46')

Stage(ft)	Volume(af)
3.140	0.0000
4.140	0.9300
5.140	3.3100
6.140	7.1500
7.140	12.4400
8.140	19.1800
9.140	23.1000

Name: Pond A Base Flow(cfs): 0.000 Init Stage(ft): 3.540
Group: BASE Warn Stage(ft): 7.450
Type: Stage/Volume

Elevations converted from NGVD to NAVD (-1.46')

Stage(ft)	Volume(af)
3.540	0.0000
4.540	0.1800
5.540	0.4200
6.540	0.7600
7.540	1.2600

Name: Pond B Base Flow(cfs): 0.000 Init Stage(ft): 4.500
Group: BASE Warn Stage(ft): 7.500
Type: Stage/Area

Stage(ft)	Area(ac)
4.500	1.1800
5.000	1.2300
6.000	1.3300
7.000	1.4400
7.500	1.5000

Name: RoadwayPipe Base Flow(cfs): 0.000 Init Stage(ft): 3.140
Group: BASE Warn Stage(ft): 7.540
Type: Stage/Volume

Stage(ft)	Volume(af)
3.140	0.0000
5.140	0.0760
7.140	0.1520
8.140	0.1530

Cross Sections

Name: TOB Weir Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	8.470	0.150000
21.000	7.450	0.150000
29.000	7.490	0.150000
71.000	7.460	0.150000
145.000	7.560	0.150000
230.000	7.730	0.150000
290.000	7.980	0.150000

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Pipes

Name: BGCPond-ExfilB From Node: BGC Pond Length(ft): 93.00
Group: BASE To Node: Exfil B Count: 1
Friction Equation: Automatic
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	24.00	24.00
Rise(in):	24.00	24.00
Invert(ft):	5.000	3.140
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name: ExfilB-RoadPipe From Node: Exfil B Length(ft): 23.00
Group: BASE To Node: RoadwayPipe Count: 1
Friction Equation: Automatic
Solution Algorithm: Automatic
Flow: Both
Entrance Loss Coef: 0.00
Exit Loss Coef: 1.00
Bend Loss Coef: 0.00
Outlet Ctrl Spec: Use dc or tw
Inlet Ctrl Spec: Use dc
Stabilizer Option: None

	UPSTREAM	DOWNSTREAM
Geometry:	Circular	Circular
Span(in):	48.00	48.00
Rise(in):	48.00	48.00
Invert(ft):	3.140	3.140
Manning's N:	0.012000	0.012000
Top Clip(in):	0.000	0.000
Bot Clip(in):	0.000	0.000

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Name:	INTER 1-2	From Node:	OS-1	Length(ft): 90.00
Group:	BASE	To Node:	OS-2	Count: 1
				Friction Equation: Average Conveyance
	UPSTREAM	DOWNSTREAM		Solution Algorithm: Automatic
Geometry:	Circular	Circular		Flow: Both
Span(in):	15.00	15.00		Entrance Loss Coef: 0.00
Rise(in):	15.00	15.00		Exit Loss Coef: 0.00
Invert(ft):	3.040	3.040		Bend Loss Coef: 0.00
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 dn
Bot Clip(in):	0.000	0.000		Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

INTERCONNECTION BETWEEN BASIN 1 AND BASIN 2 OF THE EAST STUART DRAINAGE IMPROVEMENTS
Elevations converted from NGVD to NAVD (-1.46')

Name:	INTER 2-3	From Node:	OS-2	Length(ft): 400.00
Group:	BASE	To Node:	OS-3	Count: 1
				Friction Equation: Average Conveyance
	UPSTREAM	DOWNSTREAM		Solution Algorithm: Automatic
Geometry:	Circular	Circular		Flow: Both
Span(in):	18.00	18.00		Entrance Loss Coef: 0.00
Rise(in):	18.00	18.00		Exit Loss Coef: 0.00
Invert(ft):	3.040	3.040		Bend Loss Coef: 0.00
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 dn
Bot Clip(in):	0.000	0.000		Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

INTECONNECTION BETWEEN BASIN 2 AND BASIN 3 OF THE EAST STUART DRAINAGE IMPROVEMENTS
Elevations converted from NGVD to NAVD (-1.46')

Name:	Pond B Outfall	From Node:	Pond B	Length(ft): 19.00
Group:	BASE	To Node:	Exfil B	Count: 1
				Friction Equation: Automatic
	UPSTREAM	DOWNSTREAM		Solution Algorithm: Most Restrictive
Geometry:	Circular	Circular		Flow: Both
Span(in):	36.00	36.00		Entrance Loss Coef: 0.00
Rise(in):	36.00	36.00		Exit Loss Coef: 1.00
Invert(ft):	4.500	3.140		Bend Loss Coef: 0.00
Manning's N:	0.012000	0.012000		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		Stabilizer Option: None

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

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---------------------------------------------------------------------------------------------------
         Name: PondA-ExfilB        From Node: Pond A             Length(ft): 130.00
        Group: BASE                  To Node: Exfil B                 Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                Solution Algorithm: Automatic
     Geometry: Circular       Circular                             Flow: Both
     Span(in): 36.00          36.00                    Entrance Loss Coef: 0.00
     Rise(in): 36.00          36.00                        Exit Loss Coef: 0.00
   Invert(ft): 3.220          3.140                        Bend Loss Coef: 0.00
  Manning's N: 0.012000       0.012000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                        Inlet Ctrl Spec: Use dn
 Bot Clip(in): 0.000          0.000                    Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Elevations converted from NGVD to NAVD (-1.46')

===============================================================================================
==== Drop Structures ==========================================================================
===============================================================================================

         Name: BASIN 3 OUTFALL     From Node: OS-3               Length(ft): 400.00
        Group: BASE                  To Node: FRAZIER CREEK           Count: 1

               UPSTREAM       DOWNSTREAM                Friction Equation: Average Conveyance
     Geometry: Circular       Circular                 Solution Algorithm: Automatic
     Span(in): 36.00          36.00                                Flow: Both
     Rise(in): 36.00          36.00                    Entrance Loss Coef: 0.000
   Invert(ft): 3.040          3.000                        Exit Loss Coef: 0.000
  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 dn
 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

OUTFALL STRUCTURE FROM BASIN 3 TO FRAZIER CREEK SYSTEM PER EAST STUART DRAINAGE IMPROVEMENTS
Elevations converted from NGVD to NAVD (-1.46')

*** Weir 1 of 2 for Drop Structure BASIN 3 OUTFALL ***
                                                                                    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): 48.00                        Invert(ft): 5.040
               Rise(in): 42.00                  Control Elev(ft): 3.040

*** Weir 2 of 2 for Drop Structure BASIN 3 OUTFALL ***
                                                                                    TABLE
                  Count: 1                        Bottom Clip(ft): 0.000
                   Type: Vertical: Mavis             Top Clip(ft): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Trapezoidal           Orifice Disc Coef: 0.600

       Bottom Width(ft): 0.00                         Invert(ft): 3.040
       Left Sd Slp(h/v): 5.67                   Control Elev(ft): 3.040
      Right Sd Slp(h/v): 5.67             Struct Opening Dim(ft): 2.00


---------------------------------------------------------------------------------------------------
         Name: D40 (Control)       From Node: Exfil B            Length(ft): 305.00
        Group: BASE                  To Node: OS-1                    Count: 1

               UPSTREAM       DOWNSTREAM                Friction Equation: Automatic
```

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Geometry:	Circular	Circular	Solution Algorithm:	Automatic
Span(in):	30.00	30.00	Flow:	Both
Rise(in):	30.00	30.00	Entrance Loss Coef:	0.000
Invert(ft):	3.000	-1.000	Exit Loss Coef:	0.000
Manning's N:	0.012000	0.012000	Outlet Ctrl Spec:	Use dc or tw
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec:	Use dn
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

Elevations converted from NGVD to NAVD (-1.46')

*** Weir 1 of 2 for Drop Structure D40 (Control) ***

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):	54.00	Invert(ft):	5.200
Rise(in):	27.60	Control Elev(ft):	5.200

*** Weir 2 of 2 for Drop Structure D40 (Control) ***

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):	96.00	Invert(ft):	7.500
Rise(in):	12.00	Control Elev(ft):	7.500

==========
==== Weirs ==========
==========

Name:	TOB Weir	From Node:	Pond A
Group:	BASE	To Node:	GA-OCEAN INLET
Flow:	Both	Count:	1
Type:	Vertical: Fread	Geometry:	Irregular

XSec: TOB Weir

Invert(ft):	7.450
Control Elevation(ft):	7.450
Struct Opening Dim(ft):	9999.00

TABLE

Bottom Clip(ft):	0.000
Top Clip(ft):	0.000
Weir Discharge Coef:	3.200
Orifice Discharge Coef:	0.600

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==========
==== Hydrology Simulations ==========
==========

Name: 100yr72hr
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Override Defaults:	Yes
Storm Duration(hrs):	72.00
Rainfall File:	Sfwmd72
Rainfall Amount(in):	13.59

Time(hrs)	Print Inc(min)
72.000	15.00

Name: 1024

Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Override Defaults: Yes
Storm Duration(hrs): 24.00
Rainfall File: Flmod
Rainfall Amount(in): 6.70

Time(hrs)	Print Inc(min)
30.000	5.00

Name: 25-72
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Override Defaults: Yes
Storm Duration(hrs): 72.00
Rainfall File: Sfwmd72
Rainfall Amount(in): 10.87

Time(hrs)	Print Inc(min)
72.000	15.00

Name: 5-1
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Override Defaults: Yes
Storm Duration(hrs): 1.00
Rainfall File: Flmod
Rainfall Amount(in): 3.00

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Time(hrs)	Print Inc(min)
2.000	5.00

==========
==== Routing Simulations ==========
==========

Name: 100yr72hr Hydrology Sim: 100yr72hr
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
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

Name: 1024 Hydrology Sim: 1024
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 30.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
999.000	15.000

Group	Run
BASE	Yes

Name: 25-72 Hydrology Sim: 25-72
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Execute: Yes Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
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

Name: 5-1 Hydrology Sim: 5-1
Filename: C:\Users\klewis\Desktop\KW Projects\Stuart MS\Stormwater\Application 2\Modeling\ICPR\Phase2 w Pon

Execute: No Restart: No Patch: No
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500
Time Step Optimizer: 10.000
Start Time(hrs): 0.000 End Time(hrs): 2.00
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
999.000	15.000

Group	Run
BASE	Yes

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ATTACHMENT 5

BMPTRAINS ANALYSES

Evaluation of Current Stormwater Design Criteria within the State of Florida

Final Report

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Prepared for:

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

FDEP Contract No. SO108

June 2007

Prepared By:

Harvey H. Harper, Ph.D., P.E.
David M. Baker, P.E.

Environmental Research & Design, Inc.
3419 Trentwood Blvd., Suite 102
Orlando, FL 32812

TABLE 5-4

TREATMENT EFFICIENCIES FOR OFF-LINE RETENTION/DETENTION SYSTEMS (DUAL POND) BASED ON SELECTED RESEARCH STUDIES IN FLORIDA

REFERENCE	STUDY SITE/ LAND USE	TYPE OF EFFICIENCIES REPORTED	MEAN REMOVAL EFFICIENCIES (%)							
			Total N	Ortho -P	Total P	TSS	BOD	Total Cu	Total Pb	Total Zn
Harper (1988)	Orlando/ Residential	Overall	85	96	92	95	90	85	71	91
Harper (1988)	Orlando/ Commercial	Surface Water	30	61	76	89	64	47	80	81
		MEAN VALUES	**58**	**79**	**84**	**92**	**77**	**66**	**76**	**86**

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5.1.5 Comparison of Treatment Efficiencies for Typical Stormwater Management Systems

A comparison of treatment efficiencies for typical stormwater management systems used in the State of Florida is given in Table 5-5 based upon information provided in the literature review. Comparative removal efficiencies are provided for dry retention, wet detention, and dry detention. For the purposes of the evaluation, retention is considered any method of infiltrating water into the ground. This includes traditional retention ponds, stormwater reuse, swales, or the use of exfiltration trenches.

TABLE 5-5

ESTIMATED POLLUTANT REMOVAL EFFICIENCIES FOR COMMON STORMWATER TREATMENT FACILITIES

TYPE OF SYSTEM	ESTIMATED REMOVAL EFFICIENCIES (%)			
	Total N	Total P	TSS	BOD
Retention, Reuse, Source Reduction, Swales	100% for Retained Volume			
Wet Detention				
a. 7-day detention time	20	60	85	50
b. 14-day detention time	30	70	85	60
Dry Detention	0-30	0-40	90	0-50
	Midpoint 15%	Midpoint 20%		

Assumed Estimated Removal Efficiencies of 15% for Total N and 20% for Total P

Project: Stuart MS Phase 2

Date: 12/27/2022

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Catchment Information

Analysis: BMP Analysis

Catchment Name	Stuart MS Phase 1 School	Pre-Development Basin No Treatment	Stuart MS Phase 2 w/ B&GC Parcel	
Rainfall Zone	Florida Zone 5	Florida Zone 5	Florida Zone 5	
Annual Mean Rainfall (in)	57.00	57.00	57.00	
Pre-Condition Landuse Information				
Pre-Condition Landuse	Low-Intensity Commercial: TN=1.13 TP=0.188	Low-Intensity Commercial: TN=1.13 TP=0.188		
Pre Condition Area (acres)	16.94	3.05	0.00	
Pre Rational Coefficient (0-1)	0.29	0.39	0.00	
Pre Non DCIA Curve Number	39.00	39.00	0.00	
Pre DCIA Percent (0-100)	35.00	47.00	0.00	
Pre Nitrogen EMC (mg/l)	1.130	1.130	0.000	
Pre Phosphorus EMC (mg/l)	0.188	0.188	0.000	
Pre Runoff Volume (ac-ft/yr)	23.608	5.627	0.000	
Pre Nitrogen Loading (kg/yr)	32.893 X 85% = 27.99	7.840 X 100% = 7.84	0.000	Pre N Loading = 35.83 kg/yr
Pre Phosphorus Loading (kg/yr)	5.473 X 80% = 4.38	1.304 X 100% = 1.30	0.000	Pre P Loading = 5.68 kg/yr

Per Harper and Baker, 2007 - Removal Efficiencies:

15% for N, 20% for P for Detention Systems

Catchment receives 0% N and P Removal, as Treatment not provided in Pre Condition.

Post-Condition Landuse Information

Post-Condition Landuse			Low-Intensity Commercial: TN=1.13 TP=0.188
Post Condition Area (acres)	0.00	0.00	19.99
Post Rational Coefficient (0-1)	0.00	0.00	0.45
Post Non DCIA Curve Number	0.00	0.00	39.00
Post DCIA Percent (0-100)	0.00	0.00	54.40
Post Nitrogen EMC (mg/l)	1.130	1.130	1.130
Post Phosphorus EMC (mg/l)	0.188	0.188	0.188
Post Runoff Volume (ac-ft/yr)	0.000	0.000	42.434
Post Nitrogen Loading (kg/yr)	0.000	0.000	59.123
Post Phosphorus Loading (kg/yr)	0.000	0.000	9.836

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Project #: Z22060006 Date: May 16, 2023

Summary Treatment Report Version: 4.3.5

Project: Stuart MS Phase 2
Date: 12/27/2022

Retention Design

Retention Depth (in)	0.759
Retention Volume (ac-ft)	1.265

1.265 ac-ft / 19.99 ac * 12 in/ft = 0.759 in

Watershed Characteristics

Catchment Area (acres)	19.99
Contributing Area (acres)	19.990
Non-DCIA Curve Number	39.00
DCIA Percent	54.40
Rainfall Zone	Florida Zone 5
Rainfall (in)	57.00

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Surface Water Discharge

Required TN Treatment Efficiency (%)	
Provided TN Treatment Efficiency (%)	72
Required TP Treatment Efficiency (%)	
Provided TP Treatment Efficiency (%)	72

Load Diagram for Retention (stand-alone)

Load
N: 59.12 kg/yr
P: 9.84 kg/yr

→

Treatment
N: 72 %
P: 72 %

→

Surface Discharge
N: 16.80 kg/yr < Pre N Loading = 35.83 kg/yr
P: 2.80 kg/yr < Pre P Loading = 5.68 kg/yr

Mass Reduction
N: 42.32 kg/yr
P: 7.04 kg/yr

Stuart Middle School
Proposed Land Use Data Table
with
Required Treatment Volume Calculation

Land Use Data			
Basin	**Land Type**	**Area**	
On-Site System	Roofs	4.31	
	Impervious	4.96	
	Pervious	6.32	
	Water Surface	1.51	
	Wetlands	0.00	
	Total:	17.10	
	Wet Detention	Dry Detention	**Dry Retention**
1-Inch	1.43	1.07	0.71
2.5"x % Impervious	1.43	1.04	0.71
Add'l 50% WQ Volume	0.71	0.54	0.36
WQ Required	2.14	1.61	**1.07**
0.5-inches	0.650		
% Impervious:		44%	percent

Total Impervious Area (School Basin)
4.31 ac + 4.96 ac = 9.27 acres

City of Stuart DEVELOPMENT

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Project #: Z22060006 Date: May 16, 2023

Boys & Girls Club
Proposed Land Use Data Table
with
Required Treatment Volume Calculation

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Land Use Data			
Basin	**Land Type**	**Area**	
On-Site System	Roofs	0.88	
	Impervious	0.73	
	Pervious	1.09	
	Water Surface	0.19	
	Wetlands	0.00	
	Total:	2.89	
	Wet Detention	Dry Detention	**Dry Retention**
1-Inch	0.24	0.18	0.12
2.5"x % Impervious	0.23	0.17	0.11
Add'l 50% WQ Volume	0.12	0.09	0.06
WQ Required	0.36	0.27	**0.18**
0.5-inches	0.113		
% Impervious:		40%	percent

Total Impervious Area (BGC Basin)
0.88 ac + 0.73 ac = 1.61 acre

Total Impervious Area
9.27 ac + 1.61 ac = 10.88 acre

Total Project Area
17.10 ac + 2.89 ac = 19.99 acre

Percent Impervious Area
10.88 ac / 19.99 ac * 100 = 54.4%

Basic Info

PIN	AIN	Situs Address	Website Updated
04-38-41-004-011-00010-7	21294	500 SE OCEAN BLVD STUART FL	6/23/22

General Information

Property Owners
SCHOOL BOARD OF MARTIN COUNTY

Mailing Address
500 E OCEAN BLVD
STUART FL 34994

Tax District
STUART

Parcel ID
04-38-41-004-011-00010-7

Account Number
21294

Property Address
500 SE OCEAN BLVD STUART FL

Legal Description
FORTY-SEVEN ACRE ADDN, ALL OF BLKS 11, 1...

Use Code/Property Class
8300 - 8300 Public County Schools

Neighborhood
INST Institutional Lands

Legal Acres
22.65

Ag Use Acres
N/A

Current Value

Year	Land Value	Improvement Value	Market Value	Value Not Taxed	Assessed Value	Total County Exemptions	County Taxable Value
2021	$ 6,314,460	$ 10,685,640	$ 17,000,100	$ 0	$ 17,000,100	$ 17,000,100	$ 0

Market values shown on the website reflect market conditions as of January 1st, the statutory assessment date. We are prohibited by law from relying on sales that occur after the January 1 assessment date. Therefore, market values shown on the website do not reflect today's market conditions, but rather the market conditions last year. In addition, the statutes require the county Property Appraiser to deduct for typical costs of sale (which include expenses such as commissions, title insurance, appraisals, inspection fees, etc.) when arriving at market value for tax purposes. That is why the market value for tax purposes is different from what a property would sell for today.

Current Sale

Sale Date
1/1/01

Sale Price
$ 0

Grantor (Seller)
SELLER - see file for name

Deed Type
Special Warranty Deed

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Legal Description

FORTY-SEVEN ACRE ADDN, ALL OF BLKS 11, 12, 13 & LOTS 12, 13, 20 THRU 26, BLK 14 & CLSD STRS & E 165' OF NE1/4 OF SW1/4 & W 165' OF NW 1/4 OF SE 1/4 STUART MIDDLE & BOARD HDQTRS

The legal description is intended for general information only. The Property Appraiser assumes no responsibility for the uses or interpretations of the legal description.

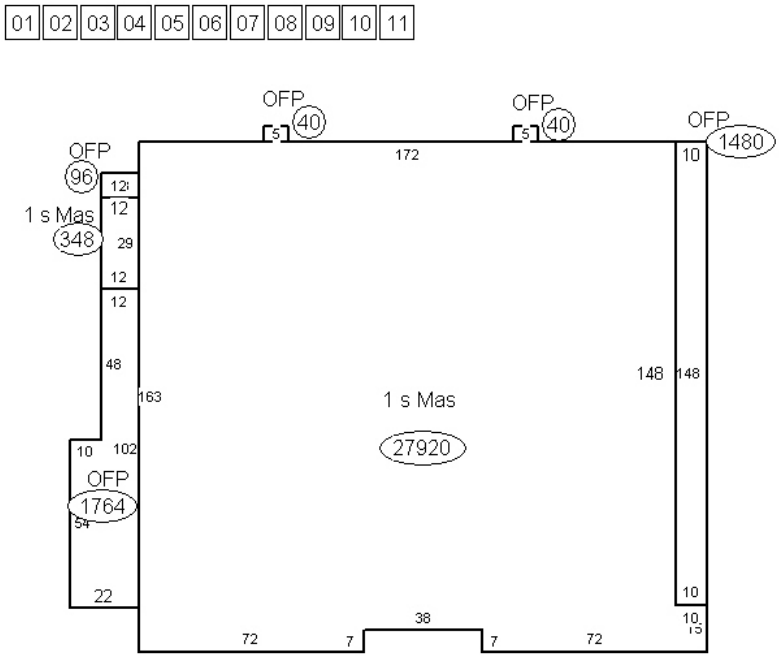
Improvements

PIN	AIN	Situs Address	Website Updated
04-38-41-004-011-00010-7	21294	500 SE OCEAN BLVD STUART FL	6/23/22

Use Code/Property Class	Total Finished Area	Max Stories
8300 - 8300 Public County Schools	204,538 SF	2

Building Information (1 of 33)

Building Type	Finished Area	Exterior Cover	Roof Cover
School Administration	28,268 SF	Concrete Block	N/A
Year Built	**Wall**	**Number of Units**	**Wall Height**
1972	Class C - Fire Resistant	1	12
Bedrooms	**Full Baths**	**Half Baths**	
N/A	4	0	



Total Impervious Area, Entire School Property

33 Buildings, Finished Area:	204,538 sf (4.70 ac)
Features/Yard Items (Following Page):	140,093 sf (3.22 ac)
Total of Buildings and Features:	344,631 sf (7.92 ac)

Overall DCIA, Entire School Property = 7.92 ac / 22.65 ac X 100 = 35%

Features/Yard Items

Type	Qty	Size	Unit of Measure	Year Blt
Concrete Apron	1	5200	Square Feet	1972
Fencing - Chain Link	1	1040	Linear Feet	1972
Fencing - Chain Link	1	15900	Linear Feet	1972
Gate	4	48	Per Each	1972
Gate	9	48	Per Each	1972
PAVING Asphalt	1	46434	Square Feet	1972
Racquetball Court	1	1 4232 sf X 1 = 4232 sf		1972
Residential Tennis Court	1	4 2819 sf X 4 = 11276 sf		1972
Residential Utility Shed	1	196	Square Feet	1972
Residential Utility Shed	1	361	Square Feet	1972
Residential Utility Shed	1	784	Square Feet	1972
Fencing - Chain Link	1	18000	Linear Feet	1959
Gate	7	48	Per Each	1959
Gate	6	48	Per Each	1959
Concrete Apron	1	8314	Square Feet	2010
Curb - No Gutter	1	2749	Linear Feet	2010
Elevator-Commercial MS	1	1	Per Each	2010
Fencing - Commercial	1	1148	Linear Feet	2010
Fencing - Chain Link	1	2040	Linear Feet	2010
Gate	1	222	Per Each	2010
Incadescent Lights	1	44	Per Each	2010
Mercury Lights	1	60	Per Each	2010
Light Pole	17	30	Linear Feet	2010
NG Asphalt	1	63296	Square Feet	2010

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Total Impervious = 140093 sf

ATTACHMENT 6

TREATMENT VOLUME RECOVERY ANALYSIS

PONDS Version 3.3.0278
Retention Pond Recovery - Refined Method
Copyright 2012
Devo Seereeram, Ph.D., P.E.

Project Data

Project Name:	Stuart Middle School Phase 2
Simulation Description:	Recovery Analysis
Project Number:	
Engineer :	KAL
Supervising Engineer:	KAL
Date:	01-10-2023

Aquifer Data

Base Of Aquifer Elevation, [B] (ft datum):	-7.52
Water Table Elevation, [WT] (ft datum):	2.34
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day):	30.60
Fillable Porosity, [n] (%):	30.00
Unsaturated Vertical Infiltration Rate, [Iv] (ft/day):	15.3
Maximum Area For Unsaturated Infiltration, [Av] (ft^2):	51289.0

Geometry Data

Equivalent Pond Length, [L] (ft):	400.0
Equivalent Pond Width, [W] (ft):	200.0

Ground water mound is expected to intersect the pond bottom

Stage vs Area Data

Stage (ft datum)	Area (ft^2)
3.54	6534.0
4.50	51289.0
5.00	71604.0
7.50	106999.0

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Discharge Structures

Discharge Structure #1 is inactive

Discharge Structure #2 is inactive

Discharge Structure #3 is inactive

Scenario Input Data

Scenario 1 :: 55103 ft³ slug load

Hydrograph Type: Slug Load
Modflow Routing: Routed with infiltration

Treatment Volume (ft³) 55103

Initial ground water level (ft datum) 2.34 (default)

Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)	Time After Storm Event (days)
0.100	2.000	5.000	10.000
0.250	2.500	6.000	11.000
0.500	3.000	7.000	12.000
1.000	3.500	8.000	
1.500	4.000	9.000	

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Detailed Results *:: Scenario 1 :: 55103 ft³ slug load*

Elapsed Time (hours)	Instantaneous Inflow Rate (ft³/s)	Outside Recharge (ft/day)	Stage Elevation (ft datum)	Infiltration Rate (ft³/s)	Combined Instantaneous Discharge Rate (ft³/s)	Cumulative Inflow Volume (ft³)	Cumulative Infiltration Volume (ft³)	Combined Cumulative Discharge (ft³)	Flow Type
0.000	9183.8330	0.00000	2.34000	0.00000	0	0.000	0.0	0	N.A.
0.002	9183.8330	0.00000	4.95143	9.07876	0	55103.000	54.5	0	U/P
2.400	0.0000	0.00000	4.38601	2.43581	0	55103.000	32891.7	0	U/S
6.000	0.0000	0.00000	4.27130	0.32443	0	55103.000	37858.6	0	S
12.000	0.0000	0.00000	4.14123	0.19503	0	55103.000	42748.5	0	S
24.000	0.0000	0.00000	3.95158	0.10877	0	55103.000	48465.1	0	S
36.000	0.0000	0.00000	3.78260	0.06946	0	55103.000	52145.9	0	S
48.000	0.0000	0.00000	3.61650	0.03423	0	55103.000	54466.8	0	S
60.000	0.0000	0.00000	3.49556	0.00736	0	55103.000	55103.0	0	S
72.000	0.0000	0.00000	3.42971	0.00000	0	55103.000	55103.0	0	S
84.000	0.0000	0.00000	3.37245	0.00000	0	55103.000	55103.0	0	S
96.000	0.0000	0.00000	3.32237	0.00000	0	55103.000	55103.0	0	S
120.000	0.0000	0.00000	3.24215	0.00000	0	55103.000	55103.0	0	S
144.000	0.0000	0.00000	3.17612	0.00000	0	55103.000	55103.0	0	S
168.000	0.0000	0.00000	3.12067	0.00000	0	55103.000	55103.0	0	S
192.000	0.0000	0.00000	3.07326	0.00000	0	55103.000	55103.0	0	S
216.000	0.0000	0.00000	3.03216	0.00000	0	55103.000	55103.0	0	S
240.000	0.0000	0.00000	2.99606	0.00000	0	55103.000	55103.0	0	S
264.000	0.0000	0.00000	2.96406	0.00000	0	55103.000	55103.0	0	S
288.000	0.0000	0.00000	2.93542	----	----	55103.000	55103.0	0	N.A.

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Soils Data and Calculations

Permeability Rate (K) Calculation

Boring	K, in/hr	K, ft/day
IN-1	20.42	40.84
IN-2	10.21	20.42
Average	**15.3**	**30.6**

Seasonal High Groundwater Table Calculation

Boring Number	Approximate Elevation (NGVD)	Approximate Elevation (NAVD)	Depth to Water Table	Seasonal High Groundwater Elevation (NGVD)	Seasonal High Groundwater Elevation (NAVD)
B-1	10.3	8.8	7.0	3.3	1.8
B-2	12.2	10.7	8.5	3.7	2.2
B-3	14.0	12.5	9.0	5.0	3.5
B-4	12.1	10.6	7.0	5.1	3.6
B-5	10.5	9.0	6.5	4.0	2.5
B-6	10.0	8.5	7.0	3.0	1.5
B-7	9.5	8.0	5.0	4.5	3.0
B-8	5.5	4.0	2.2	3.3	1.8
B-9	6.2	4.7	3.0	3.2	1.7
B-10	9.1	7.6	6.0	3.1	1.6
Average				**3.8**	**2.34**

Base of Aquifer Calculation

Boring Number	Approximate Elevation (NGVD)	Approximate Elevation (NAVD)	Depth to Bottom of Boring	Base of Aquifer Elevation (NGVD)	Base of Aquifer Elevation (NAVD)
B-1	10.3	8.8	10.0	0.3	-1.2
B-2	12.2	10.7	10.0	2.2	0.7
B-3	14.0	12.5	10.0	4.0	2.5
B-4	12.1	10.6	10.0	2.1	0.6
B-5	10.5	9.0	10.0	0.5	-1.0
B-6	10.0	8.5	10.0	0.0	-1.5
B-7	9.5	8.0	30.0	-20.5	-22.0
B-8	5.5	4.0	30.0	-24.5	-26.0
B-9	6.2	4.7	30.0	-23.8	-25.3
B-10	9.1	7.6	10.0	-0.9	-2.4
Average				**-6.1**	**-7.52**

Boys and Girls Club at Stuart Middle School Stormwater Statement

Date: January 19, 2023

Prepared by:

Octavio "Oats" Reis, P.E.
Florida License # 65661

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Bowman Consulting Group

301 SE Ocean Blvd.

Suite 301

Stuart, FL 34994

772-283-1413

Introduction

The Stuart Boys & Girls Club project is a partnership with the Martin County School Board for a proposed community center development located within the property of the Stuart Middle School. The Stuart Middle School property is owned by the Martin County School Board, and is located at 500 SE Ocean Blvd, Stuart, FL 34994. More specifically, the Parcel ID associated with the site is 04-38-41-004-011-00010-7 and is located in Section 4, Township 38 South, Range 41 East.

The Boys & Girls Club project is to be constructed on a 2.89 ac portion of leased land within the School and is part of a larger redevelopment of the School (ERP Application No. 230116-37199). Th proposed drainage system for the Boys and Girls Club project is part of the overall proposed drainage system for the School. The plans and drainage calculations submitted by Klima-Weeks Engineering depict the overall drainage system for the School, including improvements to the retention areas and outfall within the Boys and Girls Club. As part of the overall drainage system and the above application, an impervious area has been allotted to the Boys and Girls Club for future development.

The project entails the construction of a 37,805 SF community facility with associated parking, driveways, sidewalks, utilities and stormwater management facilities.

The purpose of this application is threefold:

1. To submit the Boys and Girls Club's site plan, erosion control plan and grading plans depicting the proposed improvements of this portion of the overall Stuart Middle School renovation.
2. To depict and permit a minor modification to the retention areas in line with the overall drainage system design.
3. To demonstrate that the proposed improvements meet the criteria established by Klima-Weeks in the design of the School's overall drainage system.

Proposed Conditions

In compliance with the Klima-Weeks overall drainage design, the existing direct outfall to the City's lake, which located within the lease area will be removed, replaced by the School Board with a new outfall controlling the entire School property.

Per the Klima-Weeks overall plan, two dry retention areas within the leased area will be constructed and interconnected with the overall drainage system for the School, forming part of the overall system to provide water quality treatment and stormwater attenuation for the entire site.

A small modification to the two retention areas is proposed via this application. We propose that the bottom elevation of the dry retention area be lowered from 5.0' NAVD to 4.5' NAVD. This elevation will match the other dry retention areas proposed within the School and is more than 12" above the wet season water table (2.3' NAVD). The lowering of the retention bottom will provide additional water quality treatment and nutrient reduction by increasing the retention below the weir elevation set at 5.2' NAVD. This change also provides for additional storage area for stormwater attenuation below elevation 7.5, which is the minimum berm elevation. Finally, this also allows the lease area to be lowered 6", with savings on fill.

City of Stuart DEVELOPMENT

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Consumptive Use Permits

Dewatering

Dewatering is not required for the construction of the foundations for the building as the finished floor is set 9 feet above the water table. Dewatering is not required for the construction of the dry retention areas. Any minor dewatering required for the construction of the utilities will be performed under a general permit to be obtained by the Contractor.

Irrigation

Potable water will be used for irrigation, no groundwater withdrawals proposed.

Conformance with Stuart Middle School's Drainage System

The following tables depicting the key parameters of the proposed development and drainage system within the lease parcel indicate conformance with the overall drainage system design by Klima-Weeks.

Impervious Areas

The allowable impervious area for the lease area was established by Klima-Weeks based on the overall drainage system design for the School.

	Maximum Impervious Area Allocated	**Proposed Impervious Area**
	Ac-ft	(NAVD)
Building	0.88	0.88
Pavement/Sidewalks	0.73	0.73
Total	1.61	1.61

Retention Area Storage Volumes

The following storage volumes within the retention areas within the lease area were established by Klima-Weeks based on the overall drainage design for the School. Please note that the retention areas depicted by Kilma-Weeks within the lease area had depicted a bottom elevation of 5.0' NAVD. The proposed retention areas will have a bottom elevation of 4.5' NAVD. See Appendix A for a stage storage calculation sheet.

Elevation	**Storage Allocated**	**Storage Proposed**
NAVD	Ac-ft	Ac-Ft
4.5	-	0.00
5.0	0.00	0.12
7.5	0.92	0.97
10.0	1.84	1.84 *

* 1.84 ac-ft is achieved at the lower elevation of 9.25' NAVD for the proposed system.

City of Stuart DEVELOPMENT

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Design Elevations

The minimum pavement elevation for the proposed Stuart Middle School was established by Klima Weeks based on the overall drainage system for the School.

	Minimum Required Pavement El.	Proposed Minimum Pavement El.
	(NAVD)	(NAVD)
Boys & Girls Club	6.37’	9.34’

The minimum berm elevation for the proposed Stuart Middle School was established by Klima Weeks based on the overall drainage system for the School.

	Minimum Required Berm El.	Proposed Berm El.
	(NAVD)	(NAVD)
Boys & Girls Club	7.50’	9.25’

The minimum finished floor elevation for the proposed Stuart Middle was established by Klima Weeks based on the overall drainage system for the School. Please note that the site is located in a FEMA Zone X.

	Minimum Required Finished Floor El.	Proposed Finished Floor El.
	(NAVD)	(NAVD)
Boys & Girls Club	7.59’	11.50’

Conclusion

Boys & Girls Club project meets the conditions of the design of the Stuart Middle School drainage system.

City of Stuart
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Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

City of Stuart DEVELOPMENT

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EXHIBIT A

DRY RETENTION AREAS
STAGE-STORAGE RELATIONSHIP

	Retention Area 1		
	Bank	Bottom	
Area (ac)	0.17	0.07	
	L	V	
Starting Elev (ft)	4.50	4.50	
Ending Elev (ft)	9.25	9.25	
	Linear	Vertical	Total
Stage	Storage	Storage	Storage
NAVD	ac-ft	ac-ft	ac-ft
4.50	0.000	0.000	0.000
5.00	0.005	0.034	0.039
5.50	0.018	0.069	0.087
6.00	0.041	0.103	0.145
6.50	0.073	0.138	0.211
7.00	0.114	0.172	0.287
7.50	0.165	0.207	0.372
8.00	0.224	0.241	0.466
8.50	0.293	0.276	0.569
9.00	0.371	0.310	0.681
9.25	0.413	0.328	0.741

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

	Retention Area 2		
	Bank	Bottom	
Area (ac)	0.18	0.14	
	L	V	
Starting Elev (ft)	4.50	4.50	
Ending Elev (ft)	9.25	9.25	
	Linear	Vertical	Total
Stage	Storage	Storage	Storage
NAVD	ac-ft	ac-ft	ac-ft
4.50	0.000	0.000	0.000
5.00	0.005	0.071	0.076
5.50	0.019	0.143	0.161
6.00	0.042	0.214	0.256
6.50	0.075	0.285	0.360
7.00	0.117	0.356	0.474
7.50	0.169	0.428	0.596
8.00	0.230	0.499	0.729
8.50	0.300	0.570	0.870
9.00	0.380	0.641	1.021
9.25	0.423	0.677	1.100

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	Combined Retention Areas		
	Bank	Bottom	
Area (ac)	0.35	0.21	
	L	V	
Starting Elev (ft)	4.50	4.50	
Ending Elev (ft)	9.25	9.25	
	Linear	Vertical	Total
Stage	Storage	Storage	Storage
NAVD	ac-ft	ac-ft	ac-ft
4.50	0.000	0.000	0.000
5.00	0.009	0.106	0.115
5.50	0.037	0.212	0.249
6.00	0.083	0.317	0.401
6.50	0.148	0.423	0.571
7.00	0.232	0.529	0.761
7.50	0.334	0.635	0.968
8.00	0.454	0.740	1.194
8.50	0.593	0.846	1.439
9.00	0.751	0.952	1.703
9.25	0.836	1.005	1.841

City of Stuart DEVELOPMENT

Minor Development Approval

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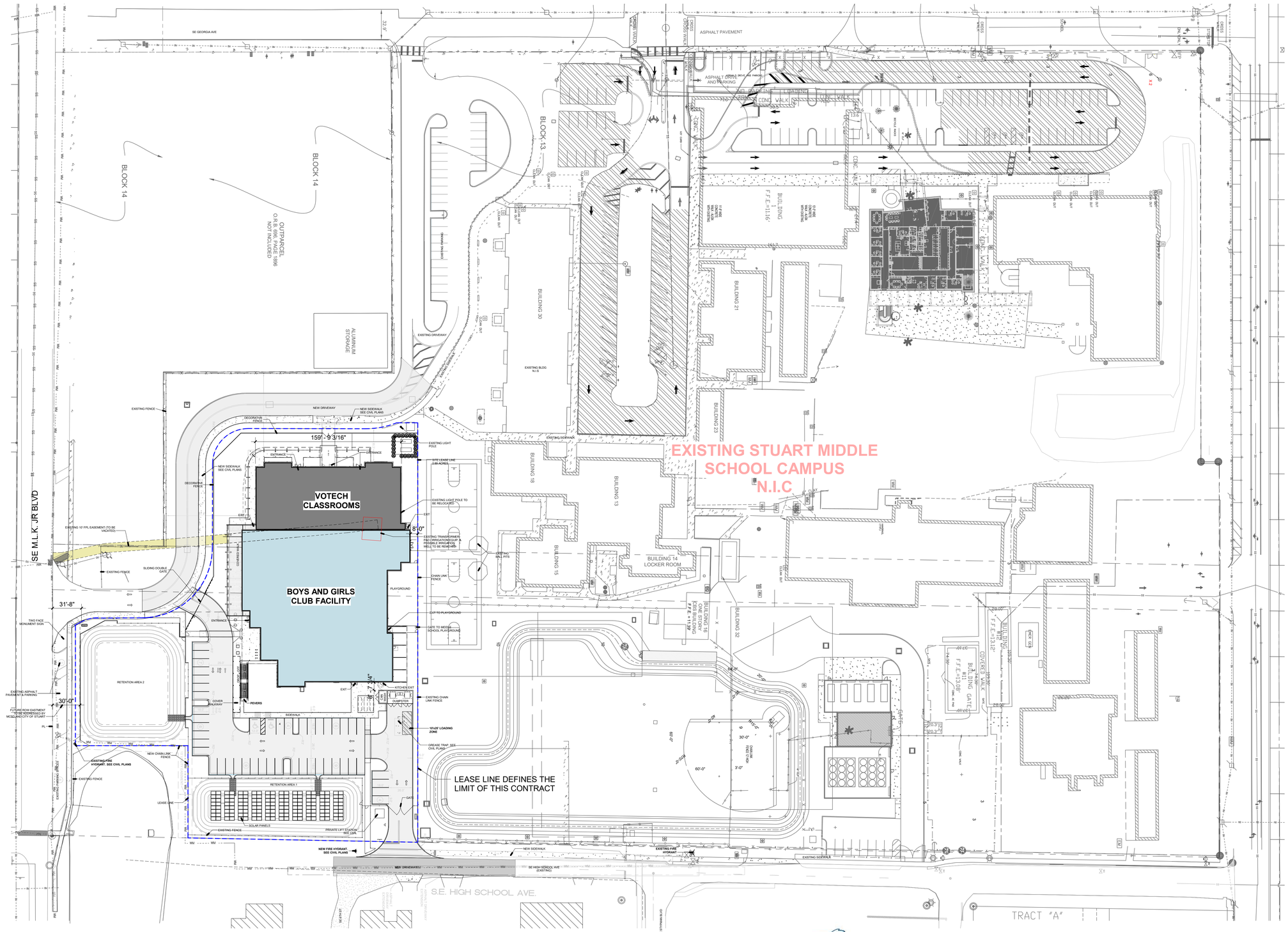

MASTER SITE PLAN
SCALE: 1" = 50'-0"

GRAPHIC SCALE
1 50 100
1"-50'

City of Stuart DEVELOPMENT

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Project #: Z22060006 Date: May 16, 2023

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STATE OF FLORIDA
Raul Ocampo, JR
AR 6897
REGISTERED ARCHITECT
SEAL

ELECTRONIC SIGNATURE

REVISIONS:

No.	Description	Date
1	Addendum 4	03-07-23

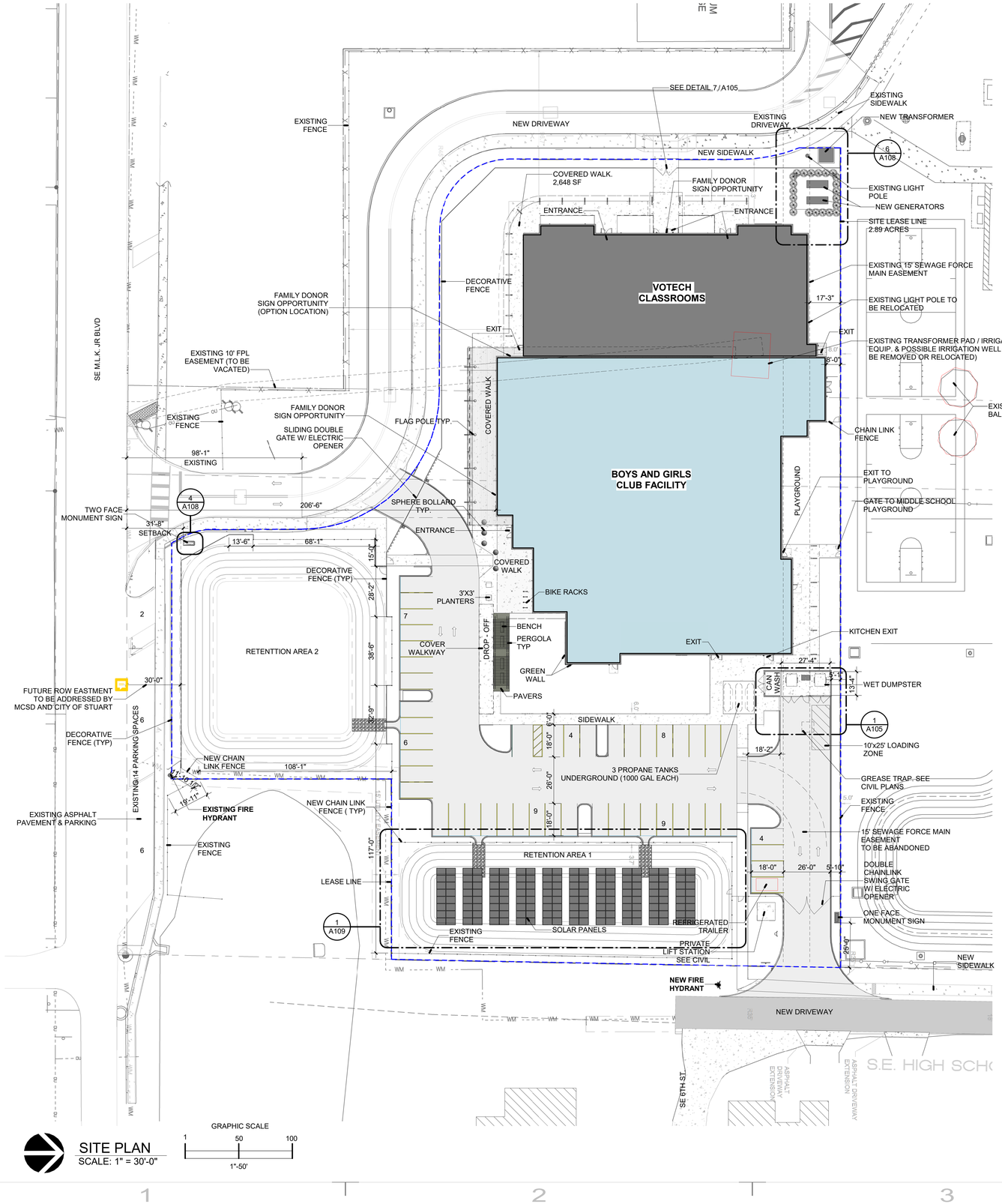
CONTRACT DOCUMENTS FOR:
BGC STUART
STUART, FLORIDA
ADDRESS:
551 SE MARTIN LUTHER KING JR. BLVD, STUART, FL 34994

DWG IDENTIFICATION
MASTER SITE PLAN

THIS DRAWING HAS BEEN ISSUED ON THE DATE SHOWN FOR THE PURPOSE NOTED	PROJECT PHASE	COMPLETION DATE	CHECKED / DRAWN BY
	DESIGN	08-12-2022	RO/ST
	CONTRACT DOCUMENTS	10-20-2022	RO-OD/ ST-NC
	ISSUED FOR BID	10-27-2022	RO-OD/ ST-NC
	ISSUED FOR PERMIT	03-07-2023	RO-OD/ ST-NC

JOB FILE NUMBER:
I-21150

A101



SITE PLAN
SCALE: 1" = 30'-0"

GRAPHIC SCALE
1 50 100
1"-50'

FENCE LEGEND	
	EXISTING CHAIN LINK FENCE REFER TO 4 / A105
	NEW CHAIN LINK FENCE REFER TO 8 / A105
	NEW DECORATIVE FENCE

PARKING CALCULATION

SEC. 6.01.13 OFF-STREET PARKING SCHEDULE
SCHOOL - PRIVATE/PAROCHIAL ELEMENTARY OR JUNIORHIGH SCHOOL

NO. OF SPACES REQUIRED		TOTAL REQUIRED
1 PER CLASSROOM	8	8
1 PER EMPLOYEE	14	14
1 FOR EACH 6 SEATS IN AUDITORIUM (GYMNASIUM/COMMUNITY CENTER)	250	42
TOTAL PARKING SPACES REQUIRED		64

PARKING DATA

TYPE	PROVIDED
9' x 18' PARKING SPACE	45
12" x 18" ADA PARKING SPACE	2
OFF SITE PARKING	14
Grand total: 61	

BUILDING AREA SCHEDULE

NAME	AREA
BUILDING	
B&G CLUB	14918 SF
GYMNASIUM	10200 SF
HALLWAY - VOTECH LAB	1133 SF
VOTECH & CLUB MEP & IT	1319 SF
VOTECH LABS	10236 SF
	37807 SF
EXTERIOR IMPERVIOUS	
COVERED WALKWAYS	3966 SF
DUMPSTER & CAN WASH	557 SF
WALKWAYS	6898 SF
	11421 SF
GRAND TOTAL	49227 SF

Site Data

Site Area:

Land Owner:	School Board of Martin County
Site Address:	500 SE Ocean Blvd., Stuart FL 34994
Overall Parcel Size:	22.77 ac
Project Size:	2.89 ac
Maximum Impervious Area:	65 %
Zoning:	City of Stuart - Public
Future Land Use:	City of Stuart - Public
Existing Use:	Open Space
Proposed Use:	Community Center
FEMA Flood Zone:	Zone X as per FEMA Firmette 12085C0153H

Overall Site Area

Total Site Area	**947,149 sf**	**21.74 ac**	**100%**
Pervious Area	**369,329 sf**	**8.48 ac**	**39.0%**
Open Space	369,330 sf	8.48 ac	39.0%
Impervious Area	**577,820 sf**	**13.26 ac**	**61.0%**
Building	243,322 sf	5.59 ac	25.7%
Surface Water	69,896 sf	1.60 ac	7.4%
Pavement & Sidewalk	264,602 sf	6.07 ac	27.9%

Boys & Girls Club Site Area

Total Site Area	**125,949 sf**	**2.89 ac**	**100%**
Pervious Area	**56,088 sf**	**1.28 ac**	**44%**
Open Space	38,664 sf	0.88 ac	30%
Retention Area	17,424 sf	0.40 ac	14%
Impervious Area	**69,861 sf**	**1.61 ac**	**56%**
Building	37,805 sf	0.88 ac	30%
Sidewalk & Walkways	10,722 sf	0.23 ac	8%
Pavement	21,334 sf	0.49 ac	18%

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City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

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STUART, FLORIDA

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INDEX - ARCHITECTURE

SHEET NUMBER	SHEET NAME	REVISION
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A101	ARCHITERCTURAL SITE PLAN	REV
A102	ARCHITECTURAL OVERALL FLOOR PLAN	
A103	EXTERIOR ELEVATIONS	REV
A104	EXTERIOR ELEVATIONS	REV
A105	DETAILS - SITE	
A106	DETAILS - SITE	REV
A107	DETAILS - SITE	

INDEX - CIVIL

SHEET NUMBER	SHEET NAME	REVISION
C01	COVER SHEET	
C02	GENERAL CONSTRUCTION NOTES	
C03	DEMOLITION PLAN	
C04	EROSION CONTROL PLAN PHASE I	
C05	EROSION CONTROL PLAN PHASE II	
C06	EROSION CONTROL DETAILS	
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C08	PAVING, GRADING AND DRAINAGE PLAN	
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C10	FIRE TRUCK CIRCULATION PLAN	
C11	GARBAGE TRUCK CIRCULATION PLAN	
C12	HIGH SCHOOL AVE. DEMOLITION AND EROSION CONTROL PLAN	
C13	HIGH SCHOOL AVE,PAVING,GRADING, AND DRAINAGE PLAN	
D01	PAVING, GRADING, & DRAINAGE DETAILS	
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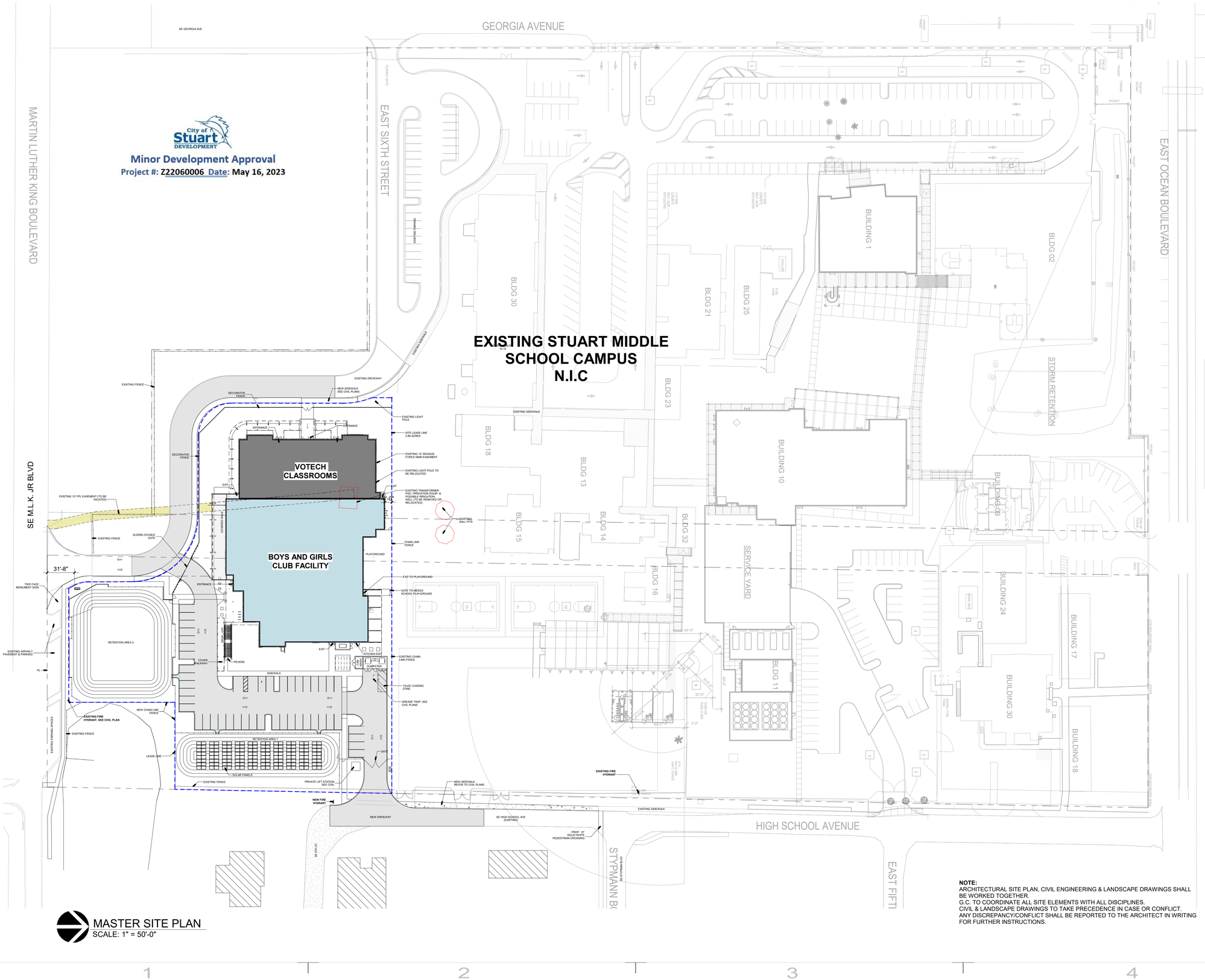
D04	UTILITY DETAILS	
D05	UTILITY DETAILS	
D06	UTILITY DETAILS	
LS1	LIFT STATION DETAIL	



City of Stuart DEVELOPMENT

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ADDRESS:
551 SE MARTIN LUTHER KING JR. BLVD, STUART, FL 34994

DWG IDENTIFICATION

MASTER SITE PLAN

THIS DRAWING HAS BEEN ISSUED ON THE DATE INDICATED FOR THE PURPOSE NOTED	PROJECT PHASE:	COMPLETION DATE:	CHECKED / DRAWN BY:
	DESIGN	08-12-2022	RO/ST
	CONTRACT DOCUMENTS	10-20-2022	RO-DD/ ST-NC
	ISSUED FOR BID	10-27-2022	RO-DD/ ST-NC
	ISSUED FOR PERMIT	10-27-2022	RO-DD/ ST-NC

JOB FILE NUMBER:
I-21150

A100

1/30/2023 4:31:22 PM
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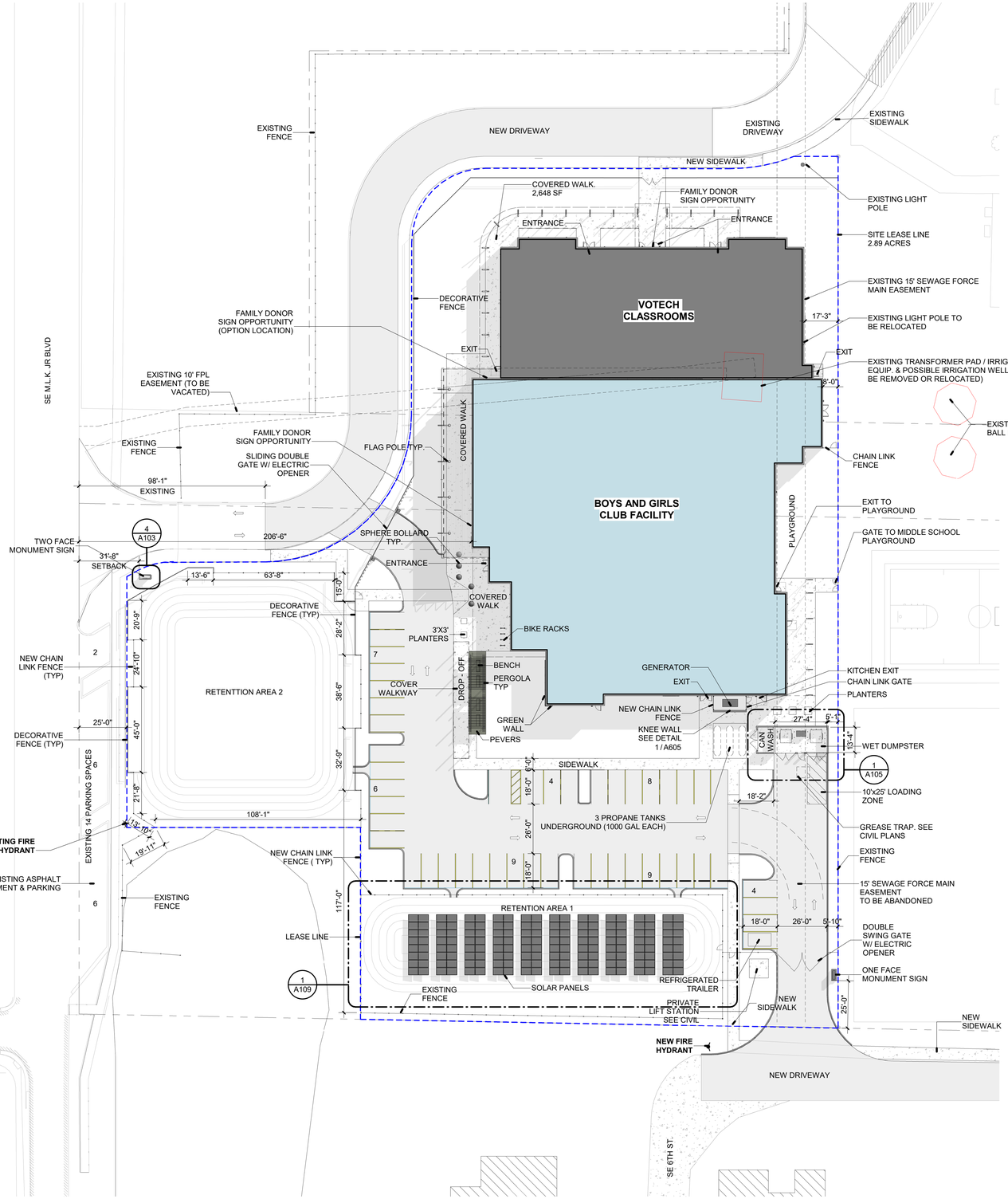

SITE PLAN
SCALE: 1" = 30'-0"

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

PARKING CALCULATION		
SEC. 6.01.13 OFF-STREET PARKING SCHEDULE SCHOOL - PRIVATE/PAROCHIAL ELEMENTARY OR JUNIORHIGH SCHOOL		
NO. OF SPACES REQUIRED		TOTAL REQUIRED
1 PER CLASSROOM	8	8
1 PER EMPLOYEE	14	14
1 FOR EACH 6 SEATS IN AUDITORIUM (GYMNASIUM/COMMUNITY CENTER)	250	42
TOTAL PARKING SPACES REQUIRED		64

PARKING DATA	
TYPE	PROVIDED
9' x 18' PARKING SPACE	45
12' x 18' ADA PARKING SPACE	2
OFF SITE PARKING	14
Grand total: 61	

BUILDING AREA SCHEDULE	
NAME	AREA
BUILDING	
B&G CLUB	14918 SF
GYMNASIUM	10200 SF
HALLWAY - VOTECH LAB	1133 SF
VOTECH & CLUB MEP & IT	1319 SF
VOTECH LABS	10236 SF
	37807 SF
EXTERIOR IMPERVIOUS	
COVERED WALKWAYS	3966 SF
DUMPSTER & CAN WASH	557 SF
WALKWAYS	6898 SF
	11421 SF
GRAND TOTAL	49227 SF

FENCE LEGEND

- EXISTING CHAIN LINK FENCE REFER TO 4 / A105
- NEW CHAIN LINK FENCE REFER TO 8 / A105
- NEW DECORATIVE FENCE

NOTE:
ARCHITECTURAL SITE PLAN, CIVIL ENGINEERING & LANDSCAPE DRAWINGS SHALL BE WORKED TOGETHER.
G.C. TO COORDINATE ALL SITE ELEMENTS WITH ALL DISCIPLINES.
CIVIL & LANDSCAPE DRAWINGS TO TAKE PRECEDENCE IN CASE OF CONFLICT.
ANY DISCREPANCY/CONFLICT SHALL BE REPORTED TO THE ARCHITECT IN WRITING FOR FURTHER INSTRUCTIONS.

ARCHITECTS DESIGN COLLABORATIVE, LLC
ARCHITECTURE | URBAN DESIGN
PLANNING | INTERIORS
10489 SOUTHWEST MEETING ST
TRADITION,
PORT ST. LUCIE, FL 34987
TEL. (772) 286 9004
www. ADC-ARCHITECTS.NET
REGISTRATIONS HELD IN THE FOLLOWING STATES:
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STATE OF FLORIDA
Raul Ocampo. JR
AR 6897
01/30/23
REGISTERED ARCHITECT
SEAL

ELECTRONIC SIGNATURE

REVISIONS:

No.	Description	Date

CONTRACT DOCUMENTS FOR:
BGC STUART
STUART, FLORIDA
ADDRESS:
551 SE MARTIN LUTHER KING JR. BLVD, STUART, FL 34994

DWG IDENTIFICATION
ARCHITERCTURAL SITE PLAN

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JOB FILE NUMBER:
I-21150

A101

1/30/2023 4:32:00 PM
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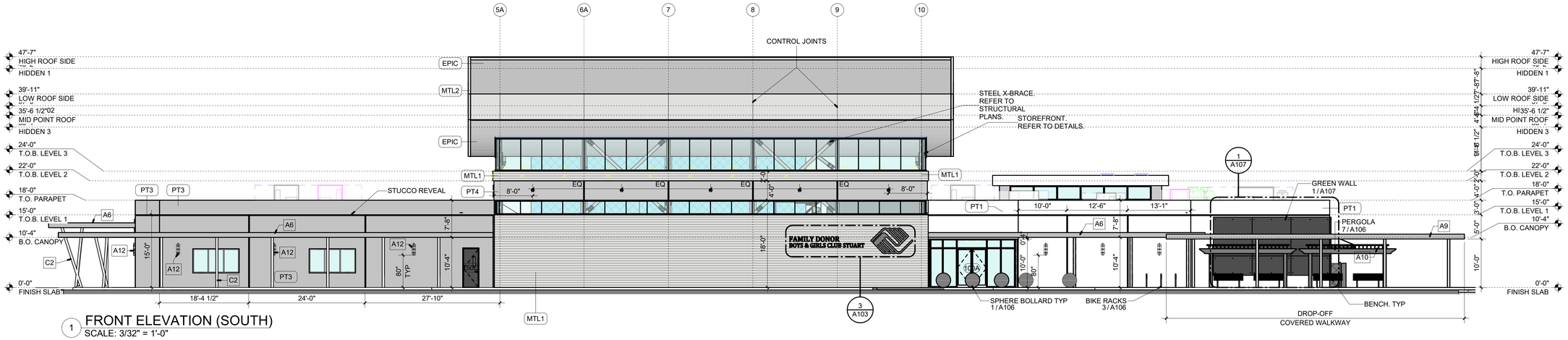
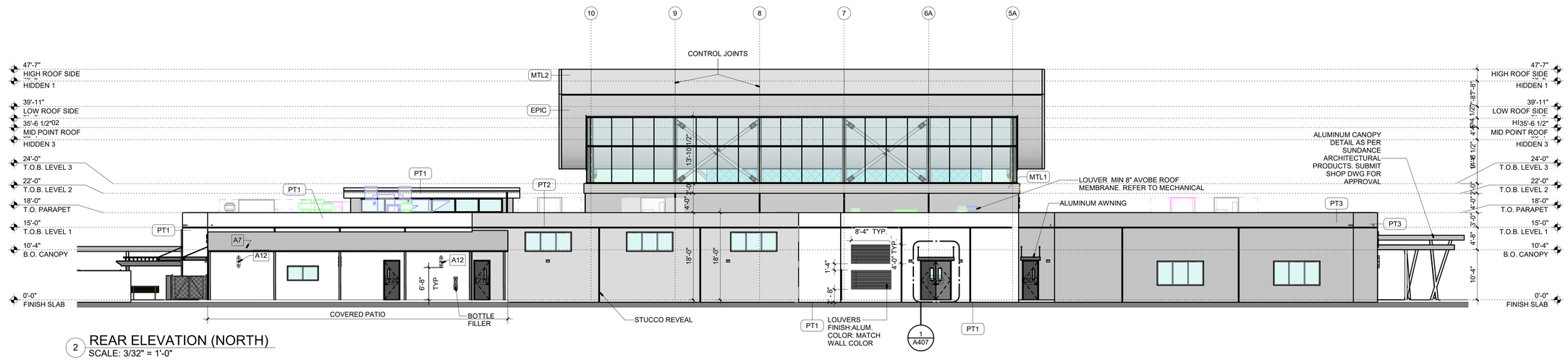


1 FRONT ELEVATION (SOUTH)
SCALE: 3/32" = 1'-0"



2 REAR ELEVATION (NORTH)
SCALE: 3/32" = 1'-0"

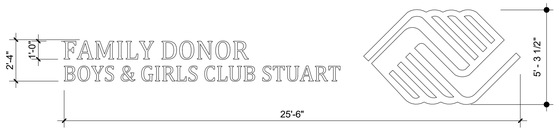
PROPOSED BUILDING TREATMENTS SEC. 3.01.04 (2) ARCHITECTURAL STANDARDS AND REGULATIONS	
1	OVERHANGS
2	PEAKED ROOF FORMS
3	DECORATIVE LANDSCAPE
4	INTEGRATION OF SPECIALTY PAVERS

ARCHITECTURAL NOTES	
MARK	DESCRIPTION
A6	ALUMINUM CANOPY DETAIL AS PER SUNDANCE ARCHITECTURAL PRODUCTS. SUBMIT SHOP DWG FOR APPROVAL
A7	ALUMINUM CANOPY (CURVED) DETAIL AS PER SUNDANCE ARCHITECTURAL PRODUCTS. SUBMIT SHOP DWG FOR APPROVAL
A8	ALUMINUM AWNING
A9	ALUMINUM COVERED WALKWAY.
A10	ALUMINUM PERGOLAS
A12	EXTERIOR WALL MOUNT LIGHTING. REFER TO LIGHTING PLAN
A16	STOREFRONT. REFER TO DETAILS.
C2	SLANTED METAL COLUMN.
S6	STEEL X-BRACE. REFER TO STRUCTURAL PLANS.

EXTERIOR FINISHES	
EPIC	EPIC METAL ROOF DECKING SYSTEM
PT1	PAINT OVER STUCCO COLOR: MUTED PASTEL
PT2	PAINT OVER STUCCO COLOR: MUTED PASTEL
PT3	PAINT OVER STUCCO COLOR: MUTED PASTEL
PT4	PAINT OVER STUCCO COLOR: MUTED PASTEL
MTL1	METAL PANEL SHALL BE CONSIDERED BID ALTERNATE #2. REFER TO SPECIFICATION FOR FURTHER INFORMATION REGARDING SCOPE.
MTL2	PAINTED FASCIA PANEL . SMOOTH FACTORY FINISH
GL	CURTAIN WALL

City of Stuart DEVELOPMENT

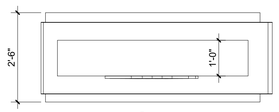
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023



3 WALL SIGNAGE - 89 SF
SCALE: 1/4" = 1'-0"

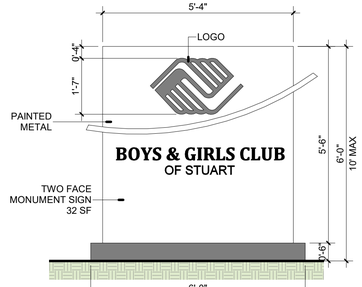
WALL SIGNAGE CALCULATION SEC. 6.11.00 SIGNS - TABLE 6.11.9		
REQUIRED		PROVIDED
SF OF BUILDING FACE AREA (3,500 SF - UP) 4.5 %	5,000 SF 4.5% = 225 SF	**89 SF**
MAX. ALLOWABLE WALL SIGNAGE ON A SINGLE BUILDING = **200 SF**		

NOTE: FREE STANDING SIGNAGE AND WALL SIGNAGE UNDER SEPARATED PERMIT BY OTHERS. DRAWINGS SHOWN ARE FOR LOCATIONAL PURPOSES ONLY.



5
A103

4 MONUMENT SIGN
SCALE: 1/2" = 1'-0"



SECTION 6.11.00 SIGNS TABLE 6.11.17
MONUMENT SIGN: 3/4 SF PER LINEAR FOOT OF FRONTAGE (180 SF) NOT TO EXCEED 100 SF
WITH TWO FACE MAX. PER MONUMENT SIGN.

5 MONUMENT SIGN ELEVATION
SCALE: 1/2" = 1'-0"

ARCHITECTS DESIGN COLLABORATIVE, LLC
ARCHITECTURE | URBAN DESIGN
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10489 SOUTHWEST MEETING ST
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STATE OF FLORIDA
Raul Ocampo. JR
AR 6897
01/30/23
REGISTERED ARCHITECT
SEAL

ELECTRONIC SIGNATURE

REVISIONS:

No.	Description	Date

CONTRACT DOCUMENTS FOR:
BGC STUART
STUART, FLORIDA
ADDRESS:
551 SE MARTIN LUTHER KING JR. BLVD. STUART, FL 34994

DWG IDENTIFICATION
EXTERIOR ELEVATIONS

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JOB FILE NUMBER:
I-21150

A103

1/30/2023 4:32:28 PM
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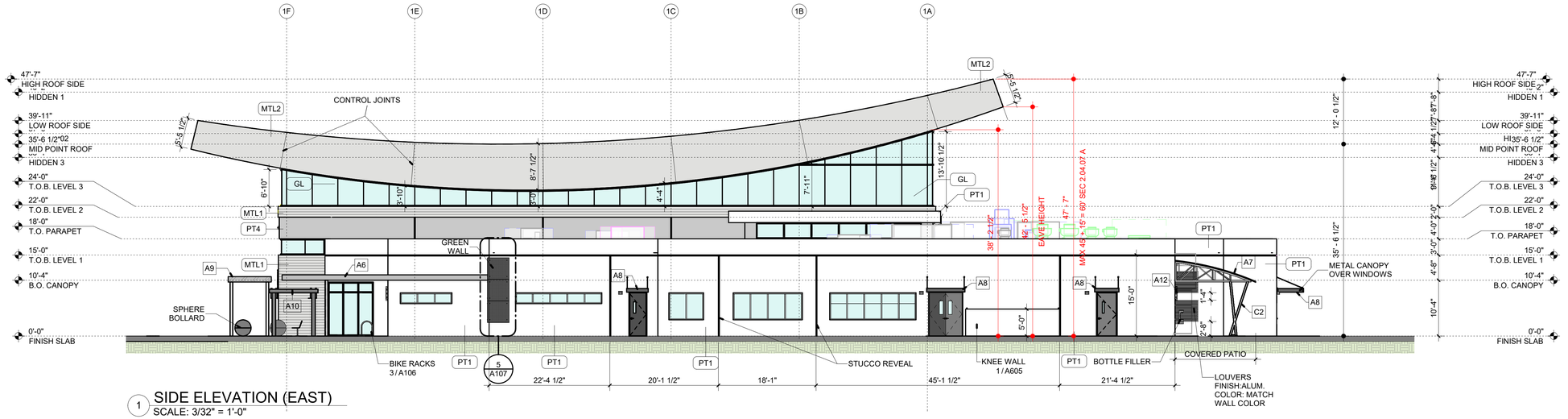
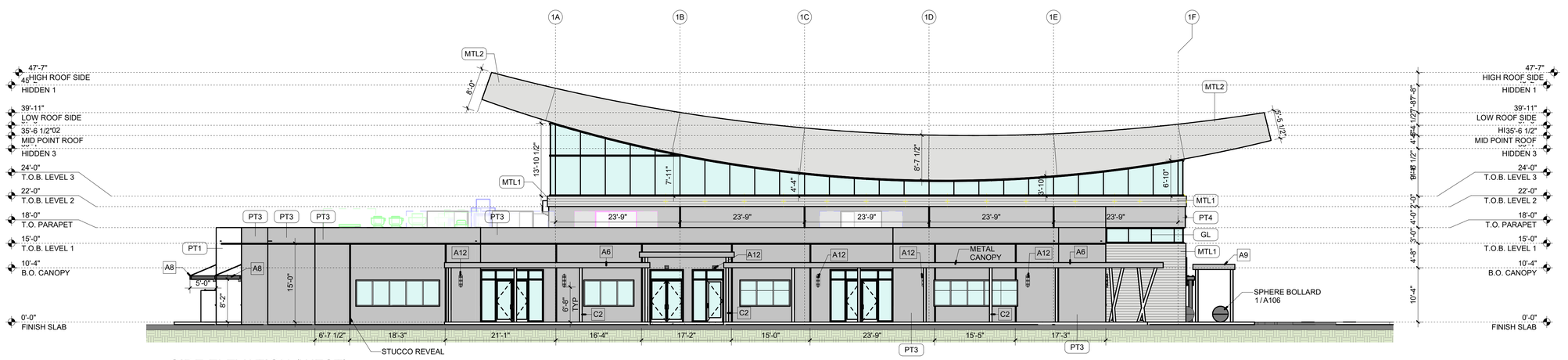


1 SIDE ELEVATION (EAST)
SCALE: 3/32" = 1'-0"



2 SIDE ELEVATION (WEST)
SCALE: 3/32" = 1'-0"

PROPOSED BUILDING TREATMENTS
SEC. 3.01.04 (2) ARCHITECTURAL STANDARDS AND REGULATIONS

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ARCHITECTURAL NOTES

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City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

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STATE OF FLORIDA
Raul Ocampo. JR
AR 6897
01/30/23
REGISTERED ARCHITECT
SEAL

ELECTRONIC SIGNATURE

REVISIONS:

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STUART, FLORIDA
ADDRESS:
551 SE MARTIN LUTHER KING JR. BLVD. STUART, FL 34994

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EXTERIOR ELEVATIONS

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	ISSUED FOR PERMIT	10-27-2022	RO-DO/ ST-NC

JOB FILE NUMBER:
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A104

1/30/2023 4:32:02 PM
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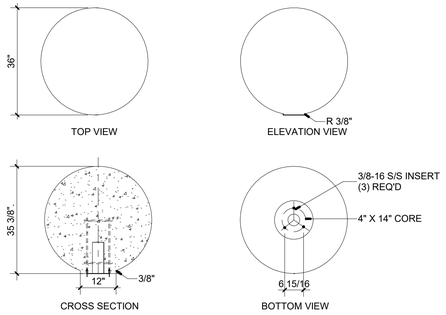
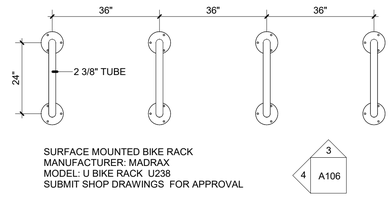
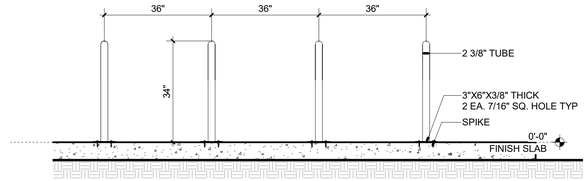


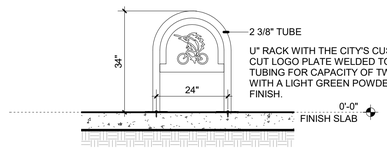
1 SPHERE BOLLARD DETAILS
SCALE: 1/2" = 1'-0"



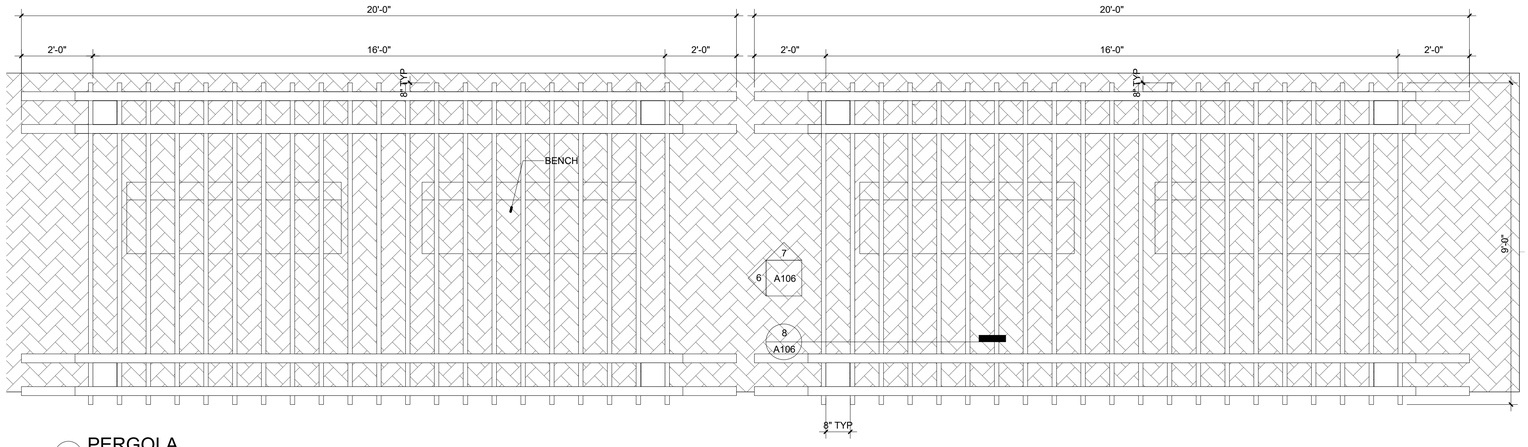
2 BIKE RACKS PLAN
SCALE: 1/2" = 1'-0"



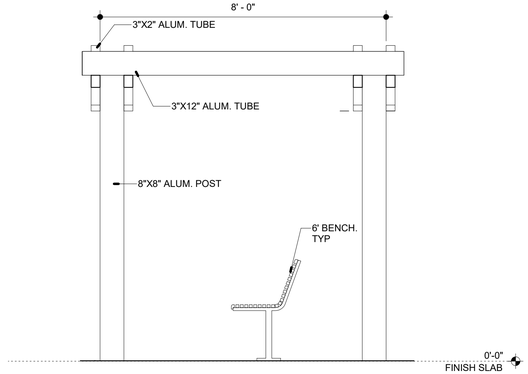
3 BIKE RACK ELEVATION
SCALE: 1/2" = 1'-0"



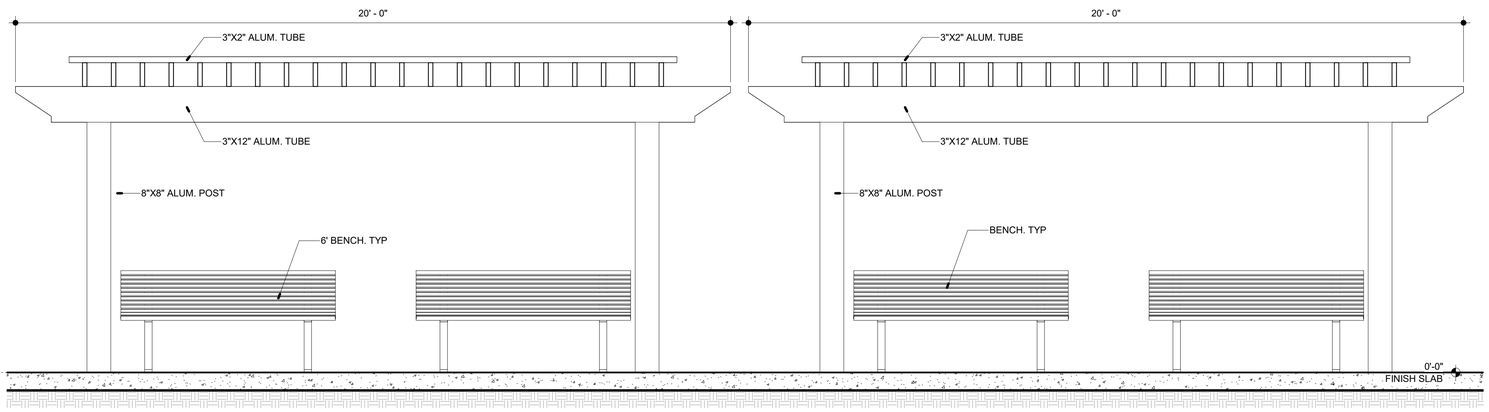
4 BIKE RACK ELEVATION
SCALE: 1/2" = 1'-0"



5 PERGOLA
SCALE: 1/2" = 1'-0"

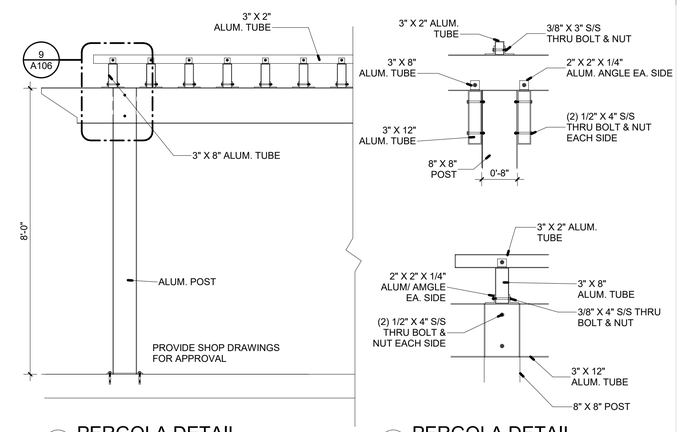


6 PERGOLA ELEVATION
SCALE: 1/2" = 1'-0"



7 PERGOLA ELEVATION
SCALE: 1/2" = 1'-0"

BENCH:
MANUFACTURER: TREETOP PRODUCTS-THE BENCH FACTORY OR APPROVED EQUAL
RECYCLED PLASTIC CHAMPION BECH PREMIUM WOOD GRAIN (SURFACE MOUNTED)
COLOR: TBD
SIZE: 6'. SUBMIT SHOP DRAWINGS FOR APPROVAL



8 PERGOLA DETAIL
SCALE: 1/2" = 1'-0"

9 PERGOLA DETAIL
SCALE: 3/4" = 1'-0"

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

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STUART, FLORIDA
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DETAILS - SITE

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A106

1/30/2023 4:53:53 PM
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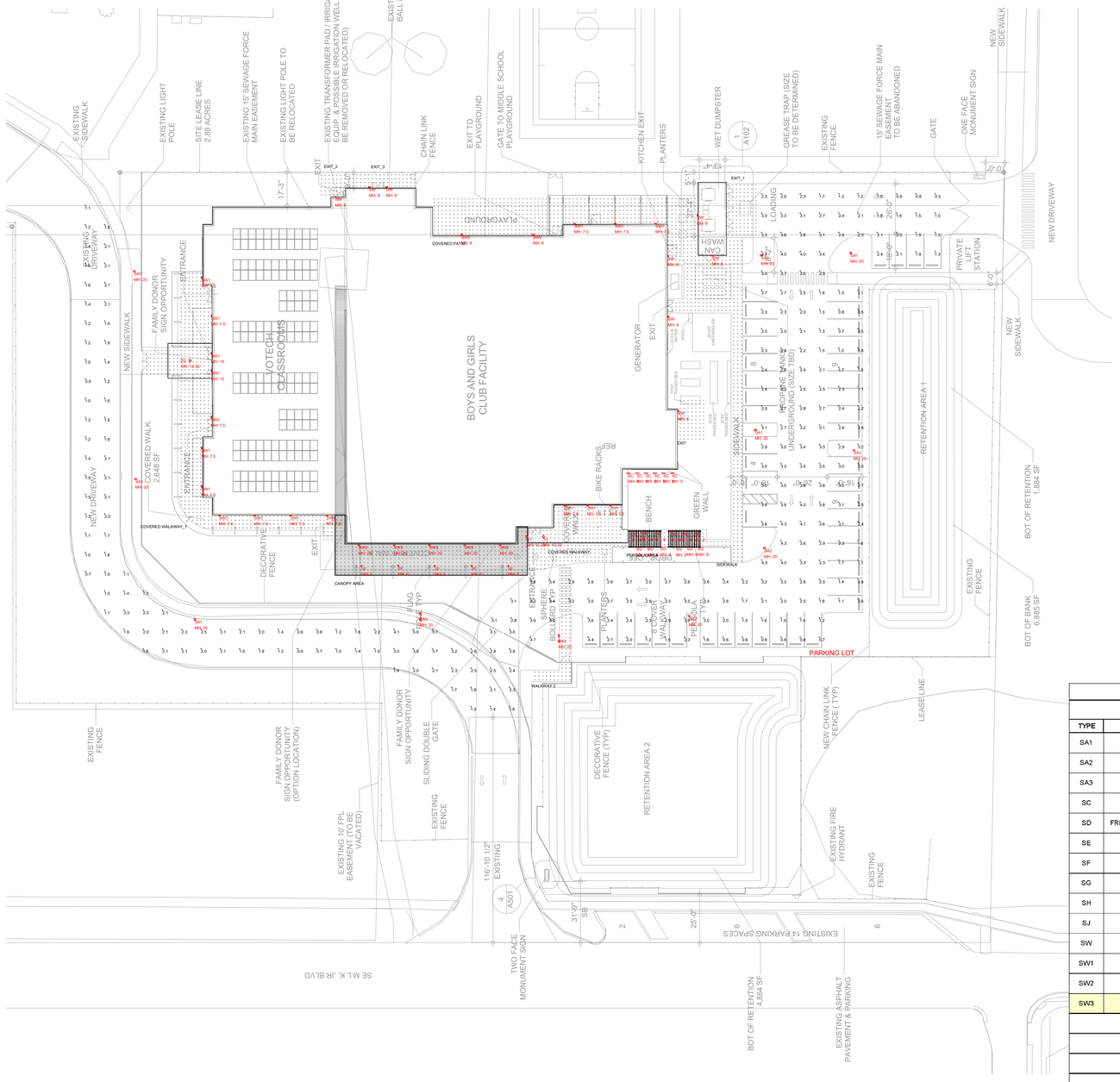

City of Stuart DEVELOPMENT

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Project #: Z22060006 Date: May 16, 2023

Photometrics Calculation Software Generated Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Lumens	Arr. Lum. Lumens	LLF	Lum. Watts	Arr. Watts
	5	SW3	Single	4535	4535	0.900	39.2	39.2
	3	SJ	Single	4096	4096	0.900	28	28
	7	SA1	Single	11475	11475	0.900	97.2	97.2
	2	SA2	Single	11245	11245	0.900	97.2	97.2
	2	SA3	Back-Back	11245	22490	0.900	97.2	194.4
	6	SC	Single	2636	2636	0.990	26	26
	5	SF	Single	2804	2804	0.990	26	26
	12	SG	Single	40	40	0.900	2.5	2.5
	8	SW	Single	1771	1771	0.945	19.5	19.5
	17	SW1	Single	1042	1042	0.900	22.15	22.15
	2	SW2	Single	7961	7961	0.900	74.3	74.3

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CANOPY AREA	Illuminance	Fc	5.64	10.7	0.2	28.20	53.50
COVERED PATIO	Illuminance	Fc	3.90	14.9	0.2	19.50	74.50
COVERED WALKWAY	Illuminance	Fc	2.74	11.8	0.7	3.91	16.86
COVERED WALKWAY_1	Illuminance	Fc	1.28	5.6	0.1	12.80	56.00
DRIVEWAY1	Illuminance	Fc	1.89	5.9	0.7	2.70	8.43
EXIT	Illuminance	Fc	3.47	12.5	0.5	6.94	25.00
EXIT_1	Illuminance	Fc	1.90	3.1	0.9	2.11	3.44
EXIT_2	Illuminance	Fc	5.28	12.2	0.6	8.80	20.33
EXIT_3	Illuminance	Fc	8.10	20.1	1.1	7.36	18.27
PARKING LOT	Illuminance	Fc	2.49	5.2	0.5	4.98	10.40
PERGOLA AREA	Illuminance	Fc	1.88	2.7	1.2	1.57	2.25
SIDEWALK	Illuminance	Fc	2.97	13.8	0.3	9.90	46.00
WALKWAY 2	Illuminance	Fc	4.22	7.4	2.6	1.62	2.85

BOYS AND GIRLS CLUB STUART - SITE

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MFR	CATALOG NUMBER	VOLTS	LAMPS	INPUT WATTS	MOUNTING	DIMMING (If Req)	REMARKS
SA1	LED SITE LUMINAIRE	INVUE	ICM-E04-LED-E1-T3-FINISH / VA1019-XX	UNV	LED	97.2W	20'POLE	0-10V	NOTE 1, 2
SA2	LED SITE LUMINAIRE	INVUE	ICM-E04-LED-E1-T4-FINISH / VA1019-XX	UNV	LED	97.2W	20'POLE	0-10V	NOTE 1, 2
SA3	LED SITE LUMINAIRE	INVUE	(2X) ICM-E04-LED-E1-T3-FINISH / VA1020-XX	UNV	LED	97.2W	20'POLE	0-10V	NOTE 1, 2
SC	LED WALL GRAZER	VISTA	1142-GB-WG-40-A-DV-010-GS	120V - 220V	LED	26W	GROUND	0-10V	
SD	FREESTANDING SIGN LUMINAIRE	ACCLAIM	LNJ-COLD-OPTX	100-277 VAC	LED	4W/FT	TBD	0-10V	NOTE 1
SE	LINEAR RGBW	ACCLAIM	LXE4'-LXCU-OPXX / LNEB0.5	100-277 VAC	LED	80W	TBD	0-10V	NOTE 3
SF	LED GROUND UPLIGTH	VISTA	1188-X-NS-40-C-MV-CX-010-B34-TXX / RBK	100-277 VAC	LED	80W	GROUND	0-10V	
SG	PERGOLA LIGHT	BEACHSIDE	E1-2W-A-FL	12 V	LED	2W	SURFACE	N/A	NOTE 1
SH	LED MONUMENT LIGTH	VISTA	1043-B-WF-40-E-MV-ND	UNV	LED	15.6W	GROUND	N/A	
SJ	LED CANOPY LUMINAIRE	MCGRAW EDISON	TT-D1-740-U-MQ-FINISH	UNV	LED	28W	CANOPY	0-10V	NOTE 1
SW	WALL MOUNT LUMINAIRE	LIGMAN	ULEE-30021-20W-HYBRID-W40-FINISH-120/277	120-277V	LED	20W	WALL	0-10V	NOTE 1
SW1	WALL MOUNT LUMINAIRE	ALVA	TESSIE-SLOTTED-30-FINISH-3500K	UNV	LED	23W	WALL	0-10V	NOTE 1
SW2	WALL MOUNT LUMINAIRE	INVUE	CCW- VA5-740-U-T4W-FINISH	UNV	LED	74.3W	WALL	0-10V	NOTE 1
SW3	WALL MOUNT LUMINAIRE	LIGMAN	ULEE -30051-2X20W-T2-T3-W40-FINISH-120/277	UNV	LED	40W	WALL	0-10V	NOTE 1

NOTES:

NOTE 1: ADVISE FINISH

NOTE 2: FIXTURES MOUNTED ON VALMONT DIRECT BURIAL 20' POLE 1908-30504TE

NOTE 3: INCLUDE 6" EXTENDER BARS

FOR QUESTIONS PERTAINING TO THIS FIXTURE SCHEDULE PLEASE CONTACT RYAN HUFF (954) 944-0232; RHUFF@LIGHTINGDYNAMICS.COM

LIGHTING DYNAMICS INCORPORATED

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions. This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

NOTES:

No.	Revision/Issue	Date
9	PHOTOMETRIC STUDY	10/17/22
8	PHOTOMETRIC STUDY	10/14/22
7	PHOTOMETRIC STUDY	10/06/22
6	PHOTOMETRIC STUDY	09/29/22
5	PHOTOMETRIC STUDY	09/12/22
4	PHOTOMETRIC STUDY	09/08/22
3	PHOTOMETRIC STUDY	06/28/22
2	PHOTOMETRIC STUDY	05/24/22
1	PHOTOMETRIC STUDY	05/23/22

LIGHTING DYNAMICS, INC.
7835 West Commercial Blvd.
Tamarac, FL 33351
(954) 944-0286
www.lightingdynamics.com

Project Name and Address

BOYS AND GIRLS CLUB
Site Lighting Layout
Stuart, FL

FILE P:\PROJECTS\2022\MAY
CLIENT ARCHITECTS DESIGN COLLABORATIVE

Project: BOYS & GIRLS CLUB STUART
Date: 10/17/2022R
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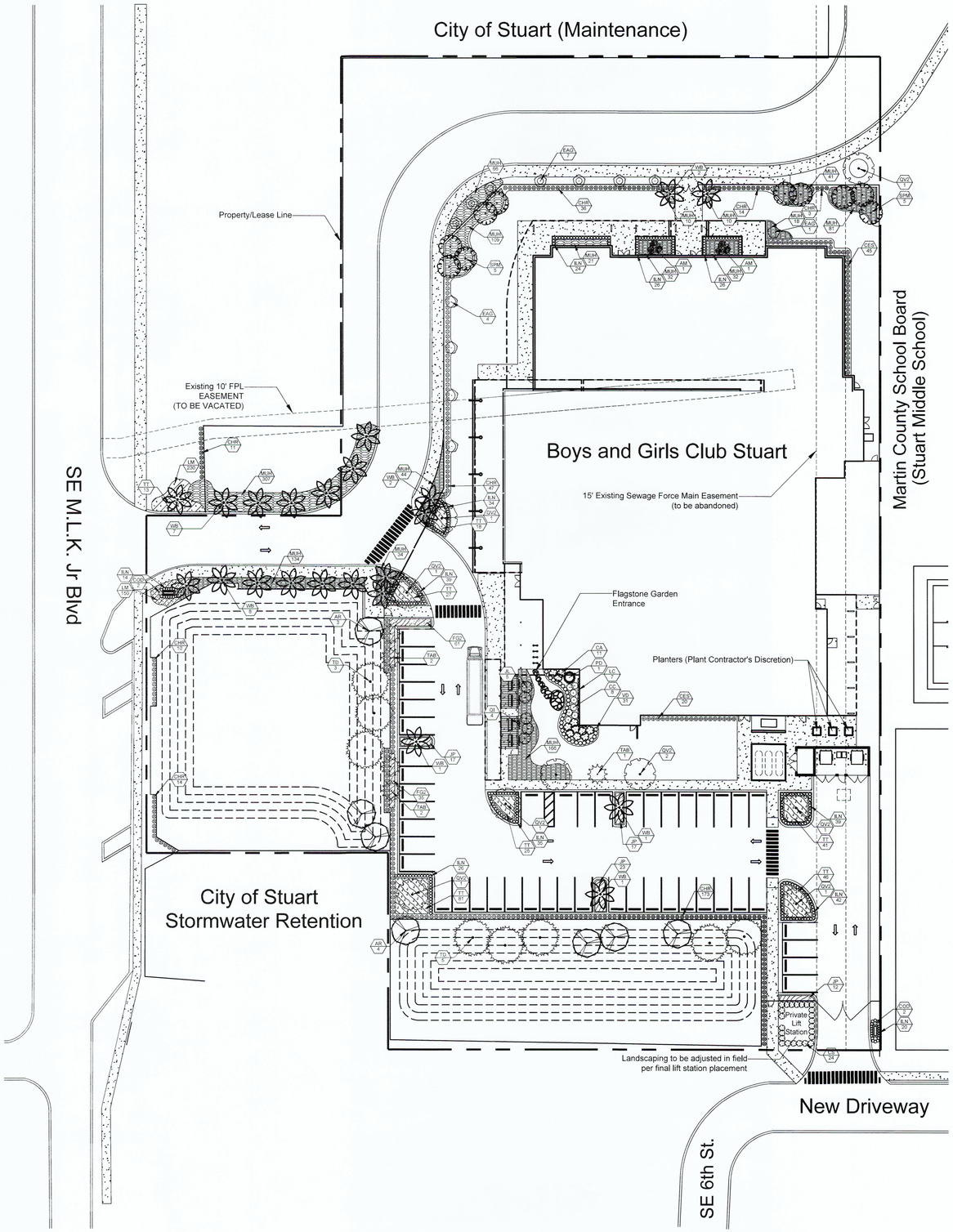


PLANT SCHEDULE ENTIRE BGCS

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	CALIPER
	AM	2	Adonidia merrillii	Manila Palm	15G	6-7` HT		TRP, F, SP	Non-native	
	JL	5	Jatropha integerrima 'Watermelon Pink'	Watermelon Pink Jatropha	7G	6`HT		STD, F, SP	Non-native	
	PD	1	Pimenta dioica	Allspice Tree	7G	6-7` HT	3` W		Non-native	2" Caliper
	TAB	5	Tabebuia heterophylla	Pink Tabebuia	FG	12` HT	6` SPR	F, SP	Non-native	2.5" Caliper
	TD	8	Taxodium distichum	Bald Cypress	45G	12` HT	6`W	F, SP	Native	3" Caliper
PALMS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	**CALIPER**
	SPM	10	Sabal palmetto	Cabbage Palmetto	FG	14`CT	6` SPR	F, SP, No Scars	Native	
	WB	22	Wodyetia bifurcata	Foxtail Palm	FG	12` HT		SP, No Scars, Straight	Non-native	HVY CAL
APPROVED SHADE/CANOPY	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	**CALIPER**
	AR	7	Acer rubrum	Red Maple	FG	12` HT	6` SPR	F, SP	Native	3" Caliper
	EAG	12	Ilex x attenuata 'Eagleston'	Eagleston Holly	FG	12` HT	6` SPR	F, SP	Native	3" Caliper
	QV2	9	Quercus virginiana	Southern Live Oak	FG	12` HT	6` SPR	F, SP	Native	3" Caliper
SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	CA	11	Callicarpa americana	American Beautyberry	7G	4` HT	3`W		Native	
	CS	24	Clusia guttifera	Small Leaf Clusia	15G	6`HT	3`W	F	Non-native	
	CC	8	Cymbopogon citratus	Lemongrass	3G			F, SP	Non-native	
	ILN	325	Ilex vomitoria ``Nana'	Dwarf Yaupon Holly	3G	24" HT	18"W	F, SP	Native	
	VD	31	Vaccinium darrowii	Darrow's Blueberry	3G	2` HT			Native	
ACCENTS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	COD	4	Codiaeum variegatum `Mammey'	Mammey Croton	3G	24" HT	18"W	FTB, SP	Non-native	
VINES	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	LC	7	Lonicera sempervirens	Trumpet Honeysuckle	7G	4` HT	18"W	F	Native	
	QI	4	Quisqualis indica	Rangoon Creeper	7G	5`HT	2` W	F, SP	Non-native	
APPROVED SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	CHR	308	Chrysobalanus icaco `Red Tip`	Red Tip Cocoplum	3G	24" HT	18"W	F, SP	Native	
	CES	65	Conocarpus erectus `Sericeus`	Silver Buttonwood	3G	24" HT	18"W	F, Low Branched	Native	
SHRUB AREAS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	FG2	96	Ficus microcarpa 'Green Island'	Green Island Indian Laurel Fig	3G	12"HT	12`W	F	Non-native	18" o.c.
	TT	251	Thryallis glauca	Thryallis	3G	12"HT		F, SP	Non-native	24" o.c.
GRASSES	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	MUH	1,105	Muhlenbergia capillaris	Pink Muhly	3G	18" OA		F	Native	24" o.c.
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONTAINER**	**HEIGHT**	**WIDTH**	**NOTES**	**NATIVE**	
	JP	69	Juniperus chinensis 'Parsonii'	Parsoni Juniper	1G	10" HT	15" SPR	F	Non-native	24" o.c.
	LM	380	Liriope muscari	Lilyturf	1G	12"HT	12"W	F	Non-native	12" o.c.

City of Stuart DEVELOPMENT

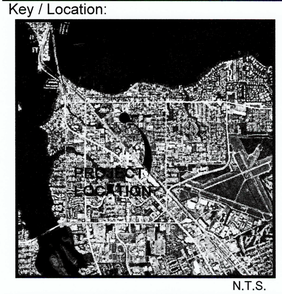
Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

lucido & associates

701 SE Ocean Blvd., Stuart, Florida 34994 (772) 220-2100, Fax (772) 223-0220

Key / Location:



N.T.S.

Project Team:

Client & Property Owner:	Boys and Girls Club Stuart
Land Planner / Landscape Architect:	Lucido & Associates 701 East Ocean Boulevard Stuart, Florida 34994
Engineer:	
Architect:	Architects Design Collaborative, LLC 10489 SW Meeting Street Tradition, Port St. Lucie, FL 34987
Surveyor:	
Traffic Engineer:	
Environmental Consultant:	

Boys and Girls Club Stuart

City of Stuart, Florida

Landscape Plan

Date	By	Description
09/12/22	AC	Initial Submittal

NORTH

SCALE: 1" = 30'

0 15' 30' 60'

REG. # 6667144
Steven D. Garrett

Designer	AC	Sheet
Manager	SG	LA-1
Project Number	22-375	
Municipal Number	---	
Computer File		

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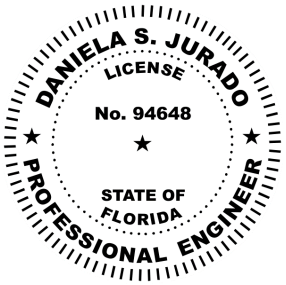
Memorandum



To: City of Stuart

From: Daniela Jurado, P.E. | Bowman

Rodrigo Meirelles E.I.T. | Bowman

Date: 3/3/2023

Re: Boys & Girls Club – MLK Jr. Blvd, Stuart, Florida – Traffic Impact Study Memorandum

Bowman has been retained by Boys & Girl Club of Marion County to prepare a Traffic Impact Study for the proposed Boys & Girls Club to be located north of the intersection of SE MLK Jr Blvd and SE Bayou Ave, in the City of Stuart, Florida 34994. The latest Conceptual Site Plan is presented in **Attachment A**.

The purpose for the study is threefold: (i) to determine the number of trips generated by the proposed site; and (ii) to determine the potential impact, if any, of the proposed development on the roadway network; (iii) to propose improvements, if required.

Background Information

Boys & Girls Club of America is proposing to develop an after-school activities center for 200 elementary, middle, and high-school students. The hours of operation of the proposed Boys and Girls Club are from 10:30 am to 7:30 pm.

The new Boys & Girls Club Stuart is proposed north of the intersection of SE MLK Jr Blvd and SE Bayou Ave, adjacent to the existing Stuart Middle School, in the City of Stuart, Florida; within the CRA and the Transportation Concurrency Exemption Area Buffer.

Access to the site is proposed via an existing full-access driveway along SE MLK Jr. Blvd (currently gated) and via a proposed full-access driveway along SE High School Ave. The site and access location are depicted in **Figure 1**. The existing gate along SE MLK Jr. Blvd is proposed to be displaced north of the proposed Boys and Girls Club access.

Student Arrival and Departure

- Arrival time: The students are expected to be picked up from their respective schools by 2 school buses between 2:30-3:30PM and brought to the Boys & Girls Club.

- Dismissal times and procedure: after 4:30 pm. Parents will be advised to access the site through the north access along SE High School Ave and circulate south to the pick-up/drop-off area.

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Methodology Coordination

A coordination meeting was held on Monday, February 19th, 2023, with representatives from the City of Stuart to determine the requirements for this study, during this meeting, the Trip Generation, Trip Distribution and analysis requirements were determined. Email correspondence is presented in **Attachment B**.

Figure 1. Proposed Site Location and Access

Roadway System

SE MLK Jr Blvd: within the identified study area SE MLK Jr Blvd is a city-maintained two-lane undivided urban local roadway according to the Martin County Roadway Assets GIS Map. MLK Jr Blvd has an East-West alignment and a posted speed limit of 25 MPH.

SE Ocean Blvd: within the identified study area SE Indian St. is a County-maintained two-lane divided roadway with a two-way left-turn median classified as an urban major collector roadway according to the Martin County Roadway Assets GIS Map. Ocean Blvd has an East-West alignment and a posted speed limit of 30 MPH.

SE High School Ave: within the identified study area High School Ave is a city-maintained two-lane undivided local roadway according to the Martin County Roadway Assets GIS Map. High School Ave has a North-South alignment and a posted speed limit of 25 MPH.

SE East Ave: within the identified study area East Ave is a city-maintained two-lane undivided local roadway according to the Martin County Roadway Assets GIS Map. East Ave has a North-South alignment and a posted speed limit of 25 MPH.

Data Collection

For the purposes of this study the following data was collected:

- Inventory of existing roadway geometry, traffic control devices, and location of existing and proposed driveways.
- Evening (4:00 PM – 6:00 PM) turning movement counts collected during an average weekday (Wednesday, February 22nd, 2023), at the following intersections:
    - SE Ocean Blvd & SE High School Ave (Unsignalized)
    - Se MLK Jr. Blvd & Se East Ave/Middle School Driveway (Unsignalized)

The turning movement counts are presented in **Attachment C**.

Trip Generation

As mentioned previously in this memorandum, the Boys & Girls Club of America is proposing to develop an after-school activities center for 200 elementary, middle, and high-school students. For the purposes of this statement the lot is considered vacant. The hours of operation of the Club are from 10:00 am, with student arrival starting at 2:00 pm, to 7:30 pm. Based on this, the morning and mid-day peak periods were not considered on this analysis. Comparable land uses as per the ITE were used to determine the anticipated trip generation of the proposed site.

Table 1. Anticipated site Trip Generation

Land Use	Land Use Code[1]	Intensity	Units	Time Period	Average Rate/ Fitted Curve Eq. [1]	Development Trips [1]		
						In	Out	Total
Proposed Boys and Girls Club	538	200	Students	AM[2]	-	-	-	-
				PM[3]	0.73	73	73	146

(1) Based on the Institute of Transportation Engineers Trip Generation, 11th Edition
(2) Peak Hour of Generator
(3) Morning Trip generationnot considered, the hours of operation 10:00 am to 7:30 pm

Based on the rates provided by the ITE trip Generation Manual 11th Edition the proposed Boys and Girls Club Stuart is expected to generate a total of 73 inbound trips and 73 outbound trips during the evening peak hour.

Trip Distribution

The anticipated Trip Distribution of the site was developed considering the proposed access conditions, circulation requirement and pick-up and drop-off recommendations from the school. The Boys & Girls Club Trip Distribution is presented on **Exhibit 1** in **Attachment D**.

The proposed Boys & Girls PM Peak Hour Trips are depicted on **Exhibit 2**, in **Attachment D**.

The site trips were added to the turning movement counts to yield the Build Conditions scenario, presented on **Exhibit 3**, in **Attachment D**.

Roadway Significance Analysis

Roadway segment analysis was performed for all segments in the study area to ensure that the projected site trips do not exceed 5% of the roadway segment's capacity. The results of the roadway segment capacity are presented on **Table 2**.

Based on the results presented in **Table 2**, the proposed development trips are expected to exceed the 5% service volume threshold of MLK Jr. Blvd. The Roadway Segment Significance Analysis results show the capacity of the segments is not expected to be exceeded.

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Table 2. Roadway Segment Analysis

Segment	Segment	Generalized LOS Capacity [1]	Generalized LOS Capacity +30%	2021 Peak Hour Directional Volume[1]	2021 Generalized LOS[1]	Growth Rate[1]	2023 Anticipated Peak Hour Directional Volume[1]	Trip Distribution	PM Net External Trips[2]	Project Traffic as a % of Capacity	5% Service Volume Exceeded?	Capcity Exceeeded?
Ocean Blvd	Flagler Ave to Palm Beach Rd	790	1027	514	D	0.50%	519	60%	44	4.28%	No	No
MLK Jr Blvd*	Flagler Ave to Palm Beach Rd	720	936	N/A	D	0.50%	176	60%	44	6.11%	Yes	No

(1) Extracted from Martin County 2021 Roadway LOS Inventory Report

(2) Based on Net External PM Peak Hour Trips

**For Roadways not listed on the Martin County Roadway LOS inventory report, Counts and FDOT Quality LOS Handbook Information was used.*

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Student Pick-Up Stacking Analysis

As mentioned in the Trip Distribution section of this report, due to the circulation requirement for the pick-up and drop-off from the school, it is expected that the majority of vehicles enter the site through the driveway along High School Ave and exit the site through the driveway along MLK Jr. Blvd.

The site provides approximately 350 ft of storage from the reserved pick-up /drop-off area to the access along High School Ave, allowing 17 vehicles to stack before spilling back onto High School Dr.

Based on the number of anticipated trip generation, 73 vehicles are expected to access the site during the pm peak hour. A conservative service rate of 1 vehicle each 40 seconds was assumed.

With this assumed arrival and service rates and using a stochastic arrival distribution. The average vehicle queue would be 10.4 vehicles during the evening peak hour. Therefore, no spill back into the adjacent roadway network is anticipated.

Capacity Analysis

The study intersections were analyzed for the Existing and Build Conditions following the Highway Capacity Manual (HCM 6th Edition) methodologies using the computer software package Synchro 11. The analysis uses capacity, Level of Service, and control delay as the criteria for the performance of the driveways.

Capacity, as defined by the HCM, is a measure of the maximum number of vehicles in an hour that can travel through an intersection or section of roadway under typical conditions. **Table 3** shows the LOS for unsignalized intersections as defined by the HCM.

Table 3. HCM Level of Service Criteria

Unsignalized Intersections		Signalized Intersections	
Level of Service	Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)
A	≤10	A	≤10
B	>10-15	B	>10-20
C	>15-25	C	>20-35
D	>25-35	D	>35-55
E	>35-50	E	>55-80
F	≥50	F	≥80

Control delay is a measure of the total amount of delay experienced by an individual vehicle and includes delay related to deceleration, queue delay, stopped delay, and acceleration. **Table 3** displays the amount of control delay (in seconds per vehicle) that corresponds to the LOS for signalized and unsignalized intersections.

Capacity analysis was performed for each of the intersections under existing conditions, the results are presented on **Table 4**. The Synchro Reports are presented in **Appendix D**.

Table 4. Existing Conditions Capacity Analysis

EXISTING CONDITIONS			Approach				Overall Intersection
Intersection		Scenario	EB	WB	NB	SB	
1	Ocean Blvd & High School Ave (Unsignalized)	PM Peak Hour	A 0.0	A 0.2	C 15.1		A 0.4
2	MLK Jr Blvd & East Ave/BGC Driveway (Unsignalized)	PM Peak Hour	A 0.0	A 0.1	A 10.0	A 0.0	A 0.3

Extracted from Synchro11 HCM 6th Edition

Based on the Existing conditions capacity analysis results, both intersections currently operate at acceptable overall LOS A. All approaches operate at acceptable LOS.

The anticipated Boys & Girls Club trips were added to the Peak Hour Turning Movement counts at each of the analysis intersections to determine how these will operate under Build Conditions. The results of the Capacity Analysis are presented on **Table 5**. The Synchro Reports are presented in **Attachment E**.

Table 5. Build Conditions Capacity Analysis

2024 BUILD CONDITIONS			Approach				Overall Intersection
Intersection		Scenario	EB	WB	NB	SB	
1	Ocean Blvd & High School Ave (Unsignalized)	PM Peak Hour	A 0.0	A 0.9	C 16.5		A 0.9
2	MLK Jr Blvd & East Ave/BGC Driveway (Unsignalized)	PM Peak Hour	A 0.3	A 0.1	B 10.3	B 11.5	A 2.0

Extracted from Synchro11 HCM 6th Edition

Based on the Build conditions capacity analysis results, both intersections are expected to operate at acceptable overall LOS A. All approaches are anticipated to operate at acceptable LOS.

The queues at each approach were analyzed. The queue results are presented on **Table 6**.

Table 6. Queue Analysis Results

QUEUE SUMMARY				Evening Peak Hour	
Intersection		Approach	Movement	EXISTING	BUILD
1	Ocean Blvd & High School Ave (Unsignalized)	NB	Approach	5	10
		WB	L	0	5
2	MLK Jr Blvd & East Ave/BGC Driveway (Unsignalized)	EB	Approach	0	0
		WB	Approach	0	0
		NB	Approach	0	3
		SB	Approach	0	10

Extracted from Synchro10 HCM 6th Edition
Queues in Feet
 # 95th percentile volume exceeds capacity, queue may be longer
m Volume for the 95th percentile queue is metered by upstream signal
For queue given in terms of vehicles one vehicle was assumed equal to 25 ft (Including space in between vehicles).

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Based on the queue results, under Build conditions, no queue lengths exceed the length of a single vehicle or appear to be excessive during the evening peak hour.

Turn Lane Warrant Analysis

Turn lane warrant analysis were conducted for the intersection of the Boys & Girls Club full-access driveway and SE MLK Jr. Blvd to determine the need for the installation of auxiliary turning lanes. According to the City's Land Development Code, a capacity analysis of the proposed driveways shall be performed to determine the need for separate turning lanes and/or any other necessary improvement.

The proposed site driveway is projected to have 7 entering of right turns and 7 entering left-turns during the evening peak hour.

Based on the Capacity results, no approaches are operating at failing LOS and no queue lengths exceed the length of one vehicle therefore, no turn lanes are required for the analysis intersections.

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Conclusion and Recommendations

Based on the ITE trip Generation Manual 11th Edition proposed Boys and Girls Club Stuart is expected to generate a total of 73 inbound trips and 73 outbound trips during the evening peak hour.

The Roadway Segment Significance Analysis results show the proposed development trips are expected to exceed the 5% service volume threshold of Ocean Blvd and MLK Jr. Blvd. The Roadway Segment Capacity Analysis shows the capacity of the segments is not expected to be exceeded.

The average vehicle queue is expected to be 10.4 vehicles during the evening peak hour. Considering the site provides 17-vehicle stack, no spill back into the adjacent roadway network is anticipated.

The results of the Existing and Build conditions Capacity Analysis show both intersections are expected to operate at acceptable overall LOS A. All approaches are anticipated to operate at acceptable LOS.

Based on the Capacity results, no approaches are operating at failing LOS and no queue lengths exceed the length of one vehicle therefore, based on the City of Stuart Turn Lane warrant guidelines no turn lanes are required.

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City of Stuart DEVELOPMENT

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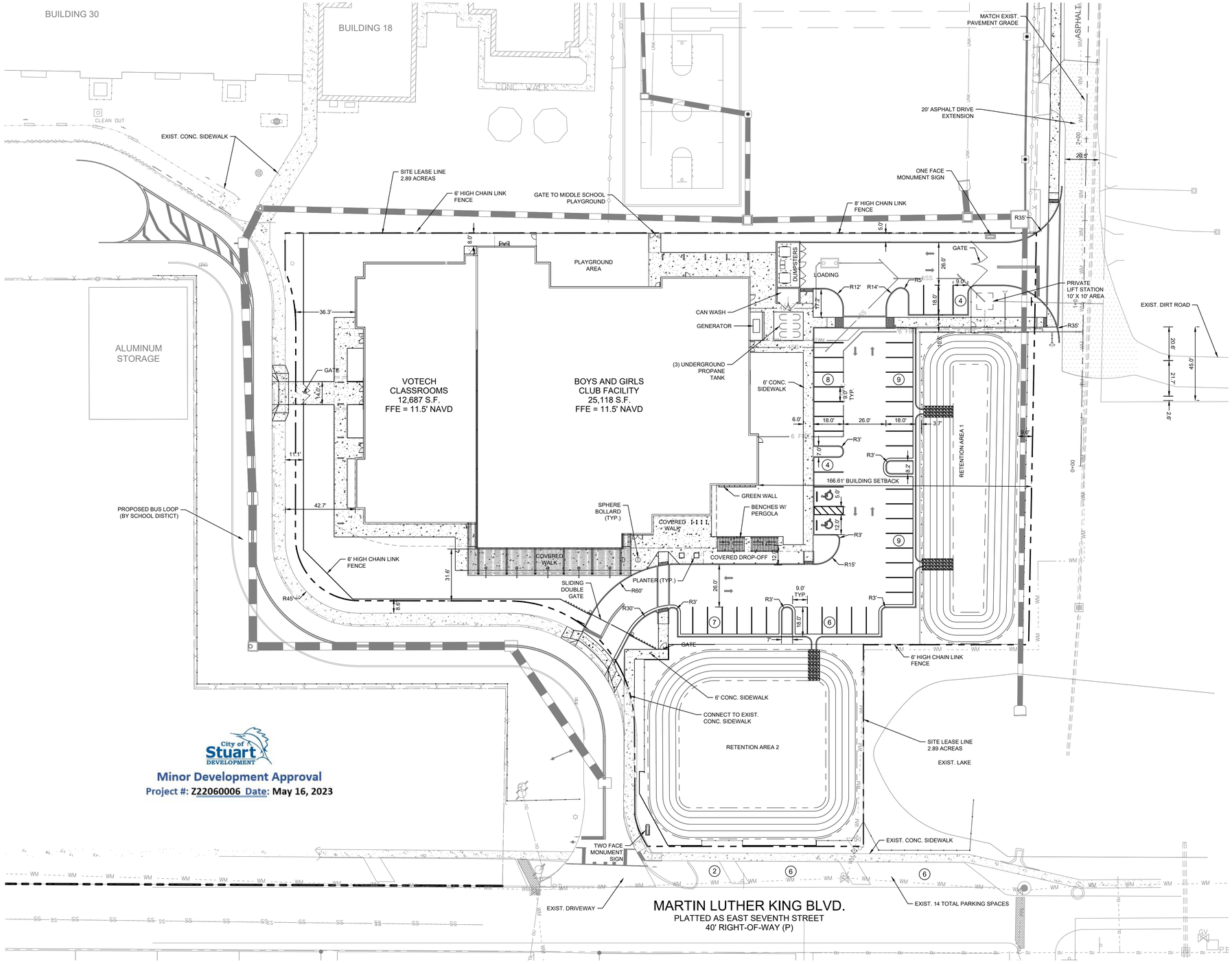
Project #: Z22060006 Date: May 16, 2023

Attachment A



City of Stuart DEVELOPMENT

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Project #: Z22060006 Date: May 16, 2023

Legend

- OVERALL PROPERTY LINE
- PROPOSED BUILDING
- PROPOSED CURB AND GUTTER
- EXISTING STORM SEWER PIPING
- EXISTING DRAINAGE STRUCTURE
- WM — WATER MAIN PIPE
- WS — WATER SERVICE PIPE
- SS — SANITARY SEWER PIPE
- FIRE HYDRANT
- RESILIENT SEAT GATE VALVE (GV)
- CORPORATION STOP
- RESTRAINED END PLUG
- TEE
- ELBOW
- WATER METER BOX
- REDUCER (RED)
- FLUSHING HYDRANT
- SAMPLING POINT
- E — ELECTRICAL CONDUIT
- LIGHT POLES
- UTILITY EASEMENT

Site Data

Site Area:

Land Owner:	School Board of Martin County
Site Address:	500 SE Ocean Blvd., Stuart FL 34994
Overall Parcel Size:	22.77 ac
Project Size:	2.89 ac
Maximum Impervious Area:	65 %
Zoning:	City of Stuart - Public
Future Land Use:	City of Stuart - Public
Existing Use:	Open Space
Proposed Use:	Community Center
FEMA Flood Zone:	Zone X as per FEMA Firmette 12085C0153H

Overall Site Area

Total Site Area	**947,149 sf**	**21.74 ac**	**100%**
Pervious Area	**369,329 sf**	**8.48 ac**	**39.0%**
Open Space	369,330 sf	8.48 ac	39.0%
Impervious Area	**577,820 sf**	**13.26 ac**	**61.0%**
Building	243,322 sf	5.59 ac	25.7%
Surface Water	69,896 sf	1.60 ac	7.4%
Pavement & Sidewalk	264,602 sf	6.07 ac	27.9%

Boys & Girls Club Site Area

Total Site Area	**125,949 sf**	**2.89 ac**	**100%**
Pervious Area	**56,088 sf**	**1.28 ac**	**44%**
Open Space	38,664 sf	0.88 ac	30%
Retention Area	17,424 sf	0.40 ac	14%
Impervious Area	**69,861 sf**	**1.61 ac**	**56%**
Building	37,805 sf	0.88 ac	30%
Sidewalk & Walkways	10,722 sf	0.23 ac	8%
Pavement	21,334 sf	0.49 ac	18%

BUILDING SETBACKS		
	REQUIRED	PROVIDED
MIN. FRONT	25'	31.6'
MIN. REAR	25'	8.1'
MIN. SIDE	15'	36.3'

PARKING REQUIRED		
SEC. 6.01.13 OFF-STREET PARKING SCHEDULE SCHOOL - PRIVATE/PAROCHIAL ELEMENTARY OR JUNIOR/HIGH SCHOOL		
NO. OF SPACES REQUIRED		TOTAL REQUIRED
1 PER CLASSROOM	8	8
1 PER EMPLOYEE	14	14
1 FOR EACH 6 SEATS IN AUDITORIUM (GYMNASIUM/COMMUNITY CENTER)	250	42
TOTAL PARKING SPACES REQUIRED		64

PARKING PROVIDED	
TYPE	PROVIDED
9' x 18' PARKING SPACE	45
ADA PARKING SPACE	2
OFF SITE PARKING	14
TOTAL PARKING SPACES PROVIDED	61

GRAPHIC SCALE

0 30 60

1" = 30'

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING GROUP, LTD. SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING GROUP, LTD.

NOTE:
ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD).

Bowman

PROFESSIONAL SURVEYORS AND MAPPERS, CERTIFICATE NO. LB 8009
BOARD OF PROFESSIONAL ENGINEERS, CERTIFICATE OF AUTHORIZATION NO. 30462

Bowman Consulting Group, Ltd., Inc.
301 SE Ocean Blvd, Suite 301
Stuart, Florida 34994
Phone: (772) 283-1413
Fax: (772) 220-7681
www.bowmanconsulting.com
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BOYS & GIRLS CLUB OF STUART

SITE PLAN

MARTIN COUNTY FLORIDA

PROJECT NO
010772-01-001

OCTAVIO REIS NETO, P.E.
FL. LICENSE NO. 65661

PLAN STATUS

DATE	DESCRIPTION

DF DESIGN	DF DRAWN	OR CHKD

SCALE:

JOB No. 010772-01-001

DATE 1/25/2023

FILE No. 010772-01-001-C07 SIT

SHEET C07

Cad file name: P:\010772 – Boys and Girls Clubs of Martin County\010772-01-001 (ENG) – Boys and Girls Club\Engineering\CAD_Plans (dwg)\010772-01-001-C07 SIT.dwg 01/25/23

City of Stuart
DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Attachment B

Daniela Jurado

From: Daniela Jurado
Sent: Monday, February 20, 2023 4:24 PM
To: Alex.Memering@kimley-horn.com
Cc: Octavio Reis; ldaccarett@bgcmartin.org
Subject: RE: Boys and Girls Club Stuart - Martin Luther King Blvd traffic counts

Good Afternoon Alex,

Thank you for meeting with us this afternoon to discuss the Traffic Study requirements for the city of Stuart Boys and Girls Club.

Based on our discussion, the following items will be included on this study:

1. Anticipated Trip Generation.
   - Trip Generation based on ITE Trip Generation Manual 11th Edition rates (PM peak).
   - Disclaimer regarding hours of operation. AM peak hour is not required considering the BGC hours of operation.
2. Data Collection:
   - PM Peak Turning Movement Counts (TMC) at (i) SE MLK Jr Blvd and Shared Driveway/SE East Ave, and (ii) SE Ocean Blvd and SE High School Ave.
   - Peak two-way volumes extracted from approach/departure volumes from tuning movement counts.
3. Analysis:
   - Roadway significance analysis on SE MLK Jr Blvd and SE Ocean Blvd (5% of adopted LOS volume +30%).
   - Turn Lane Warrants at Ocean Blvd and High School Ave and at MLK Jr Blvd and Site Driveway.
   - Stacking Analysis for the student pick-up area and site circulation discussion.
   - Intersection capacity analysis at (i) SE MLK Jr Blvd and Site Driveway/SE East Ave, and (ii) SE Ocean Blvd and SE High School Ave

Please let us know if there is anything else that is required on the study.

Best,

DANIELA JURADO, P.E.
Project Manager, Traffic Engineering | **BOWMAN**
O: (321) 270-8905 | D: (321) 608-0498 | M: (786) 370-2762
djurado@bowman.com

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

From: Memering, Alex <Alex.Memering@kimley-horn.com>
Sent: Tuesday, February 14, 2023 9:41 AM
To: Octavio Reis <oreis@bowman.com>
Cc: Kevin Roberson <Kevin.Roberson@kimley-horn.com>
Subject: [EXTERNAL] RE: Boys and Girls Club Stuart - Martin Luther King Blvd traffic counts

Oats,

I don't see any traffic volume data for this roadway segment. There are two methods to find this data:

- Perform a 24-hour tube count at the subject location on MLK Blvd
- If you are performing an AM and PM peak hour intersection analysis at the intersections of SR A1A and Georgia Avenue along MLK Blvd, you can use approach and departure volumes from those counts to calculate peak hour roadway traffic volumes

Let me know if you have any questions.

Thanks,

Alex

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Alex Memering, P.E.
Kimley-Horn | 189 South Orange Avenue, Suite 1000 Orlando, FL 32801
Direct: 407 815 3572 | Main: 407 898 1511

From: Roberson, Kevin <Kevin.Roberson@kimley-horn.com>
Sent: Tuesday, February 14, 2023 9:09 AM
To: Octavio Reis <oreis@bowman.com>; Memering, Alex <Alex.Memering@kimley-horn.com>
Subject: RE: Boys and Girls Club Stuart - Martin Luther King Blvd traffic counts

Oats, I am copying Alex our traffic engineer that reviews the studies for City of Stuart. Alex do you have any information on the location below?

Kevin M. Roberson, PE (CA, CO, WY, MT, UT, AZ, FL)
CPESC, QSD/QSP, LEED ® AP | Sr. Vice President
Kimley-Horn | 445 24th Street, Suite 200, Vero Beach, FL 32960
Direct: 772 794 4035 | Mobile: 303 880 8832

From: Octavio Reis <oreis@bowman.com>
Sent: Tuesday, February 14, 2023 8:56 AM
To: Roberson, Kevin <Kevin.Roberson@kimley-horn.com>
Subject: Boys and Girls Club Stuart - Martin Luther King Blvd traffic counts

> You don't often get email from oreis@bowman.com. Learn why this is important

Kevin,

We are working on a project for the Boys and Girls Club in Stuart. The project is located on the Stuart Middle School campus. I have attached a Google Earth location marker.

We are proposing to use the existing school's driveway off of Martin Luther King Blvd. The City does not have any traffic count information for Martin Luther King Blvd, and recommended we reach out to you.

Do you have any information on the traffic levels on Martin Luther King Blvd near Georgia Ave. and Dixie Hwy (A1A)? We are trying to determine the current level of service for that segment.

Regards,

OCTAVIO 'OATS' REIS, PE
Principal - Sr. Project Manager | **BOWMAN**

301 SE Ocean Blvd.; Suite 301, Stuart, FL 34994
O: 772.283-1413 | D: 772.678.4330 |M: 772.485.0856

oreis@bowman.com | bowman.com |

– Go Green! Please consider the environment before printing this email.

Please note our email and website domain have changed to bowman.com.

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Attachment C

DE TRAFFIC

detraffic.com
(386) 341-4186
SE High School Ave at SE Ocean Blvd
Martin County, Fl

File Name : 01 HS at Ocean
Site Code : 00000001
Start Date : 2/22/2023
Page No : 1

Groups Printed- Automobiles - Commercial

	N/A Southbound				SE Ocean Blvd Westbound				SE High School Ave Northbound				SE Ocean Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	2	116	0	118	0	0	1	1	0	118	7	125	244
04:15 PM	0	0	0	0	2	125	0	127	1	0	2	3	0	129	8	137	267
04:30 PM	0	0	0	0	1	153	0	154	0	0	3	3	0	153	11	164	321
04:45 PM	0	0	0	0	4	153	0	157	0	0	4	4	0	127	8	135	296
Total	0	0	0	0	9	547	0	556	1	0	10	11	0	527	34	561	1128
05:00 PM	0	0	0	0	2	127	0	129	6	0	6	12	0	149	5	154	295
05:15 PM	0	0	0	0	5	113	0	118	4	0	2	6	0	140	8	148	272
05:30 PM	0	0	0	0	3	106	0	109	3	0	3	6	0	133	5	138	253
05:45 PM	0	0	0	0	2	100	0	102	1	0	4	5	0	116	6	122	229
Total	0	0	0	0	12	446	0	458	14	0	15	29	0	538	24	562	1049
Grand Total	0	0	0	0	21	993	0	1014	15	0	25	40	0	1065	58	1123	2177
Apprch %	0	0	0		2.1	97.9	0		37.5	0	62.5		0	94.8	5.2		
Total %	0	0	0	0	1	45.6	0	46.6	0.7	0	1.1	1.8	0	48.9	2.7	51.6	
Automobiles	0	0	0	0	19	983	0	1002	15	0	23	38	0	1042	52	1094	2134
% Automobiles	0	0	0	0	90.5	99	0	98.8	100	0	92	95	0	97.8	89.7	97.4	98
Commercial	0	0	0	0	2	10	0	12	0	0	2	2	0	23	6	29	43
% Commercial	0	0	0	0	9.5	1	0	1.2	0	0	8	5	0	2.2	10.3	2.6	2

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

DE TRAFFIC

detraffic.com
(386) 341-4186
SE High School Ave at SE Ocean Blvd
Martin County, Fl

File Name : 01 HS at Ocean
Site Code : 00000001
Start Date : 2/22/2023
Page No : 2

	N/A Southbound				SE Ocean Blvd Westbound				SE High School Ave Northbound				SE Ocean Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	153	0	154	0	0	3	3	0	153	11	164	321
04:45 PM	0	0	0	0	4	153	0	157	0	0	4	4	0	127	8	135	296
05:00 PM	0	0	0	0	2	127	0	129	6	0	6	12	0	149	5	154	295
05:15 PM	0	0	0	0	5	113	0	118	4	0	2	6	0	140	8	148	272
Total Volume	0	0	0	0	12	546	0	558	10	0	15	25	0	569	32	601	1184
% App. Total	0	0	0		2.2	97.8	0		40	0	60		0	94.7	5.3		
PHF	.000	.000	.000	.000	.600	.892	.000	.889	.417	.000	.625	.521	.000	.930	.727	.916	.922
Automobiles	0	0	0	0	10	540	0	550	10	0	14	24	0	559	29	588	1162
% Automobiles	0	0	0	0	83.3	98.9	0	98.6	100	0	93.3	96.0	0	98.2	90.6	97.8	98.1
Commercial	0	0	0	0	2	6	0	8	0	0	1	1	0	10	3	13	22
% Commercial	0	0	0	0	16.7	1.1	0	1.4	0	0	6.7	4.0	0	1.8	9.4	2.2	1.9

City of Stuart DEVELOPMENT

Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

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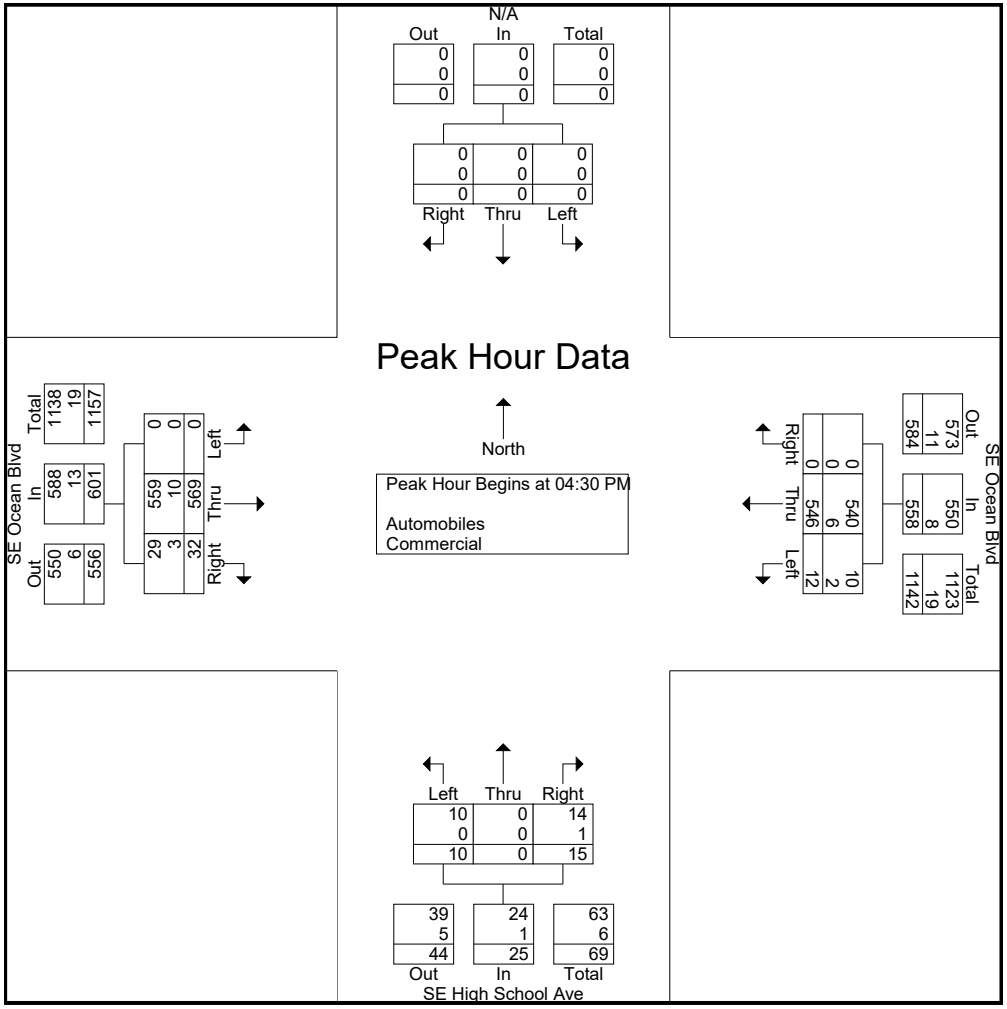
SE High School Ave at SE Ocean Blvd
Martin County, Fl

File Name : 01 HS at Ocean
Site Code : 00000001
Start Date : 2/22/2023
Page No : 3



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(386) 341-4186
SE High School Ave at SE Ocean Blvd
Martin County, Fl

File Name : 01 HS at Ocean
Site Code : 00000001
Start Date : 2/22/2023
Page No : 4

Groups Printed- Peds

	N/A Southbound					SE Ocean Blvd Westbound					SE High School Ave Northbound					SE Ocean Blvd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:15 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	6	6	8
04:30 PM	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	1	1	4
04:45 PM	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	4	4	8
Total	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	11	11	20
05:00 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	5
05:15 PM	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	5
05:30 PM	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	1	1	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
Total	0	0	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	10	10	18
Grand Total	0	0	0	0	0	0	0	0	17	17	0	0	0	0	0	0	0	0	21	21	38
Apprch %	0	0	0	0		0	0	0	100		0	0	0	0		0	0	0	100		
Total %	0	0	0	0	0	0	0	0	44.7	44.7	0	0	0	0	0	0	0	0	55.3	55.3	

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

DE TRAFFIC

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(386) 341-4186
SE East Ave at SE M.L.K. Jr Blvd
Martin County, Fl

File Name : 02 East at MLK
Site Code : 00000002
Start Date : 2/22/2023
Page No : 1

Groups Printed- Automobiles - Commercial

	N/A Southbound				SE M.L.K. Jr Blvd Westbound				SE East Ave Northbound				SE M.L.K. Jr Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	41	0	42	2	0	1	3	0	26	1	27	72
04:15 PM	0	0	0	0	0	35	0	35	0	0	3	3	0	37	0	37	75
04:30 PM	0	0	0	0	0	44	0	44	1	0	0	1	0	52	0	52	97
04:45 PM	0	0	0	0	2	51	0	53	1	0	1	2	0	44	1	45	100
Total	0	0	0	0	3	171	0	174	4	0	5	9	0	159	2	161	344
05:00 PM	0	0	0	0	0	46	0	46	2	0	2	4	0	26	2	28	78
05:15 PM	0	0	0	0	2	35	0	37	1	0	1	2	0	36	0	36	75
05:30 PM	0	0	0	0	0	53	0	53	1	0	1	2	0	24	1	25	80
05:45 PM	0	0	0	0	1	43	0	44	0	0	0	0	0	25	0	25	69
Total	0	0	0	0	3	177	0	180	4	0	4	8	0	111	3	114	302
Grand Total	0	0	0	0	6	348	0	354	8	0	9	17	0	270	5	275	646
Apprch %	0	0	0		1.7	98.3	0		47.1	0	52.9		0	98.2	1.8		
Total %	0	0	0	0	0.9	53.9	0	54.8	1.2	0	1.4	2.6	0	41.8	0.8	42.6	
Automobiles	0	0	0	0	5	337	0	342	7	0	8	15	0	260	5	265	622
% Automobiles	0	0	0	0	83.3	96.8	0	96.6	87.5	0	88.9	88.2	0	96.3	100	96.4	96.3
Commercial	0	0	0	0	1	11	0	12	1	0	1	2	0	10	0	10	24
% Commercial	0	0	0	0	16.7	3.2	0	3.4	12.5	0	11.1	11.8	0	3.7	0	3.6	3.7

City of Stuart DEVELOPMENT

Minor Development Approval

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DE TRAFFIC

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SE East Ave at SE M.L.K. Jr Blvd
Martin County, Fl

File Name : 02 East at MLK
Site Code : 00000002
Start Date : 2/22/2023
Page No : 2

	N/A Southbound				SE M.L.K. Jr Blvd Westbound				SE East Ave Northbound				SE M.L.K. Jr Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	35	0	35	0	0	3	3	0	37	0	37	75
04:30 PM	0	0	0	0	0	44	0	44	1	0	0	1	0	52	0	52	97
04:45 PM	0	0	0	0	2	51	0	53	1	0	1	2	0	44	1	45	100
05:00 PM	0	0	0	0	0	46	0	46	2	0	2	4	0	26	2	28	78
Total Volume	0	0	0	0	2	176	0	178	4	0	6	10	0	159	3	162	350
% App. Total	0	0	0		1.1	98.9	0		40	0	60		0	98.1	1.9		
PHF	.000	.000	.000	.000	.250	.863	.000	.840	.500	.000	.500	.625	.000	.764	.375	.779	.875
Automobiles	0	0	0	0	1	170	0	171	3	0	6	9	0	154	3	157	337
% Automobiles	0	0	0	0	50.0	96.6	0	96.1	75.0	0	100	90.0	0	96.9	100	96.9	96.3
Commercial	0	0	0	0	1	6	0	7	1	0	0	1	0	5	0	5	13
% Commercial	0	0	0	0	50.0	3.4	0	3.9	25.0	0	0	10.0	0	3.1	0	3.1	3.7

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

DE TRAFFIC

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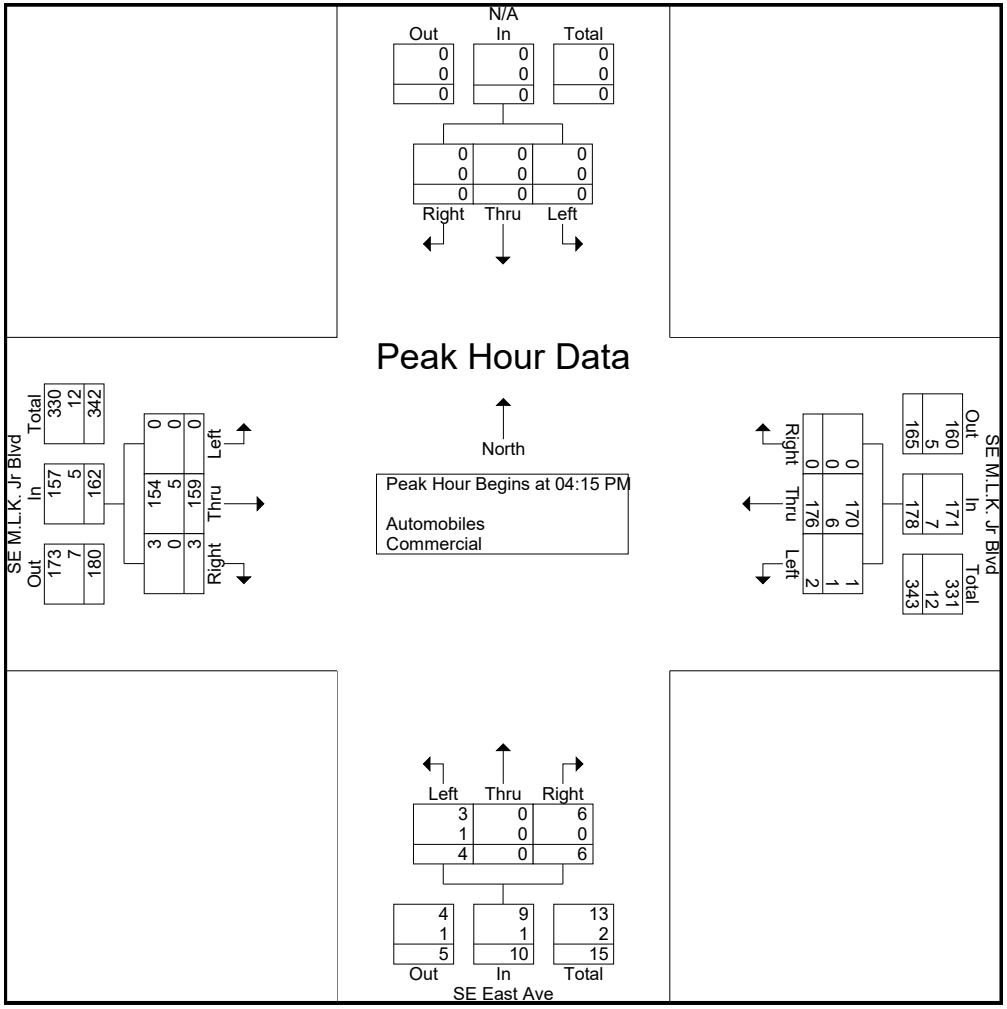
(386) 341-4186

SE East Ave at SE M.L.K. Jr Blvd
Martin County, Fl

File Name : 02 East at MLK
Site Code : 00000002
Start Date : 2/22/2023
Page No : 3



DE TRAFFIC

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(386) 341-4186
SE East Ave at SE M.L.K. Jr Blvd
Martin County, Fl

File Name : 02 East at MLK
Site Code : 00000002
Start Date : 2/22/2023
Page No : 4

Groups Printed- Peds

	N/A Southbound					SE M.L.K. Jr Blvd Westbound					SE East Ave Northbound					SE M.L.K. Jr Blvd Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:30 PM	0	0	0	2	2	0	0	0	3	3	0	0	0	0	0	0	0	0	2	2	7
04:45 PM	0	0	0	4	4	0	0	0	2	2	0	0	0	0	0	0	0	0	1	1	7
Total	0	0	0	6	6	0	0	0	5	5	0	0	0	0	0	0	0	0	3	3	14
05:00 PM	0	0	0	3	3	0	0	0	4	4	0	0	0	0	0	0	0	0	2	2	9
05:15 PM	0	0	0	3	3	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	7
05:30 PM	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6
Total	0	0	0	9	9	0	0	0	8	8	0	0	0	0	0	0	0	0	5	5	22
Grand Total	0	0	0	15	15	0	0	0	13	13	0	0	0	0	0	0	0	0	8	8	36
Apprch %	0	0	0	100		0	0	0	100		0	0	0	0		0	0	0	100		
Total %	0	0	0	41.7	41.7	0	0	0	36.1	36.1	0	0	0	0	0	0	0	0	22.2	22.2	

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

NB Approach

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

EB Approach

WB Approach

de traffic	SE High School Ave at SE Ocean Blvd	Martin County
	www.de-traffic.com	Project Number: B23-03 / Sheet Number: 1
	299 McGregor Rd. DeLand Fl. 32720	

NB Approach

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

EB Approach

WB Approach

de traffic	SE East Ave at SE M.L.K. Jr Blvd	Martin County
	www.de-traffic.com	Project Number: B23-03 / Sheet Number: 1
	299 McGregor Rd. DeLand Fl. 32720	

City of Stuart
DEVELOPMENT

Minor Development Approval

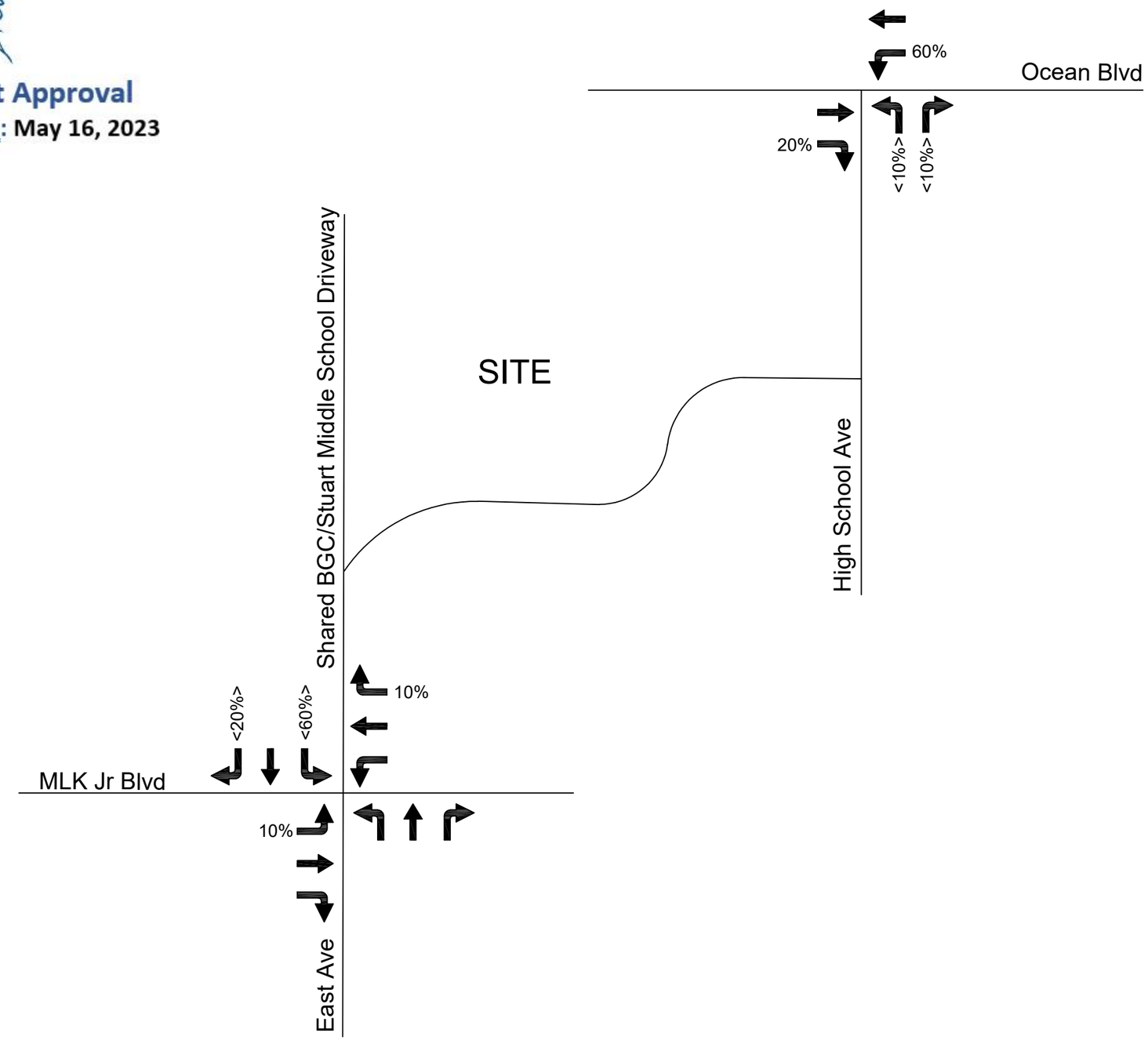
Project #: Z22060006 Date: May 16, 2023

Attachment D

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023



PROPOSED LEGEND

REPRESENTS ONE TURNING MOVEMENT

XX% + <YY%>: IN% + <OUT%> PEAK HOUR TRIP DISTRIBUTION

Scale: Not to Scale

Bowman Consulting Group, Ltd.
4450 W Eau Gallie Blvd
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
Fax: (321) 255-7751
www.bowmanconsulting.com

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SITE TRIP DISTRIBUTION
BGC MLK Blvd, Stuart FL
SWC of Wyndham Dr & Wickham Rd

STUART, FLORIDA

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Certificate of Authorization License No. 30462

RM	JS	DJ
DSGN	DRAWN	CHKD

010772-01-001
PROJECT NUMBER

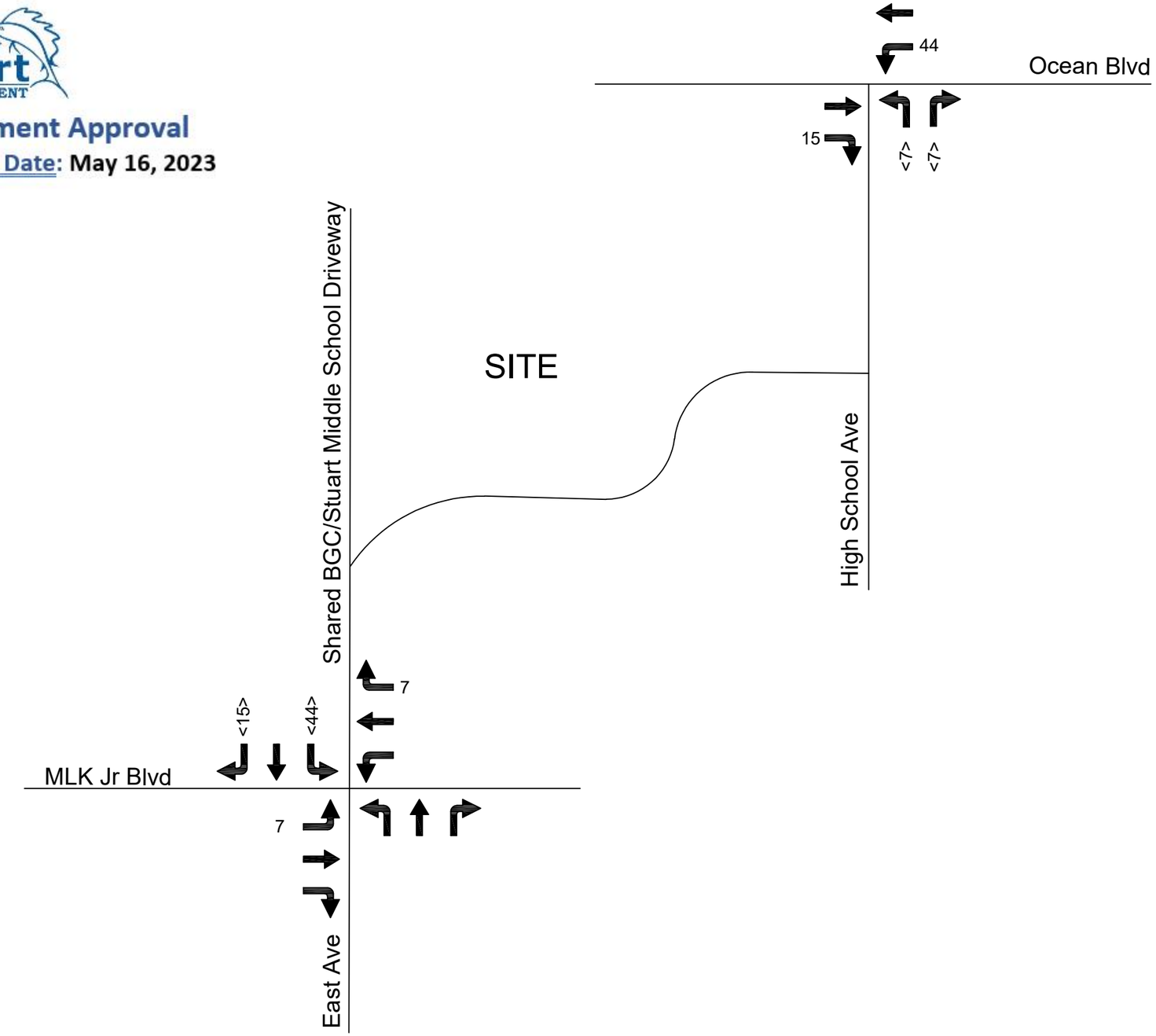
SCALE

EXHIBIT 1

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023



PROPOSED LEGEND

REPRESENTS ONE TURNING MOVEMENT

XX + <YY>: IN + <OUT> PEAK HOUR TRIPS

Scale: Not to Scale

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Melbourne, FL 32934
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PEAK HOUR SITE TRIPS
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RM	JS	DJ
DSGN	DRAWN	CHKD

010772-01-001
PROJECT NUMBER

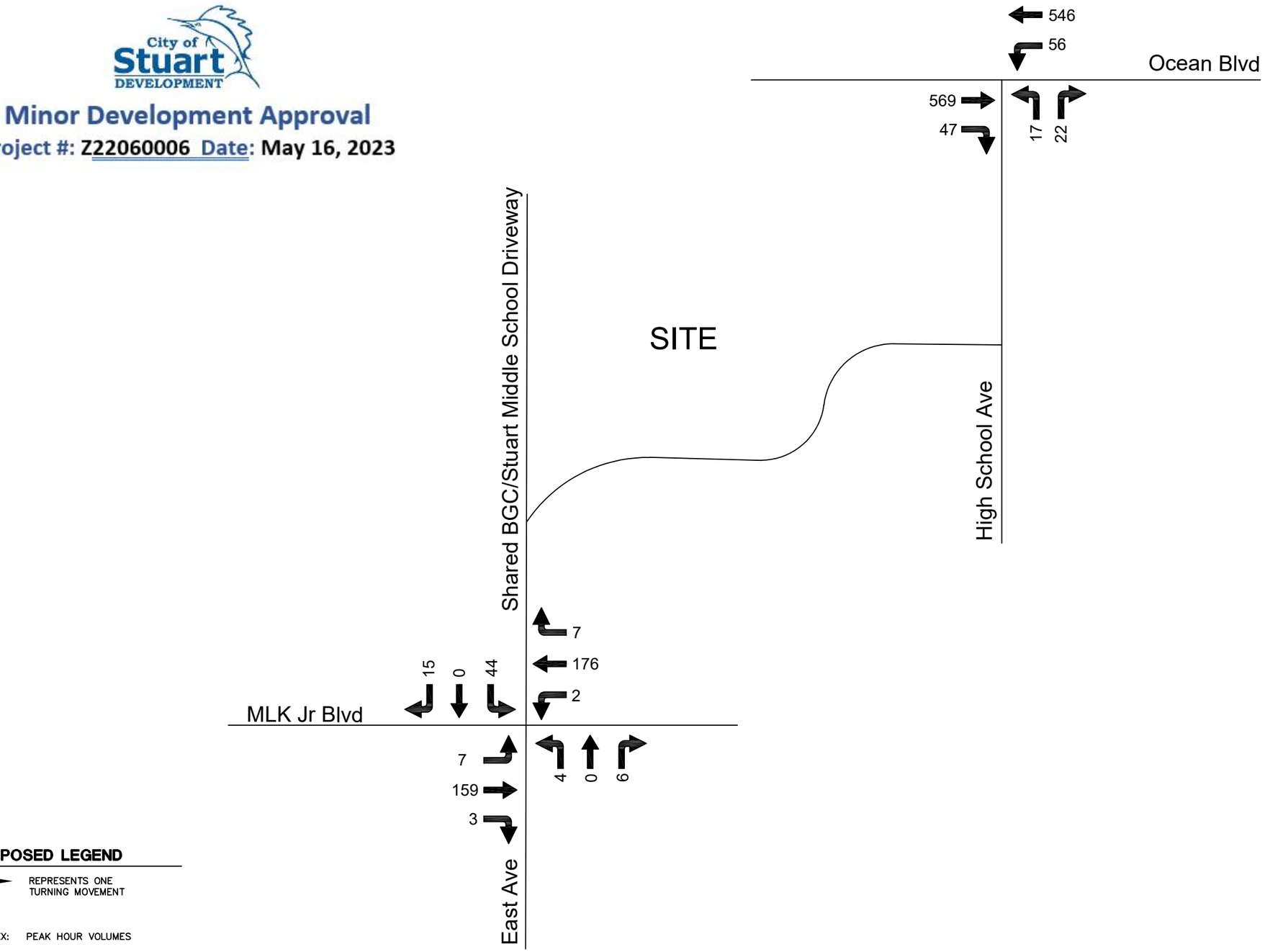
SCALE

EXHIBIT 2

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023



PROPOSED LEGEND

REPRESENTS ONE TURNING MOVEMENT

XX: PEAK HOUR VOLUMES

Scale: Not to Scale

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4450 W Eau Gallie Blvd
Suite 144
Melbourne, FL 32934
Phone: (321) 255-5434
Fax: (321) 255-7751
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BUILD CONDITIONS
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STUART, FLORIDA

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Certificate of Authorization License No. 30462

RM	JS	DJ
DSGN	DRAWN	CHKD

010772-01-001
PROJECT NUMBER

SCALE

EXHIBIT 3

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Attachment E

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	569	32	12	546	10	15
Future Volume (vph)	569	32	12	546	10	15
Adj. Flow (vph)	618	35	13	593	11	16
Lane Group Flow (vph)	653	0	13	593	27	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 45.0%		ICU Level of Service A	
Analysis Period (min) 15			

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	569	32	12	546	10	15
Future Vol, veh/h	569	32	12	546	10	15
Conflicting Peds, #/hr	0	11	0	0	11	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	9	17	1	0	7
Mvmt Flow	618	35	13	593	11	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	664	0	1277	658
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	630	-
Critical Hdwy	-	-	4.27	-	6.4	6.27
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.353	-	3.5	3.363
Pot Cap-1 Maneuver	-	-	858	-	185	456
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	535	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	849	-	179	447
Mov Cap-2 Maneuver	-	-	-	-	319	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	522	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	849	-
HCM Lane V/C Ratio	0.071	-	-	0.015	-
HCM Control Delay (s)	15.1	-	-	9.3	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	159	3	2	176	0	4	0	6	0	0	0
Future Volume (vph)	0	159	3	2	176	0	4	0	6	0	0	0
Adj. Flow (vph)	0	181	3	2	200	0	5	0	7	0	0	0
Lane Group Flow (vph)	0	184	0	0	202	0	0	12	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 24.1%	ICU Level of Service A
Analysis Period (min) 15	

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	159	3	2	176	0	4	0	6	0	0	0
Future Vol, veh/h	0	159	3	2	176	0	4	0	6	0	0	0
Conflicting Peds, #/hr	9	0	5	5	0	9	0	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	3	0	50	3	0	25	0	0	0	0	0
Mvmt Flow	0	181	3	2	200	0	5	0	7	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	209	0	0	189	0	0	401	401	188	399	402	218
Stage 1	-	-	-	-	-	-	188	188	-	213	213	-
Stage 2	-	-	-	-	-	-	213	213	-	186	189	-
Critical Hdwy	4.1	-	-	4.6	-	-	7.35	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.65	-	-	3.725	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1374	-	-	1170	-	-	561	565	921	605	564	827
Stage 1	-	-	-	-	-	-	817	773	-	794	730	-
Stage 2	-	-	-	-	-	-	740	730	-	873	772	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1362	-	-	1165	-	-	553	557	917	595	556	813
Mov Cap-2 Maneuver	-	-	-	-	-	-	553	557	-	595	556	-
Stage 1	-	-	-	-	-	-	813	770	-	787	722	-
Stage 2	-	-	-	-	-	-	733	722	-	867	769	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	10	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	726	1362	-	-	1165	-	-	-
HCM Lane V/C Ratio	0.016	-	-	-	0.002	-	-	-
HCM Control Delay (s)	10	0	-	-	8.1	0	-	0
HCM Lane LOS	B	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	569	47	56	546	17	22
Future Volume (vph)	569	47	56	546	17	22
Adj. Flow (vph)	618	51	61	593	18	24
Lane Group Flow (vph)	669	0	61	593	42	0
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 52.6%		ICU Level of Service A
Analysis Period (min) 15		

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	569	47	56	546	17	22
Future Vol, veh/h	569	47	56	546	17	22
Conflicting Peds, #/hr	0	11	0	0	11	11
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	9	17	1	0	7
Mvmt Flow	618	51	61	593	18	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	680	0	1381	666
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	726	-
Critical Hdwy	-	-	4.27	-	6.4	6.27
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.353	-	3.5	3.363
Pot Cap-1 Maneuver	-	-	846	-	160	451
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	483	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	837	-	145	442
Mov Cap-2 Maneuver	-	-	-	-	283	-
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	443	-

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	355	-	-	837	-
HCM Lane V/C Ratio	0.119	-	-	0.073	-
HCM Control Delay (s)	16.5	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	159	3	2	176	7	4	0	6	44	0	15
Future Volume (vph)	7	159	3	2	176	7	4	0	6	44	0	15
Adj. Flow (vph)	8	181	3	2	200	8	5	0	7	50	0	17
Lane Group Flow (vph)	0	192	0	0	210	0	0	12	0	0	67	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 27.7%	ICU Level of Service A
Analysis Period (min) 15	

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	7	159	3	2	176	7	4	0	6	44	0	15
Future Vol, veh/h	7	159	3	2	176	7	4	0	6	44	0	15
Conflicting Peds, #/hr	9	0	5	5	0	9	0	0	0	0	0	9
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	3	0	50	3	0	25	0	0	0	0	0
Mvmt Flow	8	181	3	2	200	8	5	0	7	50	0	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	189	0	0	430	425	188	419	422	222
Stage 1	-	-	-	-	-	-	204	204	-	217	217	-
Stage 2	-	-	-	-	-	-	226	221	-	202	205	-
Critical Hdwy	4.1	-	-	4.6	-	-	7.35	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.35	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.35	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.65	-	-	3.725	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1365	-	-	1170	-	-	533	547	921	585	549	823
Stage 1	-	-	-	-	-	-	799	760	-	790	727	-
Stage 2	-	-	-	-	-	-	728	724	-	855	759	-
Platoon blocked, %		-	-	1	-	-	1	1	1	1	1	
Mov Cap-1 Maneuver	1353	-	-	1165	-	-	512	535	917	572	537	810
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	535	-	572	537	-
Stage 1	-	-	-	-	-	-	790	752	-	777	719	-
Stage 2	-	-	-	-	-	-	706	716	-	843	751	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	10.3	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	697	1353	-	-	1165	-	-	618
HCM Lane V/C Ratio	0.016	0.006	-	-	0.002	-	-	0.108
HCM Control Delay (s)	10.3	7.7	0	-	8.1	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

South Florida Water Management District
Individual Environmental Resource Permit No. 43-108245-P
Date Issued: February 21, 2023

Permittee: Martin County School District
1939 SE Federal Highway
Stuart, FL 34994

Project: Boys And Girls Club At Stuart Middle School

Application No. 230118-37221

Location: Martin County, See Exhibit 1

Your application for an Individual Environmental Resource Permit is approved. This action is taken based on Chapter 373, Part IV, of Florida Statutes (F.S.) and the rules in Chapter 62-330, Florida Administrative Code (F.A.C.). Unless otherwise stated, this permit constitutes certification of compliance with state water quality standards under section 401 of the Clean Water Act, 33 U.S.C. 1341, and a finding of consistency with the Florida Coastal Management Program. Please read this entire agency action thoroughly and understand its contents.

This permit is subject to:

- Not receiving a filed request for a Chapter 120, F.S., administrative hearing.
- The attached General Conditions for Environmental Resource Permits.
- The attached Special Conditions.
- All referenced Exhibits.

All documents are available online through the District's ePermitting site at www.sfwmd.gov/ePermitting.

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

The District does not publish notices of action. If you wish to limit the time within which a person may request an administrative hearing regarding this action, you are encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Legal requirements and instructions for publishing a notice of agency action, as well as a noticing format that can be used, are available upon request. If you publish a notice of agency action, please send a copy of the affidavit of publication provided by the newspaper to the District's West Palm Beach office for retention in this file.

If you have any questions regarding your permit or need any other information, please call us at 1-800-432-2045 or email epermits@sfwmd.gov.

Jesse Markle, P.E.
Bureau Chief, Environmental Resource Bureau

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

South Florida Water Management District
Individual Environmental Resource Permit No. 43-108245-P

Date Issued: February 21, 2023	**Expiration Date:** February 21, 2028
Project Name:	Boys And Girls Club At Stuart Middle School
Permittee:	Martin County School District 1939 SE Federal Highway Stuart, FL 34994
Operating Entity:	Martin County School District 1939 SE Federal Highway Stuart, FL 34994
Location:	Martin County
Permit Acres:	2.89 acres
Project Land Use:	Government Or Institutional
Special Drainage District:	N/A
Water Body Classification:	CLASS III
FDEP Water Body ID:	3210
Conservation Easement to District:	No
Sovereign Submerged Lands:	No

City of Stuart DEVELOPMENT
Minor Development Approval
Project #: Z22060006 Date: May 16, 2023

Project Summary
This Environmental Resource Permit (ERP) authorizes Construction and Operation of a stormwater management (SWM) system serving 2.89 acres of institutional development for a project known as Boys and Girls Club at Stuart Middle School.

This project will construct new buildings, and supporting infrastructure within the existing Stuart Middle School campus. The SWM system for Stuart Middle School is concurrently under review pursuant to Application No. 230116-37199, for site plan and SWM system modifications. The Stuart Middle School SWM system was designed to include the facilities to be occupied by the Boy's and Girls Club (BGC) as shown in Exhibit No. 2.0. Please refer to the engineering evaluation and Exhibit No. 2.0 for additional details.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062, F.A.C.

Site Description
The site contains several buildings, associated parking areas, SWM system, and recreational fields in Stuart, Martin County. Please refer to Exhibit No. 1 for a location map.

For information on wetland and other surface water (OSW) impacts, please see the Wetlands and OSWs section of this permit.

Legal Issues
Prior to subdivision, platting, or sale of any portion of the site, the permittee will modify the permit to include easements and an appropriate operating entity. Easements shall provide legal access to the project SWM system for operation and maintenance by the permittee. Please refer to Special Conditions.

Background
There is an existing SWM system serving the campus pursuant to Permit No. 43-02250-P, Application No. 080606-7.

Ownership, Operation and Maintenance
Perpetual operation and maintenance of the SWM system will be the responsibility of the Martin County School District. Upon conveyance or division of ownership or control of the property or the system, the permittee must notify the Agency in writing within 30 days, and the new owner must request transfer of the permit.

City of Stuart DEVELOPMENT

Minor Development Approval

Project #: Z22060006 Date: May 16, 2023

Engineering Evaluation:

Land Use
The Stuart Middle School campus is an existing facility. The project is consistent with the construction modifications to the Stuart Middle School pursuant to the concurrent Application No. 230116-37199. The land use data in the data table is provided for informational purposes only. The land use corresponds only to the renovations associated with Basin BGC as shown in Exhibit No. 2.0. Please refer to the Engineering Evaluation Tables for for land use details.

Water Quality
All required water quality treatment is provided by the Stuart Middle School SWM system pursuant to Permit No. 43-108243-P, Application No. 230116-37199.

The project is located within a watershed identified by the Florida Department of Environmental Protection as impaired; therefore, the design includes a site-specific pollutant loading analysis and an additional 50% water quality treatment volume above the amounts required pursuant to Section 4.2.1, ERP Applicant's HAndbook (AH) Volume (Vol.) II, as reasonable assurances that the project's discharge will not cause or contribute to violations of State water quality standards.

The project includes implementation of a Turbidity and Erosion Control Plan, (Exhibit No. 2.0), as additional reasonable assurance of compliance with water quality criteria during construction.

Water Quantity
All required attenuation and flood protection is provided by the Stuart Middle School system pursuant to Permit No. 43-108243-P. Please refer to Exhibit Nos. 2.0 & 2.2 for additional details. The proposed SWM system renovations are described below for informational puposes only.

The Stuart Middle School - Phase 2 project, Permit No. 43-108243-P, will renovate the existing system as follows.

1) Remove the southern portion of the existing exfiltration system and existing dry detention pond.

2) Extend the existing exfiltration system 464 feet, construct a new outfall structure along the eastern property line with construction of an outfall pipe along the east property line to the City of Stuart's wet pond (OS-1).

3) Construct a 48-inch dimater stormwater attenuation and conveyance pipe within the proposed entrance roadway alignment.

4) Construct three new dry retention ponds: Pond B along the school's east property line, interconnected with two dry retention ponds in the south eastern portion of the campus.

Discharge
The project will discharge through the Stuart Middle School facilities pursuant to Permit No. 43-108243-P.

Parking Lot Design
As found in the Water Quantity Data Table, minimum parking lot elevations have been set at or above the calculated design storm flood elevation.

Perimeter Berm
As found in the Water Quantity Data Table, minimum perimeter elevations have been set at or above the calculated design storm flood elevation.

Finished Floors
As found in the Water Quantity Data Table, minimum finished floor elevations have been set at or above the calculated design storm flood elevation.

Certification, Operation, and Maintenance
Pursuant to Chapter 62-330.310, F.A.C., Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

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

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

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

Notable project components requiring routine inspection and maintenance may include but are not limited to:

- Side slopes for stormwater lakes and ponds – maintain side slopes no steeper than 4:1 (horizontal:vertical) to a depth of 2.0 feet below the control elevation and nurtured or planted from 2.0 feet below to 1.0 feet above the control elevation pursuant to Section 5.4.2, ERP AH Vol. II.

- Conveyance pipes, conveyance structures and discharge structures – all pipes and structures must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.

- Exfiltration trenches – all pipes and structures must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.

- Swales – maintain the permitted cross-section and vegetative cover.

- Underground storage facilities – all facilities must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.

- Pumps – float switches should be inspected and any obstructions removed to ensure proper operation; intake and discharge pipes should be maintained clear of trash, sediment and vegetative debris; motors should be maintained to ensure proper operation.

Engineering Evaluation Tables:

Land Use

Basin	Land Type	Area (ac)	% of Total Basin
Basin BGC	Building Coverage	0.88	30.45
	Impervious	0.74	25.61
	Pervious	0.71	24.57
	Dry Retention Bottom	0.21	7.27
	Dry Retention Sides	0.35	12.11
	Total:	2.89	100%

Water Quantity

Basin	Elevation Type	Storm Event (Yr/Day)	Precipitation Depth (in)	Peak Stage (ft NAVD88)	Min. EL (ft NAVD88)
Basin BGC	Finished Floor	100Y3D	13.59	7.59	11.50
	Perimeter Berm/ Discharge	25YR3D	10.87	7.50	9.25
	Parking Lot	10YR1D	6.70	6.37	9.34

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Environmental Evaluation:

Wetlands and OSWs
There are no wetlands or OSWs located within the project site or affected by this project. Work will take place within SWM features that are exempt from delineation pursuant to 62-340.700(5), F.A.C.

Fish, Wildlife, and Listed Species
The project site does not contain significant habitat for wetland-dependent endangered or threatened wildlife species, or species of special concern. No wetland-dependent endangered or threatened species or species of special concern were observed onsite. Submitted information indicates that potential use of the site by such species is minimal.

This permit does not relieve the permittee from complying with all applicable rules and any other agencies' requirements if, in the future, endangered or threatened species or species of special concern are discovered on the site.

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Related Concerns:

Water Use Permit Status
The permittee has indicated that public water supply will be used as a source for irrigation water for the project.

The permittee has indicated that dewatering is not required for construction of this project.

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

Water and Wastewater Service
City of Stuart Utilities

Historical/ Archeological Resources
The District has received correspondence from the Florida Department of State, Division of Historical Resources indicating that no significant archaeological or historical resources are recorded on the project site; therefore, the project is unlikely to have an effect upon any such resources.

This permit does not release the permittee from complying with any other agencies requirements in the event that historical and/or archaeological resources are found on the site.

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General Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.

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

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms, and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
   a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
   b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
   c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations, and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

b. Within 30 days of submittal of the as-built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
   a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
   b. Convey to the permittee or create in the permittee any interest in real property;
   c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
   d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
    a. Immediately if any previously submitted information is discovered to be inaccurate; and
    b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

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Special Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.

1. The construction authorization for this permit shall expire on the date shown on page 2.

2. Operation and maintenance of the SWM system shall be the responsibility of the Martin County School District. The permittee shall notify the Agency in writing within 30 days of any conveyance or division of ownership or control of the property of the system, and the new owner must request transfer of the permit in accordance with Rule 62-330.340, F.A.C.

3. Prior to subdivisoin, platting, or sale of any portion of the site, the permitee will modify the permit to include easements and an appropriate operating entity. Easments shall provide legal access to the project SWM system for operation and maintence by the permittee.

4. Prior to initiating construction activities associated with this ERP, the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors, District Environmental Resource Bureau (ERB) staff, and any other local government entities as necessary. The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties. To schedule a pre-construction meeting, please contact ERB staff from the Okeechobee Service Center at (863) 462-5260 or via e-mail at: precon@sfwmd.gov. When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.

5. This permit does not authorize the permittee to cause any adverse impact to or “take” of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or permittee associated with this project. Please refer to Chapter 68A-27, F.A.C. for definitions of “take” and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a “take” permit cannot be issued. Requests for further information or review can be sent to: FWCConservationPlanningServices@MyFWC.com.

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Project Work Schedule for Permit No. 43-108245-P

The following activities are requirements of this Permit and shall be completed in accordance with the Project Work Schedule below. Please refer to General Conditions, Special Conditions and/or Specific Conditions for more information. Any deviation from these time frames will require prior approval from the District's Environmental Resources Bureau and may require a modification to this permit. Such requests must be made in writing and shall include: (1) reason for the change, (2) proposed start/finish and/or completion dates, and (3) progress report on the status of the project.

Condition No.	Date Added	Description (Application Number)	Due Date	Date Satisfied
GC 4	02/21/2023	Construction Commencement Notice	Prior to Construction	
GC 6	02/21/2023	Submit Certification	30 Days After Construction Completion	
SC 4	02/21/2023	Pre-Construction Meeting	Prior to Construction	

GC = General Condition

SC = Special Condition

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Distribution List

Octavio Oats Reis PE, Bowman Consulting Group LTD

Timothy Voelker, City Of Stuart

Jay Klima PE, Klima Weeks Civil Engineering, Inc

Joe Capra, PE, Captec Engineering, Inc

US Army Corps of Engineers - Permit Section

Martin County Board of County Commissioners

Martin County Board of County Commissioners

Martin County Engineering Department

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Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website at http://my.sfwmd.gov/ePermitting and searching under this application number 230118-37221.

Exhibit No. 1.0 Location Map

Exhibit No. 2.0 Construction Plans

Exhibit No. 2.1 SWM Statement

Exhibit No. 2.2 Basin Map

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NOTICE OF RIGHTS

As required by Chapter 120, Florida Statutes, the following provides notice of the opportunities which may be available for administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, or judicial review pursuant to Section 120.68, Florida Statutes, when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Some of the legal proceedings detailed below may not be applicable or appropriate for your situation. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

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

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

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

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

FILING INSTRUCTIONS

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

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.

- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the District's security desk does not constitute filing. It will be necessary to request that the District's security officer contact the Office of the District Clerk. An employee of the District's Clerk's office will receive and process the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document.

INITIATION OF ADMINISTRATIVE HEARING

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

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

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Florida Statutes, and Rules 28-106.111 and 28-106.401–.405, Florida Administrative Code. The District is not proposing mediation for this agency action under Section 120.573, Florida Statutes, at this time.

RIGHT TO SEEK JUDICIAL REVIEW

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

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