AMENDMENT TO THE UNINCORPORATED BROWARD COUNTY AND BROWARD COUNTY LAND USE PLANS

(FUTURE LAND USE MAP AMENDMENT)

Case No. TBD

LOCHRIE & CHAKAS P.A.	**Owner:** City of Fort Lauderdale **Agents:** Robert B. Lochrie III, Esq. | Nectaria M. Chakas, Esq. Lochrie & Chakas, P.A. 699 N. Federal Highway Fort Lauderdale, Florida 33304 RLochrie@LochrieLaw.com or NChakas@LochrieLaw.com

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I. Transmittal Information

A. Letter of transmittal from municipal mayor or manager documenting that the local government took action by motion, resolution or ordinance to transmit a proposed amendment to the Broward County Land Use Plan, including the date that the local governing body held the transmittal public hearing. Please attach a copy of the referenced motion, resolution or ordinance. The local government's action to transmit must include a recommendation of approval, denial or modification regarding the proposed amendment to the Broward County Land Use Plan.

Applicant's Response: To be provided.

B. Name, title, address, telephone number and e-mail address of the local government contact person.

Applicant's Response:

Heather E. Cuniff, AICP
Planning Section Supervisor
Broward County Planning and Redevelopment Division
Environmental Protection and Growth Management Department
115 S. Andrews Avenue, Room 329K
Fort Lauderdale, Florida 33301
Phone: 954-357-6635
hcunniff@broward.org

C. Summary minutes from both the local planning agency and the local government public hearings of the transmittal of the Broward County Land Use Plan amendment.

Applicant's Response: To be provided.

D. Description of public notification procedures followed for the amendment by the local government, including notices to surrounding property owners, advertisements in local publications, signage at proposed site, etc.

Applicant's Response: The Applicant has hosted and attended several meetings with the Broadview Park Association over the past 3 years and will continue to do so.

E. Whether the amendment is one of the following:

*Development of Regional Impact
*Small-scale development (Per Chapter 163.3187 Florida Statutes)
*Emergency (Please describe on separate page)

Applicant's Response: Small-scale development. The proposed amendment involves a use of 50 acres or fewer and does not involve a text change to the goals, policies, and objectives of the local government's comprehensive plan.

II. Applicant Information

A. Name, title, address, telephone number and e-mail address of the applicant.

Applicant's Response:

Tam A. English, Executive Director
Housing Authority of City of Fort Lauderdale
437 SW 4th Avenue
Fort Lauderdale, Florida 33315
T: 954-556-4100 ext. 2105
tenglish@hacfl.com

B. Name, title, address, telephone number and e-mail address of the agent.

Applicant's Response:

Robert B. Lochrie III, Esq. | Nectaria M. Chakas, Esq.
Lochrie & Chakas, P.A.
699 N. Federal Highway
Fort Lauderdale, Florida 33304
T: 954-779-1119

C. Name, title, address, telephone number and e-mail address of the property owner(s).

Applicant's Response:

Tam A. English, Executive Director
Housing Authority of City of Fort Lauderdale
437 SW 4th Avenue
Fort Lauderdale, Florida 33315
T: 954-556-4100 ext. 2105
tenglish@hacfl.com

D. Applicant's rationale for the amendment. The Planning Council requests a condensed version for inclusion in the staff report (about two paragraphs). Planning Council staff may accept greater than two paragraphs, if submitted in an electronic format.

Applicant's Response: The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential. A similar application was submitted in 2021 as part of a proposal for a 553-unit multifamily development on the same site. Since then, the site plan has been updated to improve compatibility with surrounding land uses and to enhance the overall layout of the development. These updates include the addition of 34 single-family home lots and a reduction in multi-family units to 513. The development will continue to provide a mix of workforce and affordable housing for low to moderate-income households.

The subject site encompasses approximately 39.4 acres and is located on the south side of Peters Road, east of S.W. 46th Avenue, in unincorporated Broward County. The site is currently vacant, except for a tree canopy.

To the west is the single-family neighborhood of Broadview Park, and to the east is a mix of single-family and one-story multi-family (e.g., duplexes) with a density designation of 16 du/a. The chart below illustrates the adjacent future land uses.

Adjacent Land Uses		
	Local FLU	**County FLU**
North	Low (5) Residential (Plantation)	Low (5) Residential
South	Community Facilities	Community
East	R-OS; Medium (16) Residential	R-OS; Medium (16) Residential
West	Low (5) Residential	Low (5) Residential

The proposed development aims to create a smooth transition between the existing neighborhoods and the new project. It is proposed not to exceed 3 stories/35', which is an appropriate transition from the adjacent residential uses, as well as the fire station and elementary school to the south.

The west portion of the site will consist of single-family homes, designed to be compatible with the adjacent single-family neighborhood. The east portion, with its multifamily units, will complement the nearby residential developments of a similar density. The overall development is also compatible with existing and future land uses in the general vicinity, which largely consists of residential uses.

Development of the site will comply with Broward County's Land Development Regulations, which ensure compatibility through appropriate setbacks and buffers between uses.

III. Amendment Site Description

A. Concise written description of the general boundaries and gross acreage (as defined by the BCLUP) of the proposed amendment.

Applicant's Response: The proposed amendment site contains approximately 39.4 gross acres. The amendment site is generally situated on the south side of Peters Road and east side of S.W. 46th Avenue in Unincorporated Broward County.

B. Original sealed survey, including legal description. (Digital scans are not acceptable.)

Applicant's Response: See Attachment I: Survey and Legal Description.

C. Map at scale clearly indicating the amendment's location, boundaries and proposed land uses.

Applicant's Response: See Exhibit A

IV. Existing and Proposed Uses

A. Current and proposed local and Broward County Land Use Plan designation(s) for the amendment site. If multiple land use designations, describe gross acreage within each designation. For Activity Center amendments, the proposed text indicating the maximum residential and non-residential uses must be included.

Applicant's Response: See chart below.

Table 1 CURRENT & PROPOSED LAND USE		
	Local (BMSD)	**County**
Current	Utilities	Community
Proposed	Medium 16	Medium 16

B. Indicate if the flexibility provisions of the Broward County Land Use Plan have been used for the amendment site or adjacent areas.

Applicant's Response: Flexibility provisions have not been used for adjacent areas.

C. Existing use of amendment site and adjacent areas.

Applicant's Response: See chart below.

Table 2 EXISTING USES	
Subject Site	Vacant
North	ROW (Peters Rd); Single-Family
South	Fire Station, Elementary School
East	ROW (SW 46th Avenue); Residential Single-Family; Ft. Lauderdale Police Association Lodge
West	Single-Family; Multi-Family

D. Proposed use of the amendment site including proposed square footage (for analytical purposes only) for each non-residential use and/or dwelling unit count. For Activity Center amendments, also provide the existing square footage for each non-residential use and existing dwelling unit count within the amendment area.

Applicant's Response: The proposed Medium (16) Residential land use would permit a maximum 630 dwelling units (39.4 acres x 16 DUs / acre). Development on the site will comply with the Local Land Development Regulations.

E. Maximum allowable development per adopted and certified municipal land use plans under existing designation for the site, including square footage/floor area ratio/lot coverage/height limitations for each non-residential use and/or dwelling unit count.

Applicant's Response: The existing land use designation for the site is Utilities. The site is +/- 39.4 gross acres. Utilizing the Broward County Planning Council standard of 10,000 square feet per acre for non-residential uses, the current maximum allowable development on the site is 394,000 square feet of utilities.

V. Analysis of Public Facilities and Services

The items below must be addressed to determine the impact of an amendment on existing and planned public facilities and services. Provide calculations for each public facility and/or service.

If more than one amendment is submitted, calculations must be prepared on an individual and cumulative basis.

A. Potable Water Analysis

1. Provide the potable water level of service per the adopted and certified local land use plan.

   Applicant's Response: The subject site is within the Broward County Water & Wastewater Services service area, District 1. The level of service standard is 150 gpcd.

2. Provide the adoption date of the local government's 10 Year Water Supply Facilities Plan.

   Applicant's Response: April 2020

3. Identify the potable water facility serving the area in which the amendment is located including the current plant capacity, current and committed demand on the plant and planned plant capacity expansions, including year and funding sources. Identify the wellfield serving the area in which the amendment is located including the South Florida Water Management District (SFWMD) permitted withdrawal and expiration date of the SFWMD permit.

   District 1 raw water is treated at the District 1 WTP located in the City of Lauderdale Lakes prior to distribution to retail customers.

Table 3 CURRENT PLANT CAPACITY & DEMAND-POTABLE WATER Broward County District 1 Water Treatment Plant	
Current Plant Capacity	16.00 MGD
Current + Committed Plant Demand	7.16 + 2.11 = 9.27 MGD
SFWMD Permitted Withdrawal	10 MGD
Expiration Date of SFWMD Permit	2028
Planned Expansions	None

   Wellfields: The BCWWS – District 1 wellfield contains nine wells with a total design capacity of approximately 23.5 MGD. Pursuant to the SFWMD CUP No. 06-00146-W issued in April 2008 for a 20-year permit duration, the maximum month and average annual daily withdrawals allowed from the District 1 SAS wellfield are 280 MG per Month (MGM) and 9.2 MGD, respectively.

4. Identify the net impact on potable water demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot or dwelling unit.

Table 4 POTABLE WATER IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq ft Utilities	N/A	= 0 GPD
PROPOSED	513 MF DUs 34 SF DUs	x 141 gpd/unit x 199 gpd/unit	= 72,333 GPD = 6,766 GPD
		Net Change	**+79,099 GPD**

5. Correspondence from potable water provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

   Applicant's Response: See Attachment II: Potable Water Correspondence and below.

   Nestor M. Berrios, PE, MECE, PMP
   Planning and Development Section
   Water and Wastewater Engineering Division
   2555 W. Copans Road, Pompano Beach, FL 33069
   nberrios@broward.org

B. Sanitary Sewer Analysis

1. Provide the sanitary sewer level of service per the adopted and certified local land use plan.

   Applicant's Response: Applicant's Response: Per the Broward County Water Management Element, the LOS standard for the regional wastewater system is the obligation of the County as described in the contractual agreements with its customers. The Agreements specify that the Regional Wastewater System will treat and dispose of all wastewater delivered to it. System annual average flows and reserve capacities for Districts 1 & 2 are 14.01 MGD and 16.71 MGD, respectively.

2. Identify the sanitary sewer facility serving the area in which the amendment is located including the current plant capacity, current and committed demand on the plant and planned plant capacity expansions, including year and funding sources.

Table 5 SANITARY SEWER DEMAND AND CAPACITY Broward County North Regional Wastewater Treatment Plant	
Plant Capacity	95 MGD
Current + Committed Demand	72.9 + 5.01 = 77.91 MGD
Planned Plant Capacity	95 MGD
Planned Expansions	None. Projections indicate sufficient capacity.
Source: Broward County Wastewater Treatment Plant Flow Calculations through	

3. Identify the net impact on sanitary sewer demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot* or dwelling unit.

Table 6 SANITARY SEWER IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq ft Utilities	N/A	= 0 GPD
PROPOSED	513 MF DUs 34 SF DUs	X 100 gpd/unit X 142 gpd/unit	= 51,300 GPD = 4,828 GPD
		Net Change	**+56,128 GPD**
Broward County Guidelines for Determining Ability to Provide Potable Water and Wastewater Service			

4. Correspondence from sanitary sewer provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

   Applicant's Response: See Attachment III: Sanitary Sewer Correspondence and below.

   Nestor M. Berrios, PE, MECE, PMP
   Planning and Development Section
   Water and Wastewater Engineering Division
   2555 W. Copans Road, Pompano Beach, FL 33069
   nberrios@broward.org

C. Solid Waste Analysis

1. Provide the solid waste level of service per the adopted and certified local land use plan.

   Applicant's Response:

Facility Type	Generation Per Day
Residential	**8.9 lbs. per unit**
Factory/Warehouse	**2 lbs. per 100 square feet**
Office buildings	**1 lb. per 100 square feet**
Retail/service	**4 lbs. per 100 square feet**
Supermarket	**9 lbs. per 100 square feet**
Grade School	**10 lbs. per room & ¼ per pupil**
High School	**8 lbs. per room & ¼ per pupil**
Hospital	**8 lbs. per bed**
Nursing Home	**3 lbs. per person**
Hotel/motel	**3 lbs. per room**

2. Identify the solid waste facility serving the service area in which the amendment is located including the landfill/plant capacity, current and committed demand on the landfill/plant capacity and planned landfill/plant capacity.

   Applicant's Response: The BMSD has contracted with Coastal Waste & Recycling.

SOLID WASTE FACILITIES	
Facility name:	**WIN/Wheelabrator**
Capacity:	**800,000 tons / yr.**
Current + Committed Demand	**750,000 tons / yr.**
Planned Capacity:	**800,000 tons / yr.**

3. Identify the net impact on solid waste demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot or dwelling unit.

Applicant's Response: See chart below.

TABLE 7 SOLID WASTE IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq. ft. Utilities	N/A	= 0 lbs. / day
PROPOSED	547 DUs	X 8.9 lbs./unit/day	= 5,607 lbs. / day
		Change	**+5,607 lbs./day**

4. Correspondence from the solid waste provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

Applicant's Response: See Attachment IV: Solid Waste Correspondence and below.

Name:	John Casagrande	
Title:	Vice President, Business Development	
Agency:	Coastal Waste & Recycling, Inc.	
Phone:	954-947-4000	Email: jcasagrande@costalwasteinc.com

D. Drainage Analysis

1. Provide the drainage level of service per the adopted and certified local land use plan.

Subject Adopted Drainage Level of Service Standards	
Road Protection	Residential streets not greater than fifty feet wide rights-of-way to have crown elevations no lower than the elevation for the respective area depicted on the ten year "FEMA Flood Map". Rights-of-way greater than fifty feet wide to have an ultimate edge of pavement no lower than the elevation for the respective area depicted on the ten year "FEMA Flood Map".
Building Elevations	To have the lowest floor elevation no lower than the elevation for the respective area depicted on the "100 Year Flood Elevation Map", the FEMA Base Flood Elevation for the area or the site-specific 100-yr, 3-day design storm stage, whichever is highest. Off Site Discharge Not to exceed the inflow limit of SFWMD primary receiving canal or the local conveyance system, whichever is less.

Storm Sewers	Design frequency minimum to be three-year rainfall intensity of the State Department of Transportation Zone 10 rainfall curves.
Flood Plain Routing	Calculated flood elevations based on the ten-year and one hundred-year return frequency rainfall of three day duration shall not exceed the corresponding elevations of the ten year "FEMA Flood Map" and the "100-Year Flood Elevation Map."
Antecedent Water Level	The elevation depicted on the map "Average Wet Season Water Levels".
On Site Storage	Minimum capacity above antecedent water level and below flood plain routing elevations to be design rainfall volume minus off site discharge occurring during design rainfall, except for the 100-yr, 3-day design storm event, which is zero discharge.
Water Quality	Prior to discharge to surface or ground water, 80% or 95% reductions in pollutant load must be achieved based on the rebuttable presumptions of the water quality treatment criteria.

a) Storm event analysis:
    a. Broward County Parking Lot Protection – 5-yr, 1-day
    b. Road Protection – 10-yr, 1-day and 10-yr, 3-day
    c. Attenuation Requirement – 25-yr, 3-day
    d. Flood Protection – 100-yr, 3-day (zero discharge).
b) Finished Floor Elevation requirements (also check the Broward County Future Conditions 100-year Flood Map 2060).
c) Highest of the following:
    a. Plate WM 2.1 – Average Wet Season Groundwater Elevation
    b. Plate WM 2.2 – 2060 Future Conditions Average Wet Season GW Elevation
    c. Plate WM 2.3 – 2070 Future Conditions Average Wet Season GW Elevation
d) Check existing licenses SWM2007-153-0 and SWM 2007-153-2 for requirements and possible conflicts.

2. Identify the drainage district and drainage systems serving the amendment area.

   Applicant's Response: The project is not within a drainage district. Drainage is accomplished through a series of runoff from streets, parking lots, driveways, lawns, and other saturated surfaces channeled via retention and detention ponds, ditches, culverts, and storm sewers into the primary drainage system, i.e. to the Atlantic Ocean, Intracoastal Waterway and Dade County water bodies, and in a limited number of cases to the Everglades.

3. Identify any planned drainage improvements, including year, funding sources and other relevant information.

   Applicant's Response: The existing drainage system has sufficient capacity to provide stormwater management for the service area. There are no planned drainage improvements for this area. All improvements required to meet the adopted level of service will be installed in conjunction with new development.

4. Indicate if a Surface Water Management Plan has been approved by, or an application submitted to, the SFWMD and/or any independent drainage district, for the amendment site.

Identify the permit number(s), or application number(s) if the project is pending, for the amendment site. If an amendment site is not required to obtain a SFWMD permit, provide documentation of same.

Applicant's Response: A Surface Water Management Permit has not been issued for the site but appropriate permits will be obtained.

5. If the area in which the amendment is located does not meet the adopted level of service and there are no improvements planned (by the unit of local government or drainage authority) to address the deficiencies, provide an engineering analysis which demonstrates how the site will be drained and the impact on the surrounding properties.
   The information should include the wet season water level for the amendment site, design storm elevation, natural and proposed land elevation, one-hundred-year flood elevation, acreage of proposed water management retention area, elevations for buildings, roads and years, storage and runoff calculations for the design storm and estimated time for flood waters to recede to the natural land elevation.

   Applicant's Response: Development within the site will be required to meet the drainage standards of Broward County and the South Florida Water Management District. The subject site will meet the level of service when development of the site is complete.

6. Correspondence from local drainage district verifying the information submitted in items 1-5 above. Correspondence must contain name, position and contact information of party providing verification.

   Applicant's Response: See <u>Attachment V: Drainage Correspondence</u> and below.

   Susan Juncosa
   Broward County Water and Wastewater Services
   Water Management Division
   2555 W. Copans Road
   Pompano Beach, FL 33069
   sjuncosa@broward.org

E. <u>Recreation and Open Space Analysis</u>

1. Provide the recreation and open space level of service per the adopted and certified local land use plan.

   Applicant's Response: The adopted level of service for recreation and open space is 3 acres per 1,000 residents.

2. For amendments which will result in an increased demand for "community parks" acreage, as required by the Broward County Land Use Plan, an up-to-date inventory of the municipal community parks inventory must be submitted.

   Applicant's Response: Below is an inventory of local parks in the BMSD which is also included in Attachment VI. Sunview Park and Washburn Park are in the vicinity of the subject site.

Name	Acres	Address
Boulevard Gardens Community Center	1.31	313 NW 28th Terrace
Delevoe Park	28.14	2520 NW 6th Street
Dillard Park Green Space	3.93	NW 27th Avenue
Franklin Park	3.07	2501 Franklin Park Drive
Lafayette Hart Park	2.66	2851 NW 8th Road
Lewis-Chisolm Park	0.44	2620 NW 8th Street
Roosevelt Gardens Park	5.43	2841 NW 11th Street
Sewell Lock	4.03	Davie Road
South Fork Canoe Launch	0.47	SR 7 and Dania Cutoff Canal
Sunview Park	21.27	1500 SW 42nd Street
Washburn Park	0.64	1955 SW 50th Avenue

3. Identify the net impact on demand for "community parks" acreage, as defined by the Broward County Land Use Plan, resulting from this amendment.

Table 8
PARK IMPACT

	USE	RATE/CALCULATION	TOTAL
CURRENT	394,000 sq ft Utilities	N/A	=0 ac
PROPOSED	547 DUs	X 2.0 ppl per unit x .003	=3.28 ac
		Net Change	**+3.28 ac**

Estimated Number per Gross Acre of Persons per Residential Land Area Dwelling Unit

From 0 up to 1	3.3
Over 1 up to 5	3.0
Over 5 up to 10	2.5
Over 10 up to 16	2.0
Over 16 up to 25	1.8
Over 25 up to 50	1.5

(Source: Broward County Land Use Plan)

4. Identify the projected "community parks" acreage needs based on the local government's projected build-out population.

Applicant's Response: Please see Attachment VI: Inventory of Local Parks, which states the current level of service is 4.8 acres per thousand and therefore exceeds the level of service for parks and recreation.

5. As applicable, describe how the local government and/or applicant are addressing Broward County Land Use Plan Policies 2.5.4 and 2.5.5 (a. through e.), regarding the provision of open space.

Applicant's Response: Not applicable.

F. Traffic Circulation Analysis

Please be advised, if required, that the Planning Council staff will request from the Broward Metropolitan Planning Organization (MPO), as per Policy 2.14.6 of the BCLUP, an analysis of the impacts of the amendment to the regional transportation network. The MPO will charge a separate cost-recovery fee directly to applicants for technical assistance requested by the Planning Council for the preparation and review of the land use plan amendment transportation analysis. Please contact the MPO for additional information regarding this fee.

1. Identify the roadways impacted by the proposed amendment and indicate the number of lanes, current traffic volumes, adopted level of service and current level of service for each roadway.

   Applicant's Response: See Attachment VII: Traffic Analysis

2. Identify the projected level of service for the roadways impacted by the proposed amendment for the long-range planning horizon. Please utilize average daily and p.m. peak hour traffic volumes per Broward Metropolitan Planning Organization (MPO) plans and projections.

   Applicant's Response: **See Attachment VII: Traffic Analysis**

3. Planning Council staff will analyze traffic impacts resulting from the amendment. The applicant may provide a traffic impact analysis for the amendment – calculate anticipated average daily and p.m. peak hour traffic generation for the existing and proposed land use designations. If the amendment reflects a net increase in traffic generation, identify access points to/from the amendment site and provide a distribution of the additional traffic on the impacted roadway network for the long-range planning horizon.

   Applicant's Response: See Attachment VII: Traffic Analysis

4. Provide any relevant transportation studies relating to this amendment, as applicable.

   Applicant's Response: See Attachment VII: Traffic Analysis

G. Mass Transit Analysis

1. Identify the mass transit modes, existing and planned mass transit routes and scheduled service (headway) serving the amendment area within one-quarter of a mile.

   Applicant's Response: Broward County Transit route 30 serves the amendment site along Peters Road and operates on +/- 30-minute headways Monday-Saturday and +/- 45-minute headways on Sunday.

2. Describe how the proposed amendment furthers or supports mass transit use.

   Applicant's Response: The subject site supports the utilization of mass transit by developing along and near roadways which are located within ¼ mile of mass transit services.

3. Correspondence from transit provider verifying the information submitted in items 1-2 above. Correspondence must contain name, position and contact information of party providing verification.

   Applicant's Response: See Attachment VIII: Mass Transit Correspondence and below:

Name:	Daniel Cohen
Agency:	Broward County Transit Division
Position:	Service Planner
Email:	dacohen@broward.org
Address:	115 S. Andrews Avenue, Fort Lauderdale, FL 33301
Phone:	954-357-6605

H. Public Education Analysis

Please be advised that the Planning Council staff will request from The School Board of Broward County (SBBC), as per Policy 2.15.2 of the BCLUP, an analysis of the impacts of the amendment on public education facilities. Per SBBC Policy 1161, the applicant will be subject to a fee for the analysis and review of the land use plan application. The applicant should contact the Growth Management Section of the SBBC to facilitate this review and determine the associated fees.

Meadowbrook Elementary, Parkway Middle, and South Plantation High School serve the subject site. The table below depicts enrollment and capacity information for those schools.

School	Benchmark Enrollment	Gross Capacity	Over + Under -
Meadowbrook Elementary	725	809	-84
Parkway Middle	1,118	2,215	-1,097
South Plantation High	2,281	2,543	-262
Source: SBBC Planning Tool for enrollment assessed October 2024			

1. Public School Impact Application.

   Applicant's Response: Please see Attachment IX: Public School Impact Application.

2. The associated fee in the form of a check made payable to the SBBC.

   Applicant's Response: To be provided.

VI. Analysis of Natural and Historic Resources

Indicate if the site contains, is located adjacent to or has the potential to impact any of the natural and historic resource(s) listed below, and if so, how they will be protected or mitigated. Planning Council staff will request additional information from Broward County regarding the amendment's impact on natural and historic resources.

A. Historic sites or districts on the National Register of Historic Places or locally designated historic sites.

Applicant's Response: A review of the Records of the Florida Department of State, Division of Historical Resources, Broward County Historical Commission, and the local Comprehensive Plan indicates that no known historical resources are located on or adjacent to the site. In addition, an Archaeological Assessment of the site has revealed no historical resources on this site.

B. Archaeological sites listed on the Florida Master Site File.

Applicant's Response: A review of the Records of the Florida Department of State, Division of Historical Resources, Broward County Historical Commission, and the local Comprehensive Plan indicates that no known archeological sites are located on the site. In addition, an Archaeological Assessment of the site has revealed no historical resources on this site.

C. Wetlands.

Applicant's Response: No known wetlands are located on or adjacent to the site.

D. Local Areas of Particular Concern as identified within the Broward County Land Use Plan.

Applicant's Response: The subject site is designated on Broward County's Environmental Sensitive Lands Map, Map label #80/Site Name #78 as LAPC, NRA, Urban Wilderness Inventory: City Preserve, Sites on Inventory for Review. The proposed plan will preserve the areas that continue to provide suitable LAPC, NRA, UWI conditions.

E. Priority Planning Area map and Broward County Land Use Plan Policy 2.21.1 regarding sea level rise.

Applicant's Response: A review of the Priority Planning Area Map indicates the subject site is not located within a Priority Planning Area.

F. "Endangered" or "threatened species" or "species of special concern" or "commercially exploited" as per the Florida Fish and Wildlife Conservation Commission (fauna), the U.S. Fish and Wildlife Service (flora and fauna), or the Florida Department of Agriculture and Consumer Services (fauna). If yes, identify the species and show the habitat location on a map.

Applicant's Response: There are no known endangered or threatened species or species of special concern known to inhabit the subject site. A companion Environmental Assessment, EIR, and Wetland Determination report is being submitted.

G. Plants listed in the Regulated Plant Index for protection by the Florida Department of Agriculture and Consumer Services.

Applicant's Response: The applicant is not aware of any listed species on the site. A companion Environmental Assessment, EIR, and Wetland Determination report is being submitted. Several assessments of the site have not identified any listed species on the site. A copy of the Environmental Assessment for this site is attached.

H. Wellfields – indicate whether the amendment is located within a wellfield protection zone of influence as defined by Broward County Code, Chapter 27, Article 13 "Wellfield Protection." If so, specify the affected zone and any provisions which will be made to protect the wellfield.

Applicant's Response: The subject site is located within a Wellfield Zone. A well sitting study for the site has been completed. The report identifies the location for the wells within the subject site and the area required to be set aside for the development, operation, and maintenance of future wells.

See Study included as Attachment X.

I. Soils – describe whether the amendment will require the alteration of soil conditions or topography. If so, describe what management practices will be used to protect or mitigate the area's natural features.

Applicant's Response: Any site alterations that may be necessary will meet applicable government regulations.

J. Beach Access – Indicate if the amendment site fronts the ocean or would impact access to public beaches. If so, describe how public beach access will be addressed.

Applicant's Response: The subject site is not ocean front.

VII. Affordable Housing

Describe how the local government is addressing Broward County Land Use Plan Policy 2.16.2, consistent with Article 5 of this Document.

Applicant's Response: The applicant proposes to develop 513 multifamily dwelling units and 34 single-family dwelling units, consisting of a mix of affordable and workforce units for low to moderate income households.

VIII. Land Use Compatibility

Describe how the amendment is consistent with existing and planned future land uses in the area (including adjacent municipalities and/or county jurisdictions). Identify specific land development code provisions or other measures that have or will be utilized to ensure land use compatibility.

Applicant's Response: The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential.

The proposed residential is compatible with existing uses and future land uses both adjacent to the site and in the general vicinity, which consists largely of residential uses. Specifically, adjacent to the west is a single-family neighborhood known as Broadview Park and to the east is a mix of single-family residential and 1-story multi-family residential (e.g., duplexes).

The proposed development site features single-family homes on the west for compatibility with similar adjacent development and multi-family development on the east site of the site will be compatible with the multi-family development to the east of the site.

IX. Hurricane Evacuation Analysis

(Required for those land use plan amendments located in a hurricane evacuation zone as identified by the Broward County Emergency Management Division). Provide a hurricane evacuation analysis based on the proposed amendment, considering the number of permanent and seasonal residential dwelling units (including special residential facilities) requiring evacuation, availability of hurricane shelter spaces, and evacuation routes and clearance times. The hurricane evacuation analysis shall be based on the best available data/modeling techniques as identified by the Broward County Emergency Management Division.

Applicant's Response: The amendment site is not located in a hurricane evacuation zone.

X. Redevelopment Analysis

Indicate if the amendment is located in an identified redevelopment area (i.e., Community Redevelopment Agency, Community Development Block Grant). If so, describe how the amendment will facilitate redevelopment and promote approved redevelopment plans.

Applicant's Response: The subject site is not located within a CRA.

XI. Intergovernmental Coordination

Indicate whether the proposed amendment site is adjacent to other local governments.

Applicant's Response: The subject site is within Broward Municipal Services District (Unincorporated). The City of Plantation is to the north and west. The City of Fort Lauderdale is to the east.

XII. Public Outreach

Describe how the applicant and/or local government notified and coordinated with adjacent property owners, master associations, homeowner associations, etc.

Applicant's Response: The Applicant has hosted and attended several meetings with the Broadview Park Association over the past 3 years and will continue to do so.

XIII. Describe Consistency with Highlighted Regional Issues and Policies of the Broward County Land Use Plan

Highlighted Regional Issues – Affordable Housing Vision

- STRATEGY AH-2: Support private, non-profit, and governmental sector development of housing which utilizes construction techniques affording significant costs savings, while meeting the Florida Building Codes, including resiliency to hurricane-level storms.

- STRATEGY AH-3: The Broward County Land Use Plan shall include an Affordable Housing Bonus Density Bonus Program, including promoting a supply of smaller, traditionally affordable units, such as efficiency/studio occupancy units.

  Implementation strategies include:

  The affordable housing bonus for market rate units may be higher if the developer commits to including "very low" or "low" income housing units in comparison to constructing "moderate" income units.

  Bonuses may also be higher if the affordable units are located in areas preferred for (re)development near transit and rail stations, or are part of projects which will further additional land use plan priorities.

Bonus affordable housing units will be restricted to remain as such for a defined period in exchange for the bonus market rate units.

Smaller "efficiency" or "studio" units, which have often been served a demand for affordable units, will be addressed as part of a "bonus density" program.

Additional Broward Next Policies:

- POLICY 2.20.2 Provide a range of housing opportunities and choices, including those in the "medium" to "high" densities where compatible with the physical location and services needs of residents in all age and income groups.

  Additionally, we have reviewed the Broward Municipal Services District (BMSD) Land Use and Community Planning document and find the proposed LUPA to be consistent with the below policies:

- POLICY BMSD 1.1.7 Future land uses shall be compatible with adjacent land uses and shall protect existing single-family neighborhoods from incompatible development.
- POLICY BMSD 1.2.1 Future land use amendments shall include the minimum amount of land needed to ensure:

  1. Adequate facilities and services are available to support the uses.
  2. The site is suitable for the proposed use.
  3. Mobility options of the site are suitable for the proposed use and are designed using Complete Streets Principles outlined in the Transportation Element.
  4. Urban Sprawl is discouraged.
  5. Sufficient affordable housing is provided to meet the needs of the area.
  6. The proposed use is compatible with surrounding uses.

- POLICY BMSD 3.1.4 Broward County will regulate development in Broadview Park through the administration of the Comprehensive Plan, Land Development Code, and Zoning Code.

- POLICY BMSD 3.1.6 Broward County shall continue to work with the Broadview Park neighborhood to seek public input on plans, projects, programs, and activities through the following:

  1. Providing outreach activities related to the development of plans, projects, and programs, including organizing workshops.
  2. Staff participation at meetings of the civic association and community groups.
  3. Providing notice of public hearings related to proposed zoning code/map, future land use policies/map, and Land Development Code amendments.
  4. Coordinating educational workshops on how to perform basic home improvement projects, beginning with installing smoke detectors.

XIV. Additional Support Documents

A. Other support documents or summary of support documents on which the proposed amendment is based.

Applicant's Response: None at this time.

B. Any proposed voluntary mitigation draft agreements.

Applicant's Response: Not applicable.

XV. Plan Amendment Copies

Provide 3 hard copies and 3 digital copies (6 copies total) of the amendment application.

Applicant's Response: To be provided with transmittal.

Section 1

Notarized Application Form

Resilient Environment Department
URBAN PLANNING DIVISION
1 N. University Drive, Box 102 • Plantation, FL 33324 • 954-357-5657 • Broward.org/Planning

Broward Municipal Services District (BMSD)
Future Land Use Map (FLUM)
Small-Scale Amendment Application

1. Amendment Review
Prior to completing an application for a Small-Scale FLUM amendment, applicants are requested to review the proposed amendment with the following agencies:

- **Broward County Urban Planning Division, Comprehensive Planning Section •954-357-5657**
- **Broward County Planning Council •954-357-6699**

2. Submitting Your Application
Please submit two printed copies of your application and include the appropriate map amendment fee *(see fee schedule below)*. Per Section 40-5 of the Broward County Administrative Code, this fee is subject to increase each fiscal year. Checks should be made payable to *Broward County Board of County Commissioners* and must be drawn on a bank within the State of Florida. In addition to the printed copies, please provide a digital copy via email or compact disc (CD).

FY20	FY21	FY22	FY23	FY24	FY25
10/1/19 – 9/30/20	*10/1/20 – 9/30/21*	*10/1/21 – 9/30/22*	*10/1/22 – 9/30/23*	*10/1/23 – 9/30/24*	*10/1/24 – 9/30/25*
$5,600	**$5,800**	**$6,100**	**$6,400**	**$6,700**	**$7,100**

Note: fee increases are based on percentages and rounded to the nearest $100

3. The Process
After you submit your application, it will be reviewed by several County agencies, in accordance with an established public hearing schedule.

Principals involved in an application for a FLUM amendment are notified of each public hearing at least 10 days prior to each hearing. Applicants and/or their agents are requested to be present at all hearings.

All information and case files concerning application for a FLUM amendment is public record and available for inspection at the Broward County Planning and Development Management Division.

Processing Information
Small-scale amendments to the Future Land Use Map *(FLUM)* are 10 acres or less in size. Certain other limitations may apply in accordance with Chapter 163, Part II, Florida Statutes. Small-scale amendments may be completely processed in approximately nine (9) months. The amendment application form for small-scale amendments to the FLUM does not require as much detail as the form for regular (larger scale) amendments. however, additional information may be required in order to assess potential impacts of the amendment. Many County agencies will review this application to identify various planning considerations, such as the impacts upon public facilities and services, natural and historic resources, hurricane evacuation and redevelopment. Amendments proposing densities great than 10 DU/AC or more than 100 residential units shall apply using the application for Regular Amendments.

Urban Planning Division

The Urban Planning Division *(UPD)* is responsible for coordinating the first phase of the review process, which takes approximately three (3) months. This involves soliciting written comments from numerous County agencies which have a role in the development review process, as well as adjacent municipalities when appropriate. The UPD reviews all the comments and information provided in the application to assess the proposal and form a recommendation of approval, approval with changes, or denial. The staff recommendation is provided in a written report to the Resilient Environment Department *(RED)* Local Planning Agency *(LPA)* at a public hearing on the proposed amendment. If outstanding issues are identified which are the basis for a recommendation of approval with changes or denial, staff will provide the opportunity for the applicant to address the issues, prior to making an official recommendation to the LPA.

RED Local Planning Agency

The Local Planning Agency *(LPA)* is responsible for holding a hearing on the proposed amendment to receive public comment and make a recommendation of approval, approval with changes, or denial to the Broward County Board of County Commissioners *(BCC)*.

After the LPA hearing, UPD schedules the proposed amendment and related agency recommendations on the BCC agenda so the BCC can consider transmitting the amendment to the Broward County Planning Council for the second phase of review.

Broward County Planning Council

The Broward County Planning Council *(BCPC)* is responsible for conducting the second phase of the review process, which may take five (5) months. BCPC maintains the Broward County Land Use Plan *(BCLUP)*, which designates future land uses for the entire county. The County's BMSD Land Use and Community Planning Element Map Series and all municipal Future Land Use Plans must be in compliance with BCLUP. The BCPC holds at least one (1) public hearing on the proposed amendment prior to making a recommendation of approval, approval with changes, or denial to the BCC. The applicant may need to apply separately to the Planning Council for the BCLUP map amendment and a separate fee applies.

Broward County Board of County Commissioners

BCC holds two (2) public hearings on the proposed amendment. The first public hearing is to consider the LPA's recommendation and transmit the proposed amendment to BCPC. BCC does not make a recommendation to BCPC at the first hearing, so as not to interfere with BCPC's independent review. The second public hearing is the adoption hearing to approve, approve with changes, or deny a proposed amendment. The entire amendment process may be completed in approximately **11 months**.

Public Outreach

Public hearings, including LPA and BCC are advertised in a local newspaper in accordance with the requirements of Chapter 163, Florida Statutes. Staff also informs local homeowners' associations within the area where the amendment is proposed, as well as adjoining municipalities. All information and case files concerning application for a FLUM amendment are public record and available for inspection at the Broward County Urban Planning Division. Additional notification requirements may apply as determined by the UPD Director or the County Attorneys' Office, in consultation with the Applicant.

Effective Date

The proposed amendment becomes effective **31 days** following adoption unless challenged.

Resilient Environment Department
URBAN PLANNING DIVISION
1 N. University Drive, Box 102 • Plantation, FL 33324 • 954-357-5657 • Broward.org/Planning

Broward Municipal Services District (BMSD)
Future Land Use Map (FLUM)
Application for Small-Scale Amendment

I. Applicant Information

Property Owner Information

Last Name	First Name	Middle Initial	Suffix
City of Fort Lauderdale			

Address	City	State	Zip
1 E. Broward Boulevard	Fort Lauderdale	FL	33301

Phone	Mobile Phone	FAX
954-828-5004		

Email

Authorized Agent Information

Last Name	First Name	Middle Initial	Suffix
Lochrie III, Esq.	Robert		

Company Name	Title or Position
Lochrie & Chakas, P.A.	

Address	City	State	Zip
699 N. Federal Highway, Suite 400	Fort Lauderdale	FL	33304

Phone	Mobile Phone	FAX
954-779-1101		

Email: RLochrie@lochrielaw.com

Petitioner Information *(if different from owner)*

Last Name	First Name	Middle Initial	Suffix
English	Tam		

Company Name	Title or Position
Housing Authority of Fort Lauderdale	

Address	City	State	Zip
437 SW 4th Avenue	Fort Lauderdale	FL	33315

Phone	Mobile Phone	FAX
954-556-4100 x 2105		

Email: tenglish@hacfl.com

II. Subject Property and Site Information

A. Subject Property Information

Tax Folio Number(s): 5041-3701-1280

File Number(s):

B. Subject Property Address

Street Address: 4590 Peters Road

City: Unincorporated Broward County

State: FL

Zip: 33317

C. Legal Description *(or indicate per attached survey)*

Please see legal attached to LUPA report.

Gross Acreage: 39.4 acres

General Property Location *(specify location in relation to major road network)*: South side of Peters Rd.; East side of SW 46 Ave.

D. Existing Future Land Use Designation

Describe gross acreage and allowable densities within each designation.

Utilities

E. Proposed Future Land Use Designation

Describe gross acreage within each designation.

Medium (16) Residential

F. Current Use of Amendment Site

Describe gross acreage within each designation.

Vacant

G. Current Use of Adjacent Areas

Describe gross acreage and densities, and resulting number of residential units and/or non-residential square footage, within each designation.

N: ROW, SF Res E: MF & SF Res; Ft. Laud Police Assoc. Club
W: SF, ROW S: Fire Station; Elementary School

H. Current Zoning District(s)

Describe gross acreage within each designation.

A-3

I. Proposed Zoning District(s)

Describe gross acreage within each designation.

RM-16

J. Identify Proposed Use(s) of the Real Property

Multi-family and single-family homes

If residential, identify the proposed number of dwelling units. If non-residential, identify the proposed square footage.

547 units per proposed LUPA at 16 du/ac x 39.4 gross acres = 630 units

K. Platting of Property

Has the property been platted? ☐ **Yes** ☒ **No**

If Yes

Name: _____

Plat Book: _____ **Page:** _____

Is the subject property in the process of being platted? ☐ **Yes** ☒ **No**

If Yes

Plat Application File Number:

L. Location and acreage of any other property contiguous to the subject property which is in the same ownership, in whole or part, that is not part of this application

N/A

M. Explain how the proposed amendment will be compatible with the surrounding existing land uses

The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential. The proposed residential is compatible with land uses both adjacent to the site and in the general vicinity, which largely consists of residential uses. Specifically, adjacent to the west is a single-family neighborhood known as Broadview Park and to the east is a mix of single-family residential and 1-story multi-family residential (ex. duplexes). The proposed project is situated at the edge of the established adjacent neighborhood. The buildings are proposed not to exceed 3 stories / 35' which is an appropriate transition from the adjacent residential uses. The site will be developed in accordance with the County's Land Development Regulations, which ensure compatibility through appropriate setbacks and buffers between uses.

N. Annexation, if applicable

Is the property being annexed? Provide name of affected municipality.

No

O. Explain why the amendment is needed or justified *(to be included in staff report) (additional pages may be attached, as needed)*

The project proposes affordable and workforce housing, which are critical needs in Broward County. As noted above, the project will be compatible with the surrounding residential uses, as it is a suitable maximum 35' / 3 stories.

Owner Certification

This is to certify that I ("Affiant") am the owner of the property described on the attached survey and I have authorized the filing of this request. I understand that I or my representative must attend the hearing to present the case.

Owner's Signature — Susan Grant (Print Name)

NOTARY PUBLIC

STATE OF FLORIDA
COUNTY OF BROWARD

The foregoing instrument was acknowledged before me by the Affiant by means of ☑ physical presence | ☐ online notarization, this 29th day of January, 20 25, by Anthony Fajardo.

He/she ☑ is personally known to me | ☐ has produced _____ as identification.

Anthony Fajardo
Name of Notary Typed, Printed or Stamped

Signature of Notary Public – State of Florida

ANTHONY G. FAJARDO
Commission # HH 231455
Expires February 21, 2026
Notary Seal (or Title or Rank)

Serial Number (if applicable)

Agent/Petitioner Authorization

I ("Affiant"), _____ the legal owner of the real property described herein that is the subject of this proposed regular amendment to the BMSD Future Land Use Map (FLUM) do hereby authorize and designate

Lochrie & Chakas, P.A. + Housing Authority of the City of Fort Lauderdale

of _____

to be my lawful representative in all matters pertaining to this proposed amendment.

Owner's Signature — Susan Grant (Print Name)

NOTARY PUBLIC

STATE OF FLORIDA
COUNTY OF BROWARD

The foregoing instrument was acknowledged before me by the Affiant by means of ☑ physical presence | ☐ online notarization, this 29th day of January, 20 25, by Anthony Fajardo, of _____, on behalf of _____.

He/she ☑ is personally known to me | ☐ has produced _____ as identification.

Anthony Fajardo
Name of Notary Typed, Printed or Stamped

Signature of Notary Public – State of Florida

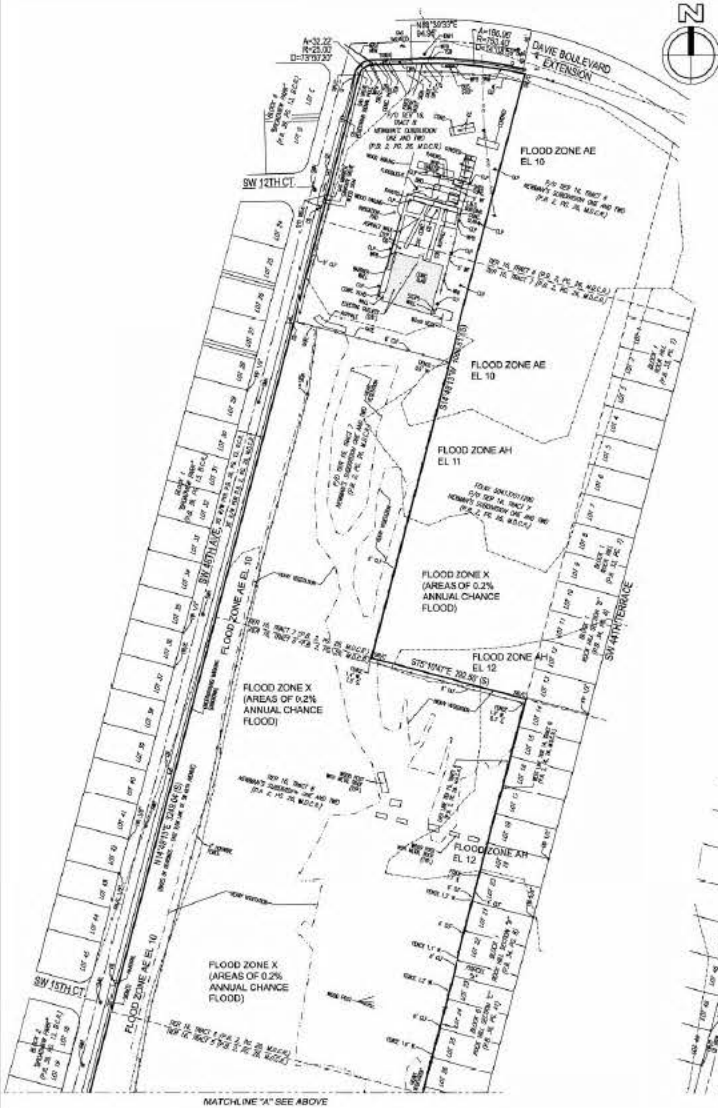
ANTHONY G. FAJARDO
Commission # HH 231455
Expires February 21, 2026
Notary Seal (or Title or Rank)

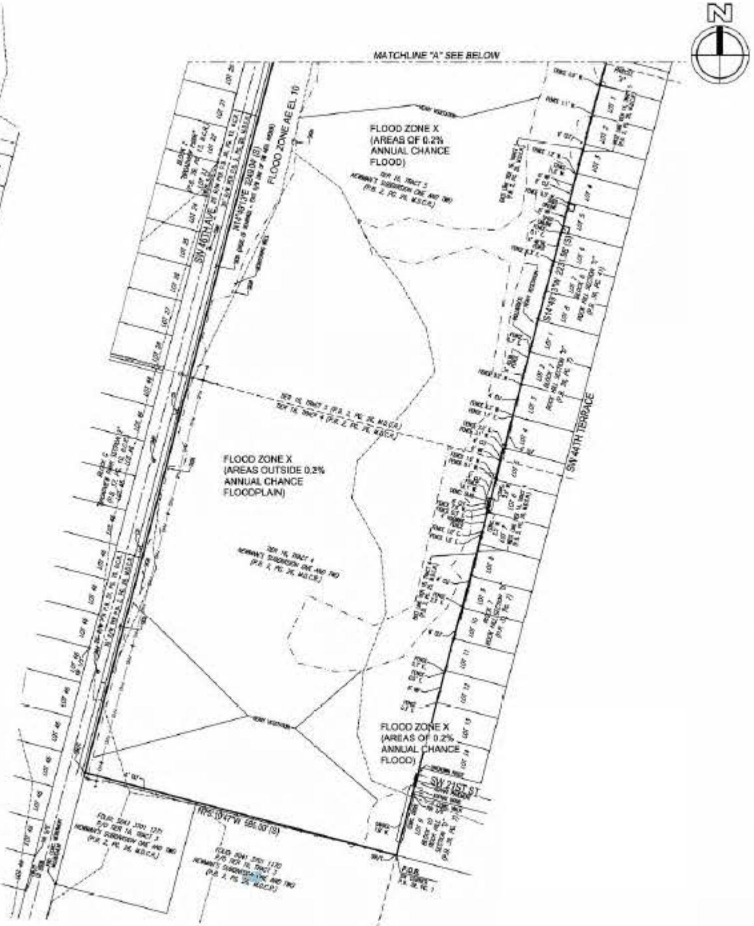
Serial Number (if applicable)

Section 2

Survey

PARCEL #1
P/O TIER 16, TRACTS 4, 5, 6, 7 & 8
PER P.B. 2, PG. 26, M.D.C.R.





LEGAL DESCRIPTION

ALL OF TRACTS 4, 5 & 6, TIER 16, AND PORTIONS OF TRACTS 7 & 8, TIER 16, NEWMAN'S SUBDIVISION ONE AND TWO, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 2, PAGE 26, OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, AND MORE PARTICULARLY DESCRIBED AS:

BEGINNING AT THE SOUTHWEST CORNER OF ROCK HILL SECTION "B", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 39, PAGE 7, OF THE PUBLIC RECORDS OF BROWARD COUNTY FLORIDA; THENCE NORTH 75°10'47" WEST, A DISTANCE OF 585.00 FEET; THENCE NORTH 14°40'12" EAST, A DISTANCE OF 3,249.04 FEET TO A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE TO THE EAST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE, HAVING A RADIUS OF 25.00 FEET AND A CENTRAL ANGLE OF 73°50'20", A DISTANCE OF 32.22 FEET TO A POINT OF TANGENCY; THENCE NORTH 88°30'33" EAST, A DISTANCE OF 94.95 FEET TO A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE TO THE SOUTH; THENCE EASTERLY ALONG THE ARC OF SAID CURVE, HAVING A RADIUS OF 753.40 FEET AND A CENTRAL ANGLE OF 14°08'58", A DISTANCE OF 186.06 FEET TO A POINT OF NON-TANGENCY; THENCE SOUTH 14°49'13" WEST, A DISTANCE OF 1,068.81 FEET; THENCE SOUTH 75°10'47" EAST, A DISTANCE OF 202.50 FEET; THENCE SOUTH 14°40'13" WEST, A DISTANCE OF 2,231.58 FEET TO THE POINT OF BEGINNING.

SAID LANDS SITUATE IN THE CITY OF FORT LAUDERDALE, BROWARD COUNTY, FLORIDA, AND CONTAINING 1,619,552 SQUARE FEET (37.180 ACRES, MORE OR LESS).

ABBREVIATIONS:

A = ARC LENGTH
A/C = AIR CONDITIONER
ALUM. = ALUMINUM
B.C.R. = BROWARD COUNTY RECORDS
BOT = BOTTOM
BRKN = BROKEN
CB = CATCH BASIN
C.B.S. = CONCRETE BLOCK STRUCTURE
CC = CARGO CONTAINER
CI = CURB INLET
CLF = CHAIN LINK FENCE
CLP = CONCRETE LIGHT POLE
CMP = CORRUGATED METAL PIPE
CONC. = CONCRETE
COV. = COVERED
D = DELTA (CENTRAL ANGLE)
D.E. = DRAINAGE EASEMENT
DMH = DRAINAGE MANHOLE
EL = ELEVATION
F.F. = FINISHED FLOOR
FIP = FOUND IRON PIPE
FIR/C = FOUND IRON ROD W/CAP
FIR = FOUND IRON ROD
FND. = FOUND
ICV = IRRIGATION CONTROL VALVE
INV = INVERT
LB = LICENSED BUSINESS
LP = LIGHTPOLE
M.D.C.R. = MIAMI-DADE COUNTY RECORDS
M.M.B. = MISCELLANEOUS MAP BOOK
MON. = MONUMENT
N/D = NAIL AND DISC
(P) = PLAT
P/O = PART OF
P.B. = PLAT BOOK
P.B.C.R. = PALM BEACH COUNTY RECORDS
PG. = PAGE
R = RADIUS
R/W = RIGHT-OF-WAY
(S) = SURVEY
SIR/C = SET 1/2" IRON ROD W/CAP LB7924
SMH = SANITARY SEWER MANHOLE
SN/D = SET NAIL & DISC LB7924
SQ. = SQUARE
STY. = STORY
TCB = TRAFFIC CONTROL BOX
TMH = TELEPHONE MANHOLE
TSB = TRAFFIC SIGNAL BOX
TYP. = TYPICAL
U.E. = UTILITY EASEMENT
WPB = WIRE PULL BOX
WF = WOOD FENCE
WV = WATER VALVE

LEGEND:

BACKFLOW PREVENTER
BOLLARD
CABLE BOX
CATCH BASIN
CENTERLINE
CLEANOUT
ELEVATION
FIRE HYDRANT
GUYWIRE ANCHOR
MANHOLE, DRAINAGE
MANHOLE, SANITARY
NON-VEHICULAR ACCESS LINE
POLE, CONCRETE
POLE, METAL
POLE, WOOD
SIGN
TREE
VALVE, WATER
WATER METER
WIRES, OVERHEAD
FLOOD ZONE LIMIT
WOODED AREA

NO.	DATE	BY	CKD	REVISIONS	FB/PG
				SEE SHEET #1	

SCALE: 1"=100' DATE: 01/30/20
DRAWN BY: JDV FIELD BOOK: 01/58
CHECKED BY: TAE SURVEY TYPE: BOUNDARY

HSQ GROUP, INC.
Engineers · Planners · Surveyors
1001 Yamato Road, Suite 105
Boca Raton, Florida 33431 · 561.392.0221
CA26258 · LB7924

MAP OF BOUNDARY SURVEY
BROADVIEW GARDENS
CITY OF FORT LAUDERDALE, BROWARD COUNTY, FLORIDA

PROJECT NUMBER 191275
SHEET NUMBER 2 OF 7

Section 3

Archaeologic-Historic Assessment

Archaeological Assessment

.

A PHASE 1 CULTURAL RESOURCES ASSESSMENT SURVEY OF BROADVIEW GARDENS PROJECT PARCEL, BROWARD COUNTY, FLORIDA

By:
Joseph F. Mankowski, M.A., RPA – Principal Investigator

ADVANCED ARCHAEOLOGY, INC.
1126 S. Federal Hwy. #263
Ft. Lauderdale, FL 33316
Phone: 954-270-6424
Email: contact@advancedarchaeology.com

Prepared for:
J. J. GOLDASICH AND ASSOCIATES, INCORPORATED

MARCH 2022
AAI PROJECT #2022.11
AAI TECHNICAL REPORT #513

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CONSULTANT SUMMARY

In February 2022, Advanced Archaeology, Inc. conducted a Phase 1 Cultural Resources Assessment Survey of the Broadview Gardens project parcel for J. J. Goldasich and Associates, Incorporated. The project parcel is located within unincorporated Broward County, at 4590 Peters Road (Parcel ID: 504137011280) and is being proposed for a housing development. The objective of this investigation was to locate and assess any prehistoric or historic cultural resources that may be present within the project parcel boundaries, and to determine the effects upon any potential resources found.

This assessment was conducted to fulfill historic resource requirements, in response to Chapters 267.061 and 373.414, *Florida Statutes*. This assessment also was conducted in accordance with Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665), as amended in 1992, and 36 C.F.R., Part 800: Protection of Historic Properties. The work and the report conform to the specifications set forth in Chapter 1A-46, *Florida Administrative Code*, and the Principal Investigator is an SOI-qualified archaeologist and architectural historian that meets the U.S. Secretary of the Interior's (SOI) Standards and Guidelines for Archaeology and Historic Preservation.

The project parcel is located in Section 13, Township 50 South and Range 41 East, as depicted on the USGS Fort Lauderdale South Quadrangle map (Figure 1). The property is rectangular in shape, and is approximately 15.05 hectares (37.20 acres) in size. The parcel is bounded by Peters Road (SW 12th Street) on its north side, SW 46th Avenue on its west side, county property on its south side, and private properties on its east side.

Investigations were accomplished by reviewing existing literature, maps, aerial photographs, LIDAR, and conducting fieldwork and interviews. A review with the Florida Master Site File (FMSF) indicated that no previously recorded cultural resources and no previous cultural resource investigations occur within the project parcel. A pedestrian survey was conducted across the entire property, and a total of 55 shovel tests were excavated across the project parcel, within a Moderate Probability Zone (MPZ) at 50-meter intervals on a control grid, and at 25-meter intervals within a High Probability Zone (HPZ) on a control grid (Figures 11 & 12).

As a result of this assessment, a total of two shovel tests (Shovel Test #20 & #22) were found to be positive for historic cultural material that was found within redeposited subsoil contexts at depths of 0-20 cm. Shovel Test #20 contained two Whiteware ceramic fragments (ca. 1920s) found within black (Munsell: 10YR-2/1) sand (see Appendix I: Field Specimen Log), and Shovel Test #22 contained two glass soda bottle fragments (ca. 1950s) found within brown (7.5YR-4/2) sand. Also, one Whiteware ceramic fragment (ca. 1920s) was found as a surface find in the southwest corner of the property. These historic artifacts most likely are associated with the long-term use of the property as a local dumping ground since the mid-1900s, but are of no archaeological significance since they were found within redeposited contexts or as surface finds. Shovel tests determined that the subsoils located within the HPZ and MPZ were generally found to be characterized as disturbed gray (10YR-6/1) sand at a depth of 0-20 cm, and intact white (10YR-8/1) sand at a depth of 20-100 cm.

This assessment also documented one newly recorded historic building, 8BD8251 (4590 Peters Road Range Storage Building), which was built in approximately 1957 or earlier according to a review of historic aerial photographs (Figure 4), although the Broward County Property Appraiser's office lists the structure as built in 1979. This original building is characterized as a masonry vernacular structure that was used for ammunition storage by the gun range that once operated on the property, which is currently reused as an archery range by the Fort Lauderdale Archers Club since 1985 (Figures 9, 13 & 14). According to the Fort Lauderdale Archers Club, the former gun range was possibly used for local law enforcement practice and training. Remnants of the gun range's northwest quadrant asphalt walking lanes still exist within the current archery range, which date to at least 1952, according to a historic aerial photograph (Figure 3). Site 8BD8251, exhibits commonality in design, and lacks significant historic associations; therefore, it is not eligible for listing in the *National Register of Historic Places* (NRHP) individually or as part of a district.

In conclusion, it is the consultant's opinion, based on the results of this Phase 1 Cultural Resources Assessment Survey that no sites regarded as being eligible for listing in the *National Register of Historic Places* individually or as part of a district, occur within the project parcel. No further archaeological assessments are recommended.

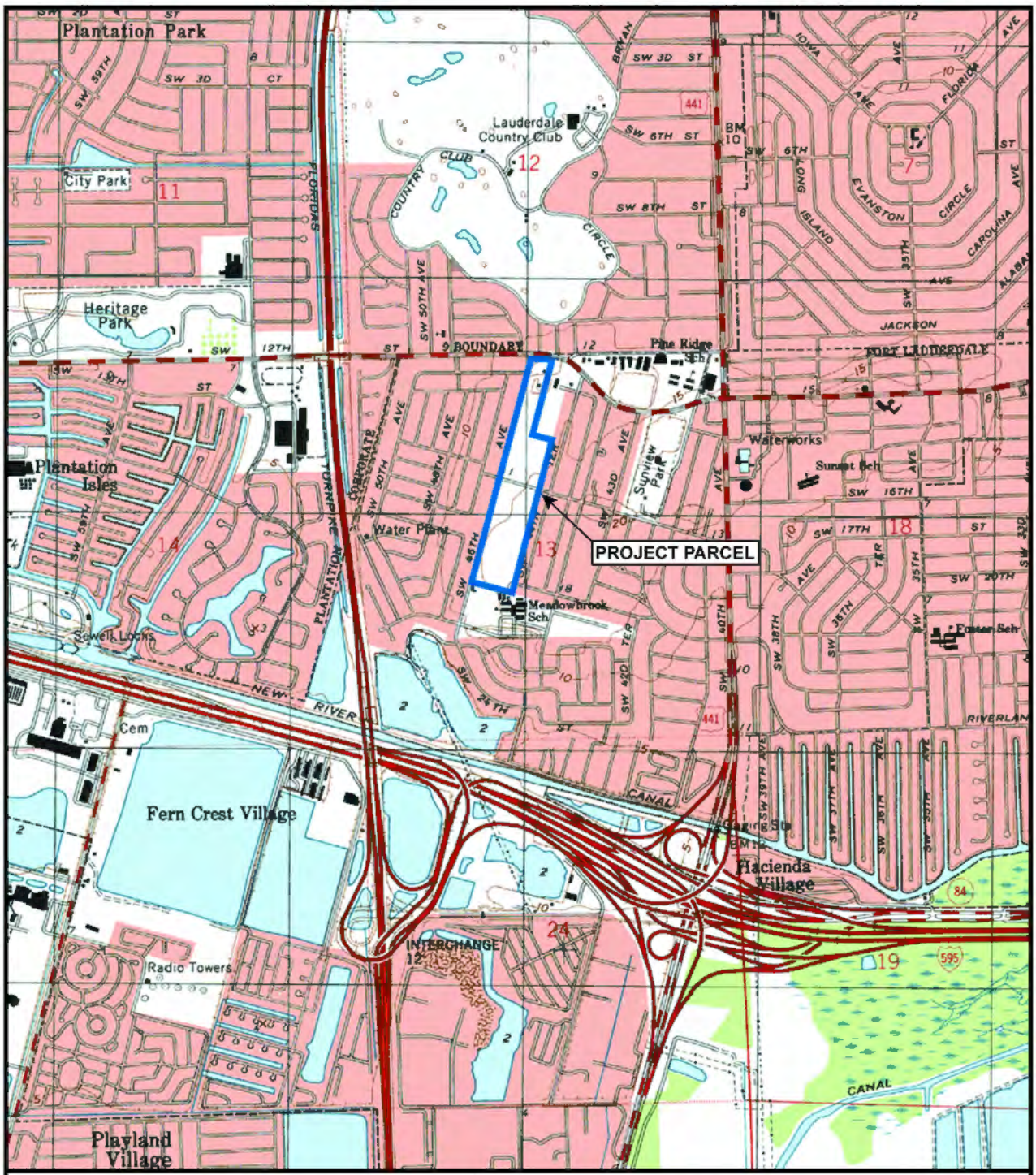

Figure 1. USGS map of the Broadview Gardens project parcel.

Map source: USGS Fort Lauderdale South, 1994
Project location: Township 50 South, Range 41 East, Section 13

PROJECT SETTING

The Broadview Gardens project parcel is located within unincorporated Broward County, at 4590 Peters Road (Parcel ID: 504137011280), and it lies within Section 13, Township 50 South and Range 41 East, as depicted on the USGS Fort Lauderdale South Quadrangle map. The property is rectangular in shape, and is approximately 15.05 hectares (37.20 acres) in size. The parcel is bounded by Peters Road (SW 12th Street) on its north side, SW 46th Avenue on its west side, county property on its south side, and private properties on its east side.

A 1940 aerial photograph of the parcel indicates that it was largely undisturbed, and located within an elevated pineland and sand scrub environment in near proximity to a freshwater slough or Transverse Glade that was situated south and west of the property (Figure 2). The parcel most likely contained or was near to a hardwoods hammock environment at the south-end of the property, where it was at its closest to the relic slough. The aerial photograph also depicts a portion of a farm plot within the northern area of the property as well as two sand trails crossing through the central portion of the parcel, which merged with a trail, located along the perimeter of the original slough shore. A 1952 aerial photograph of the project parcel also appears to depict a remnant of the hardwoods hammock occurring at its south-end, and depicts the first major clearing and disturbances of the property as a result of the installation of at least three water well field monitoring stations (locally called Dixie Well Field) across the area (Figure 3). The 1952 aerial photograph also depicts the constructed historic gun range at the northern end of the parcel, which is seen as multiple crisscrossing walking lanes. A 1957 aerial photograph prominently indicates the gun range and associated buildings (Figure 4).

Currently, the parcel is heavily vegetated with native/exotic plants and trees consisting primarily of Umbrella tree, Royal Poinciana, Sea Grape, Brazilian Pepper, Sabal Palm, Australian Pine, ferns, and also some Ficus, oak, Mother-in-Law Tongue, and Slash Pine. Several cut trails and some dirt roads are found throughout the parcel, which are primarily used for archery shooting lanes by the Fort Lauderdale Archers Club (Figures 5-8). The property has a long-term history of being used as a local dumping ground since the mid-1900s as evidenced by some remaining historic/modern trash and according to local informants.

The property contains several structures and features that are associated with the Fort Lauderdale Archers Club that is located at the northern end of the parcel, which include a masonry vernacular storage building with an attached carport (8BD8251) and an adjacent former gun range that is currently used as an archery shooting range, a modern mobile office, sheds, and several large metal shipping/storage containers (Figures 9, 10 & 13, 14).

The property is situated on the Atlantic Coastal Ridge, which is characterized by a geology of sandy sediments. Underlying these sediments are various caprocks, some of which are consolidated and unconsolidated limestones. This limestone ridge is covered by a thin mantle of sand averaging 20 to 25 cm from the surface to the top of an irregular karst limestone interspersed with solution holes and depressions of various sizes. The Atlantic Coastal Ridge extends from the southern Georgia border to an area southwest of Miami in Homestead. The ridge is composed of relic beach dunes and sandbars. The Atlantic Coastal Ridge is a product of the Pamlico sea and

represents a relict shoreline of this sea which was likely 30 feet higher than the present sea-level (White 1970).

The project parcel contains four soil types according to the USDA Soil Survey of Broward County, Florida, Eastern Part (USDA 1984). These soil types are defined as follows:

- **Arents-Urban land complex:** This complex consists of Arents in open areas and of Urban land, or areas covered by concrete and buildings. About 50 to 70 percent is Arents, and about 30 to 50 percent is Urban land**.** Arents are nearly level or gently sloping soils made up of heterogeneous overburden material that has been removed from areas of other soils and used primarily for land leveling, as fill, or as final cover for sanitary landfill. This material is mixed sand or fine sand and fragments from the subsoil of the soil from which the Arents were removed. Urban land consists of areas that are more than 70 percent covered by airports, shopping centers, parking lots, large buildings, streets and sidewalks, and other structures, so that the natural soil is not readily observable.

- **Dade-Urban land complex:** This complex consists of Dade fine sand, which makes up the open areas, and of Urban land, which is covered by concrete and buildings. The Dade soil in the open areas, is nearly level, well drained, and sandy and has limestone at varying depths. In most places, a thin layer of gravelly sand has been spread over the surface of these soils to stabilize the loose, dry sands of the natural surface.

- **Immokalee-Urban land complex:** This complex consists of Immokalee fine sand and Urban land. About 20 to 45 percent of the complex is open land, such as lawns and vacant lots; and about 40 to 70 percent is Urban land, or areas covered by sidewalks, streets, patios, driveways, and buildings, where the natural soil cannot be observed. The open land consists of nearly level, poorly drained Immokalee soils that have been modified in most places by spreading sandy material on the surface of the soil to an average thickness of about 12 inches, but ranging from about 6 to 20 inches. About 10 percent of the Immokalee soils have not been modified. The original soil below the fill material is Immokalee fine sand.

- **Udorthents-Urban land complex:** About 50 to 70 percent of this complex consists of Udorthents, which are in open areas; and about 30 to 50 percent consists of Urban land, or areas covered by concrete and buildings. The open areas of Udorthents are lawns, vacant lots, parks, and playgrounds. Urban land consists of streets, sidewalks, parking lots, and buildings or other construction where the soil is covered and cannot be readily observed. Udorthents are nearly level, somewhat poorly drained or moderately well drained soils consisting of a mixture of sand, rock fragments, and shell more than 20 inches thick over natural soils. This mixed soil material has been placed over wet, sandy soils in low areas to make them suitable for building sites or other uses.

Shovel tests determined that the subsoils across the parcel were generally found to be characterized as disturbed gray (10YR-6/1) sand at a depth of 0-20 cm, and intact white (10YR-8/1) sand at a depth of 20-100 cm.

Figure 2. 1940 aerial photograph of the Broadview Gardens project parcel.

N

Map source: PALMM

0 87 174 Meters

Figure 3. 1952 aerial photograph of the Broadview Gardens project parcel.

N

Map source: PALMM

0 87 174 Meters

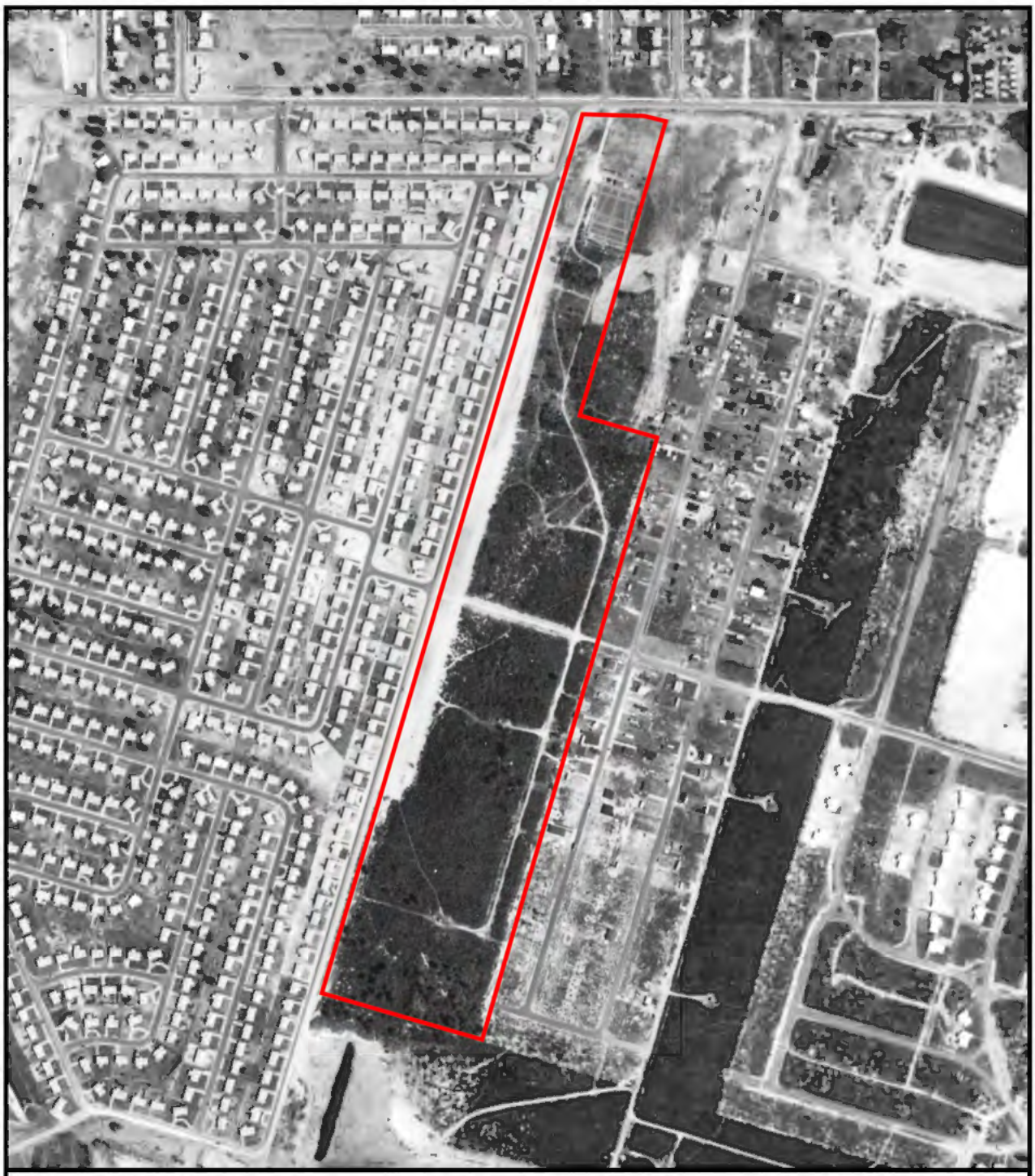

Figure 4. 1957 aerial photograph of the Broadview Gardens project parcel.

N

Map source: PALMM

0 87 174 Meters

Figure 5. Photograph view northeast at the project parcel and MPZ.

Figure 6. Photograph view southwest at the project parcel and MPZ.

Figure 7. Photograph view southeast at the project parcel and HPZ.

Figure 8. Photograph view south at the project parcel and HPZ.

Figure 9. Photograph view northeast at the Fort Lauderdale Archers Club area and 8BD8251.


Figure 10. Photograph view southwest at the archery range and a portion of the former gun range asphalt walking lanes.

CULTURAL CONTEXT

Paleo Period (10000 B.C. to 8000 B.C.)

Paleoindians lived in southern Florida in association with mammoths, bison, and other types of megafauna. Deposits of fossilized Pleistocene bone have been uncovered by dredging operations from several locations in southern Florida and from solution holes in south Dade County. These deposits yielded a wide range of grazing ungulates and sloths, indicating the presence of more extensive grasslands than present (Webb and Martin, 1974). With the extinction of the megafauna by about 11,000 B.P., Paleoindians apparently adapted to the emerging wetlands of southern Florida, and began to establish the patterns of subsistence that were to provide the basis of resource procurement for the subsequent 10,000 years. Evidence of the Paleo period in southern Florida is now well established with the discovery of a late Paleo/Early Archaic site at Cutler in south Dade County (Carr, 1986). Radiocarbon dates of 9,640 ± 120 years B.P. were determined for this site, which yielded evidence of exploitation of deer and rabbit, some marine fauna, and some indication of hunting extinct horse and peccary. However, the majority of data from this site reflects Indian adaptation to the extinction of New World megafauna.

Archaic Period (6500 B.C. to 1000 B.C.)

During the Post Glacial, the sea level rose and greatly diminished Florida's land size. It has been calculated that the rate of sea level rise was approximately 8.3 cm per 100 years from 6000 to 3000 B.P. That rate has decreased to about 3.5 cm per 100 years from 3000 B.P. to present (Scholl and Stuiver, 1967).

By 5000 B.P., cypress swamps and hardwood forests characteristic of the sub-tropics began to develop in southern Florida (Carbone, 1983; Delcourt and Delcourt, 1981). The Archaic Period was characterized by an increased reliance on the shellfish and marine resources on the coast by the native populations, and a generally expanded hunting, fishing, and plant gathering base throughout southern Florida.

Archaeologists were not aware until recently of the extent and nature of Archaic Period sites in southern Florida. The earliest dated mid-Archaic archaeological materials are from the Bay West site, a cypress mortuary pond situated in Collier County northeast of Naples (Beriault *et al*., 1981). It is likely that the Bay West site was a hydric sinkhole that provided an "oasis" and water hole during the much drier mid-Archaic period. Radiocarbon dates recovered there indicate a temporal range of 5500 B.P. to 7000 B.P. This chronology and the cultural materials recovered, including preserved organic materials, are very similar to those recovered from Little Salt Spring 110 km to the north (Clausen *et al.,* 1979). The mortuary pond is undoubtedly one of the characteristic types of cemeteries of the Archaic Period throughout central and southern Florida.

A mid-Archaic Period site, the first from this period, was recently discovered in Broward County (Carr and Sandler, 1991). The site, 8BD1119, was discovered on Pine Island ridge. Characterized by a scatter of chert flakes and several mid-Archaic projectile points, the site appears to be lithic workshop for reshaping tools.

Sites from the Late Archaic Period are becoming increasingly evident in southeast Florida. Sites dating from as early as 4000 B.P. have been located along Biscayne Bay (Carr, 1981a,b), but Late Archaic horizons appear to be common place on Everglades sites. Radiocarbon dates in the Everglades indicate early ages of 3050 ±140 B.P. for the Peace Camp site (Mowers and Williams, 1972:18), and 4840 ± 210 B.P. for Taylor's Head site (8BD74) (Masson *et al*., 1988:346).

The Late Archaic Period is distinguished by the development of fiber-tempered pottery. The Orange series of fiber-tempered pottery is well documented by Cockrell (1970) on Marco Island, and undecorated fiber-tempered pottery has been recovered on the southeast coast at the Atlantis site (Carr, 1981b). Sites containing fiber-tempered pottery have been dated from as early as 3400 ± 100 B.P. on Marco Island, and from ca. 2500 B.P. at the Firebreak site in Collier County, and from 3000 to 4000 B.P. along Biscayne Bay. Partial fiber and sand tempered pottery have been recovered from interior sites such as the Honey Hill site (8DA411), the 202nd Street site in north Dade County, and the Markham Park (8BD183) site in Broward County.

The Glades Period (500 B.C. to 1750 A.D.)

Matthew W. Stirling (1936) originally defined a distinctive prehistoric culture area for southern Florida by defining a Glades cultural area. John M. Goggin was the first archaeologist to substantially divide and delineate particular boundaries for southern Florida culture areas, dividing the region into three sub-areas: "Okeechobee" around Lake Okeechobee, "Tekesta" for southeast Florida and the Florida Keys, and "Calusa" for southwest Florida (Carr, Steele, and Davis 1994; Goggin 1947).

Beginning in the late 1930s and into the mid-1940s, John Goggin began to develop a ceramic typology for southern Florida which could effectively serve as temporal markers for dating an archaeological site. Using the decorative motifs found on various pottery, he created the Glades I, II, and III periods (Milanich 1994:300; Carr, Davis and Steele 1994:10-11; Goggin 1947:114-127). The Glades I Period is divided into two sub-periods: Ia (500 B.C.-A.D. 500), and Ib (A.D. 500-750). During the Glades Ia Period, ceramics are generally undecorated sand tempered wares, but began to have decorative elements by the late Glades Ib Period.

The Glades II Period (A.D. 750-1200) is divided into three sub-periods: IIa (A.D. 750-900), IIb (A.D. 900-1100), and IIc (1100-1200). Each sub-period is characterized by differences in the types of ceramic decorative design styles which exist. Also, it was during the Glades II period that house mounds were constructed and that raised fields were put into use (Carr, Davis and Steele 1994:11; McGoun 1993:91).

The Glades III period (A.D. 1200-1500) is unique as being the period existing prior to and into the Contact or Early Historic period. Some archaeologists have speculated that dramatic social changes must have occurred because of the dramatic shift in both the style of ceramics produced and the substantial decline in known sites during this period (McGoun 1993:104-105). As with the other periods, Glades III is divided into sub-periods: IIIa (A.D. 1200-1400), which is characterized by decorated pottery following the typically undecorated wares of Glades IIc (A.D. 1400-1513), and, IIIb (A.D. 1513-1763), which is again a period characterized by often undecorated pottery (Milanich 1994:301). Although it has been noted that exotic resources, such

as non-local chert tools and ornaments, indicate a well-established system of trade with outside cultures (Carr, Davis and Steele 1994:11).

Goggin used the decoration variations of south Florida ceramics to assemble a ceramic chronology for the Glades area, which has been only slightly modified by subsequent researchers. The following chart has been modified from several sources, but it is predominantly based on Milanich and Fairbanks (1980), Griffin (1988), and Allerton and Carr (1990).

Glades Period Ceramic Sequence

Period	Dates	Ceramic Typology
Glades Ia	500 B.C.-500 A.D.	First appearance of Sand Tempered Plain ceramics. Sand Tempered Plain remains a predominate type throughout the Glades sequence.
Glades Ib	500 A.D.-750 A.D.	First appearance of decorated ceramics: Opa Locka Incised, Ft. Drum Incised, Ft. Drum Punctated, Cane Patch Incised, Turner River Punctate. Ceramic rim grooving and incision decorations become widespread.
Glades IIa	750 A.D.-900 A.D.	First appearance of Key Largo Incised, Sanibel Incised, Dade Incised, and Miami Incised. Opa Locka Incised present.
Glades IIb	900 A.D.-1100 A.D.	First appearance of Matecumbe Incised. Key Largo Incised common on the east coast, and Gordon's Pass Incised common on the west coast.
Glades IIc	1100 A.D.-1200 A.D.	First appearance of Plantation Pinched, St. Johns Plain, St. Johns Check Stamped, and Belle Glade ceramics.
Glades IIIa	1200 A.D.-1400 A.D.	First appearance of Surfside Incised. Increasing quantities of St. Johns ceramics (especially on east coast), and Belle Glade ceramics.
Glades IIIb	1400 A.D.-1513 A.D.	First appearance of Glades Tooled, but rare on the west coast. Zoned punctate decoration, but general decline in decorated ceramics. Belle Glade ceramics common on west coast. St. Johns present on east coast, but rare on west coast.
Glades IIIc	1513 A.D.-1763 A.D.	Continuation of Glades IIIb ceramics, with pronounced flaring of rims and embossing on Glades Tooled. First appearance of European artifacts.

Historic Period (A.D. 1513 - A.D. 1950)

When the Europeans arrived in the sixteenth century, they encountered a thriving population with at least five separate tribes in southern Florida: the Tequesta in southeast Florida, the Calusa in southwest Florida, the Jeaga and Ais along the east coast north of the Tequesta, and the Mayaimi near Lake Okeechobee. At the time of Spanish contact, the Calusa maintained political dominance over these other tribes. It has been estimated that there were about 20,000 Indians in south Florida when the Spanish arrived (Milanich and Fairbanks, 1980). By 1763, when the English gained control of Florida, that population had been reduced to several hundred. These last survivors were

reported to have migrated to Cuba with the Spanish (Romans, 1962), however, it is likely that the so-called "Spanish Indians" (Sturtevant, 1953), who raided Indian Key in 1840, were the mixed-blood descendants of the Calusa and/or refugees from north Florida missions raided by the English in the early eighteenth century. The Spanish-Indians joined the Seminoles, who had fled en masse into south Florida in 1838 after the Battle of Okeechobee, although some Creek groups apparently had migrated to south Florida earlier in the century.

First Spanish Period (A.D. 1513-1763)

The first recorded contact between the Spanish explorers and the peoples of south Florida came during the expedition of Juan Ponce de León during his expedition of 1513. He most likely made contact with the Ais further north before approaching Biscayne Bay, where he may have met with the Tequesta (Smith and Gottlob 1978:1-2). After rounding the peninsula his crew encountered the Calusa somewhere in the vicinity of Charlotte Harbor; the meeting turned violent, which may indicate that the Calusa had had previous unrecorded contact with Spanish sailors that would make them wary of Spaniards (Griffin 2002:161; Tebeau 1957:33). Davis (1935:20) reported that Ponce de León discovered a Spanish-speaker among the Calusa who may have come from one of the islands to the south then inhabited by the Spanish, most likely Cuba (Hann 1991:5). Though Ponce de León's expedition was the first well documented expedition to the North American continent, there may have been other European explorers who made contact before that time. John and Sebastian Cabot may have reached Florida during their 1497 and 1498 voyages, as the 1502 Cantino map, which is based on their descriptions, depicts the state (Tebeau 1971:19). The Council of the Indies also claimed that fleets had traveled to Florida three years prior to Ponce de León's expedition (Smith and Gottlob 1978:1).

Subsequent visits to the southwest coast of Florida by Ponce de León and his other members of his original crew were met with hostility from the Calusa. This culminated with Ponce de León's 1521 attempt to establish a colony in the area, during which he was fatally wounded (Griffin 2002:161). Likewise, an attempt to land on the southeast coast by Francisco Hernández de Córdoba in 1517 was repulsed (Smith and Gottlob 1978:2). Griffin suggests that these early failed attempts may have persuaded later explorers to avoid the Calusa for their "unfavorable reputation" (Griffin 2002:161). Spanish expeditions in the following decades tended to bypass Calusa territory and the southern part of the peninsula. The expeditions of Pedro de Salazar in 1514-1515, Diego Miruelo in 1516, Pánfilo de Narváez in 1528, and Hernando de Soto in 1539 all landed either in the area of Tampa Bay or further north (Schwadron 2009:56). After 1521, however, Spanish ships travelling from the Caribbean frequently wrecked off the South Florida coast, particularly in the Keys. Native Americans living in south Florida began salvaging wrecks along the coast and acquired metals and other European goods (Fischer 1975:12-13; Smith and Gottlob 1978:4, 12). One shipwreck survivor, Hernando de Escalante Fontaneda, lived among the Calusa for seventeen years before he was found by Pedro Menéndez de Avilés in 1566; he later wrote memoirs of his experiences with the Calusa (Fontaneda 1944; Griffin 2002:162). Fontaneda's writings are still considered one of the best sources for ethnographic information on South Florida during this period (Worth 1995).

Two years after the French successfully established Fort Caroline in Jacksonville in 1564, the Spanish sent Pedro Menéndez to secure La Florida for Spain (Smith 1956:8; Smith and Gottlob 1978:5-6). Spanish colonies in the Caribbean required supplies and the materials were also sent

back to Spain, making Florida an important shipping avenue (Smith and Gottlob 1978:4). Menéndez established several garrisons across the state, including a fortification and mission to the Tequesta on Biscayne Bay in 1567. The garrison was at or near the Granada site (8DA11) (Griffin et al. 1982; Milanich 1995:53). Jesuit missionaries who joined the garrisons were generally unsuccessful in converting the indigenous people to Christianity, and opposition and bloodshed eventually forced the abandonment of the south Florida settlements (Griffin 2002:162). Conflicts led to the murder of Calos, the Calusa chief, and the burning of the Calusa villages (Hann 1991:220-225). Despite the failure of the south Florida Spanish settlements, St. Augustine was successfully established in 1565 and remained a stronghold for Spain for nearly 200 years, despite frequent incursions by the French and English (Schwadron 2009:57).

The tribal group residing on the east coast around Biscayne Bay is called the Tequesta in Fontaneda's records. According to his lists, the Tequesta were among the caciques controlled by the Calusa (Fontaneda 1944:51; Worth 1995); though the relationship between the Tequesta and Calusa was inconstant and at times the two chiefdoms neared warfare. Barcía (1951:34) refers to the Tequesta as the Calusa's "vassal," but then relates an incident in which the Tequesta were harboring Christians and repulsed Calusa warriors who had come to kill the Christians. The Calusa exerted political influence over all of south Florida in the sixteenth century from their center near Charlotte Harbor (Widmer 1988:5). Based on evidence from the Granada site, Griffin and colleagues (1982:366) argued that the Calusa may have achieved ascendancy over the Tequesta during the Glades IIc (A.D. 1100 – 1200) period, when plain pottery dominates. The Tequesta and Calusa possessed a similar socio-political organization; a chief had several villages under his control. The Tequesta, however, were unable to achieve the same kind of political dominance that the Calusa possessed, possibly because the estuarine environment around Charlotte Harbor provided a more secure food source than the Atlantic coast (Schwadron 2009:60). The Calusa and Tequesta were entirely non-agricultural, collecting food from the rich surrounding estuarine environment and hunting and gathering foods as well; their diet consisted primarily of fish and shellfish (Widmer 1988). Fontaneda further reports that the Tequesta engaged in whale hunting, and he describes these activities in his memoirs (Worth 1995:348).

Of the groups living in south Florida at the time, the Tequesta were probably the second most powerful after the Calusa, which McGoun (1993:30) interprets based on the record of a gift of two Spanish captives being given to the Tequesta by their northern neighbors, the Ais. Fischer (1975:5) postulated that the Tequesta initially benefited from European contact. Political solidification occurred in response to the interactions with newcomers, and trade goods and metals salvaged from Spanish wrecks were highly valuable resources. The Calusa saw a similar surge in their political power, as they increased their empire-building activities in the years immediately following Spanish contact (Lewis 1978:30; Swanton 1922:343). Subjects of Calos, the Calusa cacique, were required to send tribute and divide whatever goods they salvaged from shipwrecks with him (Griffin 1988:144). Both the Calusa and the Tequesta used their alliances with the Spanish to their advantage and occasionally urged the Spanish to overthrow their enemies.

Spanish diseases, the effects of warfare between chiefdoms, and slave raiding from the north devastated the native population of south Florida. By 1743 all that remained of three of the south Florida chiefdoms was around 180 people who were living at the main village to the Tequesta (Alaña 1743 and 1760 versions translated in Hann 1991). After several failed missionary attempts

in the eighteenth century, Spain essentially abandoned its efforts to convert and subjugate the remaining Native Americans living in south Florida. By the 1760s the last remaining people in southeast Florida had fled to Havana, where most of them died (Parks 1984). Later English travelers to south Florida confirmed that the original inhabitants of south Florida were gone (Parks 1984).

British Period (A.D. 1763 – 1783)

The British formally took control of the Florida peninsula in 1763 following their victory in the Seven Year War. France was forced out of North America, and Spain ceded Florida to England. This left the British in control of a vast, empty, and undeveloped stretch of land in the northern part of the state (Schwadron 2009). Despite British rule, the Spanish did maintain some presence in the southern part of the peninsula, maintaining small fishing settlements called ranchos along the southwest coast to provide salted fish to sell in Cuba; some of these camps persisted until the nineteenth century (Almy 2001).

Between 1763 and 1783 the British consolidated control over Florida, and the Creek Indians who had migrated south separated themselves from the Creek Confederacy both economically and politically (Fairbanks 1978:170). Around this time historic documents first refer to the Cimmarrones in Spanish, or the Seminole in English (Mahon 1985:7); they had left their established towns and settled in the undeveloped lands of Florida (Fairbanks 1978:171). Unlike the previous inhabitants of south Florida, the Seminoles and Miccosukee practiced agriculture. Because of their agricultural practices, Fischer (1975:6) postulated that Seminole occupation in Biscayne National Park was improbable because of its poor coastal soils. The British forged trade alliances with the Seminoles and built trading posts near Seminole towns. This shifted the Seminole economy from subsistence towards trade, and they began to herd cattle and raise hogs (Tebeau 1968:52).

Second Spanish Period and First Seminole War (A.D. 1783 – 1821)

Spain regained possession of Florida following the American Revolutionary War with the 1783 Treaty of Paris, though Britain continued trading with the Indians. The United States eventually formalized amicable relations with the Creek Indians through the Treaty of New York in 1790. Plantation agriculture, citrus cultivation, timbering, and cattle ranching became and remained standard agricultural practices in Florida (Schwadron 2009:63). Mahogany logging became a particularly popular industry around Biscayne and the Keys (Fischer 1975:14), and fishing ranchos continued to develop along the Gulf Coast (Tebeau 1957:33)

Tensions escalated between the Florida Indians and the United States. The U.S. had forged alliances with the Creek Confederacy, and tensions arose over fugitive slaves who sought refuge in the territory. This led to increased hostilities among the various Creek bands and skirmishes with United States militias, and by 1804 the Florida Creeks were completely independent of the Creek Confederacy by (Covington 1993:26; Mahon 1985:20-21). The United States had repeated engagements with the Creeks even as they were concurrently fighting the British during the War of 1812. The population of Florida Creeks continued to grow, but by 1800 they still had no permanent settlements south of Tampa Bay (Covington 1993:26). The First Seminole War began

in 1817 when Major General Andrew Jackson launched punitive raids against the Creeks living in north Florida in retaliation for harboring fugitive slaves; this pushed the Seminoles further into south Florida and led to the removal and destruction of the populations and their settlements in north and central Florida (Schwadron 2009:65). The first of three Seminole Wars lasted from 1817 to 1818. Jackson managed to drive the Seminoles farther south into Florida during this war, though he never met them in open battle (Knetsch 2003:41).

The Seminole Wars

After the First Seminole War of 1818, many Native Americans moved deeper south in to the Florida Peninsula. By 1820 approximately five thousand were living in Florida. Those who constituted the nucleus of this Florida group thought of themselves as *yat'siminoli* or "free people," Soon, white settlers began to call all of the Indians in Florida by that name "Seminoles."

The Seminoles successfully resisted removal, bringing about the Second Seminole War in 1835. It dragged on until 1842 during which time the US government committed almost $40,000,000 to the forced removal of slightly more than 3,000 men, women, and children from Florida to Oklahoma. Around 500 Seminoles remained in Florida, managing to hide in the Everglades, moving ever southward. The Third Seminole War broke out again in 1856 and lasted till 1858.

The earliest documentary evidence of Seminole settlement in south Florida is an account by John Lee Williams (1837) describing Snake Warrior's Island at the headwaters of Snake Creek (Williams 1962). This site was recently identified as probably being site 8BD1867 in Miramar in southern Broward County. Seminole Archaeology is a relatively new focus in south Florida, but recent work has contributed new data about Seminole settlements in the area.

City of Plantation (A.D. 1931 – 1973)

The City of Plantation is adjacent to the project parcel, which was in initially envisioned and developed by Frederick Peters, who moved his family to south Florida in 1931 to escape the harsh Midwest winters. Peter’s interest in agriculture started with potatoes and was followed by an interest in cattle, which led him to seek undeveloped, inexpensive grazing land for his prized Polled Herefords (Schuler 2013). He purchased 10,000 acres along State Road 441, which had been built to connect Miami-Dade County to Palm Beach County, and at that time was isolated and far west of any existing development (City of Plantation 2022). Peters built a summer home on his farm in 1944 on the north side of what is now Peters Road. An Agricultural Experimental Station of the University of Florida also was established on the farm (Schuler 2013).

Mr. Peters hired noted architect Russell Pancoast to develop a City master plan, which included an ordinance preventing homes next to each other from looking alike, minimum lot size restrictions and separate commercial, industrial and residential zoning districts. The first construction took place on East Acre Drive by Chauncey Clark. The idea was to entice people to buy “long acres,” which were one-acre lots with 2/3 of the land dedicated to gardens and fruit trees. The plan was to create a co-op farmer’s market where residents could pool their produce and sell it for a profit (City of Plantation 2022).

With a population of less than 500 and a budget of $1,288, the City of Plantation was incorporated on April 30, 1953. The first Council Meeting was held on May 11, 1953 in an old feed warehouse near the intersection of East Acre Drive and Broward Boulevard. This site would be later used for the construction of the first City Hall, Fire Station and Police Department. Ellsworth D. Gage was the first Mayor of the City (City of Plantation 2022).

The Parks and Recreation Department was formed along with the Plantation Athletic League (PAL). As the demand for public services increased, the need for more land for city facilities also grew. In addition to the newly built Community Center, a new building for the Library was built in 1968. Also, plans for a new City Hall were underway. The City Hall that exists today was dedicated in 1973 (City of Plantation 2022).

Project Parcel History (A.D. 1952 – Present)

The project parcel was locally-known as Dixie Well Field beginning in at least 1952 when it was used for at least three water well field monitoring stations that were situated across the parcel (Figure 3) in association with the nearby Dixie Water Plant (8BD166), which was built in 1926, and is the City of Fort Lauderdale's oldest water treatment plant. The water treatment plant is located approximately 816 meters (0.51 miles) east of the parcel.

The north-end of the property once contained a gun range that dates to at least 1952, based on a 1952 aerial photograph that depicts the gun range as multiple crisscrossing walking lanes for shooters. According to the Fort Lauderdale Archers Club, the former gun range was possibly used for local law enforcement practice and training. Remnants of the gun range's northwestern quadrant of asphalt walking lanes still exist within the area that is currently used as an archery range (Figure 10). The gun range complex consisted of a masonry vernacular building (8BD8251 - 4590 Peters Road Range Storage Building) with an attached carport that was used for ammunition storage, which was built in approximately 1957 or earlier according to a review of historic aerial photographs (Figure 4), although the Broward County Property Appraiser's office lists the structure as built in 1979. The building is still currently used for storage purposes by the Fort Lauderdale Archers Club.

The former area of the gun range complex and other portions of the property has been used by the Fort Lauderdale Archers Club since 1985, which is a private club dedicated to promoting the sport of archery. The club logo is the Indian cartoon character Lonesome Polecat (Figure 9) from the famous comic strip Lil' Abner. The author/artist Al Capp, was a member of the club for many years, and he donated the rights to use the Lonesome Polecat character as part of the Fort Lauderdale Archers logo.

PREVIOUS RESEARCH

The earliest recorded archaeological investigation in eastern Broward County was conducted by M.H. Harrington at a prehistoric mound complex (8BD3) located on the north bank of the New River. These mounds ranged in size from 8 feet to 50 feet in diameter and were from 2 feet to 8 feet high. The larger mounds had low sand embankments extending southward to the river. Smaller mounds were scattered throughout the palmettos. Harrington noted that a previous explorer had dug a trench on one of the larger mounds and that fragments of human bone were recovered in the spoil from that excavation. Harrington trenched another of the larger mounds without finding anything. In the 1940s, John Goggin, reviewed specimens of pottery sherds and shell tools collected by Harrington from refuse deposits at the forks, now reposing at the Museum of the American Indian. However, these samples were mixed with other collections and could not be distinguished with certainty from other samples. John Goggin states on the 8BD3 site form that the mounds and refuse deposits were totally destroyed, believing that dredging operations on the river destroyed the refuse deposits. However, this is not the case, and in all probability, the refuse deposits that were collected by Harrington were sites 8BD87 (the Rivermont site) and 8BD201. Goggin also reports a site on the Loesch property, 8BD39, where Mr. W.C. Orchard recovered a flint projectile point in 1939. Goggin did not visit the site and gives the address as being NE 4th Street and SW 11th Avenue, which would be exactly within the boundaries of 8BD87 (Carr and Lance 2000a).

Many early settlers observed the imposing mound complex of 8BD3, and surveyor, A.L. Knowlton, depicted it on his 1895 plat map of Fort Lauderdale by showing two mounds and earthwork ridges that extended towards the river. A Dade County guidebook for the years 1896-1897 describes human skeletons found at a depth of four feet that were "buried in a circle after the manner of spokes in a wheel, one tier the feet to the center and the next the heads (Anonymous, n.d.:76). Although the exact location of these burials is not indicated, there is sufficient reason to believe that it was at or in the vicinity of 8BD3.

A 1923 Fort Lauderdale Sentinel newspaper article described the mounds and their destruction as follows:

> *The largest of these (mounds) was six to eight feet high and probably thirty feet across. These were leveled down by workmen with plow and scrapper when the streets and lots were leveled off in what is now Himarshee addition to Fort Lauderdale, and these valuable archaeological records of past ages destroyed...A thorough search of these mounds revealed no trace of a pottery or of any implements or weapons* (Carr and Lance 2000a).

In 1988, an archaeological assessment was conducted at the Hacienda Riverfront property that is located approximately 1.42 kilometers (0.88 miles) southeast of the project parcel, which resulted in the discovery of the Hacienda prehistoric site (8BD3208). This site was found to be an extensive black earth midden, located on a remnant hardwoods hammock that contained dense quantities of sand tempered plain pottery, marine shell refuse, and faunal bone. The site was determined to be a habitational area likely dating to the Glades IIc-IIIb Periods (Eck and Carr 1988). This site was

then subjected to a Phase 2 archaeological assessment in 1999, which was conducted to determine the site 8BD3208 boundaries and its significance. Fieldwork consisted of a total of 112 test units excavated across the site. During the Phase II survey, the fragmentary remains of at least five prehistoric human burials were found along the eastern end of the site within six different test pits. Both prehistoric and historic cultural material was found. Prehistoric material included well-preserved faunal bone, marine and freshwater shell fragments, pottery shards, and several shell and bone artifacts. Historic artifacts consisted of iron fasteners, bottle glass, bullet shell casings, a glass bead fragment, and a few buttons and miscellaneous items. The most diagnostic prehistoric artifact class is the pottery assemblage which includes a representation of Glades II and III Period types, specifically Key Largo Incised, St. Johns Check Stamped, Glades Tooled Rim, and Belle Glade Plain. Most of the historic artifact assemblage dated to circa 1900, with a more likely date of circa 1905 through 1920 being represented by iron fasteners and molded bottle glass fragments (Eck and Carr 1999).

FMSF Literature Review

As part of the literature review, a search was conducted with the Florida Division of Historical Resources for relevant archives and literature. As a result of this review, the Florida Master Site File compiled a roster of 78 previously recorded cultural resources (Table 1) and 15 previous cultural resource investigations (Table 2) within a 1.6-kilometer (1.0 mile) radius of the project parcel. None of these previously recorded cultural resources or investigations were found to occur within the project boundaries.

Table 1. Previously Recorded Cultural Resources within a 1.6-Kilometer Radius of the Project Parcel (Not including structures)

Site No.	Site Name	Site Type
BD03208	Hacienda	Archaeological
BD03279	North New River Canal	Linear Resource Group
BD06786	Riverland Road	Linear Resource Group
BD06905	Collier Groves Early Residential Dist.	Historic District Resource Group
BD06910	Rock Hill Section D District	Historic District Resource Group

Table 2. Previous Cultural Resource Investigations within a 1.6-Kilometer Radius of the Project Parcel

Survey No.	Date	Author	Title
25856	2019	Janus Research	Cultural Resources Desktop Analysis and Field Review for the TIGER Complete Streets: Riverland Road from SW 7th to Broward Boulevard, Broward County, Florida
26259	2019	Coastal Archaeology & History Research	Broward County Municipal Services District Historic Resources Survey: Broadview Park, Central County, and the City of West Park

21548	2014	Janus Research	CRAS for Eight Potential Roadway Transfers from the FDOT, District 4, to Broward County: SR 824/Pembroke Rd., SR 848/Stirling Rd., Riverland Rd., SR 736/Davie Blvd., Las Olas Blvd., SR 849/NE 31st Ave., SR 844/NE 14th St.
21126	2013	Janus Research	CRAS Reevaluation of SR 862 (I-595) PD&E Study from the I-75 Interchange to the I-95 Interchange, Broward County, Florida
18971	2012	Janus Research	Cultural Resource Reconnaissance Survey of the I-595 Replacement Project, Broward County, Florida
12536	2006	Panamerican Consultants	An Archaeological and Historical Survey of the Whale Harbor Tower in Broward County, Florida
12945	2005	Janus Research	Cultural Resource Assessment Survey I-595 (SR-862) Project Development & Environment Study FM No. 409354-1-22-01 FAP No. 5951 539 I From the I-75 Interchange West of 136 Avenue to the I-95 Interchange Broward County, Florida
9518	2003	Janus Research	Cultural Resource Assessment Survey of the Widening of Florida's Turnpike Mainline PD&E Study From Griffin Road to Sunrise Boulevard, Broward County
8552	2001	Panamerican Consultants	An Archaeological and Historical Survey of the Proposed Plaza Tower Location in Broward County, Florida
10627	1998	Archaeological and Historical Conservancy	An Archaeological Survey of the Hacienda Parcel, Broward County, Florida
18855	1996	Group Enterprises	Cultural Resource Assessment of Proposed Jurisdictional Roadway Transfer of Riverland Road from Old Alignment to SR 7 at SW 20 Street - Section No. 86000076.
4075	1995	Archaeological and Historical Conservancy	An Archaeological Survey of Southeast Broward County, Florida: Phase 3
3633	1993	Archaeological and Historical Conservancy	An Archaeological Survey of Broward County, Florida: Phase II
2125	1989	Historic Property Associates	Historic properties survey of Fort Lauderdale, Florida
22223	1986		Proposed Improvements to the SR 7 and SR 842 (Broward Blvd.) Intersection in Broward County, Florida

METHODOLOGY

Prior to conducting fieldwork, relevant archives were consulted and literature was reviewed. This included, but was not limited to, site forms and surveys from the Florida Master Site File (FMSF) in Tallahassee concerning previously recorded sites and investigations located within a 1.6-kilometer (1-mile) radius of the project parcel, USGS maps, USDA soil maps, LIDAR, Fort Lauderdale Historical Society archives, historical maps and various historic/modern aerial photographs. Also, interviews with members of the Fort Lauderdale Archers Club were conducted to record information on the past structures, features, and use of the property.

RESEARCH DESIGN

This Phase 1 Cultural Resources Assessment Survey of the Broadview Gardens parcel incorporated the use of certain predictive archaeological site models. These models are based on topographic and vegetative attributes that are associated with prehistoric and historic sites in Broward County. These models postulate that elevated hardwood hammocks or uplands scrub in close proximity to lakes, rivers, coastal ridges, or sloughs are high probability areas for prehistoric archaeological sites to occur. Aerial photography, LIDAR, and USGS maps aided in revealing anthropogenic changes to the topography and vegetative communities, which defined areas of probability on the project parcel. It was determined that the majority of the property was within a Moderate Probability Zone (MPZ) for archaeological sites to occur because the parcel historically contained an elevated pineland and sand scrub environment within near proximity to a freshwater slough or Transverse Glade that was situated south and west of the property (Figure 2). The south-end of the parcel was determined to be within a High Probability Zone (HPZ), which most likely contained or was near to an elevated hardwoods hammock environment, where it was at its closest to the slough.

FIELDWORK METHODS

A pedestrian survey was conducted across the entire property, and a total of 55 shovel tests were excavated across the project parcel, within a Moderate Probability Zone (MPZ) at 50-meter intervals on a control grid, and at 25-meter intervals within a High Probability Zone (HPZ) on a control grid (Figures 11 & 12). Shovel tests measured 50 cm in diameter and were excavated to a depth of at least 100 cm or to a lesser depth if the surface of the limestone bedrock was encountered. All positive shovel tests were delineated with shovel testing in cardinal directions at 5-meters or less until a negative shovel test was determined. All sediments excavated were sifted through a 6.35 mm hardware mesh screen. The location of each shovel test was recorded along with information concerning stratigraphy. Following the recordation process, all shovel tests were backfilled. Photographs were taken to document field conditions, etc., as needed.

COLLECTIONS

A total of three field specimens consisting of historic ceramics and glass (FS# 1-3) were collected as a result of this assessment (see Appendix I. Field Specimen Log).

INFORMANTS

The Fort Lauderdale Archers Club was interviewed concerning any knowledge that they had of cultural resources existing within the project parcel. They provided information stating that it was their understanding that site 8BD8251 (4590 Peters Road Range Storage Building) was historically original.

Figure 11. 2021 aerial photograph of the Broadview Gardens parcel, shovel tests, and site 8BD8251.

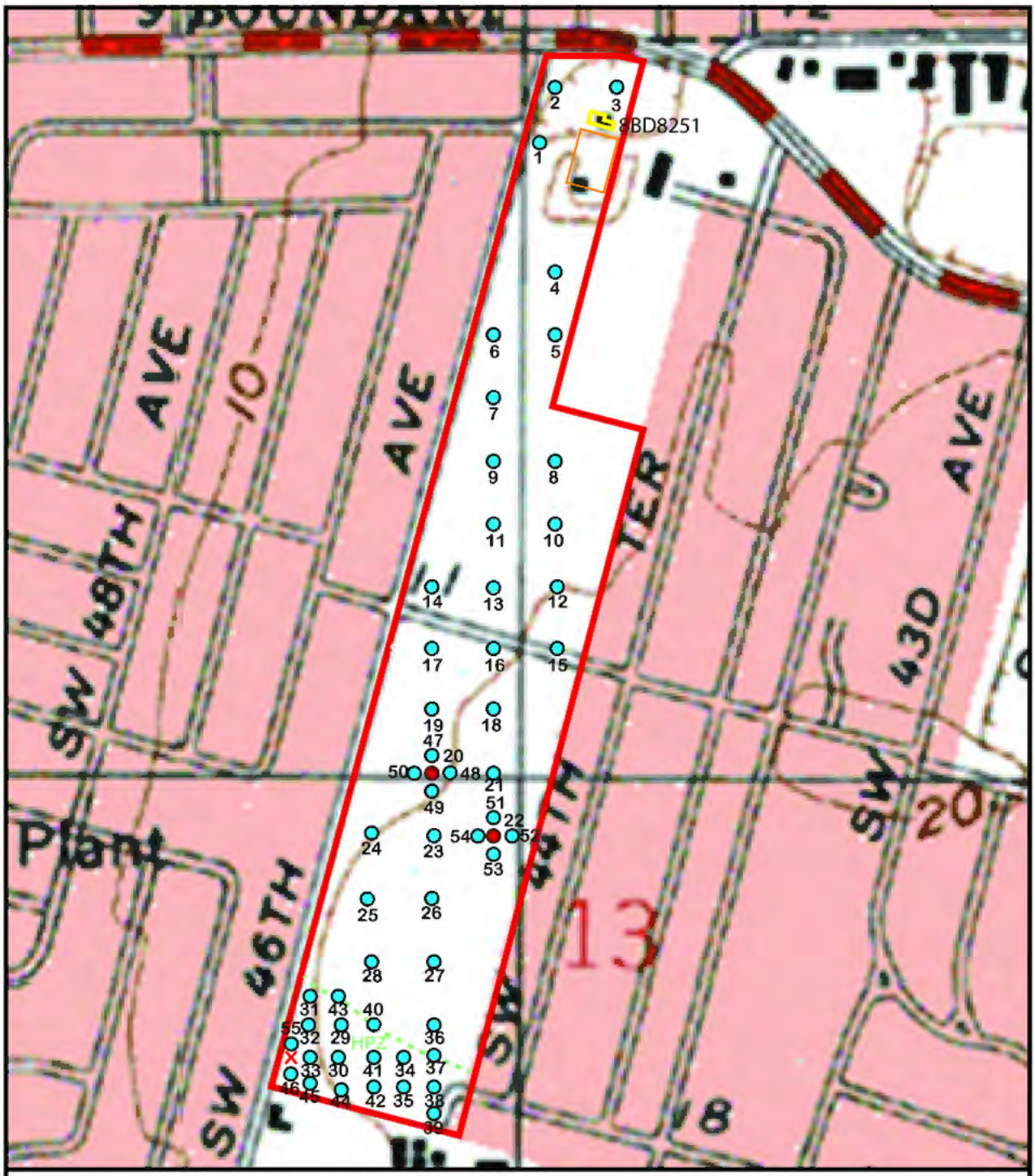

Figure 12. USGS map of the Broadview Gardens parcel, shovel tests, and site 8BD8251.

● = Positive shovel test
○ = Negative shovel test
× = Surface find
▭ = 8BD8251
▭ = Former gun range/current archery range
= Project area
= High Probability Zone (HPZ)

Map source: USGS Fort Lauderdale South, 1994

RESULTS

This Phase 1 Cultural Resources Assessment Survey of the Broadview Gardens parcel resulted in finding a total of two shovel tests (Shovel Test #20 & #22) that were found to be positive for historic cultural material, which was found within redeposited subsoil contexts at depths of 0-20 cm. Shovel Test #20 contained two Whiteware ceramic fragments (ca. 1920s) found within black (Munsell: 10YR-2/1) sand (see Appendix I: Field Specimen Log), and Shovel Test #22 contained two glass soda bottle fragments (ca. 1950s) found within brown (7.5YR-4/2) sand. Also, one Whiteware ceramic fragment (ca. 1920s) was found as a surface find in the southwest corner of the property. These historic artifacts most likely are associated with the long-term use of the property as a local dumping ground since the mid-1900s, but are of no archaeological significance since they were found within redeposited contexts or as surface finds. Shovel tests determined that the subsoils located within the HPZ and MPZ were generally found to be characterized as disturbed gray (10YR-6/1) sand at a depth of 0-20 cm, and intact white (10YR-8/1) sand at a depth of 20-100 cm.

This assessment also documented one newly recorded historic building, 8BD8251 (4590 Peters Road Range Storage Building), which was built in approximately 1957 or earlier according to a review of historic aerial photographs (Figure 4), although the Broward County Property Appraiser's office lists the structure as built in 1979. This original building is characterized as a masonry vernacular structure that was used for ammunition storage by the gun range that once operated on the property, which is currently reused as an archery range by the Fort Lauderdale Archers Club since 1985 (Figures 9, 13 & 14). The building exhibits an attached wood framed long carport that has been largely replaced with modern construction materials with few of its historic components remaining. According to the Fort Lauderdale Archers Club, the former gun range was possibly used for local law enforcement practice and training. Remnants of the gun range's northwest quadrant asphalt walking lanes still exist within the current archery range, which dates to at least 1952, based on a 1952 aerial photograph that depicts the constructed historic gun range at the northern end of the parcel, seen as multiple crisscrossing walking lanes. Site 8BD8251, exhibits commonality in design, and lacks significant historic associations; therefore, it is not eligible for listing in the *National Register of Historic Places* (NRHP) individually or as part of a district.

Figure 13. Photograph view of 8BD8251 southwest elevation.

Figure 14. Photograph view of 8BD8251 southeast elevation.

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, it is the consultant's opinion, based on the results of this Phase 1 Cultural Resources Assessment Survey of the Broadview Gardens parcel that no sites regarded as being eligible for listing in the *National Register of Historic Places* individually or as part of a district, occur within the project parcel. No further archaeological assessments are recommended.

UNANTICIPATED DISCOVERIES

Although a thorough and systematic effort was made to locate all cultural resources within the project parcel, there is still a potential of small archaeological sites, features or artifacts existing, and should cultural material or evidence of cultural activity appear during any construction activities, then the consultant archaeologist, or appropriate state/municipal authorities should be notified.

If human remains are discovered, then the provisions of *Florida Statutes* 872.05 (Offenses Concerning Dead Bodies and Graves) will apply.

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APPENDIX I. BROADVIEW GARDENS PHASE 1 CRAS – FIELD SPECIMEN LOG

FS #	Provenience	Description/Count	Date	Collected By
1	ST-20: 0-20 cm	1920s burnt Whiteware ceramic fragment (2)	25 February 2022	C. Robotti
2	ST-22: 0-20 cm	1950s clear glass soda bottle fragment (2)	25 February 2022	C. Robotti
3	Surface find: Area of ST-33	1920s Whiteware ceramic fragment (1)	28 February 2022	J. Mankowski

Clear Form Values

Ent D (FMSF only) _____

Survey Log Sheet

Florida Master Site File
Version 5.0 3/19

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Manuscript Information

Survey Project (name and project phase)
BROADVIEW GARDENS PHASE 1 CRAS

Report Title (exactly as on title page)
A PHASE 1 CULTURAL RESOURCES ASSESSMENT SURVEY OF BROADVIEW GARDENS PROJECT PARCEL, BROWARD COUNTY, FLORIDA

Report Authors (as on title page) 1. Joseph F. Mankowski 3. _____
2. _____ 4. _____

Publication Year 2022 **Number of Pages in Report** (do not include site forms) 37

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)
ADVANCED ARCHAEOLOGY, INC. (AAI) TECHNICAL REPORT #513

Supervisors of Fieldwork (even if same as author) **Names** Joseph F. Mankowksi

Affiliation of Fieldworkers: Organization Advanced Archeology, Inc City Fort Lauderdale

Key Words/Phrases (Don't use county name, or common words like *archeology, structure, survey, architecture, etc.*)
1. Broadview Gardens 3. 8BD8251 5. _____ 7. _____
2. Dixie Well Field 4. Lauderdale Archers 6. _____ 8. _____

Survey Sponsors (corporation, government unit, organization, or person funding fieldwork) Clear Sponsor Values
Name J. J. Goldasich and Associates, Inc. Organization _____
Address/Phone/E-mail 7050 W. Palmetto Park Road, Suite 15-507 Boca Raton, FL 33433

Recorder of Log Sheet Joseph F. Mankowski **Date Log Sheet Completed** 3-12-2022

Is this survey or project a continuation of a previous project? ☒No ☐Yes: Previous survey #s (FMSF only) _____

Project Area Mapping

Clear Mapping Values

Counties (select every county in which field survey was done; attach additional sheet if necessary)
1. Broward 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)
1. Name FORT LAUDERDALE SOUTH Year 1994 4. Name _____ Year _____
2. Name _____ Year _____ 5. Name _____ Year _____
3. Name _____ Year _____ 6. Name _____ Year _____

Field Dates and Project Area Description

Fieldwork Dates: Start 2-8-2022 End 2-28-2022 **Total Area Surveyed** (fill in one) 15.05 hectares _____ acres
Number of Distinct Tracts or Areas Surveyed 1
If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Survey Log Sheet

Survey #_____

Research and Field Methods

Types of Survey (select all that apply): ☒archaeological ☐architectural ☐historical/archival ☐underwater ☐damage assessment ☐monitoring report ☐other(describe): _____

Scope/Intensity/Procedures

A total of 55 shovel tests were excavated across the project parcel, within a Moderate Probability Zone at 50-meter intervals on a control grid, and at 25-meter intervals within a High Probability Zone on a control grid.

Preliminary Methods (select as many as apply to the project as a whole)

☒Florida Archives (Gray Building)	☐library research- *local public*	☒local property or tax records	☒other historic maps	☒LIDAR
☒Florida Photo Archives (Gray Building)	☐library-special collection	☒newspaper files	☒soils maps or data	☐other remote sensing
☒Site File property search	☒Public Lands Survey (maps at DEP)	☒literature search	☒windshield survey	
☒Site File survey search	☒local informant(s)	☐Sanborn Insurance maps	☒aerial photography	

☒other (describe): Ft Lauderdale Historical Society archive

Archaeological Methods (select as many as apply to the project as a whole)

☐Check here if **NO** archaeological methods were used.

☐surface collection, controlled	☐shovel test-other screen size	☐block excavation (at least 2x2 m)	☐metal detector
☐surface collection, uncontrolled	☐water screen	☐soil resistivity	☐other remote sensing
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer	☒pedestrian survey
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar	☐unknown
☐shovel test 1/16"screen	☐coring	☐ground penetrating radar (GPR)	
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☒LIDAR	

☐other (describe): _____

Historical/Architectural Methods (select as many as apply to the project as a whole)

☐Check here if **NO** historical/architectural methods were used.

☐building permits	☐demolition permits	☐neighbor interview	☒subdivision maps
☐commercial permits	☒windshield survey	☒occupant interview	☒tax records
☒interior documentation	☒local property records	☐occupation permits	☐unknown

☐other (describe): _____

Survey Results

Resource Significance Evaluated? ☒Yes ☐No Clear Check Boxes

Count of Previously Recorded Resources 0 **Count of Newly Recorded Resources** 1

List Previously Recorded Site ID#s with Site File Forms Completed (attach additional pages if necessary)

List Newly Recorded Site ID#s (attach additional pages if necessary)

8BD8251

Site Forms Used: ☐Site File Paper Forms ☒Site File PDF Forms

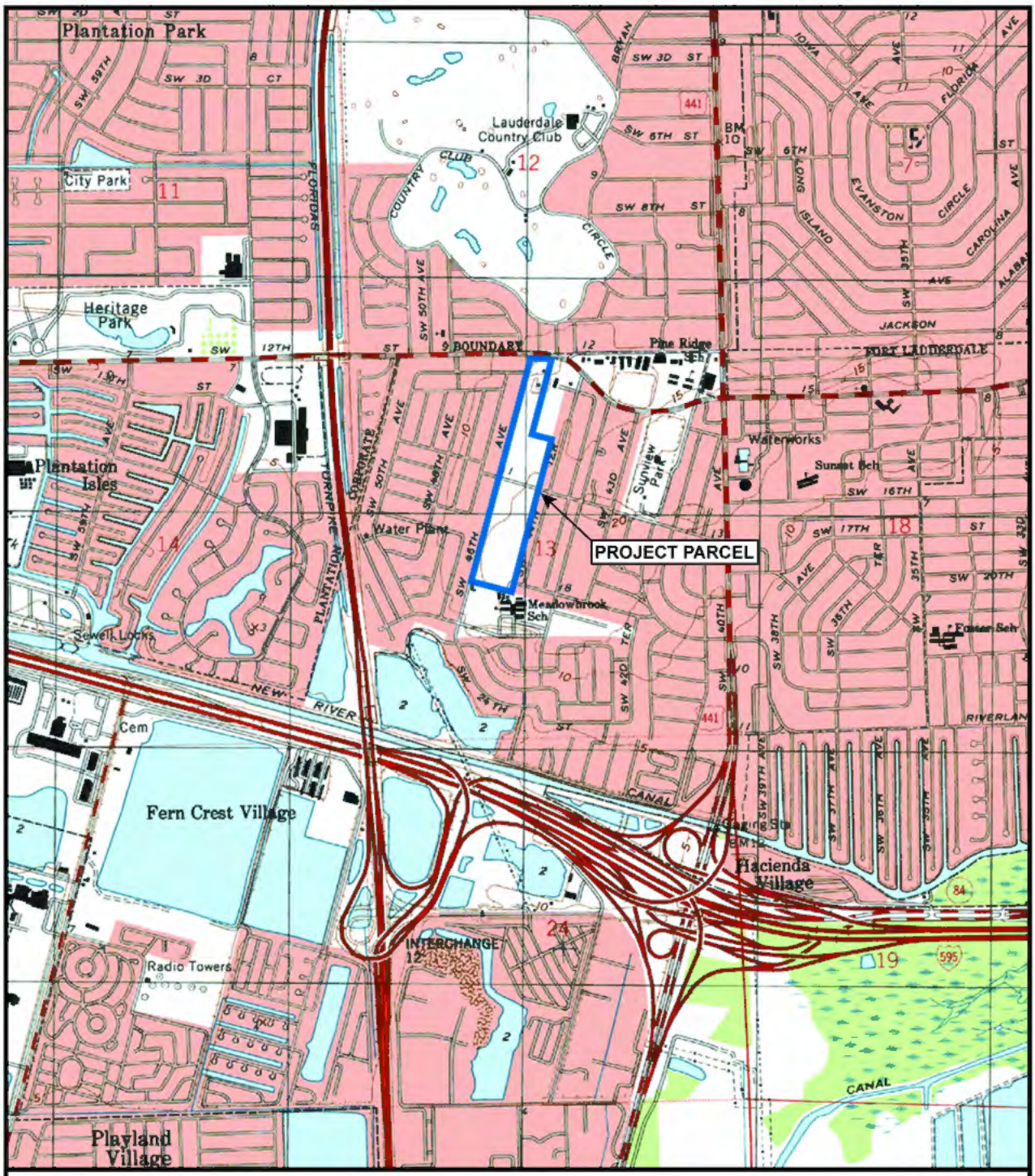
REQUIRED: Attach Map of Survey or Project Area Boundary

SHPO USE ONLY **SHPO USE ONLY** **SHPO USE ONLY**

Origin of Report: ☐872 ☐Public Lands ☐UW ☐1A32 # _____ ☐Academic ☐Contract ☐Avocational ☐Grant Project # _____ ☐Compliance Review: CRAT # _____

Type of Document: ☐Archaeological Survey ☐Historical/Architectural Survey ☐Marine Survey ☐Cell Tower CRAS ☐Monitoring Report ☐Overview ☐Excavation Report ☐Multi-Site Excavation Report ☐Structure Detailed Report ☐Library, Hist. or Archival Doc ☐Desktop Analysis ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: Plottable Projects **Plotability:** _____



USGS map of the Broadview Gardens project parcel.

Map source: USGS Fort Lauderdale South, 1994
Project location: Township 50 South, Range 41 East, Section 13

Clear Form Values

Page 1

☒ Original
☐ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site#8 BD08251
Field Date 2-27-2022
Form Date 3-10-2022
Recorder # _____

Site Name(s) (address if none) 4590 Peters Road Range Storage Building Multiple Listing (DHR only) _____
Survey Project Name Broadview Gardens Phase 1 CRAS Survey # (DHR only) _____
National Register Category (please check one) ☒building ☐structure ☐district ☐site ☐object
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☒city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

Clear Location Values

	Street Number	Direction	Street Name	Street Type	Suffix Direction
Address:	4590		Peters	Road	

Cross Streets (nearest / between) _____
USGS 7.5 Map Name FORT LAUDERDALE SOUTH USGS Date 1994 Plat or Other Map _____
City / Town (within 3 miles) Plantation In City Limits? ☐yes ☒no ☐unknown County Broward
Township 50S Range 41E Section 13 ¼ section: ☐NW ☐SW ☐SE ☒NE Irregular-name: _____
Tax Parcel # 504137011280 Landgrant _____
Subdivision Name _____ Block _____ Lot _____
UTM Coordinates: Zone ☐16 ☐17 Easting ☐☐☐☐☐☐ Northing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ Coordinate System & Datum _____
Name of Public Tract (e.g., park) Dixie Well Field

HISTORY

Clear History Values

Construction Year: 1957 ☒approximately ☐year listed or earlier ☐year listed or later
Original Use Storage building From (year): 1957 To (year): 1985
Current Use Storage building From (year): 1985 To (year): 2022
Other Use Gun Range From (year): 1957 To (year): 1985
Moves: ☐yes ☒no ☐unknown Date: _____ Original address _____
Alterations: ☐yes ☒no ☐unknown Date: _____ Nature _____
Additions: ☐yes ☒no ☐unknown Date: _____ Nature _____
Architect (last name first): _____ Builder (last name first): _____
Ownership History (especially original owner, dates, profession, etc.)

Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☒unknown Describe _____

DESCRIPTION

Clear Description Values

Style Masonry Vernacular Exterior Plan Rectangular Number of Stories 1
Exterior Fabric(s) 1. Concrete block 2. _____ 3. _____
Roof Type(s) 1. Gable 2. _____ 3. Flat
Roof Material(s) 1. Built-up 2. _____ 3. concrete slab
Roof secondary strucs. (dormers etc.) 1. _____ 2. _____
Windows (types, materials, etc.)

Distinguishing Architectural Features (exterior or interior ornaments)
Concrete block stem wall with concrete slab roof or ceiling, topped by wood frame box gable roof. Attached wood frame open sided carport with gable

Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.)
Building was originally used for ammunition storage for a gun range, which NW quadrant of asphalt range walking lanes still remain SW/adjacent to bldg

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Clear Check Boxes Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HR6E046R0319, effective 05/2016
Rule 1A-46.001, F.A.C.

Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250
Phone 850.245.6440 / Fax 850.245.6439 / E-mail SiteFile@dos.myflorida.com

HISTORICAL STRUCTURE FORM

Site # 8 BD08251

DESCRIPTION (continued)

Clear Description Values

Chimney: No. 0 Chimney Material(s): 1. _____ 2. _____

Structural System(s): 1. Concrete block 2. _____ 3. _____

Foundation Type(s): 1. Slab 2. _____

Foundation Material(s): 1. Poured Concrete Footing 2. _____

Note: you may use the last box in each field to type in an answer that does not appear in the list provided

Main Entrance (stylistic details)

Entrance contains a single modern metal door.

Porch Descriptions (types, locations, roof types, etc.)

Condition (overall resource condition): ☐ excellent ☒ good ☐ fair ☐ deteriorated ☐ ruinous

Narrative Description of Resource

This building was originally used to store ammunition associated with a gun range that was possibly used by local law enforcement. Since 1985 the building has been used for storage by the Fort Lauderdale Archers Club.

Archaeological Remains _____ ☐ Check if Archaeological Form Completed

RESEARCH METHODS (select all that apply)

☒ FMSF record search (sites/surveys)	☐ library research	☐ building permits	☐ Sanborn maps
☒ FL State Archives/photo collection	☐ city directory	☒ occupant/owner interview	☒ plat maps
☒ property appraiser / tax records	☒ newspaper files	☐ neighbor interview	☒ Public Lands Survey (DEP)
☒ cultural resource survey (CRAS)	☒ historic photos	☒ interior inspection	☐ HABS/HAER record search

☒ other methods (describe) Fort Lauderdale Hisorical Society

Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed)

A PHASE 1 CULTURAL RESOURCES ASSESSMENT SURVEY OF BROADVIEW GARDENS PROJECT PARCEL BROWARD COUNTY, FLORIDA. Advanced Archaeology, Inc. Technical Report #513.

OPINION OF RESOURCE SIGNIFICANCE

Clear Significance Values

Appears to meet the criteria for National Register listing individually? ☐ yes ☒ no ☐ insufficient information

Appears to meet the criteria for National Register listing as part of a district? ☐ yes ☒ no ☐ insufficient information

Explanation of Evaluation (**required**, whether significant or not; use separate sheet if needed)

This building exhibits commonality in design, and lacks significant historic associations; therefore is not eligible for the NRHP individually or as part of a district.

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)

1. _____ 3. _____ 5. _____

2. _____ 4. _____ 6. _____

DOCUMENTATION

Clear Documentation Values

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location — Maintaining organization Advanced Archaeology, Inc

Document description Notes, photographs — File or accession #'s _____

2) Document type _____ — Maintaining organization _____

Document description _____ — File or accession #'s _____

RECORDER INFORMATION

Recorder Name Joseph F. Mankowski — Affiliation Advanced Archaeology, Inc

Recorder Contact Information 1126 S. Federal Hwy. #263 Ft. Lauderdale, FL 33316

(address / phone / fax / e-mail)

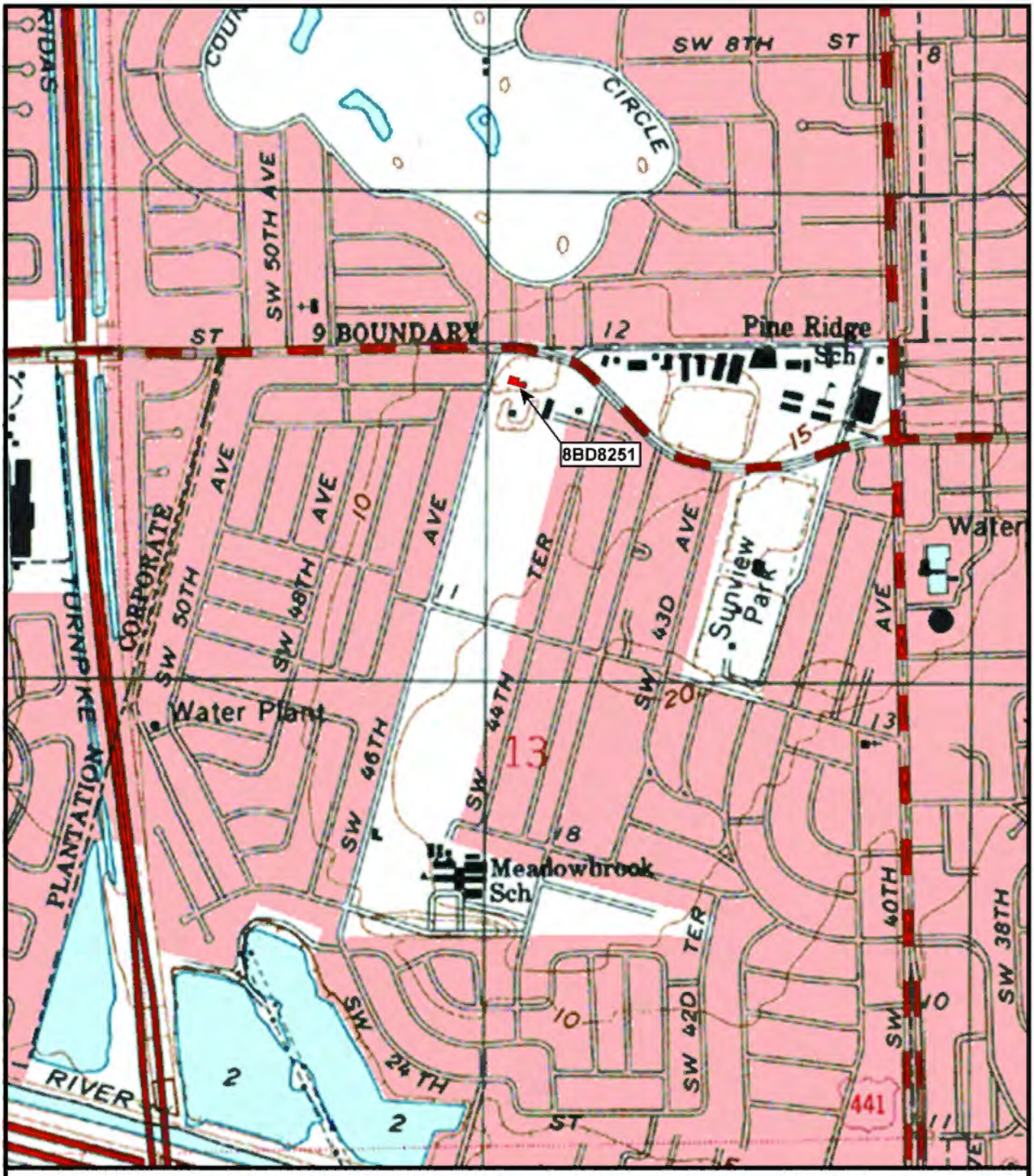
Required Attachments

❶ USGS 7.5' MAP WITH STRUCTURE LOCATION CLEARLY INDICATED

❷ LARGE SCALE STREET, PLAT OR PARCEL MAP (available from most property appraiser web sites)

❸ PHOTO OF MAIN FACADE, DIGITAL IMAGE FILE

When submitting an image, it must be included in digital AND hard copy format (plain paper grayscale acceptable). Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.



USGS map of 8BD8251 (4590 Peters Road Range Storage Building)

Map source: USGS Fort Lauderdale South, 1994
Site location: Township 50 South, Range 41 East, Section 13

0 200 400 Meters

Street map of 8BD8251 (4590 Peters Road Range Storage Building)

Photograph view of 8BD8251 northwest elevation.


Photograph view of 8BD8251 southwest elevation.

Section 4

Environmental- Natural Resources Assessment

Environmental Assessment

Ecological Assessment (EA), Wetland Determination and Environmental Impact Report (EIR)
Broadview Gardens Site
Broward County, Florida

Prepared For:
Atlantic Pacific Communities
3 Miami Central
161 NW 6th Street, Suite 1020
Miami, FL 33136
Prepared By:
Jim Goldasich, SPWS
10/13/2021
J. J. Goldasich and Associates, Incorporated
Boca Raton, Ft. Lauderdale, North Palm Beach and Wellington, Florida

This report provides an Environmental Assessment (EA) of the ecological conditions on the Broadview Gardens site in unincorporated, Broward County, Florida. The subject site is designated on Broward County's Environmentally Sensitive Lands Map, Map label #80/Site Name #78 as LAPC, NRA, Urban Wilderness Inventory: City Preserve, Sites on Inventory for Review. The site was evaluated for wetland characteristics, significant wildlife utilization including listed species site use and associated natural system conditions including important native habitat and listed Critical Habitat[1]. The site is an upland urban forested and rangeland parcel that has been altered by past and ongoing human uses. Dense areas of trees and shrubs are dominated by non-native and invasive plants. No wetlands were found on the subject and wetland conditions are not expected to form during normal conditions. No listed Critical Habitat or critical type of habitat is present on the site or in directly adjacent parcels. A tree survey and tree resources assessment should be conducted and overlaid on the proposed plan of development to determine possible tree impact avoidance, minimization and mitigation as required by the regulatory agency tree resources permitting requirements. The results contained in this report are time sensitive and conditions may change with the passage of time.

[1] *Land Use Plan Amendment; Leigh Robinson Kerr & Associates, Inc..*

Contents

Executive Summary:

The Broadview Gardens parcel (Site) is located on the south side of Davie Boulevard (Peters Road) in Broward County, Florida. The subject site is designated on Broward County's Environmentally Sensitive Lands Map (Map label #80/Site Name #78) as LAPC, NRA, Urban Wilderness Inventory: City Preserve, Sites on Inventory for Review. The site assessments were conducted according to the requirements and needs of the Broward County Environmental Impact Review (EIR) report. The Environmental Assessment (EA) of the Broadview Gardens Development parcel was conducted by review of recent and historic aerial photographs, NWI maps, soil maps, USGS Topographic data, and other existing data and information available during the scoping phase of the project site environmental review. The site was then reviewed in the field during September and October 2021. The site consists of an exotic forest community with areas of herbaceous dry prairie and cleared areas for active archery runways. While the vast majority of the trees currently growing onsite are non-native and invasive exotic trees, it is recommended that a tree survey be conducted so that tree resources may be plotted over any site plan. This could then be used to avoid direct development related impacts to the tree resources, if possible. The tree survey and site plan overlay is required by the tree protection regulations for the city and Broward County. The parcel is generally dry due to past drainage, filling, and site grading and slopes from the south to the north (see LiDAR Map). Based on the site conditions presented during the 2021 site assessments, wetland characteristics were not confirmed on the parcel. A deep swale that may serve to convey or store water is located in the north end of the parcel. This swale was dry during the site assessments. However, wetland associated site conditions are time sensitive and weather dependent so it is recommended that a wetland determination be conducted during favorable conditions to confirm the upland character of the site.

All site evaluations included methods and materials that are designed to establish if any listed flora or fauna are present on the site and to evaluate current ecological conditions on the parcel relative to the presence of important native habitat, including wetlands and native upland vegetative communities or tree resources. The site assessments were conducted pursuant to survey protocols recognized by the US Fish and Wildlife Service (FWS) and the Florida Fish and Wildlife Commission (FWC) as suitable to identify wildlife utilization of a site and were conducted by qualified biologists with extensive experience in listed species surveys.

No listed fauna were observed on the Site or in directly adjacent areas. Faunal sightings are typical for such open rangeland parcels in the urban environment and included several species of urban songbirds such as sparrows, grackles and northern mockingbirds, non-native reptiles, and various arthropods. There was no direct evidence of site use by large native mammals. The frequency of human site use and the urban location appeared to limit the attractiveness of the site for large mammal use. The site is expected to provide suitable habitat for small mammals such as rodents and raccoon and direct evidence of raccoon site use, such as tree scrapings and tracks, were observed in several areas of the site.

Document Path: O:\My Documents\Atlantic Pacific\Broadview Gardens Aerial.mxd

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Initial: 07/26/2021	Revised: 09/02/2021	J. J. Goldasich and Associates, Incorporated	Atlantic Pacific		
260 130 0 260 520 780 1,040 1,300 Feet		Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN	(561) 883-9555 jjg@goldasich.com Seagrass to Sawgrass	Broadview Gardens Survey over Aerial with Parcels Ft. Lauderdale, Florida	Survey over Aerial Photograph

Document Name: Aerial-with-GIS_Covers

www.GoldasichEnvironmental.com

09/22/2021 Revised: 10/05/2021 570 285 0 570 Feet	**J. J. Goldasich and Associates, Incorporated** Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN (561) 883-9656 jjg@jjgoldasich.com Seagrass to Sawgrass	***Broadview Gardens*** 2021 Aerial Photograph with Digital Elevation Map (LiDAR) Broward County, Florida	LiDAR DEM over 2021 Aerial	#1 #2 #3 #4	

Introduction:

The site is located at -80º 12' 37.595" (-80.210443º) West Longitude and 26º 06' 03.611" (26.101003º) North Latitude (approximate central coordinates). It is located in the northwest quarter of Section 13, Township 50 South, Range 42 East, Unincorporated, Broward County, Florida. The 2021 aerial (Figure 1) shows the current and adjacent site conditions. This environmental report (Ecological Assessment and Wetland Assessment) is prepared in accordance with the requirements of the Broward County Land Development Code, State of Florida and US Army Corps of Engineers wetland determination criteria and US Fish and Wildlife Service (USFWS) and Florida Fish and Wildlife Conservation Commission (FFWCC) survey protocol.

Methods and Materials:

The field assessments were carried out based on, and supported by, information generated during the comprehensive office scoping analysis. The office scoping analysis was completed using current and past aerial photographs, Land Use maps, National Wetland Inventory (NWI) maps, Soil Survey maps, USFWS and FWC listed species accounts and a series of historic aerial photographs dating to 1998. All areas of the Site were evaluated in the field by biologists during daylight hours in September and October 2021. The field work was designed to refine, confirm, and augment the site data generated during the scoping analysis and provided on historic documents. Specific field data were collected in the direct wildlife, direct listed species, soils, vegetation, and hydrology parameters. In addition, the site assessments were designed to identify indirect or potential site use by any important fauna, listed wildlife, as well as wetland and aquatic dependent biota.

The field assessments included pedestrian transects through the Site with particular attention given to the biological attributes and ecological condition of the soils, vegetation and hydrology presented during the assessment of the Site. The assessments were conducted with sufficient coverage to provide a thorough inspection of the existing natural system quality and condition. Key site features were specifically targeted for evaluation, including the potential wildlife draws on the site that may provide perching, nesting, feeding, roosting, and denning areas as well as for the presence of significant rookery or nursery areas for native wildlife. Features within the site that could provide niche space for fauna were carefully evaluated to determine actual or potential site use by listed or non-listed fauna. Important ecotones were also carefully reviewed for evidence of site use by wildlife by searching for burrows, nests, scat, tracks, refugia, trails, and drags.

Current Land Uses and Native Habitat Suitability:

The mixture of dense exotic forest and open rangeland vegetative communities provides niche space for small animals but direct evidence of significant site use by native wildlife was not confirmed during any of the site assessments. The vegetative character is that of an upland exotic forest community with upland dry prairie and upland herbaceous rangeland, and the dense canopy of primarily non-native trees found in most areas of the site limits wildlife utilization. The dominant trees include Bishop's wood (Bischofia japonica), fig tree (*Ficus benjamina*), Australian pine (*Casuarina Equisetifolia*) and Brazilian

pepper (*Schinus terebinthifolius*) all of which are non-native trees. The site and vicinity Florida Land Use Cover and Forms Classification System (FLUCCS) designations for the subject parcel are "Upland Hardwood Forest " (FLUCCS 4200) and "Commercial and Services" (FLUCCS 1400). Adjacent parcels are shown as "Multiple Dwelling Unity-Low Rise: (FLUCCS 1330), "Fixed Single Family Units" (FLUCCS 1210), "Educational Facilities" (FLUCCS 1710), "Transportation-Roads and Highways" (FLUCCS 8140) and "Commercial and Services", (see Figure 3 – FLUCCS Map). A site specific FLUCCS/Natural Systems map was generated following the site inspections and this map (Figure 4) shows the site more specifically as a mix of "Upland Prairie/Rangeland" (FLUCCS 3100), "Exotic Forest" FLUCCS 4380) "Roads and Highways" (FLUCCS 8140), "Urban Uses" (FLUCCS 1400), and "Drainage Ditch/Swale (FLUCCS 5400). The swale areas transport or convey stormwater within and off of the site and were dry during all of the site visits in the fall of 2021.

Site Photo #1: Site conditions showing poor natural system quality.

A Landscape Development Index (LDI) analysis for the project site yields a score of 1 for the exotic forest and upland prairie areas and an 8 for the urban use areas. The landscape development intensity (LDI) map (Figure 5) shows the generalized natural system support and quality on 1 to 10 point scale, with 1 representing natural undeveloped lands and a 10 representing developed areas. The LDI is meant to be a measure of existing anthropogenic disturbance on a particular site or area and as a result, as the LDI score increases proportionally as the quality of the natural system at that location decreases. The site conditions represented by the LDI map suggest that the undeveloped areas of the site provide a good quality native habitat for natural system support. However, since this site is primarily vegetated with non-native and invasive plants, the actual value for native habitat is very poor. These designations will be an important factor in the development review process and in developing an appropriate plan of development for the site. Given the relatively low LDI on the site suggesting a good quality natural area, a Landscape

Support Index (LSI) assessment was also conducted and is included as Figure 6. The site generated a 10 and 2.2 landscape support index for the rangeland and previously developed areas, respectively. This value shows a range of high quality to low quality natural system conditions. However, given the past site clearing, human impact and use of the site, exotic vegetation, and urban character of the parcel, the actual native and landscape support would be classed in the fair to moderate range and more accurately represented by values between 4.0 to 6.0.

Site Photo #2: Kapok tree on the Broadview Gardens site.

Document Name: Aerialswith-GIS_Covers

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09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated**	***Broadview Gardens***	Site and Vicinity FLUCCS Map	#1
570 285 0 570 Feet		Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN	2021 Aerial Photograph Site and Vicinity FLUCCS Map Broward County, Florida		#2
		(561) 883-9555 jjg@jjgoldasich.com Seagrass to Sawgrass			#3
					#4

www.GoldasichEnvironmental.com

09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated**	***Broadview Gardens***	Aerial with FLUCCS Natural Areas	#1
570 285 0 570 Feet		Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN	2021 Aerial Photograph Site Specific FLUCCS/Natural System Map Broward County, Florida		#2
		(561) 883-9555 jjg@jjgoldasich.com Seagrass to Sawgrass			#3
					#4

Document Name: Aerial-with-GIS_Covers

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09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated** Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN (561) 883-9655 jjg@jjgoldasich.com Seagrass to Sawgrass	***Broadview Gardens*** 2021 Aerial Photograph Landscape Support Index (LSI) Broward County, Florida	Current LSI Map	#1 #2 #3 #4

570 285 0 570 Feet

Document Name: Aerial-with-GIS_Covers

www.GoldasichEnvironmental.com

09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated** Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN (561) 883-9655 jjg@jjgoldasich.com Seagrass to Sawgrass	***Broadview Gardens*** 2021 Aerial Photograph Landscape Support Index (LSI) Broward County, Florida	Current LSI Map	#1 #2 #3 #4

570 285 0 570 Feet

Assessment Results:

Vegetation:

The dense vegetation on the site presents a formidable tree canopy with interspersed areas of upland open rangeland. These dense forested areas are primarily vegetated with exotic plants and non-native trees such as Australian pine (*Casuarina equisetifolia*), fig tree (*Ficus benjamina*), Brazilian Pepper (*Schinus terebinthifolious*), lead tree (*Leucaena leucocephala*) and coconut palm (*Cocos nucifera), Bishop's wood (Bischofia japonica), and umbrella tree (Schefflera actinophylla)* . The native trees and shrubs include Myrsine (*Myrsine floridana*), kapok tree, (*Ceiba pentandra*), (cabbage palm (Sabal palmetto), and salt bush (*Baccharis* spp.). The areas of herbaceous vegetation include St. Augustine grass (Stenotaphrum secundatum), Bermuda grass (*Cynodon dactylon*), Bahia (*Paspalum notatum*), dallis grass (*Paspalum dilatatum*), panic veldtgrass (*Ehrharta erecta*), poison ivy (*Toxicodendron radicans*), rosary pea (*Abrus precatorious*), smut grass (*Sporobolus indicus*), Johnson grass (*Sorghum halepense*), asparagus fern (*Asparagus aethiopicus*), southern bayberry (*Morella caroliniensis*), and Mexican clover (*Richardia scabra*).

Site Photo #3: Typical understory in forested areas.

Significant numbers of native trees do not appear to be present on the site and a tree survey should be conducted to confirm this and to locate and define the tree resources on the parcel. The site plan and development review ordinances require that all applicants proposing development of a site must submit a tree survey consisting of a scaled drawing depicting the following:

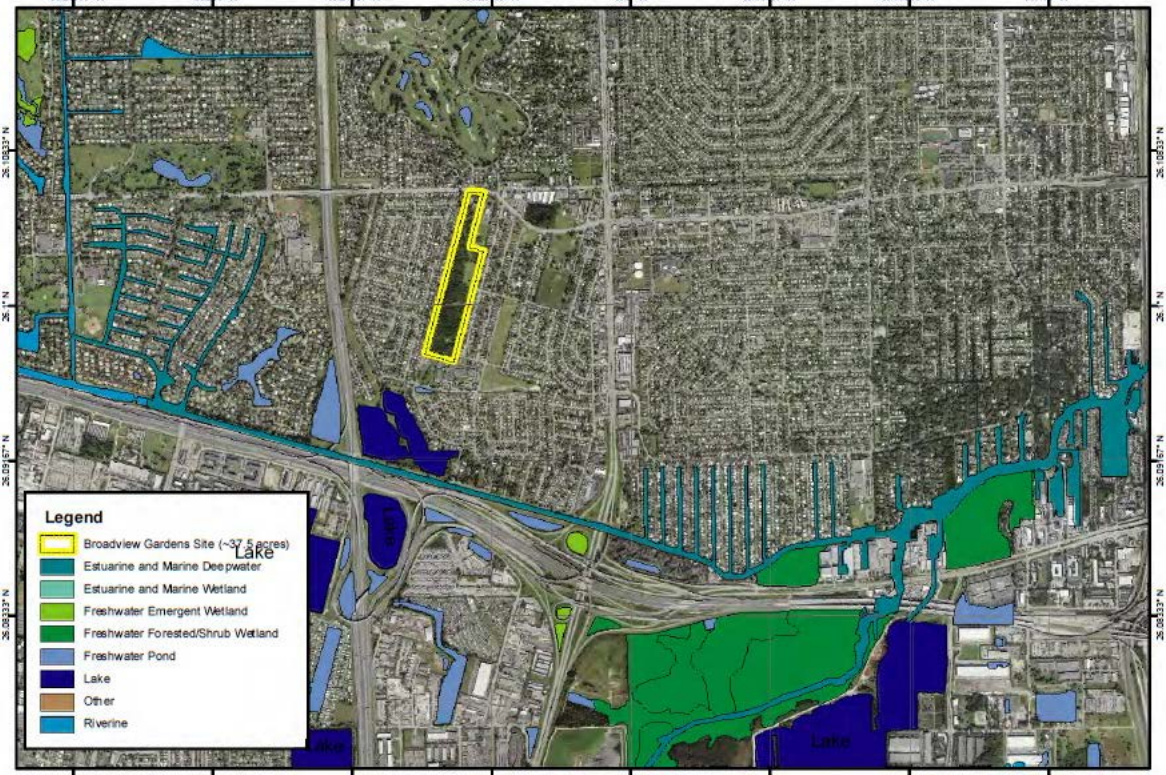
- Development Site Boundaries,
- Scientific and Common Name of the Surveyed Trees,
- Location of all trees (other than prohibited trees) with a caliper of ≥3 inches,
- Caliper (inches) and Canopy Spread (feet) for all Surveyed Trees,
- Scaled Site Plan with Tree Survey Superimposed
    - showing removed, relocated (if any) and preserved trees,

The site plan review will include a discussion of reasons for tree removal, relocation and replacement in order to address impact avoidance, minimization and mitigation for the site tree resources.

Soils:

The mapped soils for the site consist of "Dania-Urban Land Complex", and "Udorthent-Urban Land Complex"(see Soil Map). The listed soil types are not subjected to frequent flooding or ponding in the undrained condition and is not listed as hydric (wetland) soil in Broward County. The urban soil complex soils are typically formed on rises on marine terraces and consisted of gravelly sand and sand. The soils found on the parcel are not listed as hydric soils in Broward County.

Urban soils are soils that are found in areas of high population density and in a largely built out environment. Such soils may contain human altered or transported materials with areas of pervious and impervious surfaces. These soil types found on the parcel do not have diagnostic soil horizons as they have been altered, plowed or otherwise altered by past and ongoing human activity. They are important soils in development, crop production, urban land, and pasture areas. These soils are typically somewhat poorly drained with no tendency for flooding or ponding of stormwater. This soil type has not been rated as "poor" or "less suited" for gopher tortoise suitability due to the prior filled condition, presence of rocks and rubble, and the relatively hard soil with course texture. All of these factors tend to limit the attractiveness of the soil for gopher tortoise burrowing. The landform for this soil type is rises on marine terraces and consist of altered deposits of soil, typically from offsite excavations. The properties of such soils include an approximate 0 to 5 percent slope consisting of cobbly sand and sand to depths of greater than 80 inches. The soil on this site contained large amounts of limestone fragments, both organic and inorganic debris and other evidence of past soil alteration related operations. The water table is between 60 to 72 inches during most of the year in the undrained condition. The water table was not found during the 2021 site assessments with soil pit excavations to approximately 20 inches. The soil was dry to the soil surface. Secondary indicators of wetland hydrology were not observed in the soil. The National Wetland Inventory (NWI) map further confirms that there are no mapped wetlands found on the project site or in directly adjacent properties.



Document Name: Aerial-with-GIS_Covers

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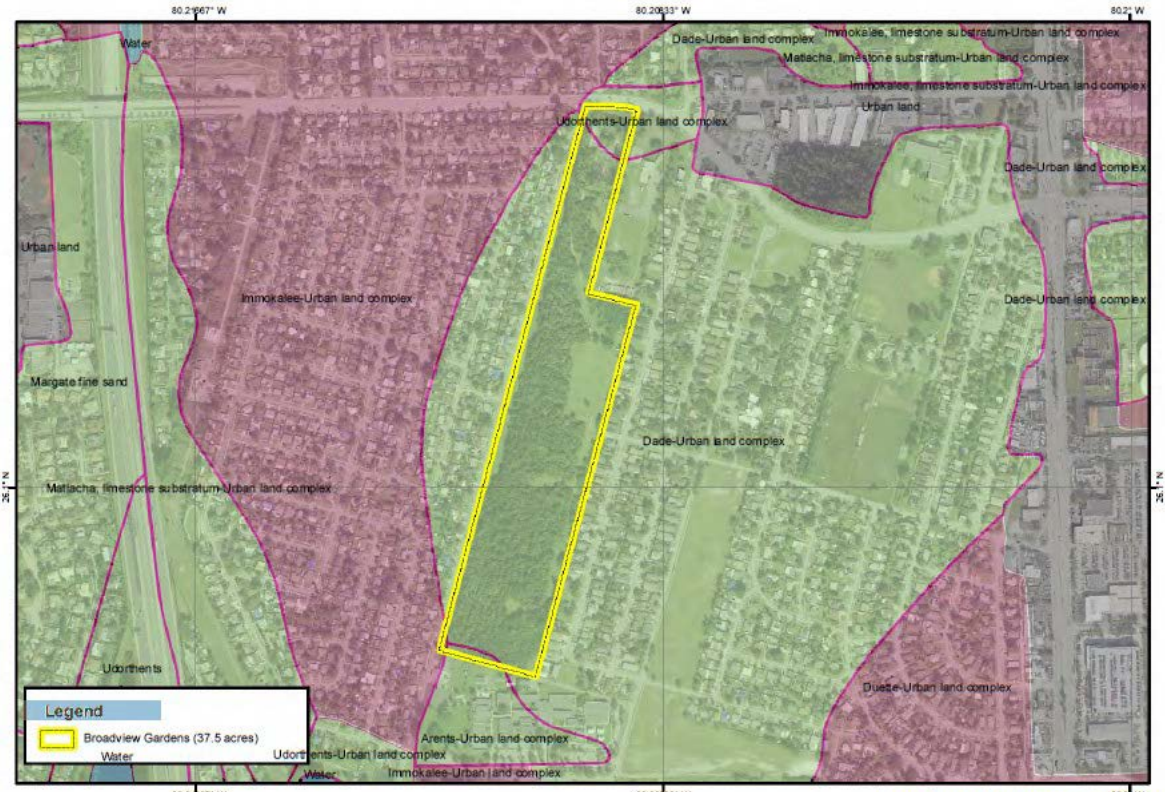
09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated**	***Broadview Gardens***		#1
2,250 1,125 0 2,250 Feet		Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN	(561) 883-9655 jjg@jjgoldasich.com Seagrass to Sawgrass	2021 Aerial Photograph National Wetland Inventory Map Broward County, Florida	NWI Map	#2	
						#3	
						#4	



Document Name: Aerial-with-GIS_Covers

www.GoldasichEnvironmental.com

09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated** Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN (561) 883-9655 jjg@jjgoldasich.com Seagrass to Sawgrass	***Broadview Gardens*** 2021 Aerial Photograph Florida Soil Survey Database (SSURGO) Broward County, Florida	Florida Soil Survey (SSURGO)	#1 #2 #3 #4

690 345 0 690 Feet

Hydrology:

The site is generally dry at the surface with a deep roadside drainage swale in the northern end of the site with no indications of recent flooding or ponding of stormwater. Water or saturated soil was not found in any of the soil pit excavations conducted during the 2021 site assessments, but it should be noted that the soil pits were relatively shallow due to the cobbly soil and shovel refusal. Review of national wetland inventory (NWI) Maps suggest that the site does not contain wetlands and this was confirmed by the conditions presented during the site assessments. The swale in the northern end of the site may contain water following significant storm events and water staining suggests that this water may remain for some time. However, wetland conditions were not identified in surface hydrology or soils during the onsite review.

Wetlands and Wetland Characteristics:

The project site did not contain any areas that demonstrated wetland characteristics during the September and October 2021 site assessments. Due to the relatively high elevations of the site and the sandy, cobbly soil conditions and the lack of wetland vegetation it is not expected that wetlands would form on the site even during heavy seasonal rain events.

Wildlife, Wetlands and Other Native Communities:

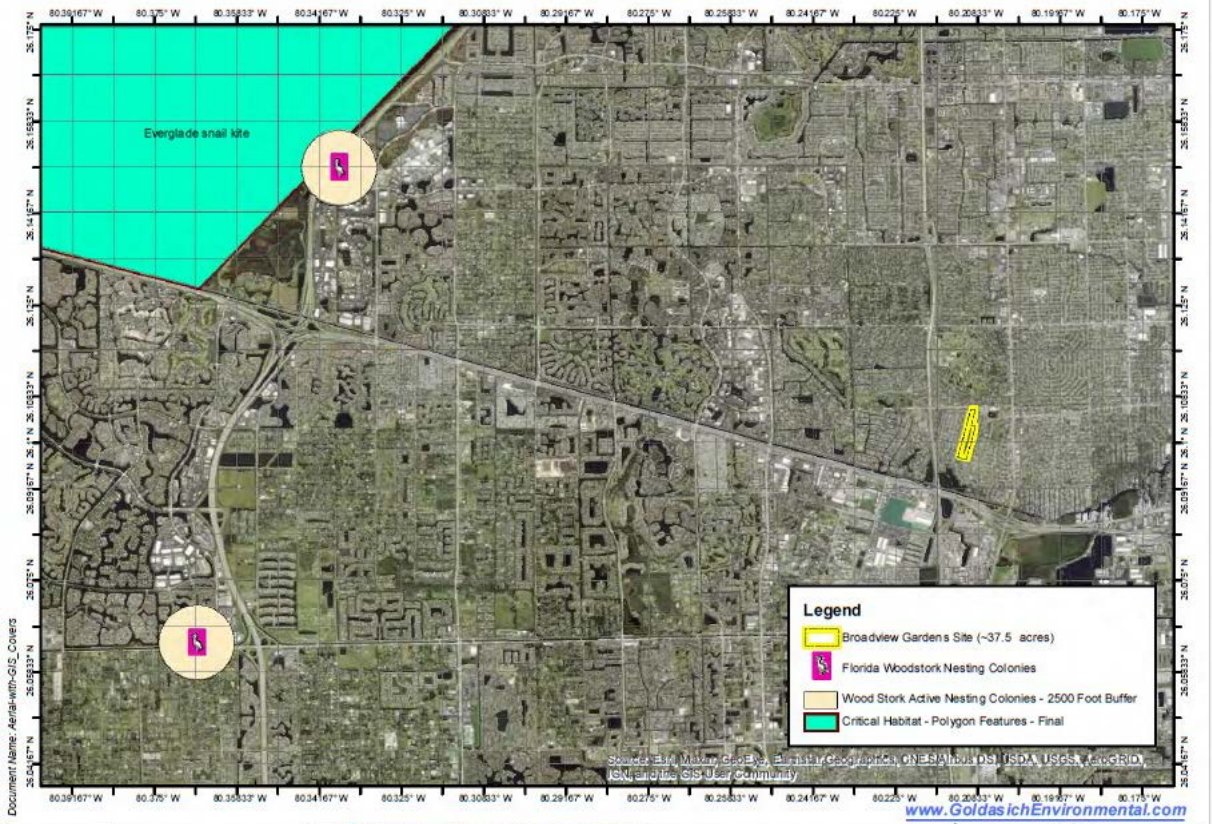
As previously stated, the Broadview Gardens site has been directly and indirectly affected by past site clearing, onsite and regional drainage, filling, other soil alterations, and the adjacent developments and roadways around the parcel. All of this activity has directly reduced the wildlife values on the Site.

No listed fauna were observed on the Site or in directly adjacent areas that could be evaluated by review from the Broadview Gardens Development parcel. The site assessments were conducted during a period of moderate temperatures and moderate rain events. Faunal observations included the Cuban anole (*Anolis sagrei*), spiny orb weaver spider (*Gasteracantha cancriformis*), urban songbirds such as northern mockingbirds (*Mimus polyglottos*), sparrows (Passeridae), and Formicidae (ants). While not directly observed on the site, indirect evidence and site conditions confirm site use by raccoon (*Procyon lotor*) and other urban small mammal taxa. No wading birds were observed during the site assessments and the site does not provide suitable wading habitat that would support feeding areas for such fauna. Critical Habitat for the snail kite (Rostrhamus sociabilis) is located approximately 10.2 miles to the west and important native habitat areas are located 9.1 miles to the west (wood stork nesting colonies). There is no critical habitat on the property or in directly adjacent parcels. (see Figure 9). No listed fauna were observed on the Site or in directly adjacent areas of the site during the field assessments. The site may contain or provide suitable feeding habitat for the federally listed Florida Bonneted Bat (FBB). As a result, a FBB Acoustic Survey may be required by the US Fish and Wildlife Service prior to development of the parcel.

Conclusions:

The subject site is a densely vegetated, upland forested and herbaceous parcel with open cleared areas dedicated to archery located in the unincorporated area of Broward County. No wetland areas were

identified on the site during the September and October 2021 site assessments. The site contains very dense areas of large trees and although the majority of the trees are non-native species, a tree survey should be conducted on the parcel. The tree survey should be overlaid on a plan of development for evaluation of tree impact, avoidance, and minimization possibilities. This will be required during the site plan review process. Tree mitigation will be required for all impacted trees, other than invasive exotic trees, prior to development of the site if regulated trees are removed, relocated, or damaged. None of the parcel contains high quality native south Florida habitat or ecosystems and wildlife utilization was poor during the daytime site assessments. The poor quality of the native habitat on site results in no direct impacts to high quality native habitat envisioned by the Local Area of Particular Concern (LAPC) requirements. Extensive areas of non-native and invasive trees and shrubs with very few native trees interspersed in the otherwise exotic forest does not provide good quality native habitat for wildlife and does not represent characteristic Florida natural areas that are important or targeted for preservation or protection.



09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated**	***Broadview Gardens***	Critical Habitat & Listed Species	#1
7,500 3,750 0 7,500 Feet		Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN	(561) 883-9655 jjg@jjgoldasich.com Seagrass to Sawgrass	2021 Aerial Photograph Critical Habitat and Listed Species Map Broward County, Florida	#2 #3 #4

Document Name: Aerial-with-GIS_Covers

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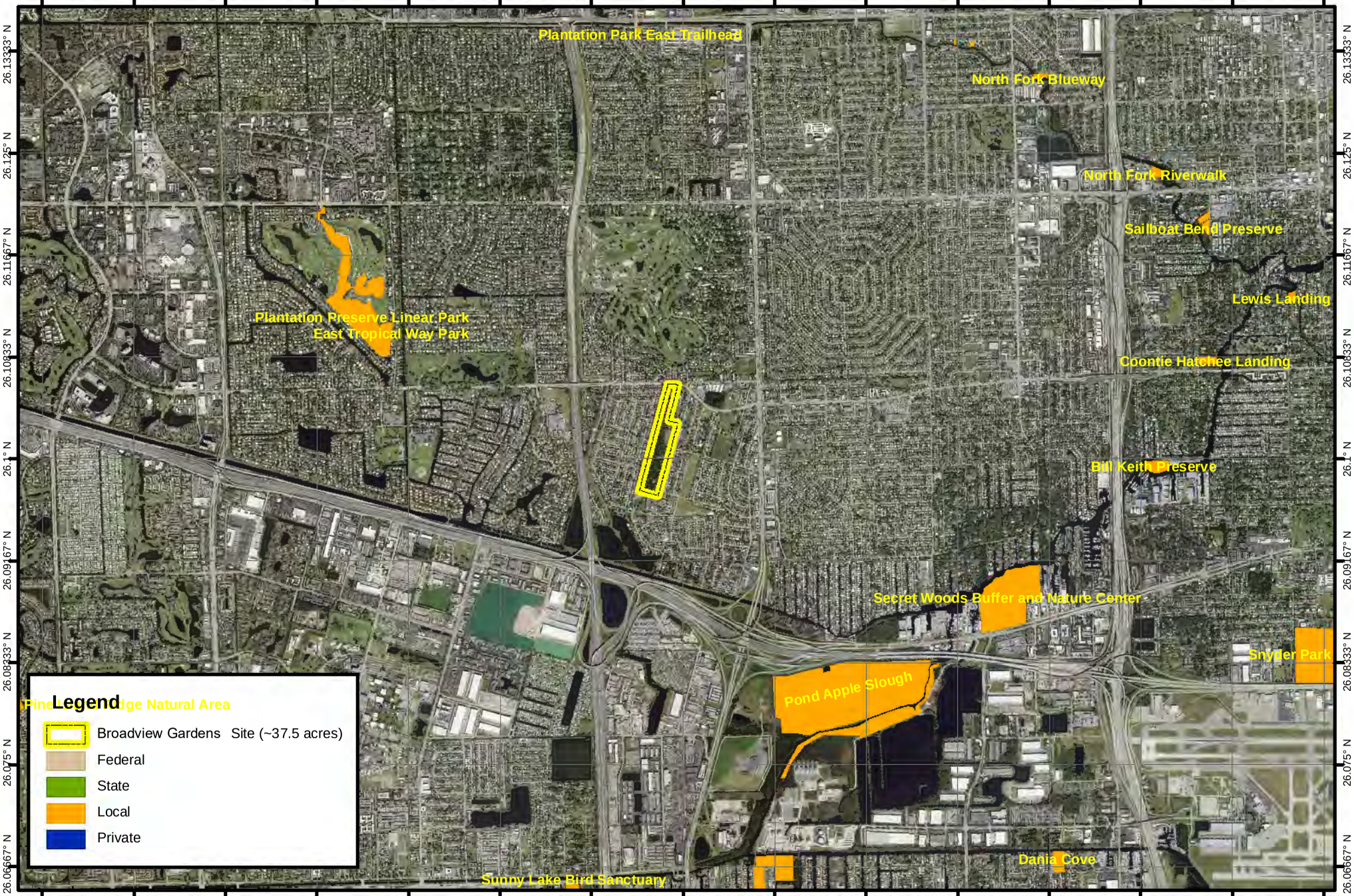
09/22/2021	Revised: 10/05/2021	***J. J. Goldasich and Associates, Incorporated***	***Broadview Gardens***	**FNAI Habitat Conservation Priorities**	#1
3,900 1,950 0 3,900 Feet		**Ecological Services** **Natural System Analysis** **DESIGN/PERMIT-BUILD-MAINTAIN**	2021 Aerial Photograph Florida Natural Areas Conservation Priorities Broward County, Florida		#2
		May 27, 2021			#3
		(561) 883-9555 **jjg@jjgoldasich.com** **Seagrass to Sawgrass**			#4



Document Name: Aerial-with-GIS_Covers

www.GoldasichEnvironmental.com

09/22/2021	Revised: 10/05/2021	**J. J. Goldasich and Associates, Incorporated**	***Broadview Gardens***	**Vicinity Conservation Lands**	#1
3,900 1,950 0 3,900 Feet		Ecological Services Natural System Analysis DESIGN/PERMIT-BUILD-MAINTAIN May 27, 2021	2021 Aerial Photograph Vicinity Established Conservation Lands Broward County, Florida		#2
		(561) 883-9555 jjg@jjgoldasich.com Seagrass to Sawgrass			#3
					#4

WLF - Gopher Tortoise Burrowing Suitability—Broward County, Florida, East Part
(Broadview Gardens)

Map Scale: 1:5,990 if printed on A portrait (8.5" x 11") sheet.
Meters: 0 50 100 200 300
Feet: 0 250 500 1000 1500
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Unsuitable
- Less suited
- Moderately suited
- Highly suited
- Not rated or not available

Soil Rating Lines
- Unsuitable
- Less suited
- Moderately suited
- Highly suited
- Not rated or not available

Soil Rating Points
- Unsuitable
- Less suited
- Moderately suited
- Highly suited
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

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: Broward County, Florida, East Part
Survey Area Data: Version 17, Aug 25, 2021

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

Date(s) aerial images were photographed: Jan 2, 2019—Mar 26, 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.

WLF - Gopher Tortoise Burrowing Suitability

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
2	Arents-Urban land complex	Not rated	Arents (55%)		0.6	1.3%
			Urban land (40%)			
			Arents, organic substratum (3%)			
			Udorthents, marly substratum (2%)			
11	Dade-Urban land complex	Less suited	Dade (55%)	Soil depth (0.14)	41.7	93.7%
				Content of rock fragments (0.97)		
			Immokalee, limestone substratum (2%)	Water table (0.22)		
				Soil depth (0.75)		
17	Immokalee-Urban land complex	Less suited	Immokalee (46%)	Water table (0.22)	0.2	0.5%
39	Udorthents-Urban land complex	Not rated	Udorthents (55%)		2.0	4.5%
			Urban land (40%)			
			Arents (5%)			
Totals for Area of Interest					**44.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Less suited	42.0	94.2%
Null or Not Rated	2.6	5.8%
Totals for Area of Interest	**44.5**	**100.0%**

Description

This soil interpretation is intended to provide ratings based on the dominant soil characteristics that influence the suitability of the soil for excavation, maintenance, and preservation of burrows by gopher tortoises (Gopherus polyphemus). The information allows the user to identify areas of potentially suitable habitat area prior to the application of conservation practices. The ratings are for the soils in their natural condition and do not consider present land use, existing vegetation, water sources, and the presence or absence of wildlife in the area. The presence or absence of a species is determined at the local level and by many factors including soil characteristics.

The gopher tortoise (Gopherus polyphemus) is a burrowing reptile that inhabits open pine forests throughout the southeastern United States. Historically, typical gopher tortoise habitat consisted of open, frequently burned longleaf pine or longleaf pine/scrub oak uplands and flatwoods on moderately well drained to xeric soils. The burrows of a gopher tortoise are the habitat and center of normal feeding, breeding, and sheltering activity. Gopher tortoises excavate and use more than one burrow for shelter beneath the ground surface. Burrows, which may extend for more than 30 feet, provide shelter from canid predators, winter cold and summer heat.

The soil criteria that are taken into account in this soil interpretation are those that have been determined to have the most effect on burrow excavation, maintenance, and preservation. These include the soil texture, percent coarse fragments, depth to a restrictive layer or layer with greater than or equal to 35% clay, ponding or flooding frequency, slope, and depth to seasonal high water table.

Each soil criteria is assigned a numerical rating between 0 and 1. In this rating, 1 represents more suitable soil characteristics, and 0 represents less suitable soil characteristics. Each criterion is calculated separately and the lowest rating is reported as the overall soil suitability rating, representing the most limiting factor in the soil's suitability for gopher tortoise burrows.

Rating classes have been defined as follows:

Highly suited (numerical rating 0.95-1): These soils have no restrictions for use and are favorable for burrowing by gopher tortoise. Colonization and population densities may be above average if other habitat factors are not limiting.

Moderately suited (numerical rating 0.5-0.95): These soils are suitable and somewhat favorable for burrowing by gopher tortoise. Some restrictive features may limit the use of the site to a minor extent. Colonization and population densities may be average to above for the area if the other habitat requirements are met.

Less suited (numerical rating 0.05-0.5): These soils have characteristics that may limit establishment, maintenance, or use of the site by gopher tortoise. Colonization and population densities may be below average or restricted in the area due to the limiting factors even though all of the other species habitat requirements are met.

Unsuitable (numerical rating 0-0.05): These soils have characteristics that may limit establishment, maintenance, or use of the site by gopher tortoise. Areas of

included soils with better drainage may provide suitable soil properties in some locations.

Not Rated: Miscellaneous areas are given a not rated status.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Citations:

U.S. Fish and Wildlife Service and Natural Resources Conservation Service. 2012. Gopher Tortoise (Gopherus polyphemus) Soil Classifications for the Federally Listed Range using the National Soil Information System Database, Version 1.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

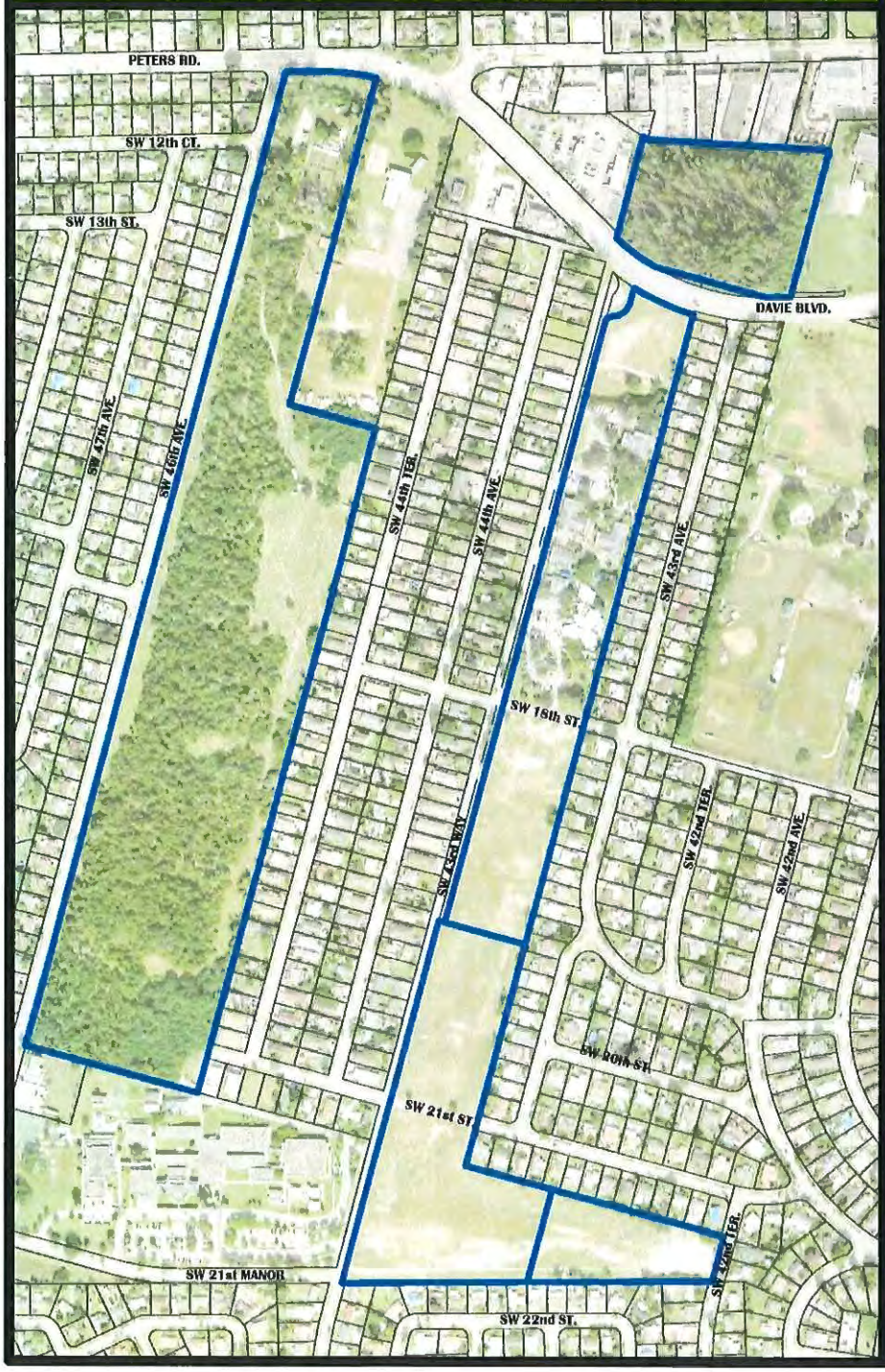
Tie-break Rule: Higher

Section 5

Well Study

ATTACHMENT X

WELL STUDY



CHEN·MOORE
&ASSOCIATES

PEELE DIXIE
BROADVIEW UPPER FLORIDIAN AQUIFER WELLFIELD
WELL SITING ASSESSMENT

Draft
September 13, 2019

CITY OF
FORT
LAUDERDALE

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1. INTRODUCTION

1.1. Background:

The Peele-Dixie Water Treatment Plant (WTP) began operation in 1926 utilizing a lime softening process. Over time the plant was expanded from six (6) million gallons per day (MGD) to twenty (20) MGD. In 2008 the WTP treatment process was converted to nanofiltration and it currently has a design capacity of 12 MGD of potable water. Existing wells for the WTP obtain water from the Biscayne Aquifer and are located in the Fort Lauderdale Country Club just south of Broward Boulevard. Future wells for the WTP expansion will be located in City owned property in the Broadview Park Neighborhood area. For purposes of this report, the City owned property will be referred to as the "Broadview site" (see Figure 1). The Broadview site is approximately 72 acres and the City anticipates developing portions of the site for affordable housing projects, but it needs to reserve land for preservation of existing wells and developing of future Upper Floridan Aquifer (UFA) wells and associated facilities.

Chen Moore and Associates (CMA) and its subconsultant Connect Consulting, Inc. (CCI) will provide wellfield siting services to determine locations and area needed for future wellfield sites and associated facilities including but not limited to access, easements, protection zones, operation and maintenance, wellfield expansion, consideration for environmental regulations, zoning regulations and setbacks.

1.2. Purpose:

The Housing Authority of the City of Fort Lauderdale (HACFL) assists low-income families by providing and managing affordable housing opportunities. HACFL has identified the Broadview site as a potential location for developing future affordable housing projects. The purpose of this report is to identify the location of the UFA wells within the Broadview site and determine the area required to be set aside for the development, maintenance and operation of future wells and associated facilities. Once the required wellfield area is determined, the report will also identify the area available for affordable housing development.

The report will discuss available land, access to the site, existing and future utilities, construction setbacks, maintenance and operation area requirements, easements and construction dewatering requirements. The report is not intended to discuss well design, treatment requirements, land use permitting or zoning requirements for the development of the housing project.

Figure 1; Broadview Site Properties

2. WELL SITING

2.1. Proposed Well Locations

Based on our experience with Upper Floridan Aquifer (UFA) wells and the potential for unexpected and changing aquifer conditions such as those that have been encountered elsewhere in South Florida, we recommend a total of eight (8) UFA wells to supply the City's Peele-Dixie Plant. Six (6) of these well sites, including four (4) new UFA well sites and two (2) existing UFA wells, are to be located within the two, northeast-trending, City-owned properties south of Davie Blvd and south of Peters Rd. This will require setting aside a total of six (6) UFA well sites on the Broadview site. Because of well spacing limitations using the Broadview parcels alone, we also recommend procuring at least two (2) additional well sites within the Ft Lauderdale Country Club. The Ft Lauderdale Country Club sites are recommended because the Peele-Dixie Biscayne aquifer wellfield is already located there, and the potential exists for expanding the existing well sites and site access. Additionally, electric power and infrastructure easements may be shared.

An individual well yield of 1-2 MGD is reasonable is for planning purposes. It is expected that six wells will be primary, and two wells will serve as standby wells.

2.2. Well Spacing

The development of a successful groundwater wellfield is dependent upon several factors including source water quality and productivity as well as design factors like well spacing, capacity, redundancy, and withdrawal rates. In the planning stages, well spacing is one of the more important factors to consider, particularly with FAS wellfields in south Florida.

Based on groundwater modeling conducted for the City of Ft Lauderdale, Hazen and Sawyer (2008) recommended a well separation distance of "not less than 900 to 1,000 feet for maximum withdrawal rates of 2 MGD." Based on our firsthand experience with water quality degradation (increase in chloride concentration) and performance challenges observed in FAS wells in the Town of Jupiter, Palm Beach County wellfields and other South Florida water utilities, we recommend a larger well separation distance of up to 2,000 feet where feasible. The larger well spacing minimizes interference between the wells caused by pumping. Well interference can result in magnified drawdowns and adverse changes in water chemistry.

The Floridian Aquifer System (FAS) in southeast Florida consists of water that ranges from brackish to saline. Brackish water reverse osmosis systems in this area typically tap the UFA of the FAS with total dissolved solids concentrations ranging from 3,000 to 6,000 mg/l to as much as 15,000 mg/l in deeper units and coastal areas. Water quality degradation in several Upper Floridan wellfields in southeast Florida has occurred over the past 25 years. Proper wellfield management including the construction of redundant wells, maximizing well spacing where possible, minimizing individual well pumping rates when possible, and spreading withdrawals throughout the wellfield has been found to slow salinity increases. Regardless, changes in salinity of UFA wells when they are pumped is inevitable. The water quality changes affect the operation of the reverse osmosis (RO) treatment process over time and must be planned for accordingly.

Examples of two South Florida public water supply utilities with extensive UFA wellfield experience are provided below. Both wellfields experienced early increases in salinity which were able to be minimized with additional wells and lowered pumping rates.

- ***Town of Jupiter in Northern Palm Beach County***
  The Town of Jupiter has operated a low-pressure RO water treatment plant supplied by UFA wells since 1995. The RO plant produces up to 13.7 MGD of finished water. The Town's UFA wells experienced a sharp increase in dissolved chloride concentration shortly after their construction in the mid-1990's. The well spacing was between 1,150 ft and 1,500 ft with design individual well flows of 1,600 gpm, however only two of the wells were providing the majority of the water to the Jupiter WTP. As additional wells came online several years later, the pumpage from the initial two wells was reduced and the water quality degradation was slowed with an average chloride concentration increase of 2% to 5% per year (Shers et al., 2015).

- ***Palm Beach County Water Utilities***
  The Palm Beach County Water Utilities Department WTP No. 11 Upper Floridan Aquifer wellfield experienced declines in well performance and water quality after initially being put into service. The wellfield originally consisted of seven UFA wells spaced approximately 800 feet apart. Three additional UFA wells were added which enabled the County to reduce the withdrawal rate from each well from 2 MGD to 1 MGD. The added wells reduced the rate of water quality degradation (Shers et al., 2015).

2.3. Well Location Analysis

A total of eight (8) well sites are proposed for the future Peele-Dixie treatment plant's Upper Floridan aquifer wellfield. Six of these wells are to be located within the Broadview site that is owned by the City of Ft Lauderdale. Of the six wells, two of the wells within the eastern parcel are existing (FAS-1 and FAS-2) having been drilled in 2007. Three new wells (FAS-4, FAS-5, and FAS-6) are proposed within the western parcel south of Peters Rd and one well (FAS-3) is proposed at the northern end of the eastern parcel south of Davie Blvd (Exhibit 1). These well locations are approximately 1,200 to 1,700 feet apart from one another with the proposed spacing. Ideally the wells would all be greater than 1,500 feet apart but the locations of the existing FAS wells and configuration of the two parcels limit the well location options. The final two wells (FAS-7 and FAS-8) are proposed to be constructed at the Fort Lauderdale Country Club. The eight wells (six primary wells plus two standby wells) would be equipped with 1.33 MGD pumps. Figures 2 through 7 identify the existing and proposed field locations of the FAS wells analyzed in this report.

Figure 2; Existing Floridan Aquifer Well FAS-1 Field (SW 44th Ave & SW 21st St)

Figure 3; Existing Floridan Aquifer Well FAS-2 Field (SW 43rd Way & SW 18th St)

Figure 4; Proposed Floridan Aquifer Well FAS-3 Field Location (SW 43rd Way & Davie Blvd)

Figure 5; Proposed Floridan Aquifer Well FAS-4 Field Location (SW 46th Ave & SW 12th Ct)

Figure 6; Proposed Floridan Aquifer Well FAS-5 Field Location (SW 46th Ave & SW 15th Ct)

Figure 7; Proposed Floridan Aquifer Well FAS-6 Field Location (Vicinity of 2100 SW 46th Ave)

2.4. Site Access

The Access to proposed well site FAS-3 is available via the unpaved entrance from SW 43rd Way. Access to proposed well sites FAS-4, FAS-5, and FAS-6 is available from SW 46th Avenue and possibly through the Ft Lauderdale Archery Club off of Davie

Boulevard. Clearing will not be required at FAS-3 but will be required at FAS-4, FAS-5, and FAS-6 as these sites are currently tree-covered. Locations for proposed Wells FAS-7 and FAS-8 were not made as part of this study as this work focused on siting wells on City-owned property that may be used for future affordable housing. Once wells are developed the City can easily implement access into the well sites connecting to the public right-of-way.

2.5. Construction Site Size

The recommended well construction site size is a 200 ft by 200 ft or 200 ft by 150 ft layout or similar (approximately 1 acre) to provide adequate room for a construction staging area (i.e.: lay down area for drilling equipment) and accessing the well site during and after construction. An example construction site plan is provided in Figure 8 and Exhibit 2 – Well Construction Buffers.

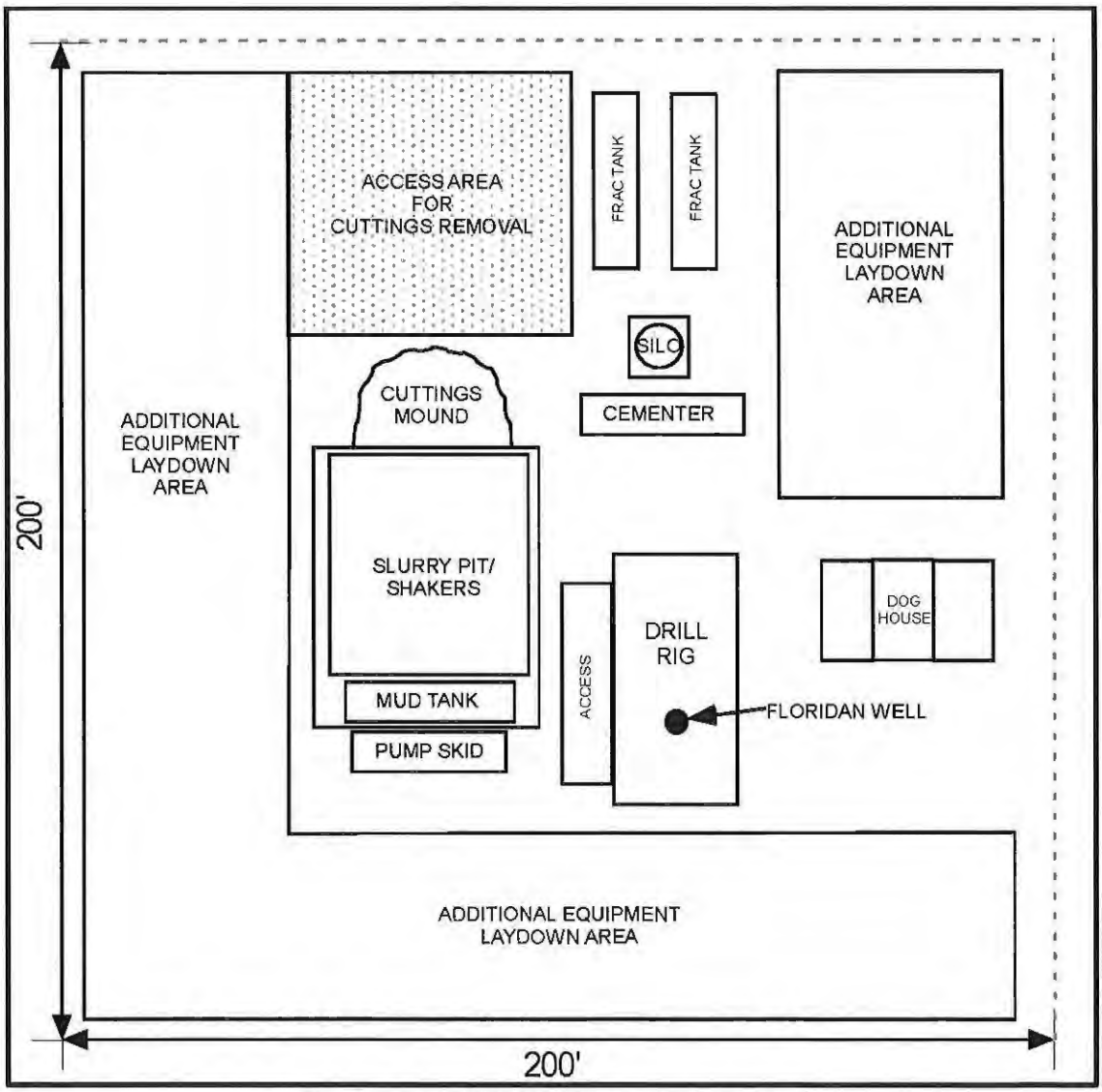

Figure 8; Typical FAS Well Construction Site Plan

2.6. Well Hazard Setbacks

The new wells will be subject to setback distances listed in the Florida Administrative Code (FAC), particularly in Chapters 62-555 and Part A of Table 1 in Chapter 62-532. Of potential relevance in this area are setbacks of 100 feet from domestic wastewater/transmission systems and storage tanks and 75 feet from reclaimed water lines.

Table 1: Well Setback Requirements

Setback	Distance (ft)
Sanitary Sewer	100
Reclaimed Water	75
Other Hazards (Stormwater, Lakes, Retention Areas)	50
Burrowing Owl Nesting Area	33

3. CONSTRUCTION AND MAINTENANCE CONSIDERATIONS

3.1. Well Construction and Maintenance

3.1.1. Well Design

Based on information collected during this review, the top of the Floridan Aquifer System (FAS) is encountered at approximately 1,000 feet below land surface (bls) and is at least 500 feet thick in the vicinity of the project site (Hazen and Sawyer, 2006). The two existing FAS wells, FAS-1 and FAS-2, have casing set depths of 1,015 ft below land surface (ft bls) with open hole completions to 1,505 ft bls and 1,205 bls, respectively.

FAS-1 and FAS-2 were completed with 20-inch diameter, fiberglass, production casing to 1,015 ft bls. The FRP casing type was likely chosen because of its strength and ability to resist corrosion in the hydrogen sulfide-rich brackish water environment of the UFA. Construction details for the new FAS wells will be developed during the design phase but will likely be similar to the existing wells.

3.1.2. Formation Water Disposal

Formation water from the UFA will be produced during drilling, development, and pump testing of the proposed wellfield. The conveyance and disposal of formation water away from the well site will be an important consideration for each well. In order to plan for the management of the flow, it has been estimated the quantity to be expected from each well during all phases of typical drilling and testing based on our experience with the construction of similar wells. The following table summarizes an estimate of formation water discharge.

Table 2; Formatian Water Estimate

FORMATION WATER DISCHARGE ESTIMATE		
WELL CONSTRUCTION TASK	GALLONS PRODUCED	PUMPING DURATION
Reverse Air Drilling/Flow Testing	5,100,000	12 hrs/day for 10 days
Pump Development	10,800,000	12 hrs/day for 5 days
Step Rate Testing	900,000	12 hrs/day for 1 day
Total Per Well	16,800,000	12 hrs/day for 16 days

Several options have been reveiwed for the disposal of well formation water. It is important to note that any off-site water disposal will require the construction of settling basins for solids prior to discharge and construction of temporary pipe systems that will require coordination, design and permitting with jurisdictional agencies. Water discharge options are as follows:

3.1.2.1. Disposal into existing stormwater system - water generated during construction and testing of FAS-3 could be piped to the stormwater catchment basin adjacent to the property along Davie Blvd. Water generated during the construction and testing of wells FAS-4, FAS-5, and FAS-6 could be piped to the stormwater drainage system along the east side of SW 46th Avenue. There are several catchment basins located along the east side of the roadway.

3.1.2.2. Disposal into existing gravity sewer system - water could be sent to the sanitary sewer located in the northwest corner of the property along Davie Blvd. and SW 46th Ave.

3.1.2.3. Deep injection well disposal - Disposal of formation water in the deep injection well at the Peele-Dixie WTP may be another option. The removal of fine-grained material will be required prior to injection. This option will reqiure the most piping in order to reach the WTP facility.

3.1.2.4. Disposal into existing City property - water could be piped north across Davie Blvd into the City-owned sludge pit. This is the least desirable option since the old sludge pit will have to be cleared of trees and heavy vegetation, sludge will have to be removed, the pipe will have to be drilled across davie Blvd and the property can potentially have poor percolation rates not meeting the dewatering needs for the development of the wells.

3.1.2.5. Discharge to existing surface water bodies – Should utility owners not allow discharge into the existing stormwater system or sanitary sewer system, formation water could be disposed in the lake south of the property located just north east of the intersection of the Florida's Turnpike and I-595. Prior

to determining the viablility of this option, the City will have to meet with the regulatory agencies including South Florida Water Management District, Broward County and FDOT to determine if UFA water will be allowed within the lake. This option will also require off-site piping.

3.1.2.6. On-site disposal utilizing seepage ponds (retention areas) - As shown in Table 2, construction and development of the well will require disposal of up to 16.8 million gallons per day per well. Since the timing of the affordable housing development and the construction of the wells has not yet been determined, provisions to set aside enough land area for the handling of dewatering of wells must be considered. The most conservative approach is to assume that water generated from developing the wells willl be hadled on-site. A seepage pond or a dry retention area that could act as a reservoir to handle the water is recommended. Based on calculations performed we recommend to set aside an area of at least 2.5 acres for the retention area. In order to maximaze land use efficiency, only one pond is recommended that can be shared by all wells during construction and testing of wells. The detention area was sized to accommodate one well at the time, and the City shall include provisions into the well construction bidding documents to make sure contractors understand that well construction shall be phased.

The Broadview site is located in a high ridge within Broward County with existing elevations of up to 16' NAVD as shown in Exhibit 12. A combination of this elevation and a high season water table of 2.5' NAVD will allow the construction of dry retention area of at least 10 feet deep. Refer to figure 9 for water table figures and to Exhibit 3A & 3B for the proposed formation water retention location.

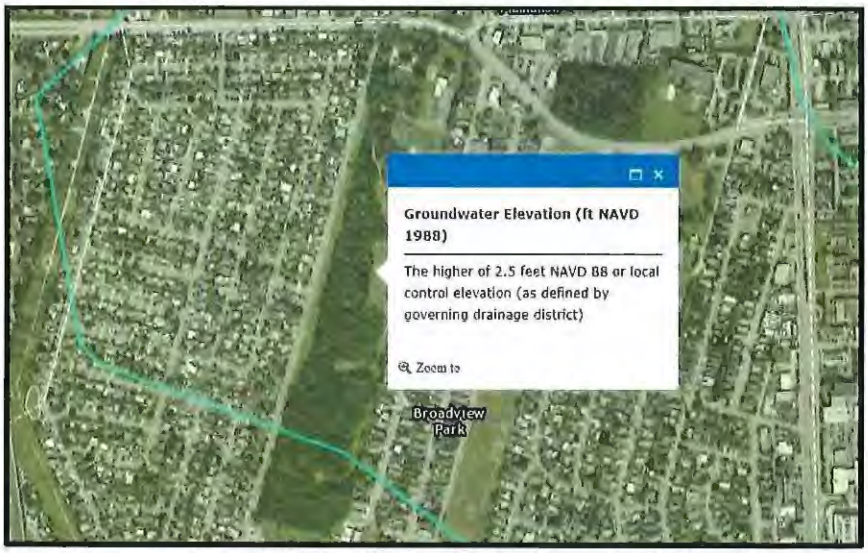

Figure 9; Seasonal High-Water Table of 2.5' NAVD

3.1.3. Future Maintenance Setbacks

Following completion of well construction, the construction area will be restored to its previous condition with the exception of a 30 ft by 80 ft footprint necessary for the finished well and related equipment. Each finished well will require a site of approximately 30 feet by 80 feet to accommodate the well, well head, pump motor, piping, electrical control panel and for equipment access for future well maintenance or rehabilitation. Each well site should be surrounded by a perimeter fence with hinged access gates. The fenced area will be filled with compacted lime rock and will house the completed wellhead including the reinforced concrete slab and support pedestals, discharge piping, electrical control panel, and optional drilled support piers.

3.1.4. Well Operation and Maintenance

Typical production well maintenance includes raw water quality testing, water level measurements, and specific capacity testing on a monthly basis; annual laboratory water quality testing; and annual pump maintenance. Water quality and specific capacity testing are performed to monitor and track changes in water quality and performance for each well. Water quality parameters to be tested on a monthly basis include total dissolved solids, chloride, conductivity, and hardness. Monthly specific capacity testing includes static and pumping water level measurements, pumping rates and specific capacity calculations. Consistently low water levels, with 20 percent greater drawdown than measured at well construction, may indicate the need for evaluation and potential rehabilitation.

Annual water quality testing of raw water from each well with a more comprehensive list of parameters than those measured on a monthly basis is recommended. In accordance with SFWMD requirements, well flow meters must be calibrated every two years at a minimum. Annual pump and motor maintenance should be performed according to the manufacturers specification to ensure proper pump operations.

3.2. Utilities and Infrastructure

With the selected well sites, the necessary space to construct, test, and maintain the well was established to be approximately 1 acre of land (200 ft x 200 ft), refer to Exhibits 5 through 10 for the individual well site construction easements. These parcels should be set aside in perpetuity for construction, maintenance and operation of the wells. No other construction or structures should be allowed within these areas.

Once constructed, the wells will require the necessary underground utility connections, including buried electric cable, communication cable, and raw water main piping.

The six Floridan Aquifer wells discussed in this report are within City of Fort Lauderdale owned property, however easements will be established in anticipation of the City

developing or selling the unused land for non-utility related use. As mentioned, the well site easement reservation would be approximately 200 ft x 200 ft, and the utility corridor easements will have a minimum width of 40 feet. For reference, the proposed easements are illustrated in Exhibit 3A. Another option is for the City to maintain ownership of the 200 x 200 parcels as well as ownership of the 40-foot utility corridor.

Further, it is recommended that a dewatering basin necessary for percolation of pumped water for well construction and testing be allocated in proximity to the existing and proposed wells. The well water flow rate and a conservative percolation recovery time was utilized to size a dewatering basin to be 2.5± acres per well. With well construction proposed to occur in phases, the proposed dewatering basin can be a shared common space among the well sites for efficiency in land use. Exhibit 3A displays one option for location of the well dewatering basin.

Exhibit 3A and 3B illustrate two options for the proposed raw water main routing through a vacant property located at 1571 SW 44th Ter. It is recommended that the City purchase this property to provide for a shorter pipeline to connect the wells to the Peele Dixie WTP. Alternatively, the City should contact landowners along the westside of SW 44th Ter (in the vicinity of SW 18th St) to discuss the possibility of an easement agreement for construction of the 24" raw water main.

3.3. Environmental Requirements

3.3.1. Burrowing Owls

During our site reconnaissance visit on August 26th, 2019, several occupied Florida Burrowing Owl nests (burrows) were observed near existing Floridan Aquifer Wells FAS-1 and FAS-2. The Burrowing Owl was recently reclassified as a threatened species under FAC rule 68A-27.003. As a threatened species, any development or construction activity within a known owl habitat will require permitting and subsequent studies through the Florida Fish and Wildlife Conservation Commission. The permitting process will determine the amount of undisturbed land required for the owl burrow clusters, or burrow mitigation criteria. Prior to any construction activity, the applicant must apply for a Listed Species Incidental Take Permit and Supplemental Application through the Florida Fish and Wildlife Conservation Commission.

Figure 10; Burrowing Owl Protected Area (between FAS-1 & FAS-2)

Figure 9; Burrowing Owl Nest (between FAS-1 & FAS-2)

3.3.2. Contaminated Sites

Due to the depth of the Floridan Aquifer, local ground contamination is not a major concern to the well sites. However, with the potential for onsite dewatering activity during well construction and testing, the EPA and Broward County Environmental Protection Department Contaminated Sites data bases were reviewed for potential ground water pollution within proximity to the well sites. Two existing sites fall within a 0.25-mile radius of the proposed location for FAS-3 and FAS-4, illustrated in Exhibit 11. Both known contaminated sites identify the pollutants as Diesel/Gasoline and have undergone cleanup remediation and compliance. Exhibit 11 shows the contaminated site locations within 0.25 miles of the proposed wellfields. Given this proximity, the proposed dewatering activity related to well construction and testing would take place outside the 0.25-mile radius of the known contaminated sites.

4. SUMMARY AND RECOMMENDATIONS

4.1. Proposed Well Areas and Developable Land

We recommend that the City sets aside enough land for the construction maintenance, repair and operation of the future UFA wells and associated facilities. The land allocation related to well and utilities required to develop the six Floridan Aquifer Wells are shown in Exhibits 3A & 3B. Our research indicates that up to 46± acres of the three City owned properties analyzed can be provided for future development to the Housing Authority of the City of Fort Lauderdale after the well sites are constructed and implemented.

The available land configuration presented in this report can be modified to accommodate revisions to the proposed raw water line route, seepage pond and to some extent, the well locations if needed. The Housing Authority may have to remove the existing raw water lines and underground infrastructure prior to developing the residential project.

It is important to note that the west parcel of the Broadview site is occupied by the Fort Lauderdale Archers Club. The west parcel is occupied in its entirety and the Club has an active lease with the City until May 3, 2021. Any development prior to the expiration of the lease will have to be discussed with the Archers Club. A copy of the lease is shown in this report as Attachment 1.

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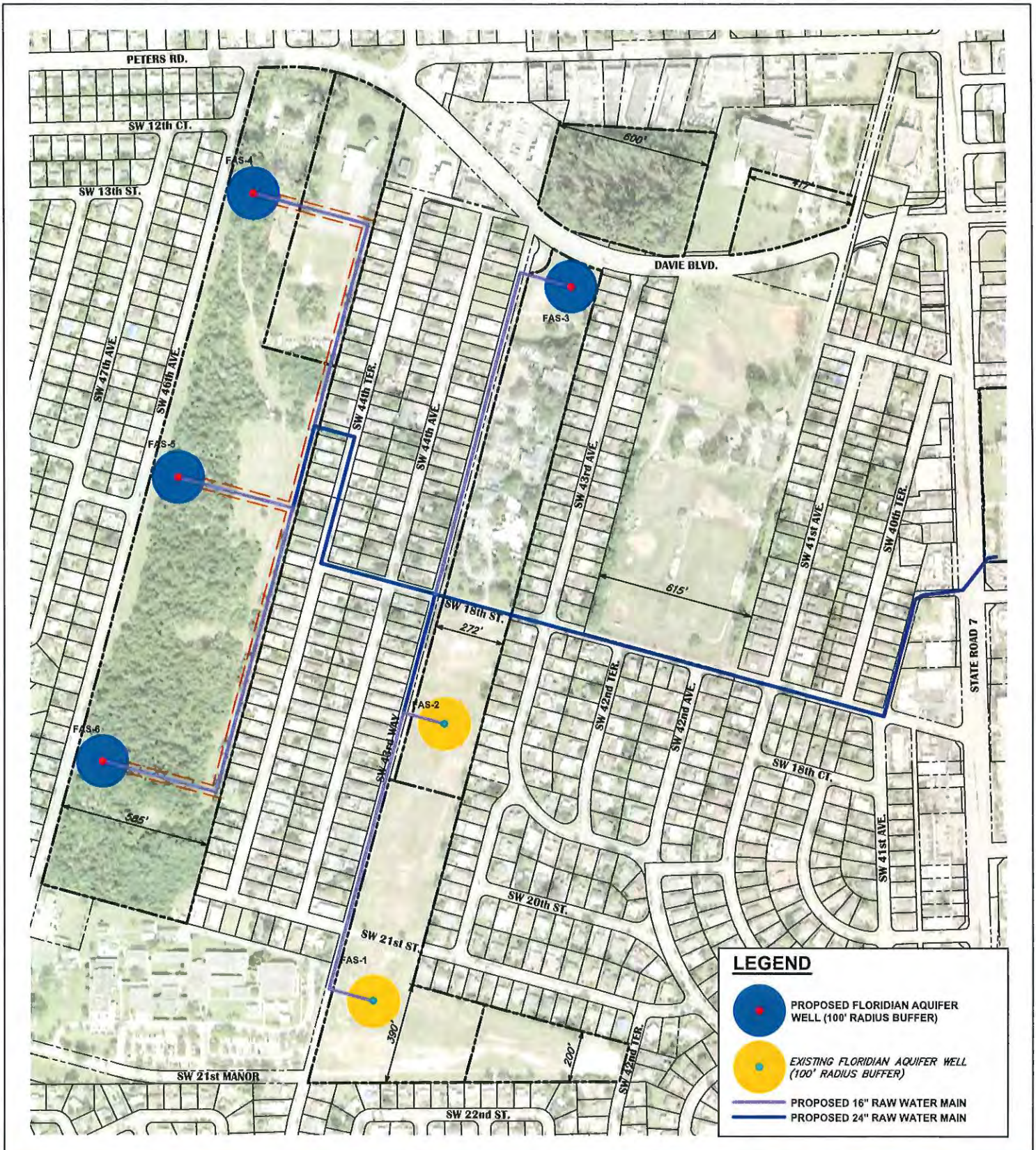

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
FLORIDIAN AQUIFER WELLS AND PROPOSED RAW WATER MAIN

GRAPHIC SCALE
0 125 250 500
1 INCH = 250 FEET

EXHIBIT 1

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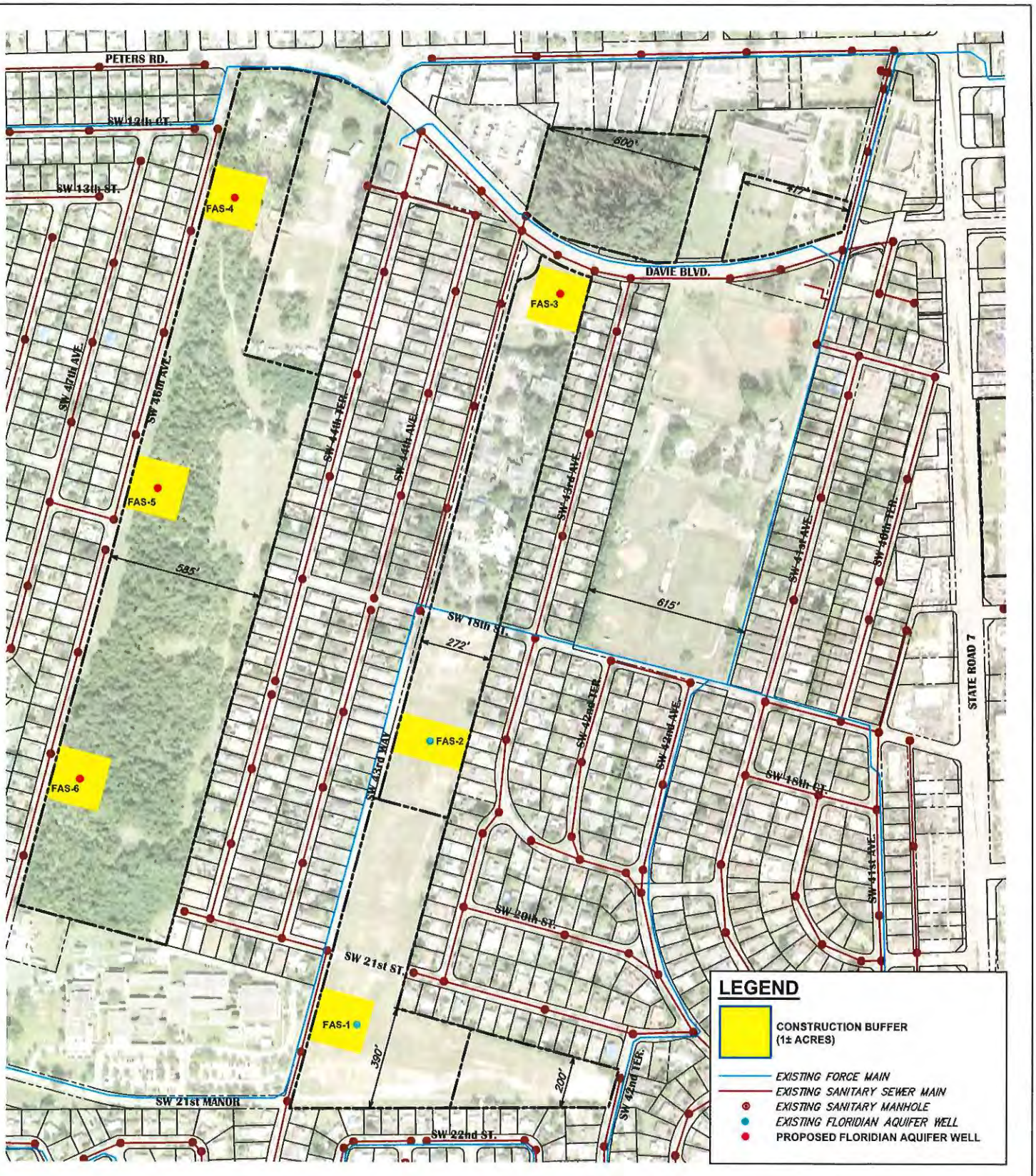

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ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
CONSTRUCTION BUFFER SETBACKS

GRAPHIC SCALE
0 125 250 500
1 INCH = 250 FEET

EXHIBIT 2

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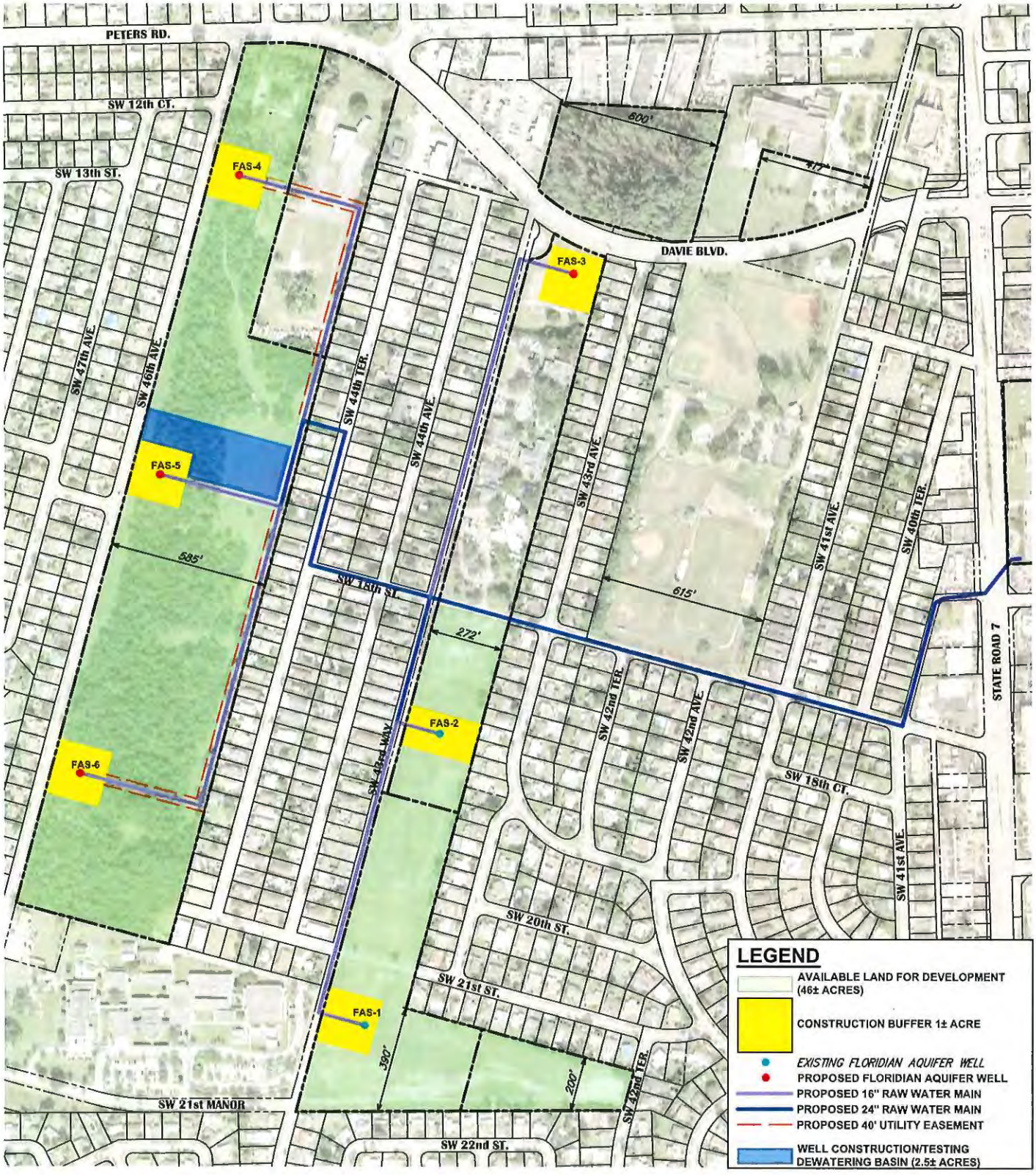

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PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
FLORIDIAN AQUIFER WELLS AND AVAILABLE LAND

GRAPHIC SCALE
0 250 500 1000
1 INCH = 500 FEET

EXHIBIT 3A

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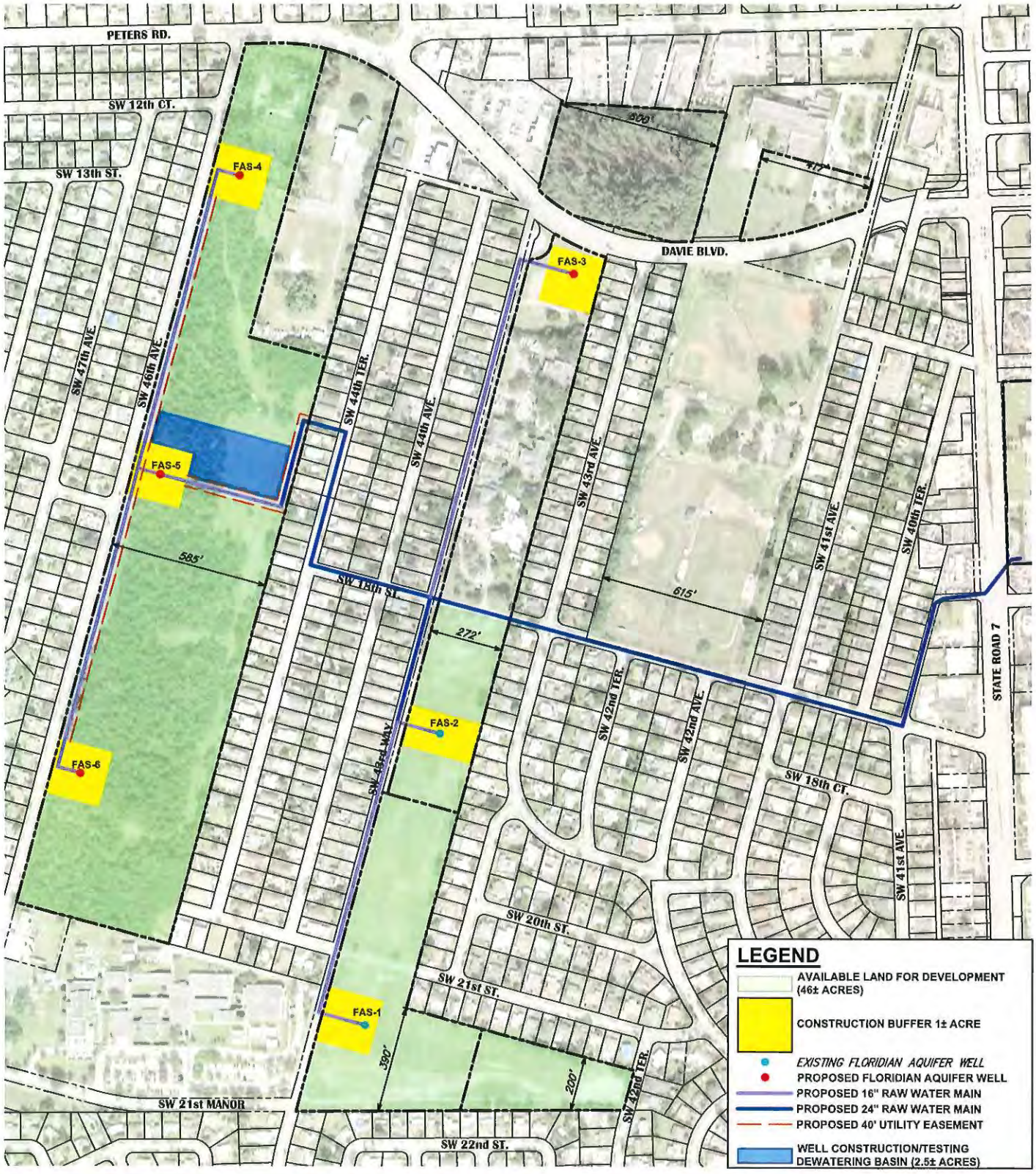

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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

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PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
FLORIDIAN AQUIFER WELLS AND AVAILABLE LAND

GRAPHIC SCALE
0 250 500 1000
1 INCH = 500 FEET

EXHIBIT 3B

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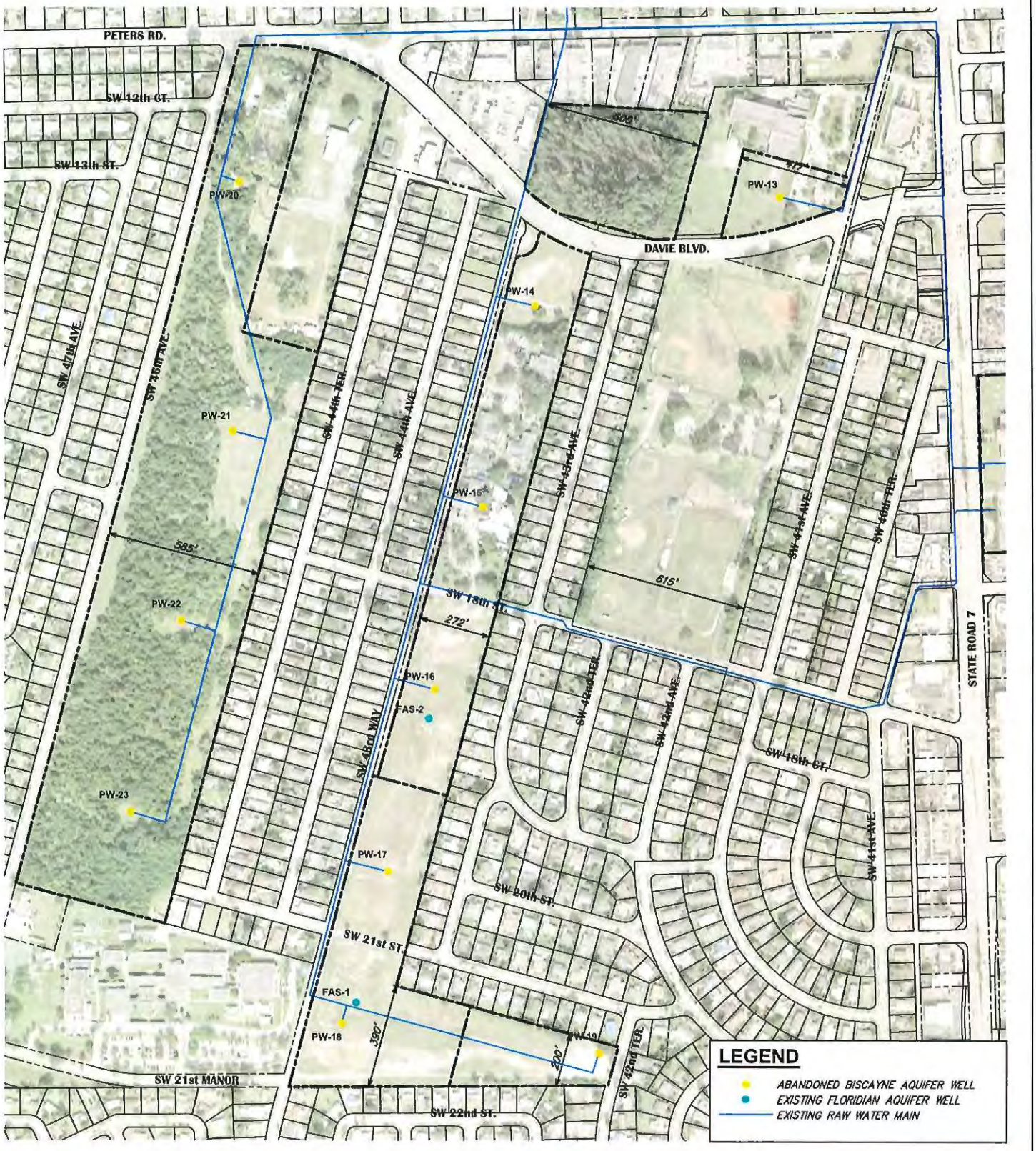

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CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
EXISTING ABANDONED WELLS AND EXISTING RAW WATER MAIN

GRAPHIC SCALE
0 250 500 1000
1 INCH = 500 FEET

EXHIBIT 4

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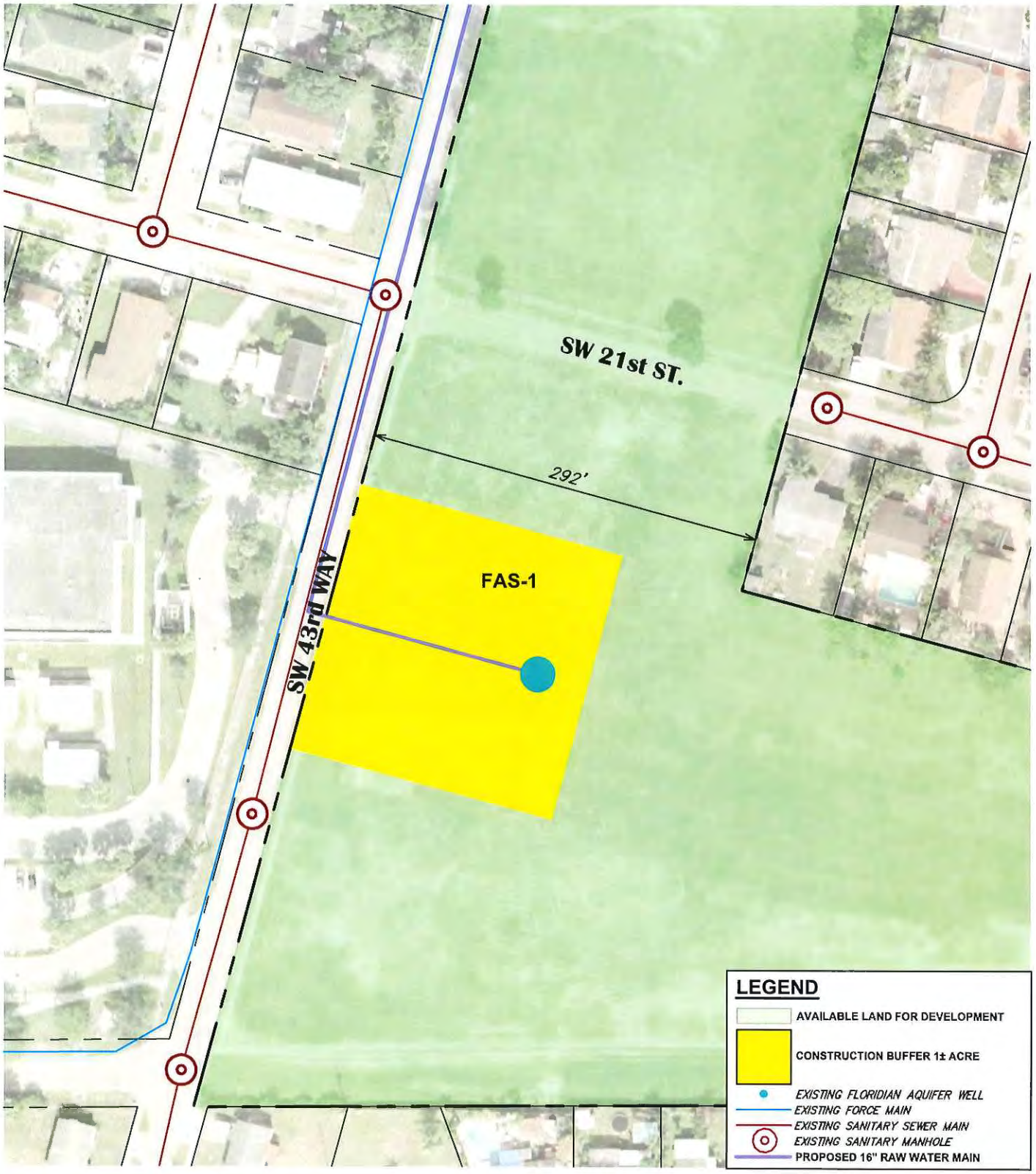

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PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
EXISTING FLORIDIAN AQUIFER WELL FAS-1

GRAPHIC SCALE
0 50 100 200
1 INCH = 100 FEET

EXHIBIT 5

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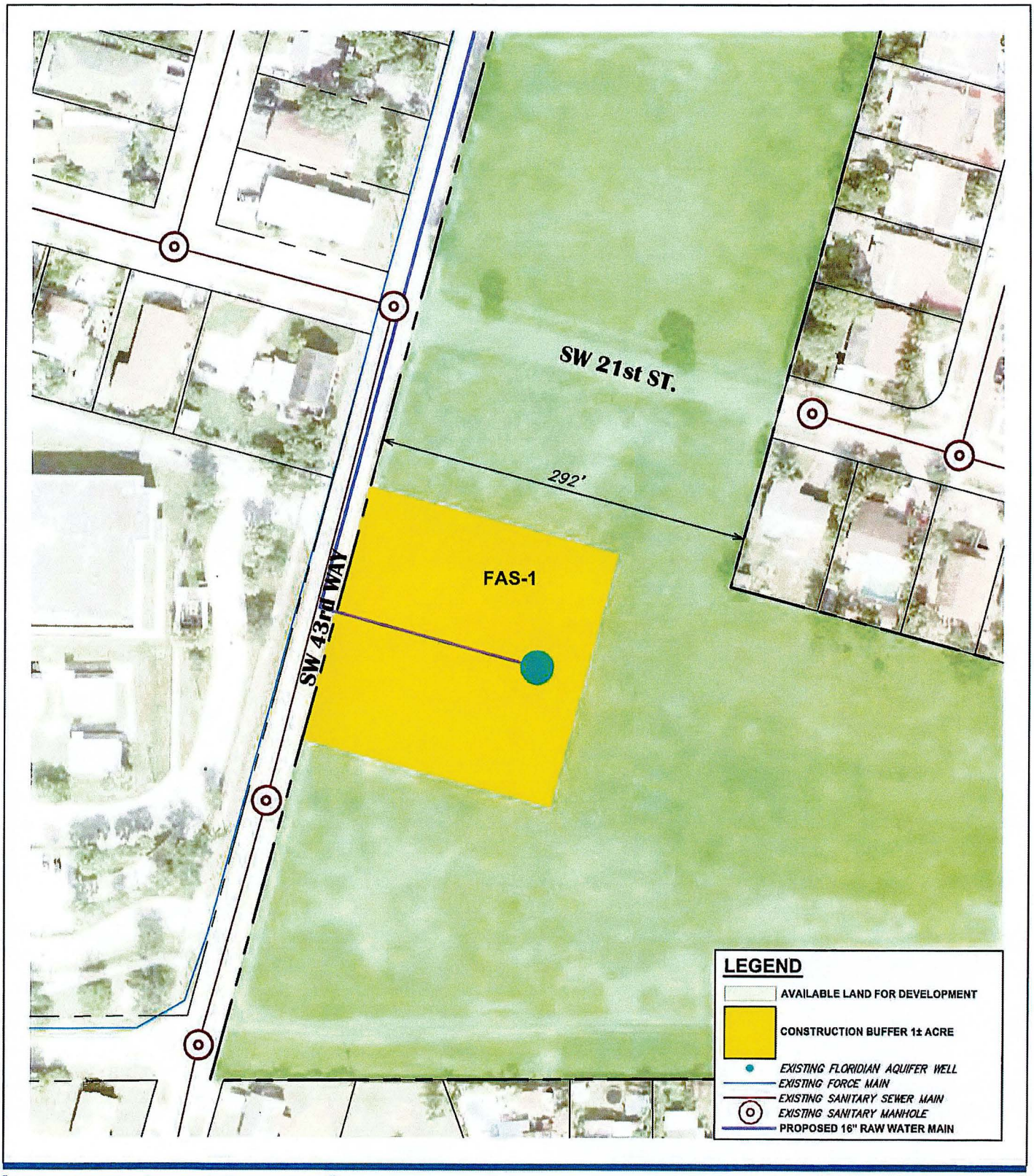

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CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW
WELLFIELD SITE ASSESMENT
EXISTING FLORIDIAN
AQUIFER WELL FAS-1

GRAPHIC SCALE
0 50 100 200
1 INCH = 100 FEET

EXHIBIT 5

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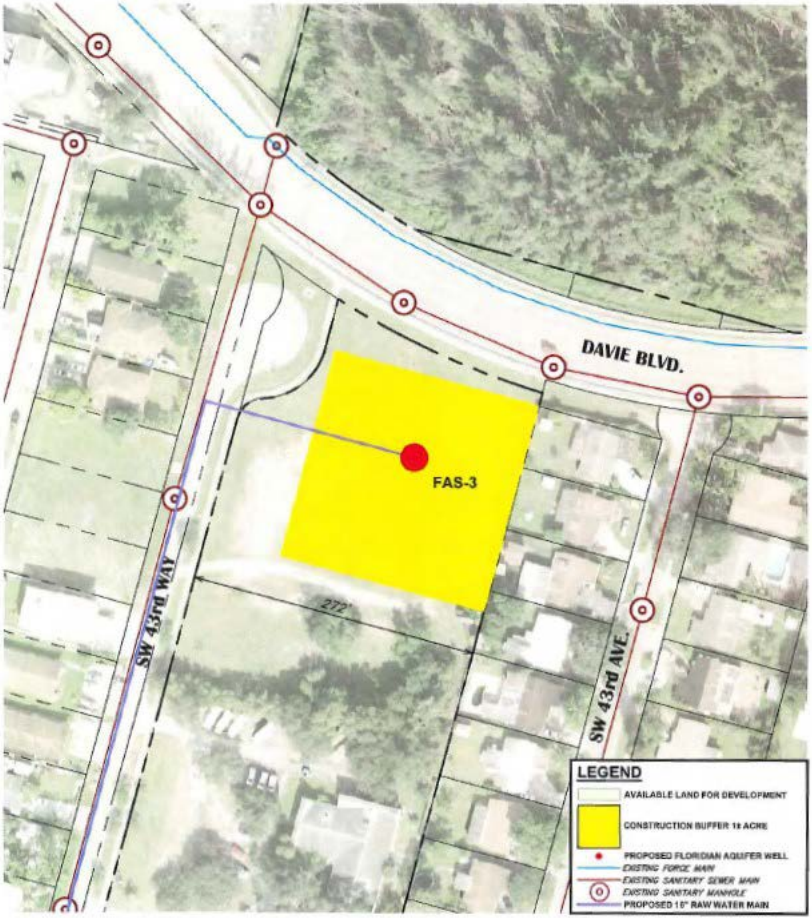

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PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
528 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
PROPOSED FLORIDIAN AQUIFER WELL FAS-3

GRAPHIC SCALE
0 150 300
1 INCH = 300 FEET

EXHIBIT 7

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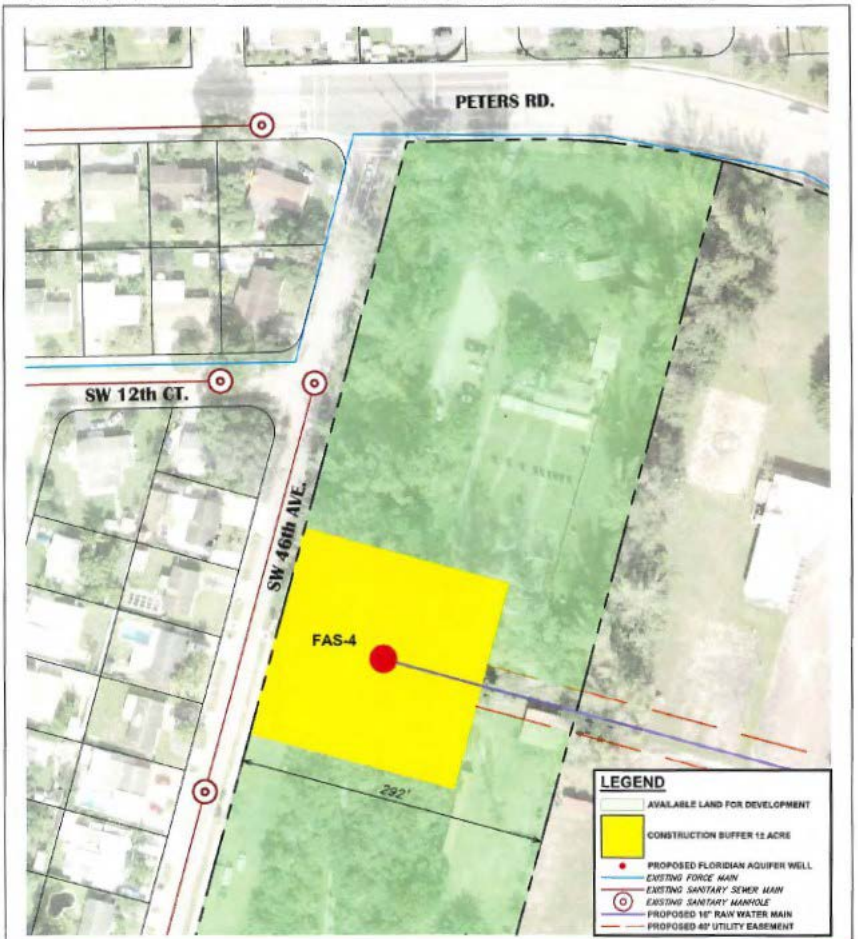

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CHEN·MOORE
&ASSOCIATES

PEELE DIXIE BROADVIEW
WELLFIELD SITE ASSESMENT
PROPOSED FLORIDIAN
AQUIFER WELL FAS-4

GRAPHIC SCALE
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1 INCH = 100 FEET

EXHIBIT 8

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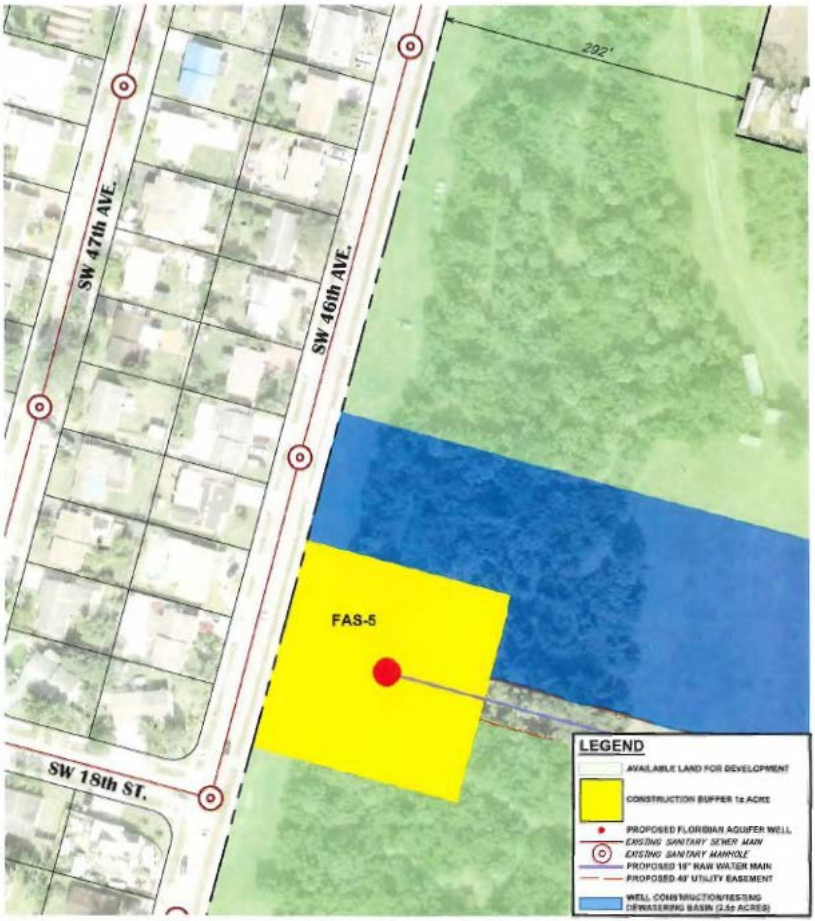

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ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
PROPOSED FLORIDIAN AQUIFER WELL FAS-5

GRAPHIC SCALE

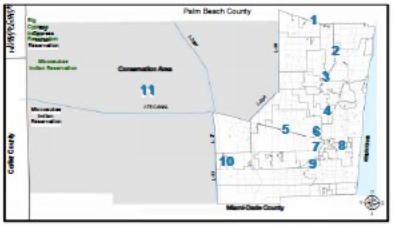
EXHIBIT 9

EXHIBITS

EXHIBIT A - LOCATION MAP

EXHIBIT B - CURRENT FUTURE LAND USE

Future Land Use: Broward Municipal Services District



Legend

- Recreation and Open Space
- Commercial Recreation
- Low (5) Residential
- Low-Medium (10) Residential
- Medium (16) Residential
- Community Facilities
- Commercial
- Utilities
- Transportation
- Municipal Boundaries

This map is for conceptual purposes only and is not intended for legal boundary determinations.
Roadways within the Broward Municipal Services District (BMSD) boundaries depicted on this map are subject to the Trafficways requirements of the Broward County Trafficways Map.

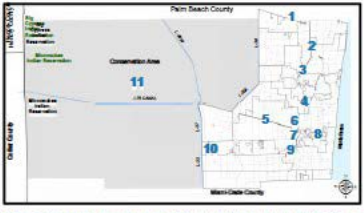
Environmental Protection & Growth Management Department
Planning and Development Management Division
Prepared by: GIS Section

Map No. BMSD-2

Sheet 6

EXHIBIT C - PROPOSED LAND USE MAP

Future Land Use: Broward Municipal Services District



Legend

- Recreation and Open Space
- Commercial Recreation
- Low (5) Residential
- Low-Medium (10) Residential
- Medium (16) Residential
- Community Facilities
- Commercial
- Utilities
- Transportation
- Municipal Boundaries

This map is for conceptual purposes only and is not intended for legal boundary determinations.
Roadways within the Broward Municipal Services District (BMSD) boundaries depicted on this map are subject to the Trafficways requirements of the Broward County Trafficways Map.

Environmental Protection & Growth Management Department
Planning and Development Management Division
Prepared by: GIS Section

Map No. BMSD-2

Sheet 6

Section 6

Potable Water – Sanitary Sewer

LOCHRIE & CHAKAS P.A.

699 N. FEDERAL HIGHWAY, SUITE 400
FORT LAUDERDALE, FLORIDA 33301
DIRECT DIAL: 954.799.8005
EMAIL: RHELY@LOCHRIELAW.COM
MAIN PHONE: 954.779.1119
FAX: 954.779.1117

October 18, 2024
Revised: October 28, 2024

Via Email: NBerrios@broward.org
Nestor M. Berrios, PE, MECE, PMP
Expansion Project Administrator
Planning and Development Section
Water and Wastewater Engineering Division
2555 W. Copans Road, Pompano Beach, FL 33069

RE: "Broadview Gardens" Land Use Plan Amendment – Potable Water & Sanitary Sewer Analysis – 4590 Peters Road

Mr. Berrios:

Our firm is preparing a revised application for a Land Use Plan Amendment (LUPA) in Unincorporated Broward County. The proposed development previously received an analysis from the Division as part of the original application, which was submitted alongside a site plan. That site plan has since been amended to include an updated unit count, consisting of both single-family and multi-family dwellings. The proposed land use designation, however, remains the same.

As part of our analysis, we are required to evaluate the new impacts of the proposed amendment, including its effect on levels of potable water and sanitary sewer service. Attached is a copy of our prepared analysis and a site location map for your reference. We would appreciate it if you could confirm the accuracy of the information and complete any missing items with return correspondence at your earliest convenience.

If you have any questions or need further information, please do not hesitate to contact me.

Sincerely,

Robert J. Hely, Esq.

Enclosures:
1-Analaysis
2-Site Location Map

A. Project Information

The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential. A similar application was submitted in 2021 as part of a proposal for a 553-unit multifamily development on the same site. Since then, the site plan has been updated to improve compatibility with surrounding land uses and enhance the overall layout of the development. These updates include the addition of 34 single-family home lots and a reduction in multi-family units to 513. The development will continue to provide a mix of workforce and affordable housing for moderate-income households.

The subject site encompasses approximately 39.4 acres and is located on the south side of Peters Road, east of S.W. 46th Avenue, in unincorporated Broward County. The site is currently vacant, except for a tree canopy. Development of the site will comply with Broward County's Land Development Regulations.

B. Potable Water Analysis

1. Provide the potable water level of service per the adopted and certified local land use plan.

   Applicant's Response: The subject site is within the Broward County Water & Wastewater Services service area, District 1. The level of service standard is 150 gpcd.

2. Provide the adoption date of the local government's 10 Year Water Supply Facilities Plan.

   Applicant's Response: 2020

3. Identify the potable water facility serving the area in which the amendment is located including the current plant capacity, current and committed demand on the plant and planned plant capacity expansions, including year and funding sources. Identify the wellfield serving the area in which the amendment is located including the South Florida Water Management District (SFWMD) permitted withdrawal and expiration date of the SFWMD permit.

   District 1 raw water is treated at the District 1 WTP located in the City of Lauderdale Lakes prior to distribution to retail customers.

CURRENT PLANT CAPACITY & DEMAND-POTABLE WATER Broward County District 1 Water Treatment Plant	
Current Plant Capacity	16.00 MGD
Current + Committed Plant Demand	8.08 MGD
SFWMD Permitted Withdrawal	MGD
Expiration Date of SFWMD Permit	2028
Planned Expansions	None

Wellfields: The BCWWS – District 1 wellfield contains nine wells with a total design capacity of approximately 23.5 MGD. Pursuant to the SFWMD CUP No. 06-00146-W issued in April 2008 for a 20-year permit duration, the maximum month and average annual daily withdrawals allowed from the District 1 SAS wellfield are 280 MG per Month (MGM) and 9.2 MGD, respectively.

4. Identify the net impact on potable water demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot or dwelling unit.

POTABLE WATER IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq ft Utilities	N/A	=0 GPD
PROPOSED	513 MF DUs 34 SF DUs	x 141 gpd/unit x 199 gpd/unit	= 72,333 GPD = 6,766 GPD
		Net Change	**+79,099 GPD**

5. Correspondence from potable water provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

Applicant's Response: See Attachment _____ and below.

Nestor M. Berrios, PE, MECE, PMP
Planning and Development Section
Water and Wastewater Engineering Division
2555 W. Copans Road, Pompano Beach, FL 33069
nberrios@broward.org

C. Sanitary Sewer Analysis

1. Provide the sanitary sewer level of service per the adopted and certified local land use plan.

Applicant's Response: Per the Broward County Water Management Element, the LOS standard for the regional wastewater system is the obligation of the County as described in the contractual agreements with its customers. The Agreements specify that the Regional Wastewater System will treat and dispose of all wastewater delivered to it. System annual average flows and reserve capacities for Districts 1 & 2 are 14.01 MGD and 16.71 MGD, respectively.

2. Identify the sanitary sewer facility serving the area in which the amendment is located including the current plant capacity, current and committed demand on the plant and planned plant capacity expansions, including year and funding sources.

SANITARY SEWER DEMAND AND CAPACITY Broward County North Regional Wastewater Treatment Plant	
Plant Capacity	MGD
Current + Committed Demand	MGD
Planned Plant Capacity	
Planned Expansions	None. Projections indicate sufficient capacity.
Source: Broward County Wastewater Treatment Plant Flow Calculations through	

3. Identify the net impact on sanitary sewer demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot* or dwelling unit.

SANITARY SEWER IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq ft Utilities	N/A	= 0 GPD
PROPOSED	513 MF DUs 34 SF DUs	X 100 gpd/unit X 142 gpd/unit	= 51,300 GPD = 4,828 GPD
		Net Change	**+56,128 GPD**
Broward County Guidelines for Determining Ability to Provide Potable Water and Wastewater Service			

4. Correspondence from sanitary sewer provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

Applicant's Response: See Attachment _____ and below.

Nestor M. Berrios, PE, MECE, PMP
Planning and Development Section
Water and Wastewater Engineering Division
2555 W. Copans Road, Pompano Beach, FL 33069
nberrios@broward.org


Subject Site
BMSD
DAVIE BLVD
PETERS RD
RIVERLAND RD
Parcel Information
Parcel Id 5041370 11282
Owner CITY OF FORT LAUDERDALE
Situs Address 4590 PETERS RD UNINCORPORATED FL 33317
Legal NEWMANS SURVEY SUB NO 1 & 2 2-26 D 13-50-41 TR 4 THRU 6 7 W1/2 LESS PT DESC AS,COMM AT NW COR OF NE1/4 OF SEC 13 ELY 50.35, S 40 TO POB,SELY 188.28 TO PT ON E/L OF W1/2 OF TR 7,NELY 25.36,WLY 193.25 TO POB TIER 16
Millage Code 0612
Use Code 77
Land Value $ 8,103,200
Building Value $ 68,500
Extra Value 0
Total Value $ 8,171,700
SOH Capped Value $ 7,213,710
Homestead Exempt. Amt $ 0
WVD Exempt. Amt $ 0
Other Exempt. Amt $ 7,213,710
Taxable Value $ 0

Public Works Department • Water and Wastewater Services
WATER AND WASTEWATER ENGINEERING DIVISION
2555 West Copans Road • Pompano Beach, Florida 33069
PHONE: 954-831-0745 • FAX: 954-831-0798/0925

November 4, 2024

Robert J. Hely, Esq.
Lochrie & Chakas, P.A.
699 N Federal Highway, Suite 400
Fort Lauderdale, FL 33301

RE: ABILITY TO PROVIDE POTABLE WATER & WASTEWATER SERVICE TO:
PROPOSED LAND USE PLAN AMENDMENT
4590 PETERS ROAD, UNINCORPORATED, FL 33317
PROPERTY ID# 504137011280

Dear Mr. Hely,

We reference your request dated October 18, 2024, regarding the ability of Broward County Water & Wastewater Services (WWS) to provide potable water and wastewater services to the referenced Land Use Plan Amendment located within the Unincorporated Neighborhood.

This letter is for informational purposes only. WWS neither reserves capacity for future development nor authorizes any construction. A WWS Utility Connection Permit (UCP) is required to alter or connect to any WWS facility. You can find information about the UCP process, developer coordination, and minimum design and construction standards at Broward.org. The developer(s) shall be responsible for the expense and construction of all necessary improvements to provide the required level of service to the project.

POTABLE WATER SOURCE OF SUPPLY AND TREATMENT

District 1 Water Treatment Plant (1AWTP) will supply treated potable water to the referenced Land Use Plan Amendment.

This Land Use Plan Amendment is expected to increase an average day potable water demand by 0.079 million gallons per day (MGD) from its current land use potential. The standard level of service for potable water sources of supply (wellfields) and treatment plants is maximum day flow. The average day-to-maximum-day conversion factor for the 1AWTP is 1.28. Therefore, the proposed developments will increase finished potable water maximum day demand by 0.10 MGD (0.079 multiplied by 1.28).

The 1AWTP has a rated capacity of 16 MGD and utilizes a conventional lime softening process to treat a raw water supply from the Biscayne aquifer. The plant is also permitted to receive raw water from the upper Floridan aquifer and C-51 Reservoir. As per the South Florida Water Management District, the permitted groundwater allocations limits water allocation are as follows:

Biscayne Aquifer	C-51 Reservoir	Upper Floridian Aquifer
Annual Average (MGD)	Annual Average (MGD)	Annual Average (MGD)
10	1	2.9

As of October 2024, the one-year daily treated flow average was 7.16 MGD with a committed capacity of 2.11 MGD for a total of 9.27 MGD.

WASTEWATER TREATMENT

The North Regional Wastewater Treatment Plant (NRWWTP) will treat wastewater from the referenced Land Use Plan Amendment.

Land Use Plan Amendment is expected to increase the average day wastewater demand by 0.079 MGD. The standard level of service for wastewater treatment plants is average day flow.

As of October 2024, the one-year average day flow for the NRWWTP was 72.9 MGD, and the committed capacity was 5.01 MGD average day flow, for a total of 77.91 MGD. NRWWTP's permitted capacity is 95.00 MGD.

The NRWWTP has sufficient capacity to treat the Land Use Plan Amendment wastewater demand.

POTABLE WATER DISTRIBUTION SYSTEM AND WASTEWATER COLLECTION SYSTEM PIPING

The standard level of service for potable water distribution systems is maximum day plus fire flow or peak hour, whichever is most stringent. The standard level of service for wastewater collection systems is peak flow. In addition, WWS analyzes piping systems in existing and future demand configurations to determine which is most stringent. WWS does not analyze piping systems at this stage in the land development process. Developers are encouraged to contact the WWS Engineering Division Planning and Development Section when their site plans and conceptual designs are available. Since piping systems change over time, WWS reviews engineering issues with the developer as part of the UCP process.

Please contact me at (954) 831-0728 or nberrios@broward.org if you have any questions.

Sincerely,

Nestor M. Berrios, PE, MECE, PMP
Expansion Project Administrator

Alicia Dunne, PE, PMP
Planning, Development, & GIS Section Manager

cc: Mario Manrique, WWED
Margarita Jaramillo, WWED
Luis Gaslonde, WWED
District 1 Service Availability Letter

Section 7

Drainage

ATTACHMENT V

DRAINAGE CORRESPONDENCE

LOCHRIE & CHAKAS P.A.

699 N. FEDERAL HIGHWAY, SUITE 400
FORT LAUDERDALE, FLORIDA 33301
DIRECT DIAL: 954.799.8005
EMAIL: RHELY@LOCHRIELAW.COM
MAIN PHONE: 954.779.1119
FAX: 954.779.1117

October 18, 2024

Via Email: sjuncosa@broward.org
Susan Juncosa
Broward County Water and Wastewater Services
Water Management Division
2555 W. Copans Road
Pompano Beach, Florida 33069

RE: "Broadview Gardens" Land Use Plan Amendment – Drainage Analysis – 4590 Peters Road

Ms. Juncosa:

Our firm is preparing a revised application for a Land Use Plan Amendment (LUPA) in Unincorporated Broward County. The proposed development previously received an analysis from the Division as part of the original application, which was submitted alongside a site plan. That site plan has since been amended to include an updated unit count, consisting of both single-family and multi-family dwellings. The proposed land use designation, however, remains the same.

As part of our analysis, we are required to evaluate the new impacts of the proposed amendment, including its effect on drainage services. Attached is a copy of our prepared analysis and a site location map for your reference. We would appreciate it if you could confirm the accuracy of the information with return correspondence at your earliest convenience.

If you have any questions or need further information, please do not hesitate to contact me.

Sincerely,

Robert J. Hely, Esq.

Enclosures:
1-Analaysis
2-Site Location Map

A. Project Information

The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential. A similar application was submitted in 2021 as part of a proposal for a 553-unit multifamily development on the same site. Since then, the site plan has been updated to improve compatibility with surrounding land uses and to enhance the overall layout of the development. These updates include the addition of 34 single-family home lots and a reduction in multi-family units to 513. The development will continue to provide a mix of workforce and affordable housing for moderate-income households.

The subject site encompasses approximately 39.4 acres and is located on the south side of Peters Road, east of S.W. 46th Avenue, in unincorporated Broward County. The site is currently vacant, except for a tree canopy. Development of the site will comply with Broward County's Land Development Regulations.

B. Drainage Analysis

1. Provide the drainage level of service per the adopted and certified local land use plan.

Subject Adopted Drainage Level of Service Standards	
Road Protection	Residential streets not greater than fifty feet wide rights-of-way to have crown elevations no lower than the elevation for the respective area depicted on the ten year "FEMA Flood Map". Rights-of-way greater than fifty feet wide to have an ultimate edge of pavement no lower than the elevation for the respective area depicted on the ten year "FEMA Flood Map".
Building Elevations	To have the lowest floor elevation no lower than the elevation for the respective area depicted on the "100 Year Flood Elevation Map", the FEMA Base Flood Elevation for the area or the site-specific 100-yr, 3-day design storm stage, whichever is highest. Off Site Discharge Not to exceed the inflow limit of SFWMD primary receiving canal or the local conveyance system, whichever is less.
Storm Sewers	Design frequency minimum to be three-year rainfall intensity of the State Department of Transportation Zone 10 rainfall curves.
Flood Plain Routing	Calculated flood elevations based on the ten-year and one hundred-year return frequency rainfall of three day duration shall not exceed the corresponding elevations of the ten year "FEMA Flood Map" and the "100-Year Flood Elevation Map."
Antecedent Water Level	The elevation depicted on the map "Average Wet Season Water Levels".
On Site Storage	Minimum capacity above antecedent water level and below flood plain routing elevations to be design rainfall volume minus off site discharge occurring during design rainfall, except for the 100-yr, 3-day design storm event, which is zero discharge.
Water Quality	Prior to discharge to surface or ground water, 80% or 95% reductions in pollutant load must be achieved based on the rebuttable presumptions of the water quality treatment criteria.

2. Identify the drainage district and drainage systems serving the amendment area.

   Applicant's Response: The Project is not within a drainage district. Drainage is accomplished through a series of runoff from streets, parking lots, driveways, lawns, and other saturated surfaces channeled via retention and detention ponds, ditches, culverts, and storm sewers into the primary drainage system, i.e. to the Atlantic Ocean, Intracoastal Waterway and Dade County water bodies, and in a limited number of cases, to the Everglades.

3. Identify any planned drainage improvements, including year, funding sources and other relevant information.

   Applicant's Response: The existing drainage system has sufficient capacity to provide stormwater management for the service area. There are no planned drainage improvements for this area. All improvements required to meet the adopted level of service will be installed in conjunction with new development.

4. Indicate if a Surface Water Management Plan has been approved by, or an application submitted to, the SFWMD and/or any independent drainage district, for the amendment site.

   Identify the permit number(s), or application number(s) if the project is pending, for the amendment site. If an amendment site is not required to obtain a SFWMD permit, provide documentation of same.

   Applicant's Response: A Surface Water Management Permit has not been issued for the site but appropriate permits will be obtained.

5. If the area in which the amendment is located does not meet the adopted level of service and there are no improvements planned (by the unit of local government or drainage authority) to address the deficiencies, provide an engineering analysis which demonstrates how the site will be drained and the impact on the surrounding properties.

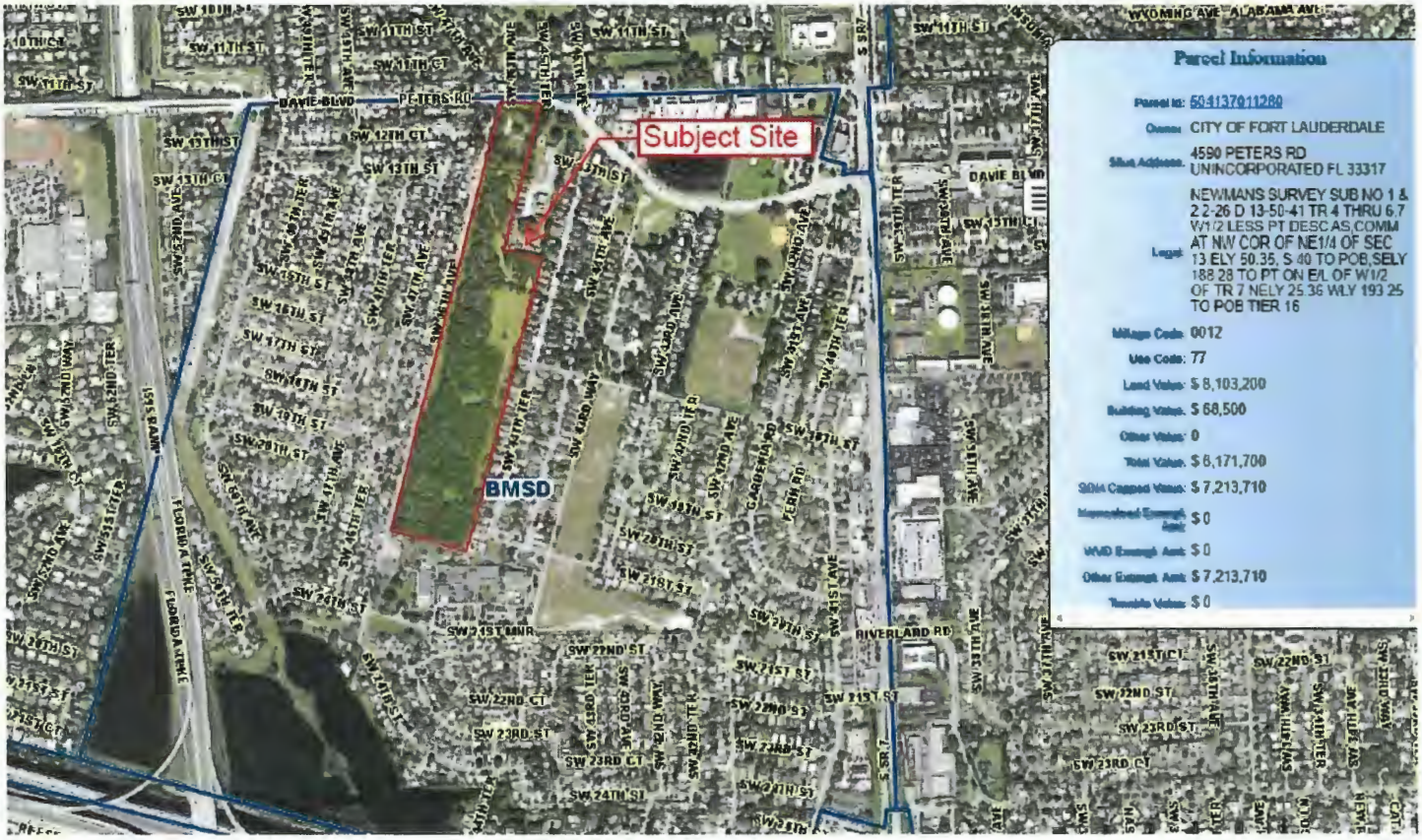
   The information should include the wet season water level for the amendment site, design storm elevation, natural and proposed land elevation, one-hundred-year flood elevation, acreage of proposed water management retention area, elevations for buildings, roads and years, storage and runoff calculations for the design storm and estimated time for flood waters to recede to the natural land elevation.

   Applicant's Response: Development within the site will be required to meet the drainage standards of Broward County and the South Florida Water Management District. The subject site will meet the level of service when development of the site is complete.

6. Correspondence from local drainage district verifying the information submitted in items 1-5 above. Correspondence must contain name, position and contact information of party providing verification.

Applicant's Response:

Susan Juncosa
Broward County Water and Wastewater Services
Water Management Division
2555 W. Copans Road
Pompano Beach, FL 33069
Email: sjuncosa@broward.org


Subject Site
BMSD
Parcel Information
Parcel Id: 504137011280
Owner: CITY OF FORT LAUDERDALE
Situs Address: 4590 PETERS RD UNINCORPORATED FL 33317
Legal: NEWMANS SURVEY SUB NO 1 & 2 2-26 D 13-50-41 TR 4 THRU 6 7 W1/2 LESS PT DESC AS,COMM AT NW COR OF NE1/4 OF SEC 13 ELY 50.35, S 40 TO POB,SELY 188.28 TO PT ON E/L OF W1/2 OF TR 7 NELY 25.36 WLY 193.25 TO POB TIER 16
Millage Code: 0012
Use Code: 77
Land Value: $ 8,103,200
Building Value: $ 68,500
Other Value: 0
Total Value: $ 8,171,700
SOH Capped Value: $ 7,213,710
Homestead Exempt. Amt: $ 0
WHD Exempt Amt: $ 0
Other Exempt Amt: $ 7,213,710
Taxable Value: $ 0

Outlook

Broadview Gardens Drainage Analysis

From Juncosa, Susan <sjuncosa@broward.org>
Date Wed 11/13/2024 8:04 AM
To Robert Hely <rhely@lochrielaw.com>
Cc Narvaez, Johana <JNARVAEZ@broward.org>

1 attachment (181 KB)
2024-1113 WMD Comments.pdf;

The attached documents are comments on the proposed drainage analysis.

Feel free to contact me if you have any questions.

Susan Juncosa, Natural Resources Specialist
Water and Wastewater Services/WATER MANAGEMENT DIVISION
2555 West Copans Road, Pompano Beach FL 33069
OFFICE: (954) 831-0778 MOBILE: (954) – 551-3506
E-MAIL: sjuncosa@broward.org FAX: (954) 831-3285

WATER MANAGEMENT DIVISION / PUBLIC WORKS
2555 West Copans Road, Pompano Beach, Florida (954) 831-0751

November 13, 2024

Robert J. Hely, Esq.
Lochrie & Chakas, P.A.
699 N. Federal Highway, Suite 400
Fort Lauderdale, FL 33301

via email to: RHELY@LOCHRIELAW.COM

RE: "Broadview Gardens" Land Use Plan Amendment
Drainage Analysis – 4590 Peters Road

Dear Mr. Hely:

On October 18, 2024, you submitted a prepared analysis of the proposed Broadview Gardens drainage services, to be reviewed and then submitted as a part of the Land Use Plan Amendment (LUPA) for the site. The analysis included summaries about the drainage level of service, drainage district and systems, future plans for the area and permitting. As the site is located in unincorporated Broward County, the analysis was reviewed by the Surface Water Management Licensing program.

Please revise the analysis to include the following:

1. Stoms event analysis including:
    a. Broward County Parking Lot Protection - 5-yr, 1-day
    b. Road Protection – 10-yr, 1-day and 10-yr, 3-day
    c. Attenuation Requirement - 25-yr, 3-day
    d. Flood Protection - 100-yr, 3-day (zero discharge).

2. Finished Floor Elevation requirements (also check the Broward County Future Conditions 100-year Flood Map 2060).

3. Check the water table requirements – it will be the highest of the following:
    a. Plate WM 2.1 - Average Wet Season Groundwater Elevation
    b. Plate WM 2.2 - 2060 Future Conditions Average Wet Season GW Elevation
    c. Plate WM 2.3 - 2070 Future Conditions Average Wet Season GW Elevation.

4. Check existing licenses SWM2007-153-0 and SWM2007-153-2 for requirements and possible conflicts.

If you have further questions on these additions, please contact Johana Narvaez, the manager of the Surface Water Management Licensing program. She may be reached at phone (954) 519-0318 or email: jnarvaez@broward.org.

Sincerely,

Susan Juncosa, Natural Resources Specialist
Water and Wastewater Services/**WATER MANAGEMENT DIVISION**
2555 West Copans Road, Pompano Beach FL 33069
OFFICE: (954) 831-0778 MOBILE: (954) – 551-3506
E-MAIL: sjuncosa@broward.org FAX: (954) 831-3285

C: Johana Narvaez, SWM

Outlook

RE: Broadview Gardens LUPA - Drainage Analysis

From Narvaez, Johana <JNARVAEZ@broward.org>
Date Wed 12/4/2024 3:37 PM
To Robert Hely <rhely@lochrielaw.com>

Good Afternoon Robert,

At this moment, you do not need any specific data. Listing the items is sufficient. Specific data would be cover at the time of licensing.

Thank you.
Please do not hesitate to contact me if you have any questions.

Sincerely,

JOHANA NARVAEZ, M.S.E.E., ENVIRONMENTAL PROGRAM MANAGER
Resilient Environment Department
ENVIRONMENTAL PERMITTING DIVISION
Surface Water Management Licensing
1 North University Drive, Mailbox 201, Plantation, FL 33324-2038
Office: (954) 519- 0318 Fax: (954) 519- 1412
jnarvaez@broward.org

Broward.org/Environment | ePermits |

From: Robert Hely <rhely@lochrielaw.com>
Sent: Wednesday, November 27, 2024 11:08 AM
To: Narvaez, Johana <JNARVAEZ@broward.org>
Subject: Broadview Gardens LUPA - Drainage Analysis

Good morning Johana,

I'm working on the Broadview Gardens Land Use Plan Amendment at 4590 Peters Road. We recently received a response letter from Susan Juncosa (attached) regarding the accuracy of the Drainage Analysis section in the LUPA. The letter highlights some additional information that needs to be included, but I'm not clear on what or how to incorporate it.

For notes #2 and #3, I've attached what I could find online, but I'm not sure how to translate this into the analysis. For note #1, should I simply list the items mentioned, or is there specific data that needs to accompany them?

Let me know if it's easier to walk through it over the phone or on a Zoom call. I've also included our Drainage Analysis section if that helps to point me in the right direction on where to put the additional information.

Thank you!

Robert J. Hely, Esq. | Lochrie & Chakas, P.A.
699 N. Federal Highway, Suite 400
Fort Lauderdale, FL 33304
Phone: (954) 779-1119
E-mail: rhely@lochrielaw.com

Section 8

Solid Waste

ATTACHMENT III

SANITARY SEWER CORRESPONDENCE

LOCHRIE & CHAKAS P.A.

699 N. FEDERAL HIGHWAY, SUITE 400
FORT LAUDERDALE, FLORIDA 33301
DIRECT DIAL: 954.799.8005
EMAIL: RHELY@LOCHRIELAW.COM
MAIN PHONE: 954.779.1119
FAX: 954.779.1117

October 18, 2024
Revised: October 28, 2024

Via Email: NBerrios@broward.org
Nestor M. Berrios, PE, MECE, PMP
Expansion Project Administrator
Planning and Development Section
Water and Wastewater Engineering Division
2555 W. Copans Road, Pompano Beach, FL 33069

RE: "Broadview Gardens" Land Use Plan Amendment – Potable Water & Sanitary Sewer Analysis – 4590 Peters Road

Mr. Berrios:

Our firm is preparing a revised application for a Land Use Plan Amendment (LUPA) in Unincorporated Broward County. The proposed development previously received an analysis from the Division as part of the original application, which was submitted alongside a site plan. That site plan has since been amended to include an updated unit count, consisting of both single-family and multi-family dwellings. The proposed land use designation, however, remains the same.

As part of our analysis, we are required to evaluate the new impacts of the proposed amendment, including its effect on levels of potable water and sanitary sewer service. Attached is a copy of our prepared analysis and a site location map for your reference. We would appreciate it if you could confirm the accuracy of the information and complete any missing items with return correspondence at your earliest convenience.

If you have any questions or need further information, please do not hesitate to contact me.

Sincerely,

Robert J. Hely, Esq.

Enclosures:
1-Analaysis
2-Site Location Map

A. Project Information

The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential. A similar application was submitted in 2021 as part of a proposal for a 553-unit multifamily development on the same site. Since then, the site plan has been updated to improve compatibility with surrounding land uses and enhance the overall layout of the development. These updates include the addition of 34 single-family home lots and a reduction in multi-family units to 513. The development will continue to provide a mix of workforce and affordable housing for moderate-income households.

The subject site encompasses approximately 39.4 acres and is located on the south side of Peters Road, east of S.W. 46th Avenue, in unincorporated Broward County. The site is currently vacant, except for a tree canopy. Development of the site will comply with Broward County's Land Development Regulations.

B. Potable Water Analysis

1. Provide the potable water level of service per the adopted and certified local land use plan.

   Applicant's Response: The subject site is within the Broward County Water & Wastewater Services service area, District 1. The level of service standard is 150 gpcd.

2. Provide the adoption date of the local government's 10 Year Water Supply Facilities Plan.

   Applicant's Response: 2020

3. Identify the potable water facility serving the area in which the amendment is located including the current plant capacity, current and committed demand on the plant and planned plant capacity expansions, including year and funding sources. Identify the wellfield serving the area in which the amendment is located including the South Florida Water Management District (SFWMD) permitted withdrawal and expiration date of the SFWMD permit.

   District 1 raw water is treated at the District 1 WTP located in the City of Lauderdale Lakes prior to distribution to retail customers.

CURRENT PLANT CAPACITY & DEMAND-POTABLE WATER Broward County District 1 Water Treatment Plant	
Current Plant Capacity	16.00 MGD
Current + Committed Plant Demand	8.08 MGD
SFWMD Permitted Withdrawal	MGD
Expiration Date of SFWMD Permit	2028
Planned Expansions	None

Wellfields: The BCWWS – District 1 wellfield contains nine wells with a total design capacity of approximately 23.5 MGD. Pursuant to the SFWMD CUP No. 06-00146-W issued in April 2008 for a 20-year permit duration, the maximum month and average annual daily withdrawals allowed from the District 1 SAS wellfield are 280 MG per Month (MGM) and 9.2 MGD, respectively.

4. Identify the net impact on potable water demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot or dwelling unit.

POTABLE WATER IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq ft Utilities	N/A	=0 GPD
PROPOSED	513 MF DUs 34 SF DUs	x 141 gpd/unit x 199 gpd/unit	= 72,333 GPD = 6,766 GPD
		Net Change	**+79,099 GPD**

5. Correspondence from potable water provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

Applicant's Response: See Attachment _____ and below.

Nestor M. Berrios, PE, MECE, PMP
Planning and Development Section
Water and Wastewater Engineering Division
2555 W. Copans Road, Pompano Beach, FL 33069
nberrios@broward.org

C. Sanitary Sewer Analysis

1. Provide the sanitary sewer level of service per the adopted and certified local land use plan.

Applicant's Response: Per the Broward County Water Management Element, the LOS standard for the regional wastewater system is the obligation of the County as described in the contractual agreements with its customers. The Agreements specify that the Regional Wastewater System will treat and dispose of all wastewater delivered to it. System annual average flows and reserve capacities for Districts 1 & 2 are 14.01 MGD and 16.71 MGD, respectively.

2. Identify the sanitary sewer facility serving the area in which the amendment is located including the current plant capacity, current and committed demand on the plant and planned plant capacity expansions, including year and funding sources.

SANITARY SEWER DEMAND AND CAPACITY Broward County North Regional Wastewater Treatment Plant	
Plant Capacity	MGD
Current + Committed Demand	MGD
Planned Plant Capacity	
Planned Expansions	None. Projections indicate sufficient capacity.
Source: Broward County Wastewater Treatment Plant Flow Calculations through	

3. Identify the net impact on sanitary sewer demand, based on the adopted level of service, resulting from the proposed amendment. Provide calculations, including anticipated demand per square foot* or dwelling unit.

SANITARY SEWER IMPACT			
	USE	**RATE/CALCULATION**	**TOTAL**
CURRENT	394,000 sq ft Utilities	N/A	= 0 GPD
PROPOSED	513 MF DUs 34 SF DUs	X 100 gpd/unit X 142 gpd/unit	= 51,300 GPD = 4,828 GPD
		Net Change	**+56,128 GPD**
Broward County Guidelines for Determining Ability to Provide Potable Water and Wastewater Service			

4. Correspondence from sanitary sewer provider verifying the information submitted in items 1-3 above. Correspondence must contain name, position and contact information of party providing verification.

Applicant's Response: See Attachment _____ and below.

Nestor M. Berrios, PE, MECE, PMP
Planning and Development Section
Water and Wastewater Engineering Division
2555 W. Copans Road, Pompano Beach, FL 33069
nberrios@broward.org


Subject Site
BMSD
DAVIE BLVD
PETERS RD
RIVERLAND RD
Parcel Information
Parcel Id 5041370 11282
Owner CITY OF FORT LAUDERDALE
Situs Address 4590 PETERS RD UNINCORPORATED FL 33317
Legal NEWMANS SURVEY SUB NO 1 & 2 2-26 D 13-50-41 TR 4 THRU 6 7 W1/2 LESS PT DESC AS,COMM AT NW COR OF NE1/4 OF SEC 13 ELY 50.35, S 40 TO POB,SELY 188.28 TO PT ON E/L OF W1/2 OF TR 7,NELY 25.36,WLY 193.25 TO POB TIER 16
Millage Code 0612
Use Code 77
Land Value $ 8,103,200
Building Value $ 68,500
Extra Value 0
Total Value $ 8,171,700
SOH Capped Value $ 7,213,710
Homestead Exempt. Amt $ 0
WVD Exempt. Amt $ 0
Other Exempt. Amt $ 7,213,710
Taxable Value $ 0

Public Works Department • Water and Wastewater Services
WATER AND WASTEWATER ENGINEERING DIVISION
2555 West Copans Road • Pompano Beach, Florida 33069
PHONE: 954-831-0745 • FAX: 954-831-0798/0925

November 4, 2024

Robert J. Hely, Esq.
Lochrie & Chakas, P.A.
699 N Federal Highway, Suite 400
Fort Lauderdale, FL 33301

RE: ABILITY TO PROVIDE POTABLE WATER & WASTEWATER SERVICE TO:
PROPOSED LAND USE PLAN AMENDMENT
4590 PETERS ROAD, UNINCORPORATED, FL 33317
PROPERTY ID# 504137011280

Dear Mr. Hely,

We reference your request dated October 18, 2024, regarding the ability of Broward County Water & Wastewater Services (WWS) to provide potable water and wastewater services to the referenced Land Use Plan Amendment located within the Unincorporated Neighborhood.

This letter is for informational purposes only. WWS neither reserves capacity for future development nor authorizes any construction. A WWS Utility Connection Permit (UCP) is required to alter or connect to any WWS facility. You can find information about the UCP process, developer coordination, and minimum design and construction standards at Broward.org. The developer(s) shall be responsible for the expense and construction of all necessary improvements to provide the required level of service to the project.

POTABLE WATER SOURCE OF SUPPLY AND TREATMENT

District 1 Water Treatment Plant (1AWTP) will supply treated potable water to the referenced Land Use Plan Amendment.

This Land Use Plan Amendment is expected to increase an average day potable water demand by 0.079 million gallons per day (MGD) from its current land use potential. The standard level of service for potable water sources of supply (wellfields) and treatment plants is maximum day flow. The average day-to-maximum-day conversion factor for the 1AWTP is 1.28. Therefore, the proposed developments will increase finished potable water maximum day demand by 0.10 MGD (0.079 multiplied by 1.28).

The 1AWTP has a rated capacity of 16 MGD and utilizes a conventional lime softening process to treat a raw water supply from the Biscayne aquifer. The plant is also permitted to receive raw water from the upper Floridan aquifer and C-51 Reservoir. As per the South Florida Water Management District, the permitted groundwater allocations limits water allocation are as follows:

Biscayne Aquifer	C-51 Reservoir	Upper Floridian Aquifer
Annual Average (MGD)	Annual Average (MGD)	Annual Average (MGD)
10	1	2.9

As of October 2024, the one-year daily treated flow average was 7.16 MGD with a committed capacity of 2.11 MGD for a total of 9.27 MGD.

WASTEWATER TREATMENT

The North Regional Wastewater Treatment Plant (NRWWTP) will treat wastewater from the referenced Land Use Plan Amendment.

Land Use Plan Amendment is expected to increase the average day wastewater demand by 0.079 MGD. The standard level of service for wastewater treatment plants is average day flow.

As of October 2024, the one-year average day flow for the NRWWTP was 72.9 MGD, and the committed capacity was 5.01 MGD average day flow, for a total of 77.91 MGD. NRWWTP's permitted capacity is 95.00 MGD.

The NRWWTP has sufficient capacity to treat the Land Use Plan Amendment wastewater demand.

POTABLE WATER DISTRIBUTION SYSTEM AND WASTEWATER COLLECTION SYSTEM PIPING

The standard level of service for potable water distribution systems is maximum day plus fire flow or peak hour, whichever is most stringent. The standard level of service for wastewater collection systems is peak flow. In addition, WWS analyzes piping systems in existing and future demand configurations to determine which is most stringent. WWS does not analyze piping systems at this stage in the land development process. Developers are encouraged to contact the WWS Engineering Division Planning and Development Section when their site plans and conceptual designs are available. Since piping systems change over time, WWS reviews engineering issues with the developer as part of the UCP process.

Please contact me at (954) 831-0728 or nberrios@broward.org if you have any questions.

Sincerely,

Nestor M. Berrios, PE, MECE, PMP
Expansion Project Administrator

Alicia Dunne, PE, PMP
Planning, Development, & GIS Section Manager

cc: Mario Manrique, WWED
Margarita Jaramillo, WWED
Luis Gaslonde, WWED
District 1 Service Availability Letter

Section 9

Traffic Circulation

ATTACHMENT VII

TRAFFIC CIRCULATION ANALYSIS

KBP CONSULTING, INC.

MEMORANDUM

To: Michelle Feigenbaum

From: Karl Peterson, P.E.

Date: November 21, 2024

Subject: Broadview Gardens – Broward County, Florida
Land Use Plan Amendment – Traffic Analysis

KBP Consulting, Inc. has prepared the following traffic analysis associated with the proposed land use plan amendment for the Broadview Gardens residential development in Broward County, Florida.

F. TRAFFIC CIRCULATION ANALYSIS

1) Identify the roadways impacted by the proposed amendment and indicate the number of lanes, current traffic volumes, adopted level of service, and current level of service for each roadway.

The roadway network that will be most impacted by the proposed land use plan amendment includes four (4) primary east-west roadways and four (4) primary north-south roadways. These eight (8) roadways include Broward Boulevard (State Road 842), Davie Boulevard (State Road 736), Peters Road, State Road 84, I-595, SW 31st Avenue, State Road 7, Florida's Turnpike, and University Drive (State Road 817). The project study area is presented graphically in Figure F.1 on the following page.

The number of lanes, current (2020) traffic volumes, adopted levels of service, and current operating conditions (i.e. LOS) of the roadway segments located within the study area are documented in Tables F.1.1 and F.1.2. Table F.1.1 documents the existing conditions on all study roadway segments for daily conditions while Table F.1.2 presents the current conditions during the critical PM peak hour. As shown in these two tables, roadway segments on I-595, University Drive and Florida's Turnpike are operating at level of service (LOS) "F" on a daily basis. Roadway segments on State Road 84, I-595, University Drive and Florida's Turnpike are operating at LOS "F" during the PM peak hour. All other study roadway segments are currently operating at acceptable levels of service (LOS) during the daily and PM peak hour time periods.*

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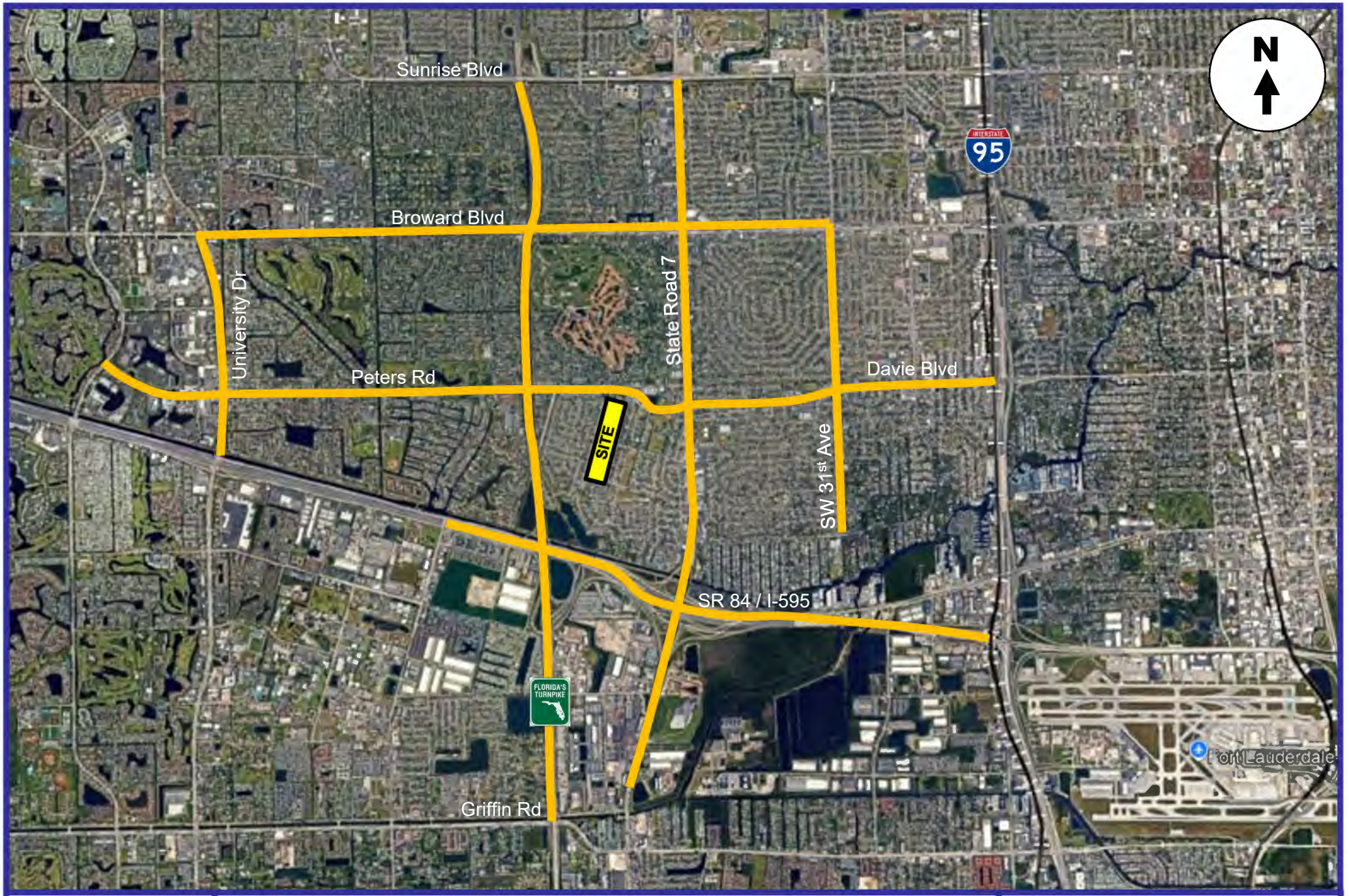
*The current traffic volumes utilized for this analysis are for the year 2020 as documented by the Broward Metropolitan Planning Organization (MPO).



KBP
CONSULTING, INC.

Project Study Area

FIGURE F.1
Broadview Gardens
Broward County, Florida

TABLE F.1.1
Broadview Gardens - Broward County, Florida
Existing Traffic Conditions (Daily Volumes)

Roadway	From	To	Number of Lanes	Adopted LOS	Adopted LOS Service Volume [1]	Existing (2020) Daily Volume [1]	v/c Ratio	LOS
Sunrise Boulevard	NW 65th Ave	FL Turnpike	6	D	59,900	41,500	0.69	C
	FL Turnpike	State Road 7	6	D	59,900	53,500	0.89	C
Broward Boulevard	University Dr	State Road 7	6	D	59,900	42,500	0.71	C
	State Road 7	NW/SW 31st Ave	6	D	59,900	45,000	0.75	C
Peters Road	Pine Island Rd	University Dr	4	D	35,820	9,300	0.26	C
	University Dr	SW 46th Ave	4	D	35,820	14,700	0.41	C
	SW 46th Ave	Project Driveway	4	D	35,820	14,700	0.41	C
Davie Boulevard	Project Driveway	State Road 7	4	D	35,820	14,700	0.41	C
	State Road 7	SW 31st Ave	4	D	39,800	27,000	0.68	C
	SW 31st Ave	I-95	4	D	39,800	25,000	0.63	C
State Road 84	Davie Road	State Road 7	5	D	59,700	59,300	0.99	D
	State Road 7	SW 26th Terrace	4	D	39,800	38,500	0.97	D
I-595	Davie Road	FL Turnpike	8	D	164,200	194,500	1.18	F
	FL Turnpike	State Road 7	8	D	164,200	194,500	1.18	F
	State Road 7	I-95	8	D	164,200	194,500	1.18	F
University Drive	State Road 84	Peters Rd	6	D	59,900	69,000	1.15	F
	Peters Rd	Broward Blvd	6	D	59,900	50,000	0.83	C
Florida's Turnpike	Griffin Road	SR 84 / I-595	6	D	123,600	130,100	1.05	F
	SR 84 / I-595	Sunrise Blvd	6	D	123,600	128,700	1.04	F
State Road 7	State Road 84	Riverland Rd	6	D	59,900	56,000	0.93	C
	Riverland Rd	Davie Blvd	6	D	59,900	56,000	0.93	C
	Davie Blvd	Broward Blvd	6	D	59,900	44,000	0.73	C
SW 31st Avenue	Riverland Rd	Davie Blvd	2	D	13,320	3,100	0.23	C
	Davie Blvd	Broward Blvd	2	D	13,320	8,400	0.63	D

[1] *Capacities and 2020 volumes obtained from traffic data published by the Broward Metropolitan Planning Organization (MPO).*

TABLE F.1.2
Broadview Gardens - Broward County, Florida
Existing Traffic Conditions (PM Peak Hour Volumes)

Roadway	From	To	Number of Lanes	Adopted LOS	Adopted LOS Service Volume [1]	Existing (2020) PM Peak Hour Volume [1]	v/c Ratio	LOS
Sunrise Boulevard	NW 65th Ave	FL Turnpike	6	D	5,390	3,943	0.73	C
	FL Turnpike	State Road 7	6	D	5,390	5,083	0.94	C
Broward Boulevard	University Dr	State Road 7	6	D	5,390	4,038	0.75	C
	State Road 7	SW 31st Ave	6	D	5,390	4,275	0.79	C
Peters Road	Pine Island Rd	University Dr	4	D	3,222	884	0.27	C
	University Dr	SW 46th Ave	4	D	3,222	1,397	0.43	C
	SW 46th Ave	Project Driveway	4	D	3,222	1,397	0.43	C
Davie Boulevard	Project Driveway	State Road 7	4	D	3,222	1,397	0.43	C
	State Road 7	SW 31st Ave	4	D	3,580	2,565	0.72	C
	SW 31st Ave	I-95	4	D	3,580	2,375	0.66	C
State Road 84	Davie Road	State Road 7	5	D	5,370	5,634	1.05	F
	State Road 7	SW 26th Terrace	4	D	3,580	3,658	1.02	F
I-595	Davie Road	FL Turnpike	8	D	13,620	18,478	1.36	F
	FL Turnpike	State Road 7	8	D	13,620	18,478	1.36	F
	State Road 7	I-95	8	D	13,620	18,478	1.36	F
University Drive	State Road 84	Peters Rd	6	D	5,390	6,555	1.22	F
	Peters Rd	Broward Blvd	6	D	5,390	4,750	0.88	C
Florida's Turnpike	Griffin Road	SR 84 / I-595	6	D	10,220	12,360	1.21	F
	SR 84 / I-595	Sunrise Blvd	6	D	10,220	12,227	1.20	F
State Road 7	State Road 84	Riverland Rd	6	D	5,390	5,320	0.99	D
	Riverland Rd	Davie Blvd	6	D	5,390	5,320	0.99	D
	Davie Blvd	Broward Blvd	6	D	5,390	4,180	0.78	C
SW 31st Avenue	Riverland Rd	Davie Blvd	2	D	1,197	295	0.25	C
	Davie Blvd	Broward Blvd	2	D	1,197	798	0.67	D

[1] *Capacities and 2020 volumes obtained from traffic data published by the Broward Metropolitan Planning Organization (MPO).*

2) Identify the projected level of service for the roadways impacted by the proposed amendment for the long-range planning horizon. Please utilize average daily and p.m. peak hour traffic volumes per Broward Metropolitan Planning Organization (MPO) plans and projections.

Tables F.2.1 and F.2.2 document the projected levels of service (LOS) for the primary roadways located near the proposed amendment. The 2045 projected daily traffic volumes (AADT) and PM peak hour volumes were obtained from the Broward MPO and their most recent Level of Service Spreadsheet (Broward County Roadway Capacity and Level of Service Analysis for 2020 and 2045).

TABLE F.2.1
Broadview Gardens - Broward County, Florida
Future (2045) Traffic Conditions (Daily Volumes)

Roadway	From	To	Number of Lanes	Adopted LOS	Adopted LOS Service Volume [1]	Future (2045) Daily Volume [1]	v/c Ratio	LOS
Sunrise Boulevard	NW 65th Ave	FL Turnpike	6	D	59,900	74,400	1.24	F
	FL Turnpike	State Road 7	6	D	59,900	77,700	1.30	F
Broward Boulevard	University Dr	State Road 7	6	D	59,900	52,300	0.87	C
	State Road 7	NW/SW 31st Ave	6	D	59,900	61,600	1.03	F
Peters Road	Pine Island Rd	University Dr	4	D	35,820	21,200	0.59	C
	University Dr	SW 46th Ave	4	D	35,820	32,500	0.91	C
	SW 46th Ave	Project Driveway	4	D	35,820	32,500	0.91	C
Davie Boulevard	Project Driveway	State Road 7	4	D	35,820	32,500	0.91	C
	State Road 7	SW 31st Ave	4	D	39,800	47,000	1.18	F
	SW 31st Ave	I-95	4	D	39,800	44,200	1.11	F
State Road 84	Davie Road	State Road 7	5	D	47,760	45,200	0.95	C
	State Road 7	SW 26th Terrace	4	D	39,800	49,500	1.24	F
I-595	Davie Road	FL Turnpike	12	D	246,200	201,800	0.82	D
	FL Turnpike	State Road 7	12	D	246,200	171,100	0.69	C
	State Road 7	I-95	10	D	203,600	205,400	1.01	F
University Drive	State Road 84	Peters Rd	6	D	59,900	76,000	1.27	F
	Peters Rd	Broward Blvd	6	D	59,900	79,500	1.33	F
Florida's Turnpike	Griffin Road	SR 84 / I-595	8	D	164,200	176,300	1.07	F
	SR 84 / I-595	Sunrise Blvd	10	D	203,600	169,000	0.83	D
State Road 7	State Road 84	Riverland Rd	6	D	59,900	72,100	1.20	F
	Riverland Rd	Davie Blvd	6	D	59,900	81,600	1.36	F
	Davie Blvd	Broward Blvd	6	D	59,900	66,900	1.12	F
SW 31st Avenue	Riverland Rd	Davie Blvd	2	D	13,320	10,200	0.77	D
	Davie Blvd	Broward Blvd	2	D	13,320	17,200	1.29	F

[1] *Capacities and 2045 volumes obtained from traffic data published by the Broward Metropolitan Planning Organization (MPO).*

TABLE F.2.2
Broadview Gardens - Broward County, Florida
Future (2045) Traffic Conditions (PM Peak Hour Volumes)

Roadway	From	To	Number of Lanes	Adopted LOS	Adopted LOS Service Volume [1]	Future (2045) PM Peak Hour Volume [1]	v/c Ratio	LOS
Sunrise Boulevard	NW 65th Ave	FL Turnpike	6	D	5,390	7,068	1.31	F
	FL Turnpike	State Road 7	6	D	5,390	7,382	1.37	F
Broward Boulevard	University Dr	State Road 7	6	D	5,390	4,969	0.92	C
	State Road 7	SW 31st Ave	6	D	5,390	5,852	1.09	F
Peters Road	Pine Island Rd	University Dr	4	D	3,222	2,014	0.63	C
	University Dr	SW 46th Ave	4	D	3,222	3,088	0.96	D
	SW 46th Ave	Project Driveway	4	D	3,222	3,088	0.96	D
Davie Boulevard	Project Driveway	State Road 7	4	D	3,222	3,088	0.96	D
	State Road 7	SW 31st Ave	4	D	3,580	4,465	1.25	F
	SW 31st Ave	I-95	4	D	3,580	4,199	1.17	F
State Road 84	Davie Road	State Road 7	5	D	4,296	4,294	1.00	D
	State Road 7	SW 26th Terrace	4	D	3,580	4,703	1.31	F
I-595	Davie Road	FL Turnpike	12	D	20,930	19,171	0.92	D
	FL Turnpike	State Road 7	12	D	20,930	16,255	0.78	C
	State Road 7	I-95	10	D	17,040	19,513	1.15	F
University Drive	State Road 84	Peters Rd	6	D	5,390	7,220	1.34	F
	Peters Rd	Broward Blvd	6	D	5,390	7,553	1.40	F
Florida's Turnpike	Griffin Road	SR 84 / I-595	8	D	13,620	16,749	1.23	F
	SR 84 / I-595	Sunrise Blvd	10	D	17,040	16,055	0.94	D
State Road 7	State Road 84	Riverland Rd	6	D	5,390	6,850	1.27	F
	Riverland Rd	Davie Blvd	6	D	5,390	7,752	1.44	F
	Davie Blvd	Broward Blvd	6	D	5,390	6,356	1.18	F
SW 31st Avenue	Riverland Rd	Davie Blvd	2	D	1,197	969	0.81	D
	Davie Blvd	Broward Blvd	2	D	1,197	1,634	1.37	F

[1] *Capacities and 2045 volumes obtained from traffic data published by the Broward Metropolitan Planning Organization (MPO).*

3) Planning Council staff will analyze traffic impacts resulting from the amendment. The applicant may provide a traffic impact analysis for this amendment – calculate anticipated average daily and p.m. peak hour traffic generation for the existing and proposed land use designations. If the amendment reflects a net increase in traffic generation, identify access points to/from the amendment site and provide a distribution of the additional traffic on the impacted roadway network for the long-range planning horizon.

A trip generation comparison analysis has been performed for the existing (approved) land use designation (Utilities) and intensity and for the proposed land use designation (Medium (16) Residential). The trip generation comparison analysis was based on the following assumptions:

EXISTING LAND USE AND INTENSITY

- *Utilities: 39.4 acres (currently vacant)*
  - *Utilizing the Broward County Planning Council (BCPC) standard of 10,000 square feet per acre for non-residential uses, the current maximum allowable development on the site is 394,000 square feet of utilities.*

PROPOSED LAND USE AND INTENSITY

- *Medium (16) Residential*
  - *The proposed Medium (16) Residential land use would permit a maximum of 630 dwelling units (39.4 acres x 16 DUs / acre).*

The trip generation analysis was based upon information contained in the Institute of Transportation Engineer's (ITE) Trip Generation Manual (11th Edition). According to the subject ITE manual, the most appropriate land use category for the existing land use designation is Land Use #170 – Utility. The most appropriate land use category for the proposed land use designation is Land Use #220 – Multifamily Housing (Low-Rise). The trip generation equations / rates used to determine the vehicle trips associated with this analysis are presented below.

ITE Land Use #170 – Utility

- Weekday: T = 12.29 (X)
  where T = number of trips and X = 1,000 square feet of gross floor area
- AM Peak Hour: T = 2.33 (X) (87% in / 13% out)
- PM Peak Hour: T = 2.16 (X) (18% in / 82% out)

ITE Land Use #220 – Multifamily Housing (Low-Rise)

- Weekday: T = 6.41 (X) + 75.31
  where T = number of trips and X = number of dwelling units
- AM Peak Hour: T = 0.31 (X) + 22.85 (24% in / 76% out)
- PM Peak Hour: T = 0.43 (X) + 20.55 (63% in / 37% out)

Table F.3.1 below presents the results of the trip generation comparison analysis.

TABLE F.3.1
Broadview Gardens - Broward County, Florida
Trip Generation Comparison Analysis

Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Existing Future Land Use								
Utilities								
Utility (ITE LU#170)	394,000 SF	4,842	799	119	918	153	698	851
Proposed Future Land Use								
Residential								
Multifamily Housing (ITE LU#220)	630 DU	4,114	52	166	218	183	108	291
Difference (Proposed - Existing)		**(728)**	**(747)**	**47**	**(700)**	**30**	**(590)**	**(560)**

Source: ITE Trip Generation Manual (11th Edition).

The results of the trip generation comparison analysis indicate that the proposed land use plan amendment will result in 728 fewer daily vehicle trips, 700 fewer AM peak hour vehicle trips, and 560 fewer PM peak hour vehicle trips. Since the proposed change in the land use designation results in a decrease in daily, AM peak hour, and PM peak hour trips, the proposed land use designation is projected to have a positive impact on traffic conditions at and near the amendment area. Specifically, the Levels of Service (LOS) on the impacted roadways will not degrade as a result of this amendment and the project impact will be less than 1% of the LOS "D" capacity on all roadway segments.

Questions regarding the information presented in this portion of the application may be directed to Karl Peterson via phone at (954) 560-7103 and via e-mail at karl@traftech.biz.

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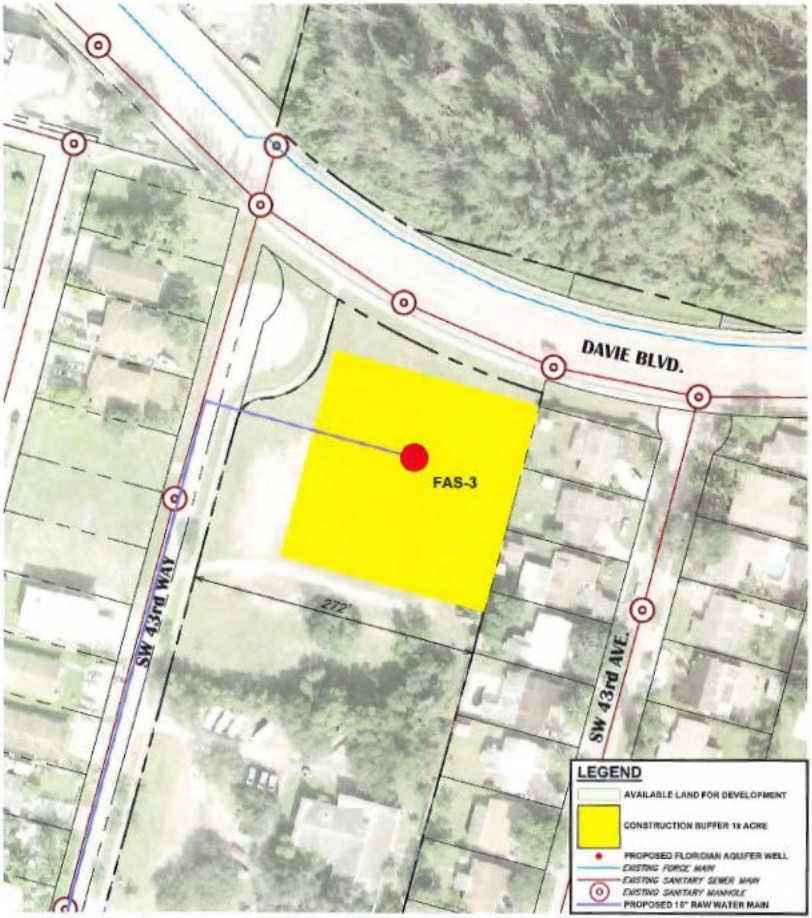

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
528 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
PROPOSED FLORIDIAN AQUIFER WELL FAS-3

GRAPHIC SCALE
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1 INCH = 300 FEET

EXHIBIT 7

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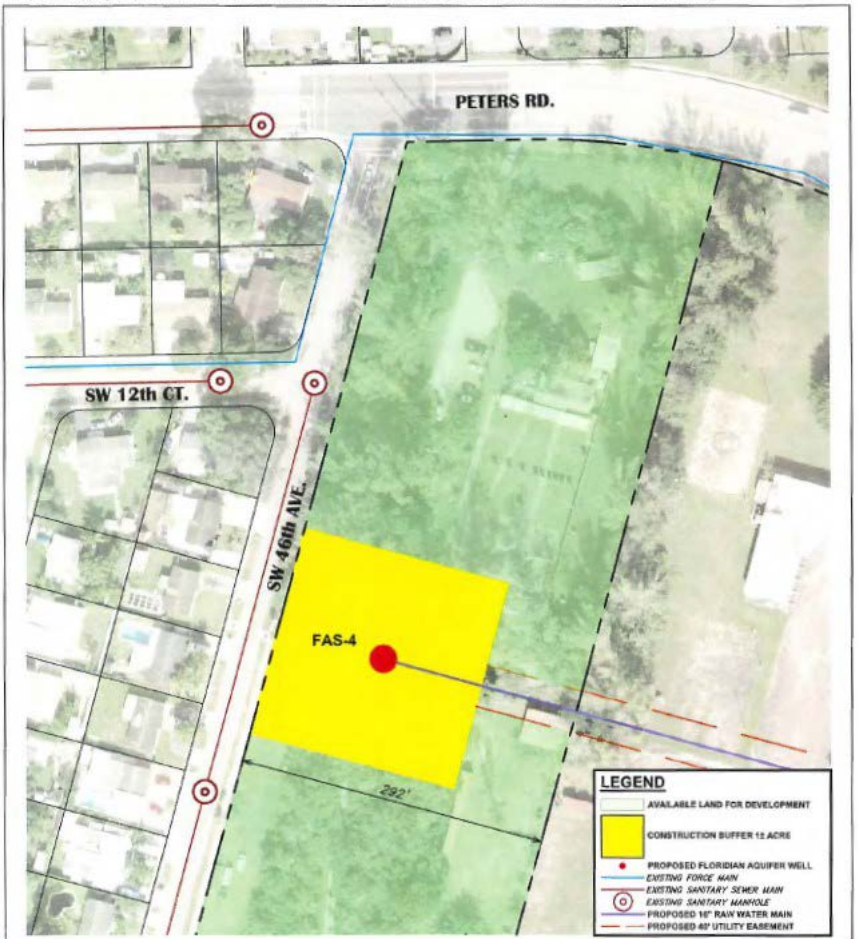

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE
&ASSOCIATES

PEELE DIXIE BROADVIEW
WELLFIELD SITE ASSESMENT
PROPOSED FLORIDIAN
AQUIFER WELL FAS-4

GRAPHIC SCALE
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1 INCH = 100 FEET

EXHIBIT 8

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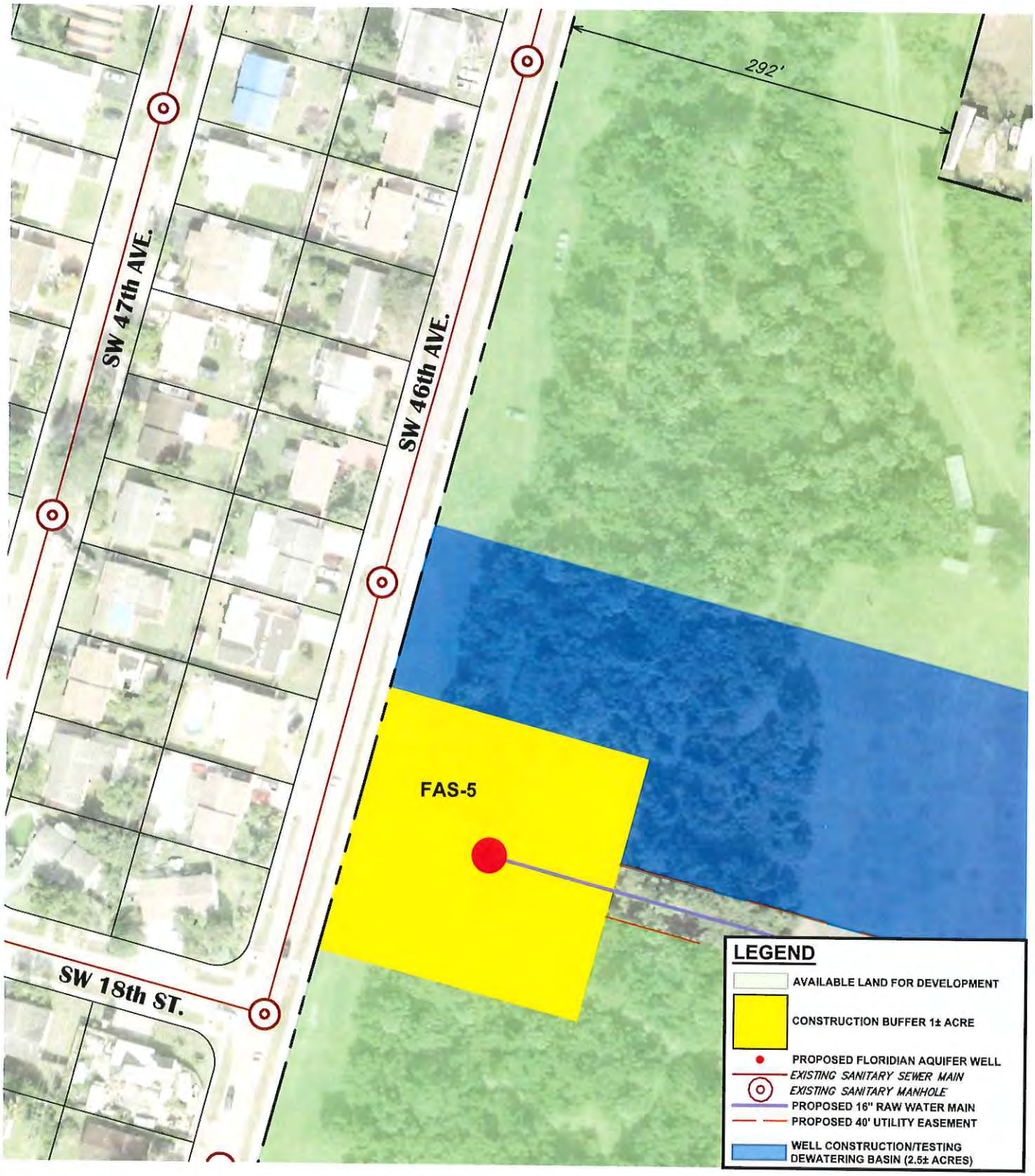


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CHEN·MOORE &ASSOCIATES

PEELE DIXIE BROADVIEW WELLFIELD SITE ASSESMENT
PROPOSED FLORIDIAN AQUIFER WELL FAS-5

GRAPHIC SCALE
0 50 100 200
1 INCH = 100 FEET

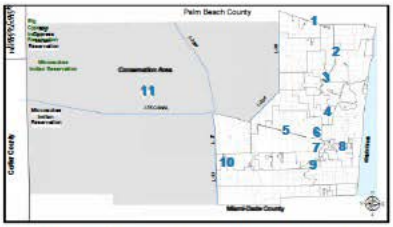
EXHIBIT 9

EXHIBITS

EXHIBIT A - LOCATION MAP

EXHIBIT B - CURRENT FUTURE LAND USE

Future Land Use: Broward Municipal Services District



Legend

- Recreation and Open Space
- Commercial Recreation
- Low (5) Residential
- Low-Medium (10) Residential
- Medium (15) Residential
- Community Facilities
- Commercial
- Utilities
- Transportation
- Municipal Boundaries

This map is for conceptual purposes only and is not intended for legal boundary determinations.
Roadways within the Broward Municipal Services District (BMSD) boundaries depicted on this map are subject to the Trafficways requirements of the Broward County Trafficways Map.

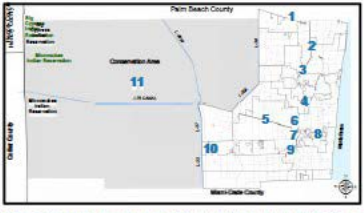
Environmental Protection & Growth Management Department
Planning and Development Management Division
Prepared by: GIS Section

Map No. BMSD-2

Sheet 6

EXHIBIT C - PROPOSED LAND USE MAP

Future Land Use: Broward Municipal Services District



Legend

- Recreation and Open Space
- Commercial Recreation
- Low (5) Residential
- Low-Medium (10) Residential
- Medium (16) Residential
- Community Facilities
- Commercial
- Utilities
- Transportation
- Municipal Boundaries

This map is for conceptual purposes only and is not intended for legal boundary determinations.
Roadways within the Broward Municipal Services District (BMSD) boundaries depicted on this map are subject to the Trafficways requirements of the Broward County Trafficways Map.

Environmental Protection & Growth Management Department
Planning and Development Management Division
Prepared by: GIS Section

Map No. BMSD-2

Sheet 6

Section 10

Public Transit

ATTACHMENT VIII

MASS TRANSIT CORRESPONDENCE

LOCHRIE & CHAKAS P.A.

999 N. Federal Highway, Suite 400
Fort Lauderdale, Florida 33301
Direct Dial: 954.799.8005
Email: RHELY@LOCHRIELAW.COM
Main Phone: 954.779.1119
Fax: 954.779.1117

November 13, 2024

Via Email: dacohen@broward.org
Daniel Cohen, Service Planner
Service and Strategic Planning
Broward County Transit
1 N. University Drive, 3100A
Plantation, Florida 33324

RE: "Broadview Gardens" Land Use Plan Amendment – Mass Transit Analysis – 4590 Peters Road

Mr. Cohen:

Our firm is preparing a revised application for a Land Use Plan Amendment (LUPA) in Unincorporated Broward County. The proposed development previously received an analysis from the Division as part of the original application, which was submitted alongside a site plan. That site plan has since been amended to include an updated unit count, consisting of both single-family and multi-family dwellings. The proposed land use designation, however, remains the same.

As part of our analysis, we are required to evaluate the new impacts of the proposed amendment, including its effect on mass transit services. Attached is a copy of our prepared analysis and a site location map for your reference. We would appreciate it if you could confirm the accuracy of the information with return correspondence at your earliest convenience.

If you have any questions or need further information, please do not hesitate to contact me.

Sincerely,

Robert J. Hely, Esq.

Enclosures:
1-Analysis
2-Site Location Map

A. Project Information

The applicant is requesting a change in land use designation from Utilities to Medium (16) Residential. A similar application was submitted in 2021 as part of a proposal for a 553-unit multifamily development on the same site. Since then, the site plan has been updated to improve compatibility with surrounding land uses and to enhance the overall layout of the development. These updates include the addition of 34 single-family home lots and a reduction in multi-family units to 513. The development will continue to provide a mix of workforce and affordable housing for moderate-income households.

The subject site encompasses approximately 39.4 acres and is located on the south side of Peters Road, east of S.W. 46th Avenue, in unincorporated Broward County. The site is currently vacant, except for a tree canopy. Development of the site will comply with Broward County's Land Development Regulations.

B. Mass Transit Analysis

1. Identify the mass transit modes, existing and planned mass transit routes and scheduled service (headway) serving the amendment area within one-quarter of a mile.

   Applicant's Response: Broward County Transit route 30 serves the amendment site along Peters Road and operates on +/- 30-minute headways Monday-Saturday and +/- 45-minute headways on Sunday.

2. Describe how the proposed amendment furthers or supports mass transit use.

   Applicant's Response: The subject site supports the utilization of mass transit by developing along and near roadways which are located within ¼ mile of mass transit services.

3. Correspondence from transit provider verifying the information submitted in items 1-2 above. Correspondence must contain name, position and contact information of party providing verification.

   Applicant's Response: See Attachment _____ and below:

Name:	Daniel Cohen
Agency:	Broward County Transit Division
Position:	Service Planner
Email:	dacohen@broward.org
Address:	115 S. Andrews Avenue, Fort Lauderdale, FL 33301
Phone:	954-357-6605

C. Traffic Circulation Analysis

Please be advised, if required, that the Planning Council staff will request from the Broward Metropolitan Planning Organization (MPO), as per Policy 2.14.6 of the BCLUP, an analysis of the impacts of the amendment to the regional transportation network. The MPO will charge a separate cost-recovery fee directly to applicants for technical assistance requested by the Planning Council for the preparation and review of the land use plan amendment transportation analysis. Please contact the MPO for additional information regarding this fee.

1. Identify the roadways impacted by the proposed amendment and indicate the number of lanes, current traffic volumes, adopted level of service and current level of service for each roadway.

Table 9
EXISTING ROADWAY CONDITIONS (2020)

Roadways	Lanes	AADT			Peak Hour		
		Volume	Capacity	LOS	Volume	Capacity	LOS
EAST-WEST							
Peters Rd E of University Dr	4	14,700	35,820	C	1,397	3,222	C
Davie Blvd E of SR7	4	27,000	39,800	C	2,565	3,580	C
NORTH-SOUTH							
SR 7 N of SR 84 N of Davie Blvd	 6 6	 56,000 44,000	 59,900 59,900	 C C	 5,320 4,180	 5,390 5,390	 D C

Source: MPO Roadway Level of Service Analysis

2. Identify the projected level of service for the roadways impacted by the proposed amendment for the long-range planning horizon. Please utilize average daily and p.m. peak hour traffic volumes per Broward Metropolitan Planning Organization (MPO) plans and projections.

Table 10
PROJECTED ROADWAY CONDITIONS, LONG-TERM (2045)

Roadways	Lanes	AADT			Peak Hour		
		Volume	Capacity	LOS	Volume	Capacity	LOS
EAST-WEST							
Peters Rd E of University Dr	4	32,500	35,820	C	3,088	3,222	D
Davie Blvd E of SR7	4	47,000	36,500	F	4,465	3,580	F
NORTH-SOUTH							

SR 7 N of SR 84 N of Davie Blvd	 6 6	 72,100 66,900	 59,900 59,900	 F C	 6,850 6,356	 5,390 5,390	 F C
Source: MPO Roadway Level of Service Analysis							

3. Planning Council staff will analyze traffic impacts resulting from the amendment. The applicant may provide a traffic impact analysis for the amendment – calculate anticipated average daily and p.m. peak hour traffic generation for the existing and proposed land use designations. If the amendment reflects a net increase in traffic generation, identify access points to/from the amendment site and provide a distribution of the additional traffic on the impacted roadway network for the long-range planning horizon.

Table 11
TRAFFIC IMPACT

	USE	**ITE CODE**	**TRIPS**	
			Daily	**PM Peak**
CURRENT	394,000 sq ft Utilities	170	0	0
PROPOSED	513 MF DUs 34 SF DUs	220 XX	XX XX	XX XX
		Change	**+XX**	**+XX**

4. Provide any relevant transportation studies relating to this amendment, as applicable.

Applicant's Response: None provided at this time.


Subject Site
BMSD
PETERS RD
RIVERLAND RD
CITY OF FORT LAUDERDALE

Transportation Department
Service and Strategic Planning Division
1 N. University Drive, Suite 3100A • Plantation, Florida 33324 • 954-357-8300 • FAX 954-357-8382

VIA EMAIL

November 22, 2024

Robert J. Hely, Esq.
Lochrie & Chakas, P.A.
699 N. Federal Highway, Suite 400
Fort Lauderdale, FL 33304

RE: Land Use Plan Amendment (LUPA) – Broadview Park, unincorporated Broward County - Transit Verification Letter

Dear Mr. Hely,

Broward County Transit (BCT) has reviewed your correspondence dated November 13, 2024, regarding the proposed LUPA for Broadview Park, folio ID 504137011280 in unincorporated Broward County, FL for current and planned transit service. The transit service provided within a quarter mile of the amendment site is limited to BCT Fixed Route 30. Please refer to the following table for detailed information.

BUS ROUTE	DAYS OF SERVICE	SERVICE SPAN A.M. – P.M.	SERVICE FREQUENCY
BCT Route 30	WEEKDAY SATURDAY SUNDAY	5:59 A.M. – 10:36 P.M. 6:00 A.M. – 10:51 P.M. 9:30 A.M. – 7:36 P.M.	29 Minutes 32 Minutes 47 Minutes

BCT can accommodate additional transit demand, as described in the Mass Transit Analysis, with planned fixed route bus service to the amendment site.

As part of the Transportation Surtax, BCT will be implementing fixed route bus improvements, including shorter headways and increased span of service on weekdays and weekends, in addition to new service types like demand-response. The development of subject property will support the utilization of mass transit by increasing the residential opportunities along an existing transit route. The proposed development will provide safe circulation routes for pedestrians and bicycles including transit connectivity between existing sidewalks and proposed future bus stops.

Please be advised that the needs of any existing or future bus stops located adjacent or within the amendment site will be addressed during the project's development review process.

Please feel free to call me at 954-357-5481 or email me at dacohen@broward.org if you require any additional information or clarification on this matter.

Sincerely,

Daniel Cohen

Daniel Cohen
Service Planner
Service and Strategic Planning – Broward County Transit

Section 11

Public School Facilities

Public School Facilities Impact Statement

The School Board of Broward County, Florida

SCHOOL CONSISTENCY REVIEW REPORT

LAND USE
SBBC-3969-2025
County No: N/A
Folio #: 504137011280
Broadview Gardens
February 27, 2025
2:40:33 PM

Growth Management
Facility Planning and Real Estate Department
600 SE 3rd Avenue, 8th Floor
Fort Lauderdale, Florida 33301
Tel: (754) 321-2177 Fax: (754) 321-2179
www.browardschools.com

SCHOOL CONSISTENCY REVIEW REPORT - LAND USE

PROJECT INFORMATION		IMPACT OF PROPOSED CHANGE				PROPERTY INFORMATION	
Date: February 27, 2025 2:40:33 PM		Units Permitted	0	Units Proposed	547	**Existing Land Use:**	Utilities
Name: Broadview Gardens		NET CHANGE (UNITS):			547	**Proposed Land Use:**	Medium (16) Residential
SBBC Project Number: SBBC-3969-2025		**Students**	**Permitted**	**Proposed**	**NET CHANGE**	**Current Zoning**	A-3
County Project Number: N/A		Elem	0	48	48	**Proposed Zoning:**	RM-16
Municipality Project Number: N/A		Mid	0	24	24	**Section:**	13
Owner/Developer: City of Fort Lauderdale		High	0	39	39	**Township:**	50
Jurisdiction: Unincorporated Broward County		Total	0	111	111	**Range:**	41 E

SHORT RANGE - 5-YEAR IMPACT

Currently Assigned Schools	Gross Capacity	LOS* Capacity	Benchmark** Enrollment	Over/Under LOS	Classroom Equivalent Needed to Meet LOS	% of LOS*** Capacity	
Meadowbrook Elementary	809	809	704	-105	-5	87.0%	
New River Middle	1,416	1,536	1,577	41	2	102.7%	
South Plantation High	2,543	2,615	2,321	-294	-11	88.8%	

Currently Assigned Schools	Adjusted Benchmark	Over/Under LOS-Adj. Benchmark Enrollment	% LOS Capacity Adjusted Benchmark	Projected Enrollment				
				25/26	26/27	27/28	28/29	29/30
Meadowbrook Elementary	704	-105	87.0%	694	681	667	658	643
New River Middle	1,577	41	102.7%	1,577	1,570	1,562	1,559	1,550
South Plantation High	2,321	-294	88.8%	2,362	2,343	2,342	2,345	2,325

* See comments for additional Impacted Planning Area information

LONG RANGE - TEN-YEAR IMPACT

Impacted Planning Area	School District's Planning Area Data			Aggregate Projected Enrollment				
	Aggregate School Capacity	Aggregate Enrollment	Aggregate Over/(Under) Enrollment	29/30	30/31	31/32	32/33	33/34
Area 3* - Elementary	12,118	8,993	-3,125	8,137	7,982	7,831	7,678	7,522
Area 3* - Middle	4,643	3,490	-1,153	3,539	3,529	3,521	3,512	3,504
Area 3* - High	6,903	5,313	-1,590	4,458	4,352	4,248	4,144	4,040

* See comments for additional Impacted Planning Area information

CHARTER SCHOOL INFORMATION

Charter Schools within 2-mile radius	2023-24 Contract Permanent Capacity	2023-24 Benchmark** Enrollment	Over/(Under)	Projected Enrollment		
				25/26	26/27	27/28
New Life Charter Academy	300	113	-187	**113**	**113**	**113**
Suned High School Of South Broward	400	272	-128	**272**	**272**	**272**

Students generated are based on the student generation rates contained in the currently adopted Broward County Land Development Code.
A traditional cohort survival methodology is used to project school-by-school District traditional school enrollment out over the next five years, and a proportional share of charter school enrollment is used to project future charter school enrollment by school level Districtwide. For more information: http://www.broward.k12.fl.us/dsa/EnrollmentProj.shtml. The annual benchmark school enrollment is used to apply individual charter school enrollment impacts against school facility review processes.

**The first Monday following Labor Day
INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE DATE OF REVIEW

* See comments for additional Impacted Planning Area information

PLANNED AND FUNDED CAPACITY ADDITION IN THE ADOPTED DISTRICT EDUCATIONAL FACILITIES PLAN
(Years 1 - 5)

School(s)	Description of Capacity Additions
Meadowbrook Elementary	There are no capacity additions scheduled in the ADEFP that will increase the reflected FISH capacity of the school.
New River Middle	There are no classroom additions scheduled in the ADEFP that will increase the reflected FISH capacity of the school.
South Plantation High	There are no capacity additions scheduled in the ADEFP that would increase the reflected FISH capacity of the school.

PLANNED CAPACITY ADDITION IN THE ADOPTED DISTRICT EDUCATIONAL FACILITIES PLAN
(Years 6 - 10)

Capacity Additions for Planning Area 3

School Level	Comments
Elementary	None
Middle	None
High	None

INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE DATE OF REVIEW

* See comments for additional Impacted Planning Area information

Comments

Information contained in the application indicates that the approximately 39.4-acre site is generally located South of Peters Road between SW 46th Avenue and SW 44th Terrace in the Broward Municipal Services District. The current land use designation for the site is Community. The applicant proposes to change the land use designation to Medium (16) Residential to allow a total of 547 residential units including 34 (all three-bedroom or less) single-family units and 513 (103 one-bedroom or less, 266 two-bedroom and 144 three-bedroom or more) garden apartment units, which are anticipated to generate 111 additional (48 elementary, 24 middle, and 39 high) students into Broward County Public Schools.

This application was reviewed based on its location in the School District's Long Range Seven Planning Areas, and Ten-Year Long Range Plan contained in the Adopted District Educational Facilities Plan (ADEFP 2024/25 to 2028/29). However, the statistical data regarding the Level of Service (LOS) standard status of the actual schools impacted by this land use application in the initial five years of the ten-year period is depicted herein for informational purposes only.

Schools serving the amendment site in the 2024/25 school year are Meadowbrook Elementary, New River Middle, and South Plantation High High Schools. Based on the District's Public School Concurrency Planning Document, Meadowbrook Elementary and South Plantation High Schools are currently operating below the Level of Service Standard (LOS). This standard is defined as either 100% of gross capacity or 110% of permanent capacity. In contrast, New River Middle School is operating above this standard. Incorporating the cumulative students anticipated from this project as well as approved and vested developments anticipated to be built within the next three years (2024/25- 2026/27), Meadowbrook Elementary and South Plantation High Schools are expected to maintain their current status through the 2026/27 school year. In Contrast, New River Middle School will continue to exceed this standard until the 2026/27 school year. It should be noted that the permanent school capacity or Florida Inventory of School Housing (FISH) for the impacted schools reflects compliance with the class size constitutional amendment and the permanent capacity additions that are planned for the schools within the first three years of the Five-Year Adopted DEFP FY 2024/25 to 2028/29. Also, to ensure maximum utilization of the impacted Concurrency Service Areas, the Board may utilize other options such as school boundary changes to accommodate students generated from developments in the County. Charter schools located within a two-mile radius of the site in the 2024-25 school year are depicted herein.

Capital Improvements scheduled in the long-range section of the currently Five-Year Adopted FY 2024/25 to 2028/29 regarding pertinent impacted schools are depicted above. Based on the School District's Seven Long Range Planning Areas, the amendment site is located within Planning Area "3" for elementary and middle schools, and Planning Area "6" for high school. The high school currently serving Planning Area "6" and their cumulative twentieth-day student enrollments, permanent capacities, and ten-year student enrollment projections are depicted herein. Information on high schools in Planning Area "6": aggregate school capacity (13,956), aggregate enrollment (12,883), and aggregate projected enrollment (2029/30 – 12,662; 2030/31 – 12,630; 2031/32 – 12,600; 2032/33 – 12,568; 2033/34 – 12,536).

Therefore, both Planning Area "3" and Planning Area "6" are anticipated to have sufficient excess capacity to support the students generated by the residential units proposed in the Planning Areas.

Please be advised that if approved, the residential units from this project will be subject to a public school concurrency review at the plat, site plan (or functional equivalent) phase of development review, whichever comes first.

The School Board of Broward County, Florida

SCHOOL CONSISTENCY REVIEW REPORT

PROJECT NUMBER: SBBC-3969-2025

Reviewed By:

2/28/2025

Date

Glennika D. Gordon

Signature

Glennika D. Gordon, AICP, CNU-A

Name

Planner

Title

* See comments for additional Impacted Planning Area information

Section 12

Recreation and Open Space

ATTACHMENT VI

INVENTORY OF LOCAL PARKS

1. Existing and Projected Build-Out Populations

Appendix BMSD-B

Population Forecasts by Traffic Analysis Zone 2015-2040

BMSD Neighborhood	Traffic Analysis Zone (TAZ) Allocation					
	2015*	2020	2025	2030	2035	2040
Boulevard Gardens	1,870	1,928	2,133	2,242	2,317	2,376
Broadview Park	7,593	7,828	8,662	9,105	9,409	9,648
Franklin Park	958	988	1,093	1,149	1,187	1,217
Hillsboro Pines	401	413	457	481	497	510
Hillsboro Ranches	53	55	60	64	66	67
Roosevelt Gardens	2,760	2,846	3,149	3,309	3,420	3,507
Washington Park	1,310	1,351	1,494	1,571	1,623	1,665
Other Unincorporated Areas, Including Tribal Lands	2,546	2,625	2,904	3,053	3,155	3,235
Total All Unincorporated	17,491	18,033	19,954	20,973	21,674	22,225

*2015 populations reflect ACS 5-Year Estimates, 2011-2015.

Source: Planning and Development Management Division, Population Forecast Allocation Model (PFAM) 2017; BEBR Broward County Forecasts 2015, 2020-2045; American Community Survey 5-Year Estimates, 2011-2015, Table B01003; and US Census 2000, 2010.

Methodology: The figures provided are the result of the Broward County Population Forecast and Allocation Model (PFAM) 2017 model run. The model allocates Countywide forecasts from the University of Florida Bureau of Business Research (BEBR) in 5-year increments for 2020-2045 to Traffic Analysis Zones (TAZs). These are also combined to define total population for municipalities and the Broward Municipal Service District (BMSD) (unincorporated areas). The model inputs include the BEBR forecasts, as well as household size and distribution from the 2000 and 2010 US Census. It also uses vacancy and seasonal rates from the American Community Survey 5-Year Estimates, 2011-2015. For more information, please visit the Broward County Demographics website and see the PFAM model site and report.

2. Current and Projected Community Parks

Unless there is an annexation of Unincorporated Area into a municipality, the current park inventory is expected to be maintained through at least 2040.

3. Existing Community Parks Acreage Used to Satisfy Community Parks Requirement

a. Existing Community Parks (Recreation and Open Space Element Table R-1)

RECERTIFIED: 6/27/19

EFFECTIVE: 6/27/19

Table R-1: Local Parks in the BMSD

Name	Acres	Address
Boulevard Gardens Community Center	1.31	313 NW 28th Terrace
Delevoe Park	28.14	2520 NW 6th Street
Dillard Park Green Space	3.93	N W 27th Ave
Franklin Park	3.07	2501 Franklin Park Drive
Lafayette Hart Park	2.66	2851 NW 8th Rd
Lewis-Chisholm Park	.44	2620 NW 8th St
Roosevelt Gardens Park	5.43	2841 NW 11th St
Sewell Lock	4.03	Davie Rd
South Fork Canoe Launch	.47	SR 7 and Dania Cutoff Canal
Sunview Park	21.27	1500 SW 42nd Street
Washburn Park	.64	1955 SW 50th Ave
Total	71.39	

Source: Planning and Development Management Division, 2018.

b. Current Level-of-Service: 4.8 acres per thousand

4. Projected Community Parks Inventory Used to Satisfy Build-out Population

a. Projected Community Parks: See above Table R-1.

b. Projected Level-of-Service: 3.2 acres per thousand

RECERTIFIED: 06/27/19

EFFECTIVE: 06/27/19

Section 13

Public Outreach

Public Outreach

LOCHRIE & CHAKAS P.A.

699 N. Federal Highway, Suite 400
Fort Lauderdale, Florida 33304
Direct Dial: 954.779.1101
Email: RLochrie@lochrielaw.com
Main Phone: 954.779.1119
Fax: 954.779.1117

February 28, 2025

Heather Cunniff, AICP, Planning Section Supervisor
Urban Planning Division
1 N. University Drive, Box 102
Plantation, FL 33324

RE: Proposed Comprehensive Plan Amendment – 25-M1: Broadview Gardens – Response to Letter of Incompleteness Regarding Public Outreach Summary

Dear Ms. Cunniff:

This letter is to provide a response regarding previous and ongoing public outreach. As part of the community engagement process, several meetings were held with the Broadview Park Neighborhood Association to present the project, gather feedback, and address community concerns. These efforts are summarized below:

- November 30, 2021: Initial meeting with the Broadview Park Neighborhood Association to present the project and gather input.
- January 25, 2022: Follow-up meeting with the association to share updated site plans and address feedback from the initial meeting.
- February 1, 2022: Additional meeting with the association to continue discussions and respond to community questions.
- July 5, 2022: Attended a Broadview Park Neighborhood Association meeting, where Commissioner Geller was also present, to provide updates and respond to concerns.
- March 5, 2024: Meeting with the Broadview Park Neighborhood Association, attended by Senator Geller, to discuss the latest updates to the project and respond to concerns.

At these meetings, the project team presented various versions of the site plan and worked to address feedback from both the community and elected officials. This outreach was imperative in shaping the proposal to better align with neighborhood priorities.

Please let us know if any additional information is required to complete the review of this item.

Sincerely,

Robert B. Lochrie III, Esq.

RBL/rjh