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March 23, 2021

VIA FEDERAL EXPRESS AND ELECTRONIC MAIL

Scott Reale, AICP Senior Planner Liaison, Zoning Board of Appeals City of Pompano Beach 100 W. Atlantic Boulevard Pompano Beach, FL 33060

Re: U-Haul Co. of Florida – Special Exception Review Standards Narrative

Property located at 780 SW 12th Avenue, Pompano Beach, FL

Dear Scott:

The Applicant, U-Haul Co. of Florida (the "Applicant") is seeking a Special Exception pursuant to Section 155.2406 of the City of Pompano Beach (the "City") Zoning Code in order to redevelop and revitalize its property located at 780 SW 12th Avenue, Pompano Beach, Florida (the "Property"). The Property is made up of three parcels containing approximately 2.25 acres separated by a right-of-way, and currently contains a two story, 7,424 square foot office building. The Applicant is proposing to redevelop the Property with a self-storage facility (the "Project") that complies with the City's newly adopted self-storage regulations. The Project consists of the existing office building and a new 4-story structure of approximately 47,820 square feet, which includes architectural features that enhance the façade to make it look like an office building.

Pursuant to Zoning Code Section 155.2406, the following responses address the Special Exception Review Standards and provide competent substantial evidence to support the Applicant's request for the Special Exception:

Review Standards:

a. Is consistent with the comprehensive plan.

The Project is consistent with the Goals, Objectives and Policies of the City's Comprehensive Plan and Future Land Use Element. Specifically:

• Objective 01.01.00 – Future Land Use Plan and Levels of Service - Maintain the City's Future Land Use Map consistent with the Broward County Land Use Plan to ensure and all development permits issued are consistent with the City and County land use plans and the adopted level of service requirements for the availability of facilities and services can be met.

The Property has a land use designation of Industrial and the proposed use of self-storage is consistent with the underlying Industrial land use designation.

• Objective 01.02.00 – Right-of-Way Protection and Accessibility - Protect the existing and future right-of-way from building encroachments and ensure proper accessibility with the roadway and transit network. Policy 01.02.02 - Approve site plans, plats and other development approvals on the condition that the applicant will dedicate right-of-way according to the requirements of the Broward County Trafficways Plan and the City's street standards in Chapter 100 of the City's Code of Ordinances. Policy 01.02.04 All property to be platted, or newly created lots are encouraged to be directly accessible from a publicly dedicated and improved road, which satisfies the right-of-way requirements of the Broward County Trafficways Plan and/or the street right-of-way standards in Chapter 100 of the City's Code of Ordinances.

The Applicant is dedicating additional right-of-way to comply with Broward County Trafficways Plan and the City's street right-of-way standards. The dedication of right-of-way will allow the Site Plan to include larger sidewalks and paths to the structures on the Property that are ADA accessible and compliant with the surrounding roadways and transit network. See, Right-of-Way Vacation Plan, attached as **Ex. 1**.

• *Policy 01.03.13* - Future industrial land uses shall be located with access to major transportation facilities including highways, airports, railroads, and seaports.

The Property has a land use designation of Industrial and is located in close proximity to major transportation facilities including I-95, which is located to the east of the Property.

• Objective 01.23.00 – Economic Development - Expand the economic base by attracting Class A office space and higher education institutional uses, continuing to support the industrial and manufacturing sectors while protecting tourism as well as the quality of life and delivery of services to local residents.

This proposed use will expand the economic base of the City by bringing a new, in demand business to the industrial area of the City. The use will create direct and indirect jobs and collect additional tax revenues for the City. In fact, the City receives a one-half

cent sales tax income on storage rentals and limiting self-storage development would negate further future income from this use. This Objective is to support industrial uses which do not impact local residents' quality of life or delivery of services. The proposed self-storage facility is a benign use with no adverse impacts to residents. There are no residential uses in this area.

b. Complies with all applicable zoning district standards.

The Property is located just west of I-95 and east of Andrews Avenue, surrounded completely by Industrial uses. The Property has a zoning designation of I-1 and self-storage uses are permitted uses in the I-1, subject to a special exception. The Property complies with all applicable zoning district standards. There are no residential uses in close proximity of this area of the City along the western I-95 corridor.

c. Complies with all applicable use-specific standards in Article 4: Use Standards.

The Project as proposed complies with all applicable use-specific standards set forth in Article 4, specifically Section 155.4223.A.3 for self-storage uses. The Property is greater than one (1) acre and there is a minimum separation of ten feet proposed between buildings on the Property. All property stored on site is entirely contained within the enclosed buildings. The proposed site plan has been designed to comply with the parking and circulation requirements set forth in Section 155.4223.A.3.d. (See, Site Plan attached as **Ex. 2**).

The Project has also incorporated the Building Appearance requirements per Section 155.4223.A.3.e into the Project as follows:

- The project will not have garage doors or overhead doors that serve individual storage units, or similar architectural treatment, visible from adjacent streets. The overhead doors within the building will be setback a minimum of 15 feet from any window facing a public right-of-way.
- There are no residential neighborhoods abutting the Property, but the building's colors are compatible with the character of the surrounding area.
- The proposed building will be greater than 24 feet and will include a clearly recognizable base, middle and top configured in accordance with the standards of Section 155.5602.C.4. The base will incorporate thicker walls and the top will use a 12" cornice that will protrude 2" out along with a different color. The west elevation will also include a stepped parapet.
- Each story above the ground level will provide at least 30 percent of the street-facing façade area as glass treatment.

- The Property contains an existing, separate office building, which will be an active commercial use fronting the street and serve as the commercial liner for this project.
- d. Avoids overburdening the available capacity of existing public facilities and services, including, but not limited to streets and other transportation facilities, schools, potable water facilities, sewage disposal, stormwater management, and police and fire protection;

The Project will not overburden the capacity of existing public facilities and services. In fact, the Project will improve the capacity in the systems that exist today. See, letter from site engineering firm Shah Drotos providing the improvements that will be made to the Property as a result of the proposed use (See, list of Site Improvements, attached as **Ex. 3**). Self-storage uses do not adversely impact streets, potable water, sewage disposal, stormwater management, police or fire protections. Self-storage uses are very benign and do not use a lot of potable water or sewage disposal, as the use is purely storage. Stormwater management is completely contained on site. See, preliminary stormwater calculations attached as **Ex. 4**, and Paving, Grading and Drainage Plan, attached as **Ex. 5**. The Project includes no residential uses, so there is no impact on schools. To support police services, the design plans for the Project incorporate Crime Prevention Through Environmental Design (CPTED) standards. As required by the City, these standards are reviewed and approved by the Broward County Sheriff's office prior to Site Plan Approval. (See, CPTED plan attached as **Ex. 6**). Since this is new construction, all fire codes will be followed and plans reviewed by the fire department for compliance.

e. Is appropriate for its location and is compatible with the general character of neighboring lands and the uses permitted in the zoning district(s) of neighboring lands. Evidence for this standard shall include, but not be limited to, population density, intensity, character of activity, traffic and parking conditions and the number of similar uses or special exception uses in the neighborhood;

The Property is located in an industrial area west of I-95 and east of Isle Casino Pompano Park. All properties along the western I-95 corridor are zoned I-1 Industrial and have a land use designation of Industrial. The proposed use for self-storage is appropriate at this location and compatible with the neighboring lands and uses in the I-1 zoning district. See, Area Map, attached as **Ex. 7**. The Project is designed to meet parking and loading requirements per City code requirements, as shown on the Site Plan attached as **Ex. 2**. Self-storage facilities produce low traffic trips, due to the use being for storage of goods and not for occupancy. As shown on Table 1.3a – Market Conditions by Core Based Statistical Area ("CBSA") from the 2020 Self-Storage Almanac, attached as **Ex. 8**, there is an under-supply of self-storage facilities in the Miami-Fort Lauderdale-West Palm Beach CBSA. Based on the total population of 6,114,563 and the fact that 41.80% of the population are renters, there is a demand for self-storage facilities to store personal belongings. The Supply/Demand of 0.70, concludes that the area is under-supplied. There are no similar uses within at least ¼ mile of this proposed Project, and only one other self-storage facility within ½ mile of the Property, which has a high occupancy rate, showing the need for an additional

self-storage facility in this area. The Project will be beautifully designed to appear similar to an office building, which will enhance the surrounding area and complement the uses.

f. Avoids significant adverse odor, noise, glare and vibration impacts on surrounding lands regarding refuse collection, service delivery, parking and loading, signs, lighting and other site elements.

The Self-storage facility will not adversely impact surrounding properties. There are no residential uses or residentially zoned property in this area. The Project will not produce any adverse odor, noise, glare or vibration impacts and all waste service functions, including refuse collection are located within the building (See, Site Plan, attached as **Ex. 2**). As shown on the Site Plan, the Project's parking and loading meet City requirements. The site lighting will include all new LED pole mounted light fixtures as required by the City standards and will limit illumination spillover at Property lines, while providing for adequate lighting in vehicular use areas. See, Site Lighting Plan, attached as **Ex. 9**.

g. Adequately screens, buffers, or otherwise minimizes adverse visual impacts on neighboring lands.

The Property is currently void of all landscaping, screens or buffers. The Project will provide generous setbacks, landscape bufferyards and screens to enhance the Property's visual impact. Landscape buffers are proposed to be planted to meet or exceed City standards (See, Planting Plan attached as <u>Ex. 10</u>). No neighboring land will be adversely affected by the new Project.

h. Avoids significant deterioration of water and air resources, scenic resources, and other natural resources.

The Project will not deteriorate water, air or other natural resources, but instead will contribute to improving the resources. The Property is currently located in an industrial area which is void of any landscaping. Planting trees, shrubs and greenery around the Property will beautify the area and provide natural filters to clean the air and water. See, Planting Plan attached as \underline{Ex} . 10.

i. Maintains safe and convenience ingress and egress and traffic flow onto and through the site by vehicles and pedestrians, and safe road conditions around the site and neighborhood.

The Project's Site Plan has been carefully designed to maintain safe and convenient ingress and egress and traffic flow onto and through the site by vehicles and pedestrians. See, Site Plan attached as **Ex. 2.** Additionally, the Applicant is dedicating five (5) feet of Property to the City for additional right-of-way, which will create safer road conditions around the site and

neighborhood. The dedicated right-of-way will also be used to add ADA accessible sidewalks for safe pedestrian travels from the right-of-way to buildings on the Property. See, Right-of-Way Vacation Plan, attached as **Ex. 1**. Driveway locations comply with City and Broward County standards (See email from D. McGuire, Broward County, attached as **Ex. 11**). All driveways, roadways and drive aisles are proposed to comply with City dimensional standards.

j. Allows for the protection of property values and the ability of neighboring lands to develop uses permitted in the zoning district.

The development of the Project will only increase property values in the neighborhood. The Property will be enhanced with a beautifully designed facility to look similar to an office building with bufferyards containing street trees and landscaping around the structures on the Property. The improvements which will be made to the infrastructure (See, **Ex. 3**), only increase the value of the Property and the neighboring lands. The use does not contain any hazardous waste or toxic materials, outside storage of materials or junk, or create any adverse impacts, which may decrease property values. Self-storage facilities are great neighbors, with low impacts that will only improve the surrounding lands and encourage additional permitted uses to be developed.

k. Fulfills a demonstrated need for the public convenience and service of the population of the neighborhood for the special exception use with consideration given to the present availability of such uses.

There is a demonstrated need and growing demand for self-storage to service the population in this area, as people are moving to South Florida and the Pompano Beach area in greater numbers. See, 2020 Self-Storage Almanac Table 1.3a attached as **Ex. 8**. The population in these areas are increasing and storage facilities offer a safe, secure and well managed space to store valuables and belongings due to a variety of reasons including, lifestyle changes, moves and downsizing. Where the proposed use is located, there is only one other self-storage facility within ½ mile of the Property, which has a high occupancy rate, showing the need for an additional self-storage facility in this area.

Moreover, due to the COVID pandemic, lifestyle changes and transitions have been seen in greater numbers this past year, as marriage, divorce, retirement and death have been more prevalent. Family members have moved in together in smaller spaces, creating lifestyle changes where there is an increased need to store belongings. In fact, Pompano Beach in the past few years has approved thousands of new residential developments for the demand based on increased population. Some of these new developments have smaller unit sizes, which produce a need for residents to store their belongings from their previous housing. Offices are also empty or at limited capacity, with employees working from home. Employers are downsizing to smaller footprints and storing files, furniture and other business items. Additionally, some municipalities in close proximity to Pompano Beach, like Lighthouse Point, which is made up of approximately 90% residential use, do not permit self-storage uses at all. These residents, therefore, will utilize self-

storage facilities in Pompano Beach. The need for storage facilities has increased over this past year and will continue in the future.

According to an article written by John Fioramonti, of Kidder Mathews Research, dated December 1, 2020, entitled "Self-Storage: A Solid Pandemic Investment Opportunity?":

There are "4Ds of self-storage—divorce, dislocation, death, and downsizing—as the main demand drivers for the market. The COVID pandemic has amplified all these life events throughout the year. Shutdowns, stay-at-home orders, unemployment, college closures, and more than 200,000 [now over 500,000] deaths have caused severe dislocation and significant downsizing across the country. Temporary business closures also drive the use of self-storage as businesses grapple with current and future space management issues. These effects of the pandemic drive greater demand for storage space as people and businesses try to regroup and stabilize their situations. A recent IBISWorld Storage and Warehouse Leasing Industry report found that 1 in 11 Americans are now using self-storage units, paying an average of more than \$90 per space per month for rent."

In fact, occupancy rates among the Applicant's current facilities within 5 miles of the Property are at 94.4%. See, U-Haul Storage Metrics chart, attached as **Ex. 12**. Additionally, since March 2019, the occupancy rates have increased 26.5%, and in just the past year (May 2020 – February 2021), presumably due to the pandemic, the occupancy rates jumped over 20%. See, Pompano Beach Occupancy Trend Chart, attached as **Ex.13**. These high occupancy rates evidence the need for additional self-storage facilities in this area.

l. Complies with all other relevant city, state and federal laws and regulations.

The Project complies with all other relevant city, state and federal laws and regulations, including stormwater, environmental and roadway regulations.

m. For purposes of determining impacts on neighboring properties and/or the neighborhood, the terms neighboring properties and neighborhood shall include the area affected by the requested special exception, which is typically an area of 500 ft. to a one-half mile radius from the subject site.

The Property is located in an industrial area west of I-95 and east of Isle Casino Pompano Park. All properties along this western I-95 corridor are zoned I-1 Industrial and have a land use designation of Industrial. There are no residentially zoned properties or residential uses in the neighborhood or anywhere near the Property. See, Area Map, attached as <u>Ex. 7</u>. The proposed use for self-storage is appropriate at this location and compatible with the neighboring lands and uses in the I-1 zoning district.

Scott Reale, AICP March 23, 2021 Page 8

The responses above adequately address each of the Special Exception Review Standards and provide competent substantial evidence to support the Applicant's request for the Special Exception. According to the City's Planning Staff, this Application is the first application for a self-storage facility that has been submitted since prior to the City's Moratorium in September 2019. We respectfully request the Zoning Board of Appeals grant the Special Exception.

Sincerely,

Isl Heidi Davis Knapik

Heidi Davis Knapik

Enclosures

cc: via email w/enclosures

Wesley Chadwick, Esq.

Mario Martinez

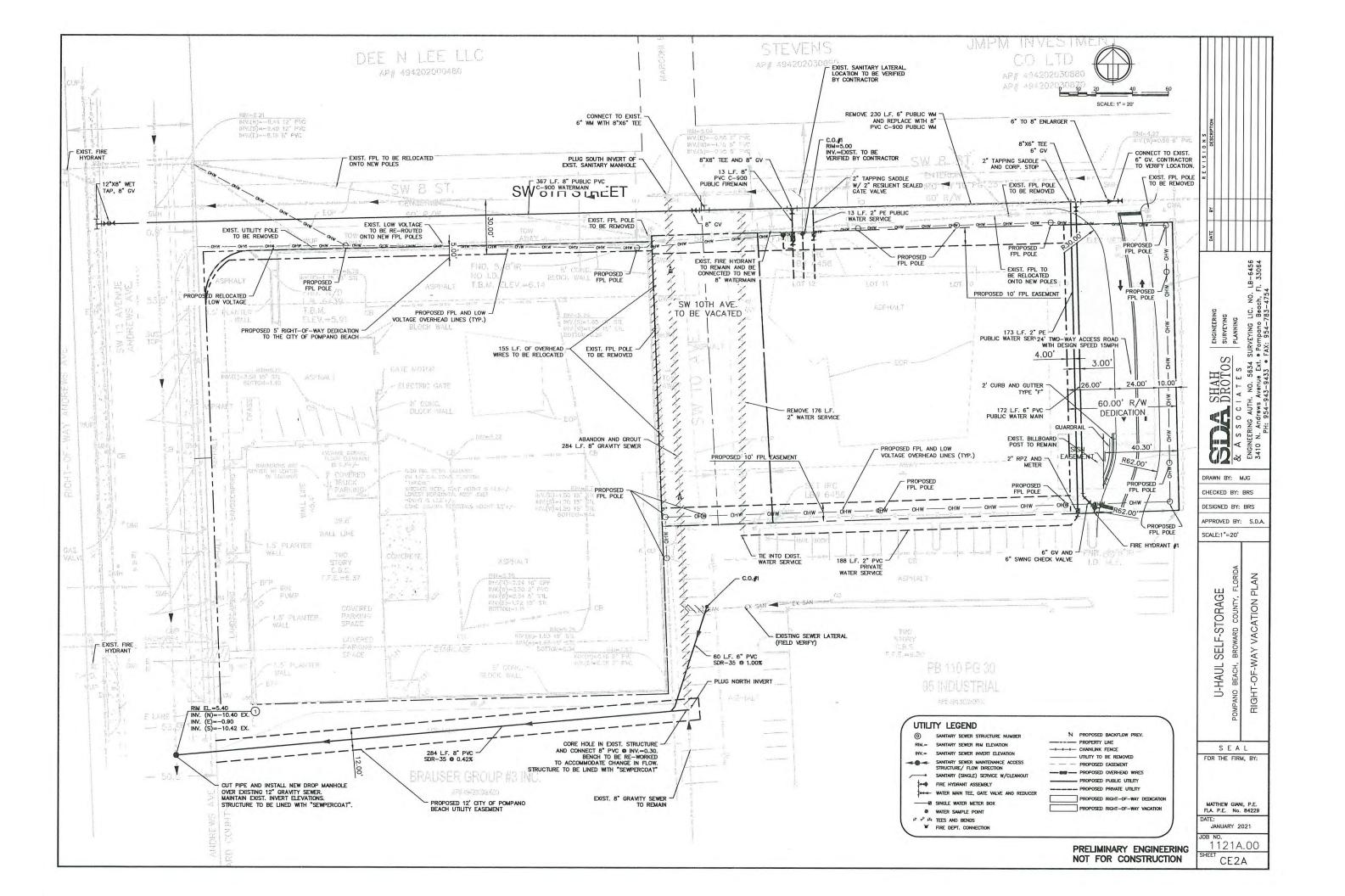
Davina Bean

Brian Seymour, Esq.

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Mark Berman, Esq.

James Saunders, Esq.



X:\Cad\Eng\1121 U-Haul SW 12th Ave\Conceptual Site Plan\1121 SITE PLAN.dwq, 3/4/2021 10:24:49 AM, DWG To PDF.pc3



March 17, 2021

Heidi Davis Gunster Las Olas Centre, 450 East Las Olas Boulevard, Suite 1400 Fort Lauderdale, FL 33301

Re: U-Haul Self-Storage - Proposed Site Improvements 790 SW 12th Ave, Pompano Beach, FL

Dear Ms. Davis,

Please accept this letter as a summary of site improvements proposed as part of the U-Haul Self-Storage project located at 790 SW 12th Ave, Pompano Beach, Florida.

- Improvements to transportation facilities (as shown on the Site Plan) as part of this project include the following:
 - Proposed 5' right-of-way dedication along SW 8th Street to comply with City of Pompano Beach standards for roadway width.
 - Proposed vacation of existing portion of SW 10th Ave and dedicate new 60' right-of-way with 24' two-lane roadway per City of Pompano Beach standards.
 - Proposed removal of existing back-out parking onto Andrews Ave, as requested by Broward County to comply with current Broward County standards.
 - iv. Proposed removal of existing driveway along Andrews Ave as requested by Broward County to comply with current Broward County standards.
- Improvements to public water and sewer and fire protection facilities (as shown on the Right-of-Way Vacation Plan) as part of this project include:
 - Upgrading existing watermain along SW 8th Street from 6" to 8" to provide adequate water capacity for commercial building fire suppression systems, as required by the City of Pompano Beach.

Engineering Surveying Planning

3410 N. Andrews Ave. Ext Pompano Beach, FL 33064 PH: (954) 943-9433 FAX: (954) 783-4754

- Connecting existing watermain along SW 8th Street to existing 12" watermain along west side of Andrews Ave. to create a looped system to improve water capacity and reliability.
- iii. Addition of a fire hydrant near the southeast corner of U-Haul's property to provide fire water access to neighboring property to the south.
- iv. Replacing existing 8" gravity sewer running along SW 10th Ave with new 8" gravity sewer connecting directly to Andrews Ave gravity sewer main.
- · Improvements to stormwater management as part of this project include:
 - i. Current site does not have a Surface Water Management
 License with Broward County or Environmental Resource
 Permit with Florida Department of Environmental
 Protection, as it was originally developed before these were
 required. Proposed development would bring site into
 compliance by obtaining this license and permit.
 - Proposed development would consist of a surface water management system designed to comply with state water quality standards. (calculations and PGD plan attached)
 - Surface water management system proposes to keep all stormwater runoff on-site with no off-site discharge.
 - iv. Surface water management system proposes to lower the stormwater system stage elevations for the 100-yr 3-day storm event, the 25-year, 3-day storm event, the 10-yr, 1day storm event and the 5-yr, 1-day storm event.

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

Yours truly,

SHAH DROTOS AND ASSOCIATES, P.A.

Matthew J. Giani, P.E.

Project Manager

mattgiani@shahdrotos.com

Mars Sai



PRELIMINARY SURFACE WATER MANAGEMENT CALCULATIONS

for

U-Haul Self-Storage and SW 10th Ave - Existing Site

Pompano Beach, FL

NAVD Datum 3/16/2021

NGVD to NAVD = -1.58

1) PROPOSED LAND USE

| | PHASE AREA BUILDINGS | VEHICULAR USE AREA OF DEVELOPED PARCEL | VEHICULAR USE AREA OF UNDEVELOPED PARCEL AND | OTHER PAVED | IMPERVIO US AREA | | |
|----------------|----------------------|---|---|-------------|---------------------|---------|-----------|
| | (ACRES) | (ACRES) | (ACRES) | (ACRES) | (ACRES) | (ACRES) | % IMPERV. |
| Drainage Basin | 2,45 | 0.17 | 1.04 | 0.29 | 0.10 | 1.60 | 65.4% |
| TOTAL | 2.45 | 0.17 | 1.04 | 0.29 | 0.10 | 1.60 | 65.4% |

 Gross Site Area.
 2,45 acres

 Net Site Area.
 2,45 acres

 Building Area.
 0.17 acres

 Vehicular Use Area (Developed Parcel).
 1.04 acres

 Vehicular Use Area (Undeveloped Parcel).
 0.29 acres

 Other Paved Area.
 0.10 acres

 Green Area.
 0.85 acres

2) FLOOD AND RAINFALL CRITERIA

| RAINFALL | | | FLOOD CRITERIA | | |
|-----------------------|-------|--------|---|-----------|------|
| | | | Building Floors | | |
| 5 year, 1 hour storm | 3.20 | inches | FEMA flood criteria | Zone AH 7 | |
| 5 year, 1 day storm | 8.00 | inches | FEMA minimum required floor eley. (BFE + 1) | 8 | navd |
| 10 year, 1 day storm | 9.00 | inches | Existing building floor elevation | 6.37 | navd |
| 25 year, 3 day storm | 16.00 | inches | Proposed building min. finished floor elevation | 8.05 | navd |
| 100 year, 3 day storm | 20.00 | inches | at his war personal first and the first section | | |
| | | | | | |

3) Compute Soil Storage

| Pervious Component | Area (Ac.) | Ave. Elevation | Area x Elevation |
|-----------------------|------------|----------------|------------------|
| Green | 0.85 | 6.00 | 5.09 |
| Total | 0.85 | | 5.09 |

Ave, site elevation 6.00 navd

Depth to water table 3.00 ft.

Assuming 25% compaction, available ground storage for depressional soils is 0.23 acre ft.

Converting to site wide moisture storage. S 0.25 Curve Number 89.8

4) WATER QUALITY REQUIREMENTS i) Based on the first 1" of runoff Site area... 2.45 acres Required detention..... 0.20 acre ft. ii) Based on 2.5 inches times percent impervious Site area..... 2.28 acres (Excluding building areas & lake) Impervious area 1.43 acres (Excluding building areas & lake) Percent impervious 62.84 % Required detention..... 0.32 acre ft. Therefore the required detention is..... 0.32 acre ft. 3.85 ac. Inches Corresponding stage is between..... 5.70 and..... 6.00 navd Interpolating gives a weir crest of..... 6.01 navd iii) Water Quality Provided in Dry Retention Remaining in dry retention..... 0.32 acre ft. Applying 50% credit, retention required..... 0.16 acre ft. Therefore the required treatment in dry retention is 0.16 ac.ft NA and.... Interpolating gives an overflow elevation of..... NA navd

No Water Quality Provided

5) COMPUTE STAGE STORAGE

Assumptions:

| | | | Storage (ac | ere ft.) | | | |
|-------|----------------------------|--|-------------|------------|-------|-------|-------|
| Stage | Vehicular Use Developed | Vehicular Use Undeveloped and Road | Other Paved | Site Green | Total | Stage | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 |
| 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 | 3.50 |
| 3.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.50 | 4.00 |
| 4.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.00 | 4.50 |
| 4.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.50 | 5.00 |
| 5.00 | 0.00 | 0.00 | 0,00 | 0.04 | 0.04 | 5.00 | 5.50 |
| 5.50 | 0.00 | 0.02 | 0.00 | 0.14 | 0.17 | 5.50 | 5.70 |
| 5.70 | 0.00 | 0.05 | 0.00 | 0.20 | 0.25 | 5.70 | 6.00 |
| 6.00 | 0.06 | 0.10 | 0.00 | 0.32 | 0.47 | 6.00 | 6.35 |
| 6.35 | 0.27 | 0.18 | 0.02 | 0.48 | 0.95 | 6.35 | 6.50 |
| 6.50 | 0.42 | 0.22 | 0.03 | 0.57 | 1.23 | 6.50 | 7.00 |
| 7.00 | 0.93 | 0.37 | 0.08 | 0.88 | 2.27 | 7.00 | 7.50 |
| 7.50 | 1.45 | 0.51 | 0.13 | 1.27 | 3,37 | 7,50 | 8.00 |
| 8.00 | 1.97 | 0.66 | 0.19 | 1,70 | 4.51 | 8.00 | 8.50 |
| 8.50 | 2.49 | 0.81 | 0.24 | 2.12 | 5,65 | 8.50 | 9.00 |
| 9.00 | 3.01 | 0.95 | 0.29 | 2.54 | 6.79 | 9.00 | 9.50 |
| 9.50 | 3.53 | 1.10 | 0.34 | 2,97 | 7.93 | 9.50 | 10.00 |
| 0.00 | 4.05 | 1.25 | 0.39 | 3.39 | 9.07 | 10.00 | 10.50 |
| 10.50 | 4.57 | 1.39 | 0.44 | 3.81 | 10.22 | 10.50 | 11.00 |
| 11.00 | 5.09 | 1.54 | 0.49 | 4.24 | 11.36 | 11.00 | 0.00 |

6) FLOOD STAGE CRITERIA

100 Year 3 day Flood

(zero discharge)

 100 year, 3 day storm
 20.00 in.

 Runoff
 18.69 in.

 Volume of runoff
 3.82 acre ft.

 7.50 and...... 8.00 navd 7.70 navd

6.37

Existing Building Finished Floor =

25 Year 3 day Flood

(zero discharge)

 25 year, 3 day storm
 16.00 in.

 Runoff
 14.71 in.

 Volume of runoff
 3.00 acre ft.

 7.00 and..... 7.50 navd 7.33 navd

10 Year 1 day Flood

(zero discharge)

 10 year, 1 day storm
 9.00 in.

 Runoff
 7.76 in.

 Volume of runoff
 1.59 acre ft.

5 Year 1 day Flood

(zero discharge)

 5 year, 1 day storm
 8.00 in.

 Runoff
 6.78 in.

 Volume of runoff
 1.38 acre ft.



PRELIMINARY SURFACE WATER MANAGEMENT CALCULATIONS

for

U-Haul Self-Storage and SW 10th Ave - Proposed Development

Pompano Beach, FL

NAVD Datum 3/16/2021

NGVD to NAVD = -1.58

1) PROPOSED LAND USE

| | PHASE AREA | BUILDINGS | PAVED AREA | HIGH PAVED AREA | IMPERVIOUS AREA | 1300 |
|----------------|------------|-----------|------------|--------------------|--------------------|-----------|
| 100 | (ACRES) | (ACRES) | (ACRES) | (ACRES) | (ACRES) | % IMPERV. |
| Drainage Basin | 2.42 | 0,83 | 0.40 | 0.30 | 1.53 | 63.3% |
| TOTAL | 2.42 | 0.83 | 0.40 | 0.30 | 1.53 | 63.3% |

| Gross Site Area | 2.46 | acres | Underground Storage Area (Rainstore) | Area 1 | Area 2 | Area 3 |
|--------------------------|------|-------|--------------------------------------|--------|--------|--------|
| | | | Storage Volume (Voids) | 94.00% | 94.00% | 94.00% |
| SW 8th Street Dedication | 0.04 | acres | Storage Top Elevation | 5.00 | 6.50 | 4.70 |
| | | | Storage Bottom Elevation | 3.00 | 3.00 | 3.00 |
| Net Site Area | 2.42 | acres | Storage Area | 0.04 | 0.06 | 0,08 |
| Building Area | 0.83 | acres | Dry Retention | | | |
| Vehicular Use Area | 0.40 | acres | Dry ret, area (bottom) | 0.47 | acres | |
| Other Paved Area | 0.30 | acres | Dry ret. Top of bank elev | 5.00 | navd | |
| | | | Dry ret. Top of bank area | 0.56 | acres | |
| Green Area | 0.33 | acres | Dry ret. Bottom Elev | 4.00 | navd | |
| Total Vehicular Use Area | 0.40 | acres | No. of trees in retention area | 50 | | |
| | | | Trunk diameter at maturity | 2 | ft | |
| | | | Loss in storage due to trees | 157.05 | sf | |
| | | | and the control of the control | 0.0036 | ac.ft. | |

| 2) FLOOD AND | RAINFALL | CRITERIA |
|--------------|----------|----------|

| RAINFALL | | | FLOOD CRITERIA | | |
|-----------------------|-------|--------|---|-----------|------|
| | | | Building Floors | | |
| 5 year, 1 hour storm | 3.20 | inches | FEMA flood criteria | Zone AH 7 | |
| 5 year, 1 day storm | 8.00 | inches | FEMA minimum required floor elev. (BFE + 1) | 8 | navd |
| 10 year, 1 day storm | 9.00 | inches | Existing building floor elevation* | 6.37 | navd |
| 25 year, 3 day storm | 16.00 | inches | Proposed building min, finished floor elevation | 8.05 | navd |
| 100 year, 3 day storm | 20.00 | inches | | | |
| | | | | | |

^{*}Existing building to be floodproofed to elevation 8 NAVD

3) Compute Soil Storage

| Wet season water elev | 3.00 | navd |
|-----------------------|------|------|
| Ave. groundwater elev | 3.00 | navd |

| Pervious Component | Area (Ac.) | Ave. Elevation | Area x Elevation |
|-----------------------|------------|----------------|------------------|
| Green | 0.33 | 6.13 | 2.04 |
| Pervious Paver | 0.00 | 9.53 | 0.00 |
| Retention Bottom | 0.47 | 4.00 | 1.90 |
| Retention sides | 0.08 | 4.50 | 0.36 |
| Total | 0.89 | | 4.31 |

| Ave. site elevation | 4.84 | navd |
|----------------------|------|------|
| Depth to water table | 1.84 | fi. |

| 1.40 | inches |
|------|--------------|
| 0.10 | acre ft. |
| 0.51 | inches |
| 95.2 | |
| | 0.10 0.51 |

4) WATER QUALITY REQUIREMENTS

| i) Based on the first I" of runoff | | | | | | |
|---|---|---------------------------------|--|--|--|--|
| Site area | 2.42 | acres | | | | |
| Required detention | 0.20 | acre ft. | | | | |
| ii) Based on 2.5 inches times percent impervious | | | | | | |
| Site area | | | ng building areas | | | |
| Impervious area | | Contract to the contract of the | ng building areas | & lake) | | |
| Percent impervious | 44.31 | | | | | |
| Required detention | 0.18 | acre ft. | | | | |
| Therefore the required detention is | 0.20 | acre ft. | | 2.42 ac, Inch | es | |
| Corresponding stage is between | 4.25 | and | | 4.70 navd | | |
| Interpolating gives a weir crest of | 4.41 | navd | | | | |
| iii) Water quality Provided in Exfiltration Trench | | | | | | |
| Required retention in exfiltration trench | | | 0.202 acre ft. | | 2.42 ac. Inches | |
| Perc Test Results: | | | | | | |
| 2.50E-04 | | | | | | |
| Average Hudeoulie graduatulus V | 2 600 64 | | | | | |
| Average Hydraulic conductivity, K | 2.50E-04 | | | | | |
| Trench Design | Proposed | | | | | |
| Length of trench provided (If) | 60 | | | | | |
| Percentage of total trench on site | 100% | | | | | |
| Minimum Discharge Elevation Minimum top of trench elevation (navd) | 4.25 4.25 | 4 | | | | |
| Minimum bottom of trench elevation (navd) | -0.75 | | | | | |
| Trench width (ft) | 10.00 | 1 | | | | |
| Trench height (ft) | 5.00 | | | | | |
| | 1.00 | | | | | |
| Min. Pipe diameter (ft) | 1.25 | | | | | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) | 1.25 | | | | | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) | 1.25 1.25 | | | | | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) | 1.25 1.25 3.75 | | | | 0.00 ac. ft | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) | 1.25 1.25 | | | | 0.00 ac. ft | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) | 1.25 1.25 3.75 6.86 | | | | 0.00 ac. ft | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in I hour: 542 | 77 | | | | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr | 1.25 1.25 3.75 6.86 ated in I hour: 542 | 77 | 2.44 cfs | | 0.00 ac. ft 0.20 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in I hour: 542 | | 2.44 cfs | | | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in I hour: 542 | | 2.44 cfs 0.65 ac.ft or | | | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in I hour: 542 | * | | | 0.20 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted tength required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 illtrated over 1 hour | n | | | 0.20 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required Associated average percolation rate Trench length required for 5 year 1 hour storm to be exfiltr Rainfall volume, Q Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 | n LL | 0.65 ac.ft or | 0.27 cfs or | 0.20 ac.ft/hr 7.75 ac.inches | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required Associated average percolation rate Length required Length required Length of trench to be used | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. | 0.65 ac.ft or | 0.27 cfs or 0.00 cfs or | 0.20 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required Associated average percolation rate Trench length required for 5 year 1 hour storm to be exfiltr Rainfall volume, Q Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water qualityaddition to water c | ft Lf. | 0.65 ac.ft or | | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required Associated average percolation rate Trench length required for 5 year 1 hour storm to be exfiltr Rainfall volume, Q Length required Length of trench to be used Associated average percolation rate for Associated average percolation rate in | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water qualityaddition to water c | ft Lf. | 0.65 ac.ft or | 0.00 cfs or | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in I hour: 542 iltrated over I hour 1734 60 water qualityaddition to water o | ft Lf. | 0.65 ac.ft or | 0.00 cfs or 0.27 cfs or | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 ditrated over 1 hour 1734 60 water quality | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0.27 cfs or 0.18 acre ft. | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality addition to water o | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0.27 cfs or | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality addition to water o | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0.27 cfs or 0.18 acre ft. 0.09 acre ft. | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 0.09 ac.ft | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 0.09 ac.ft | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 0.09 ac.ft | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality addition to water of | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0,27 cfs or 0.18 acre ft 0.09 acre ft 0.09 ac.ft 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required. Associated average percolation rate Trench length required for 5 year 1 hour storm to be exfi Rainfall volume, Q Length required. Associated average percolation rate for Associated average percolation rate in Associated average percolation rate in Associated average percolation rate iv) Water Quality Provided in Dry Retention Remaining in dry retention | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality addition to water of | ft Lf. uality | 0.65 ac.ft or | 0.00 cfs or 0,27 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltred | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality addition to water of | ft Lf. uality | 0.65 ac.ft or 4.19 navd 4.80 to elevation 6.50 to elevation | 0.00 cfs or 0,27 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr 6.50 then vertically 8.00 then vertically | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfiltr Length required | 1.25 1.25 3.75 6.86 ated in I hour: 542 iltrated over I hour 1734 60 water quality | ft Lf. uality | 4.19 navd 4.80 to elevation 6.50 to elevation 5.00 to elevation | 0.00 cfs or 0,27 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr 6.50 then vertically 8.00 then vertically 7.25 then vertically | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. uality | 4.19 navd 4.80 to elevation 5.00 to elevation 3.00 to elevation | 0.00 cfs or 0,27 cfs or 0,27 cfs or 0,18 acre ft. 0.09 acre ft. 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr 0.02 ac.ft/hr 6.50 then vertically 8.00 then vertically 7.25 then vertically 4.25 then vertically | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. uality | 4.80 to elevatic 5.00 to elevatic 4.00 to elevatic | 0.00 cfs or 0,27 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr 0.02 ac.ft/hr 4.50 then vertically 5.00 then vertically 4.25 then vertically 5.00 then vertically | |
| Min. Pipe diameter (ft) Minimum depth to water table (H2) (ft) Non saturated trench depth (ft) Saturated trench depth (ft) Trench storage area (sq. ft.) Trench length required for retention volume to be exfilted Length required | 1.25 1.25 3.75 6.86 ated in 1 hour: 542 iltrated over 1 hour 1734 60 water quality | ft Lf. uality | 4.19 navd 4.80 to elevation 5.00 to elevation 3.00 to elevation | 0.00 cfs or 0,27 cfs or 0,27 cfs or 0,27 cfs or 0.18 acre ft. 0.09 acre ft. 4.25 | 0.20 ac.ft/hr 7.75 ac.inches 0.02 ac.ft/hr 0.00 ac.ft/hr 0.02 ac.ft/hr 0.02 ac.ft/hr 4.50 then vertically 5.00 then vertically 4.25 then vertically 5.00 then vertically | |

Total

0.00

0.18

0.36 0.66 0.73 0.86

1.24

1.71 2.29 2.92 3.27 3.64 4.41

5.21

6.81

7.61

8.40

9.20

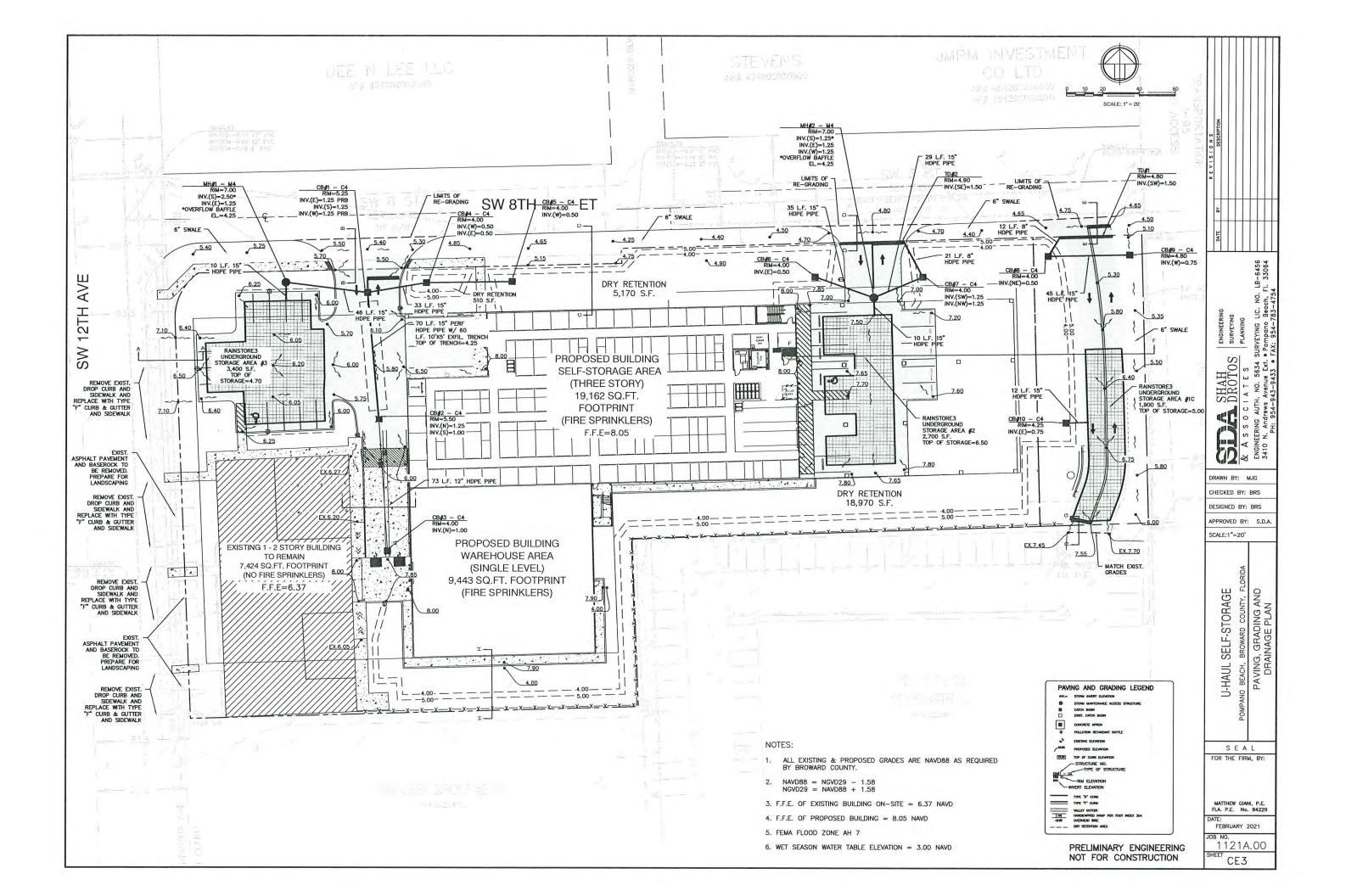
| | | | Storage | (acre ft.) | | | | | | |
|---|--|-------------|--|----------------------------|----------------|---------------|-------------------------------|-------------------------------|-------------------------------|-----|
| Stage | Vehicular Use | Other Paved | Site Green | Trench | | Dry Retention | Underground Storage Area 1 | Underground Storage Area 2 | Underground Storage Area 3 | - 1 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 1 |
| 3.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 1 |
| 4.00 | 0.00 | 0.00 | 0.00 | 0.01 | | 0.00 | 0.04 | 0.06 | 0.07 | |
| 4.25 | 0.00 | 0.00 | 0.00 | 0.02 | | 0.12 | 0.05 | 0.07 | 0.09 | I |
| 4.70 | 0.00 | 0.00 | 0.00 | 0.02 | | 0.35 | 0.07 | 0.10 | 0.12 | |
| 4.80 | 0.00 | 0.00 | 0.00 | 0.02 | | 0,40 | 0.07 | 0.10 | 0.12 | 1 |
| 5.00 | 0.00 | 0.00 | 0.00 | 0.02 | | 0.51 | 0.08 | 0.12 | 0.12 | 1 |
| 5.50 | 0.06 | 0,00 | 0.02 | 0.02 | | 0.79 | 0.08 | 0.15 | 0.12 | 4 |
| 6.00 | 0.17 | 0,00 | 0.07 | 0.02 | | 1.06 | 0.08 | 0.17 | 0.12 | 4 |
| 7.00 | 0.55 | 0.00 | 0.30 | 0.02 | | 1.34 | 0.08 | 0.20 | 0.12 | 4 |
| 7.25 | 0.65 | 0.06 | 0.38 | 0.02 | _ | 1.76 | 0.08 | 0.20 | 0.12 | 4 |
| 7.50 | 0.75 | 0.10 | 0.46 | 0.02 | _ | 1.90 | 0.08 | 0.20 | 0.12 | 4 |
| 8.00 | 0.95 | 0.23 | 0.63 | 0.02 | | 2.18 | 0.08 | 0.20 | 0.12 | + |
| 8.50 | 1,15 | 0.38 | 0.79 | 0.02 | _ | 2.45 | 0.08 | 0.20 | 0.12 | + |
| 9.00 | 1.35 | 0.53 | 0.96 | 0.02 | - | 2.73 | 0.08 | 0.20 | 0.12 | + |
| 9.50 | 1.56 | 0.68 | 1.13 | 0.02 | | 3.01 | 0.08 | 0.20 | 0.12 | + |
| 10.00 | 1.76 | 0.83 | 1.29 | 0.02 | | 3.29 | 0.08 | 0.20 | 0.12 | 4 |
| 10.50 | 1.96 | 0.98 | 1.46 | 0.02 | | 3.57 | 0.08 | 0.20 | 0.12 | + |
| 11.00 | 2.16 | 1.14 | 1,63 | 0.02 | | 3.84 | 0.08 | 0.20 | 0.12 | + |
| nterpolating given the second of the second | stage is betweenves an elevation of Flood 10 year, 1 day st Runoff | orm | (zero discharge) 9.00 8.42 1.70 | acre ft. Proposed Buildin. | 7.68 ling F | and | 8.05 | | | |
| 5 Year I day I | 5 year, 1 day sto Runoff | rm | (zero discharge) 8.00 7.42 1.50 | | | | | | | |
| | stage is betweenes an elevation of | | | | | and navd | 6.00 | navd | | |
| 5 Year 1 hour | Flood | | (zero discharge) | | | | | | | |
| | 5 year, I hourste | orm | 3.20 | in. | | | | | | |
| | Runoff | | 2.66 | in. | | | | | | |
| | Volume of runoff | | 0.54 | acre ft. | | | | | | |
| | stage is between | | | | | and | 4.70 | navd | | |

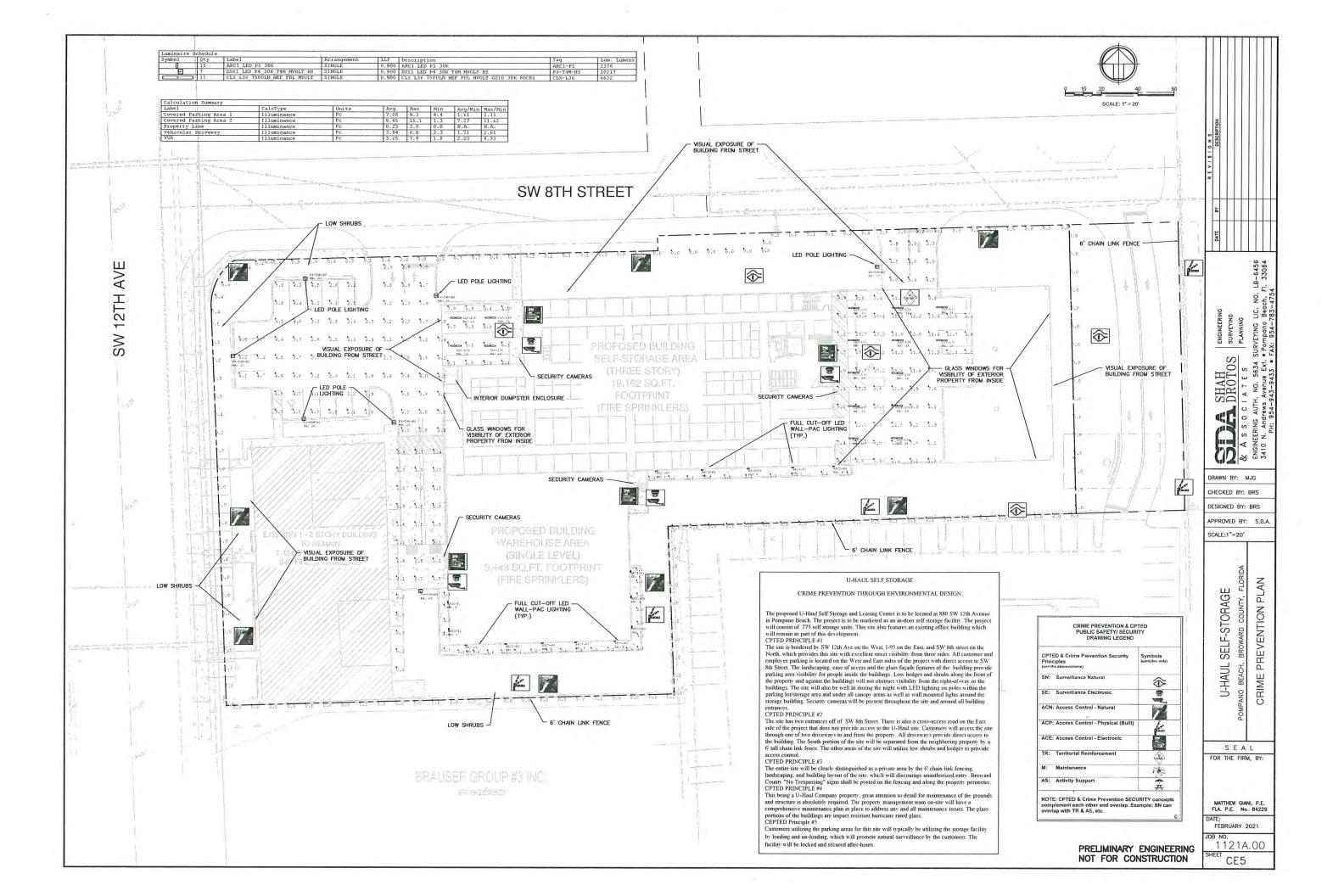
7) STAGE DISCHARGE CALCULATIONS

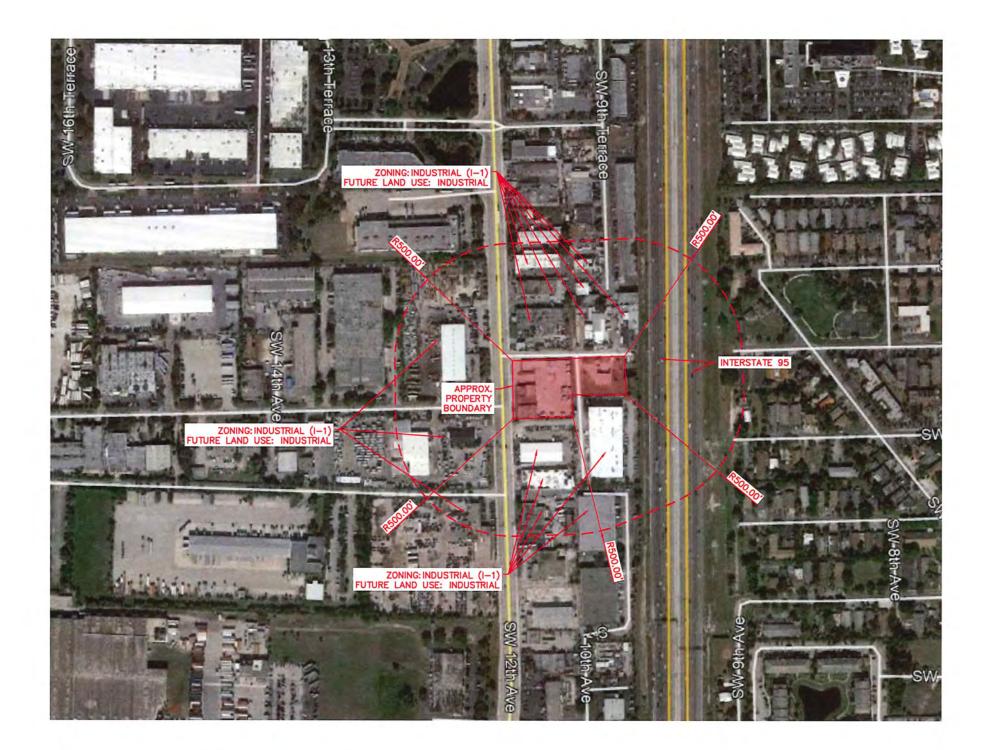
Lowest Inlet = 4.90

| a) Basin Allowable Discharge (C-14 West) | ***** | | | 59.20 | csm | | |
|--|-------|----------|------|-------|-----|------|------|
| Allowable Development Discharge | | | | 0.26 | cfs | | 1 |
| Existing Development Discharge | | | - | 0.00 | cfs | | 1 |
| Proposed Development Discharge | | | | 0.00 | cfs | | 1 |
| b) Determine the maximum stage discharge during 25 year, 3 day st | | | | | | | |
| 25 year, 3 day storm | 6.00 | in. | | | | | |
| The second secon | 5,41 | in. | | | | | |
| Volume of runoff | 3.11 | acre ft. | | | | | |
| Corresponding stage is between | | 7.00 | and | | | 7.25 | navd |
| Interpolating gives an elevation of | | 7.14 | navd | | | | |
| | | | | | | | |

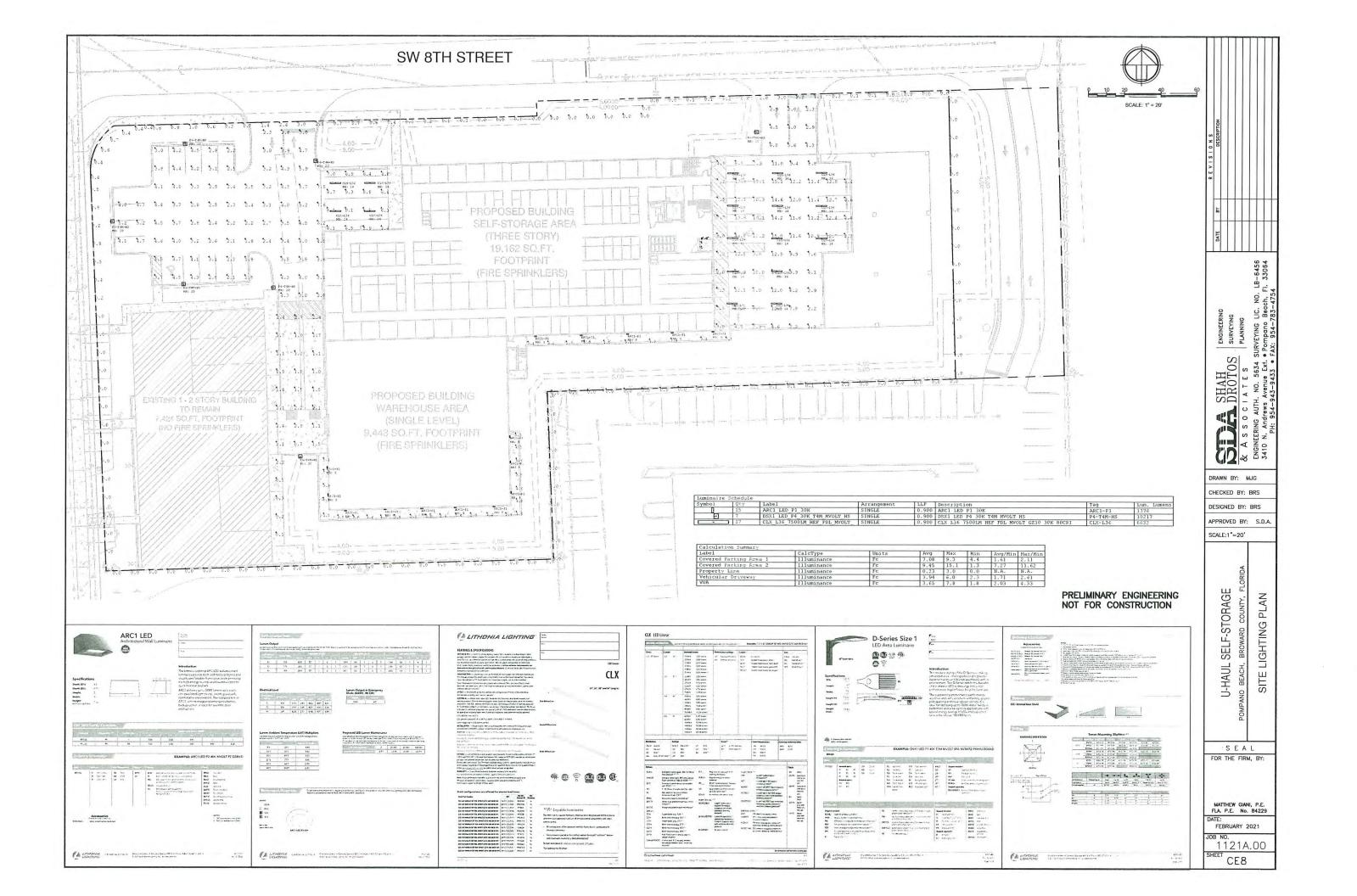
| Storm Event | Original Stormwater System Stage (NAVD) | Modified Stormwater System Stage (NAVD) |
|--------------------|--|--|
| 100 yr 3 day storm | 7.70 | 7.68 |
| 25 yr 3 day storm | 7.33 | 7.14 |
| 10 yr 1 day storm | 6.67 | 5.99 |
| 5 yr 1 day storm | 6.57 | 5.77 |

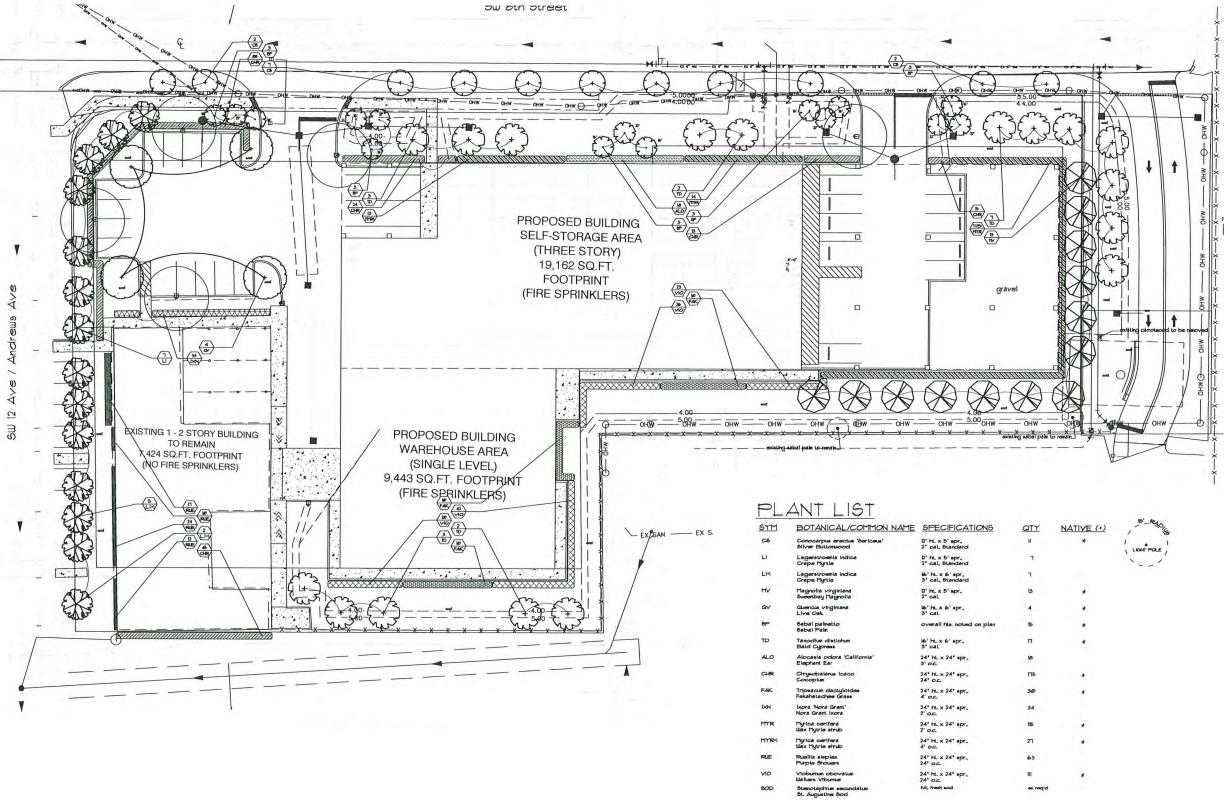






| Table 1.3a – M | arket Co | nations b | y CBSA | Core Bas | | cal Area) | So | urce: Radius | and NKF | |
|--|-------------------------|-----------------|------------------------------|-----------|--------------------------|----------------------|-----------------|---------------------|--------------------|--|
| | Number Of Facilities | Total Area (SF) | Total Population | % Renters | Household Size (Avg.) | Average HH Income | Total Supply | Estimated Demand | Supply / Demand | Conclusion |
| New York-Newark-Jersey City, NY-NJ-PA | 1005 | 57,660,300 | 20,438,199 | 49.54% | 2.68 | \$114,227 | 2.82 | 3.61 | 0.79 | Under-Supplie |
| Los Angeles-Long Beach-Anaheim, CA | 866 | 60,562,412 | 13,507,681 | 51.56% | 3.00 | \$103,493 | 4.48 | 4.68 | 0.20 | Near Equilibrio |
| Chicago-Naperville-Elgin, IL-IN-WI | 862 | 43,195,862 | 9,601,766 | 36.01% | 2.68 | \$97,963 | 4.50 | 4.76 | 0.26 | Near Equilibrio |
| Dallas-FortWorth-Arlington, TX | 1250 | 66,421,222 | 7,715,602 | 40.80% | 2.79 | \$107,511 | 8.61 | 5.31 | (3.30) | Over-Supplie |
| Houston-The Woodlands-Sugar Land, TX | 1071 | 61,545,948 | 7,154,526 | 39.07% | 2.83 | \$95,264 | 8.60 | 5.88 | (2.73) | Over-Supplie |
| Washington-Arlington-Alexandria, DC-VA-MD-WV | 447 | 26,357,854 | 6,249,043 | 36.82% | 2.66 | \$137,124 | 4.22 | 4.32 | 0.10 | Near Equilibri |
| Philadelphia-Camden-Wilmington, PA-NJ-DE-MD | 441 | 23,655,587 | 6,203,916 | 34.71% | 2.58 | \$99,907 | 3.81 | 5.39 | 1.57 | Under-Suppl |
| Miami-Fort Lauderdale-West Palm Beach, FL | 512 | 34,529,860 | 6,114,563 | 41.80% | 2.64 | \$83,818 | 5,65 | 6.35 | 0.70 | Under-Suppl |
| Atlanta-Sandy Springs-Roswell, GA | 781 | 41,127,139 | 5,986,262 | 35.79% | 2.69 | \$93,820 | 6.87 | 5.88 | (0.99) | Over-Suppli |
| Boston-Cambridge-Newton, MA-NH | 401 | 18,308,806 | 4,892,994 | 39.72% | 2.52 | \$122,651 | 3.74 | 5.07 | 1.32 | Under-Suppli |
| hoenix-Mesa-Scottsdale, AZ | 514 | 30,693,924 | 4,885,176 | 35.38% | 2.70 | \$87,428 | 6.28 | 6.39 | 0.11 | |
| an Francisco-Oakland-Hayward, CA | 352 | 22,021,601 | 4,679,805 | 45.25% | 2.63 | \$147,168 | 4.71 | 4.69 | | Near Equilibr |
| iverside-San Bernardino-Ontario, CA | 464 | 31,665,253 | 4,635,956 | 37.18% | 3.23 | 40.000 | | | (0.02) | Near Equilibr |
| etroit-Warren-Dearborn, MI | 370 | 18,691,266 | 4,361,255 | 31.50% | | \$85,499 | 6.83 | 7.46 | 0.63 | Under-Suppl |
| eattle-Tacoma-Bellevue, WA | 429 | 23,403,061 | 3,962,957 | | 2.50 | \$85,158 | 4.29 | 6.12 | 1.84 | Under-Suppl |
| inneapolis-St.Paul-Bloomington, MN-WI | 386 | 18,181,878 | 3,661,687 | 39.23% | 2.51 | \$116,745 | 5.91 | 5.48 | (0.43) | Over-Suppli |
| an Diego-Carlsbad, CA | 265 | 19,374,093 | | 29.10% | 2.54 | \$104,651 | 4.97 | 5.61 | 0.64 | Under-Suppl |
| ampa-St.Petersburg-Clearwater, FL | 398 | 20,785,430 | 3,334,024 | 46.18% | 2.77 | \$108,186 | 5.81 | 6.65 | 0.83 | Under-Suppl |
| enver-Aurora-Lakewood, CO | 356 | 19,954,338 | 3,160,627 | 35.28% | 2.42 | \$77,199 | 6.58 | 6.74 | 0.16 | Near Equilibri |
| LLouis, MO-IL | 389 | 100 C 700 C | 2,960,386 | 36.72% | 2.52 | \$105,531 | 6.74 | 6.04 | (0.70) | Over-Supplie |
| altimore-Columbia-Towson, MD | 207 | 14,010,508 | 2,864,359 | 31,28% | 2.47 | \$86,579 | 4.89 | 6.42 | 1.53 | Under-Suppli |
| harlotte-Concord-Gastonia, NC-SC | | 12,454,726 | 2,844,291 | 35 18% | 2.56 | \$106,599 | 4.38 | 5.96 | 1.58 | Under-Suppli |
| dando-Kissimmee-Sanford, FL | 400 | 17,496,949 | 2,616,243 | 34.53% | 2.58 | \$88,460 | 6.69 | 6.73 | 0.04 | Near Equilibri |
| an Antonio-New Braunfels, TX | 310 | 17,723,974 | 2,567,010 | 19.06 2 | 2.66 | \$79,437 | 6.90 | 7.37 | 0.46 | Under-Suppli |
| ortland-Vancouver-Hillsboro, OR-WA | 426 | 20,829,136 | 2,547,033 | 35.85% | 2.76 | \$79,695 | 8.18 | 7.43 | (0.74) | Over-Supplie |
| Itsburgh, PA | 308 | 14,221,186 | 2,518,319 | 38.07% | 2.54 | \$98,175 | 5.65 | 6.50 | 0.85 | Under-Suppli |
| cramento-Roseville-Arden-Arcade, CA | 370 | 10,349,435 | 2,359,300 | 31.52% | 2.27 | \$82,603 | 4.39 | 6.37 | 1.99 | Under-Suppli |
| s Vegas-Henderson-Paradise, NV | 318 | 17,184,412 | 2,358,443 | 39.24% | 2.72 | \$95,322 | 7.29 | 6.98 | (0.30) | ALL THE STATE OF T |
| stin-Round Rock, TX | 263 | 17,009,350 | 2,257,890 | 44.51% | 2.74 | \$79,787 | 7.53 | 7.79 | 0.25 | Over-Supplie |
| ncinnati, OH-KY-IN | 394 | 19,039,508 | 2,231,469 | 40.41% | 2.60 | \$103,045 | 8.53 | 6.60 | | Near Equilibrio |
| | 280 | 12,264,533 | 2,219,679 | 35.20% | 2.51 | \$86,148 | 5.53 | 6.83 | (1.93) | Over-Supplie |
| Insas City, MO-KS | 298 | 12,801,465 | 2,179,053 | 36.20% | 2.51 | \$88,209 | 5.87 | - | 1.30 | Under-Supplie |
| lumbus, OH | 310 | 12,022,748 | 2,109,197 | 38.86% | 2.48 | \$85,341 | | 6.81 | 0.93 | Under-Supplie |
| eveland-Elyria, OH | 215 | 9,206,780 | 2,073,482 | 36.08% | 2.36 | \$76,968 | 5.70 | 6.99 | 1.29 | Under-Supplie |
| dianapolis-Carmel-Anderson, IN | 358 | 14,955,527 | 2,070,626 | 35.38% | 2.54 | | 4.44 | 6.97 | 2.53 | Under-Supplie |
| n Jose-Sunnyvale-Santa Clara, CA | 147 | 9,735,602 | 2,010,116 | 43.62% | 2.95 | \$84,917 | 7.22 | 6.97 | (0.26) | Over-Supplie |
| ashville-Davidson-Murfreesboro-Franklin, TN | 324 | 14,196,026 | 1,986,283 | 33.49% | 2.54 | \$160,831 | 4.84 | 5.38 | 0.54 | Under-Supplie |
| rginia Beach-Norfolk-Newport News, VA-NC | 268 | 16,043,894 | 1,771,432 | 38.78% | | \$89,041 | 7.15 | 6.77 | (0.38) | Over-Supplier |
| ovidence-Warwick, RI-MA | 127 | 5,154,818 | 1,643,721 | 39.41% | 2.56 | \$86,425 | 9.06 | 7.17 | (1.89) | Over-Supplier |
| lwaukee-Waukesha-West Allis, WI | 210 | 9,484,981 | 1,577,534 | | 2.46 | \$89,998 | 3.14 | 6.94 | 3.80 | Under-Supplie |
| cksonville, FL | 214 | 12,426,558 | 1,565,102 | 41.21% | 2.44 | \$83,681 | 6.01 | 7.21 | 1.20 | Under-Supplie |
| klahoma City, OK | 324 | 15,375,186 | 1,420,798 | 35.04% | 2.54 | \$80,952 | 7.94 | 7.22 | (0.72) | Over-Supplied |
| leigh, NC | 200 | 9,899,938 | and the second second second | 36.63% | 2.53 | \$77,845 | 10.82 | 7.42 | (3.41) | Over-Supplied |
| mphis, TN-MS-AR | 184 | 9,553,882 | 1,388,381 | 33.05% | 2.59 | \$100,233 | 7.13 | 6.61 | (0.52) | Over-Supplied |
| chmond, VA | 172 | 9,602,977 | 1,370,698 | 38.09% | 2.63 | \$75,353 | 6.97 | 7.74 | 0.77 | Under Supplied |
| uisville-Jefferson County, KY-IN | 197 | 8,355,770 | 1,320,715 | 34.24% | 2.52 | \$92,190 | 7.27 | 6.84 | (0.43) | Under-Supplie |
| w Orleans-Metairie, LA | 188 | 8,934,043 | 1,314,144 | 32.79% | 2.45 | \$80,917 | 6.36 | 7.05 | 0.69 | Over-Supplied |
| It Lake City, UT | 187 | | 1,281,272 | 39.97% | 2.51 | \$73,615 | 6.97 | 7.70 | The second second | Under-Supplie |
| rtford-West Hartford-East Hartford, CT | 113 | 9,423,944 | 1,256,116 | 33.80% | 3.01 | \$94,729 | 7.50 | 7.55 | 0.73 | Under-Supplie |
| mingnam-Hoover, AL | | 4,610,352 | 1,227,817 | 33.71% | 2.47 | \$99,639 | 3.75 | | 0.04 | Near Equilibriu |
| ffalo-Cheeklowaga-Niagara Falls, NY | 243 | 8,587,113 | 1,178,282 | 32.83% | 2.50 | \$77,918 | 7.29 | 6.51 | 2.75 | Under-Supplie |
| - 3- magaia r alls, 141 | 105 | 4,020,969 | 1,147,442 | 35.21% | 2.32 | \$76,104 | 3.50 | 7.28 | (0.01) | Near Equilibrius |





NOTE: All trees need new root zone mulched with 3' diameter.

ATA

| Minima Development Site Lendecape | |
|---|--|
| Total Lots 95,993 af. / 3000 . | 50 trans requi |
| 32 x 5 • | 180 hadge requi |
| Perinster Lendscape Southernt Rich Property Line Overhead 104' / 20' | |
| 18-4 / 28' • | Forest Lines 6 Trees Requir 6 Trees Provid Hedge Requir Hedge Provid |
| South Property Line - Overhead power | lla-se |
| 130 / 10 - | 10 Trees Requi 10 Trees Provid Hedge Requir Hedge Provid |
| East Property Line | 6 Trees Regul |
| | 6 Trees Requi 6 Trees Provide Hedge Requi Hedge Provide |
| North Property Line - overhead power 238' / 70 • | Ines D Tress Requi |
| | D Tress Requi D Tress Provid Hedge Requi Hedge Provid |
| Landscaping between VIAs and Building and Building Base Planting I'm 8' vide I shub / 6' | • |
| Existing Building West side of existing building HAD' / 6' = | |
| | 23 shrubs requir 63 shrubs provid |
| South side of existing building | 5 etrube requis |
| North side of existing building 14' / 6' . | 3 strubs provide 34 strubs provide |
| Proposed Building Bouth side of proposed building 335' / 6' = | 34 erubs provid |
| 335' / 6' - | 56 shubs requir 141 shrubs provid |
| North elde of proposed building | 25 ehrubs requir |
| STREET TREES 1 / 40° | 45 shrubs provid |
| WEST ROW - Andrews Ave | |
| 245' / 40 - | 7 trees requir 7 trees provid |
| EAST ROW | |
| | 4 tress requir 4 tress provid |
| 108TH ROW - BW BH BTREET | Il trees requir |
| INTERIOR LANDSCAPE REGUIRED 1 Trees / Inland (Includes all VIIA's) = | |
| Trees / letend (includes all VIIA's) = | 4 trees require 4 trees provide |
| TOTAL TREES PROVIDED . | |
| 20% of required trees rust be native . | I native trees require to native trees provid |
| BOTA of trees sust relate to bidg. HL = 3 or pa 30 | |
| 15% of trees suct be shade trees . | 45 shade trees require 5 shade trees provide |
| 50% of required trees can be pales. B gro | 45 shade trees requir 5 shade trees provid 36 pales allos ups of 3 pales provid |
| NOTE: VERNEY DESIGNATED STOP SIGN LOCATION PLANTING TO INSURE THAT STOP SIGNS WIL | |

project: u=haul

790 sw 12th avenue pompano beach, fl

dave bodker landscape architecture/planning inc.

601 n. congress ave., suite 105-o delroy beach, florida 33445 561-276-6311

#LA0000999

sheet title:

planting plan

project number: 7420 01/20/2021 1" = 20' dkb

revisions:

NORTH

mattgiani@shahdrotos.com

From: Mcguire, David < DMCGUIRE@broward.org>

Sent: Thursday, January 7, 2021 9:15 AM
To: mattgiani@shahdrotos.com

Subject: Re: U-Haul Storage Re-Development and Plat - Pompano Beach - SW 12th Ave

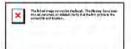
Good Morning,

Happy New Year.

Below you will find a couple of comments in red.

Should you have additional questions, please contact me at DMCGUIRE@BROWARD.ORG or by phone on (954) 577-4602

Sincerely,



David G. McGuire (D.G.) RLA
Broward County
Highway Construction and Engineering Division
1 North University Drive, Box B300. Plantation, FL 33324-2038
954-577-4602
DMCGUIRE@BROWARD.ORG

From: mattgiani@shahdrotos.com <mattgiani@shahdrotos.com>

Sent: Wednesday, January 6, 2021 5:35 PM

To: Mcguire, David

Subject: U-Haul Storage Re-Development and Plat - Pompano Beach - SW 12th Ave

External Email Warning: This email originated from outside the Broward County email system. Do not reply, click links, or open attachments unless you recognize the sender's <u>email address</u> (not just the name) as legitimate and know the content is safe. Report any suspicious emails to <u>ETSSecurity@broward.org</u>.

Good Afternoon David,

I hope you are doing well. I am currently working on a site plan project requiring a Plat in the City of Pompano Beach, and I had a few questions I was hoping you could answer.

The project is located on the southeast corner of SW 12th Ave (Andrews Ave) and SW 8th Street. The project involves joining multiple parcels of land together to develop a self-storage and warehouse facility. One of the parcels is currently developed with an office building that is operational and is to remain as part of this re-development. The office building

parcel contains multiple curb cuts along SW 12th Ave which serve as a driveway to access the site, as well as direct access to parking stalls that service the office building. We are currently working on finalizing a site plan and Plat to submit to the City of Pompano Beach. At this time I have the following questions:

- What, if any, R/W dedications will Broward County require along SW 12th Ave as part of this project? It appears
 the current 53 feet is sufficient to meet the Trafficways Plan.
- 2. Will the existing curb cut and driveway along SW 12th Ave be allowed to remain as part of this development? This driveway currently services the office building and would continue to do so after the proposed redevelopment. Access to Andrews Avenue will need to be located 50 feet from the end of the corner chord. The corner chord shall be based upon a 30-foot radius.
- 3. Will the existing curb cuts along SW 12th Ave and associated parking stalls be allowed to remain as part of this development? This parking currently services the office building and would continue to do so after the proposed re-development. No. Back out parking is not allowed on Broward County roadways an will be removed.
- 4. Does Broward County have any objections to the location of the proposed driveway along SW 8th Street? Any driveway on SW 8th shall be located a minimum of 50 feet from the end of the corner chord.

I've attached an exhibit of our currently conceptual site plan (with curb cut dimensions), as well as a current copy of the site survey (with R/W dimensions), and a draft of the proposed Plat for the project.

Your earliest attention would be greatly appreciated, as we are trying to finalize these submittals to the City. Thank you for your assistance.

Matthew J. Giani, P.E. Project Manager Shah Drotos & Associates 3410 N. Andrews Ave. Ext. Pompano Beach, FL 33064 Ph: (954) 943-9433 Fay: (954) 783-4754

Fax: (954) 783-4754 Cell: (561) 302-9482

Under Florida law, most e-mail messages to or from Broward County employees or officials are public records, available to any person upon request, absent an exemption. Therefore, any e-mail message to or from the County, inclusive of e-mail addresses contained therein, may be subject to public disclosure.

| U-Haul Storage Locations within 5 Miles | | | | | | | | |
|---|----------------------|---------------|-----------|-----------|------------|----------|----------|------------|
| Location | Name | Distance (Mi) | Tot Rooms | Occ Rooms | Room Occ % | Tot NRSF | Occ NRSF | NRSF Occ % |
| 788080 | Five Points | 3.90 | 149 | 144 | 96.6% | 18,083 | 17,482 | 96.7% |
| 788029 | Sample and Powerline | 3.94 | 1,006 | 897 | 89.2% | 78,115 | 72,925 | 93.4% |
| 788055 | Sample Rd. | 4.30 | 150 | 117 | 78.0% | 9,005 | 6,895 | 76.6% |
| 788022 | Margate | 4.43 | 827 | 802 | 97.0% | 71,401 | 69,326 | 97.1% |
| Total | | | 2,132 | 1,960 | 91.9% | 176,604 | 166,628 | 94.4% |

^{*} Occupancy greater than 90% indicates high demand for storage within the market area

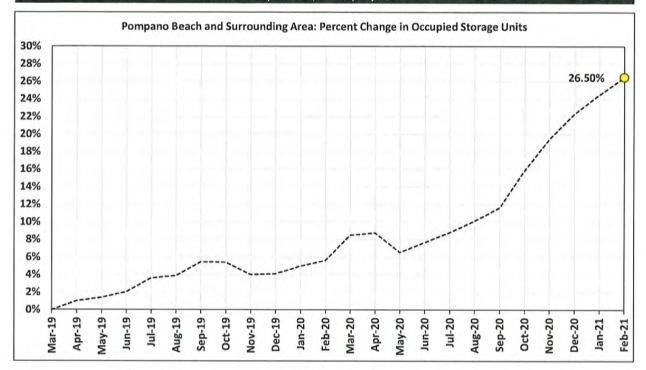
| | | Storage Presence | | | | | | | | | |
|----------|----------------------|------------------|---------------|-----------|---------|----------|--|--|--|--|--|
| Location | Name | Stg w/i 3mi | Avg Size (FL) | Est. NRSF | Pop 3mi | NRSF/Pop | | | | | |
| 788053 | Pompano Beach | 27 | 50,933 | 1,375,201 | 118,752 | 11.58 | | | | | |
| 788080 | Five Points | 23 | 50,933 | 1,171,468 | 144,799 | 8.09 | | | | | |
| 788029 | Sample and Powerline | 23 | 50,933 | 1,171,468 | 120,569 | 9.72 | | | | | |
| 788055 | Sample Rd. | 16 | 50,933 | 814,934 | 115,565 | 7.05 | | | | | |
| 788022 | Margate | 14 | 50,933 | 713,067 | 166,580 | 4.28 | | | | | |

Facility Data By State - 2020 Self-Storage Almanac

| State | Facility Count | NRSF | Avg Size | Population | NRSF / Pop |
|---------|----------------|---------------|----------|-------------|------------|
| Florida | 2,747 | 139,913,968 | 50,933 | 21,239,528 | 6.59 |
| US | 47,863 | 1,898,604,872 | 39,667 | 332,360,891 | 5.71 |

| | Market Conditions by C | BSA - 2020 Self-S | torage Almanac | | | |
|------------------------------------|------------------------|-------------------|----------------|----------|-------------|----------------|
| CBSA | Facility Count | NRSF | Population | NRSF/Pop | Est. Demand | Conclusion |
| Miami-Fort Lauderdale-West Palm Be | ach 512 | 34,529,860 | 6,114,563 | 5.65 | 6.35 | Under-Supplied |

Pompano Beach, FL - Occupancy Trend



| Included Locations | Address | City | State | Zip |
|---|-------------------|---------------|-------|-------|
| U-Haul Moving & Storage at Sample Rd | 903 E Sample Rd | Pompano Beach | FL | 33064 |
| U-Haul Moving & Storage of Margate | 1700 N State Rd 7 | Margate | FL | 33063 |
| U-Haul Moving & Storage of Coconut Creek | 5431 Johnson Rd | Coconut Creek | FL | 33073 |
| U-Haul Moving & Storage at Sample and Powerline | 2150 W Sample Rd | Pompano Beach | FL | 33073 |

