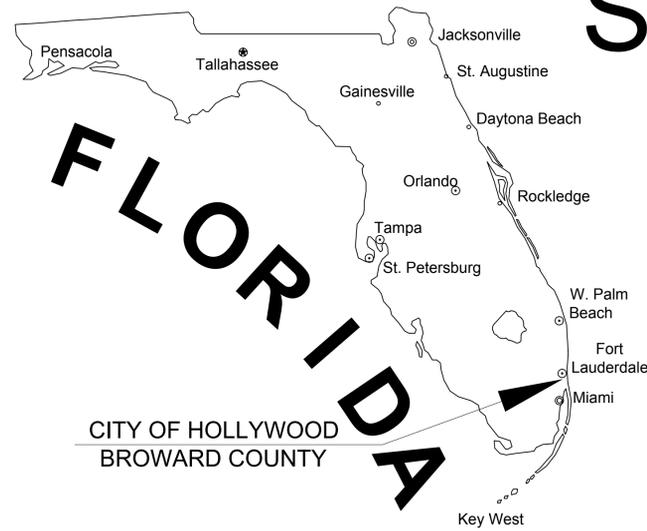


STAR TOWER HOLLYWOOD

TAC SUBMITTAL #1: 07/03/2023
TAC MEETING #1: 07/17/2023

TAC SUBMITTAL #2: 09/13/2023
TAC MEETING #2: 10/02/2023



410 NORTH FEDERAL HIGHWAY
CITY OF HOLLYWOOD
BROWARD COUNTY, FLORIDA

RELATIONSHIP BETWEEN
NGVD 1929 AND NAVD 1988

DATUM	DIFFERENCE	ELEV.
NGVD 1929	+1.51 FEET	9.55'
NAVD 1988	-1.51 FEET	8.04

ALL ELEVATIONS SHOWN ON THESE PLANS ARE
BASED ON NAVD 1988 DATUM

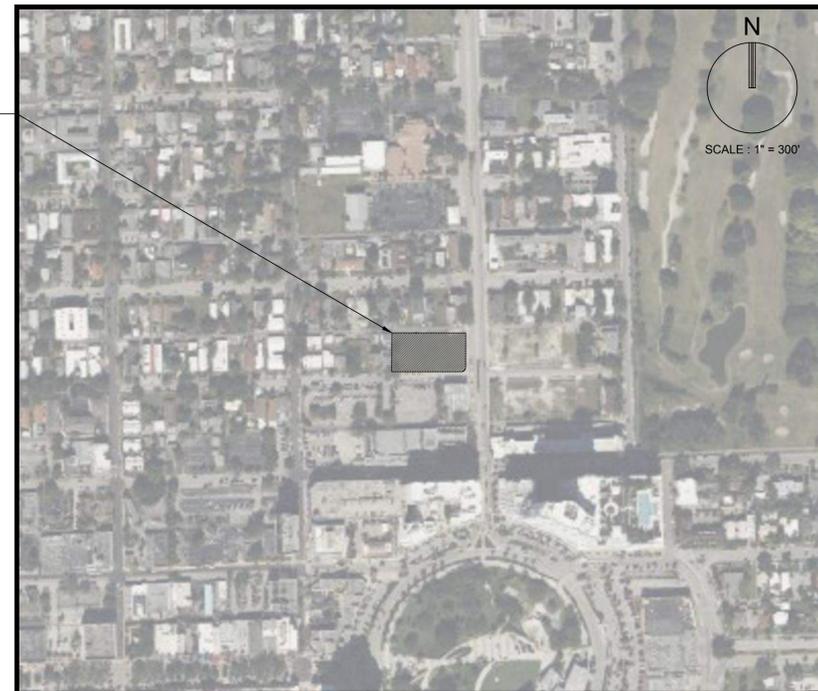
LAND DESCRIPTION:

LOTS 9, 10, 11, 12, 13, 14 AND 15 LESS THE EAST 15.00 FEET AND THAT PART INCLUDED IN THE EXTERNAL AREA FORMED BY A 15.00 FOOT RADIUS ARC WHICH IS TANGENT TO THE SOUTH LINE OF SAID LOT 15 AND TANGENT TO A LINE WHICH IS 15.00 FEET WEST OF AND PARALLEL TO THE EAST LINE OF SAID LOT 15, BLOCK 44, OF "TOWN OF HOLLYWOOD", ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 1, PAGE 21, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

FEMA FLOOD ZONE:

THE PROPERTY IS LOCATED WITHIN FLOOD ZONE X,
AS SHOWN ON F.I.R.M. NUM. 12011C0569H, BEARING A
MAP EFFECTIVE DATE OF 08/18/2014.

SITE LOCATION



LOCATION MAP

SECTION 15, TOWNSHIP 51S, RANGE 42E
FOLIO #5142-15-01-8240

INDEX OF SHEETS	
SHEET IDENTIFICATION	SHEET TITLE
GI-000	COVER SHEET
GI-001	LEGEND AND ABBREVIATIONS
GI-002	GENERAL CONSTRUCTION NOTES
GI-003	CONSTRUCTION SPECIFICATIONS
SP-101	SITE PLAN
SP-102	VEHICLE TRUCK TURN PLAN
CG-101	EROSION CONTROL PLAN
CG-501	EROSION CONTROL DETAILS
CD-101	DEMOLITION PLAN
CP-101	PAVING, GRADING, AND DRAINAGE PLAN
CP-301 - CP-302	CROSS SECTIONS
CP-501 - CP-504	PAVING, GRADING, AND DRAINAGE DETAILS
CU-101	WATER AND SEWER PLAN
CU-501 - CU-503	WATER AND SEWER DETAILS
CM-101	PAVEMENT MARKING AND SIGNAGE PLAN
CM-501 - CM-502	PAVEMENT MARKING AND SIGNAGE DETAILS

THESE PLANS MAY HAVE BEEN
REDUCED IN SIZE BY REPRODUCTION.
THIS MUST BE CONSIDERED WHEN
OBTAINING SCALED DATA.



PREPARED FOR: BC ARCHITECTS
CLIENT: BC ARCHITECTS
ADDRESS: 75 VALENCIA AVENUE, STE.1000
CORAL GABLES, FL 33134



PROJECT No. 13778.00
11/16/2023

THOMAS F. DONAHUE, P.E.
FLORIDA REG. NO. 60529
(FOR THE FIRM)

GENERAL SYMBOLS

Table with 2 columns: SYMBOL, DESCRIPTION. Includes symbols for proposed section markers, detail callouts, revision triangles, misc break lines, photo locations, and coordinate values.

GEN SITE & PMS

Table with 2 columns: SYMBOL, DESCRIPTION. Includes symbols for pavement marking arrows, stop bars, ADA parking, concrete car stops, bicycle racks, automobiles, parking signs, and building access.

PAVING & GRADING

Table with 2 columns: SYMBOL, DESCRIPTION. Includes symbols for flow directional arrows, elevation changes, major/minor contours, grade elevations, match existing grade, slope banks, driveway turnouts, sidewalk curbs, and seawalls.

UTILITY PIPES

Table with 2 columns: SYMBOL, DESCRIPTION. Includes symbols for pipe fittings, valves, man/auto blowoffs, sample points, tapping saddles, exfiltration trenches, pipe casings, vent pipe boxes, and utility crossings.

HATCH PATTERNS

Table with 4 columns: SYM, DESCRIPTION, SYM, DESCRIPTION. Lists hatch patterns for concrete area, jogging path, pavement area, building hatch, milling and resurfacing, detectable warning, demolition area, brick pavers, soil tracking prevention device, sand, earth, gravel, grass area, and ADA striping.

UTILITY STRUCTURES

Table with 2 columns: SYMBOL, DESCRIPTION. Includes symbols for catch basins, manholes, curb inlets, trench drains, pipe culverts, pump stations, grease traps, septic tanks, drainage wells, monitoring wells, water wells, meter boxes, yard drains, clean outs, storm and sewer structure callouts.

LINE TYPES

Table with 4 columns: PROPOSED UTILITIES, PAVEMENT MARKING, TOPO, PROPOSED ENCUMBRANCES. Lists line styles for water, sanitary sewer, force main, storm drain, pressure storm, irrigation, raw water, reclaimed water, gas, breaklines, contours, bank lines, slope lines, water edges, centerlines, property lines, row lines, setback lines, buffer lines, and easement lines.

Table with 2 columns: DESCRIPTION, ABBREVIATION. Lists abbreviations for traffic volume, abandon, adjust, approximate, asphalt concrete, corrugated metal, bituminous, back of curb, bound, baseline, building, benchmark, by others, bottom of slope, bridge, corrugated aluminum pipe, catch basin, catch basin with curb inlet, cement concrete, masonry, cement, curb inlet, cast iron pipe, chain link fence, centerline, corrugated metal pipe, county, concrete, continuous, construction, crown grade, double detector check valve, design hourly volume, drop inlet, diameter, ductile iron pipe, driveway, elevation, embankment, edge of pavement, edge of water, existing, excavation, frame and cover, frame and grate, fire department connection, foundation, fire hydrant, fieldstone, garage, ground, gutter inlet, galvanized iron pipe, granite, gravel, guard, gate valve, high density polyethylene, headwall, hot mix asphalt, horizontal, hydrant, invert, junction, length of curve, leach basin, light pole, left, maximum, mailbox, match existing grade, manhole, minimum, not in contract.

Table with 2 columns: DESCRIPTION, ABBREVIATION. Lists abbreviations for no. number, O/S or OFF, PB plat book, PC point of curvature, PCC, P.G.L., PI, PIV, POC, POT, PRC, PROJ, PROP, PT, PVT, PVM, PWT, R, R&D, RCP, RD, RDWY, REM, RET, RET WALL, ROW, RR, R&R, RSGV, RT, RW, SHLD, SMH, ST, STA, SSD, SW, T, TAN, TEMP, TC, TOB, TOS, TSV, TYP, UP, VAR, VERT, VC, WCR, WIP, WM, X-SECT.

Table with 2 columns: EXISTING, FUTURE, PROPOSED / CONSTRUCT. Defines line weights for existing equipment, future equipment, and proposed equipment.

NOTE: THIS IS A STANDARD LEGEND SHEET. NOT ALL ITEMS ARE PERTINENT TO THIS SET OF DRAWINGS

KEITH logo and contact information: 301 East Atlantic Blvd., Pompano Beach, FL 33060, PH: (954) 788-3400. License information for Florida Engineering Business License, Florida Surveyor and Mapper Business License, and Florida Landscape Architecture Business License.

Table with 3 columns: NO., DESCRIPTION, DATE. Section for REVISIONS.

PRELIMINARY PLAN NOT FOR CONSTRUCTION. THESE PLANS ARE NOT FULLY PERMITTED AND ARE SUBJECT TO REVISIONS MADE DURING THE PERMITTING PROCESS. RESPONSIBILITY FOR THE USE OF THESE PLANS PRIOR TO OBTAINING PERMITS FROM ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT WILL FALL SOLELY UPON THE USER.

ISSUE DATE: 11/16/2023. DESIGNED BY: VAC. DRAWN BY: VAC. CHECKED BY: CM. BID-CONTRACT:

THOMAS F. DONAHUE, P.E. FLORIDA REG. NO. 60529 (FOR THE FIRM)

CLIENT: 1817 TAYLOR DEVELOPMENT LLC

PROJECT: STAR TOWER HOLLYWOOD

SHEET TITLE: LEGEND AND ABBREVIATIONS

SHEET NUMBER: GI-001. PROJECT NUMBER: 13778.00

Plotted by: vcsastillo On 11/16/2023 2:52 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 GI-001.dwg

STATUS: PRELIMINARY

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GENERAL NOTES

THIS CONSTRUCTION PROJECT MAY OR MAY NOT INCLUDE ALL ITEMS COVERED BY THESE NOTES AND SPECIFICATIONS, I.E. PAVING, GRADING, DRAINAGE LINES, WATER LINES, OR SANITARY SEWER LINES. SEE PLANS FOR DETAILED PROJECT SCOPE. NOTES AND SPECIFICATIONS ON THIS SHEET REFER TO PAVING, GRADING, DRAINAGE, WATER, AND SANITARY SEWER, AND ARE INTENDED FOR THIS PROJECTS SCOPE OF WORK AND FOR REFERENCE PURPOSES FOR OTHER WORK ITEMS THAT MAY BE REQUIRED DUE TO UNFORESEEN EXISTING CONDITIONS OR REQUIRED REMEDIAL WORK.

1. **SPECIFIC SITE NOTES**

1.1. COUNTY AND "CITY" IN THESE NOTES REFERS TO COUNTY AND CITY IN WHICH PROJECT RESIDES.

1.2. STATE IN THESE NOTES REFERS TO THE STATE OF FLORIDA.

1.3. EXISTING TOPOGRAPHIC INFORMATION IN THE PLANS IS BASED ON SURVEY DATA AND BEST AVAILABLE INFORMATION. SEE PROJECT SURVEY AND NOTES ON PLAN SHEETS REGARDING THE SOURCE OF THE TOPOGRAPHIC INFORMATION.

2. **APPLICABLE CODES**

2.1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY, COUNTY, AND ALL OTHER JURISDICTIONAL, STATE AND NATIONAL CODES WHERE APPLICABLE.

2.2. IN THE EVENT OF A CONFLICT BETWEEN THE GENERAL NOTES AND CONSTRUCTION SPECIFICATIONS IN THESE PLANS, AND THE CONTRACT DOCUMENTS AND SPECIFICATIONS IN THE SPECIFICATION BOOKLET, THE CONTRACTOR SHALL SUBMIT WRITTEN REQUEST FOR CLARIFICATION.

2.3. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND JURISDICTIONAL SAFETY AND HEALTH REGULATIONS.

2.4. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH FEDERAL, STATE, COUNTY, AND CITY LAWS, CODES, AND REGULATIONS.

2.5. ALL HANDICAP ACCESSIBLE AREAS TO CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), STATE ADA CODES, AND FLORIDA BUILDING CODE ADA CODES LATEST EDITION.

2.6. TRENCH SAFETY ACT

2.6.1. ALL TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 90-96 OF THE LAWS OF FLORIDA (THE TRENCH SAFETY ACT).

2.6.2. ALL TRENCH EXCAVATION IN EXCESS OF 5 FEET IN DEPTH SHALL BE UNDERTAKEN IN ACCORDANCE WITH O.S.H.A. STANDARD 29 CFR. SECTION 1926.650 SUBPART P.

2.6.3. THE CONTRACTOR SHALL SUBMIT WITH HIS CONTRACT A COMPLETED, SIGNED, AND NOTARIZED COPY OF THE TRENCH SAFETY ACT COMPLIANCE STATEMENT. THE CONTRACTOR SHALL ALSO SUBMIT A SEPARATE COST ITEM IDENTIFYING THE COST OF COMPLIANCE WITH THE APPLICABLE TRENCH SAFETY CODES.

2.6.4. A TRENCH SAFETY SYSTEM, IF REQUIRED, SHALL BE DESIGNED BY THE EXCAVATION CONTRACTOR UTILIZING A SPECIALTY ENGINEER AS REQUIRED.

3. **CONSTRUCTION NOTES:**

3.1. CONTRACTOR SHALL TIE TO EXISTING GRADE BY EVENLY SLOPING FROM CLOSEST PROPOSED GRADE PROVIDED TO EXISTING GRADE AT LIMITS OF CONSTRUCTION, UNLESS OTHERWISE NOTED ON THE PLANS. IF NO LIMIT OF WORK LINE IS INDICATED, SLOPE TO ADJACENT PROPERTY LINE OR RIGHT-OF-WAY LINE, AS APPLICABLE.

3.2. UNLESS OTHERWISE INDICATED ON THE PLANS, ALL EXISTING MANHOLES, CATCH BASINS, METERS AND OTHER STRUCTURES, WHETHER INDICATED ON THE PLANS OR NOT SHALL BE ADJUSTED TO MATCH THE NEW GRADE, BY THE CONTRACTOR.

3.3. THE CURB SHALL BE SLOPED TO ACCOMMODATE THE NEW PAVEMENT, CATCH BASIN AND GRATE, AND THE SURFACE FLOW PATTERN.

3.4. THE CONTRACTOR SHALL USE CARE WHEN CUTTING THE EXISTING ASPHALT PAVEMENT AND DURING EXCAVATIONS, SO THAT THE EXISTING CATCH BASINS AND GRATES THAT ARE TO REMAIN WILL NOT BE DAMAGED.

3.5. THE CONTRACTOR SHALL MAINTAIN THE ROADWAY SLOPE WHEN RESURFACING THE ROADWAY. THE EDGE OF PAVEMENT SHALL MATCH THE NEW GUTTER LIP PER FDOT INDEX 520-001.

3.6. THE NEW SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GIVEN ELEVATIONS AND AT THE PROPER SLOPES DEPICTED IN THE SPECIFICATIONS, DETAILS AND STANDARDS. EXISTING DRIVEWAYS AND OTHER FEATURES SHALL BE MATCHED WHEN POSSIBLE AS DIRECTED BY THE ENGINEER.

3.7. RADII SHOWN ARE TO THE EDGE OF PAVEMENT.

3.8. ALL BENCH MARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED AND REFERENCED BY THE CONTRACTOR IN THE SAME WAY AS PUBLIC LAND CORNERS.

3.9. ALL EXCESS MATERIAL IS TO BE DISPOSED BY THE CONTRACTOR WITHIN 72 HOURS.

3.10. IN AREAS WHERE THE BASE IS EXPOSED BY THE MILLING OPERATION, THE CONTRACTOR SHALL RESTORE THE BASE TO ITS ORIGINAL THICKNESS AND STRUCTURAL CAPACITY BEFORE PAVING OVER SUCH AREAS. THIS INCLUDES BUT IS NOT LIMITED TO RESTORING ORIGINAL DEGREE OF COMPACTION, MOISTURE CONTENT, COMPOSITION, STABILITY, AND INTENDED SLOPE. IF PAVING WILL NOT TAKE PLACE THE SAME DAY THE BASE IS EXPOSED AND REWORKED, THE BASE SHALL BE SEALED ACCORDING TO THE GOVERNING STANDARDS AND SPECIFICATIONS. ANY ADDITIONAL WORK RESULTING FROM THE CONTRACTOR'S FAILURE TO PROTECT THE EXPOSED BASE AS STATED ABOVE IN ORDER TO RESTORE THE ORIGINAL STRUCTURAL CAPACITY SHALL BE THE CONTRACTOR'S COST.

3.11. THE CONTRACTOR IS TO MAINTAIN EXISTING SIGNAGE DURING CONSTRUCTION OPERATIONS, IN ORDER TO FACILITATE EMERGENCY VEHICLE TRAFFIC.

3.12. THE TOPOGRAPHIC SURVEY INCLUDED WITH THIS SET OF PLANS REFLECTS PRE-DEMOLITION CONDITIONS AND DOES NOT REFLECT THE SITE CONDITIONS AFTER DEMOLITION. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE IN DETERMINING THE REQUIRED EARTHWORK FOR THE PROPOSED DEVELOPMENT OF THE SITE. THIS INCLUDES, BUT IS NOT LIMITED TO, ANY EXCAVATION/DREDGE AND FILL ACTIVITIES REQUIRED AT ANY PHASE OF THE PROJECT. THE CONTRACTOR SHALL USE THE FINAL APPROVED (RELEASED FOR CONSTRUCTION) PLANS, SURVEYS, GEOTECHNICAL REPORTS, AND ANY OTHER AVAILABLE INFORMATION FOR DETERMINING THE AMOUNT OF EXCAVATION/DREDGING AND FILLING REQUIRED. ANY QUANTITIES INCLUDED IN THE APPROVED PERMITS WERE ESTIMATED BY THE ENGINEER FOR PURPOSES OF OBTAINING THE PERMIT AND UNDER NO CIRCUMSTANCES SHALL BE USED BY THE CONTRACTOR IN LIEU OF PERFORMING THEIR OWN EARTHWORK CALCULATIONS REQUIRED FOR COST ESTIMATING AND BIDDING THE PROJECT.

3.13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FAMILIARIZING THEMSELVES WITH ANY AND ALL AVAILABLE GEOTECHNICAL REPORTS PREPARED BY OTHERS AND/OR ANY RECOMMENDATIONS WRITTEN OR IMPLIED BY THE GEOTECHNICAL ENGINEER FOR THIS PROJECT. THE GEOTECHNICAL CONDITIONS AND RECOMMENDATIONS OUTLINED IN THESE REPORTS ARE IN FORCE AND IN FULL EFFECT AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL THE WORK ASSOCIATED WITH THIS PROJECT IS IN COMPLIANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. KEITH AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE SUITABILITY OR UNSUITABILITY OF THE SOILS ENCOUNTERED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE MEANS AND METHODS OF CONSTRUCTION USED CAN AND WILL ALLOW FOR THE SUCCESSFUL COMPLETION OF THE REQUIRED SITE IMPROVEMENTS.

3.14. THE CONTRACTOR SHALL ENSURE THAT THE AVAILABLE GEOTECHNICAL INFORMATION IS SUFFICIENT FOR HIS COMPLETE UNDERSTANDING OF THE SOIL CONDITIONS FOR THE SITE. IF ADDITIONAL GEOTECHNICAL INVESTIGATION IS REQUIRED BY THE CONTRACTOR, THIS ADDITIONAL WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

3.15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF EXISTING PAVEMENT, PIPES, CONDUITS, SPRINKLER HEADS, CABLES, ETC., AND LANDSCAPED AREAS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTORS AND SHALL RESTORE AT NO ADDITIONAL COST.

3.16. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, PERMISSION FROM THE OWNER, CITY AND ENGINEER. THE CONTRACTOR SHALL PROVIDE THE OWNER, CITY AND ENGINEER WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE. THE PROJECT ENGINEER SHALL COORDINATE WITH THE OWNER AND CITY PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR.

3.17. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE CITY AND/OR ENGINEER, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE CITY AND/OR ENGINEER ARE TO NOTIFY THE OWNER/ENGINEER OF THE DISCOVERY. THE OWNER/ENGINEER WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE ENGINEER.

3.18. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE CITY ENGINEERING INSPECTOR AND ENGINEER 48 HOURS IN ADVANCE OF THE EVENT TO NOTIFY THE CITY OF CONSTRUCTION START UP, OR TO SCHEDULE ALL REQUIRED TESTS AND INSPECTIONS INCLUDING FINAL WALK-THROUGHS.

4. **PRECONSTRUCTION RESPONSIBILITIES**

4.1. ALL UTILITY / ACCESS EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION.

4.2. NO CONSTRUCTION MAY COMMENCE UNTIL THE APPROPRIATE PERMITS HAVE BEEN OBTAINED FROM ALL MUNICIPAL, STATE, COUNTY, AND FEDERAL AGENCIES AND A PRE-CONSTRUCTION MEETING HAS BEEN CONDUCTED.

4.3. ALL REQUIRED GOVERNMENTAL AGENCY BUILDING PERMITS TO BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITY.

4.4. CONTRACTOR TO COORDINATE CONSTRUCTION SCHEDULING FOR CONNECTION TO THE EXISTING WATER AND SEWER LINES WITH THE UTILITY DEPARTMENT THAT OWNS AND/OR MAINTAINS THE WATER AND SEWER LINES.

4.5. PRIOR TO THE START OF CONSTRUCTION, THE OWNER SHALL SUBMIT AN NPDES CONSTRUCTION GENERAL PERMIT (CGP) "NOTICE OF INTENT (N.O.I.) TO USE GENERIC PERMIT FOR STORM WATER DISCHARGE FROM CONSTRUCTION ACTIVITIES FORM (DEP FORM 62-621.300(4)(B)) TO FDEP NOTICES CENTER. THE CONTRACTOR WILL BE RESPONSIBLE FOR (1) IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT WAS REQUIRED TO BE DEVELOPED PRIOR TO NOI SUBMITTAL AND (2) RETENTION OF RECORDS REQUIRED BY THE PERMIT, INCLUDING RETENTION OF A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL SITE STABILIZATION. A "NOTICE OF TERMINATION (N.O.T.) OF GENERIC PERMIT COVERAGE" FORM (DEP FORM 62-621.300(6)) MUST BE SUBMITTED TO FDEP TO DISCONTINUE PERMIT COVERAGE, SUBSEQUENT TO COMPLETION OF CONSTRUCTION. FOR ADDITIONAL INFORMATION SEE FDEP WEBSITE: HTTP://FLORIDADEPT.GOV/WATER/STORMWATER.

4.6. PRIOR TO CONSTRUCTION OR INSTALLATION, 5 SETS OF SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AS REQUIRED FOR THE FOLLOWING ITEMS LISTED BELOW, BUT NOT LIMITED TO:

- DRAINAGE: CATCH BASINS, MANHOLES, HEADWALLS, GRATES/TOPS, YARD DRAINS.
- WATER: FIRE HYDRANTS, VALVES, BACKFLOW PREVENTER, DDCV, METER BOX.
- SEWER: MANHOLES, LIFT STATIONS (WETWELL, HATCHES, VALVES, PUMP DATA, ELECTRICAL PANEL).

4.6.1. CATALOGUE LITERATURE SHALL BE SUBMITTED FOR DRAINAGE, WATER AND SEWER PIPES, FITTINGS, AND APPURTENANCES.

4.6.2. PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN RED ANY DEVIATIONS FROM THE ENGINEER'S PLANS OR SPECIFICATIONS.

4.6.3. INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

4.7. CONTRACTOR TO SUBMIT MAINTENANCE OF TRAFFIC PLAN(S) IN ACCORDANCE WITH FDOT AND COUNTY REQUIREMENTS, AND SUBMIT FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION.

5. **INSPECTIONS / TESTING:**

5.1. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER, CITY, COUNTY, ENGINEER OF RECORD, AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO REQUIRED INSPECTIONS OF THE FOLLOWING ITEMS, WHERE APPLICABLE:

- CLEARING AND EARTHWORK
- STORM DRAINAGE SYSTEMS
- SANITARY SEWER SYSTEMS
- WATER DISTRIBUTION SYSTEMS
- SUBGRADE
- LIMEROCK BASE
- ASPHALT OR CONCRETE PAVEMENT
- SIDEWALKS, CONCRETE FLATWORK/CURBING
- LANDSCAPING
- PAVEMENT MARKING AND SIGNAGE
- SIGNALIZATION
- SITE LIGHTING
- ELECTRICAL AND COMMUNICATION LINES
- UTILITY CONDUITS
- IRRIGATION
- FINAL

5.2. THE OWNER, ENGINEER, AND JURISDICTIONAL PERMITTING AGENCIES MAY MAKE INSPECTIONS OF THE WORK AT ANY TIME. THE CONTRACTOR SHALL COOPERATE FULLY WITH ALL INSPECTIONS.

5.3. TESTING - ALL TESTING REQUIRED BY THE PLANS AND SPECIFICATIONS SHALL BE PERFORMED BY A LICENSED / FDOT QUALIFIED TESTING COMPANY. REQUIRED TEST FOR ASPHALT AND LIMEROCK SHALL BE TAKEN AT THE DIRECTION OF THE ENGINEER OR THE JURISDICTIONAL GOVERNMENTAL AGENCY IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

6. **TEMPORARY FACILITIES**

6.1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES, COMMUNICATIONS, AND ELECTRICITY, FOR HIS OPERATIONS AND WORKS, COST INCLUDED UNDER MOBILIZATION.

6.2. CONTRACTOR SHALL CONSTRUCT TEMPORARY F

STORMWATER MANAGEMENT REPORT STAR TOWER HOLLYWOOD

13778.00
November 16, 2023



THOMAS F. DONAHUE, P.E.
FLORIDA REG. NO. 60529
(FOR THE FIRM)

 **KEITH**
Engineering Inspired Design.

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Florida Surveyor and Mapper Business License: LB6860
Florida Landscape Architecture Business License: LC26000457
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954-788-3400

www.KEITHteam.com

Pompano Beach (HQ) • Fort Lauderdale • Miami • West Palm Beach • Orlando • Tallahassee



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STORMWATER MANAGEMENT DESIGN CRITERIA

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INTRODUCTION

I. PROJECT LOCATION

The proposed Star Tower Hollywood project site is located at 410 North Federal Highway within the City of Hollywood, Broward County, Florida and is further identified as folio #5142 15 01 8240.



II. PROJECT DESCRIPTION

A. Existing Conditions

The existing property encompasses a vacant site of approximately 0.82-acres total. The stormwater runoff generated from the site is drained by natural percolation. The remainder sheet flows into the existing adjacent roadways, Taylor Street and N Federal Highway. No existing Environmental Resource Permit (ERP) through either South Florida Water Management District (SFWMD) or Broward County is available.

B. Proposed Conditions

The proposed development is comprised of a multi-residential high rise, consisting of 248 units, 6 levels of parking, 4,077 SF of restaurant area, 3,676 SF of retail space and additional supporting amenities. The stormwater runoff generated from the development will be routed into 125 LF of exfiltration trench to achieve water quality treatment prior to discharging into (2) drainage wells. The stormwater runoff generated from the roof will be discharged directly into Drainage Well #1 since water quality treatment is not required.

STORMWATER MANAGEMENT DESIGN CRITERIA

The development's proposed stormwater management system design is based on the Broward County Resilient Environment Department (BCRED) and South Florida Water Management Division's (SFWMD) ERP Handbook.

I. SFWMD / BCRED CRITERIA

A. Datum Reference

All elevation information provided in this stormwater report, the proposed plans and the boundary and topographic survey references the North America Vertical Datum of 1988 (NAVD88).



B. Surface Waters/Wetland Impacts

No surface waters or wetlands are within or adjacent to this project.

C. Site Contamination

KEITH did not find existing site contamination records.

D. Hydraulic Conductivity

KEITH adopted geotechnical information from a nearby project site where an exfiltration test report performed by Langan Engineering and Environmental Services (dated 10/28/19) determined the hydraulic conductivity. According to the geotechnical report, a K value of 3.19×10^{-5} cfs/ft² – ft of head will be used for the design. Refer to **Appendix H** for reference geotechnical report.

E. Ground Soil Storage

The pre-development and post-development will utilize the Flatwoods Soil Type based on the USDA and Broward County Land Use Plan Soils Map. Refer to **Appendix F**.

F. Time of Concentration/Unit Hydrograph

The design for the pre-development and post-development will both utilize as time of concentration (TC) of **10 minutes** and the **Santa Barbara Unit Hydrograph**.

G. Salt Water Intrusion

The site is located within the salt water intrusion limits; therefore, a drainage well can be incorporated into the design. The design will use three (3) wells, capable of handling **300 gpm / ft-head**, based on the adjacent injection wells within the area. Refer to **Appendix I** for additional information. Weirs will be placed at elevation 5.00-ft NAVD to provide the necessary water quality prior to discharging into the well.

WATER QUANTITY

The proposed development contains a mixed-use building consisting of 248 residential units, 6 floor levels of parking, 4,077 SF of restaurant area, 3,676 SF of retail space and additional supporting amenities, such as a pool deck. The areas requiring water quality treatment (pool deck) will be routed directly into an exfiltration trench system to achieve water quality treatment. The areas not requiring treatment (roofs) will be routed directly into drainage wells. The drainage wells are designed to handle 300 gpm/ft of head of stormwater runoff, which is sufficient to handle the runoff from the roof. Refer to **Appendix K** for additional information regarding the drainage well calculations.

A. Design Rainfall

The design rainfalls are based on the NOAA Atlas 14 Point Precipitation Frequency Estimated which are included as **Appendix B**. Below is a summary of the design rainfalls for the Project:

Table 1 – Design Rainfall

Design Storm	Rainfall (Inches)
5-year, 1-day	7.40
25-year, 3-day	13.40
100-year, 3-day	18.10

B. Perimeter Berm Elevation

The Pre vs Post Development for the 25Yr-72Hr flood routing demonstrates that the post-development stages are lower than the pre-development stages; therefore, the minimum perimeter elevation for this



storm event is not required by BCRED. Refer to pre-development calculations in **Appendix J** and post-development calculations in **Appendix K**.

C. Finish Floor Elevation

Minimum Finished Floor Elevations (FFE) for the proposed building were evaluated based on the higher of four criteria:

1. ASCE/SEI 24-05 - FEMA Base Flood Elevations (BFE) + 1-foot
For buildings located in the special flood hazard area, the minimum elevation requirements in the Florida Building Code shall be to or above the FEMA base flood elevation (BFE) plus one (1) foot.

The site is located within FEMA Flood Zone X per **FIRM Panel #12011C0569H** dated 08/18/14. Zone X does not require a minimum FFE criteria since this area is higher than the elevation of the 0.2% annual chance floor. Refer to **Appendix B**.

2. 6" above the adjacent crown of road (City of Hollywood)
The roadway adjacent to the east of the property (N Federal Highway) has an elevation of 7.61', which requires the minimum FFE to be designed at 8.11-ft NAVD. The roadway south of the property (Taylor St) has an elevation of 7.59', which requires the minimum FFE to be designed at 8.09-ft NAVD.
3. Max stage of 100-year,72-hour storm event with zero discharge (DFE)
The peak stage for the 100Yr-72Hr storm event (**8.39-ft NAVD**) is not to exceed the minimum proposed FFE. The pre-development max stage is (**8.40-ft NAVD**).

WATER QUALITY

SFWMD water quality detention/retention (pre-treatment) criteria required for this project will be the greater of the following quantities:

1. 1" times the total area basin
2. 2.5" times the percent impervious area

The site will be observed as one basin, providing the necessary exfiltration trenches, where required, to meet the minimum required water quality volumes of the basin.

Refer to Table 2 – Summary of Water Quality Treatment Volume for the provided water quality volumes. For further breakdown of the Water Quality and Exfiltration trench calculations, refer to **Appendix K**.

Table 1 – Summary of Water Quality Treatment Volume

Water Quality Volume		Exfiltration Trench
Required (ac-ft)	Provided (ac-ft)	Provided (ft)
0.045	0.080	125

A. DRAINAGE DESIGN

The stormwater runoff volume from the site will be handled through drainage well discharge on-site. The drainage wells are designed using the following criteria and parameters:

- The proposed discharge rate was assumed based on an adjacent well design per existing permit, set at 300 GMP/ft of head. Refer to **Appendix I**.



- Maximum elevation of 8.00-ft NGVD (6.5 NAVD).
- Discharge begins in drainage well at a minimum of 2 feet above the high groundwater table (1.5'+2'=3.5' NAVD88) in order to overcome the fresh water/saltwater density differential.
See Table 3 below for the gravity drainage well design parameters:

Table 3 – Drainage Well Design Parameters

DRAINAGE WELL DESIGN PARAMETERS		
Well Capacity (gpm cfs/ft head)	No. Wells Proposed	Total Discharge (cfs)
300 gpm/ ft head	3	6.02

CONCLUSION

The stormwater management system is designed to withstand different storm events through exfiltration trench and gravity drainage wells. The proposed improvements reduce the overall peak stages within the post-development conditions highlighted in Table 4 below. The majority of the runoff is generated from the building footprint and will be served by one (1) gravity drainage well. The runoff generated from the pool deck will be handled through 125 LF of exfiltration trench and two (2) drainage wells.

The required stormwater runoff requiring to be stored into the drainage wells was determined based on the rational method. The development is able to mitigate the runoff generated due to the proposed improvements.

Table 4 – Drainage Well Discharge Table

Stage (ft)	Discharge per Well (cfs)			Total Discharge (cfs)
	DW #1	DW #2	DW #3	
1.50	0.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	0.00
4.00	0.33	0.33	0.33	1.00
4.50	0.67	0.67	0.67	2.01
5.00	1.00	1.00	1.00	3.00
5.50	1.34	1.34	1.34	4.01
6.00	1.67	1.67	1.67	5.01
6.50	2.01	2.01	2.01	6.03
7.00	2.01	2.01	2.01	6.03
7.50	2.01	2.01	2.01	6.03



The peak storages calculated for the pre vs post development shows no adverse effects from the proposed development as shown in Table 5 below. As shown, each stage is lower in the post-development conditions compared to the pre-development conditions. The use of drainage wells significantly reduces the peak stages for the post-development conditions.

Table 5 – Summary of Stages & Discharges

Storm Event	Pre-development Peak Stage (ft - NAVD)	Post-development Peak Stage (ft – NAVD)
5yr-24hr Routing	7.54	5.99
25yr-72hr Routing	8.05	8.04
100yr-72hr Routing	8.40	8.39

Water treatment is necessary only for the runoff collected from the pool deck. The length and dimensions of the exfiltration trench sections are shown on sheets CP-101 of the engineering plans included with this report. An overview of the treatment volume is outlined in the table below.

Table 6 – Summary of Water Quality Treatment Volume

Water Quality Treatment Volume		Exfiltration Trench Length
Required (ac-ft)	Proposed (ac-ft)	Proposed (ft)
0.045	0.080	125



APPENDICES



Appendix A – Aerial Map





Appendix B – FEMA Flood Map



National Flood Hazard Layer FIRMette

80°8'56"W 26°1'9"N



Legend

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

SPECIAL FLOOD HAZARD AREAS

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

OTHER AREAS OF FLOOD HAZARD

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

OTHER AREAS

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

GENERAL STRUCTURES

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

OTHER FEATURES

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

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/27/2023 at 5:09 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



Appendix C – October High Groundwater Table





SITE LOCATION

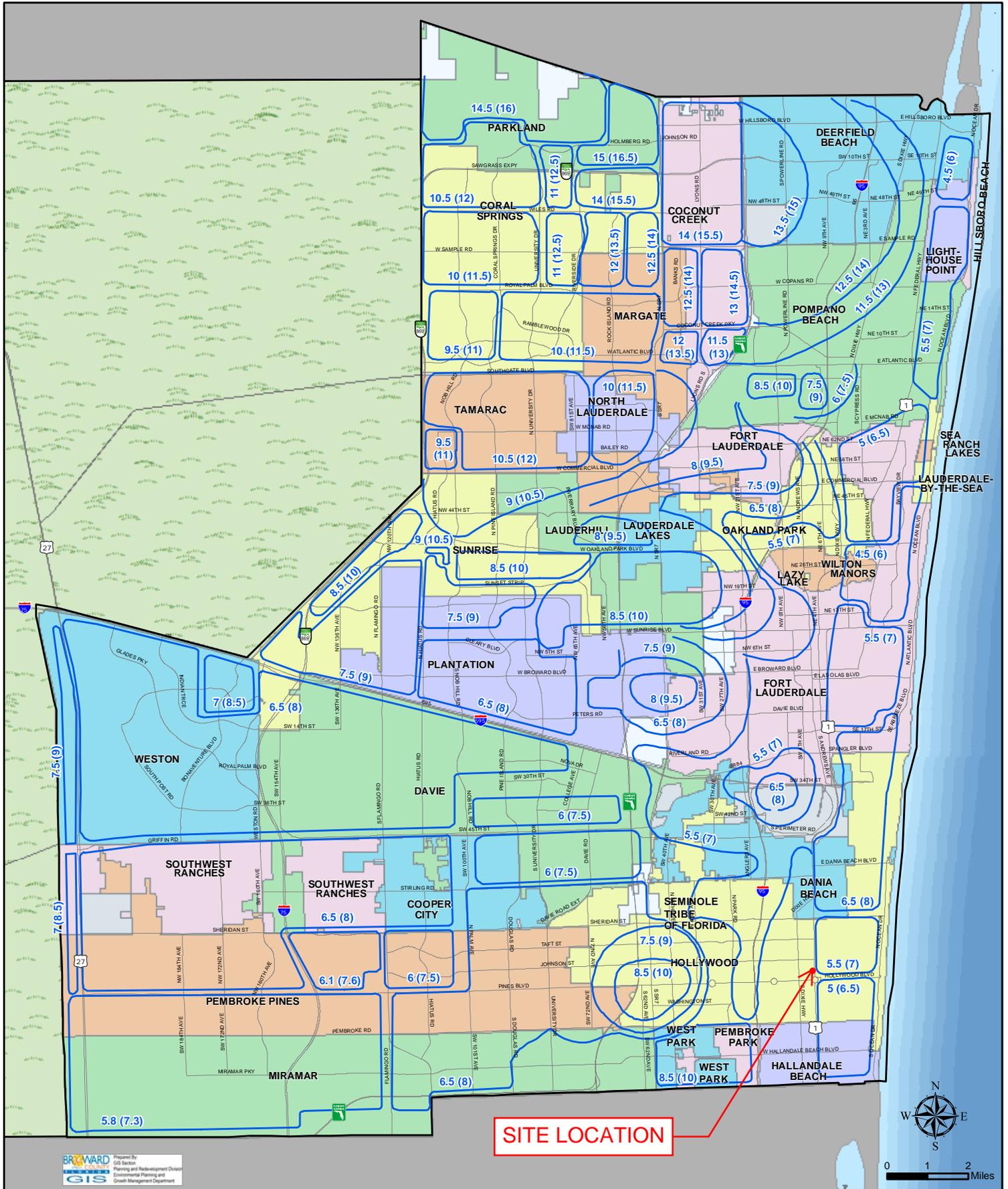
Groundwater Elevation

The higher of 1.50 feet NAVD 88 or local control elevation (as defined by governing drainage district).

[Zoom to](#)

Appendix D – Broward County Flood Criteria Map





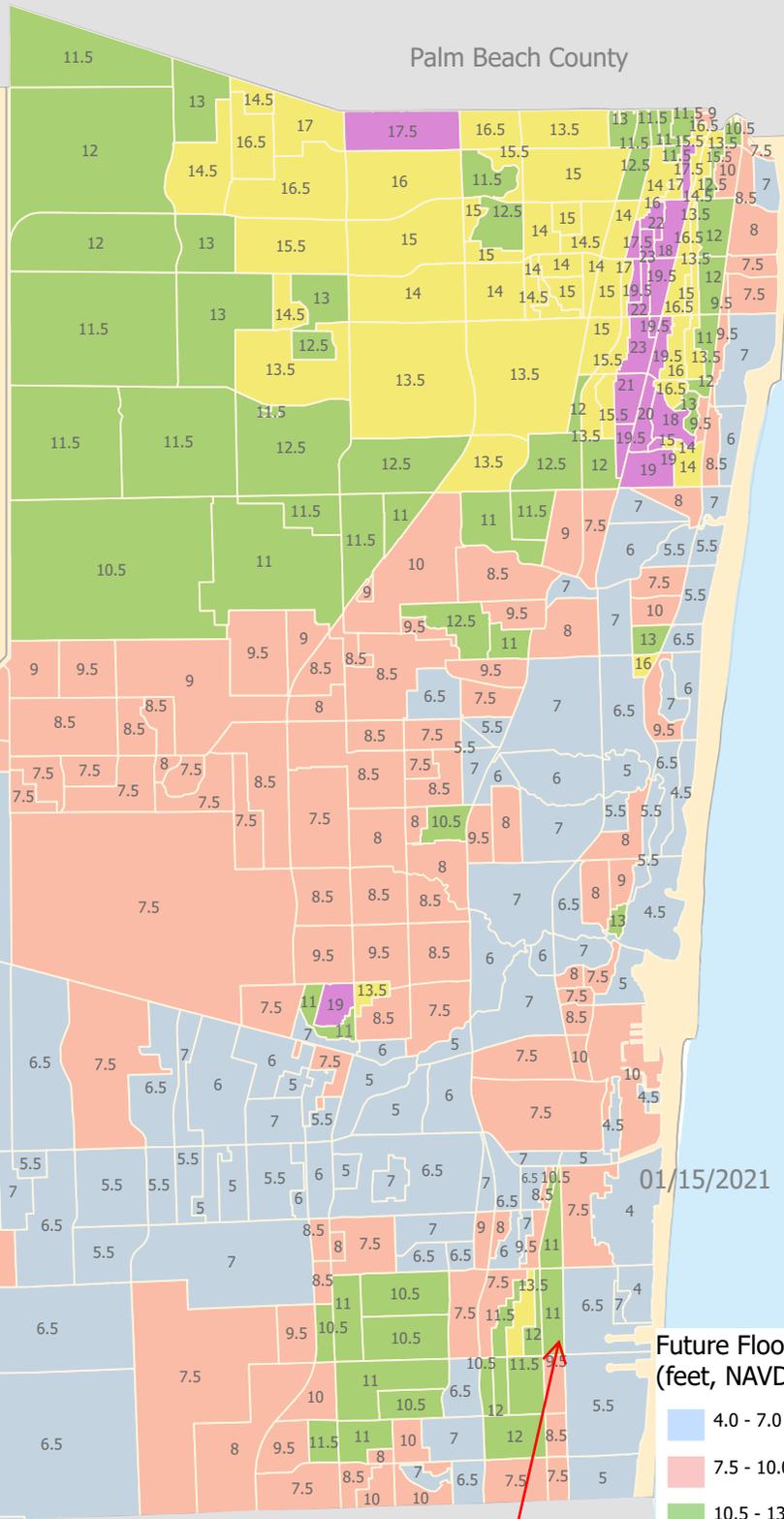
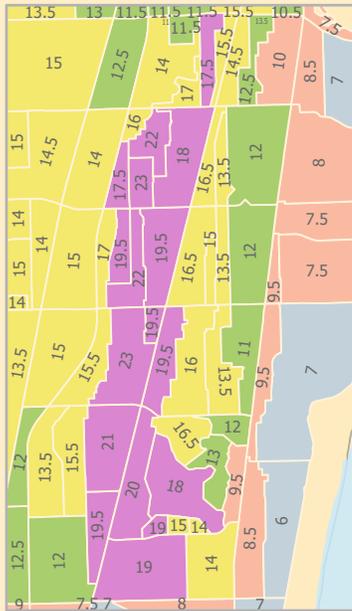
SITE LOCATION

100 Year Flood Contours NAVD (NGVD)
Example: 6.5 (8)

This map is for conceptual purposes only and should not be used for legal boundary determinations.

Elevations converted from NGVD to NAVD using the FEMA approved conversion factor for Broward County of (-)1.5, based on 1997 FEMA Flood Data

Plate WM 13.1 Future Conditions



01/15/2021

Future Flood Elevation
(feet, NAVD 1988)

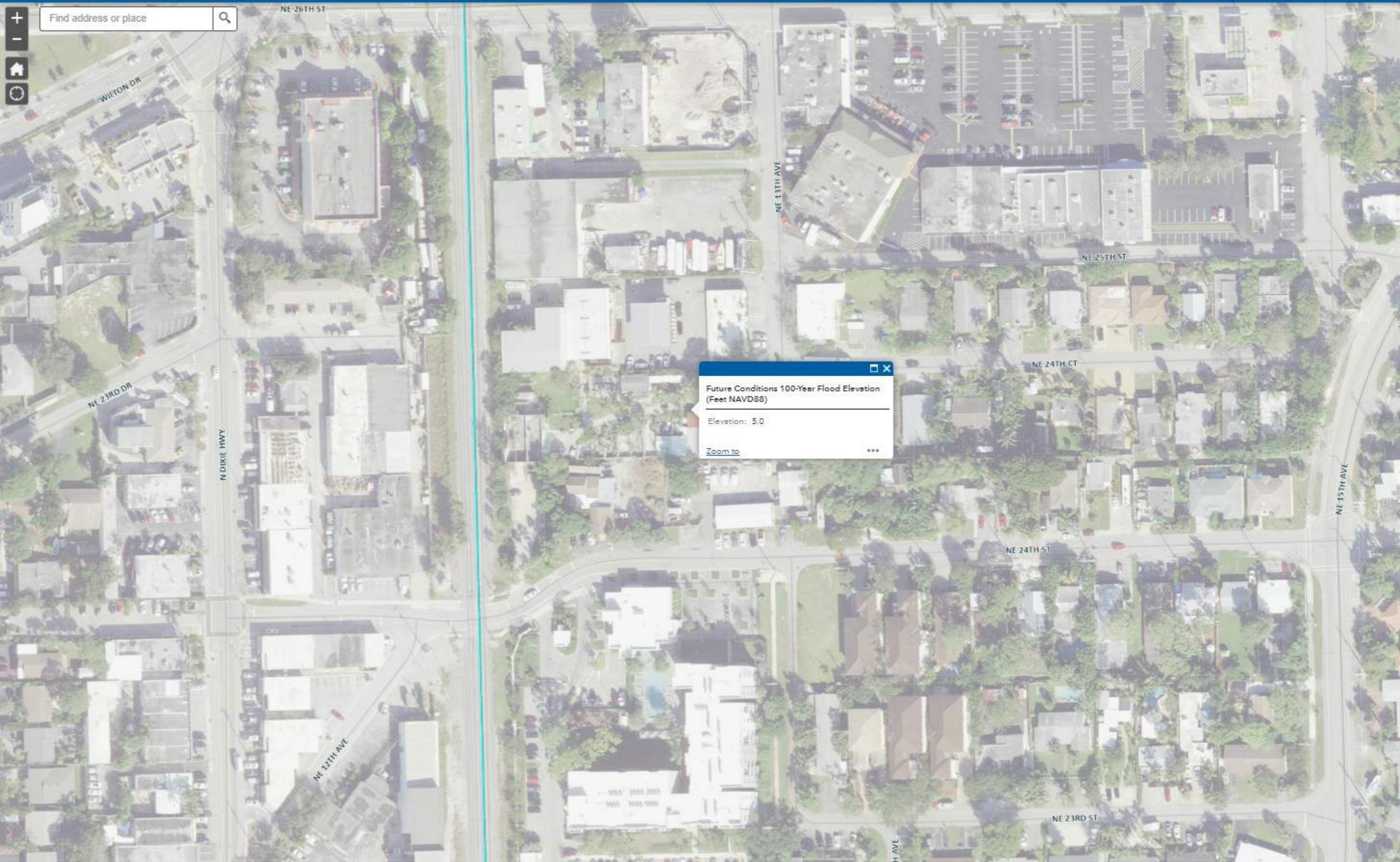
- 4.0 - 7.0
- 7.5 - 10.0
- 10.5 - 13.0
- 13.5 - 17.0
- 17.5 - 23.0



SITE LOCATION

The Future Conditions 100-Year Flood Elevation Map is intended to advance the resiliency efforts in Broward County by setting the foundation to improve standards for flood protection. The flood elevation mapping results (representing a 1% annual chance during years 2060-2069) are intended to serve as the basis for establishing future finished floor elevations for new buildings and major redevelopments in the County. The map was developed through integrated hydrologic modeling of surface and groundwater, incorporating future land use changes, projected sea level rise, rainfall intensification, and seasonal high tide to predict future flood conditions.

Future Conditions 100-Year Flood Map 2060



Find address or place



NE 26TH ST

WILTON DR

NE 23RD DR

N DIXIE HWY

NE 22TH AVE

NE 13TH AVE

NE 25TH ST

NE 24TH CT

NE 24TH ST

NE 23RD ST

NE 13TH AVE

Future Conditions 100-Year Flood Elevation
(Feet NAVD88)

Elevation: 5.0

[Zoom to](#) ...

Appendix E – Precipitation Frequency Data Table





POINT PRECIPITATION FREQUENCY ESTIMATES

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

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.550 (0.442-0.691)	0.638 (0.513-0.803)	0.784 (0.628-0.989)	0.906 (0.721-1.15)	1.08 (0.829-1.41)	1.21 (0.910-1.60)	1.34 (0.978-1.82)	1.48 (1.04-2.06)	1.66 (1.12-2.38)	1.80 (1.18-2.62)
10-min	0.805 (0.647-1.01)	0.935 (0.751-1.18)	1.15 (0.919-1.45)	1.33 (1.06-1.68)	1.58 (1.21-2.06)	1.77 (1.33-2.34)	1.96 (1.43-2.67)	2.16 (1.52-3.02)	2.43 (1.64-3.49)	2.63 (1.73-3.84)
15-min	0.982 (0.789-1.23)	1.14 (0.915-1.43)	1.40 (1.12-1.77)	1.62 (1.29-2.05)	1.92 (1.48-2.51)	2.16 (1.63-2.86)	2.39 (1.75-3.25)	2.64 (1.85-3.68)	2.96 (2.00-4.26)	3.21 (2.11-4.69)
30-min	1.58 (1.27-1.98)	1.84 (1.48-2.31)	2.27 (1.82-2.87)	2.64 (2.10-3.34)	3.14 (2.42-4.11)	3.54 (2.67-4.69)	3.93 (2.87-5.35)	4.34 (3.04-6.06)	4.88 (3.30-7.02)	5.29 (3.49-7.74)
60-min	2.16 (1.74-2.72)	2.50 (2.01-3.14)	3.08 (2.47-3.88)	3.60 (2.86-4.56)	4.36 (3.39-5.76)	4.99 (3.78-6.67)	5.65 (4.14-7.74)	6.36 (4.48-8.95)	7.35 (4.99-10.6)	8.14 (5.37-11.9)
2-hr	2.75 (2.22-3.43)	3.16 (2.55-3.94)	3.89 (3.13-4.87)	4.56 (3.65-5.74)	5.58 (4.37-7.36)	6.44 (4.92-8.60)	7.37 (5.45-10.1)	8.38 (5.95-11.8)	9.82 (6.72-14.2)	11.0 (7.30-16.0)
3-hr	3.07 (2.49-3.82)	3.51 (2.84-4.37)	4.34 (3.50-5.42)	5.13 (4.11-6.42)	6.36 (5.02-8.41)	7.42 (5.70-9.91)	8.59 (6.38-11.7)	9.88 (7.06-13.9)	11.8 (8.08-16.9)	13.3 (8.85-19.2)
6-hr	3.58 (2.91-4.42)	4.14 (3.37-5.12)	5.22 (4.23-6.47)	6.25 (5.04-7.78)	7.87 (6.26-10.4)	9.29 (7.18-12.3)	10.8 (8.12-14.8)	12.6 (9.04-17.6)	15.1 (10.4-21.6)	17.2 (11.5-24.7)
12-hr	4.02 (3.29-4.93)	4.82 (3.94-5.92)	6.27 (5.11-7.72)	7.61 (6.17-9.41)	9.65 (7.68-12.6)	11.4 (8.83-15.0)	13.3 (9.96-17.9)	15.3 (11.1-21.2)	18.2 (12.7-25.9)	20.6 (13.9-29.5)
24-hr	4.52 (3.72-5.52)	5.55 (4.56-6.78)	7.37 (6.03-9.01)	8.99 (7.33-11.0)	11.4 (9.10-14.7)	13.4 (10.4-17.5)	15.6 (11.7-20.8)	17.9 (12.9-24.5)	21.1 (14.7-29.7)	23.7 (16.1-33.6)
2-day	5.24 (4.34-6.35)	6.38 (5.27-7.73)	8.37 (6.90-10.2)	10.2 (8.32-12.4)	12.8 (10.3-16.4)	15.0 (11.8-19.4)	17.4 (13.2-23.0)	19.9 (14.5-27.1)	23.4 (16.5-32.7)	26.3 (18.0-37.0)
3-day	5.85 (4.85-7.05)	6.96 (5.77-8.40)	8.94 (7.38-10.8)	10.7 (8.82-13.0)	13.4 (10.8-17.1)	15.7 (12.3-20.2)	18.1 (13.8-23.9)	20.7 (15.1-28.0)	24.3 (17.2-33.9)	27.3 (18.8-38.3)
4-day	6.39 (5.31-7.69)	7.46 (6.19-8.98)	9.38 (7.76-11.3)	11.1 (9.17-13.5)	13.8 (11.1-17.6)	16.0 (12.6-20.6)	18.4 (14.1-24.3)	21.1 (15.5-28.5)	24.8 (17.6-34.4)	27.8 (19.2-38.9)
7-day	7.80 (6.51-9.33)	8.79 (7.32-10.5)	10.6 (8.80-12.7)	12.3 (10.1-14.8)	14.8 (12.0-18.8)	17.0 (13.5-21.8)	19.4 (14.9-25.4)	22.0 (16.3-29.6)	25.7 (18.4-35.6)	28.8 (19.9-40.1)
10-day	8.99 (7.52-10.7)	10.0 (8.37-11.9)	11.9 (9.90-14.2)	13.6 (11.3-16.3)	16.2 (13.2-20.4)	18.4 (14.6-23.4)	20.8 (16.0-27.1)	23.4 (17.4-31.4)	27.1 (19.4-37.3)	30.2 (21.0-41.9)
20-day	12.1 (10.2-14.3)	13.6 (11.4-16.1)	16.2 (13.6-19.2)	18.4 (15.3-21.9)	21.5 (17.5-26.6)	24.1 (19.1-30.1)	26.6 (20.6-34.2)	29.4 (21.8-38.8)	33.1 (23.8-44.9)	36.0 (25.2-49.6)
30-day	14.6 (12.3-17.2)	16.6 (14.0-19.6)	19.8 (16.6-23.4)	22.5 (18.8-26.7)	26.1 (21.2-31.9)	28.9 (22.9-35.8)	31.6 (24.4-40.2)	34.4 (25.6-45.0)	38.0 (27.3-51.2)	40.7 (28.6-55.9)
45-day	17.7 (15.0-20.8)	20.2 (17.1-23.8)	24.2 (20.4-28.6)	27.4 (23.0-32.4)	31.5 (25.5-38.1)	34.5 (27.4-42.5)	37.3 (28.8-47.1)	40.1 (29.8-52.0)	43.4 (31.2-58.0)	45.7 (32.3-62.6)
60-day	20.3 (17.3-23.8)	23.3 (19.7-27.3)	27.8 (23.5-32.7)	31.4 (26.4-37.0)	35.8 (29.0-43.0)	38.9 (30.9-47.6)	41.7 (32.2-52.3)	44.3 (33.0-57.2)	47.3 (34.1-62.9)	49.3 (34.9-67.2)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

Appendix F – Soil Map



BROWARD COUNTY LAND USE PLAN

Natural Resource Map Series- Eastern Broward County: Soils

Legend

Coastal Ridge Soils

- Paola - Urban Land - St. Lucie Association
- Palm Beach - Urban Land - Beaches Association

Low Ridge Knolls and Flatwoods Soils

- Dade - Urban Land Association
- Duette - Urban Land - Pomello Association
- Immokalee - Urban Land - Pompano Association
- Immokalee - Urban Land Association

Low Flatwoods, Sloughs and Marshes Soils

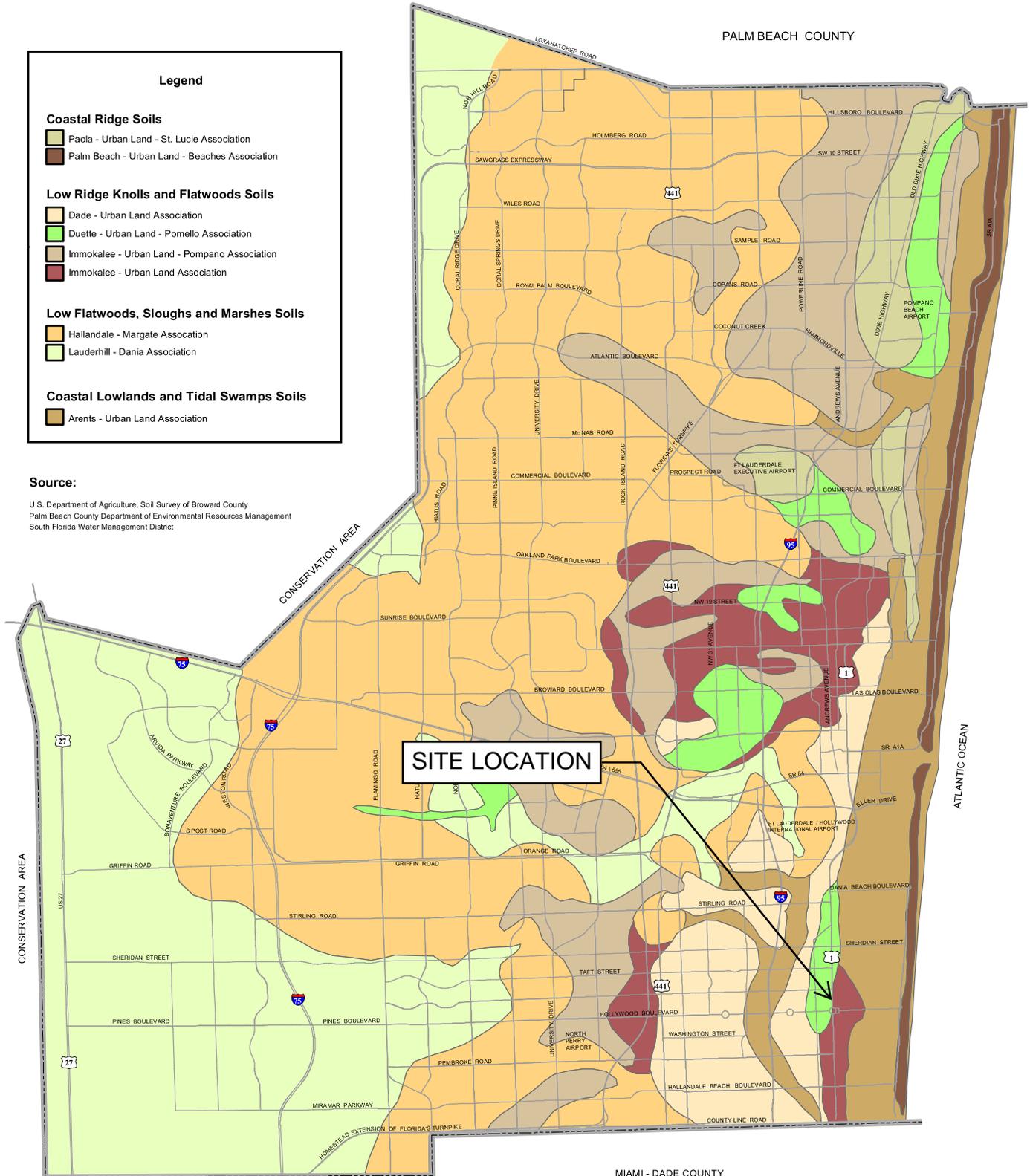
- Hallandale - Margate Association
- Lauderhill - Dania Association

Coastal Lowlands and Tidal Swamps Soils

- Arents - Urban Land Association

Source:

U.S. Department of Agriculture, Soil Survey of Broward County
 Palm Beach County Department of Environmental Resources Management
 South Florida Water Management District



MIAMI - DADE COUNTY



This is a generalized map. This map should not be used to determine parcel boundaries or limits of depicted items. Please contact the Broward County Planning Council office regarding questions pertaining to parcel boundaries or limits.

Appendix G – Saline Intrusion Map

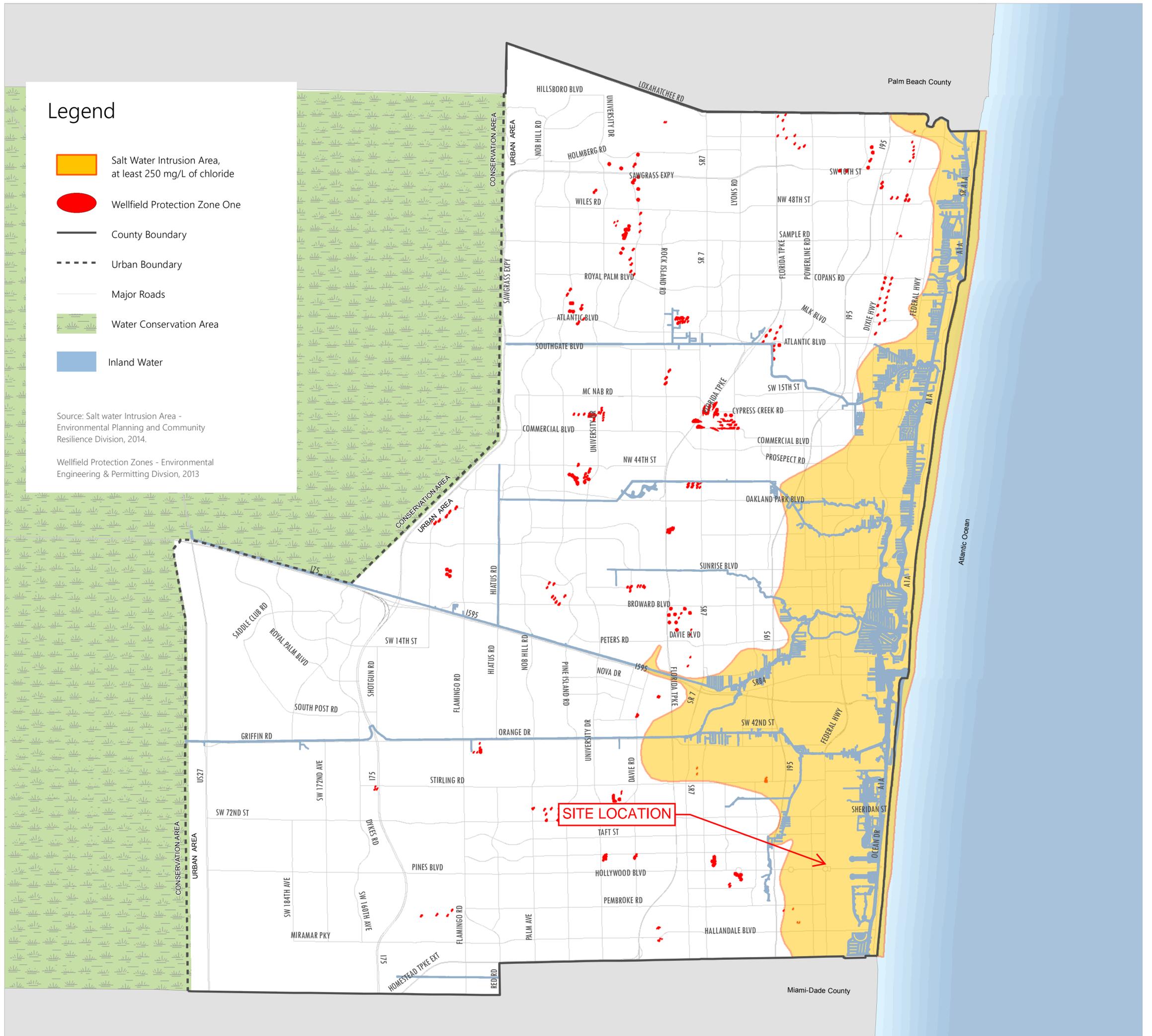


Legend

- Salt Water Intrusion Area, at least 250 mg/L of chloride
- Wellfield Protection Zone One
- County Boundary
- Urban Boundary
- Major Roads
- Water Conservation Area
- Inland Water

Source: Salt water Intrusion Area - Environmental Planning and Community Resilience Division, 2014.

Wellfield Protection Zones - Environmental Engineering & Permitting Division, 2013



This map is for conceptual purposes only and is not intended for legal boundary determinations.

Appendix H – Reference Geotechnical Report



DUE DILIGENCE GEOTECHNICAL ENGINEERING STUDY

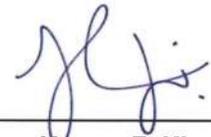
**PARC PLACE
1747 Van Buren Street
Hollywood, Florida**

Prepared For:

**BTI Partners
401 East Las Olas Boulevard
Suite 1870
Fort Lauderdale, FL 33020**

Prepared By:

**Langan Engineering and Environmental Services, Inc.
15150 N.W. 79th Court, Suite 200
Miami Lakes, Florida 33016
FL Certificate of Authorization No. 00006601**



Hanna F, Khouri
Project Manager



Roger A. Archabal, P.E.
Principal / Vice-President
Professional Engineer License No. 48404

**28 August 2019
330061201**

LANGAN

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INTRODUCTION

This report presents the results of our due diligence geotechnical engineering study performed for the proposed Parc Place Towers development ("the Project") located at 1747 Van Buren, Hollywood, Florida. The purpose of this study was to: (1) obtain information regarding site-specific subsurface conditions, (2) understand the existing site conditions relative to the proposed development, (3) evaluate potential foundation support alternatives for the proposed structures, and (4) develop preliminary recommendations for foundation support, site preparation, and earthwork related construction activities. This work was performed in general accordance with our 22 July 2019 proposal, which was authorized by Mr. Joshua Breakstone.

Our understanding of the existing site conditions is based on the recently performed limited field investigation, and from review of nearby projects performed by Langan.

We were provided with a preliminary architectural plans for the new proposed development. These plans and reports include:

- A set of preliminary architectural plans for the new development, prepared by MODIS Architects, LLC with a date of 26 June 2019; and
- A survey map of the existing structures, prepared by Cousins Surveyors & Associates, Inc. and with a latest revised date of 11 August 2017.

All elevations given in this report, if not specified, are in feet and refer to the National American Vertical Datum of 1929 (NAVD).

SITE DESCRIPTION

The subject property consists of distinct Parcels (identified as 1 through 7 on the Cousins survey) and is owned by MG3 Hollywood LLC. The parcels are bound by Van Buren Street to the south, South Federal Highway to the west, South Young Circle to the northwest, Harrison Street to the north, and South 17th Avenue to the east. A Site and Vicinity Map plan is provided as Figure 1.

The property's multiple parcels encompass approximately 2 acres. The parcels are currently occupied by varied improvements including the following: the Hollywood Bread Building and parking garage on the south and west side, several one-story to two-story vacant buildings along the north and east sides, asphalt parking and drives outside the buildings, concrete sidewalks drives outside the buildings and limited green space. The existing site grades are relatively flat and range typically between approximately el +5 and el +7 ft.

PROPOSED CONSTRUCTION

Our understanding of the proposed development is based on the aforementioned MODIS preliminary architectural concept dated 26 June 2019. The project will consist of the demolition of all structures within the aforementioned parcels. The existing Home Tower and the existing Charter School located within and around the parcels are not part of the proposed development and will remain.

On the western Parcels (1-3, 6), the proposed development consists of the construction of a 25-story tower, a 12-story tower, atop a 9-story parking podium with a pool deck. On the eastern Parcels (4-5), the development consists of a previously approved parking garage (approximately 10 to 12 stories).

We assume that finished site grades will remain around el +6 to +7 in order to match existing grade. We anticipate finished floor elevations will be on the order of 1 to 2 ft above finished site grade. A structural engineer was not engaged at the time of this due diligence work; hence, we estimated the structural loading.

Our preliminary foundation recommendations are based on an assumed structural floor load of about 150 to 200 pounds per square foot (psf) as well as column spacing of about 30 ft by 30 ft for the tower structures and about 60 ft by 20 ft for the parking garage structure. We estimated that maximum column loads for the 25-story tower structure will be on the order of 3500 to 4000 kips (1750 to 2000 tons); the 12-story tower structure will be in the order of 1500 to 2000 kips (750 to 1000 tons); the 9-story parking podium structure will be in the order of 1200 to 1600 kips (600 to 800 tons); and the 10 to 12-story parking garage structure will be in the order of 1800 to 2200 kips (900 to 1100 tons).

SUBSURFACE INVESTIGATION

Field Investigation

Langan performed the subsurface investigation between 5 and 7 August 2019. The site investigation consisted of one Standard Penetration Tests (SPT) boring and one percolation test. Approximate locations of the test boring and percolation test are shown on Figure 2. The boring and exfiltration test locations were marked in the field by our representative by estimating right angles with reference to the lot boundaries and existing site features. The ground surface elevation at the boring location was estimated from the field survey. The test boring and percolation test were performed by specialty drilling subcontractor under the direction and observation of a Langan engineer.

Test Boring

One test boring was drilled to 150 feet below ground surface. The boring was advanced using rotary drilling techniques, stabilized with drilling mud and casing. Split-spoon sampling was typically done continuously in the upper 12 ft and at 5 ft intervals thereafter. Continuous sampling was performed in selected borings to better delineate changes in strata or the vertical extent of weak zones within the subsurface materials. The soil samples were visually examined and classified by Langan's geotechnical engineers both in the field and in our office. Detailed subsurface descriptions and information are presented on the test boring log attached in Appendix A.

Percolation Test

One percolation test (identified as P1) was performed at the project site. The location of this percolation test is attached in Figure 2. The percolation test was performed in a borehole drilled to depths of 10 ft. The test was done in accordance with the South Florida Water Management District (SFWMD)'s Constant-Head Open-Hole method in order to obtain representative SFWMD "k-value" which will be used for the storm drainage design at the site. Detailed percolation test results are summarized in Appendix B.

SUBSURFACE CONDITIONS

General Subsurface Conditions

The soil boring (designated as SB-1) from our recent site investigation revealed subsurface conditions consisting of the following strata:

Stratum 1 – Pavement and Surface Fill

The majority of the site, outside of the existing buildings, is covered by asphalt pavement for the driveways access or on-grade parking lots. Several small areas of the site are covered by landscaping and concrete sidewalks/drives. The surficial material encountered during our site investigation, consisted of approximately 1 inch of asphalt followed by about 4 inches of limerock base course fill. Below this, there is apparent fill or reworked natural soils consisting of black medium to fine sand. The N-value in this stratum was 14 blows per foot (bpf).

Stratum 2 – Upper Sand

Beneath Stratum 1, an upper sand stratum was encountered consisting of gray to brown fine to medium sand. The thickness of this stratum was about 4½ feet and it extended to about the 6½ ft depth (el 0.0). This stratum is very loose to loose with N-values varying between 3 and 9 blows per foot bpf (average N-value of about 6 bpf).

Stratum 3 –Upper Cemented Sand and Sand

Underlying Stratum 2, Stratum 3 consists of tan to white and light brown cemented sand with varying fraction of sand. The top of this stratum was encountered at about the 6½ ft depth (el 0.0) and its thickness was about 16½ feet. The cemented sand was generally very soft to soft in relative hardness with a range of SPT N-values of between 4 bpf and 8 bpf.

Stratum 4 – Intermediate Sand

Stratum 4 consists of a 15 ft thick very loose to medium dense fine sand. The top of this stratum was encountered at about the 23 ft depth (el -16.5) and extended to about the 38 ft depth (el -31.5). This stratum was very loose in relative density with a range of SPT N-values from weight of hammer (WOH) to 3 bpf, and averaged 1 bpf.

Stratum 5 –Intermediate Cemented Sand and Sand

Beginning at about the 38 ft depth (el -31.5), cemented sand and sand was encountered and extended to the 86½ ft depth (el -80). This stratum is somewhat erratic between the 38 and 48 ft depths with N-values varying between 8 and 28 bpf. Below 48 ft and continuing to about 86½ ft, the cemented sand becomes more competent with N-values ranging from refusal (greater than 50 bpf) to 17 bpf, but typically greater than 25 bpf. This stratum is considered moderately hard to hard. Discrete isolated voidy conditions were found in this stratum.

Stratum 6 – Lower Sand

Stratum 6 consists of an approximately 10 ft thick loose to medium dense fine to coarse sand. The top of this stratum was encountered at about the 86½ ft depth (el -80.0) and extended to the 96½ ft depth (el -90.0). SPT N-values ranged from 7 to 10 bpf.

Stratum 7 – Lower Cemented Sand and Sand

Below the lower sand stratum, cemented sand and sand was encountered and continued to the termination depths of the borings. This stratum is somewhat erratic between the 96½ and 116 ft depths with N-values varying between 4 and 18 bpf. Below the 116 ft depth, the cemented sand becomes competent with N-values generally at refusal (greater than 50 bpf) with isolated values at 11 and 38 bpf. This stratum is considered hard to moderately hard.

Groundwater

Groundwater, at the time of our investigation, was measured during the initial drilling and after completion of the drilling at the test boring location. Groundwater was measured at depth of 6.0 ft below existing grade. This depth equates to groundwater elevation of el +0.5. Based on our experience, the typical groundwater levels in the project vicinity area range between el 0 to el +3 NGVD. Changes in groundwater elevations should be expected due to seasonal fluctuations based on precipitation.

PRELIMINARY FOUNDATION EVALUATIONS

Our subsurface investigation of the site revealed subsurface conditions consistent with the general geology of the area based on our previous nearby studies. The geotechnical considerations identified for supporting the

buildings associated with the proposed development are:

- The presence of the weak upper cemented sand layer (Stratum 3);
- The presence of the very loose to loose upper sand (Stratum 4);
- Competent zones of cemented sand in the intermediate depth range (Stratum 5 below 48 ft);
- The thickness, relative density and consistency of the lower sand layer (Stratum 6)
- The very hard competent lower cemented sand (Stratum 7)

The upper strata (Stratum 1 through Stratum 4) are weak and erratic and not suitable for support of the proposed towers and parking garage structures without significant settlements or ground improvement along with large shallow foundations. Effective and efficient pile foundation bearing support for the structures could be achieved in Stratum 5 which begins below the 48 ft depth (el -41.5). The upper strata, however, would be suitable for support of a slab on-grade or for foundations of light structure, after the proper surficial compaction. Theoretically, soil improvement, such as vibro-replacement (stone columns), could be performed to increase the stability of Strata 1 through Strata 4 for support of the shorter tower and parking garage structure. However, based on our experience, the cost of soil improvement combined with the cost of the very large shallow foundations would not be an economically beneficial alternative compared to deep foundation support with auger cast-in-place (ACIP) piles.

Stratum 5 consist of moderately hard to very hard interbedded Cemented Sand, Sandstone and Sand. Pile foundations embedded between el -55 and el -60 could provide cost-effective and efficient bearing support for the proposed towers and parking garage structures. Based on the boring performed on site, the relatively competent character of the Stratum 5 cemented sand and the relatively thin and suitably dense condition of the lower Stratum 6 sand layer, we expect tolerable settlement (less than 2 to 3 inches) for the proposed structures with piles embedded within Stratum 5. However, in the final geotechnical study, if the deeper soil conditions prove to be erratic in the Stratum 5 bearing layer as well as the Stratum 6 lower sand, settlement of the taller 25-story tower may not be tolerable (greater than 5 to 6 inches), necessitating deeper foundations for this structure. The final geotechnical study will need to confirm the uniformity of support within Stratum 5 as well as the thickness and relative density of the Stratum 6 sand.

Stratum 7 consists of a relatively homogenous medium to hard cemented layer. Pile foundations appropriately penetrating this stratum could also be used for support of the proposed 25-story tower should the final geotechnical study show erratic characteristics in Strata 5 and 6 lower. In this case, settlement would be limited to under about 1 to 2 inches.

PRELIMINARY FOUNDATION RECOMMENDATIONS

Based on our knowledge of the area and the limited due diligence study, we preliminary recommend that the proposed towers and parking garage structures be supported on high capacity, intermediate length 16, 18, and 24-in-diameter augercast piles. The following piles design criteria can be used, subject to modification as necessary per the additional final exploration borings, test piles and pile load tests. Pile grout compressive strength of at least 8000 psi was assumed.

9-Story Parking Podium (outside tower footprints)

Pile Size and Type:	16-in-dia augercast
Compression Capacity:	200 to 240 tons
Uplift Capacity:	100 to 120 tons
Lateral Capacity:	5 tons
Approximate Pile Tip elevation:	el -55 to el -60

12-Story Tower & Independent 10 to 12-Story Parking Garage Structure

Pile Size and Type:	18-in-dia augercast
Compression Capacity:	300 to 335 tons
Uplift Capacity:	150 to 200 tons
Lateral Capacity:	6 tons
Approximate Pile Tip elevation:	el -55 to el -60

25-Story Tower

Pile Size and Type:	24-in-dia augercast
Compression Capacity:	500 to 540 tons
Uplift Capacity:	250 to 300 tons
Lateral Capacity:	8 tons
Approximate Pile Tip elevation:	el -55 to el -60 if uniform subsurface conditions found or el -125 to el -130 if erratic conditions found

- Assumes about ½ inch lateral deflection. If additional lateral capacity is required, piles on a 1H:6H batter could be used.
- Assumes minimum 20 ft socket into Stratum 5.
- Assumes minimum 20 ft socket into Stratum 5 for uniform soil conditions and 10 to 15 ft into Stratum 7 if erratic conditions are encountered.

Ground Floor Slab

Since only granular and cemented soils were encountered at the project site, the ground floor slab can be designed as a conventional slab-on-grade after the slab subgrade is prepared, as discussed herein. After completion of surface proof-rolling / compaction and pile cap/grade beam construction, the area for ground floor slab plus 3 ft beyond in each direction can be raised with the engineered fill to about 4 inches below the slab bottom. The top 4 inches of the slab subgrade should consist of crushed limestone or No. 57 stone to create a stable slab subgrade surface. Compaction should be applied to the slab subgrade with either a roller or a heavy plate compactor to achieve 95% of the material's maximum dry density as determined by the Modified Compaction Test, ASTM D1557. Engineered fill should be placed in maximum 12 inch thick lifts and compacted as previously stated.

OTHER CONSIDERATIONS

Site Preparation (including Removal of Existing Structures)

Numerous existing structures and ground features will be demolished in order to allow for the new development. The demolition debris, including all existing foundation elements (footings), floor slabs, utilities, sidewalks/walkways, parking lot pavements, piles etc. should be completely removed to allow for unobstructed construction of future foundations and utilities.

We suggest that any available foundation plans of the existing structures scheduled for demolition should be reviewed and compared to the proposed foundation plans to identify any potential conflicts between the proposed foundations and the existing foundations.

Once the debris and foundation elements have been removed, the bottom of the exposed excavations should be checked by a Langan engineer. All surface grass, vegetation, topsoil and pavement should also be stripped to the sand or limerock fill. Cleared or stripped areas should be proofrolled with a 5-ton (static drum weight) vibratory roller. Subsequently, if required, engineered fill shall be used to bring the site to the finish floor or pavement subgrade elevation.

Footing Subgrade Preparation

Lightweight surficial elements

After excavating to the required footing elevation, if the exposed bearing subgrade surface is the Stratum 2-Upper Sand or engineered fill, the subgrade material should be compacted to at least 95% of the material's maximum dry density as determined by the Modified Proctor Compaction Test (ASTM D1557).

Engineered Fill

The on-site Strata 1 and 2 fine sand generated from the site earthwork activities can be reused as engineered fill. If imported fill is required, it should consist of inorganic granular soils free of deleterious materials with no more than 10 percent passing the No. 200 sieve and should be approved by a Langan geotechnical engineer. All limestone material used as engineered fill should be crushed into fragments not larger than 3 inches. All imported material shall be certified as environmentally free of contamination.

Engineered fill will be necessary in specific areas to raise grades at the site and to backfill below or around footings and grade beams or to support slabs-on-grade. The fill materials must be placed under the observation of a Langan geotechnical engineer, who will be testing each compacted layer of soil. The fill should be placed in lifts of no greater than 12 inches thick, and each lift should be compacted with either a 5-ton vibratory roller or a heavy plate compactor to 95% of the material's maximum dry density as determined by ASTM D1557. In restricted areas where a small compactor or a plate compactor must be used, the lift thickness should be reduced to 6 to 9 inches, as directed by the Langan geotechnical engineer.

Backfilling Over Utility Lines

All utilities should be installed in accordance with the Broward County Public Works specifications as well as the civil engineering drawings and specifications. When backfilling over any utility line, the fill should be placed in lifts and compacted to the compaction requirements mentioned above. The loose lift thickness is expected to vary between 6 inches and 12 inches, based on the compaction equipment used by the contractor. Final lift thickness should be determined once the type of equipment to be used is known. The backfill material to be used over utility lines should consist of sand, or on-site crushed limerock (if placed in a dry condition). If crushed limerock is used, the limerock should not exceed 3 inches in size. Additionally, all backfill should meet the requirements of the pipe manufacturer's specifications.

Construction Excavation and Dewatering

All construction excavations should meet the Occupational Safety and Health Administration (OSHA) requirements. Based on the borings and test pits, a sloped open-cut excavation should be sufficient for the construction of shallow foundations at the site. Where stable limestone is present, the cemented character of the material should allow for near vertical construction excavations within the stratum. This should be verified by Langan's field geotechnical engineer. This option may preclude the need for forming of many of the footing foundations by using the limestone excavation wall as the form. This will provide a cost benefit for the project. To minimize construction excavations, the bottom of the foundation elements (footings) should be kept as high as possible.

Pre-Construction Conditions Documentation

The subject site is surrounded by existing buildings on the south, west, east and north sides. A pre-construction conditions documentation should be performed to record the existing conditions of the adjacent structures and ground features prior to construction at the subject site. The pre-construction conditions documentation would involve visually inspecting and videotape documenting the structures; measuring and photographing observable existing cracks, deterioration, or other signs of distress; and establishing crack reference lines and locations of elevation control points. We recommend that this pre-construction conditions documentation be done by our

firm to ensure proper documentation procedures are followed. The pre-construction documentation would provide valuable information of the existing conditions of the structures adjacent to the proposed development. In addition, it would serve as a qualitative record document of the existing conditions of the adjacent structures prior to the start of construction.

Additional Test Borings for Final Geotechnical Study

In order to prepare the final geotechnical engineering report with efficient foundation recommendations, additional test borings will need to be performed once the demolition is completed and access to the demolished site locations are made available. At this time, we anticipate about 9 to 10 test borings, ranging in depth between 80 ft and 150 ft deep, will need to be performed.

LIMITATIONS

The preliminary evaluations and recommendations given in this report are based on our engineering judgment as to the appropriate foundation support systems and required site preparation procedures for the proposed development. They are based on subsurface conditions inferred from the test boring performed on site, experience on nearby projects and on the available development information. The due diligence report has been prepared to assist the owner, contractor and design-team members in their preliminary due diligence effort. Any changes in structures or locations should be brought to our attention so that we may determine how such changes may affect our recommendations.

FL Certificate of Authorization No. 6601

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FIGURES



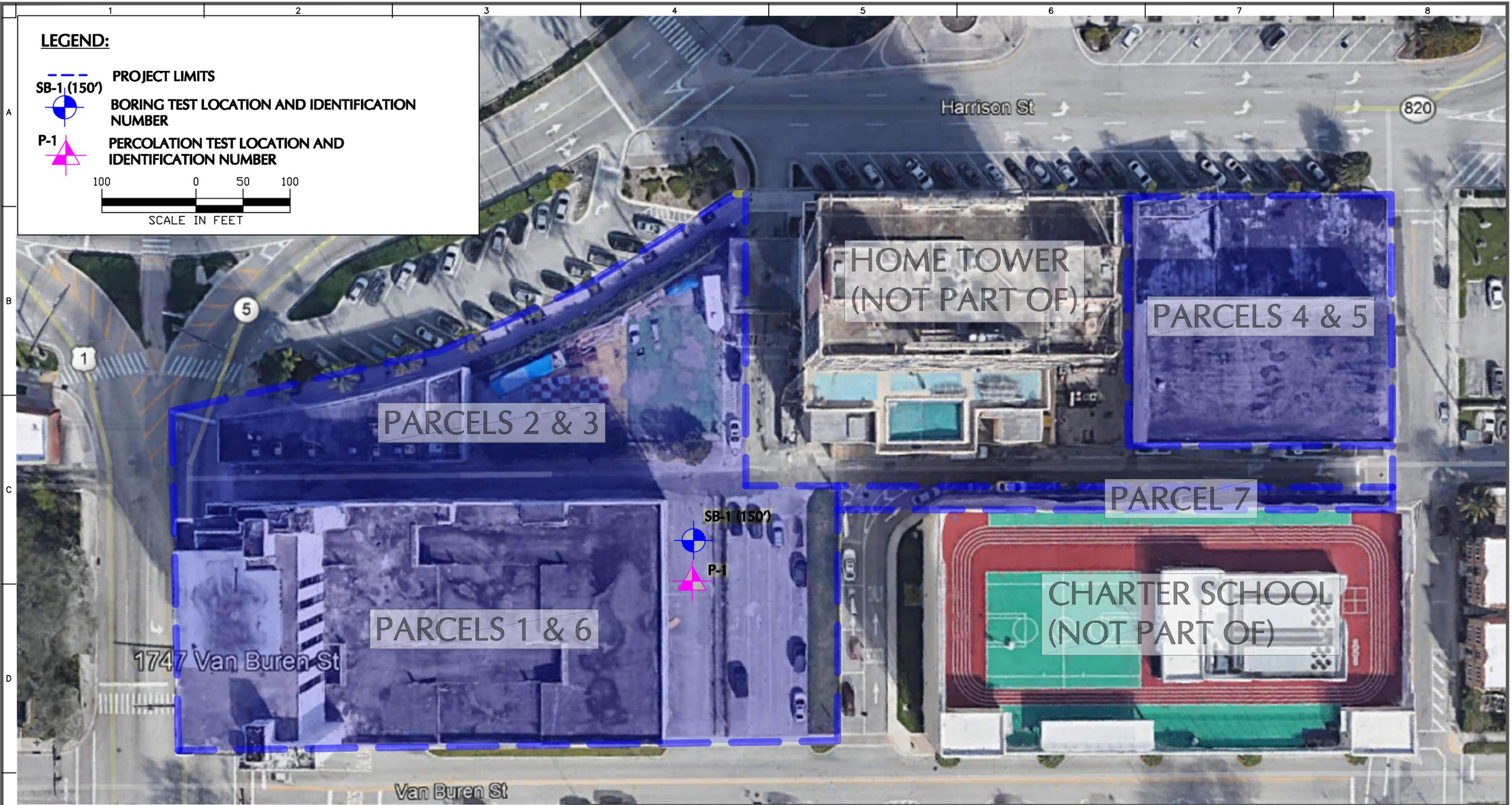
NOTE:
 1. LOCATION BOUNDARIES ARE APPROXIMATE..
 2. AERIAL FROM 2018, FROM GOOGLE EARTH.

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 Langan CT, Inc.
 Langan International LLC
 Collectively known as Langan
 FL CERTIFICATE OF AUTHORIZATION No. 00006601

Project
PARC PLACE
1747 VAN BUREN STREET
HOLLYWOOD
BROWARD FLORIDA

Drawing Title
SITE VICINITY
MAP

Project No. 330061201	Drawing No.
Date AUGUST 2019	FIG.1
Scale 1"=550'	
Drawn By HK	Sheet 1 of 1
Checked By RA	



LEGEND:

--- PROJECT LIMITS

SB-1 (150') BORING TEST LOCATION AND IDENTIFICATION NUMBER

P-1 PERCOLATION TEST LOCATION AND IDENTIFICATION NUMBER

100 0 50 100
SCALE IN FEET

NOTE:

- BORING AND PERCOLATION LOCATIONS AND BOUNDARIES ARE APPROXIMATE.
- AERIAL FROM 2018, FROM GOOGLE EARTH.

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Project
PARC PLACE
 1747 VAN BUREN STREET
 HOLLYWOOD
BROWARD FLORIDA

Drawing Title
BORING AND PERCOLATION LOCATION PLAN

Project No. 330061201	Drawing No.
Date AUGUST 2019	FIG.2
Scale 1"=100'	
Drawn By HK	Sheet 1 of 1
Checked By RA	

**APPENDIX A
LOG OF BORING**

PROJECT Parck Place			PROJECT NO. 330061201		
LOCATION 1747 Van Buren Street, Hollywood, FL			ELEVATION AND DATUM Approx. +6.5 [ft, NGVD]		
DRILLING EQUIPMENT MCE-55		DATE STARTED 8/4/19		DATE FINISHED 8/5/19	COMPLETION DEPTH 150 ft.
SIZE AND TYPE OF BIT 2 1/4", 2 3/4"			NUMBER OF SAMPLES 36	DIST. 36	UNDIST. -
CASING DIAMETER (in) 2 3/4"	CASING DEPTH(ft) 148		WATER LEVEL (ft.) ▽	FIRST 6	COMPL. ▽
SAMPLER 2" OD Split Spoon			DRILLING FOREMAN Carlos Molinares		
SAMPLER HAMMER Automatic Hammer	WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Ruben Ponciano		

ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. (lb/in)	N-VALUE BLOWS PER FT		
+6.5	Asphalt (1 inch) Tan LIMEROCK (4 inches) Black fine to medium SAND (Possible Fill)			S1	SS	18	5	6	14	
+4.5	Light gray fine to medium SAND		2	S2	SS	14	4	4	9	
	Dark brown fine to medium SAND, trace organic silt		4	S3	SS	16	4	2	3	
0.0	Tan CEMENTED SAND		6	S4	SS	12	1	2	4	
	Light brown to brown CEMENTED SAND, some fine sand, trace silt		8	S5	SS	13	2	3	8	
			10				5	5		
			12							Set casing at 13 ft Advanced casing to 13 ft
	Light brown to brown CEMENTED SAND, some fine sand, trace silt		14	S6	SS	12	6	4	7	
			16				3	2		Advanced casing to 18 ft Good circulation
	Tan to white CEMENTED SAND, some sandy silt		18	S7	SS	13	5	4	7	
			20				3	5		Advanced casing to 23 ft Easy drilling Good circulation
			22							
-16.5	Light brown fine to medium SAND, trace cemented sand		24	S8	SS	5	3	2	3	
			26				1	2		Advanced casing to 28 ft Easy drilling Good circulation
	White to tan SAND, some shell fragments and limestone		28	S9	SS	2	1	1	1	

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PROJECT Parck Place	PROJECT NO. 330061201
LOCATION 1747 Van Buren Street, Hollywood, FL	ELEVATION AND DATUM Approx. +6.5 [ft, NGVD]

ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. BL/6in	N-VALUE BLOWS PER FT	
-31.5	Light green fine SAND		32						Advanced casing to 33 ft
			34	S10	SS	14	1	WOH/18" WOH	
			36	S11	SS	8	1	2 3	
-31.5	Light gray CEMENTED SAND, some fine to medium sand		38					Advanced casing to 38 ft Easy drilling Good circulation	
			40	S12	SS	16	3		13 28
			42						15 16
-41.5	Light gray CEMENTED SAND, some fine to medium sand		44	S13	SS		9	6 8	Advanced casing to 43 ft Easy drilling Poor circulation from 42 ft - 43 ft
			46				2	2	
			48						
-41.5	Tan CEMENTED SAND		50	S14	SS	2	50/5"	50/5"	Advanced casing to 48 ft Easy drilling Lost circulation at 46 ft
			52						
			54	S15	SS	3	55/4"	55/4"	
-41.5	Light brown to white CEMENTED SAND and sandstone fragments		56						Advanced casing to 53 ft Easy drilling Lost circulation
			58						
			60	S16	SS	18	6	11 28	
-41.5	Light gray CEMENTED SAND, some coarse sand		62						Advanced casing to 58 ft Easy drilling Lost circulation
			64	S17	SS	8	46	45 69	
							24	14	
	Light brown CEMENTED SAND, some coarse sand							Advanced casing to 63 ft Moderate drilling Lost circulation	

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PROJECT		PROJECT NO.							
Parck Place		330061201							
LOCATION		ELEVATION AND DATUM							
1747 Van Buren Street, Hollywood, FL		Approx. +6.5 [ft, NGVD]							
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. BL/6in	N-VALUE BLOWS PER FT	
			66						Advanced casing to 68 ft Moderate drilling No circulation
	Light gray CEMENTED SAND, some fine to medium sand		68	S18	SS	12	17 20 20	40	
			70						
			72						Advanced casing to 73 ft Easy drilling No circulation
	Light brown CEMENTED SAND, some coarse sand		74	S19	SS	8	7 WOH/18" WOH		
			76	S20	SS	19	10 13 15 14	28	
			78						Advanced casing to 78 ft No circulation
	Light brown CEMENTED SAND, some coarse sand		80	S21	SS	14	8 7 11 13	18	
			82						Advanced casing to 83 ft Easy drilling No circulation
			84	S22	SS	13	11 9 8 11	17	
	Light gray to light brown CEMENTED SAND		86						Advanced casing to 88 ft Easy drilling No circulation
-80.0			88	S23	SS	12	4 5 5 4	10	
			90						Advanced casing to 93 ft Easy drilling No circulation
	Light gray fine to coarse SAND, some cemented sand		92						
			94	S24	SS	17	7 3 4 3	7	
			96						No water sample. Too sandy
-90.0	Light gray CEMENTED SAND and SAND		98	S25	SS	16	5 5 6 7	11	Advanced casing to 98 ft Easy drilling No circulation

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PROJECT Parck Place	PROJECT NO. 330061201
LOCATION 1747 Van Buren Street, Hollywood, FL	ELEVATION AND DATUM Approx. +6.5 [ft, NGVD]

ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. Bl/6in	N-VALUE BLOWS PER FT	
			102						Advanced casing to 103 ft Easy drilling No circulation
	Light gray CEMENTED SAND and SAND, trace limestone fragments		104	S26	SS	18	14 9 9 15	18	
			106						Advanced casing to 108 ft Easy drilling No circulation
	No recovery		108	S27	SS	0	1 2 5 7	7	
	Light gray CEMENTED SAND and SAND		110	S28	SS	16	5 5 8 11	13	
			112						Advanced casing to 113 ft Easy drilling No circulation
	Light gray CEMENTED SAND and SAND		114	S29	SS	5	7 3 1 1	4	
-109.5			116						Advanced casing to 118 ft
	Light gray CEMENTED SAND, trace fine to medium sand		118	S30	SS	2	52/3"	52/3"	
			120						Advanced casing to 123 ft Easy to moderate drilling No circulation
	Light gray CEMENTED SAND, some fine to medium sand		124	S31	SS	10	4 3 8 50/5'	11	
			126						Advanced casing to 128 ft Easy drilling No circulation
	Light gray CEMENTED SAND and fine to medium SAND		128	S32	SS	18	14 30 20 49	50	
			130						Advanced casing to 133 ft Hard drilling No circulation
	Light brown CEMENTED SAND		134	S33	SS	1	55/3"	55/3"	

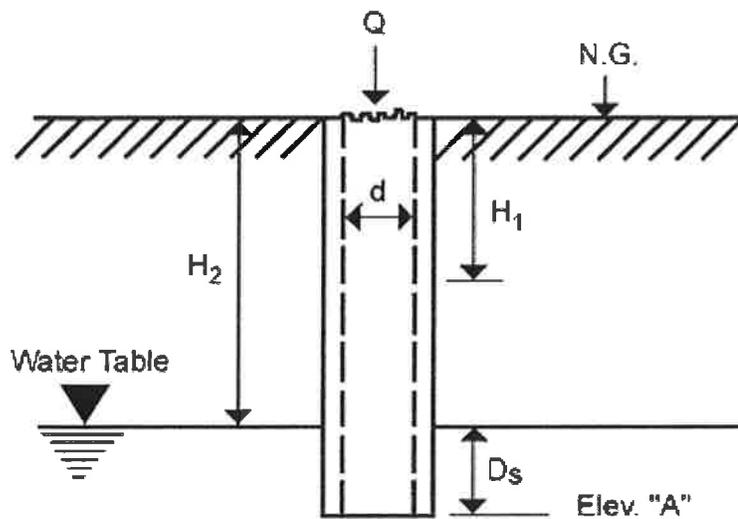
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PROJECT		PROJECT NO.							
Parck Place		330061201							
LOCATION		ELEVATION AND DATUM							
1747 Van Buren Street, Hollywood, FL		Approx. +6.5 [ft, NGVD]							
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. BL/6in	N-VALUE BLOWS PER FT	
-143.5	White to tan CEMENTED SAND, trace sand, some sea shells		136						Advanced casing to 138 ft Moderate drilling No circulation
			138	S34	SS	12	14 18 20 52/5'	38	
	Tan CEMENTED SAND		140						Advanced casing to 143 ft Moderate drilling No circulation
			144	S35	SS	1	50/2"	50/2"	
	Tan CEMENTED SAND		146						Advanced casing to 148 ft Moderate drilling No circulation
			148	S36	SS	2	50/2"	50/2"	
		SB-1 terminated at 150 ft		150					
				152					
				154					
				156					
			158						
			160						
			162						
			164						
			166						
			168						

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APPENDIX B
PERCOLATION TEST LOG

USUAL OPEN-HOLE TEST



$$K = \frac{4Q}{\pi d (2H_2^2 + 4H_2D_s + H_2d)}$$

K = Hydraulic Conductivity (cfs/ft.² – ft. head)

Q = “Stabilized” Flow Rate (cfs)

d = Diameter of Test Hole (feet)

H₂ = Depth to Water Table (feet)

D_s = Saturated Hole Depth (feet)

Elev. “A” = Proposed Trench Bottom Elev. (ft. – NGVD)

H₁ = Average Head on Unsatuated Hole Surface (ft. head)

Figure F-1

TABLE 1
SUMMARY OF PERCOLATION TEST RESULTS
Parc Place
1747 Van Buren Street
Hollywood, Florida
330061201

Test No.	Date Performed	Approximate Ground Surface Elevation (NGVD, Feet)	Diameter of Test Hole (Inches)	Depth of Hole (Feet)	Depth to Water Table before Test (Feet)	Depth to Water Table during Test (Feet)	Water Head above Water Table During Test (H2) (Feet)	Saturated Hole Depth, Ds (Feet)	Average Flow Rate, Q (GPM)	K, Hydraulic Conductivity (cfs/ft ² - ft head)
P1	8/7/2019	+6.5	5.0	10.0	6.0	0.0	6.0	4.0	0.8	3.19E-05

Notes:

- (1) The hydraulic conductivity values were calculated based on the South Florida Water Management Districts' USUAL OPEN HOLE CONSTANT HEAD percolation test procedure as shown on the following page.
- (2) The approximate percolation test location is shown on Figure 2.

Appendix I – Existing Adjacent Drainage Well Capacities



Appendix J – Pre-Development Calculations



Project: Star Tower Hollywood
 Flood Routing Description:

Date: 06/28/2023

Client : Job Number: 13778.00
 Design Engineer :
 Project Address / Location : City: Hollywood County: Broward State: Florida
 Section/Township/Range:
 Surfacewater License:
 FEMA FIRM Information:
 Project Description:

Total Drainage Basin: 0.816 Acres

Hydrogeologic Information :

Table 1.	1 Day Storm Event			3 Day Storm Event		
RAINFALL DATA	Rainfall Inches	Runoff Inches	Runoff Ac-Ft	Rainfall Inches	Runoff Inches	Runoff Ac-Ft
100 Year Return Period	15.6	9.67	0.658	18.1	11.94	0.812
25 Year Return Period				13.4	7.72	0.525
10 Year Return Period	9.0	4.06	0.276	12.2	6.70	0.456
5 Year Return Period	7.4	2.84	0.193	10.0	4.87	0.331
3 Year Return Period						
5 Yr Return Period - 1 Hr	3.2	0.40	0.027			

Runoff estimation - USDA SCS formula

$$\text{Runoff (in)} Q = \frac{(P-0.2S)^2}{P+0.8S}$$

Where: P = accumulated rainfall (in.)
 S = Soil Storage Value

Table 2. SUMMARY OF FLOOD ROUTING	Agency maps	SBUH Calculated with Q-1 Day Storm		SBUH Calculated with Q-3 Day Storm		SBUH Calculated *Zero Q-3 Day Storm		Calc. 5Yr 1 hour Peak Stage (ft)
		Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	
100 Year Return Period		8.21	0.00	8.40	0.00	8.40	0.00	Zero Q
25 Year Return Period				8.05	0.00	8.05	0.00	(Water Budget)
10 Year Return Period		7.67	0.00	7.95	0.00	7.95	0.00	
5 Year Return Period		7.54	0.00	7.75	0.00	7.75	0.00	7.04
3 Year Return Period								

For 5 yr - 1 hr rainfall, Calculate 5 yr Vol by subtracting Exfil vol in inches from 5 yr 1 h rainfall, then calc Runoff using SCS formula. From stage storage table find Zero Discharge Stage. Uses Max. Elev of Lookup Stage or highest top of EXFIL trench. If exfil vol exceeds 5 year 1 hour vol. Uses Max. Elev of highest top of EXFIL trench.

* Zero Q indicates there is no offsite discharge included in the calculations (only Exfil Trench and Wells). Hypothetical stage calc. for PRE-POST Analysis.

Table 3. WATER QUALITY STORAGE REQUIREMENTS:	
Based on Total Drainage Basin Acreage	Ac-Ft
1" x Basin Area	0.068
2.5" x WQPI x (Basin Area)	0.00 Inches
Required Wet Detention (Total basin incl Offsite)	
0.5" Pretreatment-Com. Prjs,x(Basin Area - water area)	0.034
Credit for Inlets in Grass Areas, GAC=0.2" x (TDA)	0.014
	N

Table 4. WATER QUALITY STORAGE SOURCE	Basin Storage Elev.	WQ Eq WDV (Ac-Ft)	WQ Eq WDV Inches
Retention (RV) @			
Dry Det. (DDV) @			
Wet Det. (WDV) @			
Equiv WDV=WDV+RV/.5+DDV/.75)		0.000	
Exfil Trench Storage	0.000	0.000	
Total WQ EQ WDV - Provided		0.000	
Total WQ EQ WDV - Required		0.068	1.00

Exfil Vol. in Stage Storage =

(Ac-FT)	(Inches)
0.000	0.00

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Total Drainage Basin: 0.816 Acres

Y	Y/N -Do you want to limit the Exfiltration Trench Vol. to a maximum of 3.28" over the site?
N	Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table
Y	Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.

 Water Table Elevation = 1.50 Feet
 Time of Conc. (hr.) = 0.17
 Calculated weighted soil (s) = 6.75 Soil Storage Value (S) = Storage under pervious area / Total Area
 Calculated CN value = 59.7 Soil Storage under pavement and buildings is not considered in computations

Table 16. STAGE STORAGE TABLE

Stage Elevation (feet)	Storage (Ac-ft)	Storage (CF)	Depth to water table (Ft)	Compacted Ground storage table			
				1.00	2.00	3.00	4.00
			Ground storage(In)	0.45	1.88	4.05	6.75
1.50	0.000	0	Mean depth to ground water table (ft)=	5.91 (Pervious Area)			
2.00	0.000	0					
2.50	0.000	0					
			Soil Storage Type	Ground Storage Values (In Inches)			
3.00	0.000	0	Depth to Ground Water (Ft)	1	2	3	4
3.50	0.000	0	* Depressional	0.45	1.58	3.3	5.1
4.00	0.000	0	Flatwoods	0.45	1.88	4.05	6.75
4.50	0.000	0	Coastal Type	0.45	1.88	4.95	8.18
5.00	0.000	0	* (Low Flatwoods & Coastal Lowlands)				
5.50	0.000	0	Ground Storage Values reflect 25% reduction of Available Storage,				
6.00	0.000	0	to take into account compaction of native soils.				
6.50	0.000	0					
7.00	0.016	688					
7.50	0.169	7,371					
8.00	0.486	21,162					
8.50	0.894	38,922					
9.00	1.302	56,694					
9.50	1.710	74,467					
10.00	2.118	92,239					
10.50	2.526	110,012					

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Table 17. SITE ACREAGE INFORMATION

Input Information							Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
LAND USES	Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water							
BASIN TOTALS / AVERAGE	0.816	8.03	1.50	0.00	0.00	0.00	0.00	0.82	0.00	0.82	0.00	7.41	
1 Pervious/Landscape	0.816	8.03	6.78	0	0	0	0.00	0.82	0.00	0.82	0.00	7.41	6.
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BASIN SUBTOTALS / AVG	0.816	8.03	6.78	0.00	0.00	0.00	0.00	0.82	0.00	0.82	0.00	7.41	6.

Table 18. UNDERGROUND STORAGE INFORMATION

Underground Storage	Area (SF)	Top Elev	Bottom Elev	% Voids
1 Underground Storage 1				
2 Underground Storage 2				
3 Underground Storage 3				
4 Underground Storage 4				
5 Underground Storage 5				
BASIN TOTALS / AVERAGE	0.816	8.03	1.50	0.00
Basin % Imper. for Water Quality Purposes =		0.00		
Basin % Impervious (incl. Bldg., No lakes)=		0.00		

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Detail - Stage - Storage Information

Table 19. STAGE - STORAGE INFORMATION		Surface storage (Ac-Ft)												
LAND USES	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.
	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	
Total Surface Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.169	
Underground Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Exfil Trench Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TOTAL Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.169	
1 Pervious/Landscape	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.169	
2														
3														
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36														
37														
38														
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40														
Total Surface Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.17	
Underground Storage														
	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	
1 Underground Storage 1														
2 Underground Storage 2														
3 Underground Storage 3														
4 Underground Storage 4														
5 Underground Storage 5														
Total Underground Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Exfil Trench Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TOTAL Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.169	
Stage Elevation	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	

Appendix K – Post-Development Calculations



Project: Star Tower Hollywood
 Flood Routing Description:

Date: 06/28/2023

Client : Job Number: 13778.00
 Design Engineer :
 Project Address / Location : City: Hollywood County: Broward State: Florida
 Section/Township/Range:
 Surfacewater License:
 FEMA FIRM Information:
 Project Description:

Total Drainage Basin: 0.816 Acres

Hydrogeologic Information :

Table 1.	1 Day Storm Event			3 Day Storm Event		
RAINFALL DATA	Rainfall Inches	Runoff Inches	Runoff Ac-Ft	Rainfall Inches	Runoff Inches	Runoff Ac-Ft
100 Year Return Period	15.6	15.17	1.032	18.1	17.67	1.202
25 Year Return Period				13.4	12.97	0.882
10 Year Return Period	9.0	8.57	0.583	12.2	11.79	0.802
5 Year Return Period	7.4	6.95	0.473	10.0	9.59	0.652
3 Year Return Period						
5 Yr Return Period - 1 Hr	3.2	1.64	0.111			

Runoff estimation - USDA SCS formula

$$\text{Runoff (in)} Q = \frac{(P-0.2S)^2}{P+0.8S}$$

Where: P = accumulated rainfall (in.)
 S = Soil Storage Value

Table 2. SUMMARY OF FLOOD ROUTING	Agency maps	SBUH Calculated with Q-1 Day Storm		SBUH Calculated with Q-3 Day Storm		SBUH Calculated *Zero Q-3 Day Storm		Calc. 5Yr 1 hour Peak Stage (ft)
		Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	
100 Year Return Period		8.56	6.02	8.39	6.02	8.39	6.02	Zero Q
25 Year Return Period				8.04	5.86	8.04	5.86	(Water Budget)
10 Year Return Period		8.06	6.00	7.33	5.31	7.33	5.31	
5 Year Return Period		5.99	4.99	5.70	4.41	5.70	4.41	7.92
3 Year Return Period								

For 5 yr - 1 hr rainfall, Calculate 5 yr Vol by subtracting Exfil vol in inches from 5 yr 1 h rainfall, then calc Runoff using SCS formula. From stage storage table find Zero Discharge Stage. Uses Max. Elev of Lookup Stage or highest top of EXFIL trench. If exfil vol exceeds 5 year 1 hour vol. Uses Max. Elev of highest top of EXFIL trench

* Zero Q indicates there is no offsite discharge included in the calculations (only Exfil Trench and Wells). Hypothetical stage calc. for PRE-POST Analysis.

Table 3. WATER QUALITY STORAGE REQUIREMENTS:	
Based on Total Drainage Basin Acreage	Ac-Ft
1" x Basin Area	0.068
2.5" x WQPI x (Basin Area) 2.20 Inches	0.143
Required Wet Detention (Total basin incl Offsite)	
0.5" Pretreatment-Com. Prjs.,x(Basin Area - water area)	0.032
Credit for Inlets in Grass Areas, GAC=0.2" x (TDA)	0.008
	N

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Total Drainage Basin: 0.816 Acres

Y	Y/N -Do you want to limit the Exfiltration Trench Vol. to a maximum of 3.28" over the site?
N	Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table
Y	Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.

 Water Table Elevation = 1.50 Feet
 Time of Conc. (hr.) = 0.17
 Calculated weighted soil (s) = 0.36 Soil Storage Value (S) = Storage under pervious area / Total Area
 Calculated CN value = 96.5 Soil Storage under pavement and buildings is not considered in computations

Table 16. STAGE STORAGE TABLE

Stage Elevation (feet)	Storage (Ac-ft)	Storage (CF)	Depth to water table (Ft)	Compacted Ground storage table			
1.50	0.000	0		1.00	2.00	3.00	4.00
2.00	0.007	292		0.45	1.88	4.05	6.75
2.50	0.013	583		Mean depth to ground water table (ft)= 6.00 (Pervious Area)			
3.00	0.020	875		Soil Storage Type			
3.50	0.027	1,166		Ground Storage Values (In Inches)			
4.00	0.033	1,458		Depth to Ground Water (Ft)			
4.50	0.040	1,750		1	2	3	4
5.00	0.047	2,041		* Depressional			
5.50	0.054	2,333		Flatwoods			
6.00	0.060	2,624		Coastal Type			
6.50	0.067	2,916		* (Low Flatwoods & Costal Lowlands)			
7.00	0.074	3,208		Ground Storage Values reflect 25% reduction of Available Storage, to take into account compaction of native soils.			
7.50	0.086	3,739					
8.00	0.116	5,062					
8.50	0.180	7,834					
9.00	0.385	16,763					
9.50	0.590	25,693					
10.00	0.795	34,623					
10.50	1.000	43,553					

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Table 17. SITE ACREAGE INFORMATION

Input Information							Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
LAND USES	Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water							
BASIN TOTALS / AVERAGE	0.816	8.50	1.50	40.07	49.75	4.78	0.33	0.04	0.41	0.41	0.04	7.50	
1 Pool	0.039	8.50	8.50	0	0	100	0.00	0.00	0.00	0.04	0.04	0.00	0.
2 Pervious/Landscape	0.044	8.00	7.00	0	0	0	0.00	0.04	0.00	0.04	0.00	7.50	0.
3 Impervious	0.111	8.50	7.50	100	0	0	0.11	0.00	0.00	0.11	0.00	0.00	0.
4 Building	0.406	8.50	8.50	0	100	0	0.00	0.00	0.41	0.00	0.00	0.00	0.
5 Pool Deck	0.216	8.50	8.50	100	0	0	0.22	0.00	0.00	0.22	0.00	0.00	0.
6													
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BASIN SUBTOTALS / AVG	0.816	8.50	7.00	40.07	49.75	4.78	0.33	0.04	0.41	0.41	0.04	7.50	0.

Table 18. UNDERGROUND STORAGE INFORMATION

Underground Storage	Area (SF)	Top Elev	Bottom Elev	% Voids
1 Underground Storage 1				
2 Underground Storage 2				
3 Underground Storage 3				
4 Underground Storage 4				
5 Underground Storage 5				
BASIN TOTALS / AVERAGE	0.816	8.50	1.50	40.07
Basin % Imper. for Water Quality Purposes =		88.14		
Basin % Impervious (incl. Bldg., No lakes)=		94.34		

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Table 20. SOIL - STORAGE INFORMATION

Detail - Soil Storage Information

	LAND USES	Depth to Water Table	Ground Storage Under Pervious	
			Inches	Ac-Ft
	TOTAL/AVERAGE		6.75	0.02
1	Pool	0.00	0.00	0.000
2	Pervious/Landscape	6.00	6.75	0.025
3	Impervious	0.00	0.00	0.000
4	Building	0.00	0.00	0.000
5	Pool Deck	0.00	0.00	0.000
6				
7				
8				
9				
10				
11				
12				
13				
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37				
38				
39				
40				
	TOTAL/AVERAGE		6.75	0.025

Soil Storage Value (S) = Storage under pervious area / Total Area
 Soil Storage under pavement and buildings is not considered in computations

S=	0.36397059
----	------------

Project: Star Tower Hollywood
 Flood Routing Description:

Date: 06/28/2023

Client : Job Number: 13778.00
 Design Engineer :
 Project Address / Location : City: Hollywood County: Broward State: Florida
 Section/Township/Range:
 Surfacewater License:
 FEMA FIRM Information:
 Project Description:

Total Drainage Basin: 0.255 Acres

Hydrogeologic Information :

Table 1.	1 Day Storm Event			3 Day Storm Event		
	Rainfall Inches	Runoff Inches	Runoff Ac-Ft	Rainfall Inches	Runoff Inches	Runoff Ac-Ft
RAINFALL DATA						
100 Year Return Period	15.6	15.60	0.332	18.1	18.10	0.385
25 Year Return Period				13.4	13.40	0.285
10 Year Return Period	9.0	8.99	0.191	12.2	12.22	0.260
5 Year Return Period	7.4	7.37	0.157	10.0	10.02	0.213
3 Year Return Period						
5 Yr Return Period - 1 Hr	3.2	0.75	0.016			

Runoff estimation - USDA SCS formula

$$\text{Runoff (in)} Q = \frac{(P-0.2S)^2}{P+0.8S}$$

Where: P = accumulated rainfall (in.)
 S = Soil Storage Value

Table 2. SUMMARY OF FLOOD ROUTING	Agency maps	SBUH Calculated with Q-1 Day Storm		SBUH Calculated with Q-3 Day Storm		SBUH Calculated *Zero Q-3 Day Storm		Calc. 5Yr 1 hour Peak Stage (ft)
		Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	Peak Stage(ft)	Peak Q (CFS)	
100 Year Return Period		9.59	0.00	9.80	0.00	5.04	3.10	Zero Q
25 Year Return Period				9.41	0.00	4.68	2.36	(Water Budget)
10 Year Return Period		9.04	0.00	9.31	0.00	4.40	1.80	
5 Year Return Period		8.91	0.00	9.13	0.00	4.29	1.59	5.00
3 Year Return Period								

For 5 yr - 1 hr rainfall, Calculate 5 yr Vol by subtracting Exfil vol in inches from 5 yr 1 h rainfall, then calc Runoff using SCS formula. From stage storage table find Zero Discharge Stage. Uses Max. Elev of Lookup Stage or highest top of EXFIL trench. If exfil vol exceeds 5 year 1 hour vol. Uses Max. Elev of highest top of EXFIL trench.

* Zero Q indicates there is no offsite discharge included in the calculations (only Exfil Trench and Wells). Hypothetical stage calc. for PRE-POST Analysis.

Table 3. WATER QUALITY STORAGE REQUIREMENTS:	
Based on Total Drainage Basin Acreage	Ac-Ft
1" x Basin Area	0.021
2.5" x WQPI x (Basin Area) 2.50 Inches	0.045
Required Wet Detention (Total basin incl Offsite)	
0.5" Pretreatment-Com. Prjs.,x(Basin Area - water area)	0.009
Credit for Inlets in Grass Areas, GAC=0.2" x (TDA)	0.004
	N

Table 4. WATER QUALITY STORAGE SOURCE	Basin Storage Elev.	WQ Eq WDV (Ac-Ft)	WQ Eq WDV Inches
Retention (RV) @			
Dry Det. (DDV) @			
Wet Det. (WDV) @			
Equiv WDV=WDV+RV/.5+DDV/.75)		0.000	
Exfil Trench Storage	0.030	0.059	2.78
Total WQ EQ WDV - Provided		0.059	2.78
Total WQ EQ WDV - Required		0.045	2.12

Exfil Vol. in Stage Storage =

(Ac-FT)	(Inches)
0.052	2.45

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Total Drainage Basin: 0.255 Acres

Y	Y/N -Do you want to limit the Exfiltration Trench Vol. to a maximum of 3.28" over the site?
N	Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table
Y	Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.

 Water Table Elevation = 1.50 Feet
 Time of Conc. (hr.) = 0.17
 Calculated weighted soil (s) = 0.00 Soil Storage Value (S) = Storage under pervious area / Total Area
 Calculated CN value = 100.0 Soil Storage under pavement and buildings is not considered in computations

Table 16. STAGE STORAGE TABLE

Stage Elevation (feet)	Storage (Ac-ft)	Storage (CF)	Depth to water table (Ft)	Compacted Ground storage table			
				1.00	2.00	3.00	4.00
1.50	0.000	0	Ground storage(In)	0.45	1.88	4.05	6.75
2.00	0.004	189	Mean depth to ground water table (ft)=	0.00 (Pervious Area)			
2.50	0.009	378	Soil Storage Type	Ground Storage Values (In Inches)			
3.00	0.013	567	Depth to Ground Water (Ft)	1	2	3	4
3.50	0.017	756	* Depressional	0.45	1.58	3.3	5.1
4.00	0.022	945	Flatwoods	0.45	1.88	4.05	6.75
4.50	0.026	1,134	Coastal Type	0.45	1.88	4.95	8.18
5.00	0.030	1,323	* (Low Flatwoods & Costal Lowlands)				
5.50	0.035	1,512	Ground Storage Values reflect 25% reduction of Available Storage,				
6.00	0.039	1,701	to take into account compaction of native soils.				
6.50	0.043	1,890					
7.00	0.048	2,079					
7.50	0.052	2,268					
8.00	0.052	2,268					
8.50	0.052	2,268					
9.00	0.180	7,822					
9.50	0.307	13,376					
10.00	0.435	18,930					
10.50	0.562	24,483					

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client :

Job Number: 13778.00

Table 17. SITE ACREAGE INFORMATION

Input Information							Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
LAND USES	Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water							
BASIN TOTALS / AVERAGE	0.255	8.50	1.50	84.71	0.00	15.29	0.22	0.00	0.00	0.26	0.04	0.00	
1 Pool	0.039	8.50	8.50	0	0	100	0.00	0.00	0.00	0.04	0.04	0.00	0.
2 Pool Deck	0.216	8.50	8.50	100	0	0	0.22	0.00	0.00	0.22	0.00	0.00	0.
3													
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39													
BASIN SUBTOTALS / AVG	0.255	8.50	8.50	84.71	0.00	15.29	0.22	0.00	0.00	0.26	0.04	0.00	0.

Table 18. UNDERGROUND STORAGE INFORMATION

Underground Storage	Area (SF)	Top Elev	Bottom Elev	% Voids
1 Underground Storage 1				
2 Underground Storage 2				
3 Underground Storage 3				
4 Underground Storage 4				
5 Underground Storage 5				
BASIN TOTALS / AVERAGE	0.255	8.50	1.50	84.71
Basin % Imper. for Water Quality Purposes =		100.00		
Basin % Impervious (incl. Bldg., No lakes)=		100.00		

Project: Star Tower Hollywood

Date: 06/28/2023

Flood Routing Description:

Client : Job Number: 13778.00

Detail - Stage - Storage Information

Table 19. STAGE - STORAGE INFORMATION		Surface storage (Ac-Ft)												
LAND USES	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.	Elev.
	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	
Total Surface Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Underground Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exfil Trench Storage	0.000	0.004	0.009	0.013	0.017	0.022	0.026	0.030	0.035	0.039	0.043	0.048	0.052	
TOTAL Storage	0.000	0.004	0.009	0.013	0.017	0.022	0.026	0.030	0.035	0.039	0.043	0.048	0.052	
1 Pool	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2 Pool Deck	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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40														
Total Surface Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underground Storage														
	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	
1 Underground Storage 1														
2 Underground Storage 2														
3 Underground Storage 3														
4 Underground Storage 4														
5 Underground Storage 5														
Total Underground Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Exfil Trench Storage	0.000	0.004	0.009	0.013	0.017	0.022	0.026	0.030	0.035	0.039	0.043	0.048	0.052	
TOTAL Storage	0.000	0.004	0.009	0.013	0.017	0.022	0.026	0.030	0.035	0.039	0.043	0.048	0.052	
Stage Elevation	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	

Project: Star Tower Hollywood

Date: 06/28/2023

WATER QUALITY

Flood Routing Description:

Client : Job Number: 13778.00

Table 20. SOIL - STORAGE INFORMATION

Detail - Soil Storage Information

	LAND USES	Depth to Water Table	Ground Storage Under Pervious	
			Inches	Ac-Ft
	TOTAL/AVERAGE		0.00	0.00
1	Pool	0.00	0.00	0.000
2	Pool Deck	0.00	0.00	0.000
3				
4				
5				
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39				
40				
	TOTAL/AVERAGE		0.00	0.000

Soil Storage Value (S) = Storage under pervious area / Total Area
 Soil Storage under pavement and buildings is not considered in computations

S=	0
----	---

Project: Star Tower Hollywood

Date: 06/28/2023

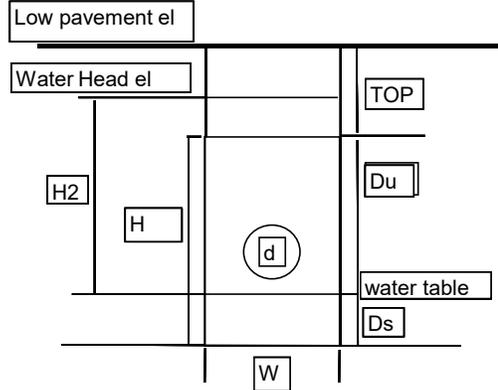
Flood Routing Description:

Client :

Job Number: 13778.00

Table 22-1 EXILTRATION TRENCH -1 INFORMATION

INPUT INFORMATION	
Trench Width (Ft) (W)	8.00
Trench Height (Ft) (H)	7.00
Diameter of Pipe (inches) (d)	18
Invert of Pipe (Ft) (IE)	1.5
Top of trench elevation	5
Low pavement elevation	7.7
Water Head elevation (Ft)	7.50
Avg. Hydraulic Conductivity (Cfs/Ft ²) (k)	3.19E-05



Length of Exfiltration trench Provided (Ft) (L)	92
Water table elevation (Ft)	1.50
Trench Data	
Depth To Top Of Trench (Ft) (TOP)	2.50
Bottom of trench elevation	-2.00
Saturated Trench Depth (Ds)	3.50
Non-Saturated Trench Depth (Du)	3.50
Depth To Water Table or Trench Bottom (Ft) (H2)	6.00
Trench Storage Begins at Higher of Water Table or Trench Bot. Elev.	1.50

- = Water head El - Top of Trench El.
- = Top of Trench El. - Trench Height (H)
- = Trench Height below water Table
- = Trench depth above water Table
- = Water head El to the water table or bottom of trench

Trench Volumes Stored & Exfiltrated in 1 hour (CF)

1 Hr. Vol by exfil SFWMD Eq.7 (Du > Ds and W < 2H) (CF)	2,576
1 Hr. Vol by exfil SFWMD Eq.8 (Du < Ds or W > 2H) (CF)	0
This Trench Volume with Safety Factor of 2 (V(trnSF))	1,288
Max. Vol allowed in Exfil (3.28" = 0.273 Ac-Ft / Ac) (Val) (CF)	3,036
Total EXFIL Vol Provided ALL EXFIL Trenches (Vtot) (CF)	1,288
Equivalent Wet Detention Vol:50% credit ALL EXFIL (Vwteq) (CF)	2,576
Total System ALL EXFIL WQ Equivalent Wet Det. Vol Provided	2,576
Total System ALL EXFIL Volume Used in Stage-Storage	2,268

Note: 3630 in Eqn. is conversion factor from (Ac-In) to (CF)-> (43560 SF/Ac)(1FT/12In)

$$V_{trn} = 3630 * L * [k * ((H2 * W) + (2 * H2 * Du) - Du^2 + (2 * H2 * Ds)) + ((1.39 * 10^{-4}) * (W * Du))] \\ V_{trnSF} = V_{trn} / (\text{Safety Factor of 2}) \\ V_{tot} = V_{design} + V_{sto} \\ V_{wteq} = V_{tot} * 2$$

0.030	Ac-Ft	0.35	Ac-In
0.070	Ac-Ft	0.84	Ac-In
0.030	Ac-Ft	0.35	Ac-In
0.059	Ac-Ft	0.71	Ac-In

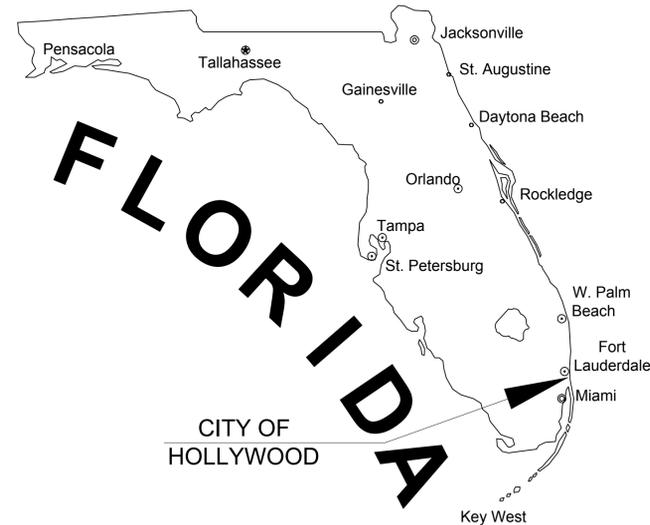
CF 0.059 Ac-Ft **NOTE: This line is Sum of all Exfiltration Trenches**
 CF 0.052 Ac-Ft **NOTE: This line is Sum of all Exfiltration Trenches**

NOTE: For Exfiltration Trench design, a factor of safety of 2 is used for WQ in all conditions (WQ vol & above WQ vol), per the "New" SFWMD formula. Select on the Stage-Storage tab, whether to use the safety factor for the Exfil trench, up to the required WQ amount, in the flood routing Stage-Storage volumes. Because of the built in safety factor of only using the trench discharge for one hour during the 72 hour storm event, some Agencies allow the use of the Exfiltration trench volume, up to the required Water Quality Volume, without a safety factor of 2, for use in storm routing calculations.

STAR TOWER HOLLYWOOD TECHNICAL ADVISORY COMMITTEE

LANDSCAPE DRAWINGS

JULY 3RD, 2023



INDEX OF SHEETS				
SHEET IDENTIFICATION	SHEET TITLE			
LANDSCAPE				
CVR-000	COVER SHEET	■	■	■
LD-101	TREE DISPOSITION PLAN	■	■	■
LH-001	GENERAL NOTES, LEGEND, & SCHEDULE	■	■	■
LH-101	HARDSCAPE PLAN	■	■	■
LH-501	HARDSCAPE DETAILS	■	■	■
LP-001	PLANTING NOTES	■	■	■
LP-101	PLANTING PLAN	■	■	■
LP-501	PLANTING DETAILS	■	■	■
LI-101	IRRIGATION PLAN	■	■	■
LI-501	IRRIGATION DETAILS	■	■	■
LL-101	EXTERIOR LIGHTING & PHOTOMETRICS PLAN	■	■	■

TAC SUBMITTAL - 07/03/2023
FINAL TAC - PRZ - 09/13/2023
FINAL TAC - PRZ - 11/02/2023

TECHNICAL ADVISORY SUBMITTAL:
JULY 3RD, 2023

TECHNICAL ADVISORY REVIEW:
JULY 17TH, 2023

FINAL TAC - PLANNING & ZONING
RESUBMITTAL:
NOVEMBER 16TH, 2023

410 N. FEDERAL HIGHWAY, HOLLYWOOD
BROWARD COUNTY, FLORIDA 33020

PREPARED FOR:
1817 TAYLOR DEVELOPMENT LLC.



PROJECT No. 13778.00
JULY 3RD, 2023

PAUL H. WEINBERG, R.L.A.
FLORIDA REG. NO. LA6666804
(FOR THE FIRM)

THESE PLANS MAY HAVE BEEN
REDUCED IN SIZE BY REPRODUCTION.
THIS MUST BE CONSIDERED WHEN
OBTAINING SCALED DATA.





301 East Atlantic Blvd.
Pompano Beach, FL 33060
PH: (954) 788-3400

Florida Engineering Business License: CA7923
Florida Surveyor and Mapper Business License: LB6860
Florida Landscape Architecture Business License: LC26000457

REVISIONS

NO.	DESCRIPTION	DATE
TAC - P&Z		09/13/2023
FINAL TAC - P&Z		11/15/2023

**PRELIMINARY PLAN
NOT FOR CONSTRUCTION**

THESE PLANS ARE NOT FULLY PERMITTED AND ARE SUBJECT TO REVISIONS MADE DURING THE PERMITTING PROCESS. RESPONSIBILITY FOR THE USE OF THESE PLANS PRIOR TO OBTAINING PERMITS FROM ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT WILL FALL SOLELY UPON THE USER.

ISSUE DATE: 06/30/2023

DESIGNED BY: CP

DRAWN BY: CP, RP

CHECKED BY: KS, PW

BID-CONTRACT:

PAUL H. WEINBERG, PLA
FLORIDA REG. NO. LA666804
(FOR THE FIRM)

CLIENT

**1817 TAYLOR
DEVELOPMENT LLC**

PROJECT

**STAR TOWER
HOLLYWOOD**

**410 N. FEDERAL HWY
HOLLYWOOD, FL
33020**

SHEET TITLE

**HARDSCAPE
PLAN**

SHEET NUMBER **LH-101**

PROJECT NUMBER **13778.00**

**QUICK REFERENCE MATERIALS
SCHEDULE**

CONCRETE

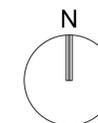
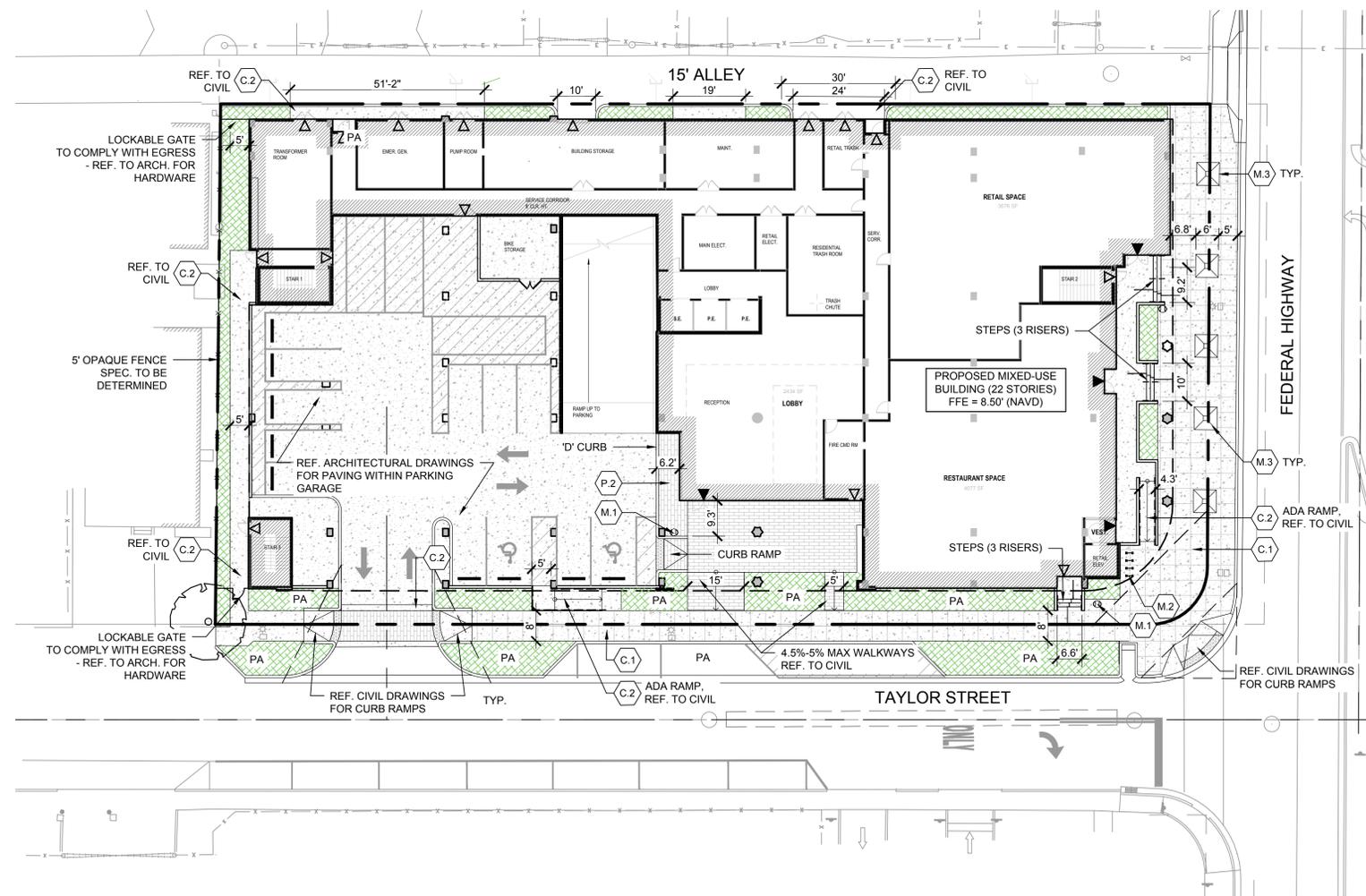
KEY	DESCRIPTION / MODEL	COLOR
C.1	CONCRETE SIDEWALKS - HAND TOOLED PICTURE FRAME JOINTS	STANDARD GREY
C.2	CONCRETE - FINISH TO BE DETERMINED	STANDARD GREY

PRECAST CONCRETE PAVERS

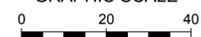
P.1	PRECAST CONCRETE PAVERS - PLANK PAVERS	TO BE DETERMINED
P.2	STAMPED ASPHALT - STREETBRICK XL - 8"x8" PAVER (PATTERNED)	PEWTER AND GRANITE

MISCELLANEOUS

M.1	LITTER RECEPTACLE - DISPATCH LITTER RECEPTACLES - 45 GALLON, SINGLE-STREAM, ONE 45 GALLON LINER	TITANIUM
M.2	BIKE RACKS - BRHS-101 BIKE RACK	ALUMINUM TEXTURE
M.3	TREE GRATE - OBLIO 6'X6' HEEL PROOF - 71.88"x71.88"x1.25"	ALUMINUM TEXTURE



GRAPHIC SCALE



SCALE: 1" = 20'

NOTE: PRINTED DRAWING SIZE
MAY HAVE CHANGED FROM
ORIGINAL. VERIFY SCALE USING
BAR SCALE ABOVE.

STATUS: PRELIMINARY

Drawing name: K13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC Landscape Architecture CA013778.00-LH-101.dwg

Plotted by: cphillips On 11/16/2023 12:29 PM

REVISIONS

NO.	DESCRIPTION	DATE
TAC - P&Z		09/13/2023
FINAL TAC - P&Z		11/15/2023

**PRELIMINARY PLAN
NOT FOR CONSTRUCTION**

THESE PLANS ARE NOT FULLY PERMITTED AND ARE SUBJECT TO REVISIONS MADE DURING THE PERMITTING PROCESS. RESPONSIBILITY FOR THE USE OF THESE PLANS PRIOR TO OBTAINING PERMITS FROM ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT WILL FALL SOLELY UPON THE USER.

ISSUE DATE: 06/30/2023

DESIGNED BY: CP

DRAWN BY: CP, RP

CHECKED BY: KS, PW

BID-CONTRACT:

PAUL H. WEINBERG, PLA
FLORIDA REG. NO. LA6666804
(FOR THE FIRM)

CLIENT

1817 TAYLOR
DEVELOPMENT LLC

PROJECT

STAR TOWER
HOLLYWOOD

410 N. FEDERAL HWY
HOLLYWOOD, FL
33020

SHEET TITLE

PLANTING PLAN

SHEET NUMBER LP-101

PROJECT NUMBER 13778.00

STAR TOWER LANDSCAPE REQUIREMENTS

PROJECT INFORMATION:		
ZONING DESIGNATION	PD	RAC
GROSS SITE AREA	50,872 SF	1.17 AC
NET SITE AREA	35,576 SF	82 AC
PERIMETER & STREET TREES*		
North Boundary - (FH-2)	N/A	0 TREES
West Boundary - (FH-2)	N/A	0 TREES
East Boundary - (Federal Hwy ROW) 1 Street tree per 30'	5 TREES	5 TREES*
South Boundary - (Taylor Street) 1 Street tree per 30' / 20 trees =	9 TREES	5 TREES*
VEHICULAR USE AREA LANDSCAPING		
25% of 356 sf	89 SF	89 SF
OPEN SPACE - TREE REQUIREMENT		
1 tree per 1,000 sf of pervious area	2 TREES	0 TREES
1,833 SF / 1,000 sf =		
NATIVE TREE REQUIREMENT		
60% of required trees to be native	8 TREES	8 TREES (100%)
50% to be low maintenance & drought tolerant	7 TREES	8 TREES (100%)
SHRUB REQUIREMENT		
10 Shrubs required per required tree	140 SHRUBS	547 SHRUBS
50% of required shrubs to be native	70 SHRUBS	318 SHRUBS (58%)
50% to be low maintenance & drought tolerant	70 SHRUBS	537 SHRUBS (98%)

TREE MITIGATION TABLE	
1	Total Palms to be removed
16	Total DBH to be removed

TREE REPLACEMENT TABLE	
Total inches required	Total inches provided
+ 16" (required for mitigation)	0" (provided for mitigation)*
Mitigation Deficiencies = 16" / 2 = 8 (2" TREES)	
8 TREES x \$350.00 = \$2,800	

TREE TRUST FUND CALCULATIONS			
	QTY:	Cost Per Tree	Subtotal Owed
Street Tree Deficiencies	4	\$350	\$1,400
Open Space Deficiencies	2	\$350	\$700
Mitigation Deficiencies	8	\$350	\$2,800
*Mitigation calculated at 1 Tree required per 2" DBH			
Total amount to be paid into Tree Trust Fund			\$4,900

PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	DBH/CAL	NATIVE	REMARKS
TREES							
QV	5	QUERCUS VIRGINIANA LIVE OAK	12' HT	6" SPR	2.5" DBH	N**	
PALMS							
BN	5	BISMARCKIA NOBILIS BISMARCK PALM	15' CT			**	
PM	3	PTYCHOSPERMA MACARTHURII MACARTHUR PALM	15' HT, MULTI TRUNK	**		**	
VM2	4	VEITCHIA ARECINA MONTGOMERY PALM	12' CT			**	DOUBLES
VM	7	VEITCHIA ARECINA MONTGOMERY PALM	12' CT			**	
SHRUBS							
ALO	3	ALCANTAREA IMPERIALIS IMPERIAL BROMELIAD	2' HT			**	
CHI	125	CHRYSOLABANUS ICACO COCOPLUM	24" HT	24" SPR	24" O.C.	N**	
LIG	2	LICUALA GRANDIS RUFFLED FAN PALM	4'-5" HT			**	SHADE GROWN
PRC	6	PHILODENDRON X 'ROJO CONGO' ROJO CONGO	24" HT	24" SPR	36" O.C.	*	
RHE	2	RHAPIS EXCELSA LADY PALM	3' HT	3" SPR		**	
SHRUB AREAS							
HPD	59	HAMELIA PATENS 'COMPATA' DWARF FIREBUSH	24" HT	24" SPR	24" O.C.	N**	
IRV	34	IRIS VIRGINICA BLUE FLAG IRIS	18" HT	18" SPR	24" OC	N**	
JAV	99	JASMINUM VOLUBILE WAX JASMINE	10" HT	16" SPR	24" O.C.	**	
PBM	117	PHILODENDRON X 'BURLE MARX' BURLE MARX	18" HT	18" SPR	24" O.C.	**	
ZAM	100	ZAMIA PUMILA COONTIE	15" HT	18" SPR	18" O.C.	N**	
GROUND COVERS							
ARA	171	ARACHIS GLABRATA PERENNIAL PEANUT	4" HT	12" SPR	12" O.C.	*	
SOD	188 SF	STENOTAPHRUM SECUNDATUM 'FLORATAM' FLORATAM ST. AUGUSTINE GRASS	N/A			*	SOLID SOD

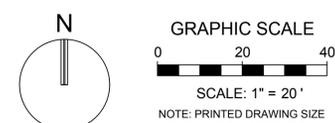
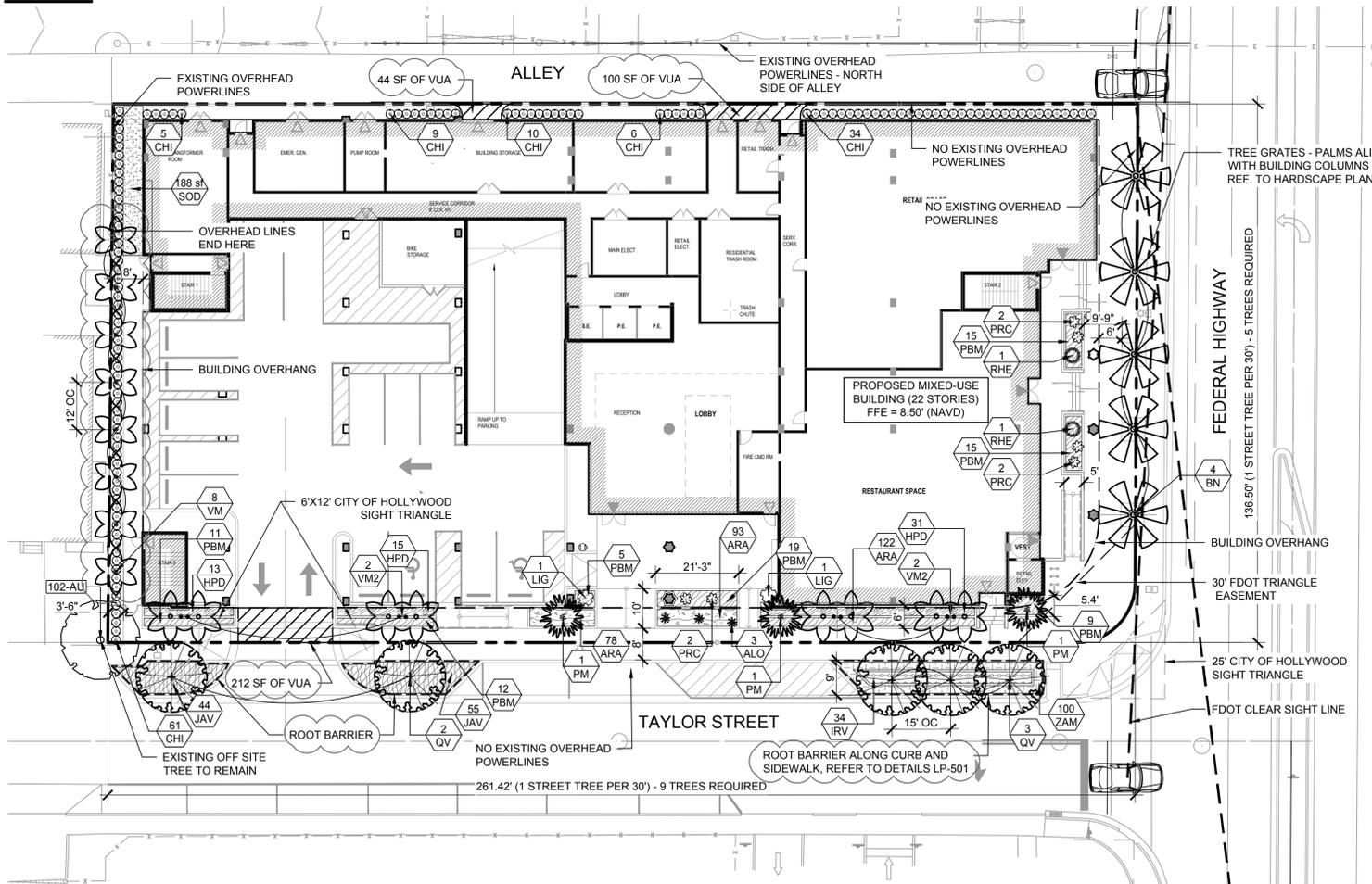
- N DENOTES NATIVE SPECIES
- ** DENOTES HIGH DROUGHT TOLERANT SPECIES
- * DENOTES MODERATE DROUGHT TOLERANT SPECIES

NOTES:

- SOD TO BE ST. AUGUSTINE 'FLORATAM', EXCEPT IN RETENTION AREAS. CONTRACTOR TO DETERMINE QUANTITY.
- ALL PLANTS TO BE FLORIDA NO. 1 OR BETTER PER FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.
- ALL SOD AND LANDSCAPE TO RECEIVE 100% COVERAGE WITH 100% OVERLAP FROM AN AUTOMATIC IRRIGATION SYSTEM USING AN APPROVED WATER SOURCE.
- BUBBLERS TO BE PROVIDED FOR NEW AND RELOCATED TREES AND PALMS.
- CONTRACTOR IS RESPONSIBLE FOR ALL CONDITIONS AND LANDSCAPE SPECIFICATION ATTACHED TO THIS PLAN AND PLANT LIST. PLAN AND SPECIFICATIONS SHALL BE CONSIDERED CONTRACT DOCUMENTS.
- PRE-CONSTRUCTION MEETING IS REQUIRED BEFORE ANY PLANT MATERIAL IS INSTALLED ON SITE.
- ALL ROAD ROCK, CONCRETE, ASPHALT AND OTHER NON-NATURAL MATERIAL BE REMOVED AND BE REPLACED WITH PLANTING SOIL PRIOR TO LANDSCAPE INSTALLATION.
- NO TRENCING ALLOWED WITHIN ROOT ZONES OF EXISTING TREES.
- ALL CATEGORY 1 INVASIVE/EXOTIC TREES TO BE REMOVED PER LOCAL ORDINANCE.

ADDITIONAL CITY OF HOLLYWOOD NOTES:

- NO TREE REMOVAL OR PLANTING ALLOWED UNTIL SUB-PERMITS ARE FULLY APPROVED BY CITY.
- NO LANDSCAPE SUBSTITUTIONS SHALL BE MADE WITHOUT THE CITY OF HOLLYWOOD APPROVAL.
- NO CYPRESS MULCH IS TO BE USED ON SITE. PROVIDE EUCALYPTUS OR MELALEUCA MULCH IN 3" CONSISTENT LATER IN ALL PLANTING BEDS. REFER TO NOTE T.4 ON SHEET LP-001.
- ALL ABOVE GROUND UTILITY EQUIPMENT SHALL BE SCREEN WITH PLANTING AT EQUIPMENT HEIGHT AT MINIMUM 36" HEIGHT. SIMILAR OR CONFLICTING NOTES MAY OCCUR ON SHEET LP-001. NOTED HEREIN AS CITY OF HOLLYWOOD REQUIREMENTS ARE TO PREVAIL.



Plotted by: cphillips On: 11/16/2023 8:39 AM

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STATUS: PRELIMINARY



301 East Atlantic Blvd.
Pompano Beach, FL 33060
PH: (954) 788-3400

Florida Engineering Business License: CA7923
Florida Surveyor and Mapper Business License: LB6660
Florida Landscape Architecture Business License: LC26000457

REVISIONS

NO.	DESCRIPTION	DATE
TAC - P&Z		09/13/2023
FINAL TAC - P&Z		11/15/2023

**PRELIMINARY PLAN
NOT FOR CONSTRUCTION**

THESE PLANS ARE NOT FULLY PERMITTED AND ARE SUBJECT TO REVISIONS MADE DURING THE PERMITTING PROCESS. RESPONSIBILITY FOR THE USE OF THESE PLANS PRIOR TO OBTAINING PERMITS FROM ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT WILL FALL SOLELY UPON THE USER.

ISSUE DATE: 06/30/2023

DESIGNED BY: CP

DRAWN BY: CP, RP

CHECKED BY: KS, PW

BID-CONTRACT:

PAUL H. WEINBERG, PLA
FLORIDA REG. NO. LA666804
(FOR THE FIRM)

CLIENT

1817 TAYLOR
DEVELOPMENT LLC

PROJECT
STAR TOWER
HOLLYWOOD

410 N. FEDERAL HWY
HOLLYWOOD, FL
33020

SHEET TITLE

EXTERIOR LIGHTING &
PHOTOMETRICS PLAN

SHEET NUMBER LL-101

PROJECT NUMBER 13778.00

Plotted by: cphillips On 11/16/2023 12:32 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CA\13778.00-LL-101.dwg

STATUS: PRELIMINARY

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
EASTERN RAMP_Planar	8.62	10.9	6.4	1.35	1.70
EASTERN TERRACE_Top	7.47	13.9	4.2	1.78	3.31
ENTRY PLAZA	6.86	11.0	0.9	7.62	12.22
GARAGE L1	3.89	13.8	0.9	4.32	15.33
NORTHWEST EGRESS	3.42	7.4	1.3	2.63	5.69
SHOUTHWEST EGRESS	4.57	8.0	1.3	3.52	6.15
SIDEWALK	2.04	5.2	0.1	20.40	52.00
SOUTH WEST GARAGE RAMP	2.60	4.4	1.6	1.63	2.75
NORTH EASTERN STAIR	9.51	15.1	4.9	1.94	3.08
ON STREET PARKING	1.44	2.1	0.3	4.80	7.00
SOUTH EASTERN RAMP	8.00	10.9	4.2	1.90	2.60
SOUTH EASTERN STAIR	9.40	13.8	5.3	1.77	2.60
SOUTH STAIR	4.85	5.4	4.4	1.10	1.23

Luminaire Schedule						
Symbol	Qty	Label	Description	Lum. Watts	Total Watts	LLF
	7	B1	LANDSCAPE FORMS BW101-T4-30K-LV1	8.0059	56.041	0.900
	7	G1	BEGHELLI BS400LEDHTHOWT30120-277V	60	420	1.000
	17	HR	WAGNER LULRxx30KA3	2.89	49.13	1.000
	4	P1	LANDSCAPE FORMS AC-048L3-035F-30K	57.28	229.12	0.900

- NOTES:
- THE MAXIMUM LIGHT LEVEL ALONG THE NORTHERN AND WESTERN PROPERTY LINES IS TO BE 0.5 FOOT-CANDLE
 - SITE LIGHTING IDENTIFIED HERE IS FOR FIXTURE SPECIFICATION AND LOCATION ONLY. ELECTRICAL ENGINEER TO PROVIDE ALL ELECTRICAL REQUIREMENTS INCLUDING CIRCUITRY.

