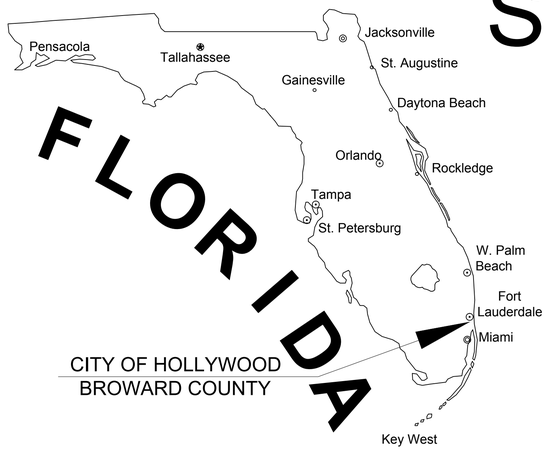
STAR TOWER HOLLYWOOD

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

SITE LOCATION

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

INDEX OF SHEETS	
SHEET IDENTIFICATON	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	DEMOLITON 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

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.

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

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PROJECT No. 13778.00
11/16/2023

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

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cad\13778.00 GI-000.dwg Layout Name: GI-000-GEN Plotted by: castello Plotted on: Nov 16, 2023 - 2:52pm

GENERAL SYMBOLS

SYMBOL	DESCRIPTION
A / CP-301	PROPOSED SECTION MARKER INDICATING THE SECTION LETTER AND THE SHEET ON WHICH THE SECTION VIEW APPEARS.
22 / C-05	DETAIL REFERENCE CALL OUT INDICATING THE DETAIL NUMBER AND THE SHEET ON WHICH THE DETAIL VIEW APPEARS.
1	REVISION TRIANGLE NUMBER
	MISC BREAK LINES
PIC#	PHOTO LOCATION AND CORRESPONDING PICTURE NUMBER.
N: 623025.4322 E: 850262.1786	COORDINATE VALUES SHOWN ON PROPOSED IMPROVEMENTS ARE RELATIVE TO THE COORDINATE VALUES INDICATED ON THE RIGHT-OF-WAY, PROPERTY CORNERS OR REFERENCE MONUMENT

GEN SITE & PMS

SYMBOL	DESCRIPTION
	PAVEMENT MARKING ARROWS
	STOP BAR
	ADA PARKING
	CONCRETE CAR STOP
	BICYCLE
	BICYCLE RACK
	AUTOMOBILE
	POST MOUNTED SIGNS 1,2, DOUBLE POST & 4 WAY
33	PARKING SPACE NUMBER
BL CL PL EL ML	BASELINE, CENTER, PROPERTY, FLOW & MONUMENT LINE
	BUILDING ACCESS (ADA) / (NON-ADA)

PAVING & GRADING

SYMBOL	DESCRIPTION
0.04% 0.04%	FLOW DIRECTIONAL ARROW
6"	ELEVATION CHANGE
5.00 5.00	MAJOR / MINOR CONTOUR ELEVATION
13.56	GRADE ELEVATION
13.56 / 22.00	TOP OF CURB / PAVEMENT ELEVATION
MEG	MATCH EXISTING GRADE
	SLOPE BANK
A-1 24'	DRIVEWAY TURNOUT IDENTIFICATION (FDOT INDEX 522-003) W/ DRIVE WIDTH
CR-?	SIDEWALK CURB RAMP (PER FDOT INDEX 522-002)
	SEAWALL

UTILITY PIPES

SYMBOL	DESCRIPTION
	PIPE FITTINGS: TEE, 90, 45, 22.5, 11.2, CAP,
	CAP W/FVO, REDUCER, VERTICAL, PLUG
	VALVES: GATE, BUTTERFLY, DOUBLE BTRFLY, BFP, DDCV, VACUUM BREAKER
MBO ABO ARV	MAN/AUTO BLOWOFF, ARV, PIV, FLUSH VLV, CORP STOP
SP# HYD FDC WW	SAMPLE PNT, HYDRANT, FDC, WATER WELL
	TAPPING SADDLE
SD	EXFILTRATION TRENCH
W	PIPE CASING
V	VENT PIPE BOX
C-X 22	UTILITY CROSSING

HATCH PATTERNS

SYM	DESCRIPTION	SYM	DESCRIPTION
	CONCRETE AREA		BRICK PAVERS
	JOGGING PATH		SOIL TRACKING PREVENTION DEVICE
	PAVEMENT AREA		SAND (DETAIL / ELEVATION)
	BUILDING HATCH		EARTH (DETAIL / ELEVATION)
	MILLING AND RESURFACING		GRAVEL (DETAIL / ELEVATION)
	DETECTABLE WARNING PER FLORIDA CODE		GRASS AREA
	DEMOLITION AREA		ADA STRIPING

UTILITY STRUCTURES

SYMBOL	DESCRIPTION
DB	FDOT C,D,E,F,G & FABRIC CATCH BASIN
CB MH SS	NON-FDOT ROUND CB'S & MANHOLES, MDC STRUCTURE
	FDOT CURB INLETS TYPE1-TYPE10
	TRENCH DRAIN
	PIPE CULVERT - MITERED END SECTION
	STRAIGHT ENDWALL
PS#	PUMP STATION LOCATION AND NUMBER
	GREASE TRAP SINGLE AND DOUBLE
	SEPTIC TANK
	SEPTIC DRAIN FIELD
	DRAINAGE WELL, DRAIN C.B., CONTROL STRUCTURE
	MONITORING WELL
	WATER WELL
M	METER BOX WATER AND IRRIGATION
	YARD DRAIN / 9" DECK DRAIN ROUND & SQUARE
CO CO	CLEAN OUT 6", 4" & BOX
22	STORM STRUCTURE TABLE REFERENCE NUMBER
22	SEWER STRUCTURE TABLE REFERENCE NUMBER

XX CONST. 4' Ø MAS RIM EL. = 10.00 N INV. EL. = 4.00 - XX" DIP E INV. EL. = 4.00 - XX" DIP S INV. EL. = 4.00 - XX" DIP W INV. EL. = 4.00 - XX" DIP	SEWER STRUCTURE CALLOUT (SHOWN AS A CIRCLE CIRCUMSCRIBING THE STRUCTURE NUMBER.)	INDICATES STRUCTURE NUMBER, STATION & OFFSET, STRUCTURE SIZE & TYPE, RIM/GRATE ELEVATION, PIPE INVERT ELEVATIONS & DIRECTION, PIPE SIZE & MATERIAL AS WELL AS ANY SPECIAL NOTES.
XX CONST. 4' Ø CB RIM EL. = 10.50 (N) INV. EL. = 4.50 - XX" HDPE (E) INV. EL. = 4.50 - XX" HDPE (S) INV. EL. = 4.50 - XX" HDPE (W) INV. EL. = 4.50 - XX" HDPE	STORM STRUCTURE CALLOUT (SHOWN AS A HEXAGON CIRCUMSCRIBING THE STRUCTURE NUMBER.)	

LINE TYPES

PROPOSED UTILITIES	
W	WATER LINE
SAN	SANITARY SEWER
FM	FORCE MAIN
LFM	LOW PRESSURE FM
SD	STORM DRAIN
PSD	PRESSURE STORM
IRR	IRRIGATION
RAW	RAW WATER
RCW	RECLAIMED WATER
G	GAS LINE

PAVEMENT MARKING	
	STRIPE SKIP 2-4
	STRIPE SKIP 3-9
	STRIPE SKIP 6-10
	STRIPE SKIP 10-30
	STRIPE SKIP 10-10-20
	STRIPE SKIP 2-2-2

GENERAL SITE	
	DEMOLITION
	TURBIDITY BARRIER
	PARKING STRIPING (SINGLE)
	FIRE TRUCK PATH
	SIGHT TRIANGLE
	BUILDING FOOTPRINT
	VEHICLE OVERHANG
O	CONSTRUCTION LIMITS
SF SF	SILT FENCE
SSF	SUPER SILT FENCE
	PARKING STRIPING (DOUBLE)

TOPO	
	BREAKLINE
	MAJOR CONTOUR
	MINOR CONTOUR
	TOP OF BANK
	TOE OF SLOPE
	EDGE OF WATER
CLS CLS	CENTERLINE OF SWALE

PROPOSED ENCUMBRANCES	
	PROPERTY LINE
	ROW LINE
	BUILDING SETBACK LINE
	BUFFER LINE
	EASEMENT LINE

DESCRIPTION	ABBREVIATION
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL
BIT.	BITUMINOUS
BC	BACK OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DDCV	DOUBLE DETECTOR CHECK VALVE
DDCVA	DOUBLE DETECTOR CHECK VALVE ASSEMBLY
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWY	DRIVEWAY
ELEV (OR EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WATER
EXIST (OR EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDC	FIRE DEPARTMENT CONNECTION
FDN.	FOUNDATION
FH	FIRE HYDRANT
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MEG	MATCH EXISTING GRADE
MH	MANHOLE
MIN	MINIMUM
NIC	NOT IN CONTRACT

DESCRIPTION	ABBREVIATION
NO.	NO. NUMBER
O/S or OFF	O/S or OFF OFFSET
PB	PB PLAT BOOK
PC	PC POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
RSGV	RESILIENT SEAT GATE VALVE
RT	RIGHT
R/W	RIGHT OF WAY
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOB	TOP OF BANK
TOS	TOP OF SLOPE
TSV	TAPPING SLEEVE AND VALVE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

LINE WEIGHTS

EXISTING	SHADED LINES & TEXT DENOTE EXISTING EQUIPMENT AND STRUCTURES.
FUTURE	NON-SHADED DASHED LINES & TEXT DENOTE FUTURE EQUIPMENT, STRUCTURES AND WORK.
PROPOSED / CONSTRUCT	NON-SHADED, BOLD, SOLID LINES & TEXT DENOTE PROPOSED EQUIPMENT, STRUCTURES AND WORK.

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

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

REVISIONS

NO.	DESCRIPTION	DATE

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

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 GI-0XX.dwg

STATUS: PRELIMINARY

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 FENCING TO SECURE CONSTRUCTION AREAS AT ALL TIMES, COST INCLUDED IN MOBILIZATION.

6.3. CONTRACTOR TO OBTAIN A SECURE STAGING AREA AND OBTAIN ALL NECESSARY APPROVALS FROM THE OWNER.

6.4. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN TEMPORARY LIGHTING AS REQUIRED TO LIGHT THE CONSTRUCTION PROJECT LIMITS AT ALL TIMES, TO AT LEAST THE SAME LIGHTING INTENSITY LEVELS AS THE EXISTING CONDITIONS.

6.5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES AT ALL TIMES.

7. PROJECT PROGRESS AND CLOSEOUT

7.1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE BROOM SWEPT CLEAN.

7.2. THE CONTRACTOR SHALL RESTORE OR REPLACE ANY PUBLIC OR PRIVATE PROPERTY (SUCH AS HIGHWAY, DRIVEWAY, WALKWAY, AND LANDSCAPING), DAMAGED BY HIS WORK, EQUIPMENT, OR EMPLOYEES, TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF CONSTRUCTION. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.

7.3. MATERIAL OR DEBRIS SHALL BE HAULED IN ACCORDANCE WITH NPDES PERMIT AND JURISDICTIONAL LAWS.

7.4. ALL LAND SURVEY PROPERTY MONUMENTS OR PERMANENT REFERENCE MARKERS, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

7.5. ALL UNPAVED SURFACES DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE GRADED, SODDED, & RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED BEFORE THE CONSTRUCTION.

8. PROJECT RECORD DOCUMENTS:

8.1. DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE LOCATION, LENGTH, MATERIAL AND ELEVATION OF ANY FACILITY NOT BUILT ACCORDING TO PLANS. THIS COPY OF THE "AS-BUILT" SHALL BE SUBMITTED TO ENGINEER FOR PROJECT RECORD.

8.2. UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND LIMEROCK BASE CONSTRUCTION (AT LEAST 48 HOURS BEFORE PLACING ASPHALT PAVEMENT) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD "AS-BUILT" PLANS FOR THESE IMPROVEMENTS, SHOWING THE LOCATIONS AND PERTINENT GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROCK GRADES OF THE ROAD CROWN AND EDGES OF PAVEMENT AT 50 FOOT INTERVALS, INCLUDING LOCATIONS AND ELEVATIONS OF ALL HIGH AND LOW POINTS.

8.3. UPON COMPLETION OF CONSTRUCTION, AND PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF ALL "AS-BUILT" CONTRACT DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES, DIMENSIONS, LOCATIONS, AND ELEVATIONS OF ALL IMPROVEMENTS.

8.4. "AS-BUILT" DRAWINGS OF WATER LINES AND FORCE MAINS SHALL INCLUDE THE FOLLOWING INFORMATION:

8.4.1. TOP OF PIPE ELEVATIONS EVERY 100 LF.

8.4.2. LOCATIONS AND ELEVATIONS OF ALL FITTINGS INCLUDING BENDS, TEES, GATE VALVES, DOUBLE DETECTOR CHECK VALVES, FIRE HYDRANTS, AND APPURTENANCES.

8.4.3. ALL CONNECTIONS TO EXISTING LINES.

8.4.4. ENDS OF ALL WATER SERVICES AT THE BUILDINGS WHERE THE WATER SERVICE TERMINATES.

8.5. "AS-BUILT" DRAWINGS OF GRAVITY SANITARY SEWER LINES SHALL INCLUDE THE FOLLOWING INFORMATION:

8.5.1. RIM ELEVATIONS, INVERT ELEVATIONS, LENGTH OF PIPING BETWEEN STRUCTURES, AND SLOPES.

8.5.2. THE STUB ENDS AND CLEANOUTS OF ALL SEWER LATERALS SHALL BE LOCATED HORIZONTALLY AND VERTICALLY.

8.6. "AS-BUILT" DRAWINGS OF ALL DRAINAGE LINES SHALL INCLUDE THE FOLLOWING INFORMATION:

8.6.1. RIM ELEVATION, INVERT ELEVATION, LENGTH OF PIPING BETWEEN STRUCTURES, AND CONTROL STRUCTURE ELEVATIONS IF APPLICABLE.

8.6.2. THE SIZE OF THE LINES.

8.6.3. DRAINAGE WELL STRUCTURE SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP OF CASING ELEVATION, TOP AND BOTTOM ELEVATIONS OF THE STRUCTURE AND BAFFLE WALLS, RIM ELEVATIONS AND PIPE INVERTS.

8.7. "AS-BUILT" DRAWINGS OF CONSTRUCTION AREAS SHALL INCLUDE THE FOLLOWING:

8.7.1. ROCK ELEVATIONS AT ALL HIGH, AND LOW POINTS, AND AT ENOUGH INTERMEDIATE POINTS TO CONFIRM SLOPE CONSISTENCY.

8.7.2. ROCK ELEVATIONS AND CONCRETE BASE ELEVATIONS SHALL BE TAKEN AT ALL LOCATIONS WHERE THERE IS A FINISH GRADE ELEVATION SHOWN ON THE DESIGN PLANS.

8.7.3. ALL CATCH BASIN AND MANHOLE RIM ELEVATIONS.

8.7.4. FINISH GRADE ELEVATIONS IN ISLAND AREAS.

8.7.5. "AS-BUILT" ELEVATIONS SHALL BE TAKEN ON ALL PAVED AND UNPAVED SWALES, AT ENOUGH INTERMEDIATE POINTS TO CONFIRM SLOPE CONSISTENCY AND CONFORMANCE TO THE PLAN DETAILS.

8.7.6. LAKE AND CANAL BANK "AS-BUILT" DRAWINGS SHALL INCLUDE A KEY SHEET OF THE LAKE FOR THE LOCATION OF CROSS SECTIONS. LAKE AND CANAL BANK CROSS SECTIONS SHALL BE PLOTTED AT A MINIMUM OF EVERY 100 LF, UNLESS OTHERWISE SPECIFIED. "AS-BUILT" DRAWINGS SHALL CONSIST OF THE LOCATION AND ELEVATION OF THE TOP OF BANK, EDGE OF WATER, AND THE DEEP CUT LINE, WITH THE DISTANCE BETWEEN EACH SHOWN ON THE DRAWING.

8.7.7. RETENTION AREA "AS-BUILT" ELEVATIONS SHALL BE TAKEN AT THE BOTTOM OF THE RETENTION AREA AND AT THE TOP OF BANK. IF THERE ARE CONTOURS INDICATED ON THE DESIGN PLANS, THEN THEY SHALL BE INCLUDED IN "AS-BUILT" DRAWINGS AS WELL.

8.8. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PREPARE "AS-BUILT" DRAWINGS ON FULL SIZE, 24" X 36" SHEETS. ALL "AS-BUILT" INFORMATION SHALL BE PUT ON THE LATEST ENGINEERING DRAWINGS. EIGHT (8) SETS OF BLUE OR BLACK LINE DRAWINGS SHALL BE SUBMITTED. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

8.9. AN ELECTRONIC COPY OF THESE "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD IN AUTOCAD, VERSION 2008 OR LATER.

9. UTILITY NOTES

9.1. CONTRACTOR IS RESPONSIBLE FOR UTILITY VERIFICATION PRIOR TO FABRICATION.

9.2. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES FROM THE UTILITY COMPANIES.

9.3. THE CONTRACTOR SHALL USE HAND DIGGING WHEN EXCAVATING NEAR EXISTING UTILITIES. EXTREME CAUTION SHALL BE EXERCISED BY THE CONTRACTOR WHILE EXCAVATING, INSTALLING, BACKFILLING OR COMPACTING AROUND THE UTILITIES.

9.4. THE CONTRACTOR SHALL NOTIFY AND OBTAIN AN UNDERGROUND CLEARANCE FROM ALL UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AT LEAST 48 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN A SUNSHINE811.COM CERTIFICATION CLEARANCE NUMBER AND FIELD MARKINGS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

- PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553.851 FOR THE PROTECTION OF UNDERGROUND GAS PIPELINES.

9.5 FOR STREET EXCAVATION OR CLOSING OR FOR ALTERATION OF ACCESS TO PUBLIC OR PRIVATE PROPERTY, THE CONTRACTOR SHALL NOTIFY:

- ROADWAY JURISDICTIONAL ENGINEERING / PUBLIC WORKS AUTHORITY.
- COUNTY TRANSIT AUTHORITY
- SCHOOL BOARD TRANSPORTATION AUTHORITY
- JURISDICTIONAL FIRE DEPARTMENT DISPATCH
- JURISDICTIONAL POLICE DEPARTMENT(S)

9.6 THE CONTRACTOR SHALL USE EXTREME CAUTION WORKING UNDER, OVER, AND AROUND EXISTING ELECTRIC LINES. THE CONTRACTOR SHALL CONTACT THE ELECTRIC PROVIDER COMPANY TO VERIFY LOCATIONS, VOLTAGE, AND REQUIRED CLEARANCES, ONSITE, IN RIGHT-OF-WAYS, AND IN EASEMENTS, PRIOR TO ANY CONSTRUCTION IN THE VICINITY OF EXISTING LINES.

9.7 LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY (FACILITIES) AS SHOWN ON CONSTRUCTION DRAWINGS ARE DRAWN FROM AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FACILITIES SHOWN OR FOR ANY FACILITY NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION (VERTICAL & HORIZONTAL) OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE ELEVATIONS AND LOCATIONS OF ALL EXISTING FACILITIES, IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. IF AN EXISTING FACILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE CONFLICT.

9.8 THE CONTRACTOR SHALL COORDINATE THE WORK WITH OTHER CONTRACTORS IN THE AREA AND ANY OTHER UNDERGROUND UTILITY COMPANIES REQUIRED. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING UTILITIES WITH APPLICABLE UTILITY COMPANIES.

10. SIGNING AND PAVEMENT MARKINGS

10.1. ALL SIGNING AND PAVEMENT MARKINGS INSTALLED AS PART OF THESE PLANS SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), COUNTY TRAFFIC DESIGN STANDARDS AND FDOT DESIGN STANDARDS AS A MINIMUM CRITERIA.

10.2. MATCH EXISTING PAVEMENT MARKINGS AT THE LIMITS OF CONSTRUCTION.

10.3. REMOVAL OF THE EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY WATER BLASTING OR OTHER APPROVED METHODS DETERMINED BY THE ENGINEER.

10.4. INCORRECTLY PLACED PAINT OR THERMOPLASTIC PAVEMENT MARKINGS OVER FRICTION COURSE WILL BE REMOVED BY MILLING AND REPLACING THE FRICTION COURSE A MINIMUM WIDTH OF 18 IN AT THE CONTRACTOR'S EXPENSE. THE ENGINEER MAY APPROVE AN ALTERNATIVE METHOD IF IT CAN BE DEMONSTRATED TO COMPLETELY REMOVE THE MARKINGS WITHOUT DAMAGING THE ASPHALT.

10.5. PLACE ALL RETRO-REFLECTIVE PAVEMENT MARKERS IN ACCORDANCE WITH FDOT STANDARD INDEX 706-001 AND / OR AS SHOWN IN THE PLANS.

10.6. CAUTION SHOULD BE EXERCISED WHILE RELOCATING EXISTING SIGNS TO PREVENT UNNECESSARY DAMAGE TO SIGNS. IF THE SIGN IS DAMAGED BEYOND USE, AS DETERMINED BY THE ENGINEER, SIGNS SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

10.7. ALL EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE REMOVED, STOCKPILED, AND RELOCATED BY THE CONTRACTOR. SIGN REMOVAL SHALL BE DIRECTED BY THE ENGINEER.

10.8. RELOCATED SIGN SUPPORT SYSTEM MUST MEET THE CURRENT DESIGN STANDARD.

10.9. THE CONTRACTOR SHALL PROVIDE AN INVENTORY OF EXISTING SIGNS TO REMAIN OR TO BE RELOCATED PRIOR TO STARTING THE JOB AND FORWARD THIS LIST TO THE ENGINEER. CONTRACTOR SHALL NOTIFY IF THERE ARE ANY MISSING OR DAMAGE SIGNS THAT THE PLANS SHOW TO REMAIN OR TO BE RELOCATED.

10.10. ALL ROADWAY PAVEMENT MARKINGS SHALL BE THERMOPLASTIC IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 711.

10.11. HAND DIG THE FIRST FOUR FEET OF SIGN FOUNDATION.

10.12. ALL SIGNS SHALL MEET ALL OF THE FOLLOWING:

- MEET THE CRITERIA OUTLINED IN SECTION 2A.08 OF THE 2009 MUTCD
- MEET THE SPECIFICATIONS OUTLINED IN SECTION 700 AND 994 OF THE LATEST FDOT STANDARD SPECIFICATIONS.
- CONSIST OF MATERIALS CERTIFIED TO MEET THE RETROREFLECTIVE SHEETING REQUIREMENTS OUTLINED IN THE CURRENT VERSION OF ASTM D4956 FOR TYPE-XI RETROREFLECTIVE SHEETING MATERIALS MADE WITH PRISIMS, EXCEPT FOR SCHOOL ZONE AND PEDESTRIAN SIGNS WHICH SHALL BE COMPRISED OF RETROREFLECTIVE FLUORESCENT YELLOW-GREEN SHEETING CERTIFIED TO MEET ASTM D4956 TYPE IV RETROREFLECTIVE SHEETING MATERIALS.
- CONSIST OF RETROREFLECTIVE SHEETING MATERIALS THAT HAVE A VALID FDOT APPROVED PRODUCT LIST (APL) CERTIFICATION FOR SPECIFICATION 700 HIGHWAY SIGNING FOR FDOT SHEETING TYPE XI (OR TYPE IV FOR SCHOOL AND PEDESTRIAN SIGNS).

10.13 PATCH ATTACHMENT HARDWARE, SUCH AS COUNTERSUNK SCREWS OR RIVET HEADS, WITH RETRO REFLECTIVE BUTTONS THAT MATCH THE COLOR AND SHEETING MATERIAL OF THE FINISHED SIG

CONSTRUCTION SPECIFICATIONS

SECTION 20 - GENERAL SPECIFICATIONS PAVING GRADING DRAINAGE AND EARTHWORK

20.GENERAL

20.1. IT IS THE INTENT OF THESE SPECIFICATIONS TO DESCRIBE THE MINIMUM ACCEPTABLE TECHNICAL REQUIREMENTS FOR THE MATERIALS AND WORKMANSHIP FOR CONSTRUCTION OF SITE IMPROVEMENTS FOR THIS PROJECT. SUCH IMPROVEMENTS MAY GENERALLY INCLUDE, BUT NOT TO BE LIMITED TO, CLEARING, GRADING, PAVING, REMOVAL OF EXISTING PAVEMENT STORM DRAINAGE, WATER LINES AND SANITARY SEWERS.

20.2. IT IS THE INTENT THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION: (CURRENT EDITION) TOGETHER WITH "SUPPLEMENTAL SPECIFICATIONS TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (CURRENT EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (CURRENT EDITION) BE USED WHERE APPLICABLE FOR THE VARIOUS WORK, AND THAT WHERE SUCH WORDING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORDING IS INTENDED TO BE REPLACED WITH THE WORDING WHICH WOULD PROVIDE PROPER TERMINOLOGY; THEREBY MAKING SUCH "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" TOGETHER WITH THE "FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS" AS THE "STANDARD SPECIFICATIONS" FOR THIS PROJECT. IF WITHIN A PARTICULAR SECTION, ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE PART OF THE STANDARD SPECIFICATIONS ALSO. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL AND STATE LAWS, REGULATIONS AND BUILDING CODES WHICH HAVE JURISDICTION IN THE AREA.

20.3. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT AND PERFORM ALL OPERATIONS REQUIRED TO COMPLETE THE CONSTRUCTION OF A PAVING AND DRAINAGE SYSTEM AS SHOWN ON THE PLANS, SPECIFIED HEREIN, OR BOTH. IT IS THE INTENT TO PROVIDE A COMPLETE AND OPERATING FACILITY IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE CONSTRUCTION DRAWINGS. THE MATERIAL AND EQUIPMENT SHOWN OR SPECIFIED SHALL NOT BE TAKEN TO EXCLUDE ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.

20.4. ALL LABOR, MATERIALS, AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE PLANS AND CONSTRUCTION SPECIFICATIONS AND THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY THE UNIT OF GOVERNMENT WHICH HAS JURISDICTION AND RESPONSIBILITY FOR THE CONSTRUCTION. WHERE CONFLICTS OR OMISSIONS EXIST, THE JURISDICTIONAL GOVERNMENT ENGINEERING DEPARTMENT'S STANDARDS SHALL GOVERN. SUBSTITUTIONS AND DEVIATIONS FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.

20.5. GUARANTEE - ALL MATERIALS AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT, SHALL BE GUARANTEED FOR A PERIOD OF (L) ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE THEREOF, AGAINST DEFECTIVE MATERIALS, DESIGN AND WORKMANSHIP, UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE GUARANTEED EQUIPMENT OR MATERIALS, DURING THE GUARANTEE PERIOD, THE AFFECTED PART OR MATERIALS SHALL BE REPLACED PROMPTLY WITH NEW PARTS OR MATERIALS BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER. IN THE EVENT THE CONTRACTOR FAILS TO MAKE NECESSARY REPLACEMENT OR REPAIRS WITHIN (7) SEVEN DAYS AFTER NOTIFICATION BY THE OWNER, THE OWNER MAY ACCOMPLISH THE WORK AT THE EXPENSE OF THE CONTRACTOR.

21. EARTHWORK

21.1. ALL AREAS WITHIN THE PROJECT LIMITS SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTIONS RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF 1'. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 110 OF THE STANDARD SPECIFICATIONS.

21.2. NONE OF THE EXISTING LIMEROCK MATERIAL FROM DEMOLISHED PAVEMENT IS TO BE INCORPORATED IN THE NEW LIMEROCK BASE, UNLESS NOTED IN PLANS. THE EXISTING LIMEROCK MATERIAL FROM DEMOLISHED PAVEMENT MAY BE INCORPORATED INTO THE STABILIZED SUBGRADE / SUBBASE, OR STABILIZED SHOULDER.

21.3. FILL MATERIAL SHALL BE CLASSIFIED AS A-L, A-3, OR A-2-4 IN ACCORDANCE WITH AASHTO M-145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL. NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.

21.4. ALL FILL MATERIAL IN AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

21.5. ALL MATERIAL OF CONSTRUCTION SHALL BE SUBJECT TO INSPECTION AND TESTING TO ESTABLISH CONFORMANCE WITH THE SPECIFICATIONS AND SUITABLY FOR THE USES INTENDED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO THE TIME HE WILL BE READY FOR AN INSPECTION OR TEST. THE CONTRACTOR SHALL FOLLOW CITY AND COUNTY INSPECTION PROCEDURES. THE CONTRACTOR SHALL NOT PROCEED WITH ANY PHASE OF WORK DEPENDENT ON AN INSPECTION OR TEST OF AN EARLIER PHASE OF WORK, PRIOR TO THAT TEST OR INSPECTION PASSING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND LIMEROCK, UTILITIES, EXCAVATION, ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.

21.6. WHEN MUCK, CLAY, ROCK, OR ANY OTHER MATERIAL THAT IS UNSUITABLE IN ITS ORIGINAL POSITION ARE ENCOUNTERED BENEATH PROPOSED PAVEMENT AND SIDEWALK AREAS, THE UNSUITABLE MATERIALS SHALL BE COMPLETELY REMOVED FROM BENEATH THE PAVEMENT AND SIDEWALK AREAS AND (10) TEN FEET BEYOND THE EDGE OF PAVEMENT. ALL SUCH UNSUITABLE MATERIAL REMOVED BY THE SUBSOIL EXCAVATION, SHALL BE REPLACED WITH ACCEPTABLE EMBANKMENT MATERIAL, AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

21.7. WHEN MUCK, CLAY,HARDPAN OR ANY OTHER MATERIAL THAT IS UNSUITABLE IN ITS ORIGINAL POSITION, ARE ENCOUNTERED BENEATH PROPOSED DRAINAGE SWALES OR DRY RETENTION AREAS, THE UNSUITABLE MATERIALS SHALL BE COMPLETELY REMOVED FROM BENEATH THE DRAINAGE SWALES AND DRY RETENTION AREAS. ALL SUCH UNSUITABLE MATERIAL REMOVED BY THE SUBSOIL EXCAVATION, SHALL BE REPLACED WITH COARSE SAND, OR OTHER SUITABLE GRANULAR MATERIAL, AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

21.8. ALL UNDERGROUND UTILITIES AND DRAINAGE INSTALLATIONS SHALL BE IN PLACE PRIOR TO SUBGRADE COMPACTION AND PAVEMENT CONSTRUCTION.

21.9. GROUND ADJACENT TO ROADWAY/PAVEMENT HAVING RUNOFF SHALL BE GRADED (2) TWO INCHES LOWER THAN THE EDGE OF PAVEMENT TO ALLOW FOR THE PLACEMENT OF SOD.

21.10. SITE GRADING ELEVATIONS SHALL BE WITHIN 0.1' OF THE REQUIRED ELEVATION FOR NON PAVED AREAS AND ALL AREAS SHALL BE GRADED TO DRAIN WITHOUT PONDING.

21.11. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION, FILL, EMBANKMENT AND GRADING TO ACHIEVE THE PROPOSED PLAN GRADES INCLUDING TYPICAL ROAD SECTIONS, SIDE SLOPES AND CANAL SECTIONS. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS. IF FILL MATERIAL IS REQUIRED IN EXCESS OF THAT GENERATED BY THE EXCAVATION, THE CONTRACTOR SHALL SUPPLY THIS MATERIAL AS REQUIRED FROM OFF-SITE.

21.12. A 2" BLANKET OF TOP SOIL SHALL BE PLACED OVER ALL AREAS TO BE SODDED OR SEEDED AND MULCHED WITHIN THE PROJECT LIMITS UNLESS OTHERWISE INDICATED ON THE PLANS.

21.13. SOD SHALL BE ST. AUGUSTINE UNLESS OTHERWISE INDICATED ON THE PLANS, AND SHALL BE PLACED ON THE GRADED TOP SOIL AND WATERED TO INSURE SATISFACTORY CONDITION UPON FINAL ACCEPTANCE OF THE PROJECT.

22.DRAINAGE

22.1. INLETS - ALL INLETS SHALL BE THE TYPE DESIGNATED ON THE PLANS, AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 425 OF THE STANDARD SPECIFICATIONS. ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS AND PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEM SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.

22.2. PIPE SPECIFICATIONS: THE MATERIAL TYPE IS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING DESIGNATIONS:

- RCP = REINFORCED CONCRETE PIPE, ASTM DESIGNATION C-76, SECTION 941 OF THE STANDARD SPECIFICATIONS.
- CMP = CORRUGATED METAL (ALUMINUM) PIPE, ASTM DESIGNATION M-196.
- CMP (SMOOTH LINED) = CORRUGATED METAL ALUMINUM PIPE, (SMOOTH LINED) ASTM DESIGNATION M-196.
- SCP = SLOTTED CONCRETE PIPE, SECTIONS 941 AND 942, OF THE STANDARD SPECIFICATIONS.
- PVC = POLYVINYL CHLORIDE PIPE.
- PCMP = PERFORATED CMP, SECTION 945, OF THE STANDARD SPECIFICATIONS
- CORRUGATED HIGH DENSITY POLYETHYLENE PIPE (HDPE) (12 INCHES TO 60 INCHES), SHALL MEET THE REQUIREMENTS OF FDOT SPECIFICATION SECTION 948-2.3.

22.3. PIPE BACKFILL - REQUIREMENTS FOR PIPE BACKFILL CROSSING ROADS OR PARKING AREAS SHALL BE AS DEFINED IN THE SECTION 125-8, OF THE STANDARD SPECIFICATIONS. PIPELINE BACKFILL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED TO 100% OF THE STANDARD PROCTOR (AASHTO T-99 SPECIFICATIONS)

22.4. LOCATION OF DRAINAGE STRUCTURES SHALL GOVERN, AND PIPE LENGTH MAY HAVE TO BE ADJUSTED TO ACCOMPLISH CONSTRUCTION AS SHOWN ON THESE PLANS.

22.5. DISTANCE AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE INNER WALLS OF STRUCTURES.

22.6. FILTER FABRIC SHALL BE MIRAFI, TYPAR OR EQUAL CONFORMING TO SECTION 985 OF THE STANDARD SPECIFICATIONS.

23.ASPHALT PAVING

23.1. WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE. PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.

23.2. INTERNAL ASPHALT PAVING CONSTRUCTED ON EXISTING SANDY SOILS SHALL BE CONSTRUCTED WITH A 12" SUBGRADE, COMPACTED TO A MINIMUM DENSITY OF 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99. THE COMPACTED SUBGRADE SHALL BE CONSTRUCTED IN THE LIMITS SHOWN ON THE PLANS. ALL SUBGRADE SHALL HAVE AN LBR OF 40 UNLESS OTHERWISE NOTED.

23.3. ASPHALTIC CONCRETE SURFACE COURSE SHALL BE CONSTRUCTED TO THE LIMITS SHOWN ON THE PLANS. THE SURFACE COURSE SHALL CONSIST OF THE THICKNESS AND TYPE ASPHALTIC CONCRETE AS SPECIFIED IN THE PLANS. ALL ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH SECTIONS 320, 327, 330, 334, 336, 337, 337, 338, 339 AND 341 OF THE STANDARD SPECIFICATIONS.

23.4. LIMEROCK BASE SHALL BE PREPARED, COMPACTED AND GRADED AND SHALL BE IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. ALL LIMEROCK SHALL BE COMPACTED TO 98% PER AASHTO T-180 AND HAVE NOT LESS THAN 70% OF CARBONATES OF CALCIUM AND MAGNESIUM UNLESS OTHERWISE DESIGNATED. THE ENGINEER SHALL INSPECT THE COMPLETED BASE COURSE AND THE CONTRACTOR SHALL CORRECT ANY DEFICIENCIES AND CLEAN THE BASE COURSE PRIOR TO THE PLACEMENT OF THE PRIME COAT. A TACK COAT WILL ALSO BE REQUIRED IF THE ENGINEER FINDS THAT THE PRIMED BASE HAS BECOME EXCESSIVELY DIRTY OR THE PRIME COAT HAS CURED TO THE EXTENT OF LOSING BOUNDING EFFECT PRIOR TO PLACEMENT OF THE ASPHALTIC CONCRETE SURFACE COURSE. THE PRIME AND TACK COATS SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

23.5. LIMEROCK BASE MATERIAL SHALL BE PLACED IN MAXIMUM 6" LIFTS. BASES GREATER THAN 6" SHALL BE PLACED IN TWO EQUAL LIFTS. IF, THROUGH FIELD TESTS, THE CONTRACTOR CAN DEMONSTRATE THAT THE COMPACTION EQUIPMENT CAN ACHIEVE DENSITY FOR THE FULL DEPTH OF A THICKER LIFT, AND IF APPROVED BY THE ENGINEER, THE BASE MAY BE CONSTRUCTED IN SUCCESSIVE COURSES OF NOT MORE THAN 8 INCHES (200 MM) COMPACTED THICKNESS.

23.6. ASPHALT EDGES THAT ARE NOT CURBED SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE TO THE DIMENSIONS SHOWN ON PLANS.

24.CONCRETE CONSTRUCTION

24.1. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH SECTION 522 OF THE STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 522-001. CONCRETE SIDEWALK SHALL BE 4" THICK, UNLESS OTHERWISE NOT AND CONSTRUCTED ON COMPACTED SUBGRADE, WITH 1/2" EXPANSION JOINTS PLACED AT A MAXIMUM OF 75', UNLESS OTHERWISE NOTED ON PLANS. CRACK CONTROL JOINTS SHALL BE 5' ON CENTER. ALL CONCRETE SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE 6" THICK, UNLESS OTHERWISE NOTED ON PLANS.

24.2. SIDEWALK CURB RAMPS HALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 522-002.

24.3. CONCRETE CURB SHALL BE CONSTRUCTED TO THE LIMITS SHOWN ON THE PLANS. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS AND SHALL BE IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS. CONCRETE CURBING SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 520-001.

SECTION 30 - WATER DISTRIBUTION AND SANITARY SEWER FORCE MAINS.

30. MATERIALS:

NOTE: IF MATERIALS LIST HERE ON ARE IN CONFLICT WITH UTILITY OWNER, MATERIAL OWNER REQUIREMENTS SHALL GOVERN.

30.1. ALL WATER MAIN PIPE, INCLUDING FITTINGS, SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.

30.2. DUCTILE IRON PIPE FOR WATER DISTRIBUTION MAINS SHALL CONFORM TO ANSI/AWWA STANDARD C151/A21.51 LATEST REVISION, "DUCTILE IRON PIPE CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS" WITH A MINIMUM WALL THICKNESS OF CLASS 51 (PRESSURE CLASS 350) UNLESS OTHERWISE NOTED IN THE PLANS. DUCTILE IRON PIPE SHALL BE CEMENT LINED AND SEAL COATED IN ACCORDANCE WITH ANSI/AWWA STANDARD C104/A21.4 LATEST REVISION. THE PIPE SHALL BE ADAPTED FOR USE WITH CLASS 250 FITTINGS FOR ALL SIZES. WATER MAIN SHALL BE COLORED BLUE IN ACCORDANCE WITH FLORIDA STATE STATUTES.

30.3. DUCTILE IRON PIPE FOR SEWAGE FORCE MAINS SHALL CONFORM TO ANSI/AWWA STANDARD C151/A21.51 LATEST REVISION, "DUCTILE IRON PIPE CENTRIFUGALLY CAST IN METAL MOLDS OR SAND- LINED MOLDS" WITH A MINIMUM WALL THICKNESS OF CLASS 51 (PRESSURE CLASS 350) UNLESS OTHERWISE NOTED IN THE PLANS. DUCTILE IRON PIPE SHALL BE INTERIOR CERAMIC EPOXY LINED AND EXTERIOR COATED WITH THE MANUFACTURER'S COATING SYSTEM (PROTECTO 401 CERAMIC EPOXY WITH A MINIMUM DRY FILM THICKNESS OF 40 MILS AND AN OUTSIDE COATING OF EITHER COAL TAR EPOXY OR ASPHALT). CEMENT MORTARED LININGS ARE NOT APPROPRIATE FOR THIS APPLICATION.

30.4. ALL PIPE & FITTINGS ON THE LIFT STATION SITES SHALL BE DUCTILE IRON CONFORMING TO THE SAME SPECIFICATIONS AS ABOVE FOR SEWAGE FORCE MAINS EXCEPT THAT FLANGED DUCTILE IRON PIPE & FITTINGS SHALL BE USED INSIDE VALVE PITS AND WET WELLS. FLANGED PIPE AND FITTINGS SHALL CONFORM TO ANSI/AWWA C115/A21.15 LATEST REVISION AND ANSI/AWWA C110/A21.10 LATEST REVISION. THE FOLLOWING THICKNESS CLASSES SHALL BE ADHERED TO: 4" - 12" - CLASS 52, 14" & LARGER - CLASS 51.

30.5. PVC PRESSURE PIPE FOR SIZES 4" THROUGH 12" AND SHALL CONFORM TO ANSI/AWWA STANDARD C900 LATEST REVISION. PVC PRESSURE PIPE SHALL BE MADE FROM CLASS 12454-A OR CLASS 12454-B VIRGIN MATERIAL AND CONFORM WITH THE OUTSIDE DIAMETER OF CAST IRON PIPE WITH A MINIMUM WALL THICKNESS OF DR SERIES 18. ULTRA VIOLET DEGRADATION OR SUN BLEACHED PIPE WILL BE CAUSE FOR REJECTION. WATER MAIN SHALL BE COLORED BLUE IN ACCORDANCE WITH FLORIDA STATE STATUTES. FORCE MAIN SHALL BE IMPREGNATED WITH GREEN PIGMENT. REUSE MAIN SHALL BE IMPREGNATED WITH PURPLE PIGMENT.

30.6. DUCTILE IRON FITTINGS FOR WATER DISTRIBUTION MAINS SHALL CONFORM TO ANSI/AWWA STANDARD C110/A21.10 LATEST REVISION. FITTINGS 4" AND LARGER SHALL BE CEMENT LINED AND SEAL COATED IN ACCORDANCE WITH ANSI/AWWA STANDARD C104/A21.4 LATEST REVISION. WATER MAIN FITTING SHALL BE COLORED BLUE IN ACCORDANCE WITH FLORIDA STATE STATUTES.

30.7. CAST IRON AND DUCTILE IRON FITTINGS FOR SEWAGE FORCE MAINS SHALL CONFORM TO ANSI/AWWA STANDARD C110/A21.10 LATEST REVISION. FITTINGS 4" AND LARGER SHALL BE COATED IN ACCORDANCE WITH THE REQUIREMENTS OF DUCTILE IRON PIPE FOR SEWAGE FORCE MAINS.

30.8. JOINTS FOR BELL AND SPIGOT DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO ANSI/AWWA STANDARD C111/A21.11 LATEST REVISION. MECHANICAL JOINT OR PUSH-ON JOINT TO BE RUBBER GASKET COMPRESSION-TYPE. SPECIAL FITTINGS AND JOINTS SHALL BE CONSIDERED FOR SPECIFIC INSTALLATION SUBJECT TO THE APPROVAL OF THE ENGINEER.

30.9. JOINTS FOR PVC PRESSURE PIPE SHALL BE BELL AND SPIGOT PUSH-ON RUBBER GASKET TYPE ONLY. NO SOLVENT WELD OR THREADED JOINTS WILL BE PERMITTED.

30.10. WATER DISTRIBUTION SYSTEM RESTRAINT: ALL FITTINGS AND SPECIFIC PIPE JOINTS SHALL BE RESTRAINED AS OUTLINED BELOW:

- JOINT RESTRAINT
- PUSH-ON P.V.C. EBAA IRON SERIES 1600
- PUSH-ON DIP EBAA IRON SERIES 1700
- TR-FLEX BY U.S. PIPE OR
- FLEX RING BY AMERICAN
- FITTINGS W/ DIP EBAA IRON SERIES 1100 MEGALUG
- FITTINGS W/ P.V.C. EBAA IRON SERIES 2000 MEGALUG
- LENGTH OF RESTRAINED PIPE SHALL BE AS INDICATED ON RESTRAINED JOINT PIPE DETAIL. (SEE WATER & SEWER DETAIL SHEET)

30.11. SEWAGE FORCE MAIN SYSTEM RESTRAINT: ALL FITTINGS AND SPECIFIC PIPE JOINTS SHALL BE RESTRAINED AS OUTLINED BELOW

- JOINT RESTRAINT
- PUSH-ON P.V.C. EBAA IRON SERIES 1600
- PUSH-ON DIP EBAA IRON SERIES 1700
- TR-FLEX BY U.S. PIPE OR
- FLEX RING BY AMERICAN
- FITTINGS W/ DIP EBAA IRON SERIES 1100 MEGALUG
- FITTINGS W/ P.V.C. EBAA IRON SERIES 2000 MEGALUG
- LENGTH OF RESTRAINED PIPE SHALL BE AS INDICATED ON RESTRAINED JOINT PIPE DETAIL. (SEE WATER & SEWER DETAIL SHEET)

30.12. WATER DISTRIBUTION VALVES SHALL BE GATE VALVES, IRON BODY, FULLY RESILIENT SEAT BRONZED MOUNTED NON-RISING STEM, RATED AT 200 PSI AND CONFORMING TO ANSI/AWWA C509 LATEST REVISION, AND SHALL HAVE MECHANICAL JOINTS.

30.12.1.1. GATE VALVES 4" AND LARGER SHALL BE MUELLER A-2361/2362, AMERICAN 250 LINE OR CLOW F-6100, CONFORMING TO ANSI/AWWA C500 LATEST REVISION OR APPROVED EQUAL.

30.12.1.2. TAPPING VALVES SHALL BE MUELLER T-2361/2362 OR APPROVED EQUAL.

30.12.1.3. GATE VALVES 3" OR LESS SHALL BE NIBCO T-133 OR T-136 WITH MALLEABLE HAND WHEELS OR APPROVED EQUAL.

30.13. TAPPING SLEEVES SHALL BE MUELLER H615, CLOW F- 2505 OR APPROVED EQUAL.

30.14. VALVE BOXES SHALL BE U.S. FOUNDRY 7500 OR APPROVED EQUAL PAINTED BLUE WITH THE DESIGNATION "WATER".

30.15. RETAINER GLANDS FOR DIP SHALL CONFORM TO ANSI/AWWA C111/A21.11 LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED BY UNDERWRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING. CLOW CORPORATION MODEL F-1058, STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.

30.16. DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90. NO SUBSTITUTIONS ALLOWED.

30.17. FIRE HYDRANTS SHALL BE MUELLER CENTURION TRAFFIC TYPE A-423 WITH 5 1/4" INTERNAL VALVE OPENING OR APPROVED EQUAL. PUMPER NOZZLE TO BE 18" FROM FINISHED GRADE. ALL HYDRANTS TO BE INSTALLED WITH CONTROL VALVE. RETAINER GLANDS ARE PREFERRED FOR RESTRAINING. FIRE HYDRANT SHALL COMPLY WITH ANSI/AWWA C502 LATEST REVISION. FIRE HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH NFPA #291 OR PER AGENCY STANDARDS HAVING JURISDICTION. BLUE RAISED REFLECTIVE PAVEMENT MARKER (RPM) SHALL BE USED TO IDENTIFY FIRE HYDRANT LOCATION. THE PLACEMENT OF THE RPM TO BE AT THE CENTERLINE OF THE OUTSIDE ROADWAY LANE.

30.18. SEWAGE FORCE MAIN VALVES SHALL BE PLUG VALVES WHICH SHALL BE OF THE NON-LUBRICATED, ECCENTRIC TYPE WITH RESILIENT FACED PLUGS, PORT AREAS FOR VALVES 20 INCHES AND SMALLER SHALL BE AT LEAST 80% OF FULL PIPE AREA. PORT AREA OF VALVES 24 INCHES AND LARGER SHALL BE AT LEAST 70% OF FULL PIPE AREA. THE BODY SHALL BE OF SEMI-STEEL (ASTM A-126 C1.B) AND SHALL HAVE BOLTED BONNET WHICH GIVES ACCESS TO THE INTERNALS OF THE VALVE. SEATS SHALL BE WELDED OVERLAY OF HIGH NICKEL CONTENT OR A STAINLESS STEEL PLATE LOCKED IN THE BODY CAVITY. IF A PLATE IS USED, IT SHALL BE REPLACEABLE THROUGH THE BONNET ACCESS. BEARINGS SHALL BE PERMANENTLY LUBRICATED OF STAINLESS STEEL, BRONZE OR TEFLON LINED, FIBER GLASS BACKED DURALON. BEARING AREAS SHALL BE ISOLATED FROM THE FLOW WITH GRIT SEALS. VALVES SHALL HAVE PACKING BONNETS WHERE THE SHAFT PROTRUDES FROM THE VALVE AND THE PACKING SHALL BE SELF-ADJUSTING CHEVRON TYPE WHICH CAN BE REPLACED WITHOUT REMOVING THE BONNET. ALL NUTS, BOLTS, SPRINGS AND WASHERS SHALL BE STAINLESS STEEL.

30.19. PLUG VALVES SHALL BE DESIGNED FOR A WORKING PRESSURE OF 150 PSI THE VALVE AND ACTUATOR SHALL BE CAPABLE OF SATISFACTORY OPERATION IN EITHER DIRECTION OF FLOW AGAINST PRESSURE DROPS UP TO AND INCLUDING 100 PSI (FOR PLUG VALVES OVER 12" IN DIAMETER). VALVES SHALL BE BUBBLE TIGHT IN BOTH DIRECTIONS AT 100 PSI DIFFERENTIAL. PLUG VALVES OVER 12" IN DIAMETER SHALL HAVE WORM GEAR OPERATORS. THE OPERATING MECHANISM SHALL BE FOR BURIED SERVICE WITH A 2 INCH SQUARE OPERATING NUT.

30.20. PLUG VALVES ARE TO BE INSTALLED WITH THE SEAT POINTED TOWARDS THE UPSTREAM FLOW, WHEN SPECIFIED.

30.21. SWING CHECK VALVES FOR WATER, SEWAGE, SLUDGE, AND GENERAL SERVICE SHALL BE OF THE OUTSIDE LEVER AND SPRING OR WEIGHT TYPE, IN ACCORDANCE WITH ANSI/AWWA C 508 LATEST REVISION SWING-CHECK VALVES FOR WATERWORKS SERVICE, 2" THROUGH 24" NPS, UNLESS OTHERWISE INDICATED, WITH FULL-OPENING PASSAGES, DESIGNED FOR A WATER-WORKING PRESSURE OF 150 PSI THEY SHALL HAVE A FLANGED COVER PIECE TO PROVIDE ACCESS TO THE DISC.

30.22. HIGH DENSITY POLYETHYLENE PIPE (HDPE) FOR WATER DISTRIBUTION MAINS SHALL CONFORM TO AWWA C906 STANDARD, LATEST REVISION. PIPES SHALL BE COLOR-CODED BLUE, MINIMUM 40 FEET STANDARD LENGTHS.

31.SERVICE CONNECTION:

31.1. SERVICE SADDLES SHALL BE FUSION BONDED PLASTIC COATED DUCTILE IRON (ASTM A536) WITH STAINLESS STEEL STRAPS, SADDLES SHALL BE DOUBLE STRAP TYPE.

31.2. SERVICE LINES SHALL BE POLYETHYLENE (PE 3408), 200 P.S.I RATED, DR9. PIPE JOINTS SHALL BE OF THE COMPRESSION TYPE TOTALLY CONFINED GRIP SEAL AND COUPLING NUT.

31.3. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-62 WITH THREADED ENDS, AS MANUFACTURED BY FORD BALLCORP, CATALOG # 1100 OR APPROVED EQUAL.

31.4. CURB STOPS SHALL BE FORD V63-44W-X* LATEST REVISION OR APPROVED EQUAL.

31.5. METER STOPS SHALL BE 90 DEGREE LOCKWING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE FV63-777W* LATEST REVISION WITH ASTM B-62. METER STOPS SHALL BE CLOSED BOTTOM DESIGN AND RESILIENT "0" RING SEALED AGAINST EXTERNAL LEAKAGE AT THE TOP. STOPS SHALL BE EQUIPPED WITH A METER COUPLING NUT ON THE OUTLET SIDES, AS MANUFACTURED BY FORD OR APPROVED EQUAL.

32. INSTALLATION:

32.1. WHERE RESTRAINED PIPE JOINTS ARE REQUIRED DUE TO FITTINGS, APPURTENANCES, ETC., PIPE MATERIAL SHALL BE DIP

32.2. ALL PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UNI-BELL PLASTIC PIPE ASSOCIATION "GUIDE FOR INSTALLATION OF PVC PRESSURE PIPE FOR MUNICIPAL WATER DISTRIBUTION SYSTEM," AND ANSI/AWWA C605-XX LATEST REVISION STANDARD.

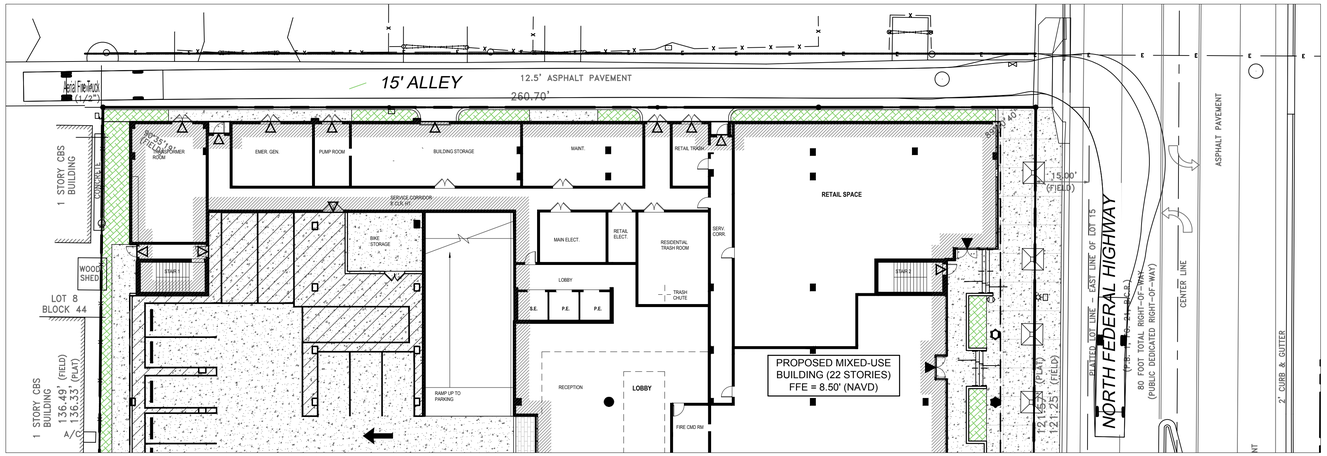
32.3. ALL DIP SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/ C600-XX LATEST REVISION.

32.4. ALL WATER MAINS SHALL TYPICALLY BE LAID WITH A MINIMUM 36" COVER FOR PVC AND 30" COVER FOR DIP.

32.5. DETECTOR TAPE SHALL BE LAID 18 INCHES ABOVE ALL WATER AND SEWER LINES. A 14 GAUGE MULTI-STRAND WIRE SHALL BE ATTACHED TO ALL NONCONDUCTIVE WATER MAINS TO FACILITATE LOCATION. AN EXTRA 4 FEET OF WIRE SHALL BE PROVIDED AT ALL VALVES, BLOW-OFFS, HYDRANTS, ETC. THE WIRE SHALL BE TESTED FOR CONTINUITY AT THE PRESSURE TEST.

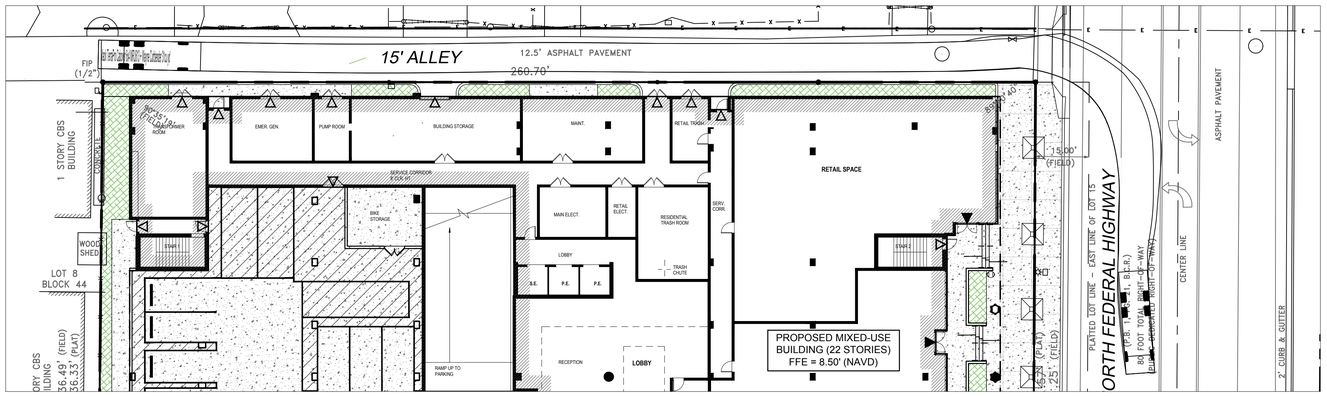
32.6. PIPE DEFLECTION SHALL NOT EXCEED 50% OF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.

32.7. A CONT



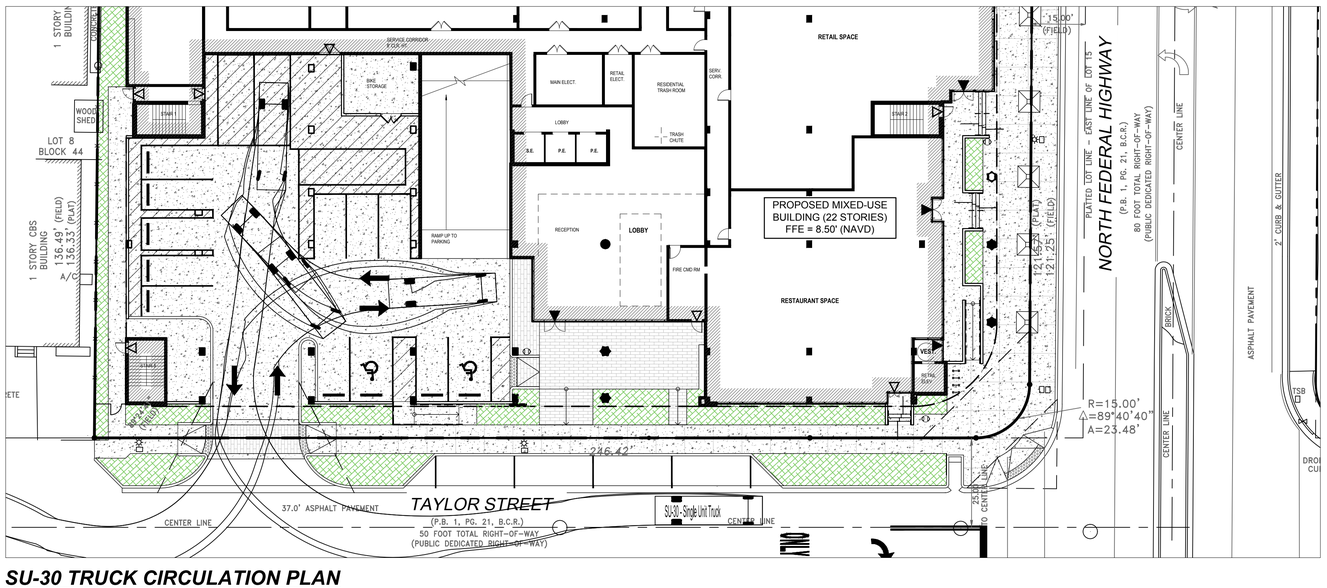
FIRE TRUCK CIRCULATION PLAN

SCALE: 1"=20'



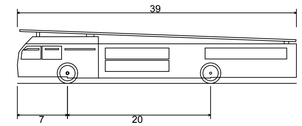
REFUSE TRUCK CIRCULATION PLAN

SCALE: 1"=20'



SU-30 TRUCK CIRCULATION PLAN

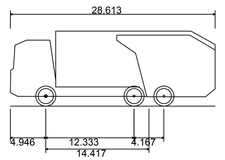
SCALE: 1"=20'



Aerial Fire Truck

Overall Length	39.000ft
Overall Width	8.167ft
Overall Body Height	7.500ft
Min Body Ground Clearance	0.750ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

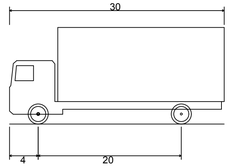
FIRE TRUCK



Mack TerraPro Cabover 6x4 MRU613 + Wayne Curbtender 31cu yd

Overall Length	28.613ft
Overall Width	8.000ft
Overall Body Height	10.481ft
Min Body Ground Clearance	1.311ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	33.500ft

REFUSE TRUCK



SU-30 - Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

SU-30 TRUCK

N

GRAPHIC SCALE

0 20 40

SCALE: 1" = 20 '

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

KEITH
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REVISIONS

NO.	DESCRIPTION	DATE

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

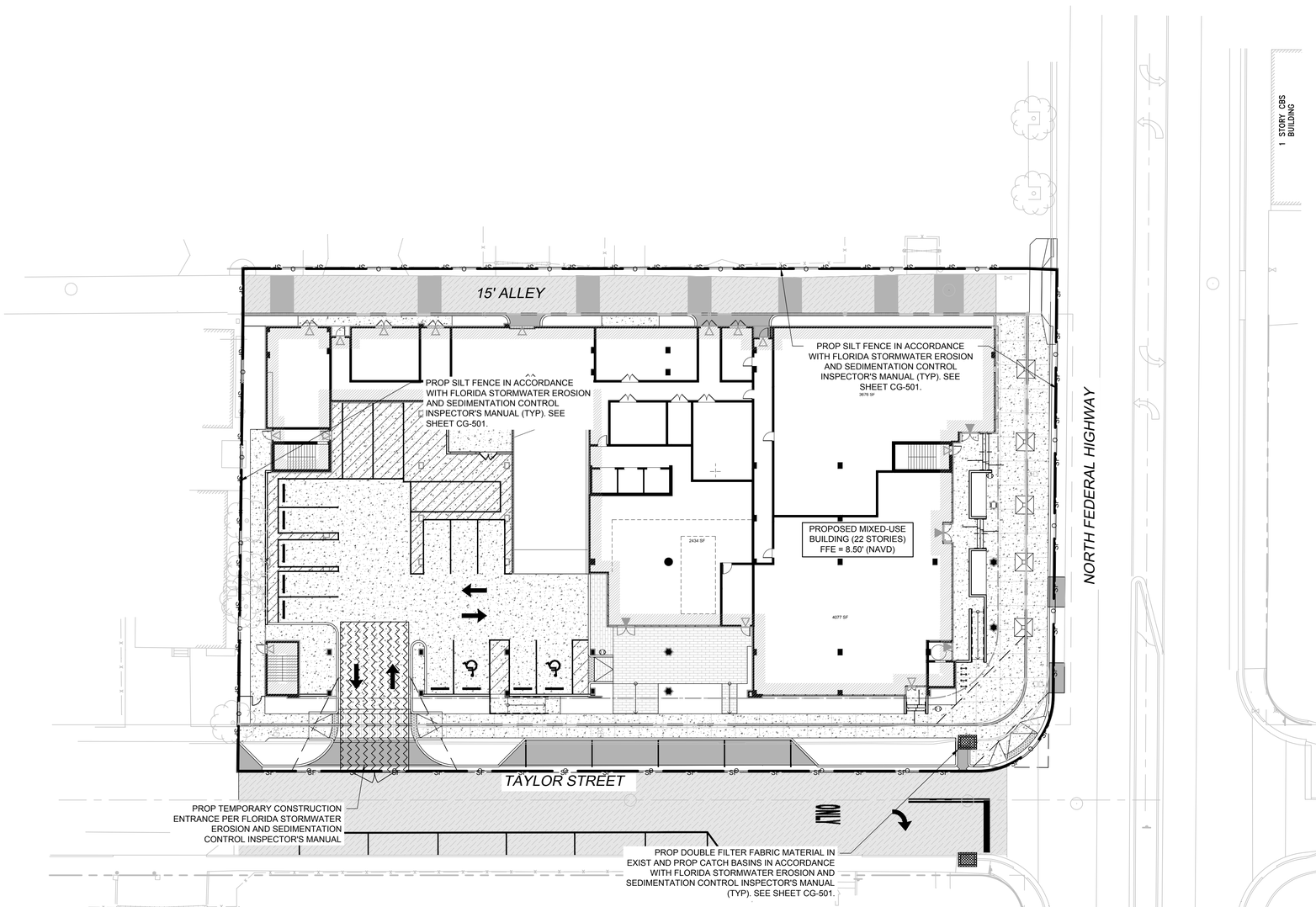
VEHICLE TRUCK TURN PLAN

SHEET NUMBER	SP-102
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 SP-102.dwg



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GRAPHIC SCALE

0 20 40

SCALE: 1" = 20 '

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

GENERAL NOTES:

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN FLORIDA (HEREAFTER REFERRED TO AS FL GUIDELINES).

2. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION PERIOD. AFTER EACH RAINFALL, A VISUAL INSPECTION SHALL BE MADE OF ALL INSTALLED EROSION CONTROL MEASURES AND REPAIRS SHALL BE CONDUCTED TO ENSURE THEIR CONTINUING FUNCTION AS DESIGNED.

3. ALL EXISTING/NEW CATCH BASIN, INLETS, STORM SEWER MANHOLES STRUCTURES WITHIN THE WORK AREAS, ETC. SHALL BE PROTECTED DURING CONSTRUCTION OPERATIONS FROM SEDIMENT RUNOFF AND DEBRIS BY PLACING A FILTER FABRIC MATERIAL IN THE FRAME AND GRATE/MANHOLE COVER. PREVENTIVE METHODS MUST BE UTILIZED AROUND THESE STRUCTURES (DURING CONSTRUCTION OPERATIONS) BY GRADING TO DRAIN AWAY FROM STRUCTURES AND ANY OTHER METHODS APPROVED BY THE AGENCY HAVING JURISDICTION OR DESIGN ENGINEER OF RECORD.

4. THE CONTRACTOR SHALL INSTALL A SOIL TRACKING PREVENTION DEVICE AS PER THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL. THE CONTRACTOR SHALL TAKE MEASURES TO INSURE THE CLEANUP OF SEDIMENTS THAT HAVE BEEN TRACKED BY VEHICLES OR HAVE BEEN TRANSPORTED BY WIND OR STORM WATER ABOUT THE SITE OR ONTO NEARBY ROADWAYS. STABILIZED CONSTRUCTION ENTRANCES AND CONSTRUCTION ROADS, IF APPROPRIATE, SHALL BE IMPLEMENTED IN ORDER TO REDUCE OFFSITE TRACKING.

5. ALL AREAS OF DISTURBANCE THAT ARE NOT WITHIN BUILDING OR PAVEMENT LIMITS SHALL BE SODDED, REFER TO LANDSCAPE PLANS FOR SOD SPECIFICATION AND REQUIREMENTS.

6. REMOVE ALL EROSION CONTROL IMPROVEMENTS AFTER ALL DISTURBED AREAS ARE STABILIZED WITH THE FINAL GROUND COVER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FAMILIARIZING THEMSELVES WITH ALL THE PERMITS PREVIOUSLY ACQUIRED FOR THIS PROJECT. THE CONDITIONS OUTLINED IN THE PERMITS ARE IN FORCE AND FULL EFFECT AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL WORK ASSOCIATED WITH THIS PROJECT IS IN COMPLIANCE WITH ALL OF THE REQUIREMENTS OF THESE PERMITS.

8. THE CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING A VALID NPDES PERMIT. UNLESS SUCH PERMIT IS DETERMINED TO BE NON-APPLICABLE BY REGULATORY AGENCY HAVING PROPER JURISDICTION REGARDING HIS MATTER.

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REVISIONS

NO.	DESCRIPTION	DATE

PRELIMINARY PLAN NOT FOR CONSTRUCTION

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ISSUE DATE:	11/16/2023
DESIGNED BY:	VAC
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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

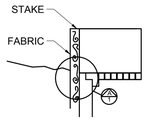
EROSION CONTROL PLAN

SHEET NUMBER	CP-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

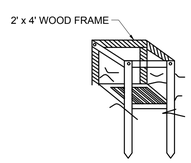
Plotted by: vcastillo On 11/16/2023 2:52 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CG-101.dwg

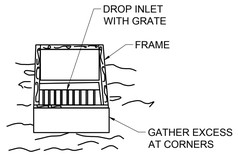


ELEVATION OF STAKE AND FABRIC ORIENTATION

DETAIL A



PERSPECTIVE VIEW



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS

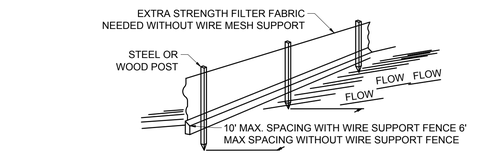
FILTER FABRIC DROP INLET SEDIMENT FILTER

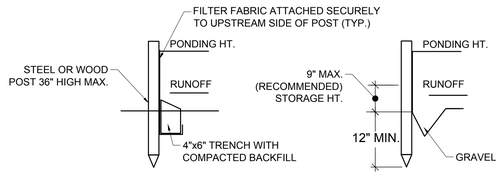
EROSION CONTROL GENERAL NOTES

1. SILT FENCE AND TURBIDITY BARRIERS MUST REMAIN IN PLACE AND BE MAINTAINED AT ALL LOCATIONS SHOWN IN THE DRAWING UNTIL CONSTRUCTION ID COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN.
2. CONTRACTOR SHALL SUBMIT SCHEDULE FOR THE INSTALLATION, INSPECTION AND MAINTENANCE THE EROSION CONTROLS FEATURES AS SHOWN IN THE DRAWINGS OR AS DIRECTED BY THE DESIGN ENGINEER. THE SCHEDULE SHALL SPECIFICALLY INDICATE THE SEQUENCE OF CLEARING, EARTH WORK OPERATIONS, AND WHEN THE EROSION CONTROL FEATURE WILL BE INSTALLED, INSPECTED, AND MAINTAINED. IT SHALL ALSO INCLUDE METHODS TO PREVENT POLLUTION OF STREAM, LAKES, TIDAL WATERS, CANALS, AND IMPOUNDMENTS. ESTABLISHED.

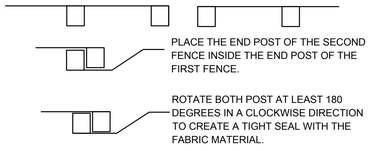
00 EROSION CONTROL DETAILS

NOT TO SCALE



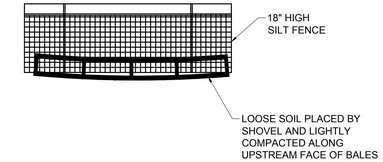


SILT FENCE



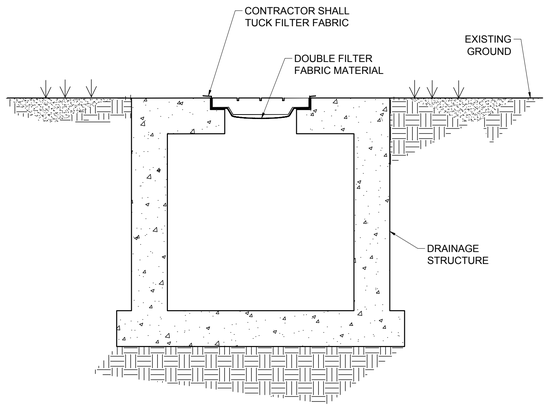
NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

ATTACHING TWO SILT FENCES

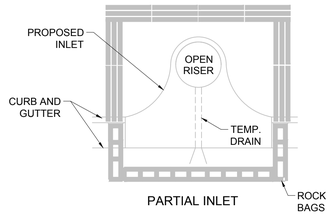


NOTES:
1. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING COURSES. SILT FENCES ARE TO BE PLACED AT UPLAND LOCATIONS.
2. BALES TO BE STAKED AT THE DIRECTION OF THE ENGINEER, CITY, BCEPD, NSID OR SFWMD.
3. WHERE THE SILT FENCE IS USED AS SLOPE PROTECTION, IT IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

BALES BACKED BY SILT FENCE

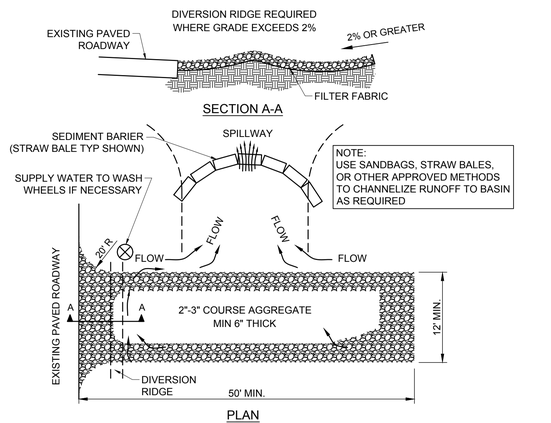


INLET / MANHOLE PROTECTION DETAIL



NOTE:
1. ANCHOR BALES WITH 2 STAKES PER BALE.
2. WHEN USED IN CONJUNCTION WITH A SILT FENCE, BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

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REVISIONS

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FLORIDA REG. NO. 60529
(FOR THE FIRM)

CLIENT

1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

EROSION CONTROL DETAILS

SHEET NUMBER	CG-501
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

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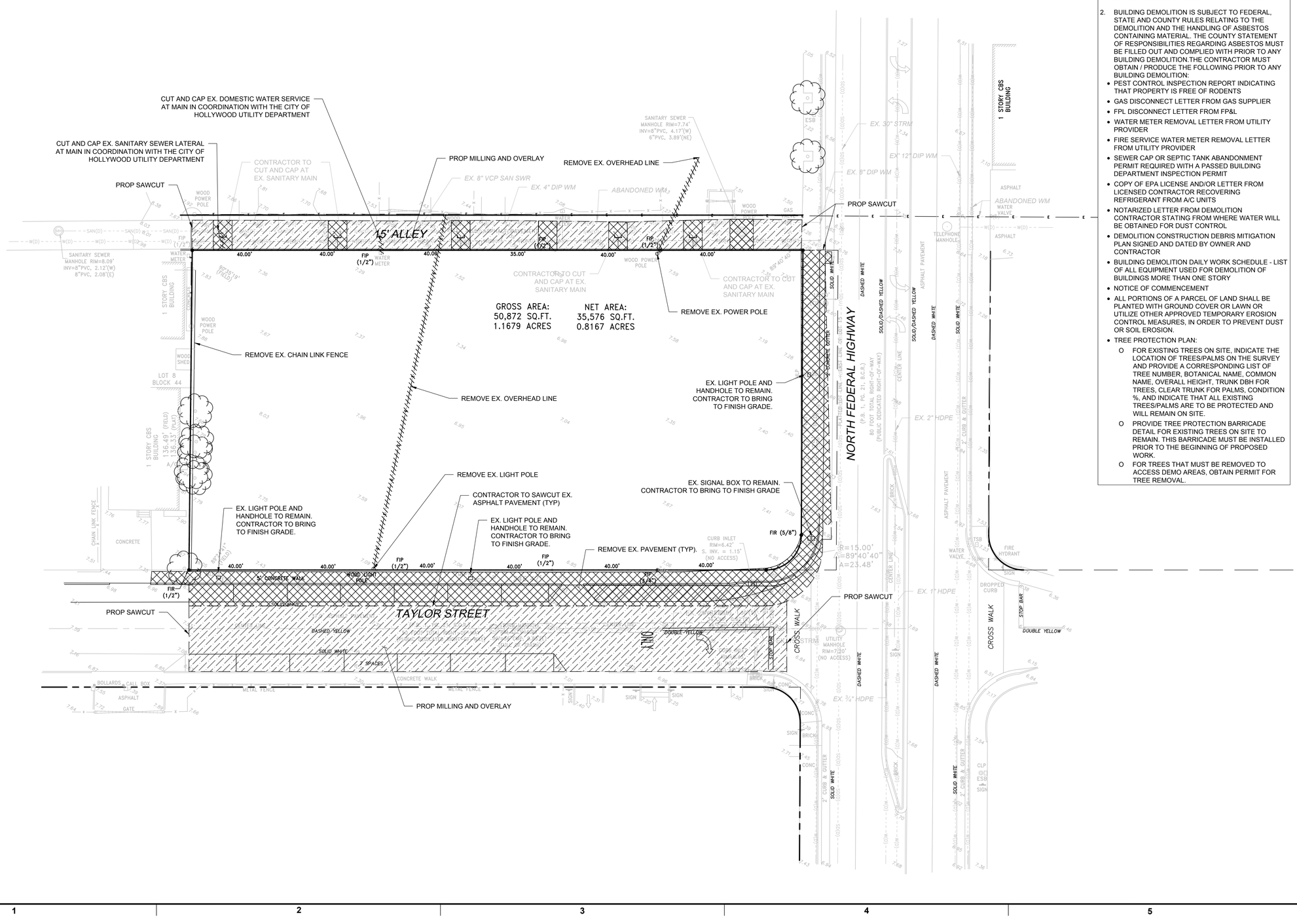

N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '

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

SITE DEMOLITION NOTES

1. EXISTING MONITORING WELLS TO REMAIN. CONTRACTOR TO COORDINATE WITH ENVIRONMENTAL ENGINEER PRIOR TO DEMOLITION.
2. BUILDING DEMOLITION IS SUBJECT TO FEDERAL, STATE AND COUNTY RULES RELATING TO THE DEMOLITION AND THE HANDLING OF ASBESTOS CONTAINING MATERIAL. THE COUNTY STATEMENT OF RESPONSIBILITIES REGARDING ASBESTOS MUST BE FILLED OUT AND COMPLIED WITH PRIOR TO ANY BUILDING DEMOLITION.THE CONTRACTOR MUST OBTAIN / PRODUCE THE FOLLOWING PRIOR TO ANY BUILDING DEMOLITION:
   - PEST CONTROL INSPECTION REPORT INDICATING THAT PROPERTY IS FREE OF RODENTS
   - GAS DISCONNECT LETTER FROM GAS SUPPLIER
   - FPL DISCONNECT LETTER FROM FP&L
   - WATER METER REMOVAL LETTER FROM UTILITY PROVIDER
   - FIRE SERVICE WATER METER REMOVAL LETTER FROM UTILITY PROVIDER
   - SEWER CAP OR SEPTIC TANK ABANDONMENT PERMIT REQUIRED WITH A PASSED BUILDING DEPARTMENT INSPECTION PERMIT
   - COPY OF EPA LICENSE AND/OR LETTER FROM LICENSED CONTRACTOR RECOVERING REFRIGERANT FROM A/C UNITS
   - NOTARIZED LETTER FROM DEMOLITION CONTRACTOR STATING FROM WHERE WATER WILL BE OBTAINED FOR DUST CONTROL
   - DEMOLITION CONSTRUCTION DEBRIS MITIGATION PLAN SIGNED AND DATED BY OWNER AND CONTRACTOR
   - BUILDING DEMOLITION DAILY WORK SCHEDULE - LIST OF ALL EQUIPMENT USED FOR DEMOLITION OF BUILDINGS MORE THAN ONE STORY
   - NOTICE OF COMMENCEMENT
   - ALL PORTIONS OF A PARCEL OF LAND SHALL BE PLANTED WITH GROUND COVER OR LAWN OR UTILIZE OTHER APPROVED TEMPORARY EROSION CONTROL MEASURES, IN ORDER TO PREVENT DUST OR SOIL EROSION.
   - TREE PROTECTION PLAN:
     - O FOR EXISTING TREES ON SITE, INDICATE THE LOCATION OF TREES/PALMS ON THE SURVEY AND PROVIDE A CORRESPONDING LIST OF TREE NUMBER, BOTANICAL NAME, COMMON NAME, OVERALL HEIGHT, TRUNK DBH FOR TREES, CLEAR TRUNK FOR PALMS, CONDITION %, AND INDICATE THAT ALL EXISTING TREES/PALMS ARE TO BE PROTECTED AND WILL REMAIN ON SITE.
     - O PROVIDE TREE PROTECTION BARRICADE DETAIL FOR EXISTING TREES ON SITE TO REMAIN. THIS BARRICADE MUST BE INSTALLED PRIOR TO THE BEGINNING OF PROPOSED WORK.
     - O FOR TREES THAT MUST BE REMOVED TO ACCESS DEMO AREAS, OBTAIN PERMIT FOR TREE REMOVAL.

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CLIENT

1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

DEMOLITION PLAN

SHEET NUMBER	CD-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

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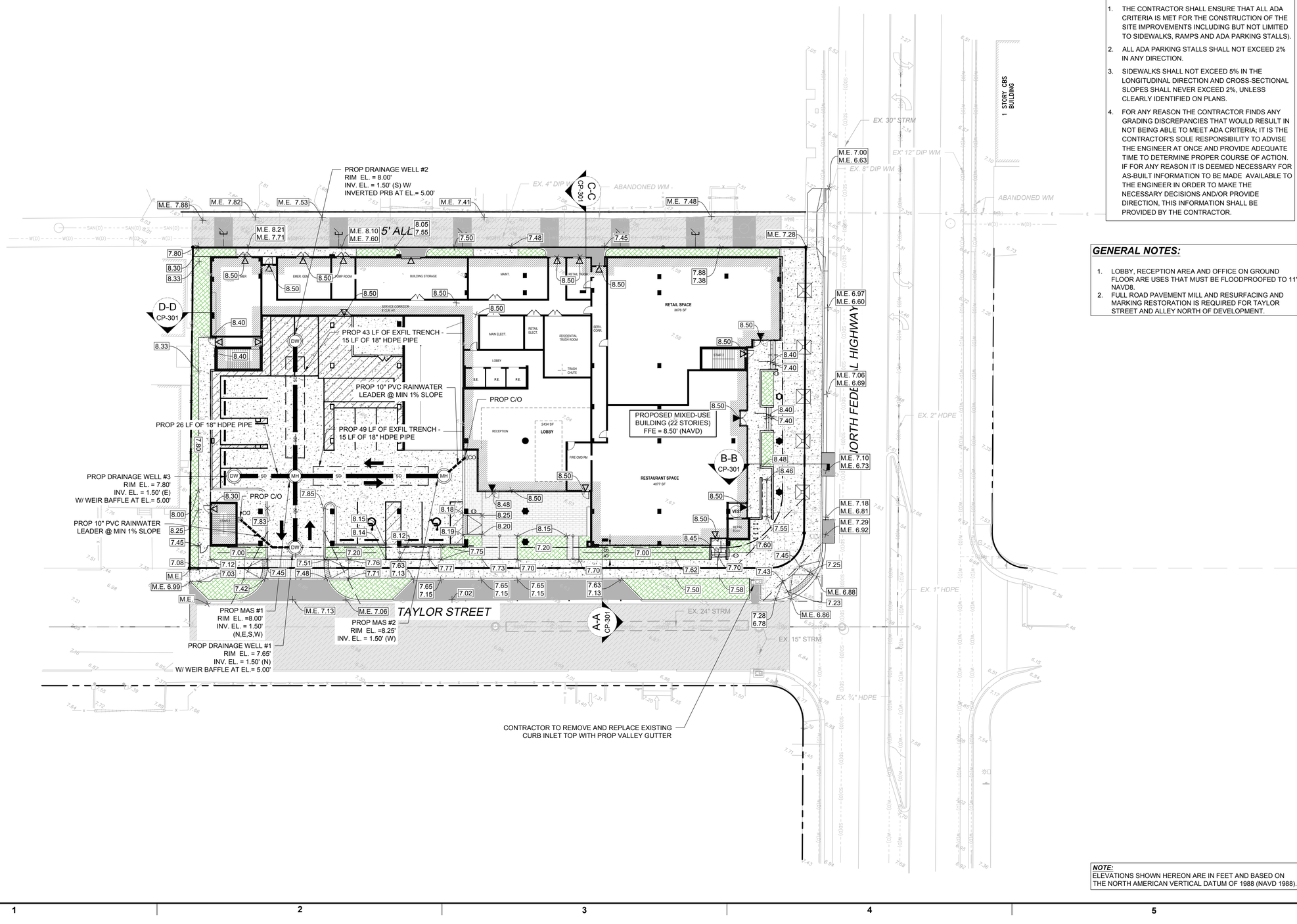

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GRAPHIC SCALE

0 20 40

SCALE: 1" = 20 '

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GENERAL ADA SLOPE NOTES:

1. THE CONTRACTOR SHALL ENSURE THAT ALL ADA CRITERIA IS MET FOR THE CONSTRUCTION OF THE SITE IMPROVEMENTS INCLUDING BUT NOT LIMITED TO SIDEWALKS, RAMPS AND ADA PARKING STALLS).
2. ALL ADA PARKING STALLS SHALL NOT EXCEED 2% IN ANY DIRECTION.
3. SIDEWALKS SHALL NOT EXCEED 5% IN THE LONGITUDINAL DIRECTION AND CROSS-SECTIONAL SLOPES SHALL NEVER EXCEED 2%, UNLESS CLEARLY IDENTIFIED ON PLANS.
4. FOR ANY REASON THE CONTRACTOR FINDS ANY GRADING DISCREPANCIES THAT WOULD RESULT IN NOT BEING ABLE TO MEET ADA CRITERIA; IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ADVISE THE ENGINEER AT ONCE AND PROVIDE ADEQUATE TIME TO DETERMINE PROPER COURSE OF ACTION. IF FOR ANY REASON IT IS DEEMED NECESSARY FOR AS-BUILT INFORMATION TO BE MADE AVAILABLE TO THE ENGINEER IN ORDER TO MAKE THE NECESSARY DECISIONS AND/OR PROVIDE DIRECTION, THIS INFORMATION SHALL BE PROVIDED BY THE CONTRACTOR.

GENERAL NOTES:

1. LOBBY, RECEPTION AREA AND OFFICE ON GROUND FLOOR ARE USES THAT MUST BE FLOODPROOFED TO 11' NAVD8.
2. FULL ROAD PAVEMENT MILL AND RESURFACING AND MARKING RESTORATION IS REQUIRED FOR TAYLOR STREET AND ALLEY NORTH OF DEVELOPMENT.

NOTE:
ELEVATIONS SHOWN HEREON ARE IN FEET AND BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).

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REVISIONS

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

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1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

410 N. FEDERAL HWY HOLLYWOOD, FL 33020

SHEET TITLE

PAVING, GRADING AND DRAINAGE PLAN

SHEET NUMBER	CP-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:53 PM

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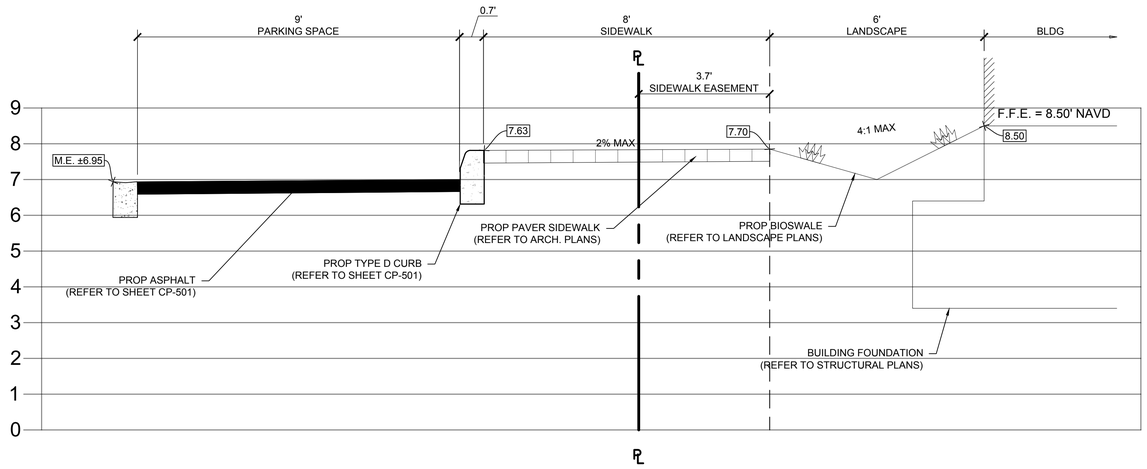
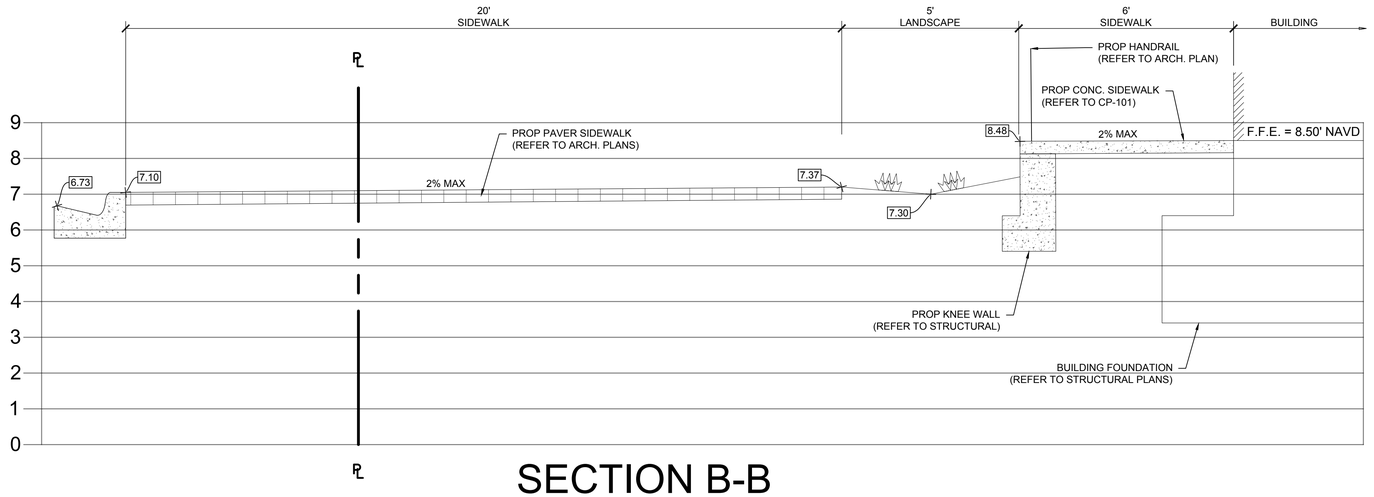


SECTION A-A

SCALE: N.T.S.



SECTION B-B

SCALE: N.T.S.

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PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

CROSS SECTIONS

SHEET NUMBER	CP-301
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CP-301.dwg

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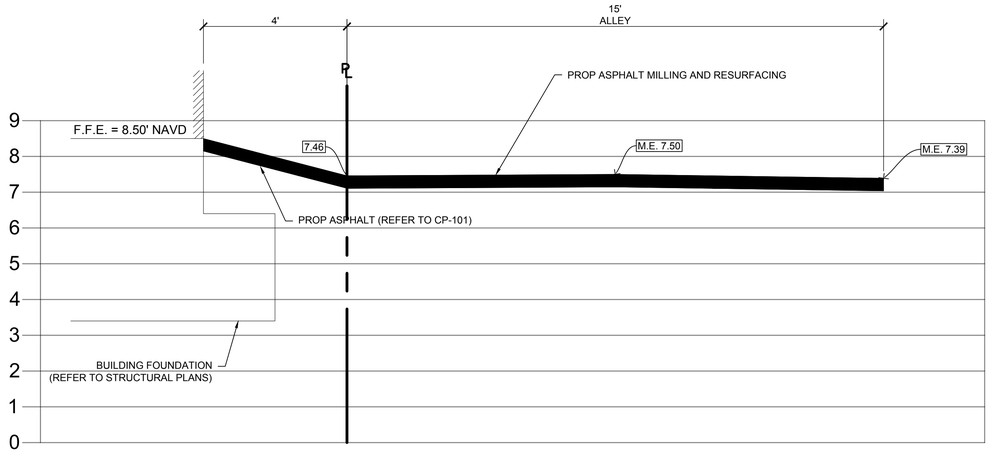

SECTION C-C

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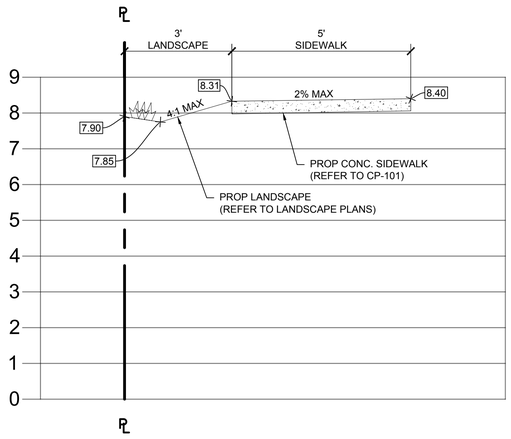

SECTION D-D

SCALE: N.T.S.

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PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

CROSS SECTIONS

SHEET NUMBER	CP-302
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CP-301.dwg

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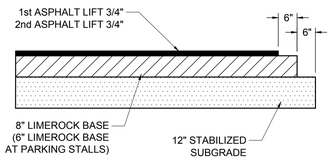


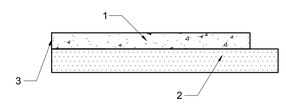
ASPHALTIC CONCRETE VEHICULAR:
FIRST LIFT - 3/4" FDOT - SP 9.5 (FINE MIX). SECOND (FINAL) LIFT - 3/4" FDOT - SP 9.5 (FINE MIX). ASPHALT SURFACE COURSE SHALL CONFORM TO THE REQUIREMENTS OF FDOT STANDARDS SPECIFICATIONS SECTIONS 330 AND 334. SECOND LIFT OF ASPHALT SHALL NOT BE PLACED UNTIL FINAL LANDSCAPE/HARDSCAPE HAS BEEN INSTALLED.

PRIME AND TACK COAT:
LIMEROCK BASE COURSE SHALL CONFORM TO THE REQUIREMENTS OF FDOT STANDARDS SPECIFICATIONS SECTION 300.
APPLICATION RATES:
PRIME COAT - 0.10 GALLONS PER SQ. YD.
TACK COAT - 0.08 GALLONS PER SQ. YD.

BASE:
8"/ 6". LIMEROCK BASE COMPACTED TO 98% OF MAXIMUM DENSITY (AASHTO T-180), LIMEROCK BASE TO CONFORM WITH THE REQUIREMENTS OF FDOT SPECIFICATIONS SECTIONS 200 AND 911.

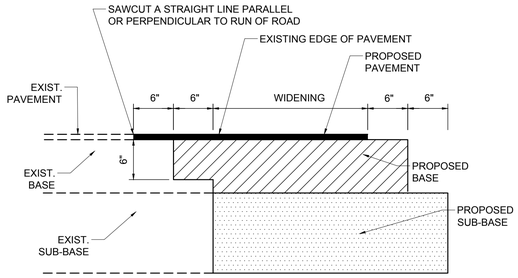
SUBGRADE:
12" STABILIZED SUBGRADE COMPACTED TO 98% OF MAXIMUM DENSITY (AASHTO T-180); MINIMUM LBR = 40.

1 ASPHALT PAVEMENT DETAIL
NOT TO SCALE



1. CONCRETE VEHICULAR COURSE:
   8" - 3,000 PSI CONCRETE PER FDOT STANDARD SPECIFICATIONS SECTION 346 AND 350.
2. STABILIZED SUBGRADE:
   12" SUBGRADE COMPACTED TO 98% OF MAXIMUM DENSITY (AASHTO T-180), MINIMUM LBR = 40. GROUND ADJACENT TO PAVEMENT HAVING RUNOFF SHALL BE GRADED TWO INCHES LOWER THAN THE EDGE OF PAVEMENT TO ALLOW FOR THE PLACEMENT OF SOD.
3. SAWED JOINTS:
   3/16" SAW CUT, 1½ " DEEP (WITHIN 12 HOURS), MAX. 15' O.C., AND MIN.3' PARALLEL TO THE EDGE OF PAVEMENT.

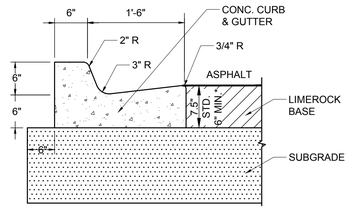
3 CONCRETE PAVEMENT DETAIL
NOT TO SCALE



7 SAWCUT WIDENING DETAIL
NOT TO SCALE

NOTES:
ALL TYPE "F" CURB & GUTTER SHALL BE IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF FDOT INDEX 520-001.

*WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.



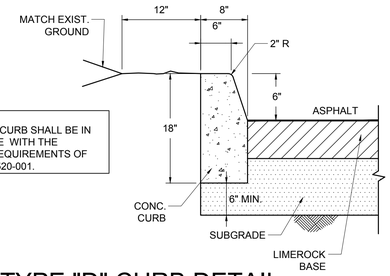
5 TYPE "F" CURB DETAIL PER FDOT INDEX No. 520-001
NOT TO SCALE

	SPACING OF REQUIRED ROADWAY, PARKING AREA, AND UTILITY TRENCH TESTS							
	Proctor Maximum Density		L.B.R.		DENSITY / Per Lift		THICKNESS	
	MAX. SPACING		MAX. SPACING		MAX. SPACING		MAX. SPACING	
	LIN. FEET	SQ. FEET	LIN. FEET	SQ. FEET	LIN. FEET	SQ. FEET	LIN. FEET	SQ. FEET
COMPACTED OR STABILIZED SUBGRADE	1000	12,000	1000	12,000	500	6,000	200	2,400
LIMEROCK BASE	4000	24,000	--	--	500	6,000	200	2,400
ASPHALT	--	--	--	--	1500	18000	Every 200 Tons	
UTILITY TRENCH	One per Soil Type		--	--	500	6,000	--	--
Embankment / Backfill	One per Soil Type		--	--	500	6,000	--	--

ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 12" INSIDE THE LEFT EDGE OF THE ITEM TESTED TO THE CENTER, TO A POINT 12" INSIDE THE RIGHT EDGE. A MINIMUM OF 2 TESTS SHALL BE TAKEN INCLUDING UTILITY TRENCHS AND ROADWAY RESTORATION. SEE FDOT STANDARD SPECIFICATIONS FOR FURTHER DETAILS AND REQUIREMENTS.

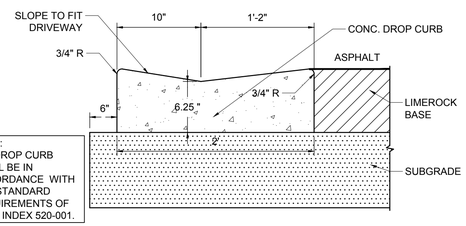
33 COMPACTION TEST SCHEDULE
NOT TO SCALE

NOTE:
ALL TYPE "D" CURB SHALL BE IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF FDOT INDEX 520-001.

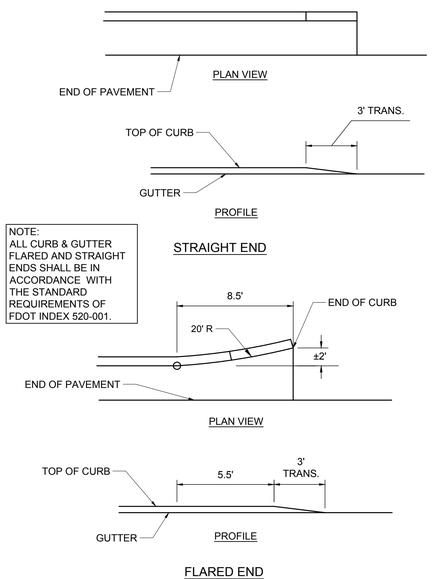


4 TYPE "D" CURB DETAIL PER FDOT INDEX No. 520-001
NOT TO SCALE

NOTE:
ALL DROP CURB SHALL BE IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF FDOT INDEX 520-001.



6 DROP CURB DETAIL PER FDOT INDEX No. 520-001
NOT TO SCALE



NOTE:
ALL CURB & GUTTER FLARED AND STRAIGHT ENDS SHALL BE IN ACCORDANCE WITH THE STANDARD REQUIREMENTS OF FDOT INDEX 520-001.

10 CURB & GUTTER FLARED AND STRAIGHT ENDS
NOT TO SCALE

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REVISIONS

NO.	DESCRIPTION	DATE

PRELIMINARY PLAN NOT FOR CONSTRUCTION

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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
PAVING, GRADING, AND DRAINAGE DETAILS

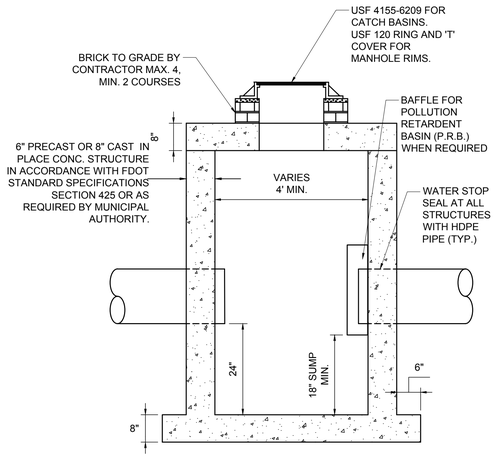
SHEET NUMBER **CP-501**

PROJECT NUMBER **13778.00**

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:53 PM

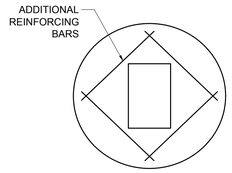
Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cad\13778.00 CP-501.dwg



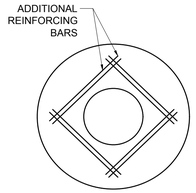
NOTES:
1. STRUCTURE MANUFACTURER AND/OR CONTRACTOR SHALL CONFIRM ALL STEEL REINFORCEMENT MEETS FDOT STANDARDS PER INDEX 425-010, SECTION 415 AND 425 PRIOR TO SUBMITTING ANY SHOP DRAWINGS FOR APPROVAL.
2. LOCKING GRATES TO BE PROVIDED.

11 CATCH BASIN / DRAINAGE MANHOLE DETAIL

NOT TO SCALE



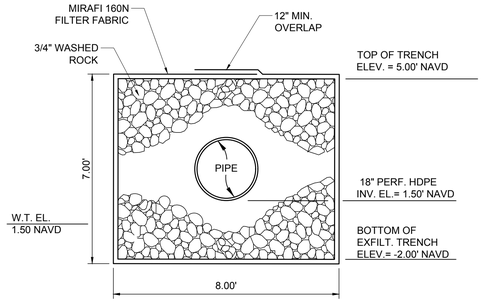
PLAN VIEW
TOP SLAB
FOR CATCH BASINS



PLAN VIEW
TOP SLAB
FOR MANHOLES

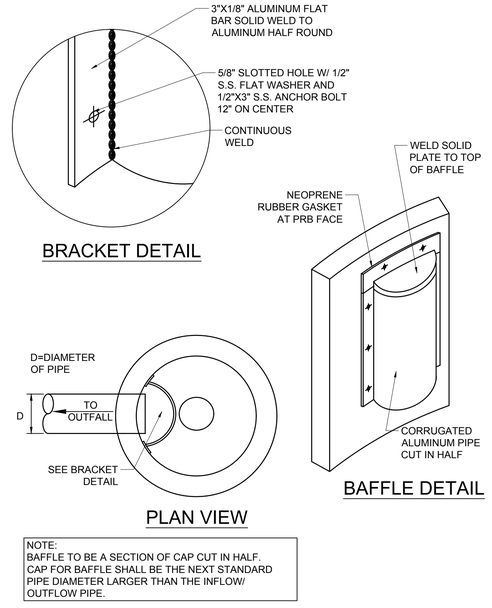
12 CATCH BASIN / MANHOLE FRAME DETAIL

NOT TO SCALE



13 EXFILTRATION TRENCH DETAIL

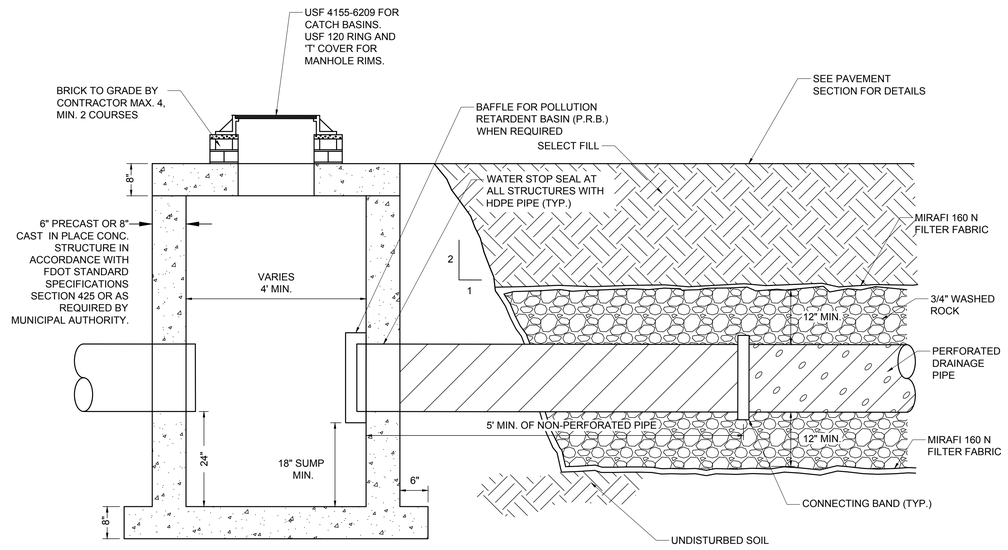
NOT TO SCALE



NOTE:
BAFFLE TO BE A SECTION OF CAP CUT IN HALF. CAP FOR BAFFLE SHALL BE THE NEXT STANDARD PIPE DIAMETER LARGER THAN THE INFLOW/ OUTFLOW PIPE.

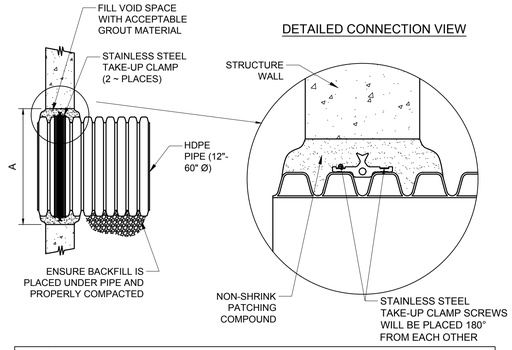
14 POLLUTION RETARDENT BAFFLE DETAIL

NOT TO SCALE



15 CATCH BASIN W/ PRB AND EXFILTRATION TRENCH

NOT TO SCALE



NOTES:
PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

SEE ADS STANDARD DETAIL STD-201 AND ADS INSTALLATION GUIDE 1.05: WATERSTOP INSTALLATION FOR INSTALLATION RECOMMENDATIONS.

PIPE SIZE	PIPE OD		"A" MIN. HOLE DIA	MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT
	A-PROFILE	H-PROFILE		
12"	14.5"	N/A	19.5"	3.7"
15"	17.6"	N/A	23.00"	4.0"
18"	21.2"	N/A	26.50"	4.2"
24"	27.8"	N/A	33.25"	4.5
30"	35.1"	N/A	40.50"	5.2"
36"	41.1"	41.1"	47.00"	5.5"
42"	47.7"	48.0"	53.00"	5.7"
48"	53.6"	54.0"	59.00"	5.7"
60"	66.3"	67.3"	72.00"	6.4"

17 GROUTED MANHOLE CONNECTION (HDPE PIPE) DETAIL

NOT TO SCALE

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PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

PAVING, GRADING, AND DRAINAGE DETAILS

SHEET NUMBER	CP-502
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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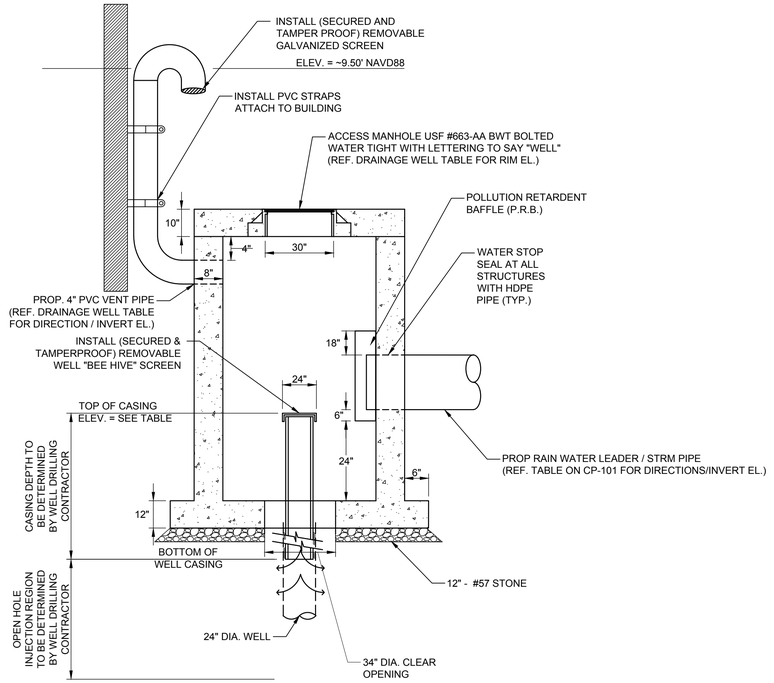
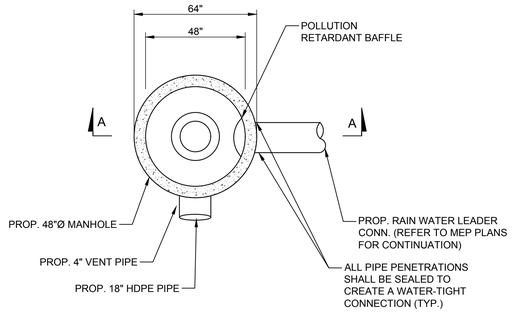


SECTION A-A STRUCTURE
WITH NO OUTFLOW

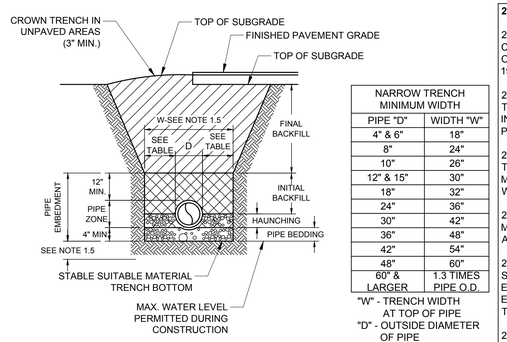


NOTES:

- REFER TO SHEET CP-101 DRAINAGE STRUCTURE TABLE FOR DRAINAGE WELLS 1-3, INVERT ELEVATIONS, DIRECTION, AND PIPE SIZES.
- WELL BOX REINFORCEMENT SHALL BE DESIGNED BY PRE CASTER TO MEET FDOT STANDARDS AND SPECIFICATIONS.
- 24" DIAMETER WELL, CONTRACTOR TO DEVELOP WELL CAPABLE OF DISCHARGING 300 GPM PER FOOT OF HEAD. FINAL WELL DIMENSIONS TO BE DETERMINED BY A LICENSED WELL CONTRACTOR. FINAL DEPTH OF CASING TO BE FIELD DETERMINED BY WELL CONTRACTOR. THE WELL CASING SHALL PENETRATE A ZONE CONTAINING A MINIMUM OF 10,000 mg/L TOTAL DISSOLVED SOLIDS (TDS).
- DRAINAGE WELL TO BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE REGULATORY STANDARDS AND PERMITS.
- LIDS TO BE BOLTED DOWN (PENTA HEAD BOLTS, 4 ON INNER COVER AND 4 ON OUTER COVER).
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO PREVENT ANY FLUID FROM DISCHARGING INTO THE DRAINAGE WELL WITHOUT WRITTEN AUTHORIZATION FROM FDEP TO USE THE WELL.
- THE WELL CASING SHALL BE 24" DIAMETER AND IN ACCORDANCE WITH RULE 62-532.500(1)(A), FAC WHICH SPECIFIES ALL WELL CASING SHALL BE NEW AND CONFORM TO AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) A53/A53M-99b, A135-01, A252-98, A589-96, OR AMERICAN PETROLEUM INSTITUTE (API) 5L-2000. REFER TO RULE FOR MORE DETAILS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR CONDUCTING THE WELL TEST AND SATISFACTORILY DISPOSING OF THE WATER PUMPED FROM THE WELL. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE TO THE CITY, ENGINEER AND/OR REGULATORY AGENCIES PRIOR TO THE START OF THE TEST.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE NECESSARY WELL DRILLING PERMITS AND COMPLY WITH ALL PROVISIONS THEREOF. THIS SHALL INCLUDE (BUT NOT LIMITED TO) SECURING THE FINAL CONSTRUCTION/CLEARANCE PERMIT FOR A CLASS V WELL BY COMPLETING AND PROCESSING THE REQUIRED APPLICATION FORM (62-528.900.(3) THROUGH FDEP. IN ADDITION, THE CONTRACTOR IS REQUIRED TO PREPARE/PROVIDE THE REASONABLE ASSURANCE REPORT IN ACCORDANCE WITH FDEP REQUIREMENTS. THE CONTRACTOR SHALL HIRE A QUALIFIED FLORIDA LICENSED PROFESSIONAL GEOLOGIST/ENGINEER WITH THE REQUIRED HYDROGEOLOGICAL EXPERTISE TO DEVELOP THIS REPORT AND PROVIDE THE NECESSARY SIGNED AND SEALED COPIES.

21 DRAINAGE WELL W/ PBR

NOT TO SCALE



NARROW TRENCH MINIMUM WIDTH	
PIPE "D"	WIDTH "W"
4" & 6"	18"
8"	24"
10"	26"
12" & 15"	30"
18"	32"
24"	36"
30"	42"
36"	48"
42"	54"
48"	60"
60" & LARGER	1.3 TIMES PIPE O.D.

"W" - TRENCH WIDTH AT TOP OF PIPE
"D" - OUTSIDE DIAMETER OF PIPE

1. NOTES - PRESSURE FLOW AND STORM SEWER PIPE.

1.1. GENERAL: TRENCH CONSTRUCTION SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS SECTION 125. PVC PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE UNI-BELL PVC PIPE ASSOCIATION, HANDBOOK OF PVC PIPE, DESIGN AND CONSTRUCTION. CONCRETE PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH ANSI / ASCE 15-93.

1.2. PIPE BEDDING: PROVIDE BELL HOLES AT EACH JOINT, FOR PIPES LARGER THAN 4" IN DIAMETER, TO PERMIT PROPER ASSEMBLY AND PIPE SUPPORT.

1.3. HAUNCHING: USE MATERIAL MEETING THE CLASSIFICATION OF A-3 IN ACCORDANCE WITH ASTM D3282 (AASHTO M-145). MAXIMUM PARTICAL SIZE SHALL BE LESS THAN 1.5 INCHES.

1.4. INITIAL BACKFILL: USE SAME MATERIAL AS SPECIFIED FOR FINAL BACKFILL (SEE NOTE 2.9).

1.5. UNSUITABLE SOIL EXCAVATION: SE SHEET PD-2 FOR ADDITIONAL REQUIREMENTS. MINIMUM DIMENSIONS SHALL BE THE LARGER OF THE REQUIREMENTS SHOWN ON THIS SHEET AND SHEET PD-2.

22 PAVEMENT RESTORATION DETAIL

NOT TO SCALE

2. GENERAL NOTES:

2.1. TRENCH WALLS - EXCAVATE TRENCH TO ENSURE SIDES WILL BE STABLE UNDER WORKING CONDITIONS. TRENCH WALLS TO BE SLOPED OR SUPPORTED IN ACCORDANCE WITH THE CHAPTER 90-96 OF THE LAWS OF FLORIDA (THE TRENCH SAFETY ACT) AND FEDERAL OSHA STANDARD CFR SECTION 1926.650 SUBPART - P.

2.2. DEWATERING: WHEN RUNNING OR STANDING WATER OCCURS IN THE TRENCH BOTTOM, OR THE TRENCH BOTTOM DISPLAYS A "QUICK" CONDITION, WATER SHALL BE REMOVED TO BELOW THE PIPE INVERT BY A SUITABLE MEANS, UNTIL THE PIPE IS BACKFILLED TO A SUFFICIENT HEIGHT TO PREVENT PIPE FLOATATION.

2.3. MINIMUM TRENCH WIDTH: PROVIDE A TRENCH WIDTH SUFFICIENT, BUT NO WIDER THAN NECESSARY, TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING BACKFILL MATERIAL. SEE TABLE FOR MINIMUM TRENCH WIDTHS. WHERE SOIL CONDITIONS REQUIRE TRENCH WALLS TO BE SUPPORTED, MINIMUM WIDTH SHALL BE BETWEEN INNER FACE OF TRENCH SUPPORTS.

2.4. MOVABLE SHEETING, TRENCH BOXES OR SHIELDS: WHEN MOVABLE TRENCH SUPPORT IS USED, THE MINIMUM DISTANCE BETWEEN INNER FACE OF TRENCH SUPPORT, AND THE OUTER PIPE WALL, SHALL BE AT LEAST ONE PIPE DIAMETER OR 2 FEET WHICH EVER IS GREATER.

2.5. PREPARATION OF TRENCH BOTTOM: TRENCH BOTTOM SHALL BE PREPARED TO PROVIDE A FIRM STABLE UNIFORM FOUNDATION THE FULL LENGTH OF THE PIPE. IF UNSUITABLE MATERIAL IS ENCOUNTERED AT BOTTOM OF TRENCH, CONTINUE TO EXCAVATE TILL SUITABLE MATERIAL IS ENCOUNTERED. IF DEPTH TO SUITABLE MATERIAL IS GREATER THAN 2 FEET BELOW BOTTOM OF TRENCH, NOTIFY ENGINEER OF SUCH CONDITION BEFORE CONTINUING FURTHER TRENCH EXCAVATION.

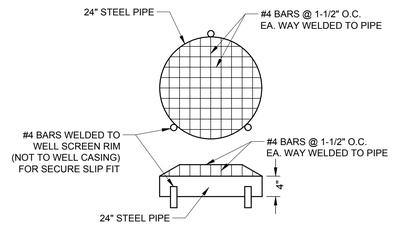
2.6. PIPE BEDDING: BEDDING MATERIAL SHALL CONFORM TO ASTM D-2321, AND MEET THE REQUIREMENTS OF FDOT SPECIFICATION SECTION 125-8 BACKFILLING. FOR PVC AND OTHER "FLEXIBLE" PIPES, EXCAVATE 4" BELOW PROPOSED OUTSIDE BOTTOM OF PIPE, BACKFILL AND COMPACT WITH SPECIFIED BEDDING MATERIAL TO PROPER GRADE.

2.7. HAUNCHING: MATERIAL SHALL MEET AND BE INSTALLED AND COMPACTED INACCORDANCE WITH THE REQUIREMENTS OF FDOT SPECIFICATION SECTION 125-8 BACKFILLING. PLACE AND CONSOLDATE MATERIAL UNDER THE PIPE HAUNCH, UP TO THE PIPE SPRINGLINE, FOR THE FULL WIDTH OF THE TRENCH, BEFORE PLACING AND COMPACTING THE REMAINDER OF THE EMBEDMENT IN THE PIPE ZONE. HAUCHING MATERIAL SHALL BE PLACED AND CONSOLIDATED BY HAND SHOVEL SLICING ALONG HAUNCH OF PIPE AND BY WATERING (JETTING OR PUDDLING) OR HAND TAMPING. MECHANICAL COMPACTION IS NOT TO BE USED WITHIN 1 PIPE DIAMETER OR 2 FEET, WHICH EVER IS GREATER, EITHER SIDE OF THE OUTSIDE WALL OF THE PIPE.

2.8. INITIAL BACKFILL: SHALL EXTEND FROM THE SPRINGLINE OF THE PIPE TO 1 FOOT ABOVE THE TOP OF PIPE. MATERIAL SHALL BE PLACED AND CONSOLIDATED AS SPECIFIED FOR THE HAUNCHING MATERIAL.

2.9. FINAL BACKFILL: MATERIAL SHALL MEET AND BE INSTALLED AND COMPACTED INACCORDANCE WITH THE REQUIREMENTS OF FDOT SPECIFICATION SECTION 125-8 BACKFILLING. SELECT BACKFILL MEETING THE CLASSIFICATION OF A-1, A-3, OR A-2-4 IN ACCORDANCE WITH ASTM D3282 (AASHTO M-145). THE MATERIAL MUST NOT CONTAIN MUCK, STUMPS, ROOTS, BRUSH, VEGITABLE MATTER, RUBBISH, CONSTRUCTION DEBRI OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE EMBANKMENT. MATERIAL MUST HAVE MAXIMUM PARTICLE SIZE AS FOLLOWS: WITHIN 12" OF TOP OF SUBGRADE - 31/2"; 12" TO 24" BELOW TOP OF SUBGRADE - 6"; GREATER THAN 24" BELOW TOP OF SUBGRADE - 12" OR COMPACTED THICKNESS OF LAYER BEING PLACED, WHICH EVER IS LESS. FINAL BACKFILL MAY BE NATIVE MATERIAL MEETING THE SPECIFIED REQUIREMENTS. UNLESS OTHERWISE NOTED.

2.10. COMPACTION TEST: COMPACTION PERCENTAGES SHOWN FOR TRENCH SECTION BACKFILL MATERIAL REFER TO ASTM - D698 (AASHTO - T-99, STANDARD PROCTOR). COMPACTION PERCENTAGES FOR LIMEROCK BASE COURSE MATERIAL REFER TO ASTM - D1557 (AASHTO -T-180, MODIFIED PROCTOR).



21 WELL SCREEN DETAIL

NOT TO SCALE

DRAINAGE WELL TABLE							
STR. DESCRIPTION	RIM EL.	INSIDE DIMENSIONS	ASSUMED WELL CAPACITY	INVERTS EL.	INVERTED BAFFLE/WEIR EL.	COORDINATES (LATITUDE/LONGITUDE) DMS	COMMENTS
DRAINAGE WELL #1	7.70'	60" Ø	300 GPM	1.50' (N) 5.00' (E)	5.00'	N 024°21'00.10" / W 082°56'08.31"	WATERTIGHT (REFER DETAIL)
DRAINAGE WELL #2	8.00'	60" Ø	300 GPM	1.50'(S)	5.00'	N 024°21'01.28" / W 082°56'08.91"	WATERTIGHT (REFER DETAIL)
DRAINAGE WELL #3	8.18'	60" Ø	300 GPM	1.50' (E)	5.00'	N 024°21'00.39" / W 082°56'09.17"	WATERTIGHT (REFER DETAIL)

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1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

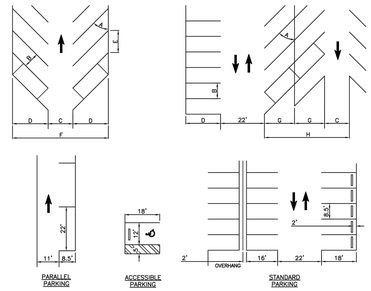
PAVING, GRADING, AND DRAINAGE DETAILS

SHEET NUMBER	CP-503
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CP-501.dwg

Plotted by: vcastillo On 11/16/2023 2:53 PM

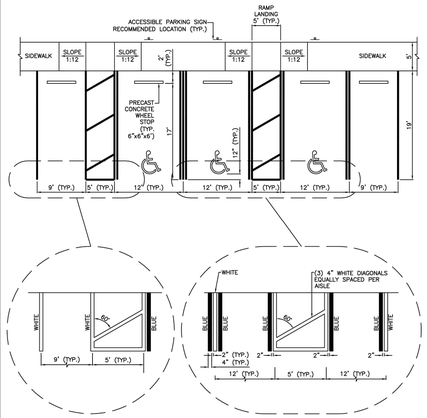


A PARKING ANGLE	B STALL WIDTH	C AISLE WIDTH	D STALL LENGTH	E CURB DEPTH	F OVERALL LENGTH	G BACK TO BACK STALL LENGTH	H OVERALL BACK TO BACK LENGTH
30°	8.5'	11'	16.9'	17'	44.8'	13.2'	37.4'
30°	9'	11'	17.3'	18'	45.6'	13.4'	37.8'
45°	8.5'	12.5'	19.5'	12'	51.4'	16.4'	45.4'
45°	9'	12.5'	19.8'	12.75'	52.1'	16.6'	45.7'
60°	8.5'	17.5'	20.7'	9.8'	58.9'	18.6'	54.7'
60°	9'	17.5'	21'	10.4'	59.5'	18.7'	54.9'
90°	8.5'	22'	18'	8.5'	61'	19'	61'
90°	9'	22'	18'	8.5'	61'	19'	61'

STANDARD STALL IS 8.5' x 18'
ACCESSIBLE SPACE IS 12' x 18', WITH 5' ACCESS AISLE CLEARLY MARKED.
PARALLEL PARKING IS 8.5' x 22'.
LANDSCAPE ISLANDS ARE FOR TREE PLANTING, NOT FOR LIGHT POLES.
DRIVEWAY WIDTH AT PROPERTY LINE IS NOT TO EXCEED AISLE WIDTH.

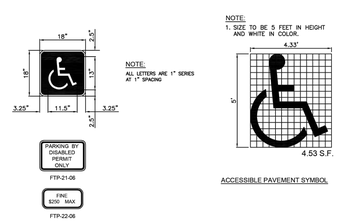
ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	STANDARD PARKING GEOMETRICS WITHIN THE RAC AREA	DRAWING NO.: C-18
APPROVED: JG		

ACCESSIBLE PARKING SPACE COMPLYING WITH FLORIDA AND ADA REQUIREMENTS (*)



(*) IN CASE OF CONFLICT PLANS TO COMPLY WITH ADA 406 & 502, AND FDOT 711-001 (SHEET 11)

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	ACCESSIBLE PARKING SPACE DETAILS (1 OF 2)	DRAWING NO.: C-21
APPROVED: JG		



NOTE:
ALL LETTERS ARE 1" SERIES AT 1" SPACING

NOTE:
1. SIZE TO BE 5 FEET IN HEIGHT AND WHITE IN COLOR.

ACCESSIBLE PAVEMENT SYMBOL

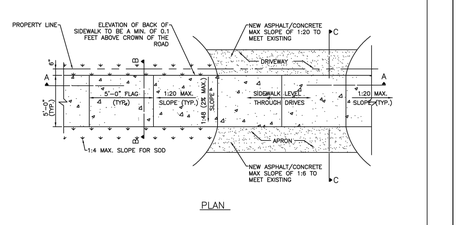
SIGNAGE NOTES:

1. FTP-21-06 & FTP-22-06 SIGN SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS INDEX 700-102.
2. SIGN POST SHALL BE IN ACCORDANCE WITH BROWARD COUNTY TRAFFIC ENGINEERING DIVISION "GROUND SIGN ASSEMBLY DETAILS", LATEST REVISION.

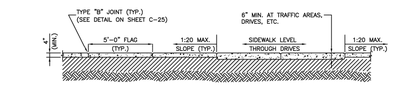
NOTES:

1. PROVIDE PAVEMENT SYMBOL IN ACCESSIBLE PARKING SPACES. THE SYMBOL SHALL BE WHITE IN COLOR PER ADA STANDARDS.
2. BLUE MARKINGS SHALL BE SHADED.
3. SLOPES NO GREATER THAN 1:48 SHALL BE PERMITTED IN ALL DIRECTIONS FOR BOTH THE ACCESSIBLE PARKING SPACE AND ACCESSIBLE PARKING ACCESS AISLE.
4. ALL RAMPS, SIDEWALK, CURB RAMPS, AND ACCESSIBLE ROUTES SHALL BE ADA COMPLIANT.
5. WIDTH MEASUREMENTS OF PARKING SPACES AND ACCESS AISLES SHALL BE MADE FROM THE CENTERLINE OF THE WHITE PAVEMENT MARKINGS, HOWEVER, WHEN PARKING SPACES OR ACCESS AISLES ARE ADJACENT TO A CURB OR EDGE OF PAVEMENT AND NOT ADJACENT TO ANOTHER PARKING SPACE OR ACCESS AISLE; THEN THE WIDTH MEASUREMENTS MAY INCLUDE THE FULL WIDTH OF THE LAST PAVEMENT MARKING.
6. ALL ACCESSIBLE ELEMENTS SHALL BE COMPLIANT WITH THE DEPARTMENT OF JUSTICE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE FLORIDA BUILDING CODE LATEST EDITION FOR "ACCESSIBILITY".
7. ALL PARKING PAVEMENT MARKINGS SHALL BE 4" REFLECTORIZED PAINT MEETING FDOT/BCTED STANDARDS.
8. ACCESSIBLE PARKING SIGNS SHALL BE 60" MINIMUM ABOVE FINISH FLOOR OR GROUND SURFACE MEASURED FROM BOTTOM OF THE SIGN.

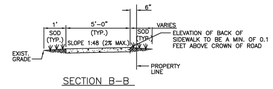
ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	ACCESSIBLE PARKING SPACE DETAILS (2 OF 2)	DRAWING NO.: C-22
APPROVED: JG		



PLAN



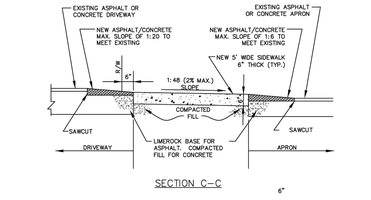
SECTION A-A



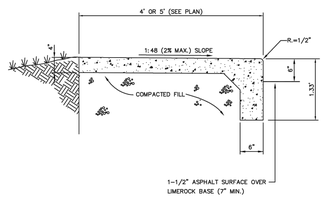
SECTION B-B

NOTE:
1. ALL SIDEWALK CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE ADA STANDARDS.
2. LIGHT BROOM FINISH PERPENDICULAR TO THE DIRECTION OF THE SIDEWALK.
3. ALL SIDEWALKS CROSS SLOPES SHALL BE 1:48 (2% MAX.); AND, RUNNING SLOPES 1:20 MAX.

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (1 OF 3)	DRAWING NO.: C-23
APPROVED: JG		

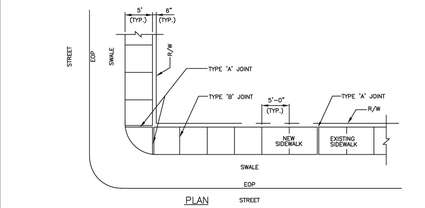


SECTION C-C

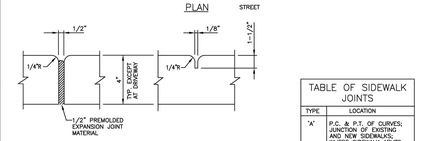


SIDEWALK WITH CURB

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (2 OF 3)	DRAWING NO.: C-24
APPROVED: JG		



PLAN



TYPE 'A' TYPE 'B'

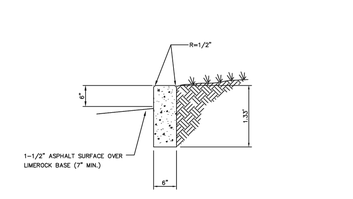
SIDEWALK JOINTS

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
'A'	P.C. & P.T. OF CURVES; JUNCTION OF EXISTING AND NEW SIDEWALKS; AND WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS AND SIMILAR STRUCTURES.
'B'	5' CENTER TO CENTER ON SIDEWALKS.

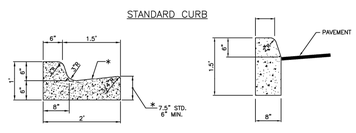
NOTES:

1. CONCRETE SHALL BE CLASS 1 WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
2. USE OF FIBER REINFORCED CEMENT IS PROHIBITED.
3. SIDEWALK LONGITUDINAL AND CROSS SLOPES SHALL MEET ADA STANDARDS.
4. SIDEWALK CURB RAMPS SHALL BE PROVIDED AT ALL DESIGNATED PEDESTRIAN CROSSING AT INTERSECTIONS PER FDOT STANDARD PLANS INDEX NO. 522-002.
5. THE VERTICAL DEVIATION OF THE COVER/LID OF A GIVEN UTILITY BOX/STRUCTURE SHALL NOT BE MORE THAN A ¼" DIFFERENCE IN HIGHT/ELEVATION OF THE FINISHED SIDEWALK SURFACE.
6. 4" THICK MINIMUM (TYP.); 6" THICK AT DRIVEWAYS, EXTENDED TWO FEET ON BOTH SIDES BEYOND THE DRIVE.

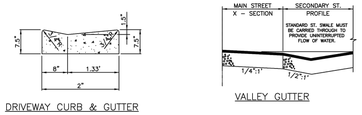
ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (3 OF 3)	DRAWING NO.: C-25
APPROVED: JG		



STANDARD CURB



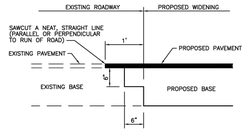
6" CURB & GUTTER (FDOT TYPE "F") TYPE 'D' CURB



DRIVEWAY CURB & GUTTER VALLEY GUTTER

* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	CURB AND GUTTER DETAILS	DRAWING NO.: C-26
APPROVED: JG		



ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SAWCUT DETAIL	DRAWING NO.: C-28
APPROVED: JG		

KEITH
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Pompano Beach, FL 33060
PH: (954) 788-3400
Florida Engineering Business License: CA7928
Florida Surveyor and Mapper Business License: LB6660
Florida Landscape Architecture Business License: LC26000457

REVISIONS

NO.	DESCRIPTION	DATE

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

PAVING, GRADING, AND DRAINAGE DETAILS

SHEET NUMBER	CP-504
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:53 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CP-501.dwg

FIRE FLOW CALCULATIONS
22-STORY MIXED-USE BUILDING
Star Tower Hollywood

These Calculations are for a 22-story building with a total gross square footage of 598,140.34.

Fire Flow Area = 89,700 SF

Based on the Type I-A (332) construction, per NFPA 18.4 fire flow requirements, the fire flow is 3,250 gpm for 3 hours.

NFPA 18.4 States that the required fire flow can be reduced by 75% if the building has automatic sprinklers.

Fire Flow Credit
3,250 gpm x 75% = 2,437.5 gpm

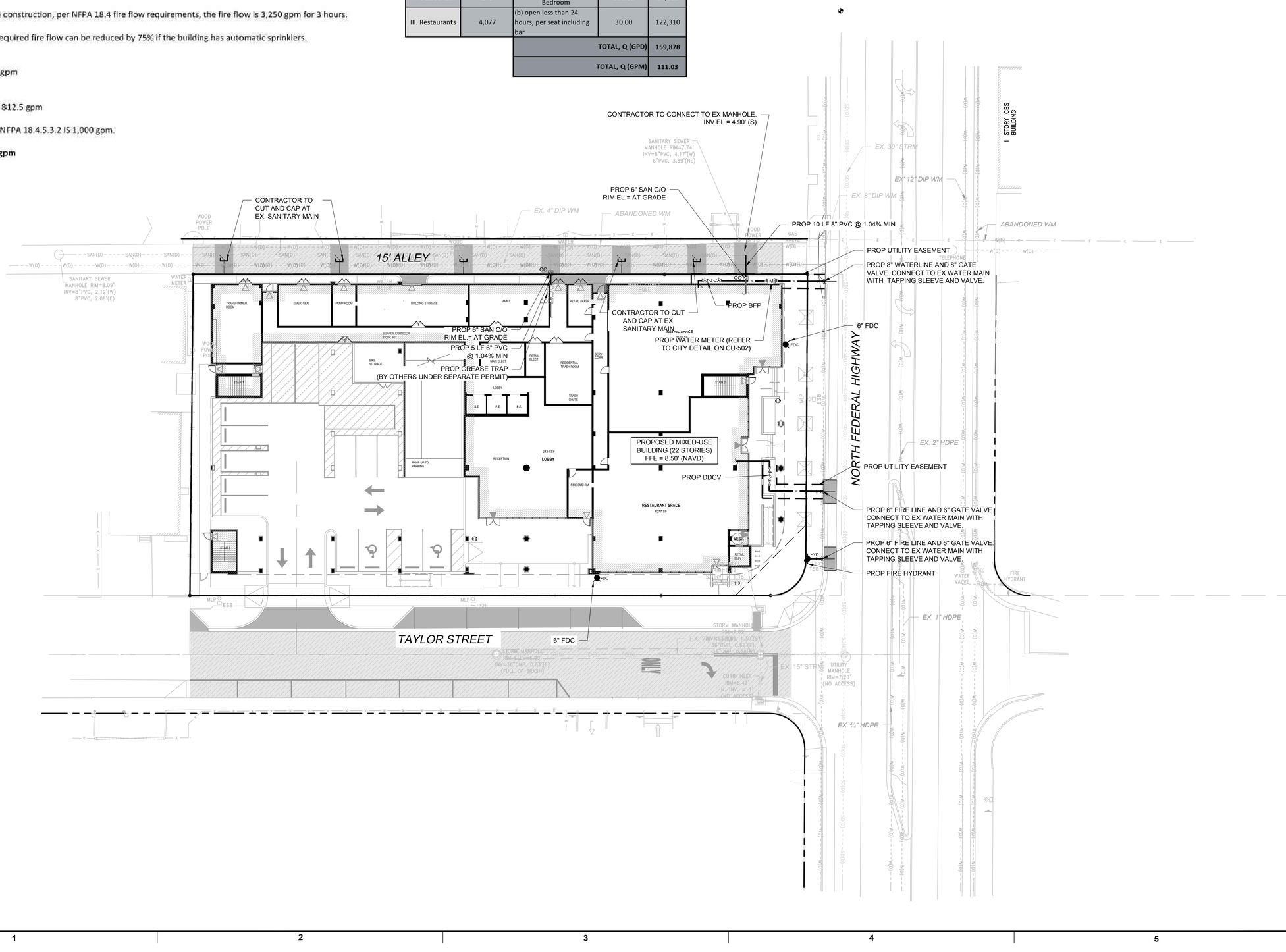
Fire Flow Required
3,250 gpm – 2,437.5 gpm = 812.5 gpm

The minimum fire flow per NFPA 18.4.5.3.2 IS 1,000 gpm.

Fire flow required = 1,000 gpm

A.1. AVERAGE DAILY FLOWS

Land Use	Number of Units/seats/pupil &/or SQ. FT.	Specific Condition	Per unit in Gallons per day (GPD)	Sub-Total (GPD)
Shopping Center and Retail shops	3,676	(a) per Square foot of floor space (Does not include food service or laundry)	0.10	368
III. Residences	248	(c) Motel/Hotes units, per Bedroom	150.00	37,200
III. Restaurants	4,077	(b) open less than 24 hours, per seat including bar	30.00	122,310
			TOTAL, Q (GPD)	**159,878**
			TOTAL, Q (GPM)	**111.03**



N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '

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

KEITH
301 East Atlantic Blvd.
Pompano Beach, FL 33060
PH: (954) 788-3400
Florida Engineering Business License: CA7928
Florida Surveyor and Mapper Business License: LB6860
Florida Landscape Architecture Business License: LC26000457

REVISIONS

NO.	DESCRIPTION	DATE

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

WATER AND SEWER PLAN

SHEET NUMBER	CU-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 3:04 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CU-101.dwg

GENERAL NOTES:

1. THE INFORMATION PROVIDED IN THESE DRAWINGS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF THE WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH BIDS WILL BE BASED.
2. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO APPLICABLE STANDARDS AND SPECIFICATIONS OF THE CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES, ENGINEERING AND CONSTRUCTION SERVICES DIVISION (ECSD), AND ALL OTHER LOCAL, STATE AND NATIONAL CODES, WHERE APPLICABLE.
3. LOCATIONS, ELEVATIONS, SIZES, MATERIALS, ALIGNMENTS, AND DIMENSIONS OF EXISTING FACILITIES, UTILITIES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS; AND DO NOT PURPORT TO BE ABSOLUTELY CORRECT. ALSO, THERE MAY HAVE BEEN OTHER IMPROVEMENTS, UTILITIES, ETC., WITHIN THE PROJECT AREA WHICH WERE CONSTRUCTED AFTER THE PREPARATION OF THESE PLANS AND/OR THE ORIGINAL SITE SURVEY. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND OTHER FEATURES AFFECTING HIS/HER WORK PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICT BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY FACILITIES SHOWN OR NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL WORK AS NEEDED TO AVOID CONFLICT WITH EXISTING UTILITIES (NO ADDITIONAL COST SHALL BE PAID FOR THIS WORK). EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE RESPECTIVE UTILITY OWNER.
4. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES TO ARRANGE FOR THE RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES ON THIS PROJECT, AND TO ENSURE THAT EXISTING UTILITIES ARE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS APPROVED OTHERWISE BY THE UTILITY OWNER.
6. CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND-HOLES, PULL-BOXES, STORMWATER INLETS, AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAID WITH ASPHALT PAVEMENT.
7. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL APPLICABLE CONSTRUCTION AND ENVIRONMENTAL PERMITS PRIOR TO THE START OF CONSTRUCTION.
8. THE CONTRACTOR SHALL NOTIFY ECSD AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
9. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND INSTALLATION OF THE PROPOSED IMPROVEMENTS, SHOP DRAWINGS SHALL BE SUBMITTED TO ECSD IN ACCORDANCE WITH THE CONTRACT DOCUMENT'S REQUIREMENTS, FOR APPROVAL. IN ADDITION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY OTHER AGENCY SHOP DRAWING APPROVAL, IF REQUIRED.
10. THE CONTRACTOR SHALL NOTIFY ECSD IMMEDIATELY FOR ANY CONFLICT ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
11. ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	GENERAL NOTES	DRAWING NO. G-00
APPROVED: XXX		

GENERAL NOTES (CONTINUED):

12. CITY OF HOLLYWOOD SHALL NOT PROVIDE STAGING / STORAGE AREA. CONTRACTOR SHALL SECURE STAGING / STORAGE AREA AS NECESSARY FOR CONSTRUCTION WORK.
13. CONTRACTOR SHALL HAUL AWAY EXCESSIVE STOCKPILE OF SOIL FOR DISPOSAL EVERY DAY. NO STOCKPILE SOIL IS ALLOWED TO BE LEFT ON THE CONSTRUCTION SITE OVER NIGHT.
14. CONTRACTOR SHALL CLEAN / SWEEP THE ROAD AT LEAST ONCE DAY OR AS REQUIRED BY THE ENGINEER.
15. CONTRACTOR SHALL PROTECT CATCH BASINS WITHIN / ADJACENT TO THE CONSTRUCTION SITE AS REQUIRED BY NPDES REGULATIONS.
16. THE CITY OF HOLLYWOOD HAS A NOISE ORDINANCE (CHAPTER 100) WHICH PROHIBITS EXCAVATION AND CONSTRUCTION BEFORE 8:00 A.M. AND AFTER 6:00 P.M., MONDAY THROUGH SATURDAY AND ALL DAY SUNDAY.
17. SUITABLE EXCAVATED MATERIAL SHALL BE USED IN FILL AREAS. NO SEPARATE PAY ITEM FOR THIS WORK, INCLUDE COST IN OTHER ITEMS.
18. ALL ROAD CROSSINGS ARE OPEN CUT AS PER THE REQUIREMENTS OF THE ECSD UNLESS OTHERWISE NOTED ON THE DRAWINGS.
19. THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZING EARTH, DRIVEWAYS, PARKING LOTS, SIDEWALKS, ETC. TO SATISFY THE INSTALLATION OF THE PROPOSED IMPROVEMENTS WITH THE SAME TYPE OF MATERIAL THAT WAS REMOVED DURING CONSTRUCTION OR AS DIRECTED BY ECSD FIELD ENGINEER.
20. THE CONTRACTOR SHALL NOT ENCROACH INTO PRIVATE PROPERTY WITH PERSONNEL, MATERIAL OR EQUIPMENT. IN CASE WORK ON PRIVATE PROPERTY IS NEEDED, A CITY OF HOLLYWOOD "RIGHT OF ENTRY" FORM MUST BE SIGNED BY PROPERTY OWNER AND THE DIRECTOR OF PUBLIC UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ACCESS AT ALL TIMES TO PRIVATE HOMES/BUSINESSES.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE, REMOVAL OR MODIFICATION, CAUSED TO ANY IRRIGATION SYSTEM (PRIVATE OR PUBLIC) ACCIDENTALLY OR PURPOSELY. THE CONTRACTOR SHALL REPLACE ANY DAMAGED, REMOVED OR MODIFIED IRRIGATION PIPES, SPRINKLER HEADS OR OTHER PERTINENT APPURTENANCES TO MATCH OR EXCEED EXISTING CONDITIONS AT NO ADDITIONAL COST TO THE CITY.
22. MAIL BOXES, FENCES OR OTHER PRIVATE PROPERTY DAMAGED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLACED TO MATCH OR EXCEED EXISTING CONDITION.
23. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH FDOT STANDARDS AND CITY OF HOLLYWOOD DEPARTMENT OF PUBLIC UTILITIES STANDARDS.
24. NO TREES ARE TO BE REMOVED OR RELOCATED WITHOUT PRIOR APPROVAL FROM THE ECSD FIELD ENGINEER.
25. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY TREE REMOVAL OR RELOCATION PERMITS FROM THE CITY OF HOLLYWOOD BUILDING DEPARTMENT FOR TREES LOCATED IN THE PUBLIC RIGHT OF WAY.
26. IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE REGULATORY STANDARDS / REQUIREMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF ECSD.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	GENERAL NOTES (CONTINUED)	DRAWING NO. G-00.1
APPROVED: XXX		

GENERAL NOTES (CONTINUED):

27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF AND MAKING THE REPAIRS TO EXISTING PAVEMENT, SIDEWALKS, PIPES, CONDUITS, CURBS, CABLES, ETC., WHETHER OR NOT SHOWN ON THE PLANS DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTORS, AND SHALL RESTORE THEM PROMPTLY AT NO ADDITIONAL EXPENSE TO THE OWNER. CONTRACTOR SHALL REPORT ANY DAMAGE TO SIDEWALK, DRIVEWAY, ETC., PRIOR TO BEGINNING WORK IN ANY AREA.
28. WHERE NEW PAVEMENT MEETS EXISTING, CONNECTION SHALL BE MADE IN A NEAT STRAIGHT LINE AND FLUSH WITH EXISTING PAVEMENT TO MATCH EXISTING CONDITIONS.
29. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR LEAVE EXCAVATED TRENCHES, OR PARTS OF, EXPOSED OR OPENED AT THE END OF THE WORKING DAY, WEEKENDS, HOLIDAYS OR OTHER TIMES, WHEN THE CONTRACTOR IS NOT WORKING, UNLESS OTHERWISE DIRECTED. ALL TRENCHES SHALL BE COVERED, FIRMLY SECURED AND MARKED ACCORDINGLY FOR PEDESTRIAN / VEHICULAR TRAFFIC.
30. ALL EXCAVATED MATERIAL REMOVED FROM THIS PROJECT SHALL BE DISPOSED OF OFF THE PROPERTY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
31. ALL DUCTILE IRON PRODUCTS SHALL BE DOMESTIC MADE HEAVY DUTY CLASSIFICATION SUITABLE FOR HIGHWAY TRAFFIC LOADS, OR 20,000 LB.
32. ALL GRASSED AREAS AFFECTED BY CONSTRUCTION SHALL BE RE-SODDED.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH SPECIFICATIONS OF THE LATEST REVISION OF FDOT DESIGN STANDARDS. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR THE RESETTING OF ALL TRAFFIC CONTROL AND INFORMATION SIGNAGE REMOVED DURING THE CONSTRUCTION PERIOD.
34. EXCAVATED OR OTHER MATERIAL STORED ADJACENT TO OR PARTIALLY UPON A ROADWAY PAVEMENT SHALL BE ADEQUATELY MARKED FOR TRAFFIC SAFETY AT ALL TIMES.
35. TEMPORARY PATCH MATERIAL MUST BE ON THE JOB SITE WHENEVER PAVEMENT IS CUT, OR THE CITY'S INSPECTOR WILL SHUT THE JOB DOWN.
36. CONTRACTOR MUST PROVIDE FLASHER ARROW SIGNAL FOR ANY LANE THAT IS CLOSED OR DIVERTED.
37. CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AND FIRE PROTECTION SERVICES TWENTY-FOUR (24) HOURS IN ADVANCE OF TRAFFIC DETOUR IN ACCORDANCE WITH SECTION 336.07 OF FLORIDA STATUTES.
38. CONTRACTOR TO RESTORE PAVEMENT TO ORIGINAL CONDITION AS REQUIRED.
39. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DEWATERING PER SPECIFICATION SECTION 02140 DEWATERING.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	GENERAL NOTES (CONTINUED)	DRAWING NO. G-00.2
APPROVED: XXX		

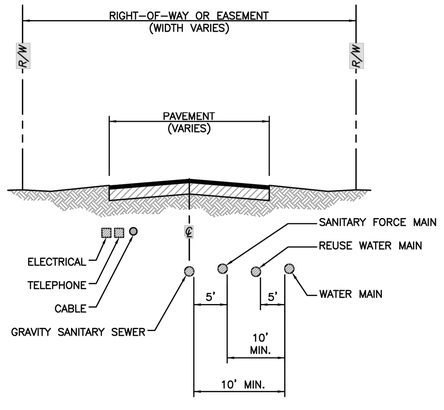
GENERAL NOTES (CONTINUED):

40. THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE TO UTILITY COMPANIES TO PROVIDE FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT UTILITIES NOTIFICATION CENTER AT 811 OR 1-800-432-4770 (SUNSHINE ONE-CALL OF FLORIDA).

Always call 811 two full business days before you dig
Sunshine811.com

41. WHEN PVC PIPE IS USED, A METALLIZED MARKER TAPE SHALL BE INSTALLED CONTINUOUSLY 18" ABOVE THE PIPE. THE MARKER TAPE SHOULD BE IMPRINTED WITH A WARNING THAT THERE IS BURIED PIPE BELOW. THE TAPE SHALL BE MAGNA TEC, AS MANUFACTURED BY THOR ENTERPRISES INC. OR APPROVED EQUAL.
42. ALL CONNECTIONS TO EXISTING MAINS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WATER CONNECTIONS SHALL BE METERED, AND THE COST OF WATER AND TEMPORARY METER SHALL BE BORNE BY THE CONTRACTOR.
43. A COMPLETE AS-BUILT SURVEY SHALL BE ACCURATELY RECORDED OF THE UTILITY SYSTEM DURING CONSTRUCTION. AS-BUILT SURVEY SHALL BE SUBMITTED TO ECSD SIGNED AND SEALED BY A FLORIDA REGISTERED SURVEYOR PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF PROJECT. THE COST OF SIGNED AND SEALED AS-BUILTS SHALL BE COVERED IN OVERALL BID. THE AS-BUILT SURVEY SHALL INCLUDE:
    a. PLAN VIEW SHOWING THE HORIZONTAL LOCATIONS OF EACH MANHOLE, INLET, VALVE, FITTING, BEND AND HORIZONTAL PIPE DEFLECTIONS WITH COORDINATES AND IN REFERENCE TO A SURVEY BASELINE OR RIGHT-OF-WAY CENTERLINE.
    b. THE PLAN VIEW SHALL ALSO SHOW SPOT ELEVATIONS OF THE TOP OF THE MAIN (WATER MAIN AND FORCE MAIN) OR PIPE INVERTS (GRAVITY MAINS) AT INTERVALS NOT TO EXCEED 100 FEET AS MEASURED ALONG MAIN. THE PLAN VIEW SHALL ALSO INCLUDE SPOT ELEVATIONS AT EACH MANHOLE, INLET, VALVE, FITTING, BEND AND VERTICAL PIPE DEFLECTION.
    c. THE PLAN VIEW SHALL ALSO SHOW THE HORIZONTAL SEPARATION FROM UNDERGROUND UTILITIES IMMEDIATELY ADJACENT OR PARALLEL TO THE NEW MAIN.
    d. PROFILE VIEW WITH SPOT ELEVATIONS OF THE TOP OF THE MAIN (WATER MAIN AND FORCE MAIN) OR PIPE INVERT (GRAVITY MAIN) AND OF THE FINISHED GRADE OR MANHOLE RIM DIRECTLY ABOVE THE MAIN AT INTERVALS NOT TO EXCEED 100 FEET AS MEASURED ALONG THE MAIN. THE PROFILE VIEW SHALL ALSO INCLUDE SPOT ELEVATIONS AT EACH MANHOLE, INLET, VALVE, FITTING, BEND AND VERTICAL PIPE DEFLECTION.
    e. THE PROFILE VIEW SHALL SHOW ALL UNDERGROUND UTILITIES CROSSING THE NEW MAIN AND THE VERTICAL SEPARATION PROVIDED BETWEEN THAT UNDERGROUND UTILITY AND THE NEW MAIN.
    f. ALL CADD FILES MUST BE CREATED FOLLOWING THE CITY OF HOLLYWOOD "SURVEY / AS-BUILT CAD DRAWING STANDARDS"

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	GENERAL NOTES (CONTINUED)	DRAWING NO. G-00.3
APPROVED: XXX		



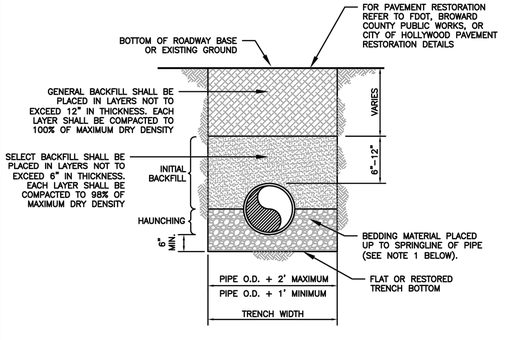
ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TYPICAL UTILITY ACCOMMODATION WITHIN RIGHT-OF-WAY OR EASEMENT	DRAWING NO. G-01
APPROVED: XXX		

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSING (1), (4)	JOINT SPACING @ CROSSING (FULL JOINT CENTERED) (8)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (2)	WATER MAIN — 3 ft minimum	WATER MAIN — 12 inches is the minimum except for storm sewer, then 6 inches is the minimum and 12 inched is preferred	Alternate 3 ft minimum — WATER MAIN
GRAVITY SANITARY SEWER, (3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER	WATER MAIN — 10 ft prefered, 6 ft minimum	WATER MAIN — 12 inches is the minimum except for gravity sewer, then 6 inches is the minimum and 12 inched is preferred	Alternate 6 ft minimum — WATER MAIN
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 ft minimum	———	———

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE, WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. 18" VERTICAL MINIMUM SEPARATION REQUIRED BY CITY OF HOLLYWOOD, UNLESS OTHERWISE APPROVED.
5. A MINIMUM 6 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
6. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
7. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN A PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).
8. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALY RESTRAINED.

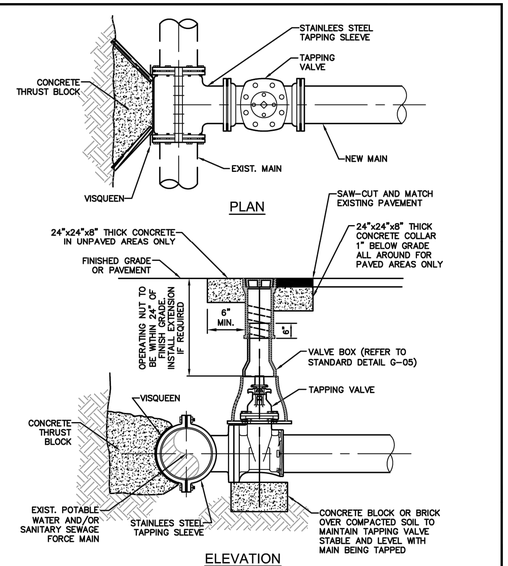
ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	SEPARATION REQUIREMENTS OF F.D.E.P.	DRAWING NO. G-01.1
APPROVED: XXX		



NOTES:

1. WHEN PIPE INSTALLATION IS ABOVE THE GROUND WATER TABLE ELEVATION, OR WHENEVER BEDDING COPPER PIPE UNDER ANY CONDITION, BEDDING MATERIAL SHALL BE CLEAN SANDY SOIL IF AVAILABLE WITHIN THE LIMITS OF CONSTRUCTION. IMPORTED BEDDING SHALL BE WELL GRADED, WASHED CRUSHED STONE (OR DRAINFIELD LIMEROCK). CRUSHED STONE SHALL CONSIST OF HARD, DURABLE, SUB-ANGULAR PARTICLES OF PROPER SIZE AND GRADATION, AND SHALL BE FREE FROM ORGANIC MATERIAL, WOOD, TRASH, SAND, LOAM, CLAY, EXCESS FINES, AND OTHER DELETERIOUS MATERIALS.
2. ALL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY BEFORE ANY PIPE IS LAID. FOR ADDITIONAL MATERIAL SPECIFICATIONS REFER TO SPECIFICATION SECTION 02222, "EXCAVATION AND BACKFILL FOR UTILITIES".
3. DENSITY TESTING SHALL BE IN ACCORDANCE WITH AASHTO T-180 AND ASTM D-3017.
4. BACKFILL TO COMPLY WITH FDOT DESIGN STANDARD 125-8.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	PIPE LAYING CONDITION TYPICAL SECTION (P.V.C.)	DRAWING NO. G-03
APPROVED: XXX		



NOTES:

1. NOTIFY THE CITY OF HOLLYWOOD 48 HOURS IN ADVANCE OF PROPOSED TAP.
2. TAPPING MUST BE DONE IN THE PRESENCE OF AN AUTHORIZED CITY REPRESENTATIVE.
3. TEMPORARY THRUST BLOCKS TO BE INSTALLED AND REMAIN IN PLACE DURING TAPPING OPERATIONS.
4. FOR SEWAGE FORCE MAINS, REFER TO DETAIL OF PRIVATE FORCE MAIN TIE-IN AT PROPERTY LINE.
5. FOR WATER MAINS, A GATE VALVE OF SAME DIAMETER SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF THE TAPPING VALVE.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TYPICAL TAPPING SLEEVE AND VALVE SETTING	DRAWING NO. G-06
APPROVED: XXX		

KEITH
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Florida Landscape Architecture Business License: LC26000457

REVISIONS

NO.	DESCRIPTION	DATE

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

WATER AND SEWER DETAILS

SHEET NUMBER	CU-501
PROJECT NUMBER	13778.00

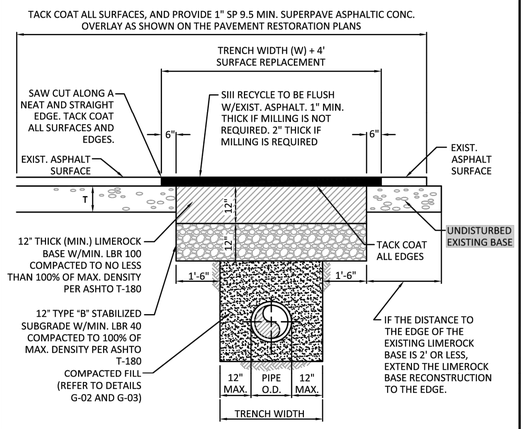
STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:53 PM
Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CU-501.dwg

FLEXIBLE PAVEMENT RESTORATION NOTES:

1. THE ABOVE DETAILS APPLY ONLY TO ASPHALT PAVEMENT RESTORATION OVER UTILITY TRENCHES CUT WITHIN CITY OF HOLLYWOOD RIGHTS-OF-WAY. FOR PAVEMENT RESTORATION WITHIN BROWARD COUNTY OR FDOT RIGHTS-OF-WAY REFER TO THE CORRESPONDING DETAILS FOR THOSE AGENCIES.
2. LIMEROCK BASE MATERIAL SHALL HAVE A MINIMUM L.B.R. OF 100 AND A MINIMUM CARBONATE CONTENT OF 70%. REPLACED BASE MATERIAL OVER TRENCH SHALL BE A MINIMUM OF 12" THICK".
3. LIMEROCK BASE MATERIAL SHALL BE PLACED IN 12" MAXIMUM (LOOSE MEASUREMENT) THICKNESS LAYERS WITH EACH LAYER THOROUGHLY ROLLED OR TAMPED AND COMPACTED TO 100% OF MAXIMUM DENSITY, PER AASHTO T-180, PRIOR TO THE PLACEMENT OF THE SUCCEEDING LAYERS.
4. STABILIZED SUBGRADE MATERIAL SHALL BE GRANULAR AND SHALL HAVE A MINIMUM L.B.R. OF 40.
5. BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE PIPE LAYING CONDITION TYPICAL SECTIONS IN DETAILS G-02 AND G-03, AND THE SPECIFICATIONS, BUT TESTING WILL BEGIN 12" ABOVE THE INSTALLED FACILITY.
6. ALL EDGES AND JOINTS OF EXISTING ASPHALT PAVEMENT SHALL BE SAW CUT TO STRAIGHT LINES, PARALLEL TO OR PERPENDICULAR TO THE ROADWAY, PRIOR TO THE RESURFACING.
7. RESURFACING MATERIAL SHALL BE FDOT SUPERPAVE, AND SHALL BE APPLIED A MINIMUM OF TWO INCH IN THICKNESS.
8. MILL AND BUTT JOINT TO EXISTING PAVEMENT.
9. IF THE TRENCH IS FILLED TEMPORARILY, IT SHALL BE COVERED WITH A 2" ASPHALTIC CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELING UNTIL REPLACED WITH A PERMANENT PATCH.
10. REFER TO SPECIFICATIONS FOR DETAILED PROCEDURES.
11. WHERE THE UTILITY TRENCH CROSSES EXISTING ASPHALT DRIVEWAYS, THE LIMEROCK BASE THICKNESS MAY BE A MINIMUM OF 6 INCHES THICK. REGARDLESS OF THE EXTENT OF IMPACT, THE ENTIRE DRIVEWAY SURFACE BETWEEN THE EDGE OF THE ROADWAY PAVEMENT AND PROPERTY LINE OR FRONT OF SIDEWALK SHALL BE OVERLAID USING 2-INCH THICK MINIMUM ASPHALTIC CONCRETE SURFACE COURSE WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE CITY/ENGINEER.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION NOTES	DRAWING NO. G-12
APPROVED: XXX		



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION FOR TRENCHES CUT PERPENDICULAR AND PARALLEL TO THE ROADWAY	DRAWING NO. G-12.1
APPROVED: XXX		

WATER SYSTEM NOTES:

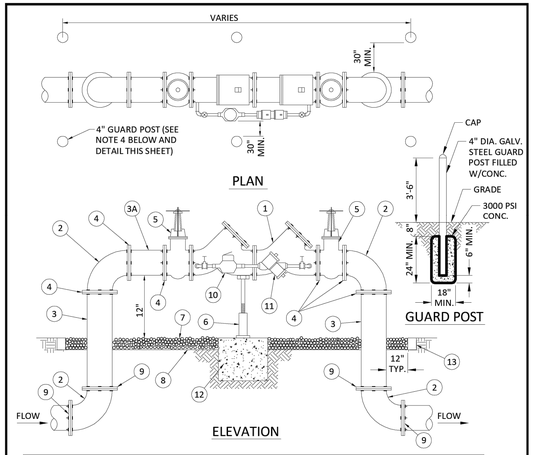
1. NEW OR RELOCATED UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE.
2. NEW OR RELOCATED UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE. [FAC 62-555.314(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5)].
3. AT ALL UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE, OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. [FAC 62-555.314(2); EXCEPTIONS ALLOWED UNDER FAC 62-555.314(5)].
4. NEW UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT TO BE DUCTILE IRON PIPE (D.I.P.) WHEN CROSSING BELOW SANITARY SEWER MAINS.
5. POLYETHYLENE ENCASEMENT MATERIAL SHALL BE USED TO ENCASE ALL BURIED DUCTILE IRON PIPE, FITTINGS, VALVES, RODS, AND APPURTENANCES IN ACCORDANCE WITH AWWA C105, METHOD A. THE POLYETHYLENE TUBING SHALL BE CUT TWO FEET LONGER THAN THE PIPE SECTION AND SHALL OVERLAP THE ENDS OF THE PIPE BY ONE FOOT. THE POLYETHYLENE TUBING SHALL BE GATHERED AND LAPPED TO PROVIDE A SNUG FIT AND SHALL BE SECURED AT QUARTER POINTS WITH POLYETHYLENE TAPE. EACH END OF THE POLYETHYLENE TUBING SHALL BE SECURED WITH A WRAP OF POLYETHYLENE TAPE.
6. THE POLYETHYLENE TUBING SHALL PREVENT CONTACT BETWEEN THE PIPE AND BEDDING MATERIAL, BUT IS NOT INTENDED TO BE A COMPLETELY AIRTIGHT AND WATERTIGHT ENCLOSURE. DAMAGED POLYETHYLENE TUBING SHALL BE REPAIRED IN A WORKMANLIKE MANNER USING POLYETHYLENE TAPE, OR THE DAMAGED SECTION SHALL BE REPLACED. POLY WRAP WILL NOT BE PAID FOR AS A SEPARATE BID ITEM. IT SHALL BE CONSIDERED TO BE A PART OF THE PRICE BID FOR WATER MAINS.
7. FIRE HYDRANT BARRELS SHALL BE ENCASED IN POLY WRAP UP TO THE GROUND SURFACE AND THE WEEP HOLES SHALL NOT BE COVERED BY THE POLY WRAP.
8. GATE VALVES FOR USE WITH PIPE LESS THAN THREE INCHES (3") IN DIAMETER SHALL BE RATED FOR TWO HUNDRED (200) PSI WORKING PRESSURE, NON-SHOCK, BLOCK PATTERN, SCREWED BONNET, NON-RISING STEM, BRASS BODY, AND SOLID WEDGE. THEY SHALL BE STANDARD THREADED FOR PVC PIPE AND HAVE A MALLEABLE IRON HANDWHEEL. GATE VALVES 3" THROUGH 16" IN DIAMETER SHALL BE RESILIENT SEAT AND BIDIRECTIONAL FLOW ONLY. VALVES FOR SPECIAL APPLICATIONS WILL REQUIRE CITY UTILITY APPROVAL.
9. VALVE BOXES AND COVERS FOR ALL SIZE VALVES SHALL BE OF CAST IRON CONSTRUCTION AND ADJUSTABLE SCREW-ON TYPE. THE LID SHALL HAVE CAST IN THE METAL THE WORD "WATER" FOR THE WATER LINES. ALL VALVE BOXES SHALL BE SIX INCH (6") NOMINAL DIAMETER AND SHALL BE SUITABLE FOR DEPTHS OF THE PARTICULAR VALVE. THE STEM OF THE BURIED VALVE SHALL BE WITHIN TWENTY-FOUR INCHES (24") OF THE FINISHED GRADE UNLESS OTHERWISE APPROVED BY THE CITY.
10. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 F.A.C.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	WATER SYSTEM NOTES	DRAWING NO. W-01
APPROVED: XXX		

WATER SYSTEM NOTES (CONTINUED):

11. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320 F.A.C.
12. ALL PVC PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C900 LATEST REVISION AND CLASS DR 18. ALL DIP WATER MAINS SHALL BE DUCTILE IRON PRESSURE CLASS 350, WITH WALL THICKNESS COMPLYING WITH CLASS 52. ALL DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C151/A21.51-02 AND BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03.
13. FITTINGS SHALL BE DUCTILE IRON, MEETING ANSI/AWWA C153/A21.53-00 SPECIFICATIONS, WITH 350 PSI MINIMUM WORKING PRESSURE. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03. ALL DUCTILE IRON PIPE AND FITTINGS MUST BE MANUFACTURED IN THE UNITED STATES OF AMERICA.
14. ALL DUCTILE IRON PIPE TO BE MECHANICAL JOINTS, WRAPPED IN POLY. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY DESIGN.
15. PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.
16. ALL TRENCHING, PIPE LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTING MUST COMPLY WITH THE CITY OF HOLLYWOOD SPECIFICATIONS.
17. THE MINIMUM DEPTH OF COVER OVER WATER MAINS IS 30" (DIP) OR 36" (PVC).
18. MINIMUM HORIZONTAL SEPARATION BETWEEN STORM STRUCTURES AND WATER MAINS SHALL BE 3'.
19. MAXIMUM DEFLECTION PER EACH JOINT SHALL BE 50% OF MANUFACTURES RECOMMENDATION (MAXIMUM) WHERE DEFLECTION IS REQUIRED.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING CONFLICTS WITH WATER MAINS PLACED AT MINIMUM COVER. IN CASE OF CONFLICT, WATER MAIN SHALL BE LOWERED TO PASS UNDER CONFLICTS WITH 18" MINIMUM VERTICAL SEPARATION. NO ADDITIONAL PAYMENT SHALL BE DUE TO CONTRACTOR FOR LOWERING THE MAIN OR THE ADDITIONAL FITTINGS USED THEREON.
21. PIPE JOINT RESTRAINT SHALL BE PROVIDED BY THE USE OF DUCTILE IRON FOLLOWER GLANDS MANUFACTURED TO ASTM A 536-80. TWIST-OFF NUTS SHALL BE USED TO ENSURE PROPER ACTUATING OF THE RESTRAINING DEVICES. THE MECHANICAL JOINT RESTRAINING DEVICES SHALL HAVE A WORKING PRESSURE OF 250 PSI MINIMUM, WITH A MINIMUM SAFETY FACTOR OF 2:1, AND SHALL BE EBAA IRON INC., MEGALUG OR APPROVED EQUAL. JOINT RESTRAINTS SHALL BE PROVIDED AT A MINIMUM OF THREE JOINTS (60 FEET) FROM ANY FITTING.
22. WHENEVER IT IS NECESSARY, IN THE INTEREST OF SAFETY, TO BRACE THE SIDES OF A TRENCH, THE CONTRACTOR SHALL FURNISH, PUT IN PLACE AND MAINTAIN SUCH SHEETING OR BRACING AS MAY BE NECESSARY TO SUPPORT THE SIDES OF THE EXCAVATION TO ENSURE PERSONNEL SAFETY, AND TO PREVENT MOVEMENT WHICH CAN IN ANY WAY DAMAGE THE WORK OR ENDANGER ADJACENT STRUCTURES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SEQUENCE, METHODS AND MEANS OF CONSTRUCTION, AND FOR THE IMPLEMENTATION OF ALL OSHA AND OTHER SAFETY REQUIREMENTS.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	WATER SYSTEM NOTES	DRAWING NO. W-02
APPROVED: XXX		

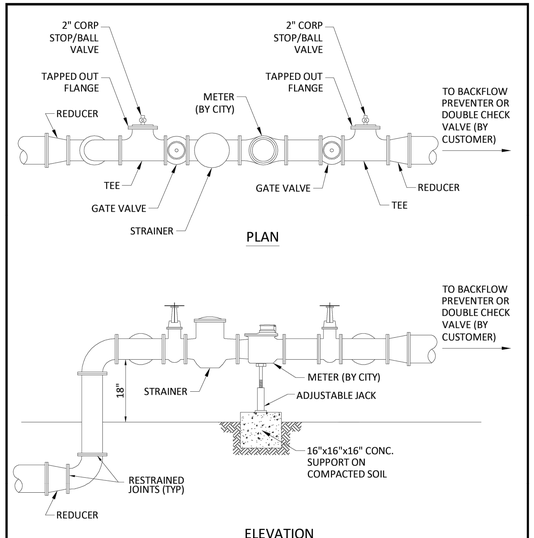


MATERIALS

ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1	1	4",6",8" VALVE,DOUBLE CHECK	7	N/A	PEA GRAVEL (4" DEEP)
2	4	4",6",8" BEND-90°	8	N/A	PLASTIC LINER/WEED STOP (5 MILS)
3	2	4",6",8" D.I.P. SPOOL PIECE	9	4	RESTRAINED JOINTS
3A	1	4",6",8" D.I.P. SPOOL PIECE (24" LONG)	10	1	LOW FLOW METER
4	7	4",6",8" FLANGE, D.I.P.	11	1	VALVE, BYPASS DOUBLE CHECK
5	2	4",6",8" GATE VALVE (SEE NOTE 6)	12	1	16"X16"X16" CONC. SUPPORT
6	1	SCREW JACK/ANCHORED	13	1	P.T. 2X4 LUMBER ALL AROUND

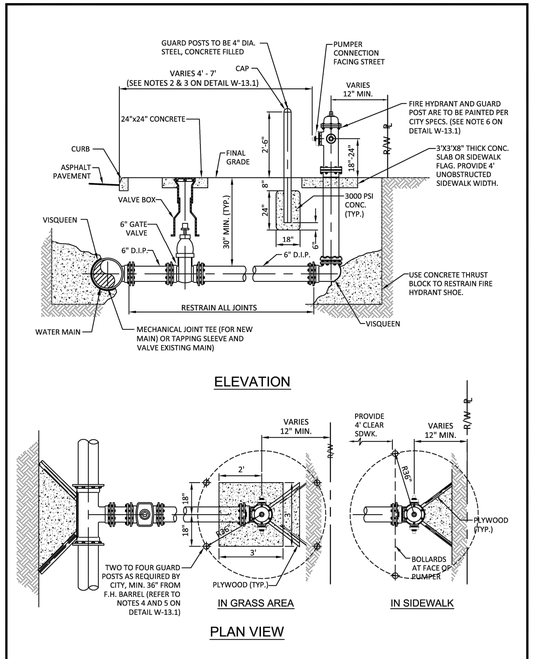
NOTES:
1. FIELD ADJUST AND CUT ITEM 3 TO THE PROPER LENGTH.
2. ALL PIPING SHALL BE D.I.P. CL 50/52 AS APPLICABLE TO MINIMUM STANDARDS.
3. ALL LOW FLOW METER PIPING SHALL BE BRASS OR COPPER.
4. PROTECTIVE 4" GALV. GUARD POSTS SHALL BE SPACED EVENLY APART AS SHOWN ABOVE OR IN ACCORDANCE WITH INSPECTOR'S DIRECTIONS.
5. MAY USE 45° BENDS (SEE DETAIL W-07.2) WHEN WORKING AREA IS NOT LIMITED, AS DIRECTED BY CITY.
6. GATE VALVES SHALL BE CHAINED AND LOCKED TOGETHER TO PREVENT TAMPERING.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TYPICAL 4", 6" AND 8" DOUBLE CHECK DETECTOR ASSEMBLY FOR FIRE SPRINKLER SERVICE (90° BENDS)	DRAWING NO. W-03
APPROVED: XXX		



NOTES:
1. THE WATER METER AND STRAINER IS PROVIDED BY THE CITY OF HOLLYWOOD.
2. THE CITY'S RESPONSIBILITY ENDS AT THE REDUCER PRECEDING THE BACKFLOW PREVENTER.
3. TAPPED OUT FLANGE SHOULD MATCH SIZE OF TEE AND STANDARD 2" CORP STOP OR BALL VALVE.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TYPICAL METER 3" DIAMETER AND LARGER	DRAWING NO. W-11
APPROVED: XXX		



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 03/05/2019
DRAWN: EAM	TYPICAL FIRE HYDRANT INSTALLATION	DRAWING NO. W-13
APPROVED: XXX		

NOTES:
1. IN ALL CASES, PROVIDE 4' UNOBSTRUCTED SIDEWALK CLEAR OF THE FIRE HYDRANT AND BOLLARDS.
2. FIRE HYDRANTS SHALL BE LOCATED BETWEEN 4' AND 7' FROM THE FACE OF CURB.
3. FIRE HYDRANTS SHALL NOT BE LOCATED WITHIN A RADIUS OR WITHIN FDOT CLEAR DRIVING ZONE.
4. GUARD POSTS SHALL BE INSTALLED AS REQUIRED FOR SAFETY OR AS APPROVED BY THE DEPT. OF PUBLIC UTILITIES. IN SIDEWALK, LOCATE GUARD POSTS AT THE FACE OF THE PUMPER AND 2'-6' LEFT/RIGHT OF ℄ OF THE FIRE HYDRANT.EXTRA POSTS MAY BE REQUIRED IN INDUSTRIAL AND CONGESTED TRAFFIC AREAS. (4 POSTS MAX.)
5. FIRE HYDRANT CONCRETE SLAB AND CONCRETE GUARD POST FOOTINGS SHALL BE DIFFERENT POURS.
6. THE FIRE HYDRANT BONNET, OPERATING NUT, HOLD-DOWN NUT, PUMPER CAP AND HOSE CAPS SHALL BE PAINTED GREEN, AND THE HYDRANT UPPER BARREL SHALL BE PAINTED SILVER IN ACCORDANCE WITH CITY SPECIFICATIONS.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TYPICAL FIRE HYDRANT NOTES	DRAWING NO. W-13.1
APPROVED: XXX		

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REVISIONS

NO.	DESCRIPTION	DATE

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
WATER AND SEWER DETAILS

SHEET NUMBER **CU-502**

PROJECT NUMBER **13778.00**

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:54 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CU-501.dwg

SEWER NOTES:

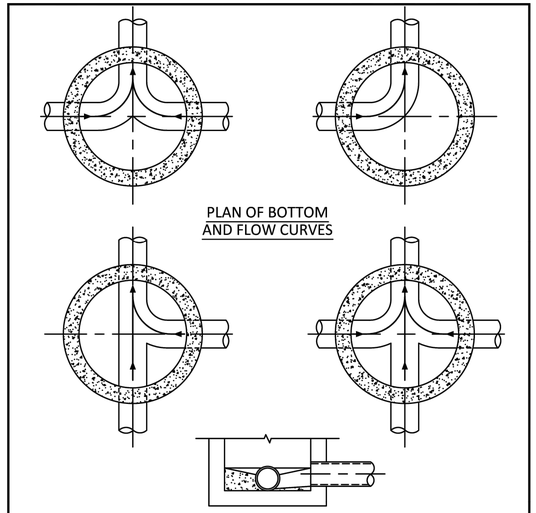
1. THE MINIMUM DEPTH OF COVER OVER D.I.P. SANITARY SEWER GRAVITY OR FORCE MAINS IS 30". THE MINIMUM DEPTH OF COVER OVER PVC SANITARY SEWER OR FORCE MAINS IS 36".
2. ALL CONNECTIONS TO EXISTING MAINS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. LEAKAGE TESTS AND ALIGNMENT (LAMPING) TESTS SHALL BE PERFORMED ON ALL NEW SEWER LINES UP TO THE CONNECTION POINT WITH THE EXISTING SEWER SYSTEM. THESE TESTS SHALL BE REQUESTED AND PAID FOR BY THE CONTRACTOR.
4. LAMPING TESTS SHALL BE PERFORMED ON GRAVITY SEWERS FROM MANHOLE TO MANHOLE UP TO AND INCLUDING THE POINT OF CONNECTION TO THE EXISTING SEWER SYSTEM.
5. LEAKAGE TESTS SHALL BE PERFORMED ON ALL SEGMENTS OF A GRAVITY SEWER SYSTEM, INCLUDING SERVICE LATERALS AND MANHOLES, FOR A CONTINUOUS PERIOD OF NO LESS THAN 2 HOURS. AT THE END OF THE TEST, THE TOTAL MEASURED LEAKAGE SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM, WITH ZERO ALLOWABLE LEAKAGE FOR LATERALS AND MANHOLES. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET ON THE SECTION BEING TESTED.
6. FORCE MAINS SHALL BE PRESSURE-TESTED IN ACCORDANCE WITH RULE 62-555.330 (FAC). THE PRESSURE TEST SHALL CONSIST OF HOLDING A TEST PRESSURE OF 150 PSI ON THE PIPELINE FOR A CONTINUOUS PERIOD OF 2 HOURS THE MAXIMUM ALLOWABLE LEAKAGE SHALL BE DETERMINED BY THE FOLLOWING FORMULA:

$$\frac{L = S \times D \times \sqrt{P}}{148{,}000}$$

WHERE:
L = ALLOWABLE LEAKAGE FOR SYSTEM IN GALLONS PER HOUR
D = PIPE DIAMETER IN INCHES
S = LENGTH OF LINES IN LINEAL FEET
P = AVERAGE TEST PRESSURE IN PSI

7. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTYFYING CONFLICTS WITH FORCE MAINS PLACED AT MINIMUM COVER. IN CASE OF CONFLICT, FORCE MAIN SHALL BE LOWERED TO PASS UNDER CONFLICTS WITH 12" MINIMUM SEPARATION FROM WATER MAINS AND 6" MINIMUM SEPARATION FROM OTHER UTILITIES. NO ADDITIONAL PAYMENT SHALL BE DUE TO CONTRACTOR FOR LOWERING THE MAIN OR THE ADDITIONAL FITTINGS USED THEREON.
8. WHENEVER IT IS NECESSARY, IN THE INTEREST OF SAFETY, TO BRACE THE SIDES OF A TRENCH, THE CONTRACTOR SHALL FURNISH, PUT IN PLACE AND MAINTAIN SUCH SHEETING OR BRACING AS MAY BE NECESSARY TO SUPPORT THE SIDES OF THE EXCAVATION TO ENSURE PERSONNEL SAFETY, AND TO PREVENT MOVEMENT WHICH CAN IN ANY WAY DAMAGE THE WORK OR ENDANGER ADJACENT STRUCTURES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SEQUENCE, METHODS AND MEANS OF CONSTRUCTION, AND FOR THE IMPLEMENTATION OF ALL OSHA AND OTHER SAFETY REQUIREMENTS.

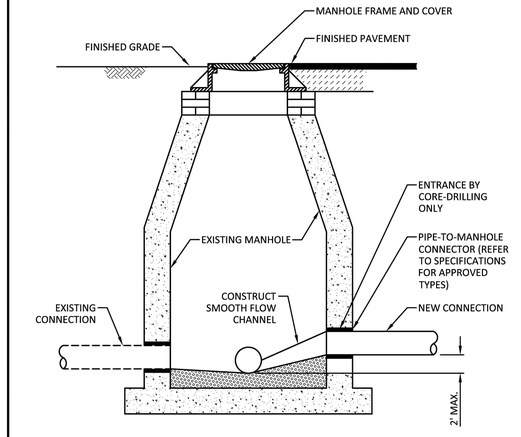
ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	SANITARY SEWER MAIN CONSTRUCTION NOTES	DRAWING NO. S-01
APPROVED: XXX		



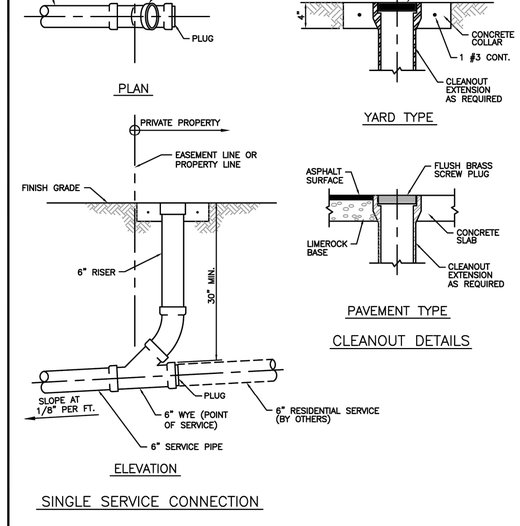
NOTES:

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING SMOOTH FLOWS.
3. CHANNELS FOR FUTURE CONNECTIONS (STUBS) SHALL BE CONSTRUCTED FILLED WITH SAND & COVERED WITH 1" OF MORTAR.
4. WHEN FLOW LINE DEFLECTS MORE THAN 45°, A DROP OF 0.10' IS REQUIRED.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	MANHOLE FLOW PATTERNS	DRAWING NO. S-02
APPROVED: XXX		



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	NEW CONNECTION TO EXISTING MANHOLE	DRAWING NO. S-07
APPROVED: XXX		



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	SEWER SERVICE CONNECTION AND CLEANOUT AT PROPERTY LINE	DRAWING NO. S-12
APPROVED: XXX		

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REVISIONS

NO.	DESCRIPTION	DATE

PRELIMINARY PLAN NOT FOR CONSTRUCTION

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ISSUE DATE:	11/16/2023
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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

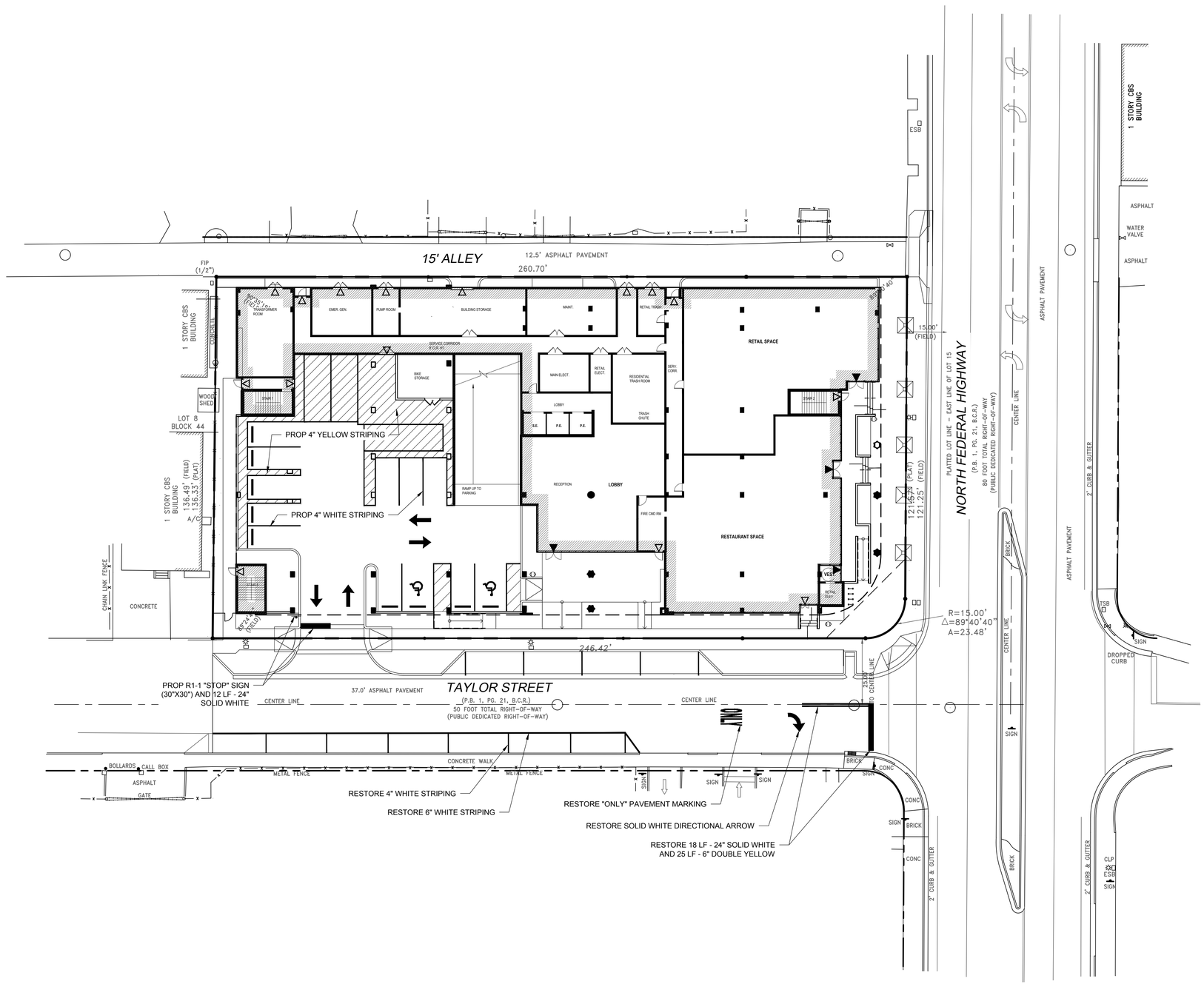
WATER AND SEWER DETAILS

SHEET NUMBER	CU-503
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:54 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CU-501.dwg



N

GRAPHIC SCALE

0 20 40

SCALE: 1" = 20 '

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

NOTE:

1. EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SANDBLASTING ONLY.
2. ALL EXISTING TRAFFIC CONTROL SIGNAGE AND PAVEMENT MARKINGS IN CONFLICT WITH THE PROPOSED TRAFFIC CONTROL SIGNAGE AND PAVEMENT MARKINGS WILL BE REMOVED OR RELOCATED BY THE CONTRACTOR.
3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY TRAFFIC AND DESIGN STANDARDS.
4. ALL MARKINGS WITHIN R/W SHALL BE THERMOPLASTIC. ALL ON-SITE MARKINGS SHALL BE PAINT EXCEPT 24" SOLID WHITE STOP BARS WHICH SHALL BE THERMOPLASTIC.
5. SEE FDOT INDEX NO. 17352 FOR PLACEMENT OF RPM'S. RPM'S SHALL BE CLASS "B" 911 OR EQUIVALENT, APPLIED WITH EPOXY OR
6. BITUMINOUS ADHESIVE.
7. FDOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
8. ALL PAVEMENT MARKINGS ON PAVER SYSTEMS SHALL BE 3M 6730 TAPE AND APPLIED WITH AN E44 CONTACT CEMENT AS PER MANUFACTURER'S SPECIFICATIONS.
9. VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF SIGN POSTS.
10. ALL IMPROVEMENTS BEING PROPOSED WITHIN THE US-1 R/W SHALL COMPLY WITH (FDOT) FLORIDA DEPARTMENT OF TRANSPORTATION.
11. ALL IMPROVEMENTS BEING PROPOSED WITHIN THE NE 6th STREET R/W SHALL COMPLY WITH THE CITY OF POMPANO BEACH MINIMUM STANDARDS.
12. ALL PAVEMENT MARKINGS AND SIGNING SHALL COMPLY WITH THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION MINIMUM STANDARDS.
13. ALL PAVEMENT MARKINGS OFF-SITE AND AT I/E POINT SHALL BE RETROREFLECTIVE THERMOPLASTIC.
14. ALL EXISTING SIGNALIZATION EQUIPMENT TO REMAIN IS ASSUMED TO BE IN GOOD WORKING ORDER UNLESS BCTED IS NOTIFIED IN WRITING PRIOR TO THE START OF CONSTRUCTION. ANY SUBSEQUENT DAMAGE TO THE SIGNAL EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

NOTES:

PLEASE ADD THE FOLLOWING NOTES TO THE PAVEMENT MARKING AND SIGNING SHEETS.
ALL TRAFFIC CONTROL DEVICES MAINTAINED BY BROWARD COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION, SHALL BE REPLACED BY CONTRACTOR USING CURRENT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION STANDARDS.

PLEASE ADD THE FOLLOWING NOTES TO THE COVER AND THE PAVEMENT MARKING AND SIGNING SHEETS.
THE FOLLOWING ITEMS ARE NOT REVIEWED OR ACCEPTED BY BROWARD COUNTY:

1. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S REVIEW DOES NOT INCLUDE A REVIEW AND ACCEPTANCE OF THE PROJECT'S DESIGN OR OPERATION. THESE ITEMS ARE TO BE REVIEWED AND APPROVED BY THE CITY ENGINEER.
2. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION DOES NOT REVIEW AND APPROVE, OR INSPECT AND ACCEPT THE FOLLOWING ITEMS FOR MAINTENANCE: PAVEMENT MARKINGS ON OR ADJACENT TO PAVER BRICKS, PAINTED ASPHALT, STAMPED ASPHALT OR PAVEMENT MARKINGS MADE OF PAVER BRICKS, RAISED INTERSECTIONS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED MID-BLOCK CROSSWALKS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED CROSSWALKS AND RELATED MARKINGS AND SIGNING, PAINTED/DECORATIVE CROSSWALKS, RAISED CROSSWALKS AND RELATED MARKINGS AND SIGNING, ADVANCED WARNING PAVEMENT MARKINGS FOR SPEED TABLES, BLINKER SIGNS, RECTANGULAR RAPID FLASHER BEACONS AND RELATED MARKINGS AND SIGNING, ON-STREET PARKING AND RELATED MARKINGS AND SIGNING, IN-ROAD LIGHTING AND RELATED MARKINGS AND SIGNING, GREEN BIKE LANES, FLEXIBLE DELINEATORS, DECORATIVE SIGNS AND DECORATIVE SIGN POSTS, PLANTERS, ON-SITE PAVEMENT MARKINGS AND SIGNING, OFF-SITE PAVEMENT MARKINGS AND SIGNING IN RIGHT-OF-WAY THAT IS NOT DEDICATED FOR PUBLIC USE, SIDEWALK WORK OR ASPHALT WORK.
3. THE CITY ENGINEER IS RESPONSIBLE FOR THE REVIEW AND APPROVAL OF THE DESIGN AND OPERATION OF THE PROJECT, AND FOR THE INSPECTION AND ACCEPTANCE OF THE FOLLOWING ITEMS THAT WILL BE MAINTAINED BY THE CITY: PAVEMENT MARKINGS ON OR ADJACENT TO PAVER BRICKS, PAINTED ASPHALT, STAMPED ASPHALT OR PAVEMENT MARKINGS MADE OF PAVER BRICKS, PAVEMENT MARKINGS ON OR ADJACENT TO PAINTED ASPHALT, RAISED INTERSECTIONS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED MID-BLOCK CROSSWALKS AND RELATED MARKINGS AND SIGNING, UN-WARRANTED CROSSWALKS AND RELATED MARKINGS AND SIGNING, PAINTED/DECORATIVE CROSSWALKS, RAISED CROSSWALKS AND RELATED MARKINGS AND SIGNING, ADVANCED WARNING PAVEMENT MARKINGS FOR SPEED TABLES, BLINKER SIGNS, RECTANGULAR RAPID FLASHER BEACONS AND RELATED MARKINGS AND SIGNING, ON-STREET PARKING AND RELATED MARKINGS AND SIGNING, IN-ROAD LIGHTING AND RELATED MARKINGS AND SIGNING, GREEN BIKE LANES, FLEXIBLE DELINEATORS, DECORATIVE SIGNS AND DECORATIVE SIGN POSTS, PLANTERS, ON-SITE PAVEMENT MARKINGS AND SIGNING, OFF-SITE PAVEMENT MARKINGS AND SIGNING IN RIGHT-OF-WAY THAT IS NOT DEDICATED FOR PUBLIC USE, SIDEWALK WORK AND ASPHALT WORK.

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REVISIONS

NO.	DESCRIPTION	DATE

PRELIMINARY PLAN NOT FOR CONSTRUCTION

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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

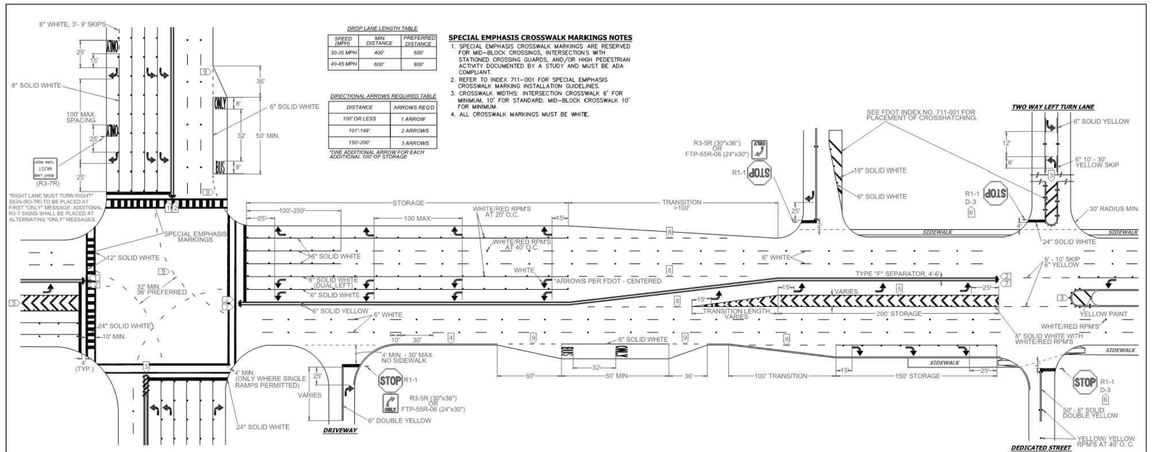
PAVEMENT MARKING AND SIGNAGE PLAN

SHEET NUMBER	CM-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Plotted by: vcastillo On 11/16/2023 2:54 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CM-101.dwg



DROP LANE LENGTH TABLE

SPEED (MPH)	MIN. DISTANCE	PREFERRED DISTANCE
30-35 MPH	400'	600'
40-45 MPH	600'	800'

DIRECTIONAL ARROWS REQUIRED TABLE

DISTANCE	ARROWS REQ'D
100' OR LESS	1 ARROW
101'-149'	2 ARROWS
150'-200'	3 ARROWS

*ONE ADDITIONAL ARROW FOR EACH ADDITIONAL 100' OF STORAGE

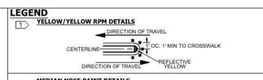
SPECIAL EMPHASIS CROSSWALK MARKINGS NOTES

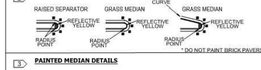
1. SPECIAL EMPHASIS CROSSWALK MARKINGS ARE RESERVED FOR MID–BLOCK CROSSINGS, INTERSECTIONS WITH STATIONED CROSSING GUARDS, AND/OR HIGH PEDESTRIAN ACTIVITY DOCUMENTED BY A STUDY AND MUST BE ADA COMPLIANT.
2. REFER TO INDEX 711–001 FOR SPECIAL EMPHASIS CROSSWALK MARKING INSTALLATION GUIDELINES.
3. CROSSWALK WIDTHS: INTERSECTION CROSSWALK 6' FOR MINIMUM, 10' FOR STANDARD, MID–BLOCK CROSSWALK 10' FOR MINIMUM.
4. ALL CROSSWALK MARKINGS MUST BE WHITE.

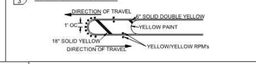
NOTES

1. ALL PAVEMENT MARKINGS SHALL BE ALKYD BASED THERMOPLASTIC AND FULLY RETROREFLECTORIZED.
2. ALL PAVEMENT MARKINGS ON PAVER SYSTEMS SHALL BE 3M 380/381 SERIES TAPE OR EQUIVALENT AND APPLIED WITH P60 ADHESIVE AS PER MANUFACTURERS SPECIFICATIONS.
3. ALL PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", BCTED STANDARDS, AND FDOT DESIGN STANDARDS.
4. SEE FDOT INDEX NO 706–001 FOR PLACEMENT OF RPM's (FOR BULLNOSE RPM TREATMENT, SEE LEGEND NO. 1)
5. RPM's SHALL BE CLASS "B" OR EQUIVALENT, APPLIED WITH EPOXY OR BITUMINOUS ADHESIVE.
6. FDOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
7. FOR BIKE LANE DETAILS SEE FDOT INDEX NO. 711–002.
8. EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SAND BLASTING.
9. ALL STOP LINES TO BE 4' BEHIND CROSSWALK OR SIDEWALK.
10. PAVEMENT MARKING REFLECTIVITY SHALL BE UNIFORM ACROSS THE ENTIRE STRIPE AND SHALL HAVE A MINIMUM REFLECTIVITY READING OF 250 MILLICANDELAS FOR WHITE AND 175 MILLICANDELAS FOR YELLOW.
11. ALL PRODUCTS MUST BE ON FDOT'S APPROVED PRODUCTS LIST (APL).
12. RPMS SHALL NOT BE INSTALLED ADJACENT TO BIKE LANES.
13. LONGITUDINAL CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL CROSS STREETS ON COUNTY ROADS THAT ARE FOUR LANES OR GREATER.

LEGEND

1. **YELLOW/YELLOW RPM DETAILS**


2. **MEDIAN NOSE PAINT DETAILS**


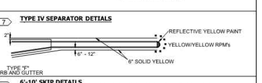
3. **PAINTED MEDIAN DETAILS**


4. **EDGE LINE DETAILS**

5. **CHEVRON DETAILS - CROSSWALK AREAS AND IN FRONT OF CURB RAMPS**

(SEE FDOT INDEX NO. 17346 FOR SPACING OF CHEVRONS)

6. **STREET NAME BLADE DETAILS**
SEE BCTED STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS.

7. **TYPE IV SEPARATOR DETAILS**


8. **6'-15' SKIP DETAILS**
6' - 10' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:
- TRANSITIONS AT ALL LEFT AND RIGHT TURN LANES

9. **2'-4' SKIP DETAILS**
2' - 4' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:
- RADIUS GUIDE LINES BETWEEN DUAL LEFTS TURN MOVEMENT (90' RADIUS PREFERRED OR AS NOTED ON PLANS).
- BUS BAY TRANSITIONS.

STOP SIGN NOTE

WHERE SIDE ROADS INTERSECT A MULTI LANE STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 45 MPH OR HIGHER, THE MINIMUM SIZE OF THE STOP SIGNS FACING THE SIDE ROAD APPROACHES, EVEN IF THE SIDE ROAD ONLY HAS ONE APPROACH LANE, SHALL BE 36"x36".

WHERE SIDE ROADS INTERSECT A MULTI–LANE (INCLUDING TURN LANE) STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 40 MPH OR LOWER, THE MINIMUM SIZE OF THE STOP SIGN FACING THE SIDE ROAD APPROACHES SHALL BE 36"x36".

REVISIONS	
DATE	DESCRIPTION
11-24-2020	UPDATED NOTES
04-14-2021	UPDATED NOTES
05-06-2022	UPDATED NOTES

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: CARMELO CARATOZZOLO, P.E. | SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

PAVEMENT MARKINGS AND SIGNS DETAILS

SHEET NO. 1 OF 1

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

Plotted by: vcastillo On 11/16/2023 2:54 PM

REVISIONS

NO.	DESCRIPTION	DATE

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

PAVEMENT MARKING AND SIGNAGE DETAILS

SHEET NUMBER CM-501

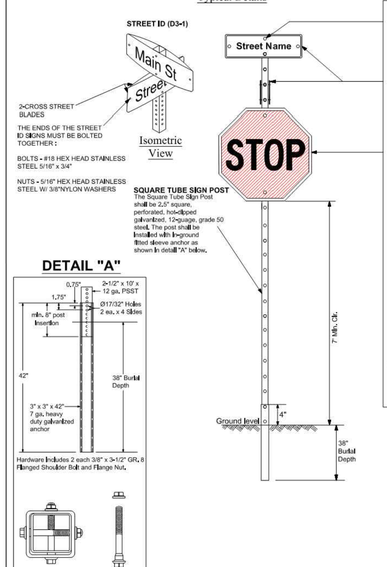
PROJECT NUMBER 13778.00

STATUS: PRELIMINARY

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CM-501.dwg

FOR SIGN ASSEMBLIES WITH MAXIMUM 8.75 SQUARE FOOT PANEL AREA

Typical Details



STREET ID (D3-1) MATERIALS:

LETTERS
WHITE TYPE XI SHEETING
LETTERING OF STREET NAME SIGNS SHALL BE COMPOSED OF A COMBINATION OF LOWERCASE LETTERS WITH INITIAL UPPERCASE LETTERS

BORDER
BORDER WIDTHS WILL VARY BASED ON LETTER HEIGHTS

LETTER HEIGHTS - BORDER WIDTHS
4 INCH LETTER = 0.375 INCH BORDER WIDTH
6 INCH LETTER = 0.500 INCH BORDER WIDTH
8 INCH LETTER = 0.750 INCH BORDER WIDTH

GREEN BACKGROUND
GREEN TRANSLUCENT INK SILK-SCREENED CLEAR-COATED OR ELECTRO-CUT (EC) FILM OR EQUIVALENT

LETTER SIZES
SEE MUTCD TABLE 2D-2 (PG 163) FOR MINIMUM LETTER HEIGHTS. LENGTH VARIES BY STREET NAME

HARDWARE
BOLTS - #18 HEX HEAD STAINLESS STEEL 5/16" x 3"
NUTS - 5/16" STAINLESS STEEL W/ NYLON WASHERS.

REGULATORY SIGN
WHEN NO STREET ID IS PRESENT
THE STOP SIGN SHALL BE MOUNTED FLUSH TO THE TOP OF THE POST WHILE MAINTAINING 7 FEET MIN. CLEARANCE BETWEEN BOTTOM OF SIGN AND GROUND LEVEL. ANY SIGN INSTALLED BACK TO BACK WITH THE STOP SIGN SHALL BE SMALLER THAN THE STOP SIGN.

STOP, DO NOT ENTER OR YIELD
WHITE TYPE XI SHEETING.
PRESSURE-SENSITIVE RED TRANSLUCENT INK SILK-SCREENED CLEAR-COATED OR ELECTRO-CUT (EC) FILM OR EQUIVALENT.

HARDWARE
FRONT: #18 HEX HEAD STAINLESS STEEL 5/16" x 3" BOLT W/ 3/8" NYLON WASHER
BACK: 5/16" HEX HEAD STAINLESS STEEL NUT W/ 3/8" STAINLESS STEEL WASHER.

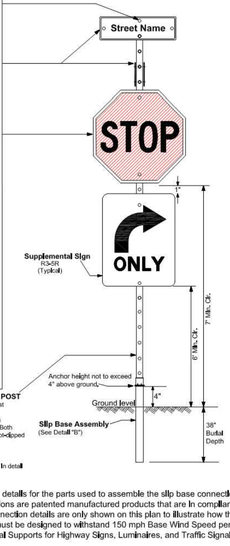
NOTES: 1. ALL TYPE XI SHEETING UTILIZED MUST BE ON THE FDOT APL LIST.

2. SEE BCTED TECHNICAL POLICY MEMO #TPM - 16-001 - SPECIFICATIONS FOR RETROFLECTIVE TRAFFIC SIGN MATERIALS.

DETAIL "A"

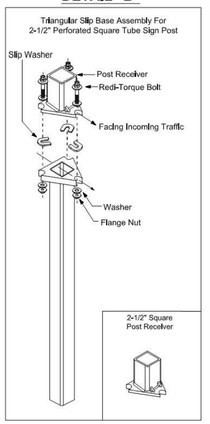
FOR SIGN ASSEMBLIES WITH GREATER THAN 8.75 SQUARE FOOT PANEL AREA WITH SUPPLEMENTAL SIGN

Typical Details



SQUARE TUBE SIGN POST
The Square Tube Sign Post shall consist of a 2.5" square tube inserted into a 2.5" square post receiver. Both tubes will be perforated, hole-dipped galvanized, 12-gauge, grade 50 steel. The post shall be installed into the slip base assembly shown in detail "B".

DETAIL "B"



Notes:

1. Dimensions and certain details for the parts used to assemble the slip base connections are Intentionally not shown. Slip base connections are patented manufactured products that are In compliance with NCHRP 350 crash test criteria. The base connection details are only shown on this plan to illustrate how the parts are assembled. The complete assembly must be designed to withstand 150 mph Base Wind Speed per 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th edition and Interims.

2. For standard ground sign installation, see detail entitled " Ground Sign Assembly Details".

REVISIONS	
DATE	DESCRIPTION
04-09-2019	UPDATED MATERIAL NOTES
02-28-2020	ADDED ISOMETRIC VIEW
02-05-2021	UPDATED POST BASE HEIGHT

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: CARMELO CARATOZZOLO, P.E. SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: ANDREW SEBO, P.E., PTOE

STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS

SHEET NO. 1 OF 1

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

Florida Engineering Business License: CA7928
Florida Surveyor and Mapper Business License: LB6860
Florida Landscape Architecture Business License: LC26000457

Plotted by: vcastillo On 11/16/2023 2:54 PM

REVISIONS

NO.	DESCRIPTION	DATE

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CLIENT

1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

SHEET TITLE

PAVEMENT MARKING AND SIGNAGE DETAILS

SHEET NUMBER **CM-502**

PROJECT NUMBER **13778.00**

STATUS: PRELIMINARY

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Engineering\Cadd\13778.00 CM-501.dwg

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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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 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 x 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

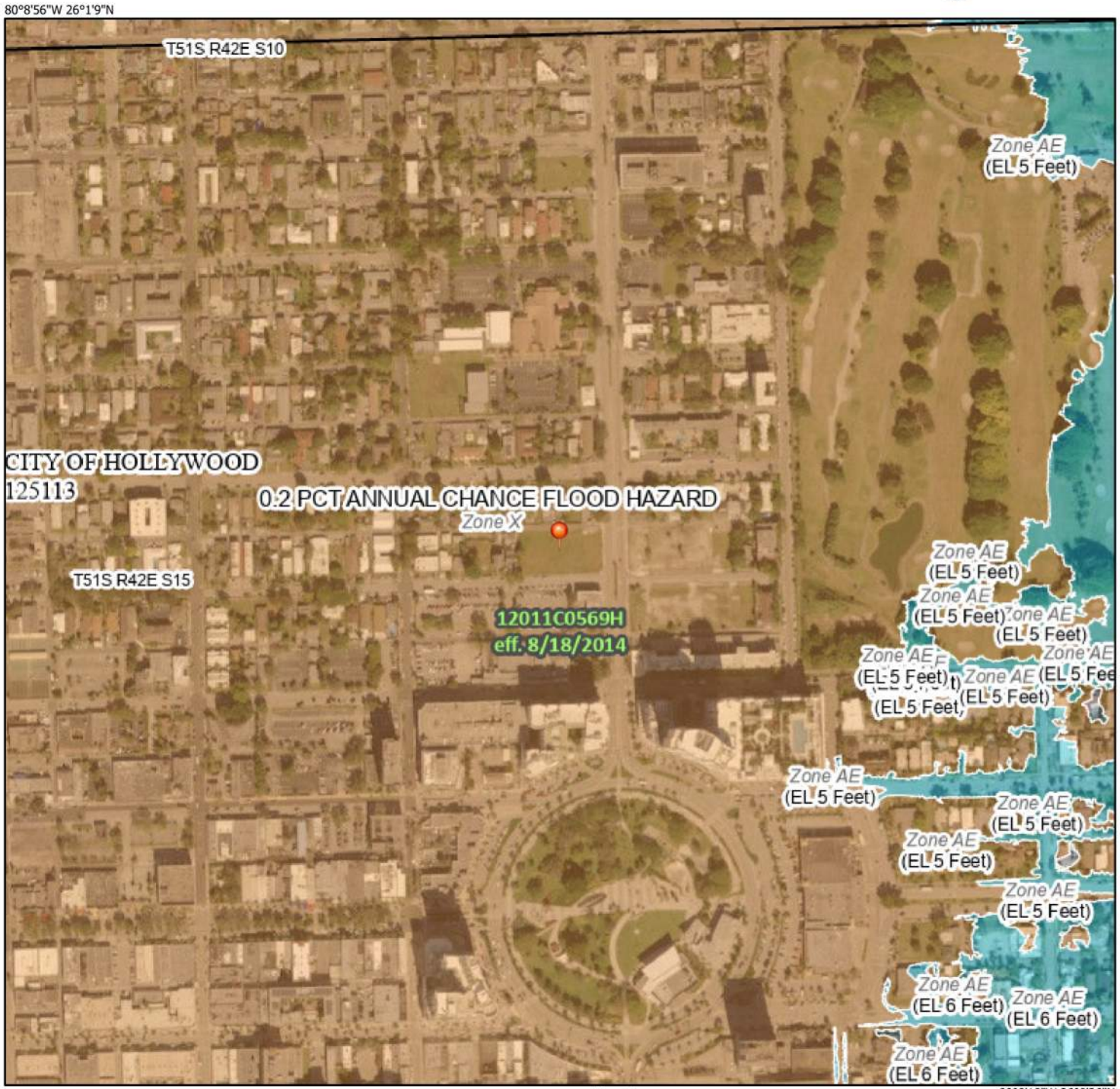
Appendix A – Aerial Map

SITE LOCATION
Polk St
Tyler St
N Young Cir
Hollywood Blvd

Appendix B – FEMA Flood Map

National Flood Hazard Layer FIRMette

FEMA



Basemap Imagery Source: USGS National Map 2023

Legend

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

- **SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- **OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
  - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
  - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
  - Area with Flood Risk due to Levee *Zone D*
- **OTHER AREAS**
  - NO SCREEN — Area of Minimal Flood Hazard *Zone X*
  - Effective LOMRs
  - Area of Undetermined Flood Hazard *Zone D*
- **GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- **OTHER FEATURES**
  - 20.2 — Cross Sections with 1% Annual Chance
  - 17.5 — Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- **MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 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.

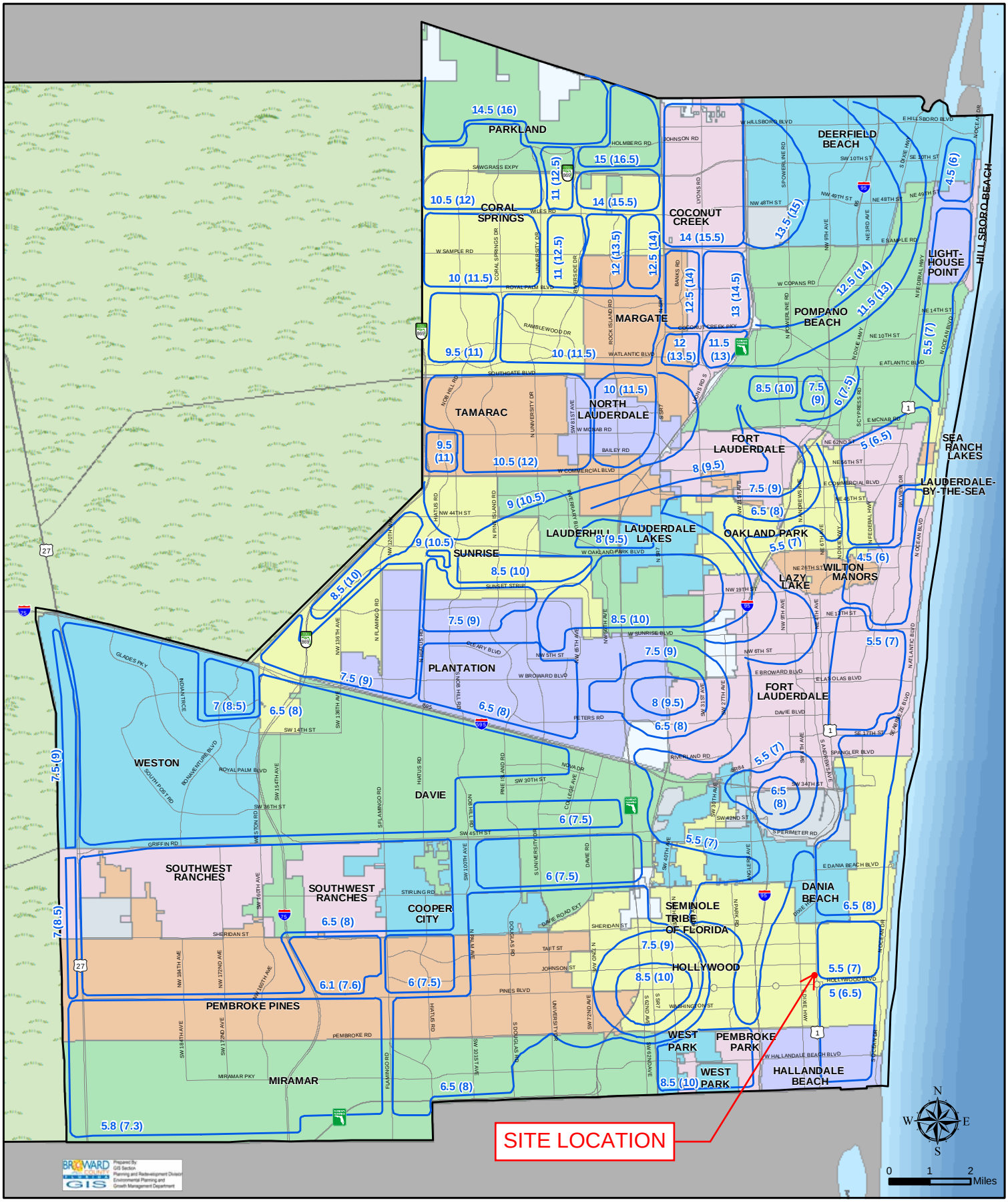
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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

BROWARD COUNTY 100 YEAR FLOOD ELEVATIONS



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

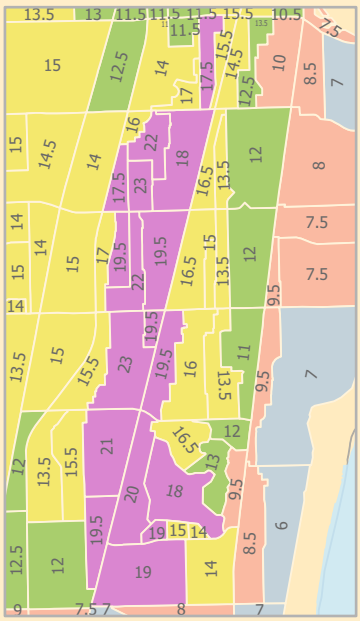
This map is for conceptual purposes only and should not be used for legal boundary determinations.

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

#12729 SNowicki 10/2014

Future Conditions 100-Year Flood Elevation Map

Plate WM 13.1
Future Conditions



Palm Beach County

N

01/15/2021

SITE LOCATION

0 1 2 Miles

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

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.

Map provided for informational purposes only. Not for legal boundary determination.

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 15TH AVE

Future Conditions 100-Year Flood Elevation (Feet NAVD88)

Elevation: 5.0

Zoom to

Appendix E – Precipitation Frequency Data Table

NOAA Atlas 14, Volume 9, Version 2
Location name: Hollywood, Florida, USA*
Latitude: 26.0146°, Longitude: -80.1436°
Elevation: 7 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

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

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

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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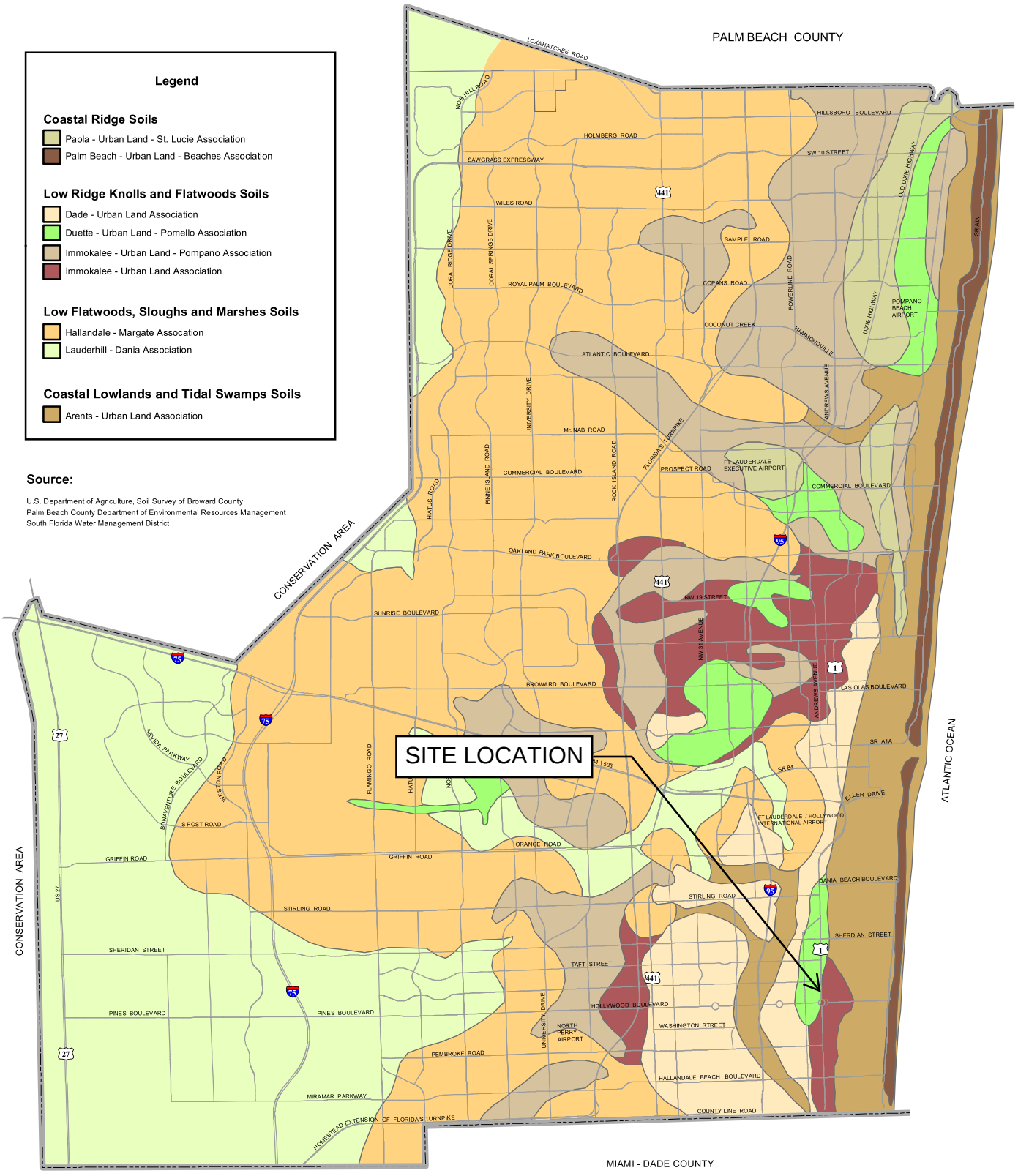
PF graphical

Appendix F – Soil Map

BROWARD COUNTY LAND USE PLAN

Natural Resource Map Series- Eastern Broward County: Soils



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

DELINEATION OF SALTWATER INTRUSION

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 Divsion, 2013

Palm Beach County

LOXAHATCHEE RD
HILLSBORO BLVD
NOB HILL RD
UNIVERSITY DR
HOLMBERG RD
SAWGRASS EXPY
SR7
LYONS RD
WILES RD
NW 48TH ST
SW 10TH ST
I95
SR A1A
SAMPLE RD
ROCK ISLAND RD
SR 7
FLORIDA TPKE
POWERLINE RD
COPANS RD
ROYAL PALM BLVD
ATLANTIC BLVD
SOUTHGATE BLVD
MLK BLVD
DIXIE HWY
FEDERAL HWY
A1A
SW 15TH ST
MC NAB RD
CYPRESS CREEK RD
COMMERCIAL BLVD
NW 44TH ST
PROSPECT RD
OAKLAND PARK BLVD
HIATUS RD
SUNRISE BLVD
BROWARD BLVD
DAVIE BLVD
PETERS RD
I595
SADDLE CLUB RD
SW 14TH ST
NOVA DR
SR84
SHOTGUN RD
FLAMINGO RD
PINE ISLAND RD
SOUTH POST RD
ORANGE DR
SW 42ND ST
GRIFFIN RD
US27
SW 172ND AVE
STIRLING RD
SW 72ND ST
DYKES RD
TAFT ST
SHERIDAN ST
OCEAN DR
PINES BLVD
HOLLYWOOD BLVD
SW 184TH AVE
SW 160TH AVE
PEMBROKE RD
MIRAMAR PKY
PALM AVE
HALLANDALE BLVD
HOMESTEAD TPKE EXT
RED RD
Miami-Dade County
Atlantic Ocean
CONSERVATION AREA
URBAN AREA
I75

SITE LOCATION

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

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

0 2.5 5 Miles

N W E S

MAP NO. C-4

14252 cjennings 5/10/2018

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
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Prepared By:

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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.

PRELIMNARY 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[a]:	5 tons
Approximate Pile Tip elevation[a]:	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[1]:	6 tons
Approximate Pile Tip elevation[2]:	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[1]:	8 tons
Approximate Pile Tip elevation[3]:	el -55 to el -60 if uniform subsurface conditions found or el -125 to el -130 if erratic conditions found

[1] *Assumes about ½ inch lateral deflection. If additional lateral capacity is required, piles on a 1H:6H batter could be used.*
[2] *Assumes minimum 20 ft socket into Stratum 5.*
[3] *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 Engineering and Environmental Services, Inc.
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
Date	AUGUST 2019
Scale	1"=550'
Drawn By	HK
Checked By	RA

Drawing No.

FIG.1

Sheet 1 of 1

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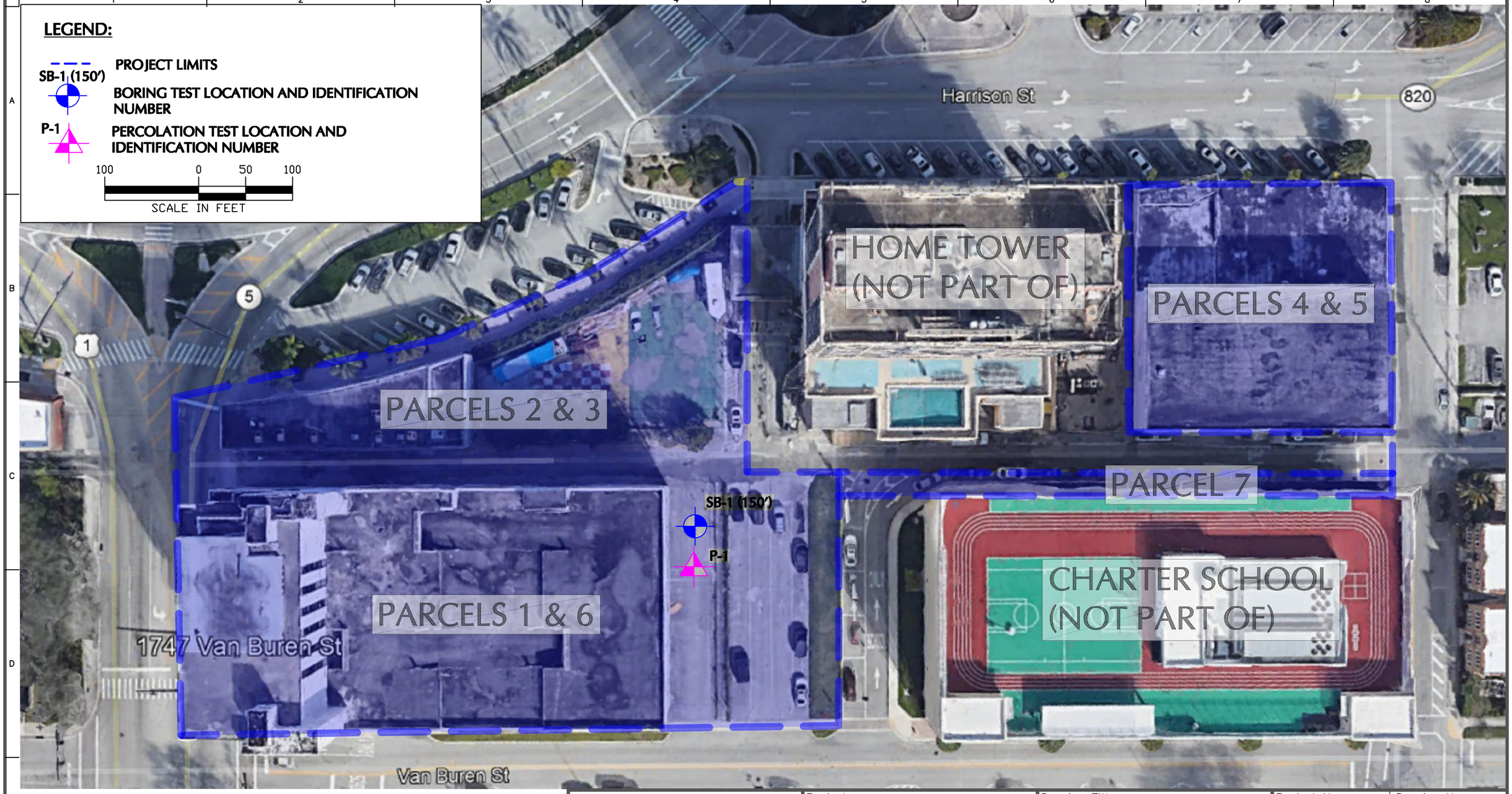
Filename: \\langan.com\data\FTL\data2\330061201\Project Data\CAD\2019-08-23 Boring and Perc Location plan.dwg Date: 8/27/2019 Time: 18:16 User: ghernandez Style Table: ---- Layout: ANSIB-BL (3)

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:

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

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FL CERTIFICATE OF AUTHORIZATION No. 00006601

Project

PARC PLACE

1747 VAN BUREN STREET
HOLLYWOOD

BROWARD **FLORIDA**

Drawing Title

BORING AND PERCOLATION LOCATION PLAN

Project No.	330061201
Date	AUGUST 2019
Scale	1"=100'
Drawn By	HK
Checked By	RA

Drawing No.

FIG.2

Sheet 1 of 1

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APPENDIX A
LOG OF BORING

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LOG OF BORING **SB-1**

SHEET 1 OF 5

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: DIST. 36 / UNDIST. - / CORE -	
CASING DIAMETER (in): 2 3/4"	CASING DEPTH(ft): 148	WATER LEVEL (ft.): FIRST ▽ 6 / COMPL. ▼ / 24 HR. ▼	
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: NUMBER	TYPE	RECOV. (in)	PENETR. RESIST BL/6in	N-VALUE BLOWS PER FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
+6.5	Asphalt (1 inch) Tan LIMEROCK (4 inches) Black fine to medium SAND (Possible Fill)			S1	SS	18	5 6 8 8	14	
+4.5	Light gray fine to medium SAND		2	S2	SS	14	4 4 5 4	9	
	Dark brown fine to medium SAND, trace organic silt ▽		4	S3	SS	16	4 2 1 1	3	
0.0	Tan CEMENTED SAND		6	S4	SS	12	1 2 2 3	4	
	Light brown to brown CEMENTED SAND, some fine sand, trace silt		8	S5	SS	13	2 3 5 5	8	
			10						Set casing at 13 ft Advanced casing to 13 ft
			12						
	Light brown to brown CEMENTED SAND, some fine sand, trace silt		14	S6	SS	12	6 4 3 2	7	
			16						Advanced casing to 18 ft Good circulation
	Tan to white CEMENTED SAND, some sandy silt		18	S7	SS	13	5 4 3 5	7	
			20						
			22						Advanced casing to 23 ft Easy drilling Good circulation
-16.5	Light brown fine to medium SAND, trace cemented sand		24	S8	SS	5	3 2 1 2	3	
			26						Advanced casing to 28 ft Easy drilling Good circulation
	White to tan SAND, some shell fragments and limestone		28	S9	SS	12	1 1 WOH/12"	1	

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LOG OF BORING **SB-1**

SHEET 2 OF 5

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 NUMBER	TYPE	RECOV. (in)	PENETR RESIST BL/6in	N-VALUE BLOWS PER FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
			32						Advanced casing to 33 ft
			34	S10	SS	14	1 WOH/18"	WOH	
	Light green fine SAND		36	S11	SS	8	1 2 1 2	3	
									Advanced casing to 38 ft Easy drilling Good circulation
-31.5			38	S12	SS	16	3 13 15 16	28	
	Light gray CEMENTED SAND, some fine to medium sand		40						
			42						Advanced casing to 43 ft Easy drilling Poor circulation from 42 ft - 43 ft
	Light gray CEMENTED SAND, some fine to medium sand		44	S13	SS		9 6 2 2	8	
			46						Advanced casing to 48 ft Easy drilling Lost circulation at 46 ft
-41.5			48	S14	SS	2	50/5"	50/5"	
	Tan CEMENTED SAND		50						
			52						Advanced casing to 53 ft Easy drilling Lost circulation
	Light brown to white CEMENTED SAND and sandstone fragments		54	S15	SS	3	55/4"	55/4"	
			56						Advanced casing to 58 ft Easy drilling Lost circulation
	Light gray CEMENTED SAND, some coarse sand		58	S16	SS	18	6 11 17 39	28	
			60						Advanced casing to 63 ft Moderate drilling Lost circulation
	Light brown CEMENTED SAND, some coarse sand		62						
			64	S17	SS	8	46 45 24 14	69	

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LOG OF BORING **SB-1**

SHEET 3 OF 5

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 NUMBER	TYPE	RECOV. (in)	PENETR RESIST BL/6in	N-VALUE BLOWS PER FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
			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						Advanced casing to 73 ft Easy drilling No circulation
			72						
			74	S19	SS	8	7 WOH/18"	WOH	
	Light brown CEMENTED SAND, some coarse sand		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
	Light gray to light brown CEMENTED SAND		84	S22	SS	13	11 9 8 11	17	
-80.0			86						Advanced casing to 88 ft Easy drilling No circulation
	Light gray fine to coarse SAND, some cemented sand		88	S23	SS	12	4 5 5 4	10	
			90						Advanced casing to 93 ft Easy drilling No circulation
			92						
	Light gray fine to coarse SAND, some cemented sand		94	S24	SS	17	7 3 4 3	7	
			96						No water sample. Too sandy
-90.0									Advanced casing to 98 ft Easy drilling No circulation
	Light gray CEMENTED SAND and SAND		98	S25	SS	16	5 5 6 7	11	

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LOG OF BORING **SB-1**

SHEET 4 OF 5

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 NUMBER	TYPE	RECOV. (in)	PENETR RESIST BL/6in	N-VALUE BLOWS PER FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
			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
			108	S27	SS	0	1 2 5 7	7	
	No recovery		110	S28	SS	16	5 8 5 11	13	
	Light gray CEMENTED SAND and SAND		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						
			122						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						
			132						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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LOG OF BORING **SB-1**

SHEET 5 OF 5

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: NUMBER	TYPE	RECOV. (in)	PENETR RESIST BL/6in	N-VALUE BLOWS PER FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
			136						Advanced casing to 138 ft Moderate drilling No circulation
	White to tan CEMENTED SAND, trace sand, some sea shells		138	S34	SS	12	14 18 20 52/5"	38	
			140						
			142						Advanced casing to 143 ft Moderate drilling No circulation
	Tan CEMENTED SAND		144	S35	SS	1	50/2"	50/2"	
			146						Advanced casing to 148 ft Moderate drilling No circulation
	Tan CEMENTED SAND		148	S36	SS	2	50/2"	50/2"	
-143.5	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

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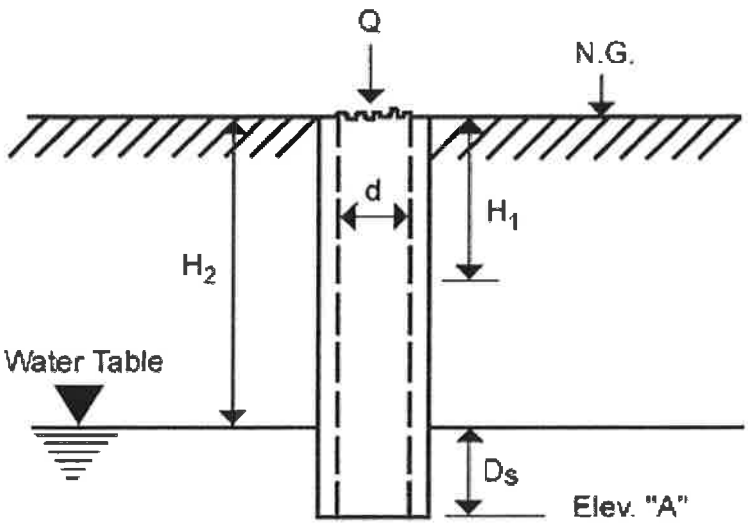
USUAL OPEN-HOLE TEST



$$K = \frac{4Q}{\pi d (2H_2^2 + 4H_2D_S + H_2d)}$$

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

Q = "Stabilized" Flow Rate (cfs)

d = Diameter of Test Hole (feet)

H_2 = Depth to Water Table (feet)

D_S = Saturated Hole Depth (feet)

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

H_1 = Average Head on Unsaturated 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

6.) STAGE-STORAGE CALCS/ DRAINAGE WELL CALCS HOLLYWOOD CIRCLE CTA PROJECT #04-0140

A.) ADJACENT SITE RADIUS (NW CORNER OF YOUNG CIRCLE) EXISTING WELL CAPICITY RESULTS
WELL #1 = 400 G.P.M.
WELL #2 = 350 G.P.M.

B.) UTILIZE 300 GALLONS PER MINUTE (GPM) DISCHARGE PER FOOT OF HEAD.

B.) MAXIMUM WELL DISCHARGE= 1,200 GPM PER WELL (300 GPM X 4' HEAD=1,200 GPM)

C.) DISCHARGE FROM WELL	300	GPM/ FT HEAD	0.67	CFS/ FT HEAD

D.) # DRAINAGE WELLS 6

E.) BEGIN DISCHARGE FROM WELL AT ELEVATION 2.6' NAVD. (DISCHARGE FROM WELL BEGINS ONCE A MINIMUM OF 2' OF HEAD IS BUILT-UP OVER WATER TABLE ELEVATION OF 0.5 NAVD, IN ORDER TO OVERCOME FRESH WATER- SALT WATER DENSITY DIFFERENTIAL).

F.) EXFILTRATION TRENCH VOLUME PROVIDED 0.38 ac-ft.
EXFILTRATION TRENCH VOLUME MOLDELED 0.19 ac-ft.

STAGE	STORAGE (AF)	WELL DISCHARGE (CFS)	
0.5	0.00	0	
1	0.03	0	
2	0.09	0	
2.5	0.11	0	
3	0.14	2.02	(0.50' HEAD x 0.67) x 6 WELLS
4	0.19	6.05	(1.50' HEAD x 0.67) x 6 WELLS
5	0.19	10.08	(2.50' HEAD x 0.67) x 6 WELLS
6	0.24	14.11	(3.5' HEAD x 0.67) x 6 WELLS
7	0.48	16.13	(4.0' HEAD x 0.67) x 6 WELLS
8	0.90	16.13	(4.0' HEAD x 0.67) x 6 WELLS
9	1.33	16.13	(4.0' HEAD x 0.67) x 6 WELLS
10	1.76	16.13	(4.0' HEAD x 0.67) x 6 WELLS

FT. OF HEAD	DRAINAGE WELL #1	DRAINAGE WELL #2	DRAINAGE WELL #3	DRAINAGE WELL #4	DRAINAGE WELL #5	DRAINAGE WELL #6	TOTAL DISCHRGE
0.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.34	0.34	0.34	0.34	0.34	0.34	2.02
4	1.01	1.01	1.01	1.01	1.01	1.01	6.05
5	1.68	1.68	1.68	1.68	1.68	1.68	10.08
6	2.35	2.35	2.35	2.35	2.35	2.35	14.11
7	2.69	2.69	2.69	2.69	2.69	2.69	16.13
8	2.69	2.69	2.69	2.69	2.69	2.69	16.13
9	2.69	2.69	2.69	2.69	2.69	2.69	16.13
10	2.69	2.69	2.69	2.69	2.69	2.69	16.13

Appendix J – Pre-Development Calculations

Project: Star Tower Hollywood Date: 06/28/2023
Flood Routing Description:

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 (Water Budget)
25 Year Return Period				8.05	0.00	8.05	0.00	
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 1	0.00 Inches	0.000	
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.**	(Ac-Ft)	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?
Water Table Elevation =	1.50	Feet	N	Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table
Time of Conc. (hr.) =	0.17		Y	Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.
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)
1.50	0.000	0
2.00	0.000	0
2.50	0.000	0
3.00	0.000	0
3.50	0.000	0
4.00	0.000	0
4.50	0.000	0
5.00	0.000	0
5.50	0.000	0
6.00	0.000	0
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

Compacted Ground storage table

Depth to water table (Ft)	1.00	2.00	3.00	4.00
Ground storage(In)	0.45	1.88	4.05	6.75

Mean depth to ground water table (ft)= 5.91 (Pervious Area)

Soil Storage Type	**Ground Storage Values (In Inches)**			
Depth to Ground Water (Ft)	**1**	**2**	**3**	**4**
* Depressional	0.45	1.58	3.3	5.1
Flatwoods	0.45	1.88	4.05	6.75
Coastal Type	0.45	1.88	4.95	8.18

* (Low Flatwoods & Costal Lowlands)
Ground Storage Values reflect 25% reduction of Available Storage, to take into account compaction of native soils.

Project: Star Tower Hollywood Date: 06/28/2023

. Flood Routing Description:

Client : Job Number: 13778.00

Table 17. SITE ACREAGE INFORMATION

	Input Information													
	LAND USES	Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water	Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
	BASIN TOTALS / AVERAG	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.
2														
3														
4														
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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	0.00	0.00	0.00	0.82	0.00	0.82	0.00	7.41	6.

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.
		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														
4														
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	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

WATER QUANTITY

Project: Star Tower Hollywood Date: 06/28/2023
Flood Routing Description:

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 (Water Budget)
25 Year Return Period				8.04	5.86	8.04	5.86	
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 1	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?
Water Table Elevation =	1.50	Feet	N	Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table
Time of Conc. (hr.) =	0.17		Y	Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.
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)
1.50	0.000	0
2.00	0.007	292
2.50	0.013	583
3.00	0.020	875
3.50	0.027	1,166
4.00	0.033	1,458
4.50	0.040	1,750
5.00	0.047	2,041
5.50	0.054	2,333
6.00	0.060	2,624
6.50	0.067	2,916
7.00	0.074	3,208
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

Compacted Ground storage table

Depth to water table (Ft)	1.00	2.00	3.00	4.00
Ground storage(In)	0.45	1.88	4.05	6.75

Mean depth to ground water table (ft)= 6.00 (Pervious Area)

Soil Storage Type	Ground Storage Values (In Inches)			
Depth to Ground Water (Ft)	**1**	**2**	**3**	**4**
* Depressional	0.45	1.58	3.3	5.1
Flatwoods	0.45	1.88	4.05	6.75
Coastal Type	0.45	1.88	4.95	8.18

* (Low Flatwoods & Costal Lowlands)
Ground Storage Values reflect 25% reduction of Available Storage, to take into account compaction of native soils.

Project: Star Tower Hollywood Date: 06/28/2023

. Flood Routing Description:

Client : Job Number: 13778.00

Table 17. SITE ACREAGE INFORMATION

	Input Information													
	LAND USES	Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water	Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
	BASIN TOTALS / AVERAG	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.
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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	49.75	4.78	0.33	0.04	0.41	0.41	0.04	7.50	0.

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
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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

WATER QUANTITY

Project: Star Tower Hollywood Date: 06/28/2023

Flood Routing Description:
Client :

Job Number: 13778.0(

Table 21. STAGE / DISCHARGE DATA TABLE

Drainage Basin: Recieving Water Body: Runoff Formula:
SFWMD allowable discharge: CFS Project Acreage : 0.82 Q=Allowable runoff (CFS)
Historic/Prev. Permit Discharge = CFS CSM=Cubic Feet per Sec. per Sq. Mile

Stage / Discharge Data Table																			
Stage (feet)	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	8.00	8.50	9.00	9.50	10.00	10.50
On-Site (Well Discharge)	0.00	0.00	0.00	0.00	0.00	1.00	2.01	3.01	4.01	5.01	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02
Total Discharge (Includes Well) (CFS)	0.00	0.00	0.00	0.00	0.00	1.00	2.01	3.01	4.01	5.01	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02

Discharge Structure Description:
Notes

WATER QUALITY

Project: Star Tower Hollywood Date: 06/28/2023
Flood Routing Description:

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 DATA	Rainfall Inches	Runoff Inches	Runoff Ac-Ft	Rainfall Inches	Runoff Inches	Runoff Ac-Ft
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 (Water Budget)
25 Year Return Period				9.41	0.00	4.68	2.36	
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 1	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.**	(Ac-Ft)	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

	(Ac-FT)	(Inches)
Exfil Vol. in Stage Storage =	0.052	2.45

WATER QUALITY

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?
Water Table Elevation =	1.50	Feet	N	Y/N -Deduct EXFIL Vol. from Rainfall amount rather than include Vol. in Stage Storage table
Time of Conc. (hr.) =	0.17		Y	Y/N -Use EXFIL Vol. in Stage Storage, up to Water Quality Vol., without safety Factor of 2.
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)
1.50	0.000	0
2.00	0.004	189
2.50	0.009	378
3.00	0.013	567
3.50	0.017	756
4.00	0.022	945
4.50	0.026	1,134
5.00	0.030	1,323
5.50	0.035	1,512
6.00	0.039	1,701
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

Compacted Ground storage table

Depth to water table (Ft)	1.00	2.00	3.00	4.00
Ground storage(In)	0.45	1.88	4.05	6.75

Mean depth to ground water table (ft)= 0.00 (Pervious Area)

Soil Storage Type	**Ground Storage Values (In Inches)**			
Depth to Ground Water (Ft)	**1**	**2**	**3**	**4**
* Depressional	0.45	1.58	3.3	5.1
Flatwoods	0.45	1.88	4.05	6.75
Coastal Type	0.45	1.88	4.95	8.18

* (Low Flatwoods & Costal Lowlands)
Ground Storage Values reflect 25% reduction of Available Storage, to take into account compaction of native soils.

WATER QUALITY

Project: Star Tower Hollywood Date: 06/28/2023

. Flood Routing Description:

Client : Job Number: 13778.00

Table 17. SITE ACREAGE INFORMATION

	Input Information													
	LAND USES	Acres	High Elev.	Low Elev.	% Imperv. Paved	% Bldgs.	% Water	Imperv. Paved Acres	Perv. Acres	Bldgs. Acres	Non Bldgs. Acres	Water Lake Acres	Perv. Area Avg. El.	perv. acres * avg el
	BASIN TOTALS / AVERAG	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.
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	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

0.00	15.29	0.22	0.00	0.00	0.26	0.04	0.00	0.

Basin % Imper. for Water Quality Purposes = 100.00

Basin % Impervious (incl. Bldg., No lakes)= 100.00

WATER QUALITY

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.
		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
	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	0.004	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
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
3														
4														
5														
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35														
36														
37														
38														
39														
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

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	0.004	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

. 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				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
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26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
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

WATER QUALITY

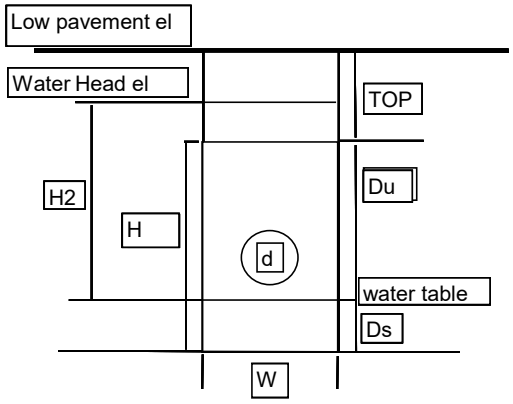
Project: Star Tower Hollywood Date: 06/28/2023

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)

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

1 Hr. Vol by exfil SFWMD Eq.7 (Du > Ds and W < 2H) (CF)	2,576	Vtrn=3630*L*[k*((H2*W)+(2*H2*Du)-Du^2+(2*H2*Ds))+((1.39x10^-4)*(W*Du))]					
1 Hr. Vol by exfil SFWMD Eq.8 (Du < Ds or W > 2H) (CF)	0	Vtrn=3630*L*[k*((2*H2*Du)-Du^2+(2*H2*Ds))+((1.39x10^-4)*(W*Du))]					
This Trench Volume with **Safety Factor of 2** (V(trnSF))	1,288	V(TrnSF)=Vtrn/(Safety Factor of 2)			0.030	Ac-Ft	0.35 Ac-In
Max. Vol allowed in Exfil (3.28" = 0.273 Ac-Ft / Ac) (Val) (CF)	3,036	Vtot=Vdesign+Vsto			0.070	Ac-Ft	0.84 Ac-In
Total EXFIL Vol Provided **ALL EXFIL** Trenches (Vtot) (CF)	**1,288**	Vtot=Vdesign+Vsto			**0.030**	Ac-Ft	0.35 Ac-In
Equivalent Wet Detention Vol:50% credit **ALL EXFIL** (Vwteq) (CF)	2,576	Vwteq=Vtot *2			0.059	Ac-Ft	0.71 Ac-In
Total System **ALL EXFIL** WQ Equivalent Wet Det. Vol Provided	2,576	CF	0.059	Ac-Ft	**NOTE:This line is Sum of all Exfiltration Trenches**		
Total System **ALL EXFIL** Volume Used in **Stage-Storage**	2,268	CF	0.052	Ac-Ft	**NOTE:This line is Sum of all Exfiltration Trenches**		

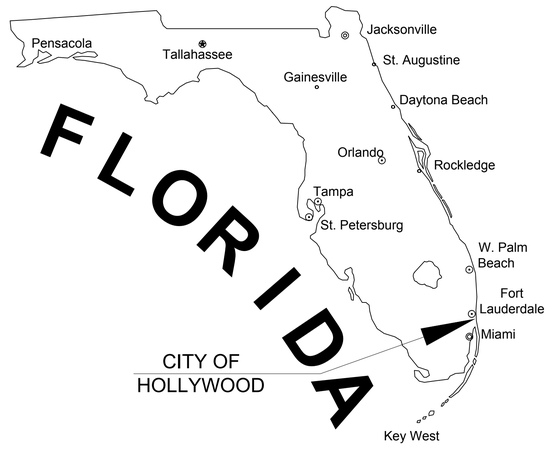
NOTE: For Exfiltration Trench design, a factor of safety of 2 is used for WQ in all conditions (WQ vol & above WQ vol), per the "New" SFWMD formula.
Select on the Stage-Storage tab, whether to use the safety factor for the Exfil trench, up to the required WQ amount, in the flood routing Stage-Storage 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		TAC SUBMITTAL - 07/03/2023	FINAL TAC - PkZ - 09/13/2023	FINAL TAC - PkZ - 11/16/2023	
SHEET IDENTIFICATON	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	■	■	■	

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.

KEITH
301 East Atlantic Boulevard
Pompano Beach, Florida 33060-6643
(954) 788-3400

Florida Engineering Business License: CA7928
Florida Surveyor and Mapper Business License: LB6860
Florida Landscape Architecture Business License: LC26000457

PROJECT No. 13778.00
JULY 3RD, 2023

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

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

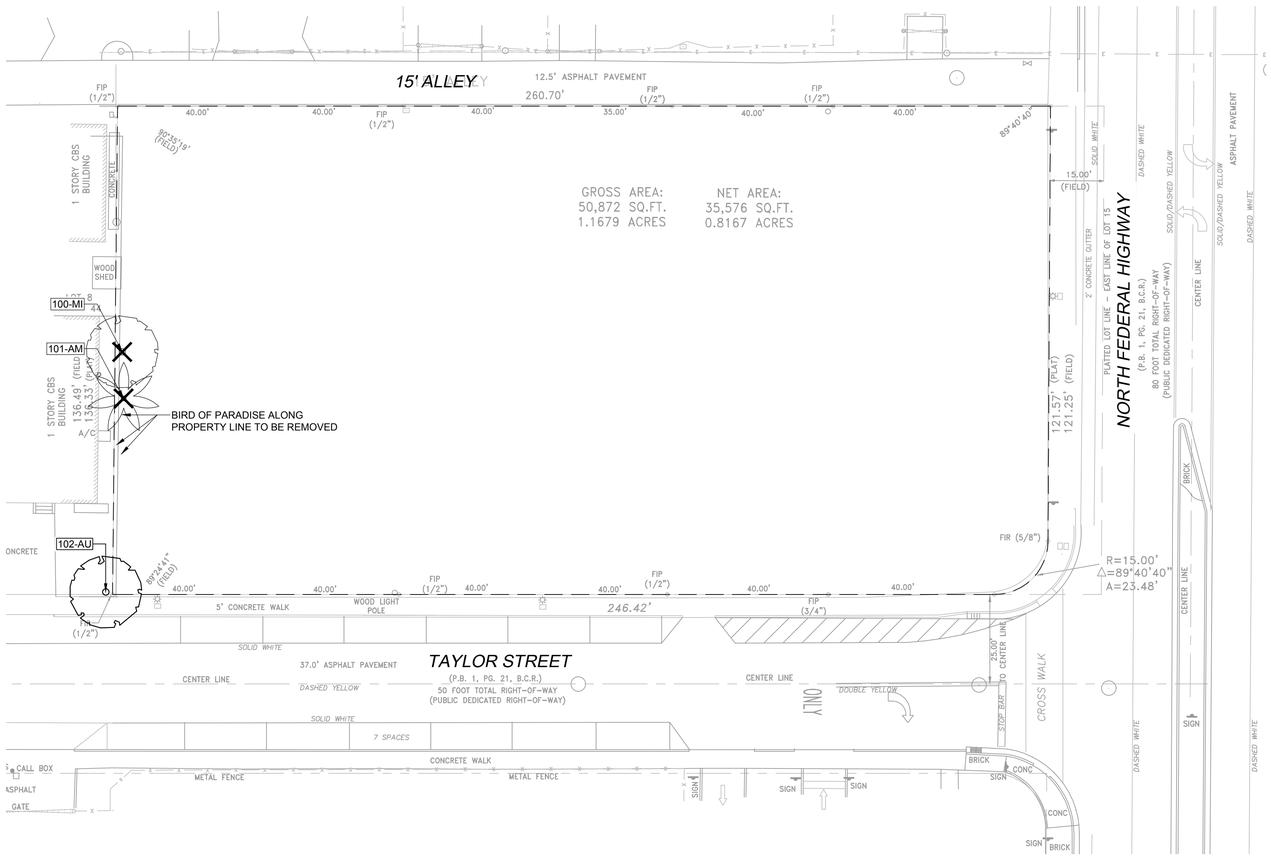
Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CAD\13778.00-LC-CVR-000.dwg Layout Name: CVR-000 Plotted by: cphillips Plotted on: Nov 16, 2023 - 3:13pm

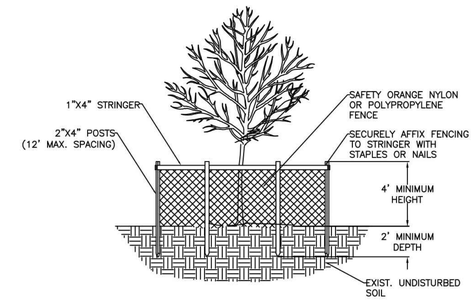
TREE DISPOSITION TABLE

PROJECT #: 13778.00 | **PROJECT NAME: STAR TOWER**

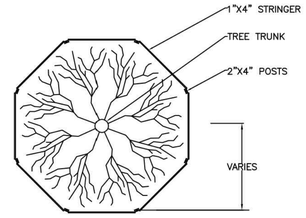
TREE #	COMMON NAME	SCIENTIFIC NAME	DBH IN.	HT. FT.	CNPY. FT.	TREE % CONDITION	TREE DISPOSITION	COMMENTS	TREE MITIGATION
100	MANGO	*"Mangifera indica"*	16	30	30	70	REMOVE	BD, CO-D, PRUNING DAMAGE, UNBALANCED CANOPY	16
101	CHRISTMAS PALM	*"Adonidia merrillii"*	N/A	14	12	70	REMOVE		N/A
102	EARLEAF ACACIA	*"Acacia auriculiformis"*	38	N/A	N/A	N/A	REMAIN	OFFSITE	N/A

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





SECTION



TOP VIEW

NOTES:
1. BARRICADE CIRCLE TO BE CENTERED ON TREE TRUNK(S). FOR GROUPS OF TREES, PLACE BARRICADES BETWEEN TREES AND CONSTRUCTION ACTIVITY.
2. TREE PROTECTION BARRICADES SHALL BE LOCATED TO PROTECT EXISTING, RELOCATED AND NEW TREES IN CONSTRUCTION AREAS. THE PROTECTIVE BARRIER SHALL BE PLACED AROUND THE TREE AT A DISTANCE 6 FEET FROM THE TREE TRUNK OR AT THE CANOPY DRIP LINE, WHICHEVER IS GREATER OR AS SHOWN ON LANDSCAPE PLAN.

1 CITY OF HOLLYWOOD TREE PROTECTION

1 PLAN / SECTION — NOT TO SCALE

TREE DISPOSITION LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREE / PALM TO REMAIN (NO SYMBOL) TO BE PROTECTED DURING CONSTRUCTION NO RELOCATIONS ARE ANTICIPATED AS OF DRAWINGS DATED 11/10/2023
△	EXISTING TREE / PALM TO RELOCATE. REFER TO LANDSCAPE PLAN FOR NEW LOCATION
X	EXISTING TREE / PALM TO REMOVE. REMOVE ALL CAT 1 INVASIVE EXOTICS. (EX: BRAZ, PEPPER)
XXX-xx	EXISTING TREE / PALM NUMBER. REFER TO TREE DISPOSITION TABLE ON THIS SHEET

TREE DISPOSITION NOTES

1. EXISTING TREES TO REMAIN SHALL BE TRIMMED PER ANSI-A300 STANDARDS, REMOVING WEAKEST RUBBING BRANCHES AND DEAD BRANCHES, BUT RETAINING 80% OF FOLIAGE. LARGE TREES SHALL HAVE LOWER BRANCHES CLEARED UP TO 8'.
2. SYMBOLS MAY BE SHOWN OFFSET FROM ACTUAL TREE LOCATION FOR CLARITY.
3. CONTACT LANDSCAPE ARCHITECT / ISA CERTIFIED ARBORIST FOR CLARIFICATION ON ANY DISCREPANCIES.
4. TRIMMING AND ANY NECESSARY ROOT PRUNING SHALL BE PERFORMED OR SUPERVISED BY A CERTIFIED ARBORIST.
5. ALL TREE WORK REQUIRE PERMITTING BY A REGISTERED COUNTY TREE TRIMMER.
6. BUBBLERS SHALL BE PROVIDED FOR ALL RELOCATED TREES AND PALMS.
7. REMOVAL OF ANY TREES OR PALMS WILL REQUIRE A WRITTEN "TREE REMOVAL PERMIT" FROM THE LOCAL GOVERNING AGENCY PRIOR TO REMOVAL. CONFIRM WITH LOCAL GOVERNING AGENCY THAT TREES CLASSIFIED AS NUISANCE/EXOTIC INVASIVE MAY BE EXEMPT.
8. ALL TREES AND PLANT MATERIAL TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION. REFER TO TREE PROTECTION DETAIL. THE CONTRACTOR SHALL TAKE EXTRA CAUTION TO PREVENT ANY DAMAGE TO THE TRUNK, ROOT ZONES AND GRADE.
9. ALL CATEGORY 1 EXOTIC/INVASIVE TREES TO BE REMOVED PER LOCAL ORDINANCE.

ADDITIONAL CITY OF HOLLYWOOD NOTE:

1. NO TREE REMOVAL OR PLANTING ALLOWED UNTIL SUB-PERMITS ARE FULLY APPROVED BY CITY.

N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '

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

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

Florida Engineering Business License: CA7928
Florida Surveyor and Mapper Business License: LB6860
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Plotted by: cphillips On 11/16/2023 12:28 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

TREE DISPOSITION PLAN

SHEET NUMBER	LD-101
PROJECT NUMBER	13778.00

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

STATUS: PRELIMINARY

GENERAL NOTES:

1.) LOCATE AND VERIFY THE CONDITION OF EXISTING UTILITIES PRIOR TO EXCAVATION. TAKE RESPONSIBILITY OF CONTACTING LINE LOCATION SERVICES AND ANY COST INCURRED FOR BODILY INJURY AND / OR DAMAGE OF OWNER'S PROPERTY OR SAID UTILITIES.

2.) THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED BY THE CONTRACTOR OF ANY DISCREPANCIES DISCOVERED BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE LIABLE FOR ALL MODIFICATIONS AND DAMAGES IF WORK PROCEEDS WITHOUT THIS NOTIFICATION AND APPROVAL.

3.) THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF MAINTAINING A SAFE WORK SITE INCLUDING BUT, NOT LIMITED TO PROVIDING FOR TRAFFIC CONTROL, INSTALLATION AND PLACEMENT OF FENCING AND BARRICADES, EXCAVATION AND TRENCH PROTECTION, AND COMPLIANCE WITH ALL FEDERAL AND LOCAL REGULATIONS AND CODES. ALL SAFETY EXPOSURES OR VIOLATIONS SHALL BE RECTIFIED IMMEDIATELY.

4.) THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL EXISTING IMPROVEMENTS BOTH ON SITE AND ADJACENT TO THE WORK SITE AND SHALL REPAIR ANY DAMAGE TO THESE IMPROVEMENTS TO THE SATISFACTION OF THE OWNER.

5.) THE CONTRACTOR SHALL NOTIFY OWNER AND LANDSCAPE ARCHITECT 72 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULES.

6.) ANY ALTERNATES AND OR SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL. CHANGES TO THE SCOPE OF WORK AND / OR CONTRACT DOCUMENTS RESULTING FROM THE ACCEPTANCE OF THE CONTRACTOR'S ALTERNATES AND / OR SUBSTITUTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

7.) THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF TRASH ON A DAILY BASIS.

8.) THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. PRIOR TO CONSTRUCTION, ALL PERMITS AND APPROVALS REQUIRED FOR CONSTRUCTION OF THE PROJECT SHALL BE PAID FOR AND OBTAINED BY THE CONTRACTOR.

9.) COORDINATE WORK WITH SUBCONTRACTORS TO ACCOMPLISH THE SCOPE OF WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS AS WELL AS, COORDINATE CONSTRUCTION WITH OTHER CONTRACTORS WORKING ON THE SITE.

10.) THE CONTRACTOR SHALL COORDINATE THE STORING OF MATERIALS, PARKING OF VEHICLES, AND RESTRICTIONS OF WORK AND ACCESS WITH THE OWNER. UNDER NO CIRCUMSTANCES SHALL ANY CONTRACTOR STORE MATERIALS, PARK VEHICLES OR EQUIPMENT UNDER THE CANOPY OF EXISTING TREES.

11.) UNLESS SPECIFIED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND PAYING ALL TEMPORARY UTILITIES AND SERVICES NECESSARY TO COMPLETELY INSTALL ALL WORK AS SHOWN AND NOTED IN THE CONTRACT DOCUMENTS.

12.) THE CONTRACTOR IS RESPONSIBLE FOR THE LEGAL OFF-SITE DISPOSAL OF SURPLUS MATERIAL AND DEBRIS.

13.) UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL APPROVAL, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE PROJECT SITE OF ALL TRASH, REPAIR ALL DAMAGE TO FINISH GRADE, INCLUDING TAILINGS FROM EXCAVATIONS, WHEEL RUTS AND ANY SETTLING OR EROSION THAT HAS OCCURED PRIOR TO COMPLETION. ALL AREAS OF THE PROJECT SITE SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE OWNER PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.

GENERAL LEGEND

SYMBOL	DESCRIPTION
REF:	ENLARGEMENT AREA REFERENCE
MATCHLINE: XX-XXX	SHEET MATCHLINE
L.O.C.	LIMIT OF CONSTRUCTION
	PROPERTY LINE
SITEWORK	
XX LS-50X	DETAIL REFERENCE
X.X	MATERIAL OR FINISH REFERENCE SYMBOL
X LS-50X	SECTION CUT REFERENCE
X LS-50X	ELEVATION OR AERIAL VIEW REFERENCE
PLANTING	
XX XX	PLANT LABEL
DIMENSIONING	
ALIGN	ALIGN ELEMENTS
℄	CENTERLINE

ABBREVIATIONS

B&B	BALLED AND BURLAPPED
BLDG.	BUILDING
B.O.C.	BACK OF CURB
CAL.	CALIPER
CJ	CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
CT	CLEAR TRUNK
CRZ	CRITCAL ROOT ZONE
EJ	EXPANSION JOINT
EQ	EQUAL
FFE	FINISHED FLOOR ELEVATION
FG	FIELD GROWN
F.O.B.	FACE OF BUILDING
GAL.	GALLON
GW	GREY WOOD
HT	HEIGHT
H.P.	HIGH POINT
L.A.	LANDSCAPE ARCHITECT
L.O.C.	LIMIT OF CONSTRUCTION
L.P.	LOW POINT
MIN.	MINIMUM
MULTI	MULTI-TRUNK
N.I.C.	NOT IN CONTRACT
OA	OVERALL
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
PA (OR P.A.)	PLANTING AREA
QTY	QUANTITY
R.O.W.	RIGHT OF WAY
SIM.	SIMILAR DETAIL
SPRD.	SPREAD
TD	TOP OF DRAIN
T.O.C.	TOP OF CURB
TS	TOP OF STAIR
TW	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE

HARDSCAPE MATERIALS SCHEDULE

KEY	DESCRIPTION / MODEL	COLOR	FINISH	CONTACT	REMARKS
CONCRETE					
C.1	CONCRETE SIDEWALKS -HAND TOOLED PICTURE FRAME JOINTS	STANDARD GREY	MEDIUM BROOM WITH PICTURE FRAME JOINTS	LOCAL SOURCE	
C.2	CONCRETE - FINISH TO BE DETERMINED	STANDARD GREY	MEDIUM BROOM WITH SAW CUT CONTROL JOINTS	LOCAL SOURCE	
PRECAST CONCRETE PAVERS					
P.1	PRECAST CONCRETE PAVERS - PLANK PAVERS	TO BE DETERMINED	STANDARD	TO BE DETERMINED	-SUBMIT PRODUCT DATA FOR REVIEW
P.2	STAMPED ASPHALT - STREETBRICK XL - 8"x8" PAVER (PATTERNED)	PEWTER AND GRANITE	STANDARD	COMPANY: ATLANTIC PAVING OFFICE PHONE: (305) 513-8632 ATLANTICPAVING.COM	- MUST COMPLY FDOT STANDARDS
MISCELLANEOUS					
M.1	LITTER RECEPTACLE - DISPATCH LITTER RECEPTACLES - 45 GALLON, SINGLE-STREAM, ONE 45 GALLON LINER	ALUMINUM TEXTURE	POWDERCOAT ALUMINUM	COMPANY: FORMS+SURFACESCONTACT: FORMS-SURFACES.COM	-SUBMIT PRODUCT DATA AND FINISH SAMPLE FOR REVIEW
M.2	BIKE RACKS - BRHS-101 BIKE RACK	TITANIUM	TUBULAR STEEL	COMPANY: VICTOR STANLEY CONTACT: WWW.VICTORSTANLEY.COM	-SUBMIT PRODUCT DATA AND FINISH SAMPLE FOR REVIEW
M.3	TREE GRATE - OBLIO 6'X6' HEEL PROOF - 71.88"X71.88"x1.25"	CAST IRON	POWDERCOAT	COMPANY: IRON AGE DESIGNS CONTACT: KATHLEEN ARMSTRONG OFFICE PHONE: (206) 276-0925 CELL PHONE: (206) 550-8268 EMAIL: KATHLEEN@IRONAGEGRATES.COM	-SUBMIT PRODUCT DATA FOR REVIEW

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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

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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

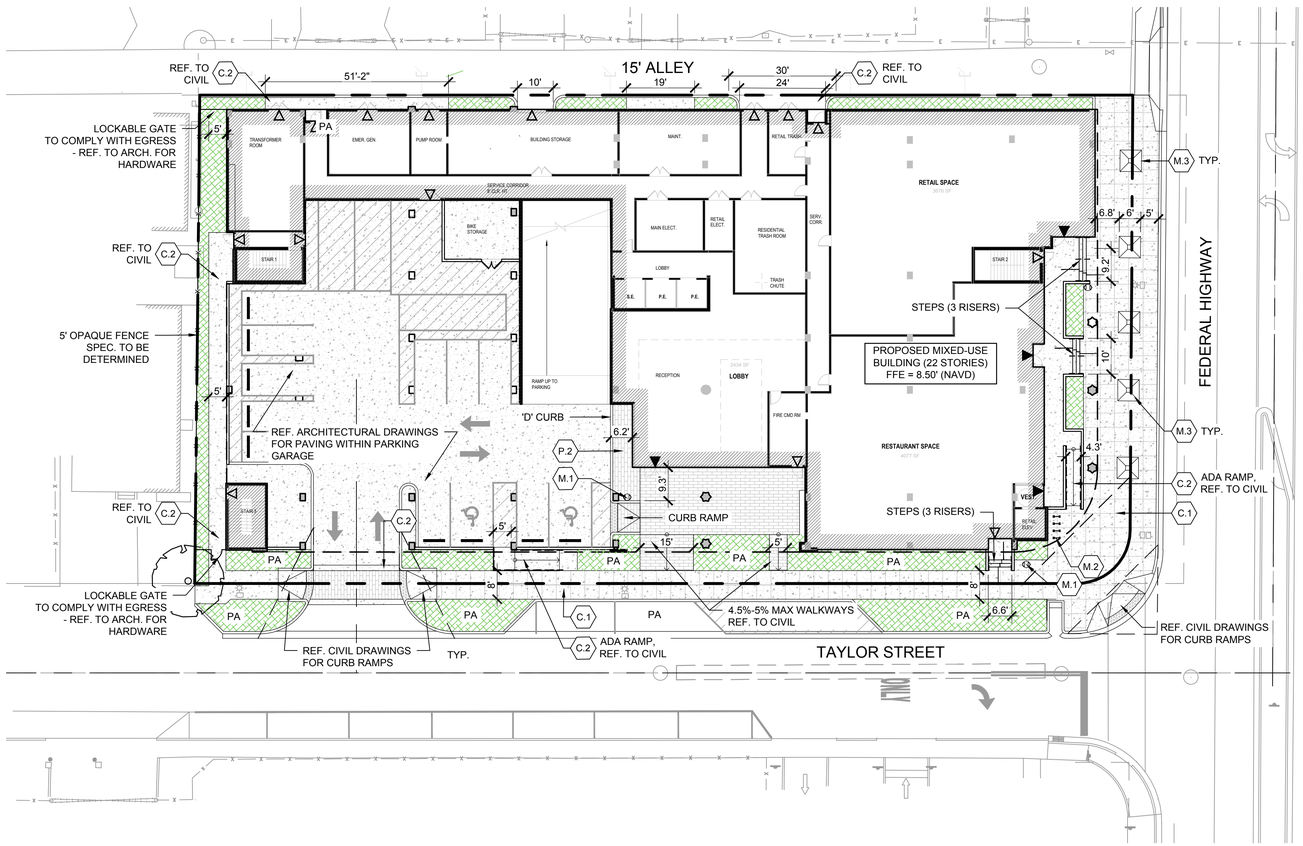
GENERAL NOTES, LEGEND, & SCHEDULE

SHEET NUMBER	LH-001
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

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



QUICK REFERENCE MATERIALS SCHEDULE

KEY	DESCRIPTION / MODEL	COLOR
CONCRETE		
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

N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '

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

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

Florida Engineering Business License: CA7928
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. LA6666804
(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

STATUS: PRELIMINARY

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

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

FIGURE 51 – BRHS-101 BIKE RACK INSTALLATION DETAIL

FIGURE 52 – BRHS-101 BIKE RACK ASSEMBLY

BRHS-101 Bike Rack	
Manufacturer:	Victor Stanley
Model:	BRHS-101 Bike Rack
Material:	Tubular Steel
Color:	Black
Website:	https://victorstanley.com/product/brhs-101/

5 (M.2) BIKE RACK

SPECIFICATION - IMAGES — NOT TO SCALE

FIGURE 37 – OBLIO TREE GRATE

FIGURE 38 – OBLIO DESIGN DETAIL

Oblio Tree Grate	
Manufacturer:	Iron Age Designs
Model:	Oblio 6' x 6' Heel Proof
Size:	71.88" x 71.88" x 1.25"
Material:	Cast Iron
ADA Compliant:	Yes
Website:	Website: https://www.ironagegrates.com/product/tree-grates-oblio/#specs

6 (M.3) TREE GRATE

SPECIFICATION - IMAGES — NOT TO SCALE

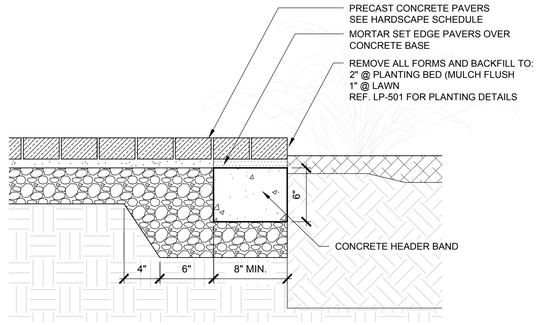
FIGURE 49 – DISPATCH WASTE RECEPTACLE WITH ACCESS DOORS

FIGURE 50 – LITTER RECEPTACLE (L). TOP WITH BOTTLES AND CANS OPTION(R)

Dispatch Litter Receptacle	
Manufacturer:	Forms + Surfaces
Model:	Dispatch Litter Receptacles
Size/ Specification:	45 Gallon, single-stream, one 45 gallon liner
Material:	Powdercoat aluminum
Color:	Black
Website:	https://www.forms-surfaces.com/dispatch-litter-recycling-receptacle

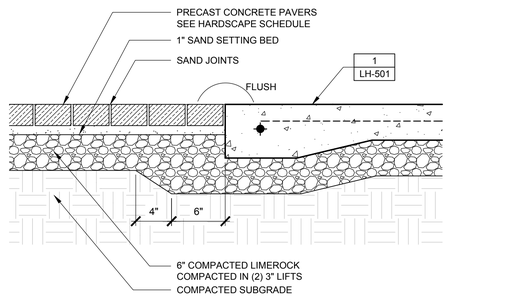
4 (M.1) TRASH RECEPTACLE

SPECIFICATION - IMAGES — NOT TO SCALE



2 PRECAST PAVERS AT LANDSCAPE

SECTION — SCALE: 1"=1'-0"



1 PRECAST PAVERS AT CONCRETE

SECTION — SCALE: 1-1/2"=1'-0"

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

PRELIMINARY PLAN NOT FOR CONSTRUCTION

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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:	09/13/2023
DESIGNED BY:	XXR
DRAWN BY:	CP/XR
CHECKED BY:	KS/PW
BID-CONTRACT:	

THOMAS M. DONNELLY P.E.
FLORIDA REG. NO. 65538
(FOR THE FIRM)

CLIENT

1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

410 N. FEDERAL HWY HOLLYWOOD, FL 33020

SHEET TITLE

HARDSCAPE DETAILS

SHEET NUMBER	LH-501
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CAD\13778.00-LH-501.dwg

A. SCOPE

1. The location of plants, as shown on the plans, is approximate. The final locations may be adjusted slightly to accommodate unforeseen field conditions, to comply with safety setback criteria, to avoid creating unsafe sight conditions, or as otherwise directed or approved by the Landscape Architect / owner in writing. All other location adjustments to the layout are to be approved in advance in writing by the Landscape Architect and owner.
2. Contractor understands that an important element of the design of this project is meeting landscape ordinances with a design flare that includes symmetry, alignment, focal points and / or smooth curvilinear forms where applied and contractor shall follow and instruct the working crews accordingly. In the event of any doubt as to how to execute the plans, Contractor shall immediately consult with Architect and/or Owner.
3. Landscape Contractor shall fine grade, prepare site as outlined in the following notes and per plans; furnish and install all plants, shrubs, trees and / or palms meeting minimum requirements and brace them per details provided. Furnish and install soil, gravel, boulders, sod and mulch as specified in plans and notes below.
4. Landscape contractor shall furnish and install all trees, palms, shrubs, groundcover, sod, planting soil, fertilizer, herbicide, pre-emergence herbicide, seed, and mulch.

B. BIDDING

1. Contractor to have liability insurance including Owner and Landscaper as insured's in excess of $10,000 as well as Worker's Compensation.
2. Contractors and Subs must ensure they are doing take offs from Bldg Dept.. Revised sets and / or Bid Set documents. Verify with this Office that you are bidding from latest available plans.
3. Read ALL notes and typical planting details sheets prior to submitting RFIs and prior to bidding.
4. When submitting an RFI reference sheet number, detail number and/or note category and number.
5. Landscape contractor shall verify all estimated quantities of material shown on the drawings prior to submitting their bid. Plant list pricing (if shown) is for permitting / mitigation comparison purposes only, any prices shown are to be disregarded by Landscape Contractor.
6. All Plant Material shall meet or exceed height and spread requirement. Heights are local code requirement and / or design intent related and always governs over container size. Container size given for reference only and must be sized-up to meet height requirements of plant list. Plant material available with excessive height beyond specifications must be consulted with Landscape Architect for design intent.
7. All landscape material was confirmed to be available at time of design. Landscape contractor understands that some material may not be available locally, however is available in Tri-County Region. Plant material supply is the responsibility of the Landscape Contractor that is awarded the contract and he/she shall take steps to ensure availability at the time of installation. Bring to the attention of Landscape Architect if specific material is no longer available at the time of bidding and / or prior to actual construction. Substitutions must be approved prior to construction.
8. Pre-inspections of site required prior to bidding.
9. The plant list is intended only as an aid to bidding. Any discrepancies found between the quantities on the plan and the quantities on the plant list shall be brought to the attention of the Landscape Architect for clarification.
10. All labor and material for soil amendments and fertilizer that is required to ensure the successful establishment and survival of the proposed vegetation, as well as all the cost for the removal of unsuitable or excess backfill material from plant beds, in addition to fine grading and mulching all plant beds and individual trees shall be included in the contractor's bid to perform the work represented in this plan set.
11. Bid shall be itemized for possible value engineering.
12. Sod and Rocks (if specified) shall be estimated by scaling plans. Include price per square foot for sod. Rocks (include price per ton). Small rocks and gravel beds shall have landscape fabric material and minimum 4" depth. Boulders to be bid by unit.
13. All S.F. if noted is approximate and shall not be considered all inclusive; it is the contractor's responsibility to do his or her take off, submit price per S.F. and in the end, sod all areas that are not covered either by plants, mulch and/or rocks. It shall be the responsibility of the contractor to include in the bid, the repair of any existing sod which may be damaged during construction.
14. Final payment to the Contractor shall be for actual plants installed on the project.
15. Contractor shall be responsible for obtaining and paying for costs of all permits described in bid whether permit costs are reimbursable by owner or included in bid. Research permit status and research all permits and additional documentation and certifications required such as separate tree removal permit for example, and consider prior to bidding.
16. General / Landscape Contractor shall leave a 5% unforeseen conditions allowance such as for additional root barriers determined to be needed on site and as job progresses.
17. Refer to Section T, Watering, for supplemental watering requirement.
18. Landscape contractor is responsible for verifying all plant quantities prior to bidding and within 7 calendar days of receipt of these plans shall notify the landscape architect in writing of any and all discrepancies. In case of discrepancies, planting plans shall take precedence over plant list. No substitutions are to be made without prior consent of the Landscape Architect.

C. GENERAL LANDSCAPE NOTES

1. Plants grown in containers prior to installation shall be removed from their containers before they are planted in the ground and have circling roots removed. All screening shrubs shall be planted for proper operation of equipment being screened and/or per the requirements of the utility as necessary. All hedge material required for screening purposes shall be planted with branches touching. Adjust spacing as necessary and/or provide additional plants to provide an adequate screen as required by code. Leave access to utility or clearance as required.
2. All landscaping shall be installed according to sound nursery practices. Contractor shall comply with federal, state and local laws and regulations pertaining to the inspection for plant disease and insect infestation.
3. All ideas, designs and plans indicated or represented by this drawing are owned by and are the exclusive property of Keith and Associates and may not be duplicated without authorization or used for other projects than the intended.
4. The Landscape Contractor shall exercise caution to protect any existing sod, electrical and irrigation. Any damage to the sod, electrical or irrigation shall be replaced or repaired to the original state by the Landscape Contractor at no additional cost to the owner.
5. Tree, palm, accent shrubs and bed lines are to be located in the field and approved by the Landscape Architect / owner prior to planting. Landscape Contractor acknowledges that material planted without approval of location may be subject to relocation by Landscape Architect to maintain design intent if not followed properly.
6. All trees must be pruned as per Landscape Architect's direction.
7. In areas where asphalt is removed in order to receive landscape material, the lime rock sub-base material must also be removed and replaced with approved planting soil mix.
8. Landscape contractor is responsible for sending photographs to the landscape architect to pre-approve all trees, palms, and shrubs prior to delivery to project site.
9. Landscape contractor shall coordinate his or her work with that of the irrigation, landscape lighting, and hardscape contractor if different.
10. The landscape contractor shall treat plant areas with pre-emergence herbicide after weeds and grass have been removed. Landscape contractor shall wait 7 days after pre-emergence treatment prior to planting.

D. PERMITS & REGULATIONS

1. Contractor(s) must obtain separate landscape, irrigation and tree relocation/removal permits from the governing authority prior to the issuance of the first building permit for the project.
2. Landscape contractor to call the local Landscape Inspector to schedule a pre-construction meeting prior to installation if required.
3. All mandatory requirements by local Landscape Departments and their inspectors shall govern and landscape contractor commits by accepting contract to comply promptly for builder/owner to obtain C.O.

E. TREE REMOVAL

1. Removal of any trees or palms will require a written "tree removal permit" from the local governing agency prior to removal. Non-native trees classified as "prohibited" trees may be exempt from the permit if listed as Category 1 by Florida Exotic Pest Plant Council. Confirm with Local Municipality.
2. Landscape Contractor is responsible to remove ALL invasive nuisance trees such as Brazilian Pepper, Melaleuca, Australian Pine and all invasive trees as categorized by the governing agencies, whether listed on plans or not.
3. The Landscape Contractor is responsible for coordinating tree and palm removals and transplants shown on the tree/palm Disposition Plan. The Landscape Contractor is to remove and discard from site existing unwanted trees, palms, shrubs, ground covers, sod and weeds within landscape areas.

F. EXISTING TREES

1. Existing trees designated to remain shall be protected during all construction phases. Any trees or shrubs designated to remain that are scarred or destroyed will be replaced at the contractor's expense, per the appraised value.
2. Existing plant material not shown on the plan and in conflict with new planting shall be evaluated at the time of new planting installation by the Landscape Architect. Trees and plant material indicated to be relocated with no new location provided in plans shall be moved to a location on site designated as a nursery holding area with the root ball protected from direct sunlight, maintained and irrigated until new location is determined.
3. Prune trees to remove damaged branches and improve natural shape and thin out structure. Do not remove more than 15% of branches. Do not prune back terminal leader.
4. Prune existing shrubs to remove damaged branches and improve natural shape.
5. Existing trees to remain shall be trimmed per Ansi-A300 standards. Supervision of the trimming shall be performed by an ISA Certified Arborist to ensure quality work.
6. All existing trees shall be "lifted and thinned" to provide an 8' minimum clearance for sidewalks and pedestrian walkways and a 14' minimum clearance for roadways, driveways and all vehicular use areas.
7. Selective canopy and root pruning of existing trees can be conducted (only as necessary and in no event more than 35%) to accommodate for new approved construction. Pruning shall be conducted / supervised by an ISA Arborist.
8. If plans call for relocation of trees, palms or plants. High level of care should be exercised to assure that they are not damaged in the process and that they are promptly replanted upon being dug up.
9. All underground utilities and drain or irrigation lines shall be routed outside the tree protection zone. If lines must traverse the protection area, they shall be tunneled or bored under the tree.
10. Erosion control devices such as silt fencing, debris basins, and water diversion structures shall be installed to prevent siltation and/or erosion within the tree protection zone.
11. Roots shall be cut manually by digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment.

G. TREE RELOCATION (These notes for relocation trees only and if applicable)

1. ~~Flag all trees and palms to be transplanted with differentiating color than those to be saved or removed.~~
2. ~~Tree Relocation process must be performed or supervised by ISA Certified Arborist.~~
3. ~~Water the root zones to field capacity for 5 continuous days before root pruning. At a minimum soak the soil to a 4'-0" depth within a 6' radius.~~
~~Root prune a minimum of six weeks before relocation. Prune away all dead or damaged limbs or fronds. For trees, prune out 1/3 of the existing canopy by selectively trimming small internal branches. For palms, gather fronds above the bud and tie them loosely with jute twine to avoid damage.~~
4. ~~Brace root pruned trees awaiting relocation.~~
5. ~~Root prune 3rd of the root system, irrigate daily for 2 weeks then root prune another~~
~~rd, irrigate daily and prune last rd on actual relocation date, no less than two weeks (six weeks total minimum root pruning by stages). ISA Arborist on staff shall observe for intense shock. Canopy pruning may be deemed necessary by Arborist on staff to balance for intense root ball loss, canopy shall be trimmed only as necessary to increase survival.~~
6. ~~Root prune with proper clean equipment to sever roots. Ensure roots are not torn or pulled apart.~~
7. ~~With hand tools, dig a 2'-0" wide by 3'-0" deep trench at a minimum distance as determined by the consulting arborist to expose roots. Cut all roots 1.5" and larger in diameter with a clean, sharp pruning saw. Treat all cuts with a fungicidal barrier. Backfill the trench, within 4 hours of digging, with a 1:1 mixture of site soil and sawdust or other fine organic material. Do not compact.~~
8. ~~Form a rootball size in compliance with Florida grades and Florida standards number 1 or better.~~
9. ~~Maintain the soil moisture at field capacity throughout the six weeks.~~
10. ~~Allow the plant to regenerate roots over a period of six weeks.~~
11. ~~At the end of six weeks, prepare the planting pit at the new location. Overdig the hole diameter a minimum of 2' beyond the root ball, with the recipient hole to be at least 1/3 larger than the area that was trenched for transplanting.~~
12. ~~With the consulting arborist present, undercut the entire root ball of the plants to be transplanted at a depth specified by the arborist. The undercutting method may be a choker cable drawn through the root ball with heavy equipment.~~
13. ~~At the direction of a professional rigger, assemble slings, padding, guiding ropes and cables for attachment to the crane or backhoe. The professional rigger shall determine the size of machinery necessary to execute the lifting and moving operation.~~
14. ~~Install trees within 24 hours of removal from their original location to locations provided by Landscape Architect or Developer with approval of municipal / Landscape Inspector.~~
15. ~~Recipient site to be within 4" of finished grade. Tree pit excavation to mathch the size of root ball. Top of root ball to match the finished grade~~
16. ~~Maintain trees in a healthy and vigorous condition during installation and throughout the plant establishment period. Replace trees that do not meet this requirement with the same species, size, and quality or per mitigation requirements specific to the governing authority with jurisdiction.~~
17. ~~Fertilize the plant as directed by the consulting arborist.~~
18. ~~When the plant is placed in the new location, backfill the planting pit with topsoil and water thoroughly to eliminate air pockets and compact the soil. Set the tree no deeper than its original condition.~~
19. ~~Cover the root ball area with 3" depth of organic mulch.~~
20. ~~Provide fungicide and fertility applications at the direction of the consulting arborist.~~
21. ~~Post transplant watering to provide moisture and reduce any excessive stress due to root desiccation. Watering to be adjusted according to conditions and at the supervision and direction of the ISA certified arborist.~~
22. ~~The diameter of the root pruning or transplanting circle shall be at a distance away from the trunk equal to 12 times each inch of trunk diameter at breast height.~~
23. ~~For all palms except Sabal palmetto, the lower fronds shall be pruned leaving 9-11 fronds that can be tied without an extensive amount of weight that may damage the heart of the palm. The Sabal palmetto shall have all fronds cut without damaging the bud.~~
24. ~~Digging and preparation of the new hole for the transplant shall be done prior to removing the tree from the existing location.~~
25. ~~The landscape Contractor is to verify that all new holes have appropriate percolation.~~
26. ~~Over the guarantee period the Landscape contractor shall be responsible for resetting any trees or palms that are not in a vertical position.~~
27. ~~After transplanting trees and palms, the landscape contractor shall be responsible for obtaining water and watering to maintain soil moisture during the guarantee period at a minimum of: First month- daily, Second month - three times per week, Third and Fourth months - two times per week, Last eight months - one time per week.~~

H. SITE PREPARATION & GRADING

1. Landscape contractor shall loosen and till compacted soils that are overly compacted in all planting areas of the project to provide for proper soil aeration for plant establishment.
2. Planted areas shall be cleared of underground rocks, construction debris and other materials detrimental to the health of the plants. Lime rock base material shall be removed within planting pits and adjacent to pavement. The planting areas should be clean to a depth equal to the root ball of the trees/palms proposed for the area. Planting area soils shall be tested for ph before planting. Soils showing high (alkaline) ph (over 7.5) shall be amended or replaced with native soil having a ph range of 6.5 - 7.5, as approved by Landscape Architect.
3. All planting areas and planting pits shall be tested for sufficient percolation prior to final planting and irrigation installation to ensure proper drainage. Plant beds in parking lots and in areas compacted by heavy equipment shall be de-compacted so that drainage is not impeded.
4. Landscape Contractor shall treat plant areas with pre-emergence herbicide after weeds and grass have been removed. Landscape Contractor shall wait (7) seven days after pre-emergence treatment prior to planting.
5. Site preparation shall include the eradication and removal of any weeds, clean-up of any dead material, debris, and rubbish.
6. General site and berm grading to +/- 1 inch (1") shall be provided by the general contractor. All finished site grading shall be provided by the Landscape Contractor. All planting beds shall be free of all rocks 1/2" or larger, sticks, and objectionable material including weeds and weed seeds. All lime rock shall be removed/cleaned down to the native soils.
7. The Landscape contractor shall ensure the planting areas are at finish grade prior to installing plant materials.
8. All trees and plant material to remain shall be protected during construction. Contractor shall install protective barriers such as "Tenax" orange safety fencing or similar, to be installed before the beginning of the project. Barriers shall be located to include the drip line of the trees, palms and plant material. The contractor shall take extra caution to prevent any damage to the trunk, root zones and grade.
9. Final grade within planting areas to be 4" below adjacent paved areas or top of curb. Sod areas to be 2" below.
10. All planting beds shall be shaped and sloped to provide proper drainage away from building and structures and to swales, if applicable.

I. IRRIGATION

1. Any Irrigation Notes and specifications included in Irrigation Sheets govern over the following Irrigation Notes.
2. The Landscape Contractor shall coordinate with the irrigation contractor if not the same and leave provisions for all individual trees in turf areas and all planting beds.
3. Irrigation / Landscape contractor to guarantee 100% coverage and 50% overlap (head to head coverage) to all landscaped areas and furnish and install a rain sensor.
4. Irrigation Contractor to adapt design to onsite conditions adjusting heads and changing nozzles as required to avoid overspray onto buildings or paved areas.
5. The contractor shall ensure that the irrigation system is operational and free of leaks prior to any planting being finalized. Plant material that is installed prior to the irrigation system being operational shall be watered by the contractor at his or her expense. Water for plant establishment should be included in the cost of the plant.
6. All guidelines as outlined by the South Florida Water Management District (SFWMD) or water management district with jurisdiction shall be strictly adhered to.
7. Irrigation water whether pumped from a lake or a well shall be treated for algae, rust, etc. to provide clean treated irrigation water that will not clog or stain property or components.
8. Any existing irrigation system shall be retrofitted to comply with the specifications as outlined above.

J. HARDSCAPE & OTHER MATERIALS

1. Face of trees and palms to be located a minimum of 2' setback from all fences, walkways, walls, and paved surfaces, unless otherwise indicated on the plans. Refer to details.

K. UTILITIES / CLEARANCES

1. The contractor shall be responsible for determining the location of and avoid and protect utility lines, buried cables, and other utilities. The owner or Landscape Architect shall not be responsible for damage to utility or irrigation lines.
2. Trees shall be placed a minimum of 5 ft. from underground utilities, unless otherwise approved in writing by Landscape Architect and Owner.
3. All canopy trees to be planted min. of 15' from light source/poles. Unless otherwise approved by the governing authority / Landscape Architect and Owner.
4. Landscape contractor shall contact the county, governing authority and/or utility companies to locate all underground utilities or structures prior to digging. Landscape contractor shall repair all damage to underground utilities, and/or construction caused by utility damage, at no cost to the owner.
5. All plant material symbols shown on landscape plan shall be considered diagrammatic and should be adjusted in the field by contractor to avoid all utilities, and all other obstructions.
6. If/ When digging in right of way needed: Two (2) full business days before digging, call toll free 1-800-432-4770, or 811, Sunshine State One Call of Florida, inc. Notification Center. In addition, call the Governing Agency's Utilities/Public Works Department. Contractors are responsible for coordinating with the owners and appropriate public agencies to assist in locating and verifying all underground utilities prior to excavation. All existing utilities shown on the plans are to be considered approximate and should be verified by the contractor prior to the start of work operations.
7. Above and below ground utilities shall be verified and located in the field by the contractor prior to commencing work in the project area. The contractor shall examine available utility plans and confirm conflicts between indicated or located utilities and landscape work. The contractor shall then notify the Project Engineer of said conflicts and the Engineer will coordinate any necessary adjustments with the utility provider. Tree locations will be adjusted as necessary when in conflict with existing utilities.
8. The final plant locations may be adjusted, as approved / directed by the Landscape Architect in writing, to accommodate utilities compliance. Excavations within 5' of known utilities should be done by hand.
9. Contractor shall familiarize himself with the location of and avoid and protect utility lines, buried cables, and all other utilities, noted or not, on plans.
10. Leave clearance and access to all above ground or at grade meters and equipment.
11. Landscape planting shall be in conformance with FPL guidelines for setbacks from overhead utility lines.
12. Landscaping shall not interfere with light poles, fire hydrants, electrical/mechanical equipment access, signs, drainage structures, etc. Bring to the attention of Landscape Architect any conflicts.

L. ROOT BARRIERS

1. Root barriers will be installed to protect building foundations, curbing, walkways, paved areas, roadway base material and utilities from existing large trees or proposed new trees that are within 5' of existing or new approved construction or as may be deemed necessary as job progresses.
2. Mechanical Root barriers will be used for large existing Canopy Trees and chemical type barriers will be used for new trees.
3. Mechanical Root barriers will be "DeepRoot" and Chemical Root barriers will be "Biobarrier". Substitutions must be of approved equal or better quality.
4. Root barriers will be installed per manufacturer specifications.
5. Root barrier depths will be determined by the manufacturer recommended depth chart and as required by on-site conditions in a case by case basis as deemed necessary by Landscape Architect Architect / ISA Arborist and Landscape Inspector.

M. LANDSCAPE BACKFILL & SOIL AMENDMENT

1. All building construction material and foreign material shall be removed from the planting areas and replaced with 70/30 mix (70% sand / 30% organic compost) or amend existing soils per section H.2.
2. Planting soil mix shall be delivered to the site in a clean loose and friable condition and is required around the root ball of all trees and shrubs, the top 6" of all shrubs and ground cover beds and top 2" of all grassed areas. This soil shall be tilled into the existing soil after the existing soil has been cleaned of all undesirable foreign materials. Recycled compost is encouraged as a soil amendment alternative. Planting soil to be weed free.
3. Planting backfill for palms shall be clean coarse native sand unless specified elsewhere.
4. Do not allow air pockets to form when backfilling. All trees shall be watered-in utilizing water probe or a tree bar.

N. PLANT SIZE & QUALITY

1. All plant material must meet or exceed the minimum size requirements as specified on the plant list. Height specification governs over container size if both specifications given cannot be met. Any other requirements for specific shape or effect as noted on the plan shall also be required for acceptance.
2. Material specified as Balled and Burlapped (B&B) can be accepted in container if not available as B&B at the discretion of Landscape Architect; if so, root bound and/or circling roots shall be removed and root ball must be proportionate to Tree / Palm.
3. U.O.N, All trees designated as single trunk shall have a single, relatively straight, dominant leader, proper structural branching and even branch distribution. Trunks on palms shall be uniform in thickness for the entire length of the palm and shall not taper off to disproportionate thinness towards the crown. Trees with bark inclusion, tipped branches, and co-dominant trunks will not be accepted. Trees with girdling, circling and/or plunging roots will be rejected.
4. Use nursery grown plant materials that complies with all required inspection, grading standards, and plant regulations in accordance with the latest edition of Florida Department of Agriculture, "Grade & Standards for Nursery Plants".
5. All trees and palms shall be free of open wounds and unsightly visible scars.
6. All substitutions must be approved by the governing authority if it is required Canopy and by Landscape Architect / Owner if supplementary accent material.
7. Contractor shall comply with Federal, State, and Local laws and regulations pertaining to the inspection for plant disease and insect infestation.
8. Trees, palms, shrubs, ground covers:
Plant species and sizes shall conform to those indicated on the drawings. All nursery stock shall be in accordance with grades and standards for nursery plants parts 1 and 2, latest edition published by the Florida Department of Agriculture and Consumer Services, unless specified otherwise. All plants shall be Florida grade number 1 or better as determined by the Florida Division of Plant Industry and tightly knit plant, so trained or favored in its development that first appearance is unquestionable and it is outstandingly superior in form, number of branches, compactness and symmetry. All plants shall be freshly dug, sound, healthy, vigorous, well branched and free of disease and insect eggs and larvae and shall have adequate root systems. Trees and palms shall be uniform in size and shape. All materials shall be subject to approval by the Landscape architect. Plants shall be pruned prior to delivery only upon the approval of the Landscape Architect.
9. All container grown material shall be healthy, vigorous, well-rooted plants and established in the container in which they are sold. The plants shall have tops of good quality and be in a healthy growing condition. An established container grown plant shall be transplanted into a container and grown in that container sufficiently long enough for the new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container.
10. Field grown trees and palms previously root pruned shall obtain a root ball with sufficient roots for continued growth without resulting shock.
11. Root suckers on any tree are not acceptable and must be properly pruned.
12. Contractor shall coordinate with Landscape Architect and Owner to obtain prior approval for the selection of the specific specimens of all palms and any trees of more than six feet in height. Contractor to supply photograph of trees prior to purchase and installation.

O. PLANTING NOTES

1. At the discretion of the Landscape Architect, plants are subject to review for approval for size, variety, condition and appropriateness to the design intent.
2. All synthetic burlap, synthetic string or cords, or wire baskets shall be removed before any trees are planted. All synthetic tape (i.e. tagging tape, nursery tape) shall be removed from trunks, branches, etc. before inspection. The top 1/3 of any natural burlap shall be removed or tucked into the planting hole before the trees are back filled.
3. All "groundcover" requires 75% coverage and 100% within 3 months of installation. Bring to the attention of Landscape Architect in writing before commencing if this is not achievable with the design.
4. Set tree no deeper than it was in its original growing condition with the top of the root ball even with, or slightly higher (+/- 1") than the finished grade.
5. All trees/palms shall be planted so the top of the root ball, root flair are slightly above final grade. Shrub material shall be planted such that the top of the plant ball is flush with the surrounding grade.
6. All trees and palms shall be braced / staked per accepted standards by the Florida Nursery, Growers & Landscape Association (FNGLA). Nailing into trees and palms for any reason is prohibited and the material will be rejected. Please refer to the planting details.
7. All trees, new or relocated, to be staked and guyed as detailed.
8. Layout shrubs to create a continuous smooth front line and fill in behind with triangular spacing.
9. Excavate pit or trench to 1-1/2 times the diameter of the balls or containers or 1' wider than the spread of roots and 3" deeper than required for positioning at proper height . Compact a layer of topsoil in bottom before placing plants. Backfill around plants with planting mixture, compacted to eliminate voids and air pockets. Form grade slightly dished and bermed at edges of excavation. Apply 3" of mulch.
10. Groundcover and shrubs to be spaced in a uniform and consistent pattern per planting details.
11. All mechanical equipment, irrigation pumps, FPL transformers, pool pumps, etc. shall be screened on a minimum of three sides by landscape shrubs.
12. Contractor shall not mark or scar trunks in any fashion.
13. When requested by Landscape Architect, demonstration of healthy root system if not previously approved, can include tree removal and re-installation for inspection at no additional cost to the owner.
14. Remove rejected Plant material from the Site immediately and replace with acceptable plants.

P. FERTILIZATION

1. All Fertilization shall comply with state fertiization laws. Fertilization shall be Agriform "20-10-5 Plus minors" or similar approved slow-release tablets applied per manufacturer suggested application rate chart:

Agriform® 21-gm Tablets (SKU# 90026*; 500 tablets/case)

	NEW Tree / Shrub Container Size						
	1 Gal	2 Gal	3 Gal	5 Gal	7 Gal	15 Gal	24" Box
Installation:	1	1 to 2	2 to 3	2 to 3	3 to 5	7 to 10	15 to 24

- Place plant in the hole and backfill to halfway point.
- Do not place tablets in the bottom of the planting hole.
- Place Agriform Tablets in the hole about 1to 2 inches away from root tips.
- Finish filling the hole around the plant to grade level.

SCOTTS: 1-800-492-8255 or visit www.scottspro.com

Q. SOD

1. All areas disturbed during construction shall be sodded with St. Augustine 'Seville' unless otherwise noted. These disturbed areas shall have proper irrigation established or re-established if they were disrupted or non-functional.
Landscape Contractor to supply and install 2" soil layer 50/50 mix blanket for all new sod areas.
2. All open areas not covered by trees, palms, shrubs, vines, ground covers or existing sod in good condition to remain, shall receive Stenotaphrum Secundatum, St. Augustine 'Seville' sod, whether labeled on the plans or not, unless a different species is indicated on the planting plan. Sod shall be strongly rooted, free from weed, fungus, insects and disease. Contractor shall be paid by the total sodded area x the unit price submitted (field verified).
3. Sod shall be machine stripped no more than 24 hours prior to laying.
4. Lay sod strips with tight joints, do not overlap, stagger strips to offset joints in adjacent courses. Work sifted soil mix into minor cracks between pieces of sod and remove excess soil deposits from sodded areas. Sod on slopes greater than 3:1 shall be immediately staked after planting.

R. SUBMITTALS

1. Submit 1 gallon container of all planting media for landscape architect review. Samples to include specified planting mix, topsoil, container planting mix (if applicable) and mulch.
2. Submit representative nursery photos of all Trees and Palms for review prior to delivery to the site. Include scale for height.
3. Submit representative nursery photos of all shrub and groundcover material for review prior to delivery to the site.

S. INSPECTION & ACCEPTANCE

1. Notify the governing Agency if required and Landscape Architect of commencement.
2. Onsite plant deliveries shall occur on Monday through Friday only unless otherwise directed by the Landscape Architect / Owner. The contractor shall ensure that plant material is delivered undamaged from transportation or digging operations. The Landscape Architect may reject material that has been damaged or rendered unacceptable due to relocation or transportation from the point of origin. All plant material shall be available for inspection and approval by the Landscape Architect prior to final installation.
3. There shall be one final inspection for approval by each of the presiding governing agency, Landscape Architect and owner. Contractor shall ensure that the plans, details, specifications and notes have been adhered to and that the landscape and irrigation installation is compliant to all items as directed on the plans prior to scheduling of the final inspection.
4. Upon completion of the work, the Landscape Contractor shall notify the Landscape Architect and request a final inspection. Any items that are judged incomplete or unacceptable by the Landscape Architect or owner shall be promptly corrected by the Landscape Contractor.
5. No substitution of plant material, type or sizes will be permitted without prior written authorization from the Landscape Architect and owner.
6. To obtain final payment, Contractor must provide release of all mechanic's liens and material liens.

T. MULCH

1. All planting beds shall be mulched to a depth of 3" with an organic mulch approved by Landscape Architect. No heavy metals, such as arsenic, etc. are to be contained in the mulch. The contractor shall provide certification if requested or proof that all mulch is free of heavy metals or similar environmental contaminants.
2. Shredded approved organic mulch to be used beyond trunk in all directions and throughout all hedges and plant material.
3. All trees in sodded areas shall have a clean cut 4' diameter mulch ring.
4. Preferred mulch is shredded melaleuca. Cypress, red, gold and green mulch is prohibited.
5. All mulch shall have a minimum 3" separation from the trunk of the tree/palm trunk to avoid rotting.

U. WATERING

1. All plant material shall be watered in thoroughly at the time of planting.
2. It is the sole responsibility of the Landscape Contractor to ensure that all new plantings receive adequate water during the installation and until completion of contract. Deep watering of all new trees and palms and any supplemental watering that may be required to augment natural rainfall and site irrigation is mandatory to ensure proper plant establishment and development and shall be provided by Contractor as a part of this contract.

V. CLEAN UP

1. The Landscape Contractor is responsible for maintaining all landscape planting areas until final acceptance of the owner.
2. The contractor is responsible for mowing the entire project during planting and establishment periods, based on mowing project once a month from October to April, and twice a month from April to October (During installation and plant establisment only and until final inspection and owner accepts and takes ownership).
3. Any excess soil, undesired stones or debris resulting from landscape operations shall be removed promptly, keeping the site clean as work progresses.
4. The Landscape Contractor shall at all times keep the premises free from accumulation of waste material or debris caused by their crews during the performance of the work. Upon completion of the work, the contractor shall promptly remove all waste materials, debris, unused plant material, empty plant containers, and all equipment from the project site.

W. MAINTENANCE

1. Landscape Contractor to return to job site 12 months after tree bracing and remove all tree braces. Owner may choose to retain 5% of payment to ensure compliance.
2. The Landscape Contractor shall water, mulch, weed, prune, and otherwise maintain all plants, including sod, until completion of contract or acceptance by landscape architect. Settled plants shall be reset to proper grade, planting saucers restored, and defective work corrected.
3. Trees and shrubs shall be maintained to keep clearance of stop signs and safety clearance for visibility at traffic intersection.

X. GUARANTEE & REPLACEMENT

1. By accepting the contract, the Contractor is thereby guaranteeing all plant materials and design for a period of not less than one (1) year from the time of final acceptance by the owner. Contractor shall replace any plants which die or wither within such period with healthy plants that meet specifications of the same species and size without additional cost to the owner unless such death or withering is due to Owner's failure to do ordinary maintenance on such plants after final acceptance in accordance with any maintenance instructions given by Landscape Architect for such plants. Such replacement shall include all plants and labor to plant the replacement plants. Any plant materials damaged by lightning, storms, freeze damage or other "acts of God" as well plants damaged by vehicles, vandalism or neglect are not included in this replacement agreement. If requested, the Landscape Architect may act as a mediator between owner and Landscape Contractor on a time material basis. "Plants" includes all trees, palms, shrubs, grass and other plants provided or planted by Contractor.

Y. MISCELLANEOUS.

1. All work to be done in a professional manner.
2. No change order shall be valid, due or paid unless it is approved by Owner in writing in advance.
3. These notes shall be an integral part of the contract of Contractor and shall be deemed incorporated therein by reference. In the event of a conflict among the terms among the plans and these notes, the terms of this document shall control.

Z. ABBREVIATIONS IN NOTES AND PLANS

UNO = Unless Otherwise Noted
L.A = Landscape Architect
S.F. = Square Feet
STD = Standard (single trunk)
B&B = Balled and Burlapped
BLDG DEP = Building Department
RFI = Request for Information
FPL= Florida Power & Light
C.O. = Certificate of Occupancy
ISA CA or ISA Arborist = International Society of Arboriculture Certified Arborist

KEITH
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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

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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 NOTES

SHEET NUMBER	LP-001
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CAD\13778.00-LP-001.dwg

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*		**REQUIRED**	**PROVIDED**
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		**REQUIRED**	**PROVIDED**
25% of 356 sf		89 SF	89 SF
OPEN SPACE - TREE REQUIREMENT		**REQUIRED**	**PROVIDED**
1 tree per 1,000 sf of pervious area			
1,833 SF	/ 1,000 sf =	2 TREES	0 TREES
NATIVE TREE REQUIREMENT		**REQUIRED**	**PROVIDED**
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		**REQUIRED**	**PROVIDED**
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 Deficiancies = 16" / 2 = 8 (2" TREES)	
8 TREES x $350.00 = $2,800	

TREE TRUST FUND CALCULATIONS			
	QTY:	**Cost Per Tree**	**Subtotal Owed**
Street Tree Deficiancies	4	$350	$1,400
Open Space Deficiancies	2	$350	$700
Mitigation Deficiancies	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			**	
CODE	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	SPACING	NATIVE	REMARKS
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**	
CODE	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	NATIVE		REMARKS
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

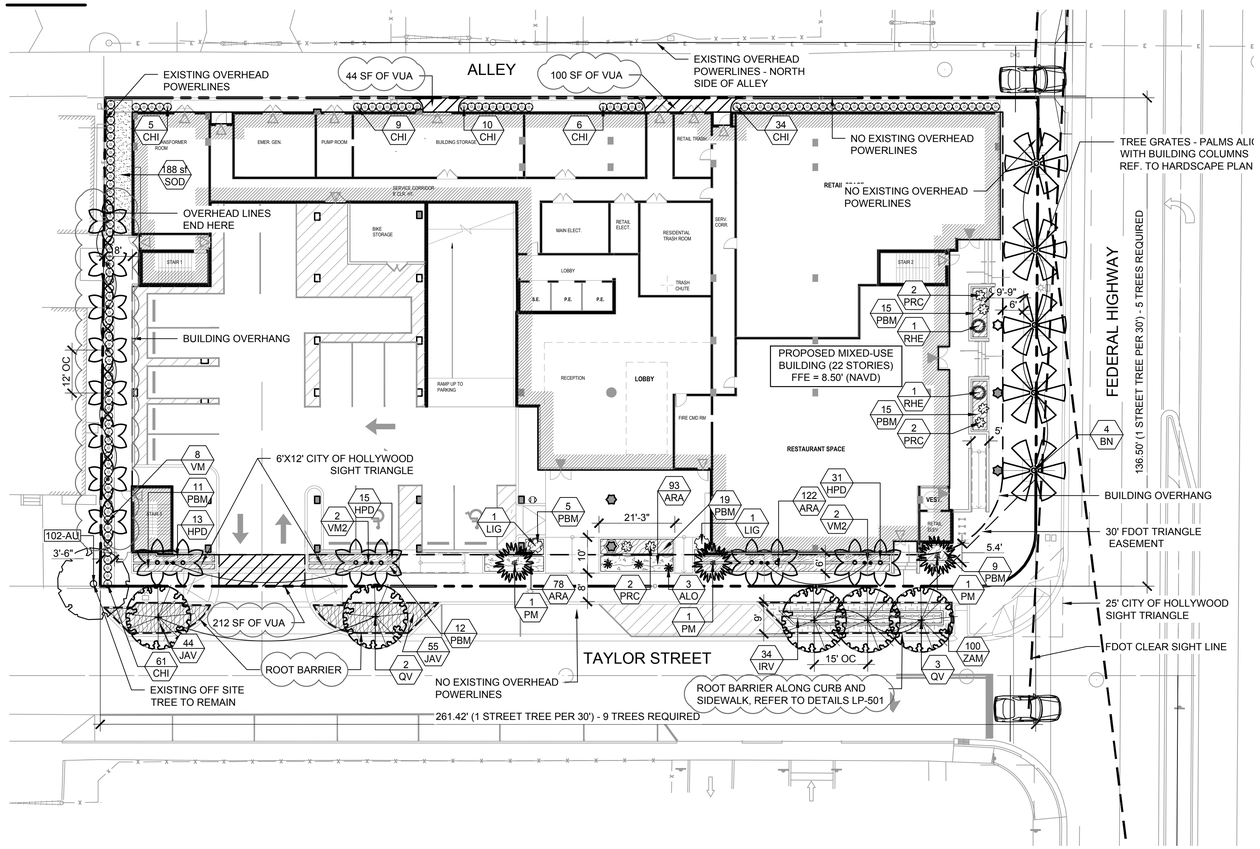
* DENOTES MODERATE DROUGHT TOLERANT SPECIES

NOTES:

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

ADDITIONAL CITY OF HOLLYWOOD NOTES:

1. NO TREE REMOVAL OR PLANTING ALLOWED UNTIL SUB-PERMITS ARE FULLY APPROVED BY CITY.
2. NO LANDSCAPE SUBSTITUTIONS SHALL BE MADE WITHOUT THE CITY OF HOLLYWOOD APPROVAL.
3. 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.
4. ALL ABOVE GROUND UTILITY EQUIPMENT SHALL BE SCREEN WITH PLANTING AT EQUIPMENT HEIGHT AT MINIMUM 36" HEIGHT.
5. SIMILAR OR CONFLICTING NOTES MAY OCCUR ON SHEET LP-001. NOTED HEREIN AS CITY OF HOLLYWOOD REQUIREMENTS ARE TO PREVAIL.



N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '

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

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

Florida Engineering Business License: CA7928
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

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CLIENT

1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

410 N. FEDERAL HWY HOLLYWOOD, FL 33020

SHEET TITLE

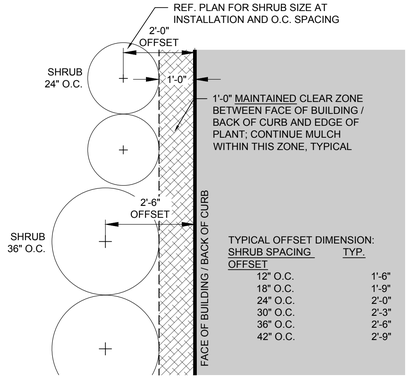
PLANTING PLAN

SHEET NUMBER	LP-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

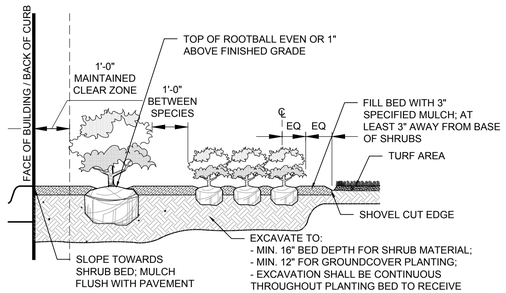
Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CAD\13778.00-LP-101.dwg

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



TYPICAL SHRUB OFFSET AT BUILDING / CURB

8 PLAN NOT TO SCALE

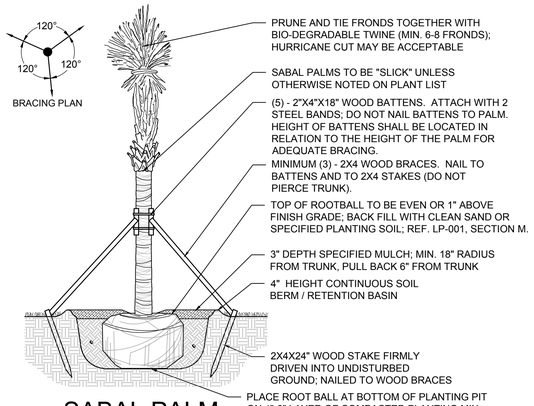


NOTE:
- PLANT MATERIAL SHALL NOT BE PRUNED PRIOR TO INSTALLATION. AFTER PLANTS HAVE BEEN INSTALLED, EACH PLANT SHALL BE PRUNED FOR UNIFORMITY OR AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING BEDS PRIOR TO INSTALLATION.

SHRUB AND GROUNDCOVER PLANTING

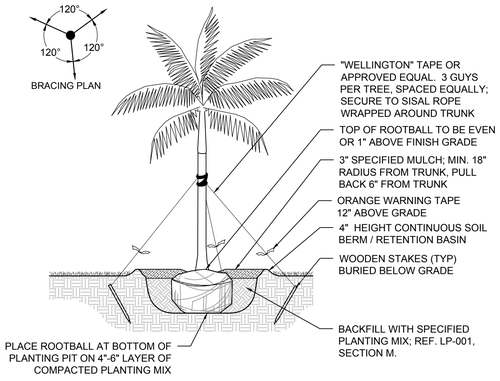
7 SECTION NOT TO SCALE

NOTE:
- REF. LP-001, LANDSCAPE NOTES, FOR ADDITIONAL REQUIREMENTS.
- ROOT BALL SIZE FOR ALL TREES AND PALMS TO BE IN PROPORTION TO SIZE AND TYPE OF PALM PER FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.



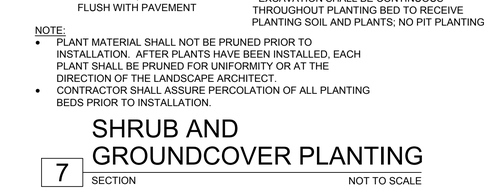
SABAL PALM PLANTING DETAIL

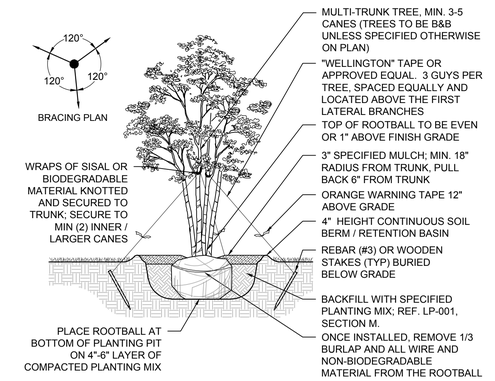
5 SECTION NOT TO SCALE



SMALL / MEDIUM TREE PALM PLANTING DETAIL

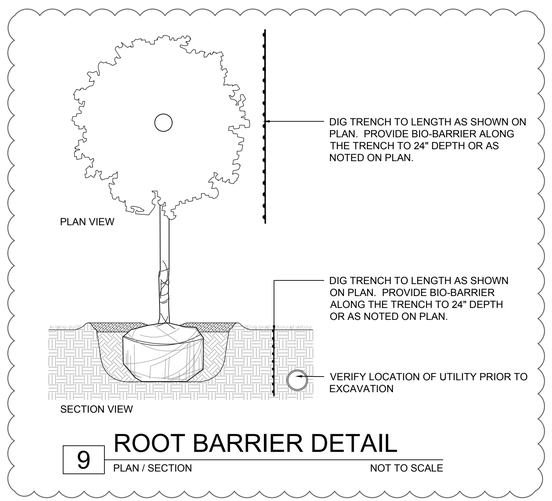
3 SECTION NOT TO SCALE





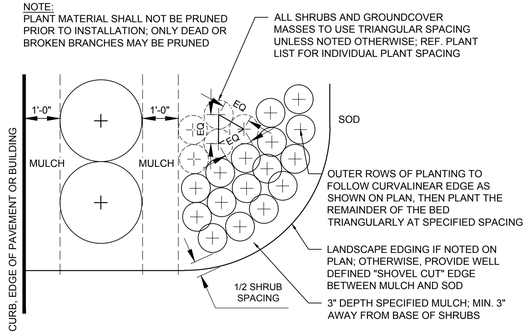
MULTI-TRUNK TREE PLANTING DETAIL

2 SECTION NOT TO SCALE



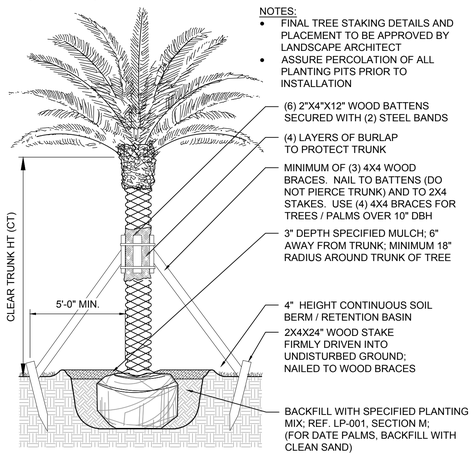
ROOT BARRIER DETAIL

9 PLAN / SECTION NOT TO SCALE



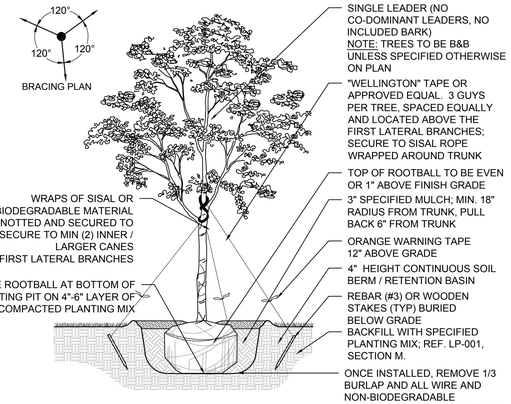
SHRUB AND GROUNDCOVER PLANTING

6 PLAN NOT TO SCALE



LARGE PALM / TREE PLANTING DETAIL

4 SECTION NOT TO SCALE



SINGLE TRUNK TREE PLANTING DETAIL

1 SECTION NOT TO SCALE

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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

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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

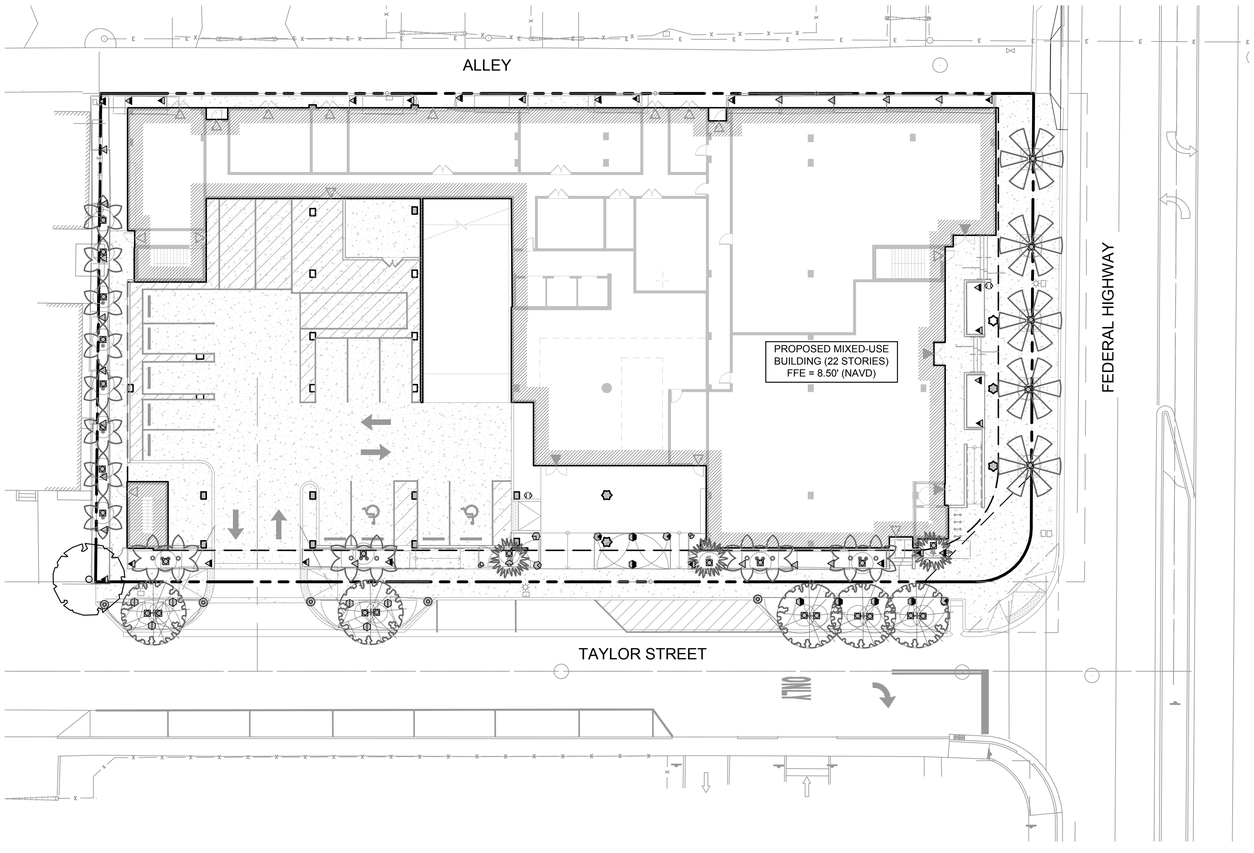
PLANTING DETAILS

SHEET NUMBER	LP-501
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

Plotted by: cphillips On 11/16/2023 12:30 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CAD\13778.00-LP-501.dwg



NOTES:

1. ALL SOD AND LANDSCAPE TO RECEIVE 100% COVERAGE WITH 100% OVERLAP FROM AN AUTOMATIC IRRIGATION SYSTEM USING AN APPROVED WATER SOURCE.
2. A RAIN SENSOR MUST BE INSTALLED TO OVER-RIDE THE CONTROLLER.
3. BUBBLERS TO BE PROVIDED FOR NEW AND RELOCATED TREES AND PALMS.
4. CONTRACTOR IS RESPONSIBLE FOR ALL CONDITIONS AND IRRIGATION SPECIFICATION ATTACHED TO THIS PLAN. PLAN AND SPECIFICATIONS SHALL BE CONSIDERED CONTRACT DOCUMENTS.
5. INVESTIGATE TO DETERMINE AND VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATION.
6. REFER TO SHEET LI-501 FOR ADDITIONAL IRRIGATION SPECIFICATIONS AND DETAILS.
7. NOZZLE SELECTION BASED ON COVERAGE REQUIREMENTS.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
2Q 2H 4Q 4H 6Q 6H	HUNTER PROS-06 SR SERIES SHRUB SPRAY, 6IN. POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	3	30
EST LCS RCS CST SST	HUNTER PROS-06 STRIP SERIES SHRUB SPRAY, 6IN. POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	40	30
Q T H F	HUNTER PROS-06 8 SERIES SHRUB SPRAY, 6IN. POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	8	30
Q T H F	HUNTER PROS-06 10 SERIES SHRUB SPRAY, 6IN. POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	9	30
4 6 8 10 12 15 17	HUNTER PROS-06 ADJ SERIES SHRUB SPRAY, 6IN. POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	5	30
25 50 10 20	HUNTER PCB FLOOD BUBBLER, 1/2IN. FIPT.	30	30

Valve Callout
Valve Number
Valve Flow
Valve Size

N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '
NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM ORIGINAL. VERIFY SCALE USING BAR SCALE ABOVE.

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SHEET TITLE

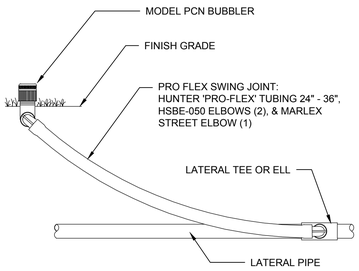
IRRIGATION PLAN

SHEET NUMBER	LI-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

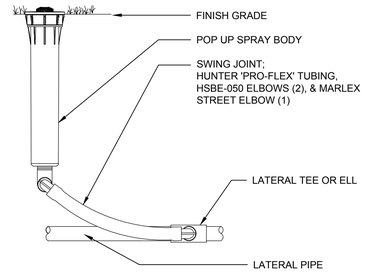
Plotted by: cphillips On 11/16/2023 12:31 PM

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



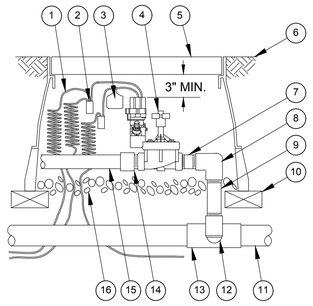
HUNTER IRRIGATION DETAIL PCN BUBBLER

06 SECTION — NOT TO SCALE



HUNTER IRRIGATION DETAIL 6" POP-UP SPRAY HEAD

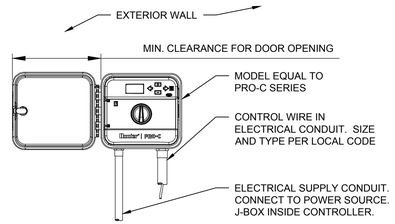
03 SECTION — NOT TO SCALE



1. WIRE COIL
2. WATERPROOF CONNECTION
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE
5. VALVE BOX WITH COVER
6. FINISH GRADE/TOP OF MULCH
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE
10. BRICK (1 OF 4)
11. PVC MAINLINE PIPE
12. SCH 80 NIPPLE
13. PVC SCH 40 TEE OR ELL
14. PVC SCH 40 MALE ADAPTER
15. PVC LATERAL PIPE
16. WASHED GRAVEL

ELECTRIC ZONE VALVE/BOX

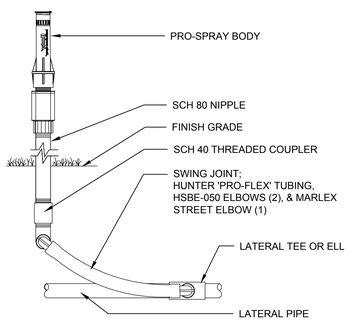
05 PLAN — NOT TO SCALE



NOTE
MOUNT CONTROLLER WITH LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110V AC SOURCE. SOLAR SYNC (OR EQUAL RAIN SENSOR) TO BE PROVIDED.

HUNTER IRRIGATION DETAIL PROC-C CONTROLLER

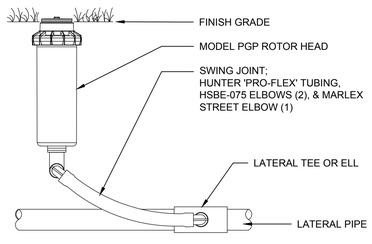
02 SECTION — NOT TO SCALE



HUNTER IRRIGATION DETAIL SPRAY HEAD ON RISER

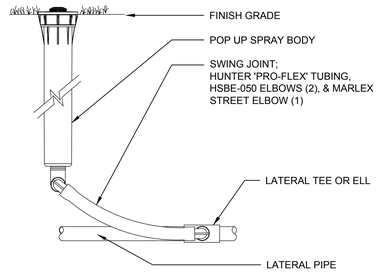
07 SECTION — NOT TO SCALE

*WHEN USING LARGER GPM NOZZLES, BEWARE OF HIGH FRICTION LOSS IN SWING JOINTS.



HUNTER IRRIGATION DETAIL PGP ROTOR HEAD

04 SECTION — NOT TO SCALE



HUNTER IRRIGATION DETAIL 12" POP-UP SPRAY HEAD

01 SECTION — NOT TO SCALE

IRRIGATION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL REQUIRED TO MAKE THE SYSTEM FUNCTION PROPERLY. ALL IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND ALSO STATE AND/OR LOCAL CODES.
2. IRRIGATION PLANS ARE SCHEMATIC AND DRAWN FOR GRAPHIC CLARITY. ALL PIPING BELOW PAVEMENT SHALL BE SLEEVED. LAYOUT OF IRRIGATION SYSTEM SHALL BE COORDINATED WITH CORRESPONDING LANDSCAPE PLAN.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING LOCAL UNDERGROUND UTILITY PROVIDERS TO VERIFY LOCATIONS. THE CONTRACTOR IS ENCOURAGED TO VISIT THE SITE PRIOR TO INSTALLATION AND BECOME FAMILIAR WITH EXISTING CONDITIONS.
4. VALVE LOCATIONS ARE SCHEMATIC ONLY AND WILL BE ADJUSTED FOR SITE CONDITIONS. EACH VALVE SHALL BE INSTALLED IN A AMETEK OR CARSON VALVE BOX. THE FLOW ADJUSTMENT FEATURE WILL BE USED TO BALANCE PRESSURE THROUGHOUT THE SYSTEM.
5. PIPING SHALL BE SIZED TO MINIMIZE FRICTION LOSS AND MAINTAIN FLOW VELOCITY BELOW 5 FPS.
6. THE IRRIGATION CONTROLLER SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND MANUFACTURER'S RECOMMENDATIONS. PROPER GROUNDING EQUIPMENT AND SURGE PROTECTION SHALL BE PROVIDED. A RAIN SENSOR SHALL BE INSTALLED TO OVER-RIDE THE CONTROLLER.
7. ALL HEADS ON RISERS SHALL BE SET AT THE HEIGHT OF ADJACENT PLANT MATERIAL.
8. SPRINKLER LOCATIONS ADJACENT TO PAVEMENT, STRUCTURES, FENCES, ETC. SHALL BE OFFSET AS FOLLOWS: 12" MIN FOR POP-UP MIST HEADS, 18" FOR SHRUB RISERS, 18" FOR ROTOR HEADS, AND TYPICALLY 5 FEET FOR ROTORS ALONG UNCURBED ROADWAYS.
9. ALL SLEEVING SHALL BE SCH 40 PVC TO SIZE INDICATED ON PLAN, OR IF NOT INDICATED, A MIN. OF 2 PIPE SIZES LARGER THAN SUPPLY LINE CONTAINED. ALL SLEEVES SHALL BE INSTALLED A MIN. OF 24" BELOW FINISH GRADE.
10. CONTROL WIRES SHALL BE UL APPROVED PE IRRIGATION CONTROL WIRE. USE 14 GAGE CONTROL WIRE AND 12 GAGE GROUND WIRE. WIRE SHALL BE BUNDLED AND ATTACHED TO THE MAIN LINE IN TRENCH OR THROUGH WIRE SLEEVES AT PAVEMENT CROSSINGS 24" BELOW FIN. GRADE. ALL SPLICES SHALL BE MADE WITH WATERPROOF DIRECT-BURIAL SPLICE KITS AND CONTAINED IN VALVE BOXES. TWO EXTRA CONTROL WIRES SHALL BE INSTALLED TO THE FURTHEST VALVES IN EACH DIRECTION FROM THE CONTROLLER.
11. PIPING IN NARROW PLANTING AREAS, PARKING ISLANDS AND PLANTERS SHALL BE SET TO ONE SIDE TO ALLOW ROOM FOR ROOT BALLS. PIPE AS INDICATED ON PLAN IS SCHEMATIC AND SHOULD BE ADJUSTED FOR FIELD CONDITIONS.
12. ALL GLUE JOINTS SHALL BE CLEANED, SANDED, AND TREATED WITH A COLORED HIGH ETCH PRIMER AND JOINED USING A SOLVENT CONFORMING WITH ASTM D2564.
13. SYSTEM PIPE SIZE 3/4" SHALL BE CLASS 200 PVC; SYSTEM PIPE SIZE 1" OR GREATER SHALL BE CLASS 160 PVC. SYSTEM MAIN WILL BE SCH. 40 PVC TO SIZE INDICATED ON PLAN. ALL FITTINGS WILL BE SOLVENT WELD SCH 40 PVC. MAIN LINE SHALL HAVE 24" MINIMUM COVER; ALL OTHER PIPING WILL HAVE 12" MIN. COVER. ALL BACKFILL FOR PIPE TRENCHES SHALL BE CLEAN AND FREE OF FOREIGN DEBRIS AND SHARP OBJECTS; BACKFILLED TRENCHES SHALL BE PROPERLY COMPACTED. ALL MAIN LINES WILL BE INSTALLED A MIN. OF 3' FROM ANY TREE OR PALM.
14. WATERING TIME PER STATION WILL BE DETERMINED IN THE FIELD AND PER LOCAL REQUIREMENTS. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PRECIPITATION RATES OF SPRINKLERS SPECIFIED.
15. IRRIGATION SYSTEM TO PROVIDE 100% COVERAGE WITH 100% OVERLAP MIN. PROVIDE BUBBLERS FOR ALL NEW AND RELOCATED TREES AND PALMS.
16. RUST CONTROL SYSTEM TO BE INSTALLED WITH PUMP STATION (IF FROM WELL).
17. THE IRRIGATION SYSTEM IN THE RIGHT-OF-WAY IS TO INCORPORATE LOW TRAJECTORY SPRAY HEADS TO MINIMIZE OVERSPRAY.
18. AS-BUILT DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AND GIVEN TO THE OWNER PRIOR TO FINAL ACCEPTANCE. THE SITE SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE OWNER PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.

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CLIENT

1817 TAYLOR DEVELOPMENT LLC

PROJECT

STAR TOWER HOLLYWOOD

410 N. FEDERAL HWY HOLLYWOOD, FL 33020

SHEET TITLE

IRRIGATION DETAILS

SHEET NUMBER	LI-501
PROJECT NUMBER	13778.00

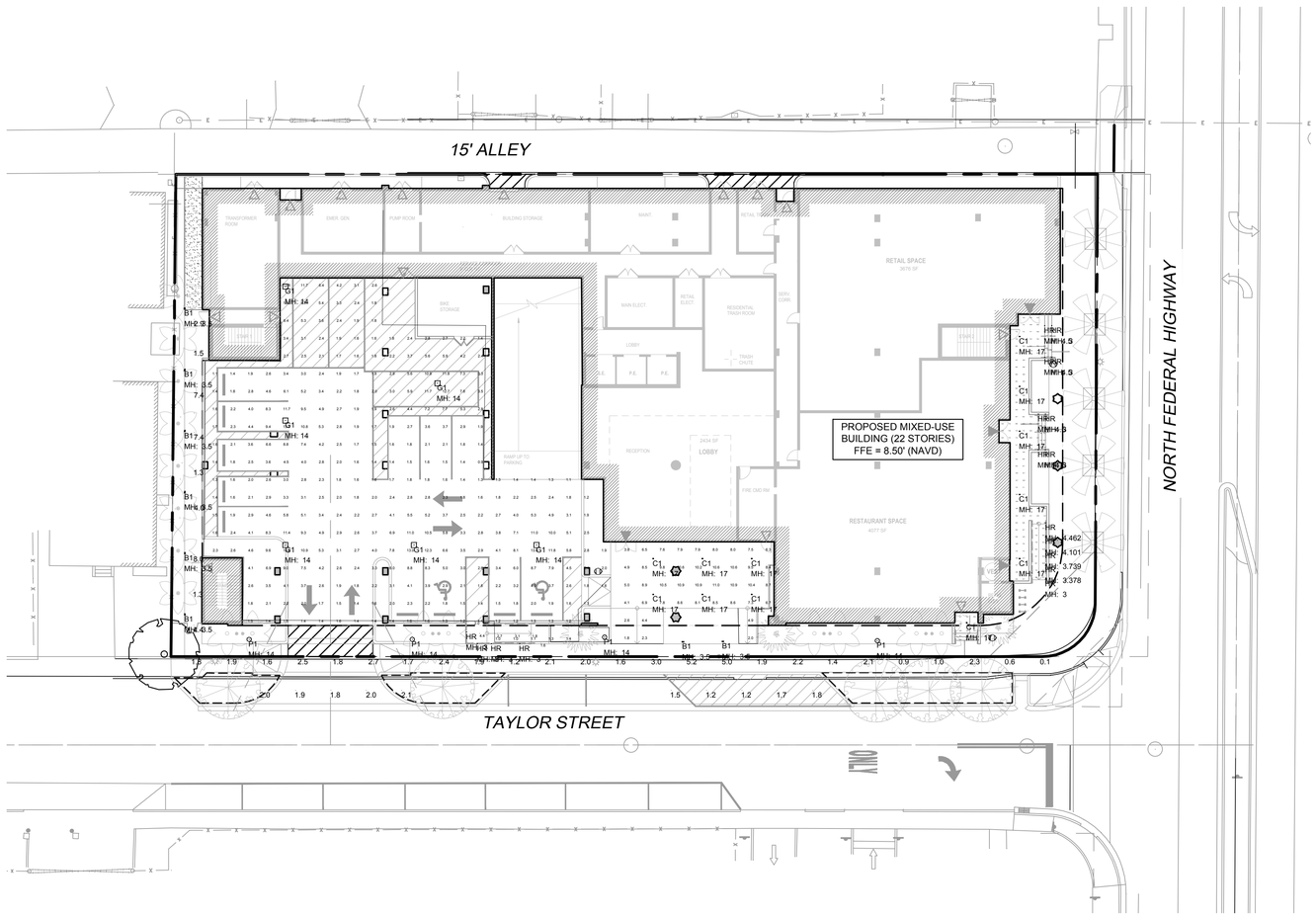
STATUS: PRELIMINARY

Plotted by: cphillips On 11/16/2023 12:31 PM

Drawing name: K:\13778.00 - Star Tower Hollywood - 1817 Taylor Street Development LLC\Landscape Architecture\CAD\13778.00-LI-501.dwg

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-UV1	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:

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

N

GRAPHIC SCALE
0 20 40
SCALE: 1" = 20 '
NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM ORIGINAL. VERIFY SCALE USING BAR SCALE ABOVE.

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SHEET TITLE

EXTERIOR LIGHTING & PHOTOMETRICS PLAN

SHEET NUMBER	LL-101
PROJECT NUMBER	13778.00

STATUS: PRELIMINARY

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

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