

# 1040 NW 20TH STREET MIXED-USE DEVELOPMENT DRC SUBMITTAL

1040 NW 20TH STREET FORT LAUDERDALE, FLORIDA 33311



SITE LOCATION

LAND DESCRIPTION:
TRACT 'A' OF "VICTOR CAMERON PLAT", ACCORDING TO THE PLAT THEROF, AS RECORDED IN PLAT BOOK 146, PAGE 42, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA

RELATIONSHIP BETWEEN NGVD 1929 AND NAVD 1988

DATUM	DIFFERENCE	ELEV.
NGVD 1929	+X.XX FEET	X.XX'
NAVD 1988		0.00'

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

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





LOCATION MAP
SECTION 28, TOWNSHIP 49 S, RANGE 42 E
FOLIO #494228310010

PREPARED FOR:
HABITAT FOR HUMANITY OF BROWARD
ADDRESS: 888 NW 62 ST 2FL
FORT LAUDERDALE FL 33309

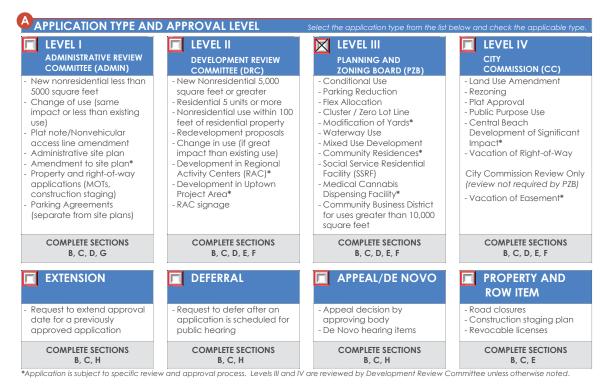
INDEX OF SHEETS		
SHEET IDENTIFICATION	SHEET TITLE	
	COVER SHEET	
S-1	TOPOGRAPHIC SURVEY	
SP-101	SITE PLAN	
	ARCHITECTURE PLANS	
AR001	LAND USE AND ZONING MAPS	
AR002	CONTEXT SITE PLAN	
AR003	ARCHITECTURAL SITE PLAN	
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	CIVIL PLANS	
GI-001	LEGEND AND ABBREVIATIONS	
GI-002	GENERAL CONSTRUCTION NOTES	
GI-003	CONSTRUCTION SPECIFICATIONS	
CG-101	EROSION CONTROL PLAN	
CD-101	DEMOLITON PLAN	
CP-101	PAVING, GRADING, AND DRAINAGE PLAN	
CP-301	CROSS SECTIONS	
CP-501 - CP-503	PAVING, GRADING, AND DRAINAGE DETAILS	
CU-101	WATER AND SEWER PLAN	
CU-501 - CU-502	WATER AND SEWER DETAILS	
CM-101	PAVEMENT MARKING AND SIGNAGE PLAN	
	LANDSCAPE PLANS	
LD-101 - LD-102	TREE DISPOSITION PLANS	
LP-001	PLANTING NOTES AND SCHEDULES	
LP-101 - LP-102	PLANTING PLANS	
LP-501	PLANTING DETAILS	



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

PROJECT No. 10431.00 12/09/2022

INSTRUCTIONS: The following information is required pursuant to the City's Unified Land Development Regulations (ULDR). The development application form must be filled out accurately and all applicable sections must be completed. Only completed the sections indicated for application type with N/A for those section items not applicable. Refer to "Specifications for Plan Submittal" by application type for information requirements for submittal. Select the application type and approval level in **SECTION A** and complete the sections specified.



_	
B APPLICANT INFORMATION	If applicant is the business operator, complete the agent column and provide property owner authorization.

BAPPLICANT INFORM	ATION If applicant is the business of	perator, complete the agent column	and provide property owner authorization.
Applicant/Property Owner	HABITAT FOR HUMANITY OF BROW	Authorized Agent	Florentina Hutt, KEITH
Address	888 NW 62ND ST	Address	301 E ATLANTIC BLVD,
City, State, Zip	FORT LAUDERDALE, FL, 33309	City, State, Zip	POMPANO BEACH, FL 33060
Phone		Phone	954.788.3400
Email	nancy@habitatbroward.org	Email	FHutt@keithteam.com
Proof of Ownership	Tax Record	Authorization Letter	Letter Attached
Applicant Signature:		Agent Signature:	Florentina Digitally signed by Florentina Hutt Date: 2022.12.09 16:17:00-06'00'

PARCEL INFOR	MATION
Address/General Loca	ation 1040 NW 20th Street
Folio Number(s)	494228310010
Legal Description (Brie	f) VICTOR CAMERON PLAT 146-42 B
City Commission Distri	ict 3
Civic Association	Lauderdale Manors Homeowners

LAND USE INFORMA	ATION
Existing Use	Vacant Commercial
Land Use	COMMERCIAL
Zoning	CB - Community Business
Proposed Applications reque	sting land use amendments and rezonings.
Proposed Land Use	N/A
Proposed Zoning	N/A

PROJECT INFORMA	TION	
	IION	Provide project information. Circle yes or no where noted. If item is not applicable, indicate N/A.
Project Name		19th STREET TOWNHOMES
Project Description (Describe in detail)	Mixed-us	se development to include 18 townhouses and 2 live-work units
Estimated Project Cost	\$	(Estimated total project cost including land costs for all new development applications only)
Waterway Use	No	Traffic Study Required No
Flex Units Request	Yes	Parking Reduction No
Commercial Flex Acreage	No	Public Participation Yes
Residential Uses		Non-Residential Uses
Single Family		Commercial
Townhouses	18	Restaurant
Multifamily		Office 1,802
Cluster/Zero Lot Line		Industrial
Other	2	Other
Total (dwelling units)	20	Total (square feet) 1,802



#### DEVELOPMENT APPLICATION FORM

**DEVELOPMENT SERVICES DEPARTMENT** 

	Required Per ULDR	Proposed	
Lot Size (Square feet/acres)	10.000 SF	60,601 SF / 1,39 ac	
ot Density (Units/acres)	50 units per acre	13 units per acre	
Lot Width	100'	Varies from 134.98', 14	4 90
Building Height (Feet)	150'	21'-8"	4.70
tructure Length	200'	Varies from 101.4' - 16	0.8'
loor Area Ratio (F.A.R)	N/A	34.888 SF	
ot Coverage	N/A	29%	
Open Space	5,000 SF	23,331 SF	
andscape Area	5,000 SF	20,516 SF	
arking Spaces	28	66	
ETBACKS (Indicate direction N,S,E,W)	Required Per ULDR	Proposed	
Front [S,_\	5	14.3 '- 10.7'	
Side [_ <b>W_</b> ]	10	10.2' - 8.1'	
Corner / Side [F]	NA	8.1	
Rear []	NA	NA	
For projects in Downtown, N	Northwest, South Andrews, and Uptown Master Plan	s to be completed in conjunction with the app	
ower Stepback	Required Per ULDR	Proposed	Proposed Deviation
Front / Primary Street []		NA	
Sides / Secondary Street []		NA	
uilding Height		NA	
treetwall Length		NA	
odium Height		NA	
ower Separation		NA	
ower Floorplate (square feet)		NA	
Residential Unit Size (minimum)			

AMENDED PROJECT INFORM	AAIION Provide approved and p	proposed amendments for project. Circle yes	s or no where indicate
Project Name			
Proposed Amendment Description (Describe in detail)			
	Original Approval	Proposed Amendment	Amended Item
Residential Uses (dwelling units)	T. P. C.		
Non-Residential Uses (square feet)			
Lot Size (Square feet/acres)			
Lot Density (Units/acres)			
ot Width			
Building Height (Feet)			
Structure Length			
Floor Area Ratio (F.A.R)			
Lot Coverage			
Open Space			
Landscape Area			
Parking Spaces			
Tower Stepback			
Building Height			
Streetwall Length			
Podium Height			
Tower Separation			
lower Floorplate (square feet)			
Residential Unit Size (minimum)			
Does this amendment require a revision to th	e traffic statement or traffic study completed t	for the project?	

H EVIENCION DEFERDAL			
EXTENSION, DEFERRAL	, APPEAL INFORMATION	Provide information for specific reques	st. Circle approving body and yes or no.
Project Name			
Request Description			
EXTENSION REQUES	ST DEFERE	RAL REQUEST APP	EAL REQUEST / DE NOVO HEARING
Approving Body	Approving Body	App	roving Body
Original Approval Date	Scheduled Meetin		Days from Meeting ide Date)
Expiration Date (Permit Submittal Deadline)	Requested Deferro		ays from Meeting ide Date)
Expiration Date (Permit Issuance Deadline)	Previous Deferrals Granted	Арр	eal Request
Requested Extension (No more than 24 months)	Justification Letter Provided		cate Approving Body ealing
Code Enforcement (Applicant Obtain by Code Compliance Division)			lovo Hearing Due to Commission Call-Up

Development Application Form Page 2



#### **DEVELOPMENT APPLICATION FORM**

CHECKLIST FOR SUBMITTAL AND COMPLETENESS: The following checklist outlines the necessary items for submittal to ensure the application is deemed complete. Failure to provide this information will result in your application being deemed incomplete.

- X PROVIDE DATE Preliminary Development Meeting completed on the following date:
- Development Application Form completed with the applicable information including signatures.

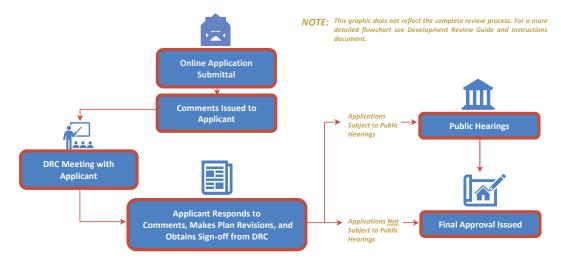
**DEVELOPMENT SERVICES DEPARTMENT** 

- **Proof of Ownership** warranty deed or tax record including corporation documents and SunBiz verification name.
- X Address Verification Form applicant contact Devon Anderson at 954-828-5233 or Danderson@fortlauderdale.gov
- Project and Unified Land Development Code Narratives project narrative and the applicable ULDR sections and criteria as described in the specifications for submittal by application type.
- Electronic Files, File Naming, and Documents consistent with the applicable specifications for application type, consistent with the online submittal requirements including file naming convention, plan sets uploaded as single pdf.
- X Traffic Methodology, Study or Statement submittal of a traffic study or traffic statement.
- Stormwater Calculations signed and sealed by a Florida registered professional engineer consistent with calculations as described in the specifications for plan submittal for site plan applications.
- Water and Wastewater Capacity Request copy of email to Public Works requesting the capacity letter.

OVERVIEW FOR ONLINE SUBMITTAL REQUIREMENTS: Submittals must be conducted through the City's online citizen access portal LauderBuild. No hardcopy application submittals are accepted. Below only highlights the important submittal requirements that applicants must follow to submit online and be deemed complete. View all the requirements at LauderBuild Plan Room.

- Uploading Entire Submittal upload all documents at time the application is submitted to prevent delays in processing.
- File Naming Convention file names must adhere to the City's File Naming Convention.
- Reduce File Size plan sets and other large files must be merged or flattened to reduce file size.
- Plan Sets plan sets like site plans, plats, etc. must be submitted as a single pdf file. Staff will instruct when otherwise.
- **Document Categories** choose the correct document category when uploading.

**<u>DRC PROCESS OVERVIEW</u>**: The entire development review process flowchart can be found in the <u>Development Application</u> Guide and Instructions document. Below is a quick reference flowchart with key steps in the process to guide applicants.



**CONTACT INFORMATION:** Questions regarding the development process or LauderBuild, see contact information below.

#### GENERAL URBAN DESIGN AND PLANNING QUESTIONS

Planning Counter 954-828-6520, Option 4 planning@fortlauderdale.gov

#### LAUDERBUILD ASSISTANCE AND QUESTIONS

DSD Customer Service 954-828-6520, Option 1 lauderbuild@fortlauderdale.gov

Development Application Form Page 3 LEGAL DESCRIPTION

TRACT 'A', OF "VICTOR CAMERON PLAT", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 146, PAGE 42, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA

CERTIFIED TO: Habitat For Humanity of Broward, Inc., a Florida not for profit corporation

PROPERTY ADDRESS
VACANT LAND ON N.W. 19TH STREET
FOLIO 4942-28-31-0010
FORT LAUDERDALE, FL 33311

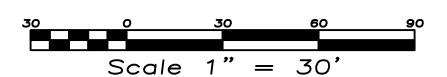
BOUNDARY SURVEY
INVOICE # 37920U3
SURVEY DATE 11/30/22

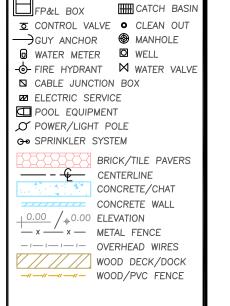
FLOOD ZONE X 0.2% MAP DATE 08/18/14 MAP NUMBER 125105 0368H

#### SCHEDULE BII

CHICAGO TITLE INSURANCE COMPANY
AMERICAN LAND TITLE ASSOCIATION COMMITMENT
COMMITMENT DATE: 10/08/2018 AT 11:00 PM
ORDER NO.:7275731

ITEM 1-4: NOT PLOTTABLE
ITEM 5: MATERS PERTAINING TO PB 146, PG 42, AMENDED IN
ORB 26793, PG 355 ARE AS SHOWN ON SURVEY
ITEM 6: MATTERS PERTAINING TO ORB 20178, PG 664
PERTAIN TO PROPERTY, NOT PLOTTABLE
ITEM 7: MATTERS PERTAINING TO ORB 26898, PG 335
PERTAIN TO PROPERTY, NOT PLOTTABLE
ITEM 8: NOT PLOTTABLE





#### ABBREVIATIONS

**LEGEND** 

AIR CONDITIONER
ANCHOR EASEMENT BUILDING CORNER BENCHMARK BACK OF WALK CALCULATED CORNER NOT FOUND DRAINAGE EASEMENT END/FENCE EDGE OF PAVEMENT EDGE OF WATER FENCE/CORNER FINISH FLOOR FENCE/LINE FOUND IRON PIPE FOUND IRON ROD FOUND NAIL FOUND NAIL & DISC FOUND NAIL & TAB GARAGE GENERATOR

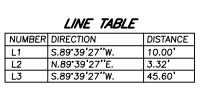
FN&L FOUND NAIL & IAB
FP&L FLORIDA POWER & LIGHT
GAR GARAGE
GEN GENERATOR
INSTR INSTRUMENT
OP OPEN PORCH
ORB OFFICIAL RECORD BOOK
M MEASURED
NTS NOT TO SCALE
PB PLAT BOOK
PC POINT OF CURVATURE
POB POINT OF BEGINNING
POC POINT OF COMMENCEMENT
PG PAGE
PRC POINT OF REVERSE CURVE
PRM PERMANENT REFERENCE
MONUMENT
T POINT OF TANGENCY
R RECORD

PT POINT OF TANGENCY
R RECORD
RAD RADIAL
RW RIGHT-OF-WAY
SN&D SET NAIL & DISC 5495
SP SCREENED PORCH
SP&C SET 1/2" PIN & CAP 5495
UE UTILITY EASEMENT



PAUL J STOWELL
PROFESSIONAL LAND SURVEYOR
FLORIDA CERTIFICATION NO. 5241
ATLANTIC COAST SURVEYING, INC.
13798 NW 4th Street, Suite 306
Sunrise, FL 33325
P: 954.587.2100 E: info@acsiweb.net





 LINE TABLE

 NUMBER
 DELTA
 CHORD BEARING
 RADIUS '
 ARC '
 LC '

 C1
 124\*12\*14"
 N.87\*08\*11"E.
 35.00
 75.87
 61.86

#### SURVEYOR'S NOTES

1. BASIS OF BEARINGS ASSUMED UNLESS OTHERWISE INDICATED ON SKETCH.
2. LEGAL DESCRIPTION PROVIDED BY CLIENT OR PROPERTY APPRAISER WEBSITE.
3. THE LANDS SHOWN HEREON WERE NOT ABSTRACTED BY THIS OFFICE FOR EASEMENTS, RIGHT—OF—WAYS, OWNERSHIP OR OTHER INSTRUMENTS OF RECORD.
4. UNDERGROUND OR INTERIOR PORTIONS OF FOOTINGS, FOUNDATIONS, WALLS OR OTHER NON—VISIBLE IMPROVEMENTS WERE NOT LOCATED.
5. ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 UNLESS OTHERWISE INDICATED ON SKETCH.
6. FLOOR ELEVATION OBTAINED FROM MAIN ENTRY WAY OF STRUCTURE UNLESS OTHERWISE INDICATED ON SKETCH.

OTHERWISE INDICATED ON SKETCH.

7. FENCE TIES ARE TO THE CENTER—LINE OF FENCE. WALL TIES ARE TO THE FACE OF WALL.

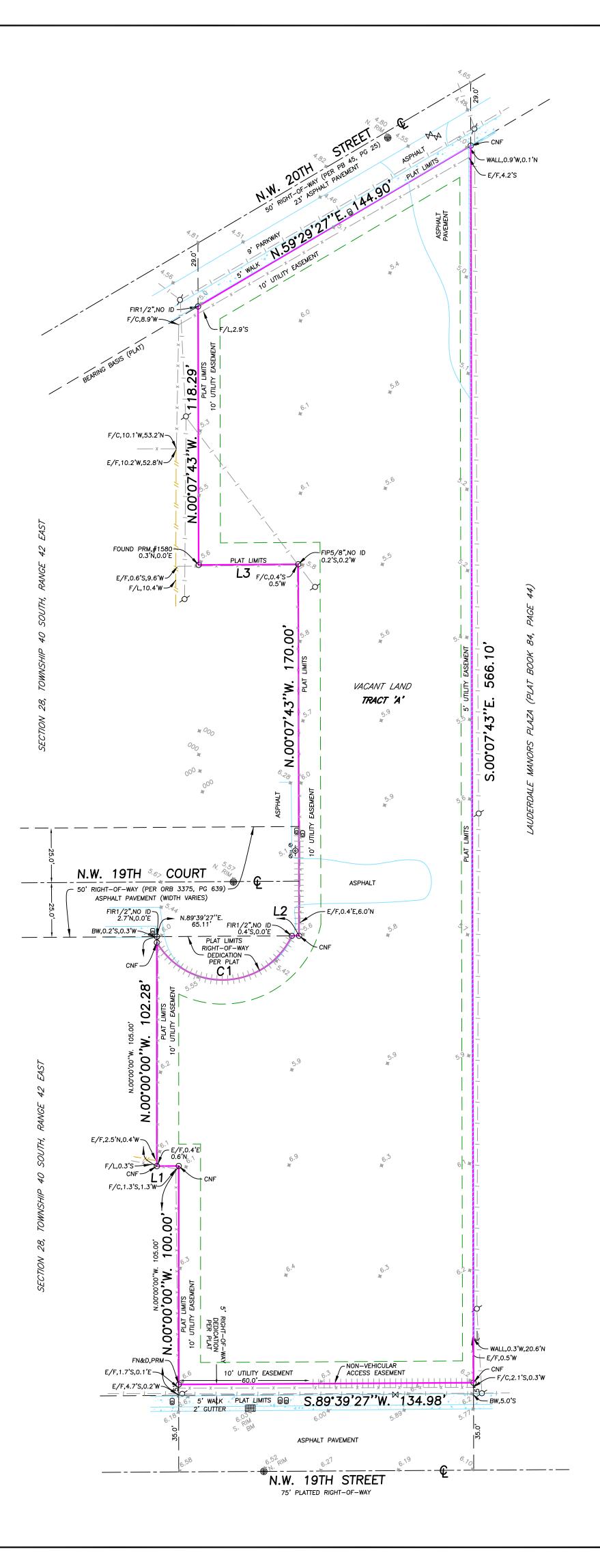
8. IN SOME INSTANCES GRAPHIC REPRESENTATIONS HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE THE CONTROL THE LOCATION OF THE IMPROVEMENTS

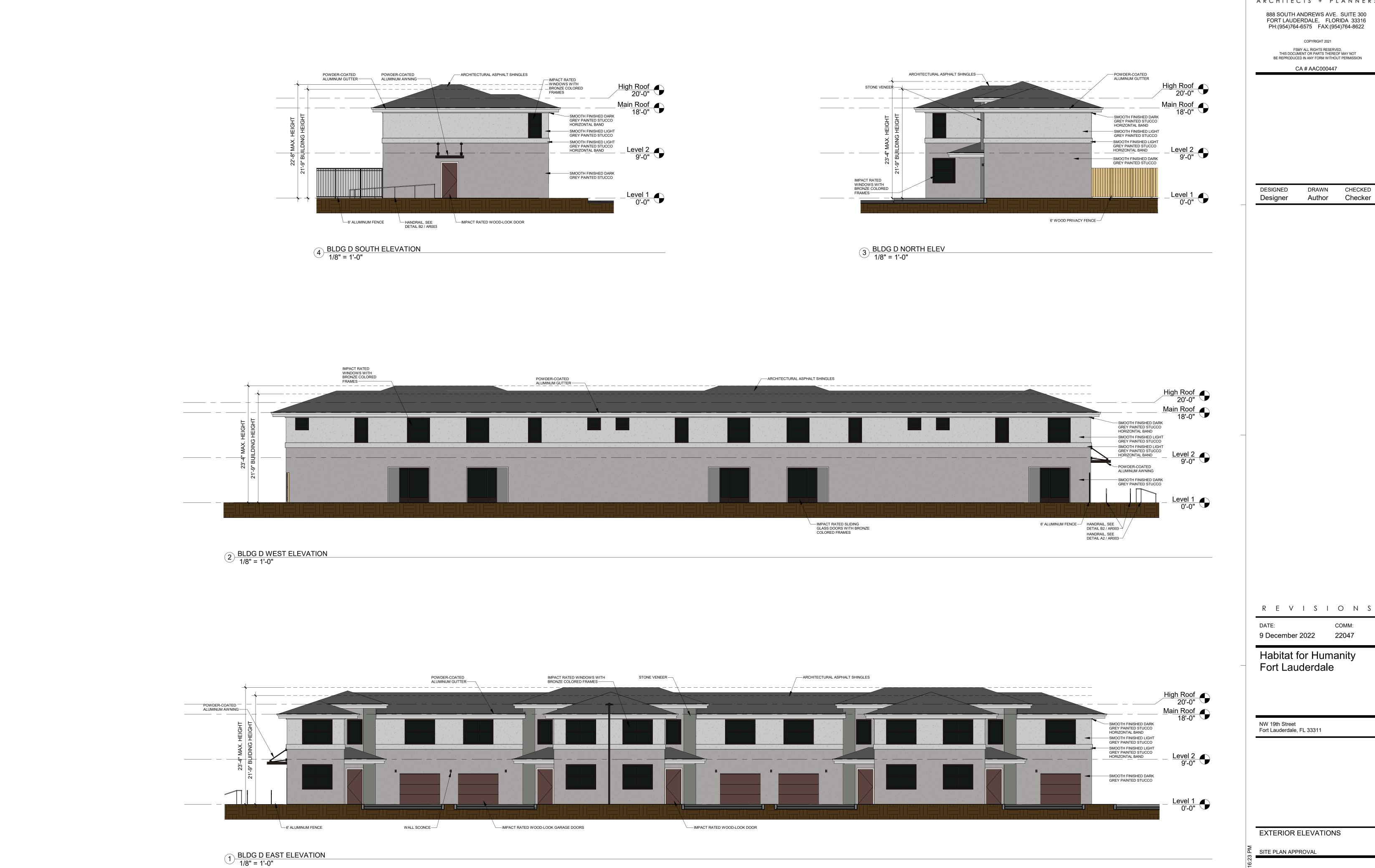
OVER SCALED POSITIONS.

9. THE DIMENSIONS AND DIRECTIONS SHOWN HEREON ARE IN SUBSTANTIAL
AGREEMENT WITH RECORD VALUES UNLESS OTHERWISE NOTED.

10. PARTY WALLS ARE CENTERED ON PROPERTY LINE AND ARE 0.7' WIDE UNLESS
OTHERWISE NOTED.

11. EXISTING CORNERS FOUND OFFSETS WITNESS PROPERTY CORNERS
12. OBSTRUCTED CORNERS ARE WITNESSED BY IMPROVEMENTS.
13. NO ATTEMPT WAS MADE TO LOCATE WRITTEN OR UNWRITTEN EASEMENTS OR RIGHTS—OF—WAY, OTHER THEN THOSE SHOWN HEREON.





С

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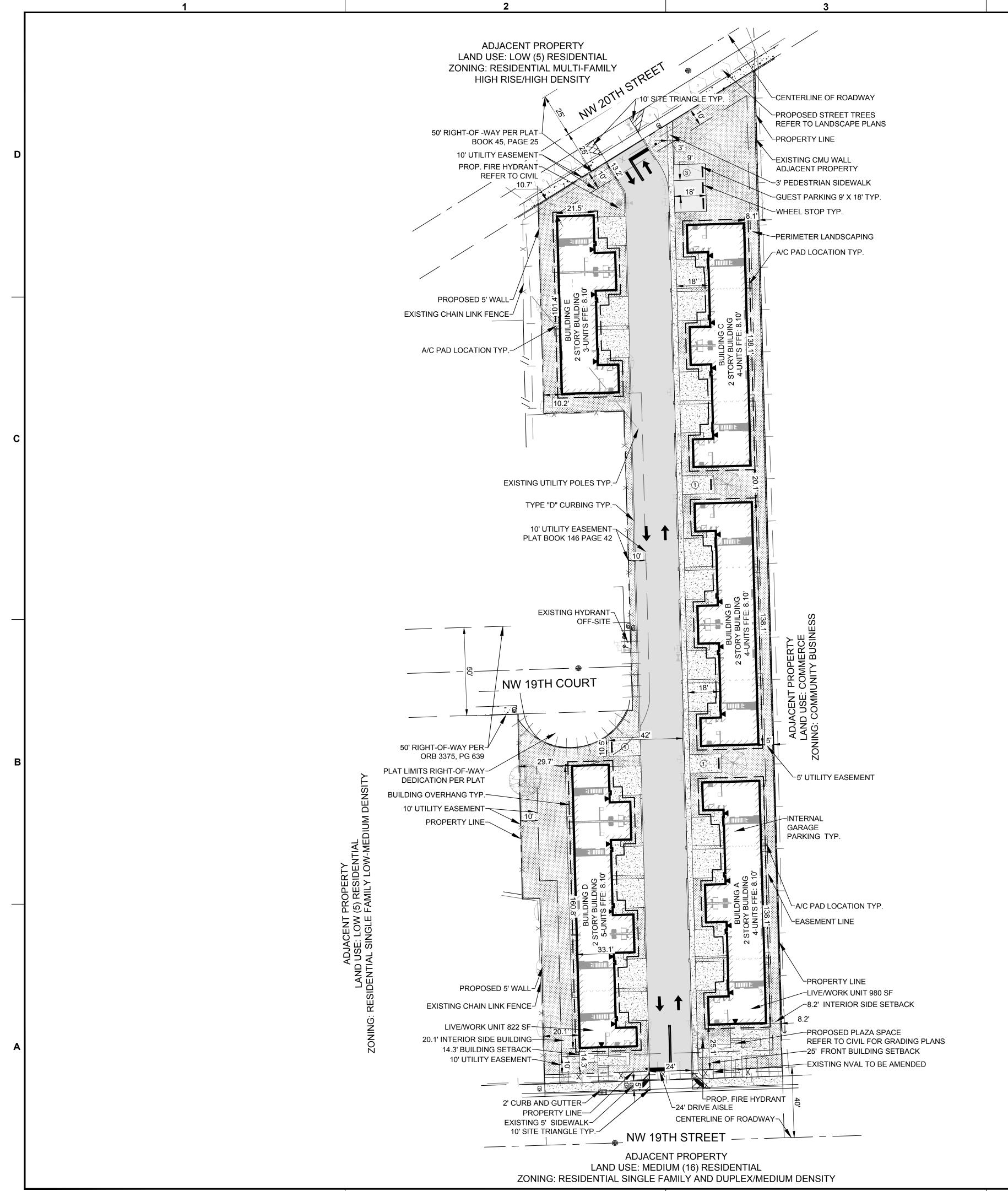
888 SOUTH ANDREWS AVE. SUITE 300 FORT LAUDERDALE, FLORIDA 33316 PH:(954)764-6575 FAX:(954)764-8622 COPYRIGHT 2021

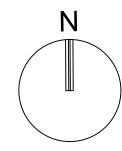
> CHECKED DRAWN Author Checker

COMM:

Habitat for Humanity

EXTERIOR ELEVATIONS

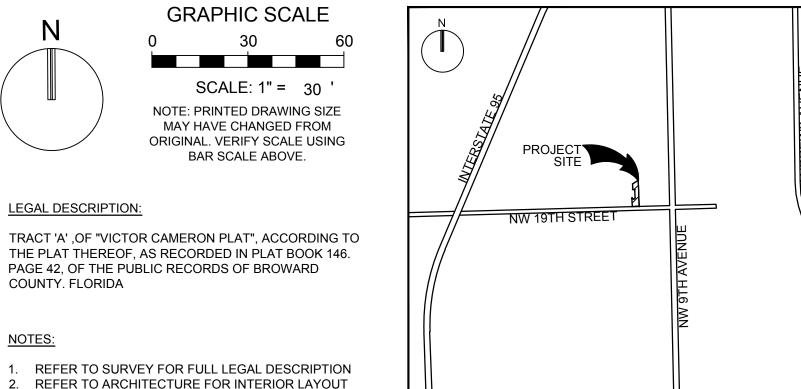




#### LEGAL DESCRIPTION:

TRACT 'A' ,OF "VICTOR CAMERON PLAT", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 146. PAGE 42, OF THE PUBLIC RECORDS OF BROWARD COUNTY. FLORIDA

2. REFER TO ARCHITECTURE FOR INTERIOR LAYOUT



(NOT TO SCALE)

LOCATION SKETCH

		(NOT TO SCALE)	
SI	TE DATA TABLE		
PROJECT ADDRESS:			
1040 NW 20 ST FORT LAUDERDALE, FL 33311			
FOLIO No. 494228310010			
PROJECT INFORMATION:			
LAND USE DESIGNATION:	COMMERCIAL		
ZONING DESIGNATION:	CB - COMMUNITY	BUSINESS	
	SQ. FT.	ACREAGE	
GROSS SITE AREA	69,623	1.60	
NET SITE AREA	60,601	1.39	
GROSS BUILDING AREA (SF)			
NOTES:			
1. SEE ARCHITECTURAL PLANS FOR INTERIOR E	BUILDING AREA		
SERVICE PROVIDERS:			
POTABLE WATER		CITY OF FORT LAUDERDAI	_E
SANITARY SEWER		CITY OF FORT LAUDERDAI	_E
SOLID WASTE		WASTE MANAGEMENT	
ZONING DISTRICT REQUIREMENTS:	REQUIRED	PROVIDED	
LOT SIZE	MIN 10,000 GSF	69,632 GSF	
LOT WIDTH	MIN 100'	VARIES 134.98' - 144.90'	
DENSITY	MAX 50 UNITS/AC	13 UNITS/AC	
BUILDING HEIGHT	150'	21'-9"	
LOT COVERAGE	N/A	29.0%	
PERVIOUS AREA	25%	33.7%	
VUA PERVIOUS AREA (20% OF VUA)	3,937	3,937	
PUBLIC PLAZA	1,400 SF	1,710 SF	
OPEN SPACE (250 x 20 UNITS )	5,000 SF	23,331 SF	
SETBACK REQUIREMENTS:	REQUIRED (MIN)	PROVIDED	
FRONT YARD (NW 20TH ST)	5'	10.7'	
INTERIOR SIDE YARD (WEST)	10'	10.2'	
INTERIOR SIDE YARD (EAST)	N/A	8.1'	
FRONT YARD (NW 19TH ST)	5'	14.3'	
SITE AREA CALCULATIONS:			
	SQ. FT.	<u>%</u>	ACREAGE
NET SITE AREA:	60,601	100%	1.39
		PROVIDED	
MPERIMONO APE	SQ. FT.	<u>%</u>	<u>ACREAGE</u>
MPERVIOUS AREA	17 700	00.004	0.40
BUILDING FOOTPRINT (INCL. OVERHANG)	17,583	29.0%	0.40
VEHICULAR USE AREA/PAVEMENT	19,687	32.5%	0.45
SIDEWALKS/CONCRETE	2,815	4.6%	0.06
PERVIOUS AREA (25% MINIMUM)	20,516	33.9%	0.47
TOTAL	60,601	100%	1.39
PROPOSED USE:	<u>UNITS</u>	SQUARE FEET	
RESIDENTIAL UNITS	18		
THREE-BEDROOM	12		

822' SF

980' SF

1,802 SF

PROVIDED

66

STD. SPACES (9X18)

REQUIRED

28

Pompano Beach, FL 33060

PH: (954) 788-3400 Florida Engineering Business License: CA7928

	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

ISSUE DATE:	12/09/22
DESIGNED BY:	MVM
DRAWN BY:	JR
CHECKED BY:	FH
BID-CONTRACT:	

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

CLIENT



PROJECT

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR HUMANITY** 

SHEET TITLE

SITE PLAN

SHEET **SP-101** NUMBER PROJEC1 10431.00 NUMBER

FOUR-BEDROOM

LIVE-WORK UNITS

TOTAL UNITS

TOTAL PARKING

TOTAL OFFICE SPACE PARKING CALCULATIONS:

THREE-BEDROOM / OFFICE

FOUR-BEDROOM / OFFICE

1 SPACE PER DWELLING UNIT (20 UNITS)

OFFICE / RETAIL SERVICE 1/250 SF GFA (1,802 SF)



NW 21ST STREET EXISTING COMMERCIAL RESIDENTIAL EXISTING SHOPPING CENTER NW 19TH COURT NW 19TH STREET NW 18TH COURT EXISTING SINGLE FAMILY RESIDENTIAL

С

A1 CONTEXT SITE PLAN
1" = 100'-0"

D

ARCHITECTS + PLANNERS

888 SOUTH ANDREWS AVE. SUITE 300 FORT LAUDERDALE, FLORIDA 33316 PH:(954)764-6575 FAX:(954)764-8622

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CA # AACO00447

DESIGNED DRAWN CHECKED
Designer Author Checker

R E V I S I O N S

DATE: COMM:

Habitat for Humanity Fort Lauderdale

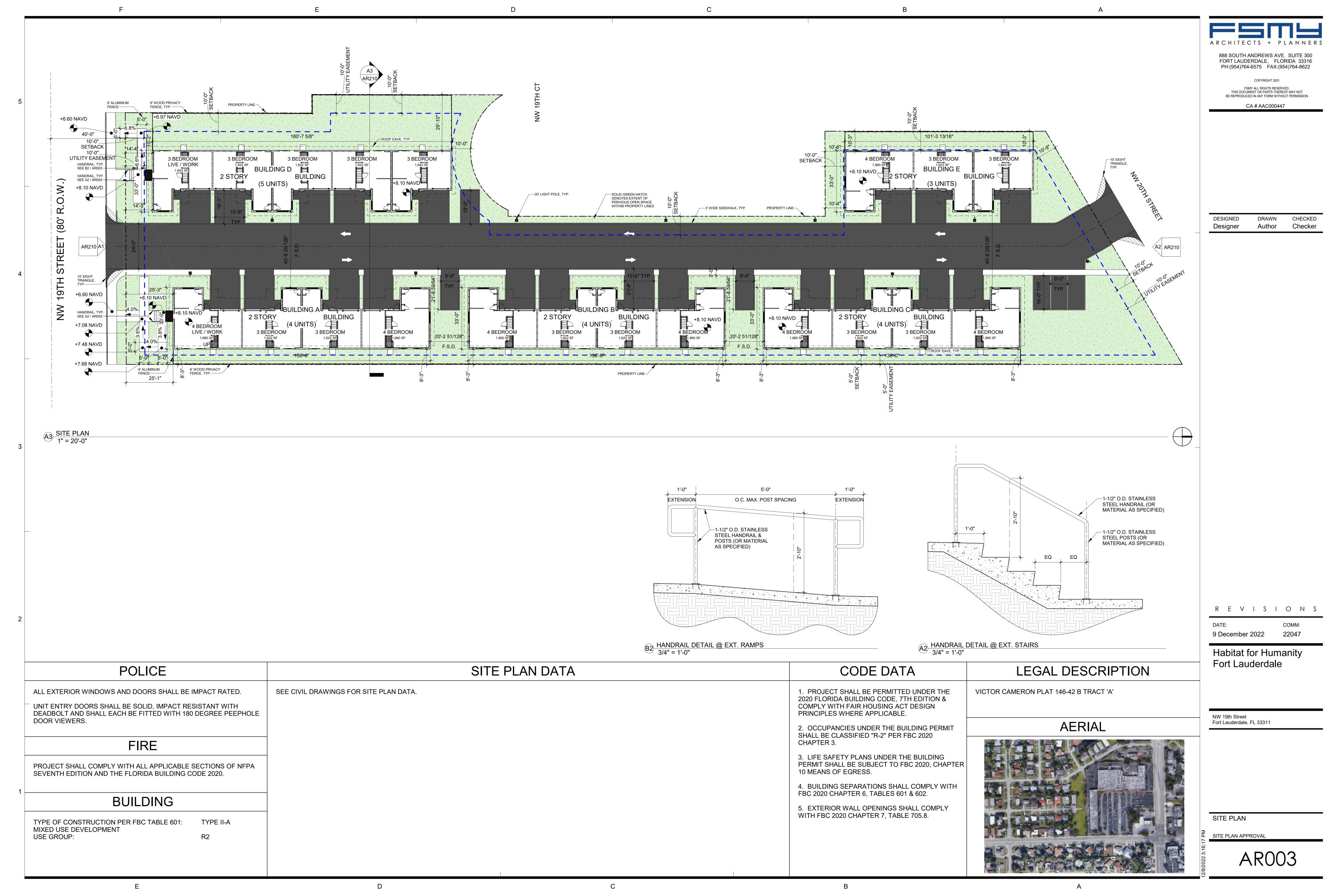
9 December 2022 22047

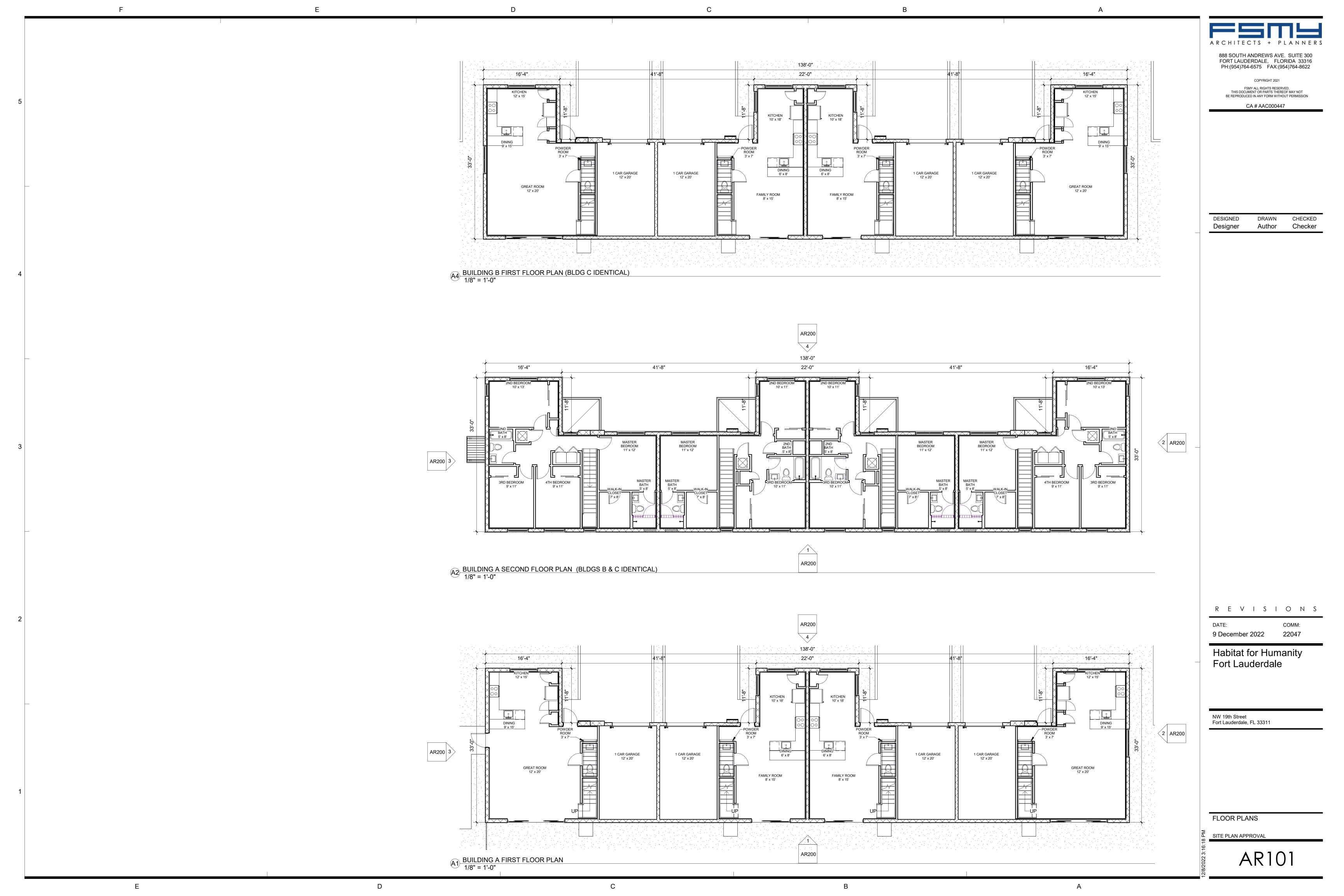
NW 19th Street Fort Lauderdale, FL 33311

CONTEXT SITE PLAN

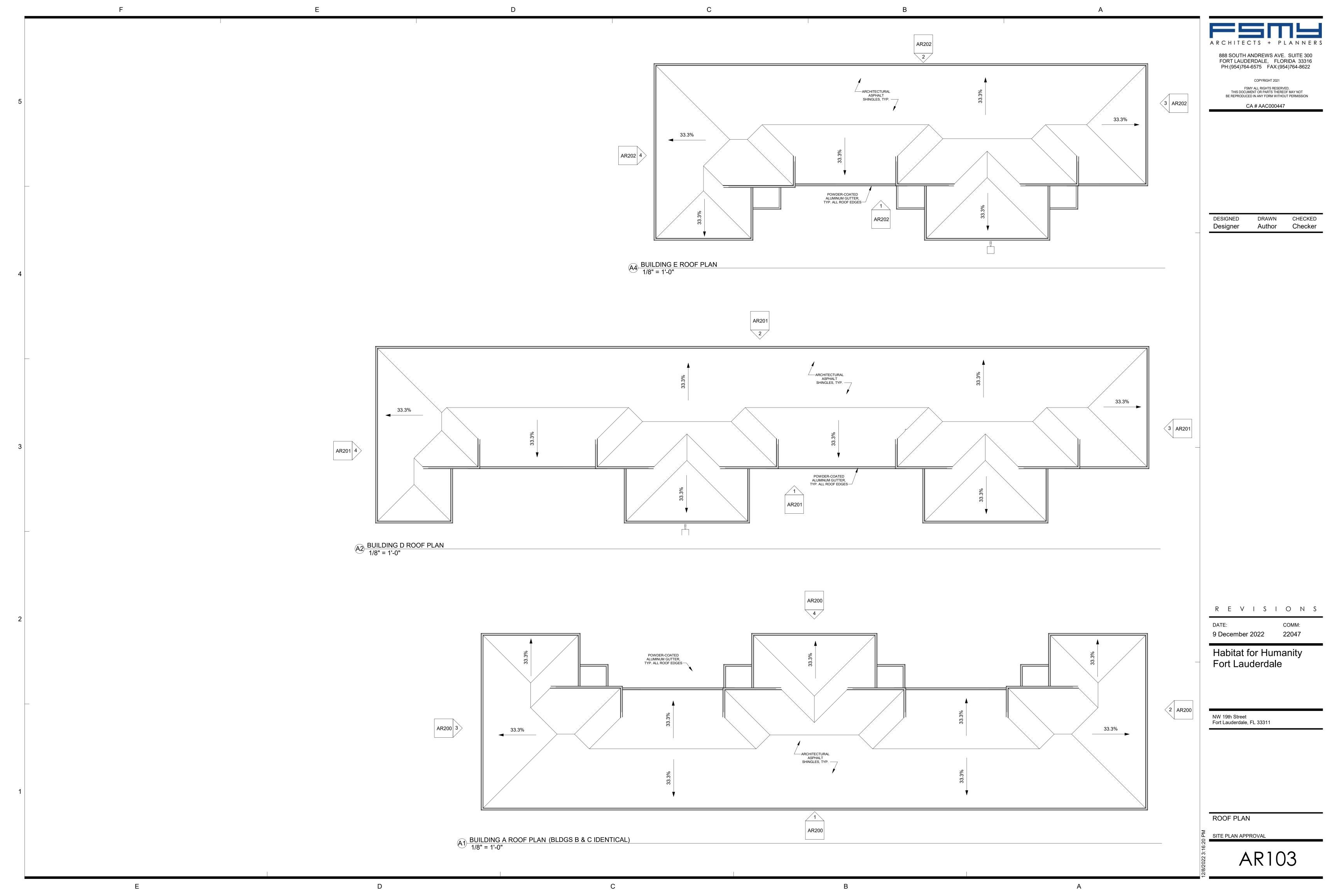
SITE PLAN APPROVAL

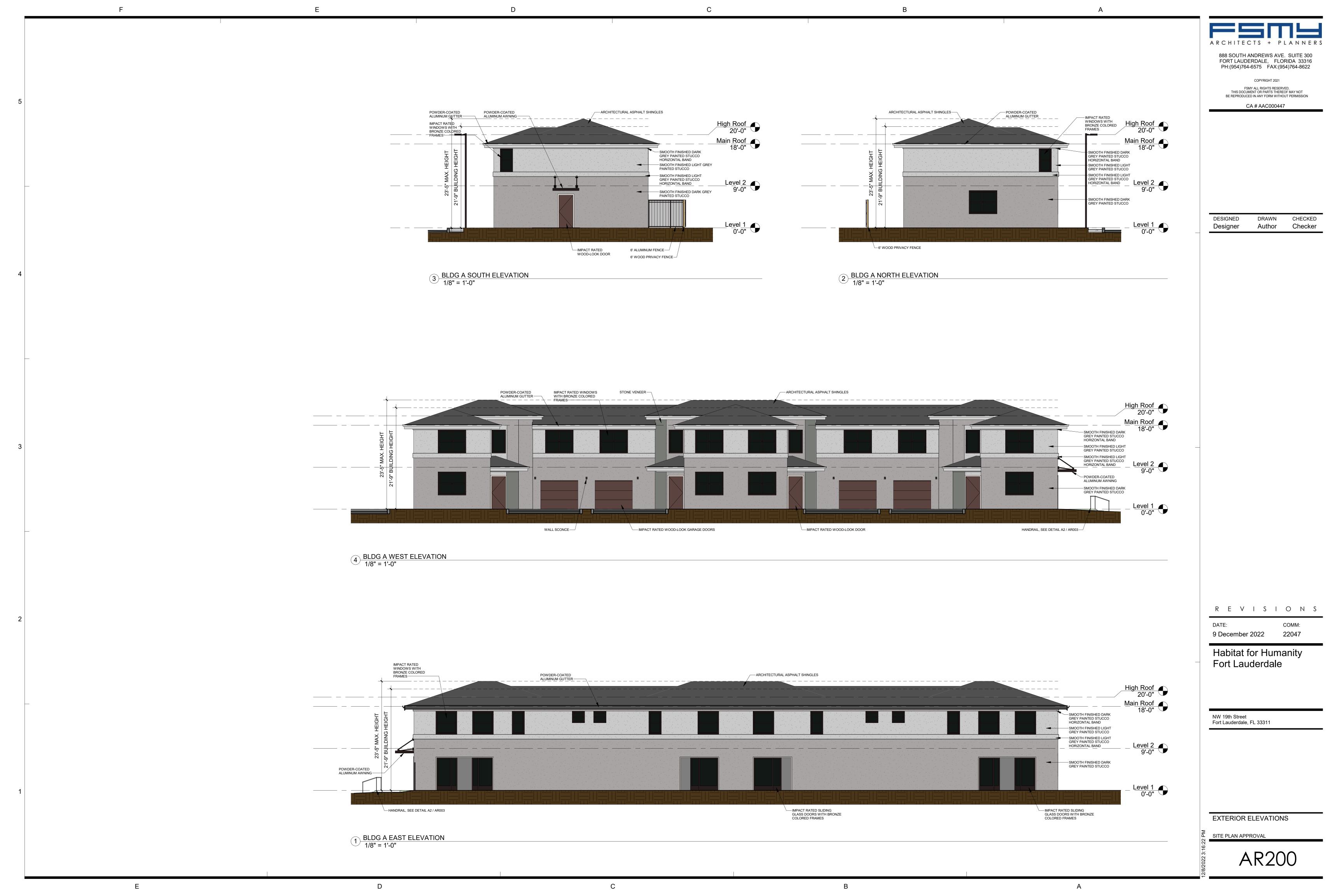
AR002













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CHECKED Checker

R E V I S I O N S COMM:

22047



PROPOSED PROJECT

С

SINGLE STORY RESIDENTIAL

A1 SOUTH CONTEXT ELEVATION 1/16" = 1'-0"

SINGLE STORY RESIDENTIAL

SINGLE STORY RESIDENTIAL

D

888 SOUTH ANDREWS AVE. SUITE 300 FORT LAUDERDALE, FLORIDA 33316 PH:(954)764-6575 FAX:(954)764-8622

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CA # AAC000447

DRAWN CHECKED Checker

R E V I S I O N S COMM:

Fort Lauderdale

NW 19th Street Fort Lauderdale, FL 33311

SURFACE PARKING LOT

SINGLE STORY SHOPPING CENTER

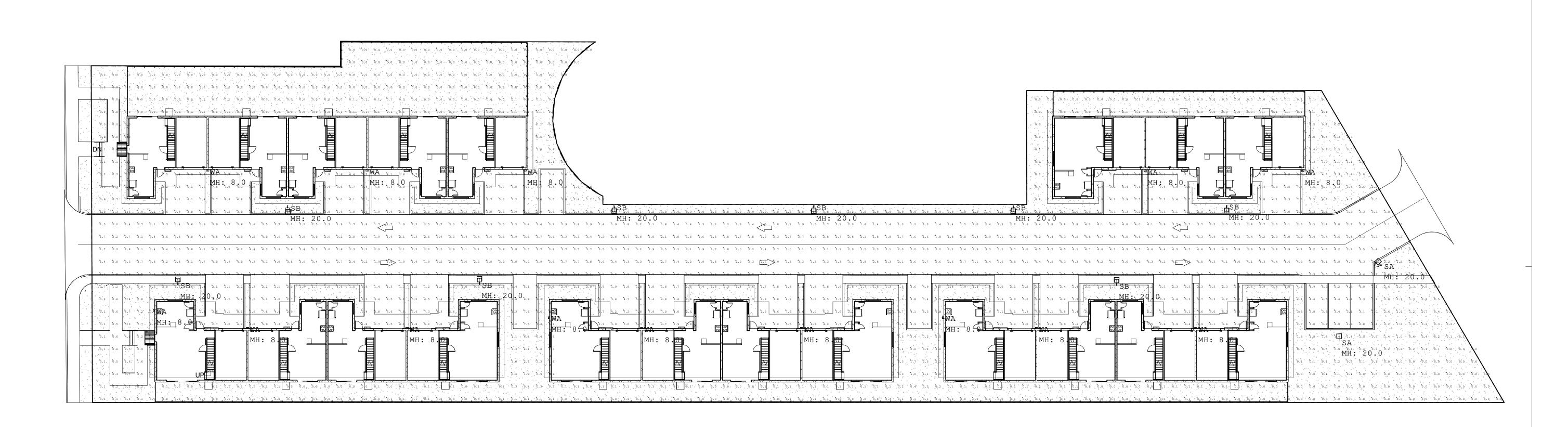
CONTEXT ELEVATIONS & SECTIONS SITE PLAN APPROVAL

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PH:(954)764-6575 FAX:(954)764-8622

Author Designer



Luminaire Sc	chedule							
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire	Luminaire	Total
						Lumens	Watts	Watts
-	2	SA	Single	LSI Industries MRS-LED-09L-SIL-FT-40-70CRI-IL	0.900	6038	63	126
-	8	SB	Single	LSI Industries MRS-LED-09L-SIL-3-40-70CRI-IL	0.900	6459	63	504
+	14	WA	Single	LSI Industries XWM-3-LED-04L-40	0.900	4124	29.5	413

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking and Drive Lanes	Illuminance	FC	3.48	8.3	1.1	3.16	7.55

NOTE:

ALL PROPOSED LIGHTING WILL BE DESIGNED AND INSTALLED SO AS TO REFLECT LIGHT AWAY FROM AND PREVENT ANY GLARE OR EXCESSIVE LIGHT ON ANY ADJACENT PROPERTY.

PHOTOMETRIC PLANS SITE PLAN APPROVAL

AR400

D

PHOTOMETRIC PLAN
1" = 20'-0"

С

Fort Lauderdale

REVISIONS

9 December 2022 22047

Habitat for Humanity

COMM:

NW 19th Street Fort Lauderdale, FL 33311

C3 AERIAL VIEW - FRONT YARDS
6" = 1'-0"



A3 AERIAL VIEW - REAR YARDS
6" = 1'-0"





888 SOUTH ANDREWS AVE. SUITE 300 FORT LAUDERDALE, FLORIDA 33316 PH:(954)764-6575 FAX:(954)764-8622

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Habitat for Humanity Fort Lauderdale

NW 19th Street Fort Lauderdale, FL 33311

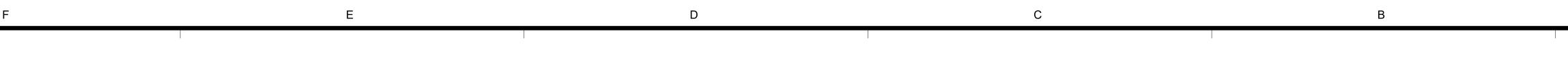
PERSPECTIVES & RENDERINGS

D

A1 STREET VIEW - LIVE / WORK UNIT 6" = 1'-0"

SITE PLAN APPROVAL

AR800





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STREET VIEW 2 6" = 1'-0"

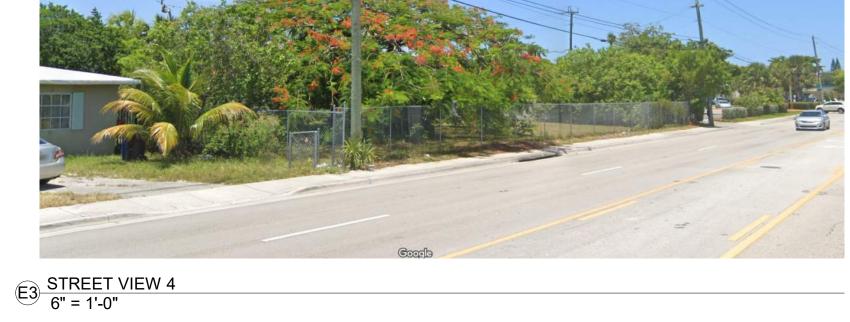




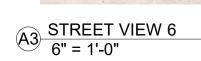
STREET VIEW 1
6" = 1'-0"













NW 19th Street Fort Lauderdale, FL 33311

EXISTING SITE PHOTOS

SITE PLAN APPROVAL

AR900

R E V I S I O N S

9 December 2022 22047

Habitat for Humanity Fort Lauderdale



D



©1 STREET VIEW 8
6" = 1'-0"

С

A1 EXISTING SITE PHOTO KEY
6" = 1'-0"

#### 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

	0 = 11 0 11 = 01 1 110
SYMBOL	DESCRIPTION
<b>→ ♣ f</b>	PAVEMENT MARKING ARROWS
	STOP BAR
Ġ.	ADA PARKING
•	CONCRETE CAR STOP
	BICYCLE
	BICYCLE RACK
	AUTOMOBILE
• • • • • • • • • • • • • • • • • • •	POST MOUNTED SIGNS 1,2, DOUBLE POST & 4 WAY
33	PARKING SPACE NUMBER
<b>B G P E M</b>	BASELINE, CENTER, PROPERTY, FLOW & MONUMENT LINE
<b>&gt;</b>	BUILDING ACCESS (ADA) / (NON-ADA)

#### PAVING & GRADING

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

#### HATCH PATTERNS

SYM	DESCRIPTION	SYM	DESCRIPTION
4 4	CONCRETE AREA		BRICK PAVERS
+ + + + + + + + + + + + + + + + + + + +	JOGGING PATH	$\left  \right\rangle \left\langle \right\rangle$	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

	UTILIT	YSTRUCTURES	
SYMBOL		DESCRIPTION	
CB	FDOT C,D,E,F	F,G & FABRIC CATCH BASIN	
(CB) (MH) (SS)	NON-FDOT R	OUND CB'S & MANHOLES, MDC S	STRUCTURE
	FDOT CURB	INLETS TYPE1-TYPE10	
	TRENCH DRA	AIN	
	PIPE CULVER	RT - MITERED END SECTION	
	STRAIGHT EI	NDWALL	
PS#	PUMP STATION	ON LOCATION AND NUMBER	
	GREASE TRA	AP SINGLE AND DOUBLE	
0 0	SEPTIC TANK	<	
	SEPTIC DRA	IN FIELD	
	DRAINAGE W	/ELL, DRAIN C.B., CONTROL STRU	JCTURE
MW	MONITORING	S WELL	
WELL	WATER WEL	L	
M	METER BOX	WATER AND IRRIGATION	
$\bigcirc$ YD $\bigcirc$ DD $\bigcirc$ DD	YARD DRAIN	/ 9" DECK DRAIN ROUND & SQUA	ARE
oco ⊚co	CLEAN OUT 6	5", 4" & BOX	
22	STORM STRI	JCTURE TABLE REFERENCE NUM	MBER
22)	SEWER STR	JCTURE TABLE REFERENCE NUM	MBER
CONST. 4' Ø MAS  RIM EL. = 10.00 (N) INV. EL. = 4.00 - XX"   (E) INV. EL. = 4.00 - XX"   (S) INV. EL. = 4.00 - XX"   (W) INV. EL. = 4.00 - XX"	DIP DIP	SEWER STRUCTURE CALLOUT (SHOWN AS A CIRCLE CIRCUMSCRIBING THE STRUCTURE NUMBER.)	INDICATES STRUCTURE NUMBER, STATION & OFFSET, STRUCTURE SIZ & TYPE, RIM/GRATE ELEVATION, PIPE INVERT
CONST. 4' Ø CB  RIM EL. = 10.50 (N) INV. EL. = 4.50 - XX" (E) INV. EL. = 4.50 - XX" (S) INV. EL. = 4.50 - XX" (W) INV. EL. = 4.50 - XX"	HDPE HDPE	STORM STRUCTURE CALLOUT (SHOWN AS A HEXAGON CIRCUMSCRIBING THE STRUCTURE NUMBER.)	ELEVATION, FIFE INVERT ELEVATIONS & DIRECTION PIPE SIZE & MATERIAL AS WELL AS ANY SPECIAL NOTES.

#### LINE TYPES

PROPOSED U	JTILITIES	PAVEMENT MARKING
w	WATER LINE	STRIPE SKIP 2-4
SAN —	SANITARY SEWER	- STRIPE SKIP 3-9
	FORCE MAIN	STRIPE SKIP 6-10
LFM —	LOW PRESSURE FM	STRIPE SKIP 10-30
SD	STORM DRAIN	STRIPE SKIP 10-10-20
PSD	PRESSURE STORM	STRIPE SKIP 2-2-2
IRR	IRRIGATION	
RAW	RAW WATER	GENERAL SITE
RCW	RECLAIMED WATER	-/-/-/-/-/-/- DEMOLITION
G	GAS LINE	TURBIDITY BARRIER
		PARKING STRIPING (SINGLE)
TOPO		BUILDING SETBACK
BF	REAKLINE	FIRE TRUCK PATH
MA	AJOR CONTOUR	SIGHT TRIANGLE
MI	NOR CONTOUR	BUILDING FOOTPRINT
тс	OP OF BANK	VEHICLE OVERHANG
— · · · — тс	DE OF SLOPE	O CONSTRUCTION LIMITS
EC	OGE OF WATER	SF —— SILT FENCE —— SSF —— SUPER SILT FENCE
clsCENTERLINE OF SWALE		PARKING STRIPING (DOUBLE)

DESCRIPTION	ABBREVIATION
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C. ACCM PIPE	ASPHALT CONCRETE  ASPHALT COATED CORRUGATED METAL
BIT.	BITUMINOUS
BC	BACK OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
ВМ	BENCHMARK
ВО	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CAP	CORRUGATED ALUMINUM PIPE
CBCI	CATCH BASIN  CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
ССМ	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
СМР	CORRUGATED METAL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST CR GR	CONSTRUCTION  CROWN GRADE
DDCV	DOUBLE DETECTOR CHECK VALVE
DDCVA	DOUBLE DETECTOR CHECK VALVE
DHV	ASSEMBLY DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWY	DRIVEWAY
ELEV (OR EL.)	ELEVATION
EMB	EMBANKMENT
EOP EXIST (OR EX)	EDGE OF PAVEMENT 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
GIP	GUTTER INLET GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE
HDW	HEADWALL
НМА	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT L	JUNCTION  LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MEG	MATCH EXISTING GRADE
МН	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
Т	TANGENT DISTANCE OF CURVE/TRUCK
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TSV	TAPPING SLEEVE AND VALVE
TYP	TYPICAL
UP VAD	UTILITY POLE
VAR	VARIES
VERT	VERTICAL OURVE
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
	CROSS SECTION
X-SECT	

#### LINE WEIGHTS

SHADED LINES & TEXT DENOTE EXISTING EQUIPMENT AND STRUCTURES.

NON-SHADED DASHED LINES & TEXT FUTURE DENOTE FUTURE EQUIPMENT, STRUCTURES AND WORK.

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

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

301 East Atlantic Blvd. Pompano Beach, FL 33060

PH: (954) 788-3400

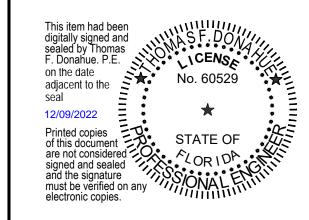
Florida Engineering Business License: CA7928
Florida Surveyor and Mapper Business License: LB6860
lorida Landscape Architecture Business License: LC2600045

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.

USER.		
ISSUE DATE:	12/09/22	
DESIGNED BY:	MVM	
DRAWN BY:	JR	
CHECKED BY:	FH	
BID-CONTRACT:		



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

CLIENT



PROJECT

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR HUMANITY** 

SHEET TITLE

**LEGEND AND ABBREVIATIONS** 

**GI-001** NUMBER PROJECT 10431.00 NUMBER

- 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
- 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.
- 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://WWW.DEP.STATE.FL.US/WATER/ STORM WATER/NPDES.

- 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,
- WATER: FIRE HYDRANTS, VALVES, BACKFLOW PREVENTER, DDCV,
- 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. 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

GRATES/TOPS, YARD DRAINS.

- 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
- 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
- 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.
- THE FOLLOWING INFORMATION: 8.6.1. RIM ELEVATION, INVERT ELEVATION, LENGTH OF PIPING BETWEEN STRUCTURES, AND CONTROL STRUCTURE ELEVATIONS IF

8.6. "AS-BUILT" DRAWINGS OF ALL DRAINAGE LINES SHALL INCLUDE

- 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
- 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
- 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
- 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
- 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
- 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
- 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,

• MEET THE SPECIFICATIONS OUTLINED IN SECTION 700 AND 994 OF

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

EXCEPT FOR SCHOOL ZONE AND PEDESTRIAN SIGNS WHICH SHALL

- 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 SIGN PANEL INCLUDING THE BACKGROUND, LEGEND OR
- BORDER. 10.14 ENSURE THE OUTSIDE CORNER OF SIGN IS CONCENTRIC WITH BORDER. ENSURE WHITE BORDERS ARE MOUNTED PARALLEL TO THE EDGE OF THE SIGN. ENSURE BLACK BORDERS ARE RECESSED FROM THE EDGE OF THE SIGN.
- 10.15 LAYOUT PERMANENT FINAL STRIPING THAT LEAVES NO VISIBLE MARKS AT TIME OF FINAL ACCEPTANCE.

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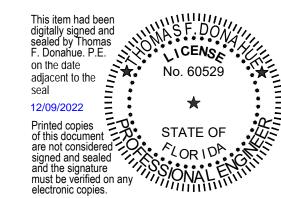
Florida Landscape Architecture Business License: LC2600045 REVISIONS DESCRIPTION DATE

PRELIMINARY PLAN NOT FOR CONSTRUCTION

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

THESE PLANS ARE NOT FULLY PERMITTED

**ISSUE DATE:** 12/09/22 MVM IDESIGNED BY: IDRAWN BY: CHECKED BY: BID-CONTRACT:



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

CLIENT



PROJECT

19TH ST MIXED-USE DEVELOPMENT FT. LAUDERDALE -**HABITAT FOR** HUMANITY

SHEET TITLE

NUMBER

**GENERAL** CONSTRUCTION NOTES | ≧

**GI-002 NUMBER** PROJEC1 10431.00

#### 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 N--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 ENCOUNTERED, MUCK SHALL BE COMPLETELY REMOVED FROM THE CENTER LINE (10) TEN FEET BEYOND THE EDGE OF PAVEMENT EACH SIDE. ALL SUCH MATERIAL SHALL BE REPLACED BY APPROVED GRANULAR

21.7. WHEN ENCOUNTERED WITHIN DRAINAGE SWALES, HARDPAN SHALL BE REMOVED TO FULL DEPTH FOR A WIDTH OF (5) FIVE FEET AT THE INVERT AND REPLACED WITH GRANULAR MATERIALS.

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.

23.1. 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

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. 310. 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. 304.

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. 300.

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

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. 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.

30.12.2. TAPPING VALVES SHALL BE MUELLER T-2361/2362 OR APPROVED EQUAL. 30.12.3. 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

BY FORD BALLCORP, CATALOG # 1100 OR APPROVED EQUAL 31.4. CURB STOPS SHALL BE FORD V63-44W-X" LATEST REVISION OR APPROVED EQUAL.

ACCORDANCE WITH ASTM B-62 WITH THREADED ENDS, AS MANUFACTURED

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 CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED. BACKFILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

32.8. ALL VALVES SHALL BE INSTALLED WITH ADJUSTABLE CAST IRON VALVE BOXES WITH THE WORD "WATER" OR "SEWER", AS APPLICABLE, CAST IN THE COVER. U.S. FOUNDRY OR APPROVED EQUAL.

33.1. BEFORE ANY PHYSICAL CONNECTIONS AND ACCEPTANCE FOR OPERATION TO THE EXISTING WATER MAINS ARE MADE, THE COMPLETE WATER SYSTEM SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED. COPIES OF PASSING BACTERIOLOGICAL RESULTS AND PRESSURE TEST RESULTS MUST BE SUBMITTED TO, AND APPROVED BY, THE ENGINEER, UTILITY OWNER, AND HEALTH DEPARTMENT. HYDROSTATIC TESTING OF NEW MAINS SHALL BE PERFORMED AT A MINIMUM STARTING PRESSURE OF 150 PSI FOR TWO HOURS IN ACCORDANCE WITH ANSI/AWWA C600-05 (HYDROSTATIC TEST). THE PRESSURE TEST SHALL NOT VARY MORE THAN 5 PSI DURING THE

TEST. THE ALLOWABLE LEAKAGE DURING THE PRESSURE TEST SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE

L = (SD(P)1/2)/148,000.

IN WHICH L EQUALS THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR. S EQUALS LENGTH OF PIPE (LINEAR FEET), D EQUALS NOMINAL DIAMETER OF PIPE (INCHES) AND P EQUALS THE AVERAGE TEST PRESSURE (POUNDS PER SQUARE INCH GAUGE). MAXIMUM LENGTH OF TEST PIPE SECTION SHOULD BE 2000 FEET. THE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE ANSI/AWWA C651-05 (WATER MAIN BACTERIOLOGICAL TESTS).

33.2. THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE UTILITY OWNER AND THE ENGINEER OF RECORD.

33.3. FOR WATER DISTRIBUTION PIPES, SAMPLING POINTS SHALL BE PROVIDED BY THE CONTRACTOR AT THE LOCATIONS SHOWN ON THE PLANS.

33.4. FOR WATER DISTRIBUTION PIPES, DISINFECTION AND BACTERIOLOGICAL TESTING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C651-14 (WATER MAIN BACTERIOLOGICAL TESTS). MAXIMUM DISTANCE BETWEEN SAMPLING POINTS SHALL BE AS FOLLOWS:

TRANSMISSION MAINS: EVERY 1200 FEET

BRANCH MAINS: EVERY 1000 FEET

ISOLATED MAINS < 1000 FEET: 2 SAMPLE POINTS</li>

ISOLATED MAINS > 1000 FEET: 3 SAMPLE POINTS

SECTION 40 - GRAVITY SANITARY SEWER COLLECTION SYSTEM 40.GENERAL

40.1. MANHOLE, VALVE BOX, METER BOX AND OTHER STRUCTURE RIM ELEVATIONS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE ADJUSTED TO CONFORM TO PLAN GRADES PROPOSED IN THESE PLANS. IF NO OTHER INDIVIDUAL COST ITEM IS INCLUDED IN THE CONTRACT SCHEDULE FOR A PARTICULAR STRUCTURE ADJUSTMENT.

40.2. DISTANCE AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.

41. MATERIALS:

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

41.1. ALL PVC SEWER PIPE AND FITTINGS SHALL BE NON-PRESSURE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D 3034, SDR 26,

WITH PUSH-ON RUBBER GASKET JOINTS. 41.2. DUCTILE IRON PIPE SHALL CONFORM TO ANSI/AWWA C151/A21.51-XX LATEST REVISION, "DUCTILE IRON PIPE CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS" WITH WALL THICKNESS CLASS 51 FOR 8" AND ABOVE, CLASS 52 FOR 4" AND 6", UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DUCTILE IRON PIPE SHALL BE EPOXY LINED OR COATED WITH THE MANUFACTURER'S COATING SYSTEM AS APPROVED BY THE ENGINEER OF RECORD AND THE LOCAL MUNICIPALITY OR UTILITY OWNER. IN EITHER CASE, THE ENGINEER'S REVIEW AND APPROVAL IS REQUIRED FOR EITHER

NOT APPROPRIATE FOR THIS APPLICATION. 41.3. ALL DUCTILE IRON FITTINGS SHALL CONFORM TO ANSI/AWWA STANDARD C110/A21.10-XX LATEST REVISION. ALL FITTINGS AND ACCESSORIES SHALL BE EPOXY LINED AND AS MANUFACTURED OR SUPPLIED BY THE PIPE

ALTERNATIVE PRIOR TO CONSTRUCTION. CEMENT MORTARED LININGS ARE

MANUFACTURER OR APPROVED EQUAL. 41.4. MANHOLES SHALL BE PRECAST PER ASTM C 478 AND IN ACCORDANCE

WITH THE PLANS AND SPECIFICATIONS. 41.5. MANHOLES ARE TO BE SEALED WITH TYPE II SULPHATE RESISTANT CEMENT OR APPROVED EQUAL - NO MOLDING PLASTER.

41.6. JOINTS FOR BELL AND SPIGOT DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO ANSI/AWWA STANDARD C111/A21.11-XX LATEST REVISION. MECHANICAL JOINT OR PUSH-ON JOINT TO BE RUBBER GASKET

COMPRESSION- TYPE. 41.7. PVC CLEAN-OUTS TO HAVE SCREW TYPE ACCESS PLUG. LONG RADIUS WYE CONNECTIONS AND FITTINGS SHALL BE USED IN ORDER TO ACCESS CLEAN-OUT OPERATIONS.

41.8. CLEANOUTS SHALL BE INSTALLED AT ALL SEWER SERVICES EXCEEDING 75' IN LENGTH (EVERY 75') WITH A CLEAN OUT AT THE PROPERTY LINE, EASEMENT LINE, OR 5' FROM A BUILDING. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE BUILDING CLEANOUT (5' FROM THE BUILDING) AND ELEVATION OF THE END OF THE SEWER SERVICE WITH THE BUILDING PLUMBING CONTRACTOR. CLEANOUTS SHALL BE THE SAME SIZE AS THE SERVICE LATERAL IN WHICH THEY ARE INSTALLED.

42. INSTALLATION: 42.1. PVC SEWER PIPE SHALL BE LAID IN ACCORDANCE WITH ASTM D 2321 AND THE UNI-BELL PLASTIC PIPE ASSOCIATION'S "RECOMMENDED PRACTICE FOR

THE INSTALLATION OF PVC SEWER PIPE." 42.2. DIP SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C-600-XX LATEST REVISION.

42.3. PIPE TO MANHOLE CONNECTION TO BE FERNCO NEOPRENE BOOT COUPLINGS WITH STAINLESS STEEL ACCESSORIES OR APPROVED EQUAL. 42.4. MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE ON FIRM

SUBGRADE PROVIDING UNIFORM BEARING UNDER THE BASE.

42.5. ALL OPENINGS AND JOINTS SHALL BE SEALED WATERTIGHT. 42.6. TWO COATS OF KOPPERS 300-M, FIRST RED, SECOND ONE BLACK, SHALL BE APPLIED TO THE INSIDE OF ALL MANHOLES AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS (16 MILS PER COAT). COATING AS REQUIRED BY UTILITY OWNER OR ENGINEER SHALL BE APPLIED TO THE OUTSIDE OF THE MANHOLE. THE INTERIOR COATS SHALL BE APPLIED AFTER SEWER LAMPING OF LINES. AFTER THE APPLICATION OF EACH COAT, THE UTILITY OWNER AND ENGINEER SHALL INSPECT THE MANHOLES. THE INSPECTION SHALL BE SCHEDULED A MINIMUM OF 48 HOURS PRIOR TO

43.TESTING: TESTING OF GRAVITY SEWER MAINS AND LATERALS SHALL BE IN ACCORDANCE WITH THE UTILITY OWNER'S MINIMUM DESIGN AND CONSTRUCTION STANDARDS LATEST REVISION.

43.1. AFTER CONSTRUCTION OF THE SEWER SYSTEM, THE ENGINEER MAY REQUIRE A VISUAL INFILTRATION AND/OR EXFILTRATION TEST TO BE

PERFORMED ON THE ENTIRE SYSTEM OR ANY PART THEREOF. 43.2. AN AIR TEST MAY BE SUBSTITUTED FOR THE WATER EXFILTRATION TEST, UPON APPROVAL OF THE ENGINEER.

43.3. THE ALLOWABLE LIMITS OF SEWER PIPE LEAKAGE FOR GRAVITY SEWER MAINS SHALL NOT EXCEED 100 GALLONS PER INCH OF INSIDE PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION TESTED. NO VISIBLE LEAKAGE SHALL BE ALLOWED.

43.4. THE INSTALLED SEWERS MAY REQUIRE VIDEO INSPECTIONS.

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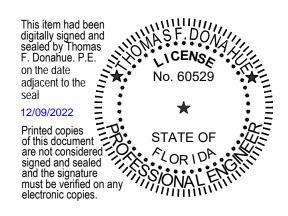
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**PROJECT** 

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE **HABITAT FOR HUMANITY** 

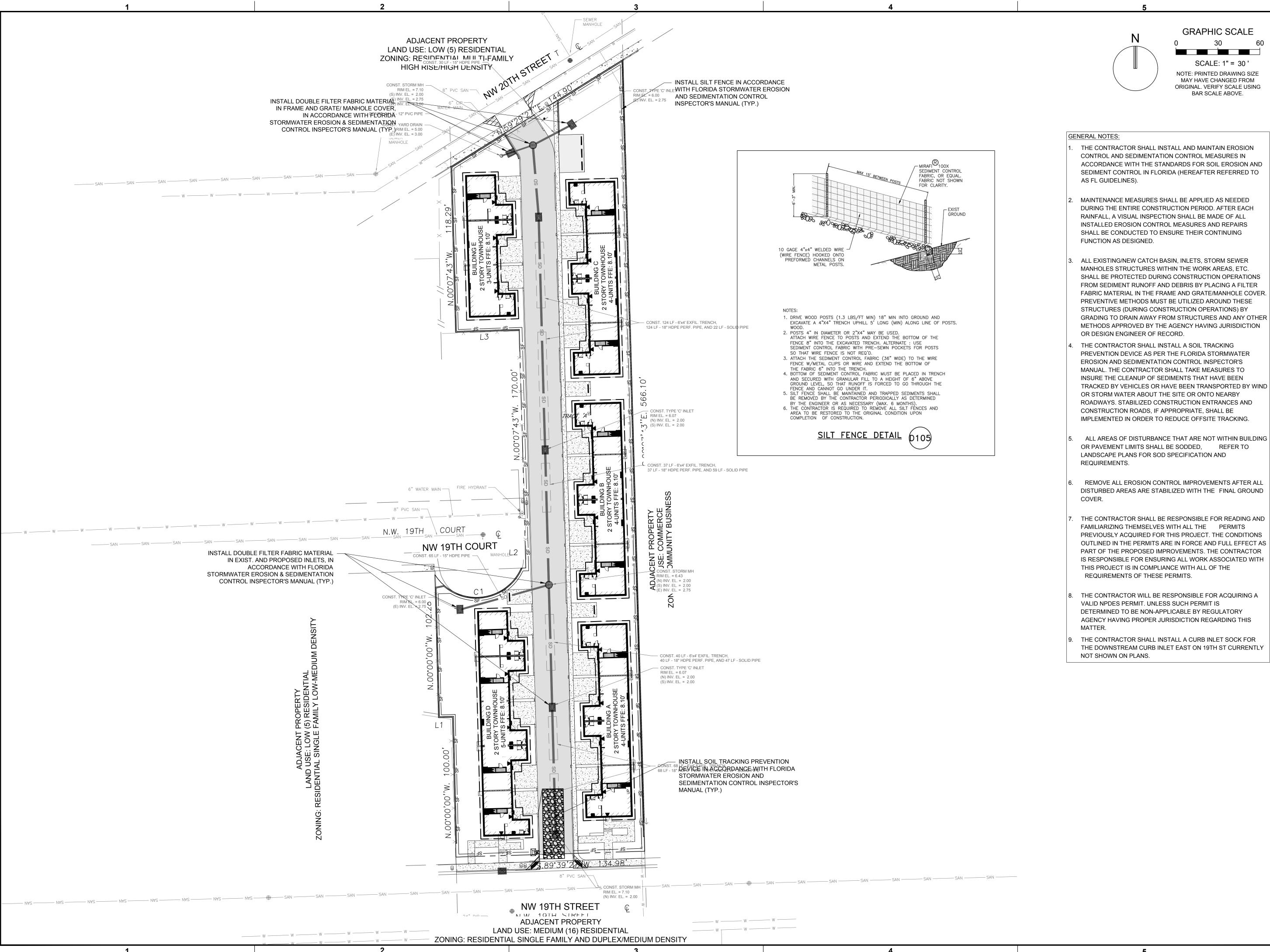
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NUMBER

CONSTRUCTION **SPECIFICATIONS** 

**GI-003 NUMBER** 10431.00

33.TESTING:



GRAPHIC SCALE

SCALE: 1" = 30 ' NOTE: PRINTED DRAWING SIZE MAY HAVE CHANGED FROM

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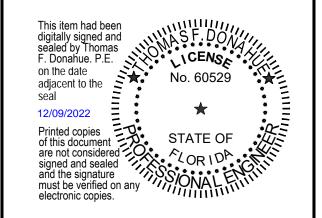
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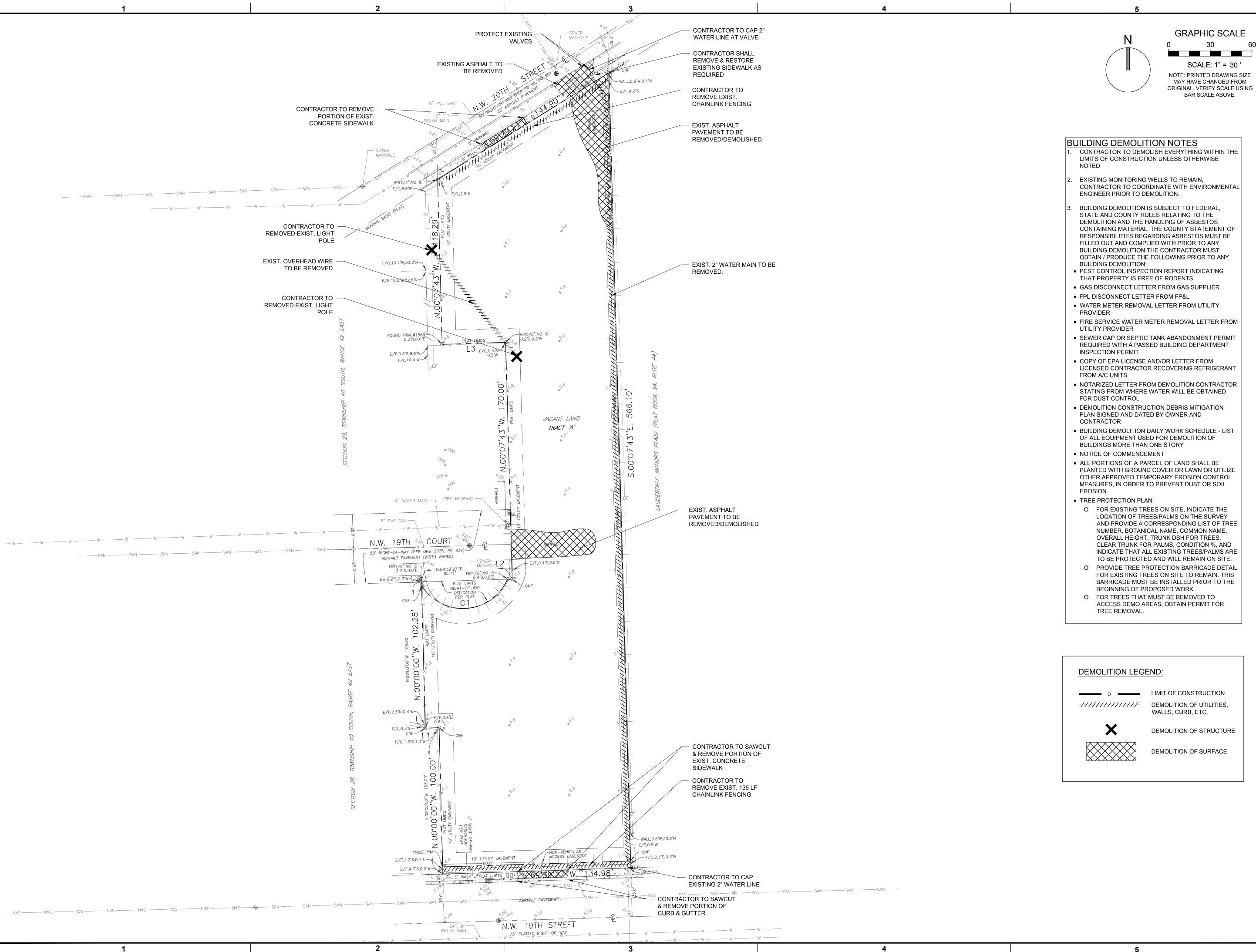
**PROJECT** 

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR HUMANITY** 

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**EROSION CONTROL PLAN** 

**CG-101 NUMBER** PROJEC1 10431.00 NUMBER





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and the signature must be verified on any electronic copies.

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on the date

12/09/2022

adjacent to the

signed and sealed

electronic copies.

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**PROJECT** 

This item had been digitally signed and sealed by Thomas F. Donahue. P.E.

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**DEMOLITION PLAN** 

19TH ST MIXED-USE

**DEVELOPMENT** 

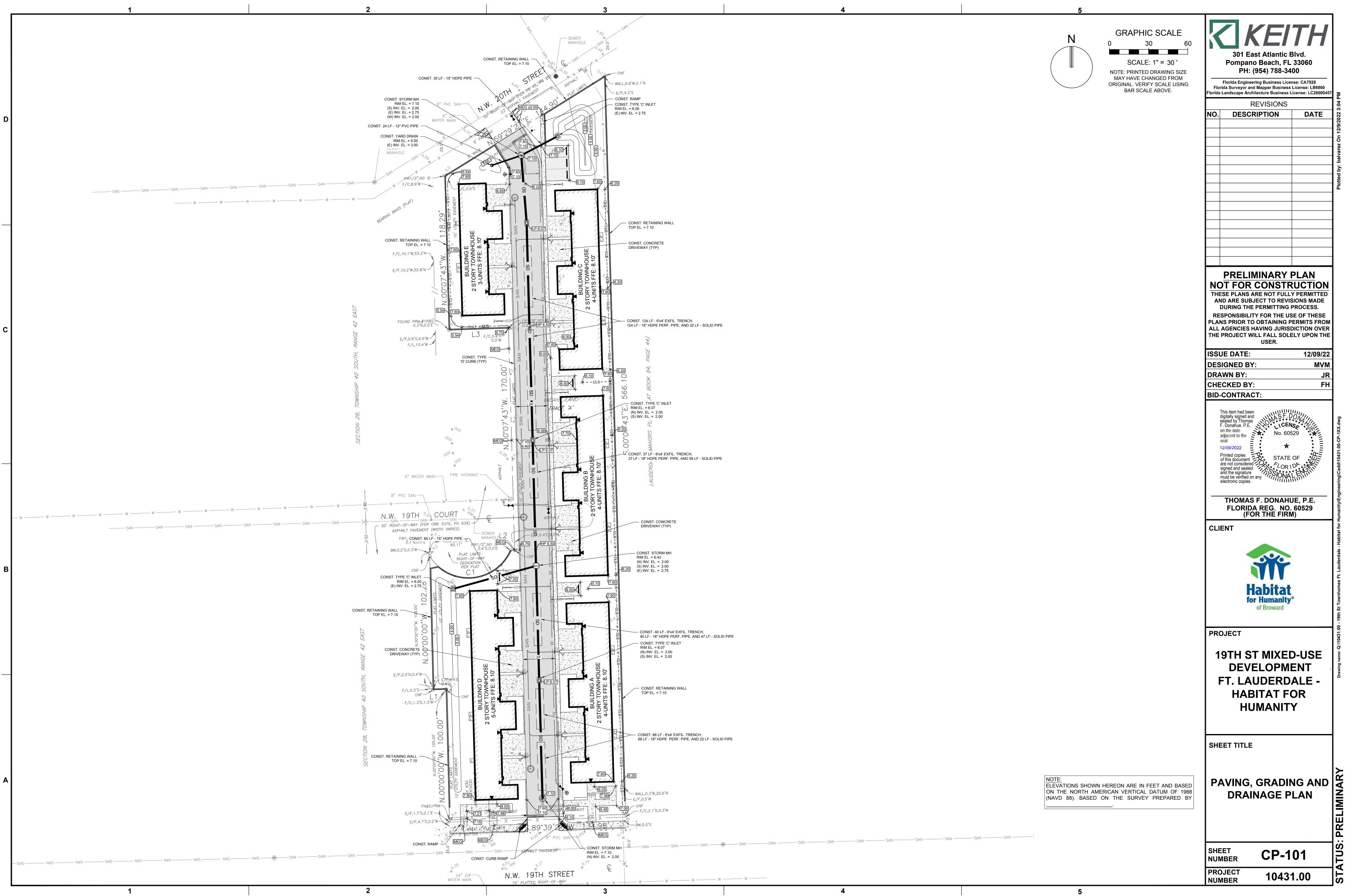
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**HABITAT FOR** 

**HUMANITY** 

**CD-101** NUMBER

PROJEC1 10431.00 NUMBER



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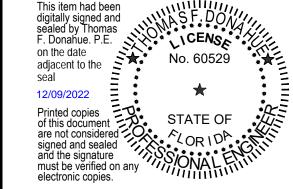
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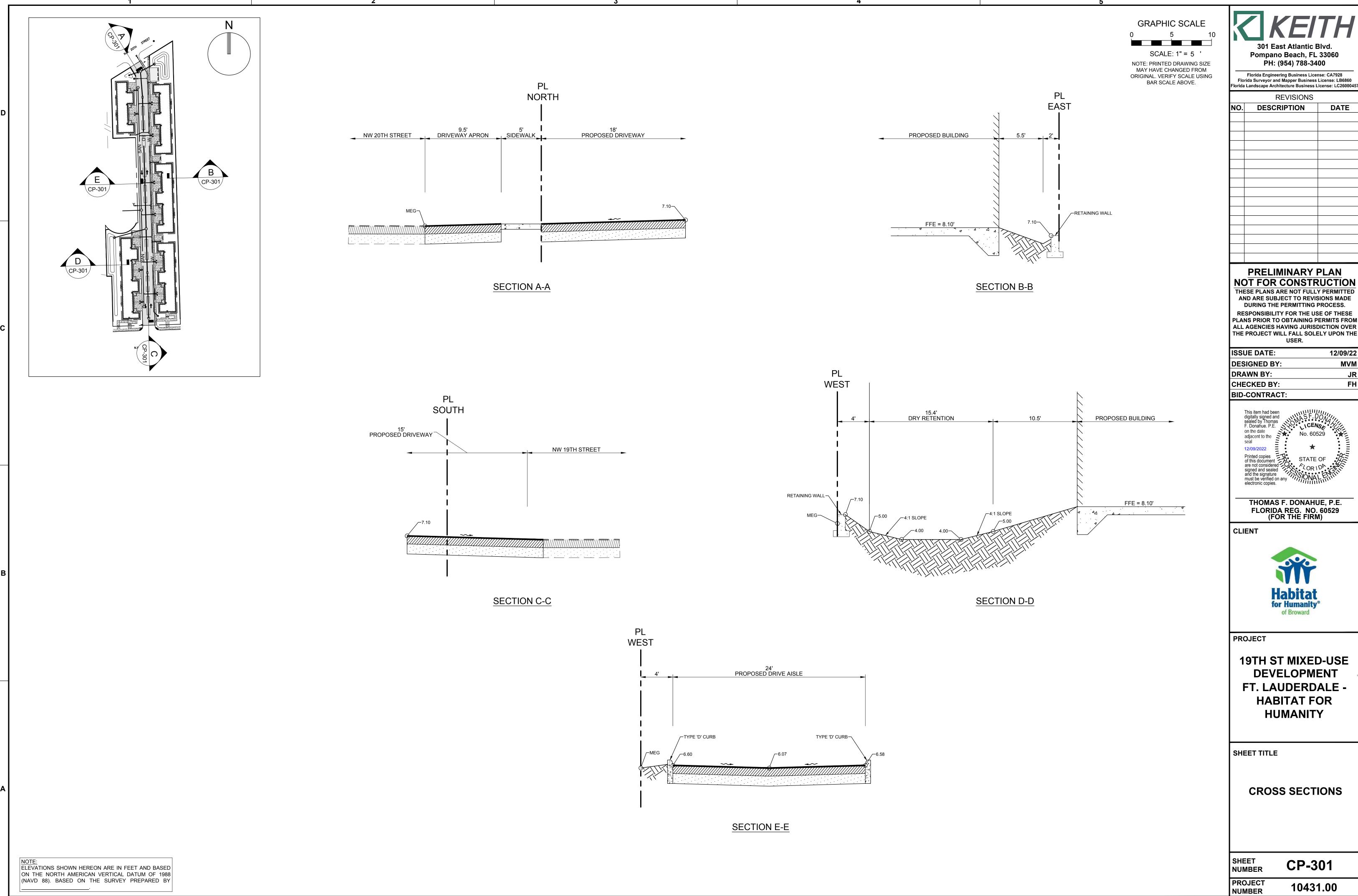


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**CP-101** 10431.00



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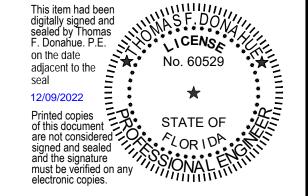
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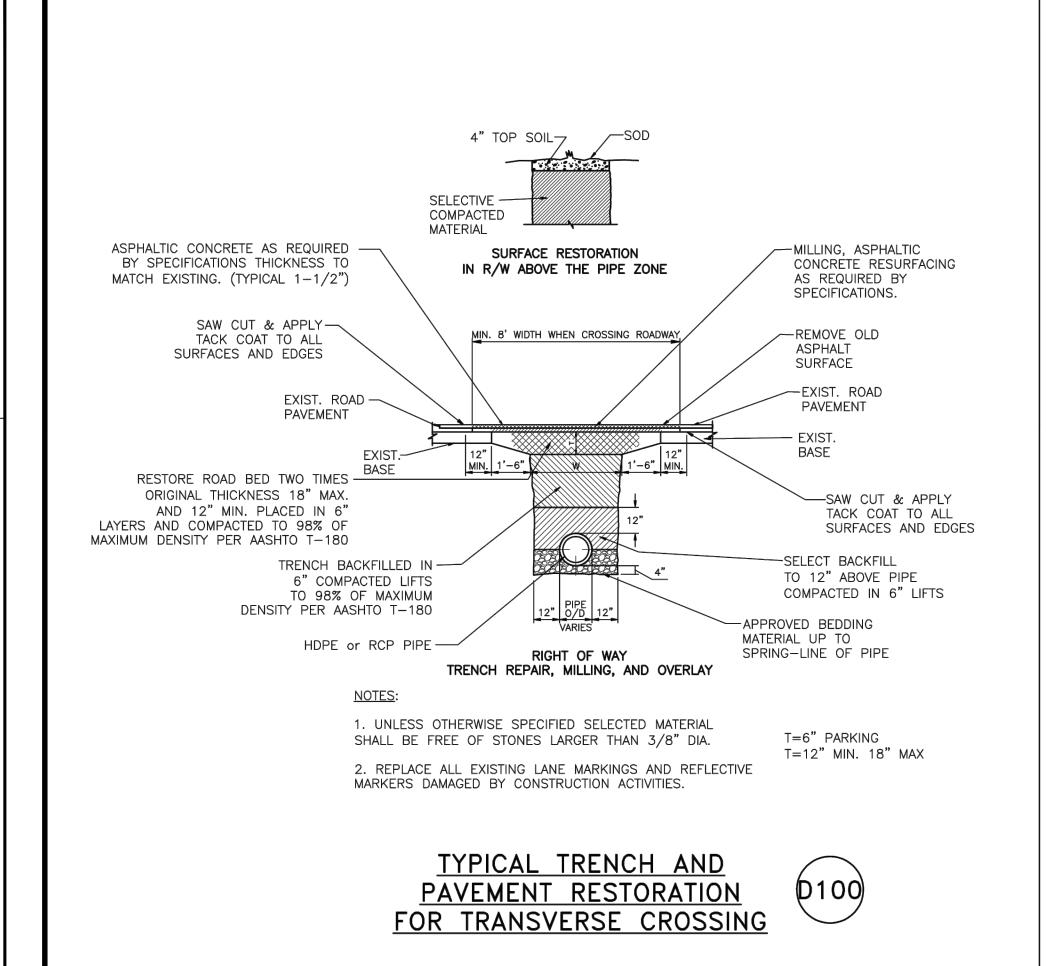
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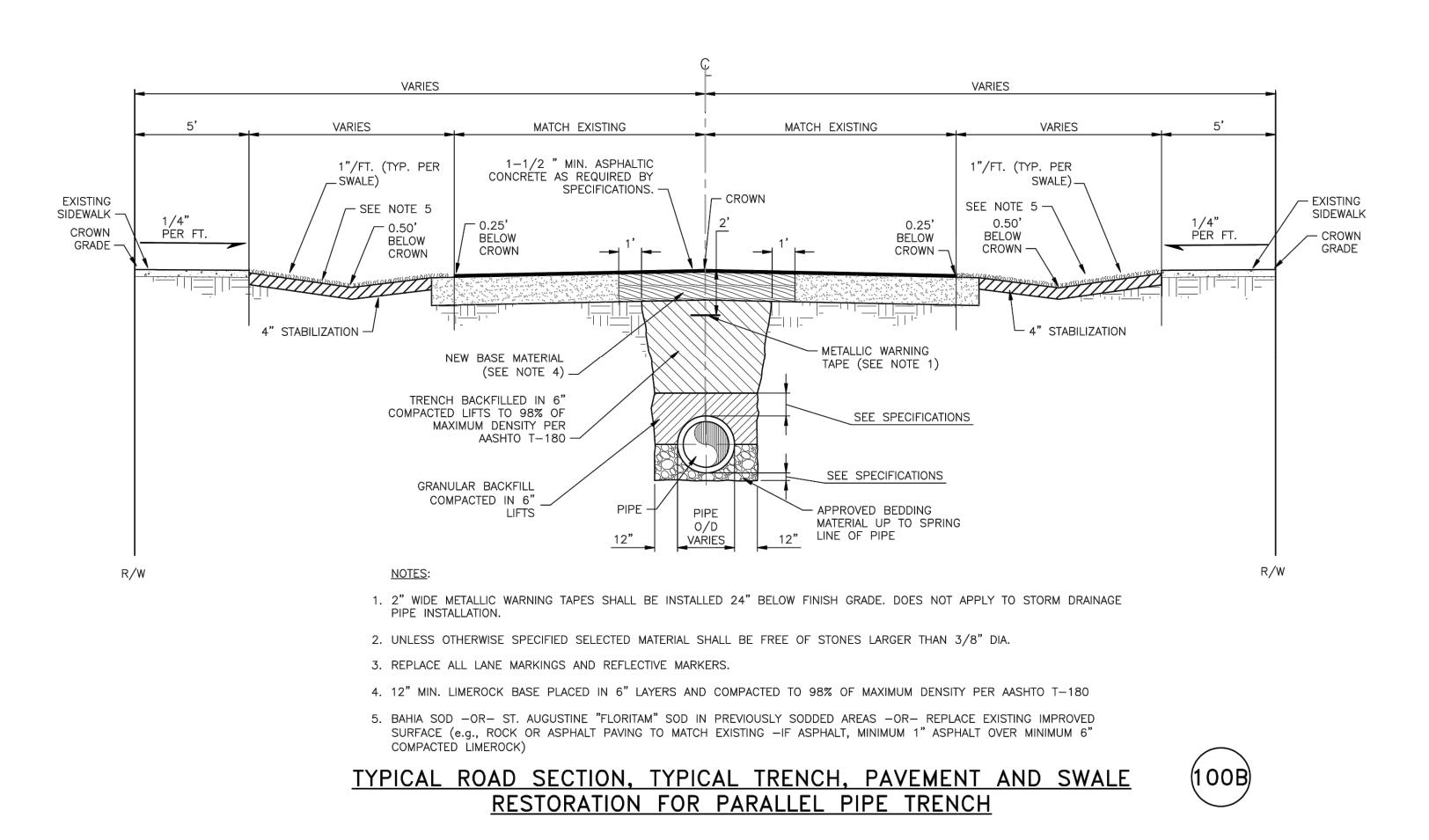


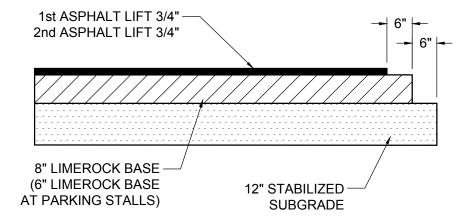
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**CROSS SECTIONS** 

CP-301 10431.00







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.

ASPHALT PAVEMENT DETAIL

NOT TO SCALE

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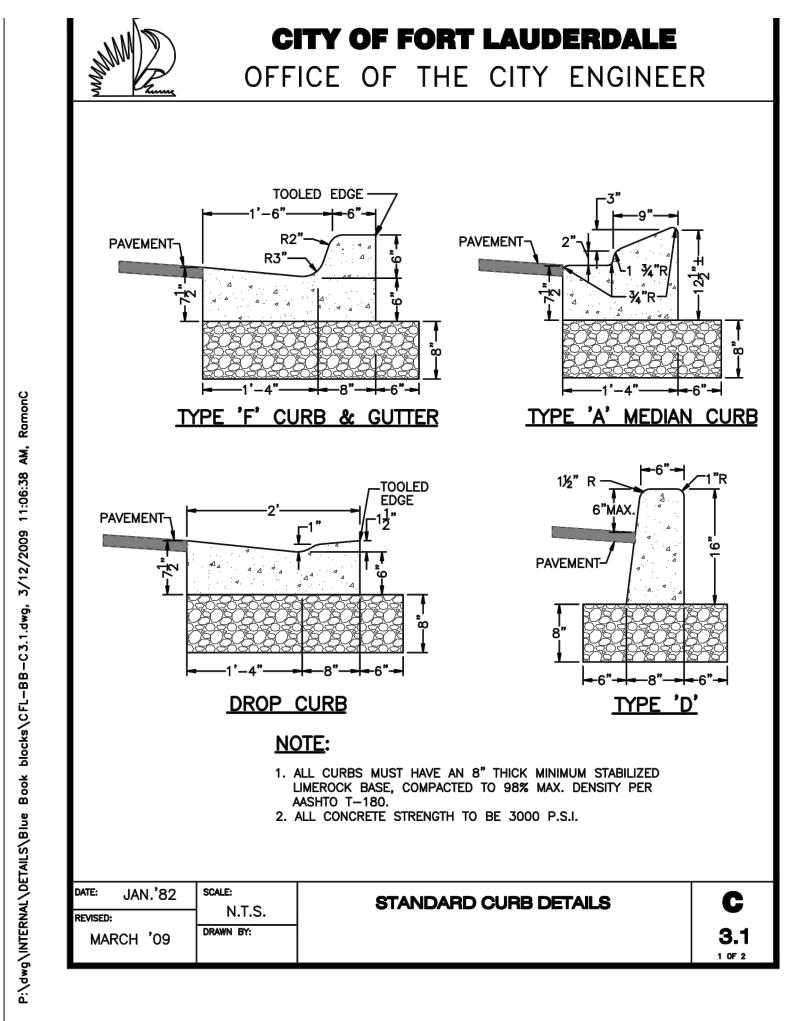
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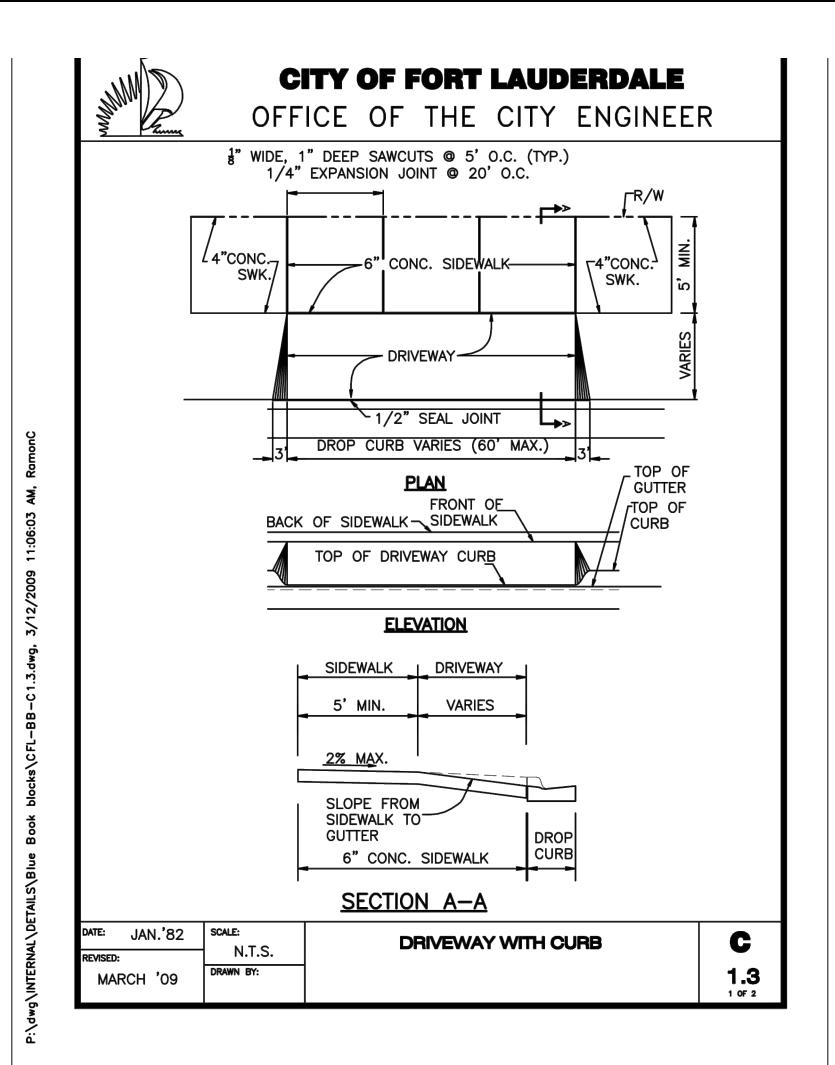
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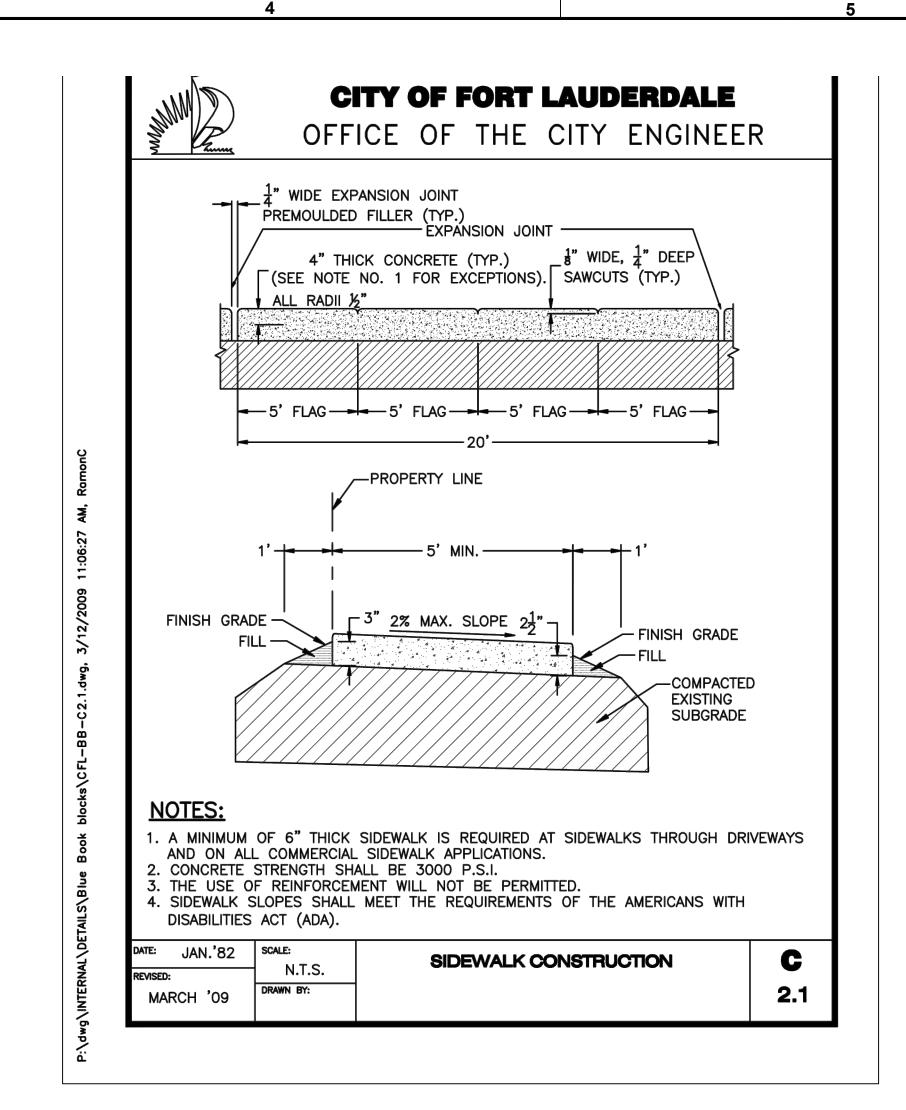
PAVING, GRADING AND DRAINAGE DETAILS

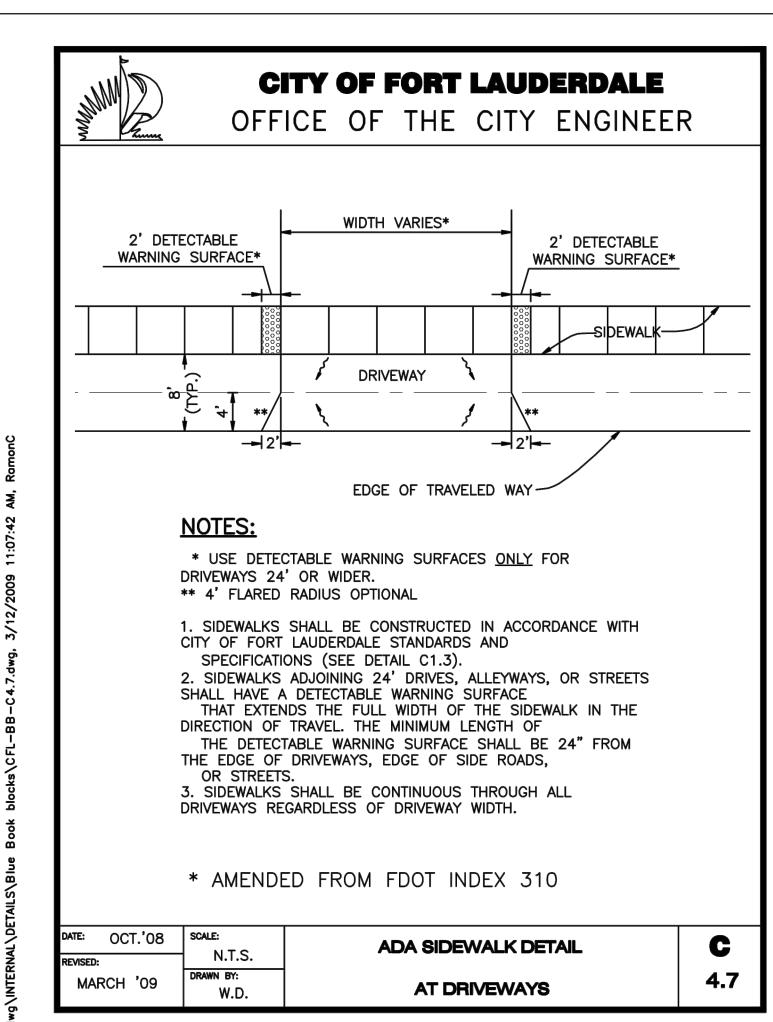
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PROJECT 10431.00

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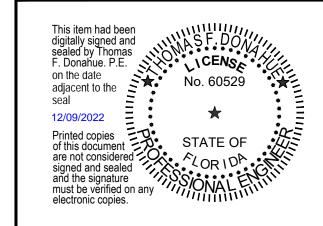




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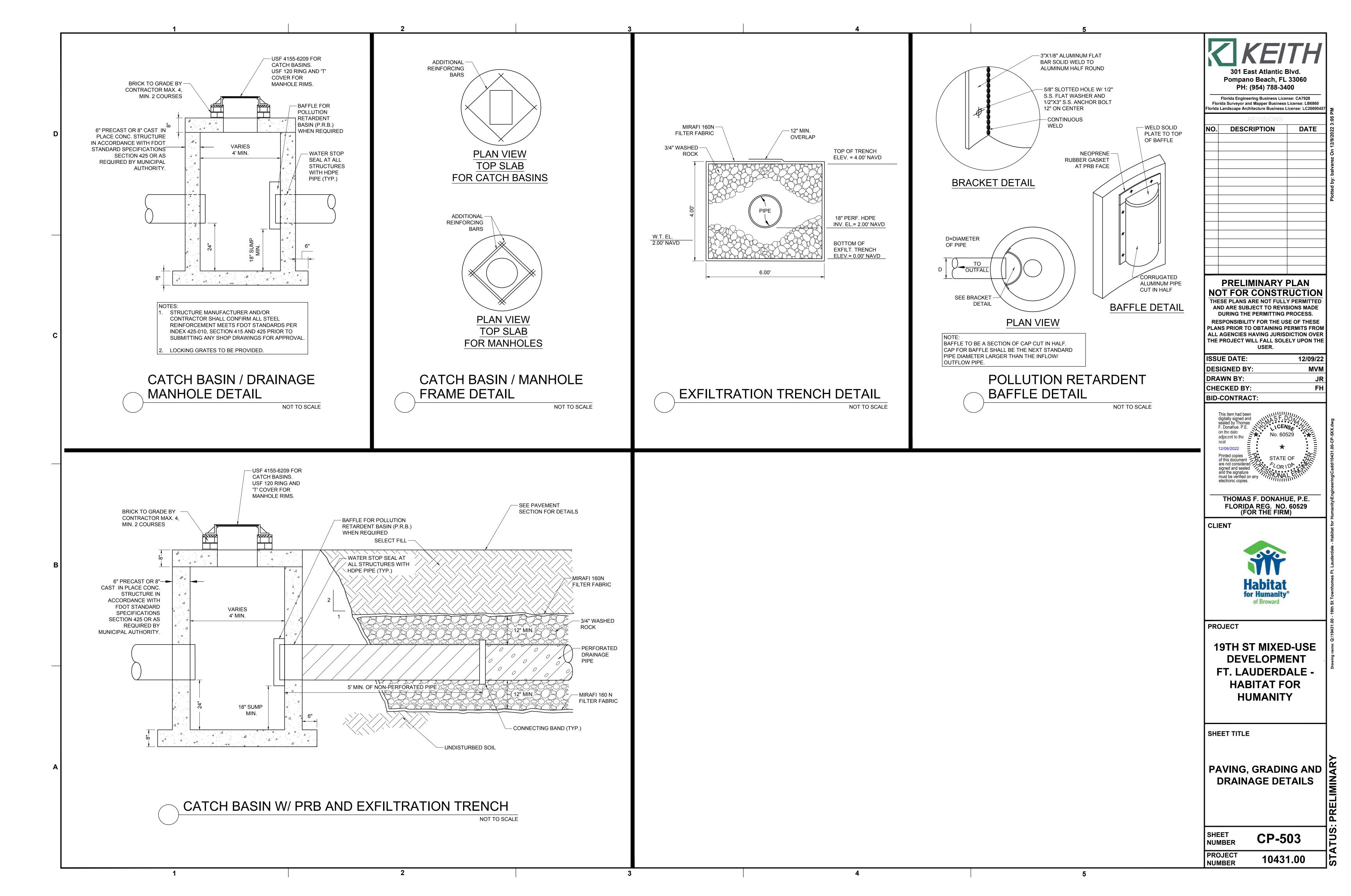
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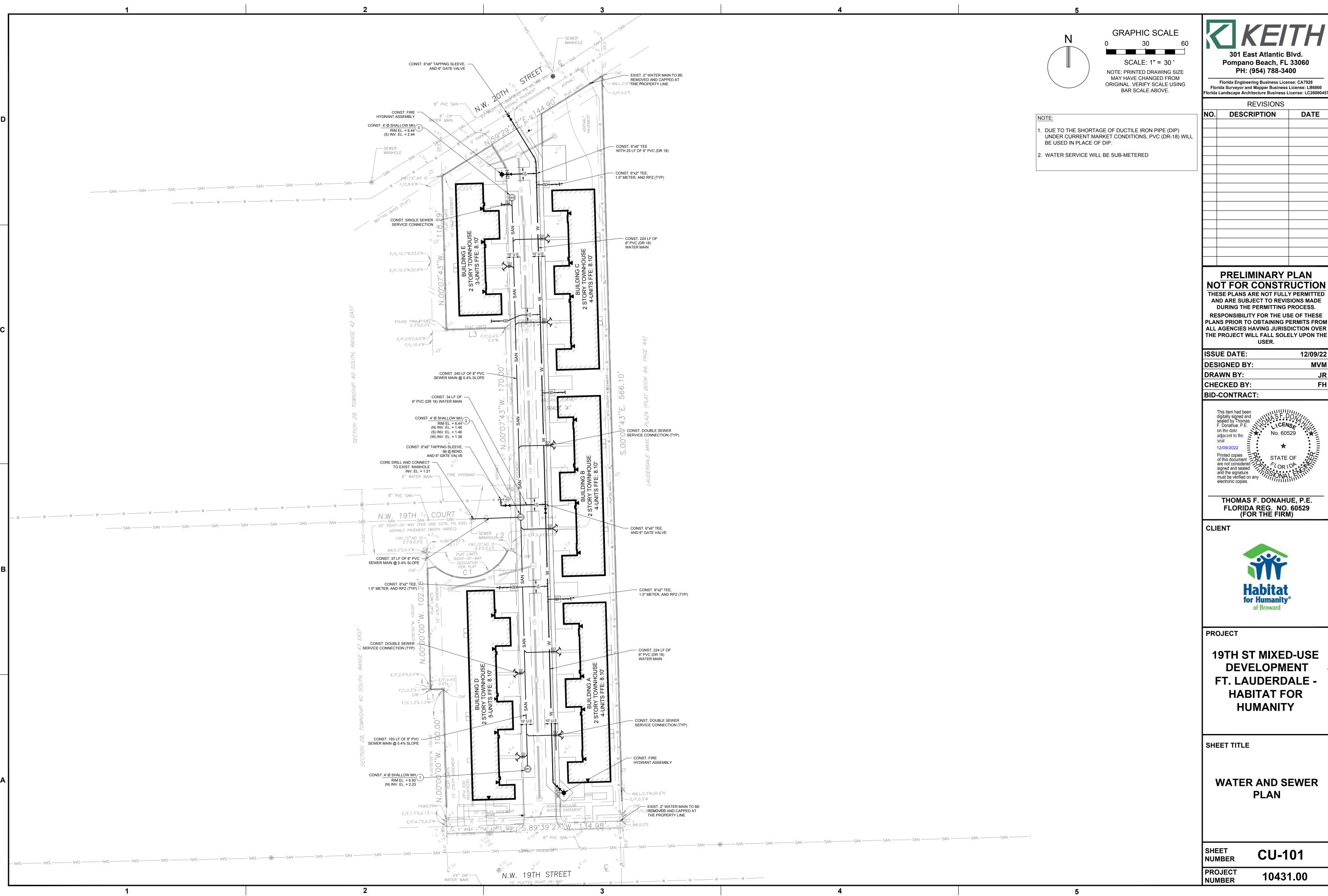
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PAVING, GRADING AND DRAINAGE DETAILS

**CP-502** NUMBER PROJEC1 NUMBER

10431.00





Pompano Beach, FL 33060

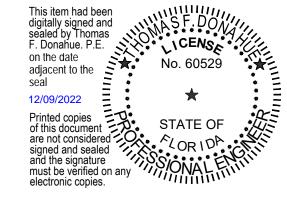
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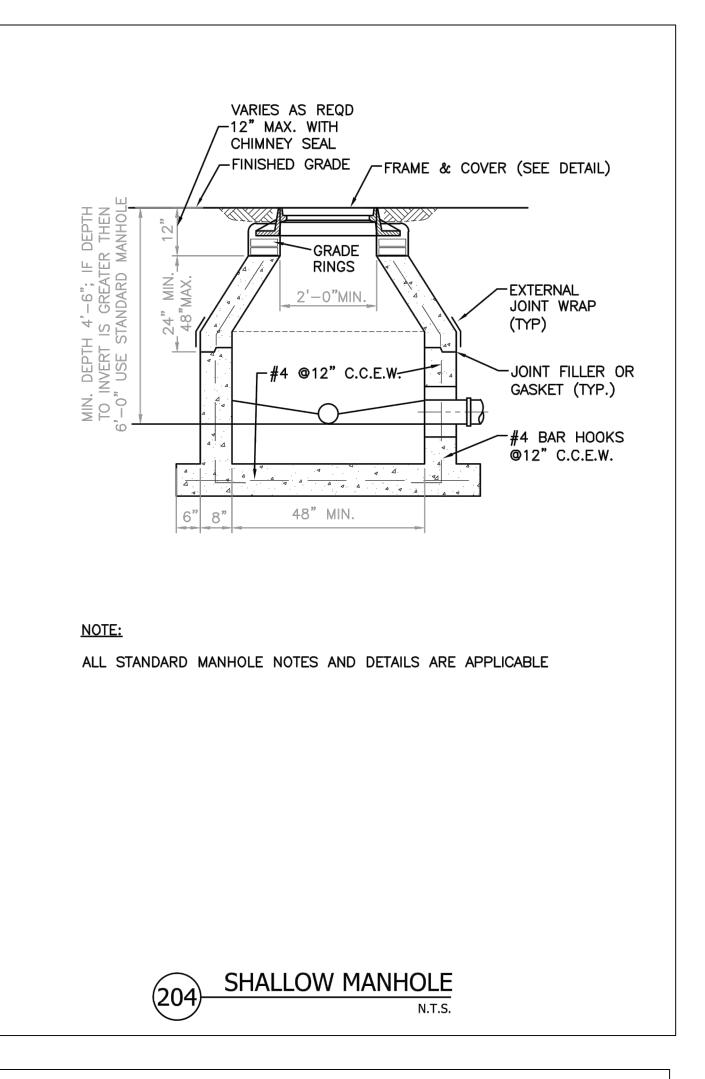
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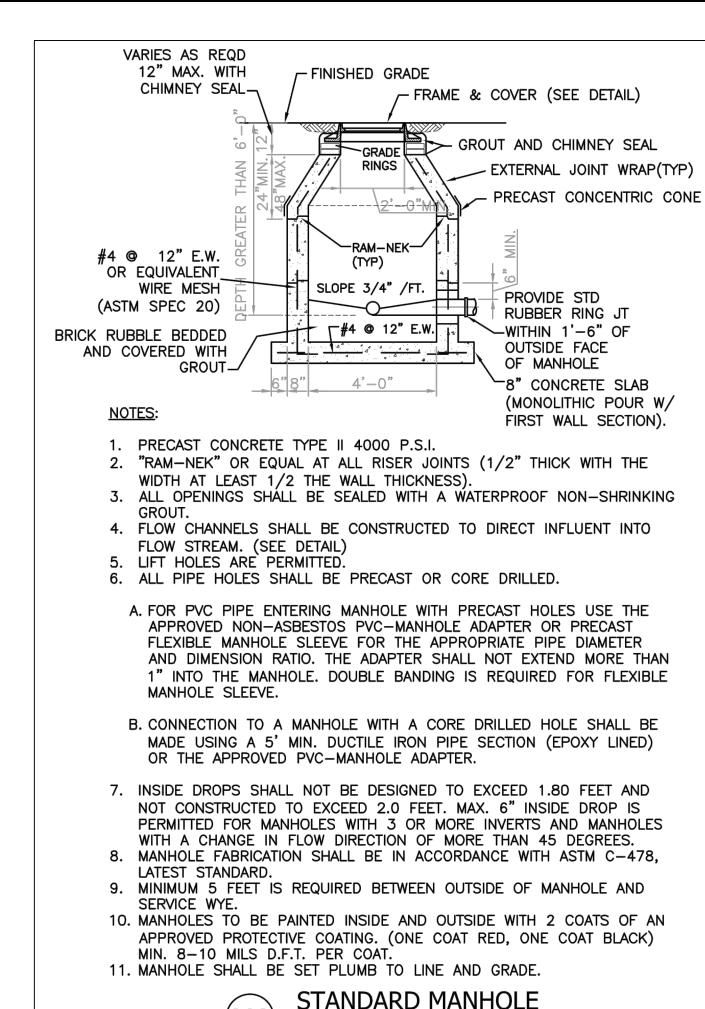


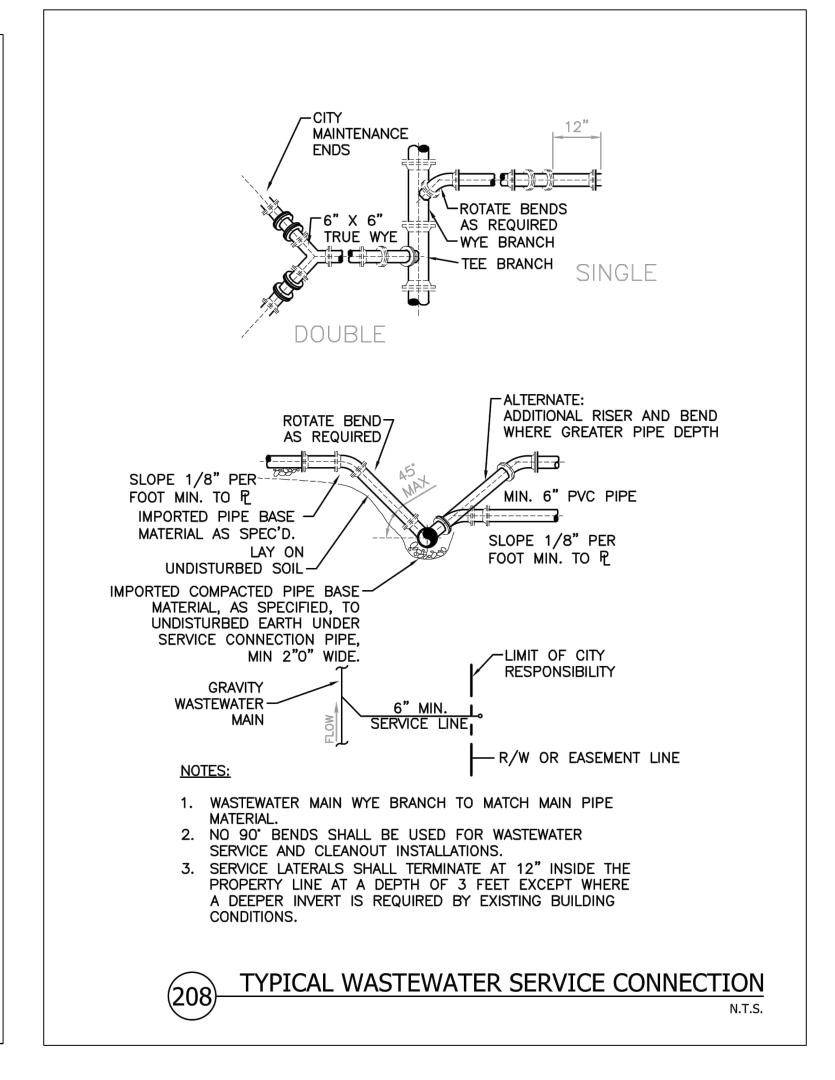
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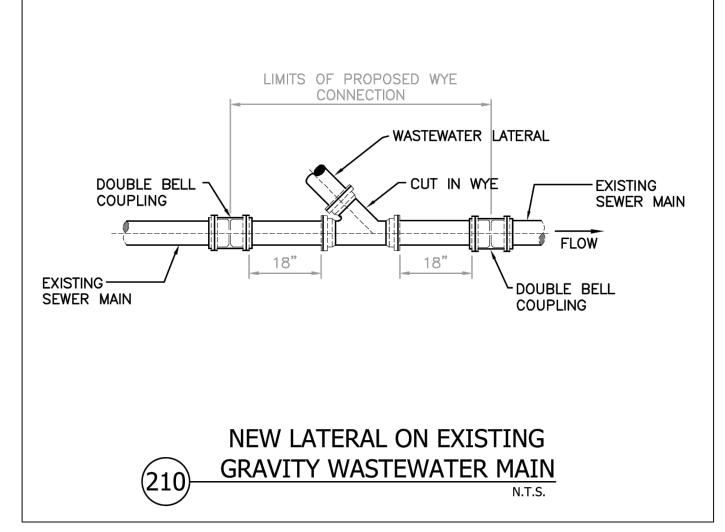
**WATER AND SEWER PLAN** 

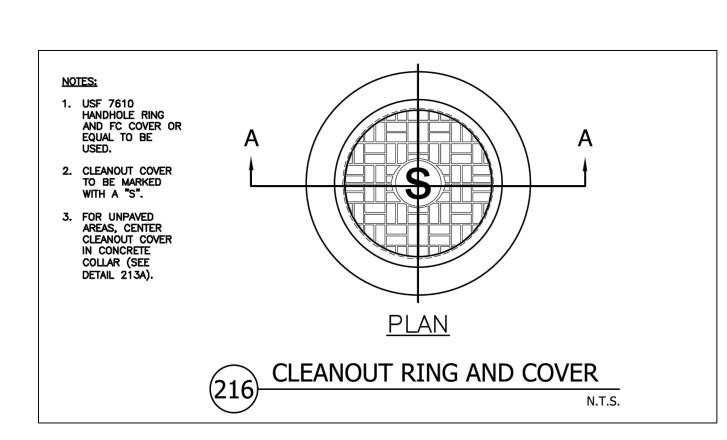
**CU-101** 10431.00

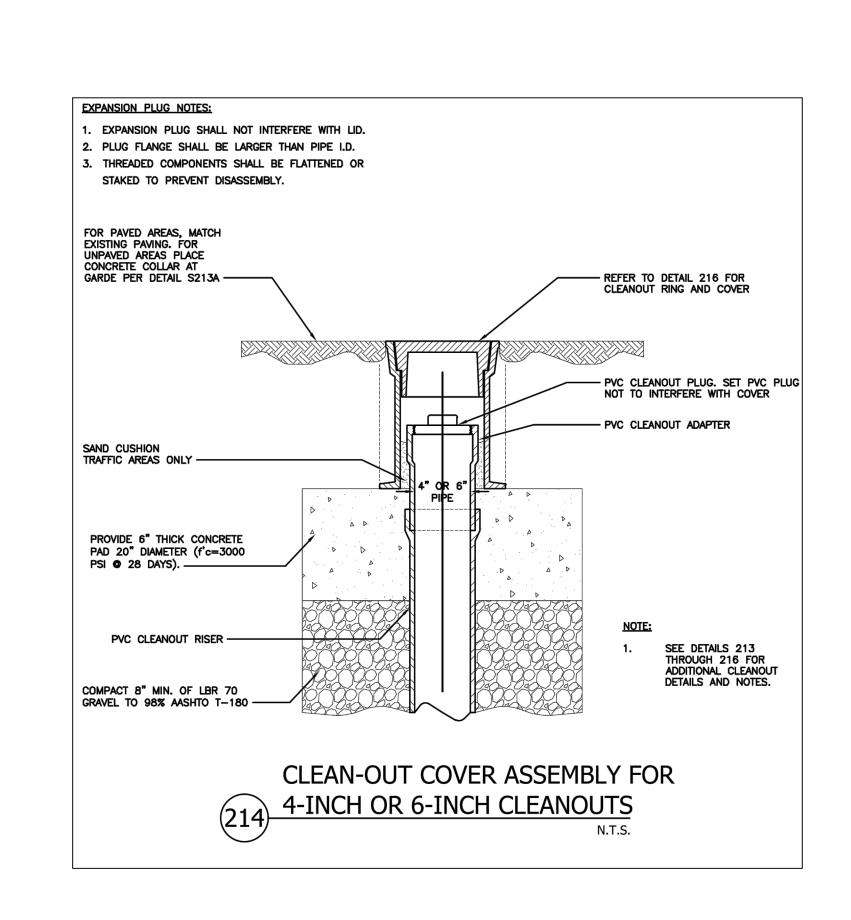




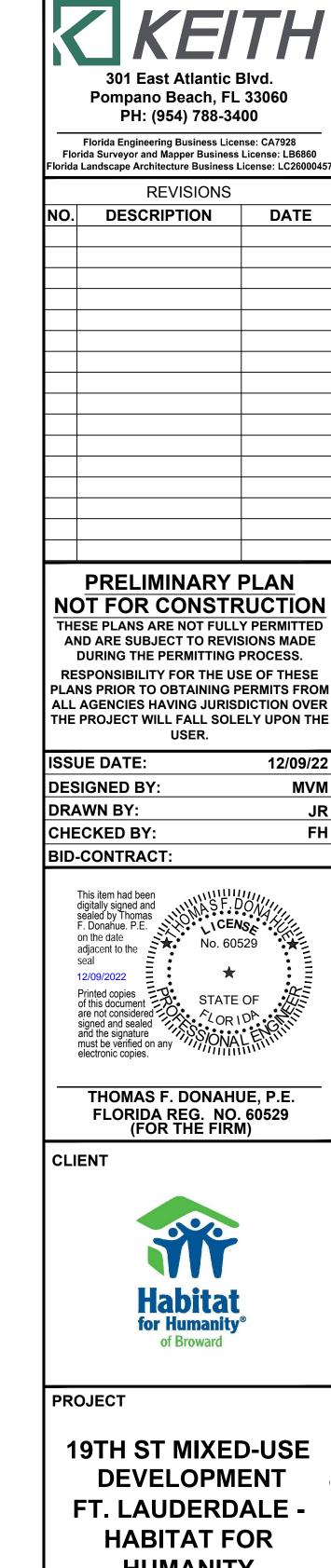








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**DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR** HUMANITY

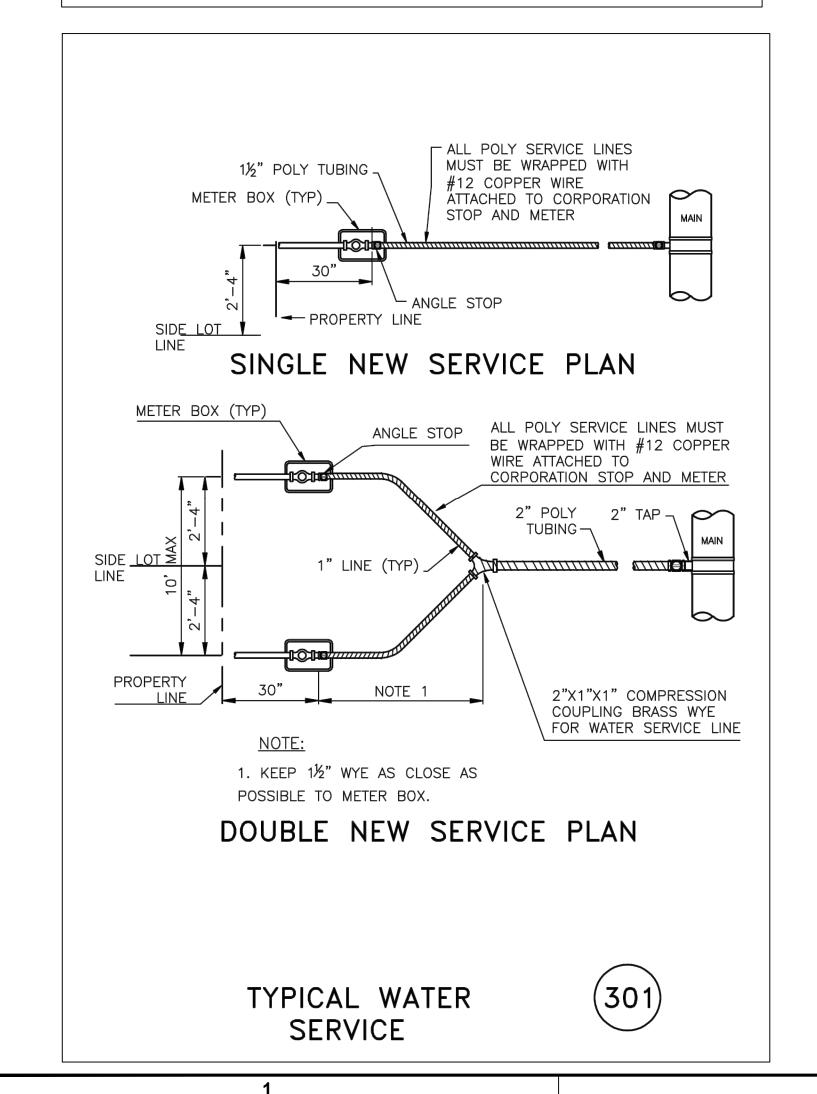
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**WATER AND SEWER DETAILS** 

**CU-501** NUMBER PROJEC<sup>\*</sup> 10431.00 NUMBER

TYPICAL NEW FIRE HYDRANT 302
ASSEMBLY INSTALLATION

2. KEEP VALVE AS CLOSE AS POSSIBLE TO THE HYDRANT



#### WATER SYSTEM NOTES:

#### PIPE D.I.P.

- 1. Ductile Iron water main pipe shall conform to the requirements of A.N.S.I./ A.W.W.A. C-151/A 21.51-02 and lined and coated per A.N.S.I./A.W.W.A. C-104/A-214-03. 20" and smaller pipe shall be pressure class 350; 24" and larger, pipe shall be pressure class 250.
- 2. All DIP shall have adequate protective measures against corrosion and it shall be used only if as determined by the design engineer, based on field conditions.
- 3. All DIP shall be installed in accordance with A.N.S.I./A.W.W.A. C-600-99, or latest revision.

  PIPE P.V.C.
- 4. All P.V.C. mains shall be series 1120, class 150 (DR 18) pressure pipe, conforming to A.N.S.I./A.W.W.A. C-900-07', or latest revision, and shall have push on joints, and iron pipe 0.D.
- 5. All P.V.C. pipe shall be installed in accordance with the Uni—Bell plastic pipe Association's "Guide for installation of P.V.C. pressure pipe for Municipal water distribution system". Water distribution pipe shall be of "BLUE" color. All water main installations shall comply with the color coding requirements of Chapter 62—555.320 F.A.C. (Florida Administrative Code).
- 6. Detector tape on all P.V.C. mains shall be installed 18" above the water main.
- 7. All P.V.C. mains must have #6 copper wire, single strand, placed on top of pipe, shall be electrically continuous over the entire length of the pipe, and fastened every 10' with a #12 wire.

#### <u>FITTINGS</u>

- 8. Fittings shall be ductile iron meeting A.N.S.I./A.W.W.A. C153/21.00 and shall be coated with 6 to 8 mil. Thickness coal tar epoxy conforming to the requirements of A.N.S.I./A.W.W.A. C550—05 and C116/A21.03.
- 9. Restrained joint pipe shall be used for all bends, tees, crosses, plugs, and fire hydrants.
  Thrust blocks shall not be allowed.
- 10. Retainer glands/mechanical joint restraint shall be used only if authorized by the Engineer

and shall conform to A.N.S.I./A.W.W.A. standards C 111/A-21.11-03, or latest revision.

- 11. All glands shall be manufactured from ductile iron as listed by underwriter's laboratory for 250 P.S.I. minimum water pressure rating.
- 12. Glands shall be CLOW Corporation model F-1058, standard fire protection equipment company, or approved equal.

#### <u>VALVES</u>

- 13. Tapping valves shall be Mueller H667 or approved equal.
- 14. Tapping sleeves shall be Mueller H615 or approved equal.
- 15. Gate valves 3" or less shall be NIBCO T-133 OR T-136 with malleable hand wheels. No substitutions allowed.
- 16. Gate valves 4" or larger shall meet A.W.W.A. C-500-02 specification (latest revision). Valves shall be Mueller Co. or approved equal.
- 17. All valves shall be furnished with extension type cast iron valve boxes of proper length for pipe depth. All boxes shall conform with A.W.W.A. specifications with a shaft of no less than 5 inches and have the word "WATER" cast in the cover. Base of valve box shall have a flared section to fit over stuffing box of valve.

#### <u>HYDRANTS</u>

- 18. Fire hydrants shall be breakaway Mueller Co. Centurion model #A-423, or Metropolitan 250 Eddy Compression type F.H. or approved equal.
- 19. Fire hydrants shall be installed with the center of the nozzle 18" above finished grade.
- 20. Dead-end water mains 6" or larger shall terminate with a fire hydrant.

#### <u>PLACEMENT</u>

- 21. The minimum depth of cover over water mains is 30" except where shown differently on
- 22. A continuous and uniform bedding shall be provided. Backfill material shall be tamped in layers around the pipe as shown on the plans and/or City of Fort Lauderdale Construction Standards and Specifications, January 1982. Rocks or stones larger than 3/4" diameter found in the trench shall be removed for a depth of at least 6" below the bottom of the pipe.
- 23. Pipe deflection shall not exceed 75% of the maximum deflection recommended by the manufacturer.

#### **SEPARATION**

- 24. Sanitary sewers and force mains should cross under water mains whenever possible. Sanitary sewers and force mains crossing water mains shall be laid to provide a minimum vertical distance of 18" between the invert of the upper pipe and the crown of the lower pipe whenever possible.
- 25. Where sanitary sewer force mains must cross a water main with less than 18" vertical separation, both the sewer and water main shall be constructed of ductile iron pipe (DIP) at the crossing. Sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be mechanically restrained. A minimum vertical clearance of 6" must be maintained at all crossings.
- 26. A minimum 10 foot horizontal separation shall be maintained between any type of sewer and water main in parallel installations whenever possible.
- . The preferred separation between water mains and sewer mains shall be 10 feet. In cases where it is not possible to maintain a 6 foot horizontal separation between the water mains and sewer mains, one of the following conditions must be met. The minimum separation between water and sewer mains shall be 3 feet:

#### SEPARATION (CONT'D)

- 27.a 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 elevation that the bottom of the water main is at least 18 inches above the top of the sewer.
- 27.b The sewer or force main is encased in concrete or a watertight carrier pipe.
- 27.c Both the sewer and the water main are constructed of pressure pipe tested to 150 p.s.i.
- 28. Where it is not possible to maintain a vertical distance of 18" in 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 clearance of 6". The water main should be above the sewer. Joints on the water main shall be located as far apart as possible from the joints on the sewer or force main (staggered joints).
- All crossings shall be arranged so that the sewer pipe joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).
- Where a new pipe conflicts with an existing pipe with less than 18" vertical clearance, the new pipe shall be arranged to meet the crossing requirements above.

#### TESTING, DISINFECTION

- Pipe shall be tested under constant pressure of 150 P.S.I. for a minimum test period of 2 hours and shall not exceed the leakage requirements as per A.N.S.I./A.W.W.A. specifications of C-600-05 leakage formula:  $Q = (SD\sqrt{P})/(133,200)$ 
  - Q = ALLOWABLE LEAKAGE, IN ĞALLONS PER HOUR D = DIAMETER OF THE PIPE TESTED, IN INCHES.
  - S = TOTAL LENGTH OF PIPE TESTED, IN FEET.
  - P = AVERAGE TEST PRESSURE, IN POUNDS PER SQUARE INCH.
- 32. The City of Fort Lauderdale Public Services Department will take all bacteriological tests, to be scheduled via inspector. If otherwise specified in contract detailed specification and/or authorized by the engineer of record, bacteriological tests may be performed by a certified environmental testing laboratory.
- 33. Disinfection of mains shall comply with A.N.S.I./A.W.W.A. C-651-05 standard. Bacteriological sampling points shall be designated on the engineering plans. Minimum one sampling point at each end. Maximum space between sampling points is 1200 feet.

#### CONNECTION

- 34. All connections to existing mains shall be made under the direction of the City of Fort
- 35. There shall be no connection to an existing water main until pressure and bacteriological tests have been conducted and the results are approved and accepted by the City of Fort Lauderdale.

#### SERVICE CONNECTIONS

- 36. All meter service connections shall be bronze from plug valve. No gate valves are to be used (2" or less).
- 37. Service saddles shall be ductile iron with stainless steel straps. Saddles shall be double strap type. All service saddles shall conform to A.N.S.I./A.W.W.A. C 111/A-21.11-00 and A.S.T.M. A588.
- 38. All service lines shall be copper tubing, type "K", or plasticized polyethylene 3408, A.S.T.M. D-2737, S.D.R. 9, 200 P.S.I.

# **XEITH**301 East Atlantic Blvd.

Pompano Beach, FL 33060

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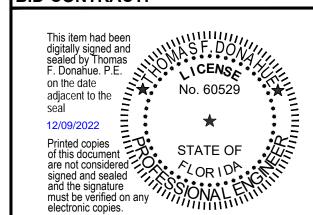
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Habitat for Humanity®

PROJECT

19TH ST MIXED-USE DEVELOPMENT FT. LAUDERDALE -HABITAT FOR HUMANITY

SHEET TITLE

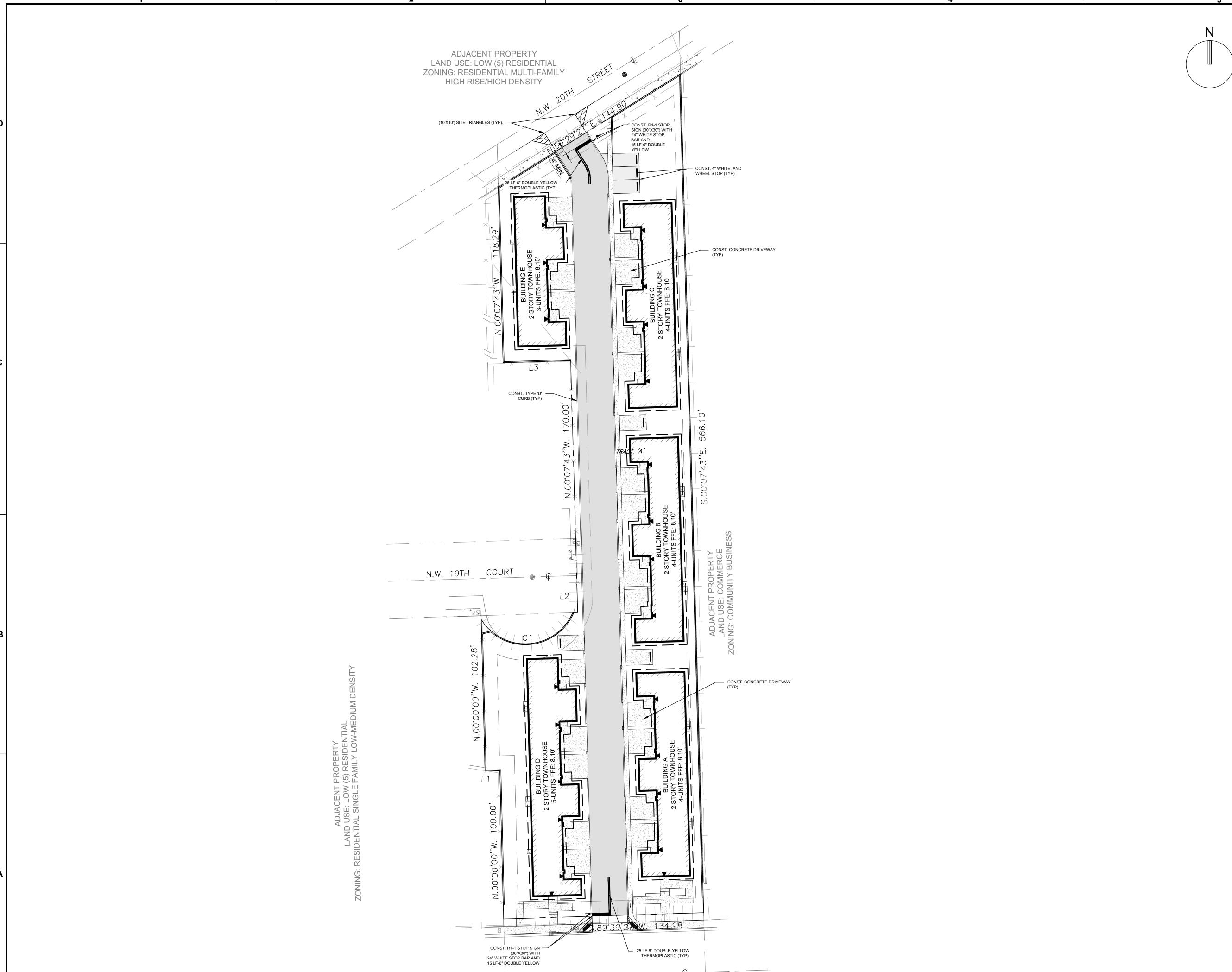
WATER AND SEWER DETAILS

SHEET CU-502

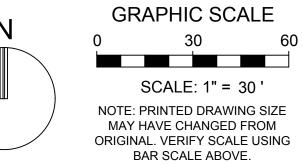
PROJECT 10431.00

GENERAL NOTE:

ALL EXISTING 2" WATER MAINS ARE TO BE CAPPED AND ABANDONED IN PLACE. NEW WATER SERVICE LINES SHALL BE INSTALLED TO SERVICE THE EXISTING PROPERTIES.



N W. 19TH STREET ADJACENT PROPERTY



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

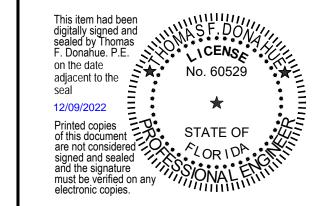
# PRELIMINARY PLAN NOT FOR CONSTRUCTION

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.

THESE PLANS ARE NOT FULLY PERMITTED

ISSUE DATE:	12/09/22
DESIGNED BY:	MVM
DRAWN BY:	JR
CHECKED BY:	FH
BID-CONTRACT:	



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

CLIENT



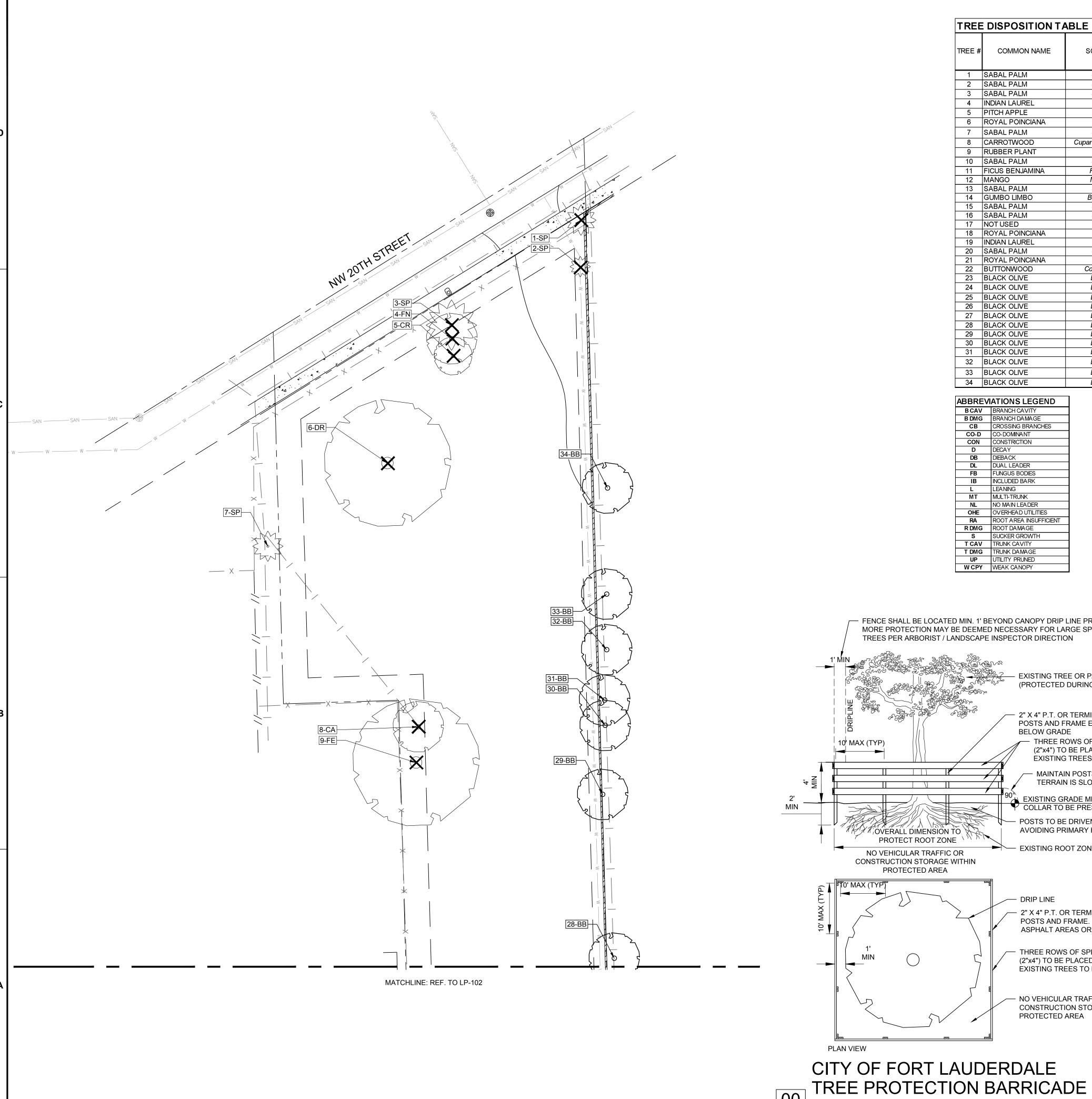
PROJECT

19TH ST MIXED-USE DEVELOPMENT FT. LAUDERDALE -HABITAT FOR HUMANITY

SHEET TITLE

PAVEMENT MARKING AND SIGNAGE PLAN

SHEET CM-101
PROJECT 10431.00



TREE	TREE DISPOSITION TABLE							
			DBH	HT	CNPY	TREE %	TREE	
TREE #	COMMON NAME	SCIENTIFIC NAME	IN.	FT (TREE) CT (PALM)	FT.	CONDITION	DISPOSITION	COMMENTS
1	SABAL PALM	Sabal palmetto		12	12		REMOVE	
2	SABAL PALM	Sabal palmetto		12	8		REMOVE	
3	SABAL PALM	Sabal palmetto		20			REMOVE	
4	INDIAN LAUREL	Ficus nitida	8	20	20		REMOVE	
5	PITCH APPLE	Clusia rosea	7	15	25		REMOVE	SPROWLING SHADED
6	ROYAL POINCIANA	Delonix regia	18	25	50	50%	REMOVE	TD WITH DECAY, B DMG, R DMG
7	SABAL PALM	Sabal palmetto	11	12	10		REMOVE	
8	CARROTWOOD	Cupaniopsis anacardioides					REMOVE	
9	RUBBER PLANT	Ficus elastica	14,12,8				REMOVE	MT, R DMG, NL. SPROWLING, T DMG, B DMG
10	SABAL PALM	Sabal palmetto	10	12			REMOVE	
11	FICUS BENJAMINA	Ficus benjamina					REMAIN	OFFSITE
	MANGO	Mangifera indica	29	35	40		REMAIN	CO-D, B DMG, D
13	SABAL PALM	Sabal palmetto	12				REMOVE	
14	GUMBO LIMBO	Bursera simaruba	3	10	5		REMOVE	
15	SABAL PALM	Sabal palmetto	12				REMOVE	
16	SABAL PALM	Sabal palmetto	12				REMOVE	
17	NOT USED	#N/A					REMOVE	DEAD
18	ROYAL POINCIANA	Delonix regia	3	20	20		REMOVE	L
19	INDIAN LAUREL	Ficus nitida	12	30	30		REMOVE	AERIAL ROOTS, OVERGROWN SHR
	SABAL PALM	Sabal palmetto		14	50		REMOVE	
	ROYAL POINCIANA	Delonix regia	15	30	60		REMOVE	CO-D, WCPY
	BUTTONWOOD	Conocarpus erectus	9	25	12		REMAIN	OFFSITE, OHE, MT
	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
24	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
25	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
26	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
27	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
29	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
30	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
31	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
32	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
33	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP
34	BLACK OLIVE	Bucida buceras		30	30		REMAIN	OFFSITE, OHE, UP

XXX-xx

TREE DISPOSITION LEGEND

TREE DISPOSITION NOTES

SUPERVISED BY A CERTIFIED ARBORIST

ON ANY DISCREPANCIES.

INVASIVE MAY BE EXEMPT.

TO DETERMINE QUANTITY.

INSTALLED ON SITE.

INSTALLATION.

STANDARDS FOR NURSERY PLANTS.

ORDINANCE.

DESCRIPTION

EXISTING TREE / PALM TO REMAIN (NO SYMBOL) TO BE

EXISTING TREE / PALM TO REMOVE. REMOVE ALL CAT 1

EXISTING TREE / PALM TO RELOCATE. REFER TO LANDSCAPE

EXISTING TREE / PALM NUMBER. REFER TO TREE DISPOSITION

PROTECTED DURING CONSTRUCTION

INVASIVE EXOTICS. (EX: BRAZ, PEPPER)

. 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

4. TRIMMING AND ANY NECESSARY ROOT PRUNING SHALL BE PERFORMED OR

6. BUBBLERS SHALL BE PROVIDED FOR ALL RELOCATED TREES AND PALMS.

5. ALL TREE WORK REQUIRE PERMITTING BY A REGISTERED COUNTY TREE TRIMMER.

WITH LOCAL GOVERNING AGENCY THAT TREES CLASSIFIED AS NUISANCE/EXOTIC

CONSTRUCTION. REFER TO TREE PROTECTION DETAIL. THE CONTRACTOR SHALL TAKE EXTRA CAUTION TO PREVENT ANY DAMAGE TO THE TRUNK, ROOT ZONES AND

1. SOD TO BE ST. AUGUSTINE 'FLORATAM', EXCEPT IN RETENTION AREAS. CONTRACTOR

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.

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

7. ALL ROAD ROCK, CONCRETE, ASPHALT AND OTHER NON-NATURAL MATERIAL BE

9. ALL CATEGORY 1 INVASIVE/EXOTIC TREES TO BE REMOVED PER LOCAL ORDINANCE.

REMOVED AND BE REPLACED WITH PLANTING SOIL PRIOR TO LANDSCAPE

5. CONTRACTOR IS RESPONSIBLE FOR ALL CONDITIONS AND LANDSCAPE

8. NO TRENCHING ALLOWED WITHIN ROOT ZONES OF EXISTING TREES.

7. REMOVAL OF ANY TREES OR PALMS WILL REQUIRE A WRITTEN "TREE REMOVAL PERMIT" FROM THE LOCAL GOVERNING AGENCY PRIOR TO REMOVAL. CONFIRM

8. ALL TREES AND PLANT MATERIAL TO REMAIN SHALL BE PROTECTED DURING

9. ALL CATEGORY 1 EXOTIC/INVASIVE TREES TO BE REMOVED PER LOCAL

2. ALL PLANTS TO BE FLORIDA NO. 1 OR BETTER PER FLORIDA GRADES AND

PLAN FOR NEW LOCATION

TABLE ON LD-102

ABBREVIATIONS LEGEND			
BCAV	BRANCH CAVITY		
B DMG	BRANCH DAMAGE		
СВ	CROSSING BRANCHES		
CO-D	CO-DOMINANT		
CON	CONSTRICTION		
D	DECAY		
DB	DIEBACK		
DL	DUAL LEADER		
FB	FUNGUS BODIES		
IB	INCLUDED BARK		
L	LEANING		
MT	MULTI-TRUNK		
NL	NO MAIN LEADER		
OHE	OVERHEAD UTILITIES		
RA	ROOT AREA INSUFFICIENT		
RDMG	ROOT DAMAGE		
S	SUCKER GROWTH		
T CAV	TRUNK CAVITY		
T DMG	TRUNK DAMAGE		
UP	UTILITY PRUNED		
W CPY	WEAK CANOPY		

- FENCE SHALL BE LOCATED MIN. 1' BEYOND CANOPY DRIP LINE PROJECTION.

MORE PROTECTION MAY BE DEEMED NECESSARY FOR LARGE SPECIMEN TREES PER ARBORIST / LANDSCAPE INSPECTOR DIRECTION EXISTING TREE OR PALM TO REMAIN (PROTECTED DURING CONSTRUCTION) 2" X 4" P.T. OR TERMITE TREATED WOOD POSTS AND FRAME EXTEND 2' MINIMUM **BELOW GRADE** - THREE ROWS OF SPLIT RAIL FENCING 10 MAX (TYP) (2"x4") TO BE PLACED AROUND ALL EXISTING TREES TO REMAIN - MAINTAIN POSTS VERTICAL IF TERRAIN IS SLOPED EXISTING GRADE MEETING ROOT COLLAR TO BE PRESERVED POSTS TO BE DRIVEN INTO GROUND AVOIDING PRIMARY HORIZONTAL ROOTS OVERALL DIMENSION TO PROTECT ROOT ZONE EXISTING ROOT ZONE TO BE PROTECTED NO VEHICULAR TRAFFIC OR CONSTRUCTION STORAGE WITHIN PROTECTED AREA |門0' MAX (TYF - 2" X 4" P.T. OR TERMITE TREATED WOOD POSTS AND FRAME. USE #3 REBAR IN ASPHALT AREAS OR AS REQUIRED THREE ROWS OF SPLIT RAIL FENCING (2"x4") TO BE PLACED AROUND ALL **EXISTING TREES TO REMAIN** - NO VEHICULAR TRAFFIC OR CONSTRUCTION STORAGE WITHIN PROTECTED AREA

NOT TO SCALE

GRAPHIC SCALE SCALE= 1" = 20'

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: LC260004

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

ISSUE DATE:	12/09/2022
DESIGNED BY:	RP
DRAWN BY:	GM
CHECKED BY:	RP, PW
BID-CONTRACT:	

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

CLIENT



PROJECT

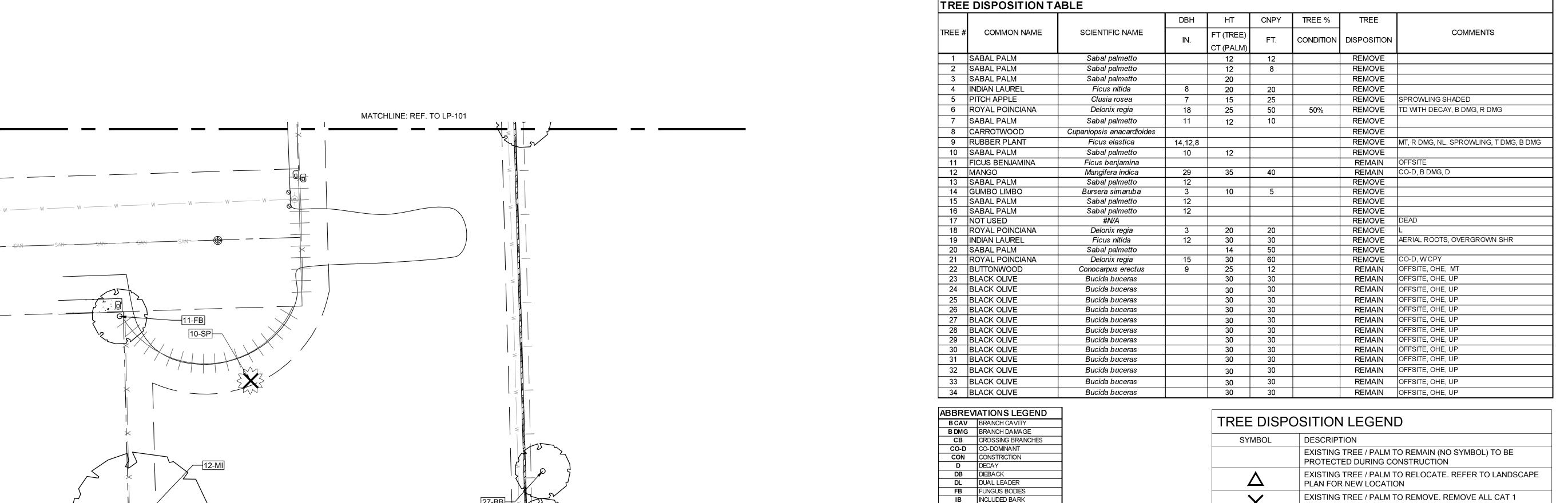
19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR HUMANITY** 

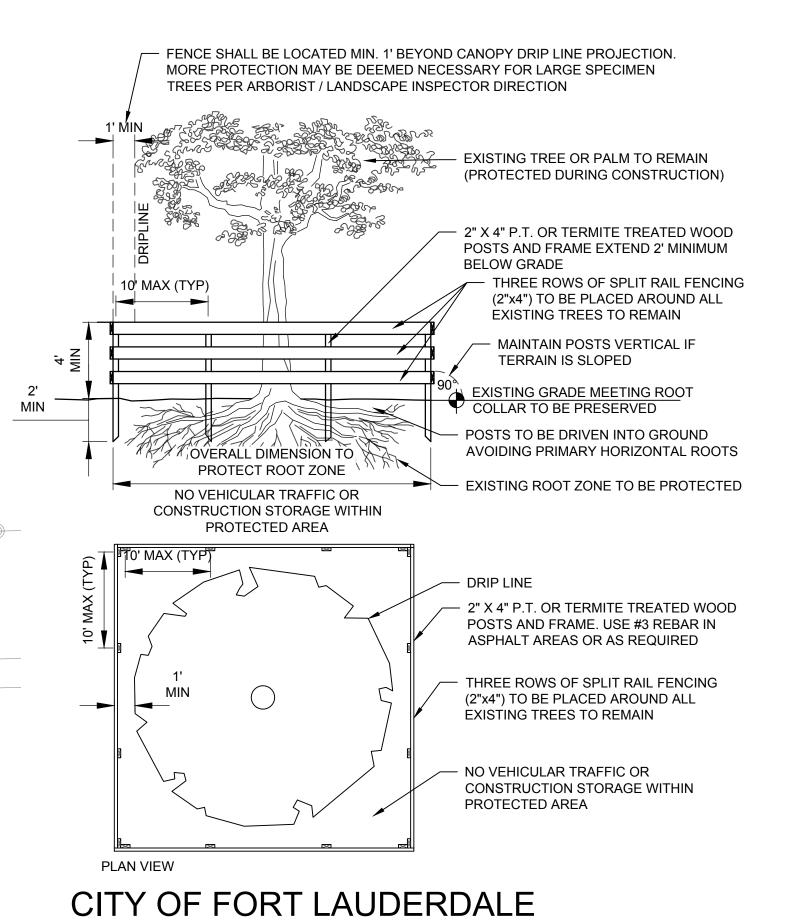
SHEET TITLE

TREE DISPOSITION PLAN

SHEET **LD-101** NUMBER PROJECT 10431.00 NUMBER

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





TREE PROTECTION BARRICADE

L LEANING
MT MULTI-TRUNK

R DMG ROOT DAMAGE S SUCKER GROWTH

T CAV TRUNK CAVITY T DMG TRUNK DAMAGE UP UTILITY PRUNED

W CPY WEAK CANOPY

NL NO MAIN LEADER
OHE OVERHEAD UTILITIES

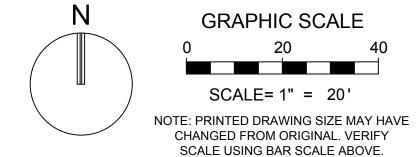
RA ROOT AREA INSUFFICIENT

## EXISTING TREE / PALM TO REMOVE. REMOVE ALL CAT 1 INVASIVE EXOTICS. (EX: BRAZ, PEPPER) EXISTING TREE / PALM NUMBER. REFER TO TREE DISPOSITION XXX-xx TABLE ON LD-102

#### TREE DISPOSITION NOTES

- . 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
- 9. ALL CATEGORY 1 EXOTIC/INVASIVE TREES TO BE REMOVED PER LOCAL ORDINANCE.

- 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.





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

REVISIONS	
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

ISSUE DATE:	12/09/2022
<b>DESIGNED BY:</b>	RP
DRAWN BY:	GM
CHECKED BY:	RP, PW
BID-CONTRACT:	

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

CLIENT



**PROJECT** 

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR HUMANITY** 

SHEET TITLE

TREE DISPOSITION PLAN

**SHEET LD-102** NUMBER PROJEC1 10431.00 NUMBER

NOT TO SCALE

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 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 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. 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

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.

Plants grown in containers prior to installation shall be removed from their containers before they are planted in

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 2. All landscaping shall be installed according to sound nursery practices. Contractor shall comply with federal,

the ground and have circling roots removed. All screening shrubs shall be planted for proper operation of

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. 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. 3. 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. 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.

PERMITS & REGULATIONS 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.

TREE REMOVAL

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

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.

**EXISTING TREES** 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 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. 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.

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

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.

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.

10. Erosion control devices such as silt fencing, debris basins, and water diversion structures shall be installed to

TREE RELOCATION (These notes for relocation trees only and if applicable) Flag all trees and palms to be transplanted with differentiating color than those to be saved or removed.

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

fronds above the bud and tie them loosely with jute twine to avoid damage. 4. Brace root pruned trees awaiting relocation.

5. Root prune  $\frac{1}{3}$ rd of the root system, irrigate daily for 2 weeks then root prune another  $\frac{1}{3}$  rd, irrigate daily and prune last  $\frac{1}{3}$  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

trees, prune out 1/3 of the existing canopy by selectively trimming small internal branches. For palms, gather

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

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

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

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

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

H. SITE PREPARATION & GRADING

existing location.

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. 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.

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.

HARDSCAPE & OTHER MATERIALS

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.

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

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.

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 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.

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. 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

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. 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

PLANTING NOTES

trees prior to purchase and installation.

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 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. 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.

FERTILIZATION

1. All Fertilization shall comply with state fertilization 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

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).

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.

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

3. Submit representative nursery photos of all shrub and groundcover material for review prior to delivery to the site.

INSPECTION & ACCEPTANCE 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.

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

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.

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 establishment 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

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.

equipment from the project site.

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.

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

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

301 East Atlantic Blvd Pompano Beach, FL 33060

PH: (954) 788-3400 Florida Engineering Business License: CA7928 Florida Surveyor and Mapper Business License: LB6860

lorida Landscape Architecture Business License: LC2600045

	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

ISSUE DATE:	12/09/2022
<b>DESIGNED BY:</b>	RP
DRAWN BY:	GM
CHECKED BY:	RP, PW
BID-CONTRACT:	

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

CLIENT



PROJECT

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR** HUMANITY

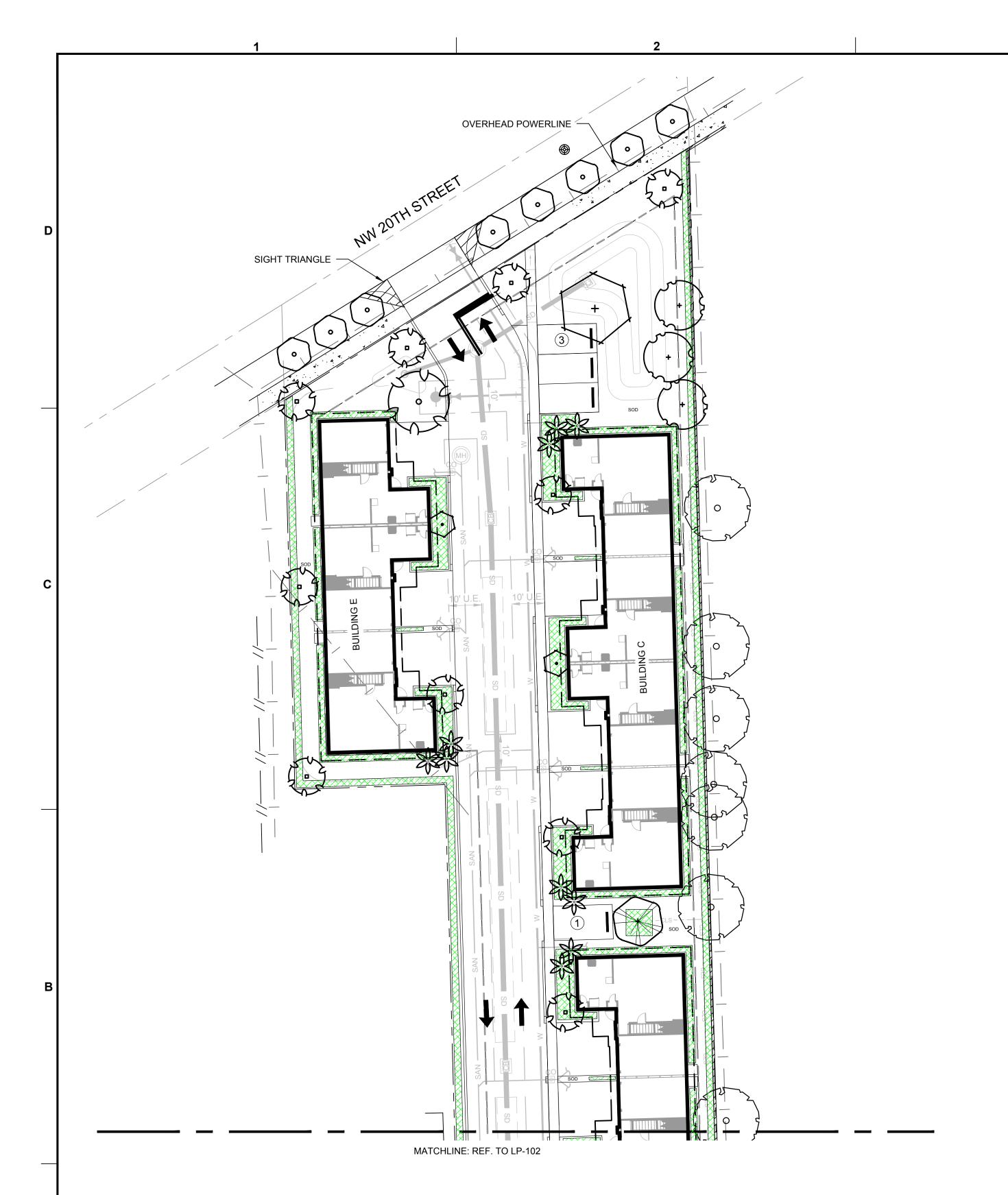
SHEET TITLE

PLANTING NOTES & **SCHEDULES** 

SHEET NUMBER	LP-001
PROJECT	40424.00
NUMBER	10431.00

3. Sod shall be machine stripped no more than 24 hours prior to laying.

STATUS: PRELIMINAR



UNIFIED LAND DEVELOPMEN PROPOSED VEHICULAR I	all the state of t	SEC. 47-21.9 LANI	Control of the Contro	ALL CONTRACTOR OF THE PARTY OF		AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN COLU	- APPROXIMENTAL PROPERTY OF THE PROPERTY OF TH	REQUIREMENTS	9]
PROPOSED VEHICULAR	JSE AREAS	[SEC. 41-21.9 LANE	JSCAPING REG	UIREMENTS	FUI	REQUIRED	SE AKEASJ	PROVIDED	
						KEGOIKED		IKOVIDED	
TOTAL SITE AREA:	60,601	S.F. =	1.39	ACRES					
NET LOT AREA:	16,579	S.F. =	0.38	ACRES					
VUA AREA:	19,687	S.F. =	0.45	ACRES					
[AS DEFINED BY SEC. 47-58 VUA LANDSCAPE REQUIP		/11/4.\				3,937	S.F.	6,254	S.F.
PERIMETER LANDSCAPE		/OA)				3,931	3.5.	0,234	3.F.
ABUTTING A STREET	ANEA		395	L.F.		3,950	S.F.	4,011	S.F.
NOT ABUTTING A STREET			1132	L.F.		2,830	S.F.	2,958	S.F.
INTERIOR LANDSCAPE A	REA (30 S.F./F	KNG SPACE)	66	SPACES		1,980	S.F.	7,610	S.F.
				0,,,,,,,		.,,		,,,,,,	
REQUIRED LANDSCAPE:									
1 TREE REQUIRED PER 1,000 S	S.F. VUA AREA					20	TREES	42	TREES
BREAKDOWN:	3" CALIDED SHA	ADE TREES (25%)			=	5	TREES	5	TREES *
		SHADE TREES (25%)	0/6 \		=	5	TREES	5	TREES
		REE SPECIES (20%)	-		-	4	TREES	7	TREES *
	PALM TREES (2				-	4	TREES	23	TREES *
		(FPL SMALL TREES	(10%)		=	2	TREES	2	TREES
6 SHRUBS PER 1,000 S.F. VUA	AREA				=	118	SHRUBS	118+	SHRUBS
* INCLUDES EXISTING TREES	(30 TREES, 1 FLO	OWERING TREE, 68	PALMS)						
SITE LANDSCAPE REQUI	DEMENTS	[SEC. 47-21.10 LAN	IDSCADE DEGL	HDEMENTO	EOD	ALL ZONED DIS	TDICTOI		
SHE LANDSCAFE REQUI	CINEW 19	[SEO. 41-21.10 LAN	VUSUAPE REQU	JINEWEN 181	UK	REQUIRED	TRICTOJ	PROVIDED	
LOT ZONING DESIGNATION	ON	СВ				KEGOIKED		I KOVIDED	
, , , , , , ,		0							
NET LOT AREA		16,579	S.F.						
REQUIRED LANDSCAPE:							<b>_</b>		 
1 TREE/1000 S.F. OF NET LOT	AREA (IN ADDITI	ION TO VUALANDS	SCAPE)			17	TREES	17	TREES
SHADE SPECIES (20% MIN.)						3	SHADE TREES	13	SHADE TREES
PROVIDED BREAKDOWN:	EXISTING SHAD	DE TREES	1	TREES					
	EXISTING FLOW	VERING TREES	0	TREES					
	EXISTING PALM	TREES	0	TREES					
	PROPOSED SHA	ADE TREES	12	TREES					
	PROPOSED PAL	MTREES	4	TREES					
12 SHRUBS/1000 S.F. OF NET I	OT AREA (IN AL	DITION TO VUALA	NDSCAPE)			199	SHRUBS	199+	SHRUBS
IL OTHIODOFFOOD OFF TOT TILL!							01111000		0,111000
STREET TREES:									
1 SMALL TREE/20 LF OF STRE	ET FRONTAGE (	OHWPRESENT)	145	L.F.					
	19th STREET					8		8	TREES
	20th STREET					7	TREES	7	TREES
PROVIDED BREAKDOWN:	EXISTING SMAL	I TDEE6	0	TREES					
FROVIDED DREAKDOWN.	EXISTING SWAL		0	TREES					
	EXISTING PALM		0	TREES					
	PROPOSED SHA		15	TREES					
	PROPOSED PAL		0	TREES					
SHADE SPECIES (50% MIN.)				,,,,,,,		8	SHADE TREES	15	SHADE TREES
Trans unity									
CITY OF FORT LAUD	ERDALE -	OPEN SPACE	REQUIRE	MENTS			-16		0r
[SEC. 47-18.21.H MIXED U					EJ				
PROJECT ZONING:	СВ								
TOTAL RESIDENTIAL UNI	TS	20	UNITS						
						REQUIRED		PROVIDED	
<26 UNITS = 250 S.F. OPE						5,000		23,331	
26-100 UNITS = 200 S.F. C						0		0	
>100 UNITS = 150 S.F. OP	EN SPACE/UI	VIT				0	S.F.	0	S.F.
BREAKDOWN.		23 334	S.F.						
	PACE	£ , 1 1 . 1							
GROUND LEVEL OPEN SE									
GROUND LEVEL OPEN SE			S.F.						
BREAKDOWN: GROUND LEVEL OPEN SEROOF AMENITY OPEN SER	PACE	0	S.F.			2,000	S.F.	9,332	S.F.

PLANT SC	CHEDULE						
TREES	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	DBH/CAL	NATIVE	REMARKS
+	7	COCCOLOBA DIVERSIFOLIA PIGEON PLUM	12` HT	6` SPR	2" DBH	N**	
+	1	DELONIX REGIA ROYAL POINCIANA	20` HT	6` SPR	3" DBH	**	SPECIMEN
	2	FILICIUM DECIPIENS JAPANESE FERN TREE	12` HT	6` SPR	2" DBH		FULL CANOPY
•	15	LAGERSTROEMIA INDICA 'NATCHEZ' NATCHEZ CRAPE MYRTLE	12` HT	6` SPR	2" DBH	**	
	16	LIGUSTRUM JAPONICUM JAPANESE PRIVET	10` HT	5` SPR	2" DBH	**	
and the second	1	QUERCUS VIRGINIANA LIVE OAK	12` HT	8` SPR	3" DBH	N**	
Z Z	1	TABEBUIA CARAIBA YELLOW TABEBUIA	12` HT	6` SPR	2" DBH	**	
+	2	TABEBUIA HETEROPHYLLA PINK TABEBUIA	12` HT	6` SPR	2" DBH	**	
$\bigcirc$	6	TIBOUCHINA GRANULOSA PURPLE GLORY TREE	6` HT	4` SPR		*	STANDARD
PALMS	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	DBH/CAL	NATIVE	REMARKS
	27	PTYCHOSPERMA ELEGANS ALEXANDER PALM	8`, 12` CT				
SHRUB AREAS	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	SPACING	NATIVE	REMARKS
	6,972 SF	SHRUB SHRUB AREAS	N/A				

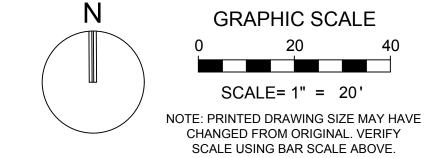
- DENOTES NATIVE SPECIES
- DENOTES HIGH DROUGHT TOLERANT SPECIES
- DENOTES MODERATE DROUGHT TOLERANT SPECIES

## NOTES:

- SOD TO BE ST. AUGUSTINE 'FLORATAM', EXCEPT IN RETENTION AREAS. CONTRACTOR TO DETERMINE QUANTITY.
- ALL PLANTS TO BE FLORIDA NO. 1 OR BETTER PER FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS.
- 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.
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- 8. NO TRENCHING ALLOWED WITHIN ROOT ZONES OF EXISTING
- ALL CATEGORY 1 INVASIVE/EXOTIC TREES TO BE REMOVED PER LOCAL ORDINANCE.



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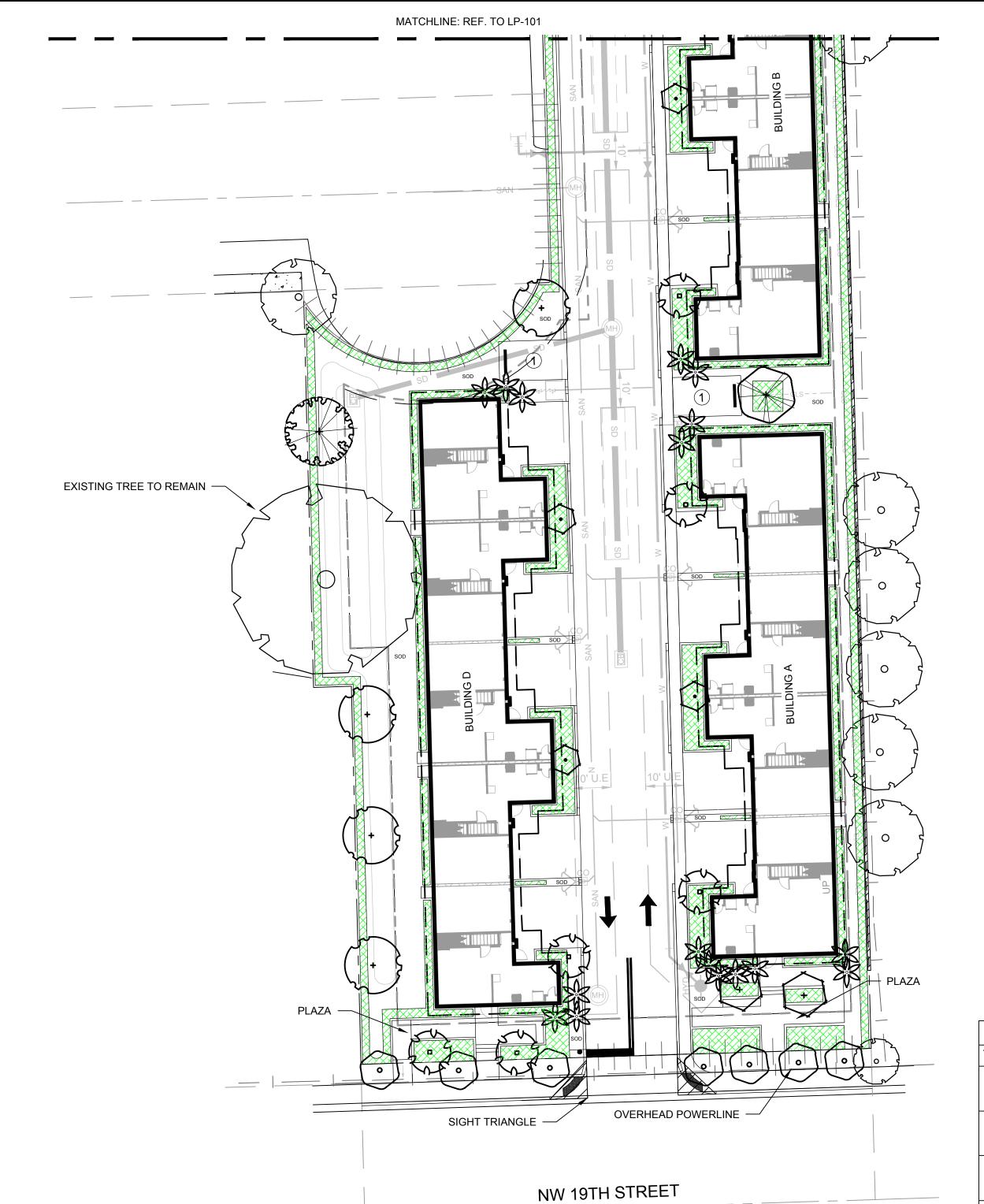
PROJECT

19TH ST MIXED-USE DEVELOPMENT FT. LAUDERDALE -HABITAT FOR HUMANITY

SHEET TITLE

**PLANTING PLAN** 

SHEET LP-101
PROJECT 10431.00



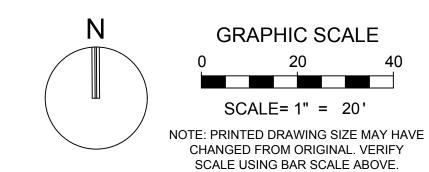
PROPOSED VEHICULAR I	JSE AREAS	[SEC. 47-21.9 LAI	NDSCAPING REC	UIREMENTS	FOR	VEHICULAR U	SE AREAS]			
						REQUIRED		PROVIDED		
TOTAL SITE AREA:	60,601	S.F. =	1.39	ACRES						
NET LOT AREA:	16,579	S.F. =	0.38	ACRES						
VUA AREA:	19,687	S.F. =	0.45	ACRES						
[AS DEFINED BY SEC. 47-58	.2]	100								
VUA LANDSCAPE REQUIR		/UA)			.3	3,937	S.F.	6,254	S.F.	
PERIMETER LANDSCAPE	AREA									
ABUTTING A STREET			395	L.F.		3,950	S.F.	4,011	S.F.	
NOT ABUTTING A STREET			1132	L.F.		2,830	S.F.	2,958	S.F.	
INTERIOR LANDSCAPE A	REA (30 S.F./I	KNG SPACE)	66	SPACES		1,980	S.F.	7,610	S.F.	
REQUIRED LANDSCAPE:										
1 TREE REQUIRED PER 1,000	S.F. VUA AREA					20	TREES	42	TREES	
BREAKDOWN:	3" CALIPER SHA	ADE TREES (25%)			=	5	TREES	5	TREES *	
DIVERGE OF THE		SHADE TREES (2			=	5	TREES	5	TREES	
		EE SPECIES (20%			=	4	TREES	7	TREES *	
	PALM TREES (2				=	4	TREES	23	TREES *	
		(FPL SMALL TREE	S) (10%)		=	2	TREES	2	TREES	
			T.							
6 SHRUBS PER 1,000 S.F. VUA	AREA				=	118	SHRUBS	118+	SHRUBS	
* INCLUDES EXISTING TREES	(30 TREES 4 EL	OWERING TREE &	8 PALMS							
SITE LANDSCAPE REQUI				IIDEMENTO S	0.0	ALL ZONED DIS	PTDICTOL			
SITE LANDSCAPE REQUI	KEINIEN 15	[SEC. 47-21.10 LA	INDOCAPE REQU	JIKEMENISE	URI	REQUIRED DIS	STRICTS]	PROVIDED		
LOT ZONING DESIGNATION	ON	СВ				KEGOIKED		LACTIDED		
LOT ZOMINO DEGIGINATIO	2N	0								
NET LOT AREA		16,579	S.F.							
		10,010	O.1 .							
REQUIRED LANDSCAPE:										
1 TREE/1000 S.F. OF NET LOT	AREA (IN ADDIT	ION TO VUA LAND	SCAPE)			17	TREES	17	TREES	
SHADE SPECIES (20% MIN.)						3	SHADE TREES	13	SHADE TREES	
PROVIDED BREAKDOWN:	EXISTING SHAD	DE TREES	1	TREES						
TROVIDED BIREFIRDOVIIV.	EXISTING FLOV		0	TREES						
	EXISTING PALM		0	TREES						
	PROPOSED SH		12	TREES						
	PROPOSED PAI		4	TREES						
						100		100		
12 SHRUBS/1000 S.F. OF NET I	LOT AREA (IN AL	DDITION TO VUAL	ANDSCAPE)			199	SHRUBS	199+	SHRUBS	
STREET TREES:										
1 SMALL TREE/20 LF OF STRE	ET FRONTAGE (	OHW PRESENT)	145	L.F.						
	19th STREET					8		8	TREES	
	20th STREET					7	TREES	7	TREES	
DDOMNED DDEAKDOMM	EVICTING CMAN	I TDEES	0	TREES						
PROVIDED BREAKDOWN:	EXISTING SMALEXISTING FLOW		0	TREES						
	EXISTING PALM		0	TREES						
	PROPOSED SHA		15	TREES						
	PROPOSED PAI		0	TREES						
SHADE SPECIES (50% MIN.)	THOI COLD FAI	IN TIXLES	U	TINLLO		8	SHADE TREES	15	SHADE TREES	
* *										
CITY OF FORT LAUD ISEC. 47-18.21.H MIXED U					E1					
PROJECT ZONING:	CB				-,					
TOTAL REGIDENTIAL UNI	те	-	O LINITS							
TOTAL RESIDENTIAL UNI	15	2	0 UNITS			REQUIRED		PROVIDED		
<26 UNITS = 250 S.F. OPE	N SPACE/UN	IT				5,000		23,331		
26-100 UNITS = 200 S.F. C						0	-	0		
>100 UNITS = 150 S.F. OP						0	S.F.	0	S.F.	
BREAKDOWN:										
GROUND LEVEL OPEN SE	PACE	23.33	1 S.F.							
ROOF AMENITY OPEN SE		100000000000000000000000000000000000000	0 S.F.							
						0.000		0.00-		
40% OF REQUIRED OPEN	SPACE MUS	T BE AT GROU	ND LEVEL			2,000	S.F.	9,332	S.F.	
40% OF REQUIRED OFEN						2,500	S.F.	11,666	S.F.	

PLANT SC	CHEDULE						
TREES	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	DBH/CAL	NATIVE	REMARKS
+	7	COCCOLOBA DIVERSIFOLIA PIGEON PLUM	12` HT	6` SPR	2" DBH	N**	
+	1	DELONIX REGIA ROYAL POINCIANA	20` HT	6` SPR	3" DBH	**	SPECIMEN
	2	FILICIUM DECIPIENS JAPANESE FERN TREE	12` HT	6` SPR	2" DBH		FULL CANOPY
•	15	LAGERSTROEMIA INDICA 'NATCHEZ' NATCHEZ CRAPE MYRTLE	12` HT	6` SPR	2" DBH	**	
	16	LIGUSTRUM JAPONICUM JAPANESE PRIVET	10` HT	5` SPR	2" DBH	**	
The state of the s	1	QUERCUS VIRGINIANA LIVE OAK	12` HT	8` SPR	3" DBH	N**	
	1	TABEBUIA CARAIBA YELLOW TABEBUIA	12` HT	6` SPR	2" DBH	**	
+	2	TABEBUIA HETEROPHYLLA PINK TABEBUIA	12` HT	6` SPR	2" DBH	**	
$\bigcirc$	6	TIBOUCHINA GRANULOSA PURPLE GLORY TREE	6` HT	4` SPR		*	STANDARD
PALMS	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	DBH/CAL	NATIVE	REMARKS
Sis .	27	PTYCHOSPERMA ELEGANS ALEXANDER PALM	8`, 12` CT				
SHRUB AREAS	QTY	BOTANICAL / COMMON NAME	HEIGHT	SPREAD	SPACING	NATIVE	REMARKS
	6,972 SF	SHRUB SHRUB AREAS	N/A				

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

10	TES:	

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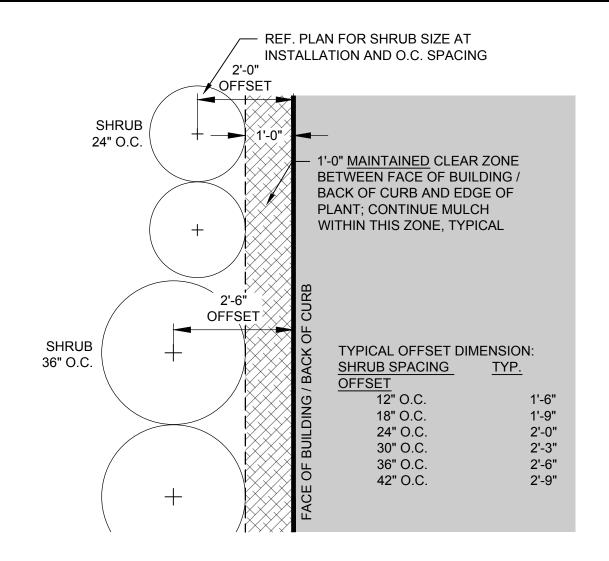
PROJECT

19TH ST MIXED-USE DEVELOPMENT FT. LAUDERDALE -HABITAT FOR HUMANITY

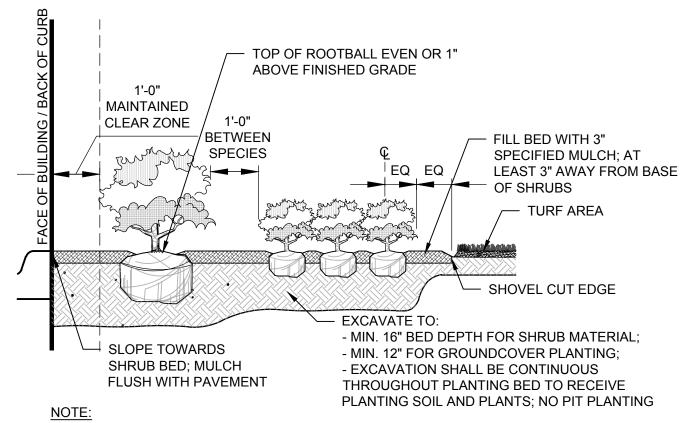
SHEET TITLE

**PLANTING PLAN** 

SHEET LP-102
PROJECT NUMBER 10431.00



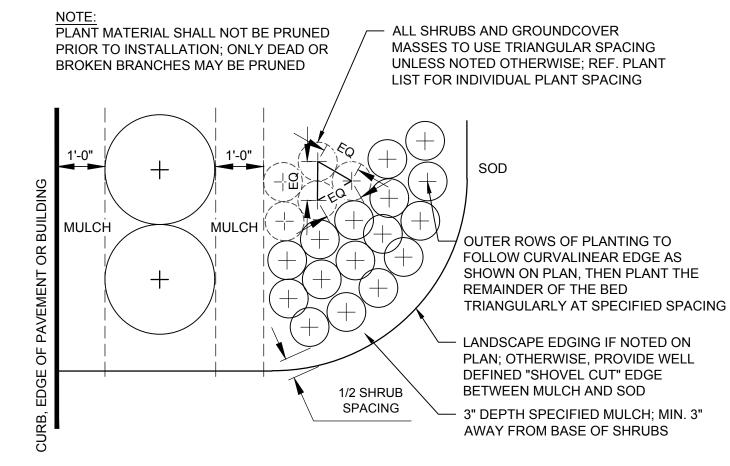
## TYPICAL SHRUB OFFSET 8 AT BUILDING / CURB NOT TO SCALE



 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

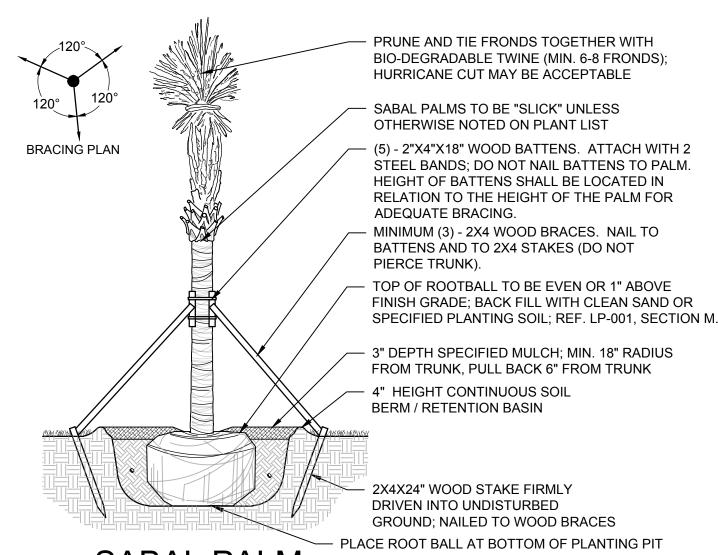
BEDS PRIOR TO INSTALLATION.

## SHRUB AND GROUNDCOVER PLANTING SECTION NOT TO SCALE



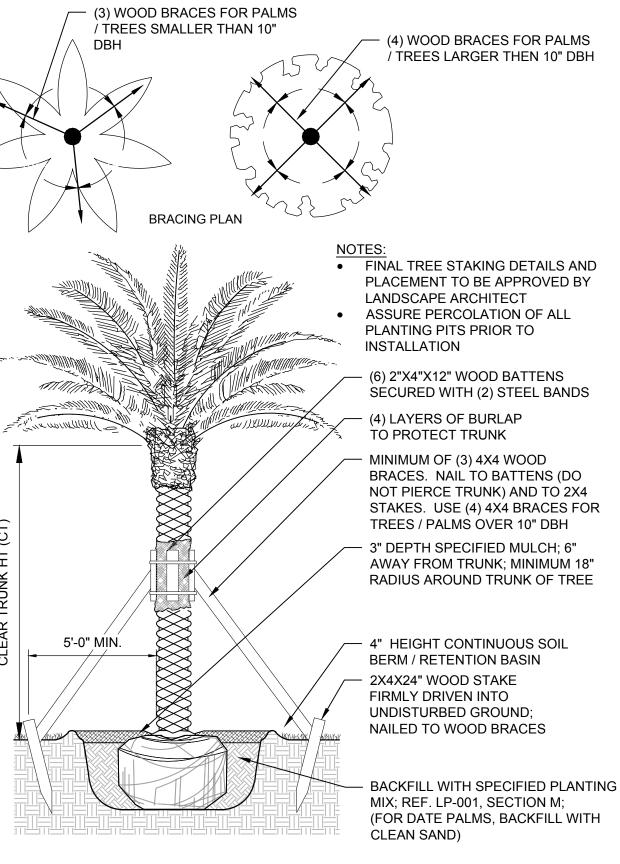
SHRUB AND **GROUNDCOVER PLANTING** NOT TO SCALE

 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.

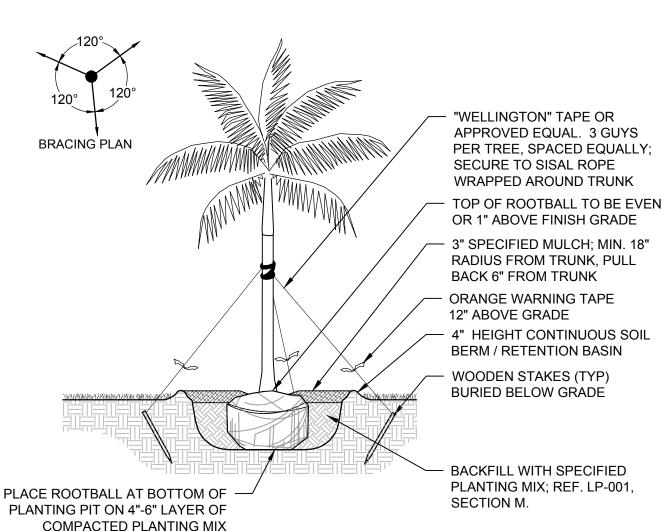


SABAL PALM ON 4"-6" LAYER OF COMPACTED PLANTING MIX PLANTING DETAIL

NOT TO SCALE



LARGE PALM / TREE PLANTING DETAIL SECTION NOT TO SCALE



## SMALL / MEDIUM TREE PALM PLANTING DETAIL

NOT TO SCALE

MULTI-TRUNK TREE, MIN. 3-5 CANES (TREES TO BE B&B **UNLESS SPECIFIED OTHERWISE** ON PLAN) BRACING PLAN WRAPS OF SISAL OR BIODEGRADABLE MATERIAL KNOTTED AND SECURED TO TRUNK; SECURE TO MIN (2) INNER / LARGER CANES PLACE ROOTBALL AT BOTTOM OF PLANTING PIT

ON 4"-6" LAYER OF

COMPACTED PLANTING MIX

"WELLINGTON" TAPE OR APPROVED EQUAL. 3 GUYS PER TREE, SPACED EQUALLY AND LOCATED ABOVE THE FIRST LATERAL BRANCHES - TOP OF ROOTBALL TO BE EVEN OR 1" ABOVE FINISH GRADE - 3" SPECIFIED MULCH; MIN. 18" RADIUS FROM TRUNK, PULL BACK 6" FROM TRUNK - ORANGE WARNING TAPE 12" ABOVE GRADE — 4" HEIGHT CONTINUOUS SOIL BERM / RETENTION BASIN /— REBAR (#3) OR WOODEN STAKES (TYP) BURIED BACKFILL WITH SPECIFIED PLANTING MIX; REF. LP-001, SECTION M. ONCE INSTALLED, REMOVE 1/3 BURLAP AND ALL WIRE AND NON-BIODEGRADABLE MATERIAL FROM THE ROOTBALL

NOT TO SCALE

## **MULTI-TRUNK** TREE PLANTING DETAIL

SINGLE LEADER (NO CO-DOMINANT LEADERS, NO INCLUDED BARK) NOTE: TREES TO BE B&B UNLESS SPECIFIED OTHERWISE ON PLAN "WELLINGTON" TAPE OR BRACING PLA WRAPS OF SISAL OR BIODEGRADABLE MATERIAL KNOTTED AND SECURED TO TRUNK; SECURE TO MIN (2) INNER / LARGER CANES ABOVE FIRST LATERAL BRANCHES PLACE ROOTBALL AT BOTTOM OF

APPROVED EQUAL. 3 GUYS PER TREE, SPACED EQUALLY AND LOCATED ABOVE THE FIRST LATERAL BRANCHES; SECURE TO SISAL ROPE WRAPPED AROUND TRUNK TOP OF ROOTBALL TO BE EVEN OR 1" ABOVE FINISH GRADE - 3" SPECIFIED MULCH; MIN. 18" RADIUS FROM TRUNK, PULL **BACK 6" FROM TRUNK** - ORANGE WARNING TAPE 12" ABOVE GRADE 4" HEIGHT CONTINUOUS SOIL BERM / RETENTION BASIN - REBAR (#3) OR WOODEN STAKES (TYP) BURIED **BELOW GRADE** BACKFILL WITH SPECIFIED PLANTING MIX; REF. LP-001, SECTION M. ONCE INSTALLED, REMOVE 1/3

BURLAP AND ALL WIRE AND

MATERIAL FROM THE ROOTBALL

NON-BIODEGRADABLE

SINGLE TRUNK TREE PLANTING DETAIL

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CLIENT



PROJECT

19TH ST MIXED-USE **DEVELOPMENT** FT. LAUDERDALE -**HABITAT FOR HUMANITY** 

SHEET TITLE

**PLANTING DETAILS** 

SHEET LP-501 NUMBER PROJEC1

SECTION

PLANTING PIT ON 4"-6" LAYER OF

COMPACTED PLANTING MIX

NOT TO SCALE

10431.00 NUMBER



December 8, 2022

Mr. Chris Cooper, Director Department of Sustainable Development City of Fort Lauderdale 700 NW 19<sup>th</sup> Avenue Fort Lauderdale, FL 33311

RE: Site Plan Level III DRC for Habitat for Humanity

Dear Mr. Cooper,

On behalf of the Habitat for Humanity of Broward Inc. (Owner), KEITH and FSMY teams are pleased to submit this application for a Site Plan Level III for the property located at 1040 NW 20 Street, between NW 19<sup>th</sup> Street and NW 20<sup>th</sup>, within the City of Fort Lauderdale. The property is zoned Community Business (CB) with an underlying future land use of Commercial. The property will be developed as a mixed-use development with twenty (20) affordable residential units and 1,802 square feet office space. The development proposes 5 two-story buildings consisting of 3-bedroom and 4-bedroom residential units. Each residential unit includes a single car garage and driveway parking, with additional guest parking located throughout the site. Loading and trash is placed at the rear of the site at grade. The project addresses the urban fabric through scale and materials. The office space has been placed at the south end of the site to provide a better pedestrian connection to NW 19th Street. Connecting sidewalks have been placed throughout the site.

The scale and frontage of the project has been designed to complement the scale of the adjacent single-family projects to the west by breaking down the scale of the façades. This has been accomplished using hip roof forms and complementary stucco colors. The mechanical screening has been completely integrated into the landscape design. All these elements contribute to the successful integration of the project into its context.

December 19, 2022 / Page 2 of 21 DRC Level III Site Plan Review Habitat for Humanity

In connection with the site plan application, we are providing the narrative responses to the following applicable ULDR criteria:

Section 47-18.21 – Mixed Use Development

Section 47-24.3 – Conditional Use

Section 47-25.2 – Adequacy requirements

Section 47-25.3 – Neighborhood compatibility requirements

#### Section 47-18.21 – Mixed Use Development

A. Generally. To encourage diversity of compatible land uses on the same development parcel, which uses may include a mixture of residential uses in conjunction with commercial retail sales, service or office uses, the city may permit mixed use development (MXU) as a conditional use, consistent with the provisions of the city's land use plan, and in accordance with the following requirements.

Response: The Project complies with the conditional use requirements as set forth below. The Project is permitted under the Property's commercial land use.

- D. Mixed use development on commercial land use designated parcels. The city may permit a mixed-use development when the development site has a commercial land use designation, subject to the following:
  - 1. Approval of an allocation of available flexibility units, without the need to amend the city's land use plan or rezone land. For definition of flexibility units, see Section 47-28, Flexibility Rules.

Response: The Project complies with the Flexibility Rules as noted below.

2. The MXU shall include residential uses in conjunction with business uses as provided below in Section 47-18.21.F.3;

Response: The Project provides for residential uses in conjunction with 1,802 square feet of office.

3. The residential floor area of the MXU does not exceed fifty percent (50%) of the gross floor area of the building; or

Response: The residential floor area does exceed 50% of the gross floor area of the building; however, stand-alone residential is a permitted use if the site is less than 5 acres.



4. If the MXU is in the same building, business uses shall be limited to the floor(s) below the residential use; or

Response: The business uses are located on the first floor below the residential units.

5. For a development site that is less than five (5) acres in size, single use residential buildings are permitted. No business uses are required; or

Response: The development site is less than 5 acres and proposes predominately residential use.

6. For a development site that is greater than five (5) acres in size, single use multifamily buildings may be permitted provided gross residential acreage does not exceed five (5) acres or forty percent (40%) of the total gross acreage of the development site, whichever is greater.

Response: This Section does not apply to the Property because the Property is less than 5 acres.

#### F. Permitted uses.

1. The residential and business uses permitted within a mixed-use development are as provided by the zoning district where the mixed use development is located.

Response: The Project complies with the permitted uses within the CB zoning district.

- 2. The residential density is limited as provided by the zoning district where the mixed-use development is located unless flexibility units are allocated in accordance with Section 47-28, Flexibility Rules, however, in no case shall residential density exceed fifty (50) dwelling units per gross acre, except where:
- a. There exists a residential dwelling; and
- b. The residential dwelling is located on property designated commercial on the city's land use plan; and
- c. The dwelling was legally permitted at a density greater than fifty (50) units per gross acre;

in which case an allocation of flexibility units may be permitted up to the density of the existing residential dwelling.

The maximum density for mixed use east of the Intracoastal Waterway shall be twenty-five (25) units per gross acre.

Response: The Project proposes 13 dwelling units per gross acre. None of the above limitations apply to this Property.

December 19, 2022 / Page 4 of 21 DRC Level III Site Plan Review Habitat for Humanity

- 3. The business uses permitted in an MXU are as follows:
- a. When located in a residential zoning district, the aggregate of the business use or uses shall be no greater than an aggregate ten thousand (10,000) square feet in gross floor area:

Response: This section does not apply as the Project is not within a residential zoning district.

G. Parking requirements. The total number of required off-street parking spaces for an MXU shall be equal to the sum of the required parking for each use as if provided separately. See Section 47-20, Parking and Loading Requirements.

Response: 28 parking spaces are required, and 66 parking spaces have been provided for the Project.

H. Landscaping and open space requirements. Street trees shall be planted and maintained along the street abutting the property where the MXU is located to provide a canopy effect. The type of street trees may include shade, flowering, and palm trees. The trees shall be planted at a minimum height and size in accordance with the requirements of Section 47-21, Landscape and Tree Preservation Requirements. The location and number of trees shall be determined by the department based on the height, bulk, shadow, mass, and design of the structures on the site and the proposed development's compatibility to surrounding properties. Open space and landscaping shall be required in conjunction with residential uses in a mixed-use development according to the following:

1. For mixed use development in a residential zoning district, landscaping shall be as required by Section 47-21.10 for the zoning district in which the mixed-use development is located.

#### Response: The Property is not within a residential zoning district.

2. For development in a mixed-use development in other than a residential zoning district, open space shall be required. Open space, for the purposes of this section, shall include all areas on the site not covered by structures, other than covered arcades, or not covered by vehicular use area. Covered arcades with a minimum width of ten (10) feet and at least one (1) side open to a street shall be credited towards open space requirements. The required open space shall include seating and shade provided by trees, canopies, or other unenclosed shade structures. A minimum of fifty percent (50%) of the required open space shall be in living materials used in landscaping which areas may be above grade. At least forty percent (40%) of the required open space shall be provided atgrade and the remaining open space shall be accessible to individual residential units or through a common area, or both. The total amount of open space required shall be calculated based on the size and density of the development, as follows:

- a. For development of twenty-five (25) residential units or less, or developments of fifteen (15) dwelling units per acre or less density: a minimum of two hundred fifty (250) square feet of open space per unit;
- b. For developments of between twenty-six (26) and one hundred (100) residential units, or developments of greater than fifteen (15) dwelling units per acre and up to twenty-five (25) dwelling units per acre density: a minimum of two hundred (200) square feet of open space per unit;
- c. For developments of more than one hundred (100) residential units, or developments of greater than twenty-five (25) dwelling units per acre density: a minimum of one hundred fifty (150) square feet of open space per unit;
- d. For developments which fall into more than one (1) of the above categories, the lesser open space requirement shall apply.
- e. For the property located east of the Intracoastal Waterway, the percentage of landscape materials provided above grade as permitted by this section shall also be provided off-site in an area impacted by the development as determined by the development review committee or an owner shall be required to pay a cash equivalent to the city to be used to landscape a public area impacted by the development.
- f. Developments shall be required to meet the vehicular use area requirements as provided in Section 47-21, Landscape and Tree Preservation.

#### Response: The Project complies with the above open space requirements.

3. A mixed-use development shall contain a public plaza open to the sky which includes pedestrian amenities such as landscaping, benches, and fountains. The public plaza shall be a minimum size of one thousand four hundred (1,400) gross square feet and shall be located to provide the principal pedestrian access to the mixed-use development. A covered arcade with a minimum width of ten (10) feet may substitute for up to fifty percent (50%) of the above public plaza requirements.

Response: The Project will feature a large public plaza area along NW 19<sup>th</sup> Street in front of the office space, which will include landscaping, specialty paving, and benches.

- *I. Dimensional requirements.* The dimensional requirements of a mixed-use development shall be as follows:
  - 1. Density. The density shall be the same as applies in the zoning district where the development is located.
  - 2. Minimum lot size. Ten thousand (10,000) gross square feet.
  - 3. Maximum structure length. Two hundred (200) feet for single use residential buildings.

December 19, 2022 / Page 6 of 21 DRC Level III Site Plan Review Habitat for Humanity

- 4. Maximum height. The same as the district where the mixed-use development is located.
- 5. Minimum lot width. One hundred (100) feet.
- 6. Minimum floor area. Four hundred (400) square feet for each multifamily dwelling unit.
- 7. Yards. Yards shall be the same as the district where the mixed-use development is located.

Response: As noted in the Site Plan, the Project complies with the above dimensional requirements.

J. Sidewalk requirements. A minimum seven-foot-wide sidewalk along the street abutting the property proposed for an MXU in a location approved by the city engineer shall be required. Mixed use developments on property within a nonresidential zoning district lying east of the Intracoastal Waterway will be required to provide ten-foot sidewalks in a location and manner approved by the city engineer.

Response: Existing five-foot sidewalks are being maintained along both street frontages.

K. Requirements for conditional review and approval. In addition to the requirements established by this section, any mixed-use development shall be subject to the requirements for a conditional use permit, as provided in Section 47-24.3.

Response: As noted in the section below, the Project complies with the conditional use requirements.

#### Section 47-24.3 – Conditional Use

C. Application. An application for a conditional use permit shall be submitted to the department. The application shall include the information provided in Sec. 47-24.1.F and the following:

1. A description of the inherent nature of the proposed use.

Response: This conditional use application is for an affordable housing development that is designed as a mixed-use of 20 residential units and 1,802 square feet office space. The development proposes 5 two-story buildings consisting of 3-bedroom and 4-bedroom residential units. Each unit includes a single car garage and driveway parking, with additional guest parking located throughout the site. The office space has been placed at the south end of the site to provide a better pedestrian connection to NW 19th Street. Connecting sidewalks have been placed throughout the site and a large public plaza area is proposed along NW 19th Street to include landscaping, specialty paving, and benches.

2. The methods and materials utilized in the operation of the use.

Response: The materials for the buildings consist of two-tone grey stucco with horizontal banding, impact rated windows with bronze-colored frames, wood-look exterior entry doors and garage doors, and dark colored architectural asphalt shingles. The live / work unit facades facing NW 19th street incorporate powder-coated aluminum awnings to match the window frames. Unit entries are accented with dark stone veneer laid in an ashlar pattern. The scale and frontage of the project has been designed to complement the scale of the adjacent single-family projects to the west by breaking down the scale of the façades. This has been accomplished using roof forms and stucco colors. The mechanical screening has been completely integrated into the landscape design. All these elements contribute to the successful integration of the project into its context.

3. The scope of the proposed operation.

Response: The property will be developed as a mixed-use development with twenty affordable residential units and a total of 1,802 square feet office space. The development proposes 5 two-story buildings consisting of 3-bedroom and 4-bedroom units. Each unit includes a single car garage and driveway parking, with additional guest parking located throughout the site. Loading and trash is placed at the rear of the site at grade. The project addresses the urban fabric through scale and materials. The office space has been placed at the south end of the site to provide a better pedestrian connection to NW 19th Street.

4. A description of the economic and environmental impact on the surrounding area by permitting the conditional use.

Response: The Project will have a positive economic impact on the surrounding area. Currently, the Property is vacant. The proposal is for an affordable housing residential development. The development will offer affordable housing alternatives for the neighborhood. The Property's water, sewer and drainage facilities will be updated to meet water quality requirements as part of the development of the Project.

- E. Conditional use approval also requires a showing that the following additional requirements have been met:
- The location of the use or structure is not in conflict with the city's comprehensive plan.

Response: The location of the use conforms to the City's Comprehensive Plan. The commercial land use category permits mixed residential, and office uses. Additionally, residential uses are permitted within the commercial land use category with an allocation of flexibility units.

2. Off-site or on-site conditions exist which reduce any impact of permitting the use or structure.

Response: The Property is located within a residential neighborhood sharing the east property line with a commercial center. The location of proposed low scale development is favorable to provide a transition from the single-family neighborhood to the west to the commercial use to

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the east of the property. Also, the lot is currently vacant, and the neighborhood will make use of a proposed affordable housing development that will add value to the area.

3. On-site improvements have been incorporated into the site plan which minimize any adverse impacts as a result of the use or structure.

Response: The development proposes five (5) two-story buildings to include a single car garage and driveway parking, with additional guest parking located throughout the site. Loading and trash is placed at the rear of the site at grade. The project addresses the urban fabric through scale and materials. The office space has been placed at the south end of the site to provide a better pedestrian connection to NW 19th Street. Connecting sidewalks have been placed throughout the site. The mechanical screening has been completely integrated into the landscape design.

4. The location of the use in proximity to a similar use does not impact the character of the zoning district in which the use is located.

Response: The property is adjacent to both commercial uses and residential developments. Therefore, this mixed-use Project will fit in well with the adjacent uses.

5. There are no adverse impacts of the use which affect the health, safety, and welfare of the adjacent properties.

Response: There are no adverse impacts of the Project which would affect the health, safety and welfare of the adjacent properties. What is being proposed will be an overall improvement as compared to what currently exists.

#### Section 47-25.2. - Adequacy requirements

A. Applicability. The adequacy requirements set forth herein shall be used by the city to evaluate the demand created on public services and facilities created by a proposed development permit. **Response: Acknowledged.** 

B. Communications network. Buildings and structures shall not interfere with the city's communication network. Developments shall be modified to accommodate the needs of the city's communication network, to eliminate any interference a development would create or otherwise accommodate the needs of the city's communication network within the development proposal.

Response: Acknowledged.

C. Drainage facilities. Adequacy of stormwater management facilities shall be evaluated based upon the adopted level of service requiring the retention of the first inch of runoff from the entire site or two and one-half (2½) inches of runoff from the impervious surface whichever is greater. Response: The project is designed to meet all the drainage and stormwater facilities requirements.



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- D. Environmentally sensitive lands.
- 1. In addition to a finding of adequacy, a development shall be reviewed pursuant to applicable federal, state, regional and local environmental regulations. Specifically, an application for development shall be reviewed in accordance with the following Broward County Ordinances which address environmentally sensitive lands and wellfield protection which ordinances are incorporated herein by reference:
- a. Broward County Ordinance No. 89-6.
- b. Section 5-198(I), Chapter 5, Article IX of the Broward County Code of Ordinances.
- c. Broward County Ordinance No. 84-60.
- 2. The applicant must demonstrate that impacts of the proposed development to environmentally sensitive lands will be mitigated.

Response: It is not anticipated that there are any environmentally sensitive lands on or in the vicinity of the site.

E. Fire protection. Fire protection service shall be adequate to protect people and property in the proposed development. Adequate water supply, fire hydrants, fire apparatus and facilities shall be provided in accordance with the Florida Building Code, South Florida Fire Code and other accepted applicable fire and safety standards.

Response: The project is designed to meet all fire protection requirements and the proposed buildings will be fully sprinklered.

- F. Parks and open space.
- 1. The manner and amount of providing park and open space is as provided in <u>Section 47-38A</u>, Park Impact Fees, of the ULDR.
- 2. No building permit shall be issued until the park impact fee required by <u>Section 47-38A</u> of the ULDR has been paid in full by the applicant.

Response: The future project will be designed to be consistent with park and open space requirements.

G. Police protection. Police protection service shall be adequate to protect people and property in the proposed development. The development shall provide improvements which are consistent with Crime Prevention Through Environmental Design (CPTED) to minimize the risk to public safety and assure adequate police protection.

Response: The project is designed to be consistent with CPTED guidelines and principles.

- H. Potable water.
- 1. Adequate potable water service shall be provided for the needs of the proposed development. The proposed development shall be designed to provide adequate areas and easements which may be needed for the installation and maintenance of potable water systems in accordance with city engineering standards, the Florida Building Code, and applicable health and environmental regulations. The existing water treatment facilities and systems shall have sufficient capacity to



provide for the needs of the proposed development and for other developments in the service area which are occupied, available for occupancy, for which building permits are in effect or for which potable water treatment capacity has been reserved. Capital expansion charges for water and sewer facilities shall be paid by the developer in accordance with Resolution 85-265, as it is amended from time to time. Improvements to the potable water service and system shall be made in accordance with city engineering standards and other accepted applicable engineering standards.

- 2. Potable water facilities.
- a. If the system is tied into the city treatment facility, the available capacity shall be determined by subtracting committed capacity and present flow from design capacity. If there is available capacity, the city shall determine the impact of the proposed development utilizing Table 3, Water and Wastewater, on file with the department.
- b. If there is adequate capacity available in the city treatment plant to serve the proposed development, the city shall reserve the necessary capacity to serve the development.
- c. Where the county is the projected service provider, a similar written assurance will be required.

Response: The project is designed to provide adequate potable water services.

- I. Sanitary sewer.
- 1. If the system is tied into the city treatment facility, the available capacity shall be determined by subtracting committed capacity and present flow from the design capacity. If there is available capacity, the city shall determine the impact of the proposed development utilizing Table 3, Water and Wastewater, on file with the department.
- 2. If there is adequate capacity available in the city treatment plant to serve the proposed development, the city shall reserve the necessary capacity to serve the proposed development.
- 3. Where the county is the projected service provider, a written assurance will be required.
- 4. Where septic tanks will be utilized, the applicant shall secure and submit to the city a certificate from the Broward County Health Unit that certifies that the site is or can be made suitable for an on-site sewage disposal system for the proposed use.

Response: The project is designed to provide adequate sanitary sewer services.

J. Schools. For all development including residential units, the applicant shall be required to mitigate the impact of such development on public school facilities in accordance with the Broward County Land Development Code or section 47-38C. Educational Mitigation, as applicable and shall provide documentation to the city that such education mitigation requirement has been satisfied.

Response: Acknowledged

- K. Solid waste.
- 1. Adequate solid waste collection facilities and service shall be obtained by the applicant in connection with the proposed development and evidence shall be provided to the city demonstrating that all solid waste will be disposed of in a manner that complies with all



#### governmental requirements.

2. Solid waste facilities. Where the city provides solid waste collection service and adequate service can be provided, an adequacy finding shall be issued. Where there is another service provider, a written assurance will be required. The impacts of the proposed development will be determined based on Table 4, Solid Waste, on file with the department.

Response: Adequate solid waste collection facilities and service will be provided with the proposed development.

L. Stormwater. Adequate stormwater facilities and systems shall be provided so that the removal of stormwater will not adversely affect adjacent streets and properties or the public stormwater facilities and systems in accordance with the Florida Building Code, city engineering standards and other accepted applicable engineering standards.

Response: Adequate stormwater facilities and service will be provided with the proposed development.

- M. Transportation facilities.
- 1. The capacity for transportation facilities shall be evaluated based on Table 1, Generalized Daily Level of Service Maximum Volumes, on file with the department. If a development is within a compact deferral area, the available traffic capacity shall be determined in accordance with Table 2, Flowchart, on file with the department.
- 2. Regional transportation network. The regional transportation network shall have the adequate capacity, and safe and efficient traffic circulation to serve the proposed development. Adequate capacity and safe and efficient traffic circulation shall be determined by using existing and site-specific traffic studies, the adopted traffic elements of the city and the county comprehensive plans and accepted applicable traffic engineering standards. Site-specific traffic studies may be required to be made and paid for by the applicant when the city determines such a study is needed in order to evaluate the impacts of the proposed development on proposed or existing roadways as provided for in subsection M.4. An applicant may submit such a study to the city which will be considered by the DRC in its review. Roadway improvements needed to upgrade the regional transportation network shall be made in accordance with the city, the county, and Florida Department of Transportation traffic engineering standards and plans as applicable.
- 3. Local streets. Local streets shall have adequate capacity, safe and efficient traffic circulation, and appropriate functional classification to serve the proposed development. Adequate capacity and safe and efficient traffic circulation shall be determined by using existing and site-specific traffic studies, the city's comprehensive plan and accepted applicable traffic engineering standards. Site-specific traffic studies may be required to be made and paid for by the applicant when the city determines such a study is required in order to evaluate the impact of the proposed development on proposed or existing roadways as provided for in subsection M.4. An applicant may submit to the city such a study to be considered as part of the DRC review. Street improvements needed to upgrade the capacity or comply with the functional classification of local streets shall be made in accordance with the city engineering standards and acceptable applicable traffic engineering standards. Local streets are those streets that are not classified as federal, state or county roadways on the functional classification map adopted by the State of

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#### Florida.

#### Response: Acknowledged.

- 4. Traffic impact studies.
- a. When the proposed development may generate over one thousand (1,000) daily trips; or
- b. When the daily trip generation is less than one thousand (1,000) trips; and (1) when more than twenty percent (20%) of the total daily trips are anticipated to arrive or depart, or both, within one-half (½) hour; or (2) when the proposed use creates varying trip generation each day, but has the potential to place more than twenty percent (20%) of its maximum twenty-four (24) hour trip generation onto the adjacent transportation system within a one-half (½) hour period; the applicant shall submit to the city a traffic impact analysis prepared by the county or a registered Florida engineer experienced in trafficways impact analysis which shall:
- i. Provide an estimate of the number of average and peak hour trips per day generated and directions or routes of travel for all trips with an external end.
- ii. Estimate how traffic from the proposed development will change traffic volumes, levels of service, and circulation on the existing and programmed trafficways.
- iii. If traffic generated by the proposed development requires any modification of existing or programmed components of the regional or local trafficways, define what city, county or state agencies have programmed the necessary construction and how this programming relates to the proposed development.
- iv. A further detailed analysis and any other information that the review committee considers relevant.
- v. The traffic impact study may be reviewed by an independent licensed professional engineer contracted by the city to determine whether it adequately addresses the impact and the study supports its conclusions. The cost of review by city's consultant shall be reimbursed to the city by the applicant.
- vi. When this subsection M.4.b. applies, the traffic study shall include an analysis of how the peak loading will affect the transportation system including, if necessary, an operational plan showing how the peak trips will be controlled and managed.

Response: A traffic statement is be provided.

5. Dedication of rights-of-way. Property shall be conveyed to the public by plat, deed or grant of easement as needed in accordance with the Broward County Trafficways Plan, the city's comprehensive plan, subdivision regulations and accepted applicable traffic engineering standards.

Response: Acknowledged.

6. Pedestrian facilities. Sidewalks, pedestrian crossing and other pedestrian facilities shall be provided to encourage safe and adequate pedestrian movement on-site and along roadways to adjacent properties. Transit service facilities shall be provided for as required by the city and Broward County Transit. Pedestrian facilities shall be designed and installed in accordance with city engineering standards and accepted applicable engineering standards.



#### Response: Sidewalk facilities exist on NW 19th Street and NW 20th Street.

7. Primary arterial street frontage. Where a proposed development abuts a primary arterial street either existing or proposed in the trafficways plan, the development review committee (DRC) may require marginal access street, reverse frontage with screen planting contained in a non-access reservation along the rear property line, deep lots with or without rear service alleys, or such other treatment as may be necessary for adequate protection of residential properties and to assure separation of through and level traffic.

Response: Acknowledged.

8. Other roadway improvements. Roadways adjustments, traffic control devices, mechanisms, and access restrictions may be required to control traffic flow or divert traffic, as needed to reduce or eliminate development generated traffic.

Response: Acknowledged.

9. Street trees. In order to provide for adequate landscaping along streets within the city, street trees shall be required along the length of the property abutting a street. A minimum of fifty percent (50%) of the required street trees shall be shade trees, and the remaining street trees may be provided as flowering or palm trees. These percentages may be varied based on existing or proposed physical conditions which may prevent the ability to comply with the street tree requirements of this subsection. The street trees shall be planted at a minimum height and size in accordance with the requirements of Section 47-21, Landscape and Tree Preservation Requirements, except in the downtown RAC districts the requirements of Sec. 47-13.20.H.8 shall apply. The location and number of street trees shall be determined by the department based on the height, bulk, mass and design of the structures on the site and the proposed development's compatibility to surrounding properties. The requirements for street trees, as provided herein, may be located within the public right-of-way as approved by the entity with jurisdiction over the abutting right-of-way.

Response: The proposed project will comply with all landscape requirements.

#### N. Wastewater.

1. Wastewater. Adequate wastewater services shall be provided for the needs of the proposed development. The proposed development shall be designed to provide adequate areas and easements which may be needed for the installation and maintenance of a wastewater and disposal system in accordance with applicable health, environmental and engineering regulations and standards. The existing wastewater treatment facilities and systems shall have adequate capacity to provide for the needs of the proposed development and for other developments in the service area which are occupied, available for occupancy, for which building permits are in effect or for which wastewater treatment or disposal capacity has been reserved. Capital expansion charges for water and sewer facilities shall be paid by the developer in accordance with Resolution 85-265, as it is amended for time to time. Improvements to the wastewater facilities and system shall be made in accordance with the city engineering and accepted



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applicable engineering standards.

Response: Adequate wastewater services be provided.

O. Trash management requirements. A trash management plan shall be required in connection with non-residential uses that provide prepackaged food or beverages for off-site consumption. Existing non-residential uses of this type shall adopt a trash management plan within six (6) months of the effective date of this provision.

Response: Acknowledged.

- P. Historic and archaeological resources.
- 1. If a structure or site has been identified as having archaeological or historical significance by any entity within the State of Florida authorized by law to do same, the applicant shall be responsible for requesting this information from the state, county, local governmental or other entity with jurisdiction over historic or archaeological matters and submitting this information to the city at the time of, and together with, a development permit application. The reviewing entity shall include this information in its comments.

Response: It is not anticipated that there are any historic or archaeological resources on or in the vicinity of the site.

Q. Hurricane evacuation. If a structure or site is located east of the Intracoastal Waterway, the applicant shall submit documentation from Broward County or such agency with jurisdiction over hurricane evacuation analysis either indicating that acceptable level of service of hurricane evacuation routes and hurricane emergency shelter capacity shall be maintained without impairment resulting from a proposed development or describing actions or development modifications necessary to be implemented in order to maintain level of service and capacity.

Response: This project is not located east of the Intracoastal Waterway.

#### Section 47-25.3. - Neighborhood compatibility requirements

1. Adequacy requirements. See Sec. 47-25.2.

Response: Applicant has provided a separate point-by-point narrative addressing the adequacy requirements.

- 2. Smoke, odor, emissions of particulate matter and noise.
  - a. Documentation from the Broward County Department of Natural Resource Protection (DNRP) or a report by a certified engineer, licensed in the State of Florida, that the proposed development will not exceed the maximum levels of smoke, odor, emissions of particulate matter and noise as regulated by Chapter 27, Pollution Control, of the Code of Broward County, and that a DNRP permit for such facility is not required.
  - b. Where a DNRP license is required in accordance with Chapter 27, Pollution Control, of the Code of Broward County, all supporting documentation and information to obtain such permit shall be submitted to the DRC as part of a site plan review.
  - c. Such DNRP licenses shall be required to be issued and copies provided to the city prior



to the issuance of a building permit for the proposed development.

Response: To the extent that any DPEP (formerly DNRP) permits are required, Applicant will apply for and obtain such permits.

- 3. Design and performance standards.
  - a. *Lighting*. No lighting shall be directed from a use which is subject to the requirements of this Sec. 47-25.3 in a manner which illuminates abutting residential property and no source of incandescent or mercury vapor illumination shall be directly visible from any abutting residential property. No neon lights inside or outside structures shall be visible from any abutting residential property.
    - i. Glare. Any nonresidential operation or activity producing glare shall be conducted so that direct or indirect illumination of light shall not cause illumination in excess of one (1) footcandle on any abutting residential property except as provided in subsection iii. of this subsection a.
    - ii. Control of effects of lights from automobiles or other sources. Where the site plan indicates potential adverse effects of parking or of other sources on the lot on which the nonresidential use is to be located, such effects shall be eliminated or at a minimum prevented so that lights do not illuminate adjacent residential property below a height of five (5) feet at the residential lot line, or from shining into any residential window if there is to be nonresidential parking on the premises after dark.
    - iii. In addition to the above, parking lots and garages will be subject to the provisions of Sections 47-20.14 and if in conflict with the provisions of this section, the more restrictive provisions shall apply.

Response: The proposed development will not create illumination in excess of one (1) footcandle on any neighboring property.

- b. *Control of appearance*. The following design standards are provided to protect the character of abutting residential areas from the visual impact which may result from a use which is subject to the requirements of this Sec. 47-25.3.
  - i. Architectural features. The facade of any side of a nonresidential building facing the residential property shall be constructed to compliment a residential structure and shall include the following:
  - a) Fenestration such as windows, doors and openings in the building wall; and
  - b) Shall contain a minimum of one (1) feature from each of the following architectural feature groups with a total of four (4) architectural features from the following list:
  - 1. Detail and embellishments:
    - a. Balconies,
    - b. Color and material banding,
    - c. Decorative metal grates over windows,
    - d. Uniform cornice heights,
    - e. Awnings.
  - 2. Form and mass:



- a. Building mass changes including projection and recession,
- b. Multiple types and angles of roofline, or any combination thereof.
- c) The above required facade treatment shall be required to continue around the corner onto the adjoining wall for a distance of twenty (20) feet.

Response: The proposed development considered the transition to the adjacent uses, by providing a sensitive design solution to the nearby neighborhood. Overall, a well-thought design is being proposed to enhance the visual appearance of the site and improve the public space. The project includes significant architectural design elements, such as: color and material banding, decorative metal fencing, articulated eave height, awnings. The architectural design of the building includes building mass and color changes, projection and recession, multiple roof lines, and architectural featured elements that are continuous around the building.

ii. Loading facilities. Loading and service facilities shall be screened so as not to be visible from abutting residential uses or vacant residential zoned property.

Response: Loading and service facilities of the Habitat for Humanity Fort Lauderdale project are located at the north end of the site.

iii. Screening of rooftop mechanical equipment. All rooftop mechanical equipment, stair and elevator towers shall be designed as an integral part of the building volume and shall be required to be screened with material that matches the material used for the principal structure and shall be at least as high as six (6) inches above the top most surface of the roof mounted structure.

#### Response: The project does not include any rooftop mechanical equipment.

- c. Setback regulations. When a nonresidential use which is subject to the requirements of this Sec. 47-25.3 is contiguous to any residential property, there shall be an additional setback required for any yard of that use which is contiguous to the residential property, as follows:
  - i. When any side of a structure greater in height than forty (40) feet is contiguous to residential property, that portion of the structure shall be set back one (1) foot for each one (1) foot of building height over forty (40) feet up to a maximum width equal to onehalf  $(\frac{1}{2})$  the height of the building, in addition to the required setback, as provided in the district in which the proposed nonresidential use is located.

#### Response: The structure is not greater in height than forty (40) feet.

- d. *Bufferyard requirements*. Excluding parks, open space and conservation areas, when a use which is subject to the requirements of this Sec. 47-25.3 is contiguous to any residential property, the property where the use is located shall be required to have a landscaped strip area and a physical barrier between it and the residential property. Such landscape strip shall meet the following requirements:
  - i. Landscape strip requirements. A ten (10) foot landscape strip shall be required to be located along all property lines which are adjacent to residential property. Such landscape strip shall include trees, shrubs and ground cover as provided in the landscape provisions of Section 47-21, Landscape and Tree Preservation Requirements. The width of the landscape area shall extend to the property line.

All required landscaping shall be protected from vehicular encroachment. When walls are required on nonresidential property abutting an alley, required shrubbery shall be installed and located within the landscape area on the exterior of the wall.

#### Response: The proposed development will comply with all landscaping requirements.

ii. *Parking restrictions*. No parking shall be located within twelve (12) feet of the property line, within the yard area required by the district in which the proposed nonresidential use is located, when such yard is contiguous to residential property.

#### Response: Acknowledged.

iii. Dumpster regulations. All solid waste refuse containers (dumpsters) shall be set back a minimum of twelve (12) feet from any property line which is contiguous to residential property, and shall be screened in accordance with the Dumpster requirements, as provided in Section 47-19, Accessory Uses, Buildings and Structures.

#### Response: Acknowledged.

- iv. Wall requirements. A wall shall be required on the nonresidential property, a minimum of five (5) feet in height, constructed in accordance with Section 47-19.5 and subject to the following:
- a) Decorative features shall be incorporated on the residential side of such wall according to the requirements of Section 47-19.5,
- b) Shall be located within, and along the length of the property line which abuts the residential property,
- c) When the nonresidential property is located adjacent to an alley such wall shall be located at least five (5) feet from the right-of-way line located closest to the nonresidential property,
- d) When a utility, or other public purpose easement, on the nonresidential property precludes the construction of a wall, then an opaque fence, constructed in accordance with the standards described in Section 47-19.5, may be erected in lieu of the wall required by subsection iv. above. The use of an opaque fence as a physical barrier between nonresidential and residential property shall be reviewed and recommended by the city engineer.

#### Response: Acknowledged.

- iv. Application to existing uses. Within five (5) years from the effective date of subsections A.3.c and d (effective date: September 19, 1989), all nonconforming uses of land which were in existence prior to such date shall comply with the requirements of subsections A.3.c and d unless compliance would cause one (1) or more of the following to occur:
- a) Demolition of any load-bearing portion of a building as it exists on September 19, 1989, the effective date of subsections A.3.c and d;
- b) Reduction of required parking spaces;
- c) A reduction in the number of parking spaces provided for use of a parcel which



would be required if based on the parking requirements of Section 47-20, Parking and Loading Requirements in effect on and applicable to such use on March 6, 1990;

- d) Relocation of an existing wall which complied with the Code prior to September 19, 1989, the effective date of subsections A.3.c and d;
- e) Access to the land would be substantially impaired;
- f) Installation of the wall as provided in subsection iv. would require a modification of the existing vehicular use area, which would impair traffic circulation on the site and a minimum five (5) foot high hedge, fence or other physical barrier is in place along the length of the nonresidential property line which abuts the residential property;
- g) In such cases, the use shall otherwise comply with the requirements of this section to the maximum possible extent; however, the requirement of subsections A.3.d.i to install a landscape strip shall be met if an abutting residential property owner agrees in writing that the landscape strip may be placed on his or her property. An agreement in form provided by the department must be executed by the applicant and the abutting property owner. If the abutting property owner removes the landscape strip after it has been installed, there shall be no further requirement to install another landscape strip on the abutting property in connection with the commercial use which existed at the time of the initial installation.

#### Response: N/A.

- e. Neighborhood compatibility and preservation. In addition to the review requirements provided in subsections A.1, A.2 and A.3.a, b, c, and d, the following review criteria shall also apply as provided below:
- i. All developments subject to this Sec. 47-25.3 shall comply with the following:
  - a) Development will be compatible with, and preserve the character and integrity of adjacent neighborhoods, the development shall include improvements or modifications either on-site or within the public rights-of-way to mitigate adverse impacts, such as traffic, noise, odors, shadow, scale, visual nuisances, or other similar adverse effects to adjacent neighborhoods. These improvements or modifications may include, but shall not be limited to, the placement or orientation of buildings and entryways, parking areas, bufferyards, alteration of building mass, and the addition of landscaping, walls, or both, to ameliorate such impacts. Roadway adjustments, traffic control devices or mechanisms, and access restrictions may be required to control traffic flow or divert traffic as needed to reduce or eliminate development generated traffic on neighborhood streets.

Response: The proposed development is compatible with the character of the neighborhood. The mass and scale are compatible with the development patterns along NW 19<sup>th</sup> Street. The scale and frontage of the project has been designed to complement the scale of the adjacent single-family projects to the west by breaking down the scale of the façades. This has been

accomplished using hip roof forms and complementary stucco colors. The mechanical screening has been completely integrated into the landscape design. All these elements contribute to the successful integration of the project into its context.

b) Consideration shall be given to the recommendations of the adopted neighborhood master plan in which the proposed development is to be located, or which it abuts, although such neighborhood master plan shall not be considered to have the force and effect of law. When recommended improvements for the mitigation of impacts to any neighborhood, conflicts with any applicable ULDR provision, then the provisions of the ULDR shall prevail. In order to ensure that a development will be compatible with, and preserve the character and integrity of adjacent neighborhoods, the development shall include improvements or modifications either on-site or within the public rights-of-way to mitigate adverse impacts, such as traffic, noise, odors, shadow, scale, visual nuisances, or other similar adverse effects to adjacent neighborhoods. These improvements or modifications may include, but shall not be limited to, the placement or orientation of buildings and entryways, parking areas, bufferyards, alteration of building mass, and the addition of landscaping, walls, or both, to ameliorate such impacts. Roadway adjustments, traffic control devices or mechanisms, and access restrictions may be required to control traffic flow or divert traffic as needed to reduce or eliminate development generated traffic on neighborhood streets.

#### Response: N/A

ii. All development within the RAC-TMU (RAC-EMU, RAC-SMU and RAC-WMU) district that is greater in density than twenty-five (25) dwelling units per net acre:

a) In addition to meeting the review requirements of subsection A.3.e.i, building sites within the RAC-TMU (RAC-EMU, RAC-SMU and RAC-WMU) district shall be eligible to apply for additional dwelling units over and above twenty-five (25) dwelling units per net acre, provided such additional dwelling units are available for distribution in the downtown regional activity center. However, in order to obtain such additional dwelling units, a site plan level II permit must be approved. Such approval shall be based upon consideration of the number of additional dwelling units available under the city land use plan, the number of additional dwelling units requested, the impact of the proposed development on abutting residential areas, the proposed residential density of the proposed development, location of the proposed development, the sensitivity to adjacent development of the site design and proposed orientation of the proposed development (including proposed setbacks), pedestrian movements associated with the proposed development, proposed landscaping, and traffic and parking impacts of the proposed development on the transportation network. Approval for allocations of any additional dwelling units, hotel rooms or both, for multifamily dwellings, hotels and mixed-use developments shall conform to the city's land use plan and may be granted subject to approval of a site plan level II permit, subject to the considerations for such review as prescribed above. A minimum setback of twenty (20) feet from all property lines for every building used exclusively for residential purposes may be required. Such minimum setback may also be required for mixed use buildings in which residential use exceeds fifty-nine percent (59%) of the total floor area, exclusive of parking garages.

#### Response: N/A

iii. All development within any downtown RAC district that is within one hundred (100) feet of residential property that is located outside of any downtown RAC district and all development within the RAC-TMU (RAC-EMU, RAC-SMU and RAC-WMU) district; and all development that is located on land adjacent to the New River within the RACAS and RAC-CC which deviates from the New River corridor requirements as provided in Section 47-13, Downtown Regional Activity Center:

- a) In addition to meeting the review requirements of subsection A.3.e.i, the setbacks imposed for a development plan may be modified subject to the requirements provided as follows:
- 1. No structure, or part thereof, shall be erected or used, or land or water used, or any change of use consummated, nor shall any building permit or certificate of occupancy be issued therefor, unless a development plan for such structure or use shall have been reviewed and approved, where applicable, after development review as prescribed in subsection A.3.e.i. In approving such development plan, consideration shall be given to the location, size, height, design, character and ground floor utilization of any structure or use, including appurtenances; access and circulation for vehicles and pedestrians, streets, open spaces, relationship to adjacent property, proximity to New River and other factors conducive to development and preservation of a high quality downtown regional activity center district. No approval shall be given to the setbacks shown on the development plan unless a determination is made that the setbacks conform to all applicable provisions of the ULDR, including the requirements of Section 47-13, Downtown Regional Activity Center Districts, that the safety and convenience of the public are properly provided for and that adequate protection and separation are provided for contiguous property and other property in the vicinity. Approval of the setbacks of a development plan may be conditioned by imposing one (1) or more setback requirements exceeding the minimum requirements.

#### Response: N/A

iv. All development that is located on land within the CBA zoning districts;

AND

All development that is zoned RMM-25, RMH-25 and RMH-60 east of the Intracoastal Waterway;

AND

All nonresidential development lying east of the Intracoastal Waterway.

- a) In addition to meeting the other applicable review requirements of this subsection
- 3., it shall be determined if a development meets the Design and Community Compatibility Criteria. The purpose of the Community Compatibility Criteria is to define objectives for private sector development which either abuts or is readily visible from public corridors. The relationship between private and public sector development must



December 19, 2022 / Page 21 of 21 DRC Level III Site Plan Review Habitat for Humanity

be carefully planned to avoid negative impacts of one upon the other. The city's intent in implementing these objectives is to:

- i. Protect the investment of public funds in public corridor improvements.
- ii. Improve the visual and functional quality of both public and private development by coordinating the transition between these areas.
- iii. The ultimate goal of these objectives is to integrate buildings, vehicular circulation, pedestrian circulation, open space and site elements into a unique, pedestrian sensitive environment which stimulates revitalization.

Response: N/A

Thank you for your review of this application. Please feel free to contact (954) 788-3400 if you require additional information or have questions regarding this application. We look forward to working with you on this exciting project.

Respectfully Submitted,

centra temo

Florentina Hutt, AICP Senior Planner

# STORMWATER MANAGEMENT CALCULATIONS

PROJECT NO. 10431.00 ISSUED: DECEMBER 2022



# **Habitat for Humanity Fort Lauderdale**

Fort Lauderdale, FL 33311



Engineering Inspired Design.

Thomas F. Donahue, P.E. Florida Reg No. 60529 (For the Firm)

Florida Engineering Business License: CA7928 Florida Surveyor and Mapper Business License: LB6860 Florida Landscape Architecture Business License: LC96000457 301 E. Atlantic Boulevard, Pompano Beach, FL 33060 954-788-3400

www.KEITHteam.com

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- 3 Stormwater Management Post-Development Calculations

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Appendix C.....FEMA Flood Insurance Rate Map

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#### I. INTRODUCTION

#### 1 Project Location.

The project is located approximately 0.10 miles west of the intersection of NW 19<sup>th</sup> Street and NW 9<sup>th</sup> Avenue on the northside of NW 19<sup>th</sup> Street within the City of Fort Lauderdale, Broward County, Florida (Section 28, Township 49 South, and Range 42 East). In review of the Broward County - Surface Water Management Licensing Section - Drainage District Boundary Map, the site is located within the jurisdiction of Broward County Resilient Environment Department.

#### **2** Project Description

The purpose of this report is to provide an analysis of the stormwater management system for the proposed development of a 1.39-acre site. The proposed site will be developed as multi-family residential affordable housing.

According to the Broward County Surface Water Management Licensed Projects interactive map, the existing site is located within Flatwoods soils of the Urban Land-Dade-Duette Association.

To achieve the required water quality, as well as provide adequate flood protection, the proposed stormwater management system will consist of a series of drainage inlets that convey runoff through an exfiltration trench system to retention areas.

KEITH performed a post-development analysis. The post-development analysis was performed by incorporating the proposed improvements which includes a series of drainage inlets and 265 linear feet of new exfiltration trench that will collect and convey runoff through properly sized pipes to a dry detention area. To achieve the required water quality and provide adequate flood protection, the runoff will be held in the exfiltration trench system and controlled by the lowest catch basin grate set at an elevation of 6.00' NAVD. To contain the 25-year 3-day storm event on-site, a knee wall and berm will be constructed with a top elevation of 7.10' NAVD.

The K-Value used for the exfiltration trench calculations assumed to be  $5.0 \times 10^{-4}$  since testing has not been completed at this time. These calculations will be updated after testing has been completed, which will be prior to submitting for permits to the agencies.

#### II. STORMWATER MANAGEMENT CRITERIA

#### 1 Basis of Design

The project's stormwater management (SWM) system design is based on the South Florida Water Management District (SFWMD) and the Broward County Resilient Environment Department (BCRED) criteria.

#### 2 SBDD/ SFWMD / BCRED Requirements

• Flood Protection: The lowest floor elevation shall be set at or above the elevation required in the Florida Building Code (FBC) per section 14-11(1) of the City of Fort Lauderdale Code of Ordinances. The minimum finished floor elevation based on FBC criteria requires the elevation of the lowest floor to be 1.00' above the FEMA Base Flood Elevation (BFE) or at the Design Flood Elevation (DFE), whichever is higher.

Per the FEMA Flood maps the site is located within Flood Zone X, which has no elevation associated with it since it is not a high risk flood zone. The DFE as established by the Broward County Future Conditions 100 Year Flood Map 2060 elevation was determined to be 8.00' NAVD.

Per the criteria described above the minimum finished floor elevation (FFE) is 8.00' NAVD, however, we are proposing a finished floor elevation of **8.10'** NAVD to allow for a 0.1 ft construction tolerance.

- **Driveway and Parking Lot:** Per SFWMD Basis of Review for Environmental Resource Permit Applications Section 6.5. In cases where criteria are not specified by the local government with jurisdiction, the following design criteria for drainage and flood protection shall be used: frequency 5 years, duration 1 day (driveway centerlines) or 1 hour (parking lots served by exfiltration trench systems).
- Water Quality: Per the SBDD Stormwater Management Design Criteria Manual, the water quality requirements are governed by SFWMD which dictate that the treatment to be provided should equal the greater of 1-inch over the site or 2.5-inch times the percentage of impervious area. The required volume will be treated within the proposed exfiltration trench.

# II.3 STORMWATER MANAGEMENT POST-DEVELOPMENT CALCULATIONS

Project: Habitat for Humanity Fort Lauderdale

Flood Routing Description:

Client: Habitat for Humanity Job Number: 10431.00

Design Engineer: Thomas Donahue

Project Address / Location : City: Fort Lauderdale County: Broward State: Florida

Section/Township/Range: 28/49/42

Surfacewater License:

FEMA FIRM Information: 12011C0368J

Project Description: Townhome Buildings

Total Drainage Basin: 1.390 Acres

Hydrogeologic Information:

Table 1.	1 D	ay Storm E	vent	3 D	vent	
RAINFALL DATA	Rainfall	Runoff	Runoff	Rainfall	Rainfall Runoff	
	Inches	Inches	Ac-Ft	Inches	Inches	Ac-Ft
100 Year Return Period				18.8	15.65	1.813
25 Year Return Period				13.7	10.68	1.237
10 Year Return Period						
5 Year Return Period						
3 Year Return Period						
5 Yr Return Period - 1 Hr	3.1	0.00	0.000			

Runoff estimation - USDA SCS formula Runoff (in) Q=  $\frac{(P-0.2S)^2}{P+0.8S}$ 

Date: 12/8/22

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

Table 2. SUMMARY OF	Agency	SBUH Calculated		SBUH Calculated		SBUH Calculated		Calc. 5Yr	F
FLOOD ROUTING	maps	with Q-1 Day Storm		with Q-3 Day Storm		*Zero Q-3 Day Storm		1 hour	V
		Peak	Peak	Peak	Peak	Peak	Peak	Peak	fi
		Stage(ft)	Q (CFS)	Stage(ft)	Q (CFS)	Stage(ft)	Q (CFS)	Stage (ft)	u
100 Year Return Period				7.64	0.00	7.64	0.00	Zelo Q	ta
25 Year Return Period				7.02	0.00	7.02	0.00	(water	N
10 Year Return Period								Budget)	to
5 Year Return Period								4.00	) 1.
3 Year Return Period									h

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.

<sup>\*</sup> 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 Bas	Ac-Ft							
1" x Basin Area	0.116							
2.5" x WQPI x (Basin Area l	0.097							
Required Wet Detention (Total								
0.5" Pretreatment-Com. Prjs,x(E	0.058							
Credit for Inlets in Grass Are	as, GAC=0.2" x (TDA	0.023	N					

Table 4. WATER QUALITY STORAGE SOURCE	Basin St	torage (Ac-Ft)	WQ Eq WDV (Ac-Ft)	WQ Eq WDV Inches
Retention (RV) @				
Dry Det. (DDV) @				
Wet Det. (WDV) @				
Equiv WDV=WDV+RV/.5+		0.000		
Exfil Trench Storage	0.306	0.611	5.27	
Total WQ EQ WDV - Provi	0.611	5.27		
Total WQ EQ WDV - Requi	ired		0.116	1.00

Exfil Vol. in Stage Storage =  $\frac{\text{(Ac-FT)} \quad \text{(Inches)}}{0.363}$ 

Project: Habitat for Humanity Fort Lauderdale Date: 12/8/22

Flood Routing Description:

Client: Habitat for Humanity Job Number: 10431.00

#### Routing Results from Analysis ZERO Offsite Discharge

Table 6. STAGE - DISCHARGE INFORMATION 100 - YEAR STORM - ZERO Offsite Discharge

Table 0. STAGE - DISCH	THOL III	OIUMITTI	711100 - 11	TIN STON	WI - ZLIVO	Olisik Di	ochar 5c					
TIME	Rain	Rain	Q	Inst	Sbuh	Tot	Sumq	Stored	Stage	Inst	Avg.	Step
STEP	Fall	C*P	Scs	Q In	Q	Q In	Out	Vol	Lk-Up	Q Lkup	Q Out	Qout
(HOUR)	RATIO	(IN)	(IN)	(CFS)	(CFS)	(AC-FT)	(AC-FT)	(AC-FT)	(FEET)	(CFS)	(CFS)	(AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
4.00	0.02	0.33	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
8.00	0.05	0.68	0.00	0.01	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
12.00	0.07	1.01	0.05	0.03	0.03	0.01	0.00	0.01	2.06	0.00	0.00	0.00
16.00	0.10	1.34	0.15	0.03	0.04	0.02	0.00	0.02	2.19	0.00	0.00	0.00
20.00	0.12	1.69	0.29	0.07	0.05	0.03	0.00	0.03	2.36	0.00	0.00	0.00
24.00	0.15	2.02	0.46	0.08	0.06	0.05	0.00	0.05	2.58	0.00	0.00	0.00
28.00	0.18	2.52	0.76	0.15	0.12	0.09	0.00	0.09	2.94	0.00	0.00	0.00
32.00	0.22	3.00	1.08	0.11	0.11	0.12	0.00	0.12	3.31	0.00	0.00	0.00
36.00	0.25	3.49	1.43	0.12	0.11	0.16	0.00	0.16	3.69	0.00	0.00	0.00
40.00	0.29	3.98	1.81	0.12	0.13	0.21	0.00	0.21	4.08	0.00	0.00	0.00
44.00	0.32	4.48	2.20	0.19	0.15	0.25	0.00	0.25	4.43	0.00	0.00	0.00
48.00	0.36	4.97	2.60	0.13	0.13	0.30	0.00	0.30	4.75	0.00	0.00	0.00
52.00	0.40	5.59	3.13	0.27	0.23	0.36	0.00	0.36	5.10	0.00	0.00	0.00
56.00	0.50	6.86	4.25	0.56	0.51	0.48	0.00	0.48	5.61	0.00	0.00	0.00
58.00	0.57	7.91	5.20	0.78	0.77	0.59	0.00	0.59	5.93	0.00	0.00	0.00
59.00	0.63	8.69	5.92	1.15	1.12	0.67	0.00	0.67	6.13	0.00	0.00	0.00
59.50	0.68	9.38	6.56	1.81	1.75	0.74	0.00	0.73	6.27	0.00	0.00	0.00
59.75	0.85	11.72	8.78	12.41	6.29	0.86	0.00	0.86	6.54	0.00	0.00	0.00
60.00	1.02	14.04	11.01	12.53	11.53	1.10	0.00	1.10	6.85	0.00	0.00	0.00
60.50	1.09	15.05	11.99	2.71	3.58	1.35	0.00	1.35	7.14	0.00	0.00	0.00
61.00	1.13	15.58	12.50	1.43	1.56	1.43	0.00	1.43	7.23	0.00	0.00	0.00
62.00	1.18	16.28	13.19	0.83	0.89	1.52	0.00	1.52	7.33	0.00	0.00	0.00
64.00	1.24	17.14	14.03	0.53	0.57	1.62	0.00	1.62	7.44	0.00	0.00	0.00
68.00	1.31	18.14	15.00	0.30	0.34	1.73	0.00	1.73	7.56	0.00	0.00	0.00
72.00	1.36	18.80	15.65	0.23	0.23	1.81	0.00	1.81	7.64	0.00	0.00	0.00

 Peak stage
 7.64
 At hour
 72.00

 Peak discharge
 0.00
 At hour
 72.00

Project: Habitat for Humanity Fort Lauderdale Date: 12/8/22

Flood Routing Description:

Client: Habitat for Humanity Job Number: 10431.00

#### Routing Results from Analysis WITHOUT Offsite Discharge

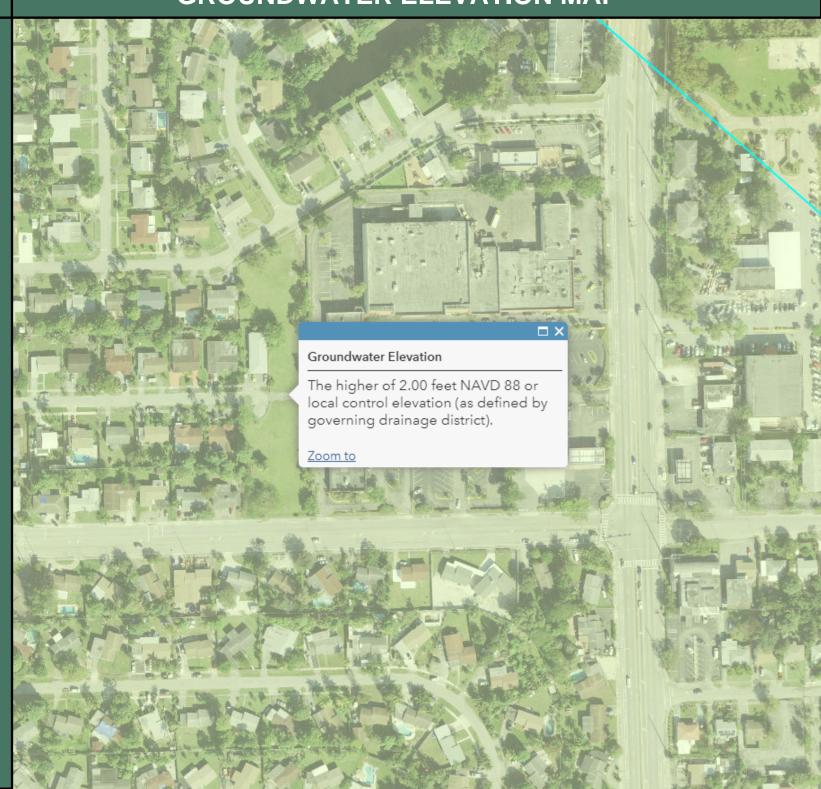
Table 7. STAGE - DISCHARGE INFORMATION 25 - YEAR STORM - Zero Offsite Discharge

tuble // STrige Biser	mintoe ma	ORUMATIC	)11 <b>2</b> 0 11	artic of one	T Zero o	Histee Disen	<u>5</u> c					
TIME	Rain	Rain	Q	Inst	Sbuh	Tot	Sumq	Stored	Stage	Inst	Avg.	Step
STEP	Fall	C*P	Scs	Q In	Q	Q In	Out	Vol	Lk-Up	Q Lkup	Q Out	Qout
(HOUR)	RATIO	(IN)	(IN)	(CFS)	(CFS)	(AC-FT)	(AC-FT)	(AC-FT)	(FEET)	(CFS)	(CFS)	(AC-FT)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
4.00	0.02	0.24	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
8.00	0.05	0.49	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
12.00	0.07	0.74	0.01	0.01	0.01	0.00	0.00	0.00	2.01	0.00	0.00	0.00
16.00	0.10	0.98	0.04	0.01	0.02	0.00	0.00	0.00	2.05	0.00	0.00	0.00
20.00	0.12	1.23	0.11	0.04	0.03	0.01	0.00	0.01	2.14	0.00	0.00	0.00
24.00	0.15	1.47	0.20	0.05	0.03	0.02	0.00	0.02	2.25	0.00	0.00	0.00
28.00	0.18	1.83	0.37	0.08	0.07	0.04	0.00	0.04	2.45	0.00	0.00	0.00
32.00	0.22	2.19	0.56	0.06	0.07	0.06	0.00	0.06	2.70	0.00	0.00	0.00
36.00	0.25	2.54	0.77	0.07	0.07	0.09	0.00	0.09	2.97	0.00	0.00	0.00
40.00	0.29	2.90	1.01	0.08	0.08	0.12	0.00	0.12	3.24	0.00	0.00	0.00
44.00	0.32	3.27	1.26	0.12	0.10	0.14	0.00	0.14	3.52	0.00	0.00	0.00
48.00	0.36	3.62	1.53	0.09	0.09	0.18	0.00	0.18	3.80	0.00	0.00	0.00
52.00	0.40	4.07	1.88	0.18	0.15	0.21	0.00	0.21	4.14	0.00	0.00	0.00
56.00	0.50	5.00	2.63	0.38	0.35	0.30	0.00	0.30	4.75	0.00	0.00	0.00
58.00	0.57	5.77	3.28	0.54	0.53	0.37	0.00	0.37	5.16	0.00	0.00	0.00
59.00	0.63	6.33	3.78	0.80	0.78	0.43	0.00	0.43	5.41	0.00	0.00	0.00
59.50	0.68	6.83	4.23	1.26	1.22	0.47	0.00	0.47	5.58	0.00	0.00	0.00
59.75	0.85	8.54	5.78	8.71	4.41	0.56	0.00	0.56	5.85	0.00	0.00	0.00
60.00	1.02	10.23	7.37	8.89	8.13	0.73	0.00	0.73	6.27	0.00	0.00	0.00
60.50	1.09	10.97	8.06	1.93	2.55	0.90	0.00	0.90	6.59	0.00	0.00	0.00
61.00	1.13	11.35	8.43	1.02	1.12	0.96	0.00	0.96	6.67	0.00	0.00	0.00
62.00	1.18	11.87	8.92	0.59	0.64	1.02	0.00	1.02	6.75	0.00	0.00	0.00
64.00	1.24	12.49	9.52	0.38	0.41	1.10	0.00	1.10	6.84	0.00	0.00	0.00
68.00	1.31	13.22	10.22	0.22	0.25	1.18	0.00	1.18	6.95	0.00	0.00	0.00
72.00	1.36	13.70	10.68	0.16	0.16	1.23	0.00	1.23	7.02	0.00	0.00	0.00
	•	•	•	Peak stage		7.02	At hour	72.00		•		
				<b>—</b>		t e	i e	i e	t			

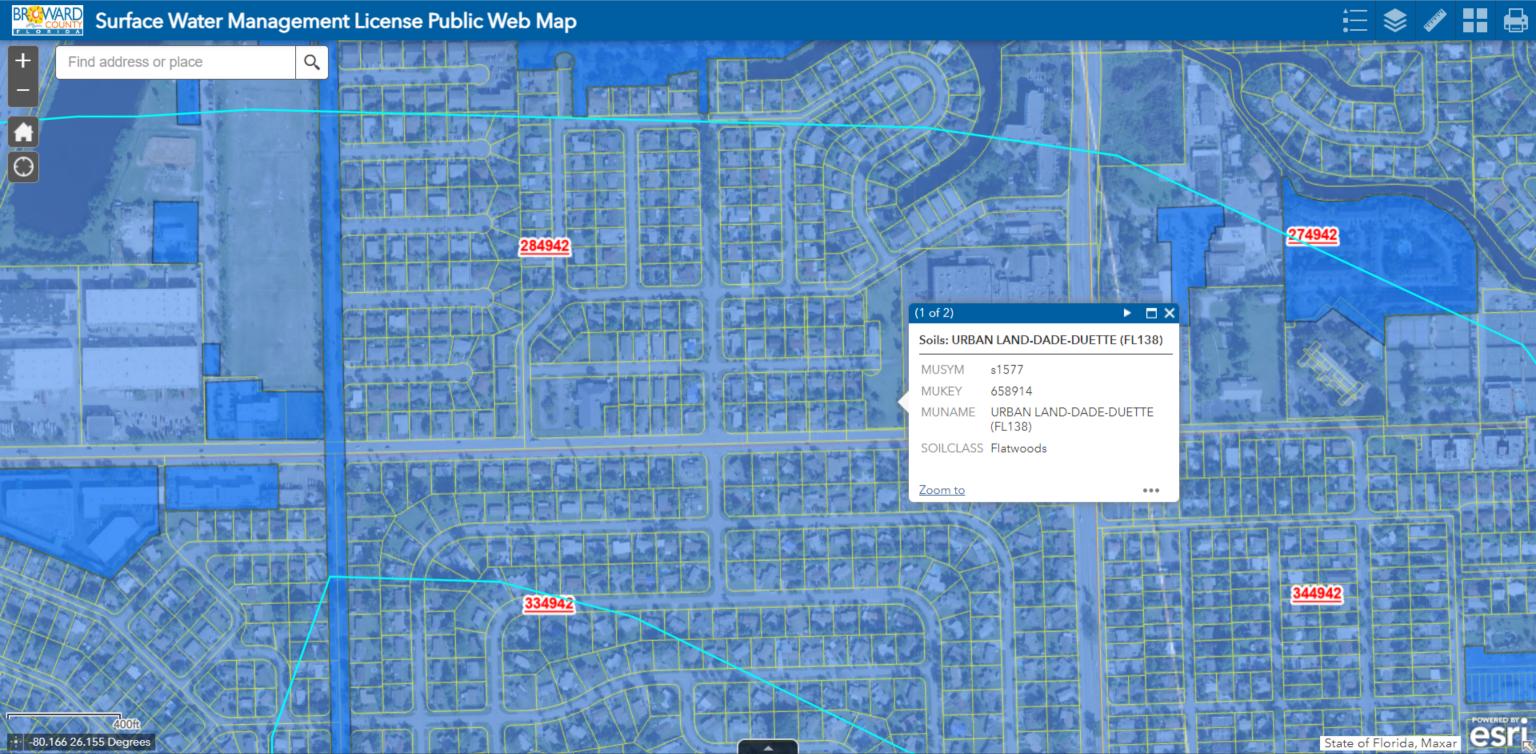
## III. APPENDIX

# APPENDIX A FUTURE CONDITIONAL GROUNDWATER ELEVATION MAP

## GROUNDWATER ELEVATION MAP



# APPENDIX B BROWARD COUNTY GENERAL SOIL MAP

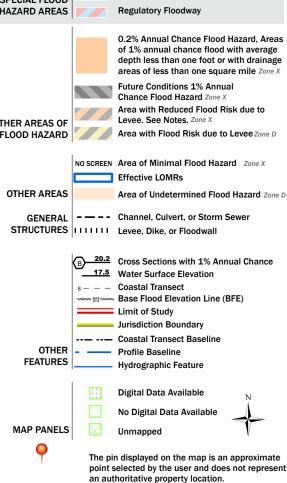


# APPENDIX C FEMA FLOOD INSURANCE RATE MAP

### National Flood Hazard Layer FIRMette



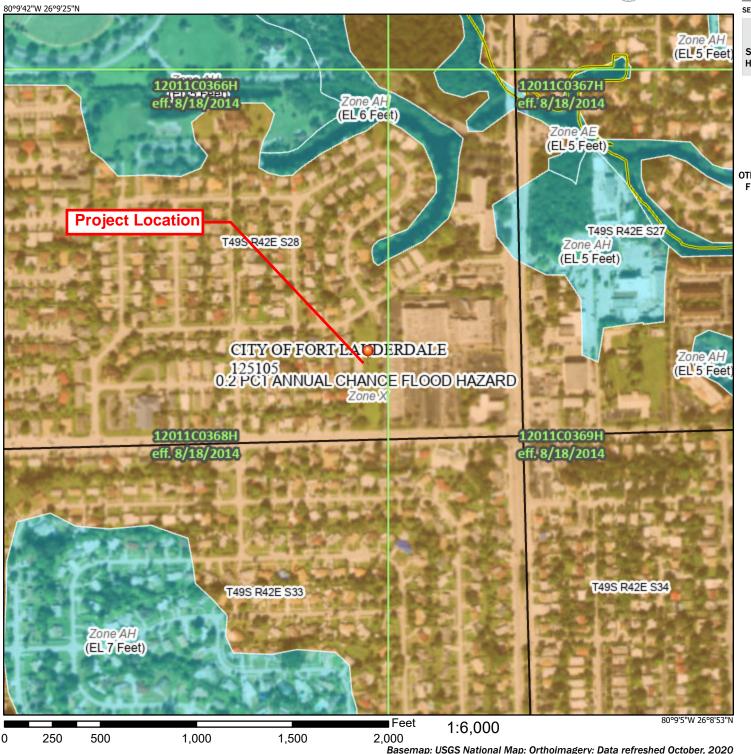
#### Legend SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR SPECIAL FLOOD **HAZARD AREAS** Regulatory Floodway 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than 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 OTHER AREAS OF FLOOD HAZARD Area with Flood Risk due to Levee Zone D NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs OTHER AREAS Area of Undetermined Flood Hazard Zone D - - - Channel, Culvert, or Storm Sewer **GENERAL** STRUCTURES | LILLIL Levee, Dike, or Floodwall 20.2 Cross Sections with 1% Annual Chance 17.5 Water Surface Elevation **Coastal Transect** ₩₩ 513 WW Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline OTHER **Profile Baseline FEATURES**



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 12/6/2022 at 10:56 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

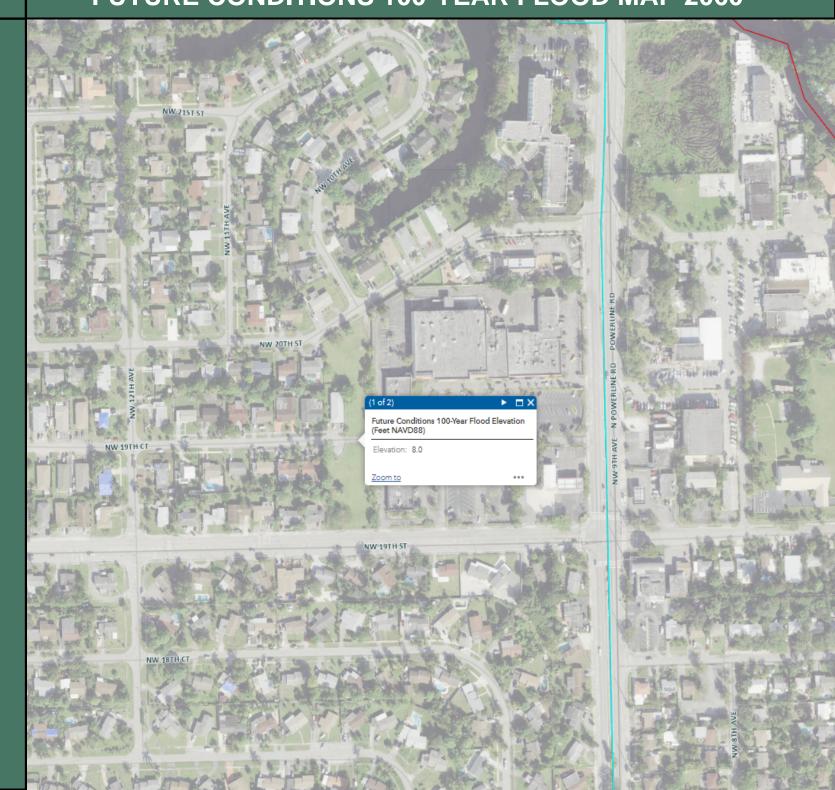
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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



### APPENDIX D

### BROWARD COUNTY 100 YEAR FLOOD ELEVATION FLOOD MAP 2060

### **FUTURE CONDITIONS 100-YEAR FLOOD MAP 2060**



# APPENDIX E NOAA 14 ATLAS PRECIPITATION DATA



#### NOAA Atlas 14, Volume 9, Version 2 Location name: Fort Lauderdale, Florida, USA\* Latitude: 26.1524°, Longitude: -80.1565° Elevation: 5.83 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

PD	S-based p	oint preci	pitation	frequenc	y estimat	tes with 9	90% conf	idence i	ntervals	(in
				ir	iches) <sup>1</sup>					
Duration				Average r	ecurrence	interval (ye	ears)			
Duration	1	2	5	10	25	50	100	200	500	1000
5-min	<b>0.563</b> (0.449-0.714)	<b>0.649</b> (0.517-0.825)	<b>0.791</b> (0.628-1.01)	<b>0.909</b> (0.718-1.16)	<b>1.07</b> (0.821-1.42)	<b>1.20</b> (0.899-1.61)	<b>1.33</b> (0.964-1.83)	<b>1.45</b> (1.02-2.07)	<b>1.63</b> (1.10-2.38)	<b>1.76</b> (1.16-2.62)
10-min	<b>0.824</b> (0.657-1.05)	<b>0.950</b> (0.757-1.21)	<b>1.16</b> (0.919-1.48)	<b>1.33</b> (1.05-1.70)	<b>1.57</b> (1.20-2.08)	<b>1.75</b> (1.32-2.36)	<b>1.94</b> (1.41-2.68)	<b>2.13</b> (1.49-3.03)	<b>2.38</b> (1.61-3.49)	<b>2.57</b> (1.70-3.84)
15-min	<b>1.00</b> (0.801-1.28)	<b>1.16</b> (0.923-1.47)	<b>1.41</b> (1.12-1.80)	<b>1.62</b> (1.28-2.08)	<b>1.91</b> (1.47-2.53)	<b>2.14</b> (1.61-2.88)	<b>2.37</b> (1.72-3.27)	<b>2.60</b> (1.82-3.69)	<b>2.90</b> (1.96-4.25)	<b>3.13</b> (2.07-4.68)
30-min	<b>1.59</b> (1.27-2.02)	<b>1.84</b> (1.47-2.34)	<b>2.26</b> (1.80-2.88)	<b>2.61</b> (2.06-3.34)	<b>3.09</b> (2.36-4.08)	<b>3.46</b> (2.59-4.64)	<b>3.83</b> (2.78-5.28)	<b>4.21</b> (2.95-5.98)	<b>4.71</b> (3.18-6.90)	<b>5.09</b> (3.36-7.59)
60-min	<b>2.20</b> (1.75-2.79)	<b>2.52</b> (2.01-3.21)	3.08 (2.45-3.93)	<b>3.57</b> (2.82-4.57)	<b>4.28</b> (3.30-5.71)	<b>4.85</b> (3.65-6.57)	<b>5.45</b> (3.98-7.57)	<b>6.09</b> (4.28-8.70)	<b>6.96</b> (4.72-10.2)	<b>7.65</b> (5.06-11.4)
2-hr	<b>2.80</b> (2.25-3.54)	<b>3.20</b> (2.57-4.04)	<b>3.91</b> (3.12-4.95)	<b>4.54</b> (3.60-5.77)	<b>5.47</b> (4.25-7.28)	<b>6.25</b> (4.75-8.43)	<b>7.08</b> (5.21-9.80)	<b>7.97</b> (5.64-11.3)	<b>9.21</b> (6.30-13.5)	<b>10.2</b> (6.79-15.1)
3-hr	<b>3.16</b> (2.54-3.96)	<b>3.60</b> (2.89-4.53)	<b>4.41</b> (3.53-5.56)	<b>5.16</b> (4.11-6.54)	<b>6.30</b> (4.93-8.39)	<b>7.27</b> (5.55-9.80)	<b>8.31</b> (6.15-11.5)	<b>9.45</b> (6.73-13.5)	<b>11.1</b> (7.61-16.2)	<b>12.4</b> (8.28-18.3)
6-hr	<b>3.70</b> (2.99-4.61)	<b>4.30</b> (3.47-5.37)	<b>5.41</b> (4.35-6.77)	<b>6.44</b> (5.16-8.10)	<b>8.02</b> (6.32-10.7)	<b>9.38</b> (7.21-12.6)	<b>10.8</b> (8.08-14.9)	<b>12.5</b> (8.94-17.6)	<b>14.8</b> (10.2-21.5)	<b>16.6</b> (11.2-24.4)
12-hr	<b>4.16</b> (3.39-5.16)	<b>5.03</b> (4.09-6.24)	<b>6.58</b> (5.33-8.19)	<b>8.00</b> (6.45-10.00)	<b>10.1</b> (8.02-13.4)	<b>11.9</b> (9.21-15.9)	<b>13.9</b> (10.4-18.9)	<b>15.9</b> (11.5-22.4)	<b>18.9</b> (13.2-27.3)	<b>21.3</b> (14.4-31.1)
24-hr	<b>4.74</b> (3.87-5.83)	<b>5.80</b> (4.74-7.14)	<b>7.69</b> (6.26-9.49)	<b>9.41</b> (7.62-11.7)	<b>12.0</b> (9.55-15.7)	<b>14.2</b> (11.0-18.8)	<b>16.5</b> (12.4-22.4)	<b>19.0</b> (13.8-26.6)	<b>22.6</b> (15.8-32.5)	<b>25.5</b> (17.4-36.9)
2-day	<b>5.56</b> (4.57-6.80)	<b>6.61</b> (5.43-8.09)	<b>8.54</b> (7.00-10.5)	<b>10.3</b> (8.43-12.7)	<b>13.1</b> (10.5-17.1)	<b>15.5</b> (12.1-20.4)	<b>18.1</b> (13.7-24.5)	<b>20.9</b> (15.3-29.1)	<b>25.0</b> (17.7-35.8)	<b>28.3</b> (19.4-40.8)
3-day	<b>6.13</b> (5.06-7.46)	<b>7.16</b> (5.90-8.72)	<b>9.07</b> (7.45-11.1)	<b>10.9</b> (8.89-13.3)	<b>13.7</b> (11.0-17.8)	<b>16.1</b> (12.7-21.2)	<b>18.8</b> (14.3-25.3)	<b>21.7</b> (15.9-30.0)	<b>25.9</b> (18.4-36.9)	<b>29.4</b> (20.2-42.1)
4-day	<b>6.65</b> (5.50-8.07)	<b>7.63</b> (6.30-9.26)	<b>9.47</b> (7.81-11.5)	<b>11.2</b> (9.22-13.8)	<b>14.0</b> (11.4-18.2)	<b>16.4</b> (13.0-21.5)	<b>19.1</b> (14.6-25.7)	<b>22.1</b> (16.3-30.5)	<b>26.3</b> (18.7-37.4)	<b>29.9</b> (20.6-42.7)
7-day	<b>8.12</b> (6.75-9.79)	<b>8.92</b> (7.41-10.8)	<b>10.5</b> (8.72-12.8)	<b>12.2</b> (10.0-14.8)	<b>14.8</b> (12.1-19.1)	<b>17.2</b> (13.6-22.4)	<b>19.8</b> (15.3-26.5)	<b>22.8</b> (16.9-31.4)	<b>27.2</b> (19.5-38.5)	<b>30.9</b> (21.4-43.9)
10-day	<b>9.32</b> (7.77-11.2)	<b>10.1</b> (8.44-12.2)	<b>11.8</b> (9.78-14.2)	<b>13.4</b> (11.1-16.3)	<b>16.1</b> (13.1-20.6)	<b>18.4</b> (14.7-23.9)	<b>21.1</b> (16.3-28.1)	<b>24.1</b> (17.9-33.0)	<b>28.5</b> (20.4-40.1)	<b>32.1</b> (22.3-45.5)
20-day	<b>12.3</b> (10.3-14.7)	<b>13.7</b> (11.5-16.4)	<b>16.2</b> (13.5-19.4)	<b>18.4</b> (15.3-22.1)	<b>21.6</b> (17.5-27.1)	<b>24.2</b> (19.2-30.8)	<b>26.9</b> (20.8-35.2)	<b>29.8</b> (22.2-40.1)	<b>33.8</b> (24.3-46.9)	<b>37.0</b> (25.9-52.1)
30-day	<b>14.7</b> (12.4-17.5)	<b>16.7</b> (14.0-19.8)	<b>19.9</b> (16.7-23.7)	<b>22.5</b> (18.8-27.0)	<b>26.2</b> (21.2-32.4)	<b>29.0</b> (23.0-36.4)	<b>31.7</b> (24.5-41.0)	<b>34.5</b> (25.7-46.0)	<b>38.2</b> (27.5-52.5)	<b>41.0</b> (28.8-57.5)
45-day	<b>17.9</b> (15.1-21.2)	<b>20.3</b> (17.1-24.1)	<b>24.2</b> (20.3-28.7)	<b>27.2</b> (22.8-32.5)	<b>31.3</b> (25.3-38.3)	<b>34.2</b> (27.2-42.6)	<b>37.0</b> (28.5-47.4)	<b>39.7</b> (29.5-52.4)	<b>43.0</b> (31.0-58.6)	<b>45.4</b> (32.0-63.3)
60-day	<b>20.7</b> (17.5-24.4)	<b>23.4</b> (19.8-27.6)	<b>27.5</b> (23.2-32.6)	<b>30.8</b> (25.8-36.6)	<b>34.9</b> (28.3-42.5)	<b>37.9</b> (30.2-47.0)	<b>40.7</b> (31.4-51.8)	<b>43.3</b> (32.3-56.9)	<b>46.4</b> (33.5-62.9)	<b>48.5</b> (34.4-67.5)

<sup>&</sup>lt;sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

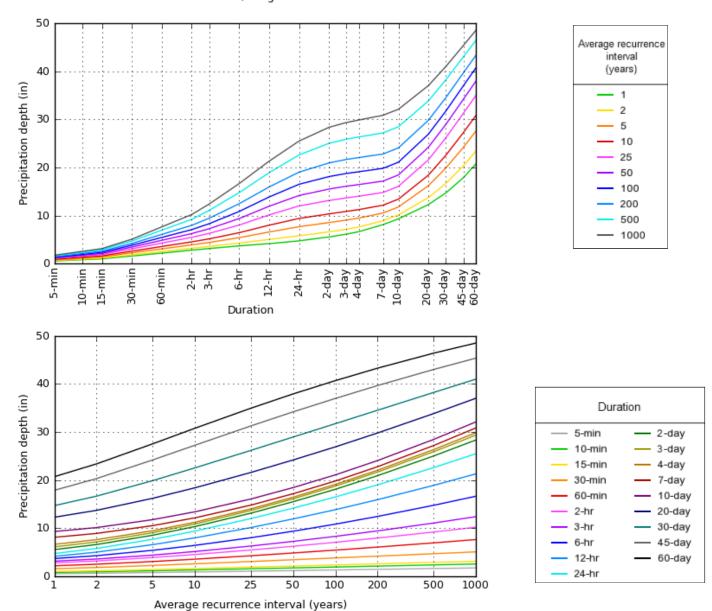
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper 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

### PDS-based depth-duration-frequency (DDF) curves Latitude: 26.1524°, Longitude: -80.1565°



NOAA Atlas 14, Volume 9, Version 2

Created (GMT): Thu Dec 8 16:30:32 2022

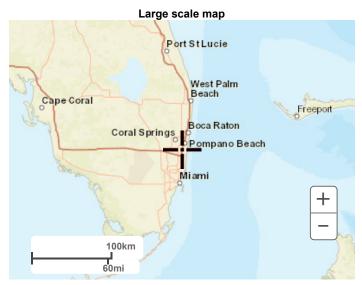
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### Maps & aerials

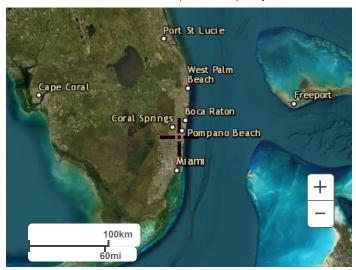
Small scale terrain







Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

<u>Disclaimer</u>

# 19th Street Townhomes - Habitat for Humanity KEITH PROJECT NUMBER: 10431.00 TRAFFIC IMPACT STATEMENT Engineering Inspired Design. Florida Engineering Business License: CA7928 Florida Surveyor and Mapper Business License: LB6860 Florida Landscape Architecture Business License: LC26000457 301 E. Atlantic Boulevard, Pompano Beach, FL 33060 954-788-3400

### 19<sup>th</sup> STREET TOWNHOMES NW 19<sup>th</sup> ST, FORT LAUDERDALE, FL 33311

# TRAFFIC IMPACT STATEMENT

Prepared For:

Habitat for Humanity 3564 North Ocean Blvd Fort Lauderdale, FL 33308

Prepared By:

KEITH

301 East Atlantic Boulevard

Pompano Beach, Florida 33060



### **Engineer's Certification**

I, Chris Rogers, PE, PE number 67359, certify that I currently hold an active Professional Engineer's License in the State of Florida, and I am competent through education or experience to provide engineering services in the civil and traffic engineering disciplines contained in this report. I further certify that this report was prepared by me or under my responsible charge as defined in Chapter 61G15-18.001 F.A.C. and that all statements, conclusions and recommendations made herein are true and correct to the best of my knowledge and ability.

Project Description: Traffic Impact Statement – 19th Street Townhomes Project



C=US, E=crogers@keithteam.co m,OU=Director of Engineering, CN=Christopher Rogers 2022.12.09 15:22:18-05'00'

Chris Rogers, P.E. Florida Registration P.E. No. 67359 KEITH



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### **APPENDICES**

**Appendix A:** Fort Lauderdale Unified Land Development Code (ULDC)

Appendix B: Conceptual Site Plan

**Appendix C:** Existing Property Information

**Appendix D:** Trip Generation Rates



### 1 PROJECT OVERVIEW

### 1.1 Introduction

KEITH was retained by the *Habitat for Humanity* to complete a Traffic Impact Statement for the proposed Townhomes at NW 19<sup>th</sup> St in Fort Lauderdale, Florida. The Traffic Impact Statement was prepared following the City of Fort Lauderdale Unified Land Development Code (ULDC), Article 5 – Development Review Criteria, which is included in **Appendix A. Figure 1.1** shows the project location, and a conceptual site plan is included in **Appendix B**.



Figure 1.1: Project Location

### 1.2 Existing Conditions

The existing site is an empty parcel. The Parcel ID for the site is 4942-28-31-00010. A copy of the existing property information for the parcel is included in **Appendix C**.



### 2 PROPOSED DEVELOPMENT

### 2.1 Proposed Land Use

The proposed development comprises of 20 units of Townhouses and an office space for the residents of 1802 sq. ft. A copy of the conceptual site plan is included in **Appendix B**.

### 2.2 Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> Edition was utilized to estimate the proposed development's daily and peak hour trips. Based on the proposed development, Single-Family Attached Housing (LUC) 215 and Small Office Building (LUC) 712 was applied in the trip generation calculations. The following equations were used for Daily, A.M. peak, and P.M. peak hour periods:

### • LUC 215 - Single-Family Attached Housing:

Daily: T=7.20(X) (Directional Distribution: 50% In / 50% Out)

AM Peak Hour: T=0.48(X) (Directional Distribution: 31% In / 69% Out) PM Peak Hour: T=0.57(X) (Directional Distribution: 57% In / 43% Out)

### • LUC 712 - Small Office Building:

Daily: T=14.39(X) (Directional Distribution: 50% In / 50% Out)

AM Peak Hour: T=1.67(X) (Directional Distribution: 82% In / 18% Out) PM Peak Hour: T=2.16(X) (Directional Distribution: 34% In / 66% Out)

The trip generation results are summarized in **Table 2.1** for the Daily, A.M. peak hour, and P.M. peak hour, and a copy of the ITE Trip Generation Rates used is included in **Appendix D**. The proposed development is expected to generate 170 Daily Trips, 13 A.M. peak hour and 15 P.M. peak hour trips. According to the City of Fort Lauderdale ULDC, Article 5, a Traffic Study is required if the development is expected to generate more than 1000 Daily Trips. Since, the proposed development is expected to generate 170 Daily trips, therefore only a Traffic Statement is prepared for this proposed development.



### **Table 2.1: Trip Generation**

Daily Trip Generation									
Land Use			ntensity	Trip Generation Rate	<b>Directional Distribution</b>		Total Calculated Trips		
	Code	Quantity	•		% Entering	% Exiting	Entry	Exit	Total
Proposed Development Single-Family Attached Housing	215	20	Dwelling Units	T = 7.20 (X)	50%	50%	72	72	144
Small Office Building	712	1802	Square Feet	T = 14.39 (X)	50%	50%	13	13	26
					Proposed	Daily Trips	85	85	170

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition

A.M. Peak Hour Trip Generation									
Land Use	ITE	Ir	ntensity	Trip Generation Rate	Directional D	istribution	Total	Calculat	ed Trips
	Code	Quantity	Units	,	% Entering % Exiting		Entry	Exit	Total
Proposed Development Single-Family Attached Housing	215	20	Dwelling Units	T = 0.48 (X)	31%	69%	3	7	10
Small Office Building	712	1802	Square Feet	T = 1.67 (X)	82%	18%	2	1	3
					Proposed	Daily Trips	6	7	13

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition

P.M. Peak Hour Trip Generation									
Land Use	ITE	,		Trip Generation Rate	<b>Directional Distribution</b>		Total Calculated Trips		
	Code	Quantity	Units		% Entering	% Exiting	Entry	Exit	Total
Proposed Development Single-Family Attached Housing	215	20	Dwelling Units	T = 0.57 (X)	57%	43%	6	5	11
Small Office Building	712	1802	Square Feet	T = 2.16 (X)	34%	66%	1	3	4
					Proposed	Daily Trips	8	7	15

Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition



### 3 CONCLUSION

A Traffic Impact Statement has been prepared to evaluate and estimate any traffic related impacts of the proposed development following the City of Fort Lauderdale Unified Land Development Code (ULDC) Article 5 Development Review Criteria. Based on the trip generation analysis, the proposed development is expected to generate 170 Daily Trips, 13 A.M. peak hour and 15 P.M. peak hour trips, which is less than 1000 Daily Trips; therefore, a Traffic Impact Study is not required. Additionally, the proposed development is not expected to adversely impact any surrounding roadways within the project area.



# APPENDIX A

Fort Lauderdale Unified Land Development Code (ULDC)

city's comprehensive plan and accepted applicable traffic engineering standards. Site-specific traffic studies may be required to be made and paid for by the applicant when the city determines such a study is required in order to evaluate the impact of the proposed development on proposed or existing roadways as provided for in subsection M.4. An applicant may submit to the city such a study to be considered as part of the DRC review. Street improvements needed to upgrade the capacity or comply with the functional classification of local streets shall be made in accordance with the city engineering standards and acceptable applicable traffic engineering standards. Local streets are those streets that are not classified as federal, state or county roadways on the functional classification map adopted by the State of Florida.

#### 4. Traffic impact studies.

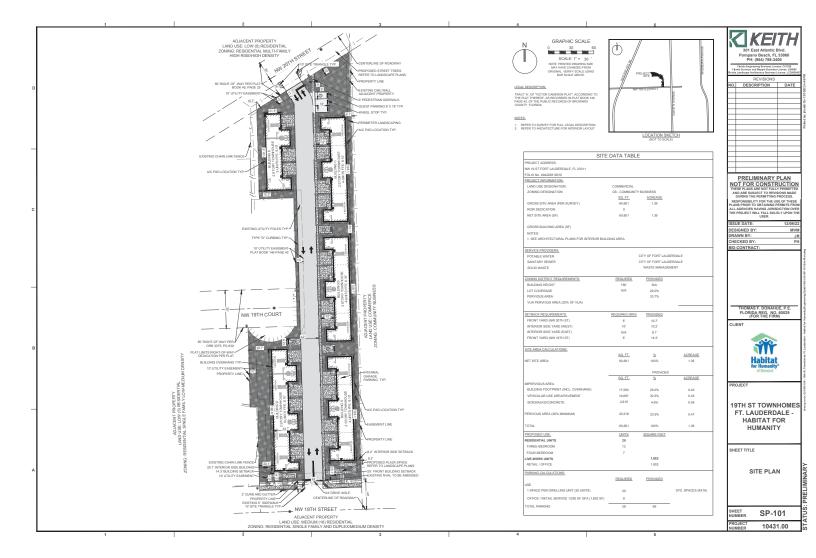
- a. When the proposed development may generate over one thousand (1,000) daily trips; or
- b. When the daily trip generation is less than one thousand (1,000) trips; and (1) when more than twenty percent (20%) of the total daily trips are anticipated to arrive or depart, or both, within one-half (½) hour; or (2) when the proposed use creates varying trip generation each day, but has the potential to place more than twenty percent (20%) of its maximum twenty-four (24) hour trip generation onto the adjacent transportation system within a one-half (½) hour period; the applicant shall submit to the city a traffic impact analysis prepared by the county or a registered Florida engineer experienced in trafficways impact analysis which shall:
  - i. Provide an estimate of the number of average and peak hour trips per day generated and directions or routes of travel for all trips with an external end.
  - ii. Estimate how traffic from the proposed development will change traffic volumes, levels of service, and circulation on the existing and programmed trafficways.
  - iii. If traffic generated by the proposed development requires any modification of existing or programmed components of the regional or local trafficways, define what city, county or state agencies have programmed the necessary construction and how this programming relates to the proposed development.
  - iv. A further detailed analysis and any other information that the review committee considers relevant.
  - v. The traffic impact study may be reviewed by an independent licensed professional engineer contracted by the city to determine whether it adequately addresses the impact and the study supports its conclusions. The cost of review by city's consultant shall be reimbursed to the city by the applicant.
  - vi. When this subsection M.4.b. applies, the traffic study shall include an analysis of how the peak loading will affect the transportation system including, if necessary, an operational plan showing how the peak trips will be controlled and managed.
- 5. Dedication of rights-of-way. Property shall be conveyed to the public by plat, deed or grant of easement as needed in accordance with the Broward County Trafficways Plan, the city's comprehensive plan, subdivision regulations and accepted applicable traffic engineering standards.
- 6. Pedestrian facilities. Sidewalks, pedestrian crossing and other pedestrian facilities shall be provided to encourage safe and adequate pedestrian movement on-site and along roadways to adjacent properties. Transit service facilities shall be provided for as required by the city and Broward County Transit. Pedestrian facilities shall be designed and installed in accordance with city engineering standards and accepted applicable engineering standards.
- 7. *Primary arterial street frontage.* Where a proposed development abuts a primary arterial street either existing or proposed in the trafficways plan, the development review committee (DRC) may require

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# **APPENDIX B**

Conceptual Site Plan





# APPENDIX C

**Existing Property Information** 



Site Address	NW 19 STREET, FORT LAUDERDALE FL 33311	ID#	4942 28 31 0010
11.1.19	HABITAT FOR HUMANITY OF	Millage	0312
	BROWARD INC	Use	10-01
Mailing Address	888 NW 62 ST 2FL FORT LAUDERDALE FL 33309		
Abbr Legal Description	VICTOR CAMERON PLAT 146-42 B TRACT 'A'		

The just values displayed below were set in compliance with Sec. 193.011, Fla. Stat., and include a

		* 20	023 value	s are co	nsidere	d "working \	/alues	and	are subject	to char	nge.	
					Prope	rty Assessr	nent \	/alues	S			
Year		Land	$\Box$		ling / rement	Jı	ıst / M Valu					Тах
2023	\$5	14,730				(	\$514,7	'30	\$	514,73	0	
2022	\$5	14,730					\$514,7	'30	\$	499,59	0	\$788.24
2021	\$4	54,180					\$454,1	80	\$	454,18	0	\$788.24
			2023	Exempti	ons an	d Taxable V	/alues	by Ta	axing Auth	ority		
				(	County	Sc	chool	Board	d Mu	ınicipa	l li	ndependent
Just Valı	ıe			\$5	14,730		\$5 <sup>-</sup>	14,730	) \$	514,730		\$514,730
Portabili	ty				0			(	)	C	)	0
Assesse	d/SOH			\$5	14,730		\$5	14,730	) \$	514,730		\$514,730
Homeste					0		0 0			0		
Add. Ho		ad			0			(		C		0
Wid/Vet/	Dis				0			(		С	)	0
Senior					0 0			C	<u> </u>	0		
Exempt	Гуре	34-15		\$5	514,730 \$514,73			\$514,730		\$514,730		
Taxable					0				0	C		0
				History					La	and Cal	lculations	
Dat		Туре	_	rice	_	k/Page or C	IN		Price	F	actor	Type
12/21/2		WD-D	<del></del>	5,000		115519442	$\dashv$		\$8.50	60	0,557	SF
4/14/20		WD-C	. , , , ,	0,000	-	112944641	$\dashv$					
8/18/20	80	CET-1	_	100	4	5706 / 666						
11/13/2	006	WD	\$50	0,000	4	3186 / 348						
6/2/19	6/2/1997 WD \$12			0,000	2	6554 / 426			Adj. E	Idg. S.	F.	
					Spe	ecial Asses	smen	ts				
Fire	Ga	arb	Light	D	rain	Impr	Sa		Storm		Clean	Misc
03		$\neg \uparrow$		$\top$				F3				
L		$\neg \uparrow$		$\top$						o		
	-	$\rightarrow$		_			$\vdash$	-		$\overline{}$		+

	Special Assessments									
Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc		
03						F3				
L										
1						60557				



# **APPENDIX D**

**Trip Generation Rates** 

### Land Use: 215 Single-Family Attached Housing

### **Description**

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

#### **Additional Data**

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/tripand-parking-generation/).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

#### Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077



# Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

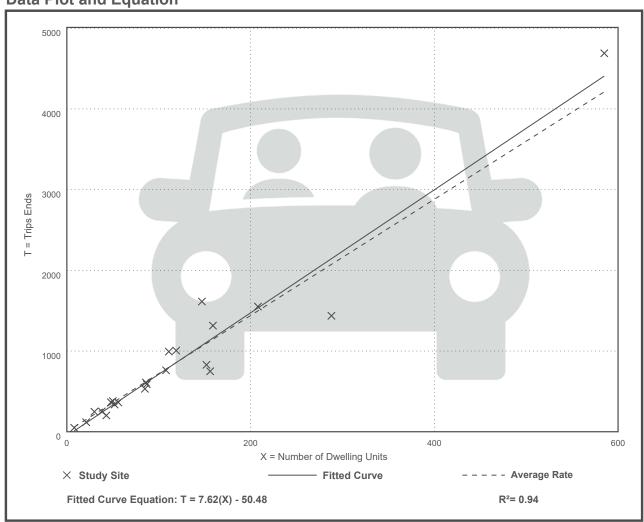
Setting/Location: General Urban/Suburban

Number of Studies: 22 Avg. Num. of Dwelling Units: 120

Directional Distribution: 50% entering, 50% exiting

### **Vehicle Trip Generation per Dwelling Unit**

Average Rate	Range of Rates	Standard Deviation
7.20	4.70 - 10.97	1.61





# Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

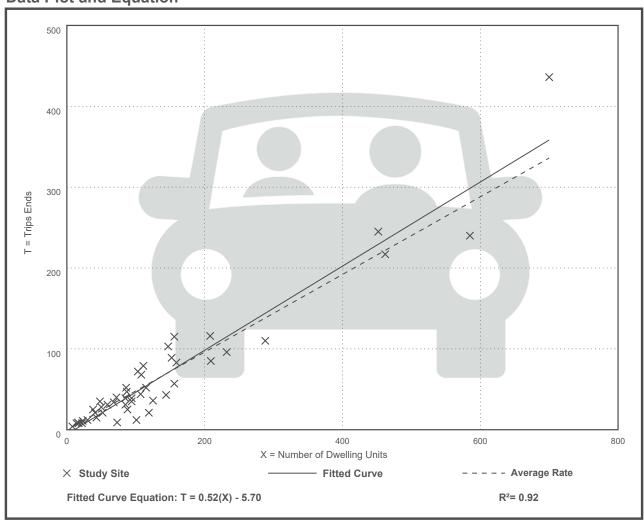
Setting/Location: General Urban/Suburban

Number of Studies: 46 Avg. Num. of Dwelling Units: 135

Directional Distribution: 31% entering, 69% exiting

### **Vehicle Trip Generation per Dwelling Unit**

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14





# Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

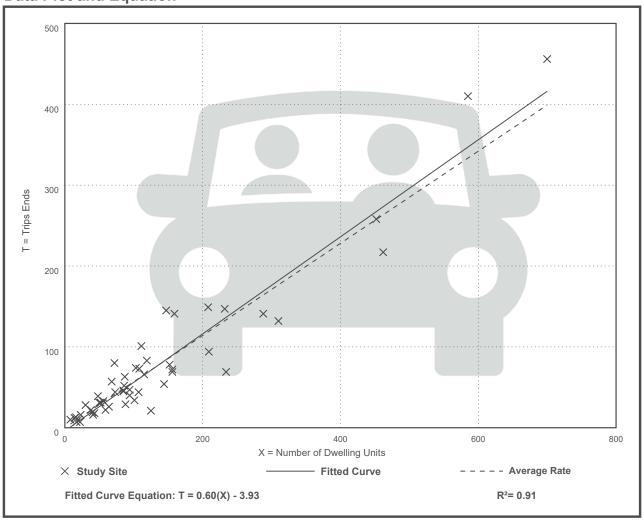
Setting/Location: General Urban/Suburban

Number of Studies: 51 Avg. Num. of Dwelling Units: 136

Directional Distribution: 57% entering, 43% exiting

### **Vehicle Trip Generation per Dwelling Unit**

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18





### Land Use: 712 **Small Office Building**

### **Description**

A small office building is the same as a general office building (Land Use 710) but with less than or equal to 10,000 square feet of gross floor area. The building typically houses a single tenant. It is a location where affairs of a business, commercial or industrial organization, or professional person or firm are conducted. General office building (Land Use 710) is a related use.

#### **Additional Data**

Attorney office, mortgage company, financial advisor, insurance agency, home health care provider, and real estate company are examples of tenants included in the small office building database. The diversity of employer types results in a wide range in employee density in the database. Densities range from a high of 1,300 to a low of 240 square feet per employee with an overall average of nearly 600 square feet per employee (a value much larger than the average observed in a general office building study sites).

In addition to the significant difference in employee density, small office buildings tend to be dominated by a single tenant (or very few) that are more service-oriented than a typical general office building. The result is more frequent and regular visitors and higher trip generation rates.

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/tripand-parking-generation/).

The sites were surveyed in the 1980s and the 2010s in Alberta (CAN), California, Texas, and Wisconsin.

#### **Source Numbers**

418, 890, 891, 959, 976



# Small Office Building (712)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

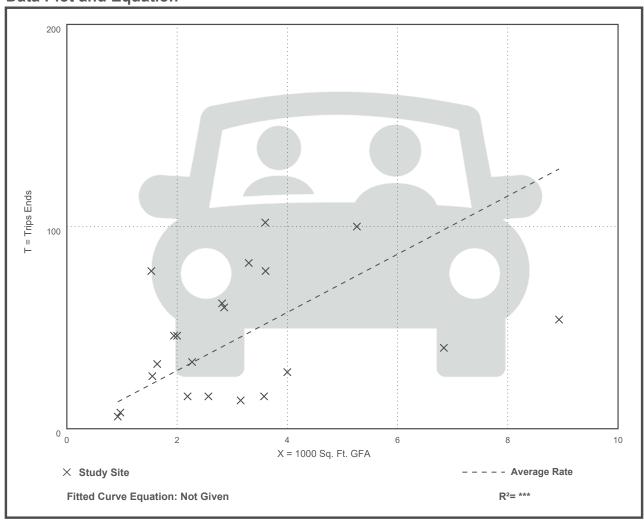
Setting/Location: General Urban/Suburban

Number of Studies: 21 Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
14.39	4.44 - 50.91	10.16





### **Small Office Building** (712)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

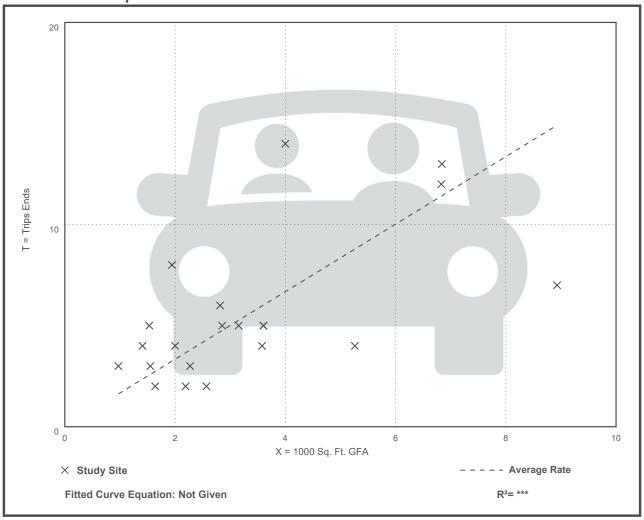
Setting/Location: General Urban/Suburban

Number of Studies: 21 Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 82% entering, 18% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88





# Small Office Building (712)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

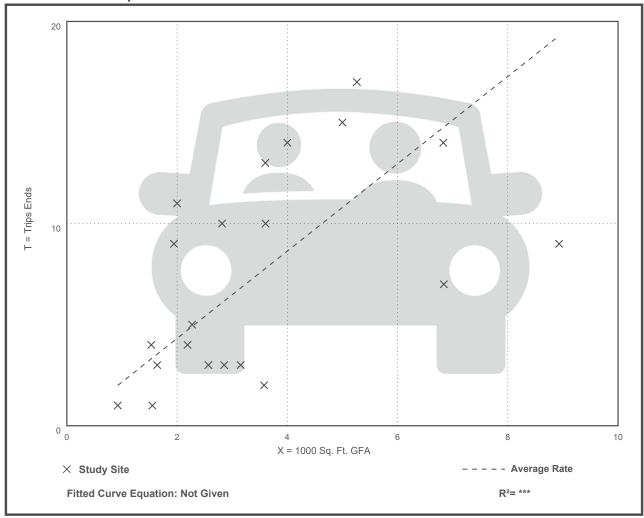
Setting/Location: General Urban/Suburban

Number of Studies: 21 Avg. 1000 Sq. Ft. GFA: 3

Directional Distribution: 34% entering, 66% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26







### LETTER OF AUTHORIZATION

City of Fort Lauderdale Urban Design and Planning Division 700 NW 19<sup>th</sup> Ave Fort Lauderdale, FL 33311 Broward County
Urban Planning Division
1 N University Drive
Plantation, FL 33324

RE: Habitat for Humanity Broward NW 19<sup>TH</sup> ST Fort Lauderdale, FL 33311

Folio: 4942 28 31 0010

To Whom It May Concern:

I, NAWY (COSIN), am the authorized agent of HABITAT FOR HUMANITY OF BROWARD INC, the owner of property located at NW 19TH ST and described in the legal description.

TRACT 'A', OF "VICTOR CAMERON PLAT", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 146, PAGE 42, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA

Said land is situated in the City of Fort Lauderdale, Broward County, Florida.

We hereby authorize Keith & Associates, Inc. (KEITH), to act on our behalf to submit all necessary applications for entitlement and development related issues.

Signature of owner/agent	Print Name	
Much	NANCY LO	SIN, CEO
Sworn and subscribed to before me this _	DTh day of Nove	nhu, 20 2Z
He/she is personally known to me or		
Has presented as identification.		
July Frust	<u>Kenpefeter</u>	Don 11/30/22
Signature of Notary Public	Witness	Date
Zayn Frust	Here w	u 11/30/2022
Print Name	Witness	Date
Zayn Frost		



### **CITY OF FORT LAUDERDALE**

DEPARTMENT OF SUSTAINABLE DEVELOPMENT • BUILDING SERVICES DIVISION

### **ADDRESS VERIFICATION**

CONTAC	T: Devon Anderson Phone: 954-828-5233
	Email: DAnderson@fortlauderdale.gov
PROJECT A	ADDRESS: 1040 NW 20 ST, 33311
PREVIOUS	ADDRESS: 1040 NW 20 ST, 33311
NOTES:	NEW 20-UNIT TOWNHOME DEVELOPMENT
ZONING:	СВ
FOLIO #:	494228310010
LEGAL DES	SCRIPTION: VICTOR CAMERON PLAT 146-42 B TRACT 'A'
DRC#:	
AUTHORI7	ZED SIGNATURE:
DATE:	12/01/2022



Site Address	NW 19 STREET, FORT LAUDERDALE FL 33311	ID#	4942 28 31 0010
<b>Property Owner</b>	HABITAT FOR HUMANITY OF	Millage	0312
	BROWARD INC	Use	10-01
Mailing Address	888 NW 62 ST 2FL FORT LAUDERDALE FL 33309		
Abbr Legal Description	VICTOR CAMERON PLAT 146-42 B TRACT 'A'		

### The just values displayed below were set in compliance with Sec. 193.011, Fla. Stat., and include a reduction for costs of sale and other adjustments required by Sec. 193.011(8).

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* 2022 valu	es are consid	ered "w	orking va	a <mark>lues</mark> p <b>ø</b> n	ly areseubjantito	<b>/aange</b> .				
Year	Land			ding / vement	Just / I Val		1 -	ssessed OH Valu		Tax
2022*	\$514,730				\$514,	730		\$499,590		
2021	\$454,180				\$454,	180		\$454,180		\$788.24
2020	\$454,180				\$454,	180		\$454,180		\$788.24
		2022*	Exempti	ions and	d Taxable Values	by Tax	ing Auth	ority		
			(	County	School	Board	Mı	unicipal	In	dependent
Just Value			\$5	14,730	\$5	14,730	\$	514,730	730 \$514,730	
Portability				0		0	0		0 0	
Assessed/	SOH		\$4	99,590	\$5	14,730	\$-	499,590		\$499,590
Homestead	d	0			0		0		0	
Add. Home	dd. Homestead			0		0		0		0
Wid/Vet/Di	Dis			0		0		0		0
Senior				0	0		0		0	
<b>Exempt Ty</b>	Exempt Type 34-15		\$4	99,590	\$514,730		\$-	\$499,590		\$499,590
Taxable 0		0 0		0						
		Sales	History				La	and Calc	ulations	
Date	Туре	F	Price	Book	/Page or CIN	Pr	ice	Fa	ctor	Type
12/21/201	8 WD-D	\$49	95,000	1	15519442	\$8.	.50	60,	 557	SF
4/14/2014	5 WD 0	фээ	20 000	4	12044641	<u> </u>				

Sales History					
Date	Type	Price	Book/Page or CIN		
12/21/2018	WD-D	\$495,000	115519442		
4/14/2015	WD-Q	\$330,000	112944641		
8/18/2008	CET-T	\$100	45706 / 666		
11/13/2006	WD	\$500,000	43186 / 348		
6/2/1997	WD	\$120,000	26554 / 426		

Land Calculations					
Price	Factor	Type			
\$8.50	60,557	SF			
Adj. Bldg. S.F.					

	Special Assessments							
Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc
03						F3		
L								
1						60557		

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DIVISION OF CORPORATIONS



Department of State / Division of Corporations / Search Records / Search by Entity Name /

### **Detail by Entity Name**

Florida Not For Profit Corporation
HABITAT FOR HUMANITY OF BROWARD, INC.

#### **Filing Information**

 Document Number
 769100

 FEI/EIN Number
 59-2320573

 Date Filed
 06/24/1983

State FL

Status ACTIVE

Last Event AMENDMENT
Event Date Filed 09/17/2020
Event Effective Date NONE

#### Principal Address

888 NW 62ND ST 2ND FLOOR

ZNDTLOOK

FORT LAUDERDALE, FL 33309

Changed: 02/14/2022

#### **Mailing Address**

888 NW 62ND ST

2ND FLOOR

FORT LAUDERDALE, FL 33309

Changed: 02/14/2022

### Registered Agent Name & Address

Robin, Nancy L 888 NW 62ND ST 2ND FLOOR

FORT LAUDERDALE, FL 33309

Name Changed: 07/07/2016

Address Changed: 02/14/2022

Officer/Director Detail
Name & Address

Title TREA

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PALMER, STEPHEN R 888 NW 62ND ST 2ND FLOOR FORT LAUDERDALE, FL 33309

Title SECRETARY

BARRON, ROBERT 350 EAST LAS OLAS BLVD STE 1000 FT LAUDERDALE, FL 33301

Title CEO

Robin , Nancy 888 NW 62ND ST 2ND FLOOR FORT LAUDERDALE, FL 33309

Title P

KELLY, KOLB 401 E LAS OLAS BLVD - STE. 2250 FT. LAUDERDALE, FL 33301

Title T

PARDO, LILY 888 NW 62ND ST 2ND FLOOR FORT LAUDERDALE, FL 33309

### **Annual Reports**

Report Year	Filed Date
2020	01/07/2020
2021	04/13/2021
2022	02/14/2022

### **Document Images**

02/14/2022 ANNUAL REPORT	View image in PDF format
04/13/2021 ANNUAL REPORT	View image in PDF format
<u>09/17/2020 Amendment</u>	View image in PDF format
01/07/2020 ANNUAL REPORT	View image in PDF format
01/29/2019 ANNUAL REPORT	View image in PDF format
01/16/2018 ANNUAL REPORT	View image in PDF format
10/26/2017 Amendment	View image in PDF format
04/04/2017 ANNUAL REPORT	View image in PDF format
07/07/2016 AMENDED ANNUAL REPORT	View image in PDF format
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02/14/2014 ANNUAL REPORT	View image in PDF format
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04/28/2011 ANNUAL REPORT	View image in PDF format
02/23/2011 ANNUAL REPORT	View image in PDF format
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