

SECTION NO(S): 860500000  
S.R. NO.(S): A1A  
COUNTY: Broward  
PERMIT NO.: 2021-L-491-00003

**DISTRICT FOUR (4) AMENDMENT NUMBER TWENTY-TWO (22) TO  
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
INCLUSIVE LANDSCAPE MAINTENANCE MEMORANDUM OF AGREEMENT**

This is Amendment Number Twenty-Two (22) to the Agreement dated December 5, 2007, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between the State of Florida Department of Transportation hereinafter called the “**DEPARTMENT**” and the **CITY OF POMPANO BEACH**, a municipal corporation of the State of Florida, hereinafter called the “**AGENCY**”.

**WHEREAS**, the parties entered into the Inclusive Landscape Maintenance Memorandum of Agreement dated December 5, 2007 for the purpose of maintaining the landscape improvements by the AGENCY on various State Road(s) including State Road A1A (Ocean Blvd.); and

**WHEREAS**, the DEPARTMENT and the AGENCY have agreed to add additional landscape improvements to be installed on State Road A1A (Ocean Blvd.) in accordance with the above referenced Agreement; and

**NOW THEREFORE**, for and in consideration of mutual benefits that flow each to the other, the parties covenant and agree as follows:

1. Pursuant to paragraph 12, page 8 of the original Landscape Inclusive Maintenance Memorandum of Agreement dated December 5, 2007, the DEPARTMENT will allow the **Agency** to construct additional landscape improvements or to modify an improvement located as indicated in **Exhibit “A”**, State Road A1A (Ocean Blvd.) from M.P. 8.687 to M.P. 9.890, in accordance with the plans attached as **Exhibit “B”** and **Exhibit “C”** Patterned Pavement Installation.
2. The AGENCY shall agree to maintain the additional landscape improvements according to **Exhibit “F”** Maintenance Plan of the original agreement, Amendment #21, **Exhibit “D”** Patterned Pavement Maintenance of this agreement, and as follows:

**PART II. SPECIFIC PROJECT SITE MAINTENANCE REQUIREMENTS AND RECOMMENDATIONS**

- A. The design intent is to provide salt tolerant vegetation within the proposed medians that meets the clear sight window dimensions, as well as the clear sight spacing requirements of the FDOT.

- B. To maintain the intended appearance of all palms, apply the latest palm fertilizer recommended by the University of Florida IFAS Extension per the manufacturer's specifications.
- C. To maintain the intended appearance of all shrubs or turf grass, apply the latest fertilizer recommended by the University of Florida IFAS Extension per the manufacturer's specifications.
- D. Palms with persistent fronds shall only have dead fronds removed, do not remove any green fronds. If it is deemed necessary to prune a palm's fronds, no fronds shall be trimmed above 3 o'clock and 9 o'clock on the horizontal plain.
- E. Groundcover and shrub horizontal growth shall be maintained to prevent foliage from growing beyond the limits of the planting areas shown on the plan. Maintain a 6" setback from the foliage to the edge of curb, pavement, sidewalk and/or other hardscape improvements.
- F. Maintain the vertical height of Dwarf Natal Plum below 18".
- G. Inspect groundcovers and shrubs on a monthly basis for maintaining full ground coverage.
- H. Evaluate plant material on a monthly basis for pests, diseases, drought stress or general decline. If required, follow the integrated pest management program established by the Agency to ensure healthy plants.
- I. Concrete pavers shall be inspected on a monthly basis for the aesthetic appearance and safety conditions. Address any issues identified by repairing or replacing those specific locations. To maintain the overall aesthetic appearance and safety of the concrete pavers they shall be cleaned on a yearly basis to prevent mold, dirt, oil, and gum build up. Joints and cracks in concrete, patterned concrete or asphalt, concrete pavers, concrete curbs, expansion joints, catch basins, gutter areas, etc. shall be inspected on a monthly basis to keep those areas free of weeds.
- J. Inspect the irrigation system performance on a monthly to ensure the system is providing 100% coverage, does not have sections of low pressure, heads and valves are clean and clear of debris and any damaged irrigation components (i.e., spray nozzles, spray heads, valve boxes, etc.) are repaired or replaced.

Except as modified by this Amendment, all terms and conditions of the AGREEMENT shall remain in full force and effect.

### **LIST OF EXHIBITS**

- Exhibit A – Landscape Improvements Maintenance Boundaries
- Exhibit B – Landscape Improvement Plan
- Exhibit C – Patterned Pavement Installation
- Exhibit D – Patterned Pavement Maintenance

In Witness whereof, the parties hereto have executed with this Amendment effective the \_\_\_\_\_ day \_\_\_\_\_ year written and approved.

**CITY OF POMPANO BEACH**

By: \_\_\_\_\_  
Chairperson/Mayor/Manager

Attest: \_\_\_\_\_(SEAL)  
Clerk

Legal Review                      Date  
  
\_\_\_\_\_

**STATE OF FLORIDA**  
**DEPARTMENT OF TRANSPORTATION**

By: \_\_\_\_\_  
Transportation Development Director

Attest: \_\_\_\_\_  
Executive Secretary

Legal Review                      Date  
  
\_\_\_\_\_  
Office of the General Counsel

**SECTION NO(S): 860500000**  
**S.R. NO.(S): A1A**  
**COUNTY: Broward**  
**PERMIT NO.: 2021-L-491-00003**

**EXHIBIT A**

**LANDSCAPE IMPROVEMENTS  
MAINTENANCE BOUNDARIES**

**I. PERMIT PROJECT LANDSCAPE IMPROVEMENTS MAINTENANCE LIMITS:**

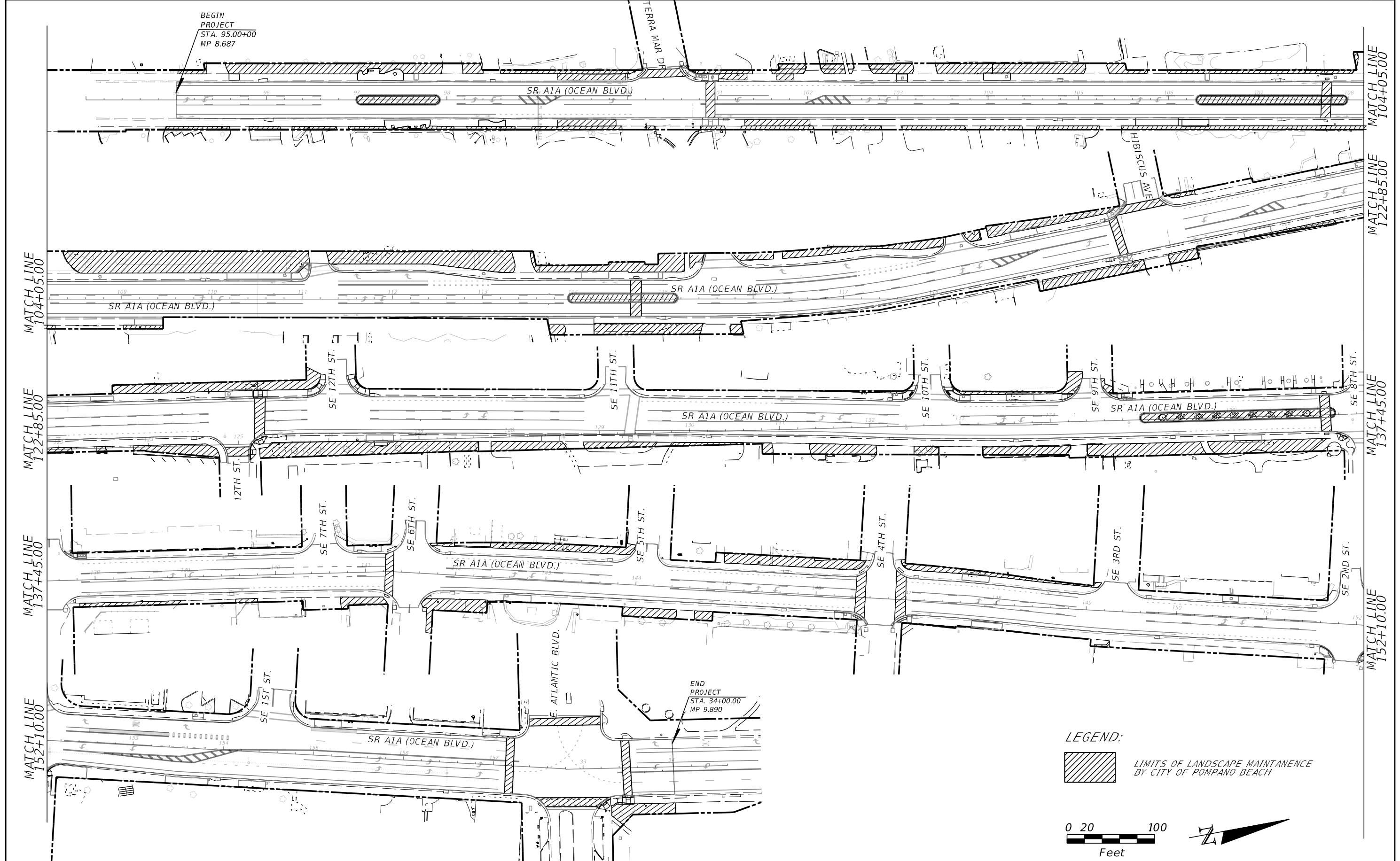
State Road A1A (Ocean Blvd.) from Sunset Lane (M.P. 8.687) to E. Atlantic Blvd.  
(M.P. 9.890)

**II. ORIGINAL INCLUSIVE LANDSCAPE MAINTENANCE AGREEMENT LIMITS  
FOR STATE ROAD A1A (Ocean Blvd.):**

State Road A1A (Ocean Blvd.) from M.P. 8.680 to M.P. 12.039 (Hillsboro Inlet)

**III. LANDSCAPE IMPROVEMENTS MAINTENANCE BOUNDARY MAP:**

*Please See Attached*



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

KEITH AND ASSOCIATES, INC  
 301 E ATLANTIC BLVD  
 POMPAÑO BEACH, FL 33060  
 (954) 788-3400  
 GEOFF CAMPBELL  
 R.L.A. NO 6667219

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR A1A	BROWARD	N/A

**LANDSCAPE MAINTENANCE  
BOUNDARY MAP**

EXHIBIT  
**A**

**SECTION NO(S): 860500000**  
**S.R. NO.(S): A1A**  
**COUNTY: Broward**  
**PERMIT NO.: 2021-L-491-00003**

**EXHIBIT B**

**LANDSCAPE IMPROVEMENT PLANS**

The AGENCY agrees to install the landscape improvements in accordance with the plans and specifications attached hereto and incorporated herein.

Please see attached plans prepared by: Geoffrey Campbell, RLA  
KEITH & Associates

Date: March 14, 2022

CITY OF  
**POMPANO BEACH**

**CONTRACT PLANS**

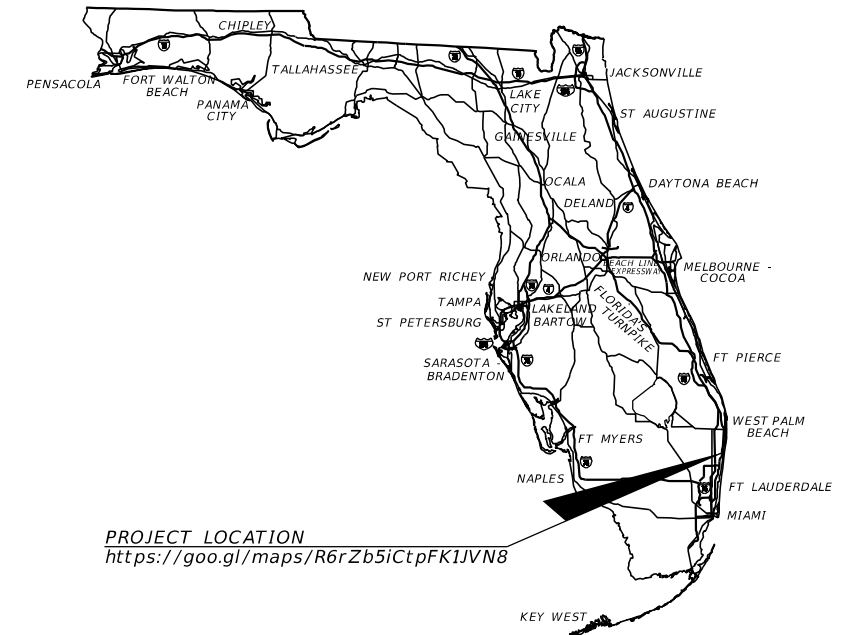
BROWARD COUNTY (86050)

SR A1A (S/N OCEAN BLVD.)  
STREETSCAPE IMPROVEMENTS  
BEGIN PROJECT: STA. 95+00.00, MP 8.687  
END PROJECT: STA. 34+00.00, MP 9.890

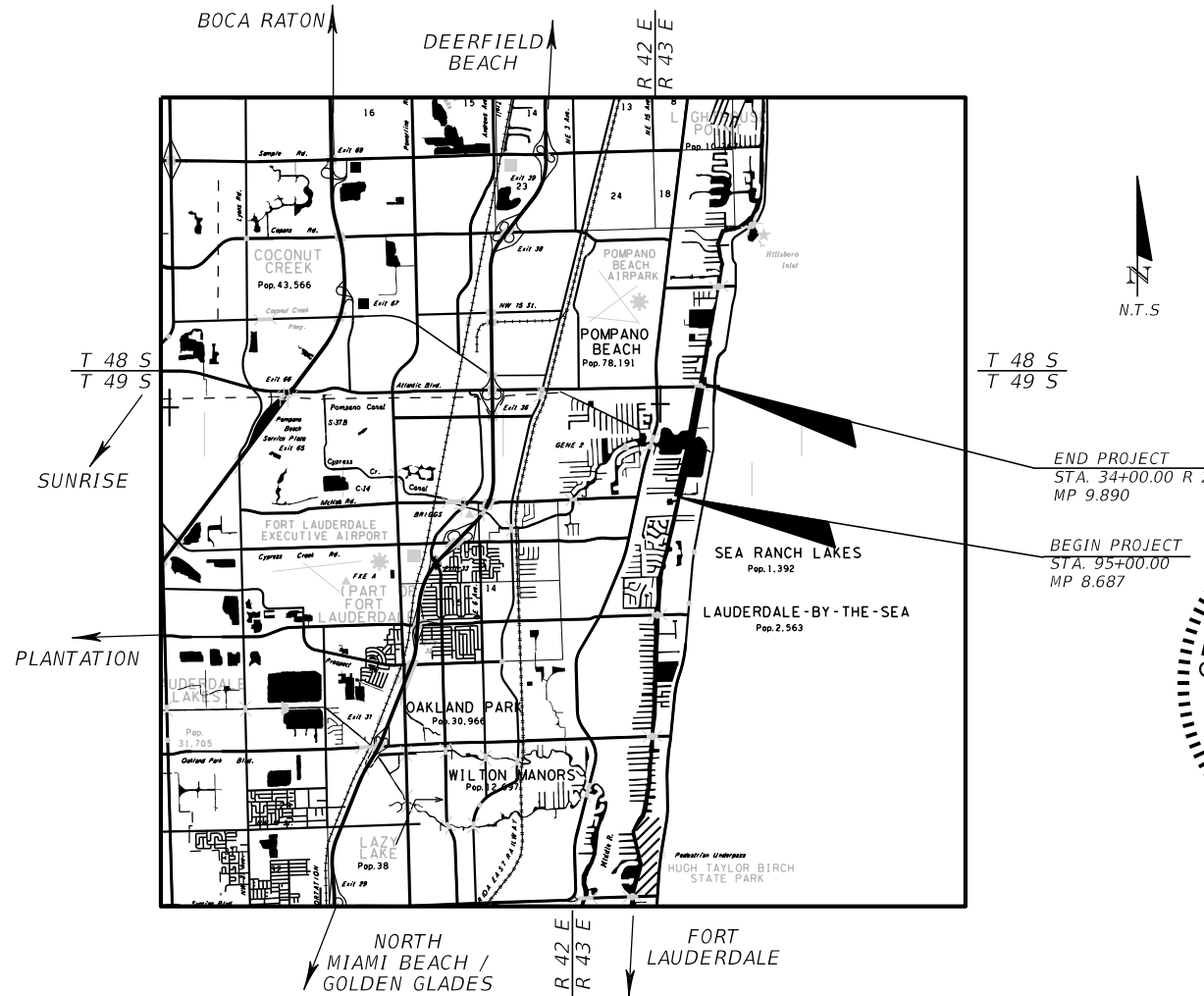
**LANDSCAPE AND IRRIGATION PLANS**

**INDEX OF LANDSCAPE PLANS**

SHEET NO.	SHEET DESCRIPTION
LD-1	KEY SHEET
LD-2	TABULATION OF QUANTITIES
LD-3	PLAN LAYOUT
LD-4 TO LD-15	LANDSCAPE PLANS
LD-16 TO LD-19	LANDSCAPE NOTES AND DETAILS
LD-20 TO LD-27	IRRIGATION PLANS
LD-28 TO LD-29	IRRIGATION NOTES AND DETAILS
LD-30	HARDSCAPE DETAILS

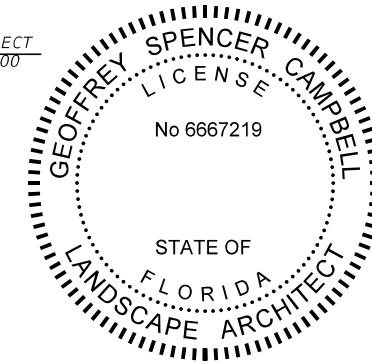


PROJECT LOCATION  
<https://goo.gl/maps/R6rZb5iCtpFK1JVn8>



END PROJECT  
STA. 34+00.00 R 2  
MP 9.890

BEGIN PROJECT  
STA. 95+00.00  
MP 8.687



THIS ITEM HAS BEEN DIGITALLY  
SIGNED AND SEALED BY

ON THE DATE ADJACENT TO THE SEAL  
PRINTED COPIES OF THIS DOCUMENT ARE  
NOT CONSIDERED SIGNED AND SEALED  
AND THE SIGNATURE MUST BE VERIFIED  
ON ANY ELECTRONIC COPIES.

**LANDSCAPE PLANS**

**RLA OF RECORD:**

GEOFF CAMPBELL, RLA NO.: 6667219  
KEITH AND ASSOCIATES, INC.  
301 EAST ATLANTIC BOULEVARD  
POMPANO BEACH, FL 33060  
(954) 788-3400  
CONTRACT NO.: N/A  
VENDOR NO.: F65-0806421



Know what's below.  
Call before you dig.

LIMITS OF CLEAR SIGHT LINE  $d=460$  FEET, PER FDM CH. 212, EXHIBIT 212-6, FOR A 4-LANE DIVIDED ROADWAY, DESIGN SPEED 35 MPH

FDOT Permit Number 2020-L-491-00003

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
N/A	21	LD-1

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.011, F.A.C.

**LANDSCAPE TABULATION OF QUANTITIES / PLANT SCHEDULE**

PAY ITEM NO.	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAXIMUM MAINT'D SIZE	SPACING	REMARKS	UNIT	GRAND TOTAL	
									PLAN	FINAL
<i>Trees</i>										
580-1-2	PD	PTYCHOSPERMA ELEGANS	SOLITAIRE PALM	8.5` CT. MIN., MAX. 4" CAL, FL#1		AS SHOWN	Full canopy	EA	7	
580-1-2	TR	THRINAX RADIATA	FLORIDA THATCH PALM	8.5` CT. MIN., MAX. 4" CAL, FL#1		AS SHOWN	Full canopy	EA	15	
<i>Shrub Areas</i>										
580-1-1	CM	CARISSA MACROCARPA 'EMERALD BLANKET'	DWARF NATAL PLUM	3 GAL., 12"HT. X 12" SPRD.	18"	18" O.C.		EA	564	
<i>Groundcovers</i>										
580-1-1	AG	ARACHIS GLABRATA	PERENIAL PEANUT	1GAL, 6" HT.	18"	12" O.C.		EA	1,475	
580-1-1	NF	NEOREGELIA X 'FIREBALL'	FIREBALL BROMELIAD	1GAL, 6" HT.	18"	12" O.C.		EA	1,050	
580-1-1		MULCH	MULCH					CY	43	

**IRRIGATION TABULATION OF QUANTITIES**

PAY ITEM NO.	MANUFACTURER/MODEL/DESCRIPTION	UNITS	GRAND TOTAL	
			PLAN	FINAL
590-1 Landscape Irrigation System	RAIN BIRD 1806 5 SERIES MPR SHRUB SPRAY, 6 INCH POP-UP	EA	1	
	RAIN BIRD 1806 8 SERIES MPR SHRUB SPRAY, 6 INCH POP-UP	EA	142	
	RAIN BIRD 1802-1300AF ADJUSTABLE FLOW BUBBLER, 2 INCH POP-UP	EA	54	
	RAIN BIRD PEB 1" IRRIGATION VALVE	EA	8	
	RAIN BIRD ESP-9V1, 2 ZONE BATTERY CONTROLLER WIRED TO A RSD-BEX RAIN SENSOR	EA	4	
	IRRIGATION SLEEVING: PVC SCHEDULE 40	LF	70	
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	LF	1700	
	IRRIGATION MAINLINE: PVC SCHEDULE 40	LF	250	

**HARDSCAPE TABULATION OF QUANTITIES**

PAY ITEM NO.	PAY ITEM DESCRIPTION	MANUFACTURER/MODEL/DESCRIPTION	COLOR	FINISH	GRAND TOTAL	
					PLAN	FINAL
526-1-2	PAVERS, ARCH, SIDEWALK	BELGARD - OCEANSIDE - 4" X 8" x 2-3/8"	33% MALT 33% GRAY 33% CREAM	STANDARD	207 SY	



Know what's below.  
Call before you dig.

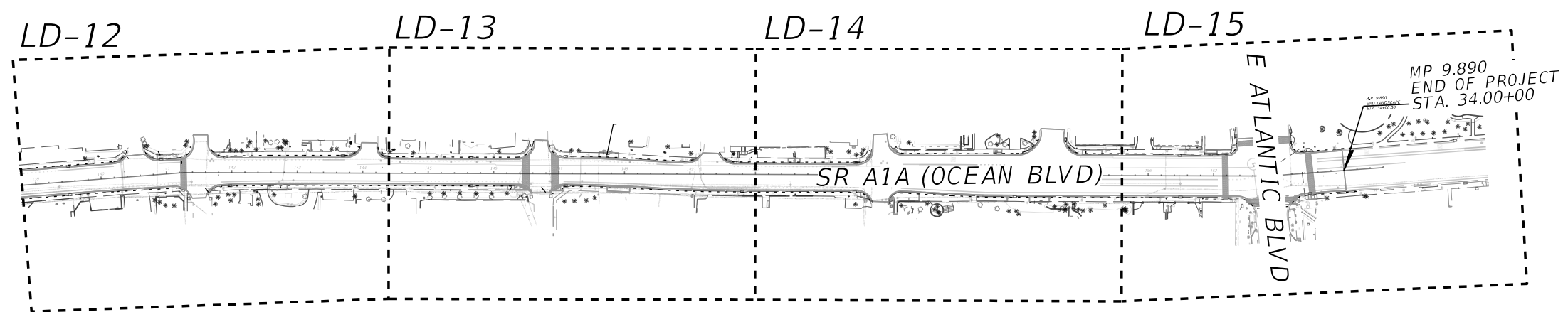
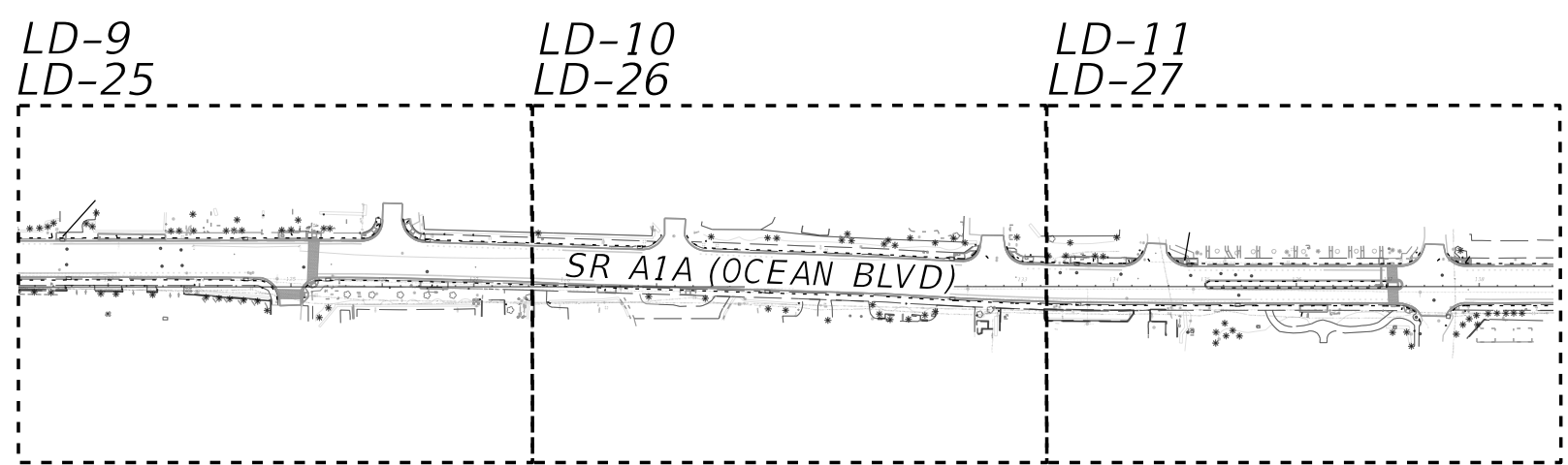
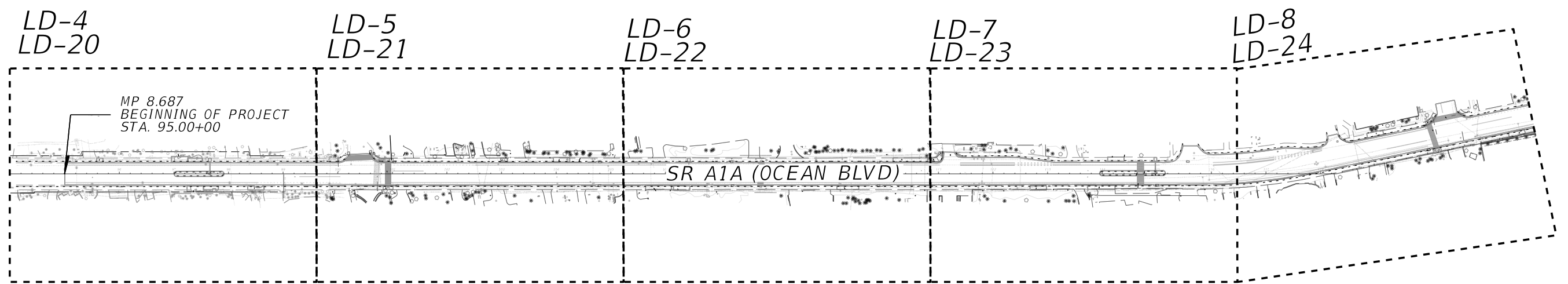
FDOT Permit Number 2020-L-491-00003

REVISIONS DATE DESCRIPTION DATE DESCRIPTION				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-2
					ROAD NO. COUNTY FINANCIAL PROJECT ID SR A1A BROWARD N/A	<b>TABULATION OF QUANTITIES</b>		

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# LANDSCAPE AND IRRIGATION PLAN LAYOUT

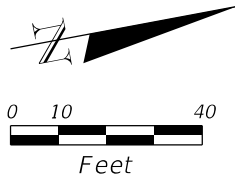


FDOT Permit Number 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-3
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

PLAN LAYOUT

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MP 8.687  
BEGIN LANDSCAPE  
STA. 95.00+00

EMERALD TOWER

RIO ESPANA CONDOMINIUM

SUNSET LANE

ENSURE EXIST. VEGETATION IS PROTECTED PER FDOT STD. INDEX 110-100 IN CONSTRUCTION AREAS, TYP.

PROP. CONC. BUS STOP AND S/W, SEE ROADWAY PLANS

PROPOSED CONC. S/W, SEE ROADWAY PLANS

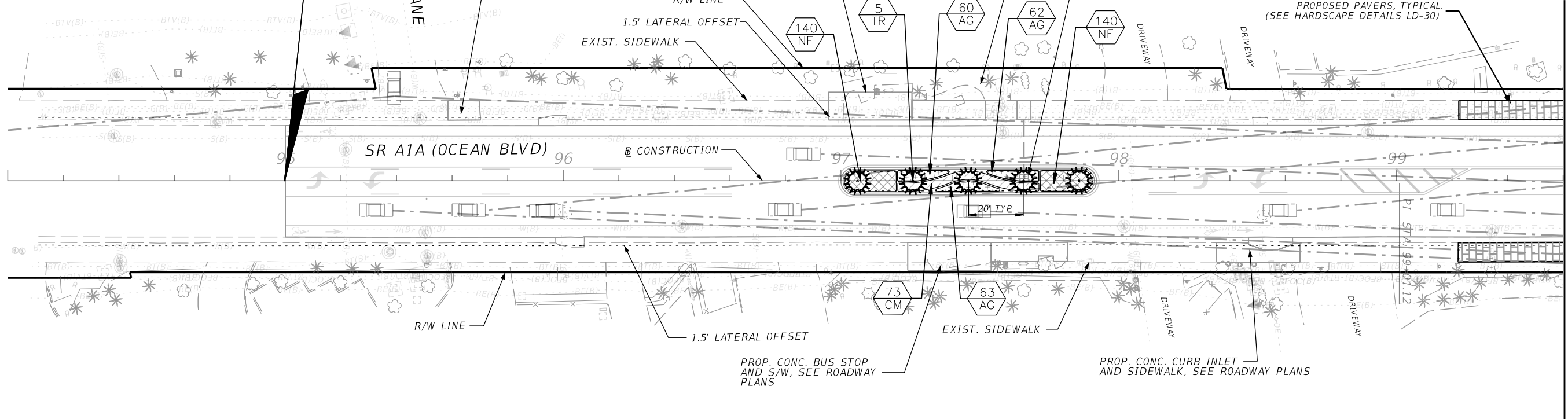
R/W LINE

1.5' LATERAL OFFSET

EXIST. SIDEWALK

COORD. METER INSTALLATION AROUND PROP. PALM LOCATIONS, TYP.

PROPOSED PAVERS, TYPICAL (SEE HARDSCAPE DETAILS LD-30)



MATCHLINE STA. 99+60.00

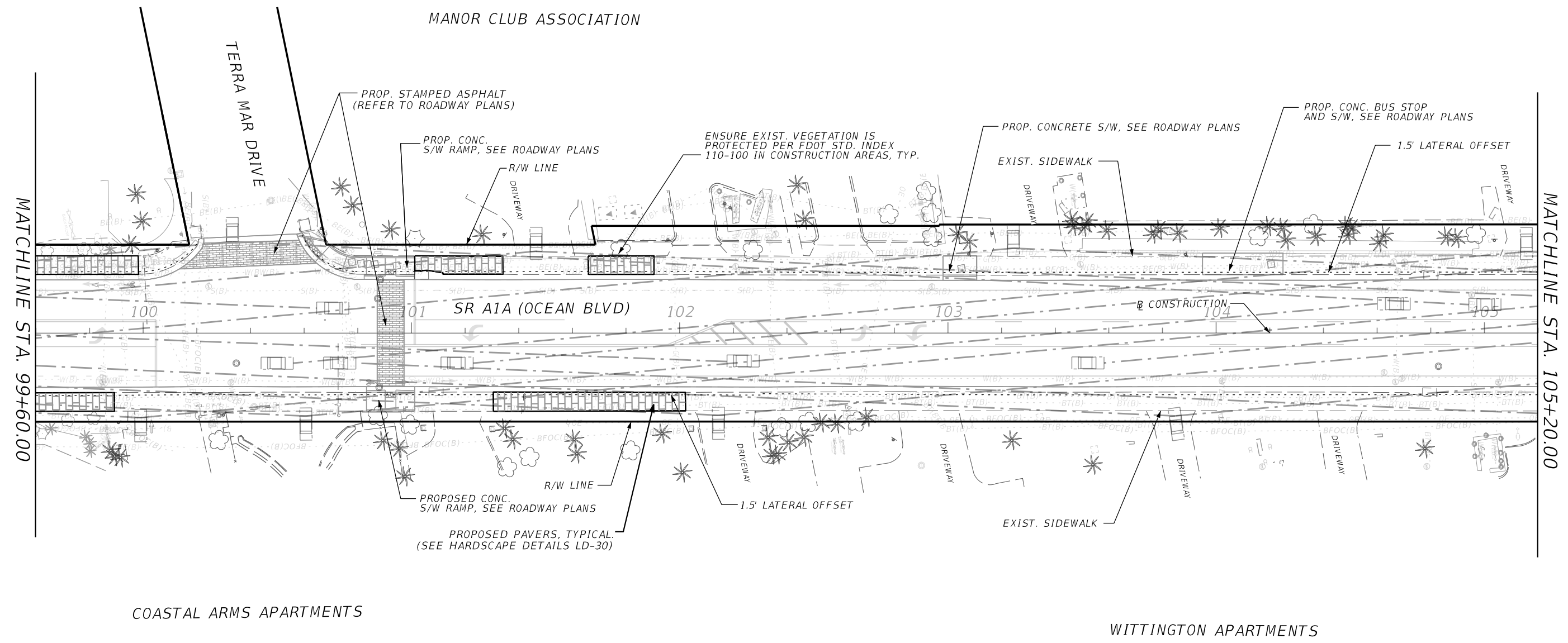
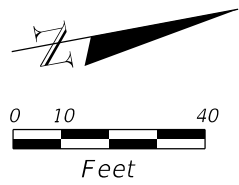
COASTAL ARMS APARTMENTS



FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LANDSCAPE PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR A1A	BROWARD	N/A		LD-4

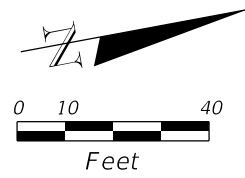
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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR A1A	BROWARD	N/A	LANDSCAPE PLAN	

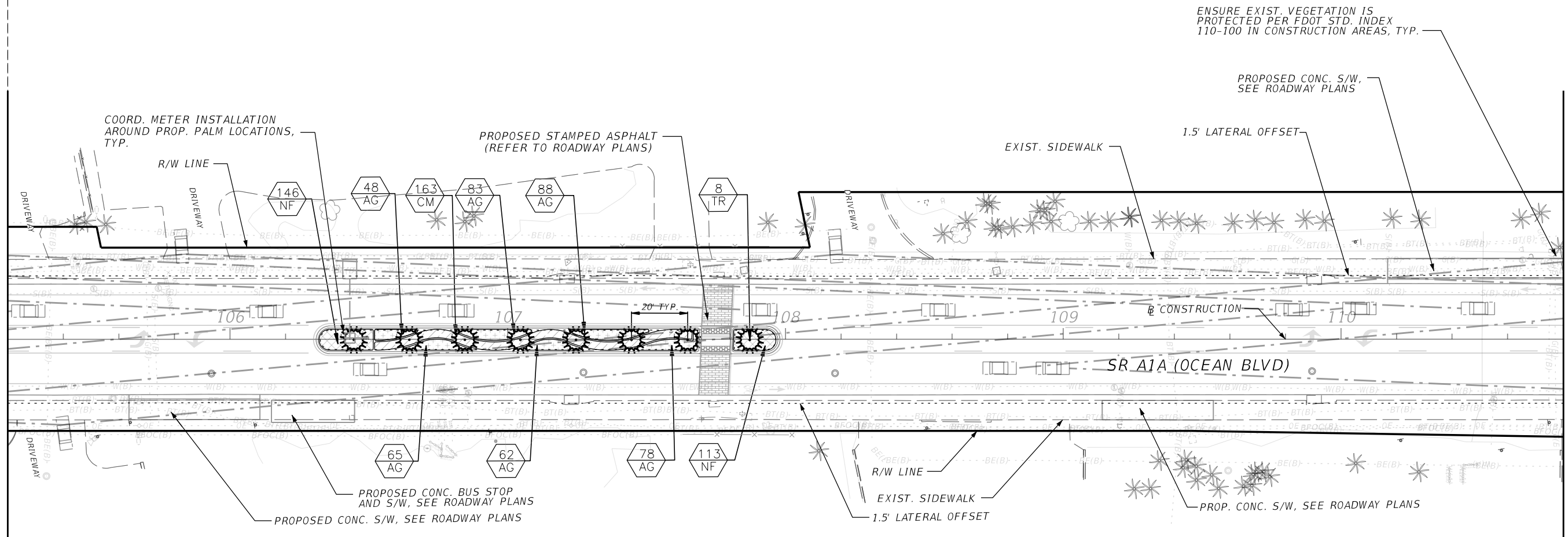
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FIVE STAR PREMIER RESIDENCES OF POMPANO BEACH

MATCHLINE STA. 105+20.00

MATCHLINE STA. 110+80.00



ENSURE EXIST. VEGETATION IS PROTECTED PER FDOT STD. INDEX 110-100 IN CONSTRUCTION AREAS, TYP.

PROPOSED CONC. S/W, SEE ROADWAY PLANS

COORD. METER INSTALLATION AROUND PROP. PALM LOCATIONS, TYP.

PROPOSED STAMPED ASPHALT (REFER TO ROADWAY PLANS)

EXIST. SIDEWALK

1.5' LATERAL OFFSET

SR A1A (OCEAN BLVD)

CONSTRUCTION

PROPOSED CONC. BUS STOP AND S/W, SEE ROADWAY PLANS

PROPOSED CONC. S/W, SEE ROADWAY PLANS

EXIST. SIDEWALK  
1.5' LATERAL OFFSET

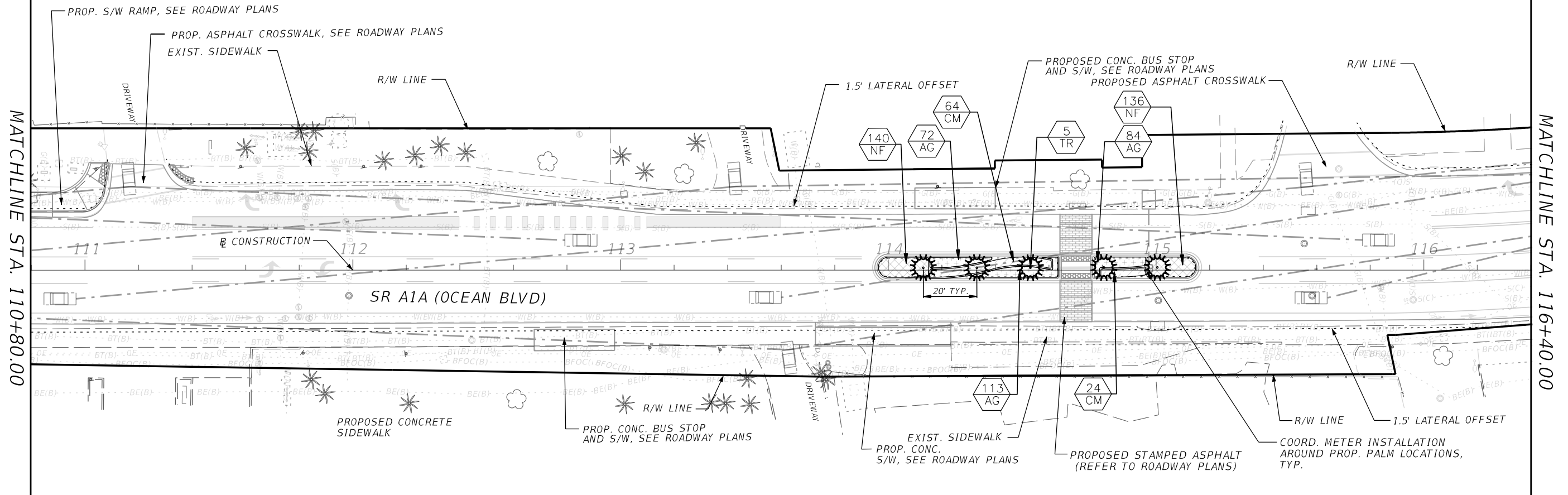
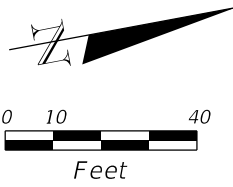
PROP. CONC. S/W, SEE ROADWAY PLANS



FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LANDSCAPE PLAN	SHEET NO. LD-6
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR A1A	BROWARD	N/A		
KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219				rnevarez 3/14/2022 11:39:13 AM Q:\10654.04 -SR A1A Streetscape Improvements - COPB (KEITH Prime)\Highway - FDOT\cadd\Phase 1 PB No. 19353-CADD\landscp\PLANLD06.dgn				

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RENAISSANCE

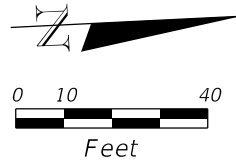


FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  <b>LD-7</b>
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR A1A	BROWARD	N/A	<b>LANDSCAPE PLAN</b>	

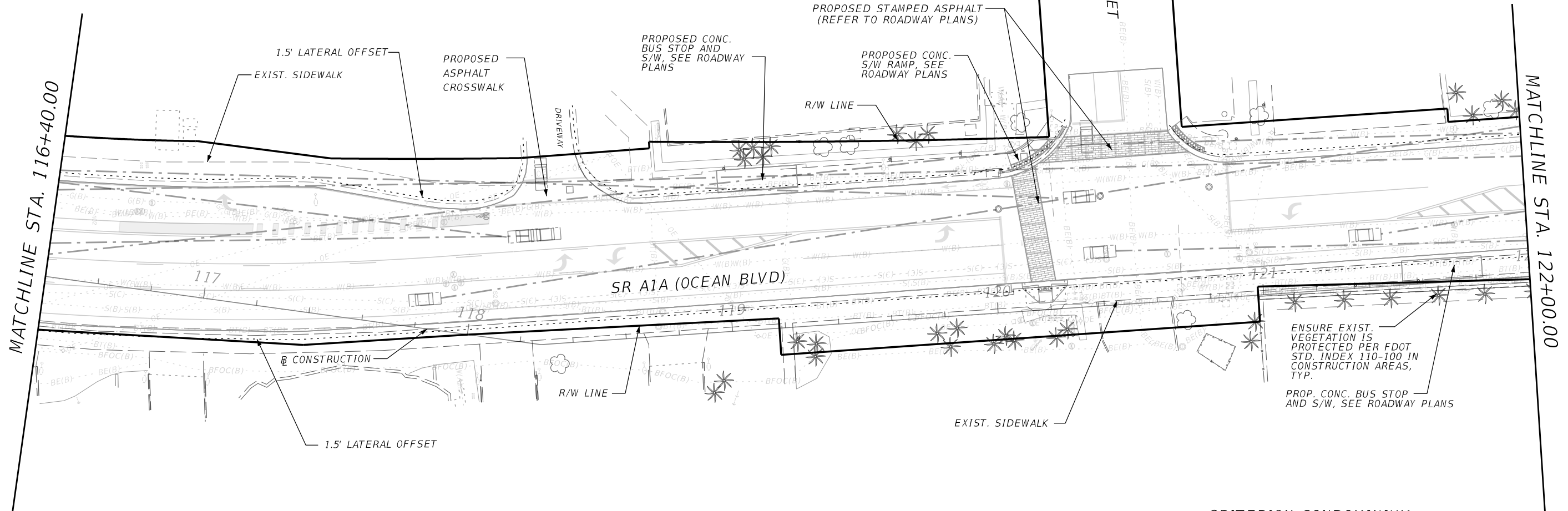
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WYNDHAM SANTA BARBARA



MATCHLINE STA. 116+40.00

MATCHLINE STA. 122+00.00



ENSURE EXIST. VEGETATION IS PROTECTED PER FDOT STD. INDEX 110-100 IN CONSTRUCTION AREAS, TYP.  
PROP. CONC. BUS STOP AND S/W, SEE ROADWAY PLANS



FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

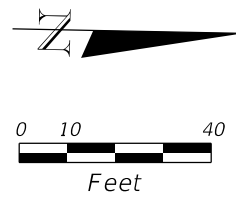
KEITH AND ASSOCIATES, INC  
301 E ATLANTIC BLVD  
POMPANO BEACH, FL 33060  
(954) 788-3400  
GEOFF CAMPBELL  
R.L.A NO 6667219

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR A1A	BROWARD	N/A

LANDSCAPE PLAN

SHEET NO.  
LD-8

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LAKESIDE SHOPPES

MATCHLINE STA. 122+00.00

MATCHLINE STA. 127+60.00

SE 12TH STREET

SE 12TH STREET

HILLSBORO RAINBOW ON THE OCEAN

BEACHCOMBER RESORT AND VILLAS

SR A1A (OCEAN BLVD)

ENSURE EXIST. VEGETATION IS PROTECTED PER FDOT STD. INDEX 110-100 IN CONSTRUCTION AREAS, TYP.

PROPOSED CONC. BUS STOP AND S/W, SEE ROADWAY PLANS

PROPOSED CONC. S/W RAMP, SEE ROADWAY PLANS  
PROPOSED ASPHALT CROSSWALK, SEE ROADWAY PLANS  
EXIST. SIDEWALK

R/W LINE

1.5' LATERAL OFFSET

DRIVEWAY

PROPOSED CONC. S/W, SEE ROADWAY PLANS

1.5' LATERAL OFFSET

R/W LINE

PROPOSED CONC. BUS STOP AND S/W, SEE ROADWAY PLANS

EXIST. SIDEWALK

PROPOSED STAMPED ASPHALT (REFER TO ROADWAY PLANS)



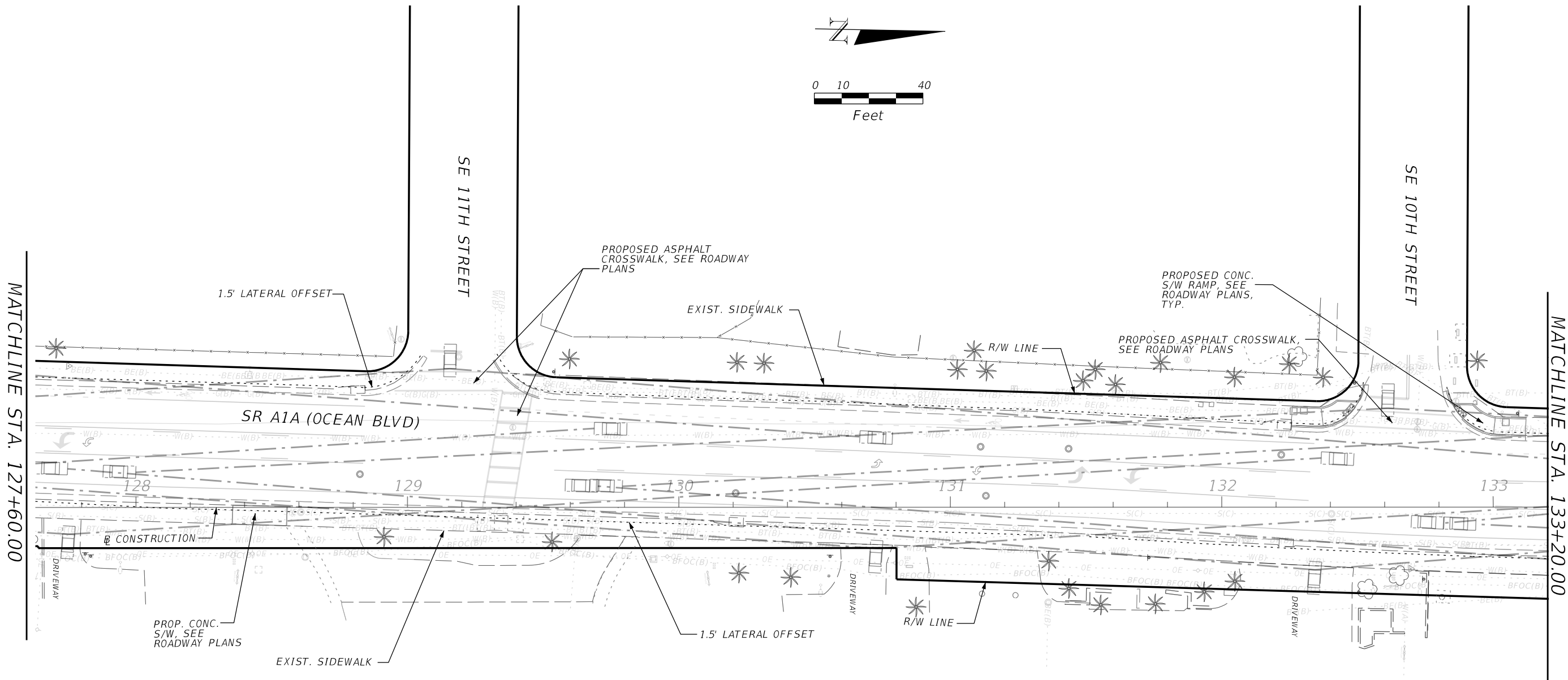
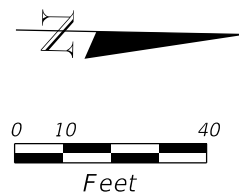
Know what's below.  
Call before you dig.

FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LANDSCAPE PLAN	SHEET NO. LD-9
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR A1A	BROWARD	N/A		

KEITH AND ASSOCIATES, INC  
301 E ATLANTIC BLVD  
POMPANO BEACH, FL 33060  
(954) 788-3400  
GEOFF CAMPBELL  
R.L.A NO 6667219

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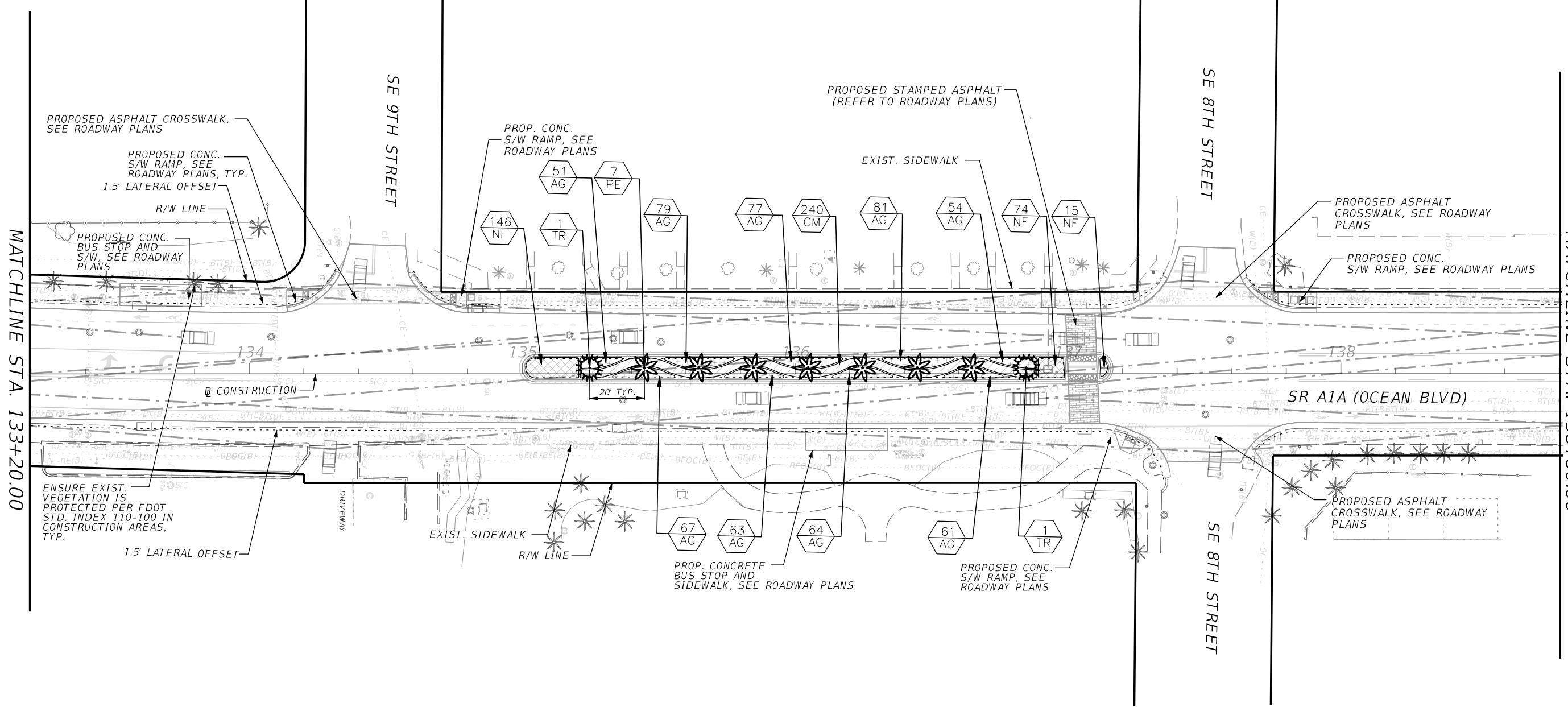
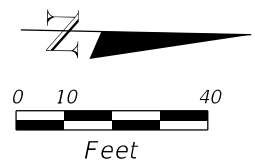


FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-10
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR A1A	BROWARD	N/A	LANDSCAPE PLAN	

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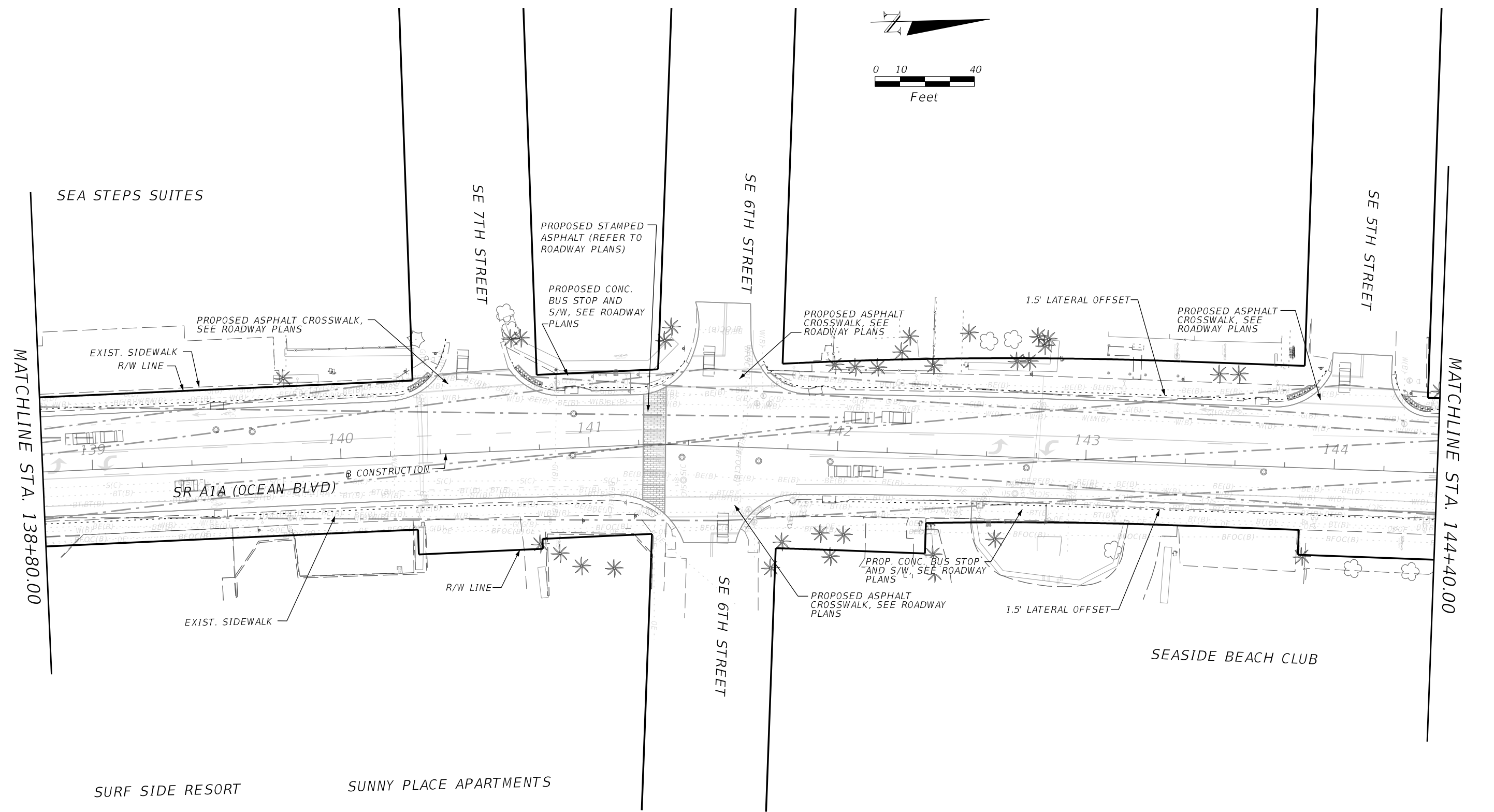
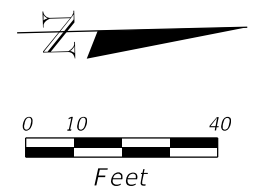
SONATA BEACH CLUB



FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  <b>LD-11</b>
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR A1A	BROWARD	N/A	<b>LANDSCAPE PLAN</b>	

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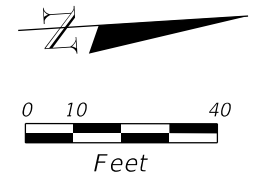


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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

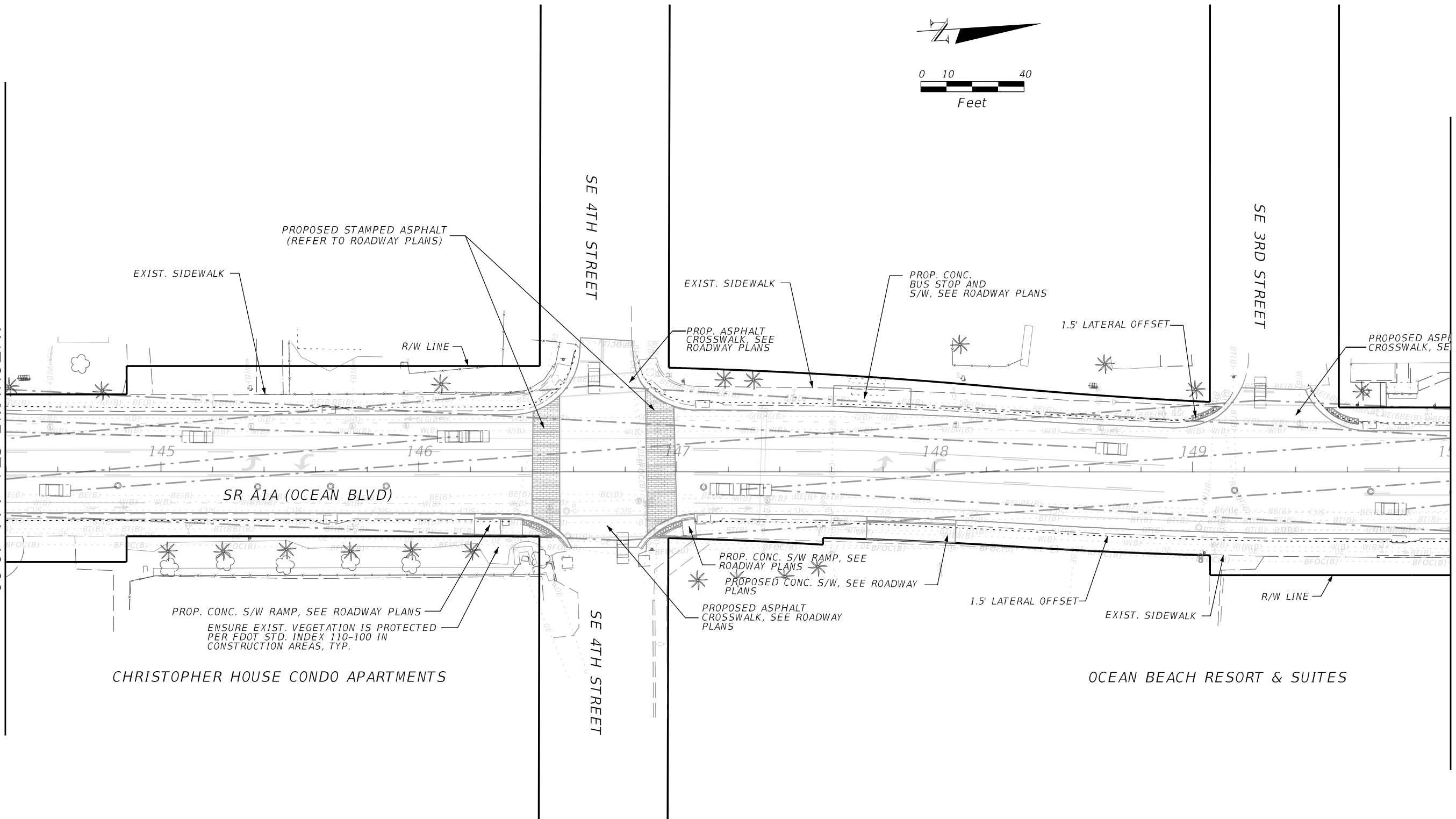
LANDSCAPE PLAN

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MATCHLINE STA. 144+40.00

MATCHLINE STA. 150+00.00

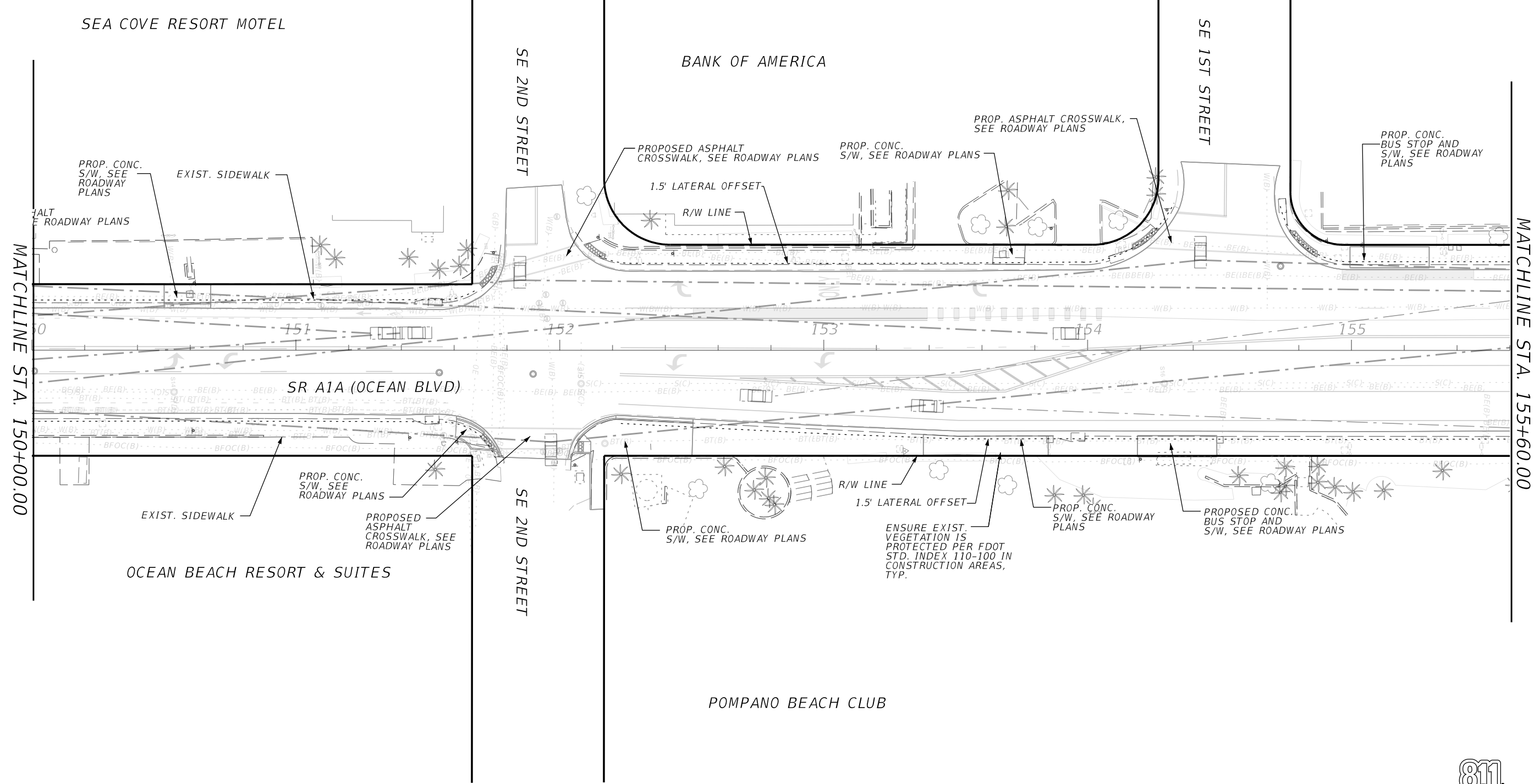
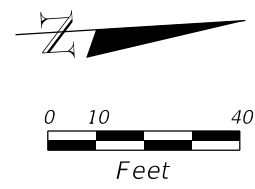


FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LANDSCAPE PLAN	SHEET NO.  LD-13
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR A1A	BROWARD	N/A		

KEITH AND ASSOCIATES, INC  
301 E ATLANTIC BLVD  
POMPANO BEACH, FL 33060  
(954) 788-3400  
GEOFF CAMPBELL  
R.L.A NO 6667219

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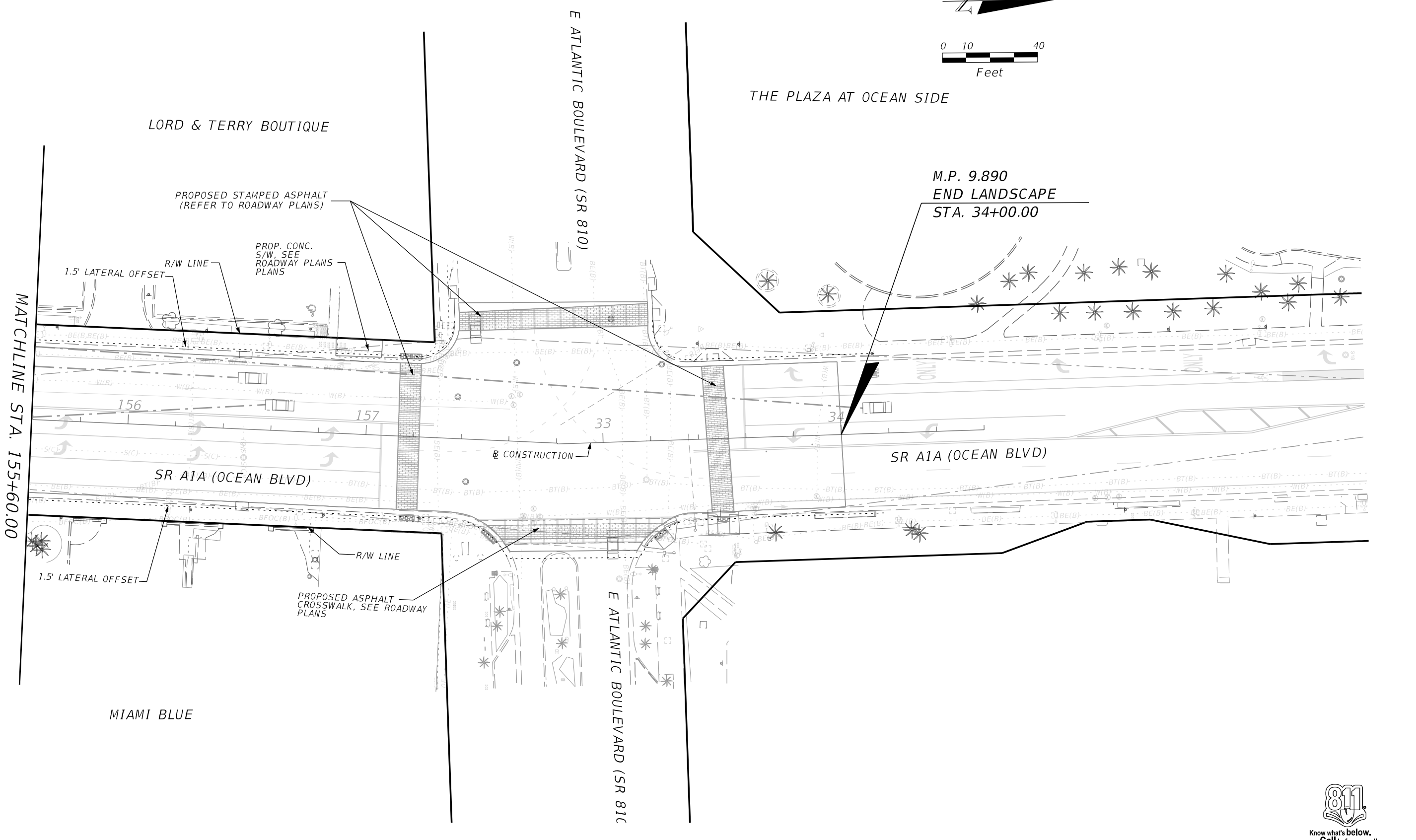
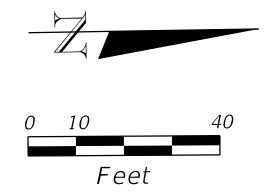


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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				SR A1A	BROWARD	N/A		

LANDSCAPE PLAN

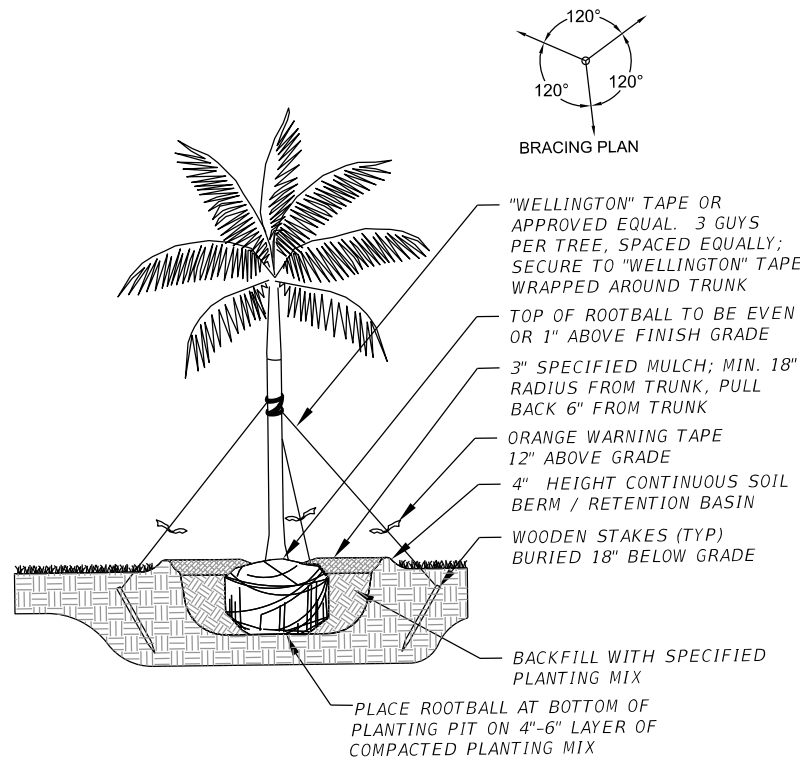
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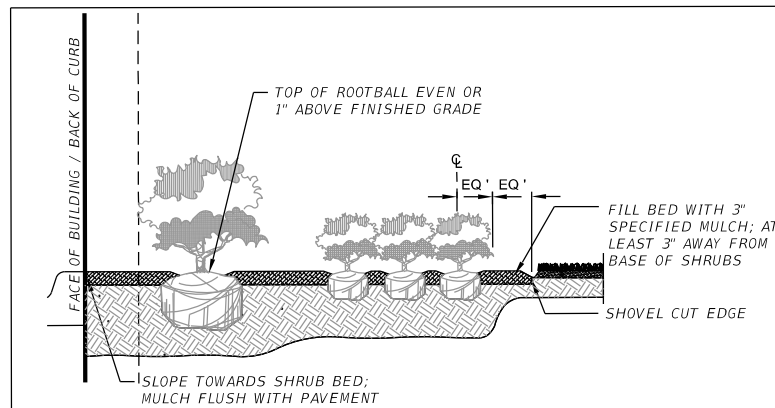
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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR A1A	BROWARD	N/A		

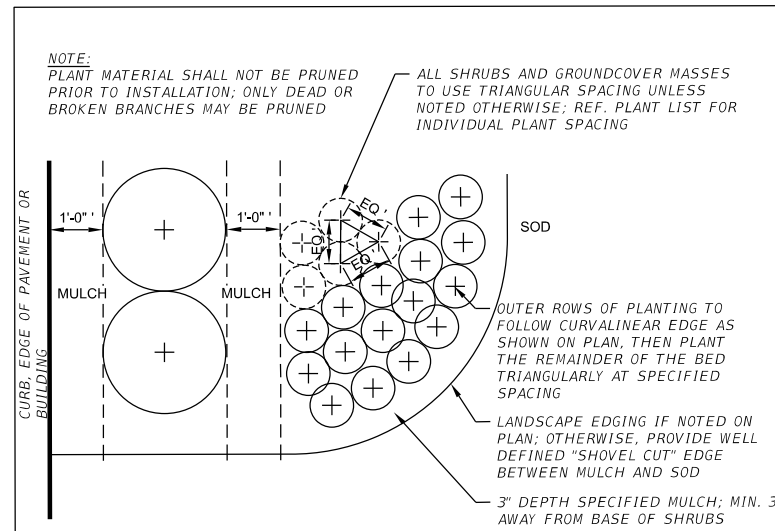
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PALM PLANTING DETAIL



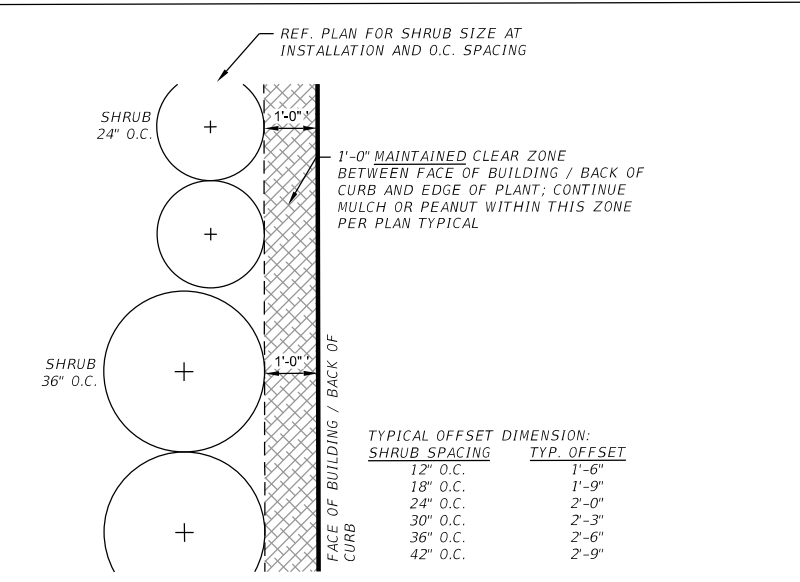
SHRUB AND GROUNDCOVER PLANTING



SHRUB AND GROUNDCOVER PLANTING

LANDSCAPE NOTES

- A. SCOPE
  1. THE LOCATION OF PLANTS, AS SHOWN ON THE PLANS, IS APPROXIMATE. THE FINAL LOCATIONS MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS, TO COMPLY WITH SAFETY SETBACK CRITERIA, TO AVOID CREATING UNSAFE SIGHT CONDITIONS, OR AS OTHERWISE DIRECTED OR APPROVED BY THE LANDSCAPE ARCHITECT / OWNER IN WRITING. ALL OTHER LOCATION ADJUSTMENTS TO THE LAYOUT ARE TO BE APPROVED IN ADVANCE IN WRITING BY THE LANDSCAPE ARCHITECT AND OWNER.
  2. CONTRACTOR UNDERSTANDS THAT AN IMPORTANT ELEMENT OF THE DESIGN OF THIS PROJECT IS MEETING LANDSCAPE ORDINANCES WITH A DESIGN FLARE THAT INCLUDES SYMMETRY, ALIGNMENT, FOCAL POINTS AND / OR SMOOTH CURVILINEAR FORMS WHERE APPLIED AND CONTRACTOR SHALL FOLLOW AND INSTRUCT THE WORKING CREWS ACCORDINGLY. IN THE EVENT OF ANY DOUBT AS TO HOW TO EXECUTE THE PLANS, CONTRACTOR SHALL IMMEDIATELY CONSULT WITH ARCHITECT AND/OR OWNER.
  3. LANDSCAPE CONTRACTOR SHALL FINE GRADE, PREPARE SITE AS OUTLINED IN THE FOLLOWING NOTES AND PER PLANS; FURNISH AND INSTALL ALL PLANTS, SHRUBS, TREES AND / OR PALMS MEETING MINIMUM REQUIREMENTS AND BRACE THEM PER DETAILS PROVIDED. FURNISH AND INSTALL SOIL, GRAVEL, BOULDERS, SOD AND MULCH AS SPECIFIED IN PLANS AND NOTES BELOW.
  4. LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS NECESSARY TO INSTALL AND MAINTAIN ALL MATERIALS PER CONTRACT.
- B. BIDDING
  1. CONTRACTOR TO HAVE LIABILITY INSURANCE INCLUDING OWNER AND LANDSCAPER AS INSURED'S IN EXCESS OF \$10,000 AS WELL AS WORKER'S COMPENSATION.
  2. CONTRACTORS AND SUBS MUST ENSURE THEY ARE DOING TAKE OFFS FROM BLDG DEP. REVISED SETS AND / OR BID SET DOCUMENTS. VERIFY WITH THIS OFFICE THAT YOU ARE BIDDING FROM LATEST AVAILABLE PLANS.
  3. READ ALL NOTES AND TYPICAL PLANTING DETAILS SHEETS PRIOR TO SUBMITTING RFIS AND PRIOR TO BIDDING.
  4. WHEN SUBMITTING AN RFI REFERENCE SHEET NUMBER, DETAIL NUMBER AND/OR NOTE CATEGORY AND NUMBER.
  5. LANDSCAPE CONTRACTOR SHALL VERIFY ALL ESTIMATED QUANTITIES OF MATERIAL SHOWN ON THE DRAWINGS PRIOR TO SUBMITTING THEIR BID. PLANT LIST PRICING (IF SHOWN) IS FOR PERMITTING / MITIGATION COMPARISON PURPOSES ONLY, ANY PRICES SHOWN ARE TO BE DISREGARDED BY LANDSCAPE CONTRACTOR.
  6. ALL PLANT MATERIAL SHALL MEET OR EXCEED HEIGHT AND SPREAD REQUIREMENT. HEIGHTS ARE LOCAL CODE REQUIREMENT AND / OR DESIGN INTENT RELATED AND ALWAYS GOVERNS OVER CONTAINER SIZE. CONTAINER SIZE GIVEN FOR REFERENCE ONLY AND MUST BE SIZED-UP TO MEET HEIGHT REQUIREMENTS OF PLANT LIST. PLANT MATERIAL AVAILABLE WITH EXCESSIVE HEIGHT BEYOND SPECIFICATIONS MUST BE CONSULTED WITH LANDSCAPE ARCHITECT FOR DESIGN INTENT.
  7. ALL LANDSCAPE MATERIAL WAS CONFIRMED TO BE AVAILABLE AT TIME OF DESIGN. CONTRACTOR UNDERSTANDS THAT SOME MATERIAL MAY NOT BE AVAILABLE LOCALLY, HOWEVER PLANT MATERIAL SUPPLY IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR THAT IS AWARDED THE CONTRACT AND HE/SHE SHALL TAKE STEPS TO ENSURE AVAILABILITY AT THE TIME OF INSTALLATION. BRING TO THE ATTENTION OF LANDSCAPE ARCHITECT IF SPECIFIC MATERIAL IS NO LONGER AVAILABLE AT THE TIME OF BIDDING AND / OR PRIOR TO ACTUAL CONSTRUCTION. SUBSTITUTIONS MUST BE APPROVED PRIOR TO CONSTRUCTION.
  8. PRE-INSPECTIONS OF SITE REQUIRED PRIOR TO BIDDING.
  9. THE PLANT LIST IS INTENDED ONLY AS AN AID TO BIDDING. ANY DISCREPANCIES FOUND BETWEEN THE QUANTITIES ON THE PLAN AND THE QUANTITIES ON THE PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
  10. ALL LABOR AND MATERIAL FOR SOIL AMENDMENTS AND FERTILIZER THAT IS REQUIRED TO ENSURE THE SUCCESSFUL ESTABLISHMENT AND SURVIVAL OF THE PROPOSED VEGETATION, AS WELL AS ALL THE COST FOR THE REMOVAL OF UNSUITABLE OR EXCESS BACKFILL MATERIAL FROM PLANT BEDS, IN ADDITION TO FINE GRADING AND MULCHING ALL PLANTBEDS AND INDIVIDUAL TREES SHALL BE INCLUDED IN THE CONTRACTOR'S BID TO PERFORM THE WORK REPRESENTED IN THIS PLAN SET.
  11. BID SHALL BE ITEMIZED FOR POSSIBLE VALUE ENGINEERING.
  12. SOD AND ROCKS (IF SPECIFIED) SHALL BE ESTIMATED BY SCALING PLANS. INCLUDE PRICE PER SQUARE FOOT FOR SOD. ROCKS (INCLUDE PRICE PER TON). SMALL ROCKS AND GRAVEL BEDS SHALL HAVE LANDSCAPE FABRIC MATERIAL AND MINIMUM 4" DEPTH. BOULDERS TO BE BID BY UNIT.
  13. ALL S.F. IF NOTED IS APPROXIMATE AND SHALL NOT BE CONSIDERED ALL INCLUSIVE; IT IS THE CONTRACTOR'S RESPONSIBILITY TO DO HIS OR HER TAKE OFF, SUBMIT PRICE PER S.F. AND IN THE END, SOD ALL AREAS THAT ARE NOT COVERED EITHER BY PLANTS, MULCH AND/OR ROCKS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INCLUDE IN THE BID, THE REPAIR OF ANY EXISTING SOD WHICH MAY BE DAMAGED DURING CONSTRUCTION.
  14. FINAL PAYMENT TO THE CONTRACTOR SHALL BE FOR ACTUAL PLANTS INSTALLED ON THE PROJECT.
  15. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR COSTS OF ALL PERMITS DESCRIBED IN BID WHETHER PERMIT COSTS ARE REIMBURSABLE BY OWNER OR INCLUDED IN BID. RESEARCH PERMIT STATUS AND RESEARCH ALL PERMITS AND ADDITIONAL DOCUMENTATION AND CERTIFICATIONS REQUIRED SUCH AS SEPARATE TREE REMOVAL PERMIT FOR EXAMPLE, AND CONSIDER PRIOR TO BIDDING.
  16. GENERAL / LANDSCAPE CONTRACTOR SHALL LEAVE A 5% UNFORESEEN CONDITIONS ALLOWANCE SUCH AS FOR ADDITIONAL ROOT BARRIERS DETERMINED TO BE NEEDED ON SITE AND AS JOB PROGRESSES.
  17. REFER TO SECTION T, WATERING, FOR SUPPLEMENTAL WATERING REQUIREMENT.
  18. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO BIDDING AND WITHIN 7 CALENDAR DAYS OF RECEIPT OF THESE PLANS SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF ANY AND ALL DISCREPANCIES. IN CASE OF DISCREPANCIES, PLANTING PLANS SHALL TAKE PRECEDENCE OVER PLANT LIST. NO SUBSTITUTIONS ARE TO BE MADE WITHOUT PRIOR CONSENT OF THE LANDSCAPE ARCHITECT.



TYPICAL SHRUB OFFSET AT BUILDING / CURB

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FDOT Permit Number 2020-L-491-00003

LANDSCAPE  
NOTES AND DETAILS

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LANDSCAPE NOTES

- C. GENERAL LANDSCAPE NOTES
1. PLANTS GROWN IN CONTAINERS PRIOR TO INSTALLATION SHALL BE REMOVED FROM THEIR CONTAINERS BEFORE THEY ARE PLANTED IN THE GROUND AND HAVE CIRCLING ROOTS REMOVED. ALL SCREENING SHRUBS SHALL BE PLANTED FOR PROPER OPERATION OF EQUIPMENT BEING SCREENED AND/OR PER THE REQUIREMENTS OF THE UTILITY AS NECESSARY. ALL HEDGE MATERIAL REQUIRED FOR SCREENING PURPOSES SHALL BE PLANTED WITH BRANCHES TOUCHING. ADJUST SPACING AS NECESSARY AND/OR PROVIDE ADDITIONAL PLANTS TO PROVIDE AN ADEQUATE SCREEN AS REQUIRED BY CODE. LEAVE ACCESS TO UTILITY OR CLEARANCE AS REQUIRED.
2. ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND NURSERY PRACTICES. CONTRACTOR SHALL COMPLY WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS PERTAINING TO THE INSPECTION FOR PLANT DISEASE AND INSECT INFESTATION.
3. ALL IDEAS, DESIGNS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND ARE THE EXCLUSIVE PROPERTY OF KEITH AND ASSOCIATES AND MAY NOT BE DUPLICATED WITHOUT AUTHORIZATION OR USED FOR OTHER PROJECTS THAN THE INTENDED.
4. THE LANDSCAPE CONTRACTOR SHALL EXERCISE CAUTION TO PROTECT ANY EXISTING SOD, ELECTRICAL AND IRRIGATION. ANY DAMAGE TO THE SOD, ELECTRICAL OR IRRIGATION SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL STATE BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
5. TREE, PALM, ACCENT SHRUBS AND BED LINES ARE TO BE LOCATED IN THE FIELD AND APPROVED BY THE LANDSCAPE ARCHITECT / OWNER PRIOR TO PLANTING. LANDSCAPE CONTRACTOR ACKNOWLEDGES THAT MATERIAL PLANTED WITHOUT APPROVAL OF LOCATION MAY BE SUBJECT TO RELOCATION BY LANDSCAPE ARCHITECT TO MAINTAIN DESIGN INTENT IF NOT FOLLOWED PROPERLY.
6. ALL TREES MUST BE PRUNED AS PER LANDSCAPE ARCHITECT'S DIRECTION.
7. 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.
8. LANDSCAPE CONTRACTOR SHALL COORDINATE HIS OR HER WORK WITH THAT OF THE IRRIGATION, LANDSCAPE LIGHTING, AND HARDSCAPE CONTRACTOR IF DIFFERENT.
9. THE LANDSCAPE CONTRACTOR SHALL TREAT PLANT AREAS WITH PRE-EMERGENCE HERBICIDE AFTER WEEDS AND GRASS HAVE BEEN REMOVED. LANDSCAPE CONTRACTOR SHALL WAIT 7 DAYS AFTER PRE-EMERGENCE TREATMENT PRIOR TO PLANTING.

- D. PERMITS & REGULATIONS
1. CONTRACTOR(S) MUST OBTAIN SEPARATE LANDSCAPE, IRRIGATION AND TREE RELOCATION/REMOVAL PERMITS FROM THE GOVERNING AUTHORITY PRIOR TO THE ISSUANCE OF THE FIRST BUILDING PERMIT FOR THE PROJECT.
2. LANDSCAPE CONTRACTOR TO CALL THE LOCAL LANDSCAPE INSPECTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING PRIOR TO INSTALLATION IF REQUIRED.
3. ALL MANDATORY REQUIREMENTS BY LOCAL LANDSCAPE DEPARTMENTS AND THEIR INSPECTORS SHALL GOVERN AND LANDSCAPE CONTRACTOR COMMITS BY ACCEPTING CONTRACT TO COMPLY PROMPTLY FOR BUILDER/OWNER TO OBTAIN C.O..
4. SIGHT DISTANCE CRITERIA D=415' PER FDM CHAPTER 212, EXHIBIT 212-4 FOR 2-LANE UNDIVIDED, DESIGN SPEED - 35MPH.

- E. TREE REMOVAL
1. REMOVAL OF ANY TREES OR PALMS WILL REQUIRE A WRITTEN "TREE REMOVAL PERMIT" FROM THE LOCAL GOVERNING AGENCY PRIOR TO REMOVAL. NON-NATIVE TREES CLASSIFIED AS "PROHIBITED" TREES MAY BE EXEMPT FROM THE PERMIT IF LISTED AS CATEGORY 1 BY FLORIDA EXOTIC PEST PLANT COUNCIL. CONFIRM WITH LOCAL MUNICIPALITY.
2. LANDSCAPE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL INVASIVE NUISANCE TREES SUCH AS BRAZILIAN PEPPER, MELALEUCA, AUSTRALIAN PINE AND ALL INVASIVE TREES AS CATEGORIZED BY THE GOVERNING AGENCIES, WHETHER LISTED ON PLANS OR NOT.
3. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COORDINATING TREE AND PALM REMOVALS AND TRANSPLANTS SHOWN ON THE TREE/PALM DISPOSITION PLAN. THE LANDSCAPE CONTRACTOR IS TO REMOVE AND DISCARD FROM SITE EXISTING UNWANTED TREES, PALMS, SHRUBS, GROUND COVERS, SOD AND WEEDS WITHIN LANDSCAPE AREAS.

- F. EXISTING TREES
1. EXISTING TREES DESIGNATED TO REMAIN SHALL BE PROTECTED DURING ALL CONSTRUCTION PHASES. ANY TREES OR SHRUBS DESIGNATED TO REMAIN THAT ARE SCARRED OR DESTROYED WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE, PER THE APPRAISED VALUE.
2. EXISTING PLANT MATERIAL NOT SHOWN ON THE PLAN AND IN CONFLICT WITH NEW PLANTING SHALL BE EVALUATED AT THE TIME OF NEW PLANTING INSTALLATION BY THE LANDSCAPE ARCHITECT. TREES AND PLANT MATERIAL INDICATED TO BE RELOCATED WITH NO NEW LOCATION PROVIDED IN PLANS SHALL BE MOVED TO A LOCATION ON SITE DESIGNATED AS A NURSERY HOLDING AREA WITH THE ROOT BALL PROTECTED FROM DIRECT SUNLIGHT, MAINTAINED AND IRRIGATED UNTIL NEW LOCATION IS DETERMINED.
3. PRUNE TREES TO REMOVE DAMAGED BRANCHES AND IMPROVE NATURAL SHAPE AND THIN OUT STRUCTURE. DO NOT REMOVE MORE THAN 15% OF BRANCHES. DO NOT PRUNE BACK TERMINAL LEADER.
4. PRUNE EXISTING SHRUBS TO REMOVE DAMAGED BRANCHES AND IMPROVE NATURAL SHAPE.
5. EXISTING TREES TO REMAIN SHALL BE TRIMMED PER ANSI-A300 STANDARDS. SUPERVISION OF THE TRIMMING SHALL BE PERFORMED BY AN ISA CERTIFIED ARBORIST TO ENSURE QUALITY WORK.
6. ALL EXISTING TREES SHALL BE "LIFTED AND THINNED" TO PROVIDE AN 8' MINIMUM CLEARANCE FOR SIDEWALKS AND PEDESTRIAN WALKWAYS AND A 14' MINIMUM CLEARANCE FOR ROADWAYS, DRIVEWAYS AND ALL VEHICULAR USE AREAS.
7. SELECTIVE CANOPY AND ROOT PRUNING OF EXISTING TREES CAN BE CONDUCTED (ONLY AS NECESSARY AND IN NO EVENT MORE THAN 35%) TO ACCOMODATE FOR APPROVED CONSTRUCTION. PRUNING SHALL BE CONDUCTED/SUPERVISED BY AN ISA ARBORIST.
8. IF PLANS CALL FOR RELOCATION OF TREES, PALMS OR PLANTS. HIGH LEVEL OF CARE SHOULD BE EXERCISED TO ASSURE THAT THEY ARE NOT DAMAGED IN THE PROCESS AND THAT THEY ARE PROMPTLY REPLANTED UPON BEING DUG UP.
9. ALL UNDERGROUND UTILITIES AND DRAIN OR IRRIGATION LINES SHALL BE ROUTED OUTSIDE THE TREE PROTECTION ZONE. IF LINES MUST TRAVERSE THE PROTECTION AREA, THEY SHALL BE TUNNELED OR BORED UNDER THE TREE.
10. EROSION CONTROL DEVICES SUCH AS SILT FENCING, DEBRIS BASINS, AND WATER DIVERSION STRUCTURES SHALL BE INSTALLED TO PREVENT SILTATION AND/OR EROSION WITHIN THE TREE PROTECTION ZONE.
11. ROOTS SHALL BE CUT MANUALLY BY DIGGING A TRENCH AND CUTTING EXPOSED ROOTS WITH A SAW, VIBRATING KNIFE, ROCK SAW, NARROW TRENCHER WITH SHARP BLADES, OR OTHER APPROVED ROOT PRUNING EQUIPMENT.

- G. SITE PREPARATION & GRADING
1. LANDSCAPE CONTRACTOR SHALL LOOSEN AND TILL COMPACTED SOILS THAT ARE OVERLY COMPACTED IN ALL PLANTING AREAS OF THE PROJECT TO PROVIDE FOR PROPER SOIL AERATION FOR PLANT ESTABLISHMENT.
2. PLANTED AREAS SHALL BE CLEARED OF UNDERGROUND ROCKS, CONSTRUCTION DEBRIS AND OTHER MATERIALS DETRIMENTAL TO THE HEALTH OF THE PLANTS. LIME ROCK BASE MATERIAL SHALL BE REMOVED WITHIN PLANTING PITS AND ADJACENT TO PAVEMENT. THE PLANTING AREAS SHOULD BE CLEAN TO A DEPTH EQUAL TO THE ROOT BALL OF THE TREES/PALMS PROPOSED FOR THE AREA. PLANTING AREA SOILS SHALL BE TESTED FOR PH BEFORE PLANTING. SOILS SHOWING HIGH (ALKALINE) PH (OVER 7.5) SHALL BE AMENDED OR REPLACED WITH NATIVE SOIL HAVING A PH RANGE OF 6.5 - 7.5, AS APPROVED BY LANDSCAPE ARCHITECT. IN THE EVENT THAT NATIVE SOILS ARE UNSUITABLE, REF. SECTION M, SOILS.
3. ALL PLANTING AREAS AND PLANTING PITS SHALL BE TESTED FOR SUFFICIENT PERCOLATION PRIOR TO FINAL PLANTING AND IRRIGATION INSTALLATION TO ENSURE PROPER DRAINAGE. PLANT BEDS IN PARKING LOTS AND IN AREAS COMPACTED BY HEAVY EQUIPMENT SHALL BE DE-COMPACTED SO THAT DRAINAGE IS NOT IMPEDED.
4. LANDSCAPE CONTRACTOR SHALL TREAT PLANT AREAS WITH PRE-EMERGENCE HERBICIDE AFTER WEEDS AND GRASS HAVE BEEN REMOVED. LANDSCAPE CONTRACTOR SHALL WAIT (7) SEVEN DAYS AFTER PRE-EMERGENCE TREATMENT PRIOR TO PLANTING.
5. SITE PREPARATION SHALL INCLUDE THE ERADICATION AND REMOVAL OF ANY WEEDS, CLEAN-UP OF ANY DEAD MATERIAL, DEBRIS, AND RUBBISH.
6. GENERAL SITE AND BERM GRADING TO +/- 1 INCH (1") SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. ALL FINISHED SITE GRADING SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR. ALL PLANTING BEDS SHALL BE FREE OF ALL ROCKS 1/2" OR LARGER, STICKS, AND OBJECTIONABLE MATERIAL INCLUDING WEEDS AND WEED SEEDS. ALL LIME ROCK SHALL BE REMOVED/CLEANED DOWN TO THE NATIVE SOILS.
7. THE LANDSCAPE CONTRACTOR SHALL ENSURE THE PLANTING AREAS ARE AT FINISH GRADE PRIOR TO INSTALLING PLANT MATERIALS.
8. ALL TREES AND PLANT MATERIAL TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR SHALL INSTALL PROTECTIVE BARRIERS SUCH AS "TENAX" ORANGE SAFETY FENCING OR SIMILAR, TO BE INSTALLED BEFORE THE BEGINNING OF THE PROJECT. REF. TREE PROTECTION DETAIL FOR ADDITIONAL INFORMATION. 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.

- H. IRRIGATION
1. ANY IRRIGATION NOTES AND SPECIFICATIONS INCLUDED IN IRRIGATION SHEETS GOVERN OVER THE FOLLOWING IRRIGATION NOTES.
2. THE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION CONTRACTOR IF NOT THE SAME AND LEAVE PROVISIONS FOR ALL INDIVIDUAL TREES IN TURF AREAS AND ALL PLANTING BEDS.
3. IRRIGATION / LANDSCAPE CONTRACTOR TO GUARANTEE 100% COVERAGE AND 50% OVERLAP (HEAD TO HEAD COVERAGE) TO ALL LANDSCAPED AREAS AND FURNISH AND INSTALL A RAIN SENSOR.
4. IRRIGATION CONTRACTOR TO ADAPT DESIGN TO ONSITE CONDITIONS ADJUSTING HEADS AND CHANGING NOZZLES AS REQUIRED TO AVOID OVSERSPRAY 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 PLAN.
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. ANY EXISTING IRRIGATION SYSTEM SHALL BE RETROFITTED TO COMPLY WITH THE SPECIFICATIONS AS OUTLINED ABOVE.

- I. HARDSCAPE & OTHER MATERIALS
1. FACE OF TREES AND PALMS TO BE LOCATED A MINIMUM OF 2' SETBACK FROM ALL FENCES, WALKWAYS, WALLS, AND PAVED SURFACES, UNLESS OTHERWISE INDICATED ON THE PLANS. REFER TO DETAILS.

- J. UTILITIES / CLEARANCES
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF AND AVOID AND PROTECT UTILITY LINES, BURIED CABLES, AND OTHER UTILITIES. THE OWNER OR LANDSCAPE ARCHITECT SHALL NOT BE RESPONSIBLE FOR DAMAGE TO UTILITY OR IRRIGATION LINES.
2. TREES SHALL BE PLACED A MINIMUM OF 5 FT. FROM UNDERGROUND UTILITIES, UNLESS OTHERWISE APPROVED IN WRITING BY LANDSCAPE ARCHITECT AND OWNER.
3. ALL CANOPY TREES TO BE PLANTED MIN. OF 15' FROM LIGHT SOURCE/POLES, UNLESS OTHERWISE APPROVED BY THE GOVERNING AUTHORITY / LANDSCAPE ARCHITECT AND OWNER.
4. LANDSCAPE CONTRACTOR SHALL CONTACT THE COUNTY, GOVERNING AUTHORITY AND/OR UTILITY COMPANIES TO LOCATE ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO DIGGING. LANDSCAPE CONTRACTOR SHALL REPAIR ALL DAMAGE TO UNDERGROUND UTILITIES, AND/OR CONSTRUCTION CAUSED BY UTILITY DAMAGE, AT NO COST TO THE OWNER.
5. ALL PLANT MATERIAL SYMBOLS SHOWN ON LANDSCAPE PLAN SHALL BE CONSIDERED DIAGRAMMATIC AND SHOULD BE ADJUSTED IN THE FIELD BY CONTRACTOR TO AVOID ALL UTILITIES, AND ALL OTHER OBSTRUCTIONS.
6. IF/ WHEN DIGGING IN RIGHT OF WAY NEEDED: TWO (2) FULL BUSINESS DAYS BEFORE DIGGING, CALL TOLL FREE 1-800-432-4770, OR 811, SUNSHINE STATE ONE CALL OF FLORIDA, INC. NOTIFICATION CENTER. IN ADDITION, CALL THE GOVERNING AGENCY'S UTILITIES/PUBLIC WORKS DEPARTMENT. CONTRACTORS ARE RESPONSIBLE FOR COORDINATING WITH THE OWNERS AND APPROPRIATE PUBLIC AGENCIES TO ASSIST IN LOCATING AND VERIFYING ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION. ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK OPERATIONS.

- 7. ABOVE AND BELOW GROUND UTILITIES SHALL BE VERIFIED AND LOCATED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCING WORK IN THE PROJECT AREA. THE CONTRACTOR SHALL EXAMINE AVAILABLE UTILITY PLANS AND CONFIRM CONFLICTS BETWEEN INDICATED OR LOCATED UTILITIES AND LANDSCAPE WORK. THE CONTRACTOR SHALL THEN NOTIFY THE PROJECT ENGINEER OF SAID CONFLICTS AND THE ENGINEER WILL COORDINATE ANY NECESSARY ADJUSTMENTS WITH THE UTILITY PROVIDER. TREE LOCATIONS WILL BE ADJUSTED AS NECESSARY WHEN IN CONFLICT WITH EXISTING UTILITIES.
8. THE FINAL PLANT LOCATIONS MAY BE ADJUSTED, AS APPROVED / DIRECTED BY THE LANDSCAPE ARCHITECT IN WRITING, TO ACCOMMODATE UTILITIES COMPLIANCE. EXCAVATIONS WITHIN 5' OF KNOWN UTILITIES SHOULD BE DONE BY HAND.
9. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE LOCATION OF AND AVOID AND PROTECT UTILITY LINES, BURIED CABLES, AND ALL OTHER UTILITIES, NOTED OR NOT, ON PLANS.
10. LEAVE CLEARANCE AND ACCESS TO ALL ABOVE GROUND OR AT GRADE METERS AND EQUIPMENT.
11. LANDSCAPE PLANTING SHALL BE IN CONFORMANCE WITH FPL GUIDELINES FOR SETBACKS FROM OVERHEAD UTILITY LINES.
12. LANDSCAPING SHALL NOT INTERFERE WITH LIGHT POLES, FIRE HYDRANTS, ELECTRICAL/MECHANICAL EQUIPMENT ACCESS, SIGNS, DRAINAGE STRUCTURES, ETC. BRING TO THE ATTENTION OF LANDSCAPE ARCHITECT ANY CONFLICTS.

- K. SOILS
1. ALL BUILDING CONSTRUCTION MATERIAL AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE PLANTING AREAS AND REPLACED WITH 60/40 MIX (60% SAND / 40% ORGANIC COMPOST) OR AMEND EXISTING SOILS PER SECTION H.2.
2. PLANTING SOIL MIX SHALL BE DELIVERED TO THE SITE IN A CLEAN LOOSE AND FRIABLE CONDITION AND IS REQUIRED AROUND THE ROOT BALL OF ALL TREES AND SHRUBS, THE TOP 6" OF ALL SHRUBS AND GROUND COVER BEDS AND TOP 2" OF ALL GRASSED AREAS. THIS SOIL SHALL BE TILLED INTO THE EXISTING SOIL AFTER THE EXISTING SOIL HAS BEEN CLEANED OF ALL UNDESIRABLE FOREIGN MATERIALS. RECYCLED COMPOST IS ENCOURAGED AS A SOIL AMENDMENT ALTERNATIVE. PLANTING SOIL TO BE WEED FREE.
3. PLANTING BACKFILL FOR PALMS SHALL BE CLEAN, COARSE NATIVE SAND UNLESS SPECIFIED OTHERWISE.
4. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING. ALL TREES SHALL BE WATERED-IN UTILIZING WATER PROBE OR A TREE BAR.

- L. 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. UNLESS NOTED OTHERWISE, ALL TREES DESIGNATED AS SINGLE TRUNK SHALL HAVE A SINGLE, RELATIVELY STRAIGHT, DOMINANT LEADER, PROPER STRUCTURAL BRANCHING AND EVEN BRANCH DISTRIBUTION. TRUNKS ON PALMS SHALL BE UNIFORM IN THICKNESS FOR THE ENTIRE LENGTH OF THE PALM AND SHALL NOT TAPER OFF TO DISPROPORTIONATE THINNESS TOWARDS THE CROWN. TREES WITH BARK INCLUSION, TIPPED BRANCHES, AND CO-DOMINANT TRUNKS WILL NOT BE ACCEPTED. TREES WITH GIRDLING, CIRCLING AND/OR PLUNGING ROOTS WILL BE REJECTED.
4. USE NURSERY GROWN PLANT MATERIALS THAT COMPLIES WITH ALL REQUIRED INSPECTION, GRADING STANDARDS, AND PLANT REGULATIONS IN ACCORDANCE WITH THE LATEST EDITION OF FLORIDA DEPARTMENT OF AGRICULTURE, "GRADE & STANDARDS FOR NURSERY PLANTS".
5. ALL TREES AND PALMS SHALL BE FREE OF OPEN WOUNDS AND UNSIGHTLY VISIBLE SCARS.
6. ALL SUBSTITUTIONS MUST BE APPROVED BY THE GOVERNING AUTHORITY IF IT IS REQUIRED CANOPY AND BY LANDSCAPE ARCHITECT / OWNER IF SUPPLEMENTARY ACCENT MATERIAL.
7. CONTRACTOR SHALL COMPLY WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS PERTAINING TO THE INSPECTION FOR PLANT DISEASE AND INSECT INFESTATION.
8. TREES, PALMS, SHRUBS, GROUND COVERS: PLANT SPECIES AND SIZES SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PARTS 1 AND 2, LATEST EDITION PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE FLORIDA GRADE NUMBER 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY AND TIGHTLY KNOT PLANT, SO TRAINED OR FAVORED IN ITS DEVELOPMENT THAT FIRST APPEARANCE IS UNQUESTIONABLE AND IT IS OUTSTANDINGLY SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND FREE OF DISEASE AND INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES AND PALMS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.
9. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS OF GOOD QUALITY AND BE IN A HEALTHY GROWING CONDITION. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER.
10. FIELD GROWN TREES AND PALMS PREVIOUSLY ROOT PRUNED SHALL OBTAIN A ROOT BALL WITH SUFFICIENT ROOTS FOR CONTINUED GROWTH WITHOUT RESULTING SHOCK.
11. ROOT SUCKERS ON ANY TREE ARE NOT ACCEPTABLE AND MUST BE PROPERLY PRUNED.
12. CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT AND OWNER TO OBTAIN PRIOR APPROVAL FOR THE SELECTION OF THE SPECIFIC SPECIMENS OF ALL PALMS AND ANY TREES OF MORE THAN SIX FEET IN HEIGHT. CONTRACTOR TO SUPPLY PHOTOGRAPH OF TREES PRIOR TO PURCHASE AND INSTALLATION.

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Table with columns: REVISIONS (DATE, DESCRIPTION), KEITH AND ASSOCIATES, INC (301 E ATLANTIC BLVD, POMPANO BEACH, FL 33060, (954) 788-3400, GEOFF CAMPBELL, R.L.A NO 6667219), STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION (ROAD NO., COUNTY, FINANCIAL PROJECT ID), LANDSCAPE NOTES AND DETAILS, SHEET NO. (LD-17)

**LANDSCAPE NOTES**

**M. PLANTING NOTES**

- AT THE DISCRETION OF THE LANDSCAPE ARCHITECT, PLANTS ARE SUBJECT TO REVIEW FOR APPROVAL FOR SIZE, VARIETY, CONDITION AND APPROPRIATENESS TO THE DESIGN INTENT.
- ALL SYNTHETIC BURLAP, SYNTHETIC STRING OR CORDS, OR WIRE BASKETS SHALL BE REMOVED BEFORE ANY TREES ARE PLANTED. ALL SYNTHETIC TAPE (I.E. TAGGING TAPE, NURSERY TAPE) SHALL BE REMOVED FROM TRUNKS, BRANCHES, ETC. BEFORE INSPECTION. THE TOP 1/3 OF ANY NATURAL BURLAP SHALL BE REMOVED OR TUCKED INTO THE PLANTING HOLE BEFORE THE TREES ARE BACK FILLED.
- 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.
- 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.
- 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.
- 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.
- LAYOUT SHRUBS TO CREATE A CONTINUOUS SMOOTH FRONT LINE AND FILL IN BEHIND WITH TRIANGULAR SPACING.
- EXCAVATE TREE PIT TO 1-1/2 TIMES THE DIAMETER OF THE ROOT BALLS OR CONTAINERS 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.
- GROUNDCOVER AND SHRUBS TO BE SPACED IN A UNIFORM AND CONSISTENT PATTERN PER PLANTING DETAILS.
- ALL MECHANICAL EQUIPMENT, IRRIGATION PUMPS, FPL TRANSFORMERS, POOL PUMPS, ETC. SHALL BE SCREENED ON A MINIMUM OF THREE SIDES BY LANDSCAPE SHRUBS.
- CONTRACTOR SHALL NOT MARK OR SCAR TRUNKS IN ANY FASHION.
- 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.
- REMOVE REJECTED PLANT MATERIAL FROM THE SITE IMMEDIATELY AND REPLACE WITH ACCEPTABLE PLANTS.

**N. FERTILIZATION**

- 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)								
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 1 TO 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

**O. SOD**

- 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.
- 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)
- SOD SHALL BE MACHINE STRIPPED NO MORE THAN 24 HOURS PRIOR TO LAYING.
- 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 MIX INTO MINOR CRACKS BETWEEN PIECES OF SOD AND REMOVE EXCESS SOIL DEPOSITS FROM SODDED DEPOSITS FROM SODDED AREAS, SOD ON SLOPES GREATER THAN 3:1 SHALL BE IMMEDIATELY STAKED AFTER PLANTING.

**P. SUBMITTALS**

- 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.
- SUBMIT REPRESENTATIVE NURSERY PHOTOS OF ALL TREES AND PALMS FOR REVIEW PRIOR TO DELIVERY TO THE SITE. INCLUDE SCALE FOR HEIGHT.
- SUBMIT REPRESENTATIVE NURSERY PHOTOS OF ALL SHRUB AND GROUNDCOVER MATERIAL FOR REVIEW PRIOR TO DELIVERY TO THE SITE.

**Q. INSPECTION & ACCEPTANCE**

- NOTIFY THE GOVERNING AGENCY IF REQUIRED AND LANDSCAPE ARCHITECT OF COMMENCEMENT.
- 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.
- 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.
- 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 FINAL INSPECTION. ANY ITEMS THAT ARE JUDGED INCOMPLETE OR UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE PROMPTLY CORRECTED BY THE LANDSCAPE CONTRACTOR.
- NO SUBSTITUTION OF PLANT MATERIAL, TYPE OR SIZES WILL BE PERMITTED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT AND OWNER.
- TO OBTAIN FINAL PAYMENT, CONTRACTOR MUST PROVIDE RELEASE OF ALL MECHANIC'S LIENS AND MATERIAL LIENS.

**R. MULCH**

- 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.
- SHREDDED APPROVED ORGANIC MULCH TO BE USED BEYOND TRUNK IN ALL DIRECTIONS AND THROUGHOUT ALL HEDGES AND PLANT MATERIAL.
- ALL TREES IN SODDED AREAS SHALL HAVE A CLEAN CUT 4' DIAMETER MULCH RING.
- PREFERRED MULCH IS SHREDDED MELALEUCA. (CYPRESS, RED, GOLD AND GREEN MULCH IS PROHIBITED.)
- ALL MULCH SHALL HAVE A MINIMUM 3" SEPARATION FROM THE TRUNK OF THE TREE/PALM TRUNK TO AVOID ROTTING.

**S. WATERING**

- ALL PLANT MATERIAL SHALL BE WATERED IN THOROUGHLY AT THE TIME OF PLANTING.
- 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.

**T. CLEAN UP**

- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL LANDSCAPE PLANTING AREAS UNTIL FINAL ACCEPTANCE OF THE OWNER.
- 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).
- ANY EXCESS SOIL, UNDESIRED STONES OR DEBRIS RESULTING FROM LANDSCAPE OPERATIONS SHALL BE REMOVED PROMPTLY, KEEPING THE SITE CLEAN AS WORK PROGRESSES, IN ACCORDANCE WITH FDOT GENERAL NOTE 7.
- THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR DEBRIS CAUSED BY THEIR CREWS DURING THE PERFORMANCE OF THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROMPTLY REMOVE ALL WASTE MATERIALS, DEBRIS, UNUSED PLANT MATERIAL, EMPTY PLANT CONTAINERS, AND ALL EQUIPMENT FROM THE PROJECT SITE.

**U. MAINTENANCE**

- 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.
- 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.
- TREES AND SHRUBS SHALL BE MAINTAINED TO KEEP CLEARANCE OF STOP SIGNS AND SAFETY CLEARANCE FOR VISIBILITY AT TRAFFIC INTERSECTION.

**V. GUARANTEE & REPLACEMENT**

- 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 ANND 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 SUCH DEATH OR WITHERING IS DUE TO OWNERS FAILURE TO DO ORDINARY MAINTENANCE OF 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 AS PLANTS DAMAGED BY VEHICLES, VANDALISM OR NEGLIGENCE 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 AND MATERIAL BASIS. "PLANTS" INCLUDES ALL TREES, PALMS, SHRUBS, GRASS AND OTHER PLANTS PROVIDED OR PLANTED BY CONTRACTOR.

**Z. ABBREVIATIONS IN NOTES AND PLANS**

- U.N.O. = 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

FDOT Permit Number 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPAHO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  <b>LANDSCAPE NOTES AND DETAILS</b>  LD-18
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



**FDOT NOTES - THE FOLLOWING WILL SUPERCEDE ANY CONFLICTING NOTES:**

**FDOT GENERAL NOTES**

1. GOVERNING STANDARD PLANS:  
*Florida Department of Transportation, FY 2021-22 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs) are available at the following website: <https://www.fdot.gov/design/standardplans>*
2. GOVERNING STANDARD SPECIFICATIONS:  
*Florida Department of Transportation, January 2021 Standard Specifications for Road and Bridge Construction at the following website: <https://www.fdot.gov/programmanagement/implemented/specbooks>*
3. Contractor shall repair all damage done to FDOT property during demolition, relocation &/or installation activities at his sole expense.
4. Any plant material substitution within or impacting the FDOT Right of Way whether requested by the Contractor, Owner, Landscape Architect or other will need to get approval from the FDOT District Landscape Architect.
5. Patterned Pavement installation shall comply with current FDOT Standard Specification 523. Online Reference:  
[https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2021/1-21ebook.pdf?sfvrsn=1c62cb58\\_2](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2021/1-21ebook.pdf?sfvrsn=1c62cb58_2)
6. Architectural Pavers installation for sidewalks, medians, driveways or roadways within the FDOT right of way shall comply with current FDOT Standard Specification 526. Online Reference:  
[https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2021/1-21ebook.pdf?sfvrsn=1c62cb58\\_2](https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/specbooks/january2021/1-21ebook.pdf?sfvrsn=1c62cb58_2)
7. Ownership of all suitable excavated materials, as determined by the Department, shall remain in the Department until a final acceptance of the permitted project is fulfilled. Excavated materials shall be hauled by the Permittee, at their cost & expense from the site to the Broward Operations Center or stockpiled in those areas as directed by the Department, including asphalt millings.

**FDOT PLANTING NOTES**

1. For the portion of landscape plant material that will be installed within the FDOT Right of Way, landscape installation shall comply with current applicable FDOT Maintenance Specification 580. Online Reference:  
<https://www.fdot.gov/programmanagement/maintenance/2021jan/maintenance-specifications--january-2021>
2. For the portion of landscape plant material that will be installed within the FDOT Right of Way refer to the FDOT Standard Plans Index 580-001 Landscape Installation.  
Online Reference: <https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/design/standardplans/2022/idx/580-001.pdf?>
3. It is recommended that you verify the existing soil conditions of medians to be planted prior to finalizing your construction documents. If the existing sub-grade is compacted road base, it is recommended that you specify replacement with planting soil, as follows:
  - a. Contractor shall preserve a continuous band of undisturbed compacted sub-base 18" from the back of curb (See Detail below).
  - b. Contractor shall insure that all unsuitable soil including concrete, pavement, road base, stones over 3"diameter and all construction debris, is removed from median area to be planted and replaced with specified planting soil, e.g. 60% sand and 40% muck.
  - c. Areas to be planted with shrubs and/or ground covers: remove compacted soil to a depth of 12" and replace with specified planting soil. Planting soil shall come up to 4"from top of curb, reserving space for 3"compacted mulch and 1"clear from top of curb.
  - d. Planting pits for trees and palms: remove compacted soil within the area of each planting pit to a depth of 24"from the top of curb. Planting soil shall come up to 4"from top of curb, reserving space for 3"compacted mulch, and 1" clear from top of curb.
4. Cypress Mulch is not permitted on FDOT right of way. Mulch permitted to be used are Hardwood Mulch (containing no Cypress products), Recycled Mulch or approved equal, certified by the Mulch and Soil Council (MSC). Submit proof of certification to the FDOT District Operations Permit Landscape Inspector upon inspection.
5. Sodded areas will be in accordance with Standard Plans Index 570-010 and Standard Specifications Sections 570, 981, 982, 983, 987 of the Department's latest edition of Governing Design Standards and Standard Specifications. All disturbed areas will be sodded within one (1) week of installation of said permitted work.

**IRRIGATION PLAN REQUIREMENTS PLAN SHEETS**

1. Irrigation system water source must be shown on the irrigation plan.
2. Irrigation plans need to indicate water connection points and electrical connection for proposed controllers and pumps. FDOT must be provided 24-hour emergency access to the water source.
3. Verify that above-ground Irrigation items such as backflow preventers, pumps and controllers are not located within the Horizontal Clear Zone.
4. Show the proposed locations for sleeves to the median.

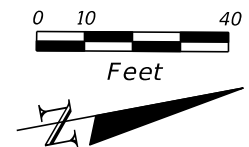
**FDOT IRRIGATION NOTES**

1. The irrigation system shall use the lowest quality water available which adequately and safely meets the water needs of the system. Storm water, reclaim water, or grey water irrigation shall be used whenever possible.
2. FDOT requires 24-hour emergency access to water source.
3. Contractor shall provide FDOT District Operations Manager with a set of "As-Built"irrigation plans.
4. Sleeving must be 36"below the roadway. Verify with FDOT Maintenance that sleeving/directional bore is permitted at this time. A newly resurfaced road cannot be disturbed for 5 years.
5. Permittee's representative & an FDOT Inspector must be on site during all boring activities. Upon completion of the boring activities, Permittee shall provide all documentation to be in accordance with FDOT Standard Specifications, Section 555 or 556, whichever is applicable.
6. Permittee's contractors that are performing directional drilling and/or jack and bore activities shall provide the Department (Permits Office) proof of a proper state contractor's license and certificate of liability insurance prior to any commencement of permitted work.
7. Permittee will ensure that all locates have been performed prior to scheduling of any boring activities. This shall include soft digs to verify vertical & horizontal alignment.

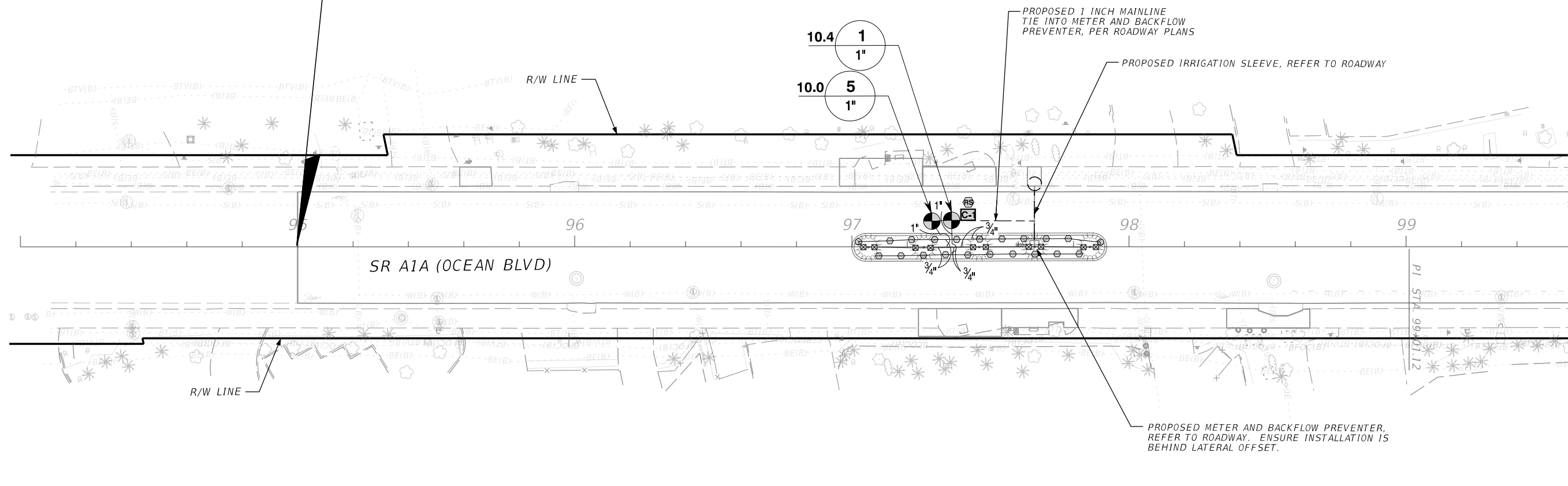
FDOT Permit Number 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LANDSCAPE NOTES AND DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR A1A	BROWARD	N/A		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



MP 8.687  
BEGIN IRRIGATION  
STA. 95+00.00



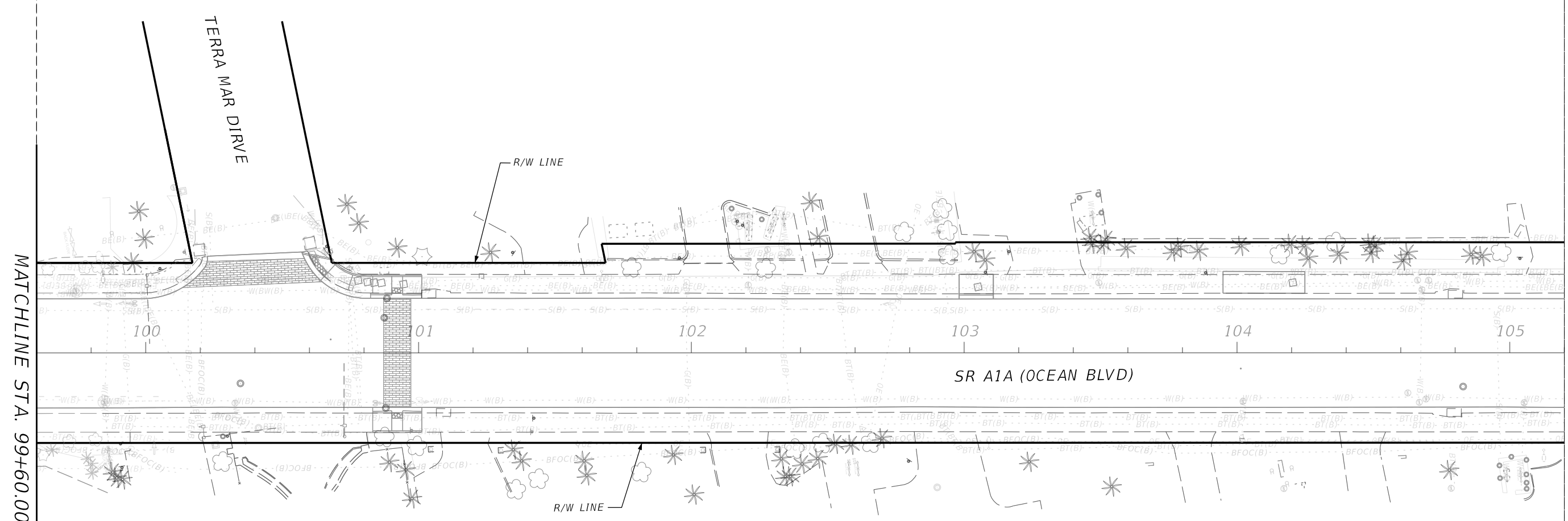
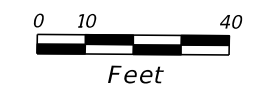
MATCHLINE STA. 99+60.00



FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			IRRIGATION PLAN	SHEET NO.  LD-20
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR A1A	BROWARD	N/A		

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MATCHLINE STA. 99+60.00

**NO IRRIGATION THIS SHEET**

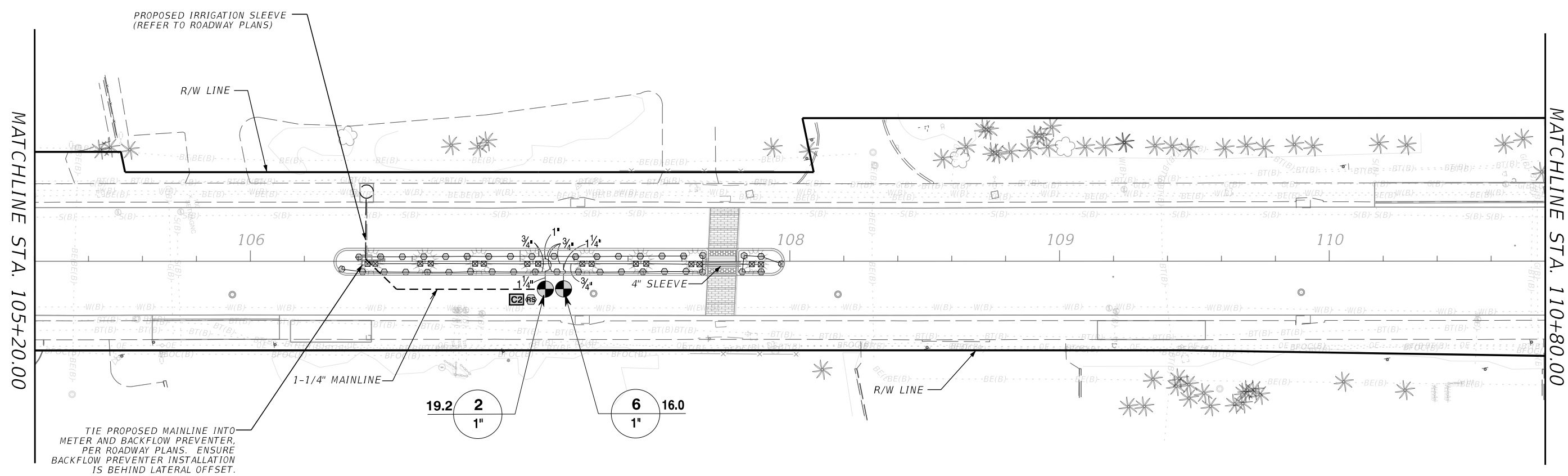
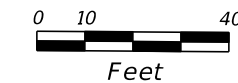


FDOT PERMIT NUMBER 2020-491-00003

REVISIONS		DESCRIPTION		KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-21
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

*IRRIGATION PLAN*

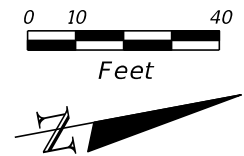
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



FDOT PERMIT NUMBER 2020-L-491-00003

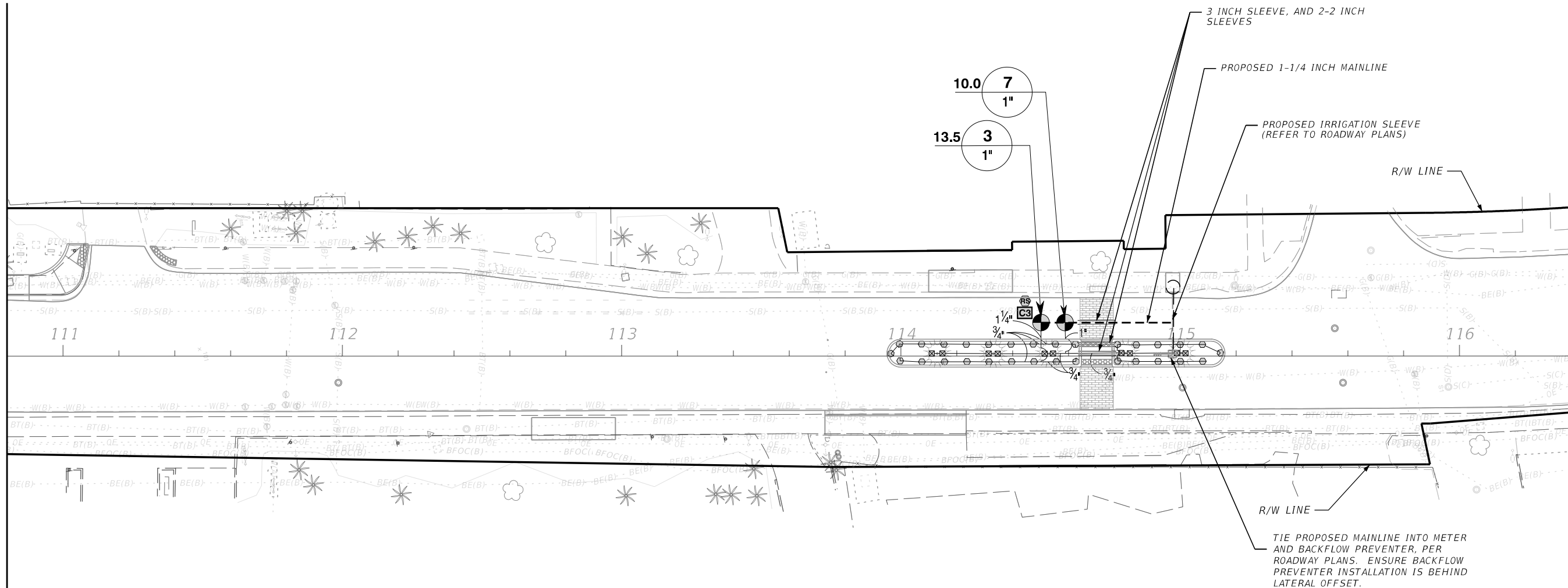
REVISIONS		DATE		DESCRIPTION	
DATE	DESCRIPTION	DATE	DESCRIPTION		
				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	
				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	
		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
		SR A1A	BROWARD	N/A	
<b>IRRIGATION PLAN</b>					
					SHEET NO.
					LD-22

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



MATCHLINE STA. 110+80.00

MATCHLINE STA. 116+40.00

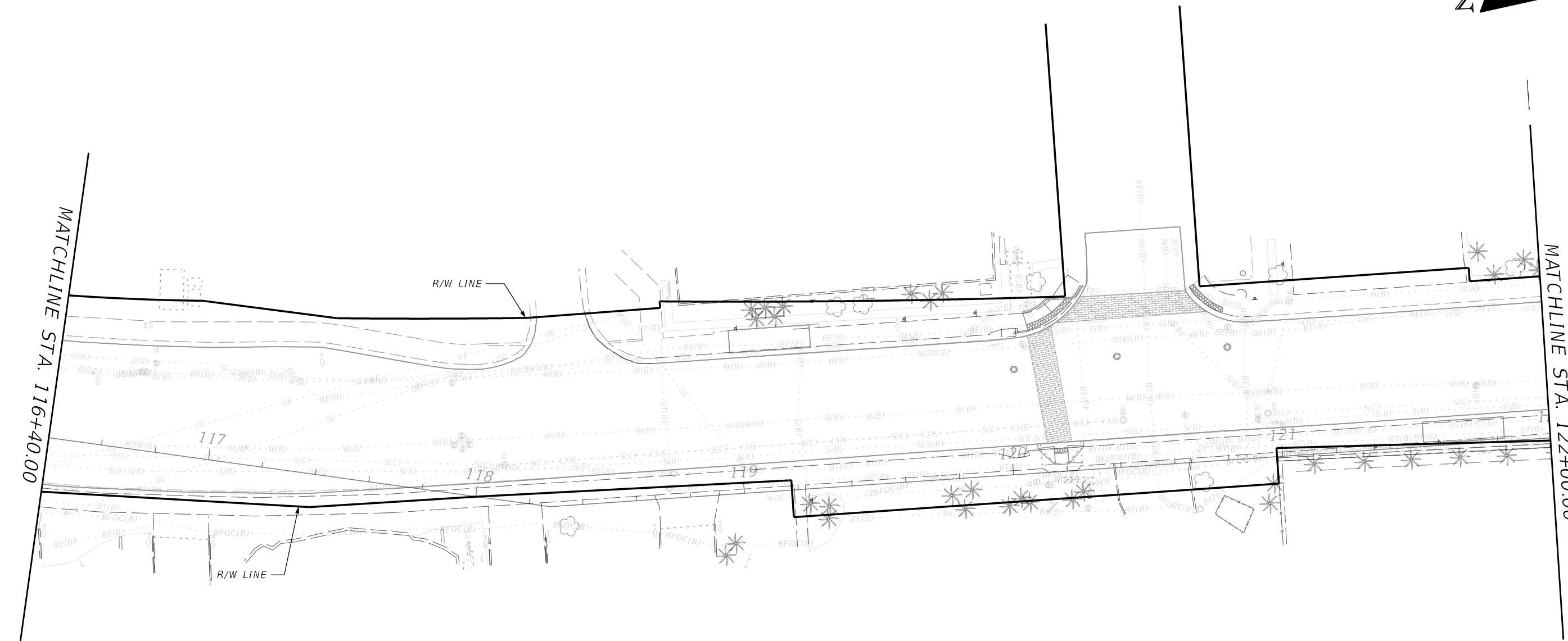
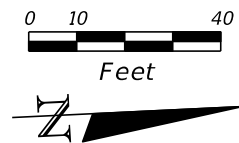


FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-23
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

*IRRIGATION PLAN*

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G10-11.001, F.A.C.



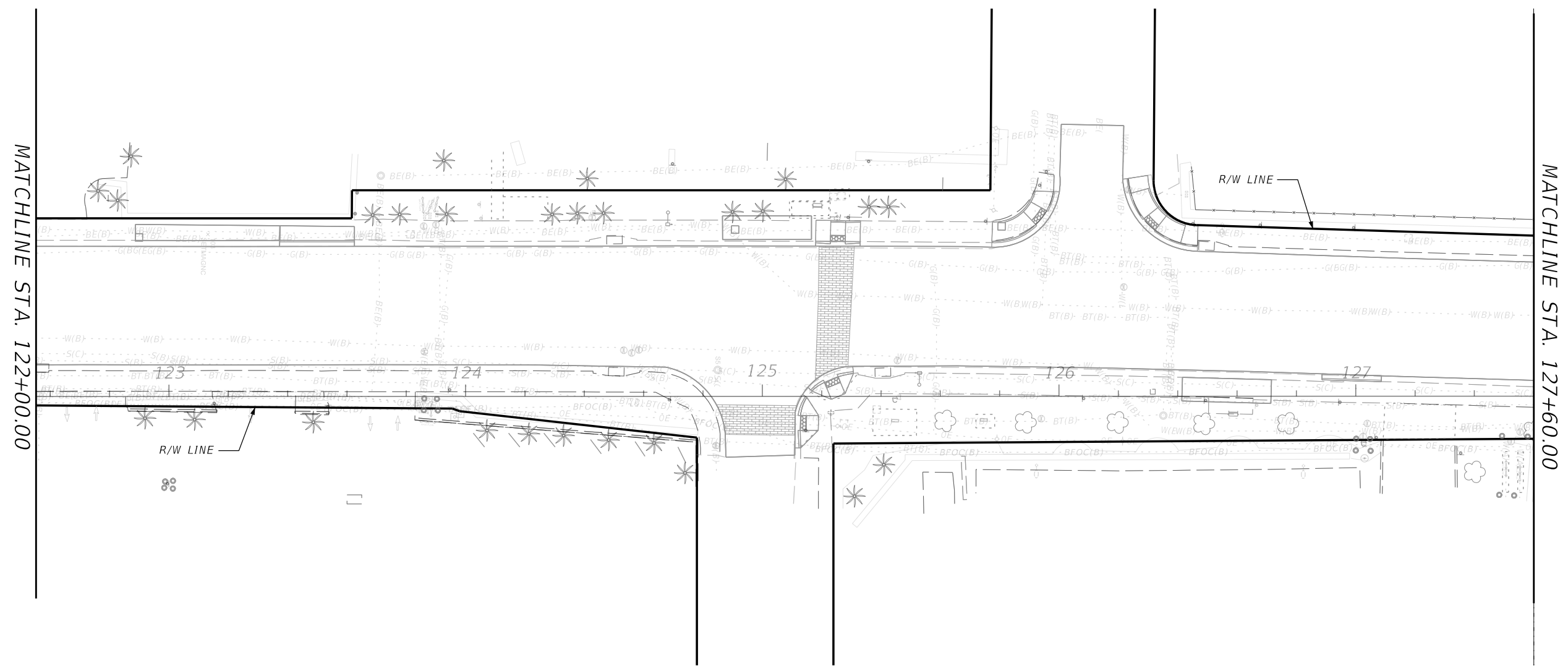
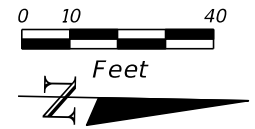
NO IRRIGATION THIS SHEET



FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-24
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

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**NO IRRIGATION THIS SHEET**

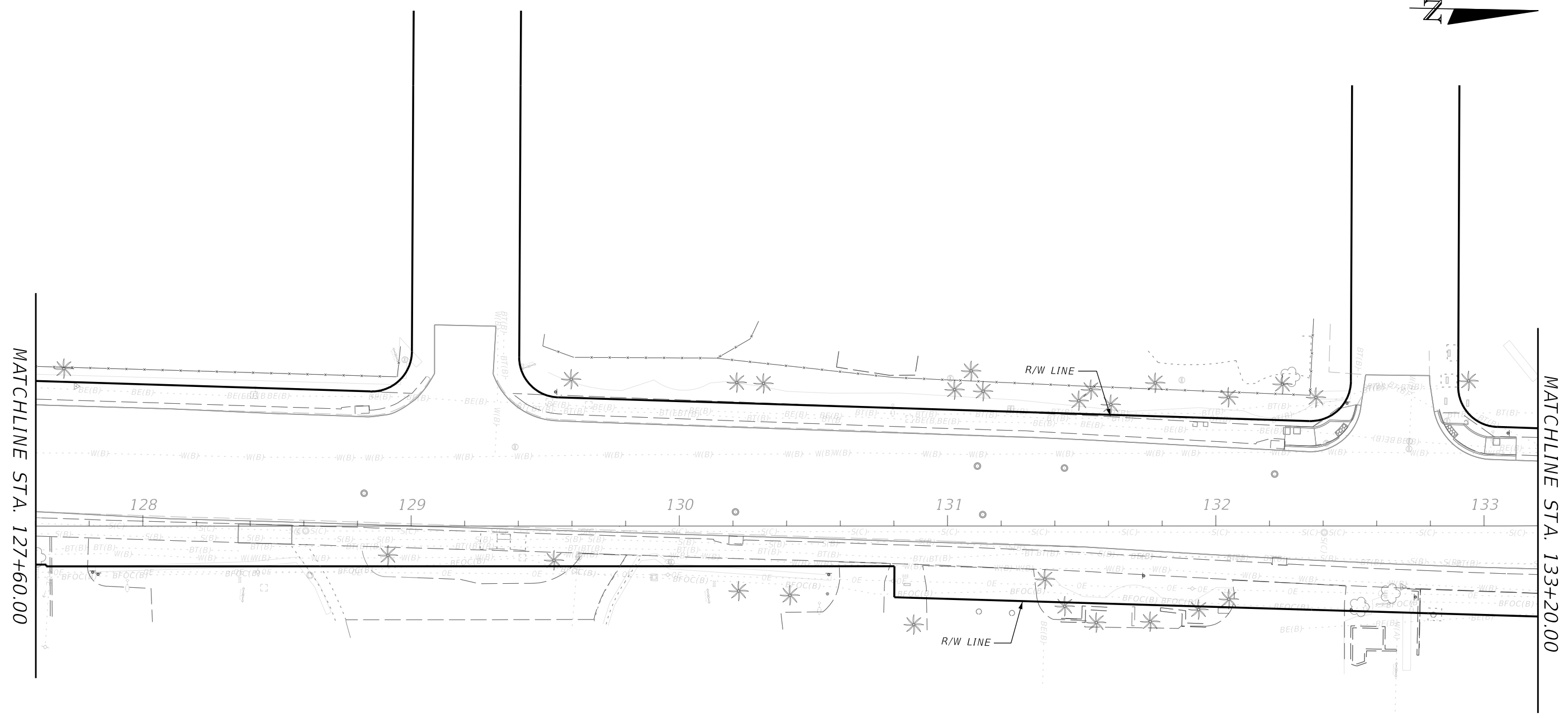
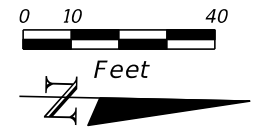


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REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-25
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

**IRRIGATION PLAN**

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MATCHLINE STA. 127+60.00

MATCHLINE STA. 133+20.00

**NO IRRIGATION THIS SHEET**



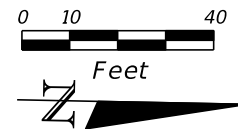
FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			IRRIGATION PLAN	SHEET NO.  LD-26
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				SR A1A	BROWARD	N/A		

KEITH AND ASSOCIATES, INC  
301 E ATLANTIC BLVD  
POMPANO BEACH, FL 33060  
(954) 788-3400  
GEOFF CAMPBELL  
R.L.A NO 6667219

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MATCHLINE STA. 133+20.00

MATCHLINE STA. 138+80.00

MP 9.890  
END IRRIGATION  
STA. 137+60.00



PROPOSED 1.5 INCH MAINLINE

2 INCH SLEEVE

R/W LINE

PROPOSED IRRIGATION SLEEVE, REFER TO ROADWAY

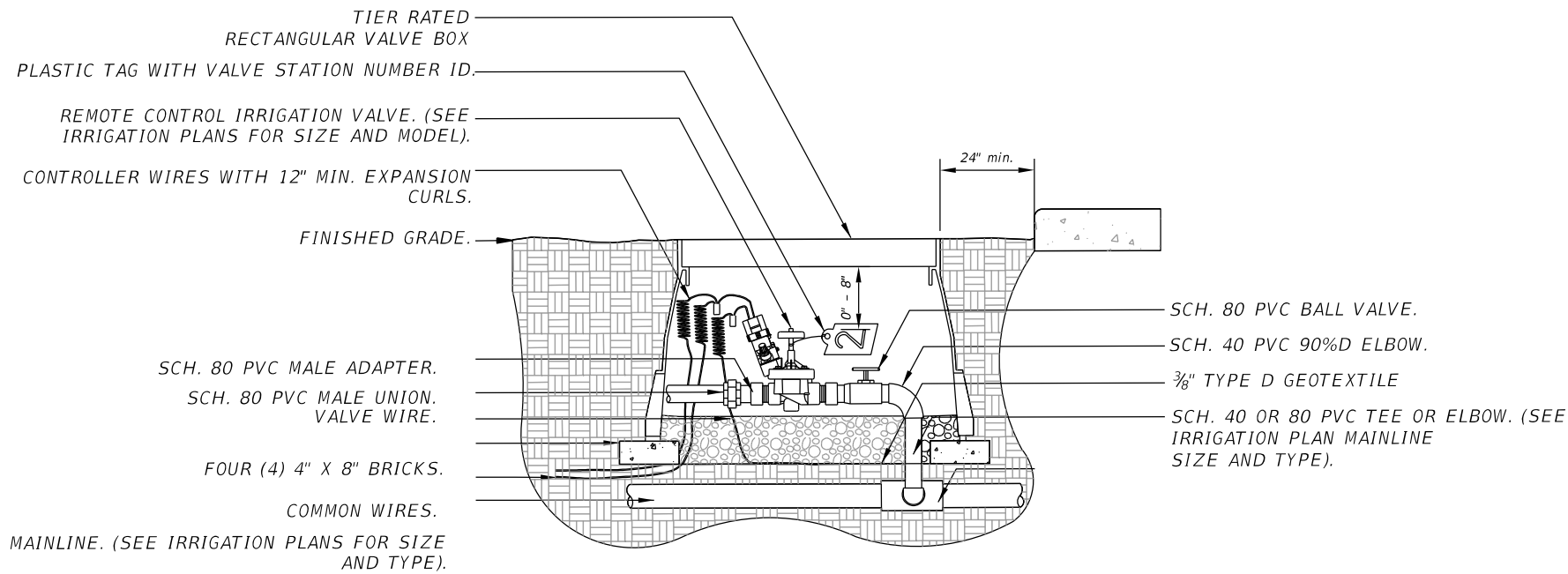
TIE PROPOSED MAINLINE INTO METER AND BACKFLOW PREVENTER, PER ROADWAY PLANS. ENSURE BACKFLOW PREVENTER INSTALLATION IS BEHIND LATERAL OFFSET.



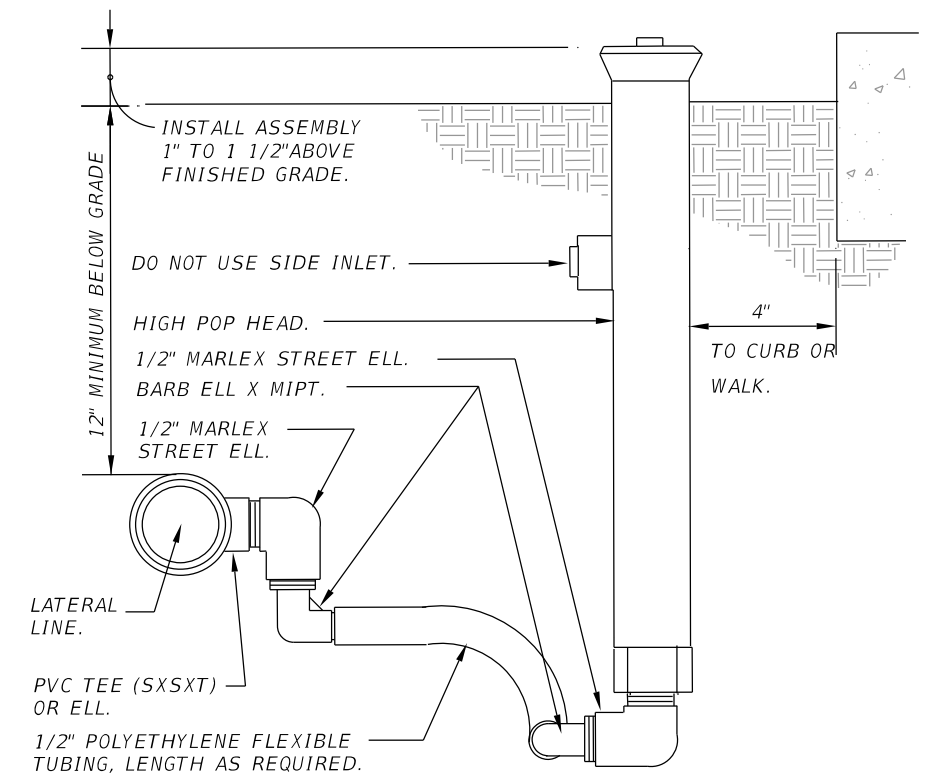
FDOT PERMIT NUMBER 2020-L-491-00003

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			IRRIGATION PLAN	SHEET NO.  LD-27
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR A1A	BROWARD	N/A		

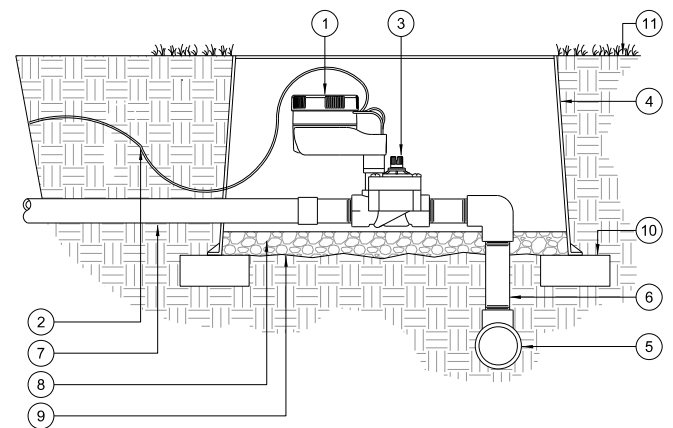
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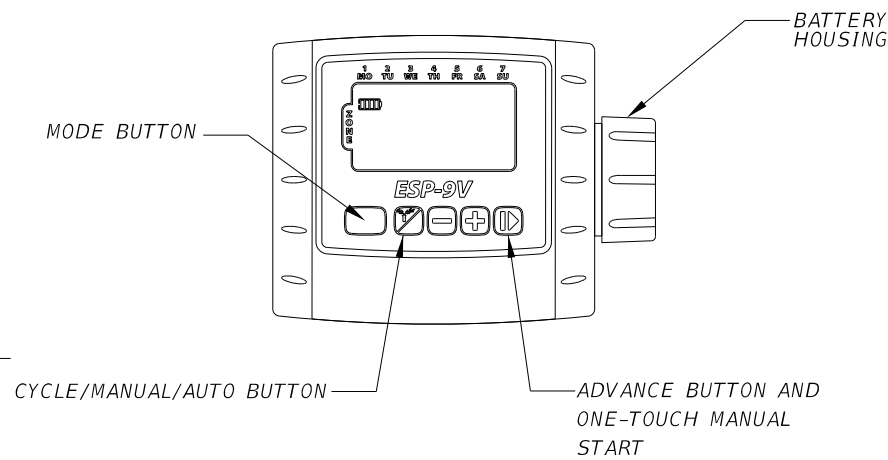
RAIN BIRD PEB VALVE - GLOBE CONFIGURATION



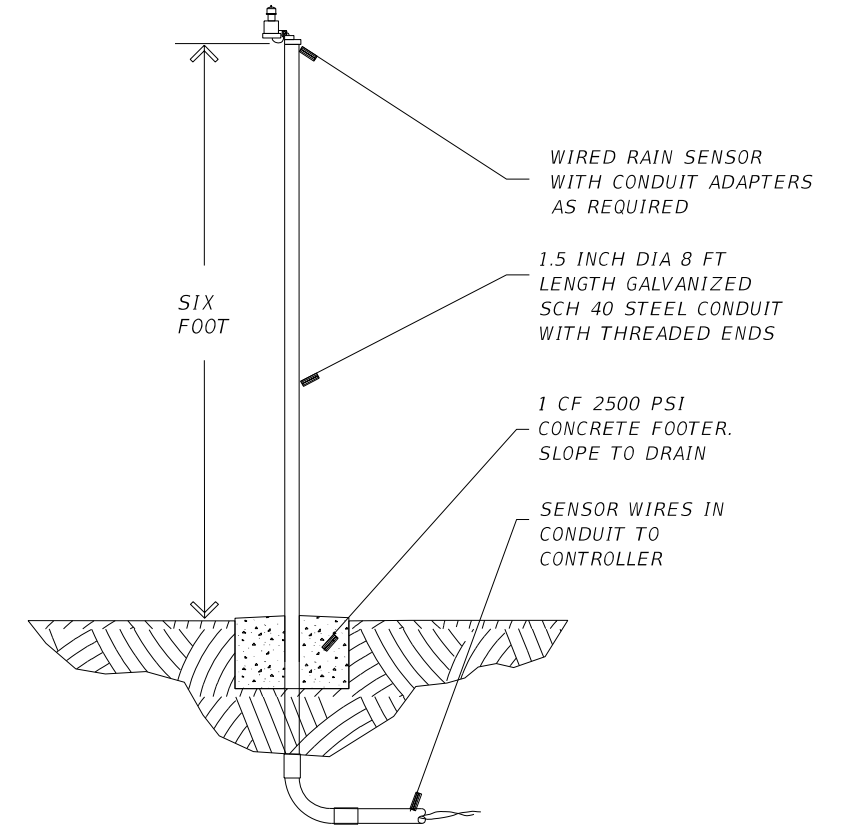
RAINBIRD 1806 SPRAYS



- DETAIL LEGEND:
- ① RAIN BIRD IRRIGATION ESP-9V
  - ② CONNECTION TO RSD-BEX RAIN SENSOR
  - ③ RAIN BIRD VALVE PER PLAN
  - ④ VALVE BOX PER PLAN
  - ⑤ MAIN LINE PER PLAN
  - ⑥ MAIN LINE RISER PER PLAN
  - ⑦ LATERAL LINE PER PLAN
  - ⑧ GRAVEL BASE, DEPTH AS SPECIFIED
  - ⑨ FILTER FABRIC
  - ⑩ BRICK
  - ⑪ FINISHED GRADE



RAIN BIRD ESP-9V CONTROLLER



RAINBIRD RSD-BEX POLE MOUNTED RAIN SENSOR

FDOT Permit Number 2020-L-491-00003

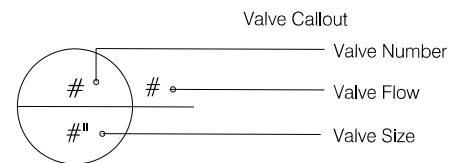
REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  LD-28
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR A1A	BROWARD	N/A	

IRRIGATION NOTES AND DETAILS

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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	RAIN BIRD 1806 5 SERIES MPR SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. SIDE AND BOTTOM INLET. 1/2" NPT FEMALE THREADED INLET.	1	30
	RAIN BIRD 1806 8 SERIES MPR SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. SIDE AND BOTTOM INLET. 1/2" NPT FEMALE THREADED INLET.	142	30
	RAIN BIRD 1802-1300AF FLOOD F FLOOD BUBBLER 2.0" POP-UP, WITH A PA-80 ADAPTER.	54	10
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD PEB 1" 1" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	8	
	RAIN BIRD ESP-9V 2 ZONE, 9V BATTERY-OPERATED CONTROLLER.	4	
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, POLE MOUNTED WITH EXTENSION WIRE.	4	
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	1,700 L.F.	
	PIPE SLEEVE: PVC CLASS 200 SDR 21	70 L.F.	



**IRRIGATION NOTES**

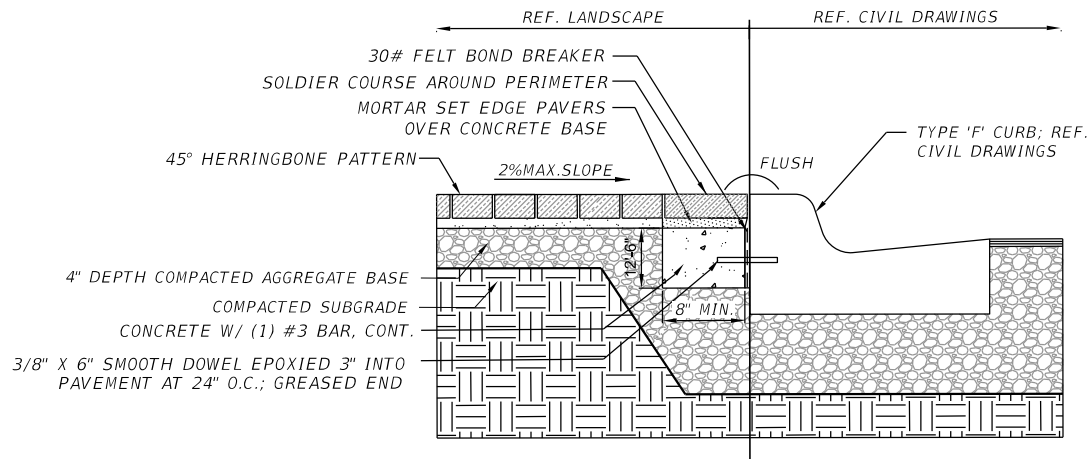
- THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL REQUIRED TO MAKE THE SYSTEM FUNCTION PROPERLY. ALL IRRIGATION SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND ALSO STATE AND/OR LOCAL CODES.
- IRRIGATION PLANS ARE SCHEMATIC AND DRAWN FOR GRAPHIC CLARITY. ALL PIPING BELOW PAVING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

FDOT Permit Number 2020-L-491-00003

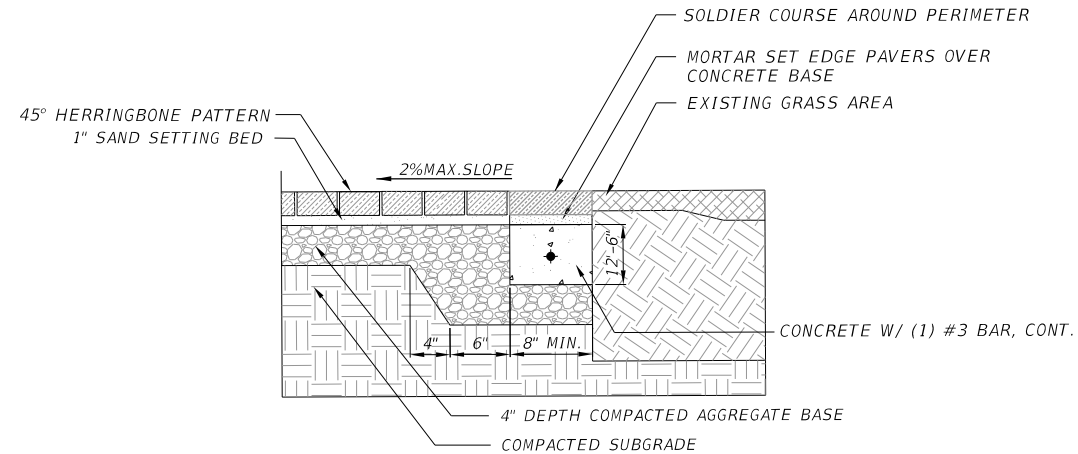
REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			<p style="text-align: center;"><b>IRRIGATION NOTES AND DETAILS</b></p>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		LD-29
					SR A1A	BROWARD	N/A		

# SIDEWALK PAVER DETAIL

BEGIN PAVER INSTALLATION FROM NEAREST SIDEWALK JOINT AT TOP OF DRIVEWAY RAMPS. DO NOT IMPACT SIDEWALK RAMPS (>5% SLOPE).



1. SIDEWALK PAVERS AT TYPE F CURB SECTION VIEW

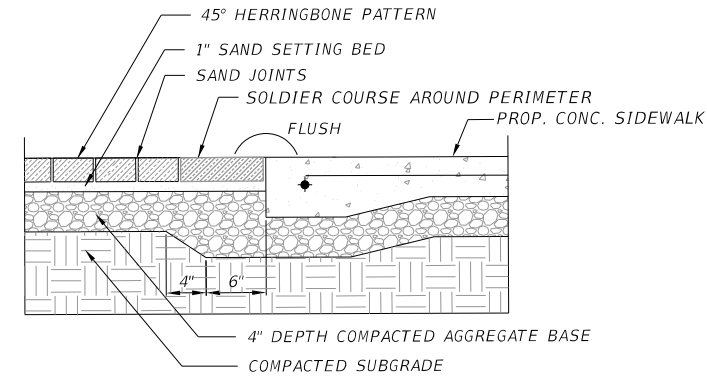


2. SIDEWALK PAVERS AT GRASS AREAS SECTION VIEW

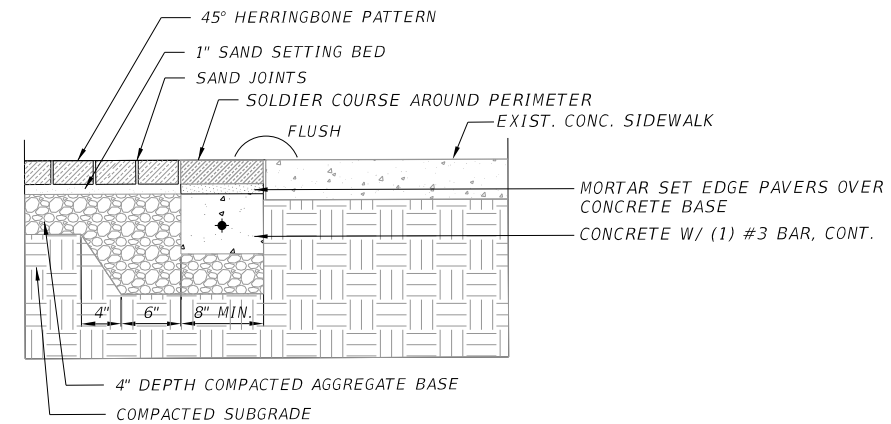
## MATERIALS SCHEDULE

### PAVERS

DESCRIPTION / MODEL	COLOR	FINISH	CONTACT	REMARKS
BELGARD - OCEANSIDE 4" X 8" X 2-3/8"	33% MALT 33% GRAY 33% CREAM	STANDARD	FRANK GONZALEZ 305-522-0002	



3. SIDEWALK PAVERS AT PROPOSED CONCRETE SIDEWALK SECTION VIEW



4. SIDEWALK PAVERS AT EXISTING CONCRETE SIDEWALK SECTION VIEW

REVISIONS				KEITH AND ASSOCIATES, INC 301 E ATLANTIC BLVD POMPANO BEACH, FL 33060 (954) 788-3400 GEOFF CAMPBELL R.L.A NO 6667219	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			HARDSCAPE DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR A1A	BROWARD		N/A

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**SECTION NO(S): 860500000**  
**S.R. NO.(S): A1A**  
**COUNTY: Broward**  
**PERMIT NO.: 2021-L-491-00003**

## **EXHIBIT C**

### **PATTERNED PAVEMENT INSTALLATION**

This Exhibit forms an integral part of the DISTRICT FOUR (4) MAINTENANCE MEMORANDUM OF AGREEMENT between the State of Florida, Department of Transportation and the AGENCY.

- (1) Prior to acceptance by the DEPARTMENT, all lanes for each of the stamped asphalt crossings projects shall be tested for friction in accordance with ASTM E 274-06. All costs for friction testing will be the responsibility of the AGENCY. The initial friction resistance shall be at least **35** obtained at 40 mph with a ribbed test tire (FN40R) or equivalent. Failure to achieve this minimum resistance shall require all deficient crosswalk areas to be removed to their full extent (lane-by-lane) and replaced with the same product installed initially. If more than 50% of the lanes in the intersection require replacement, the entire intersection installation may be reconstructed with a different product on the Qualified Products List (QPL). All lanes receiving new installations shall again be friction tested within 60-90 days of their acceptance by the local AGENCY. The initial friction resistance of each new installation shall be at least **35** (FN40R) or equivalent. Failure to achieve this minimum resistance shall require all deficient areas be removed to their full extent (lane-by-lane) and replaced with the same product installed initially. If more than 50% of the lanes in the intersection require replacement, the entire intersection installation may be reconstructed with a different product on the DEPARTMENT'S Qualified Products List (QPL) or replaced with conventional pavement.
- (2) The results of all friction tests and condition surveys shall be sent to the **Operations Engineer** at the local FDOT District Four Operations Center located at Broward Operations, 5548 NW 9<sup>th</sup> Avenue, Ft. Lauderdale, FL 33309 (954) 776-4300, with a cover letter either certifying that the crosswalks comply with the above stated requirements; or what remedial action will be taken to restore the friction and/or integrity of the crosswalk area.
- (3) When remedial action is required in accordance with the above requirements, the local AGENCY at its own expense shall complete all necessary repairs within 90 days of the date the deficiency was identified.
- (4) Should the local AGENCY fail to satisfactorily perform any required remedial work or testing in accordance with this agreement, the DEPARTMENT reserves the right to replace the patterned pavement with conventional pavement and bill the local AGENCY for this cost. No more than two full stamped asphalt pavement depth repairs shall be made to an area without first resurfacing the pavement to its full depth.

SECTION NO(S): 860500000  
S.R. NO.(S): A1A  
COUNTY: Broward  
PERMIT NO.: 2021-L-491-00003

## EXHIBIT D

### PATTERNED PAVEMENT MAINTENANCE

This Exhibit forms an integral part of the DISTRICT FOUR (4) MAINTENANCE MEMORANDUM OF AGREEMENT between the State of Florida, Department of Transportation and the AGENCY.

"Maintenance" of all patterned pavement crosswalks in these Agreements shall be defined, as a minimum, to include its frictional characteristics and integrity as follows:

- (1) Within 60 days of project acceptance by the Department, all lanes of each patterned crosswalk shall be evaluated for surface friction. The friction test shall be conducted using either a locked wheel tester in accordance with **FM 5-592 (Florida Test Method for Friction Measuring Protocol for Patterned Pavements)** or Dynamic Friction Tester in accordance with **ASTM E1911**. **All costs for friction testing are the responsibility of the AGENCY.**
- (2) The initial friction resistance shall be at least **35** obtained at 40 mph with a ribbed tire test (FN40R) or equivalent (FM 5-592 attached). Failure to achieve this minimum resistance shall require all deficient crosswalk areas to be removed to their full extent (lane-by-lane) and replaced with the same product installed initially. The AGENCY is responsible for all costs associated with the removal and replacement of the crosswalk. If the Department determines that more than 50% of the lanes in the intersection require replacement, the entire intersection installation may be reconstructed with a different product on the Qualified Products List (QPL) or replaced with conventional pavement.
- (3) Approximately **one year** after project acceptance and **every two years** thereafter and for the life of the adjacent pavement, only the outside traffic lane areas of each patterned crosswalk shall be tested for friction resistance in accordance with **ASTM E274** or **ASTME 1911**. Friction resistance shall, at a minimum, have a FN40R value of **30** (or equivalent).
- (4) The results of all friction tests shall be sent to the **Operations Engineer** at the local FDOT District Four Operations Center located at Broward Operations, 5548 NW 9<sup>th</sup> Avenue, Ft. Lauderdale, FL 33309 (954) 776-4300, with a cover letter either certifying, that the crosswalks comply with the minimum friction criteria, or stating what remedial action will be taken to restore the friction.
- (5) Failure to achieve the minimum resistance shall require all lanes of the crosswalk to be friction tested to determine the extent of the deficiency. All deficient areas shall be removed to their full extent (lane-by-lane) and

replaced with the same product installed initially. If the Department determines that more than 50% of the lanes in the intersection require replacement, the entire intersection installation may be reconstructed with a different product on the QPL, or replaced with conventional pavement.

- (6) When remedial action is required in accordance with the above requirements, the local agency shall complete all necessary repairs at its own expense within 90 days of the date when the deficiency was identified. No more than two full depth patterned pavement repairs shall be made to an area without first resurfacing the underlying pavement to 1" minimum depth.
- (7) The Department will not be responsible for replacing the treatment following any construction activities by the Department in the vicinity of the treatment, or any costs for testing.
- (8) Should the local agency fail to satisfactorily perform any required remedial work or testing in accordance with this agreement, the Department reserves the right to replace the patterned pavement with conventional pavement (matching the adjacent pavement) and bill the local agency for this cost.



# Florida Test Method for Friction Measuring Protocol for Patterned Pavements

Designation: FM 5-592

## 1. SCOPE

This method covers the testing procedures for evaluating the friction resistance of Patterned surfaces used in crosswalks over asphalt and concrete surfaces.

This test method contains two parts:

Part A - Friction testing performed with the Locked Wheel Friction Tester

Part B - Friction testing performed with the Dynamic Friction Tester (DFT)

## 2. APPARATUS

2.1 Locked Wheel Friction Tester - This apparatus shall be standardized in accordance with ASTM E274, "Standard Test Method for Skid Resistance of Paved Surfaces Using a Full-Scale Tire". The friction test tire used shall be in accordance with ASTM E501, "Standard Specification for Standard Rib Tire for Pavement Skid-Resistance".

2.2 Dynamic Friction Tester - This apparatus shall be standardized in accordance with ASTM E1911, "Standard Test Method for Measuring Paved Surface Frictional Properties Using the Dynamic Friction Tester".

## 3. FRICTION NUMBER CONVERSION

The regression equations relating the locked wheel test results and the DFT results at 40 mph (65 km/h) are:

$$FN40R = 0.64 \cdot DFT40 + 9.23 \quad (1)$$

$$DFT40 = 1.56 \cdot FN40R - 14.42 \quad (2)$$

where,

FN40R = Friction Number from locked wheel testing at 40 mph using a ribbed tire  
DFT40 = Coefficient of Friction from DFT at 40 mph multiplied by 100.

Although the above equations can be used to convert the DFT result to the locked wheel friction number at 40 mph and vice versa, conditions do exist where the DFT testing or the locked wheel testing at 40 mph is not feasible due to constraints such as safety, traffic congestion, speed limits, and/or roadway geometries. In these cases, it may be preferable to conduct the locked wheel testing at a slower speed, e.g., 20 or 30 mph. The following regression equations have been developed to convert the locked wheel test results at 20 and 30 mph to those at 40 mph:





$$FN40R = 0.89 \cdot FN20R - 4.88 \tag{3}$$

where,

FN20R = Friction Number from locked wheel testing at 20 mph using a ribbed tire, and

$$FN40R = 0.95 \cdot FN30R - 2.91 \tag{4}$$

where,

FN30R = Friction Number from locked wheel testing at 30 mph using a ribbed tire.

For ease of application of the above harmonization results, Table 1 summarizes the conversions from FN30R, FN20R and DFT40 to FN40R. Note that the friction numbers shown in this table were rounded to the closest integer. The numbers highlighted in yellow represent the current minimum required friction numbers depending on survey cycle, test method, and speed evaluated.

**Table 1. Friction Number Table**

FN40R	FN30R	FN20R	DFT40
22	26	30	20
23	27	31	21
24	28	32	23
25	29	34	25
26	30	35	26
27	31	36	28
28	33	37	29
29	34	38	31
30*	35*	39*	32*
31	36	40	34
32	37	41	36
33	38	43	37
34	39	44	39
35**	40**	45**	40**
36	41	46	42
37	42	47	43
38	43	48	45
39	44	49	46
40	45	50	48
41	46	52	50
42	47	53	51



43	48	54	53
44	49	55	54
45	50	56	56

\* Minimum friction numbers required for inventory cycles of patterned crosswalks.

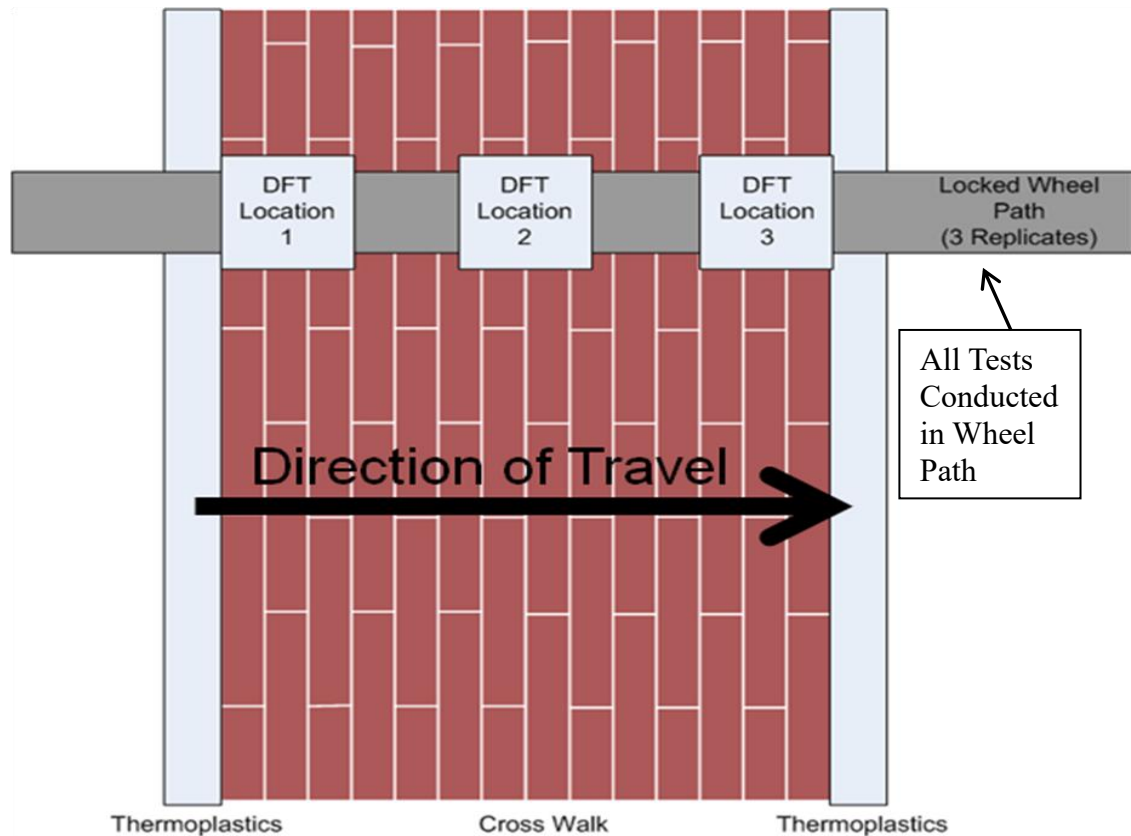
\*\*Minimum friction numbers required for new construction and 3-year APL test decks for patterned crosswalks.

#### 4. PROCEDURE

The test procedures for both the Locked Wheel Friction Tester and the Dynamic Friction Tester are described in the following. All testing should be performed within either the driver or passenger side wheel path, regardless of the equipment used.

##### 4.1 PART A- Friction Testing with the Locked Wheel Friction Tester

- A) **New Construction** – The locked wheel test shall be conducted on all crosswalks within 60 days of the new surface completion date. One valid lockup test is required for each lane; all lanes shall be evaluated and compared. The test layout is shown in Figure 1.
- B) **Inventory** – For in-service Approved Product List (APL) test sections, the locked wheel test is conducted at 6-month intervals up to 3 years. Maintenance surveys are conducted on a yearly basis. Test site shall be confined to a single outside traffic lane (single direction) for each crosswalk location. The locked wheel test will require three repeat lockups and averaged for the designated test lane. The lane in which the friction tests were conducted must be identified in the report along with the test results.
- C) **Retest** – At any point when friction numbers are determined to be below the required values shown in Table 1, all lanes shall be evaluated, and the range of friction values shall be determined.
- D) **Special Request** – At any time, a patterned pavement is in need of a special assessment, the designated lane(s) shall be evaluated to determine the range of representative friction values.



**FIGURE 1 Testing protocol for patterned pavement.**

4.2 PART B- Skid Testing with the Dynamic Friction Tester (DFT)

- A) **New Construction** – The DFT test shall be conducted on all crosswalks within 60 days of the new surface completion date. DFT tests shall be conducted at three (3) discrete locations in each lane; the results shall be averaged and reported for each lane tested. All lanes shall be evaluated and compared. The test layout is shown in Figure 1.
- B) **Inventory** – For in-service APL test sections, the DFT test is conducted at 6-month intervals up to 3 years. Maintenance surveys are conducted on a yearly basis. Test site shall be confined to a single outside traffic lane (single direction) for each crosswalk location. DFT tests will be conducted at three (3) discrete locations (Figure 1) in each lane; the results shall be averaged and reported for each lane tested. The lane in which the friction tests were conducted should be identified in the report with the test results.
- C) **Retest** – At any point when friction numbers are determined to be below the required values shown in Table 1, all lanes shall be evaluated, and the range of friction values shall be determined.



- D) **Special Request** – At any time, a patterned pavement is in need of a special assessment, the designated lane(s) shall be evaluated to determine the range of representative friction values.

## 5. TEST SITE SELECTION REQUIREMENTS

Manufacturers shall provide a field service test installation of each product within a marked crosswalk on a roadway with an ADT of 6,000 to 12,000 vehicles per day per lane, on a site approved by the Department. The test installation shall be a minimum six feet wide and extend from pavement edge to pavement edge across all traffic lanes and shoulder pavement at the crosswalk location.

## 6. REPORTING

- 6.1 Friction numbers for the patterned crosswalks should be reported using FDOT's Materials form number 675-060-05. This form can be downloaded from FDOT's website at:

<https://pdl.fdot.gov/api/form/downloadAttachment/10981075>