CONTRACT PLANS

BROWARD COUNTY

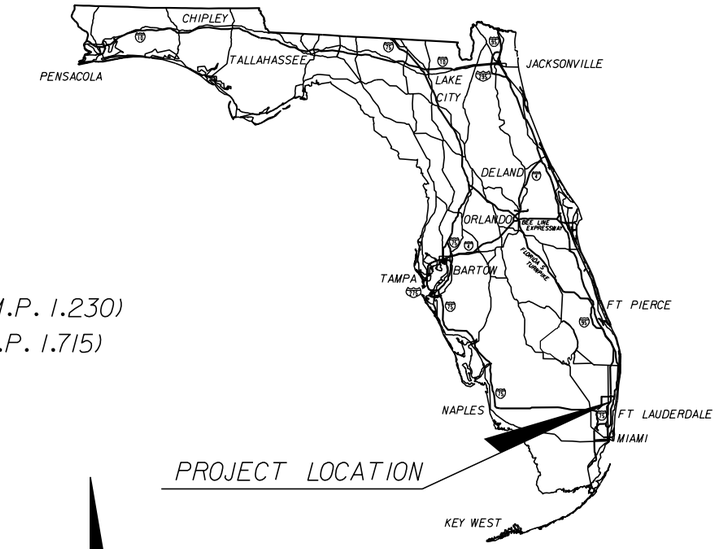
STATE ROAD NO. 814 / ATLANTIC BOULEVARD

FM 426010-1-58-01 FROM WEST OF LYONS ROAD (M.P. 0.899) TO LYONS ROAD (M.P. 1.230)

FM 426011-1-58-01 FROM LYONS ROAD (M.P. 1.230) TO FLORIDA'S TURNPIKE (M.P. 1.715)

LANDSCAPE BEAUTIFICATION PROJECT

INDEX OF PROJECT PLANS



CORAL SPRINGS

R-41-E
R-42-E

END PROJECT
FM 426011-1-58-01
MP 1.715 STA. 98+00.00

BEGIN PROJECT
FM 426011-1-58-01
MP 1.230 STA. 74.60.00

TAMARAC

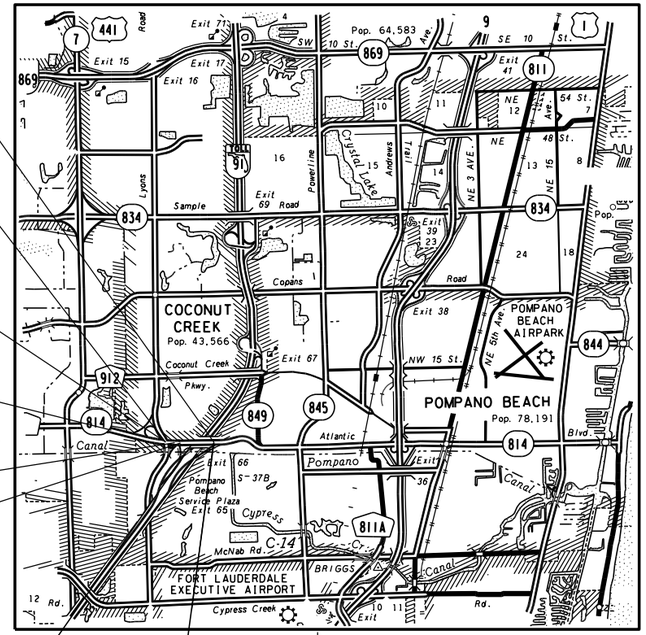
END PROJECT
FM 426010-1-58-01
MP 1.230 STA. 74+60.00

BEGIN PROJECT
FM 426010-1-58-01
MP 0.899 STA. 57+00.00

T-48-S
T-49-S

BEGIN BRIDGE
Sta. 92+79.72

END BRIDGE
Sta. 94+29.54



BEGIN BRIDGE
Sta. 98+03.00

END BRIDGE
Sta. 102+92.35

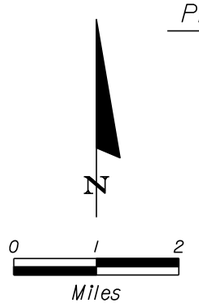
R-41-E
R-42-E

LAUDERDALE LAKES

POMPANO BEACH

T-48-S
T-49-S

PROJECT LENGTH: 0.816 MILES



LANDSCAPE SHOP DRAWINGS TO BE SUBMITTED TO:

BRIAN R. SHORE, RLA
MILLER LEGG
5747 NORTH ANDREWS WAY
FORT LAUDERDALE , FLORIDA 33309

PLANS PREPARED BY:

MILLER LEGG
5747 N Andrews Way · Fort Lauderdale, Florida · 33309-2364
954-436-7000 · Fax: 954-436-8664 · www.millerlegg.com
Certification of Authorization: LC0000337

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

DESIGN SPEED: 45 MPH

City of Coconut Creek
4800 West Copans Road
954-973-6770 · Fax: 954-973-6794
www.creekgov.net

Mayor: Marilyn Gerber
Vice Mayor: Mikkie Belvedere
Commissioner: Lou Sarbone
Commissioner: Becky Tooley
Commissioner: Lisa K. Aronson
City Manager: David J. Rivera

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED 2010,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2010,
AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 01-01-11
For design standard modifications click on "Design Standards" at the following web site:
http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

WESTERN HALF FM# 426010-1-58-01
EASTERN HALF FM# 426011-1-58-01

CITY OF COCONUT CREEK PROJECT SUPERVISOR: BRIAN ROSEN

MILLER LEGG PROJECT MANAGER: BRIAN R. SHORE, RLA

SHEET NO.
LD-1

TABULATION OF QUANTITIES / PLANT SCHEDULE

PAY ITEM NO.	PAY SIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAXIMUM MAINTAINED SIZE	SPACING	REMARKS	UNIT	SHEET NUMBERS								TOTAL THIS SHEET		GRAND TOTAL	
										LD-11	FINAL	LD-12	FINAL	LD-13	FINAL			PLAN	FINAL	PLAN	FINAL
101-1: MOBILIZATION																					
101-1			Mobilization						LS												
102-1: MAINTENANCE OF TRAFFIC																					
102-1			Maintenance of Trafic						LS												
107-1 LITTER REMOVAL AND DISPOSAL																					
107-1			Litter Removal and Disposal						AC	0.11		0.22		0.16				0.49			
107-2 MOWING																					
107-2			Mowing						AC	0.11		0.22		0.16				0.49			
110-1-1: CLEARING AND GRUBBING																					
110-1-1			Clearing and grubbing						LS												
120-6: EMBANKMENT																					
120-6			Embankment						CY	18		23		25				66			
285-70 OPTIONAL BASE (Lime Rock)																					
285-70			Limerock						SY												
522-2 CONCRETE SIDEWALK, 6" THICK																					
522-2			New concrete						SY												
523-1-2 PATTERNED / TEXTURED PAVEMENT (CONCRETE)																					
523-1-2			Pattern and color						SY												
523-1-2			Overlay Treatment						SY	76								76			
526-1-1 PAVERS, ARCHITECTURAL (ROADWAY)																					
526-1-1			Concrete Pavers						SY	127				55				182			
570-1-2 PERFORMANCE TURF (SOD)																					
570-1-2		SOD	Stenotaphrum secundatum	St. Augustine Sod	Solid			Stag.Joints, Rolled	SY	3		601		480				1085			
580-1-1 LANDSCAPE COMPLETE (SMALL PLANTS)																					
580-1-1	SMALL	CHR	Chrysobalanus Icaco	Horizontal Cocoplum	18"x24"	* 18"	24" O.C.	3 GAL. Bush Form	EA.	210								210			
580-1-1	SMALL	JUN	Juniperus chinensis'Parsonii'	Parsons Juniper	12" x 18"	* 18"	24"' OC	3 Gal.	EA.	90				45				135			
580-1-1	SMALL	IVS	Ilex vomitoria 'Stokes Dwarf	Stokes Dwarf Yaupon	10"x10"	* 18"	24"' OC	3 Gal.	EA.	145				70				215			
580-1-1	SMALL	FGI	Ficus microcarpa 'Green Island'	Green Island Ficus	18"x18"	Natural Size	24" O.C.	3 Gal.	EA.	30		95		5				130			
580-1-1	SMALL	ZAP	Zamia pumila	Coontie	24"x24"	Natural Size	24" O.C.	3 Gal.	EA.			65		65				130			
580-1-1			Additional Mulch	3' Mulch area around Sabal Palm Bosque					SF	25		131		56				212			
580-1-1A ADD ALTERNATE - LANDSCAPE COMPLETE (SMALL PLANTS)																					
580-1-1A	SMALL	SER	Serenoa repens	Saw Palmetto	12"x12"	Natural Size	36" O.C.	3 Gal.	EA.												
580-1-2 LANDSCAPE COMPLETE (LARGE PLANTS)																					
580-1-2	LARGE	BN	Bismarckia nobilis 'Silver'	Bismarck Palm	18'-20'oah	Natural Size	As Shown	Florida Fancy	EA	4				3				7			
580-1-2	LARGE	LI	Lagerstroemiaindica'Muskogee'	Crepe Myrtle	14'htx7'spr	Natural Size	As Shown	4' CT Multi	EA	6		22						28			
580-1-2	LARGE	QV	Quercus virginiana	Live Oak	28'-30'Ht	Natural Size	As Shown	9"Cal,15' spr., 5' CT	EA			8		4				12			
580-1-2	LARGE	SP	Sabal palmetto	Sabal Palm	14'-20'oah	Natural Size	As Shown	Straight with Boots	EA			14		14				28			
580-1-2	LARGE	PEI	Ptychosperma elegans	Solitaire Palm	16'-18'oah	Natural Size	As Shown	Single, FG	EA	6								6			
580-1-2	LARGE	PE3	Ptychosperma elegans	Solitaire Palm	16'-18'oah	Natural Size	As Shown	Triple, FG	EA												
580-1-2A ADD ALTERNATE - LANDSCAPE COMPLETE (LARGE PLANTS)																					
580-1-2A	LARGE	SPI	Sabal palmetto	Sabal Palm	14'-20'oah	Natural Size	10' O.C.	Straight with Boots	EA												
585-1 MAINTENANCE																					
585-1			Landscape and Irrigation Maintenance						LS												
585-2 MAINTENANCE																					
585-2			Landscape and Irrigation Maintenance						LS												
590-70 IRRIGATION SYSTEM COMPLETE																					
590-70			Irrigation System Complete						LS												

NOTE: * MAXIMUM MAINTAINED SIZE WITHIN INDEX 546 SIGHT LINE TO BE 18", NON SIGHT LINE AREAS MAXIMUM MAINTAINED SIZE TO BE NATURAL.

LEGEND:

min. - minimum
Gal. - Gallon
DBH - Diameter Breast Height
ht. - height
CT - Clear Trunk
FG - Field Grown
Multi. - Multi-trunk
oah - Over All Height
spr. - spread
LS - Lump Sum
Stag. - Stagger
SF - Square Feet
SY - Square Yard
B&B - Ball and Burlap
EA - Each

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MILLER LEGG
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Cert. of Auth.: LC0000337 · L.A. of Record: Brian R. Shore LA-6666770

CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01

TABULATION OF QUANTITIES
PLANT SCHEDULE

SHEET NO. LD-2

TABULATION OF QUANTITIES / PLANT SCHEDULE

PAY ITEM NO.	PAY SIZE	SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	MAXIMUM MAINTAINED SIZE	SPACING	REMARKS	UNIT	SHEET NUMBERS								TOTAL THIS SHEET		GRAND TOTAL	
										LD-14	FINAL	LD-15	FINAL	LD-16	FINAL	LD-17	FINAL	PLAN	FINAL	PLAN	FINAL
101-1: MOBILIZATION																					
110-1			Mobilization						LS									1		1	
102-1: MAINTENANCE OF TRAFFIC																					
102-1			Maintenance of Trafic						LS									1		1	
107-1 LITTER REMOVAL AND DISPOSAL																					
107-1			Litter Removal and Disposal						AC	0.17		0.13		0.02		0.13		0.45		0.94	
107-2 MOWING																					
107-2			Mowing						AC	0.17		0.13		0.02		0.13		0.45		0.94	
110-1-1: CLEARING AND GRUBBING																					
110-1-1			Clearing and grubbing						LS									1		1	
120-6: EMBANKMENT																					
120-6			Embankment						CY	82		11		5		31		129		195	
285-70 LIME ROCK BASE																					
285-70			Limerock						SY					14		33		47		47	
522-2 6" SIDEWALK																					
522-2			New concrete						SY					14		33		47		47	
523-1-2 PATTERN / TEXTURED PAVEMENT																					
523-1-2			Pattern and color						SY					14		33		47		47	
523-1-2			Overlay Treatment						SY			40		128		295		463		539	
526-1-1 PAVERS, ARCHITECTURAL (ROADWAY)																					
526-1-1			Concrete Pavers						SY	35						81		116		298	
570-1-2 PERFORMANCE TURF (SOD)																					
570-1-2		SOD	Stenotaphrum secundatum	St. Augustine Sod	Solid			Stag.Joints, Rolled	SY	505		378				290		1173		2258	
580-1-1 SHRUBS & GROUND COVERS (SMALL)																					
580-1-1	SMALL	CHR	Chrysobalanus Icaco	Horizontal Cocoplum	18"x24"	* 18"	24" O.C.	3 GAL. Bush Form	EA.							195		195		405	
580-1-1	SMALL	JUN	Juniperus chinensis'Parsonii'	Parsons Juniper	12" x 18"	* 18"	24"' OC	3 Gal.	EA.	45		30		20				95		230	
580-1-1	SMALL	IVS	Ilex vomitoria 'Stokes Dwarf	Stokes Dwarf Yaupon	10"x10"	* 18"	24"' OC	3 Gal.	EA.	85		103		60		102		350		565	
580-1-1	SMALL	FGI	Ficus microcarpa 'Green Island'	Green Island Ficus	18"x18"	Natural Size	24" O.C.	3 Gal.	EA.			65						65		195	
580-1-1	SMALL	ZAP	Zamia pumila	Coontie	24"x24"	Natural Size	24" O.C.	3 Gal.	EA.	65								65		195	
580-1-1			Additional Mulch	3' Mulch area around Sabal Palm Bosque					SF	59		53		53				165		377	
580-1-1A ADD ALTERNATE - LANDSCAPE COMPLETE (SMALL PLANTS)																					
580-1-1A	SMALL	SER	Serenoa repens	Saw Palmetto	12"x12"	Natural Size	36" O.C.	3 Gal.	EA.			154						154		154	
580-1-2 TREES & PALMS (LARGE)																					
580-1-2	LARGE	BN	Bismarckia nobilis 'Silver'	Bismarck Palm	18'-20'oah	Natural Size	As Shown	Florida Fancy	EA	4						5		9		16	
580-1-2	LARGE	LI	Lagerstroemiaindica'Muskogee'	Crepe Myrtle	14'htx7'spr	Natural Size	As Shown	4' CT Multi	EA			14						14		42	
580-1-2	LARGE	QV	Quercus virginiana	Live Oak	28'-30'Ht	Natural Size	As Shown	9"Cal,15' spr., 5' CT	EA	4		4						8		20	
580-1-2	LARGE	SP	Sabal palmetto	Sabal Palm	14'-20'oah	Natural Size	As Shown	Straight with Boots	EA	14								14		42	
580-1-2	LARGE	PEI	Ptychosperma elegans	Solitaire Palm	16'-18'oah	Natural Size	As Shown	Single, FG	EA			5						5		11	
580-1-2	LARGE	PE3	Ptychosperma elegans	Solitaire Palm	16'-18'oah	Natural Size	As Shown	Triple, FG	EA							6		6		6	
580-1-2A ADD ALTERNATE - LANDSCAPE COMPLETE (LARGE PLANTS)																					
580-1-2A	LARGE	SPI	Sabal palmetto	Sabal Palm	14'-20'oah	Natural Size	10' O.C.	Straight with Boots	EA			35						35		35	
585-1 MAINTENANCE																					
585-1			Landscape and Irrigation Maintenance						LS									1		1	
585-2 MAINTENANCE																					
585-2			Landscape and Irrigation Maintenance						LS									1		1	
590-70 IRRIGATION SYSTEM COMPLETE																					
590-70			Irrigation System Complete						LS									1		1	

NOTE: * MAXIMUM MAINTAINED SIZE WITHIN INDEX 546 SIGHT LINE TO BE 18", NON SIGHT LINE AREAS MAXIMUM MAINTAINED SIZE TO BE NATURAL.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MILLER LEGG
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

TABULATION OF QUANTITIES
PLANT SCHEDULE

SHEET NO. LD-3

PROJECT GENERAL NOTES:
1. The Contractor shall visit the site prior to placing his bid to assess the amount of planting required for the general conditions as they relate to traffic control, access to the site and other challenges of the Project.

2. All base survey sketch information shown per FDOT Project FM# 423002-1-52 is the best available information available at the time of preparation of plans. The Contractor shall notify the City of any discrepencies in the information provided. Base map is a sketch of corridor and data is not geographically located within any survey datums. Features such as right of way lines, and utilities, have been compiled and incorporated from as-built data obtained from various sources. Geometric survey of median has been conducted to aide contractor in construction of hardscape features. Contractor to use back of curb dimensions as reference. Baseline shown on plans is provided for reference only and is an assumed centerline of corridor.

3. All Public land corners and monuments within the limits of construction are to be protected by Contractor as follows: Corners and monuments in conflict with the work and in danger of being damaged, destroyed or covered shall be properly referenced by a registered-land surveyor in accordance with the minimum technical standards of the Florida Board of Professional Land Surveyor prior to beginning work at that site. The Contractor shall retain the land surveyor to reference, and restore upon completion of the work, all such corners and monuments and shall furnish to Florida Department of Transportation (FDOT) a signed and sealed copy of the Land Surveyor's reference drawing.

4. The Contractor shall comply with all state codes and ordinances. Contractor shall be responsible for obtaining all applicable permits unless otherwise directed by the City.

6. The Contractor shall submit a an inventory list of the existing signs including photos to the City prior to mobilization. Any existing signs damaged by the contractor during construction, shall be replaced by the Contractor at no additional cost to the City or FDOT.

7. Contractor is to notify the City/FDOT, who shall notify the State Permits Office at 850-488-4961 at least 7 calendar days in advance of a MOT Set-up that will impact Overweight/Overheight Vehicles.

8. SOD:
a). Provide specified species of sod as shown on plans. All existing turf areas within the medians shall be removed. Replace sod within the medians, outside of proposed planting beds, as indicated on plans. Contractor shall include a 6" to 12" layer or veneer of suitable planting soil in the areas within the median that are to be sodded. The soil material and placement of the soil shall be part of the pay item for the sod. Should any new sod be damaged during the course of construction, the Contractor shall be responsible to re-sod the damaged areas and restore the proposed grade. Cost of replacement material shall be included within Mobilization and at the Contractor's expense.
b). All existing areas within swale areas shall remain unless otherwise specified. The Contractor shall be responsible to re-sod any areas damaged by construction activities. Restoration sod (re-sodding damaged areas) shall match the species of the existing/surrounding sod.

9. Contractor shall remove and dispose of existing sod and surplus materials off-site or as directed by the City. All existing soil within the medians that is removed for hardscape treatments or removed for tree installation shall be re-used in the formation of the proposed "wave" land-forms.

10. CLEARING and GRUBBING: includes removal of existing sod within medians and areas where proposed plant material is specified within the right-of-way unless otherwise noted.

11. IRRIGATION: includes protection of existing irrigation systems within the right of way. Contractor shall be responsible for repair of damaged systems.

12. SIGHT VISIBILITY CLEAR ZONES: on the main travel/through lanes for this project are based on a design speed of 45 mph.

13. The Contractor shall furnish to the City a unit price breakdown for all materials. The City may, at its discretion, add or delete from the materials utilizing the unit price breakdown submitted. This unit price breakdown shall be provided by the Contractor at the Pre-Construction meeting.

14. LITTER REMOVAL AND MOWING: Perform litter removal weekly or as needed and mowing every 10-14 days during construction per Standard Specification Section 107.

EMBANKMENT GENERAL NOTES:

1. EARTH WORK: Includes acctivities for excavation of soil and transporting soil to locations identified as wave #1-5, construct and sculpt features shown on Landscape Details. No soil to be disposed of off site. Any deficiencies in cut/fill volumes, contractor to provide additional fill at no cost to the city.

BID ALTERNATE: Hand water plant material from time of planting through establishment period. Installatall and maintain plant material per specifications, landscape plans and notes.

UTILITIES GENERAL NOTES:
1. Two full business days prior to digging, the Contractor shall call Sunshine State One Call of Florida, telephone number 811, and the utility owner and request utility locations. A Contractor's representative must be present when utility companies locate their facilities.

2. All existing utilities are to remain.

3. Contractor shall explore by hand digging and expose all utilities located within 5' of all proposed trees and palms.

GOVERNING STANDARDS:
Florida Department of Transportation (FDOT) DESIGN STANDARDS and SPECIFICATIONS: Contractor to refer to the following:

1. FDOT Standard Specifications for Road and Bridge construction 2010

2. FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System 2010 (English Units)

3.FDOT 2010 Interim Design Standard (01/01/11)

LANDSCAPE GENERAL NOTES:

1. LANDSCAPE: Installation of plant material shall be performed by a Contractor certified by the Florida Nurserymen, Growers and Landscape Association (FNGLA) as a Certified Landscape Contractor. Any pruning activities of trees and/or palms shall be supervised by a Certified Arborist, as certified by The International Society of Arboriculture (ISA) and licensed in Broward County.

2. SOIL:
a). For Trees and Shrubs and Groundcover beds: Provide a consistent mix consisting of 50% Sand / 40% Muck / 10% Peat for the planting soil mix.
b). For Palms: Provide a consistent mix consisting of 70% Sand / 30% Muck for the planting soil mix.
c). For Sod area: Provide a 6" to 12" veneer / layer of soil consisting of 70% Sand / 30% Peat mix.

3. MULCH: A consistent 3" layer of shreded Grade A mulch or better shall be spread over all planting beds. All mulch beds shall extend to bedline shown on plans. Contractor to submitt sample of mulch to City for acceptance.

4. FERTILIZATION: Contractor shall provide at a minimum, one (1) application at time of planting. A schedule of fertilization based upon the Manufacturer's recommended rates shall be submitted by the Contractor at the pre-construction meeting.

AT TIME OF PLANTING: Fertilize with planting tablets 20-10-5 plus minors. Do not place tablets in bottom of hole; tablet shall be 1/3 from the bottom of the rootball.

ESTABLISHMENT PERIOD OF PLANT MATERIAL: Fertilizer for dicot trees, shrubs and ground covers shall be of 6% nitrogen, 6% phosphorus and 6% potassium with minor elements composition analysis. Fertilizer for palms shall be "palm fertilizer" of 13% nitrogen, 3% phosphorous, and 13% of potassium composition analysis with minor elements. Contractor shall apply granular fertilizer at the manufacturer's recommended rates. Contractor reserves the right to modify N-P-K ratio and shall submit product data sheets for review and acceptance prior to any installation of plant material consistent with the above criteria's.

5. WATERING: At a minimum, the Contractor shall provide the following recommended watering schedule beginning immediately after installation of plant material. At the pre-construction meeting, the Contractor shall submit a watering schedule based upon the following recommended rates:

All watering applications required during Plant Establishment Period and Warranty Period and it's source shall be included as part of the unit price for each plant material. Contractor shall adjust watering schedule during heavy rain season upon approval by Project Engineer.

6. WARRANTY: Install, establish and maintain landscaping as indicated in the contract documents. Take responsibility for the proper maintenance, survival and condition of all plants for a period of one year after final acceptance in accordance with FDOT Standard Specifications for Road and Bridge Construction Section 580.

7. REPLACEMENT MATERIAL: shall be subject to all the requirements of the FDOT Standard Specifications for Road and Bridge Construction Section 580.

8. MAINTENANCE CARE: Existing plants to remain within project limits are to be maintained during the construction period and until final project acceptance. Keep existing plants watered, fertilized, mulched, free of undesirable weeds, pruned, treated for pests and diseases as necessary to assure that the existing plants are maintained so that they are healthy and vigorous. Maintenance care to be included in 580-1-1 small plants and 580-1-2 large plants.

9. No plant material will be accepted showing evidence of cable, chain marks, equipment scars, or when the ball of earth surrounding its roots has been cracked, broken or otherwise damaged.

ENVIRONMENTAL GENERAL NOTES:
A. The Contractor shall review environmental requirements of any proposed staging areas with the City and submit to the City and submit to the FDOT District Environmental Permits Coordinator at least seventy-two (72) hours prior to use.

1. Contractor shall submit to City a Stormwater Prevention Pollution Protection Plans (S.W.P.P.P.) to City for review and submittal to appropriate agencies with copies to FDOT.

2. Any material to be stockpiled for periods greater than 24 hours shall be protected by appropriate erosion control devices. No material shall be stockpiled between silt fences and water bodies.

3. All excess material as designated by the City is to be disposed by the Contractor in areas provided by him within 72 hours of being deposited in the construction area and at the Contractor's expense.

4. The Contractor is responsible for keeping existing and new inlets clean of planting soil, debris, etc. during the construction at no additional cost to the City. Contractor shall submit plan for protection of inlets and /or erosion during construction.

5. If necessary the Contractor shall use a street sweeper (using water) or other equipment capable of controlling and removing dirt or dust. Approval of the use of such equipment is contingent upon its demonstrated ability to do the work.

PAY ITEM NOTES:
101-1: MOBILIZATION - Includes all the cost of all activities associated with prepatory work and operations in mobilizing for beginning work on the project as per specifications.
102-1: MAINTENANCE OF TRAFFIC - Includes all the cost of all activities associated with but not limited to the maintenance /replacement of existing signs during construction, work zone signs, arrow panels, off-duty officer, barricades, dust control, and operations for maintaining traffic flow as per specifications.
107-1: LITTER REMOVAL AND DISPOSAL- Includes all activities associated with litter removal within proposed landscape areas as per specifications, landscape plans and notes.
107-2: MOWING - Includes all activities associated with mowing in medians within project limits as per specifications, landscape plans and notes.
110-1-1: CLEARING AND GRUBBING - Includes all Clearing and Grubbing activities associated within proposed project limits as per specifications, landscape plans and notes.
120-6: EMBANKMENT - Includes all activities associated with constructing the sod wave as per specifications, landscape plans, details, landscape notes and Embankment notes.
285-701: OPTIONAL BASE (LIME ROCK) - Includes installation of base material as per specifications, plans and details.
522-2: CONCRETE SIDEWALK, 6" THICK - Includes installation of concrete sidewalk as per specifications, plans and details.
523-1-2: PATTERNED / TEXTURED PAVEMENT (CONCRETE) - Includes installation of patterned concrete as per specifications, plans and details.
526-1-2: PAVERS, ARCHITECTURAL (ROADWAY): Includes installation of pavers as per specifications, plans and details.
570-1: PERFORMANCE TURF (SOD)- Includes installation and establishment of sod within project limits as outlined per specifications, general notes and plans. Sod to be St. Augustine Sod (Stenotaphrum secundatum).
580-1-1: LANDSCAPE COMPLETE (SMALL PLANTS) - Includes all activities associated with installation and maintenance of landscape as per specifications, landscape plans and notes.
580-1-1A: ADD ALTERNATE - LANDSCAPE COMPLETE (SMALL PLANTS) - Upon agreement by City, Includes all activities associated with installation and maintenance of additional landscape as per specifications, landscape plans and notes in accordance with Standard Specification 580 Landscape Installation.
580-1-2: LANDSCAPE COMPLETE (LARGE PLANTS) - Includes all activities associated with installation and maintenance of landscape as per specifications, landscape plans and notes.
580-1-2A: ADD ALTERNATE - LANDSCAPE COMPLETE (LARGE PLANTS) - Upon agreement by City, Includes all activities associated with installation and maintenance of additional landscape as per specifications, landscape plans and notes in accordance with Standard Specification 580 Landscape Installation.
585-1: MAINTENANCE: Includes all activities associated with maintenance of landscape and irrigation as per specifications, landscape and irrigation plans and notes.
585-2: MAINTENANCE: Includes all activities associated with maintenance of landscape and irrigation as per specifications, landscape and irrigation plans and notes.
590-70: IRRIGATION - Includes all activities associated with installation and maintenance of irrigation as per specifications, irrigation plans and notes.

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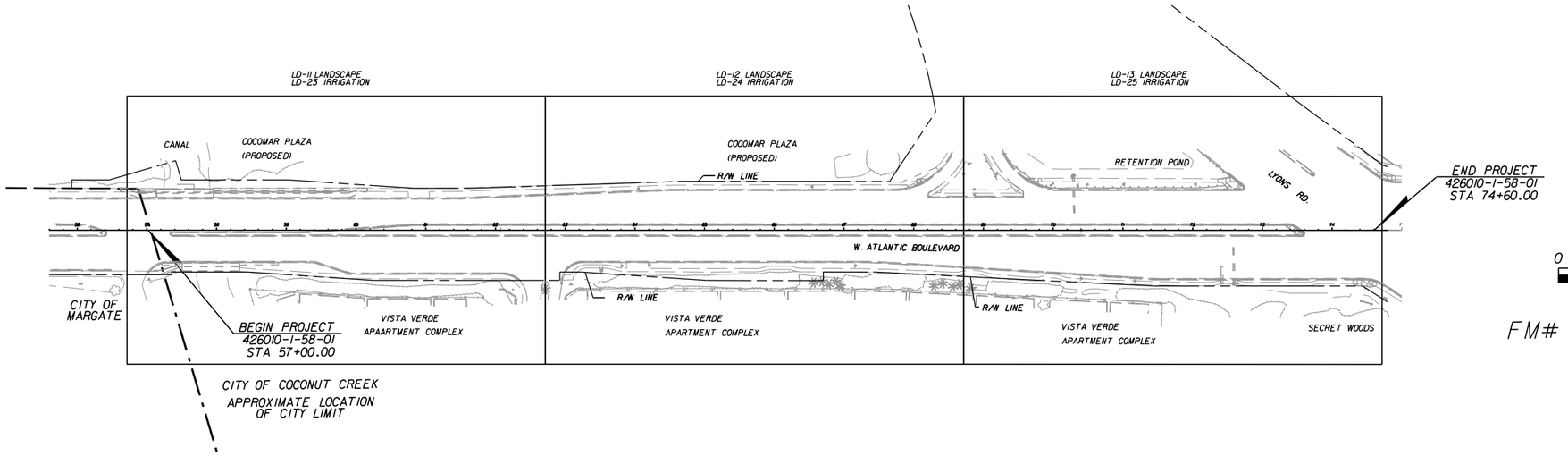
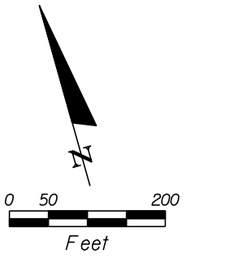
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-1-58-01

LANDSCAPE GENERAL NOTES

SHEET NO. LD-4





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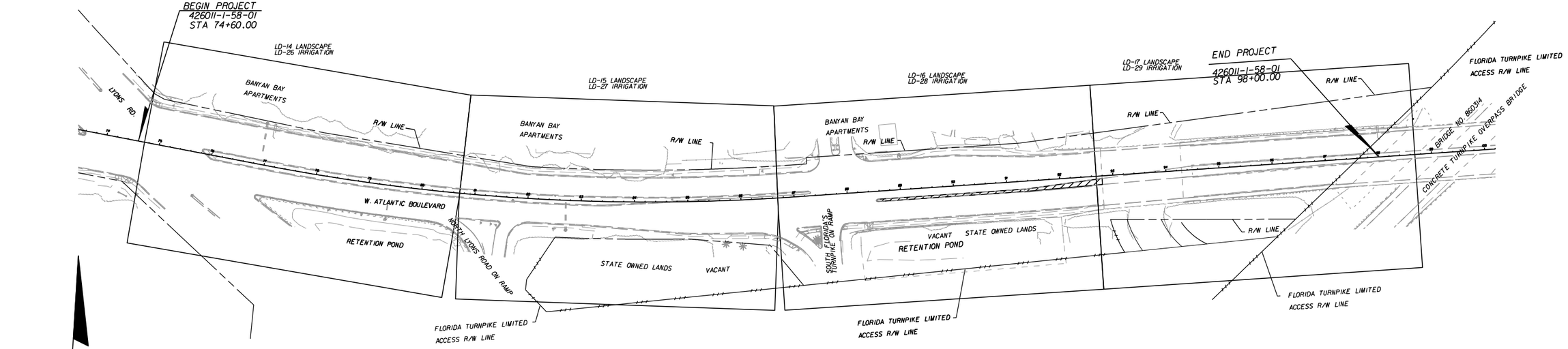

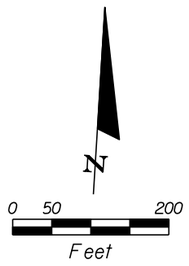

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CITY OF COCONUT CREEK

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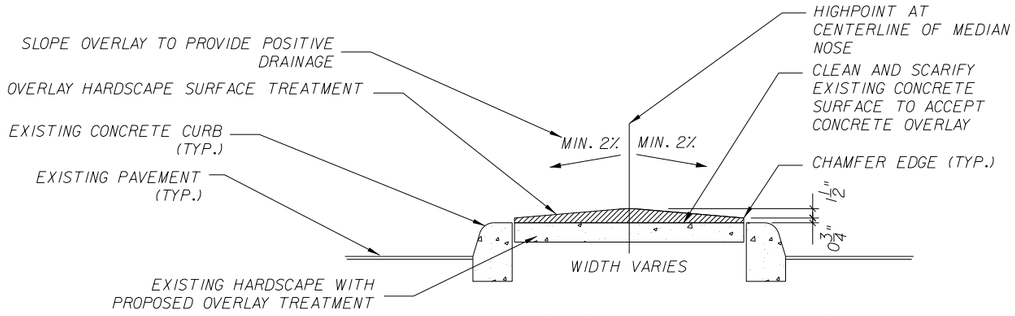
PLAN LAYOUT

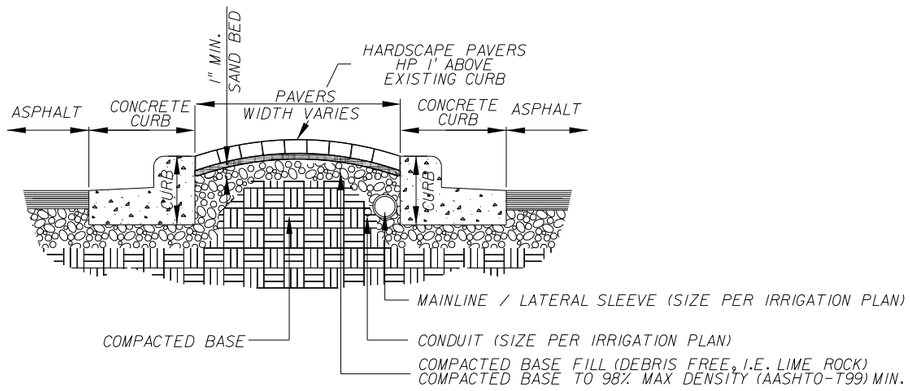
SHEET NO.
LD-5



CONTRACTOR TO SUBMIT PRODUCT SPECS TO CITY FOR APPROVAL.

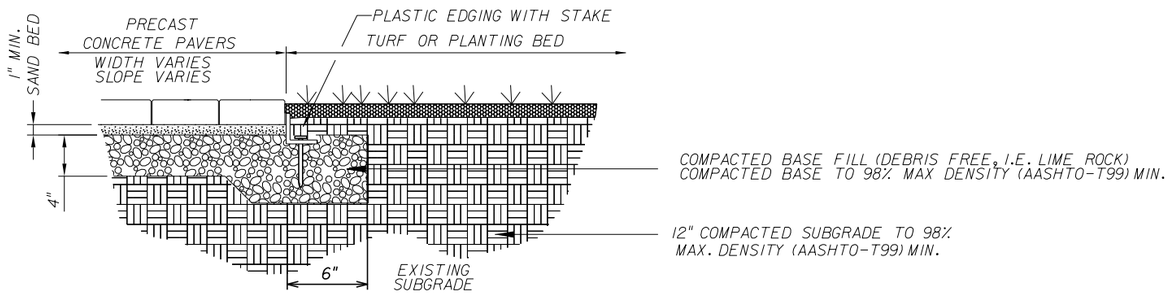
HARDSCAPE OVERLAY

NTS



TYPICAL MEDIAN CROSS SECTION - HARDSCAPE PAVERS

NTS



PAVER TRANSITION TO TURF OR PLANTING BED

NTS

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HARDSCAPE DETAILS

SHEET NO. LD-6

HARDSCAPE PAVER TREATMENT

PLAN — NTS

BLUE PAVER: BLUE GLASS EMBEDDED PAVER BY ARTISTIC PAVER OR EQUAL

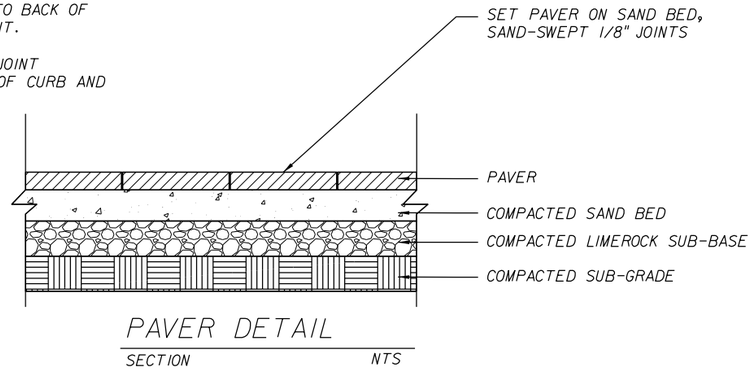
CORAL / PEACH / CHARCOAL (P355) PAVER: BY HANSON HARDSCAPES OR EQUAL. COORDINATE WITH CITY PRIOR TO SUBMITTAL OF SHOP DRAWINGS.

SET PAVER(S) ON MORTAR BED ON A 3" COMPACTED SAND BED, SAND-SWEEP JOINTS

PAVER FIELD: 12"X12" SET AT 45-DEG ANGLE TO BACK OF CURB, CUT TO FIT.

1/2" EXPANSION JOINT BETWEEN BACK OF CURB AND PAVER

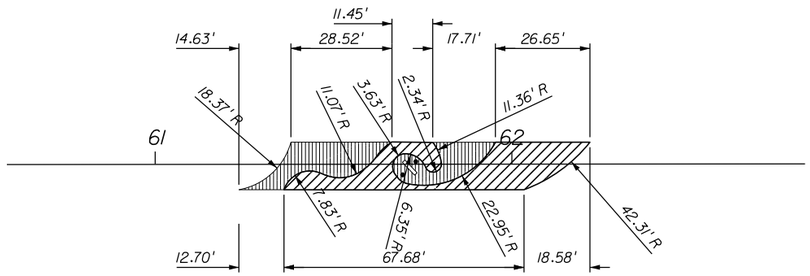
NOTE: 1. CONTRACTOR TO SUBMIT SAMPLES OF ALL HARDSCAPE MATERIALS FOR REVIEW AND APPROVAL.
2. CONTRACTOR TO PROVIDE 10'X10' MOCK-UPS OF EACH HARDSCAPE TREATMENT FOR REVIEW AND APPROVAL.



PAVER DETAIL

SECTION — NTS

HARDSCAPE PAVERS:
Proposed compacted limerock sub-base per std. spec. section 285.



HARDSCAPE PAVERS
STA. 61+00 - 62+00

NTS

HARDSCAPE PAVER LEGEND

- BLUE PAVER COLOR
- CORAL / PEACH / CHARCOAL (P355)

OVERLAY TREATMENT: COLOR SURFACE TREATMENT

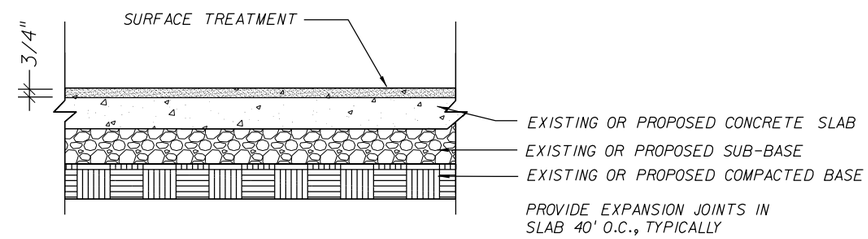
PLAN — NTS

INTERGRALLY COLOR CONCRETE OVERLAY. COLOR BY L.M. SCOFIELD OR EQUAL
COLOR: SAND AND BLUE COLORS TO BE DETERMINED

LIGHT TO MEDIUM SANDBLAST 'WAVE'.

1/2" EXPANSION JOINT BETWEEN BACK OF CURB AND CONCRETE SLAB

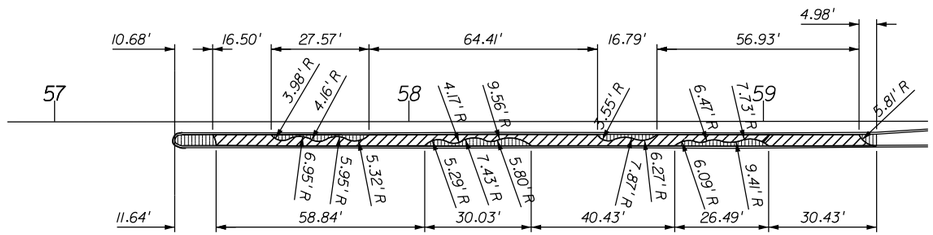
REFER TO HARDSCAPE PLANS AND DETAILS FOR SURFACE HARDSCAPE TREATMENT AND LOCATION / LAYOUT



OVERLAY DETAIL

SECTION — NTS

OVERLAY:
Existing concrete slabs or proposed 6" conc. slab
Existing sub-base



HARDSCAPE OVERLAY
STA. 57+00 - 60+00

NTS

HARDSCAPE OVERLAY LEGEND

- BLUE HARDSCAPE COLOR
- SAND HARDSCAPE COLOR

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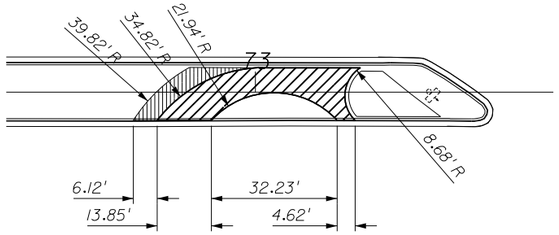
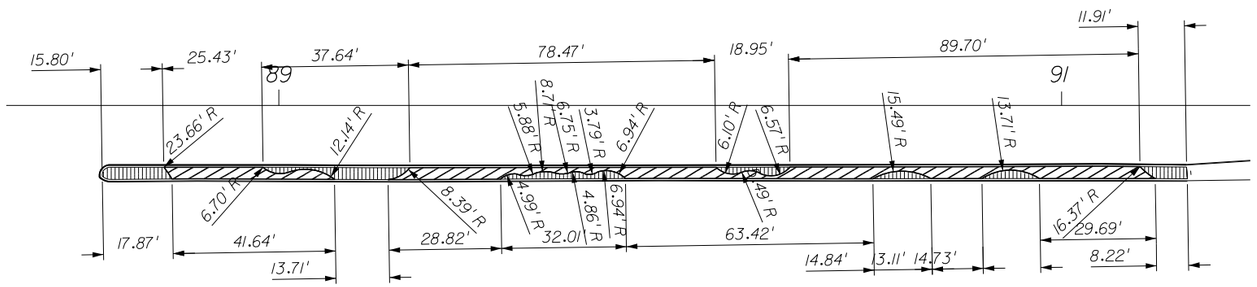
HARDSCAPE DETAILS

SHEET NO. LD-7



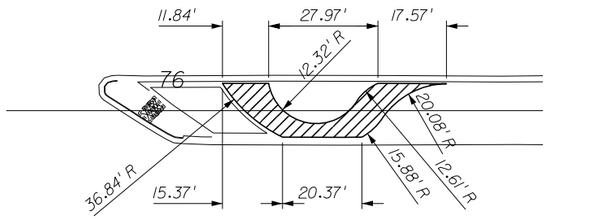
HARDSCAPE PAVERS
STA. 72+70 - 73+25

NTS



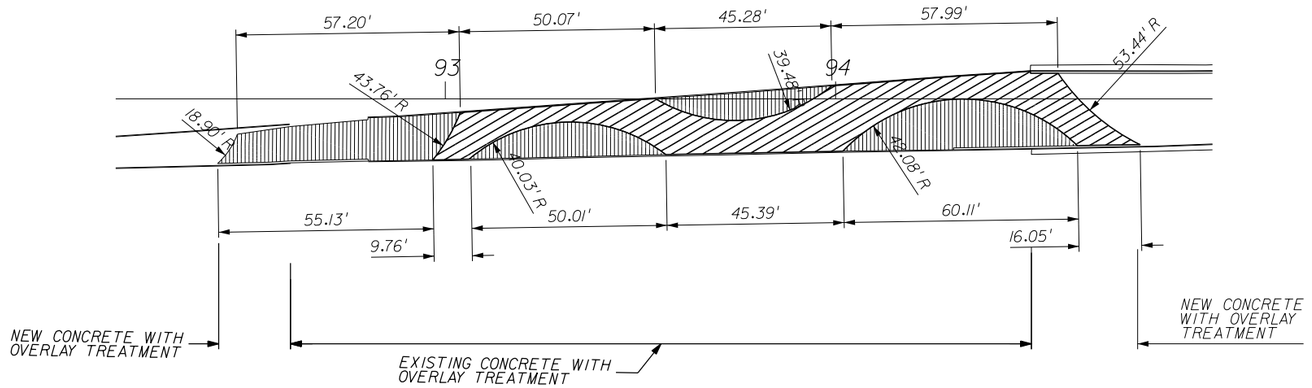
HARDSCAPE OVERLAY
STA. 88+50 - 91+40

NTS



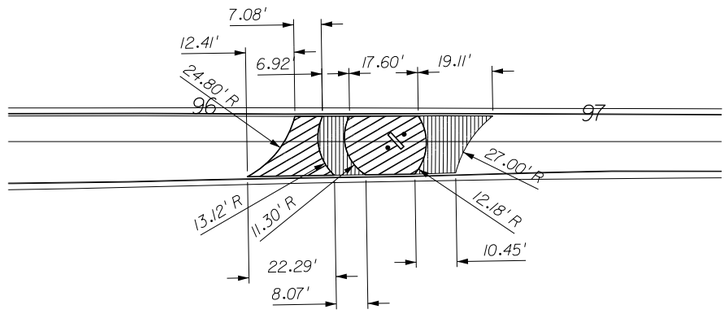
HARDSCAPE PAVERS
STA. 76+15 - 76+50

NTS



HARDSCAPE OVERLAY
STA. 92+40 - 94+80

NTS



HARDSCAPE PAVERS
STA. 96+10 - 96+75

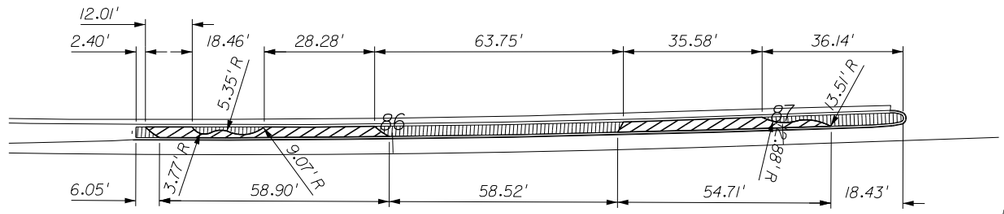
NTS

NOTE:
HARDSCAPE PAVERS:
Proposed compacted limerock sub-base per std. spec. section 285.

HARDSCAPE PAVER LEGEND

BLUE PAVER COLOR

CORAL / PEACH / CHARCOAL (P355) PAVER COLOR



HARDSCAPE OVERLAY
STA. 85+30 - 87+30

NTS

NOTE:
HARDSCAPE OVERLAY:
Existing concrete slabs or proposed 6" conc. slab
Existing sub-base

HARDSCAPE OVERLAY LEGEND

BLUE HARDSCAPE COLOR

SAND HARDSCAPE COLOR

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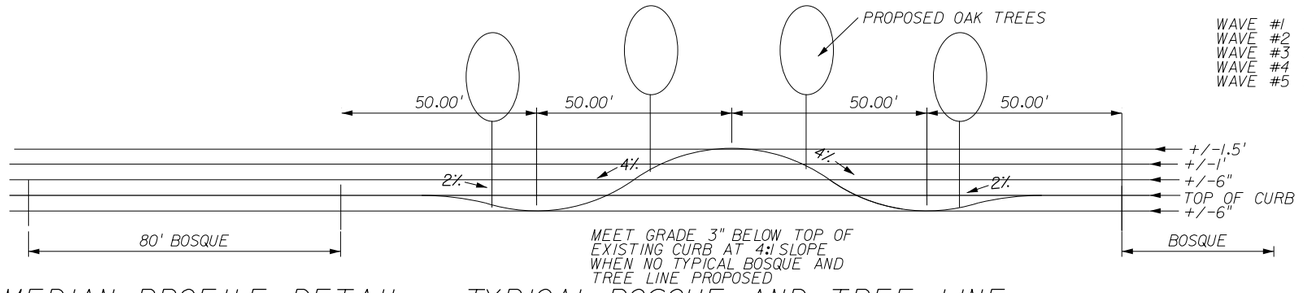
HARDSCAPE DETAILS

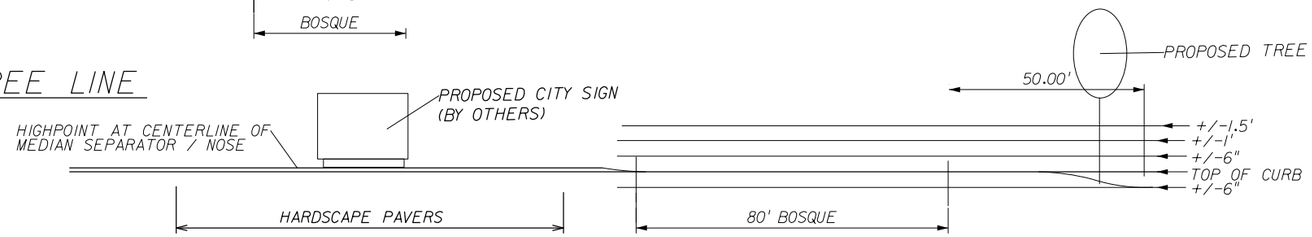
SHEET NO. LD-8



WAVE #1 STA. 63+20 TO STA. 65+20
WAVE #2 STA. 66+00 TO STA. 68+00
WAVE #3 STA. 68+80 TO STA. 70+90
WAVE #4 STA. 79+00 TO STA. 81+00
WAVE #5 STA. 81+80 T OSTA. 83+60

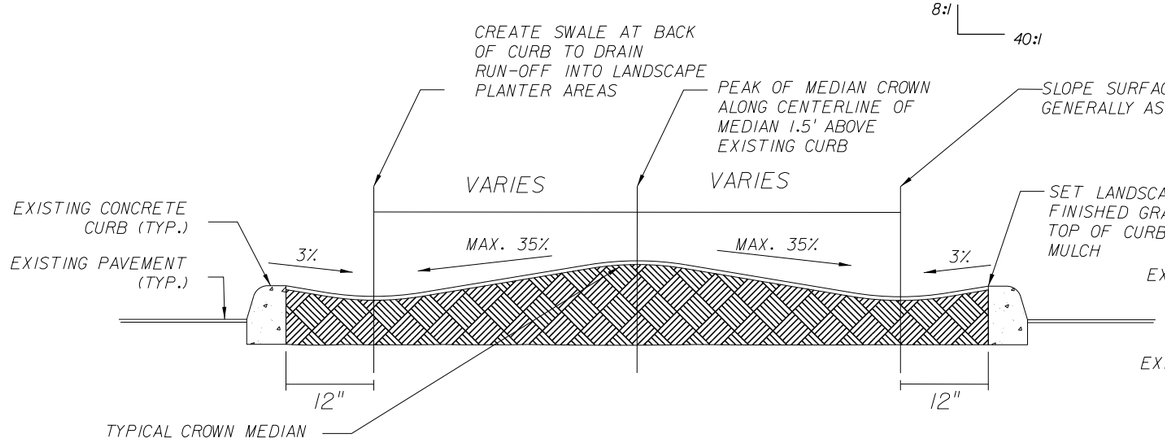
MEDIAN PROFILE DETAIL - TYPICAL BOSQUE AND TREE LINE

8:1
40:1



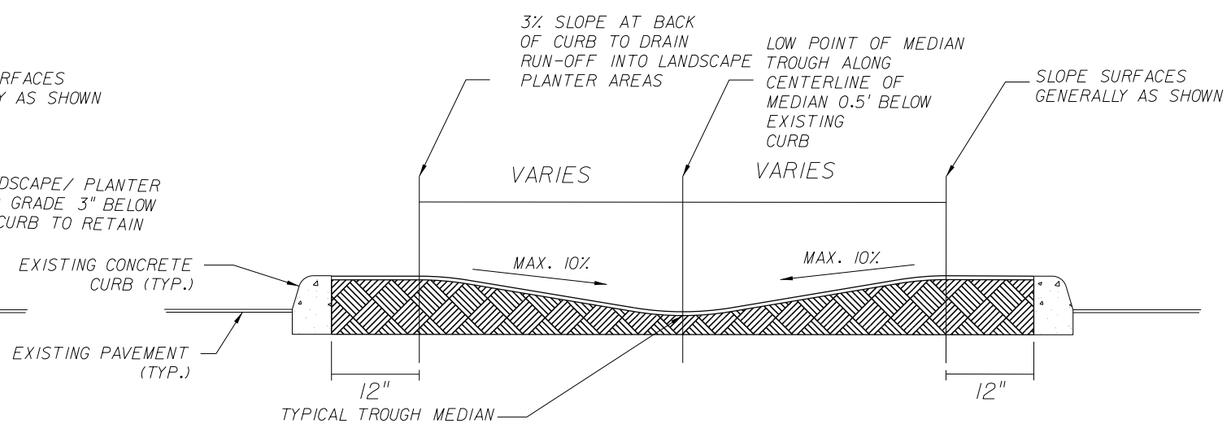
MEDIAN PROFILE DETAIL - BOSQUE AND CITY SIGN

8:1
40:1



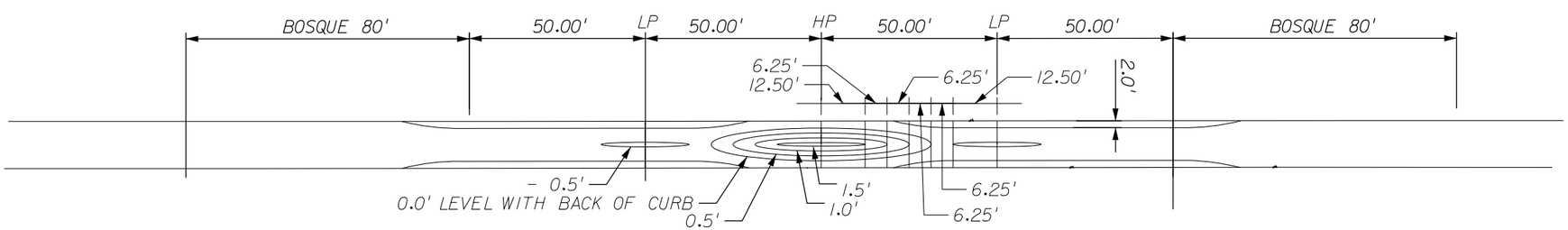
TYPICAL MEDIAN CROSS SECTION - SOD WAVE CREST

NTS



TYPICAL MEDIAN CROSS SECTION - SOD WAVE TROUGH

NTS



MEDIAN CONTOUR DETAIL - TYPICAL BOSQUE AND TREE LINE

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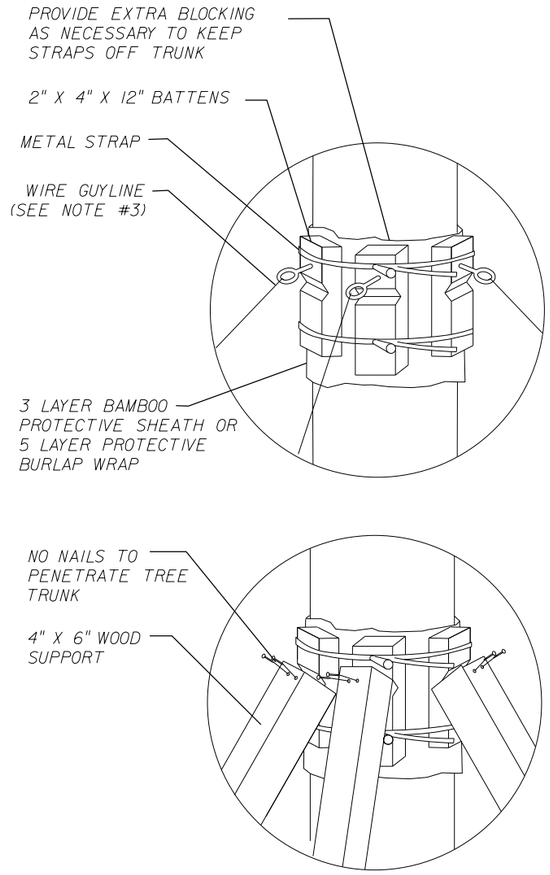
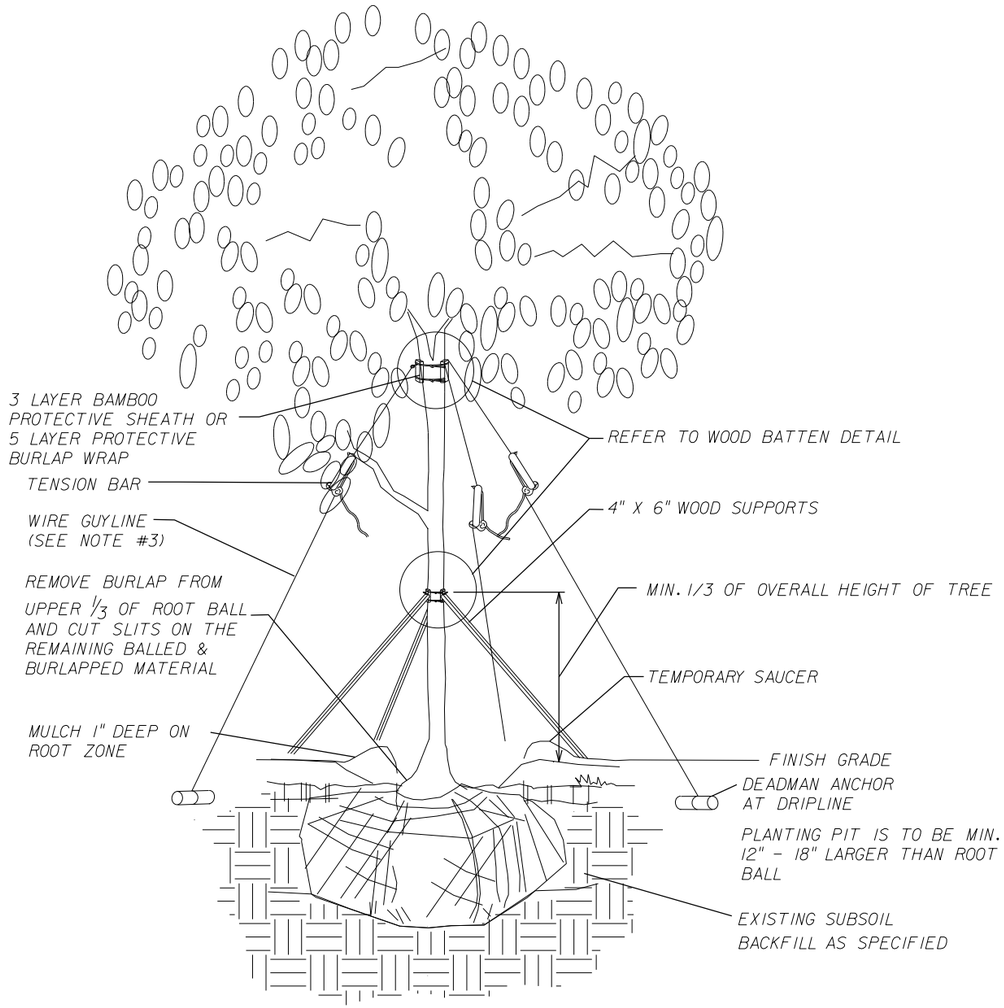
LANDSCAPE DETAILS

SHEET NO. LD-9



WOOD BATTEN DETAIL

NTS



LARGE CALIPER TREE PLANTING DETAIL

NTS

NOTES:
1. Submit shop drawing of staking/support detail.
2. Provide narrative of installation, staking and guying care of trees during establishment period, and maintenance of traffic operations.
3. Optional tree rootball anchoring system can be specified to supplement bracing of tree. Provide shop drawing as necessary.

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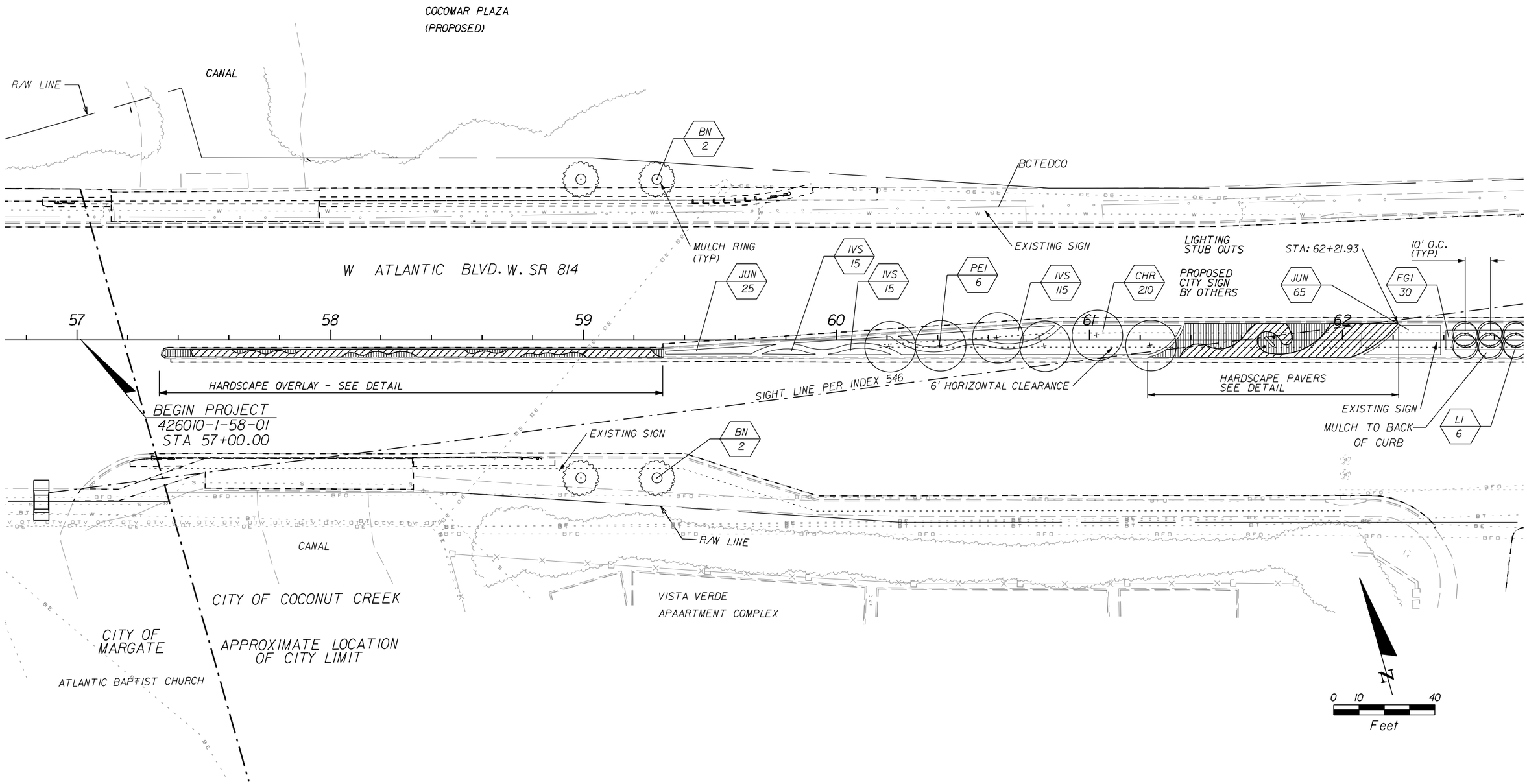
LANDSCAPE DETAILS

SHEET NO.
LD-10



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CITY OF COCONUT CREEK

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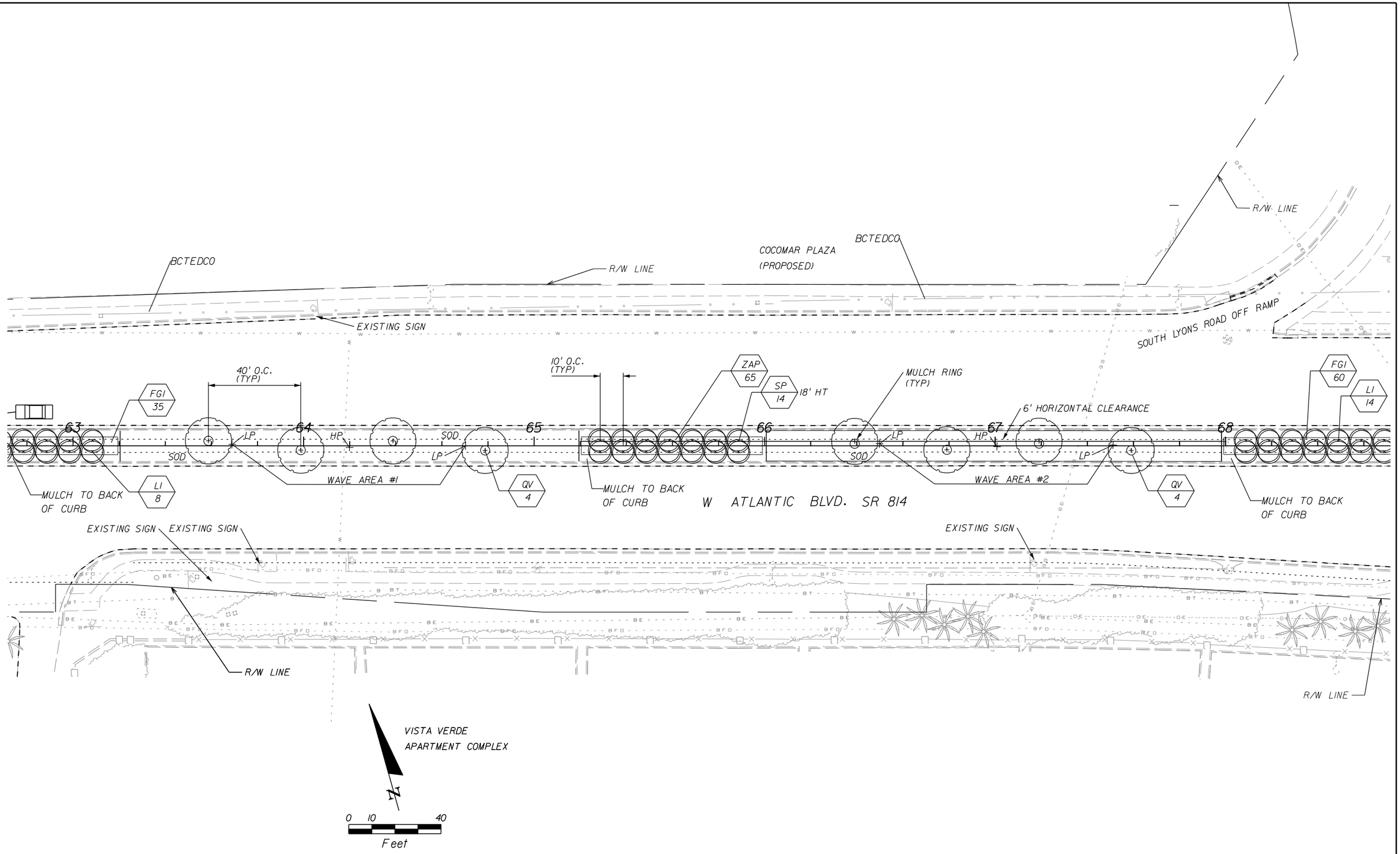
LANDSCAPE PLAN

SHEET NO.
LD-11



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CITY OF COCONUT CREEK

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LANDSCAPE PLAN

SHEET NO.
LD-12

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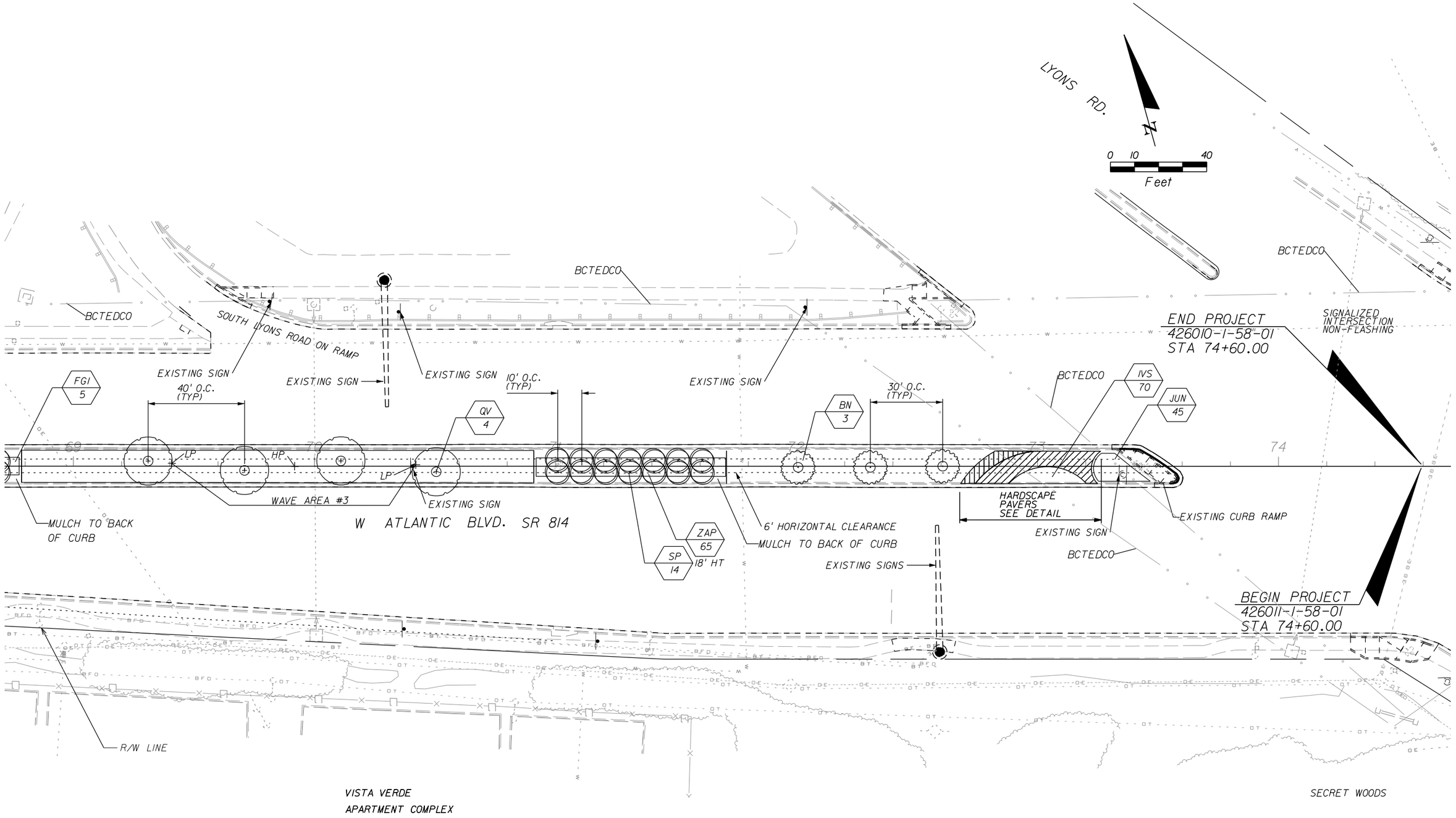

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CITY OF COCONUT CREEK

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LANDSCAPE PLAN

SHEET NO. LD-13

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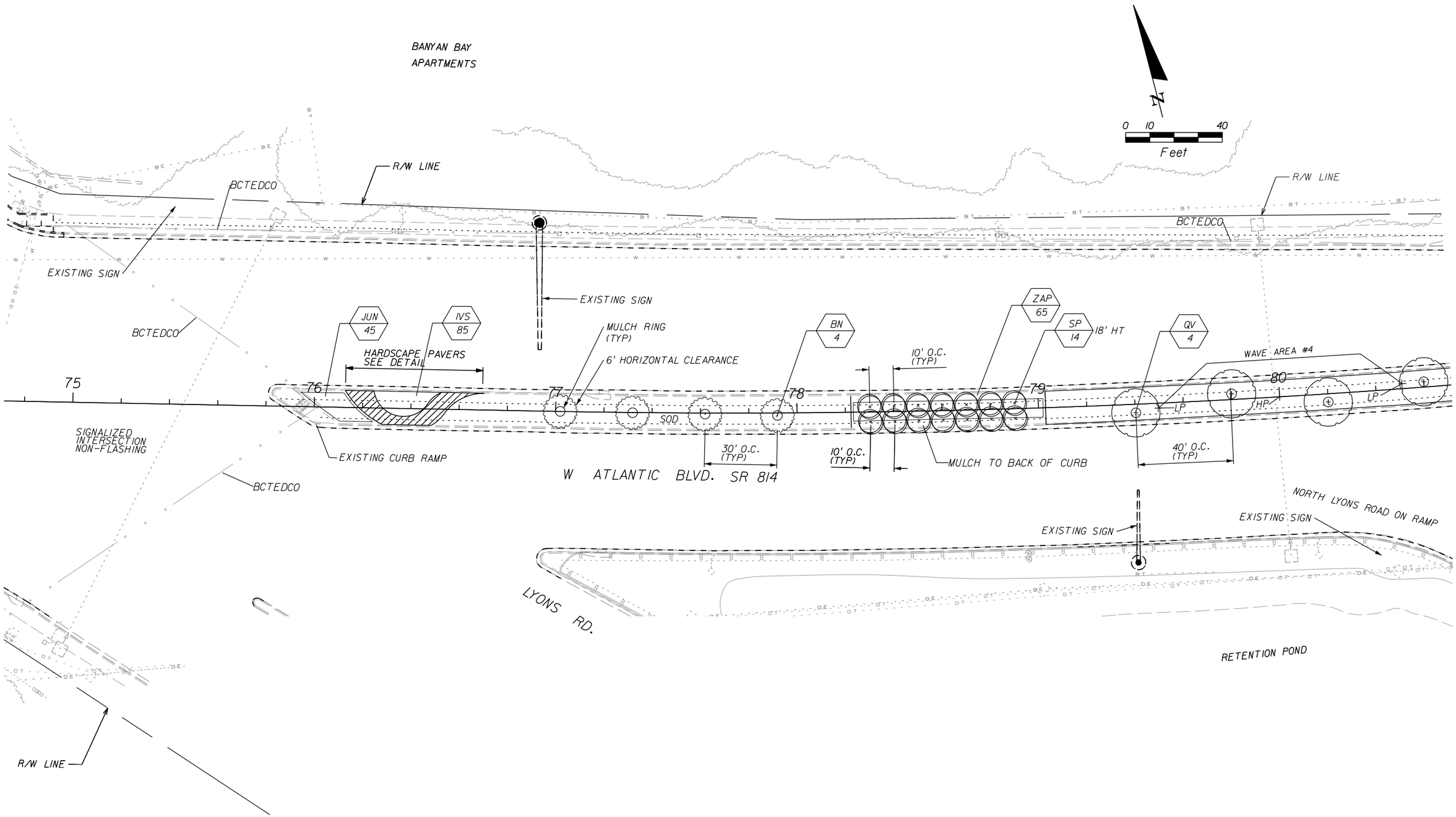

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CITY OF COCONUT CREEK

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LANDSCAPE PLAN

SHEET NO. LD-14

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BANYAN BAY
APARTMENTS

N

0 10 40
Feet

R/W LINE

EXISTING SIGN

BCTEDCO

EXISTING SIGN

MULCH TO BACK
OF CURB

10' O.C.
(TYP)

40' O.C.
(TYP)

MULCH RING
(TYP)

6' HORIZONTAL CLEARANCE

QV
4

PE
5

81

82

83

84

85

86

LP

SOD

HP

LP

WAVE AREA #5

LI
14

FGI
65

EXISTING SIGN

EXISTING SIGN

EXISTING SIGN

EXISTING SIGN

EXISTING SIGN

IVS
103

JUN
30

HARDSCAPE OVERLAY
SEE DETAIL

W ATLANTIC BLVD. SR 814

R/W LINE

EXISTING SIGN

NORTH LYONS ROAD ON RAMP

NORTH LYONS ROAD OFF RAMP

SER
70

SPI
15

SPI
20

SER
84

ADD ALTERNATE PLANTING AREA
RANDOM PLANTING HEIGHTS
PER LAYOUT BY CITY

ADD ALTERNATE PLANTING AREA
RANDOM PLANTING HEIGHTS
PER LAYOUT BY CITY

30'

STATE OWNED LANDS

VACANT

FLORIDA TURNPIKE LIMITED
ACCESS R/W LINE

FLORIDA TURNPIKE LIMITED
ACCESS R/W LINE

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LANDSCAPE PLAN

SHEET NO.
LD-15

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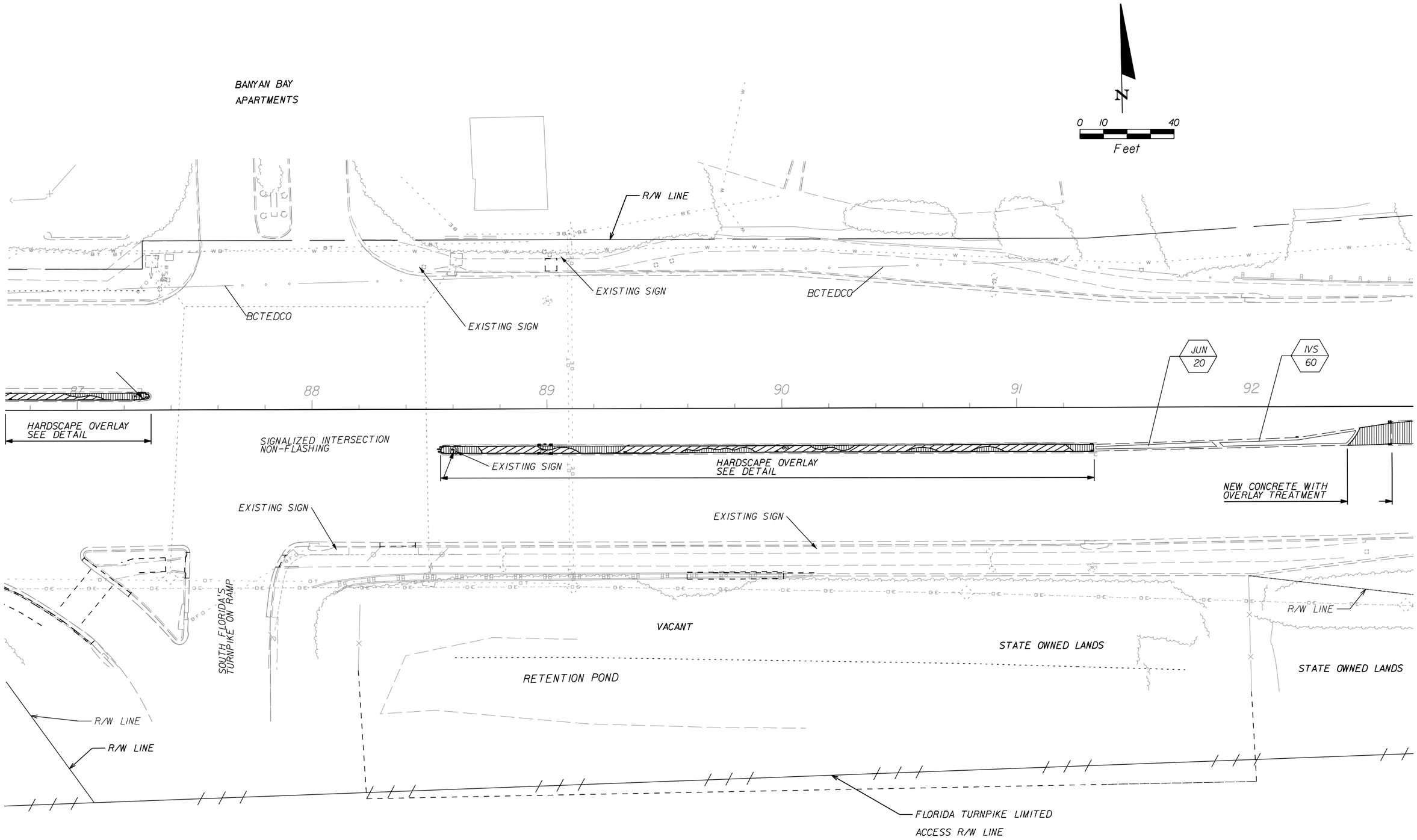

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

LANDSCAPE PLAN

SHEET NO. LD-16

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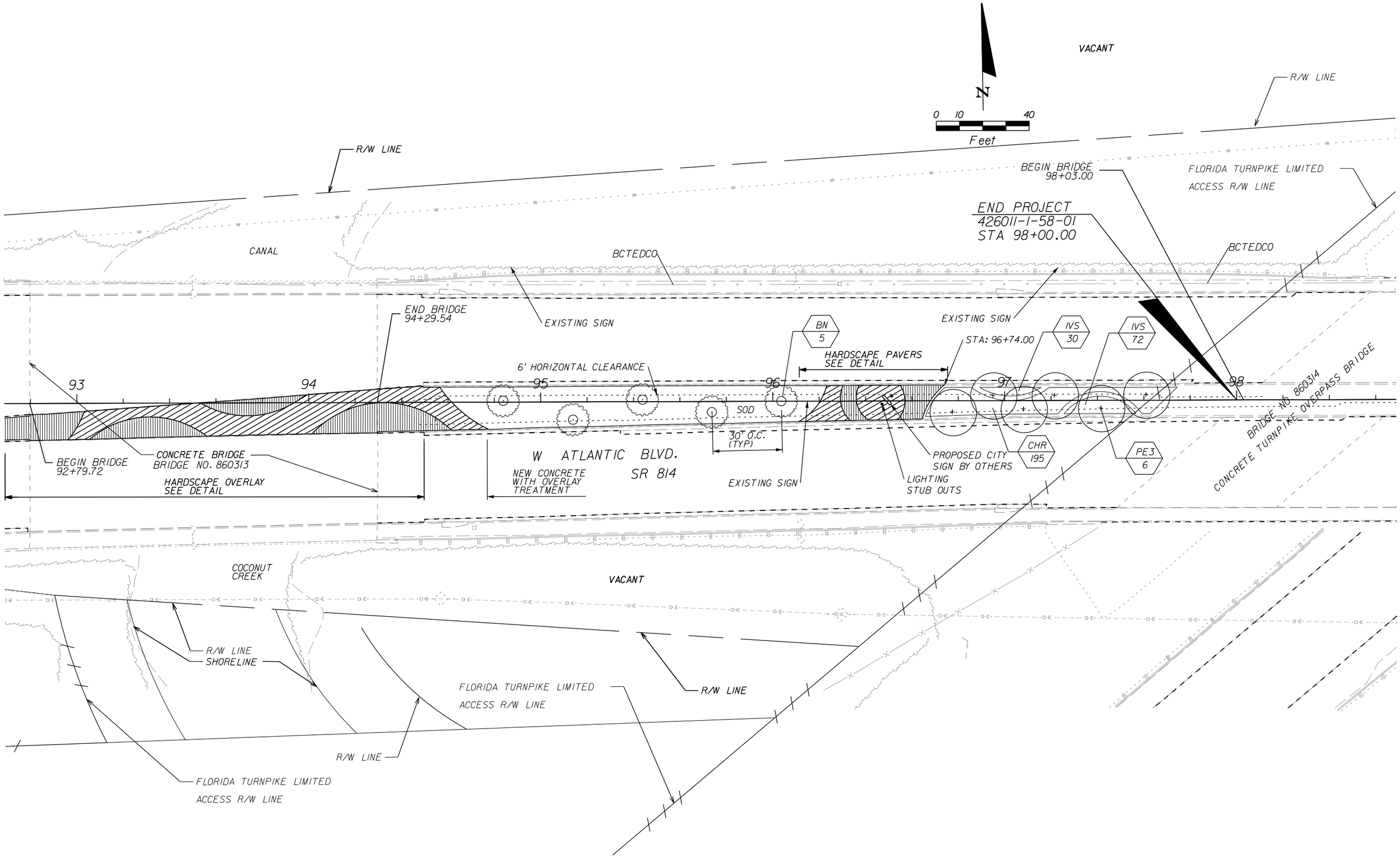

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

LANDSCAPE PLAN

SHEET NO.
LD-17

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IRRIGATION GENERAL NOTES and SPECIFICATIONS

The system has been designed to conform with the requirements of all applicable codes. Should any conflict exist, the requirements of the codes shall prevail. It is the responsibility of the owner/installation contractor to insure the entire system is installed according to all applicable laws, rules, regulations and conventions. Irrigation contractor responsible for obtaining all required permits according to federal, state and local laws.

The scope of work is shown on the plans, notes and details. The Irrigation Contractor shall be certified as a CERTIFIED IRRIGATION CONTRACTOR by the Irrigation Association. The certification shall be current and in good standing.

THE WORK

The work specified in this section consists of furnishing all components necessary for the installation, testing, and delivery of a complete, fully functional automatic landscape irrigation system that completely complies with the irrigation plans, specifications, notes, details and all applicable laws, regulations, codes and ordinances. This work shall include, but not be limited to, the providing of all required material (pipe, valves, fittings, controllers, wire, primer, glue, etc.), layout, protection to the public, excavation, assembly, installation, back filling, compacting, repair of road surfaces, controller and low voltage feeds to valves, cleanup, maintenance, guarantee and as-built plans.

All irrigated areas shall provide 100% head-to-head coverage from a fully automatic irrigation system with a rain sensor. The rain sensor shall be installed to prevent activation of rain sensor by adjacent heads. All watering procedures shall conform to local codes, as well as this project's regional Water Management District restrictions and regulations. Zones are prioritized first by public safety and then by hydraulic concerns. This sequencing will be a mandatory punch list item. These plans have been designed to satisfy/exceed the Florida Building Code (FBC) Appendix F and the Florida Irrigation Society Standards and Specifications for Turf and Landscape Irrigation Systems, fourth edition.

Contractor shall verify all underground utilities 72 hours prior to commencement of work.

It is the responsibility of the irrigation contractor to familiarize themselves with all grade differences, location of walls, retaining walls, structures and utilities. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that unknown obstruction, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions, or differences, should be brought to the attention of the owner' authorized representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

Irrigation Contractor shall repair or replace all items damaged by their work. Irrigation Contractor shall coordinate their work with other Contractors for the location and installation of pipe sleeves and laterals under roadways and paving, etc.

The contractor shall take immediate steps to repair, replace, or restore all services to any utilities which are disrupted due to their operations. All costs involved in disruption of service and repairs due to negligence on the part of the contractor shall be their responsibility.

POINT OF CONNECTION (P.O.C.)

The P.O.C. is a proposed 5HP centrifugal pump station, Hoover Pumping model HCF-5CS-230/3-D,E-24,W,Z or equal, utilizing a well source as specificed on plan details. The P.O.C. must be capable of delivering a minimum of 55 GPM at 50 PSI. Contractor shall verify these minimum conditions can be met prior to the begin irrigation system installation.

If the conditions can not be met, the contractor must notify the designer prior to proceeding with the work. If the Contractor does not do so, the contractor proceeds at their own risk and becomes responsible for any future work required to make the system perform as required.

THE PIPE

Pipe locations shown on the plan are schematic and shall be adjusted in the field. When laying out mainlines place a 18"-24" away from either the back of curb, front of walk, back of walk, or other hardscape to allow for ease in locating and protection from physical damage. Install all lateral pipe near edges of pavement or against buildings whenever possible to allow space for plant root balls. Always install piping inside project properties boundary.

Pipe sizes shall conform to those shown on the plans. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged / rejected pipe shall be removed from the site at the time of said rejection.

All pipes are to always be placed in planting beds. If it is necessary to have piping under hardscapes, such as roads, pavers, and walks, the pipes must be sleeved using High Density Polyethelene (HDPE) (per section 555)under existing roadways and sidewalks where directional bore is utilized and Sch 40 PVC elsewhere with the sleeve diameter being twice the size of the pipe it is carrying with a minimum sleeve size of 2".

Mainline shall be Class 200 gasketed 'O' ring PVC with ductile iron fittings (sized per plans).

Contractor to ensure all mainline piping is properly restrained using mechanical joint fittings, restraining collars, etc., as and where required. Contractor shall refer to pipe manufacturers recommended installation practices for further direction.

PVC pipe joint compound and primer: slow-drying, heavy duty cement and tinted (purple) primer that is compatible with the cement. The PVC cement shall be Weld-On 2711 grey and the primer shall be Weld-On P70 purple primer, or approved equals.

ELECTRICAL POWER SUPPLY - SERVICE POINT

Electrical supply, Electrical calculations, rack system, phone line for pumps and controllers to be provided by irrigation contractor. Contractor to coordinate with local utilities for the installation of, and connection to, site available power supply's for required electrical components as set forth in the irrigation plans. Provide Service Point in conformance with Index 17504 except amending note three to provide 230 volts. Provide electrical shop drawings signed and sealed by Electrical Engineer.

All electrical to comply with the National Electrical Code and any, and all, other applicable electrical codes, laws and regulations. A licensed electrician shall perform all electrical hook-ups. Power for the controller shall be 120 volts. Power for pump station shall be 230 volts Phase 3.

WIRING

Irrigation control wire shall be thermoplastic solid copper, single conductor, low voltage irrigation controller wire; suitable for direct burial and continuous operation at rated voltages.

Tape and bundle control wires every 10' and run alongside the mainline. At all turns in direction make a 2' coil of wire. At all valve boxes coil wire around a 3/4" piece of PVC pipe to make a coil using 30 linear inches of wire. Make electrical connections with 3M-DBY,DBR connectors.

Number all wires, using an electrical book of numbers, according to the plans. Number wires in all valve boxes, junction boxes and at the controller.

Wire sized, numbered and colored as follows:

- #14 white for common
- #14 spare black common
- #14 red for hot wires
- #14 spare yellow hot wire

SPARE WIRES

Run spare wires into every RCV valve box. Install a minimum of 2 common and 4 hot wires, in all directions, to every RCV connected to its respective controller.

CONTROLLER GROUNDING

Contractor to utilize 4"X8'X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD wells at all connection points, #6 bare copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller location, and test results. Each controller shall be so grounded and tested.

LAYOUT

Lay out irrigation system mainlines and lateral lines. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches.

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to insure 100% head to head coverage. Refer to the Edge of Pavement Detail on the Irrigation Detail Sheet.

Spray heads shall be installed 4" from sidewalks or curbed roadways and 12" from uncurbed roadways and building foundations. Rotors shall be installed 4" from sidewalks or curbed roadways, 12" from building foundations, and 36" from uncurbed roadways.

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will be installed from a reuse water system with purple PVC risers.

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CITY OF COCONUT CREEK

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IRRIGATION NOTES

SHEET NO. LD-18

IRRIGATION GENERAL NOTES and SPECIFICATIONS (CONTINUED)

Locate valves prior to excavation. Insure that their location provides for easy access and that there is no interference with physical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the edge of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf areas without approval by the irrigation designer - only in shrub beds.

VALVES

Sequence all valves so that the farthest valve from the P.O.C. operates first and the closest to the P.O.C. operates last. The closest valve to the P.O.C. should be the last valve in the programmed sequence.

Adjust the flow control on each RCV to ensure shut off in 10 seconds after deactivation by the irrigation controller.

VALVE BOXES

Valve boxes shall be standard unless otherwise noted to be traffic rated boxes.

Using 3" high number stencils paint the valve number in white on the lid of each valve box.

EQUIPMENT

Bubblers shall be installed using Sch 80 nipples and shall be placed at the edge of tree/palm rootball for low level watering.

All pop-up heads and shrub risers shall be pressure compensating. All pop-up heads shall be mounted on flex-type swing joints.

All sprinkler equipment not otherwise detailed or specified shall be installed as per manufacturer's recommendations and specifications, and according to local and state laws.

TRENCHING

Excavate straight and vertical trenches with smooth, flat or sloping bottoms. Trench width and depth should be sufficient to allow for the proper vertical and horizontal separation between piping as shown in the pipe installation detail on the detail sheet.

Protect existing landscaped areas. Remove and replant any damaged plant material upon job completion. The replacement material shall be of the same genus and species, and of the size of the material it is replacing. The final determination as to what needs to be replaced and the acceptability of the replacement material shall be solely up to the owner or owner's representative.

ATTACHMENT TO STRUCTURES:

Comply with FDOT 2010 Utility Accomodation Manual, Section 4.7.1

INSTALLATION

Cut all pipe square and deburr. Clean pipe and fittings of foreign material; then apply a small amount of primer while ensuring that any excess is wiped off immediately. Primer should not puddle or drip from pipe or fittings. Next apply a thin coat of PVC cement; first apply a thin layer to the pipe, next a thin layer inside the fitting, and finally another very thin layer on the pipe. Insert the pipe into the fitting. Insure that the pipe is inserted to the bottom of the fitting, then turn the pipe a 1/4 turn and hold for 10 seconds. Make sure that the pipe doesn't recede from the fitting. If the pipe isn't at the bottom of the fitting upon completion, the glue joint is unacceptable and must be discarded.

Pipes must cure a minimum of 30 minutes prior to handling and placing into trenches. A longer curing time may be required; refer to the manufacturer's specifications. The pipe must cure a minimum of 24 hours prior to filling with water.

BACK FILL

The Back fill 6" below and 6" above all piping shall be of clean sand and anything beyond that in the trench can be of native material but nothing larger than 2" in diameter.

Main line pipe depth measured to the top of pipe shall be 18" minimum, 36" minimum at vehicular crossings.

Lateral line depths measured to top of pipe shall be 12" minimum, 36" minimum at vehicular crossings.

Contractor shall backfill all piping, both mainline and laterals, prior to performing any pressure tests. The pipe shall be backfilled with the exception of 2' on each side of every joint (bell fittings, 90's, tees, 45's, etc.). These joints shall not be backfilled until all piping has satisfactorily passed its appropriate pressure test as outlined below.

FLUSHING

Prior to the placement of heads, flush all lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer. Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving.

TESTING

Remove all remote control valves and cap using a threaded cap. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent-welded pipe. Gasketed piping shall lose no more water than allowed per the Florida State Building Code, Volume II Plumbing, Part VI, Appendix 'F'. Refer to this section for the formula to be used to calculate the maximum allowable water loss during the testing time. If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

The lateral lines must be filled and visually checked for leaks. Any leaks detected must be repaired. No pressure test of the lateral lines is required.

Once the mainline and lateral lines have passed their respective tests, and the system is completely operational, a coverage test and demonstration of the system is required. The irrigation contractor must demonstrate to the owner, or his/her representative that proper coverage is obtained and that the system works automatically from the controller. This demonstration requires that each zone is turned on, in the proper sequence as shown on the plans, from the controller. Each zone will be inspected for proper coverage and function. The determination of proper coverage and function is at the sole discretion of the owner or owner's representative.

Operational Testing - Upon completion of back filling, finish grading and contouring, test the entire system for proper operation; including electrically actuating the remote control valves. Run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In sandy soils no puddling will occur, instead; calculate the required run times.

SUBMITTALS

The contractor must submit for approval, prior to installation, copies of the manufacturer's cut sheets/specifications for all components to be used in the irrigation system. Minimum submittal items are: Irrigation Heads, Valves, Controller, Pump (Pump, Flow Sensor, Valves, Pipe, Fiberglass Enclosure), Lateral / Main line, Sleeves, Swing Joint assembly, Fittings, Wires, Waterproof Connection, Valve Boxes, Rain Sensor and Grounding Kit.

Record Drawings - After project completion, and as a condition of final acceptance, the irrigation contractor shall provide the owner and FDOT Broward Operation with a high quality, accurate, and legible set of as-built drawings. The as-builts must identify all remote control valves, gate valves, ball valves, splice boxes, controllers, mainline, sleeving, and low voltage wiring. Each of these items is to be located using a submeter GPS system. The irrigation contractor must also provide accurate, informative, and easy to follow and understand operation and maintenance manuals for all components of the irrigation system.

After project completion, and as a condition of final acceptance. Provide the Engineer with three (3) and the Maintaining Agency two (2) accurate, and legible, set of as-built drawings. Identify all remote control valves, gate valves, ball valves, splice boxes, controllers, mainline, sleeving, and low voltage wiring. To locate each item two dimensions, from fixed objects of a permanent nature, noted on the as-builts. Provide accurate, informative, and easy to follow and understand, operation and maintenance manuals for all components of the irrigation system.

Controller charts - Upon completion of "as-built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2ml pieces of clear plastic.

Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Include tools to service these products.

1. Sprinkler Units: Five of each unit for each type and size installed, but no fewer than two units.
2. Emitter Units: Five of each unit for each type and size installed, but no fewer than two units.

FINAL ACCEPTANCE

Final acceptance of the irrigation system will be given after the following documents and conditions have been completed and approved. Final payment will not be released until these conditions are satisfied.

1. Final walk-thru and correction of all punch list items.
2. Completion and acceptance of `as-built' drawings.
3. Acceptance of required controller charts and placement inside of controllers.
4. Turn over of all required parts and tools as outlined in the project specifications.

GUARANTEE AND MAINTENANCE

The irrigation systems shall be guaranteed and maintained for a minimum of one calendar year from the time of final acceptance.

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814	BROWARD	426010-1-58-01 426011-1-58-01

IRRIGATION NOTES

SHEET NO. LD-19

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS-NP 15 Strip Series 6" popup with check valve, pressure regulator, purple cap.	3	EST	30	0.61	4'x15'
	Rain Bird 1806-SAM-PRS-NP 15 Strip Series 6" popup with check valve, pressure regulator, purple cap.	11	SST	30	1.21	4'x30'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR 6" popup with check valve, pressure regulator, purple cap.	42	180	30	0.79	10'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR 6" popup with check valve, pressure regulator, purple cap.	5	90	30	0.39	10'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR 6" popup with check valve, pressure regulator, purple cap.	1	120	30	0.53	10'
	Rain Bird 1806-SAM-PRS-NP 15 Series MPR 6" popup with check valve, pressure regulator, purple cap.	278	180	30	1.85	15'
	Rain Bird 1806-SAM-PRS-NP 15 Series MPR 6" popup with check valve, pressure regulator, purple cap.	9	90	30	0.92	15'
	Rain Bird 1806-SAM-PRS-NP 15 Series MPR 6" popup with check valve, pressure regulator, purple cap.	11	120	30	1.23	15'
	Rain Bird 1800-1400 Flood Food bubbler on flex pipe.	176	360	30	1.00	1'

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	PSI	PSI @ POC	GPM	PRECIP
1	Rain Bird PESB	1-1/2"	Turf Spray		37.64	39.00	51.86 1.35 in/h
2	Rain Bird PESB	1-1/2"	Bubbler		36.96	38.88	48.00 30.64 in/h
3	Rain Bird PESB	1-1/2"	Turf Spray		37.06	39.30	51.80 1.46 in/h
4	Rain Bird PESB	1-1/2"	Turf Spray		36.92	39.78	51.80 1.46 in/h
5	Rain Bird PESB	1-1/2"	Turf Spray		37.06	40.55	51.80 1.47 in/h
6	Rain Bird PESB	1-1/2"	Bubbler		40.01	43.69	51.00 30.64 in/h
7	Rain Bird PESB	1-1/2"	Turf Spray		37.07	41.18	51.80 1.47 in/h
8	Rain Bird PESB	1-1/2"	Bubbler		39.64	42.68	42.00 30.64 in/h
9	Rain Bird PESB	1-1/2"	Turf Spray		36.91	41.15	48.80 1.36 in/h
10	Rain Bird PESB	1-1/2"	Turf Spray		36.91	42.79	50.30 1.37 in/h
11	Rain Bird PESB	1-1/2"	Turf Spray		37.04	43.91	51.80 1.44 in/h
12	Rain Bird PESB	1-1/2"	Bubbler		40.09	47.53	52.00 30.64 in/h
13	Rain Bird PESB	1-1/2"	Turf Spray		36.91	44.41	51.80 1.44 in/h
14	Rain Bird PESB	1-1/2"	Turf Spray		38.31	46.01	50.33 1.42 in/h
15-A	Rain Bird PESB	1"	Turf Spray		34.62	35.54	13.48 1.39 in/h
15-B	Rain Bird PESB	1-1/2"	Turf Spray		36.17	41.37	32.35 1.70 in/h
16	Rain Bird PESB	1-1/2"	Turf Spray		38.62	48.52	45.75 1.55 in/h

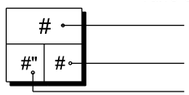
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PESB Electric Remote Control Scrubber Valve	17
	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as pipe diameter, Size Range - 1/4" - 3"	5
C	Rain Bird ESP-24SITE-W Rain Bird ESP-SITE-SAT satellite controller with 24 stations, wall mount.	1
5HP	5HP Centrifugal Pump Station	1
M	Electrical Meter	
W	Well	

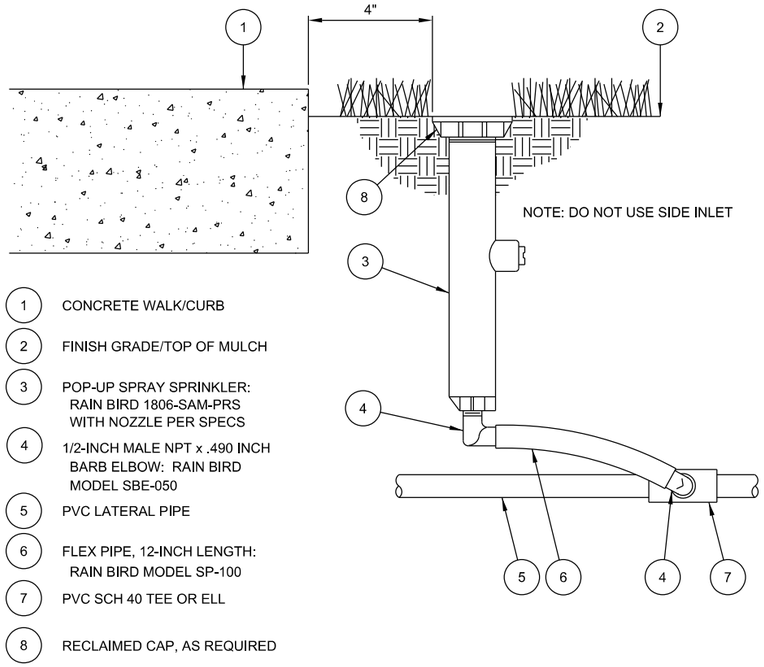
Irrigation Lateral Line: PVC Schedule 40 — 8,619 l.f.

Irrigation Mainline: PVC Schedule 40 — 4,225 l.f.

Pipe Sleeve/Directional Bore: — 2,510 l.f.
Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.

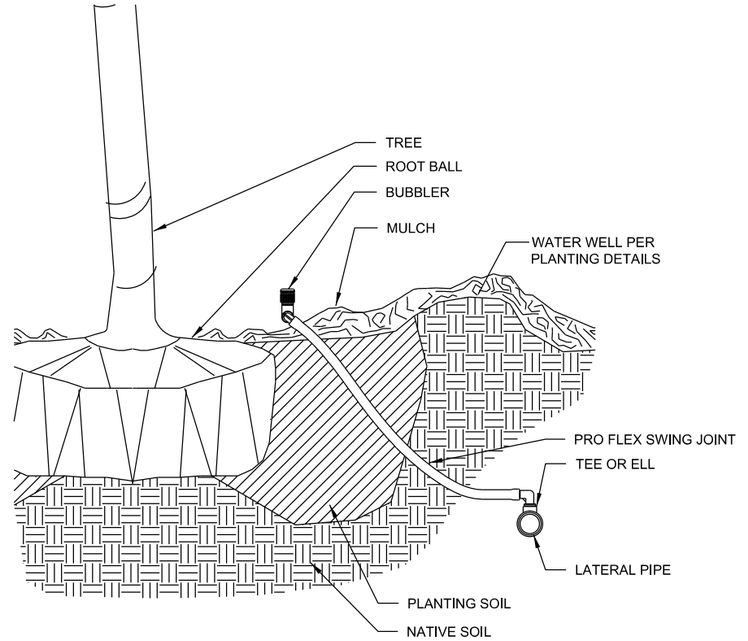
Valve Callout





1. CONCRETE WALK/CURB
2. FINISH GRADE/TOP OF MULCH
3. POP-UP SPRAY SPRINKLER: RAIN BIRD 1806-SAM-PRS WITH NOZZLE PER SPECS
4. 1/2-INCH MALE NPT x .490 INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
5. PVC LATERAL PIPE
6. FLEX PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
7. PVC SCH 40 TEE OR ELL
8. RECLAIMED CAP, AS REQUIRED

1 6" POP-UP SPRAY



2 TREE BUBBLER

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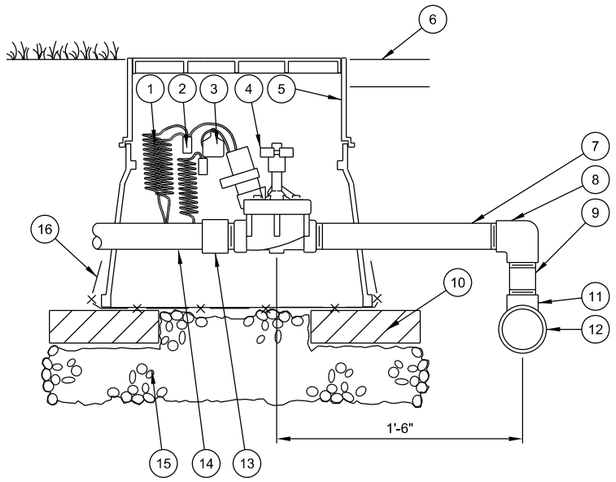
IRRIGATION NOTES

SHEET NO. LD-20

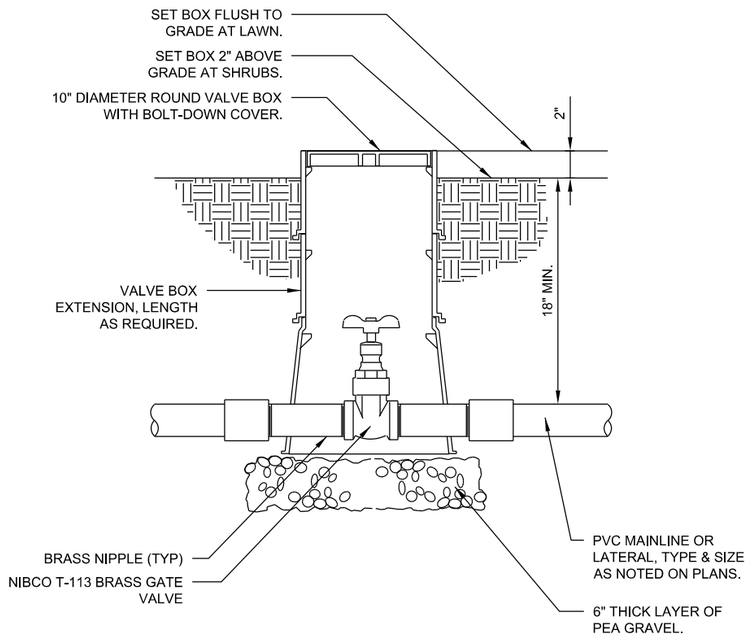


1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION (1 OF 2)
3. ID TAG
4. REMOTE CONTROL VALVE RAIN BIRD PESB WITH PURPLE HANDLE
5. STANDARD VALVE BOX PURPLE
6. FINISH GRADE
7. PVC SCH 80 NIPPLE (CLOSE)
8. PVC SCH 40 ELL
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. BRICK (1 OF 4)
11. DUCTILE IRON TEE
12. PVC MAINLINE PIPE
13. PVC SCH 40 MALE ADAPTER
14. PVC LATERAL PIPE
15. 6.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
16. 1/2" WIRE CLOTH GOPHER SCREEN, WRAP UP ALL SIDES

ELECTRICAL SPECIFICATIONS

- 24 VAC 50/60 Hz (CYCLES/SEC.) SOLENOID
- INRUSH CURRENT: 0.41 A (9.84 VA) AT 60 Hz
- HOLDING CURRENT: 0.28 A (6.72 VA) AT 60 Hz
- COIL RESISTANCE: 30-39 OHMS

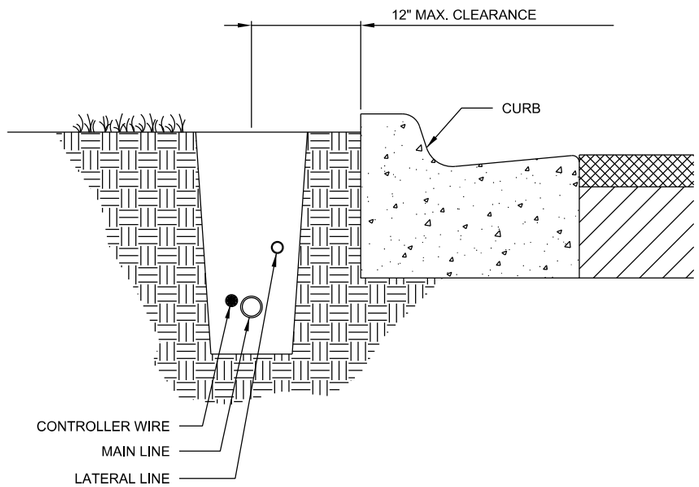
PESB SERIES VALVE PRESSURE LOSS			
FLOW GPM	100-PESB PSI LOSS	150-PESB PSI LOSS	200-PESB PSI LOSS
5	1.7		
10	1.8		
20	2.9		
30	5.6	3.6	
40		3.5	
50		3.6	
75		5.4	4.5
100			5.2
125			8.2



3 REMOTE CONTROL VALVE

NOTES:

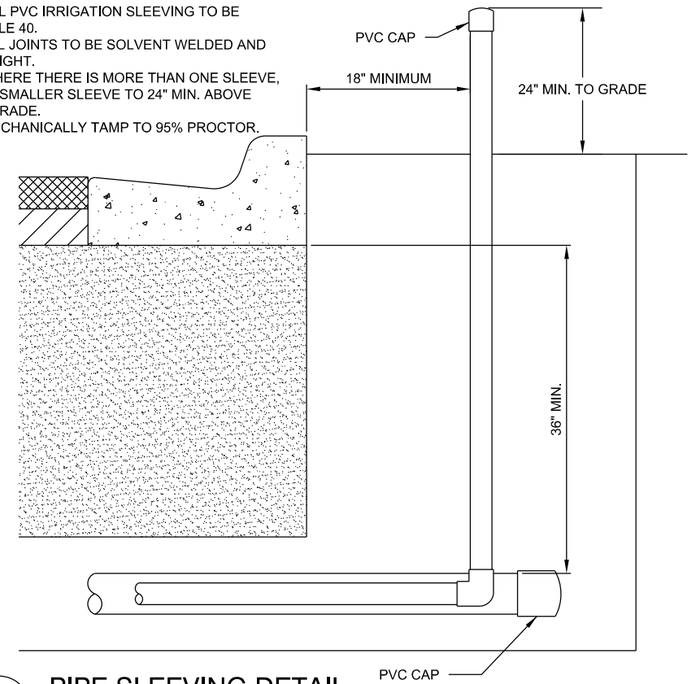
BACKFILL MINIMUM DEPTHS:
1. MAIN LINE - 18"
2. LATERAL PIPE - 12"



5 MAINLINE AND LATERAL PIPING DETAIL

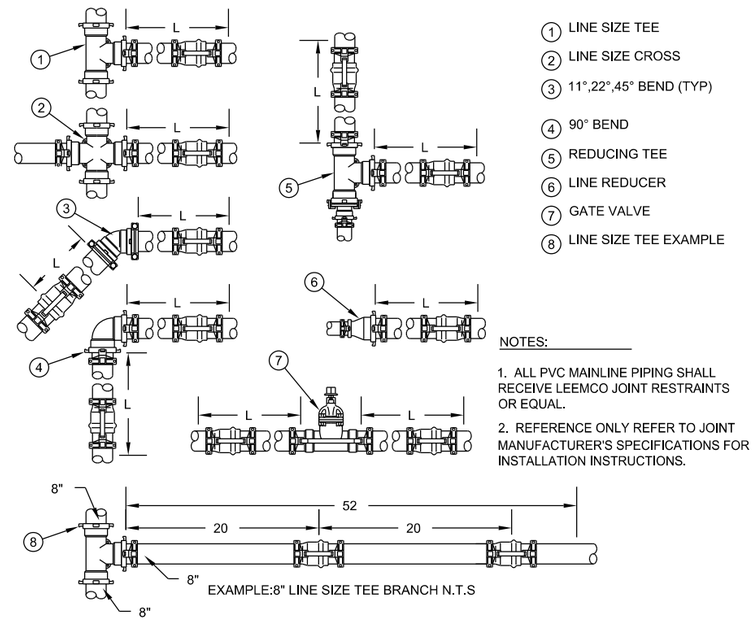
NOTES:

1. ALL PVC IRRIGATION SLEEVING TO BE SCHEDULE 40.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MIN. ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.



6 PIPE SLEEVING DETAIL

4 BRASS ISOLATION VALVE



NOTES:

1. ALL PVC MAINLINE PIPING SHALL RECEIVE LEEMCO JOINT RESTRAINTS OR EQUAL.
2. REFERENCE ONLY REFER TO JOINT MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION INSTRUCTIONS.

7 JOINT RESTRAINTS

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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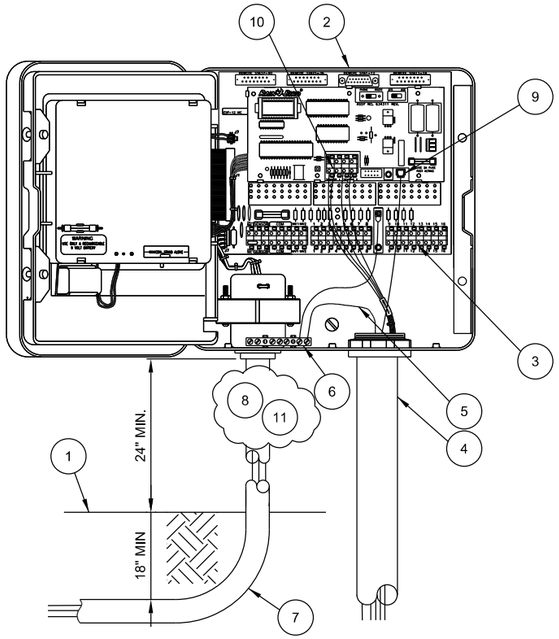
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-1-58-01

IRRIGATION NOTES

SHEET NO. LD-21



1. FINISH GRADE
2. RAIN BIRD ESP-SITE FIELD SATELLITE CONTROLLER, WALL MOUNT (METAL / PLASTIC)
3. WIRE TERMINAL CONNECTORS TO REMOTE CONTROL VALVES
4. CONDUIT - SIZE AS REQUIRED
5. #6 COPPER GROUND WIRE FROM ESP-SITE FIELD SATELLITE CONTROLLER GROUNDING BUSS BAR TO GROUNDING GRID (SEE GROUNDING DETAIL)
6. ESP-SITE FIELD SATELLITE CONTROLLER GROUNDING BUSS BAR
7. 120 VOLT POWER SUPPLY
8. REFER TO LOCAL ELECTRICAL CODE FOR CONNECTIONS
9. TELEPHONE LINE INPUT
10. ESP-SITE SATELLITE SENSOR INPUT
11. RAIN BIRD WARRANTY REQUIRES PROPER SURGE PROTECTION. USE INTERMATIC AG2401 OR TRIPPLITE ISOBAR

8 MAXICOM ESP-SITE FIELD SATELLITE CONTROLLER

NOTE:

SUCTION PIPES AND FITTINGS SHALL BE HDPE HEAT FUSED. CHECK VALVE 3" AND LARGER SHALL BE SWING TYPE, 2" AND SMALLER SHALL BE POPPET STYLE.

ALL EXPOSED SUCTION & DISCHARGE PIPE ADJACENT TO THE PUMP SYSTEM SHALL BE GALVANIZED STEEL. BUTTERFLY OR BALLVALVE PROVIDED AT EACH PUMP.

PROVIDE MINIMUM OF 4' CLEARANCE ON ALL SIDES OF PUMP SYSTEMS

IRRIGATION CONTROLLER:

RAIN BIRD ESP-24SITE-W WITH RAINGAUGE AND FLOW SENSOR

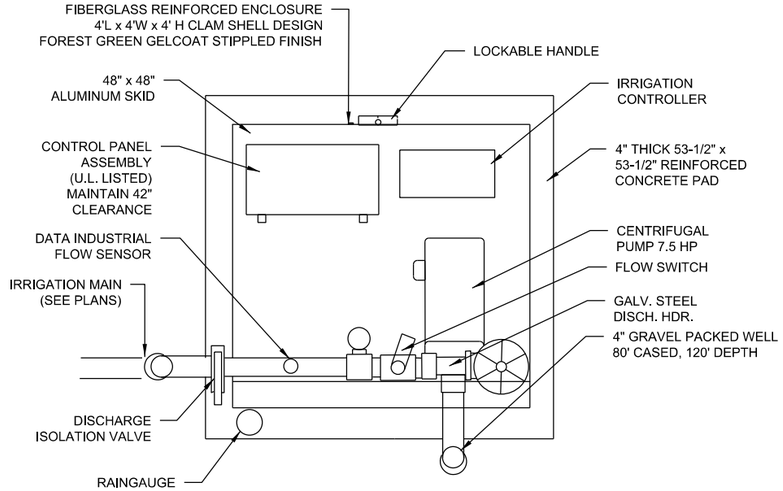
FEATURES:

CLOCK START, TRANSIENT SURGE, LOSS OF PRIME, NO FLOW

PUMP PERFORMANCE:

55 GPM @ 140 TDH

HOOVER PUMPING MODEL: HCF-7.5CS-230/3-D,E-24,W,Z PN11645 OR EQUAL



The following design information should be given to the engineering professional responsible for the design of the electrical supply to the pump system.

The system will be manufactured based on one of the following electrical configurations:

Voltage	Phase	Hertz	Panel Connections
208	3	60	5 Wires (A, B, C, Neutral, Ground)
230	3	60	5 Wires (A, B, C, Neutral, Ground)
460	3	60	4 Wires (A, B, C, Ground)

Note: Three phase power is required for systems over 10 horsepower.

The Hoover Pumping Systems pump system is supplied with an Underwriters Laboratory® listed enclosed Industrial Control Panel assembly. The Control Panel assembly contains all of the pump system controls, a main disconnect, and a ground connection. A separate service disconnect is required for systems less than 40 total horsepower.

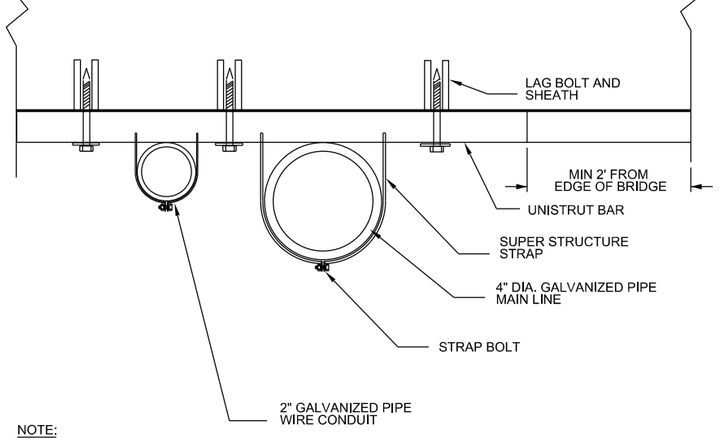
The pump station will include the following pump motor loads:

Load	Horsepower	Amps [1]	Service Factor
Pump#1	7.5	Based on voltage/phase	1.15
Control Panel	N/A	4	N/A

The data here may be used for selection of appropriate electrical supply equipment, including feeder, branch circuit protection, and disconnects.

[1] Pump motor Full Load Amps (FLA) per N.E.C. tables 430-148 & 430-150

NOTE:
CONTRACTOR SHALL PROVIDE ALL NECESSARY ELECTRICAL REQUIREMENTS FOR PRIMARY AND SECONDARY DISCONNECTS, ELECTRICAL CIRCUITS,
WIRING AND COORDINATION WITH FLORIDA POWER AND LIGHT FOR A FULLY FUNCTIONAL ELECTRICAL SYSTEM.



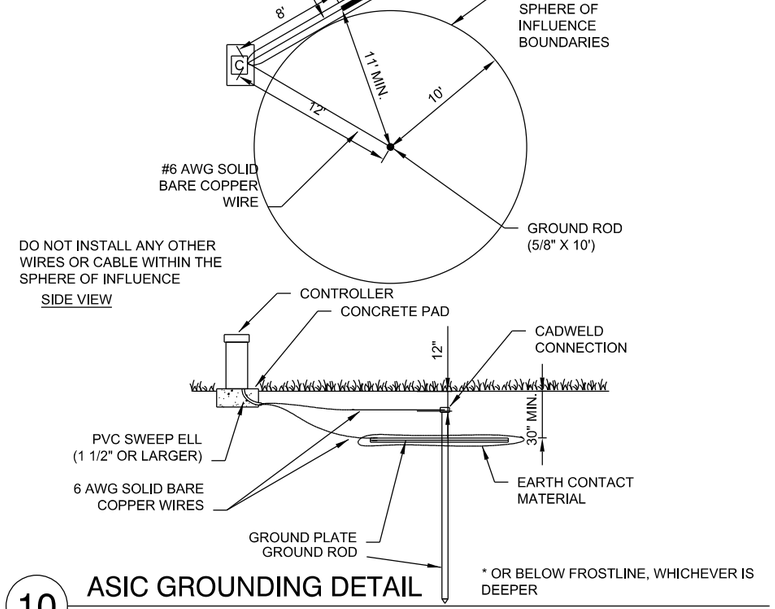
NOTE:

SUBMIT MANUFACTURE SHOP DRAWING

SUBMIT NARRATIVE ADDRESSING THE NUMBER OF PIPE SUPPORTS NECESSARY TO CROSS BRIDGE. MINIMUM 4' O.C.

REFER TO IRRIGATION GENERAL NOTE ATTACHMENT TO STRUCTURES.

9 EXPOSED PIPE SUPPORT



10 ASIC GROUNDING DETAIL

11 FIBERGLASS ENCLOSED WELL PUMP

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814	BROWARD	426010-1-58-01 426011-1-58-01

IRRIGATION NOTES

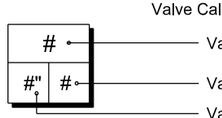
SHEET NO. LD-22

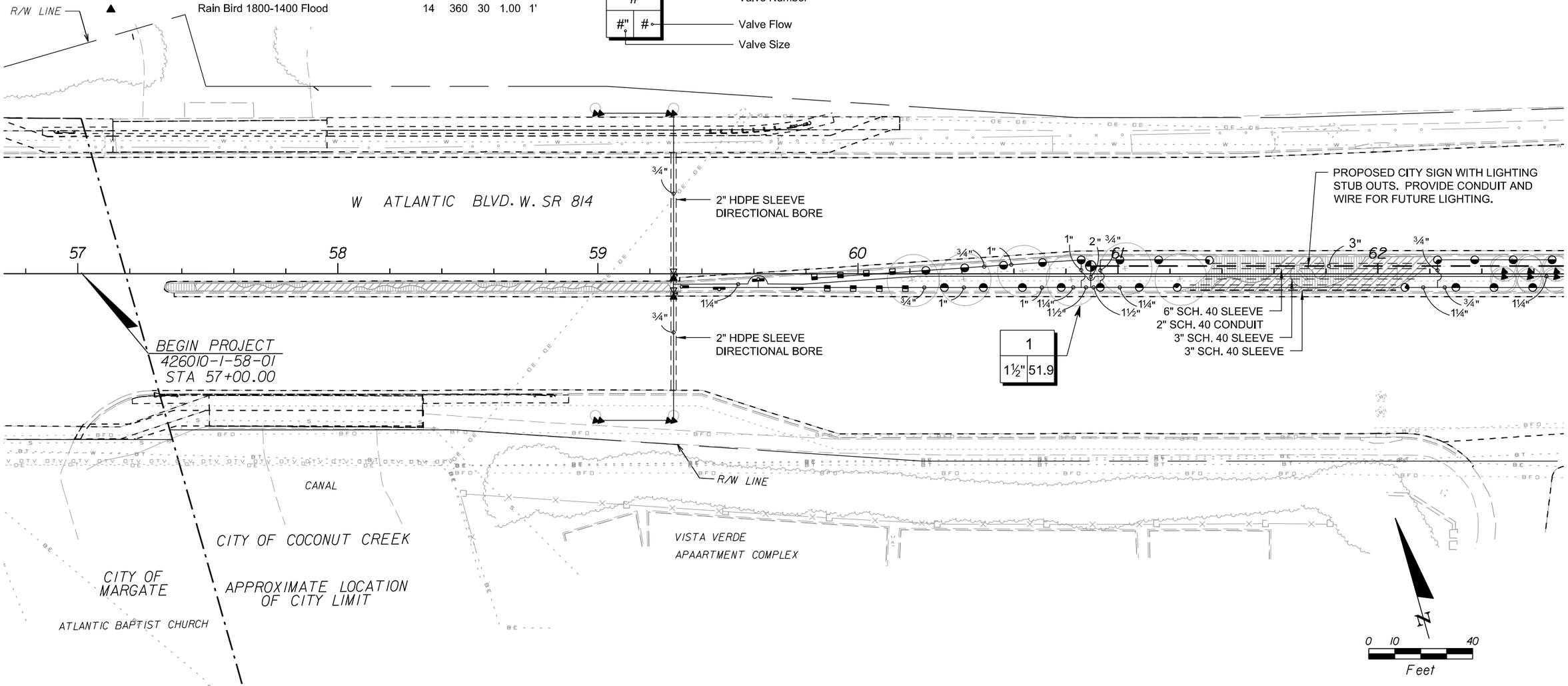
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS-NP 15 Strip Series	1	EST	30	0.61	4'x15'
	Rain Bird 1806-SAM-PRS-NP 15 Strip Series	3	SST	30	1.21	4'x30'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	8	180	30	0.79	10'
	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	19	180	30	1.85	15'
	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	2	90	30	0.92	15'
	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	2	120	30	1.23	15'
	Rain Bird 1800-1400 Flood	14	360	30	1.00	1'

SYMBOL	MANUFACTURER/MODEL	QTY
	Rain Bird PESB	1
	Nibco T-113	2
	Irrigation Lateral Line: PVC Schedule 40	1,104 l.f.
	Irrigation Mainline: PVC Schedule 40	181 l.f.
	Pipe Sleeve	330 l.f.

Valve Callout





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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-52-01

IRRIGATION PLAN

SHEET NO. LD-23

IRRIGATION SCHEDULE

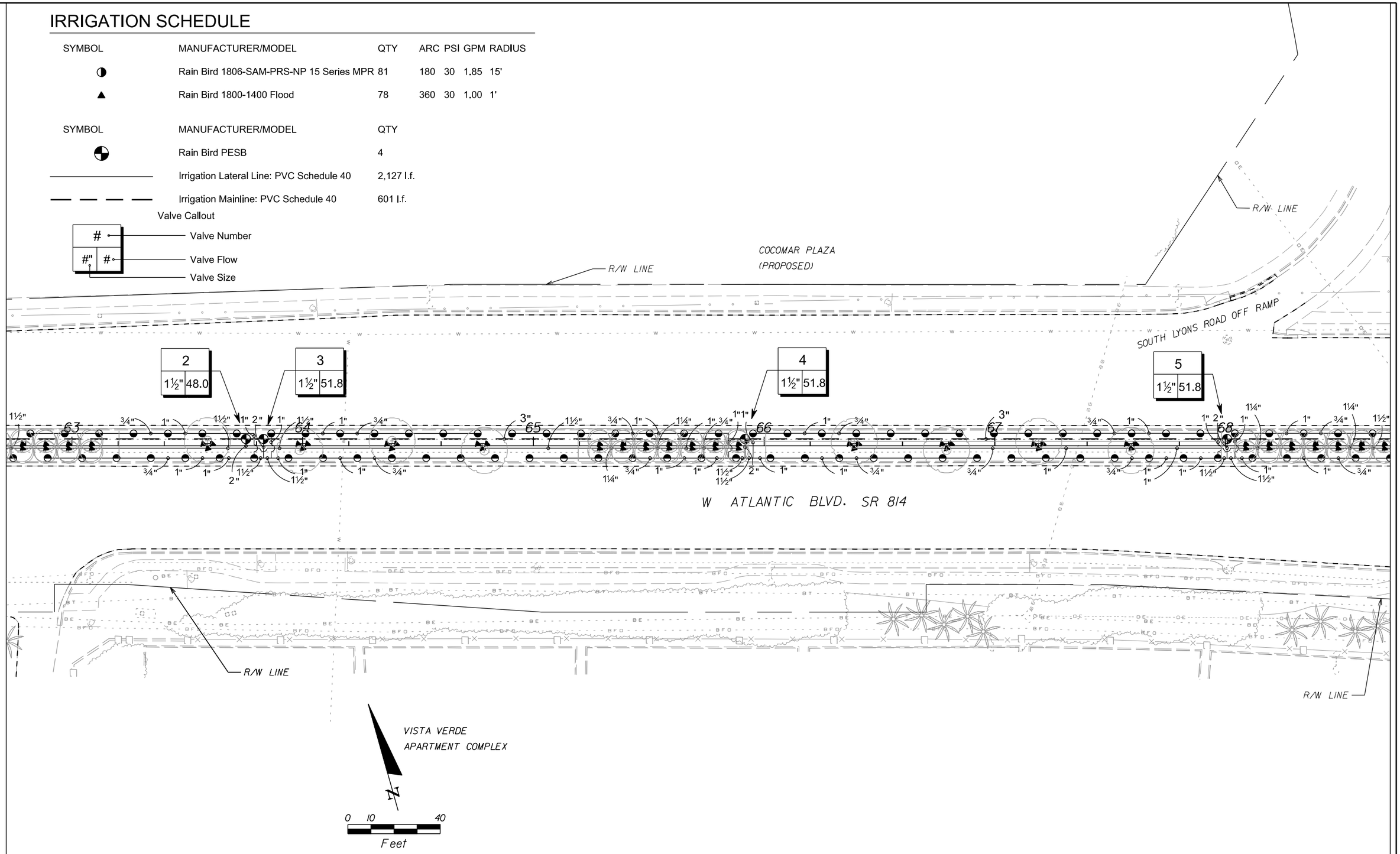
SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	81	180	30	1.85	15'
▲	Rain Bird 1800-1400 Flood	78	360	30	1.00	1'

SYMBOL	MANUFACTURER/MODEL	QTY
◓	Rain Bird PESB	4
———	Irrigation Lateral Line: PVC Schedule 40	2,127 l.f.
— — — —	Irrigation Mainline: PVC Schedule 40	601 l.f.

Valve Callout

#	
#"	#

- # — Valve Number
- # — Valve Flow
- #" — Valve Size



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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01

IRRIGATION PLAN

SHEET NO. LD-24

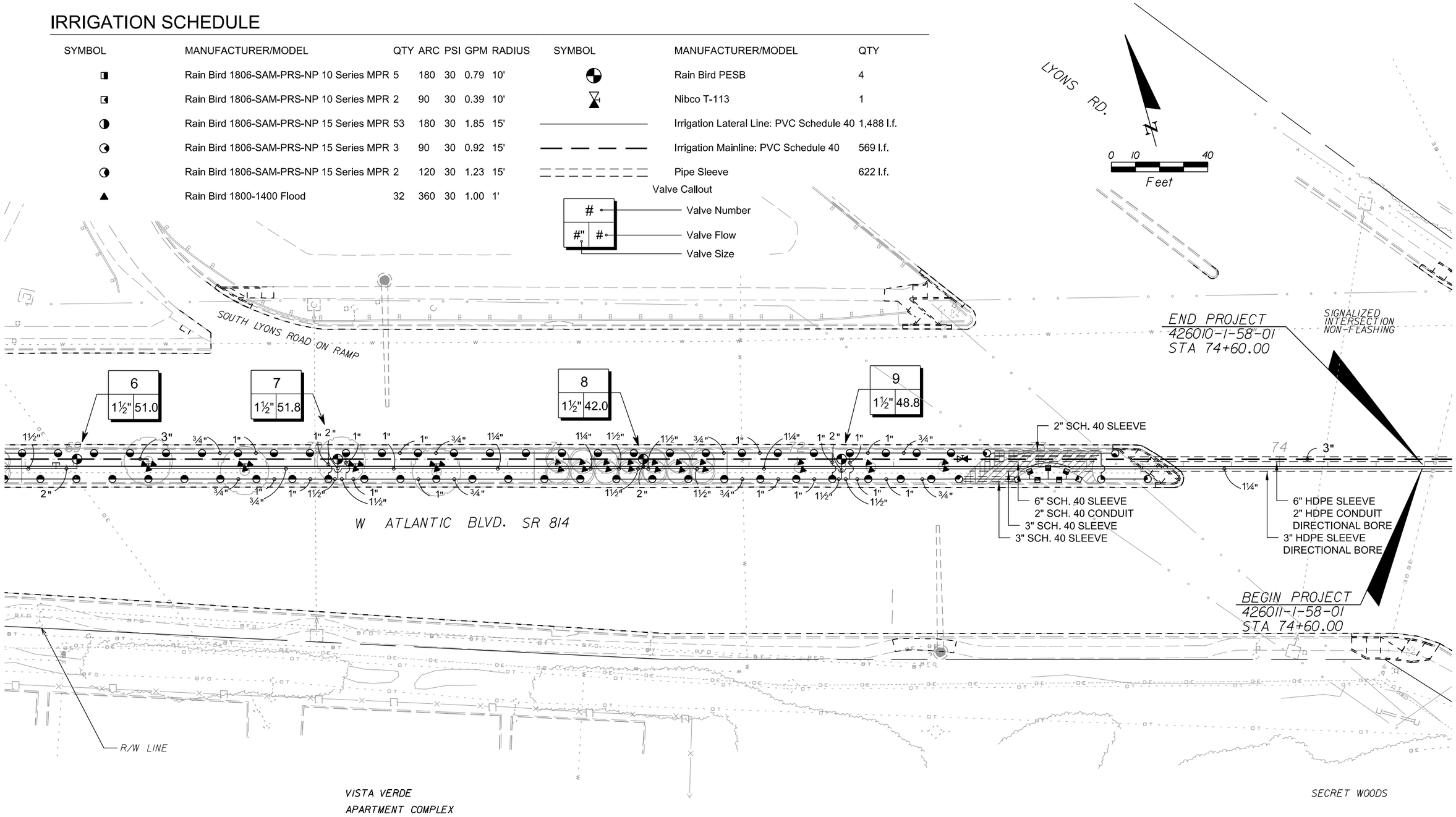
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
◨	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	5	180	30	0.79	10'
◩	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	2	90	30	0.39	10'
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	53	180	30	1.85	15'
◕	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	3	90	30	0.92	15'
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	2	120	30	1.23	15'
▲	Rain Bird 1800-1400 Flood	32	360	30	1.00	1'

SYMBOL	MANUFACTURER/MODEL	QTY
◔	Rain Bird PESB	4
⧗	Nibco T-113	1
———	Irrigation Lateral Line: PVC Schedule 40	1,488 l.f.
— — — —	Irrigation Mainline: PVC Schedule 40	569 l.f.
= = = =	Pipe Sleeve	622 l.f.

Valve Callout

#	Valve Number
#"	Valve Flow
#	Valve Size



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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-52-01 426011-1-58-01

IRRIGATION PLAN

SHEET NO. LD-25

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
◨	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	3	180	30	0.79	10'
◪	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	2	90	30	0.39	10'
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	55	180	30	1.85	15'
◕	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	3	90	30	0.92	15'
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	3	120	30	1.23	15'
▲	Rain Bird 1800-1400 Flood	34	360	30	1.00	1'

SYMBOL	MANUFACTURER/MODEL	QTY
◓	Rain Bird PESB	2
———	Irrigation Lateral Line: PVC Schedule 40	1,804 l.f.
— — — —	Irrigation Mainline: PVC Schedule 40	606 l.f.
= = = = =	Pipe Sleeve	595 l.f.

Valve Callout

#	Valve Number
#" | #	Valve Flow / Valve Size

N

0 10 40

Feet

R/W LINE

R/W LINE

10
1½" | 50.3

11
1½" | 51.8

2" SCH. 40 SLEEVE
6" SCH. 40 SLEEVE
2" SCH. 40 CONDUIT

3"

1¼"

SIGNALIZED INTERSECTION NON-FLASHING

6" HDPE SLEEVE
2" HDPE CONDUIT
DIRECTIONAL BORE
3" HDPE SLEEVE
DIRECTIONAL BORE

3" SCH. 40 SLEEVE
2" SCH. 40 SLEEVE

W ATLANTIC BLVD. SR 814

NORTH LYONS ROAD ON RAMP

LYONS RD.

RETENTION POND

R/W LINE

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

IRRIGATION PLAN

SHEET NO. LD-26

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
▬	Rain Bird 1806-SAM-PRS-NP 15 Strip Series	1	EST	30	0.61	4'x15'
▮	Rain Bird 1806-SAM-PRS-NP 15 Strip Series	4	SST	30	1.21	4'x30'
◨	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	17	180	30	0.79	10'
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	40	180	30	1.85	15'
▲	Rain Bird 1800-1400 Flood	26	360	30	1.00	1'
M	Electrical Meter and Disconnect Panel					
W	Well					

SYMBOL	MANUFACTURER/MODEL	QTY
◓	Rain Bird PESB	3
⧗	Nibco T-113	2
C	Rain Bird ESP-24SITE-W	1
PUMP	Centrifugal Pump Station	1
⊢⊣	4" Gravel Packed Well	1
———	Irrigation Lateral Line: PVC Schedule 40	1,197 l.f.
— — —	Irrigation Mainline: PVC Schedule 40	1,040 l.f.
= = =	Pipe Sleeve	134 l.f.

N

0 10 40

Feet

Valve Callout

— Valve Number

#" # — Valve Flow / Valve Size

R/W LINE

12 — 1½" 52.0

13 — 1½" 51.8

14 — 1½" 50.3

CURVE BL2

2" HDPE CONDUIT
2" HDPE CONDUIT
DIRECTIONAL BORE

6" HDPE SLEEVE
2" HDPE CONDUIT
DIRECTIONAL BORE

PROVIDE +/- 100' OF CONDUIT/WIRES, FPL/AT&T, INCLUDING HAND HOLE BOX TO BASE OF POLE

W ATLANTIC BLVD. SR 814

R/W LINE

IRRIGATION SERVICE POINT FOR FPL AND AT&T

W M C PUMP

NORTH LYONS ROAD ON RAMP

NORTH LYONS ROAD OFF RAMP

CENTRIFUGAL PUMP STATION
WITH 4" GRAVEL PACKED WELL - 80' CASED, 120' DEPTH
55 GPM @ 50 PSI
CONTRACTOR TO PROVIDE PHASE III, 230 VAC POWER
CONTRACTOR TO PROVIDE P.O.T.S. CONNECTION FOR CENTRAL CONTROL COMMUNICATION

WELL TO MEET IRRIGATION SYSTEM PARAMETERS, DEPTH AND SIZE PROVIDED AS AN INITIAL PARAMETER FOR BIDDING PURPOSES ONLY

REFER TO S.F.W.M.D. CONSUMPTIVE WATER USE PERMIT # 06-06337-W
WELL CONTRACTOR TO PROVIDE WELL CONSTRUCTION PERMIT AND REFRENCE S.F.W.M.D. PERMIT # 06-06337-W

NOTE:
POINT OF ELECTRICAL SERVICE
TO BE COORDINATED WITH FPL
PROVIDE METER / PRIMARY DISCONNECTION
PROVIDE WIRE, CONDUIT AND HAND HOLE BOX

FLORIDA TURNPIKE LIMITED ACCESS R/W LINE

FLORIDA TURNPIKE LIMITED ACCESS R/W LINE

STATE OWNED LANDS

VACANT

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

IRRIGATION PLAN

SHEET NO. LD-27

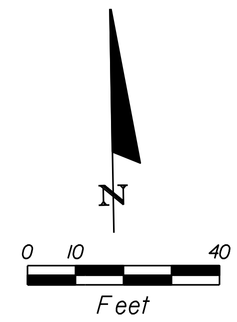
IRRIGATION SCHEDULE

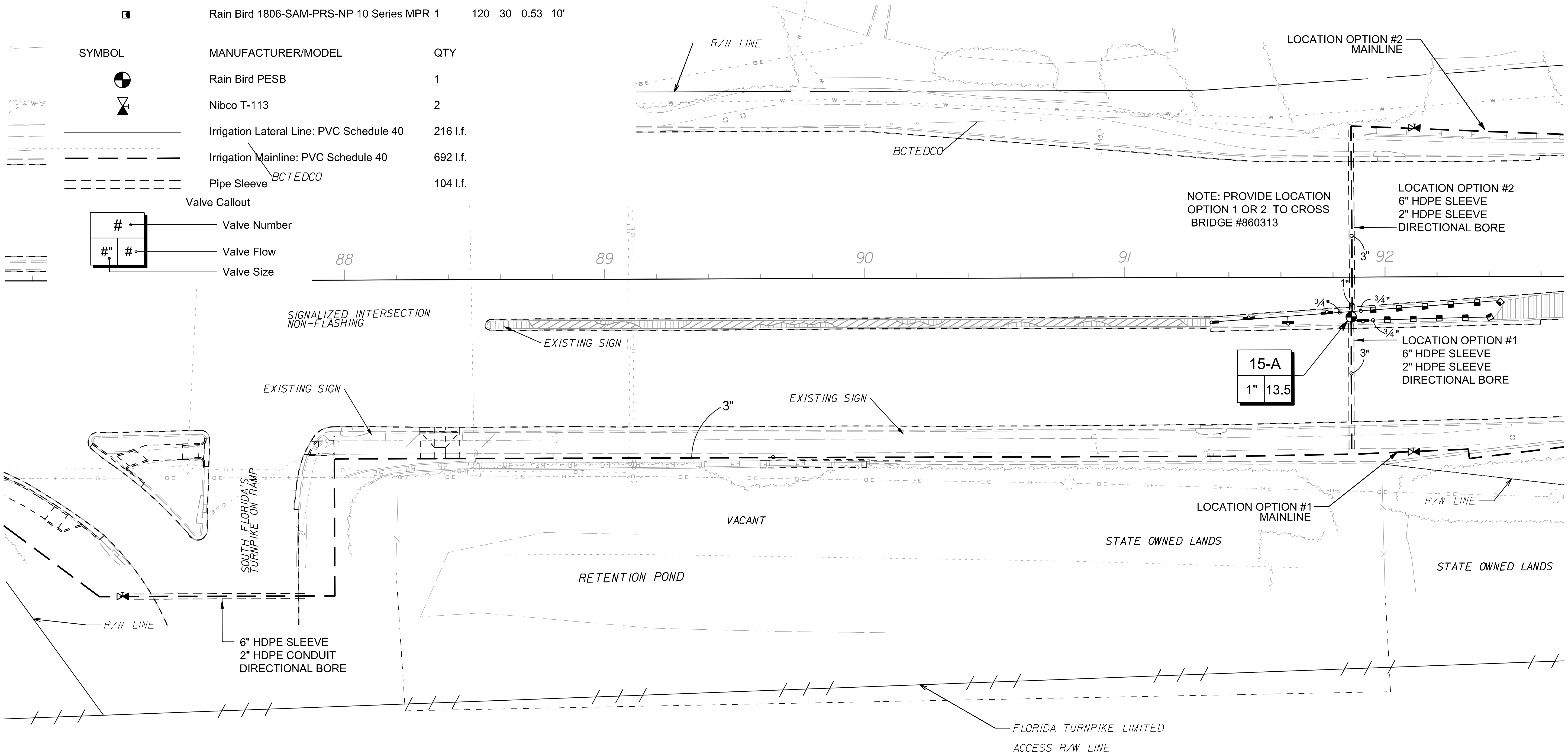
SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1806-SAM-PRS-NP 15 Strip Series	1	EST	30	0.61	4'x15'
	Rain Bird 1806-SAM-PRS-NP 15 Strip Series	4	SST	30	1.21	4'x30'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	9	180	30	0.79	10'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	1	90	30	0.39	10'
	Rain Bird 1806-SAM-PRS-NP 10 Series MPR	1	120	30	0.53	10'

SYMBOL	MANUFACTURER/MODEL	QTY
	Rain Bird PESB	1
	Nibco T-113	2
	Irrigation Lateral Line: PVC Schedule 40	216 l.f.
	Irrigation Mainline: PVC Schedule 40	692 l.f.
	Pipe Sleeve	104 l.f.

Valve Callout

- Valve Number
- Valve Flow
- Valve Size





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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

IRRIGATION PLAN

SHEET NO. LD-28

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	30	180	30	1.85	15'
◕	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	4	90	30	0.92	15'
◑	Rain Bird 1806-SAM-PRS-NP 15 Series MPR	4	120	30	1.23	15'
▲	Rain Bird 1800-1400 Flood	10	360	30	1.00	1'

SYMBOL	MANUFACTURER/MODEL	QTY
◓	Rain Bird PESB	2
———	Irrigation Lateral Line: PVC Schedule 40	770 l.f.
— — — —	Irrigation Mainline: PVC Schedule 40	382 l.f.
= = = =	Pipe Sleeve	297 l.f.

Valve Callout

#	Valve Number
#" | #	Valve Flow / Valve Size

N

0 10 40

Feet

VACANT

R/W LINE

BEGIN BRIDGE 98+03.00

FLORIDA TURNPIKE LIMITED ACCESS R/W LINE

END PROJECT 426011-1-58-01 STA 98+00.00

LOCATION OPTION #2
6" GALV. SCH. 40 SLEEVE
2" GALV. SCH. 40 CONDUIT
SECURE SLEEVE AND CONDUIT TO BRIDGE
REFER TO EXPOSED PIPE SUPPORT DETAIL

3"

LOCATION OPTION #2
6" HDPE SLEEVE
2" HDPE CONDUIT
DIRECTIONAL BORE

END BRIDGE 94+29.54

NOTE: PROVIDE LOCATION OPTION 1 OR 2 TO CROSS THE BRIDGE.

15-B
1½" 32.4

16
1½" 45.8

4" SCH. 40 SLEEVE
3" SCH. 40 SLEEVE

93 94 98

BEGIN BRIDGE 92+79.72

CONCRETE BRIDGE BRIDGE NO. 860313

W ATLANTIC BLVD. SR 814

LOCATION OPTION #1
6" HDPE SLEEVE
2" HDPE CONDUIT
DIRECTIONAL BORE

BRIDGE NO. 860314 CONCRETE TURNPIKE OVERPASS BRIDGE

3"

COCONUT CREEK

VACANT

LOCATION OPTION #1
6" GALV. SCH. 40 SLEEVE
2" GALV. SCH. 40 CONDUIT
SECURE SLEEVE AND CONDUIT TO BRIDGE
REFER TO EXPOSED PIPE SUPPORT DETAIL

R/W LINE
SHORELINE

FLORIDA TURNPIKE LIMITED ACCESS R/W LINE

R/W LINE

R/W LINE

FLORIDA TURNPIKE LIMITED ACCESS R/W LINE

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426011-1-58-01

IRRIGATION PLAN

SHEET NO. LD-29

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PROJECT SPECIFIC GENERAL NOTES:

1. Traffic controls shall be in accordance with the project plans, the current edition of the Florida Department of Transportation (FDOT) Design Standards (600 series), the Standard Specification for Road and Bridge Construction, and the current Manual on Uniform Traffic Control Devices as minimum criteria.

2. Notification of lane closures shall be accompanied 14 working days prior to closure submitting the required lane closure form, sketches, calculations, and other data through the Engineer to the District Traffic Operations Office.

3. Traffic disruptions which are not shown by the traffic control plan, but which are necessary to construct the project shall be submitted in writing to the engineer 14 days prior to the commencement of work. Submittal material shall include sketches, calculations and other data required by the Engineer.

4. The traffic and travel ways shall not be altered by the Contractor to create a work zone until all labor and material are available for the construction in that area.

5. Lane closings shall occur only during non-peak hours. Peak hours are from: 7:00-9:00am and 4:00-6:00pm. 6. The regulatory speed through the work zone shall be posted 45 mph.

7. As approved by the Engineer, the Contractor shall cover work zone signs when conditions no longer warrant their use. Cost of covering and uncovering the signs, daily maintenance and monitoring shall be included in maintenance of traffic.

8. Contractor shall remove, relocate or cover any existing or proposed signs that conflict with the traffic control plans. When the conflict no longer exists, the contractor shall restore the signs to their original position. Cost of temporarily removing, relocating,covering and restoring the signs shall be included in maintenance of traffic.

9. Uniformed, off-duty law enforcement officers can be used only as approved by the Engineer and use is limited to construction operations for setting and removing traffic control devices, night work, moving operations, or other situations specifically approved by the Engineer. All cost for the officer(s) shall be included in the maintenance of traffic.

10. All existing signage shall be maintained in an appropriate location for the duration of the project.

11. The contractor shall maintain a minimum of one lane of traffic at all times for minor side streets. During one lane operation a flag man shall be used. If operation exceeds one work period, contractor shall cover excavation and return two way traffic at the end of each work period.

12. If temporary lane closure causes extended congestion, the contractor shall, at the direction of the Engineer, reopen the closed lane(s) at no additional cost until such time the traffic flow has returned to an acceptable level.

13. Provisions for traffic control plan which are not anticipated in the traffic control plans, but are necessary for project construction shall be submitted to the engineer at least 72 hours prior to using such provisions.

14. A certified maintenance of traffic supervisors shall be available to the project at all times when the contractor is working and shall be on call for emergencies when the Contractor is not working. All work shall cease when MOT Supervisor is not present.

15. Access shall be provided to all places of business and residences whenever construction interferes with the existing means of access. Adequate accommdations for intersecting and crossing traffic shall be provided and maintained by the contractor. No road or street crossings within the project shall be blocked or unduly restricted as determined by the engineer.

16. Contractor shall be responsible for the immediate removal of storm water from roadways utilized for maintaining traffic in a manner approved by the Engineer. Cost for removing the water shall be included in maintenance of traffic.

17. Arrows provided on details denote direction of traffic only and do not reflect pavement markings unless specifically noted.

Markings:

1. The contractor shall maintain all existing pavement markings during construction. If necessary, Contractor shall submit to the Engineer any modifications or temporary markings to the existing pavement markings during construction. Cost of removal of temporary pavement markings, regardless of method, is included in the related pavement marking maintenance of traffic. Use of black paint to cover existing and/or temporary pavement markings is prohibited.

Drop offs: For drop offs, the contractor's attention is directed to fdot standard index no. 600, sheet 6 of 10.

Signals:

1. The contractor shall have full responsibility for the normal maintenance of existing traffic signal(s) within the project limits. All signals shall remain in full operation unless deemed necessary for construction activities. The contractor shall notify Broward County Traffic Engineering Division (BCTED) (Telephone number (954) 847-2600) a minimum of 10 working days prior to any modification and/or changes of an existing traffic signal (i.e. Taking signals off-line, removing or replacing loop assemblies or rearranging traffic signal heads). The contractor shall install the temporary signalization system and have the system in operation before taking the existing system out of service. Portable temporary units shall not be used. The temporary signal system shall be adjusted to the traffic needs of each construction phase. Signal heads are to be located with respect to approach lanes. Cost of adjusting temporary signal for the required tcp phases shall be included in maintenance of traffic.

2. The contractor shall utilize the existing signal equipment or provide all necessary signalization components and appurtenances, including but not limited to; poles, temporary electric service connections, temporary conduits and wires, relocation of existing controllers or temporary controllers, and necessary signal timing coordination with Broward County Traffic. The contractor shall provide maintenance of the temporary signal system until the permanent system is installed and functional. Cost to be included in maintenance of traffic.

Pedestrian, bicycles & wheelchairs:

1. The contractor shall maintain pedestrian, bicycle, and wheel chair traffic on at least one side of the roadway at all times during construction. This shall be done in accordance to index 660 10f1.

2. At the end of each work day or whenever the work zone becomes inactive, any drop-off adjacent to pedestrian travel paths shall be backfilled flush with the travel path or shall be protected with barricades, temporary barrier wall or approved handrail.

3. Pedestrian, bicycles, and wheelchair traffic shall be guided and maintained using approved warning lights, signing, markings, and channelization devices. Such control devices shall be installed and maintained in accordance with, FDOT standards and the current mutcd. All ADA requirements must be maintained.

4. The contractor shall maintain access and signs for existing bus stop locations within the project limits. If existing bus stops need to be relocated, provisions to accomodate bus stops must be coordinated with the Broward County Mass Transit Agency, telephone number (954) 357-8400.

6. Provide at least one safe, walkable path throughout the construction zone. If the existing current walking surfaces cannot be maintained, then a temporary path, a minimum of 4 foot wide, shall be provided and delineated. Temporary paths shall be delineated by a 4 foot high orange construction fence for the entire length of the temporary walk path. The path shall meet all ADA requirements. The contractor shall also install or modify any additional pavement, signing, markings or pedestrian signals as needed in conjunction with the temporary path.

7. On days that school is in session, the contractor's work schedule within the school zone may be reduced based on actual work activities in the school zone. See Maintenance of Traffic plans for details on the work zone restrictions, if warranted. Any changes in the Maintenance of Traffic work schedules within school zones should be discussed during the mandatory reconstruction school safety meeting.

8. All work required at designated school crossings and pedestrian crossings shall be restored to a safe walkable path between the hours noted in No. 2. above.

9. Thirty (30) days prior to the beginning of construction the Contractor SHALL notify the Special Projects Coordinator at Broward County Traffic Engineering Division, (954) 847-2671, to arrange a pre-construction school safety meeting.

10. It SHALL be the Contractor's responsibility to notify the Broward County School Board Pupil Transportation Department Transportation Operations Supervisor, (754) 321-4400 ext # 2013, to arrange a pre-construction school bus route meeting. This meeting is to determine all bus routes and to make any necessary arrangements or rerouting. This meeting shall include the Special Projects Coordinator from Broward County Traffic Engineering Division, (954) 847-2671.

Note to PMs and Plan Reviewers: Consider the work scope in using these notes. If the work will require a shutdown of an existing designated school crossing during the hours
of use by the school, we will have to add a note requiring the contractor to hire an Off-Duty officer to cross students at alternate locations. This should be coordinated/discussed with the Special Projects Coordinator at Broward County Traffic Engineering Division during design. Coordination with the school will be done during the
construction of the project.

Landscape plan specific notes:

1. For landscape work within or near median, reference Station Points 88+00 to 98+00 (Index 613). For landscape work along outer edges and ramp area (Index 612).

2. INTERSECTIONS: Vista Verde Entrance, South Lyons Road on and off ramps, North Lyons Road on and off ramps, Lyons Road, Florida's Turnpike on ramp:

a. FDOT standard index 616 must be implemented when median work near intersection condition exists.

b. Traffic control at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely.

c. Contractor to cover signal heads or make signal head revisions where impacted as required due to maintnance of traffic per FDOT standard index 600 and fdot traffic operations office. Broward county transit Route 42 runs along SR 814,

d. Maintenance of traffic shall include provisions for pedestrians and / or school traffic as well as vehicular traffic. Contractor to comply with all school safety requirements as outlined in the BCTED Maintenence of traffic school / pedestrian criteria.

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-1-58-01

TRAFFIC CONTROL NOTES

SHEET NO. LD-30

COMMUNICATION:
1. The agency responsible for maintenance of the traffic signals and related equipment is Broward County Traffic Engineering Division (BCTED). All system communications equipment, cabling and related material shall comply with Broward County's latest edition of the minimum standards as expressed in the "Standards and Specifications - Communication Infrastructure" document. Please refer to (BCTED's) Communications Policies and Procedures for additional information. Broward County Traffic Engineering Division will not accept any projects that do not meet these standards and specifications. If fiber optic pull boxes already exist at an intersection, no additional fiber optic pull boxes will need to be installed. For a copy of these standards refer to the Broward County web site at www.BROWARD.ORG/TRAFFIC under publications.

2. If there are Copper Interconnect Cable/s within your project limits or within 1500 feet of your project limits contact Bret Henderson, Traffic Signal Supervisor at brhenderson@broward.org or 954-847-2702.

3. If there are Fiber Optic Cable/s within your project limits or within 1500 feet of your project limits contact Robert Blount Communications Manager at rblount@broward.org or 954-357-8242.

4. All BCTED communications cables/conduit shall be located a minimum of 48 hours in advance.

5. Broward County Traffic Engineering Division - Procedure for Notification of Communication Disruption

A. Copper Interconnect Cable Notification Contact Person
When communications to an intersection must be disrupted by a Contractor to perform work, the Contractor shall provide two day advance notice in writing to the Broward County Traffic Engineering Division. This notification shall be conveyed via electronic mail (email) to the Traffic Signal Supervisor at brhenderson@broward.org. Notification shall include contact person, telephone number, purpose, location and duration. The disruption shall last for no more than 3 consecutive business days. Where possible, the disruption shall be during off peak hours beginning at 9:00am and ending at 3:00pm.

B. Fiber Optic Cable Notification Contact Person
When communications to an intersection must be disrupted by a Contractor to perform work, the Contractor shall provide two day advance notice in writing to the Broward County Traffic Engineering Division. This notification shall be conveyed via electronic mail (email) to the Traffic Signal Supervisor at rblount@broward.org. Notification shall include contact person, telephone number, purpose, location and duration. The disruption shall last for no more than 3 consecutive business days. Where possible, the disruption shall be during off peak hours beginning at 9:00am and ending at 3:00pm.

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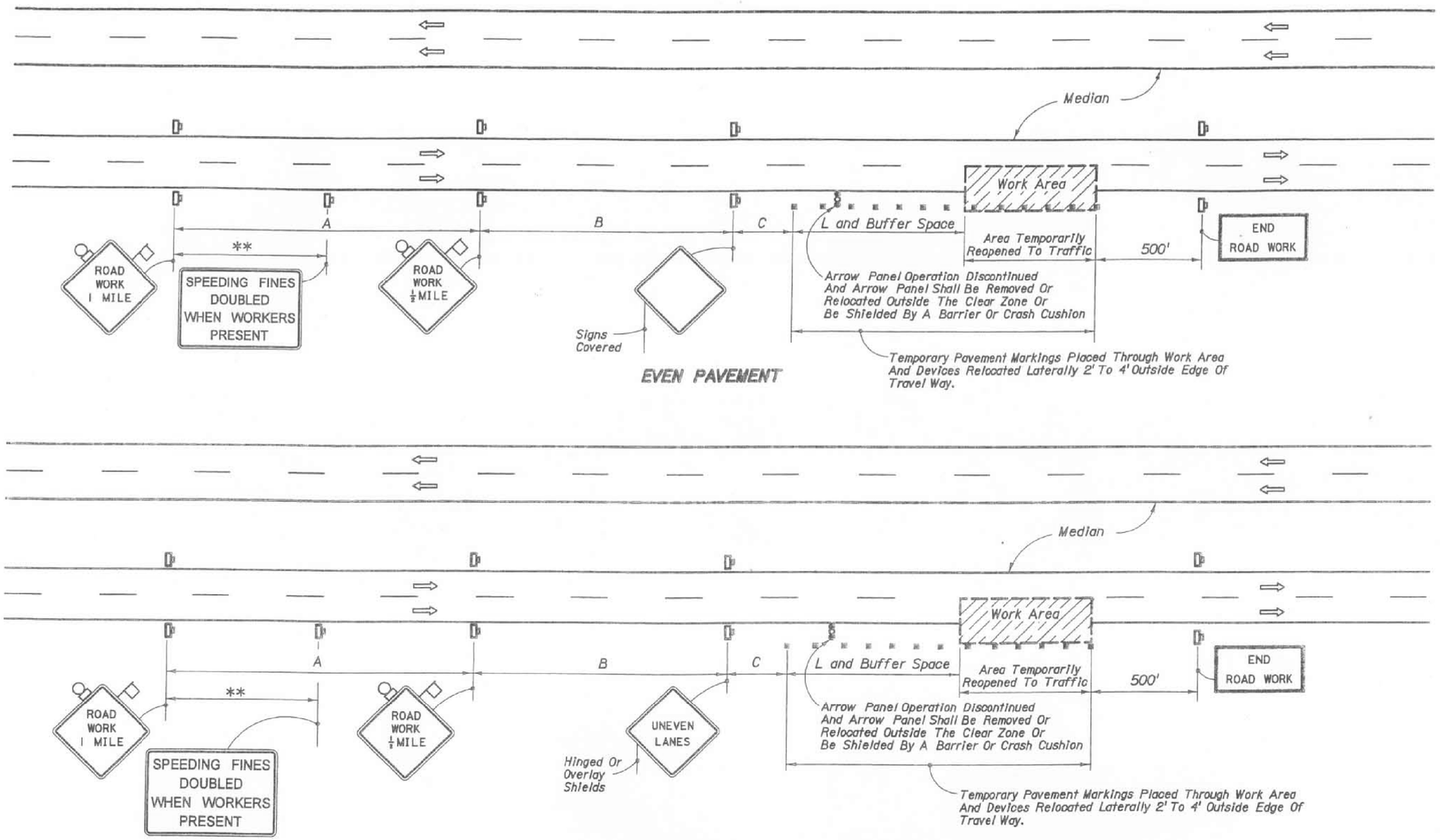
CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-1-58-01

TRAFFIC CONTROL NOTES

SHEET NO.
LD-31



EVEN PAVEMENT

UNEVEN PAVEMENT

INTERMITTENT WORK STOPPAGE - LANE REOPENED TO TRAFFIC

REVISIONS					
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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-15-58-01

TRAFFIC CONTROL DETAIL

SHEET NO. LD-32

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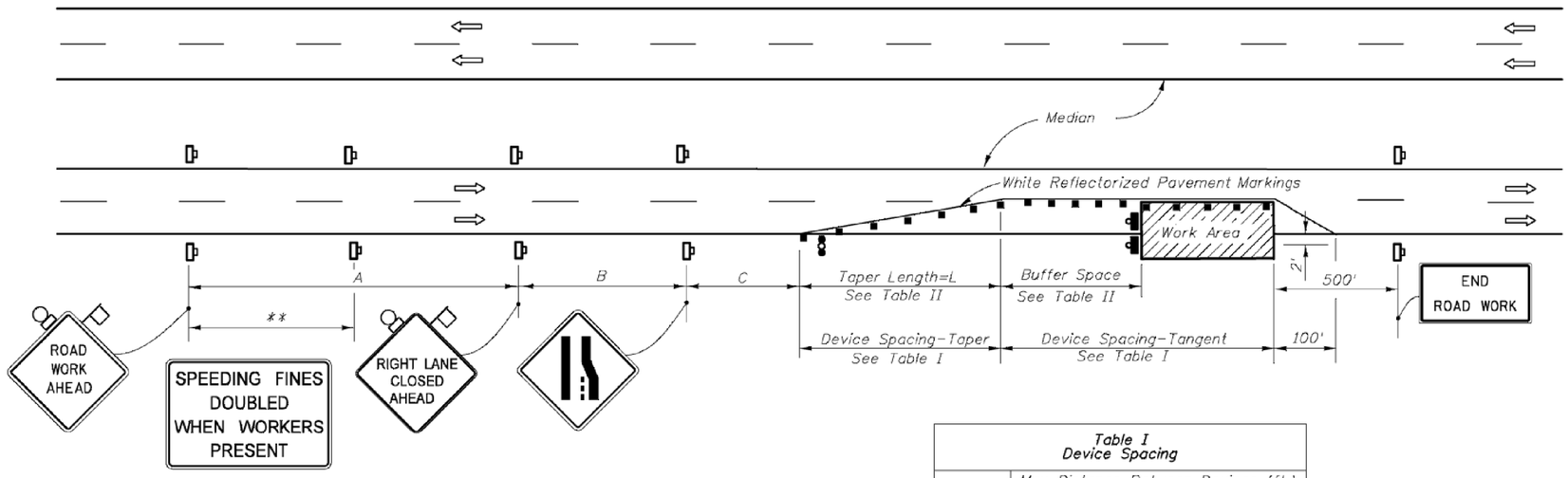

Table II
Buffer Space and Taper Length

Speed (mph)	Buffer Space Dist. (ft.)	Taper Length (12' Lateral Transition) L (ft.)	Notes (Merge)
25	155	125	$L=\frac{WS^2}{60}$
30	200	180	
35	250	245	
40	305	320	
45	360	540	L=WS
50	425	600	
55	495	660	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use formula for L shown in the notes column.
Where:
L= Length of taper in feet
W= Width of lateral transition in feet
S= Posted speed limit (mph)

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.) Cones or Tubular Markers Taper	Cones or Tubular Markers Tangent	Type I or Type II Barricades or Vertical Panels or Drums Taper	Type I or Type II Barricades or Vertical Panels or Drums Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.) A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

* *The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.*

** *500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.*

GENERAL NOTES

1. *Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.*
2. *On undivided highways the median signs as shown are to be omitted.*
3. *When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane end signs.*

   The same applies to undivided highways with the following exceptions:
   (a) Work shall be confined within one median lane.
   (b) Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.

   When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.
4. *Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.*
5. *The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.*
6. *When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.*
7. *When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.*
8. *This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane highway. See Index No. 614.*
9. *For general TCZ requirements and additional information, refer to Index No. 600.*

SYMBOLS

- *Work Area*
- *Sign With 18"x 18" (Min.) Orange Flag And Type B Light*
- *Channelizing Device (See Index No. 600)*
- *Type I Type II Or Type III Barricade Or Vertical Panel Or Drum (With Flashing Light)*
- *Work Zone Sign*
- *Advance Warning Arrow Panel*

DURATION NOTES

1. *Temporary white edgeline may be omitted for work operations less than 3 days.*
2. *Signs, arrow panel and buffer space may be omitted if all of the following conditions are met:*
   a) Work operations are 60 minutes or less.
   b) Speed limit is 45 mph or less.
   c) No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
   d) Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
   e) Volume and complexity of the roadway has been considered.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

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CITY OF COCONUT CREEK		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-1-58-01

TRAFFIC CONTROL DETAIL

SHEET NO. LD-33

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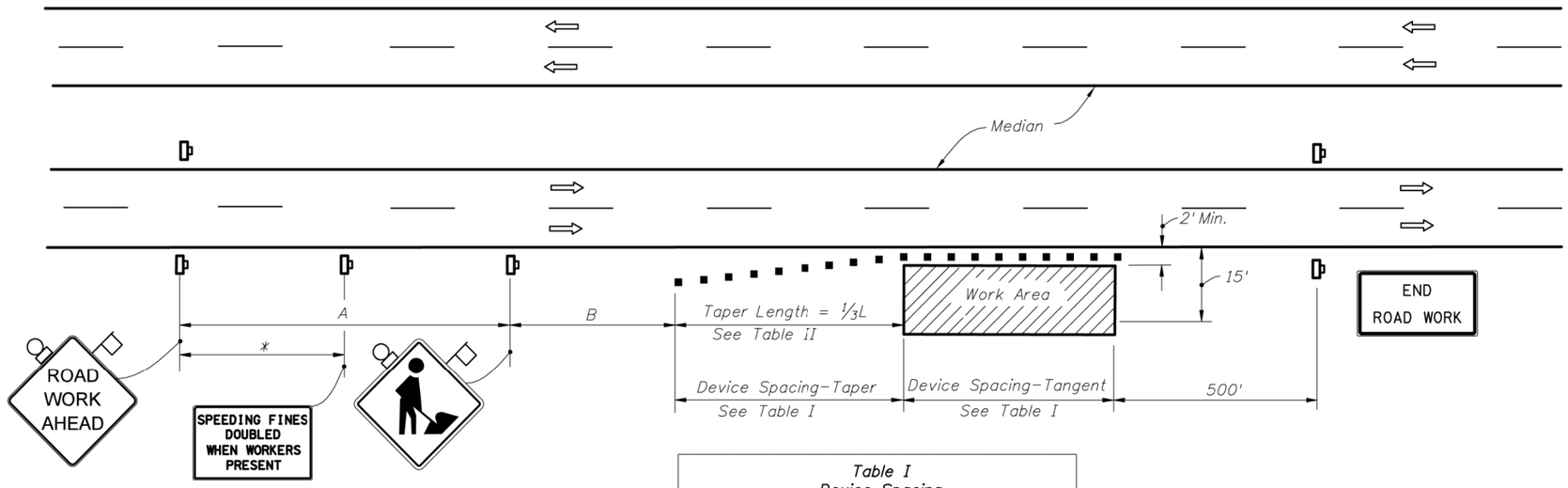

DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.) A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

* 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.) Cones or Tubular Markers Taper	Tangent	Type I or Type II Barricades or Vertical Panels or Drums Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II
Taper Length – Shoulder

Speed (mph)	1/3L (ft.) 8' Shldr.	10' Shldr.	12' Shldr.	Notes
25	28	35	42	$L=\frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width.

1/3L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

Work Area

Sign With 18"x18" (Min.) Orange Flag And Type B Light

Channelizing Device (See Index No. 600)

Work Zone Sign

Lane Identification + Direction of Traffic

GENERAL NOTES

1. If the work operation encroaches on the through traffic lanes or when four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), a flagger shall be provided and a FLAGGER sign shall be substituted for the WORKERS sign. The flagger shall be positioned at the point of vehicle entry or departure from the work area.
2. This TCZ plan also applies to work performed in the median more than 2' but less than 15' from the edge of travelway.
3. When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
4. WORKERS signs to be removed or fully covered when no work is being performed.
5. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign.
6. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
7. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
   a) Work operations are 60 minutes or less.
   b) Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

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CITY OF COCONUT CREEK

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
814	BROWARD	426010-1-58-01 426011-1-58-01

TRAFFIC CONTROL DETAIL

SHEET NO. LD-34

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