SECTION No.(s):	**860500**
S.R. No.(s):	**A1A**
FM No:	**431204-2-52-01**
COUNTY:	**BROWARD COUNTY**

DISTRICT FOUR (4) AMENDMENT NUMBER TEN (10) TO STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION LANDSCAPE INCLUSIVE MEMORANDUM OF AGREEMENT

THIS AMENDMENT Number Ten (10) to the Agreement dated January 31, 2008, made and entered into this _____ day of _____ 20_____ by and between the State of Florida Department of Transportation hereinafter called the DEPARTMENT and the **CITY OF FORT LAUDERDALE**, a municipal subdivision of the State of Florida, hereinafter called the AGENCY.

W I T H N E S S E T H

WHEREAS, the parties entered into the Landscape Inclusive Maintenance of Agreement dated, January 31, 2008 for the purpose of maintaining the landscape improvements by the AGENCY on State Road A1A ; and,

WHEREAS, the DEPARTMENT and the AGENCY have agreed to add additional landscape to be installed on State Road A1A in accordance with the above referenced Agreement; and,

WHEREAS, the AGENCY by Resolution No._____ dated_____, attached hereto and by this reference made a part hereof, desires to enter into this Agreement and authorized its officers to do so; and,

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

1. Pursuant to paragraph 14 of the Landscape Inclusive Maintenance Memorandum of Agreement for State Road A1A dated January 31, 2008, the DEPARTMENT has decided to construct additional landscape improvements or to modify an improvement located as indicated in **Exhibit "A"**, State Road A1A from State Road 816 (Oakland Park Boulevard) (M.P. 5.382) to Flamingo Avenue (M.P. 6.418) in accordance with the plans attached as **Exhibit "B".**

2. The AGENCY shall agree to maintain the additional landscape improvements in the Agreement described above according the **Exhibit "C"** Maintenance Plan, attached to this Amendment.

3. The DEPARTMENT agrees to enter into a contract to have installed said landscape improvements for an amount as indicated in **Exhibit "D"** not to exceed $1,279.027.64.

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

LIST OF EXHIBITS

Exhibit A - Landscape Improvements Limits and Maintenance Boundaries and Location Map
Exhibit B - Landscape Improvement Plans
Exhibit C - Maintenance Plan Landscape Improvements
Exhibit D - Approximate Cost For Landscape Improvements

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year provided below.

AGENCY

CITY OF FORT LAUDERDALE, through its
CITY COMMISIONERS

ATTEST:

By:_____
John "Jack" P. Seiler, Mayor

_____
Jeffrey A. Modarelli, City Clerk

_____ day of _____, 2016

(SEAL)

_____
Lee R. Feldman, City Manager

Approved as to form by Office of City Attorney

By:_____
Cole J. Copertino, Assistant City Attorney

DEPARTMENT

ATTEST:

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

_____
Executive Secretary

By:_____
Director of Transportation Development

_____ day of _____, 2016

Approval:

_____
Office of the General Counsel (Date)

SECTION No.(s):	**860500**
S.R. No.(s):	**A1A**
FM No:	**431204-2-52-01**
COUNTY:	**BROWARD COUNTY**

EXHIBIT A

LANDSCAPE IMPROVEMENTS PROJECT LIMITS
MAINTENANCE BOUNDARIES LIMITS AND LOCATION MAP

I. LANDSCAPE PROJECT LIMITS:
State Road A1A from State Road 816 (Oakland Park Boulevard) (M.P. 5.392) to Flamingo Avenue (M.P. 6.418)

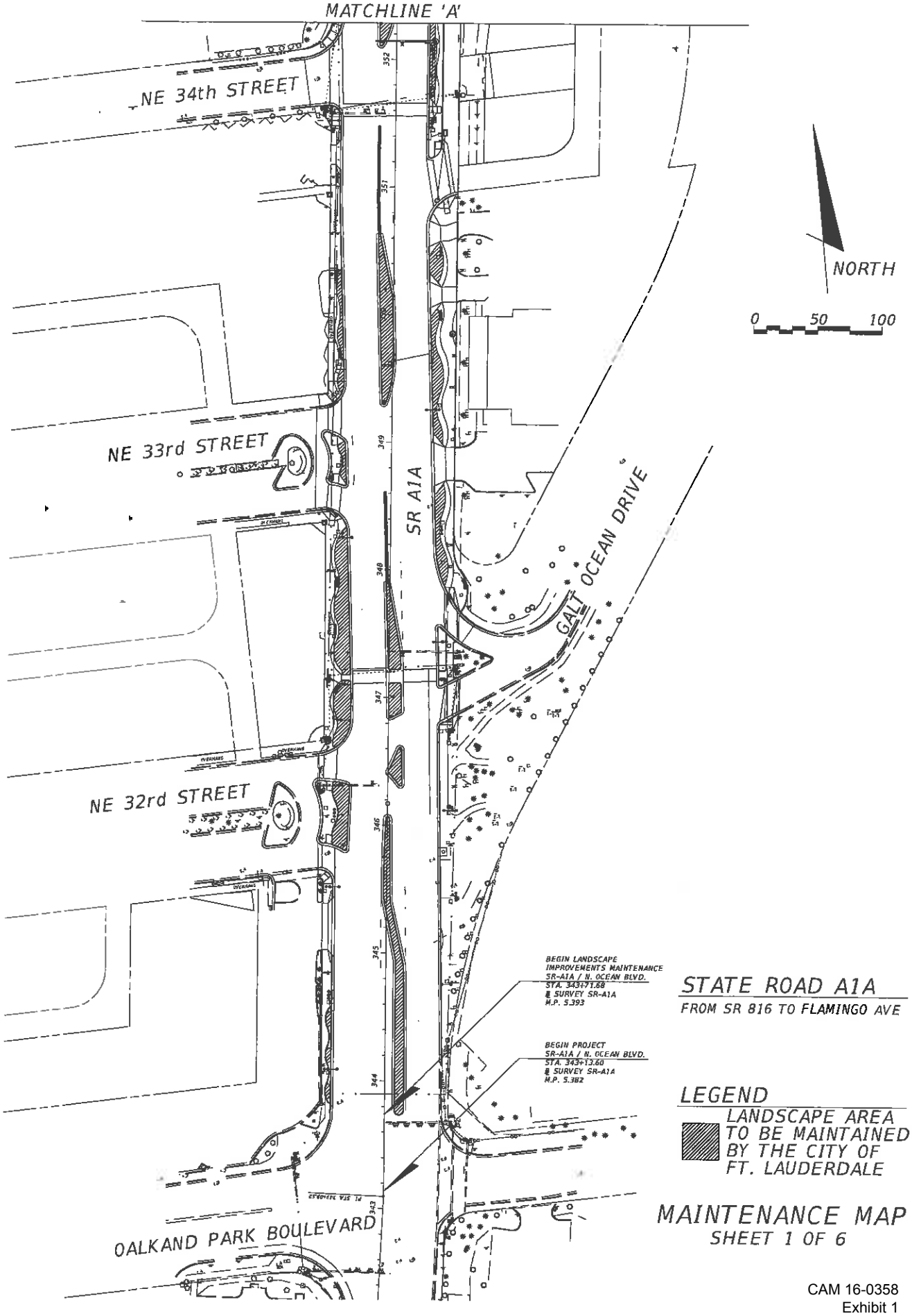
II. INCLUSIVE LANDSCAPE MAINTENANCE AGREEMENT LIMITS:
State Road A1A: From State Road 5 (US 1) (M.P. 0.000) (Section 86180000) (US 1) to Flamingo Avenue (M.P. 6.410) (Section 86050000)

North Fort Lauderdale Beach Area (Section 86050000)
M.P. 2.039 (South of Poinsettia Street) to M.P. 6.410 (Flamingo Avenue)

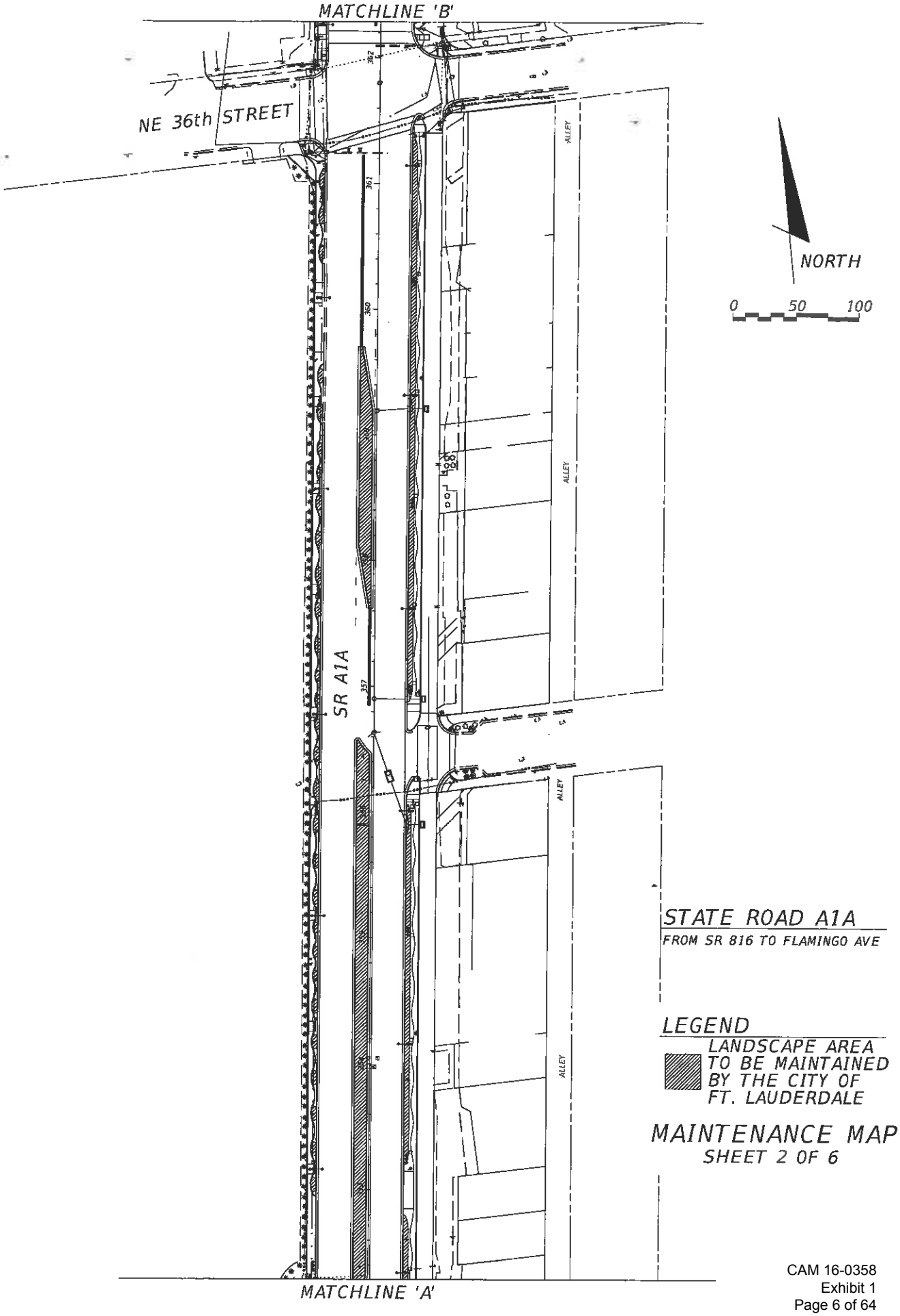
III. MAINTENANCE BOUNDARY LIMITS MAP:

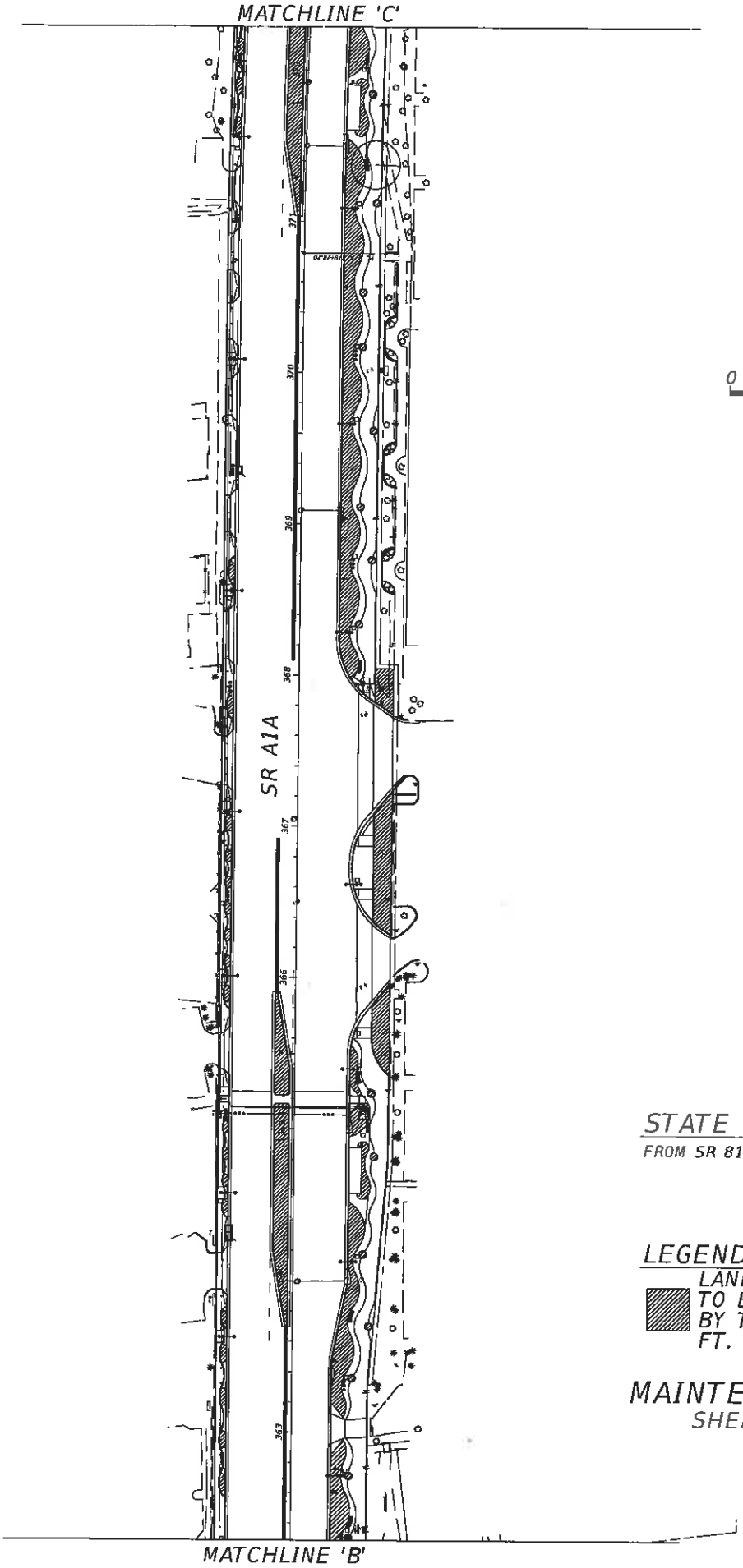
*All limits of the original agreement and amendments shall apply

Please See Attached



CAM 16-0358
Exhibit 1
Page 5 of 64


MATCHLINE 'B'
NE 36th STREET
SR A1A
ALLEY
ALLEY
ALLEY
ALLEY
NORTH
0 50 100
STATE ROAD A1A
FROM SR 816 TO FLAMINGO AVE
LEGEND
LANDSCAPE AREA TO BE MAINTAINED BY THE CITY OF FT. LAUDERDALE
MAINTENANCE MAP
SHEET 2 OF 6
MATCHLINE 'A'



STATE ROAD A1A

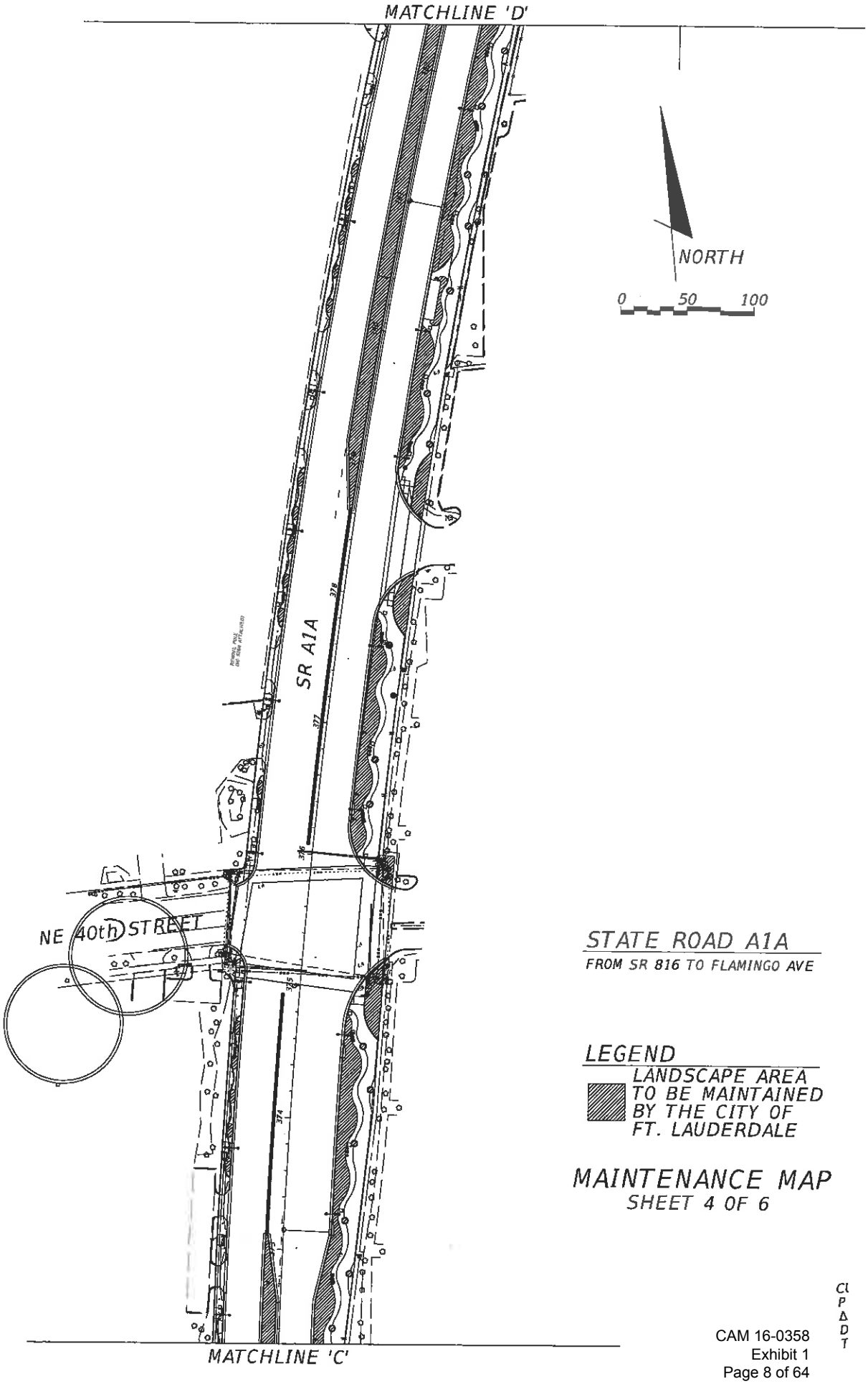
FROM SR 816 TO FLAMINGO AVE

LEGEND

LANDSCAPE AREA TO BE MAINTAINED BY THE CITY OF FT. LAUDERDALE

MAINTENANCE MAP

SHEET 3 OF 6



STATE ROAD A1A

FROM SR 816 TO FLAMINGO AVE

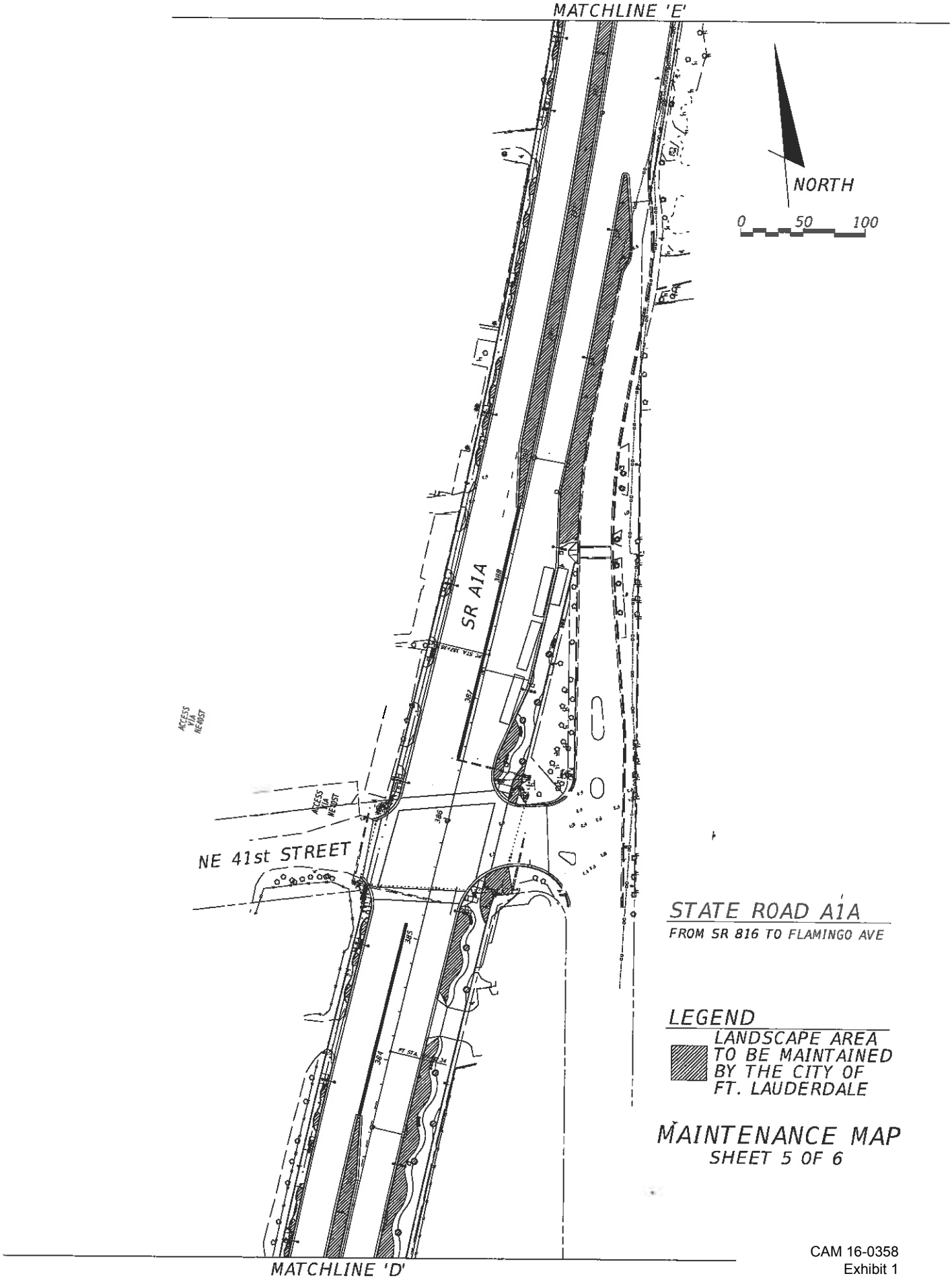
LEGEND

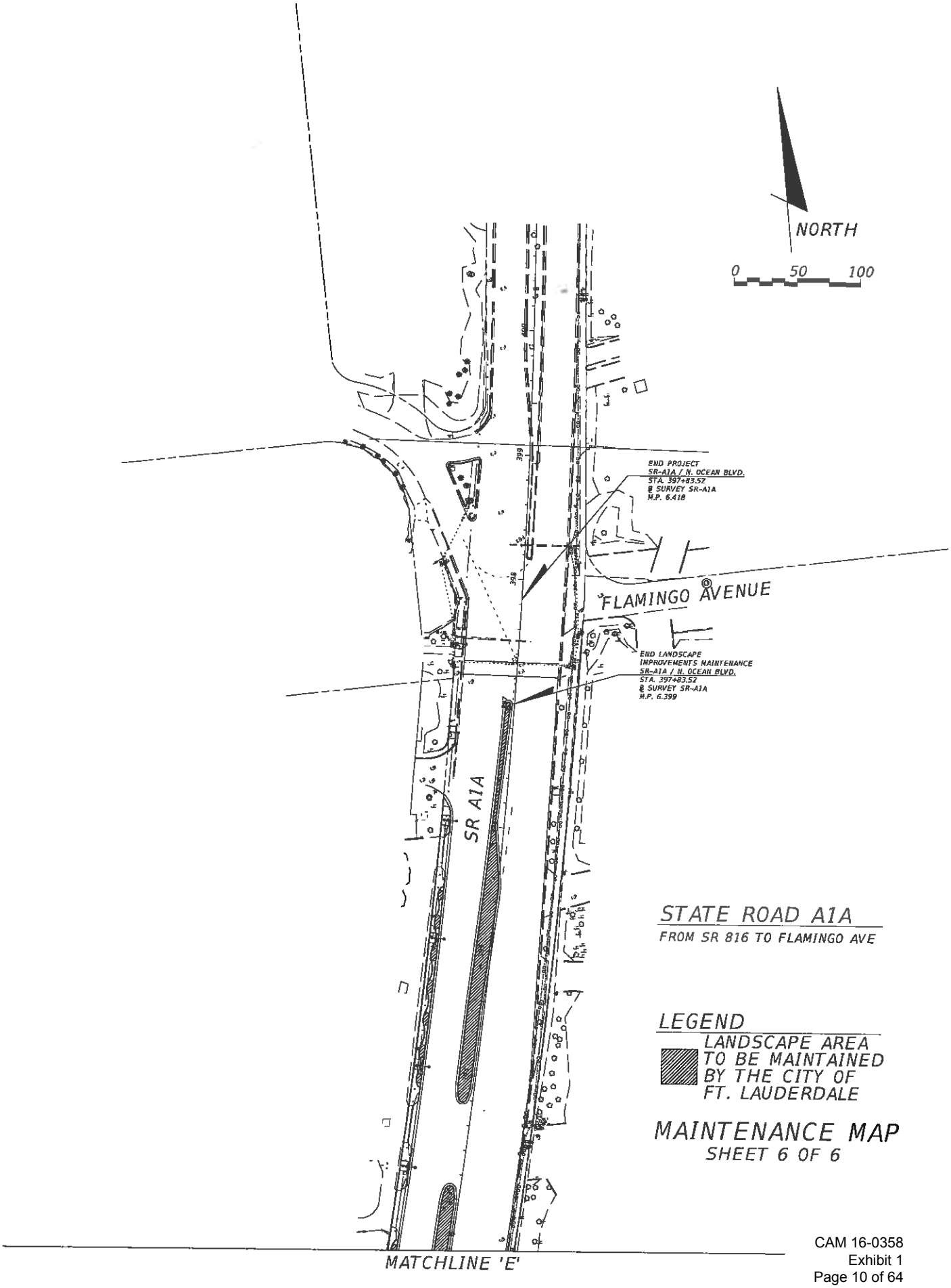
LANDSCAPE AREA TO BE MAINTAINED BY THE CITY OF FT. LAUDERDALE

MAINTENANCE MAP

SHEET 4 OF 6

CLPADT


MATCHLINE 'E'
NORTH
0 50 100
SR A1A
NE 41st STREET
STATE ROAD A1A
FROM SR 816 TO FLAMINGO AVE
LEGEND
LANDSCAPE AREA TO BE MAINTAINED BY THE CITY OF FT. LAUDERDALE
MAINTENANCE MAP
SHEET 5 OF 6
MATCHLINE 'D'


NORTH
0 50 100
END PROJECT
SR-A1A / N. OCEAN BLVD.
STA. 397+83.52
@ SURVEY SR-A1A
M.P. 6.418
FLAMINGO AVENUE
END LANDSCAPE
IMPROVEMENTS MAINTENANCE
SR-A1A / N. OCEAN BLVD.
STA. 397+83.52
@ SURVEY SR-A1A
M.P. 6.399
SR A1A
STATE ROAD A1A
FROM SR 816 TO FLAMINGO AVE
LEGEND
LANDSCAPE AREA
TO BE MAINTAINED
BY THE CITY OF
FT. LAUDERDALE
MAINTENANCE MAP
SHEET 6 OF 6
MATCHLINE 'E'

SECTION No.(s):	**860500**
S.R. No.(s):	**A1A**
FM No:	**431204-2-52-01**
COUNTY:	**BROWARD COUNTY**

EXHIBIT B

LANDSCAPE IMPROVEMENT PLANS

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

Please see attached plans prepared by: Atkins North America Inc.,
Harry L. Belton, R.L.A 0000900
Date: February 11, 2016

Sheets LD -1 - 41
CLT 1 - 3

CONSTRUCTION CONTRACT NO.

COMPONENTS OF CONTRACT PLANS SET

LANDSCAPE PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF LANDSCAPE PLANS

SHEET NO.	SHEET DESCRIPTION
LD-1	KEY SHEET
LD-2	SIGNATURE SHEET
LD-3	SUMMARY OF PAY ITEMS
LD-4	SUMMARY OF QUANTITIES
LD-5	TABULATION OF QUANTITIES / PLANT SCHEDULE
LD-6	PROJECT NOTES
LD-7 & LD-8	LANDSCAPE DETAILS
LD-09 THRU LD-22	LANDSCAPE PLAN
LD-23	IRRIGATION NOTES & DETAILS
LD-24 THRU LD-37	IRRIGATION PLAN
LD-38 THRU LD-39	STORMWATER POLLUTION PREVENTION PLAN
LD-40 THRU LD-41	TEMPORARY TRAFFIC CONTROL PLAN
CTL-1 THRU CTL-3	PROJECT SURVEY CONTROL

LIST OF REVISED INDEX DRAWINGS

INDEX NO.	SHEET NO.

GOVERNING STANDARDS AND SPECIFICATIONS:
Florida Department of Transportation, 2016 Design Standards and revised Index Drawings as appended herein, and January 2016 Standard Specifications for Road and Bridge Construction, as amended by Contract Documents.

For Design Standards click on the "Design Standards" link at the following web site:
http://www.dot.state.fl.us/rddesign/

For the Standard Specifications for Road and Bridge Construction click on the "Specifications" link at the following web site:
http://www.dot.state.fl.us/specificationsoffice/

TRANSPORTATION DESIGN FOR LIVABLE COMMUNITIES:
Contract Plans consider the standards set forth by Florida Department of Transportation Plans Preparation Manual, Volume 1, Chapter 21, Transportation Design for Livable Communities.

REVISIONS

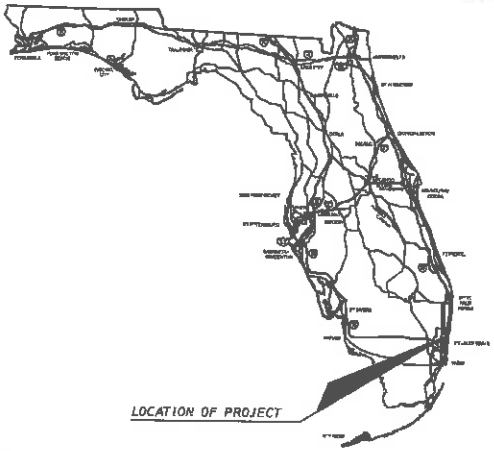
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

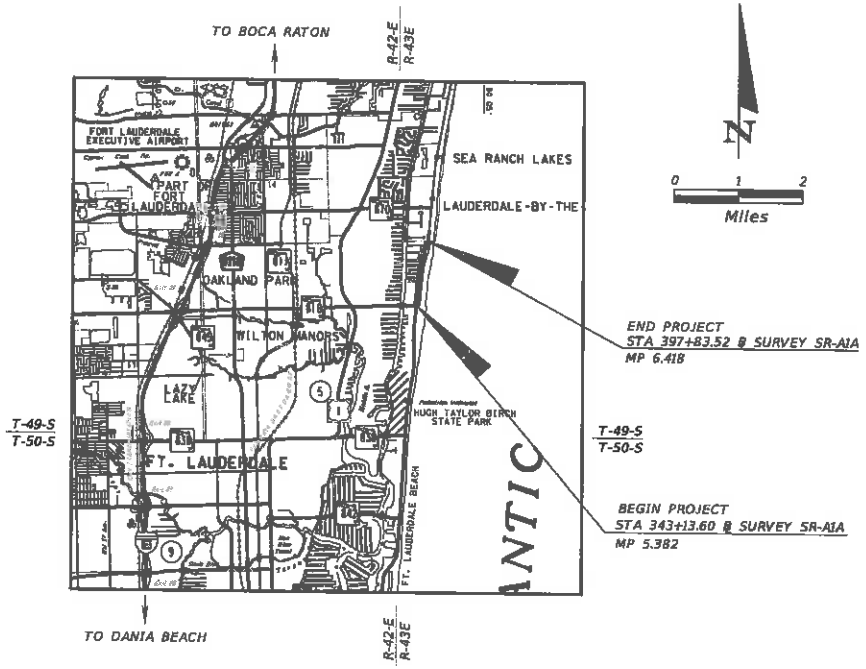
CONTRACT PLANS

FINANCIAL PROJECT ID 431204-2-52-01

BROWARD COUNTY (86050)

STATE ROAD NO. A1A
FROM OAKLAND PARK BOULEVARD TO FLAMINGO AVENUE





LANDSCAPE SHOP DRAWINGS TO BE SUBMITTED TO:

HARRY L. BELTON, R.L.A.
ATKINS NORTH AMERICA, INC.
3230 W. COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FLORIDA 33309
PHONE: (954) 733-7233

PLANS PREPARED BY:

ATKINS NORTH AMERICA, INC.
3230 W. COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FLORIDA 33309
PHONE: (954) 733-7233
VENDOR NO.: F-590-896-138
CONTRACT NO. C9915
CERTIFICATE OF AUTHORIZATION NO. 24

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

CONSTRUCTABILITY SUBMITTAL
FEBRUARY 11, 2016

LENGTH OF PROJECT

	LINEAR FEET	MILES
ROADWAY	5469.92	1.036
BRIDGES	0.000	0.000
NET LENGTH OF PROJECT	5469.92	1.036
EXCEPTIONS	0.00	0.00
GROSS LENGTH OF PROJECT	5469.92	1.036

KEY SHEET REVISIONS

DATE	DESCRIPTION

FDOT PROJECT MANAGER: JAMES HUGHES, P.E.

ROADWAY PLANS
ENGINEER OF RECORD: HARRY L. BELTON, R.L.A.

R.L.A. NO.: 900

FISCAL YEAR	SHEET NO.
16	LD-1

USER: KYJE6540 2/11/2016 3:20:26 PM H:\Transportation\43120425201_SR-A1A Stand Alone Landscape Project\43120425201

THIS DOCUMENT HAS BEEN SIGNED AND SEALED BY:

HARRY L. BELTON LICENSE No 900 STATE OF FLORIDA LANDSCAPE ARCHITECT

Harry L Belton
2016.02.17 14:45:49 -05'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

ATKINS
3230 W. COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FLORIDA 33309
PHONE: (954) 733-7233
VENDOR NO.: F-590-896-138-001
CERTIFICATE OF AUTHORIZATION NO. 24
HARRY L. BELTON, R.L.A. #900

THE ABOVE NAMED PROFESSIONAL LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G10-11.011, F.A.C.

LANDSCAPE PLANS:

SHEET NO.	SHEET DESCRIPTION
LD-1	KEY SHEET
LD-2	SIGNATURE SHEET
LD-5	TABULATION OF QUANTITIES / PLANT SCHEDULE
LD-6	PROJECT NOTES
LD-7 - LD-8	LANDSCAPE DETAILS
LD-9 - LD-22	LANDSCAPE PLAN
LD-23	IRRIGATION NOTES & DETAILS
LD-24 - LD-37	IRRIGATION PLAN

THIS DOCUMENT HAS BEEN SIGNED AND SEALED BY:

RAUL L. ANDUJAR LICENSE No 62989 STATE OF FLORIDA PROFESSIONAL ENGINEER

Raul Andujar
2016.02.17 14:42:30 -05'00'

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

ATKINS
3230 W. COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FLORIDA 33309
PHONE: (954) 733-7233
VENDOR NO.: F-590-896-138-001
CERTIFICATE OF AUTHORIZATION NO. 24
RAUL L. ANDUJAR, P.E. #62989

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

LANDSCAPE PLANS:

SHEET NO.	SHEET DESCRIPTION
LD-2	SIGNATURE SHEET
LD-3	SUMMARY OF PAY ITEMS
LD-4	SUMMARY OF QUANTITIES
LD-39 - LD-39	STORMWATER POLLUTION PREVENTION PLAN
LD-40 - LD-41	TEMPORARY TRAFFIC CONTROL PLAN

THIS DOCUMENT HAS BEEN SIGNED AND SEALED BY:

SAMUEL T. HALL License Number 6644 STATE OF FLORIDA Professional Surveyor and Mapper

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

WANTMAN GROUP, INC
2035 VISTA PARKWAY, SUITE 100
WEST PALM BEACH, FLORIDA 33411
PHONE: (954) 733-7233
VENDOR NO.: 65-0271367
CERTIFICATE OF AUTHORIZATION NO. 7055
SAMUEL T. HALL, PSM #6644

THE ABOVE NAMED PROFESSIONAL SURVEYOR AND MAPPER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 5J-17.062, F.A.C.

LANDSCAPE PLANS:

SHEET NO.	SHEET DESCRIPTION
CTL-1 - CTL-3	PROJECT NETWORK CONTROL
LD-2	SIGNATURE SHEET

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR A1A	BROWARD	431204-2-52-01

SIGNATURE SHEET

SHEET NO. LD-2

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02/11/2016 11:10:02 AM

FLORIDA DEPARTMENT OF TRANSPORTATION
PROJECT SUMMARY OF PAY ITEMS
FOR PROJECT: 431204-2-52-01

LEAD PROJECT : 431204-2-52-01 | DISTRICT : 04 | COUNTY/SECTION : 86050000

PROJECT(S) : 43120425201 | COUNTY : BROWARD

0200 SUMMARY OF ROADWAY

SPC	ALT	ITEM NUMBER	ITEM DESCRIPTION	UNIT	43120425201	QUANTITY TOTAL
		0101- 1-	MOBILIZATION 43120425201	LS	1.000	1.000
		0102- 1-	MAINTENANCE OF TRAFFIC 43120425201	(LS)	1.000	1.000
		0102- 60-	WORK ZONE SIGN	ED	1.000	1.000
		0102- 74- 1	CHANNELIZING DEVICE- TYPES I, II, DI, VP, DRUM, OR LCD	ED	1.000	1.000
		0102- 74- 2	CHANNELIZING DEVICE, TYPE III, 6'	ED	1.000	1.000
		0102- 74- 6	CHANNELIZING DEVICE- PEDESTRIAN LCD (LONGITUDINAL CHANNELIZING DEVICE)	ED	1.000	1.000
		0102- 76-	ARROW BOARD / ADVANCE WARNING ARROW PANEL	ED	1.000	1.000
		0102- 99-	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED	1.000	1.000
		0107- 1-	LITTER REMOVAL	AC	1.000	1.000
		0107- 2-	MOWING	AC	1.000	1.000
		0999- 25-	INITIAL CONTINGENCY AMOUNT, DO NOT BID 43120425201	LS	1.000	1.000

02/11/2016 11:10:02 AM

FLORIDA DEPARTMENT OF TRANSPORTATION
PROJECT SUMMARY OF PAY ITEMS
FOR PROJECT: 431204-2-52-01

LEAD PROJECT : 431204-2-52-01 | DISTRICT : 04 | COUNTY/SECTION : 86050000

PROJECT(S) : 43120425201 | COUNTY : BROWARD

0600 SUMMARY OF LANDSCAPE / PERIPHERAL

SPC	ALT	ITEM NUMBER	ITEM DESCRIPTION	UNIT	43120425201	QUANTITY TOTAL
		0580- 1- 1	LANDSCAPE COMPLETE- SMALL PLANTS 43120425201	LS	1.000	1.000
		0580- 1- 2	LANDSCAPE COMPLETE- LARGE PLANTS 43120425201	LS	1.000	1.000

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD, SUITE 100
FORT LAUDERDALE, FLORIDA 33309
(954) 733-7233
FBPE CERTIFICATE OF AUTHORIZATION NO. 24

RAUL L. ANDUJAR, P.E. #62989

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
AIA	BROWARD	431204-2-52-01

SUMMARY OF PAY ITEMS

SHEET NO. LD-3

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SUMMARY OF TEMPORARY TRAFFIC CONTROL PLAN ITEMS

PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	PHASE I			PHASE II			TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			DURATION DAYS	QUANTITY P	TOTAL P	DURATION DAYS	QUANTITY P	TOTAL P	P	F		
102-1	MAINTENANCE OF TRAFFIC	LS										
102-60	WORK ZONE SIGN	ED										
102-74-1	CHANNELIZING DEVICE- TYPES I, II, ID, VP, DRUM, OR LCD	ED										
102-74-2	CHANNELIZING DEVICE - TYPE III, 6'	ED										
102-74-6	CHANNELIZING DEVICE- PEDESTRIAN LCD	ED										
102-76	ARROW BOARD / ADVANCED WARNING ARROW	ED										
102-99	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED										

SUMMARY OF LITTER REMOVAL AND MOWING

CONST. PHASE	LOCATION	SIDE	DURATION (DAYS)	FREQUENCY (DAYS)	LITTER REMOVAL 0107 1					MOWING 0107 2					DESIGN NOTES	CONSTRUCTION REMARKS
	STA. TO STA.				AREA ID	CYCLES	AREA AC/CYCLE	TOTAL (AC) P	TOTAL (AC) F	AREA ID	CYCLES	AREA AC/CYCLE	TOTAL (AC) P	TOTAL (AC) F		
I	343+13.60 TO 397+83.52		40	30		2	1.000	1.000			2	1.000	1.000			
II	343+13.60 TO 397+83.53		40	30		2	1.000	1.000			2	1.000	1.000			
							SUB-TOTAL:	1.000				SUB-TOTAL:	1.000			
							TOTAL:	1.00				TOTAL:	1.00			

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD, SUITE 100
FORT LAUDERDALE, FLORIDA 33309
(954) 733-7233
FBPE CERTIFICATE OF AUTHORIZATION NO. 24

RAUL L. ANDUJAR, P.E. #62989

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

SUMMARY OF QUANTITES

SHEET NO. LD-4

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PLANT SCHEDULE

SYM	BOTANICAL NAME	COMMON NAME	INSTALLED SIZE	REMARKS	UNIT	SHEET LD-09	SHEET LD-10	SHEET LD-11	SHEET LD-12	SHEET LD-13	SHEET LD-14	SHEET LD-15	SHEET LD-16	SHEET LD-17	SHEET LD-18	SHEET LD-19	SHEET LD-20	SHEET LD-21	SHEET LD-22	
BA	BULNESIA ARBOREA	VERAWOOD	12'HT. x 5'SPR.	2" CAL.	EA	.	.	.	1	1	3	1	2	2	2	4	2	.	.	.
BS	BURSERA SIMARUBA	GUMBO LIMBO	16'HT. x 6'SPR.	4" CAL.	EA	.	.	1	8	4	6	6	14	3	13	6	10	6	2	.
CES	CONOCARPUS ERECTUS 'SERICEUS'	SILVER BUTTONWOOD	12'HT. x 6'SPR.	STANDARD	EA	.	.	.	.	.	3	3	6	.	6	.	3	.	.	.
CF	CAESALPINEA FERREA	BRAZILIAN IRONWOOD	12'HT. x 5'SPR.	2" CAL.	EA	.	1	.	.	.	2	.	.	1	1	.	1	.	.	.
CNM	COCOS NUCIFERA 'MAYPAN'	MAYPAN COCONUT PALM	12'-16' C.T.	SEE PLAN FOR HT'S	EA	.	4	3	4	2	7	5	8	6	15	4	10	1	.	.
CS	CORDIA SEBESTIANA	GIEGER TREE	12'HT. x 5'SPR.	2" CAL.	EA	.	.	3	.	.	3	3	3	3	4	.	.	.	.	.
PDM	PHOENIX DACTILIFERA 'MEDJOOL'	MEDJOOL DATE PALM	16' C.T.	MATCHED	EA	2	3	4	3	4	4	.	2	4	1	3	3	3	4	.
QV	QUERCUS VIRGINIANA	LIVE OAK	16'HT. x 5'SPR.	3" CAL.	EA	2	.	1	6	5	1	4	8	3	9	5	4	9	.	.
SP	SABAL PALMETTO	SABAL PALM	12'-24' C.T.	SEE PLAN FOR HT'S	EA	.	.	1	14	12	11	8	6	3	8	8	6	1	1	.
TH	TABEBUIA HETEROPHYLLA	PINK TRUMPET TREE	12'HT. x 5'SPR.	2" CAL.	EA	.	.	.	3	2	1	.	.	.	.	.	.	.	.	.
TR	THRINAX RADIATA	FLORIDA THATCH PALM	5'-7' O.A.	STAGGER HIEGHTS	EA	.	.	8	.	.	5	.	.	.	.	15	.	.	.	.
VM	VEITCHIA MONTGOMERYANA	MONTGOMERY PALM	6'-12' GREY WOOD	SEE PLAN FOR HT'S	EA	.	17	12	8	16	7	11	9	3	7	3	.	.	.	.
CA	CRINUM ASIATICUM	CRINUM LILY	30" HT. X 30" SPR.		EA	.	.	3	.	.	5	5	6	8	6	6	8	.	.	.
CES	CONOCARPUS ERECTUS 'SERICEUS'	SILVER BUTTONWOOD	18" HT. X 18" SPR.		EA	.	.	.	38	17	16	.	18	.	115	5	48	10	.	.
CI	CHRYSOBALANU ICACO 'RED TIP'	RED TIP COCOPLUM	18" HT. X 16" SPR.		EA	.	.	.	88	40	20	.	20	.	44	20	52	74	32	.
CVM	CODIAEUM VARIEGATUM 'MAMMEY'	MAMMEY CROTON	16" HT. X 16" SPR.		EA	.	19	5	.	.	15	20	33	17	25	21	23	.	.	.
ING	IXORA 'NORA GRANT'	NORA GRANT IXORA	18" HT. X 16" SPR.		EA	.	7	28	.	.	22	36	13	12	20	.	20	.	.	.
JB	JUSTICIA BRANDEGEANA	SHRIP PLANT	16" HT. X 16" SPR.		EA	.	.	.	.	.	16	7	33	.	15	18	11	.	.	.
PRC	PHILODENDRON 'ROJO CONGO'	ROJO CONGO PHILODENDRON	30" HT. X 30" SPR.		EA	.	3	.	.	.	3	3	3	.	5	.	5	.	.	.
PX	PHILODENDRON 'XANADU'	XANADU PHILODENDRON	30" HT. X 30" SPR.		EA	.	5	.	.	.	.	5	5	.	8	.	.	.	.	.
RE	RHAPIS EXCELSA	LADY PALM	24" HT. X 16" SPR.	3 STEMS MIN.	EA	.	.	.	.	.	3	5	8	3	3	5	5	.	.	.
SR	STRELITZIA REGINAE	BIRD OF PARADISE	30" HT. X 30" SPR.		EA	.	3	.	8	8	7	3	14	.	9	5	9	4	.	.
ZF	ZAMIA FURFURACEA	CARDBORD PALM	30" HT. X 30" SPR.		EA	1	7	5	4	6	6	.	6	.	.	3	3	6	3	.
FMG	FICUS MICROCARPA 'GREEN ISLAND'	GREEN ISLAND FICUS	16" HT. X 16" SPR.	24" O.C.	EA	.	201	86	250	270	212	136	130	340	215	272	225	60	.	.
JC	JUNIPERUS CONFERTA 'BLUE PACIFIC'	BLUE PACIFIC JUNIPER	8" HT. X 12" SPR.	18" O.C.	EA	170	520	420	412	145	.	.	68	.	.	.	.	450	.	.
LM	LIRIOPE MUSCARI	LILY TURF	6" HT. X 6" SPR.	12" O.C.	EA	.	.	150	.	.	400	230	455	465	650	335	465	.	.	.
NE	NEPHROLEPIS EXALTATA	BOSTON FERN	15" HT. X 15" SPR.	18" O.C.	EA	.	195	90	.	.	305	145	590	.	370	242	495	.	.	.
NF	NEPREGELIA 'FIREBALL'	FIREBALL BROMELIAD	6" HT. X 6" SPR.	12" O.C.	EA	.	.	25	295	345	290	.	295	.	785	75	365	50	75	.
PM	PILEA MICROPHYLLA	ARTILLARY FERN	6" HT. X 6" SPR.	12" O.C.	EA	.	.	10	450	380	230	.	120	.	200	120	240	390	200	.
PT	PITTOSPORUM TOBIRA 'VARIEGATA'	VARIEGATED PITTOSPORUM	15" HT. X 15" SPR.	18" O.C.	EA	62	259	324	145	.	.	.	20	.	.	.	.	300	.	.
	ROOT BARRIER			SEE PLANS	LF	54	10	35	282	190	251	230	312	190	317	203	233	176	14	.
	BONDED AGGREGATE			SEE PLANS	SF	123	.	41	607	421	294	294	287	246	354	231	294	395	26	.
	BENCHES			SEE PLANS	EA	.	3	2	.	.	3	1	2	3	2	2	2	.	.	.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

TABULATION OF QUANTITIES
PLANT SCHEDULE

SHEET NO.
LD-5

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GENERAL NOTES

1) REFER TO THE "NETWORK CONTROL SHEET" FOR HORIZONTAL AND VERTICAL DATUM'S USED ON THIS PROJECT.

ENVIRONMENTAL NOTES

1) ANY MATERIAL TO BE STOCKPILED FOR PERIODS GREATER THAN 24 HOURS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES.

UTILITY NOTES

1)

UTILITY OWNER	TELEPHONE NUMBER	CONTACT
AT&T FLORIDA	(954) 723-2540	OTIS KEEVE
BCTED	(954) 847-2641	SHARON GROSS
CITY OF FORT LAUDERDALE	(954) 828-7830	JON STAHL
COMCAST	(954) 239-8386	KEITH SWINT
FPL DISTRIBUTION	(954) 321-2056	BYRON SAMPLE
TECO PEOPLES GAS	(954) 453-0812	MAX CHAMORRO

LANDSCAPE NOTES

1)BEFORE THE PRE-CONSTRUCTION MEETING, SUBMIT FOR APPROVAL:
1-1) REGISTRATION WITH THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES DIVISION OF PLANT INDUSTRY;
1-2) LANDSCAPE CONTRACTOR CERTIFICATION, BY THE FLORIDA NURSERY, GROWERS, AND LANDSCAPE ASSOCIATION;
1-3) ARBORIST CERTIFICATION, BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE;
1-4) UNIT COST BREAKDOWN FOR EACH ITEM OF WORK;
1-5) WEED CONTROL PRODUCT INFORMATION AND APPLICATION PROCEDURES;
1-6) SOIL AMENDMENT PRODUCT INFORMATION AND APPLICATION PROCEDURES;
1-7) FERTILIZER PRODUCT INFORMATION AND APPLICATION PROCEDURES.

2) A CERTIFIED LANDSCAPE CONTRACTOR SHALL DIRECT LANDSCAPE OPERATIONS.

3) BACKFILL SOIL AMENDMENT:
BACKFILL FOR PLANTING HOLES SHALL BE A MIX OF ONE PART 100 PERCENT DECOMPOSED COMPOST TO EVERY 3 PARTS OF EXISTING SOIL.

4) SHRUB BED PREPARATION:
ALL EXISTING GRASS OR OTHER HERBACEOUS MATERIALS WITHIN THE LIMITS OF PROPOSED PLANTING BEDS, SHALL BE REMOVED FROM THE PROJECT

5) FERTILIZER:
ALL PLANTING IS TO RECEIVE AN APPLICATION OF FERTILIZER AT THE TIME OF PLANTING. FERTILIZER IS TO HAVE THE COMPOSITION OF 8% NITROGEN, 10%PHOSPHORUS, AND 10% POTASSIUM WITH MINOR ELEMENTS OF SULFUR, IRON, MANGANESE, AND MAGNESIUM. FERTILIZER SHALL BE APPLIED AT A RATE OF 1.5 POUNDS PER 100 SQUARE FEET.

6) PRUNING:
TREE PRUNING SHALL BE DIRECTED BY A CERTIFIED ARBORISTAND FOLLOW ANSI A300 PART 1 PRUNING STANDARDS. PRUNING ON INSTALLED TREES IS REQUIRED AT THE TIME OF INSTALLATION AND THROUOUT THE ESTABLISHMENT PERIOD FOR THE FOLLOWING REASONS:
6-1) REMOVE CROSSING, DEAD, DAMAGED, OR CIRCLING ROOTS
6-2) REMOVE CROSSING, DEAD, DAMAGED, OR CO-DOMINANT BRANCHING
6-3) MAINTAIN F.D.O.T. MAINTENANCE RATING PROGRAM STANDARDS
6-4) MAINTAIN CLEAR SIGHT REQUIREMENTS
6-5) MAINTAIN VISABILITY OF SIGNS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
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STATE OF FLORIDA
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A1A	BROWARD	431204-2-52-01

PROJECT NOTES

SHEET NO. LD-6

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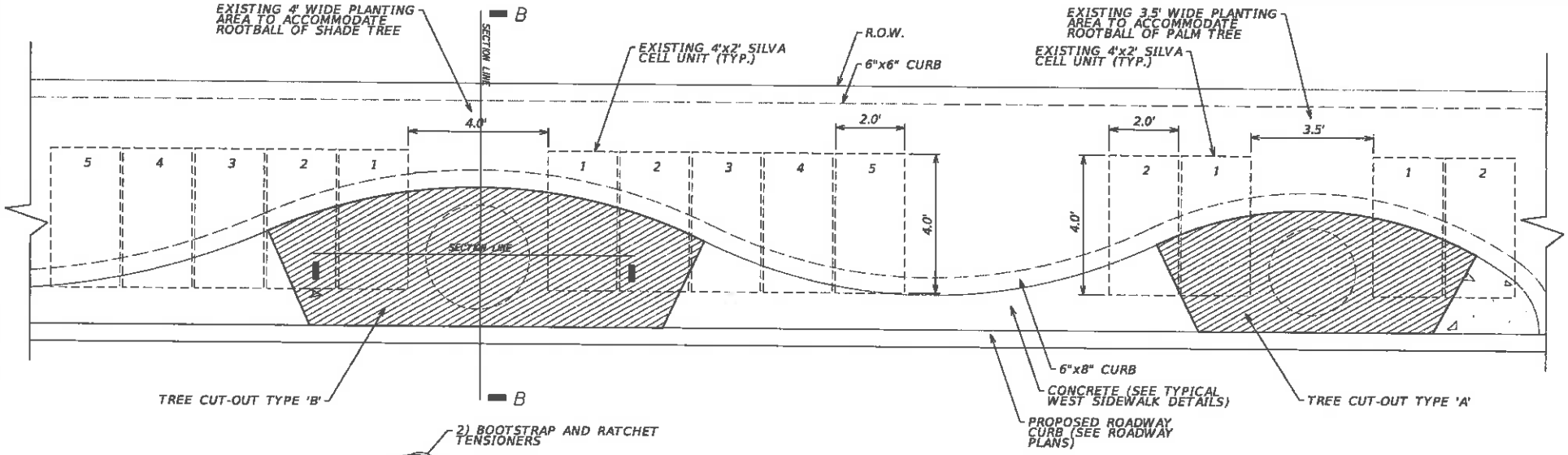
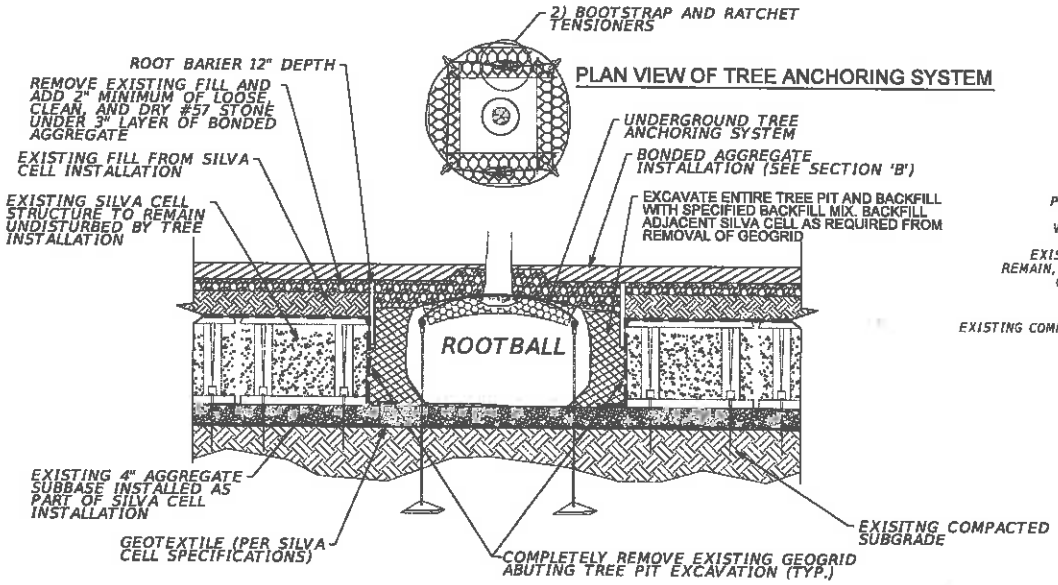
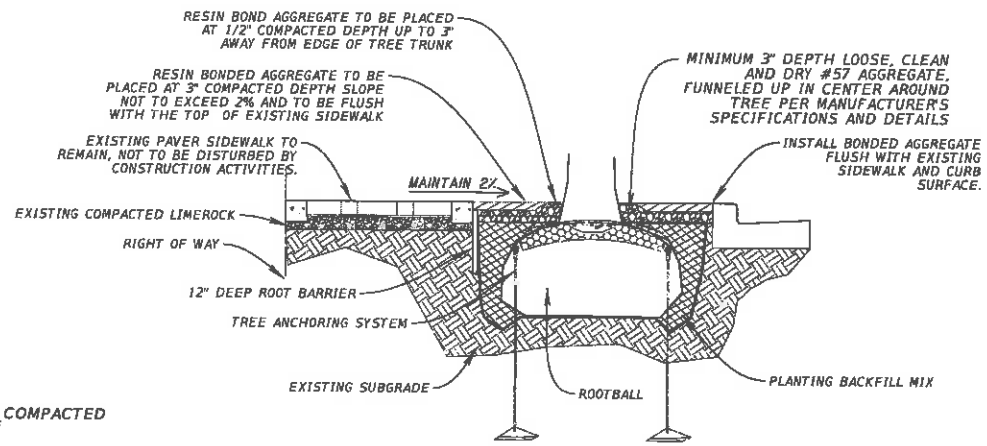




TREE CUTOUT TREE INSTALLATION DETAIL - SECTION 'A'

NOT TO SCALE



BONDED AGGREGATE INSTALLATION DETAIL - SECTION 'B'

NOT TO SCALE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

LANDSCAPE DETAILS

SHEET NO. LD-7

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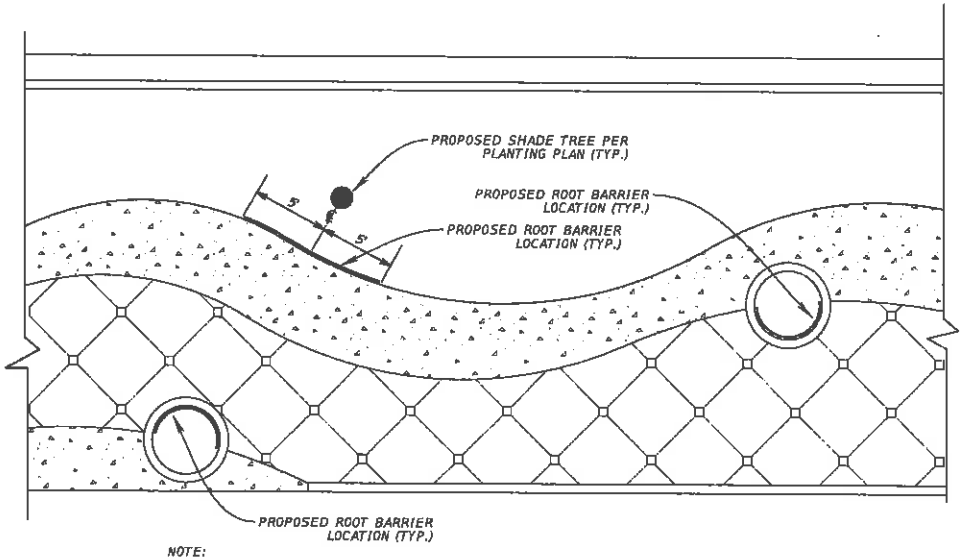
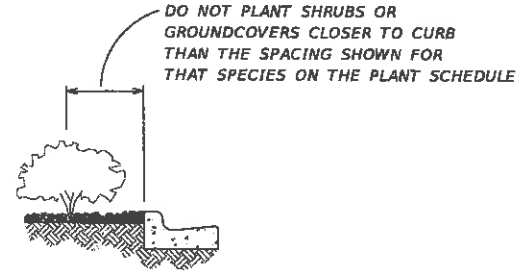


NOTE:

1. SEE DETAIL SHEET LD-7 FOR ROOT BARRIER LOCATIONS ON WEST SIDE OF ROADWAY
2. SHADE TREE SPECIES FOR THIS DETAIL ARE: BURSERA SIMARUBA, CAESALPINEA FERREA & QUERCUS VIRGINIANA

ROOT BARRIER LOCATIONS

NOT TO SCALE



CURB OFFSET DETAIL

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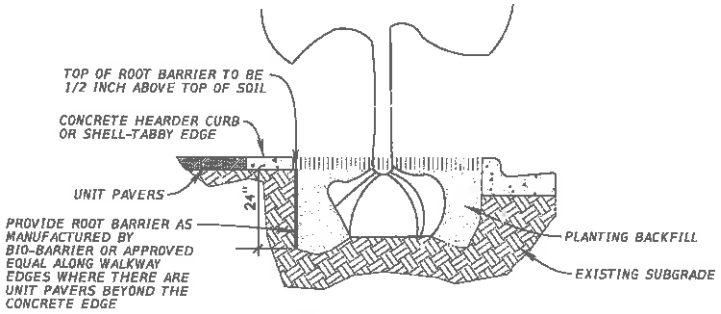

ROOT BARRIER DETAIL

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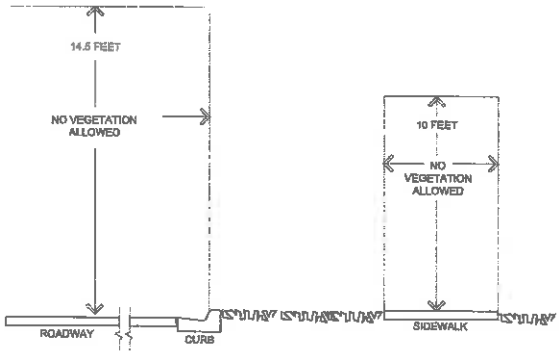

MAINTENACE RATING PROGRAM REQUIREMENTS

NOT TO SCALE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

LANDSCAPE DETAILS

SHEET NO. LD-8

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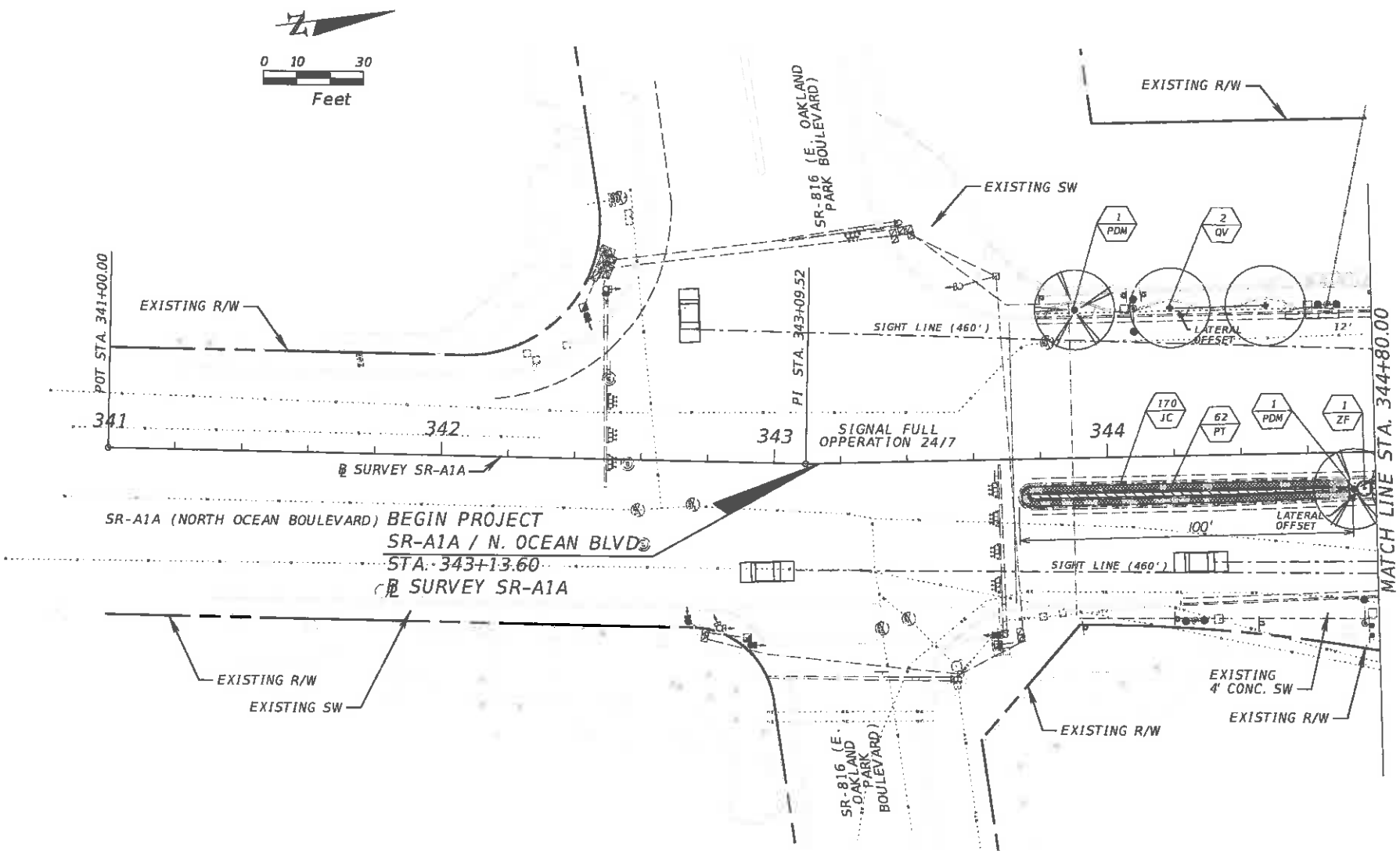

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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO. LD-9

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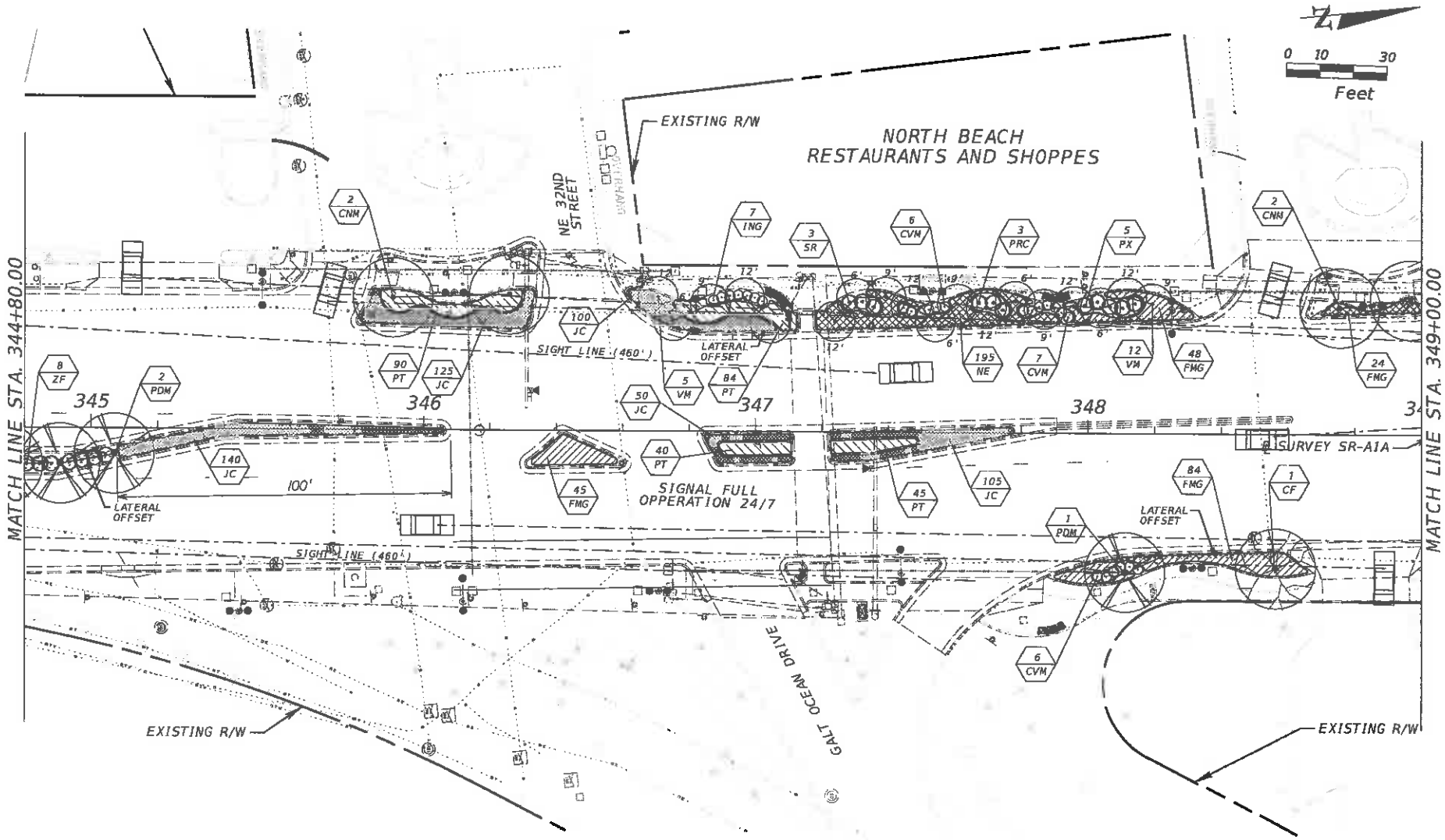

REVISIONS			
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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
LD-10

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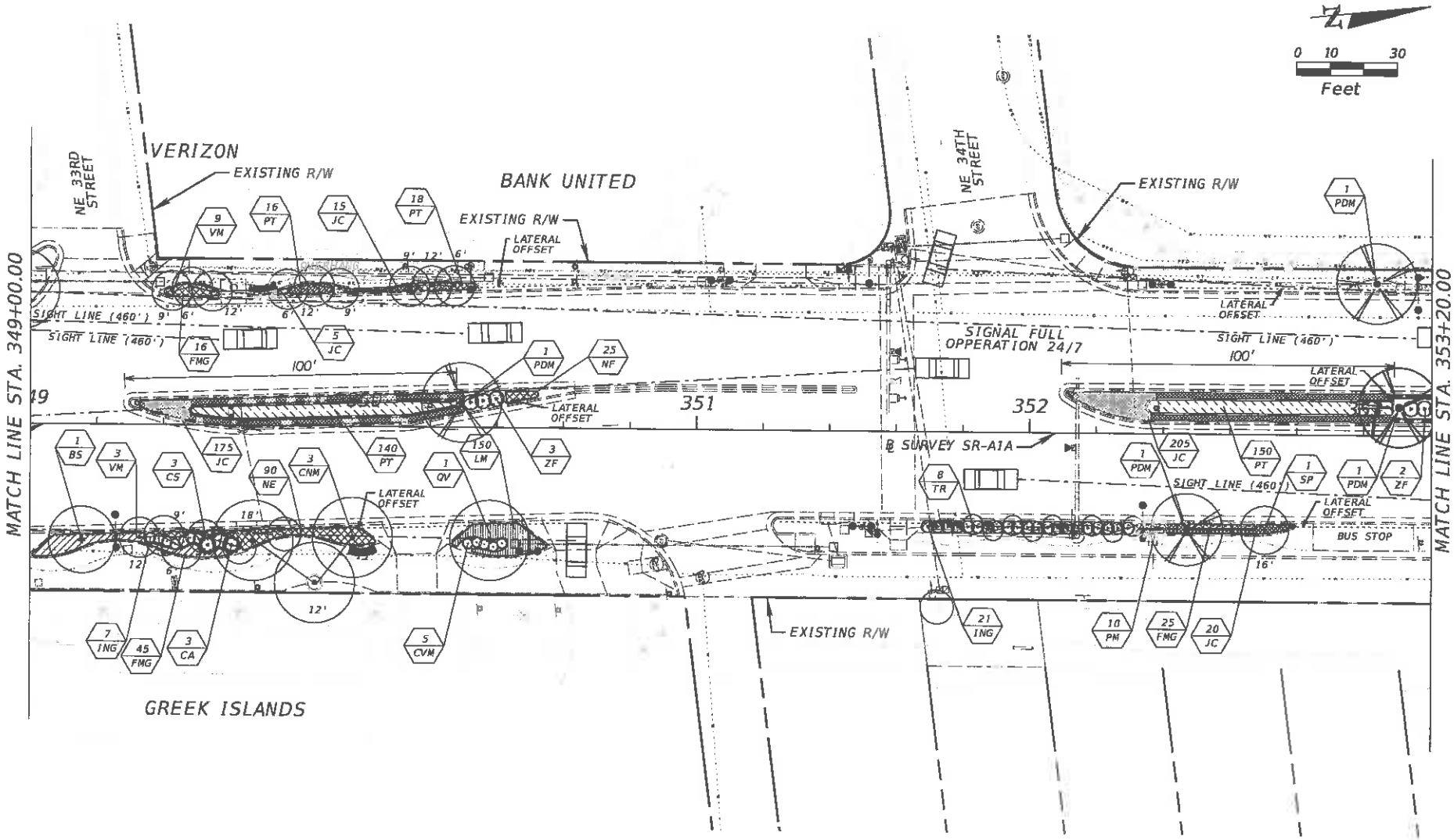

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
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FBPE CERTIFICATE OF AUTHORIZATION No. 24

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STATE OF FLORIDA
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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

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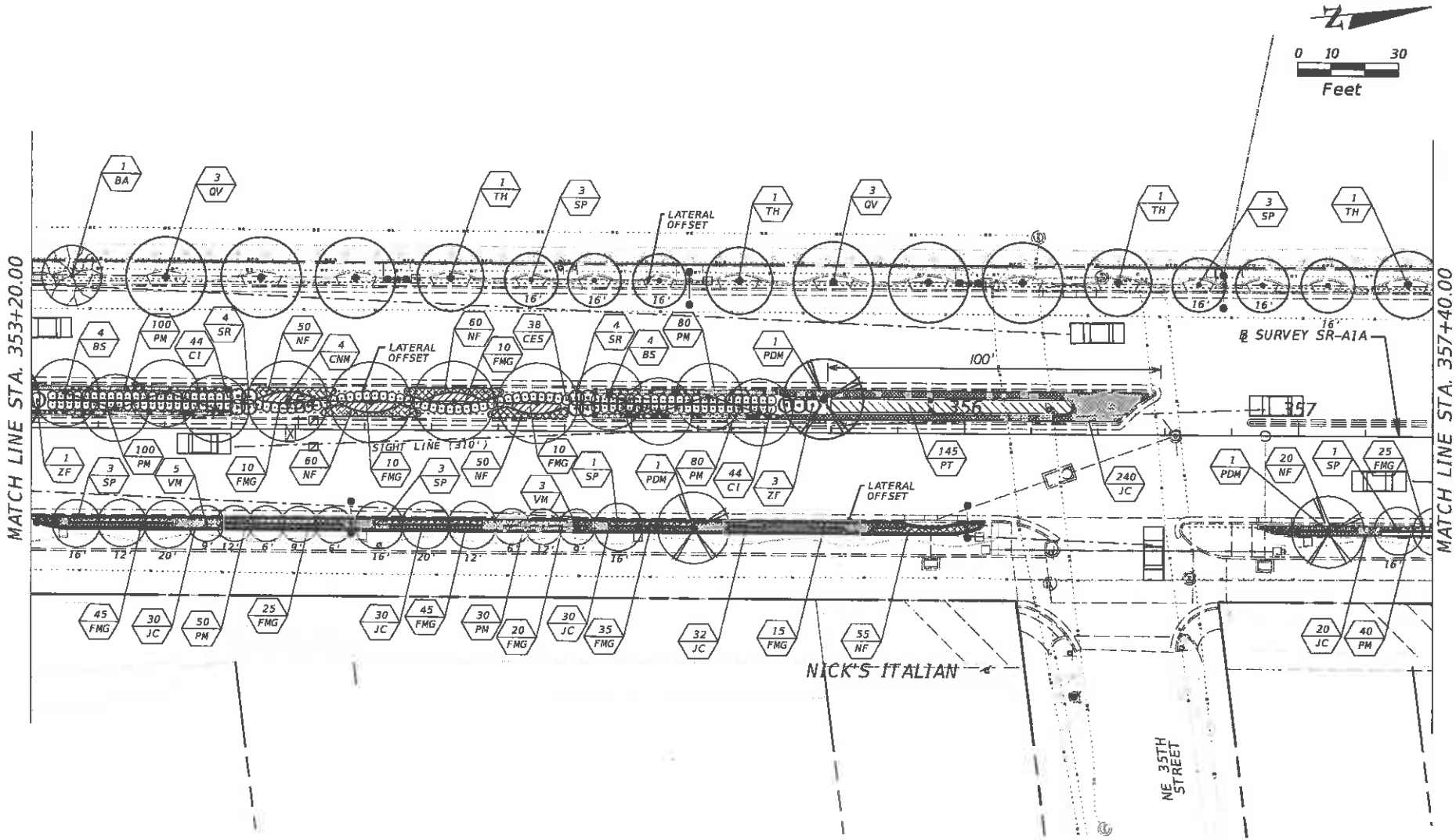

REVISIONS			
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STATE OF FLORIDA
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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

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LD-12

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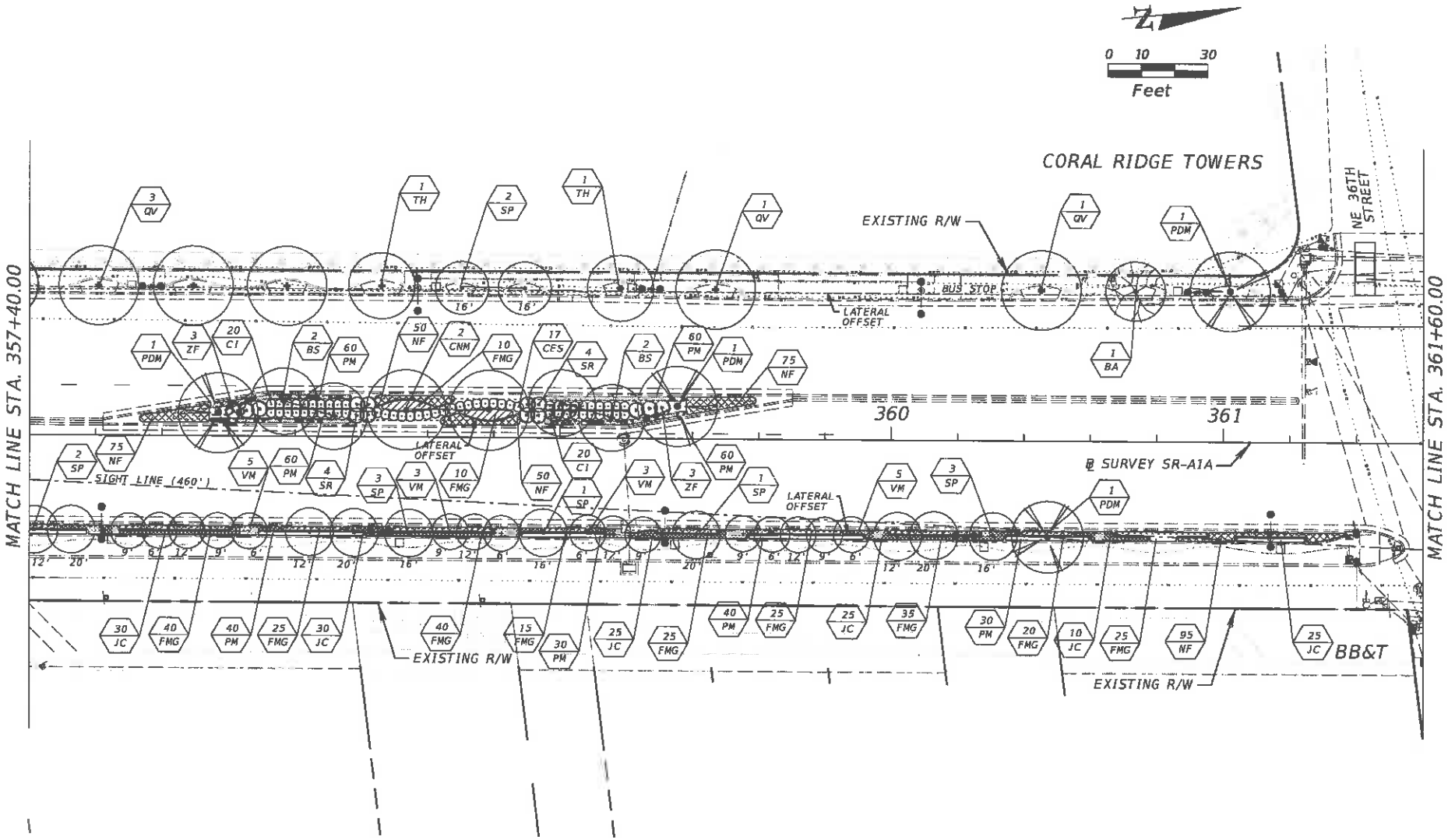

REVISIONS			
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ATKINS NORTH AMERICA, INC.
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HARRY L. BELTON, P.L.A. 900

STATE OF FLORIDA
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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

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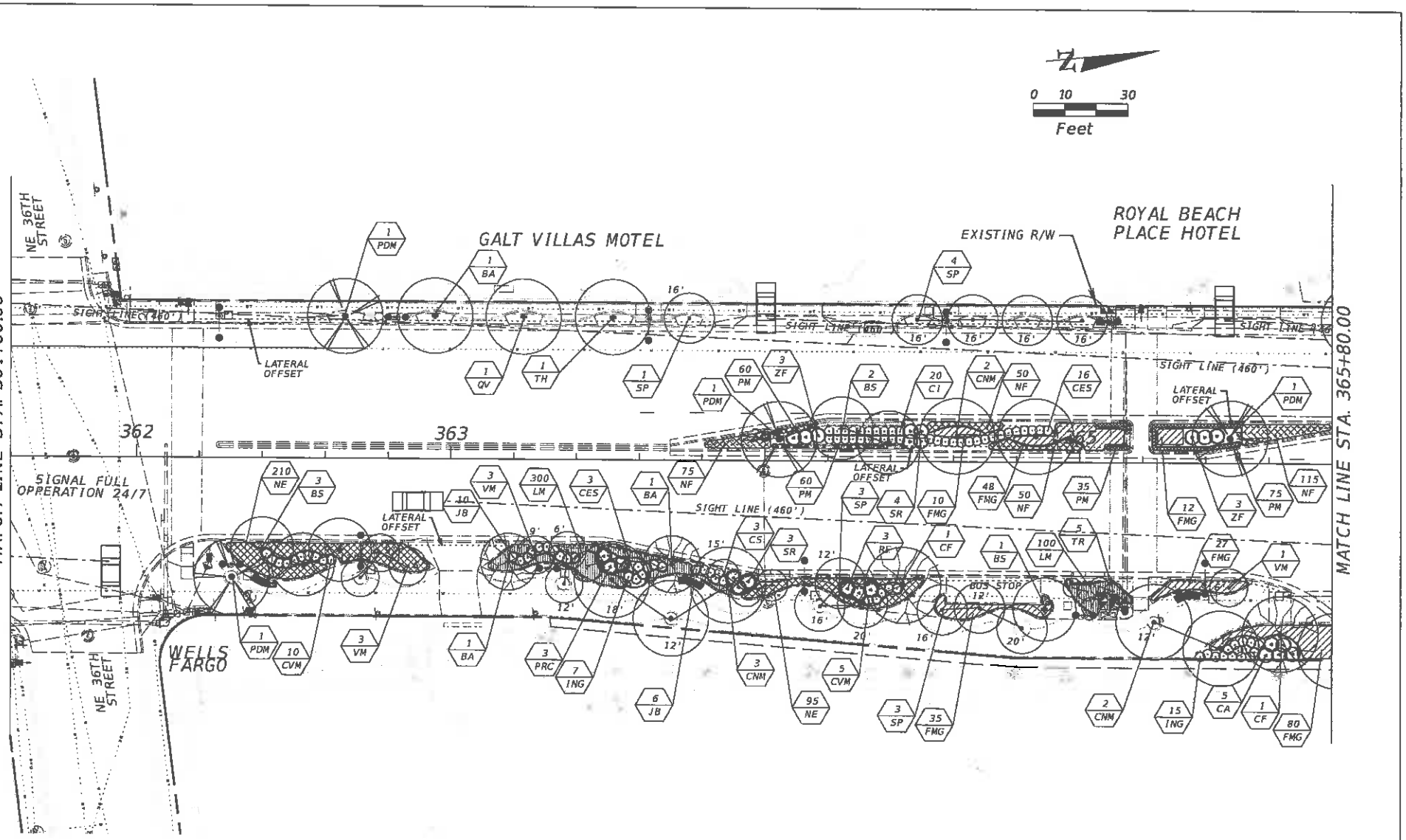

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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

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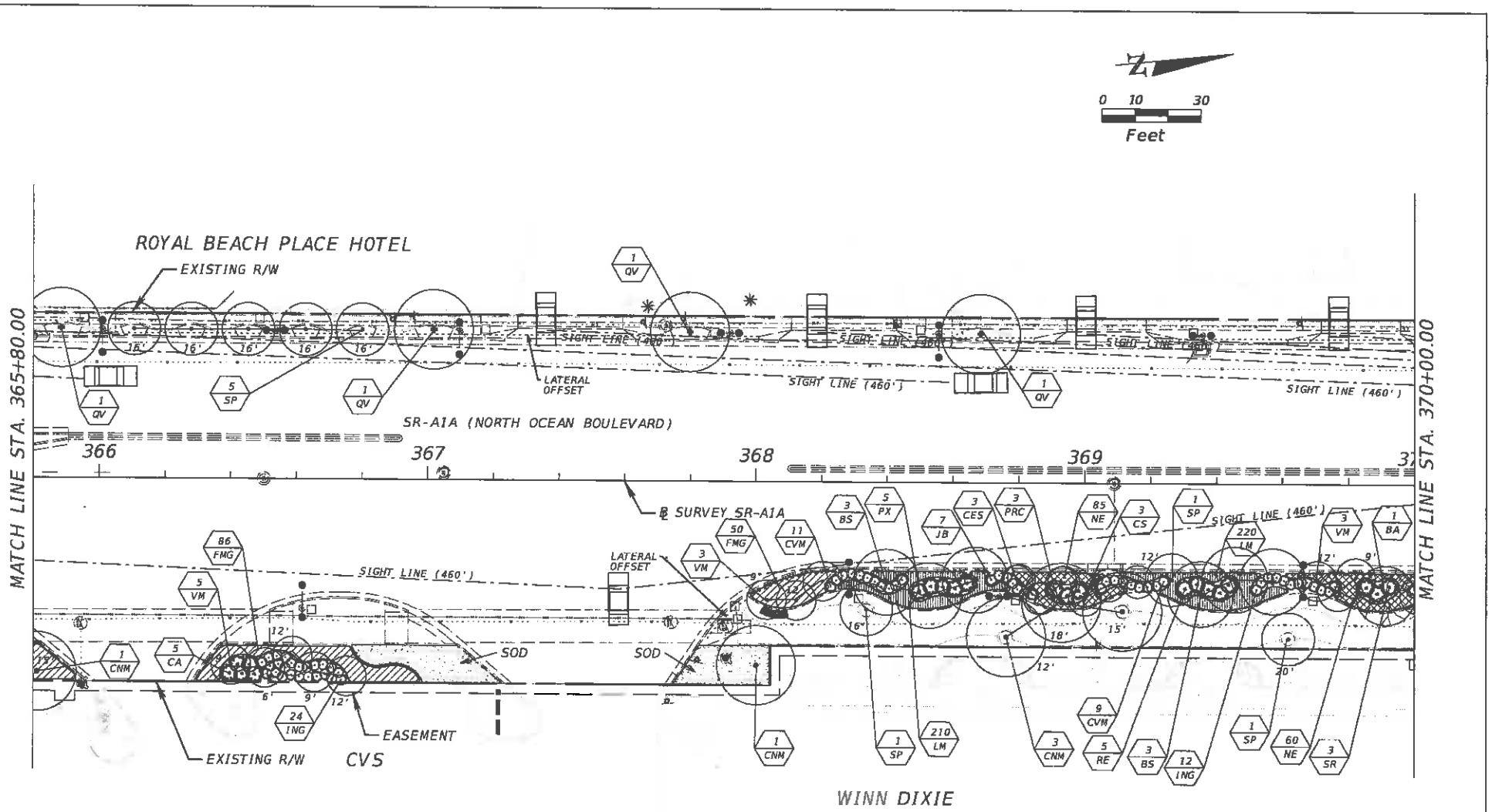

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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
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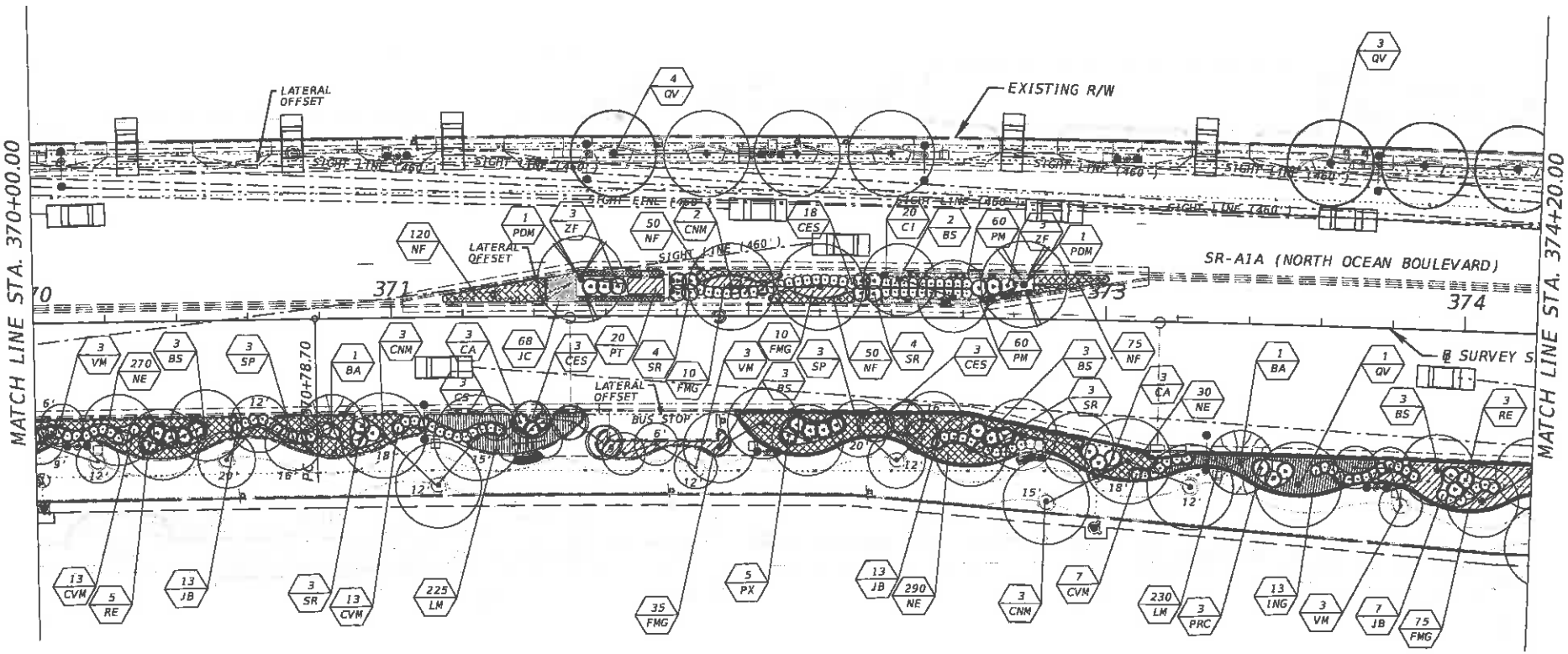

REVISIONS			
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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
LD-16

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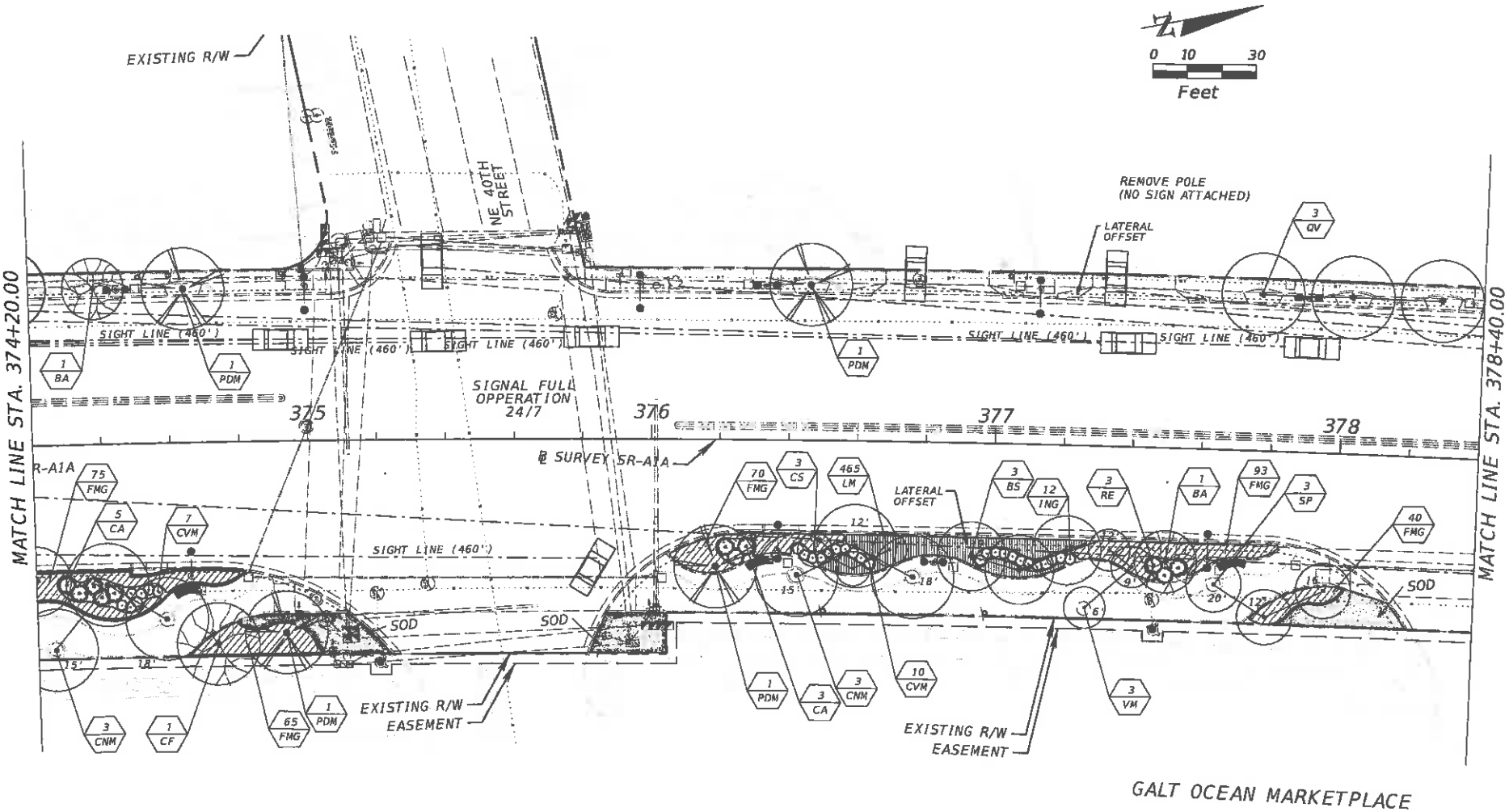

REVISIONS			
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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
LD-17

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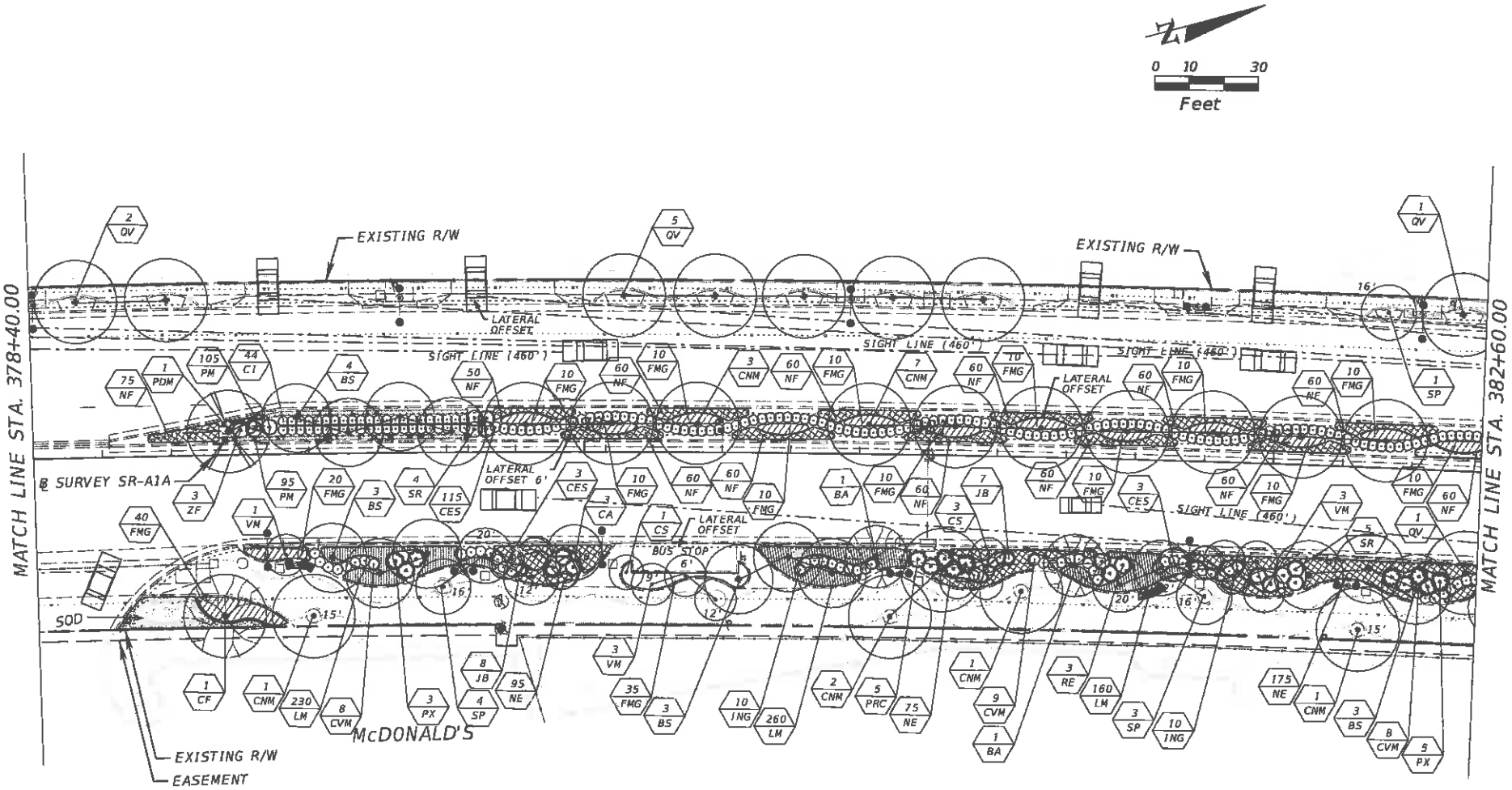

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A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
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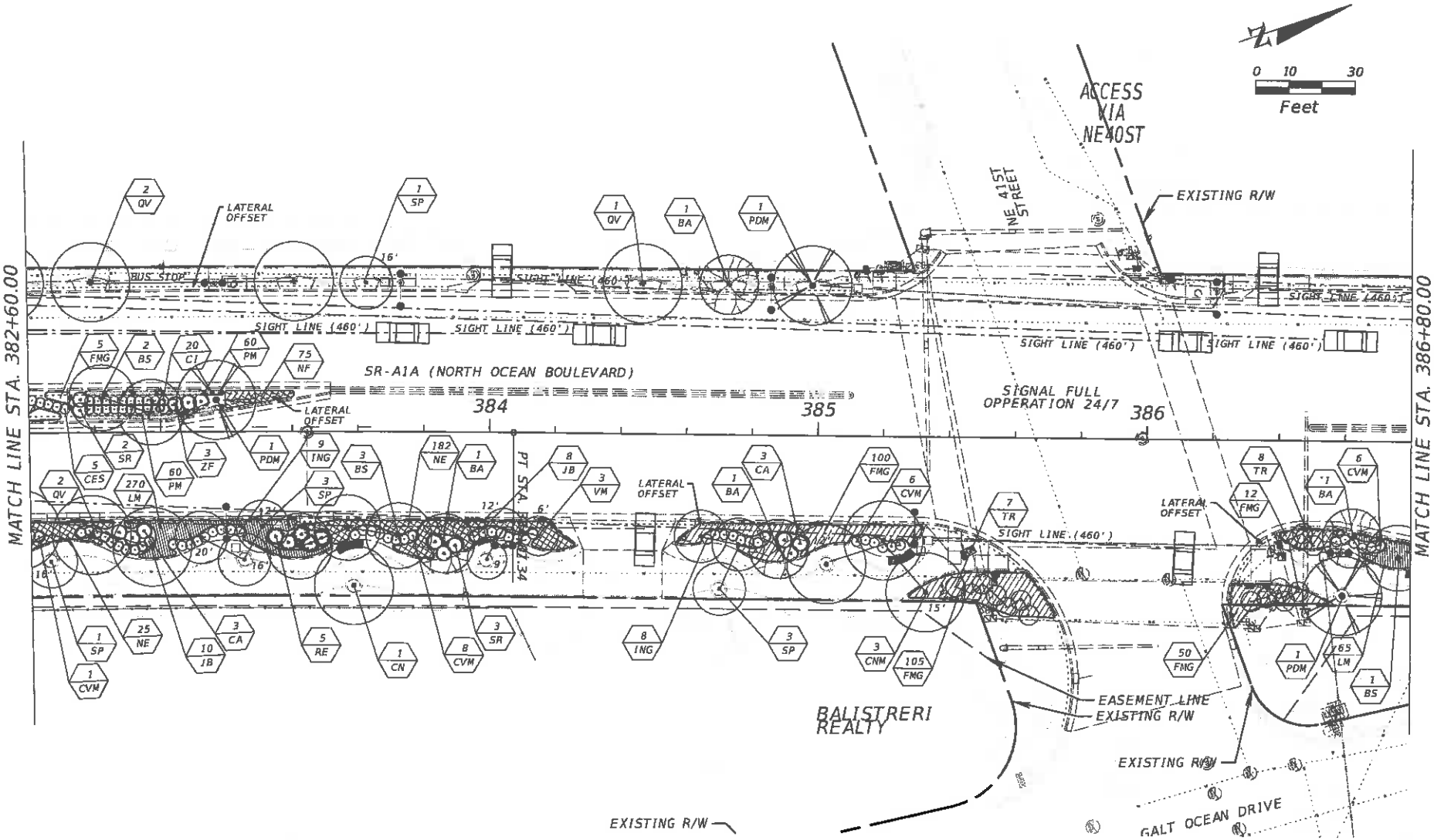

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LANDSCAPE PLAN

SHEET NO. LD-19

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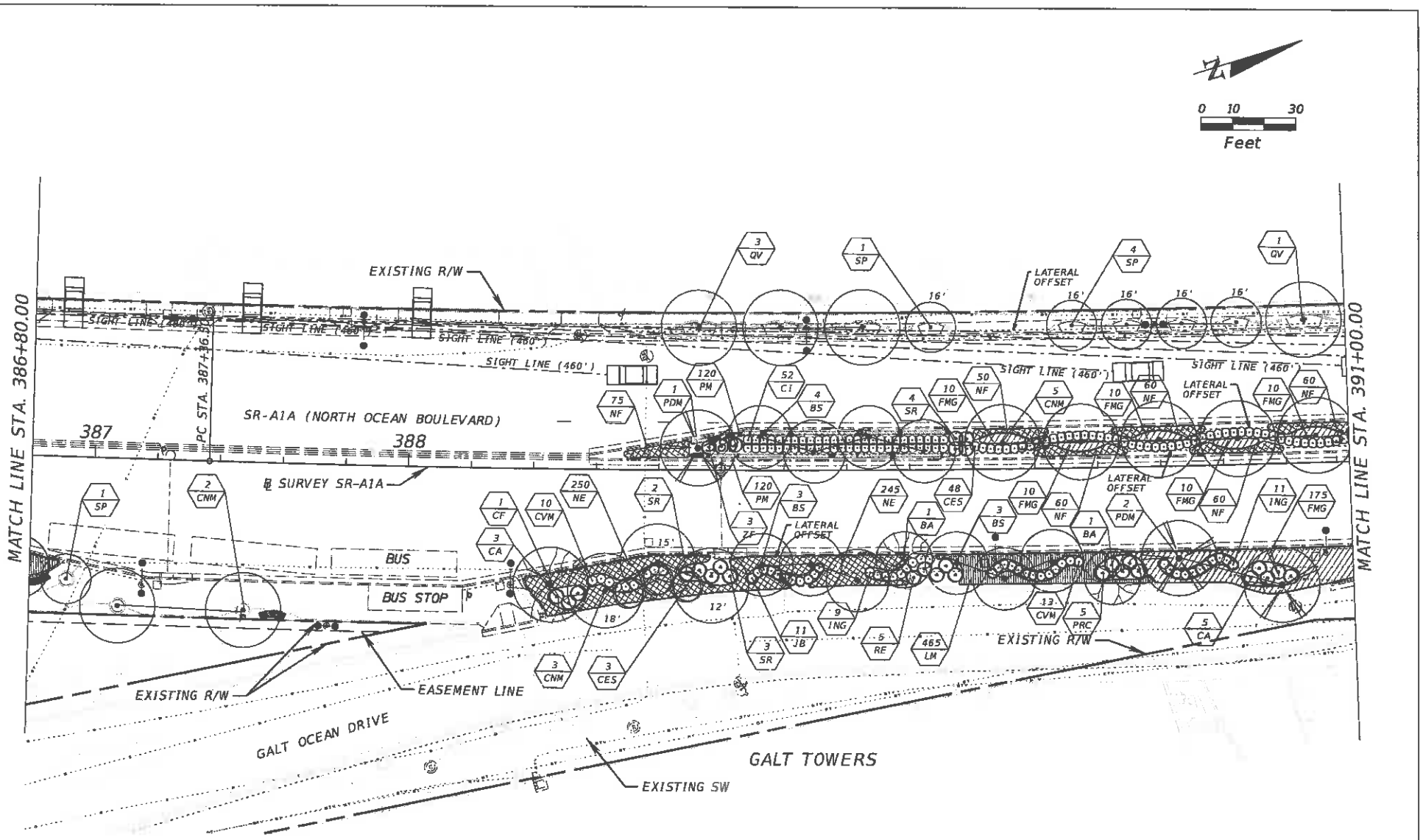

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
LD-20

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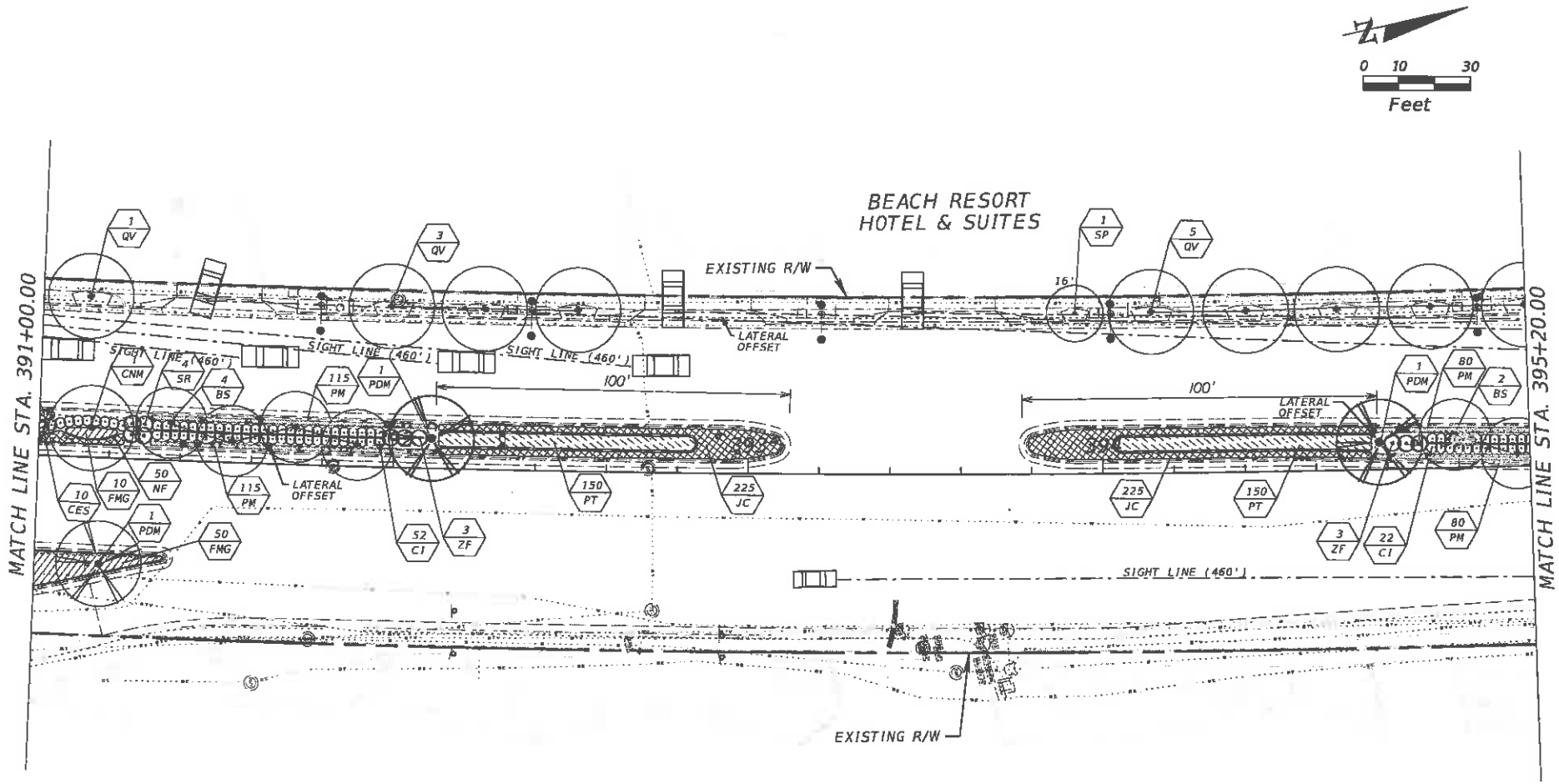

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
LD-21

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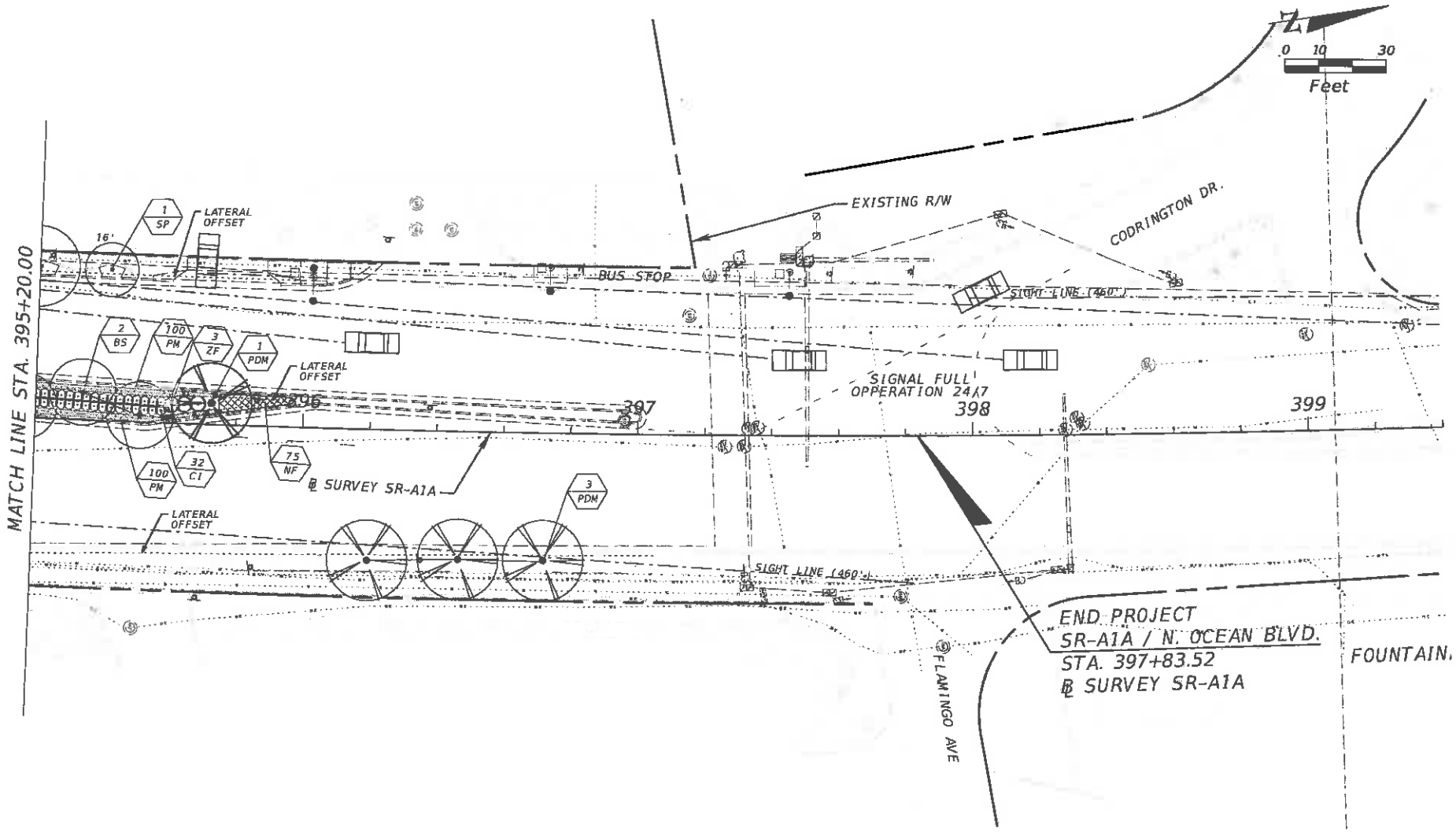


REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

LANDSCAPE PLAN

SHEET NO.
LD-22

KYJE6540 2/11/2014 3:20:57 PM H:\Transportation\431204052\01_SR-A1A Stand Alone Landscape Project\431204252.01

IRRIGATION NOTES

1) THE IRRIGATION CONTRACTOR SHALL BE CERTIFIED BY THE IRRIGATION ASSOCIATION AND SHALL BE ON SITE TO DIRECT ALL IRRIGATION CONSTRUCTION ACTIVITIES.

2) ALL MATERIALS FOR THIS PROJECT SHALL BE NEW. ALL COMPONENTS SHALL HAVE MARKINGS DESIGNATING THE USE OF NON-POTABLE WATER, I.E. PURPLE CAPS, BOX COVERS, PIPING, ETC. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR APPROVAL BY THE PROJECT ENGINEER.

3) THE CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED PRIOR TO START OF CONSTRUCTION. CONTACT: XXXX XXXX 954-XXX-XXXX

4) BACKFLOW PREVENTION SHALL BE IN ACCORDANCE TO LOCAL CODE.

5) NO EXCAVATION SHALL TAKE PLACE UNTIL ALL EXISTING UTILITIES HAVE BEEN LOCATED ON SITE. CONTACT 'SUNSHINE' AT 811 AND THE PUBLIC WORKS DEPARTMENT TWO BUSINESS DAYS PRIOR TO EXCAVATION.

6) PLANS ARE SHOWN SCHEMATICALLY FOR GRAPHIC CLARITY. ALL EQUIPMENT SHALL BE INSTALLED IN PERVIOUS AREA (EXCEPT FOR SLEEVING) AND WITHIN THE PROPERTY.

7) ZONE LINES ARE DESIGNED TO PERFORM AT 40 PSI AT THE LAST HEAD FOR ROTORS, AND 30 PSI TO THE LAST HEAD FOR SPRAYS.

8) ZONE LINE PIPING SHALL BE PVC SCHEDULE 40 PLASTIC PIPE OR APPROVED EQUAL.

9) THE IRRIGATION MAIN LINE SHALL BE SCHEDULE 40 PVC INSTALLED MINIMUM 18" BELOW GRADE.

10) IRRIGATION SLEEVES ARE EXISTING

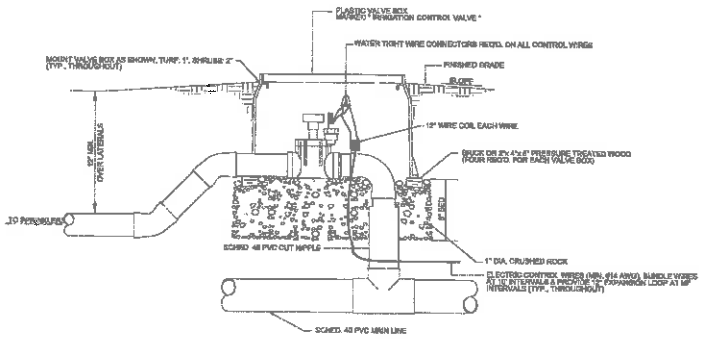
11) IRRIGATION LINES AND FITTINGS SHALL BE SOLVENT WELDED WITH WELD-ON 27 GREY WITH WELD ON P70 PURPLE PRIMER, OR APPROVED EQUALS.

12) FLUSH ALL LINES FOR A MINIMUM OF TEN MINUTES.

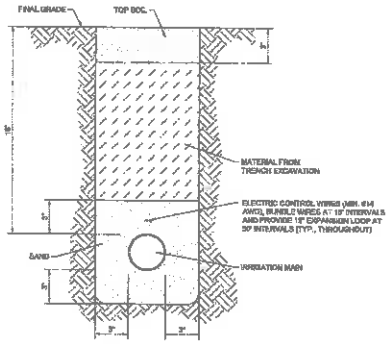
13) AFTER THE SATISFACTORY COMPLETION OF THE MAIN, AND BEFORE BACKFILLING, THE MAIN SHALL BE FILLED WITH WATER AND TESTED FOR PRESSURE AT THE WORKING PRESSURE WITH GAUGES AT OPPOSITE ENDS OF THE SYSTEM. MONITOR FOR TWO HOURS. THERE CAN BE NO PRESSURE LOSS. ADDITIONALLY, EACH ZONE SHALL BE VISUALLY TESTED FOR LEAKAGE.

14) IRRIGATION CONTROL WIRE SHALL BE THERMOPLASTIC SOLID COPPER, SINGLE CONDUCTOR, LOW VOLTAGE, IRRIGATION CONTROL WIRE SUITABLE FOR DIRECT BURIAL AND CONTINUOUS OPERATION AT RATED VOLTAGES. MAKE ELECTRICAL CONNECTIONS WITH IRRIGATION GRADE, WATERPROOF CONNECTORS. NUMBER WIRES IN ALL VALVE BOXES, JUNCTION BOXES AND AT THE CONTROLLER.

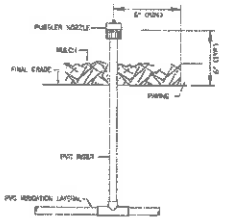
15) AT THE PRE-CONSTRUCTION MEETING THE CONTRACTOR SHALL PROVIDE:
- CUT SHEETS OF ALL IRRIGATION EQUIPMENT TO BE PROVIDED
- A UNIT COST BREAKDOWN OF PROPOSED IRRIGATION MATERIALS TO BE INSTALLED
- AN INSTALLATION SCHEDULE FOR ALL IRRIGATION EQUIPMENT AT EACH AREA OF THE SITE.



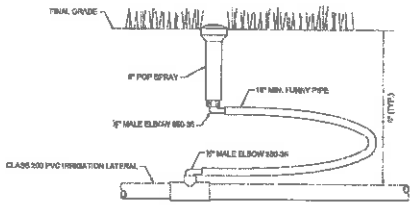
VALVE INSTALLATION



TRENCHING DETAIL



BUBBLER HEAD INSTALLATION



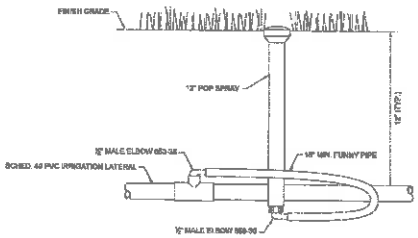
SPRAY HEAD INSTALLATION

IRRIGATION SCHEDULE

DESCRIPTION	UNITS	TOTALS ORIG	TOTALS FINAL
SOLAR CONTROLLER	EA	4	
1 1/2" BACKFLOW PREVENTER	EA	4	
1 1/2" ELECTRIC CONTROL VALVE	EA	8	
1" ELECTRIC CONTROL VALVE	EA	20	
12" POP-UP SPRAY HEAD	EA	1,364	
5" POP-UP SPRAY HEAD	EA	24	
BUBBLERS	EA	92	
R.W.S. UNITS	EA	196	
2" MAIN	LF	2,510	
2" LATERAL LINE	LF	845	
1 1/2" LATERAL LINE	LF	883	
1 1/4" LATERAL LINE	LF	679	
1" LATERAL LINE	LF	2,250	
3/4" LATERAL LINE	LF	11,338	
WIRE	LF	14,372	

THE QUANTITIES SHOWN ARE APPROXIMATE. SOME QUANTITIES WILL VARY BY METHOD OF INSTALLATION. ALL METHODOLOGY WILL BE WITH THE APPROVAL OF THE ENGINEER.

THE QUANTITIES ARE SUMMARIZED FOR THE CONVENIENCE OF THE CONTRACTOR AND OF THE ENGINEER. THE IRRIGATION SYSTEM IS A LUMP SUM BID ITEM ALL INCLUSIVE OF LABOR AND MATERIALS REQUIRED FOR A COMPLETED AND TOTALLY FUNCTIONAL 100% COVERAGE IRRIGATION SYSTEM, INCLUDING WATER AND FPL SERVICE CONNECTION.



HIGH POP SPRAY HEAD INSTALLATION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION NOTES AND DETAILS

SHEET NO. LD-23

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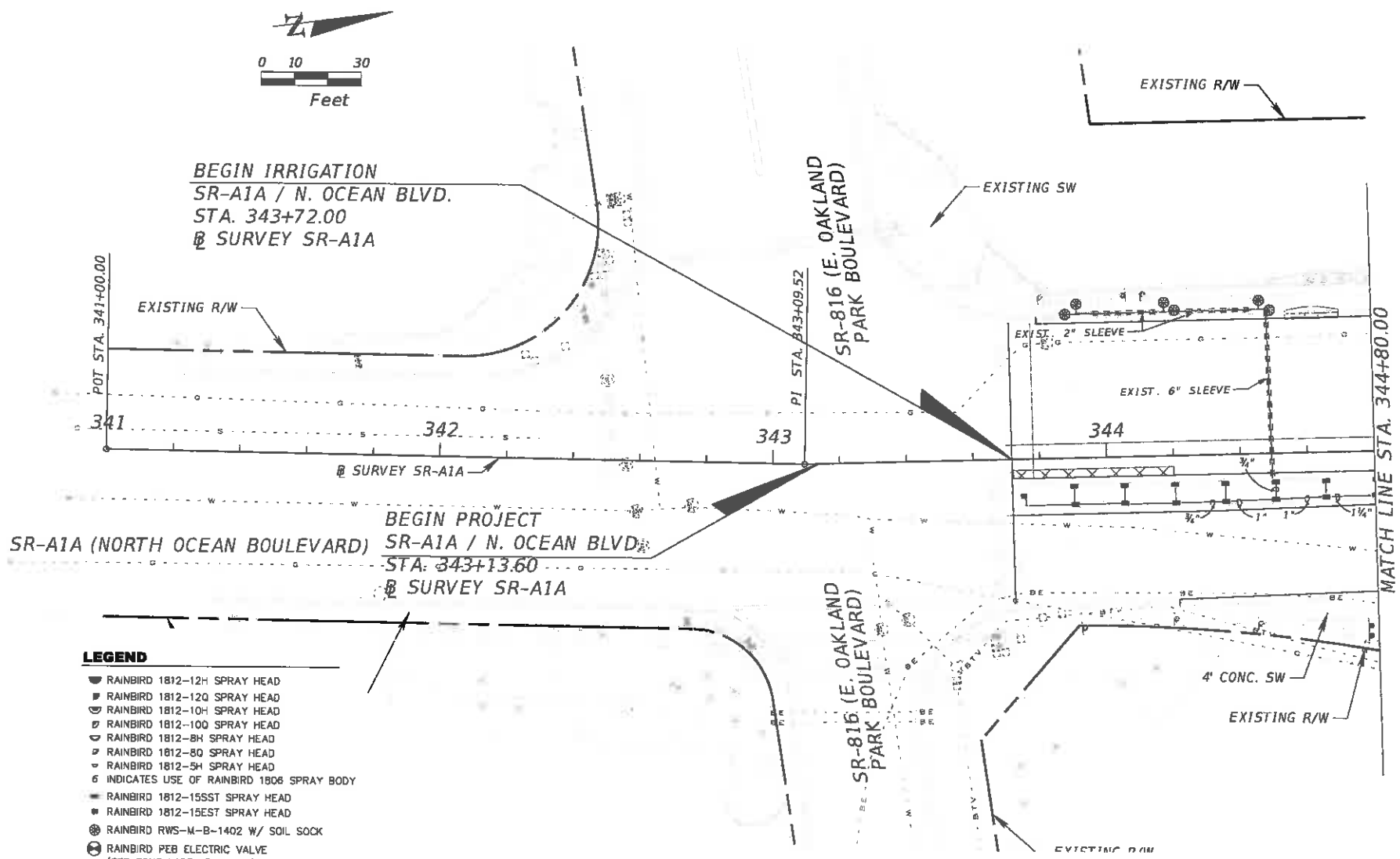

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-24

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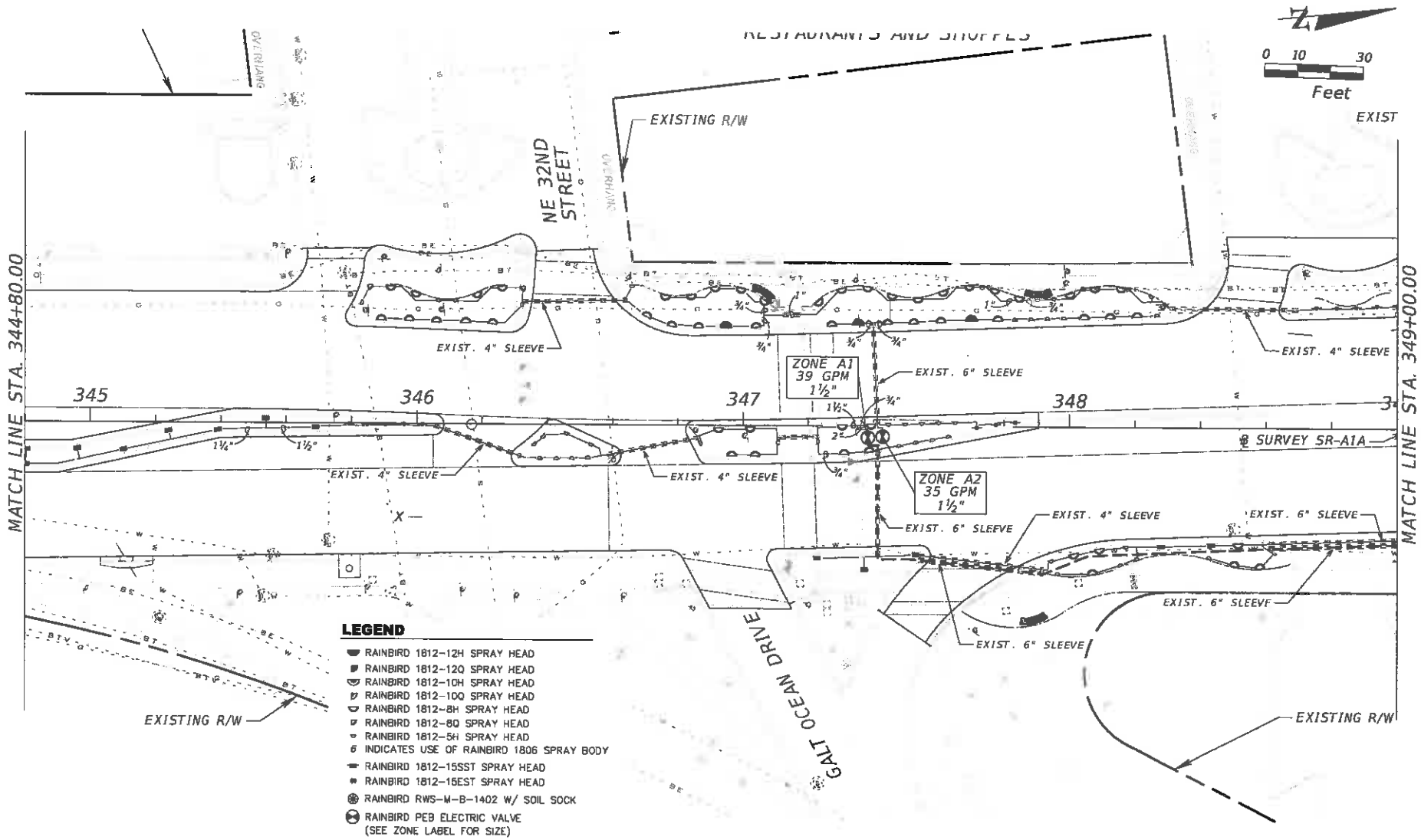

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
LD-25

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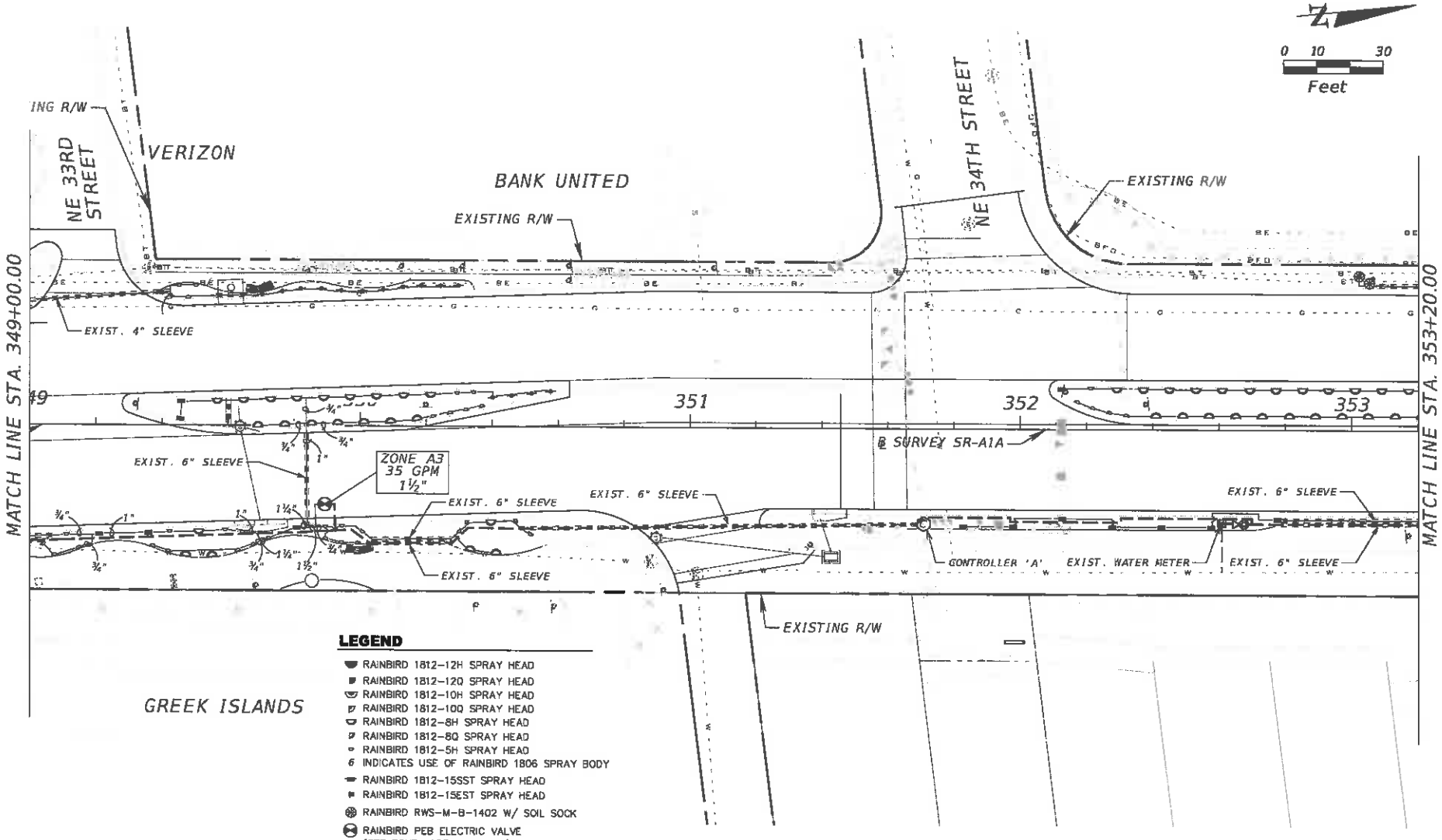

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
LD-26

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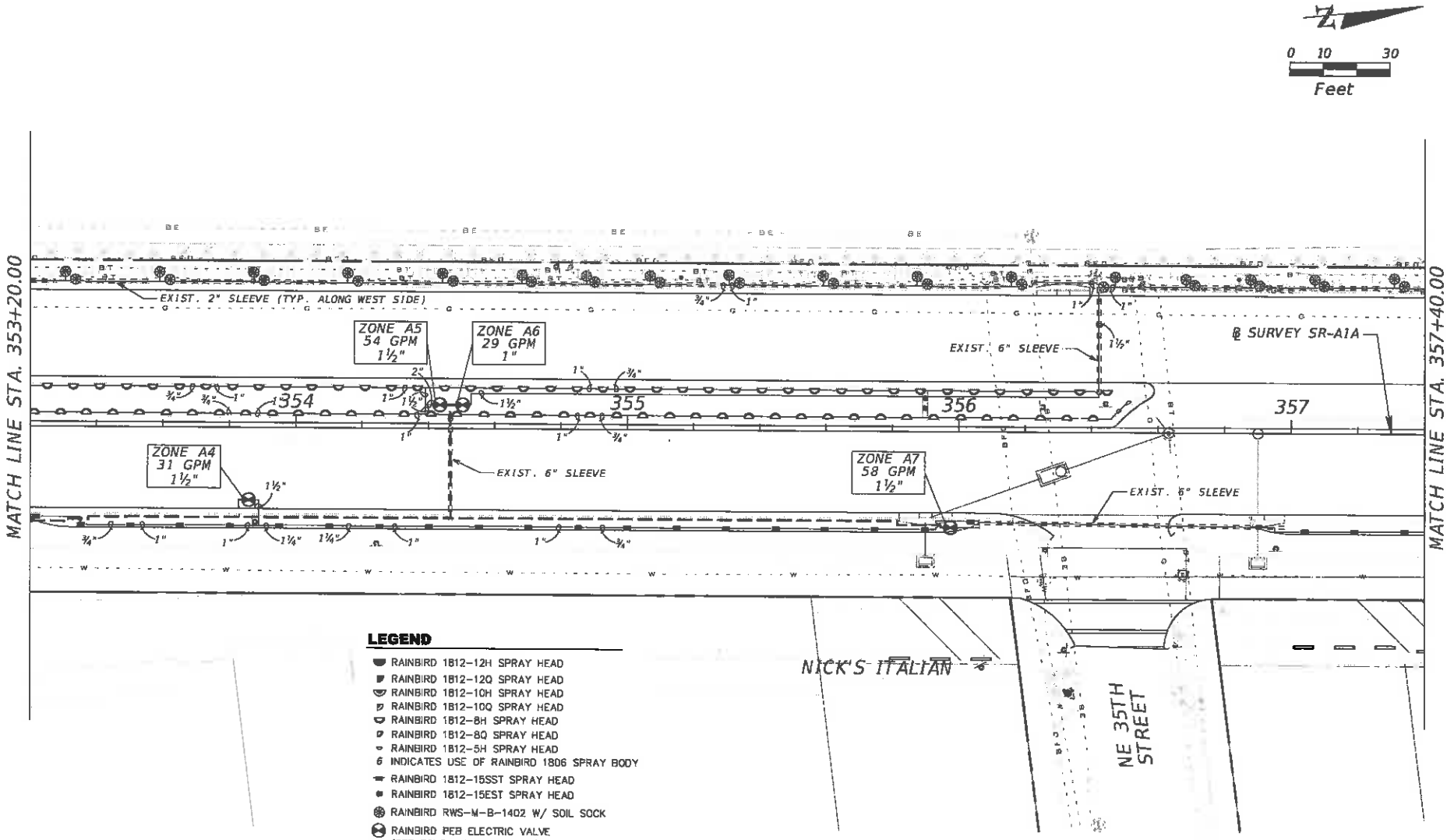

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
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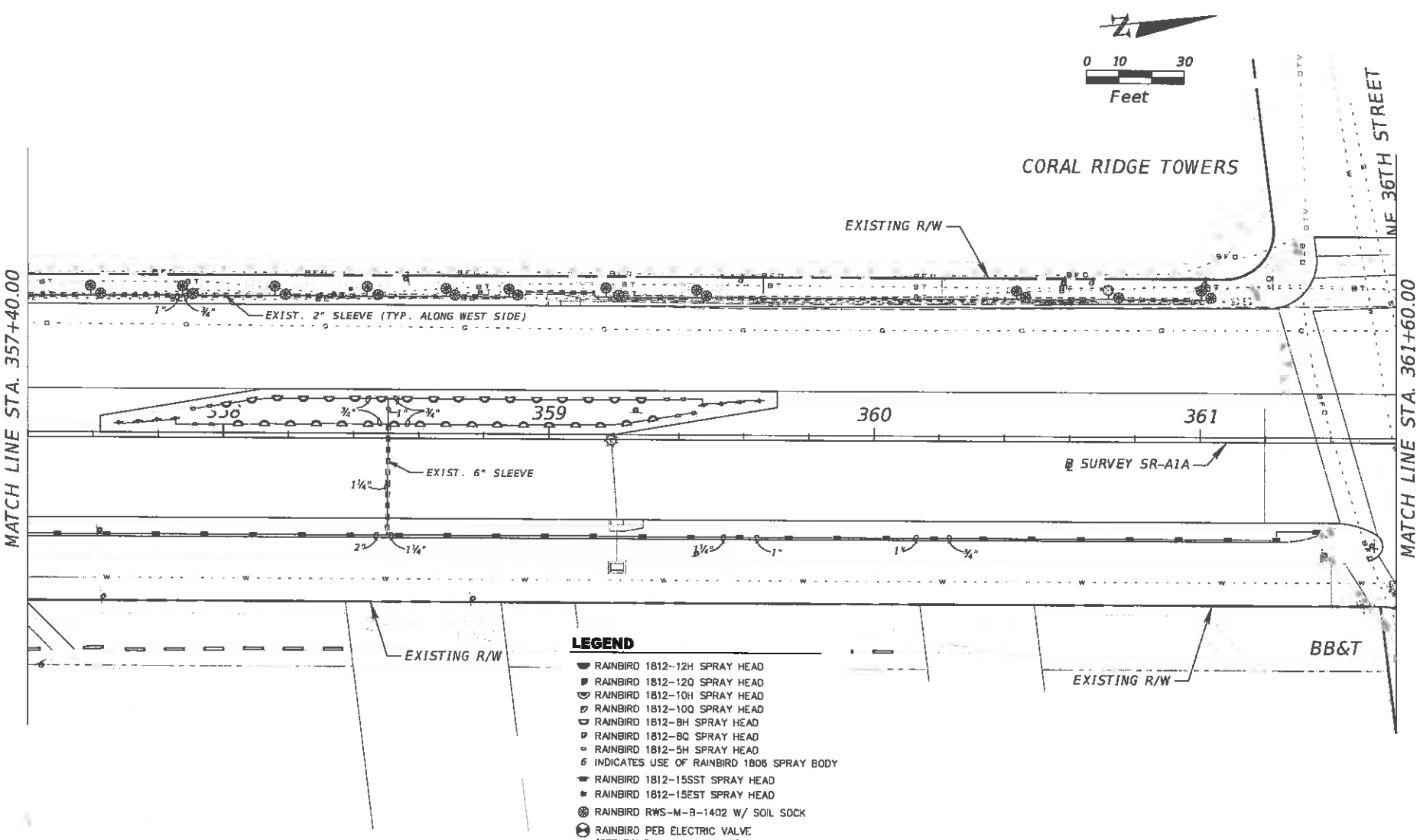

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-28

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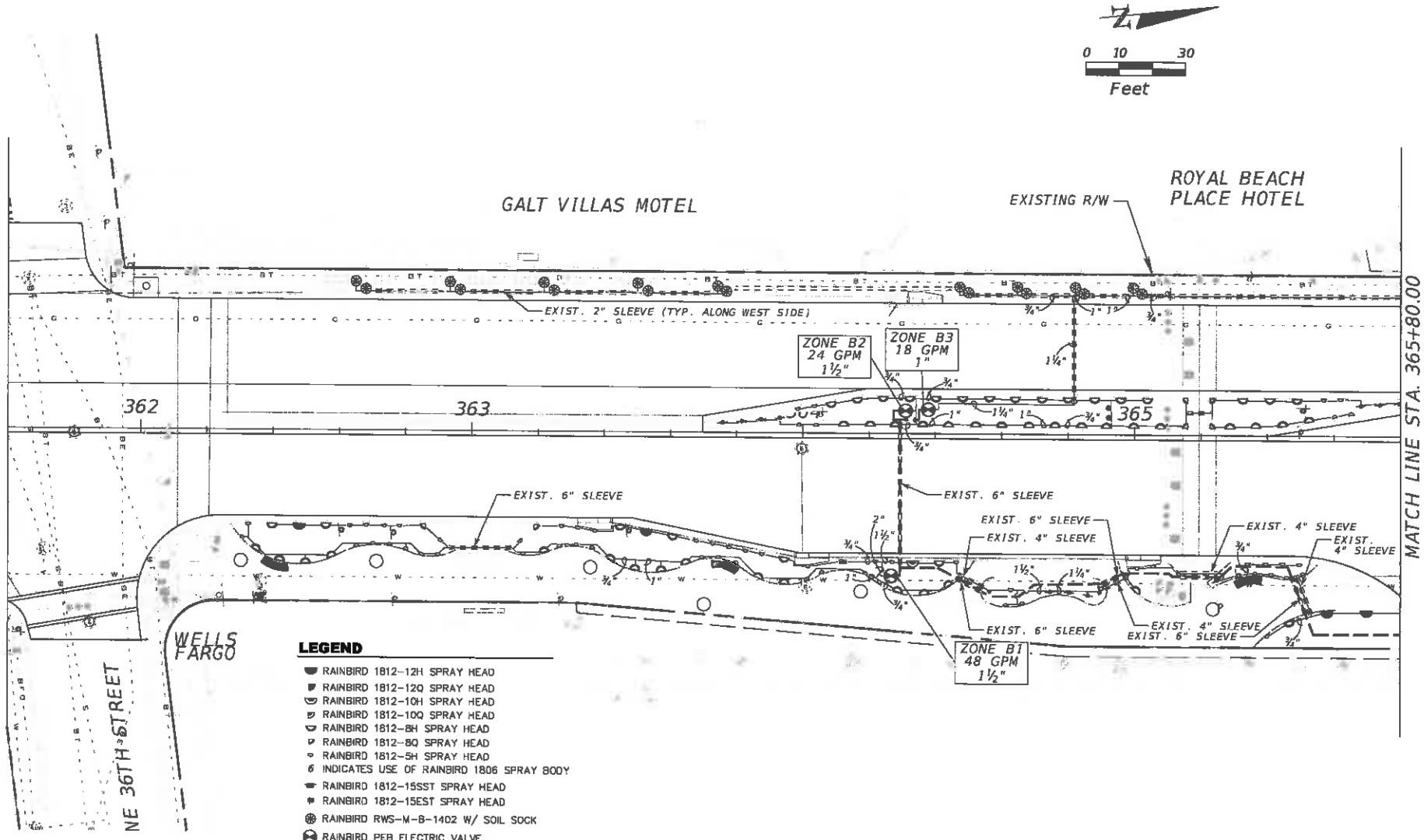

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-29

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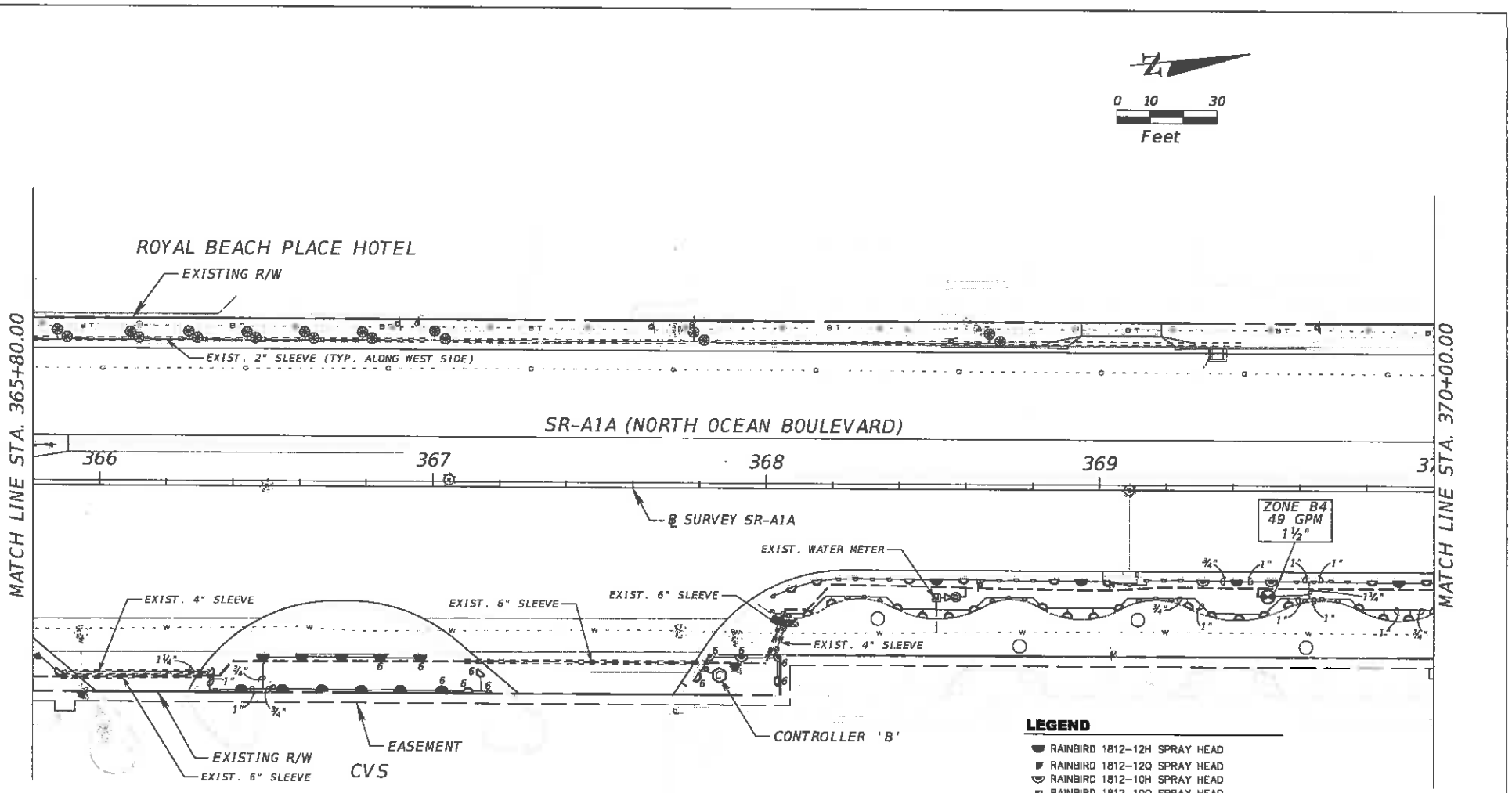

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-30

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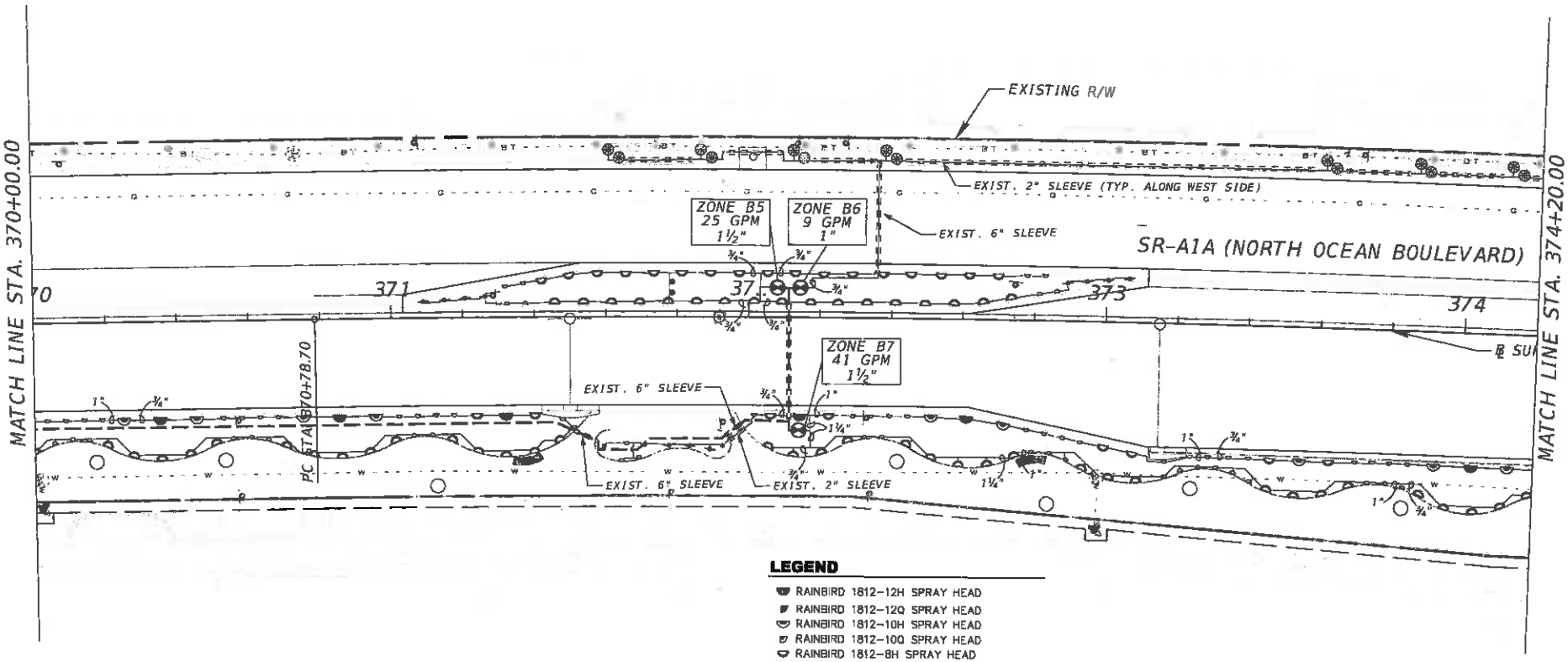

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
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STATE OF FLORIDA
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A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
LD-31

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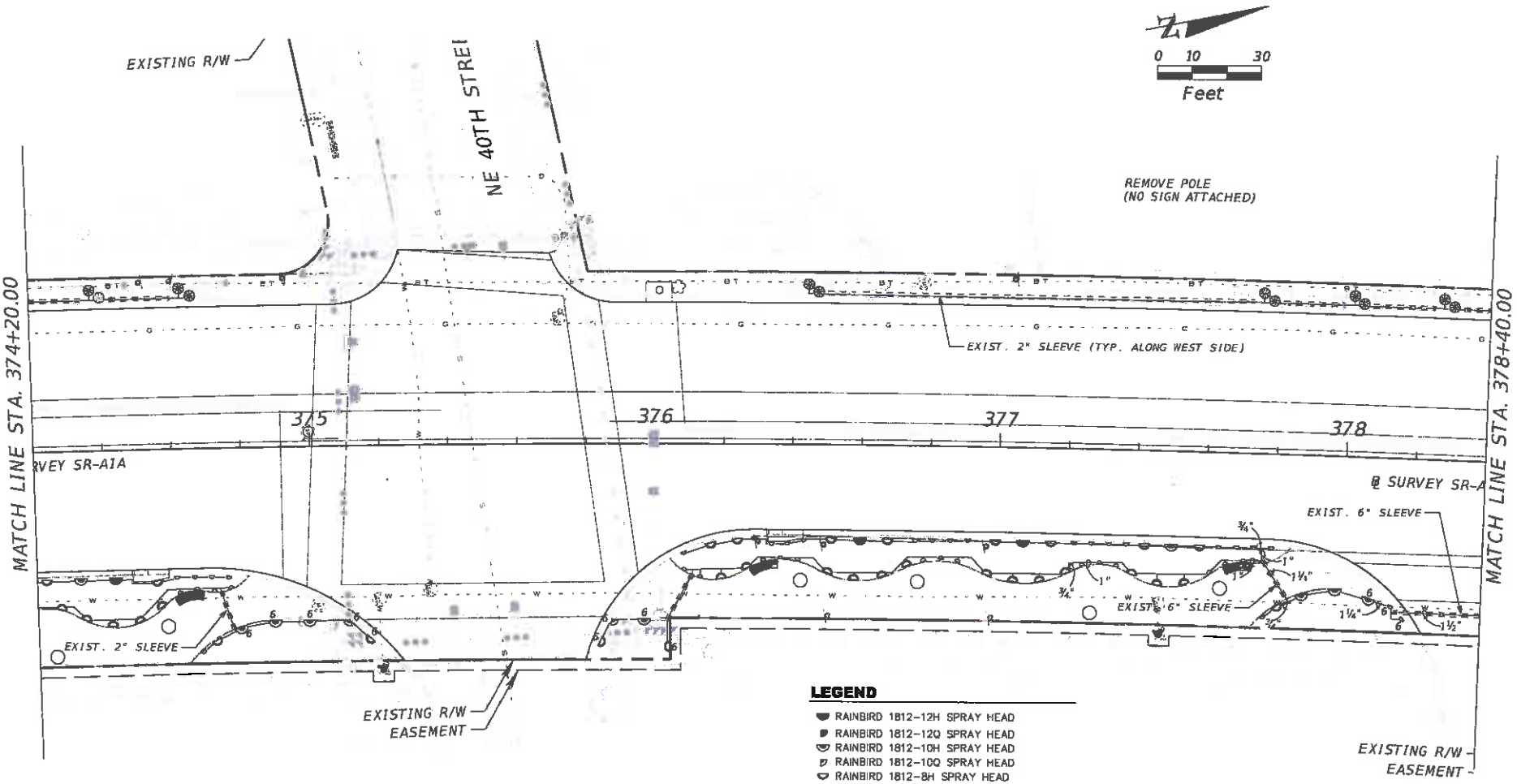

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-32

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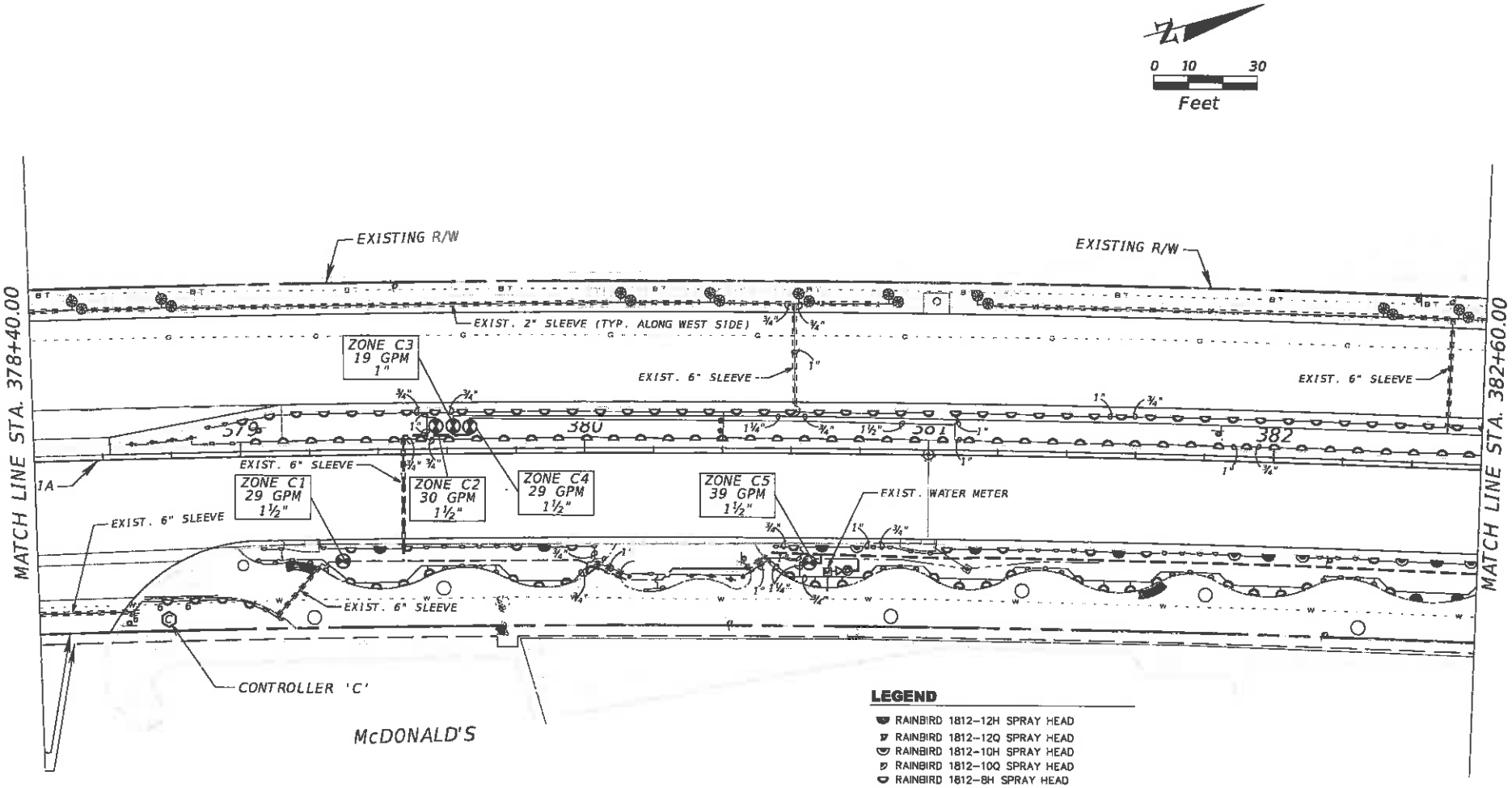

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
FBPE CERTIFICATE OF AUTHORIZATION No. 24

HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
LD-33

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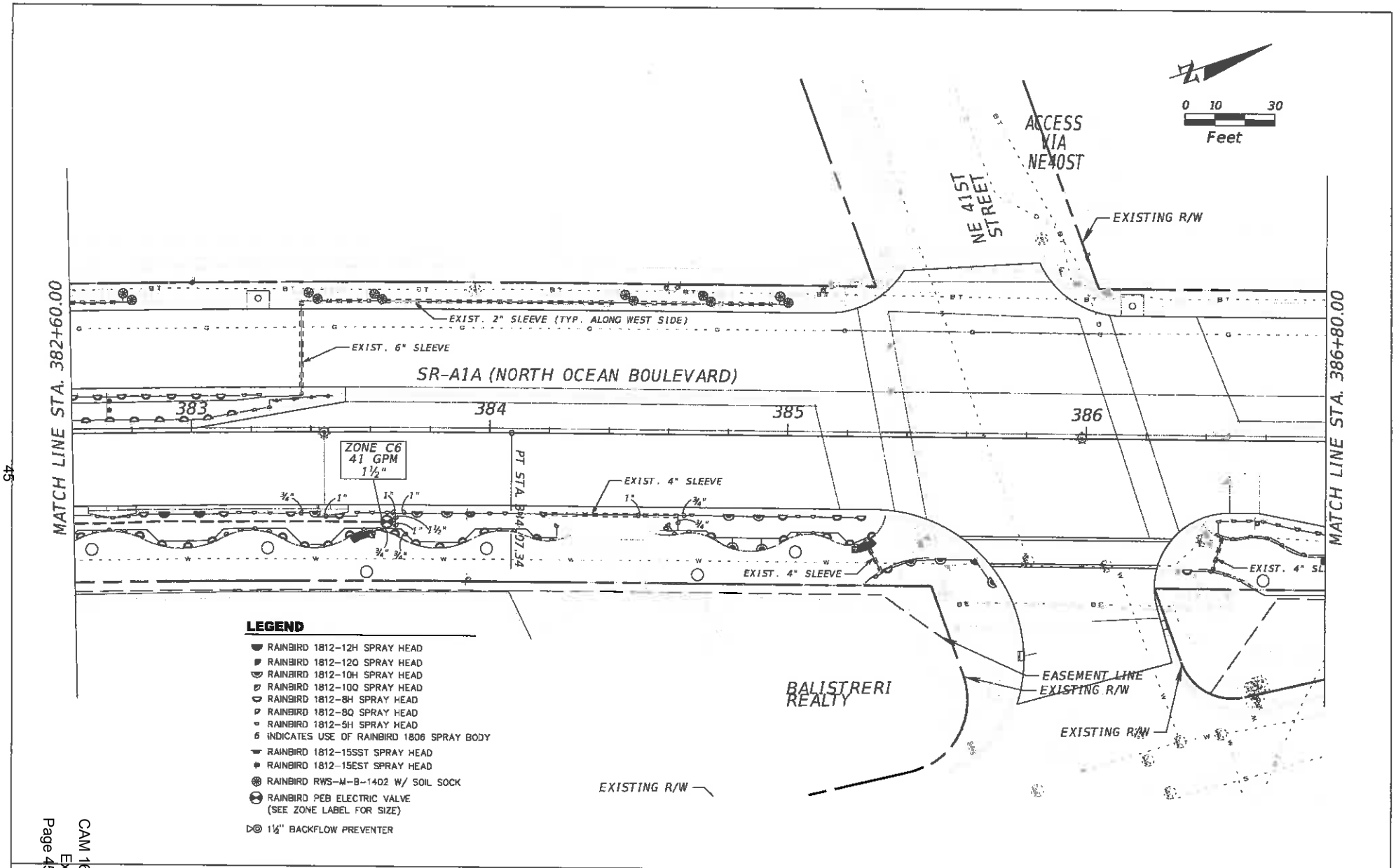

REVISIONS			
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ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
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HARRY L. BELTON, R.L.A. 900

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
LD-34

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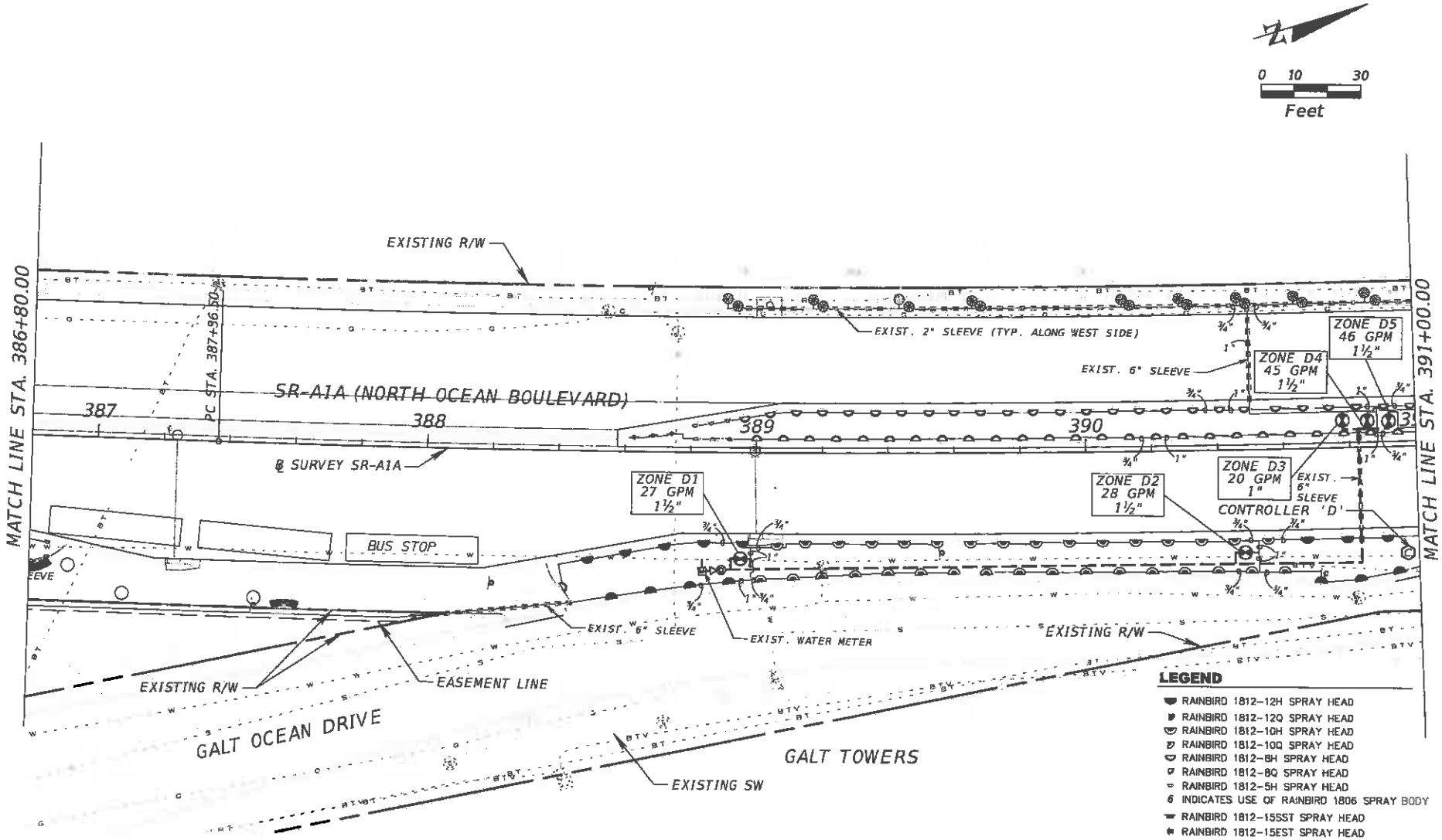

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- 6 INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-14D2 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD., SUITE 100
FORT LAUDERDALE, FL 33309
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-35

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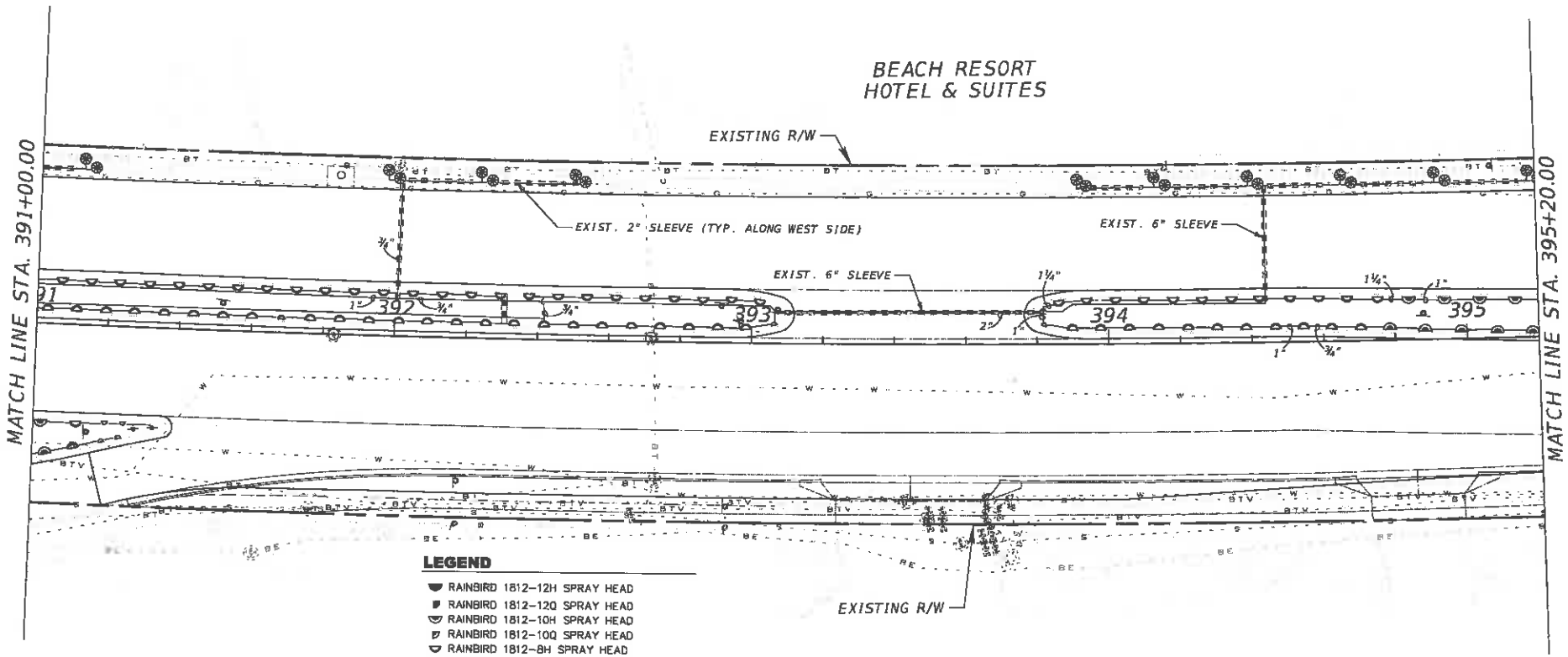

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
- RAINBIRD 1812-10H SPRAY HEAD
- RAINBIRD 1812-10Q SPRAY HEAD
- RAINBIRD 1812-8H SPRAY HEAD
- RAINBIRD 1812-8Q SPRAY HEAD
- RAINBIRD 1812-5H SPRAY HEAD
- INDICATES USE OF RAINBIRD 1806 SPRAY BODY
- RAINBIRD 1812-15SST SPRAY HEAD
- RAINBIRD 1812-15EST SPRAY HEAD
- RAINBIRD RWS-M-B-1402 W/ SOIL SOCK
- RAINBIRD PEB ELECTRIC VALVE (SEE ZONE LABEL FOR SIZE)
- 1½" BACKFLOW PREVENTER

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO.
LD-36

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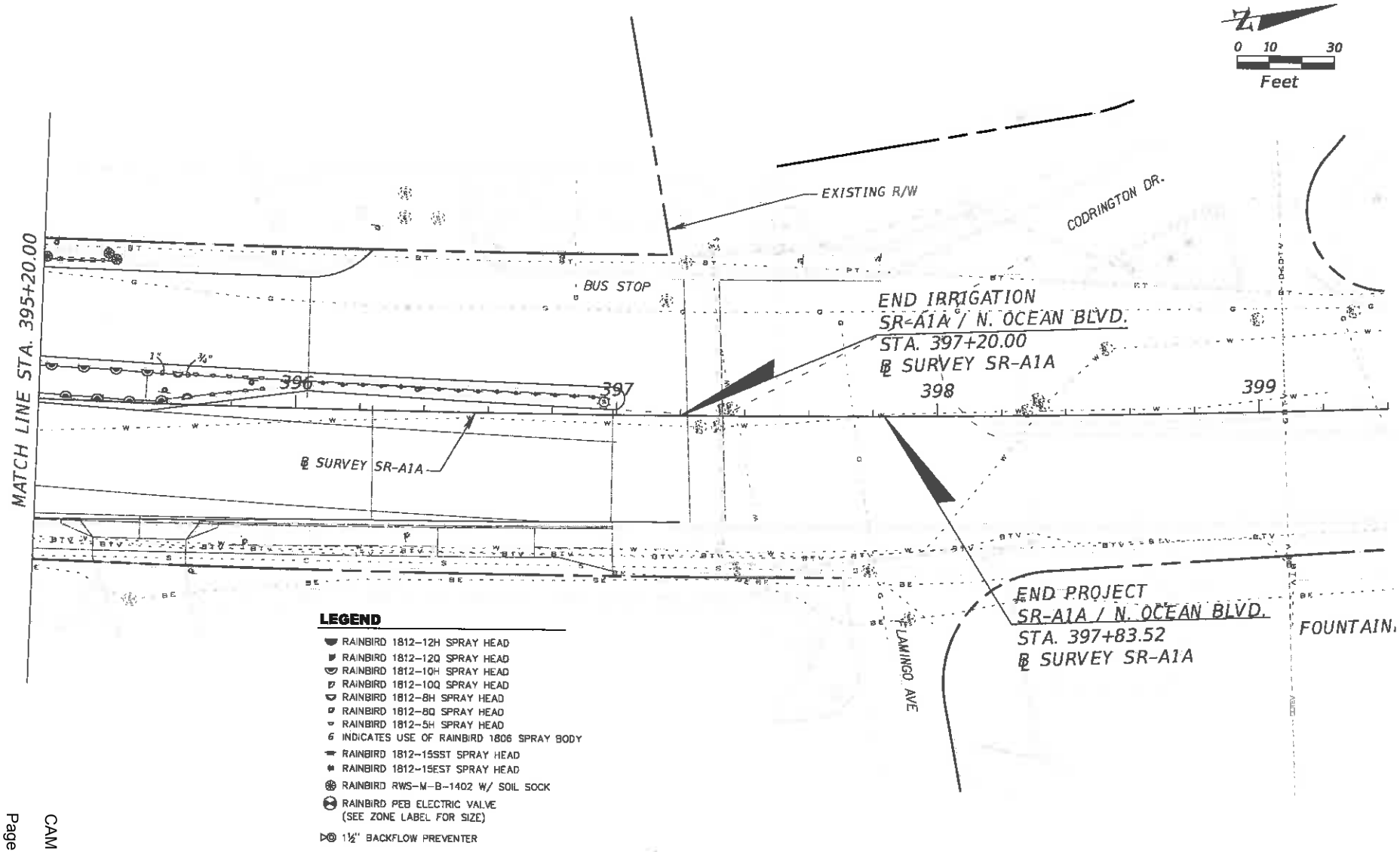

LEGEND

- RAINBIRD 1812-12H SPRAY HEAD
- RAINBIRD 1812-12Q SPRAY HEAD
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A1A	BROWARD	431204-2-52-01

IRRIGATION PLAN

SHEET NO. LD-37

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2.A.2 STRUCTURAL PRACTICES:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

TEMPORARY:

* SEDIMENT BARRIER.
* FLOATING TURBIDITY BARRIER.

PERMANENT:

* SOD

2.B. STORM WATER MANAGEMENT:

THE SURFACE WATER MANAGEMENT SYSTEM CONSISTS OF STORM SEWER SYSTEMS WITH CURB INLETS AND MANHOLES. THERE ARE NO EXISTING TREATMENT FACILITIES. THE PROPOSED ROADWAY IMPROVEMENTS ARE NOT EXPECTED TO ALTER THE EXISTING DRAINAGE SYSTEMS. BY DECRESING THE TOTAL NET IMPERVIOUS AREA, THE PROPOSED ROADWAY IMPROVEMENTS WILL ENHANCE THE OVERALL WATER QUALITY WITHIN THE PROJECT LIMITS.

2.C. OTHER CONTROLS:

2.C.1 WASTE DISPOSAL:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIAL, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. AT A MINIMUM, THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

* PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES.

* DISPOSE OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.

* DISPOSE OF ALL SOLID MATERIALS INCLUDING BUILDING AND CONSTRUCTION MATERIAL OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS, OR WETLANDS.

2.C.2 OFF SITE VEHICLE TRACKING AND DUST CONTROL:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFF SITE VEHICLE TRACKING OF SEDIMENT AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

* COVERING LOADED HAUL TRUCKS WITH TARPAULIN.

* REMOVING EXCESS DIRT FROM ROADS DAILY.

* TAKING MEASURES TO INSURE THE CLEANUP OF SEDIMENTS THAT HAVE BEEN TRACKED BY VEHICLES OR HAVE BEEN TRANSPORTED BY WIND OR STORM WATER ABOUT THE SITE OR ONTO NEARBY ROADWAYS.

* USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION.

2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, SEPTIC TANK REGULATIONS:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

2.C.4 FERTILIZERS AND PESTICIDES:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES.

2.C.5 TOXIC SUBSTANCES:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

2.D. STATE AND LOCAL PERMITS TO BE APPLIED FOR:

* PERMIT EXCEPTION HAS BEEN APPROVED BY SOUTH FLORIDA WATER MANAGEMENT DISTRICT

3.0 MAINTENANCE:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM, COMPLY WITH THE FOLLOWING:

* SEDIMENT BARRIER: REMOVE SEDIMENT AS PER MANUFACTURER'S RECOMMENDATIONS.

4.0 INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT ALL EROSION CONTROL FEATURES AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM OF 0.5" OR GREATER. WHERE SITES HAVE PERMANENTLY STABILIZED, AN INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY 30 DAYS. IN ADDITION THE FOLLOWING ITEMS WILL BE INSPECTED:

* POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.

* POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM SEWER SYSTEMS.

* DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.

* AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.

* STRUCTURAL CONTROLS.

* STORMWATER MANAGEMENT SYSTEMS.

* LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

* THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE ENGINEER.

5.0 NON-STORMWATER DISCHARGES:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES, SUCH AS, BUT NOT LIMITED TO SLURRY FROM MAST ARM FOUNDATIONS AND DIVERSION CHANNEL IF REQUIRED FOR WORK ON CULVERTS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP A DEWATERING SYSTEM THAT PROVIDES PRETREATMENT OF EFFLUENT PRIOR TO DISCHARGE INTO ADJACENT SURFACE WATERS. THE CONTRACTOR'S DEWATERING METHOD WILL MEET ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING THIS PRACTICE INCLUDING THE USE OF PERMITTED OUTFALL STRUCTURES. IF NECESSARY THE CONTRACTOR WILL APPLY FOR A DEWATERING PERMIT WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGNATE AN AREA WITHIN THE PROJECT LIMITS FOR CONCRETE TRUCK WASHOUT ACTIVITIES. THIS AREA SHALL PROVIDE EROSION CONTROL DEVICES THAT PREVENT CONTACT BETWEEN CONCRETE WASHOUT MATERIALS AND STORMWATER AND/OR SURFACE WATERS.

6.0 CONTRACTOR SUBMITTAL:

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP AN EROSION CONTROL PLAN THAT PROVIDES A DETAILED DESCRIPTION OF ALL EROSION AND SEDIMENT CONTROLS, BEST MANAGEMENT PRACTICES, AND MEASURES THAT WILL BE IMPLEMENTED AT THE CONSTRUCTION SITE FOR EACH ACTIVITY IDENTIFIED IN SECTION 1.B. SEQUENCE OF SOIL DISTURBING ACTIVITIES.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TIME FRAMES IN WHICH THE CONTROLS WILL BE IMPLEMENTED, MAINTAINED AND REMOVED. THIS INFORMATION SHALL BE KEPT AT THE PROJECT FIELD OFFICE IN ORDER FOR THE PROJECT TO BE CONSIDERED IN COMPLIANCE WITH THE FDEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE FOLLOWING ITEMS ARE ON SITE:

* COPY OF THE STORMWATER POLLUTION PREVENTION PLAN WITH THE ORIGINAL CERTIFICATION SIGNATURES.

* COPY OF THE CONTRACTOR'S EROSION CONTROL PLAN.

* HAZARDOUS SPILL CONTROL PLAN WITH GUIDELINES ON CONTACTING THE 24 HOUR EMERGENCY RESPONSE PROGRAM FOR HAZARDOUS MATERIAL SPILLS. THIS SHALL INCLUDE COPIES OF DISCHARGE NOTIFICATIONS THAT HAVE OCCURRED WITHIN THE PROJECT LIMITS.

* COMPLETED INSPECTION FORMS.

THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE FOLLOWING ITEMS TO FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION IN ORDER FOR THE NPDES PERMIT TO BE PROCESSED:

1. FDEP FORM 62-621-300 (4) (b) - NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. THIS NOTICE OF INTENT SHALL BE SIGNED BY THE CONTRACTOR.

2. THE PERMITTING FEE OF $ 400.00 FOR PROJECTS THAT CLEAR AND GRUB MORE THAN FIVE ACRES, $ 250.00 FOR PROJECTS THAT CLEAR AND GRUB BETWEEN 1 AND 5 ACRES.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE NOI TO FDEP NO LESS THAN 48 HOURS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROOF OF MAIL DATE TO THE PROJECT ADMINISTRATOR.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD, SUITE 100
FORT LAUDERDALE, FLORIDA 33309
(954) 733-7233
FBPE CERTIFICATE OF AUTHORIZATION NO. 24

RAUL L. ANDUJAR, P.E. #62989

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO.
LD-38

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THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN CONTAINS REFERENCES TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (CALLED THE KEY SHEET) CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS:

A) THE FOLLOWING NARRATIVE DESCRIPTION AND REFERENCED DOCUMENTS.
B) THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN.
C) REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1.0 SITE DESCRIPTION

1.A NATURE OF CONSTRUCTION ACTIVITY:

THE A1A PROJECT IS LOCATED IN BROWARD COUNTY AND RUNS FROM MP 5.382 TO MP 6.418, WHICH IS APPROXIMATELY 1.036 MILES IN LENGTH. THE PURPOSE OF THIS PROJECT IS TO PROVIDE A GREENWAY BEAUTIFICATION ENHANCEMENT CORRIDOR WITH ENTIRE PAVEMENT AND SIDEWALK RECONSTRUCTION WITH GREENSPACE. THE PROJECT CONSISTS OF REDUCTION OF PAVEMENT WIDTH AND DRAINAGE IMPROVEMENTS.

1.B SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS AS DESCRIBED IN SECTION 2.0 AFTER CLEARING AND GRUBBING NECESSARY FOR THE INSTALLATIONS OF CONTROLS, BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

THE TRAFFIC CONTROL PLAN FOR THIS PROJECT CALLS FOR FIVE PHASES.

1. CLEARING AND GRUBBING OF AREAS OF CONSTRUCTION.
2. INSTALLATION OF EROSION AND SEDIMENT CONTROL DEVICES PER BMPS (BEST MANAGEMENT PRACTICES).
3. CONSTRUCTION OF DRAINAGE STRUCTURES AND PIPES.

1.C AREA ESTIMATES:

TOTAL SITE AREA: 12.71 AC.
TOTAL AREA TO BE DISTURBED: 12.71 AC.

1.D QUALITY OF EXISTING STORMWATER DISCHARGE

THE RUNOFF FROM THE PROJECT SITE DISCHARGES TO THE INTRACOSTAL WATERWAY VIA EXISTING STORM SEWER SYSTEMS. THERE ARE NO WATER QUALITY SYSTEMS WITHIN THE PROJECT LIMITS.

1.E OUTFALL INFORMATION (THERE ARE THREE (3) OUTFALLS WITHIN THE PROJECT LIMITS):

ESTIMATED DRAINAGE AREA 12.71AC
AVERAGE SLOPE = 0.4%
THE OUTFALL ARE NOT 303(D) LISTED WATERS FOR TOTAL SUSPENDED SOLIDS (TSS), TURBIDITY AND SETTLEABLE SOLIDS.
OUTFALL LOCATIONS (TEMPORARY AND PERMANENT):

- OUTFALL 1: 60" PIPE ALONG NE 34TH ST (STA 351+90) LAT: 26°10'11.99" N LONG: 80°06'12.54" W
- OUTFALL 2: 60" PIPE ALONG NE 36TH ST (STA 361+80) LAT: 26°10'21.93" N LONG: 80°06'11.93" W
- OUTFALL 3: 60" PIPE ALONG NE 41ST ST (STA 385+96) LAT: 26°10'51.29" N LONG: 80°05'55.94" W

RECEIVING WATER BODY - INTRA COSTAL WATERWAY

1.F. RECEIVING WATERS

INTRACOASTAL WATERWAY

NO ADVERSE IMPACTS ARE ANTICIPATED DUE TO THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT, AS NET IMPERVIOUS AREA IS REDUCED.
THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO PREVENT UNAUTHORIZED MATERIALS FROM ENTERING THE WATERWAYS.
THERE ARE NO WETLAND IMPACTS ASSOCIATED WITH THIS PROJECT.
DEWATERING NOTES:

DEWATERING PERMIT IS EXEMPTED UNDER THE PROVISIONS OF 40C-2.051, 40C-20 OR 40C-22 F.A.C. IN THE FOLLOWING CIRCUMSTANCES:

1. THE WITHDRAWAL IS 300,000 GALLONS PER DAY OR LESS.

2. THE WITHDRAWAL DOES NOT EXCEED 30 DAYS IN DURATION.

3. THE WATER WITHDRAWN IS NOT DISCHARGED DIRECTLY INTO AN OUTSTANDING FLORIDA WATER (OFW), CLASS I OR CLASS II WATER BODY. A DIRECT DISCHARGE MEANS WHICH ENTERS OFW, CLASS I OR CLASS II WATERS WITHOUT AND ADEQUATE OPPORTUNITY FOR PRIOR MIXING AND DILUTION TO PREVENT SIGNIFICANT DEGRADATION.

4. THE FOLLOWING TURBIDITY CONTROL MEASURES ARE IMPLEMENTED, AS APPROPRIATE, FOR ANY DISCHARGES OFF-SITE:

(A) IF THE DISCHARGE IS TO BE TO A DRAINAGE SYSTEM, THE WATER SHALL BE PIPED DIRECTLY INTO THE DRAINAGE STRUCTURE, IF POSSIBLE; BUT IF THE DISCHARGE IS THROUGH A SWALE OR OVERLAND TO A STRUCTURE OR WATER BODY, THE PATH OF DISCHARGE SHALL BE LINED WITH VISQUEEN PLASTIC, SOD OR HAY BALES APPROPRIATELY, TO PREVENT A TURBID DISCHARGE TO THE STRUCTURE OR WATER BODY.

(B) IF WATER WILL DISCHARGE TO AN OPEN WATER BODY, APPROPRIATE FABRIC SILT SCREEN OR HAY BALES SHALL BE USED TO PREVENT TURBID DISCHARGES. WHEN POSSIBLE, A DETENTION AREA SHALL BE ESTABLISHED TO ALLOW SUSPENDED SOLIDS TO SETTLE PRIOR TO ENTERING THE WATER BODY.

(C) IF THE ABOVE TURBIDITY CONTROL MEASURES ARE INADEQUATE TO RETAIN SEDIMENT ON-SITE AND PREVENT TURBID DISCHARGE, ADDITIONAL OR MODIFIED EROSION AND SEDIMENT CONTROL MEASURES MUST BE SELECTED, IMPLEMENTED, AND OPERATED AS NECESSARY TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS AS SPECIFIED IN CHAPTER 62-302, F.A.C.

2.0 CONTROLS:

2.A EROSION AND SEDIMENT CONTROLS

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION AND STRUCTURAL PRACTICES PROPOSED TO CONTROL EROSION.

FOR PHASE 1 CONSTRUCTION, INSTALL PERIMETER CONTROLS SUCH AS SEDIMENT BARRIER BEFORE DISTURBING SOIL UPLAND OF THE CONTROLS.

PROTECT EXISTING INLET USING SEDIMENT CONTROL DEVICES.

2.A.1 STABILIZATION PRACTICES:

IN THE EROSION AND SEDIMENT CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CCONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES. IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, THE STABILIZATION PRACTICES PROPOSED BY THE CONTRACTOR SHALL INCLUDE AT LEAST THE FOLLOWING:

TEMPORARY:

* SEDIMENT BARRIER.

PERMANENT:

* SOD.

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RAUL L. ANDUJAR, P.E. #62989

STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO.
LD-39

TRAFFIC CONTROL GENERAL NOTES:

GENERAL:

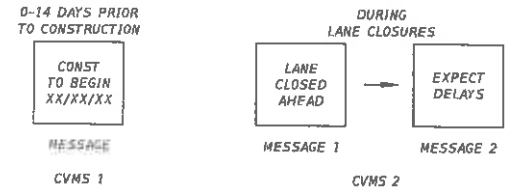
1. SINGLE LANE CLOSURES:
   A SINGLE LANE CLOSURE IN ONE DIRECTION AT A TIME WILL BE ALLOWED BETWEEN THE HOURS OF 9:30 P.M. AND 7:30 A.M. ALL LANES ARE TO BE OPENED DURING INACTIVE WORK AND PEAK HOUR PERIODS.

2. REGULATORY SPEED ESTABLISHED WITHIN WORK ZONE TRAVEL WAY SHALL BE 35 M.P.H., THE SAME AS THE POSTED SPEED, AT ALL TIMES.

3. THE CONTRACTOR SHALL INSTALL TWO PROJECT INFORMATION SIGNS PER INDEX 600 APPROXIMATELY 500' BEFORE THE PROJECT BEGIN LIMITS AND 500' AFTER THE PROJECT END LIMITS PRIOR TO CONSTRUCTION.

CHANGEABLE (VARIABLE) MESSAGE SIGN MESSAGES:

CVMS TO BE PLACED ON SR-A1A:



ADVANCE CONSTRUCTION NOTICE:

THE CONTRACTOR SHALL FURNISH AND MAINTAIN CHANGEABLE (VARIABLE) MESSAGE SIGNS (CVMS) AT THE BEGINNING OF THIS PROJECT FROM BOTH THE NORTHBOUND AND SOUTHBOUND DIRECTIONS. MESSAGES FOR THE CVMS SHALL BE AS INDICATED ON THIS PLAN OR AS DIRECTED BY THE ENGINEER. THE CVMS SHALL BE IN PLACE TWO (2) WEEKS BEFORE START OF ANY WORK ITEMS AFFECTING THE EXISTING VEHICULAR AND PEDESTRIAN TRAFFIC SR-A1A.

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ATKINS NORTH AMERICA, INC.
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FORT LAUDERDALE, FLORIDA 33309
(954) 777-7733
FBPE CERTIFICATE OF AUTHORIZATION NO. 24
RAUL L. ANDUJAR, P.E. #52969

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

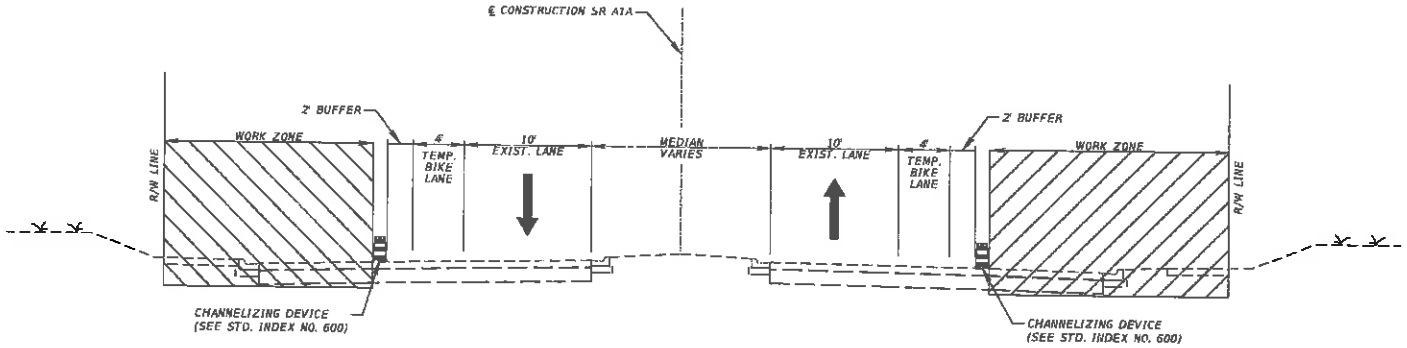
TEMPORARY TRAFFIC CONTROL PLAN

SHEET NO.
LD-40

CONSTRUCTION PHASING:

PHASE I:

1. MAINTAIN TRAFFIC PATTERNS IN ACCORDANCE WITH FDOT STANDARD INDEX NOS. 600, 611, 612, 616, AND 660.
2. INSTALL LANDSCAPING AND IRRIGATION ALONG THE OUTSIDE AS SHOWN IN THE LANDSCAPE AND IRRIGATION PLANS.

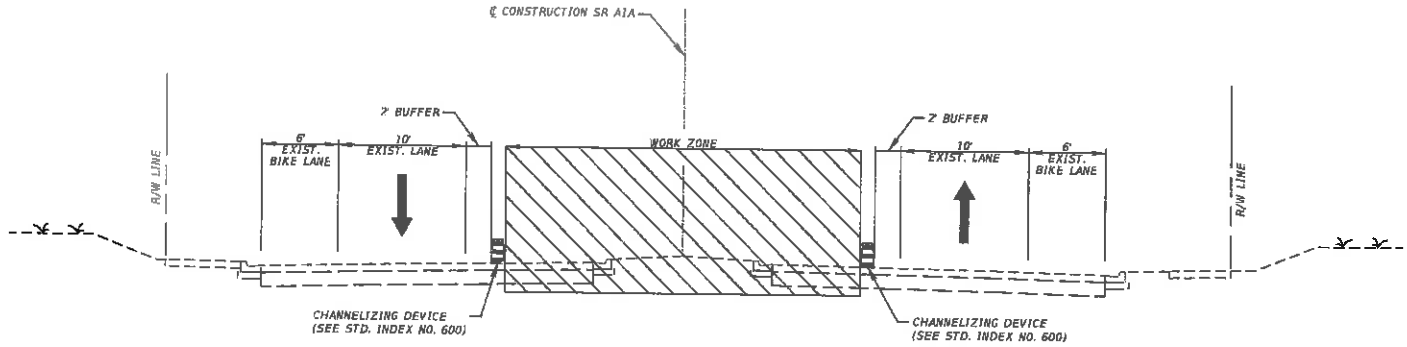


NOTE: WORK MAY ONLY OCCUR ON ONE SIDE OF THE ROAD AT A TIME

TYPICAL SECTION - PHASE I
SR A1A
STA. 343+13.60 TO STA. 397+83.52

PHASE II:

1. MAINTAIN TRAFFIC PATTERNS IN ACCORDANCE WITH FDOT STANDARD INDEX NOS. 600, 613, 616, AND 660.
2. INSTALL LANDSCAPING AND IRRIGATION WITHIN THE MEDIAN AS SHOWN IN THE LANDSCAPE AND IRRIGATION PLANS.



TYPICAL SECTION - PHASE II
SR A1A
STA. 343+13.60 TO STA. 397+83.52

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS NORTH AMERICA, INC.
3230 WEST COMMERCIAL BLVD, SUITE 100
FORT LAUDERDALE, FLORIDA 33309
(954) 733-7233
FBPE CERTIFICATE OF AUTHORIZATION NO. 24
RAUL L. ANDUJAR, P.E. #62989

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

TEMPORARY TRAFFIC CONTROL PLAN

SHEET NO. LD-41

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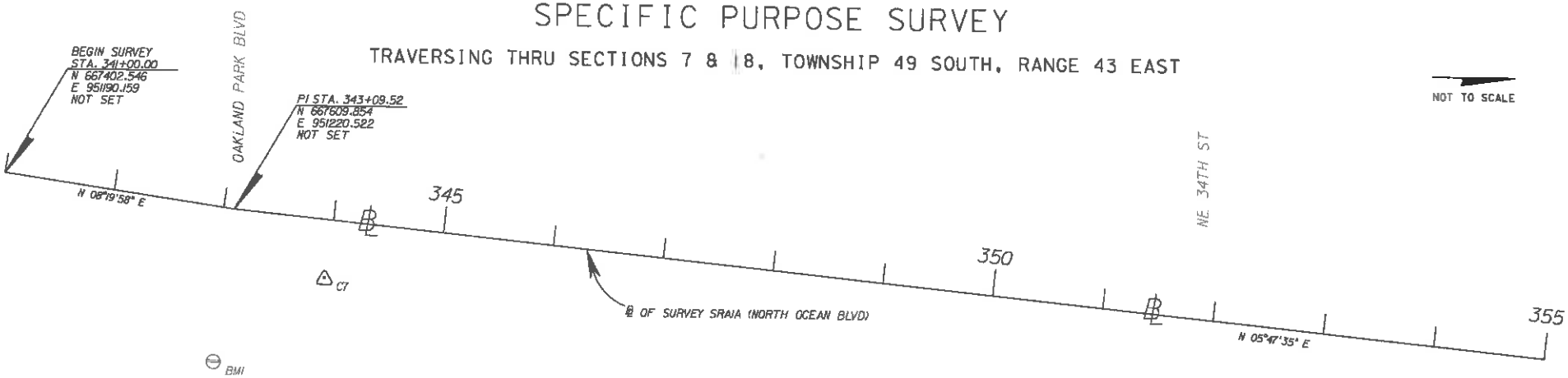
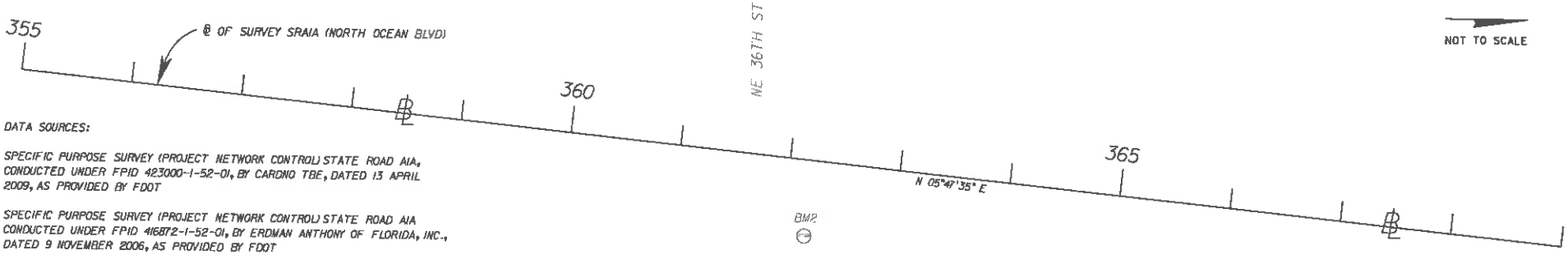
SPECIFIC PURPOSE SURVEY

TRAVERSING THRU SECTIONS 7 & 18, TOWNSHIP 49 SOUTH, RANGE 43 EAST





DATA SOURCES:

SPECIFIC PURPOSE SURVEY (PROJECT NETWORK CONTROL) STATE ROAD A1A, CONDUCTED UNDER FPID 423000-1-52-01, BY CARDNO TBE, DATED 13 APRIL 2009, AS PROVIDED BY FDOT

SPECIFIC PURPOSE SURVEY (PROJECT NETWORK CONTROL) STATE ROAD A1A CONDUCTED UNDER FPID 416872-1-52-01, BY ERDMAN ANTHONY OF FLORIDA, INC., DATED 9 NOVEMBER 2006, AS PROVIDED BY FDOT

SURVEY BASELINE GEOMETRY IS PREDICATED SOLEY ON THE DATA SOURCES ABOVE.

BASELINE OF SURVEY WAS NOT SET IN THE FIELD.

HORIZONTAL AND VERTICAL PRIMARY CONTROL VALUES ARE AS PROVIDED BY FDOT DISTRICT IV LOCATION SURVEY DEPARTMENT.

HORIZONTAL DATUM: NORTH AMERICAN DATUM (NAD) OF 1983 (2007)
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM (NAVD) 1988
A BEARING OF N 09° 31' 21" E HAS BEEN ESTABLISHED BETWEEN MONUMENTS:
C7, A FOUND FDOT BRASS DISK IN CONCRETE STAMPED "A1A-86-06-C07"
BLC5, A FOUND FDOT BRASS DISK IN CONCRETE STAMPED "A1A-86-08-C-5"
SURVEY DATABASE: JOBA1A.GPK
PROJECT UNITS: U.S. SURVEY FEET
FIELD BOOK REFERENCES: 4329652, 4329653

LEGEND:

℄	BASELINE
BLVD	BOULEVARD
Δ	DEFLECTION ANGLE (DELTA)
D	DEGREE OF CURVE
E	EASTING
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FPID	FINANCIAL PROJECT IDENTIFICATION
INC.	INCORPORATED
L	ARC LENGTH
LB	LICENSED BUSINESS
LT.	LEFT
N	NORTHING
NO.	NUMBER
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
△	POURED CONCRETE MONUMENT
PSM	PROFESSIONAL SURVEYOR & MAPPER
PT	POINT ON TANGENT

LEGEND:

R	RADIUS
RT.	RIGHT
⊖	STAMPED DISC
SR	STATE ROAD
STA.	STATION
T	TANGENT LENGTH
U.S.	UNITED STATES

LIMITS: SR A1A (NORTH OCEAN BLVD) FROM OAKLAND PARK BLVD TO 300' NORTH OF FLAMINGO AVE.

SURVEYOR'S CERTIFICATION
I HEREBY CERTIFY THIS SPECIFIC PURPOSE SURVEY WAS MADE FOR THE PURPOSE OF SURVEYING, REFERENCING, DESCRIBING AND MAPPING THE PRIMARY NETWORK CONTROL OR BASELINE FOR THE TRANSPORTATION FACILITY DEPICTED HEREON AND THAT SAID SURVEY WAS DONE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J17 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS MAP CONSISTING OF SHEETS CTL-1 THROUGH CTL-3 IS A TRUE, ACCURATE AND COMPLETE DEPICTION OF THE RESULTS OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON APRIL 9, 2013.

SURVEYOR: SAMUEL T. HALL PSM NUMBER 6644

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SAMUEL T. HALL, PSM
SURVEYOR LICENSE NUMBER 6644
WANTMAN GROUP INC.
2035 VISTA PARKWAY, SUITE 100
WEST PALM BEACH, FL 33411
CERTIFICATE OF AUTHORIZATION LB 7055

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

PROJECT SURVEY CONTROL

SHEET NO. CTL-1

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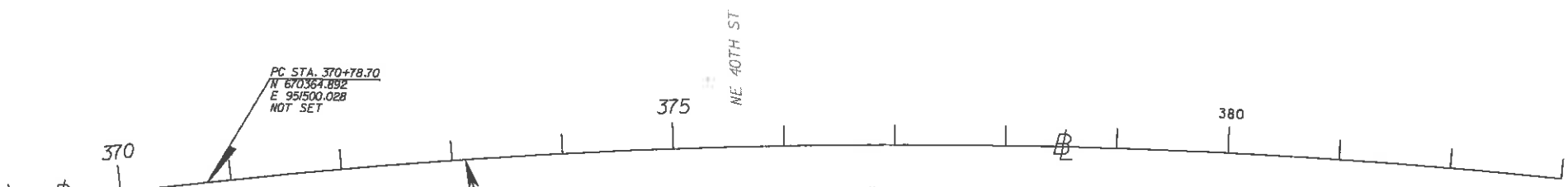
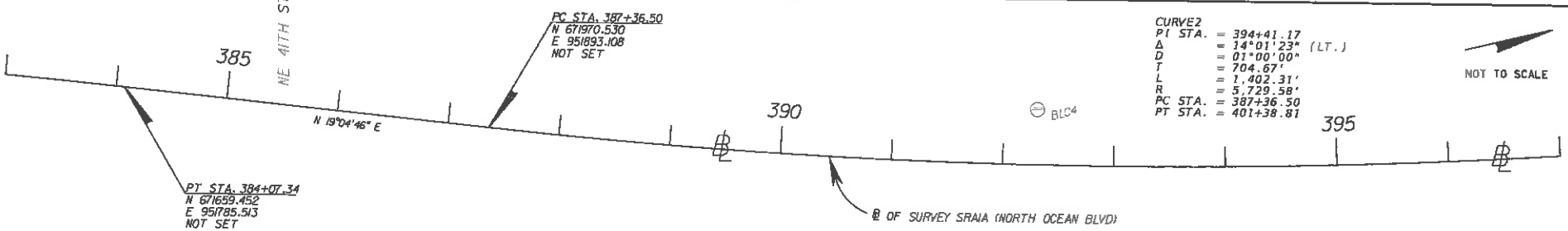
SPECIFIC PURPOSE SURVEY

TRAVERSING THRU SECTION 7 & 18, TOWNSHIP 49 SOUTH, RANGE 43 EAST

NOT TO SCALE



CURVE 1
PI STA. = 377+46.01
Δ = 13°17'11" (RT.)
D = 01°00'00"
T = 667.31
L = 1,328.64'
R = 5,729.58'
PC STA. = 370+78.70
PT STA. = 384+07.34



CURVE2
PI STA. = 394+41.17
Δ = 14°01'23" (LT.)
D = 01°00'00"
T = 704.67'
L = 1,402.31'
R = 5,729.58'
PC STA. = 387+36.50
PT STA. = 401+38.81

NOT TO SCALE

SEE SHEET CTL-1 FOR LEGEND AND NOTES

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SAMUEL T. HALL, PSM
SURVEYOR LICENSE NUMBER 6644
WANTMAN GROUP INC.
2035 VISTA PARKWAY, SUITE 100
WEST PALM BEACH, FL 33411
CERTIFICATE OF AUTHORIZATION LB 7055

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

PROJECT SURVEY CONTROL

SHEET NO. CTL-2

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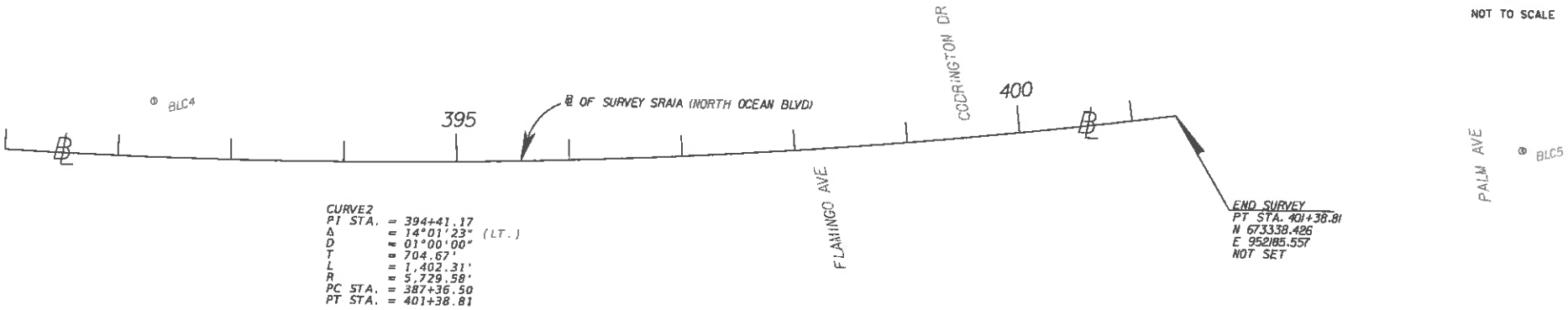
SPECIFIC PURPOSE SURVEY

TRAVERSING THRU SECTION 7 & 18, TOWNSHIP 49 SOUTH, RANGE 43 EAST

NOT TO SCALE



SEE SHEET CTL-1 FOR LEGEND AND NOTES

POINT NAME	(X) EASTING	(Y) NORTHING	SCALE FACTOR	LATITUDE	LONGITUDE	BASELINE STATION	OFFSET	(Z) ELEVATION	DESCRIPTION
BLC3	951568.614	670519.303	1.00004123	26°10'31.97075	80°05'57.47529	372+40.69	50.38 RT.	7.70	FOUND FDOT BRASS DISC IN CONCRETE STAMPED A1A-86-08-C-3
BLC4	951986.252	672455.504	1.00004152	26°10'51.11711	80°05'52.74387	392+30.14	49.43 LT.	10.54	FOUND FDOT BRASS DISC IN CONCRETE STAMPED A1A-86-08-C-4
BLC5	952277.820	673631.428	1.00004172	26°11'02.74274	80°05'49.45385	N/A	N/A	9.07	FOUND FDOT BRASS DISC IN CONCRETE STAMPED A1A-86-08-C-5
C7	951281.489	667691.956	1.00004104	26°10'03.98994	80°06'00.84161	343+97.36	52.37 RT.	6.64	FOUND FDOT BRASS DISC IN CONCRETE MONUMENT STAMPED A1A-86-06-C07
BM1	951359	667592	1.00004109	26°10'03.00	80°06'00.00	343+10	140 RT.	6.64	FOUND FDOT BRASS DISC IN CONCRETE STAMPED A1A-86-08-B-1
BM2	951482	669503	1.00004118	26°10'21.91	80°05'58.51	362+19	69 RT.	8.16	FOUND FDOT BRASS DISC IN CONCRETE STAMPED A1A-86-08-B-2
BM3	951782	671490	1.00004138	26°10'41.57	80°05'55.06	382+45	50 RT.	7.91	FOUND FDOT BRASS DISC IN CONCRETE STAMPED A1A-86-08-B-3

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

SAMUEL T. HALL, PSM
SURVEYOR LICENSE NUMBER 6644
WANTMAN GROUP INC.
2035 VISTA PARKWAY, SUITE 100
WEST PALM BEACH, FL 33411
CERTIFICATE OF AUTHORIZATION LB 7055

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
A1A	BROWARD	431204-2-52-01

PROJECT SURVEY CONTROL

SHEET NO. CTL-3

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SECTION No.(s):	**860500**
S.R. No.(s):	**A1A**
FM No:	**431204-2-52-01**
COUNTY:	**BROWARD COUNTY**

EXHIBIT C

LANDSCAPE IMPROVEMENT MAINTENANCE PLAN

MAINTENANCE PLAN
Landscape Improvements

Project State Road No(s):	**State Road A1A**
Project Limits:	**From State Road 816 (Oakland Park Boulevard) (M.P. 5.393) to Flamingo Avenue (M.P. 6.399)**
FM No(s):	**431204-2-52-01**
Maintaining Agency:	**City of Fort Lauderdale**
RLA of Record:	Harry L. Belton, R.L.A.
Date:	**February 15, 2016**

I. GENERAL MAINTENANCE REQUIREMENTS AND RECOMMENDATIONS:

The purpose of a plan for the landscape improvements maintenance practices is to allow the plant material on your project to thrive in a safe and vigorous manner while fulfilling their intended purpose and conserving our natural resources. Plantings and all other landscape improvements shall be maintained to avoid potential roadway hazards and to provide required clear visibility, accessibility, clearance, and setbacks as set forth by Florida Department of Transportation (FDOT) governing standards and specifications: *FDOT Design Standards, FDOT Plans Preparation Manual Vol. I, Chapter 2.11* and *FDOT Standard Specifications for Road and Bridge Construction,* as amended by contract documents, and all other requirements set forth by the District 4 Operations Maintenance Engineer. The initial portion of the Maintenance Plan describes general maintenance requirements and recommendations. The concluding section provides recommendations prepared by the Registered Landscape Architect of Record specific to the attached approved plans.

WATERING REQUIREMENTS

Watering is a critical concern for not only the maintenance of healthy plant material but also for observing water conservation practices. The amount of water to apply at any one time varies with the weather, drainage conditions and water holding capacity of the soil. For plant materials that have been established, it is imperative that any mandated water restrictions be fully conformed to on FDOT roadways.

Proper watering techniques should provide even and thorough water dispersal to wet the entire root zone, but not saturate the soil or over-spray onto travel lanes.

IRRIGATION SYSTEM

The Agency shall ensure there are no roadway overspray or irrigation activities during daytime hours (most notably "rush hour" traffic periods). It is imperative the irrigation controller is properly set to run early enough that the watering process will be entirely completed before high traffic periods, while adhering to mandated water restrictions. To ensure water conservation, the Agency shall monitor the system for water leaks and the rain sensors to ensure they are functioning properly so that the system shuts down when there is sufficient rainfall.

INTEGRATED PLANT MANAGEMENT

An assessment of each planting area's soil is recommended to periodically determine the nutrient levels needed to sustain healthy, vigorous plant growth.

Palms, shrubs, trees and turf areas shall be fertilized in such a manner and frequency to ensure that the plant material remains healthy and vigorously growing. Establishment of an integrated pest management program is encouraged to ensure healthy plants, which are free of disease and pests.

MULCHING

Mulch planting beds in such a manner as to prevent weed growth, retain moisture to the plants, protect against soil erosion and nutrient loss, maintain a more uniform soil temperature, and improve the appearance of the planting beds. Avoid mulch mounded up on the trunks of trees, palms, and the base of shrubs to encourage air movement in this area which aids in lowering disease susceptibility. Cypress mulch is prohibited on state right of way.

PRUNING

All pruning, and the associated safety criteria, shall be performed according to American National Standard Institute (ANSI) A300 standards and shall be supervised by an International Society of Arboriculture (ISA) Certified Arborist. Pruning shall be carried out with the health and natural growth of plant materials in mind, to specific pruning heights maintaining clear visibility for motorists, and provide vertical clearance for pedestrian, bicyclist, and truck traffic where applicable. Visibility windows must be maintained free of view obstructions, and all trees and palms must be maintained to prevent potential roadway and pedestrian hazards, all palms are to be kept fruit free. The specific pruning heights are determined by understanding the designer's intent when selecting and placing the plants. The intended mature maintained height and spread of plants are noted on the plans (See Exhibit B.) and see Part II. Specific Requirements and Recommendations for guidelines. The understory plant materials selected for use within the restricted planting areas (Limits of Clear Sight) are to be maintained at a height in compliance with *FDOT Design Standards* Index 546; Page 6 of 6, Window Detail. Vertical tree heights must meet *FDOT Maintenance Rating Program* (MRP) standards.

STAKING AND GUYING

All staking materials, except for replacements, are to be removed by the completion of FDOT warranty period or at one year (whichever comes first). Any subsequent staking and guying activities by the Agency must adhere to *FDOT Design Standards* guidelines (See Index 544). The Agency shall closely monitor staking and guying attachment materials so that they are securely fastened to avoid potential roadway hazards.

TURF MOWING:

All grassed areas are to be mowed and trimmed with sufficient frequency to maintain a deep, healthy root system while providing a neat and clean appearance to the urban landscape. All turf efforts, mowing, curb/sidewalk edging and turf condition, must at a minimum, meet *FDOT Maintenance Rating Program* (MRP).

LITTER CONTROL:

The project site shall remain as litter free as practicable. It is recommended to recycle this litter to avoid unnecessary waste by its reuse. Litter removal efforts must meet *FDOT Maintenance Rating Program* (MRP) standards.

WEEDING/HERBICIDE
All planting areas shall be maintained as weed free as practicable by enlisting integrated pest management practices in areas specified on the plans and maintaining proper mulch levels. Extreme care is recommended if using a chemical herbicide to avoid overspray onto plant materials. It is the applicator's responsibility to restore any damage, resulting from overspray to the plantings, per the approved plans.

PLANT REPLACEMENT
Plant replacement shall be the same species and specification as the approved plan. Move and replace all plant materials that may conflict with utility relocations and service. Only plants graded Florida #1 or better, per the *Florida Department of Agriculture and Consumer Services, Grades and Standards for Nursery Plants* are permitted on FDOT roadways. Should it become necessary to change the species, a general use permit is required from FDOT for approval by the FDOT District Landscape Architect.

HARDSCAPE (SPECIALTY SURFACING)
All tree grates and specialty surfacing (if applicable) shall be maintained in such a manner as to prevent any potential tripping hazards and protect damage to the pavers and tree grates. Final surface tolerance from grade elevations shall, at a minimum, meet the most current *Interlocking Concrete Pavement Institute (ICPI), Guide Specifications for Pavers on an Aggregate Base, Section 23 14 13 Interlocking Concrete Pavers*, Part 3.05. If the specialty surfacing or tree grates become damaged, they shall be replaced with the same type and specification as the approved plan.

HARDSCAPE (NON-STANDARD) TRAVELWAY SURFACING
It shall be the responsibility of the AGENCY to restore an unacceptable ride condition of the roadway, including asphalt pavement (if applicable), caused or contributed by the installation or failure of non-standard surfacing, and/or the header curb, on the Department of Transportation right-of-way within the limits of this Agreement. Pavement restoration areas or "patches" will have a minimum length of 10-ft, measured from the edge of the header curb, and a width to cover full lanes for each lane affected by the restoration.

Pavement restoration will be performed in accordance with the most current edition of the *FDOT Standard Specifications for Road and Bridge Construction*, and the *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System*.

It shall be the responsibility of the AGENCY to maintain all signs located within a non-standard surfacing area. Such maintenance to be provided by the AGENCY shall include repair and replacement of the sign panel, post, and base.

HARDSCAPE (LANDSCAPE ACCENT LIGHTING)
Landscape accent lighting shall be maintained in such a manner as to prolong the life of the lighting fixture and prevent potential safety hazards. If the lighting fixtures and their system become damaged, they shall be replaced with the same type and specification as the approved plan. Landscape lighting shall meet requirements for the sea turtle nesting and hatching.

MAINTENANCE OF TRAFFIC CONTROL
Reference the FDOT website regarding the selection of the proper traffic control requirements to be provided during routine maintenance and / or new installations of this DOT roadway.

VEGETATION MANAGEMENT AT OUTDOOR ADVERTISING (ODA)

To avoid conflicts with permitted outdoor advertising, please reference the State of Florida website regarding the vegetation management of outdoor advertising. This website provides a portal to search the FDOT Outdoor Advertising Inventory Management System Database. The database contains an inventory of outdoor advertising structures, permits and other related information maintained by the Department.

Also, reference the *Florida Highway Beautification Program* website link for "*Vegetation Management at ODA signs*" "Florida Statutes" and "Florida Administrative Code" related to vegetation management at outdoor advertising sign, permit applications for vegetation management and determining mitigation value of roadside vegetation.

II. SPECIFIC PROJECT SITE MAINTENANCE REQUIREMENTS AND RECOMMENDATIONS

ADDITIONAL PRUNING AND TRIMMING

Specific species of shrubs and groundcovers are not to be sheared and shall be allowed to grow to their natural height and form. These species include: Crinum asiaticum, Philodendron 'Rojo Congo', Philodendron 'Xanadu' Rhapis excelsa, Strelitzia reginae, Zamia furfuracea, Liriope muscari, Nephrolepis exaltata, Neoregelia 'Fireball' and Pilea microphylla.

All other shrubs and groundcovers may be sheared to maintain size, as noted in paragraph 'Pruning', and as directed in the table below:

Maintenance Pruning Requirements	
BOTANICAL NAME	**MAINTAINED HEIGHT**
Concarpus erectus 'Sericeus'	48"
Chrysobalanus icaco 'Red Tip'	48"
Codiaeum variegatum 'Mammey'	36"
Ixora 'Nora Grant'	36"
Justicia brandegeana	36"
Ficus microcarpa' Green Island'	24"
Juniperus conferta 'Blue Pacific'	12"
Pittosporum tobira 'Variegata'	24"

BONDED AGGREGATE

All Bonded Aggregate shall be maintained to meet the requirements and specifications of the Landscape Plans. All hazards and/or imperfections, for example; separations, chips, cracks, breaks, missing pieces, uplifts, depressions, and splits, shall be removed and/or repaired immediately. All construction activities shall follow all applicable FDOT standards and requirements.

BENCHES

All benches shall be maintained upright and functional for their intended purpose. Physical and visual characteristics and finishes all benches shall be maintained. All benches shall be kept anchored as per manufacturer's specifications. Replacement benches shall be identical to the specifications in the Landscape Plans. Replacement parts shall be acquired from, and installed according to, the original bench manufacture.

REFERENCES

This reference list is provided as a courtesy. The list may not contain the most current websites. The most current references must be accessed for up to date information.

Accessible Sidewalk (ADA)
http://www.access-board.gov/guidelines-and-standards/streets-sidewalks

Americans with Disabilities Act (ADA) (ADAAG)
http://www.ada.gov/2010ADAstandards_index.htm

American National Standard Institute, *ANSI A300, (Part 1) for Tree Care Operations – Trees, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning)*, available for purchase
http://webstore.ansi.org

Florida Department of Agriculture and Consumer Services, Division of Plant Industry, *Florida Grades and Standards for Nursery Plants*
http://www.freshfromflorida.com/Divisions-Offices/Plant-Industry/Bureaus-and-Services/Bureau-of-Plant-and-Apiary-Inspection/Plant-Inspection#pubs

Florida Department of Community Affairs (DCA), *Florida Board of Building Codes & Standards, 2010 Florida Building Code, Chapter 11 Florida Accessibility Code for Building Construction Part A*
http://www2.iccsafe.org/states/florida_codes/

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 544 Landscape Installation*
http://www.dot.state.fl.us/rddesign/DS/15/IDx/00544.pdf

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 546 Sight Distance at Intersections*
http://www.dot.state.fl.us/rddesign/DS/15/IDx/00546.pdf

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 600 Traffic Control through Work Zones*
http://www.dot.state.fl.us/rddesign/DS/15/IDx/00600.pdf

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 700 Roadside Offsets*
http://www.dot.state.fl.us/rddesign/DS/15/IDx/00700.pdf

Florida Department of Transportation, *FDOT Plans Preparation Manual (PPM) Vol. I Chapter 2.11 Horizontal Clearance*
Table 2.11.5 Horizontal Clearance to Trees
Table 2.11.11 Recoverable Terrain
http://www.dot.state.fl.us/rddesign/PPMManual/2014PPM.shtm

Florida Department of Transportation, *FDOT Standard Specifications for Road and Bridge Construction, Section 580 Landscape Installation*
http://www.dot.state.fl.us/specificationsoffice/Maintenance/Jul14/Files/SS5800000.doc

http://www.dot.state.fl.us/specificationsoffice/Implemented/Workbooks/JulWorkbook2014/Files/SP5800000FA.pdf

Florida Department of Transportation, Landscape Architecture Website
www.MyFloridaBeautiful.com

Florida Department of Transportation, *Maintenance Rating Program Handbook*
http://www.dot.state.fl.us/statemaintenanceoffice/MaintRatingProgram.shtm

Florida Department of Transportation Outdoor Advertising Database
http://www2.dot.state.fl.us/rightofway/

Florida Exotic Pest Plant Council Invasive Plant Lists
http://www.fleppc.org/list/list.htm

Florida Irrigation Society
http://www.fisstate.org

Florida Power and Light (FPL), *Plant the Right Tree in the Right Place*
http://www.fpl.com/residential/trees/right_tree_right_place.shtml

A Guide to Roadside Vegetation Management
http://www.dot.state.fl.us/statemaintenanceoffice/DOT%20Final%20(3)Turf%20Management%20Guide%20UF.pdf

Interlocking Concrete Pavement Institute (ICPI)
http://www.icpi.org/

International Society of Arboriculture (ISA)
www.isa-arbor.com

UF IFAS: *Selecting Tropical and Subtropical Tree Species for Wind Resistance*
http://edis.ifas.ufl.edu/pdffiles/FR/FR17500.pdf

U.S. Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices*
http://www.mutcd.fhwa.dot.gov

SECTION No.(s):	**860500**
S.R. No.(s):	**A1A**
FM No:	**431204-2-52-01**
COUNTY:	**BROWARD COUNTY**

EXHIBIT D

APPROXIMATE COST FOR LANDSCAPE IMPROVEMENTS

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

$1,279,027.64

ATKINS
Atkins North America, Inc.

Preliminary Cost Estimate
February 5, 2016

SR A1A - 431204-2-52-01

		QTY		UNIT PRICE	SUBTOTAL	TOTAL
0999-2 LUMP SUM						
Litter Removal	(4 cycles)	9.96	AC	$36.20		**$360.69**
Mowing	(4 cycles)	0.14	AC	$45.63		**$6.60**
Plants, Large (Trees)		1	LS			**$485,922.00**
TYPE	SIZE					
Bulnesia arborea	12' ht. x 6' spr.	18	EA	$360.00	$6,480.00	
Bursera sinaruba	16' ht. x 7' spr.	79	EA	$385.00	$30,415.00	
Conocarpus erectus 'sericeus'	12' ht. x 6' spr.	21	EA	$300.00	$6,300.00	
Caesalpinia ferrea	12' ht. x 6' spr.	6	EA	$700.00	$4,200.00	
Cocos nucifera 'Maypan'	12'-16' CT	69	EA	$1,680.00	$115,920.00	
Cordia sebestiana	12' ht. x 6' spr.	19	EA	$250.00	$4,750.00	
Phoenix dactylifera 'Medjool'	16' CT	40	EA	$4,800.00	$192,000.00	
Quercus virginiana	16' ht. x 7' spr.	57	EA	$800.00	$45,600.00	
Sabal palmetto	12'-24' CT	79	EA	$225.00	$17,775.00	
Tabebuia hetrophylla	12' ht. x 4' spr.	6	EA	$200.00	$1,200.00	
Thrinax radiata	6' OA	28	EA	$300.00	$8,400.00	
Veitchia montgomeryana	6'-12' GW	93	EA	$450.00	$41,850.00	
Plants, Large (Shrubs)						
Crinum asiaticum	30" ht. x 30" spr.	47	EA	$36.00	$1,692.00	
Philodendron 'Rojo Congo'	30" ht. x 30" spr.	22	EA	$40.00	$880.00	
Philodendron 'xanadu'	30" ht. x 30" spr.	23	EA	$30.00	$690.00	
Rhapis excelsa	24" ht. x 16" spr.	32	EA	$85.00	$2,720.00	
Strelitzia reginae	30" ht. x 30" spr.	70	EA	$40.00	$2,800.00	
Zamia furfuracea	30" ht. x 30" spr.	50	EA	$45.00	$2,250.00	
Plants, Small (Shrubs)						**$118,712.00**
Codiaeum variegatum 'mammey'	16" ht. x 16" spr.	178	EA	$8.00	$1,424.00	
Conocarpus erectus 'sericeus'	18" ht. x 18" spr.	267	EA	$7.00	$1,869.00	
Chysobalanus icaco	18" ht. x 16" spr.	390	EA	$7.50	$2,925.00	
Ficus microcarpa 'Green Island'	16" ht. x 16" spr.	2397	EA	$9.00	$21,573.00	
Ixora 'Nora Grant'	18" ht. x 16" spr.	158	EA	$9.00	$1,422.00	
Justicia brandegeana	16" ht. x 16" spr.	100	EA	$9.00	$900.00	
Pittosporum tobira 'variegata'	15" ht. x 15" spr.	1110	EA	$8.00	$8,880.00	
Plants, Small (Groundcovers)						
Juniper conferta 'Blue Pacific'	8" ht. x 12" spr.	2185	EA	$8.00	$17,480.00	
Liriope muscari	6" ht. x 6" spr.	3150	EA	$3.50	$11,025.00	
Nephrolepis e. 'Kimberly Queen'	15" ht. x 15" spr.	2432	EA	$7.00	$17,024.00	
Neoregelia 'Fireball'	6" ht. x 6" spr.	2600	EA	$10.00	$26,000.00	
Pilea microphylla	6" ht. x 6" spr.	2340	EA	$3.50	$8,190.00	
Estimated Establishment Period Cost (2 years)					$145,112.16	**$145,112.16**
Root Barrier	12" deep	2507	LF	$4.50	$11,281.50	**$11,281.50**
Irrigation		1	LS	$110,284.28		**$110,284.28**
Street Furnishings						**$230,346.00**
bonded aggregate		3613	SF	$42.00	$151,746.00	
benches		20	EA	$3,930.00	$78,600.00	
					SUBTOTAL	**$1,102,026.22**
Mobilization (8%)		1	LS			**$88,162.02**
Work Zone Sign		4620	ED	$0.26	$1,201.20	**$1,201.20**
Channelizing Device, Types I, II, DI, VP, DRUM or LCD		10200	ED	$0.15	$1,530.00	**$1,530.00**
Channelizing Device, Types III, 6'		1740	ED	$0.30	$522.00	**$522.00**
Channelizing Device, Pedestrian LCD		2160	LF	$12.98	$28,036.80	**$28,036.80**
Arrow Board/ Advance Warning Arrow Panel		840	ED	$5.30	$4,452.00	**$4,452.00**
Portable Changeable Message Sign, Temporary		240	ED	$12.91	$3,098.40	**$3,098.40**
Painted Pavement Marking, Standard, White, Solid, 6"			GM	$766.59	$0.00	**$0.00**
					TOTAL	**$1,229,027.64**
0999-25 Initial Contingency						**$50,000.00**
					GRAND TOTAL	**$1,279,027.64**

*The estimated costs indicated above are intended as Atkins' opinion of a reasonable costs to complete the scope of this project at the time of estimate. It is possible that bid unit prices for this project could be much higher or lower depending on the contractor's valuation of the item within the context of the total project.