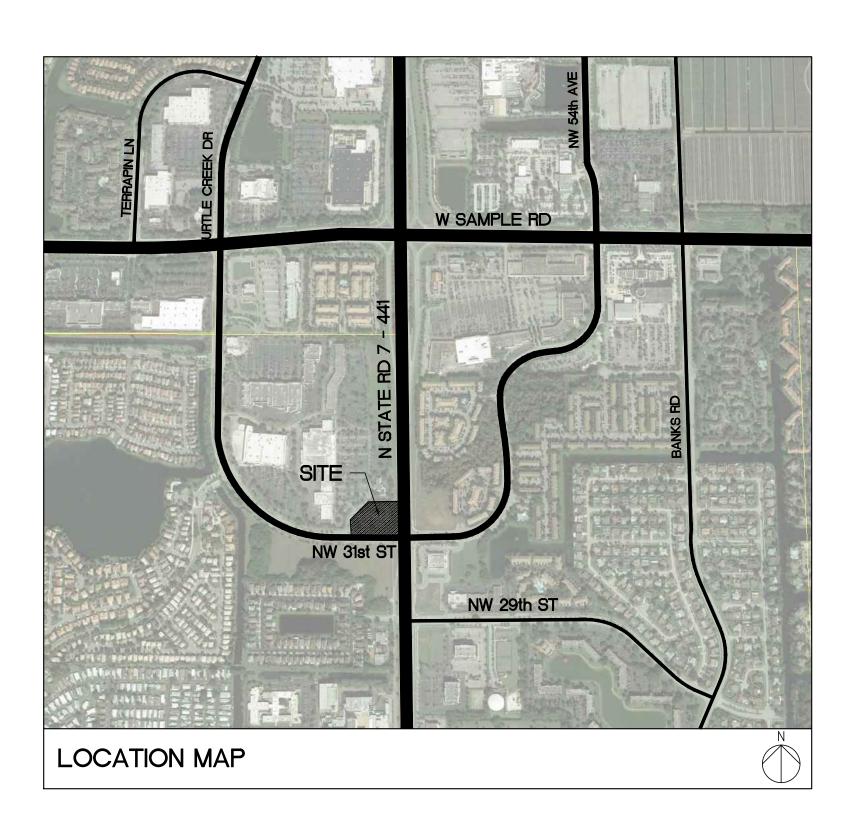
MARGATE RETAIL EXPANSION

D.R.C SITE PLAN APPROVAL

3101 NORTH STATE ROAD 7 MARGATE, FLORIDA 33063



D.R.C.
SUBMITTAL
04.25.2016

PROJECT DESCRIPTION:

THESE DOCUMENTS DESCRIBE THE SITE IMPROVEMENT MODIFICATIONS (PARKING & PROPOSED ATM TELLER) AND THE ADDITION OF A 3,100 SQUARE FOOT, 1—STORY RETAIL BUILDING.

PROJECT TEAM:

CLIENT: THE LEDER GROUP

4755 TECHNOLOGY WAY
SUITE #203
BOCA RATON, FLORIDA 33431
PH: 561.995.7878
FAX: 561.995.9181

PH: 561.393.6555

ARCHITECT: RLC ARCHITECTS, P.A. 14 SOUTHEAST 4TH STREET BOCA RATON, FLORIDA 33432

FAX: 561.395.0007

MEP: FAE CONSULTING

700 WEST HILLSBORO BLVD

BUILDING #1 SUITE #204

BUILDING #1, SUITE #204
DEERFIELD BEACH, FLORIDA 33441
PH: 561.391.9292

LANDSCAPE : ARCHITECTURAL ALLIANCE

LANDSCAPE
612 SOUTHWEST 4TH AVENUE FORT LAUDERDALE, FLORIDA 33315
PH: 954.764.8858

CIVIL: DIVERSIFIED CONSTRUCTION AND

ENGINEERING SERVICES

2295 NORTHWEST CORPORATE BOULEVARD
SUITE 125 BOCA RATON, FLORIDA 33431
PH: 561.750.3717

LAND-USE ATTORNEY : GREENSPOON MARDER

200 EAST BROWARD BOULEVARD SUITE 1500 FORT LAUDERDALE, FLORIDA 33301 PH: 954.761.2929

LIST OF DRAWINGS:

A0.00 COVER SHEET

1 OF 1 ALTA / ACSM SURVEY

CIVIL

-1 CONCEPTUAL SITE ENGINEERING PLAN

ARCHITECTURAL as1.00 DEMOLITION SITE PLAN

AS1.10 PROPOSED SITE PLAN

AS1.20 SITE DETAILS

AS1.30 ENLARGED FLOOR PLAN

ELECTRICAL

AS1.50 EXTERIOR ELEVATIONS

EPO.1 PHOTOMETRIC DETAIL & NOTES

EP1.1 SITE PHOTOMETRIC PLAN

LANDSCAPE

7-1 TREE DISPOSITION PLAN

2-1 LANDSCAPE PLAN

2-2 LANDSCAPE NOTES AND DETAILS

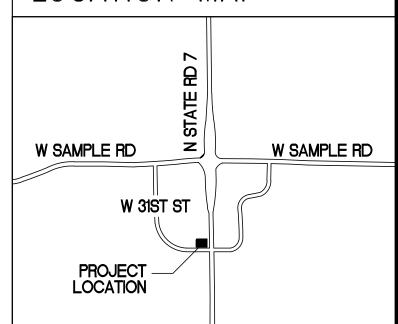
-1 IRRIGATION PLAN

IR-2 IRRIGATION DETAILS

D.R.C. SUBMITTAL 04.25.2016

IRRIGATION NOTES

LOCATION MAP

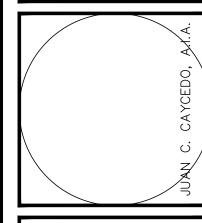


RUE NORTH

D.R.C. SUBMITTAL 04.25.2016 RLC A r c h i t e c t S

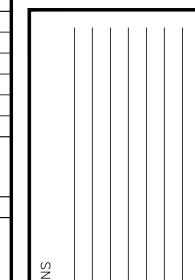
14 SE 4th Street, Boca Raton, FL 33432
Tel 561 393 6555 Fax 561 395 0007
Web www.rlcarchitects.com

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STATE of FLORIDA REGISTERED ARCHITECTS No. AA28
THE DRAWINGS AND ALL THE IDEAS, ARRANGEMENTS, INDICATED THEREBY ARRANGEMENTS, INDICATED THEREBY ARRAIN THE PROPERTY OF RLC ARCHITECTS. A.A.R.

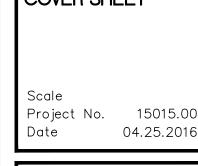




1ARGATE RETAI UILDING EXPANSION



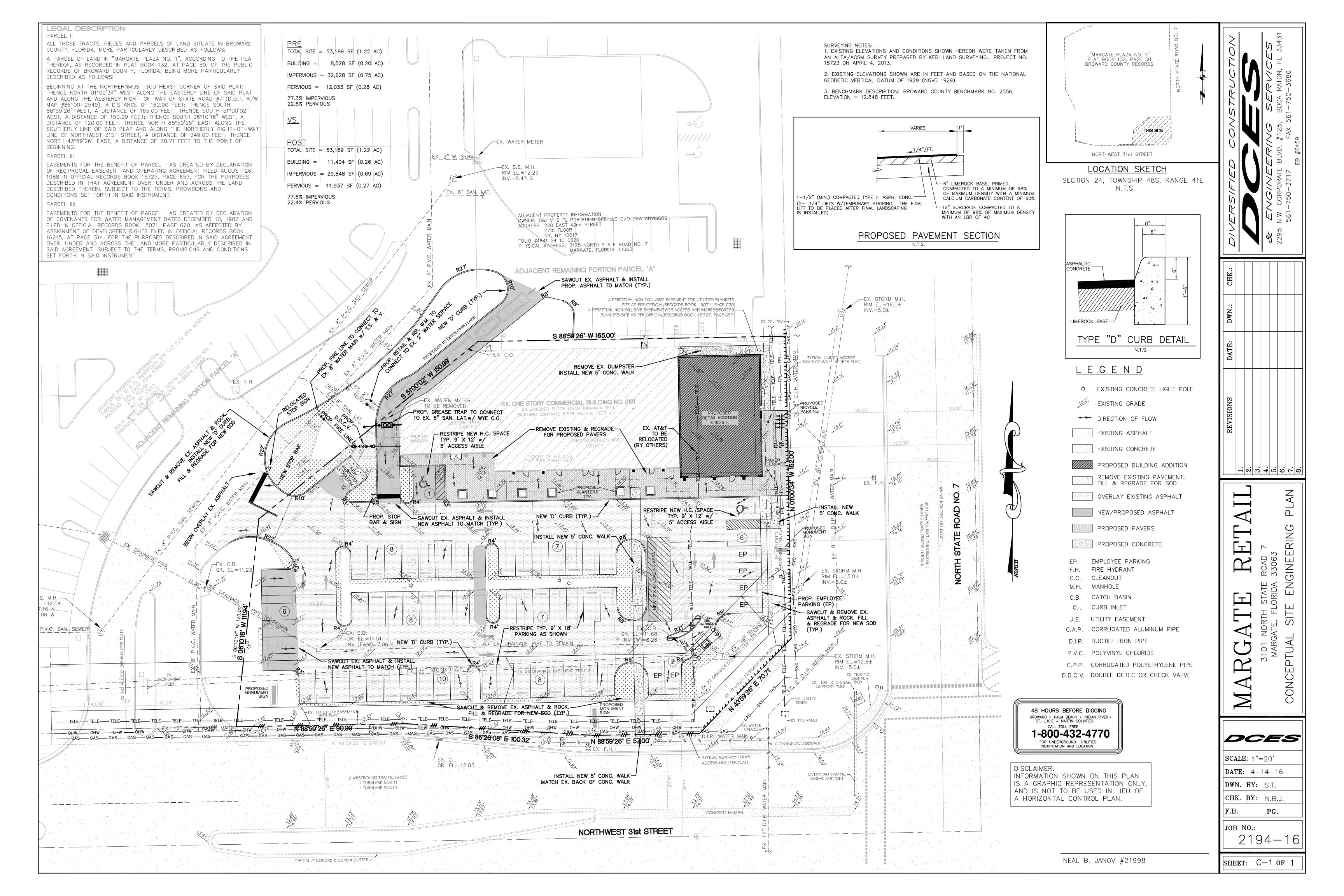


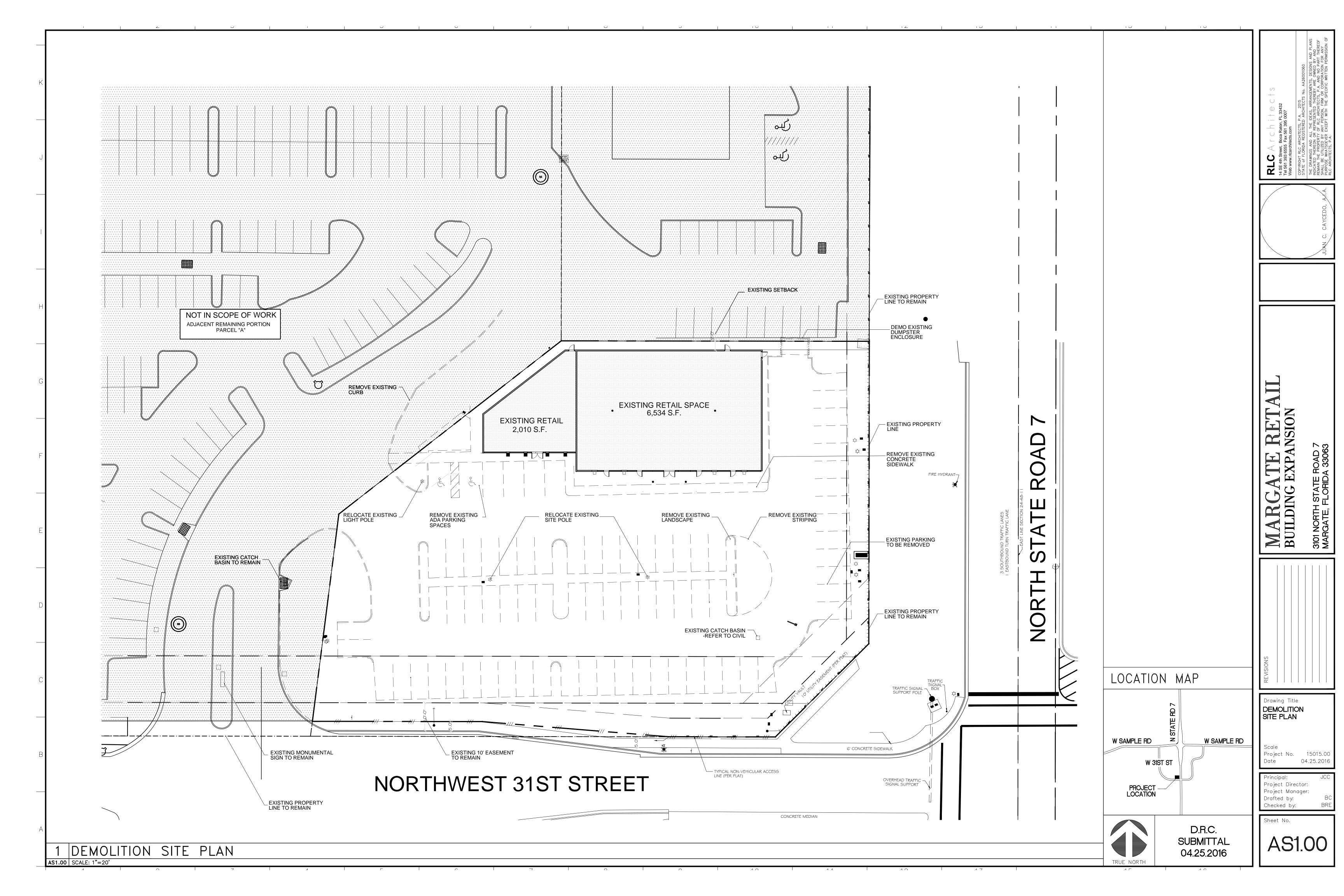


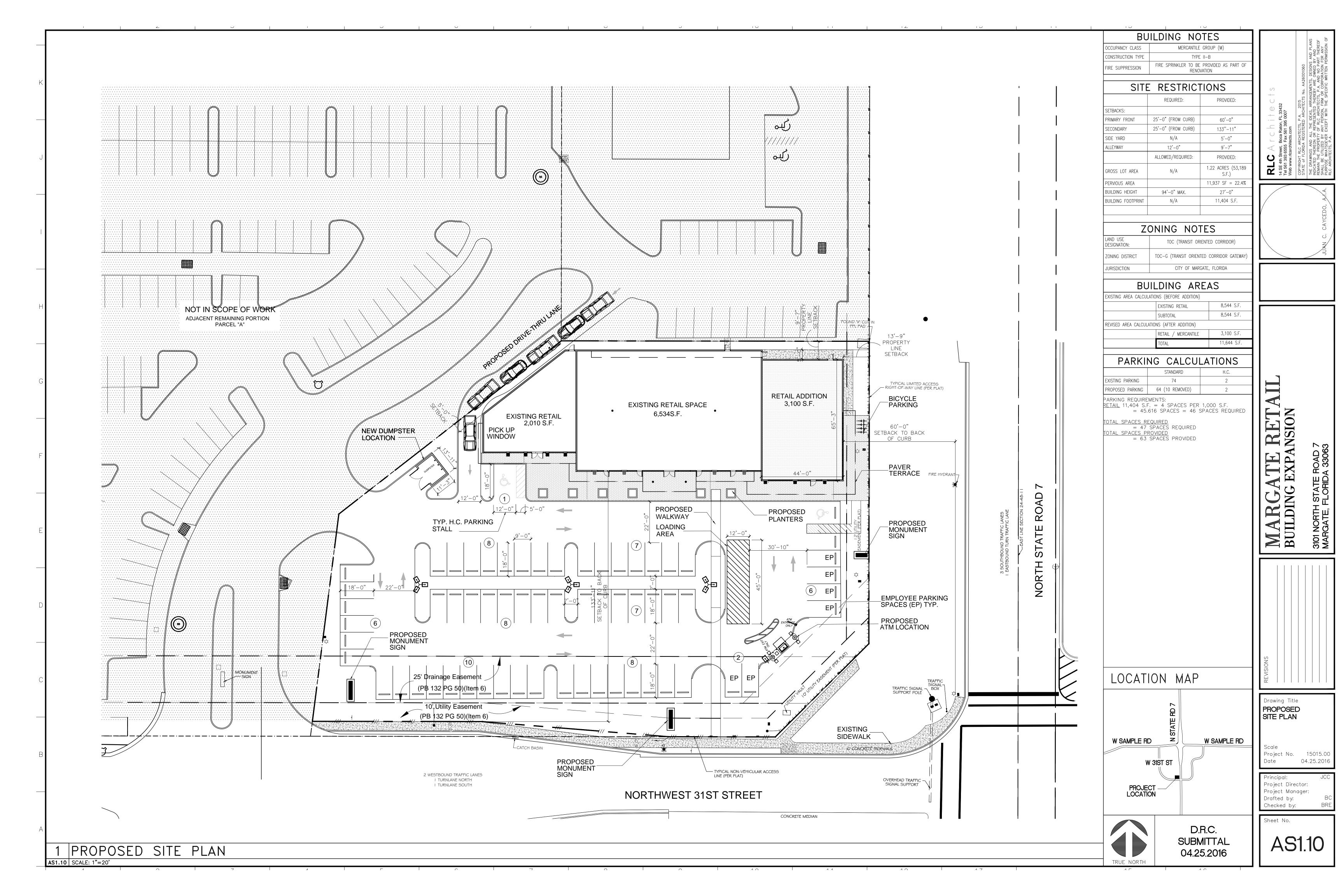
Principal: JCC
Project Director:
Project Manager:
Drafted by: BC
Checked by: BRE

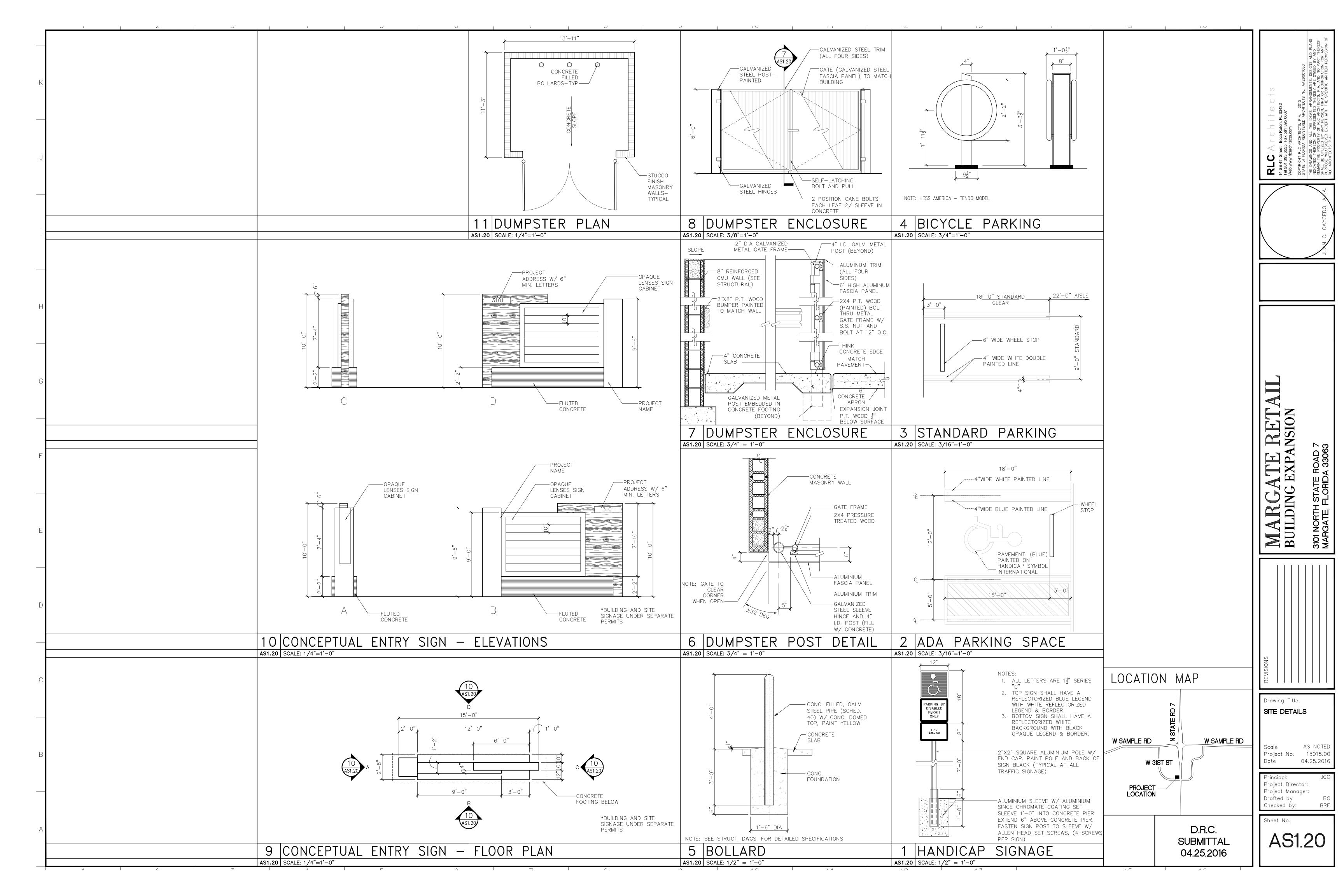
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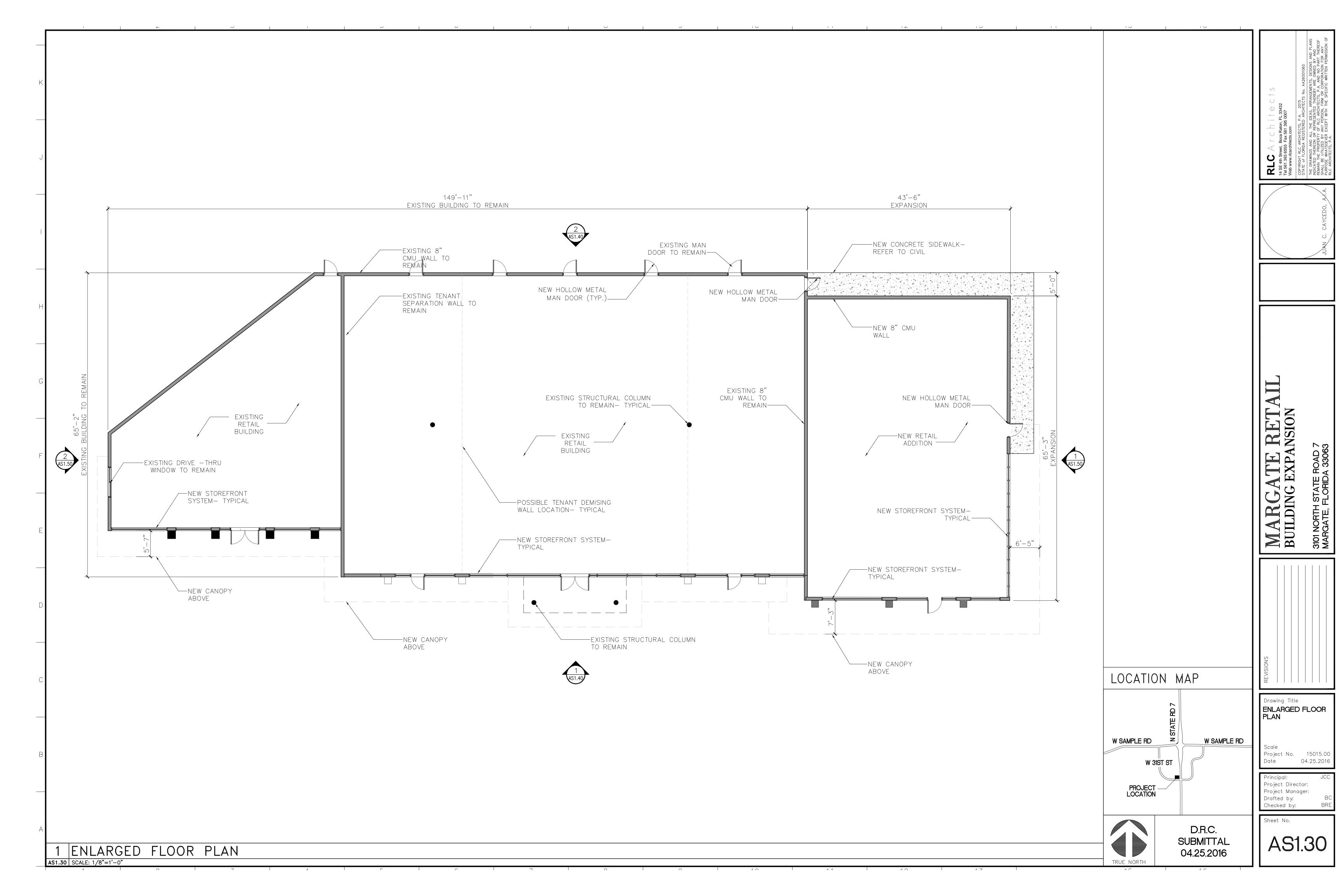
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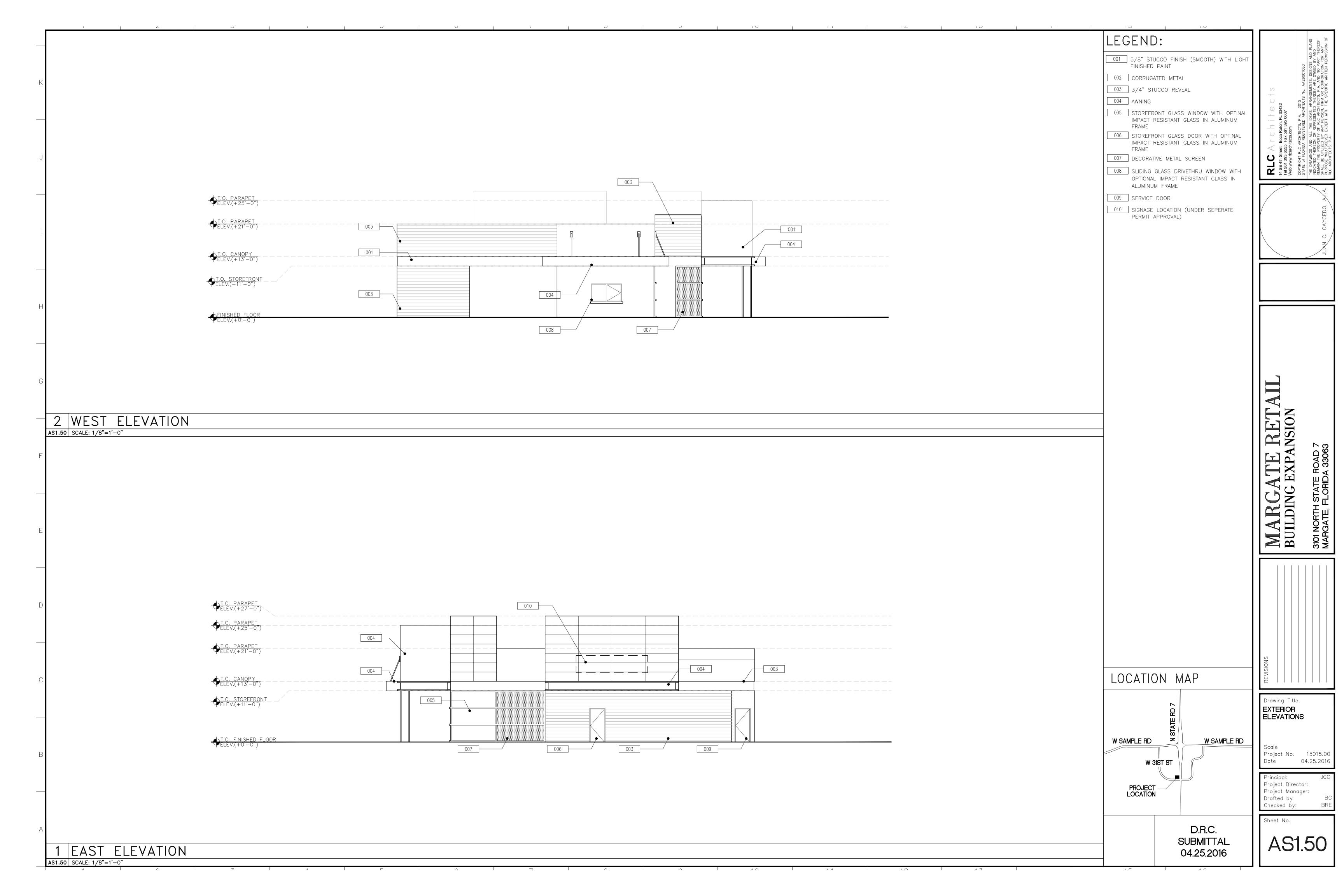


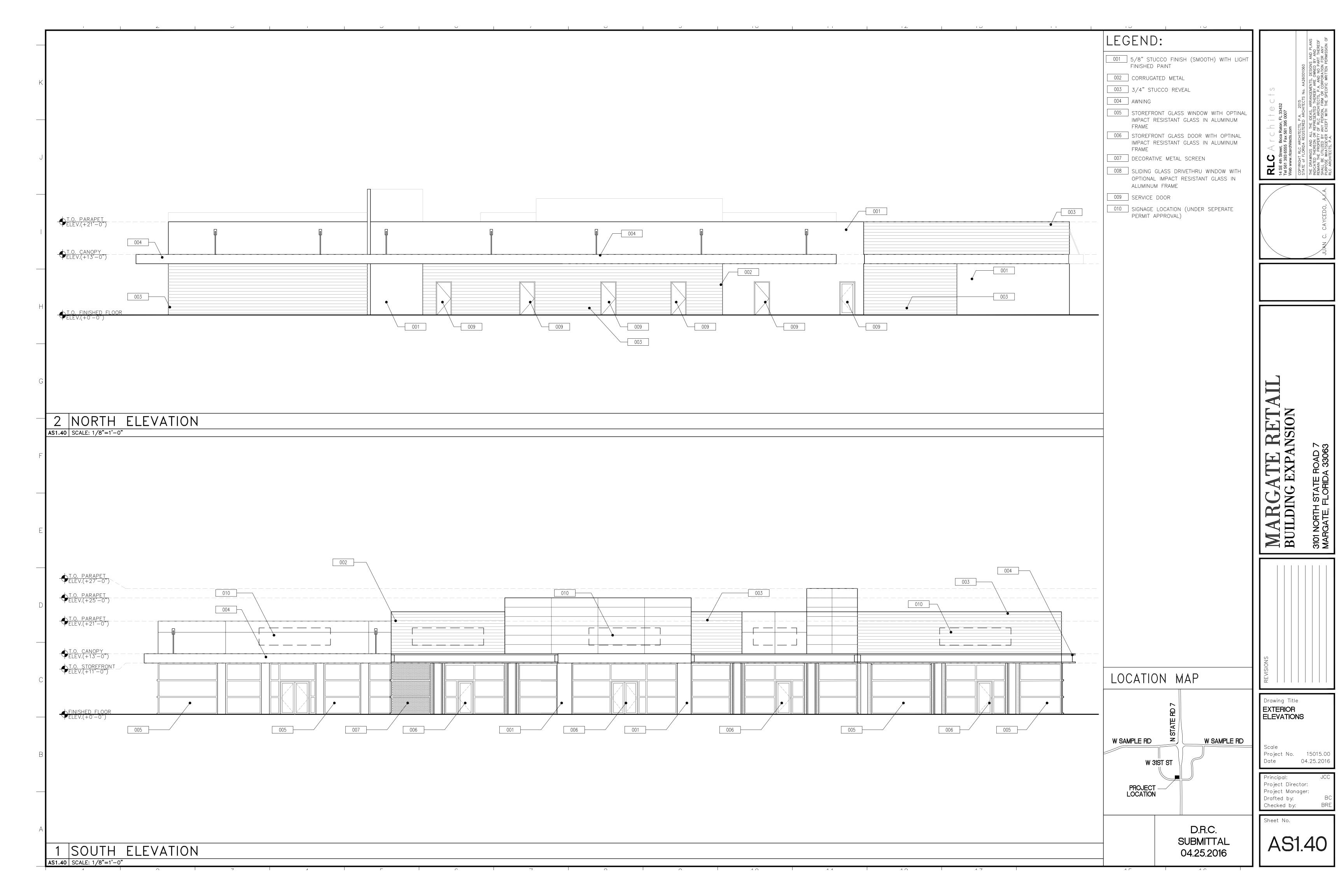












RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 5 WORKING DAYS TO RESPOND. 2. SUBMITTALS AND PRODUCT DATA- CONTRACTOR SHALL PREPARE A SUBMITTAL SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SUBMISSIONS. ALL SUBMITTALS, PRODUCT DATA, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.

3. SHOP DRAWINGS- CONTRACTOR SHALL PREPARE A SHOP DRAWING SCHEDULE FOR APPROVAL BY THE A/E. CONTRACTOR RECOGNIZES THE CONSULTANT SHALL REQUIRE UP TO 10 WORKING DAYS TO REVIEW SHOP DRAWINGS. ALL SHOP DRAWINGS, SHALL BE CLEARLY STAMPED AND INDICATED APPROVED BY THE CONTRACTOR PRIOR TO SUBMISSION TO THE CONSULTANT.

4. LAYOUT AND COORDINATION DRAWINGS- CONTRACTOR SHALL PREPARE SCALED COMPREHENSIVE COORDINATED LAYOUT DRAWINGS. PROVIDE SECTIONS, GENERAL ARRANGEMENTS, ELEVATIONS INCLUDING ALL DISCIPLINES FOR HIS PROPOSED LAYOUT AND ROUTING PRIOR TO FABRICATION. SUBMIT TO OWNER AND A/E FOR REVIEW AND GENERAL CONFORMANCE. PROVIDE DRAWINGS THAT DEMONSTRATE VIA COORDINATED ELEMENTS AND SYSTEMS WITH STRUCTURE THAT (LEARLY INDICATE PROPOSED SYSTEMS WILL FIT, FUNCTION AS INTENDED, BE FREE OF INTERFERENCES AND CONFORM TO REQUIRED CODE AND MANUFACTURER WORKING AND MAINTENANCE CLEARANCES.

5. DEVIATIONS FROM BASIS FOR DESIGN SYSTEMS SHALL BE CLEARLY IDENTIFIED ON ALL SUBMISSIONS.

A. CONTRACTOR SHALL PREPARE REQUESTS WITH COMPLETE COORDINATION INFORMATION, INCLUDE ALL CHANGES REQUIRED IN OTHER ELEMENTS OF THE WORK TO ACCOMMODATE THE SUBSTITUTION INCLUDING

WORK PERFORMED BY THE OWNER AND THE SEPARATE CONTRACTORS.

- B. PROVIDE COMPLETE SUPPORTING DATA QUALIFYING THE SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SYSTEM. PROVIDE A DETAILED LIST OF ANY VARIANCES, LIGHTING POWER DENSITY (LPD) SPACE BY SPACE CALCULATIONS, SPACE OR ROOM PHOTOMETRICS, PHYSICAL OR SPATIAL LAYOUTS, ELEVATIONS, ETC. TO THE BASIS OF DESIGN.
- C. PROVIDE A STATEMENT INDICATING THE EFFECT THE SUBSTITUTION WILL HAVE ON THE WORK SCHEDULE IN COMPARISON TO THE SCHEDULE WITHOUT APPROVAL OF THE PROPOSED SUBSTITUTION, INCLUDE INFORMATION REGARDING THE EFFECT OF THE PROPOSED SUBSTITUTION ON THE CONTRACT TIME.
- D. PROVIDE CERTIFICATION BY THE CONTRACTOR TO THE EFFECT THAT, IN THE CONTRACTOR'S OPTION, AFTER THOROUGH EVALUATION, THE PROPOSED SUBSTITUTION WILL RESULT IN WORK THAT IN FVFRY SIGNIFICANT RESPECT IS EQUAL TO OR BETTER THAN THE WORK REQUIRED BY THE CONTRACTOR DOCUMENTS AND THAT IT WILL PERFORM ADEQUATELY IN THE APPLICATION INDICATED.
- E. CONSULTANT'S EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR OR APPROVED BY THE OWNER SHALL BE COMPENSATED TO THE CONSULTANT BY THE CONTRACTOR

7. AS BUILDS- THE CONTRACTOR SHALL MAINTAIN AND PREPARE A COMPLETE AND ACCURATE SET OF AS BUILDS DURING THE PROJECT AND ISSUE TO THE A/E AND OWNER AT PROJECT CLOSEOUT. DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL DOCUMENT, ISSUE SKETCHES OR SCALED DRAWINGS FOR FIELD CHANGES THAT ARE PROPOSED OR MADE WHICH VARY FROM THE BASIS OF DESIGN. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR, MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.

8. INSTALLATION, TESTING AND BALANCING, START UP, COMMISSIONING AND PERFORMANCE TROUBLESHOOTING OF SYSTEMS- CONTRACTOR RECOGNIZES HE IS SOLELY RESPONSIBLE FOR PERFORMANCE AND COMPLETION OF THESE SERVICES AS PART OF THE PROJECT REQUIREMENTS. DURING THE COURSE OF THE PROJECT. THE CONTRACTOR SHALL DOCUMENT THE SERVICES COMPLETED TO THE OWNER AND A/E. CONSULTANT EXPENSES THAT ARE INCURRED DUE TO SUPPORTING SERVICES OR REVISIONS REQUIRED BY BUILDING DEPARTMENT, OWNER, CONTRACTOR, MANUFACTURER SHALL BE COMPENSABLE TO THE CONSULTANT BY THE CONTRACTOR.

→ SITE LIGHT FIXTURE PROVIDE IN-LINE FUSE & SPD @ EACH UNGROUNDED WIRE TO LTG. FIXTURE. (2)#10 & #6GND THWN WIRE TO LTG. — FIXTURE. - HANDHOLE WITH PVC COVER. SEE SHEET MOUNTING HEIGHTS ON SHEET EP1.1 12"Wx20"Lx12"D PULL BOX BY BROOKS - WP J-BOX PER NEC 300-12 & 110-3B GRADE J-B0X GRADE 8'-0" MIN 10'-0" COPPER GROUND -ROD TO PULL BOX THE ENTIRE POLE MOUNTING ASSEMBLY (FOUNDATION, POLE, AND FIXTURES) SHALL WITHSTAND 175 MPH WINDLOADS, PROVIDE CALCULATIONS PERFORMED BY FLORIDA CONDUIT TO NEXT POLE. WIRE & REGISTERED STRUCTURAL ENGINEER. CONDUIT SIZE AS SPECIFIED @ PANEL SCHEDULE CONTRACTOR SHALL VERIFY CONCRETE POLE BURIAL REQUIREMENTS WITH A FLORIDA REGISTERED STRUCTURAL ENGINEER **CONCRETE POLE DETAIL** NOT TO SCALE DETAIL NO. 1

GENERAL ELECTRICAL NOTES

- DO NOT SCALE THE ELECTRICAL DRAWING. REFER TO THE ARCHITECTURAL PLAN AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT AND CONFIRM WITH OWNERS REPRESENTATIVES. CONTRACTOR SHALL REFER TO THE ENTIRE SET OF CONTRACT DOCUMENTS FOR PROJECT COORDINATION.
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE EDITIONS CURRENTLY ADOPTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION OF THE FOLLOWING: THE NATIONAL ELECTRICAL CODE (NFPA 70), NFPA 72, NFPA 75, THE FIRE PREVENTION CODE INCLUDING NFPA 1 & NFPA 101, NFPA 110, AND THE FBC, AND THE FFPC.
- UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE COPPER WITH "THHN" INSULATION FOR SIZE #10 AND SMALLER. CONDUCTORS LARGER THAN #10 SHALL HAVE "THWN" INSULATION. ALL CONDUCTORS IN WET LOCATIONS MUST HAVE "THWN" INSULATION. ALL CONDUCTORS #10 AND SMALLER MAY BE SOLID. ALL CONDUCTORS #8 AND LARGER SHALL BE STRANDED. ALL CONDUCTORS MUST COMPLY WITH ARTICLE 310 OF THE N.E.C.
- 4. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- 5. DISCONNECT SWITCHES SHALL BE H.P. RATED, HEAVY DUTY, QUICK MAKE, QUICK BREAK, WITH ENCLOSURES AS REQUIRED BY EXPOSURE.
- 6. THESE PLANS DO NOT SHOW EVERY MINOR DETAIL OF CONSTRUCTION, THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND MEET ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- THE ELECTRICAL SYSTEM SHALL BE COMPLETELY AND EFFECTIVELY GROUNDED AS REQUIRED IN ARTICLE 250, NATIONAL ELECTRICAL CODE. THE GROUNDING SYSTEM SHALL BE TESTED AND SHALL BE PROVIDED TO MEASURE A MAXIMUM OF 5 OHMS. PROVIDE A COPY OF THE TEST REPORT TO ENGINEER.
- 8. ALL MATERIALS SHALL BE NEW AND SHALL BEAR U.L. LABELS WHERE APPLICABLE.
- 9. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANSHIP MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY ENGINEER/ARCHITECT MUST BE A CONDITION OF THE SUBCONTRACTOR.
- 10. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER, LIGHT COMPANY, TELEPHONE COMPANY, AND BROADBAND PROVIDER.
- 11. CIRCUITS SHOWN ON PLANS ARE TO DETERMINE LOAD DATA AND PANEL SIZE. THE CONTRACTOR SHALL PROVIDE CIRCUITS TO SUIT JOB CONDITIONS, BALANCE LOADS ON EACH PHASE.
- 12. SEE NOTES ON PLANS FOR OTHER REQUIREMENTS.
- 13. FURNISH AND INSTALL LIGHTING FIXTURES AND LAMPS AS CALLED FOR ON PLANS, OR AS SELECTED BY
- 14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
- 15. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY PHASE OF THE INSTALLATION WHICH MAY BE DAMAGED.
- 16. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OF
- PROPERTY DAMAGE FOR THE DURATION OF THE WORK. 17. CHECK ALL EQUIPMENT FOR PROPER VOLTAGE, PHASE, AND CURRENT BEFORE CONNECTION TO CIRCUITS
- AND START UP. 18. ELECTRICAL CONTRACTOR SHALL CHECK AND VERIFY EQUIPMENT FURNISHED AGAINST THOSE SPECIFIED
- OR INTENDED AND REVISE BRANCH CIRCUITS AS MAY BE REQUIRED WITH PRIOR APPROVAL OF ENGINEER/ARCHITECT.
- 19. ALL SYSTEMS AND ROUGH-IN SHALL BE CONCEALED IN FINISHED AREAS. COORDINATE WITH ARCHITECT.
- 20. THE ELECTRICAL PORTION OF THE CONTRACT DOCUMENTS ARE COORDINATED WITH THE BASIS OF DESIGN EQUIPMENT SPECIFIED BY DIVISION 16 AND OTHER DIVISIONS. WHERE THE CONTRACTOR ELECTS TO SUBSTITUTE A PRODUCT IN LIEU OF PROVIDING THE DESIGN BASIS. AND SAID SUBSTITUTION IS ACCEPTED BY THE A/E AND OWNER, THE CONTRACTOR SHALL MAKE ALL CORRECTIONS TO THE ELECTRICAL SYSTEM NECESSARY IN ORDER TO ENSURE A COMPLETE AND OPERATIONAL INSTALLATION OF THE FOLIPMENT AT NO ADDITIONAL COSTS. WHERE THE CONTRACTOR'S DECISION TO SUBSTITUT PRODUCTS OR MODIFY DESIGN REQUIRING A/E SERVICES. THE A/E RESERVES THE RIGHT TO REQUEST COMPENSATION FROM THE CONTRACTOR FOR SAID SERVICES.
- 21. CONTRACTOR SHALL PROVIDE A CONTROLS TRADE SUBCONTRACTOR TO DESIGN AND INSTALL ALL CONTROLS TO MEET THE PROJECT REQUIREMENTS.

AIR CONDITIONING EQUIPMENT AND CONTROLS SPECIFICATION

- ELECTRICAL CONTRACTOR SHALL INSTALL ALL CONTROL RACEWAY (CONDUIT), WIRE INSTALLATION, CONNECTIONS ETC. IN ACCORDANCE WITH WIRING DIAGRAMS ON AIR EQUIPMENT.
- A/C / ELECTRICAL PLANS OR DIAGRAMS FURNISHED BY MANUFACTURER OF THE EQUIPMENT. ALL POWER WIRING FOR THE AIR CONDITIONING EQUIPMENT SHALL BE FURNISHED, INSTALLED AND
- CONNECTED UNDER THIS SECTION OF THE SPECIFICATION. MECHANICAL CONTRACTOR SHALL PROVIDE MOTOR STARTERS FOR ALL AIR CONDITIONING EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONNECTIONS TO AIR CONDITIONING EQUIPMENT PER
- AIR CONDITIONING EQUIPMENT INCLUDES CONDENSER, COMPRESSOR AND FAN. FAN COIL UNITS. ELECTRICAL STRIP HEATER, THERMOSTAT, ETC.

SITE LIGHTING/PHOTOMETRIC NOTES

- 1. COORDINATE AND VERIFY ALL SITE ELECTRICAL REQUIREMENTS WITH ARCHITECT PRIOR TO ANY CONSTRUCTION/INSTALLATION.
- 2. THE COMPLETE STRET LIGHTING POLE MOUNTED ASSEMBLY MUST WITHSTAND A MINIMUM 175 MPH WINDLOADS. CALCULATIONS AND FOUNDATION DESIGN BY CIVIL/STRUCTURAL ENGINEER.
- 3. PROVIDE IN-LINE FUSES AT EACH POLE; ONE IN EACH HOT LEG.
- 4. ALL SITE LIGHTING CONDUITS SHALL BE BURIED AT A MINIMUM OF 24" BELOW FINISHED GRADE.
- 5. ALL SITE LIGHTING SHALL BE PHOTOCELL CONTROLLED UNLESS SPECIFIED OTHERWISE.

SITE POLE NOTE

WIND LOAD CALCULATIONS AND SITE POLE STRUCTURAL DETAILS ARE TO BE SUBMITTED TO THE BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION. (BY CONTRACTOR AND HIS DELEGATED FL P.E. STRUCTURAL ENGINEER)

ELECTRICAL SHEET INDEX DESCRIPTION SHEET# EP0.1 ELECTRICAL DETAILS & NOTES ELECTRICAL PHOTOMETRIC PLAN

FBC NOTE

1. CONTRACTOR SHALL COMPLY WITH FBC (C408.2.5.1). PROVIDE OWNER WITH A RECORD SET DRAWING OF COMPLETE INSTALLATION DRAWINGS.

2. CONTRACTOR SHALL COMPLY WITH FBC (C408.2.5.2). PROVIDE OWNER WITH OPERATIONAL MANUALS AND MAINTENANCE MANUALS.

LIGHTING NOTES

. ELECTRICAL CONTRACTOR TO VERIFY IF ANY LIGHTING FIXTURES REQUIRE STEP-DOWN TRANSFORMERS. QUANTITY AND LOCATION OF THE TRANSFORMERS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION. CONSULT ARCHITECT FOR LOCATIONS PRIOR TO BIDDING. PROVIDE ALL TRANSFORMERS AND INCLUDE IN BID.

2. ALL LIGHTING FIXTURES AND FANS TO BE SELECTED & LOCATED BY OWNER /ARCHITECT/INTERIOR DESIGNER, JNLESS OTHERWISE NOTED.

ARCHITECT TO SET MOUNTING HEIGHTS FOR ALL FIXTURES WHERE APPLICABLE, UNLESS OTHERWISE NOTED.

4. CONTRACTOR TO PROVIDE LUMINAIRES TO CONFORM TO ENERGY CODE, THERMAL ENVELOPE RATINGS.

FLORIDA BUILDING CODE 2014 CONFORMANCE

- CONTRACTOR TO PROVIDE ALL LABOR AND MATERIAL TO CONFORM TO FBC 2014 ENERGY COMPLIANCE, RELATED SECTIONS, AND STANDARDS.
- OWNER SHALL PROVIDE SERVICES OF AN INDEPENDENT COMMISSIONING AGENT(CxA) TO PREPARE FUNCTIONAL TEST PROCEDURES (DOCUMENT SYSTEMS PERFORMANCE, WITNESS CONTRACTOR TESTING), AS REQUIRED BY FBC FOR LIGHTING AND HVAC SYSTEMS.
- CONTRACTOR SHALL PROVIDE SERVICES TO TEST, BALANCE AND COMMISSION THE SYSTEM VIA AN INDEPENDENT AGENT FOR THE MECHANICAL SYSTEMS ENERGY PERFORMANCE.
- 4. CONTRACTOR TO PROVIDE COMPLETE CERTIFICATIONS AND CHECKLISTS AS REQUIRED BY FBC FOR HIS WORK RESPONSIBILITIES.

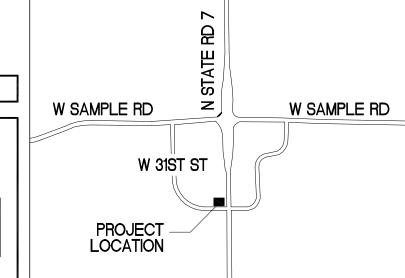
VOLTAGE DROP NOTE

THE CONTRACTOR, AS PART OF HIS PRICING AND BIDDING, SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT AND TERMINATIONS, INCLUDING FPL AND UTILITY REQUIREMENTS AND APPROVALS FOR ALL CONDUCTORING AND TERMINATIONS, TO SATISFY THE PROJECT REQUIREMENTS. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND INCLUDE ALL HIS BRANCH CIRCUIT, FEEDER, AND SERVICE CONDUCTOR CONDUITING AND WIRING LENGTHS AND ROUTING BASED ON HIS PROPOSED INSTALLATION MEANS AND METHODS. WIRING LENGTHS, SHOWN AS THE BASIS OF DESIGN LENGTHS, ARE MERELY AN APPROXIMATION BY THE CONSULTANT. THE CONTRACTOR SHALL USE THOSE BASIS OF DESIGN CONDUCTOR LENGTHS AND WIRING SIZES AS THE, MINIMUM, NOT LIMITED TO, REQUIREMENTS FOR THE PROJECT BIDDING. THE CONTRACTOR, PRIOR TO BIDDING, SHALL CONFIRM ALL HIS PROPOSED LENGTHS, MAKE ANY AND ALL ADJUSTMENTS AS MAY IMPACT THE ELECTRICAL SYSTEMS AND EQUIPMENT FOR CODE COMPLIANCE AND CONSTRUCTABILITY, AND DOCUMENT ALL PROPOSED CHANGES AND ADJUSTMENTS TO THE ARCHITECT AS PART OF HIS BID RESPONSE. THE CONTRACTOR SHALL SUBMIT COMPLETE SCALED PROPOSED ROUTINGS FOR SERVICES AND FEEDERS, QUANTITIES AND CONDUCTORING, SECTIONS THRU BUILDING FOR RACKING, DUCTBANK CROSS SECTIONS FOR CLEARANCES AND COORDINATED AS FREE OF ALL INTERFERENCES, ETC. CONTRACTOR SHALL SUBMIT ALL DOCUMENTATION TO THE ARCHITECT FOR REVIEW NO LATER THAN 3 WEEKS AFTER NOTICE TO PROCEED.

UL LISTING AND NRTL CERTIFICATIONS NOTE

CONTRACTOR/MANUFACTURER SHALL PROVIDE COMPLETE DOCUMENTATION AND CERTIFICATIONS FOR ANY EQUIPMENT THAT HE PROPOSES WITH A NRTL (NATIONALLY RECOGNIZED TESTING LAB) LISTING AND LABELING EQUIVALENT TO THE

BASIS OF DESIGN UL LISTING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM ACCEPTABILITY BY THE LOCAL AHJ AND AGENCIES FOR THE NRTL LISTING AND CERTIFICATION FOR THE PRODUCTS HE PROPOSES AND DEMONSTRATE SUCH AS PART OF THE PRODUCT DATA SUBMISSION AND INSTALLATION.



LOCATION MAP

700 WEST HILLSBORO BLVD. - BLDG. #1, SUITE 204 DEERFIELD BEACH, FLORIDA 33441 TEL: (561) 391-9292 FAX: (561) 391-9898 CERTIFICATE OF AUTHORIZATION NO. 28107 URSULA IAFRATE, P.E. LICENSE #73122 STEPHEN F. ROLLIN, P.E. LICENSE #36428 DONALD H. AUSTIN, JR., PE LICENSE #60651 JASON BARBER, PE LICENSE #73050 E-MAIL: INFO@FAECONSULTING.COM PM: AN P/N 16147 DESIGNED BY: KW

PERMIT SET: 04/25/16

TRUE NORTH

Project No. Project Director: Project Manager: Drafted by:

D.R.C. SUBMITTAL 04.25.2016

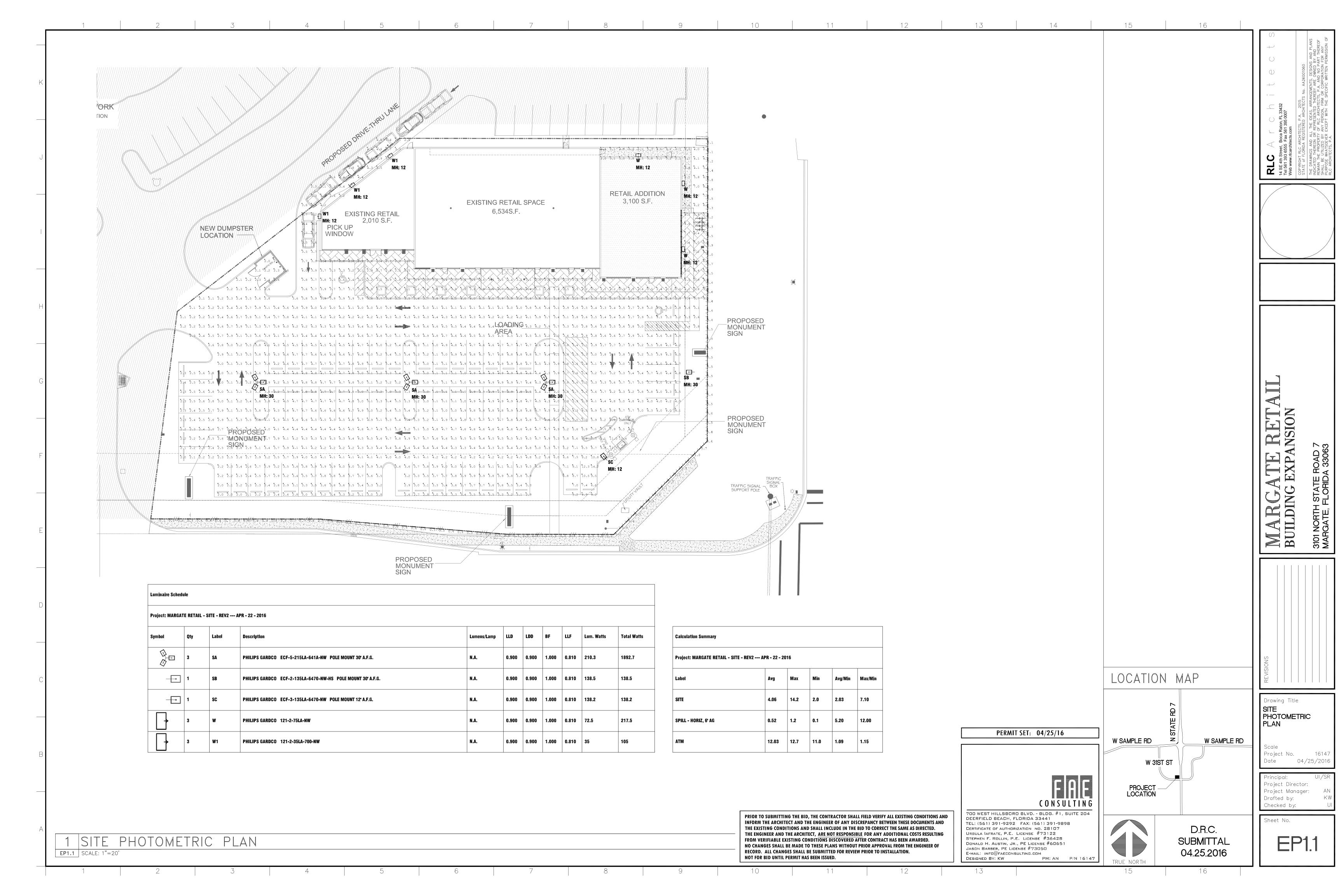
Drawing Title PHOTOMETRIC DETAILS + NOTES

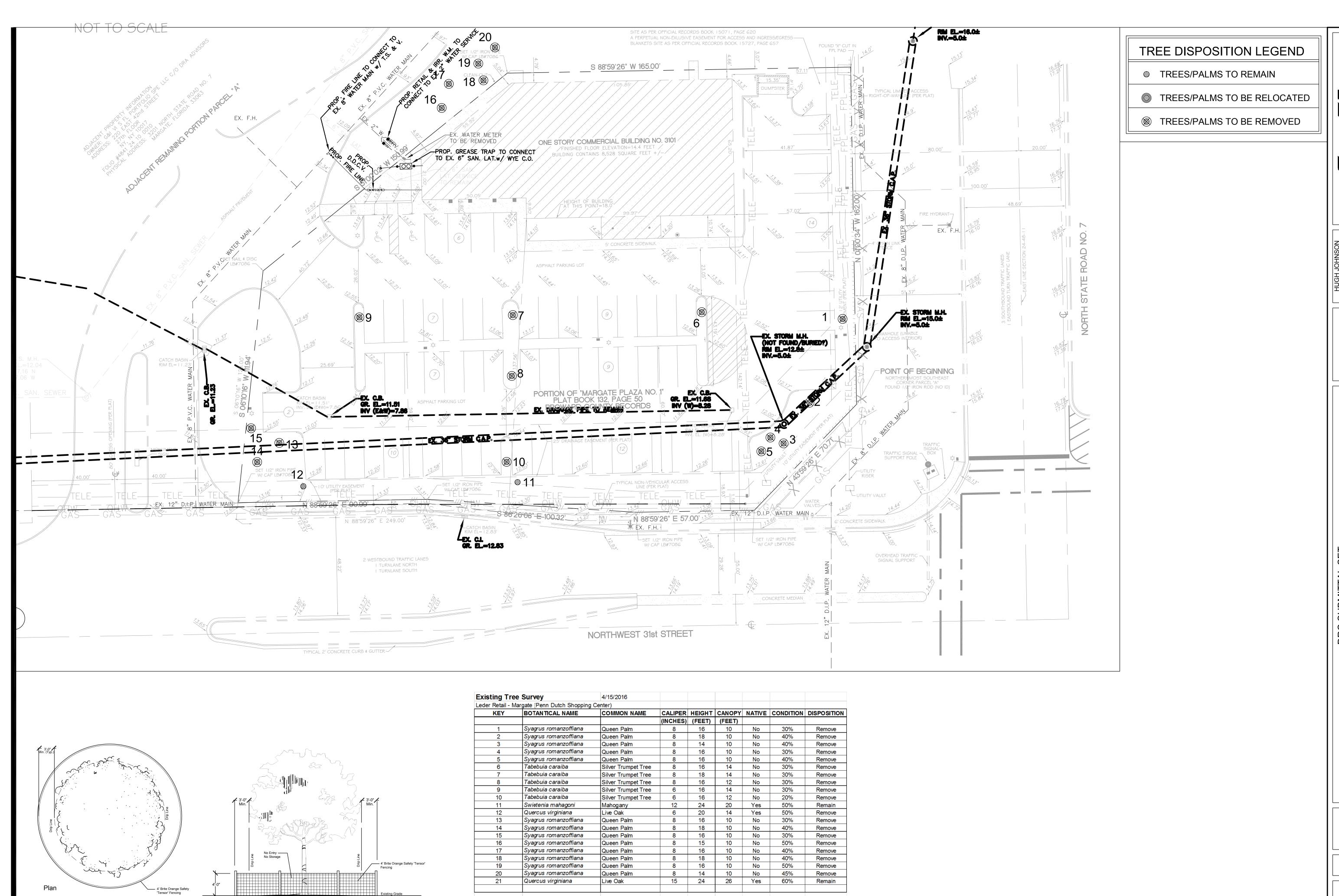
16147 04/25/2016

Checked by:

Sheet No.

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.





NOTE: All height and canopy numbers are in feet. Palm height is overall height.

Elevation

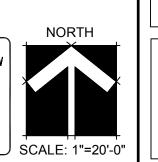
Existing Tree(s) Protection Detail

ALL EXISTING TREES AND PALMS INDICATED TO REMAIN SHALL BE PROTECTED WITH A

TREE BARRICADE. REFER TO DETAIL ON THIS SHEET. THIS BARRICADE MUST BE

INSTALLED PRIOR TO THE BEGINNING OF PROPOSED WORK.





1624 Drawing Number Sheet of

Sheet Description

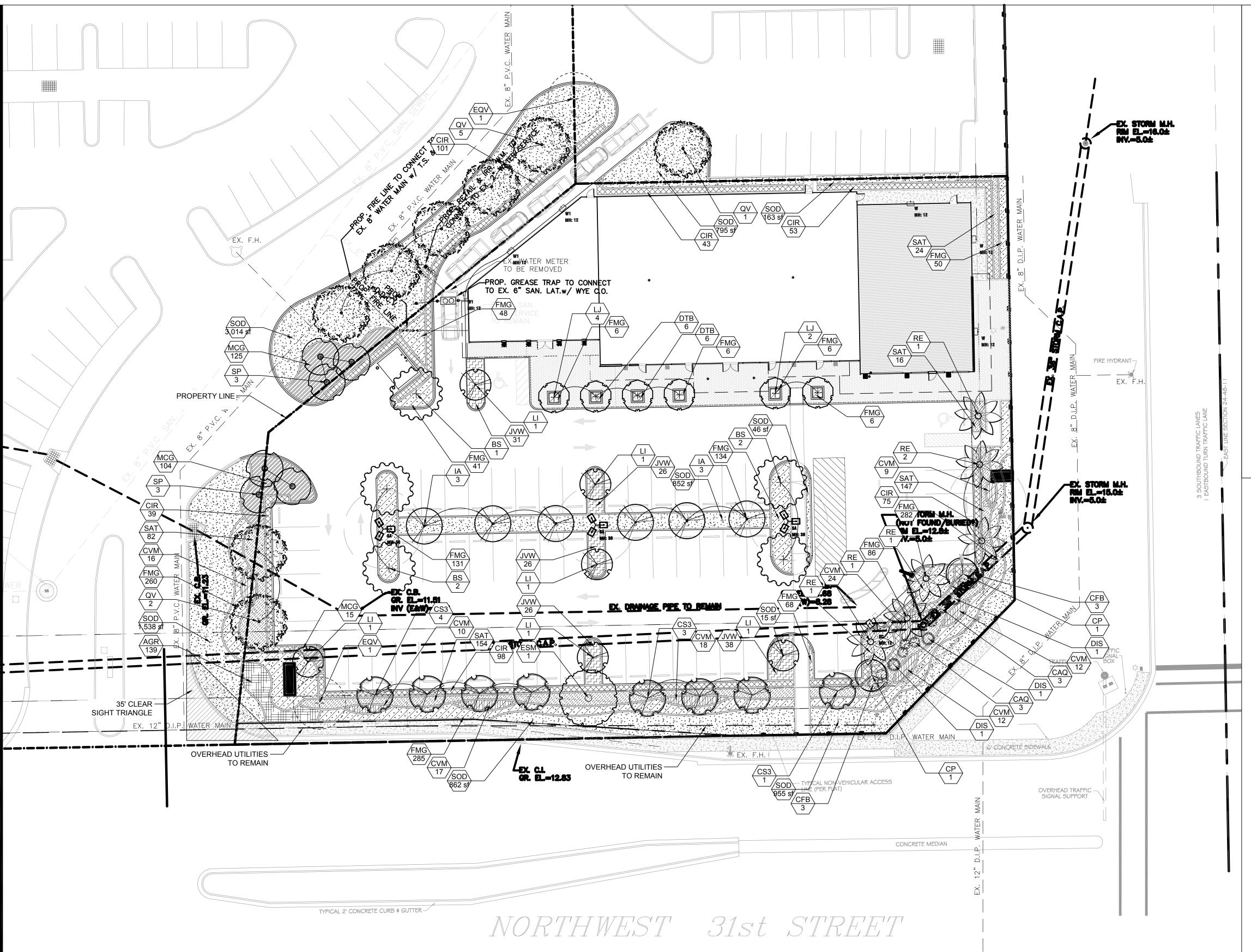
DISPOSITION

PLAN

Release Date

4-25-16

Project Number



PLANT S	CHEDULE MARGATE RET	AIL
TREES	BOTANICAL NAME	COMM
BS	BURSERA SIMARUBA	GUMB

1 17 (141 0011)		
TREES BS	BOTANICAL NAME BURSERA SIMARUBA	COMMON NAME GUMBO LIMBO
CS3	CONOCARPUS ERECTUS 'SERICEUS'	SILVER BUTTONWOOD
IA	ILEX CASSINE	DAHOON HOLLY
LJ	LIGUSTRUM JAPONICUM	JAPANESE PRIVET
EQV	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK
QV	QUERCUS VIRGINIANA	LIVE OAK
ESM	SWIETENIA MAHOGANY	MAHOGANY
FLOWERING TREES CP	BOTANICAL NAME CAESALPINIA PULCHERRIMA	COMMON NAME DWARF POINCIANA
LI	LAGERSTROEMIA INDICA 'TUSCARORA'	TUSCARORA CRAPE MYRTLE `STAI
PALM TREES RE	BOTANICAL NAME ROYSTONEA ELATA	COMMON NAME ROYAL PALM
SP	SABAL PALMETTO	CABBAGE PALMETTO
SHRUBS CFB	BOTANICAL NAME CORDYLINE FRUTICOSA `BLACK MAGIC`	COMMON NAME BLACK MAGIC TI
CAQ	CRINUM AUGUSTUM 'QUEEN EMMA'	`QUEEN EMMA` CRINUM
DIS	DIOON SPINULOSUM	CYCAD
SHRUB AREAS CIR	BOTANICAL NAME CHRYSOBALANUS ICACO `REDTIP`	COMMON NAME RED TIP COCOPLUM
CVM	CODIAEUM VARIEGATUM 'MAMMEY'	MAMMEY CROTON
FMG	FICUS MICROCARPA 'GREEN ISLAND'	GREEN ISLAND FICUS
JVW	JASMINUM VOLUBILE	WAX JASMINE
MCG	MUHLENBERGIA CAPILLARIS	PINK MUHLY
SAT	SCHEFFLERA ARBORICOLA 'TRINETTE'	SCHEFFLERA
GROUND COVERS AGR	BOTANICAL NAME ARACHIS GLABRATA	COMMON NAME PERENNIAL PEANUT
DTB	DIANELLA TASMANICA	BLUEBERRY FLAX LILY

BOTANICAL NAME
STENOTAPHRUM SECUNDATUM `FLORITAM`

COMMON NAME

FLORITAM` ST. AUGUSTINE SOD

Landscape Calculati	ions		
Code Requirement	Calculation	Required	Provided
Sec. 23.6 - Landscapir	 ng Abutting ROW		
- Lamascapii	1 tree per 40 lf		
State Road 7	76 lf / 40 lf = 1.9	2	:
NW 31st Street	250 lf / 18 lf = 13.8	14	14
Sec. 23.7 - Landscapir	ng adjacent to other p	erimeters	
	1 tree per 75 lf		
West Perimeter	263 lf / 75 lf = 3.5	4	
North Perimeter	165 lf / 75 lf =2.2	3	;
Sec. 23.8 Parking Area	a & Pedestrian zone in	terior landsc	aping
	20 sf per parking sp	pace	
Site parking spaces	63 spaces x 20 sf	1,260 sf	2,200 sf -
	1 tree per 200 sf	7	12

Sheet Description

LANDSCAPE PLAN

Release Date 4-25-16

> Project Number 1624

Drawing Number

1. A SEPARATE PERMIT IS REQUIRED FOR THE TREE REMOVAL. SUB-CONTRACTOR SHALL APPLY AND SUBMIT FOR THIS PERMIT PRIOR TO ANY WORK BEING PERFORMED ON SITE.

2. A SEPARATE PERMIT IS REQUIRED FOR THE LANDSCAPING. SUB-CONTRACTOR SHALL APPLY AND SUBMIT FOR THIS PERMIT PRIOR TO ANY WORK BEING PERFORMED ON SITE.

3. ALL SOD AND LANDSCAPE RECEIVE 100% COVERAGE FROM AN AUTOMATIC IRRIGATION SYSTEM USING AN APPROVED WATER

- IRRIGATION SYSTEM SHALL ALSO BE EQUIPPED WITH RAIN SENSOR.
- SEE SHEET LP-2 FOR LANDSCAPE DETAILS AND NOTES. SEE SHEET LP-2 FOR PLANTING SCHEDULE AND PLANT SPECIFICATIONS.



PLANT SCH	EDULE	MARGATE RETAIL							
TREES BS	QTY 5	BOTANICAL NAME BURSERA SIMARUBA	COMMON NAME GUMBO LIMBO	CONT FG/B&B	CAL 3"CAL	<u>SIZE</u> 12` HT, 6` SPR, 5` CT	NATIVE YES	DROUGHT HIGH	
CS3	8	CONOCARPUS ERECTUS 'SERICEUS'	SILVER BUTTONWOOD	FG/B&B	2"CAL	10` HT. X 5` SPR., SINGLE TRUNK	YES	HIGH	
IA	6	ILEX CASSINE	DAHOON HOLLY	FG/B&B	2"CAL	12` HT X 6` SPR	YES	HIGH	
LJ	6	LIGUSTRUM JAPONICUM	JAPANESE PRIVET	FG/B&B	MULTI STEM	12` HT. X 5` SPR.	NO	MEDIUM	
EQV	2	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	EXISTING			YES	HIGH	
QV	8	QUERCUS VIRGINIANA	LIVE OAK	FG/B&B	3"CAL	14` HT X 6` SPR	YES	HIGH	
ESM	1	SWIETENIA MAHOGANY	MAHOGANY	EXISTING			YES	HIGH	
FLOWERING TREES CP	QTY 2	BOTANICAL NAME CAESALPINIA PULCHERRIMA	COMMON NAME DWARF POINCIANA	CONT FG/B&B	CAL 2"CAL	<u>SIZE</u> 10` HT. X 5` SPR.	NATIVE NO	DROUGHT MEDIUM	
LI	6	LAGERSTROEMIA INDICA 'TUSCARORA'	TUSCARORA CRAPE MYRTLE 'STANDARD'	FG/B&B	2"CAL	10` HT. X 5` SPR., STD.	NO	MEDIUM	
PALM TREES RE	QTY 6	BOTANICAL NAME ROYSTONEA ELATA	COMMON NAME ROYAL PALM	CONT FG/B&B	CAL	<u>SIZE</u> 8` GW, MATCHED	NATIVE YES	DROUGHT MEDIUM	
SP	6	SABAL PALMETTO	CABBAGE PALMETTO	FG/B&B		16`-24` OA, BOOTED	YES	HIGH	
SHRUBS CFB	QTY 6	BOTANICAL NAME CORDYLINE FRUTICOSA `BLACK MAGIC`	COMMON NAME BLACK MAGIC TI	CONT 7 GAL.	CAL	<u>SIZE</u> 4-5` OA, FULL TO BASE	NATIVE NO	DROUGHT MEDIUM	SPACING 48" o.c.
CAQ	6	CRINUM AUGUSTUM 'QUEEN EMMA'	`QUEEN EMMA` CRINUM	7 GAL.		4` OA.	NO	MEDIUM	48" o.c.
DIS	3	DIOON SPINULOSUM	CYCAD	15 GAL		4`-6` OA, FULL	NO	HIGH	60" o.c.
SHRUB AREAS CIR	<u>QTY</u> 409	BOTANICAL NAME CHRYSOBALANUS ICACO 'REDTIP'	COMMON NAME RED TIP COCOPLUM	CONT 3 GAL.,	CAL	<u>SIZE</u> 30"HT X 24"SPR	NATIVE YES	DROUGHT HIGH	SPACING 24" o.c.
CVM	118	CODIAEUM VARIEGATUM 'MAMMEY'	MAMMEY CROTON	3 GAL.,		24"HT X 24"SPR	NO	MEDIUM	24" o.c.
FMG	1,409	FICUS MICROCARPA 'GREEN ISLAND'	GREEN ISLAND FICUS	3 GAL.,		16" HT X 16" SPR	NO	MEDIUM	18" o.c.
JVW	147	JASMINUM VOLUBILE	WAX JASMINE	3 GAL.,		18"HT X 18"SPR	NO	MEDIUM	24" o.c.
MCG	244	MUHLENBERGIA CAPILLARIS	PINK MUHLY	3 GAL.,		24"HT X 24"SPR	YES	HIGH	24" o.c.
SAT	423	SCHEFFLERA ARBORICOLA 'TRINETTE'	SCHEFFLERA	3 GAL.,		24"HT X 24"SPR	NO	MEDIUM	24" o.c.
GROUND COVERS AGR	<u>QTY</u> 139	BOTANICAL NAME ARACHIS GLABRATA	COMMON NAME PERENNIAL PEANUT	CONT 1 GAL.,	CAL	<u>SIZE</u> 4" HT. X 12" SPR.	NATIVE NO	DROUGHT MEDIUM	SPACING 16" o.c.
DTB	12	DIANELLA TASMANICA	BLUEBERRY FLAX LILY	3 GAL.,		16" HT. X 16" SPR.	NO	MEDIUM	18" o.c.
SOD/SEED SOD	QTY 8,240 SF	BOTANICAL NAME STENOTAPHRUM SECUNDATUM `FLORITAM`	COMMON NAME `FLORITAM` ST. AUGUSTINE SOD	CONT SOD	CAL	SIZE	NATIVE	DROUGHT	SPACING

Remove Container Completely From Plant Ball - 3" Mulch Layer - Backfill with 3-4" Planting Soil 50/50 Topsoil/sand mix Undisturbed Earth **Shrub & Ground Cover Planting Detail** C: 18" for all 1 gal. 30" for all 3 gal. or greater vines not included Fence, wall or 2x4" Wood Braces Nailed Into the Wood Battens 5-6" Water Ring NOTE: All shrub and groundcover masses to 24" between all I gal. and 3 gal. 36" between all 3 gal. and 3 gal. or greater Remove Burlap, String, Nails, etc., use triangular spacing except as a singular hedge row or where noted. Refer to the plant 3" Mulch Layer Completely From Plant Ball list for individual plant spacing. 5-6" Water Ring Curb or edge of A: 14" for all 1 gal. Backfill with 6" Planting Soil 24" for all 3 gal. or greater 50/50 Topsoil / sand mix **FRONT** Typical Plant Spacing Large Tree Planting Detail **Small Tree Planting Detail**

NOTES:

GENERAL PLANTING REQUIREMENTS

All sizes shown for plant material on the plans are to be considered Minimum. All plant material must meet or exceed these minimum requirements for both height and spread. Any other requirements for specific shape or effect as noted on the plan(s) will also be required for final acceptance.

All plant material furnished by the landscape contractor shall be Florida #1 or better as established by "Grades and Standards for Florida Nursery Plants" and "Grades and Standards for Florida Nursery Trees". All material shall be installed as per CSI specifications.

All plant material as included herein shall be warrantied by the landscape contractor for a minimum period as follows: All trees and palms for 12 months, all shrubs, vines, groundcovers and miscellaneous planting materials for 90 days, and all lawn areas for 60 days after final acceptance by the owner or owner's representative.

All plant material shall be planted in planting soil that is delivered to the site in a clean loose and friable condition. All soil shall have a well drained characteristic. Soil must be free of all rocks, sticks, and objectionable material including weeds and weed seeds as per CSI specifications.

Twelve inches (12") of planting soil 50/50 sand/topsoil mix is required around and beneath the root ball of all trees and palms, and 1 cubic yard per 50 bedding or groundcover plants.

All landscape areas shall be covered with Eucalyptus or sterilized seed free Melaleuca mulch to a minimum depth of three inches (3") of cover when settled. A four-inch clear space must be left for air between plant bases and the mulch. Cypress bark mulch shall not be used.

All plant material shall be thoroughly watered in at the time of planting; no dry planting permitted. All plant materials shall be planted such that the top of the plant ball is flush with the surrounding grade.

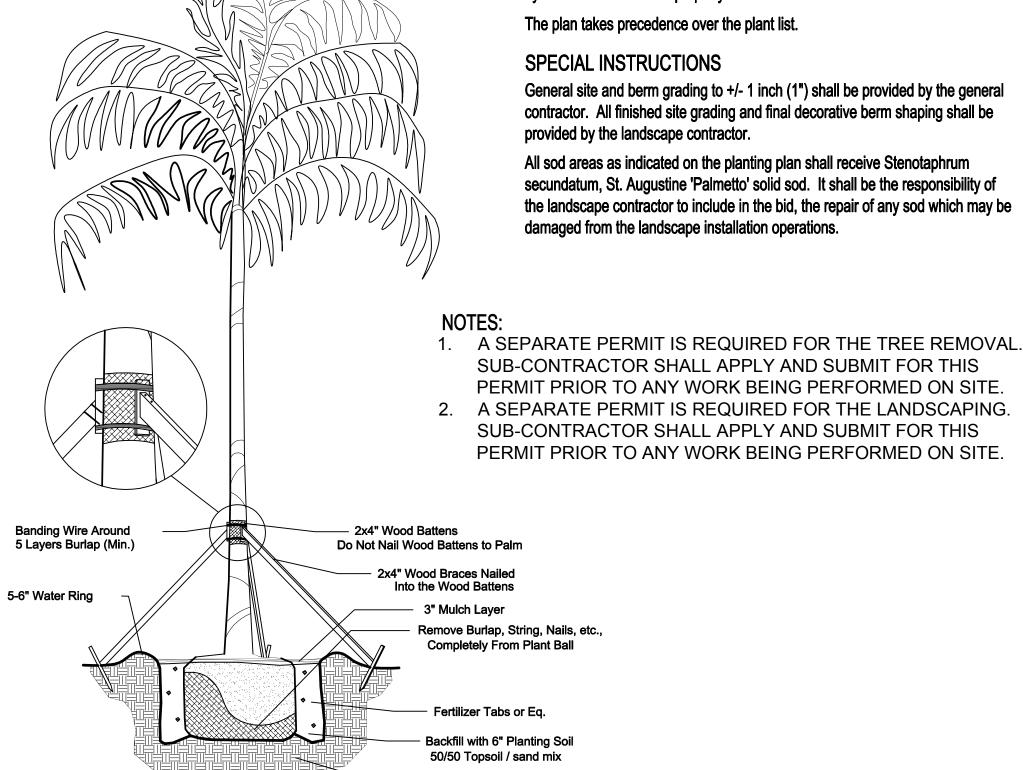
All landscape and lawn areas shall be irrigated by a fully automatic sprinkler system adjusted to provide 100% coverage of all landscape areas. All heads shall be adjusted to 100% overlap as per manufacturers specifications and performance standards utilizing a rust free water source. Each system shall be installed with a

It is the sole responsibility of the landscape contractor to insure that all new plantings receive adequate water during the installation and during all plant warranty periods. Deep watering of all new trees and palms and any supplemental watering that may be required to augment natural rainfall and site irrigation is mandatory to insure proper plant development and shall be provided as a part of this contract.

All plant material shall be installed with fertilizer, which shall be State approved as a complete fertilizer containing the required minimum of trace elements in addition to N-P-K, of which 50% of the nitrogen shall be derived from an organic source as per CSI specifications.

Contractors are responsible for coordinating with the owners and appropriate public agencies to assist in locating and verifying all underground utilities prior to excavation.

All ideas, designs and plans indicated or represented by this drawing are owned by and are the exclusive property of Architectural Alliance.



Undisturbed Earth

Palm Planting Detail

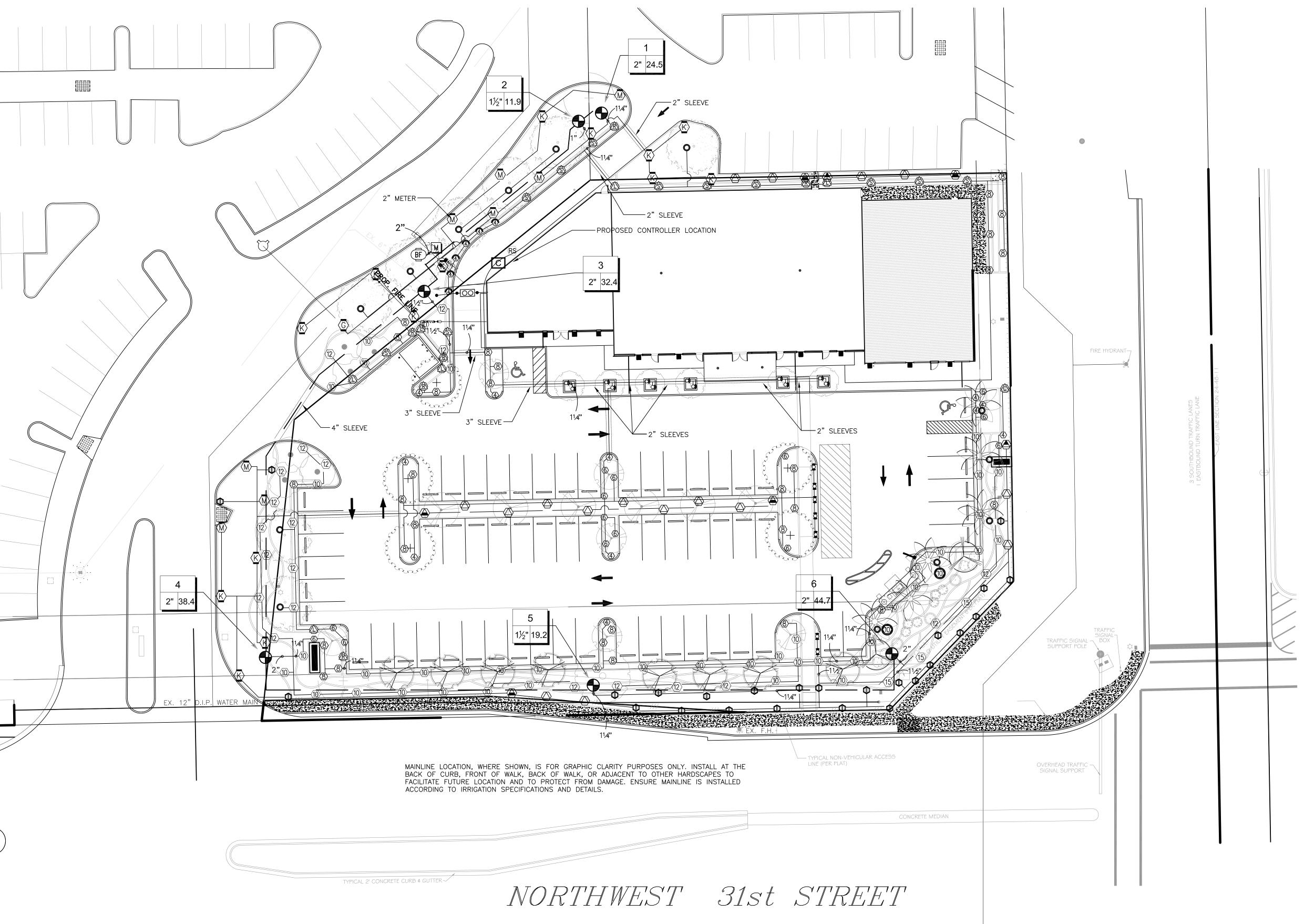
KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG it's fast, it's free, it's the law

Sheet Description LANDSCAPE NOTES AND DETAILS

Release Date 4-25-16

Project Number

Drawing Number



NON-VEHICULAR	SLEEVING SCHEDULE
PIPE SIZE	SLEEVING PIPE SIZE
3/4"	2"
1"	2"
1-1/4"	3"
1-1/2"	3"
2"	4"
3"	6"
4"	8"
	2 - 2 - 2

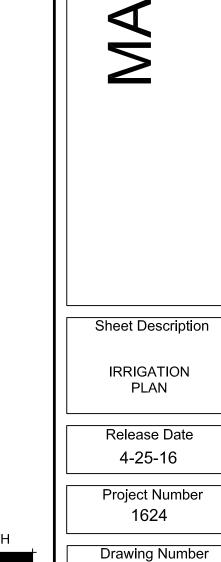
NON-VEHICLILAR SLEEVING SCHEDLILE SLEEVING NOTES:

1. VEHICULAR CROSSINGS ARE SHOWN AND SIZED ON THE PLANS.
2. NON-VEHICULAR SLEEVES ARE SHOWN BUT NOT SIZED.
3. SIZE ALL NON-VEHICULAR SLEEVES ACCORDING TO THE ADJACENT CHART.
4. MAINLINE CROSSINGS MUST ALSO INCLUDE A 2" CONDUIT SLEEVE FOR CONTROL WIRE.
5. CONTRACTOR TO DUCT TAPE END OF SLEEVES TO KEEP SLEEVE CLEAN AND CLEAR.
6. CONTRACTOR TO STAKE END OF EACH SLEEVE ABOVE GROUND AND PAINT FLUORESCENT ORANGE. LABEL EACH STAKE WITH THE WORD 'SLEEVE' AND ITS SIZE.
7. CONTRACTOR TO PROVIDE A 3 FT MINIMUM DEPTH OF COVERAGE OVER ALL SLEEVES.

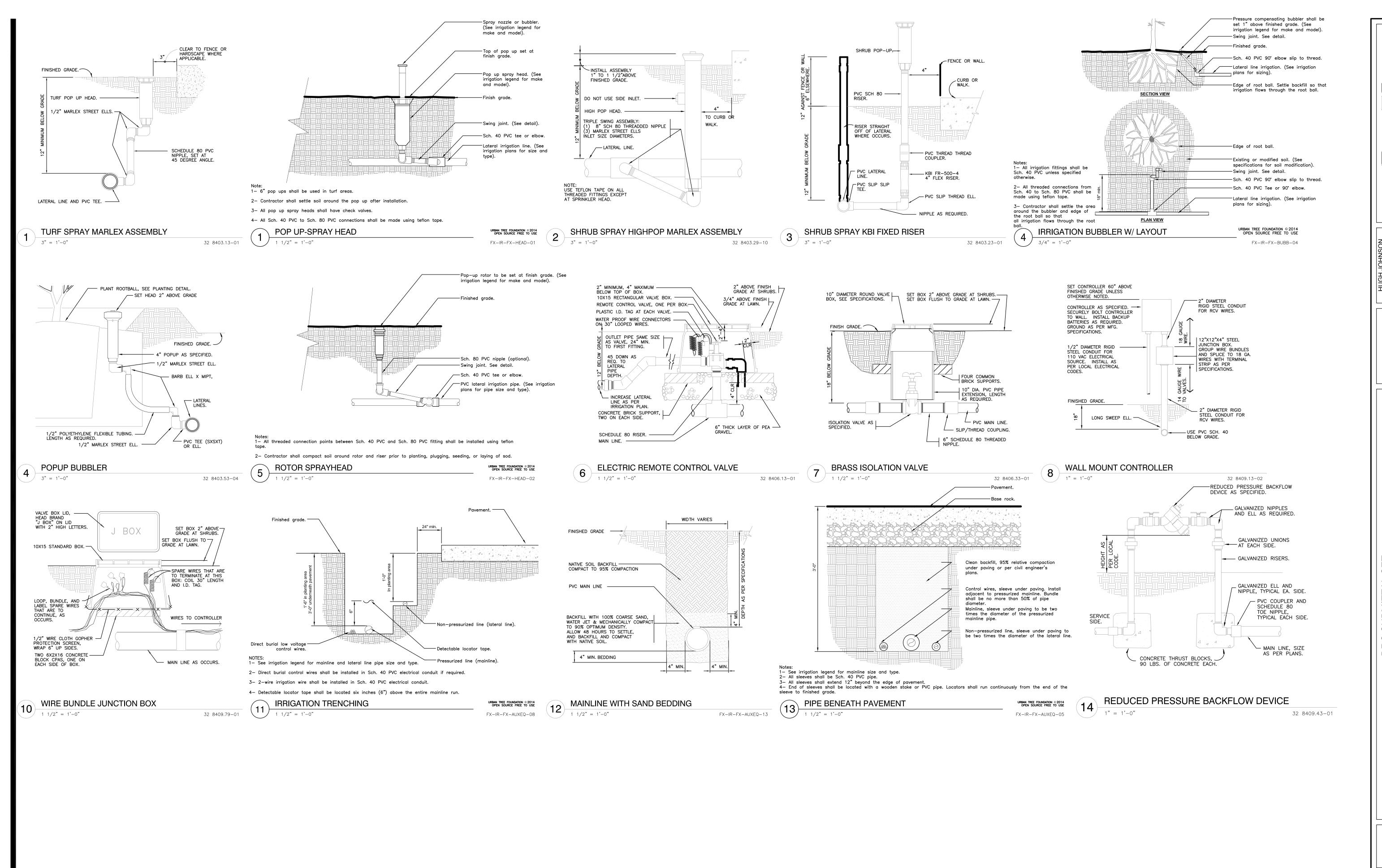
EEVE LABEL:

12"/6"/2" SLEEVES MEANS TO INSTALL ONE 12", ONE 6" AND ONE 2" SLEEVE.





Sheet 1 of 3



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Revision Dates

MARGATE, FLORIDA

MARGATE, FLORIDA

Sheet Description

IRRIGATION

DETAILS

Release Date 4-25-16

Project Number 1624

Drawing Number

IR-2
Sheet 2 of 3

WIRING

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

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

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

Wire sized, numbered and colored as follows:

#14 white for common

#14 spare black common #14 individual color coded hot wire

#14 spare yellow hot wire

Spare wires

Leaving each controller, run four spare wires in both directions (eight spare wires total). Install as 1 common spare (2 total) and 3 hot wires (6 total). Loop these wires into each RCV along their path and terminate in the last valve box controlled by the wires respective controller. The loop into each valve box shall extend up into the valve box a minimum of 8" and be readily accessible by opening the valve box lid. These wires must be all numbered and color coded as required in these plans.

Controller and Pump station Control Panel grounding — Contractor to utilize 4"X8'X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD wells at all connection points, #6 insulated copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller/pump location, and test results. Each controller/pump shall be so grounded and tested. Each component must have its own separate grounding grid, unless they are sitting side by side, in which case up to two controllers can share a common grounding grid.

LAYOUT

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

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

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

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed a minimum of 6" within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will utilize reuse water; in this case the risers shall be purple PVC and shall not be painted.

Locate valves prior to excavation. Ensure that their location provides for easy access and that there is no interference with physical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the edge of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf areas without approval by the irrigation designer — only in shrub beds. Never install in sport field areas.

VALVES

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

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

Using an electric branding iron, brand the valve I.D. letter/number on the lid of each valve box. This brand must be 2^n-3^n tall and easily legible.

EQUIPMENT

All pop—up heads and shrub risers shall be pressure compensating. All pop—up heads shall be mounted on flex—type swing joints. All rotors shall be installed with PVC triple swing joints unless otherwise detailed.

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

TRENCHING

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

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

INSTALLATION

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

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

BACK FILL

The Back fill 6" below, 6" above, and around all piping shall be of clean sand and anything beyond that in the trench can be of native material but nothing larger than 2" in diameter. All piping and excavations shall be backfilled and compacted to a density of 95% modified Proctor, or greater.

Main line pipe depth measured to the top of pipe shall be:

24" minimum for 3/4"-2 1/2" PVC with a 30" minimum at vehicular crossing

24" minimum for 3/4"-2 1/2" PVC with a 30" minimum at vehicular crossings; 30" minimum for 3" & 4" PVC with a 36" minimum at vehicular crossings.

Lateral line depths measured to top of pipe shall be:

18" minimum for 3/4"-3" PVC with a 30" minimum at vehicular crossings; 24" minimum for 4" PVC and above with a 30" minimum at vehicular crossings.

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

FLUSHING

Prior to the placement of valves, flush all mainlines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Prior to the placement of heads, flush all lateral lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving.

TESTING

Soil: At a minimum of 2 locations on the site, soil tests for infiltration and texture shall be performed according to the USDA Soil Quality Test Kit Guide. The tests shall be documented in a USDA Soil Worksheet. (All of the above is available at http://soils.usda.gov/sqi/assessment/ test_kit.html) The completed worksheet shall be submitted to the owners representative for review/approval. Do not proceed without written direction from the owner/owner's representative.

Schedule testing with Owner's Representative a minimum of three (3) days in advance of testing.

Mainline: Remove all remote control valves and cap using a threaded cap on SCH 80 nipple. Hose bibs and gate valves shall not be tested against during a pressure test unless authorized by written permission from the owner. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent—welded pipe.

If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

<u>Lateral Lines:</u> The lateral lines must be fully filled to operational pressure and visually checked for leaks. Any leaks detected must be repaired.

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

Upon completion of the operational test, run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In fine sandy soils, it is possible no puddling will occur. If this is experienced, then theoretical calculations for run times will be required for controller programming.

SUBMITTALS

<u>Pre-Construction:</u> Deliver five (5) copies of submittals to Owner's Representative within ten (10) working days from date of Notice to Proceed. Furnish information in 3-ring binder with table of contents and index sheet. Index sections for different components and label with specification section number and name of component. Furnish submittals for components on material list. Indicate which items are being supplied on catalog cut sheets when multiple items are shown on one sheet. Incomplete submittals will be returned without review. In lieu of hardcopies, an electronic package in PDF format can be submitted.

After project completion:

As a condition of final acceptance, the irrigation contractor shall provide the owner with:

1. Irrigations As-builts — shall be provided utilizing a sub-foot Global Navigation Satellite System (GNSS) to accurately locate all mainlines, sleeves, remote control valves, gate valves, independent wire runs, wire splice boxes, controllers, high voltage supply sources/conduit path, control mechanisms, sensors, wells and water source connections in Florida East State Plane, NAD 83, and CORS 96 format. The data collected shall be in POINT format and include an ID for each data point with Manufacturer, Type, Size, and Depth. All mainline and independent runs of wire shall be located every 30' for straight runs and at every change of direction. Sleeves will be located at end points and every 20' of length. All underground items shall include depth in inch format. These POINTS once collected shall be imported into an AutoCAD DWG geo—referenced base file to be labeled accordingly. The completed AS—Built shall be a Geo—Referenced DWF file and delivered to the owner on a compact disk (CD).

- 2. Controller charts Upon completion of "as—built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2ml pieces of clear plastic.
- Grounding Certification Provide ground certification results for each controller and pump panel grounding grid installed. This must be on a licensed electrician letter head indicating location tested (using IR plan symbols), date, time, test method, and testing results.

INSPECTIONS AND COORDINATION MEETINGS REQUIRED — Contractor is required to schedule, perform, and attend the following, and demonstrate to the owner and/or owners representative to their satisfaction, as follows:

- Pre-construction meeting Designer and contractor to review entire install process and schedule with owner/general contractor.
- 2. Mainline installation inspection(s) all mainline must be inspected for proper pipe, fittings, depth of coverage, backfill. and installation method
- 3. Mainline pressure test All mainline shall be pressure tested according to this design's requirements
 4. Flow Meter calibration All flow meters must be calibrated, provide certified
- calibration report for all flow meters.

 5. USDA Soil Quality Tests for infiltration/texture
- 6. Coverage and operational test
- 7. Final inspection
 8. Punch list inspection

FINAL ACCEPTANCE

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

- All above inspections are completed, documented, and approved by owner.
 Completion and acceptance of 'as-built' drawings.
- 3. Acceptance of required controller charts and placement inside of
- controllers.

 4. All other submittals have be made to the satisfaction of the owner.

GUARANTEE: The irrigation system shall be guaranteed for a minimum of one calendar year from the time of <u>final acceptance</u>.

MINIMUM RECOMMENDED

IRRIGATION MAINTENANCE PROCEDURES

- Every irrigation zone should be checked monthly and written reports generated describing the date(s) each zone was inspected, problems identified, date problems repaired, and a list of materials used in the repair. At minimum, these inspections should include the following tasks:
- A. Turn on each zone from the controller to verify automatic operation.
- B. Check schedules to ensure they are appropriate for the season, plant and soil type, and irrigation method. Consult an I.A. certified auditor for methods used in determining proper irrigation scheduling requirements.
- C. Check remote control valve to ensure proper operation.
- D. Check setting on pressure regulator to verify proper setting, if present.
- E. Check flow control and adjust as needed; ensure valve closure within 10—15 seconds after deactivation by controller.
- F. Check for leaks mainline, lateral lines, valves, heads, etc.

pressure regulator and built-in check valve.

- G. Check all heads as follows:
 - 1. Proper set height (top of sprinkler is 1" below mow height)
 - Verify head pop—up height 6" in turf, 12" in ground cover, and pop—up on riser in shrub beds.
 - 3. Check wiper seal for leaks if leaking, clean head and re—inspect.
 4. If still leaking, replace head with the appropriate head with
 - 5. All nozzles checked for proper pattern, clogging, leaks, correct make & model, etc. replace as needed
 - 6. Check for proper alignment perfectly vertical; coverage area is correct; minimize over spray onto hardscapes.
 - 7. Riser height raised/lowered to accommodate plant growth patterns and ensure proper coverage.8. Verify the pop—up riser retracts after operation. If not, repair/replace
- H. Check controller/C.C.U. grounds for resistance (10 ohms or less) once per year.
- I. Check rain shut-off device monthly to ensure it functions properly.
- J. Inspect all filters monthly and clean/repair/replace as needed.
- K. Inspect backflow devices by utilizing a properly licensed backflow inspector. This should be done annually, at minimum.
- Inspect all valve boxes to ensure they are in good condition, lids are in place and locked.
- M. Check pump stations for proper operation, pressures, filtration, settings, etc. refer to pump station operations manual.
- N. Check and clean intake screens on all suction lines quarterly, at minimum. Clean and/or repair, as needed.

recommendations and blow out all lines and equipment using compressed air.

Perform seasonal startup of system as per manufacturer recommendations.

P. Conduct additional inspections, maintenance tasks, etc. that are particular for your site.

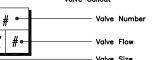
O. Winterize, if applicable, as weather in your area dictates. Follow manufacturer

Soil Moisture Sensor

- 1. Place all soil moisture sensor wiring in 1" SCH 40 PVC conduit
- 2. Soil moisture sensor should be placed in the middle of a spray or drip area as per manufacturer's recommendations.
- Controller shall be set to the Florida Automated Weather Network's urban scheduler settings using the SMS as a moisture cut off device (like a rain switch) per manufacturer directions.

	MANUFACTURER/MODEL/DESCRIPTION	QTY
® ® ® ₱ ♥ Ø	RAIN BIRD 1806-SAM-PRS SQ SERIES SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH	6
2Q 2H 2F 4Q 4H 4F	CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE	
	THREADED INLET ON FIXED RISER. WITH	
	SEAL-A-MATIC CHECK VALVE, AND PRESSURE	
	REGULATING DEVICE. RAIN BIRD 1806-SAM-PRS 15 STRIP SERIES	24
É Ó Ó É Ó Ó EST LCS RCS CST SST	SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH	24
ĒST LĪS RĪS ĒST SST	CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE	
	THREADED INLET ON FIXED RISER. WITH	
	SEAL-A-MATIC CHECK VALVE, AND PRESSURE	
	REGULATING DEVICE.	2
	RAIN BIRD 1806-SAM-PRS 10 SERIES MPR SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH	2
~~~~~	CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE	
	THREADED INLET ON FIXED RISER. WITH	
	SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	
	RAIN BIRD 1806-SAM-PRS ADJ	25
	SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH	23
4 6 18 4 6 18	CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE	
	THREADED INLET ON FIXED RISER. WITH	
	SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	
	RAIN BIRD 1806-SAM-PRS ADJ	94
8 08HE-VAN 12 12HE-VAN	SHRUB SPRAY 6.0" POP-UP SPRINKLER WITH	
10 10HE-VAN (15) 15HE-VAN	CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE	
	THREADED INLET ON FIXED RISER. WITH	
	SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	
	HUNTER MP1000 PROS-06-PRS40-CV	8
	TURF ROTATOR, 6" (15.24 CM) POP-UP WITH	
	CHECK VALVE, PRESSURE REGULATED TO 40	
	PSI (2.76 BAR), MP ROTATOR NOZZLE ON	
	PRS40 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360	
	ARC.	
-	HUNTER MP2000 PROS-06-PRS40-CV	15
K G R	TURF ROTATOR, 6" (15.24 CM) POP-UP WITH	
	FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR),	
	MP ROTATOR NOZZLE ON PRS40 BODY.	
	K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC	
	210-270, R=RED 360 ARC.	
	HUNTER MP800SR PROS-06-PRS40-CV	25
Ф Ф ADJ. 360	TURF ROTATOR, 4.0" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI	
	(2.76 BAR), MP ROTATOR NOZZLE ON PRS40	
	BODY. ADJ=ORANGE AND GRAY (ARC 90-210),	
	360=LIME GREEN AND GRAY (ARC 360)	
	HUNTER MP STRIP PROS-06-PRS40-CV	23
LST RST SST	TURF ROTATOR, 6" (15.24 CM) POP-UP WITH	
	FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR),	
	MP ROTATOR NOZZLE ON PRS40 BODY.	
	LST=IVORY LEFT STRIP, SST=BROWN SIDE	
	STRIP, RST=COPPER RIGHT STRIP.	
m 3 0 0	RAIN BIRD 1806-SAM-5 SERIES STREAM W/ PCS	32
CST Q H F	STREAM BUBBLER 6.0" POPUP WITH CHECK VALVE, PRESSURE COMPENSATING SCREEN	
	ON FIXED RISER.	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PEB	6
•	1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES.	
	LOW FLOW OPERATING CAPABILITY, GLOBE	
	CONFIGURATION.	4
(BF)	FEBCO 765 2" PRESSURE VACUUM BREAKER, BRASS WITH	1
∵	BALL VALVE SOV. INSTALL 12" (305MM) ABOVE	
	HIGHEST DOWNSTREAM OUTLET AND THE	
	HIGHEST POINT IN THE DOWNSTREAM PIPING.	<u> </u>
	RAIN BIRD ESP8LXME-LXMM	1
С	8 STATION CAPABLE COMMERCIAL CONTROLLER. MOUNTED ON A	
	POWDER-COATED METAL CABINET WITHOUT	
	FLOW SENSING.	
	RAIN BIRD RSD-BEX	1
(RS)	RAIN SENSOR, WITH METAL LATCHING	
	BRACKET, EXTENSION WIRE.	1
M	WATER METER 2"	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	3,846 L.F.
	PVC CLASS 200 IRRIGATION PIPE. ONLY	
	LATERAL TRANSITION PIPE SIZES 1 1/4" AND	
	ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 1" IN SIZE.	
	IRRIGATION MAINLINE: PVC SCHEDULE 40	569.4 L.F.
	PVC SCHEDULE 40 IRRIGATION PIPE.	COO.7 L.I .
	PIPE SLEEVE: PVC SCHEDULE 40	253.3 L.F.

IRRIGATION SCHEDULE



A #855

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MARGATE FLORIDA

3101 NORTH STATE ROAD 7

Sheet Description

IRRIGATION

NOTES

Release Date

Project Number

Drawing Number

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4-25-16

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