1. WORK SHALL INCLUDE ALL ITEMS (BUILDING AND SITE) AS INDICATED ON THIS SET OF DRAWINGS UNLESS NOTED OTHERWISE.

2. <u>DEPOSITS AND FEES:</u> DEPOSITS FOR UTILITIES INCLUDING WATER METER, TELEPHONE AND ELECTRICAL SERVICE TO BE MADE BY THE GENERAL CONTRACTOR. PERMIT FEES, AS REQUIRED, SHALL BE PAID BY THE CONTRACTOR FOR THAT PORTION OF THE WORK

3. GENERAL CONTRACTOR SHALL MAINTAIN TEMPORARY ELECTRICAL, WATER, AND SANITARY FACILITIES AS REQUIRED FOR THE DURATION OF CONSTRUCTION.

4. PRIOR TO STARTING WORK, THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES IN THE PLANS, WRITTEN FIGURES INDICATING DIMENSIONS SHALL BE USED INSTEAD OF SCALING THE DRAWINGS. MEASUREMENTS BY SCALING SHALL NOT BE USED AS DIMENSIONS TO WORK BY, FIELD MEASUREMENTS ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. SHOP DRAWINGS MUST BE FIELD VERIFIED.

5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OR RESTRICTIONS HAVING JURISDICTION. GENERAL CONTRACTOR SHALL PROMPTLY NOTIFY ARCHITECT UPON THE OBSERVANCE OF ANY VARIATION BETWEEN THESE DOCUMENTS AND ANY APPLICABLE CODES OR ORDINANCES.

6. ALL CONSTRUCTION MATERIALS SHALL BE NEW AND SHALL BEAR UNDERWRITER'S LABELS WHERE APPLICABLE.

1. ALL PIERS, SUPPORTS, SHELVING, FOUNDATIONS, ANCHOR BOLTS, HANGERS, WHICH ARE REQUIRED BY A SUBCONTRACTORS FOR THE SUPPORT OR HANGING OF THEIR EQUIPMENT SHALL BE SUPPLIED BY THE CONTRACTOR REQUIRING SAME.

8. FOR CONVENIENCE IN DESCRIPTION & AS A STANDARD FOR GRADE, TYPE, QUALITY AND PERFORMANCE CHARACTERISTICS, PROPRIETARY NAMES ARE INCLUDED WITH SOME DESCRIPTIONS. THIS DOES NOT IMPLY ANY PREFERENCE TO A PARTICULAR MANUFACTURER, BUT MINIMUM REQUIREMENTS, WITH FINAL DECISIONS BEING MADE BY THE OWNER AND ARCHITECT.

9. ARRANGE FOR SUITABLE STORAGE SPACE FOR MATERIALS TO PREVENT INCLUSION OF FOREIGN MATERIALS AND DELIVER AT SUCH TIMES AS NOT TO INTERFERE WITH OTHER OPERATIONS. MATERIALS ON SITE SHALL BE KEPT IN UNOPENED, ORIGINAL CONTAINERS OR PACKAGES THAT BEAR IDENTIFYING LABELS WHICH ARE NOT TO BE REMOVED UNTIL THEIR IMMEDIATE USE. PROTECT ALL MATERIALS FROM MINOR ABRASIONS AND HANDLE MASONRY PRODUCTS WITH CARE TO PREVENT CHIPPING AND

10. GENERAL CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS FROM THE JOB SITE & LEAVE BUILDING BROOM CLEAN. ALL GLASS SHALL BE THOROUGHLY CLEANED AT COMPLETION OF WORK, ANY PAINT SPECKS & OTHER CONSTRUCTION MARKS SHALL BE REMOVED FROM ALL FINISHED SURFACES.

II. GENERAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE OF DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM THE DATE OF ACCEPTANCE. CORRECTION OF DEFECTS SHALL BE COMPLETED IN A TIMELY MANNER WITHOUT ADDITIONAL CHARGE, THIS SHALL INCLUDE ELEMENTS WHICH ARE DAMAGED BY SAID DEFECTS.

12. ALL LUMBER SHALL BE DOUGLAS FIR WITH A MINIMUM FIBER STRESS OF 1,000 PSI, OR NO. 2 SOUTHERN PINE, UNLESS NOTED OTHERWISE, ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

13. ALL METAL USED FOR CONNECTING WOOD MEMBERS SHALL BE GALVANIZED. ALL NAILS, BOLTS OR OTHER METAL CONNECTORS SHALL BE GALVANIZED OR SHALL BE CORROSION RESISTANT.

### GENERAL NOTES

**GOVERNING CODE:** FLORIDA BUILDING CODE (FBC 2014), LATEST EDITION. ANSI / ASCE 7-10 FOR WIND LOADS. (170 MPH WIDESPREAD EXPOSURE "D")

REFERENCE STANDARDS: REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE OR DATE OF OWNER-CONTRACTOR AGREEMENT UNLESS NOTED IN THESE DOCUMENTS OR DESIGNATED BY THE GOVERNING

NOTES: NOTES ON THE INDIVIDUAL STRUCTURAL DRAWINGS SHALL TAKE PRIORITY OVER STRUCTURAL NOTES ON THIS SHEET.

SPECIFICATIONS: REFER TO THE SPECIFICATIONS FOR INFORMATION IN ADDITION TO THESE NOTES AND THE STRUCTURAL DRAWINGS

ARCHITECTURAL: REFER TO THE ARCHITECTURAL DRAWINGS FOR ELEVATIONS, DOORS, WINDOWS, NONBEARING WALLS, CURTAIN WALLS, ELEVATORS, STAIRS, SLOPES, CURBS, DRAINS, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES, ETC

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN THE PLANS, SPECIFICATIONS, REFERENCE STANDARDS & GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH WORK.

SITE VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK, AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED, IN WRITING, OF ANY DISCREPANCIES. IN NO CASE CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE STRUCTURAL DRAWINGS.

OMISSIONS/CONFLICTS: IN CASE OF OMISSIONS AND CONFLICTS BETWEEN THE PLANS, SPECIFICATIONS AND SITE CONDITIONS, THE ARCHITECT SHALL BE NOTIFIED BEFORE PROCEEDING WITH THE WORK.

CONTRACTOR RESPONSIBILITIES: THE CONTRACTOR IS RESPONSIBLE FOR SAFETY AT THE SITE AND FOR THE STRENGTH AND STABILITY OF ALL PARTLY COMPLETED STRUCTURES.

LOAD LIMITS: LOADS ON THE STRUCTURE SHALL NOT EXCEED THE DESIGN LOADS SHOWN UNDER "DESIGN CRITERIA".

<u>SUBMITTALS:</u> WHERE SHOP DRAWINGS, MILL TESTS, OR OTHER ITEMS ARE REQUESTED, SUBMITTAL SHALL BE MADE TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLATION IN THE STRUCTURE, UNLESS SPECIFICALLY NOTED.

ALTERNATES: ALTERNATES FOR SPECIFIED ITEMS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL, CONTRACTOR SHALL BUDGET FOR ARCHITECTURAL/ENGINEERING FEES ASSOCIATED WITH THE REVIEW OF THESE MATERIALS

### FIRE EXTINGUISHER SPECIFICATION

INSTALL MINIMUM CLASS 3A-40BC CERTIFIED DRY CHEMICAL TYPE 5 POUND MANUAL FIRE EXTINGUISHER RATED TO COMPLY WITH ANSI/ UL299 ULC-9504 AND TO MEET ALL REQUIREMENTS OF NFPAIØ AND ALL APPLICABLE CODES. INSTALL SUCH THAT TOP OF UNIT IS NO HIGHER THAN 5'-O" AND BOTTOM IS NOT LOWER THAN 4". COORDINATE INSTALLATION WITH FIRE DEPARTMENT.

THE NEW SPRINKLER SYSTEM SHALL BE BY A LICENSED CONTRACTOR UNDER A SEPARATE PERMIT, **INCLUDING SHOP DRAWINGS AND** CALCULATIONS.

THE NEW FIRE ALARM SYSTEM SHALL BE BY A LICENSED CONTRACTOR UNDER A SEPARATE PERMIT, **INCLUDING SHOP DRAWINGS AND** CALCULATIONS.

### GOVERNING CODE

FLORIDA BUILDING CODE 2014 FIFTH EDITION.

### BUILDING DATA SUMMARY

BUILDING CONSTRUCTION: TYPE III, B UNPROTECTED BUILDING HEIGHT: 30'-0" (ONE STORY)

### SIGNAGE

SIGNAGE IS NOT IN THIS SCOPE OF WORK

occupancy summary							
USE	AREA S. F.	S.F. / PERSON	OCCUPANTS				
STORAGE	5,000	500 (GR088)	100				
MERCANTILE	10,000	30 (GR088)	334				
TOTAL LEASABLE ARE	344						

### LIFE SAFETY CRITERIA

OCCUPANCY:

344PERSONS (TABLE - 1004.1.2 OF F.B.C.-2014) MEANS OF EGRESS REQUIRED: 2 INCHES PER PERSON x 344 = 66.8"

(SECTION-1005.3.2 OF F.B.C.-2014)

MEANS OF EGRESS PROVIDED:

4 @ 36" = 144" AT FRONT 3 @ 36" = 108" AT REAR 252" TOTAL

### REQUIRED PLUMBING FIXTURES

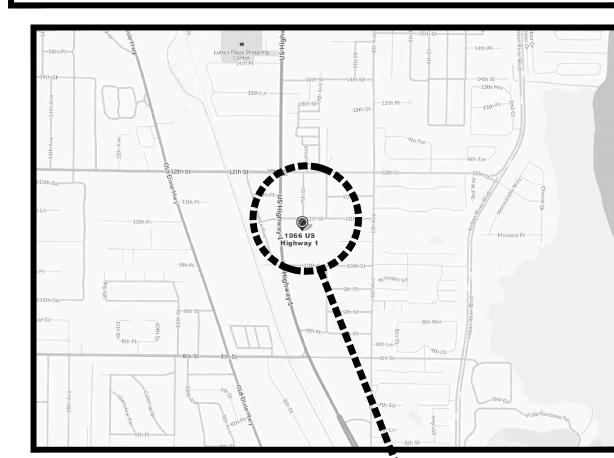
ACCORDING TO THE ABOVE CHART, MAXIMUM OCCUPANCY IS 172 MALES IT2 FEMALES

AS PER THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2014 SECTION (P403) MINIMUM PLUMBING FACILITIES

FACILITIES REQUIRED: FEMALE: (1) WATER CLOSETS, (1) LAYATORY MALE: (1) WATER CLOSETS, (1) LAVATORY GENERAL: (1) DRINKING FOUNTAIN (1) SERVICE SINK

FACILITIES PROVIDED: FEMALE: (2) WATER CLOSETS, (2) LAVATORY MALE: (2) WATER CLOSETS, (2) LAYATORY GENERAL: (2) DRINKING FOUNTAIN, (1) SERVICE SINK

THE ABOVE REQUIREMENTS ARE BASED ON THE FLORIDA BUILDING CODE PLUMBING SECTION TABLE 403.1 FOR MERCANTILE



±LOCATION OF PROPERTY

SITE LOCATION PLAN SCALE: NOT TO SCALE



# 1066 U.S. HIGHWAY 1 NEW RETAIL BUILDING - GOODWILL

1066 U.S. HIGHWAY 1 VERO BEACH, FLORIDA

### INDEX OF DRAWINGS

- T-1 TITLE SHEET / SITE PLAN AND NOTES
- A-1 FLOOR PLAN
- A-2 REFLECTED CEILING PLAN.
- A-3 ELEVATIONS
- A-4 DOOR SCHEDULE, DETAILS AND NOTES
- A-5 WINDOW SCHEDULES
- A-6 ACCESSIBILITY DETAILS AND NOTES
- A-7 ROOF PLAN AND DETAILS
- A-8 WALL SECTION DETAIL
- A-9 WALL SECTION DETAIL
- S-Ø STRUCTURAL NOTES
- S-1 FOUNDATION PLAN
- S-2 ROOF FRAMING PLAN
- 5-3 STRUCTURAL DETAILS 5-4 STRUCTURAL DETAILS
- |S-4,1 STRUCTURAL DETAILS
- |S-4.2 STRUCTURAL DETAILS
- 5-5 STRUCTURAL DETAILS AND NOTES
- 5-6 STRUCTURAL DETAILS AND NOTES
- S-61 STRUCTURAL DETAILS AND NOTES AND SCHEDUALES
- F-1 FINISH PLAN
- \_S-1 LIFE SAFETY PLAN
- FA-1 FIRE ALARM PLAN
- M-1 MECHANICAL PLAN
- M-2 OFFICE MECHANICAL PLAN, DETAILS, SCHEDULES AND NOTES
- E-1 ELECTRICAL PLAN AND NOTES
- | E-2 LIGHTING PLAN AND NOTES
- E-3 RISER DIAGRAM AND PANEL SCHEDULE
- LY-1 LOW YOLTAGE PLAN AND NOTES
- P-1 PLUMBING PLAN. RISER DIAGRAMS AND PANEL SCHEDULE
- FP-1 FIRE PROTECTION PLAN AND NOTES
- FS-1 U.L. FIRE RATED DETAILS

### SCOPE OF WORK

THIS IS A NEW CONSTRUCTION, ONE STORY MASONRY BUILDING IN THE CITY OF YERO BEACH, FLORIDA.

THE PROPOSED RETAIL TENANT IS GOODWILL.

NEW ELECTRICAL SERVICE FROM A PAD-MOUNTED TRANSFORMER SHALL BE PROVIDED AS SHOWN.

SEE CIVIL PLANS BY OTHERS FOR ALL DEVELOPMENT COMPONENTS WITHIN 5'-0" OF THE BUILDING PERIMETER AND BEYOND.

EXTERIOR COLORS AND FINISHES SHALL BE AS ACCORDING TO THE FINAL SITE PLAN APPROVAL DOCUMENTS AND SPECIFICATIONS.

> SHOWN 7-29-16

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Revisions:

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Project Number

160412

Project Name NEW RETAIL BUILDING

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STEPHEN BRASGALLA. ARCHITECT

6991 West Broward Boulevard SUITE 100 PLANTATION, FLORIDA 33317 TELEPHONE 954.614.3801 TELEFAX 954.208.0600

ARCHITECT @ DESIGN23 . NET

STATE OF FLORIDA REGISTRATION NO. AR12239

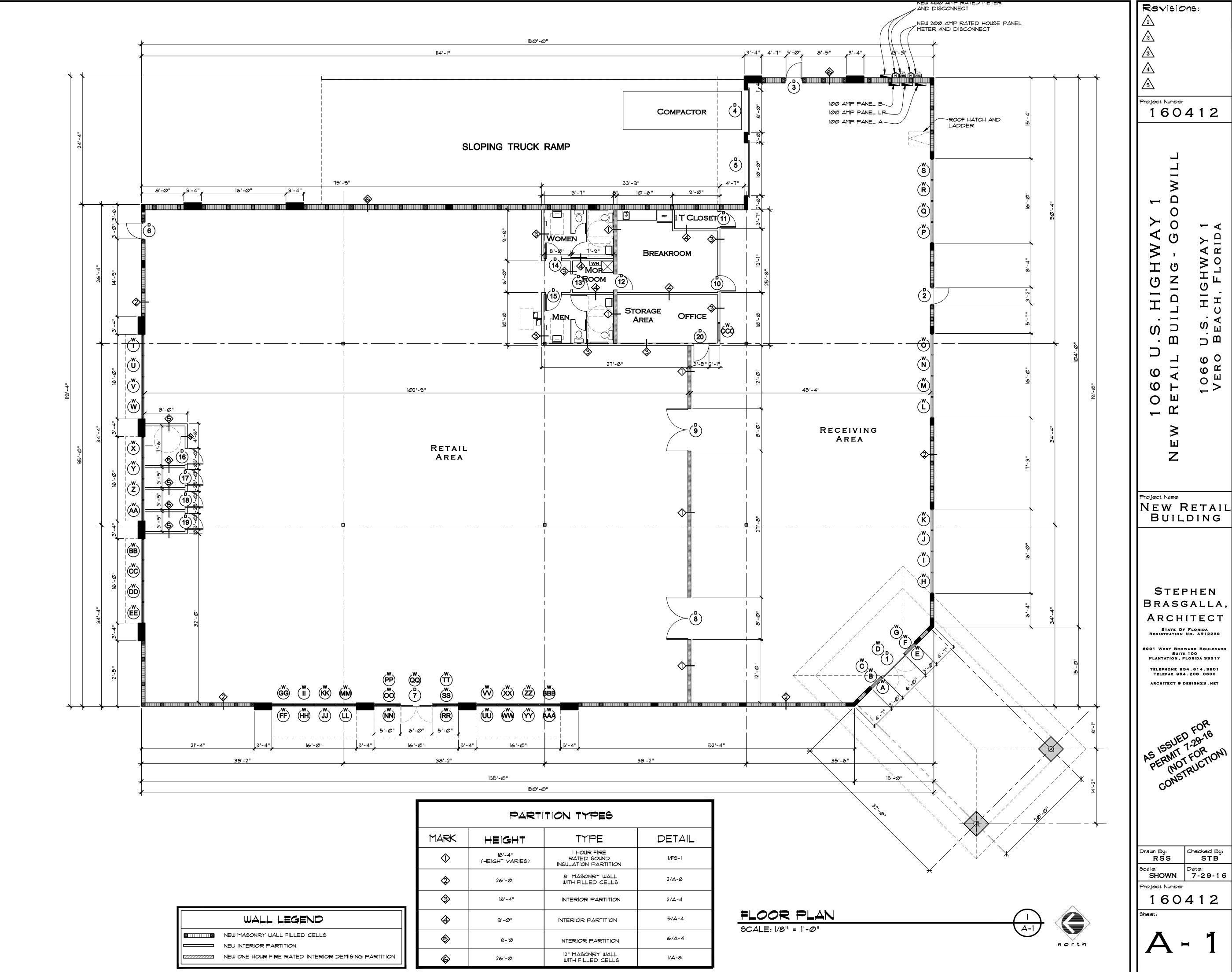
AS ISSUED FOR 1-29-16

AS ISSUED FOR 1-29-16

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CONSTRUCT

Checked By: STB

Project Number 160412



Revisions:

Project Number

160412

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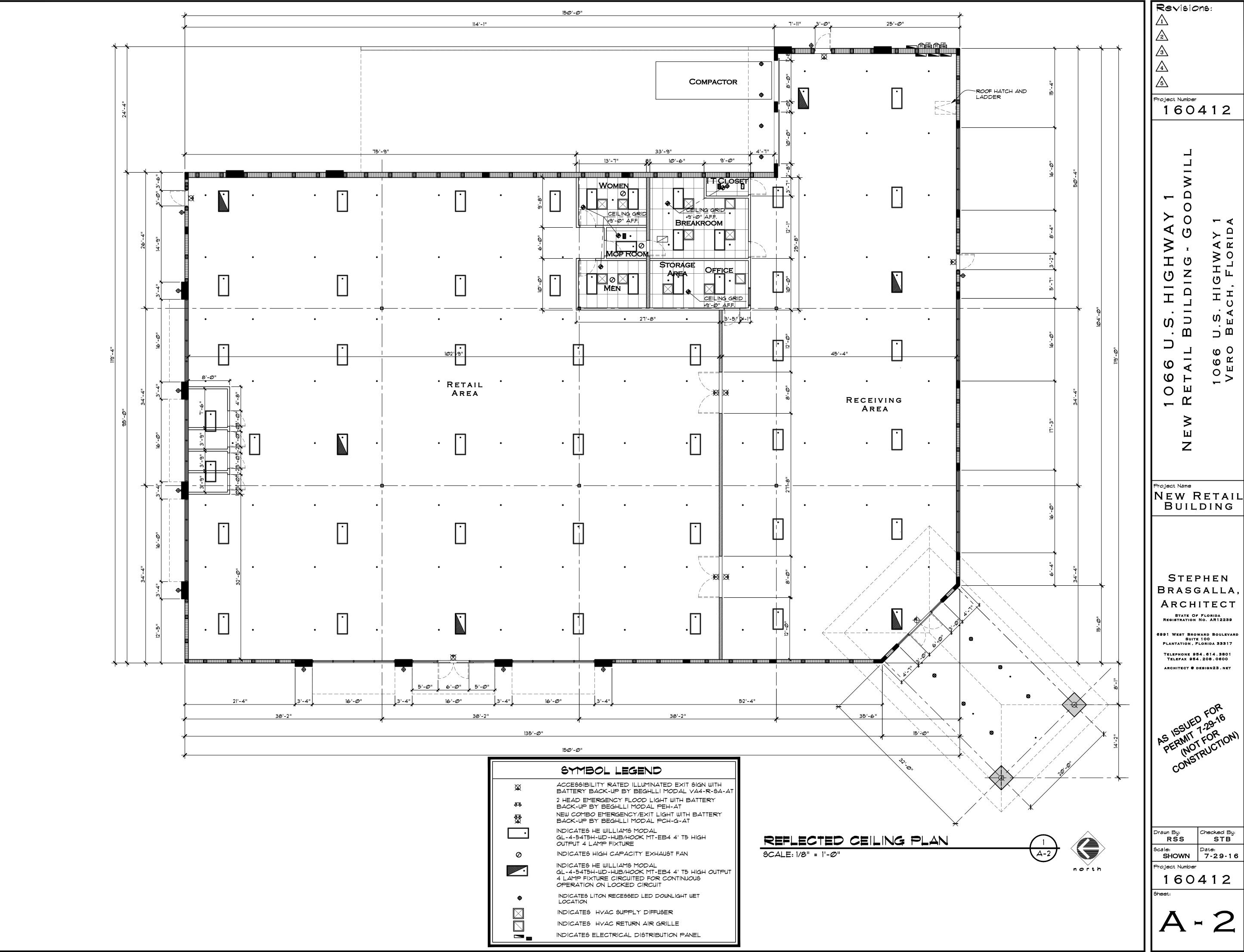
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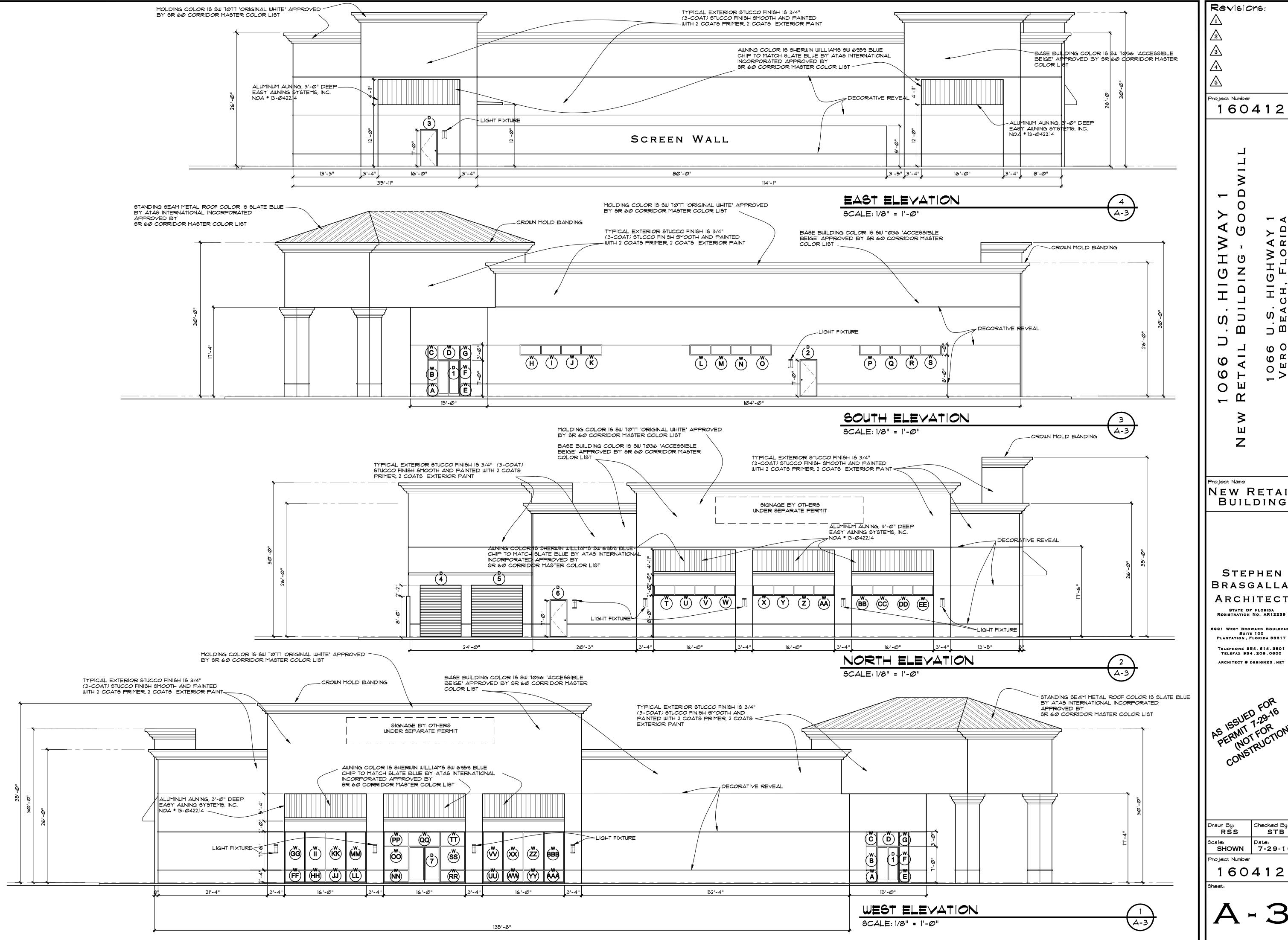
TELEPHONE 954.614.3801 TELEFAX 954.208.0600 ARCHITECT @ DESIGN23.NET

Drawn By: RSS Checked By: STB

9cale: Date: 7-29-16

Project Number 160412



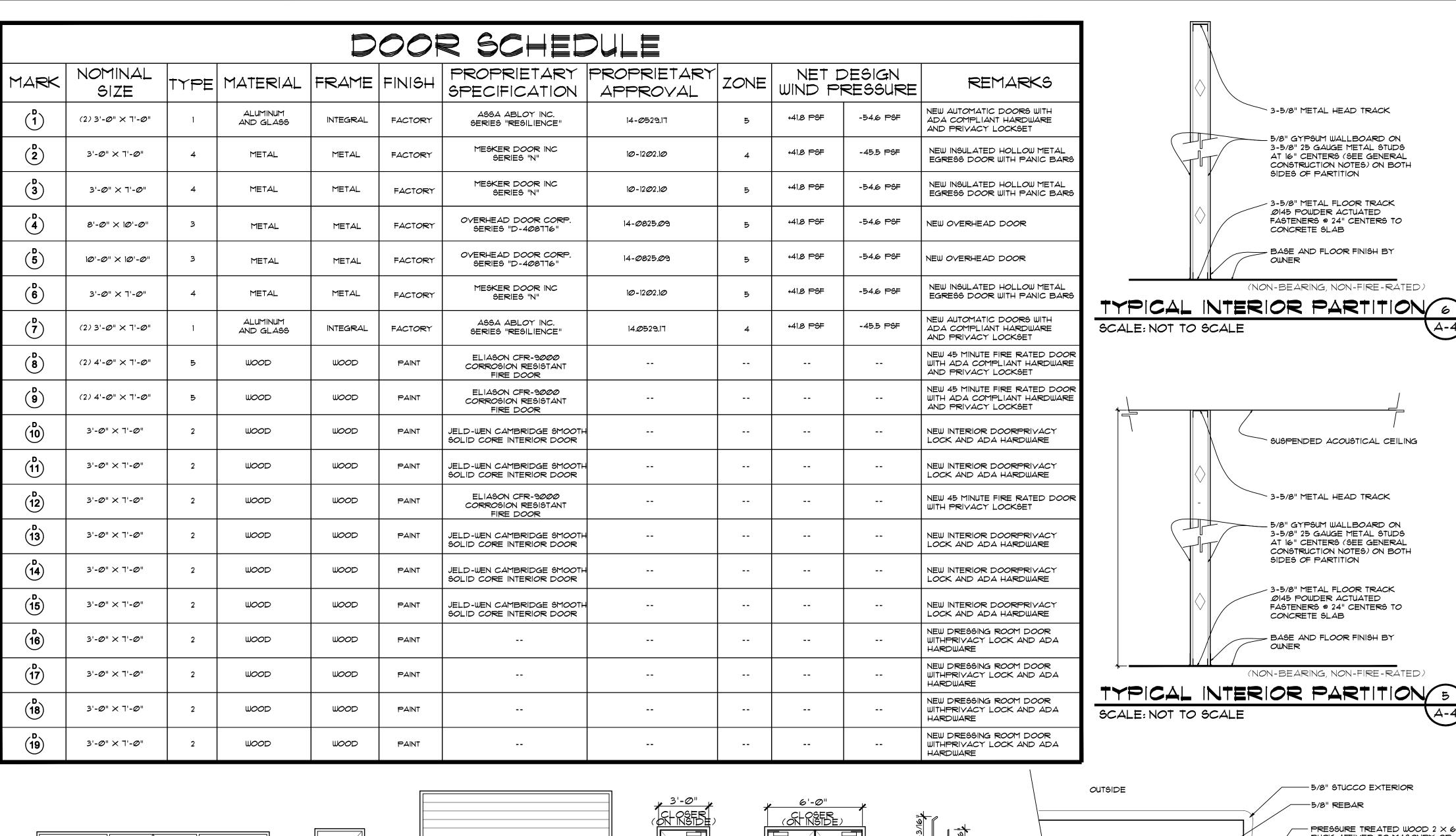


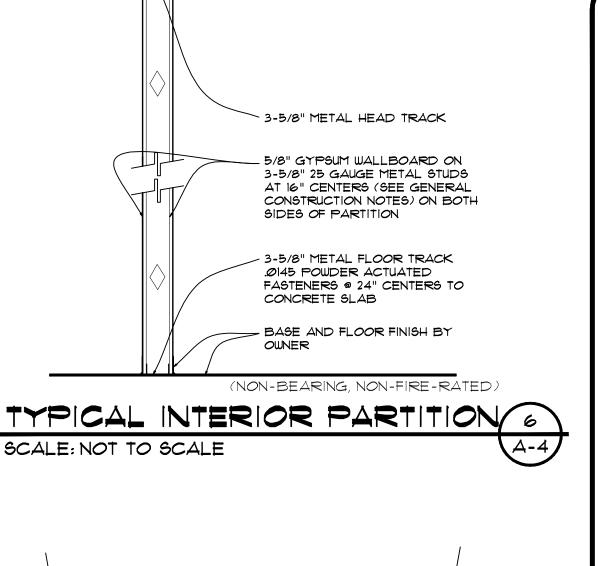
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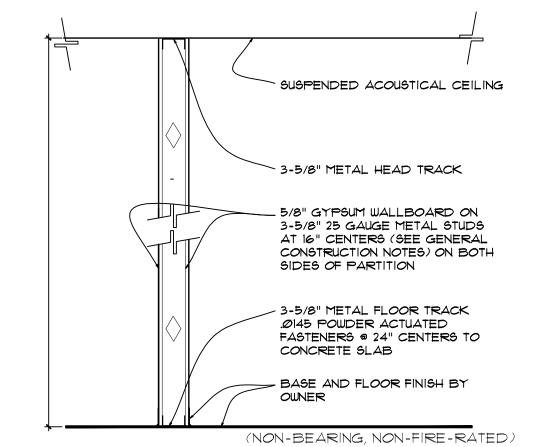
STEPHEN BRASGALLA, ARCHITECT

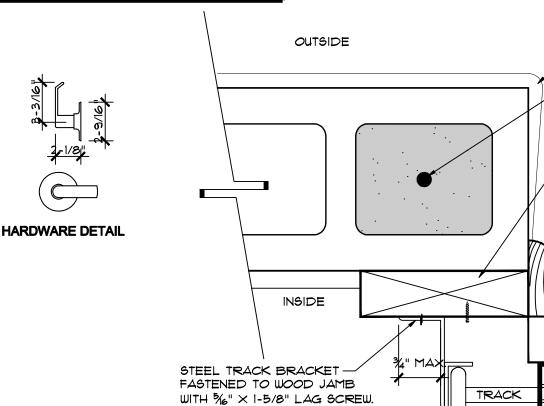
6991 WEST BROWARD BOULEVARD SUITE 100 PLANTATION, FLORIDA 33317 TELEPHONE 954.614.3801 TELEFAX 954.208.0600 ARCHITECT • DESIGN23.NET

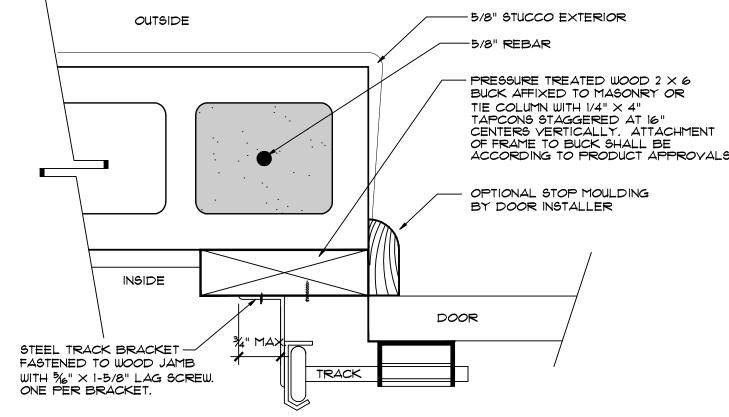
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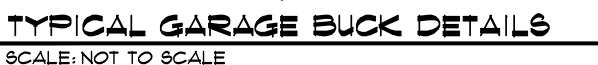


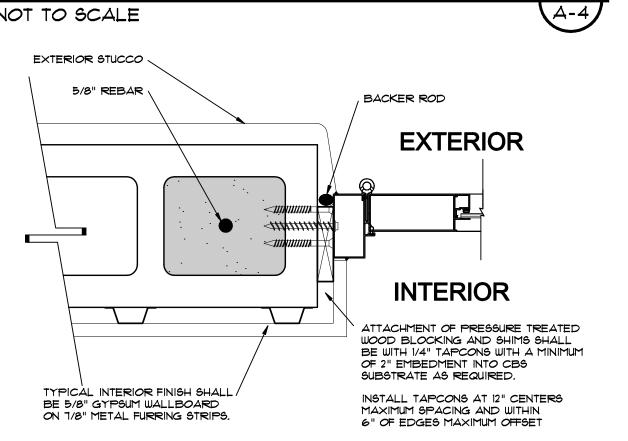






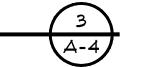




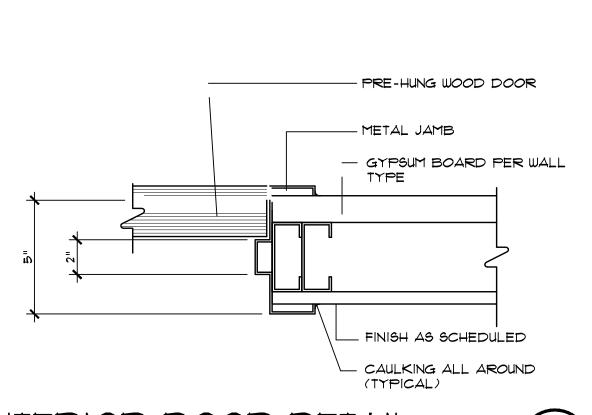


DOOR BUCK DETAIL

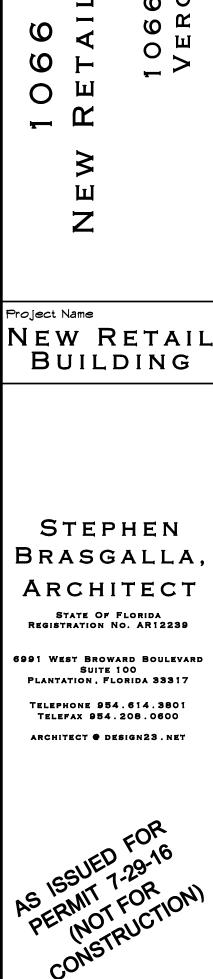
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INTERIOR DOOR DETAIL SCALE: NOT TO SCALE



Revisions:

Project Number

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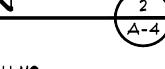
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INSTALL TOP RUNNER FOR METAL-STUD PARTITION TO UNDERSIDE OF METAL DECK : TIGHTLY PACK ALL YOIDS WITH NON-COMBUSTIBLE FIRE-RESISTANT BATTING AND SEAL ALL EDGE YOIDS WITH HILTI FS601 HOUR FIRE RATED SEALANT MATERIAL. (NOTE: GYPSUM WALLBOARD WILL HAVE TO BE FITTED AROUND ALL BAR JOISTS THAT INTERSECT THE PLANE OF INTERIOR PARTITIONS. NOTE: NO INTERIOR PARTITIONS ARE TYPICAL #12 WIRE @ 4' CENTERS BEARING IN THIS SET OF PLANS.) SUSPENDED ACOUSTICAL CEILING ACOUSTIC RATED CAULK SEALANT CONTINUOUS AT TOP 5/8" GYPSUM WALLBOARD ON 6" 22 GAUGE METAL STUDS AT 16 CENTERS (SEE GENERAL CONSTRUCTION NOTES) BASE AND FLOOR BY OWNER -1/2" "440 SOUND BARRIER" PANELS BY HOMASOTE ACOUSTIC RATED CAULK .0145 POWDER ACTUATED FASTENERS -SEALANT CONTINUOUS AT TOP @ 24" CENTERS TO CONCRETE SLAB **UL DESIGN NO. U419** 

HOUR FIRE RATED PARTITION SCALE: 1/2" = 1'-0"



### PRESCRIPTIVES FOR U.L. DESIGN NO. U419

- FLOOR AND CEILING RUNNERS -- CHANNEL SHAPED, FABRICATED FROM MINIMUM 22 MSG CORROSION-PROTECTED STEEL, MINIMUM DEPTH TO ACCOMMODATE STUD SIZE. WITH MINIMUM 1-1/4 INCH LONG LEGS, ATTACHED TO FLOOR AND CEILING WITH FASTENERS 16 INCH ON CENTER MAXIMUM.
- STEEL STUDS -- CHANNEL SHAPED, FABRICATED FROM MINIMUM 22 MSG CORROSION-PROTECTED STEEL, SPACED A MAXIMUM OF 16 INCHES ON CENTER STUDS TO BE CUT 3/8 TO 3/4 INCH LESS THAN ASSEMBLY HEIGHT.
- BATTS AND BLANKETS\* -- (OPTIONAL NOT USED)
- GYPSUM BOARD -- GYPSUM PANELS WITH BEVELED, SQUARE OR TAPERED EDGES, APPLIED VERTICALLY OR HORIZONTALLY. VERTICAL JOINTS CENTERED OVER STUDS AND STAGGERED ONE STUD CAYITY ON OPPOSITE SIDES OF STUDS. VERTICAL JOINTS IN ADJACENT LAYERS (MULTILAYER SYSTEMS) STAGGERED ONE STUD CAVITY. HORIZONTAL JOINTS NEED NOT BE BACKED BY STEEL FRAMING. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS ON OPPOSITE SIDES OF STUDS NEED NOT BE STAGGERED. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS IN ADJACENT LAYERS (MULTILAYER SYSTEMS) STAGGERED A MINIMUM OF 12 INCHES.
- FASTENERS -- TYPE 5 OR 5-12 STEEL SCREWS USED TO ATTACH PANELS TO STUDS OR FURRING CHANNELS. SINGLE LAYER SYSTEMS: 1 INCH LONG FOR 1/2 AND 5/8 INCH THICK PANELS OR 1-1/4 INCHES LONG FOR 3/4 INCH THICK PANELS, SPACED 8 INCHES ON CENTER WHEN PANELS ARE APPLIED HORIZONTALLY, OR 8 INCHES ON CENTER ALONG VERTICAL AND BOTTOM EDGES AND 12 INCHES ON CENTER IN THE FIELD WHEN PANELS ARE APPLIED VERTICALLY. TWO LAYER SYSTEMS: FIRST LAYER- 1 INCH LONG FOR 1/2 AND 5/8 INCH THICK PANELS OR 1-1/4 INCH LONG FOR 3/4 INCH THICK PANELS, SPACED 16 INCHES ON CENTER. SECOND LAYER- 1-5/8 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS OR 2-1/4 INCH LONG FOR 3/4 INCH THICK PANELS, SPACED 16 INCHES ON CENTER WITH SCREWS OFFSET 8 INCHES FROM FIRST LAYER. THREE-LAYER SYSTEMS: FIRST LAYER- 1 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. SECOND LAYER- 1-5/8 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. THIRD LAYER- 2-1/4 INCHES LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS OR 2-5/8 INCHES LONG FOR 5/8 INCH THICK PANELS, SPACED 12 INCHES ON CENTER. SCREWS OFFSET MINIMUM 6 INCHES FROM LAYER BELOW, FOUR-LAYER SYSTEMS: FIRST LAYER- 1 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. SECOND LAYER- 1-5/8 INCH LONG FOR 1/2 INCH. 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. THIRD LAYER- 2-1/4 INCHES LONG FOR 1/2 INCH THICK PANELS OR 2-5/8 INCHES LONG FOR 5/8 INCH. THICK PANELS, SPACED 24 INCHES ON CENTER FOURTH LAYER- 2-5/8 INCHES LONG FOR 1/2 INCH THICK PANELS OR 3 INCHES LONG FOR 5/8 INCH THICK PANELS, SPACED 12 INCHES ON CENTER. SCREWS OFFSET MINIMUM 6 INCHES FROM LAYER BELOW.
- FURRING CHANNELS -- (OPTIONAL FOR SINGLE OR DOUBLE LAYER SYSTEMS) --RESILIENT FURRING CHANNELS FABRICATED FROM MINIMUM 22 MGG CORROSION-PROTECTED STEEL, SPACED VERTICALLY A MAXIMUM OF 16 INCHES ON CENTER. FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 INCH LONG TYPE S-12 STEEL SCREWS.
  - JOINT TAPE AND COMPOUND -- VINYL OR CASEIN, DRY OR PREMIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS OF OUTER LAYERS. PAPER TAPE, NOMINAL 2 INCHES WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS OF OUTER LAYER PANELS. PAPER TAPE AND JOINT COMPOUND MAY BE OMITTED WHEN GYPSUM PANELS ARE SUPPLIED WITH A SQUARE EDGE.
  - <u>SIDING, BRICK OR STUCCO</u> -- (OPTIONAL) -- ALUMINUM, VINYL OR STEEL SIDING, BRICK VENEER OR STUCCO, MEETING THE REQUIREMENTS OF LOCAL CODE AGENCIES, INSTALLED OVER GYPSUM PANELS. BRICK VENEER ATTACHED TO STUDS WITH CORRUGATED METAL WALL TIES ATTACHED TO EACH STUD WITH STEEL SCREWS, NOT MORE THAN EACH SIXTH COURSE OF BRICK.
  - CAULKING AND SEALANTS\* -- (OPTIONAL) -- A BEAD OF ACOUSTICAL SEALANT APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.

A-4

Drawn By:

RSS

SHOWN

Project Number

Checked By:

STB

7-29-16

60412

VIEW, OVERHEAD DOOR TYPE #3 SCALE: NOT TO SCALE VIEW, DOOR TYPE #4
NOT TO SCALE VIEW, DOOR TYPE #5
NOT TO SCALE

**EXTERIOR** CMU CELL SHALL BE FILLED WITH HIGH STRENGTH GROUT WITH REBAR. SEE STRUCTURAL DRAWINGS EXTERIOR FINISH SHALL BE STUCCO INSTALL BACKER RODS AT EXTERIOR AND INTERIOR GAP AND PROVIDE CONTINUOUS CAULK SEALANT, BOTH AT THE EDGES OF THE BUCK AND WHERE THE STOREFRONT FRAME CONTACTS THE STUCCO EXTERIOR AND GYPSUM WALLBOARD INTERIOR ATTACHMENT OF PRESSURE TREATED WOOD BLOCKING AND SHIMS SHALL BE WITH 1/4" TAPCONS WITH A MINIMUM OF 2" EMBEDMENT INTO CBS SUBSTRATE AS REQUIRED. INSTALL TAPCONS AT 12" CENTERS MAXIMUM SPACING AND WITHIN 6" TYPICAL INTEGRAL MULLION AT MID-SPAN OF NEW STOREFRONT GLASS OPENINGS: - SEE MANUFACTURER'S SPECIFICATIONS OF EDGES MAXIMUM OFFSET.

VIEW, DOOR TYPE #2 NOT TO SCALE

**INTERIOR** 

VIEW, DOOR TYPE # SCALE: NOT TO SCALE

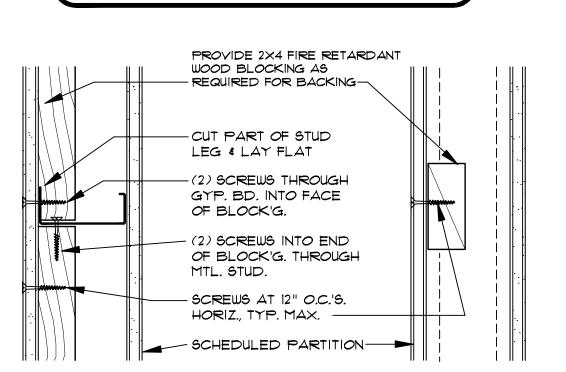
**ENTRANCE/EXIT** 

STOREFRONT JAMB DETAIL SCALE: NOT TO SCALE

S#6		RON	† <b>SC</b> H	EDUL	EXPO	SURE: 'D	)' 170 MP+	4 WINDSPE	ED
MARK	NOMINAL SIZE	TYPE	MATERIAL	EGRESS	PRODUCT APPROVAL	ZONE		DESIGN PRESSURE	REMARKS
(KK)	3'-10" × 7'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES SS-3500
(II)	3'-1Ø" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS-3500
(MM)	3'-10" × 7'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES 55-3500
(NN)	4'-8" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES 55-3500
(00)	4'-8" × 4'-6"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES 55-3500
(PP)	4'-8" × 2'-8"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES SS-3500
(QQ)	6'-Ø" × 2'-8"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES SS-3500
(RR)	4'-8" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS-3500
(SS)	4'-8" × 4'-6"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES 55-3500
(ii)	4'-8" × 2'-8"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES 55-3500
(W)	3'-9" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES 55-3500
(W)	3'-9" × T'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 41.8	-45.5	NEW PGT SERIES SS-3500
(w)	3'-10" × 7'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 41.8	-45.5	NEW PGT SERIES SS-3500
(WX)	3'-1Ø" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES 55-3500
(WY)	3'-10" × 7'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES 55-3500
(ZZ)	3'-1Ø" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 41.8	-45.5	NEW PGT SERIES 55-3500
éw AAA	3'-9" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 41.8	-45.5	NEW PGT SERIES 55-3500
(BB)	3'-9" × 7'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47,4	NEW PGT SERIES 55-3500
ĆÇĢ	3'-2" × 3'-Ø"	FIXED	ALUMINUM	NO					ONE-WAY GLASS

# GENERAL NOTE

WHERE BACKING/BLOCKING IS REQUIRED WITHIN THE PROPOSED FIRE RATED PARTITIONS, DO NOT USE WOOD OR ANY COMBUSTIBLE MATERIALS, SUBSTITUTE 3-5/8" 20 GAUGE STUDS INSTALLED BETWEEN THE TYPICAL 22 GAUGE 6" VERTICAL STUDS AT 16" CENTERS. AFFIX THE BLOCKING STUD TO THE VERTICALS WITH MINIMUM (3) DRYWALL SCREWS EACH END.



TYPICAL BLOCKING

SCALE: NOT TO SCALE

510	REFR	ON	† <b>SCH</b>	EDUL	EXPO	SURE: 'D	)' 17 <i>0</i> M	IPH WINDS	SPEED
MARK	NOMINAL SIZE	TYPE	MATERIAL	EGRESS	PRODUCT APPROVAL	ZONE		DESIGN RESSURE	REMARKS
(Å)	2'-8" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 43.7	-586	NEW PGT SERIES SS-3
(W)	2'-8" × 4'-6"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 41.8	-54.6	NEW PGT SERIES SS-3
(C)	2'-8" × 2'-8"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 43.7	-47.4	NEW PGT SERIES SS-3
( <u>D</u> )	6'-0" × 2'-8"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 41.8	-54.6	NEW PGT SERIES SS-3
(E)	2'-8" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 43.7	-47.4	NEW PGT SERIES SS-:
(W)	2'-8" × 4'-6"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 41.8	-54.6	NEW PGT SERIES SS-
(W)	2'-8" × 2'-8"	FIXED	ALUMINUM	NO	16.0505.04	5	+ 43.7	-47.4	NEW PGT SERIES SS-
(H)	3'-lØ" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 43.7	-47.4	NEW PGT SERIES PW
(V)	3'-1Ø" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 43.7	-47.4	NEW PGT SERIES PW
(J)	3'-lØ" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 43.7	-47.4	NEW PGT SERIES PW
(K)	3'-1Ø" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 43.7	-47.4	NEW PGT SERIES PW
(Ľ)	3'-lØ" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 41.8	-45.5	NEW PGT SERIES PW
(W)	3'-lØ" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 41.8	-45.5	NEW PGT SERIES PW
(N)	3'-lØ" × l'-8"	FIXED	ALUMINUM	NO	15 <i>-0</i> 528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
(o)	3'-lØ" × l'-8"	FIXED	ALUMINUM	NO	15 <i>-0</i> 528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
(W)	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 41.8	-45.5	NEW PGT SERIES PU
(W)	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 41.8	-45.5	NEW PGT SERIES PW
(W)	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	5	+ 43.7	-47.4	NEW PGT SERIES PW
(s)	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528,26	5	+ 43.7	-47.4	NEW PGT SERIES PU
(W)	3'-1Ø" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
w	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PU
(v)	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
w	3'-10" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
(X)	3'-1Ø" ×  '-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
(Ÿ)	3'-lØ" ×  '-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PU
(v)	3'-lØ" × l'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PU
(WAA)	3'-lØ" × l'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
(BB)	3'-lØ" × l'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PU
(CC)	3'-1Ø" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PU
(DD)	3'-1Ø" × 1'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47,4	NEW PGT SERIES PU
(EE)	3'-lØ" × l'-8"	FIXED	ALUMINUM	NO	15-Ø528.26	4	+ 43.7	-47.4	NEW PGT SERIES PW
(FF)	3'-9" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS
(GG)	3'-9" × 1'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS
(HH)	3'-lØ" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS
(II)	3'-lØ" × 7'-4"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS
(JJ)	3'-l@" × 2'-2"	FIXED	ALUMINUM	NO	16.0505.04	4	+ 43.7	-47.4	NEW PGT SERIES SS

Revisions:

Project Number 160412

U.S. HIGHWAY 1 BEACH, FLORIDA

NEW RETAIL BUILDING

STEPHEN BRASGALLA, ARCHITECT

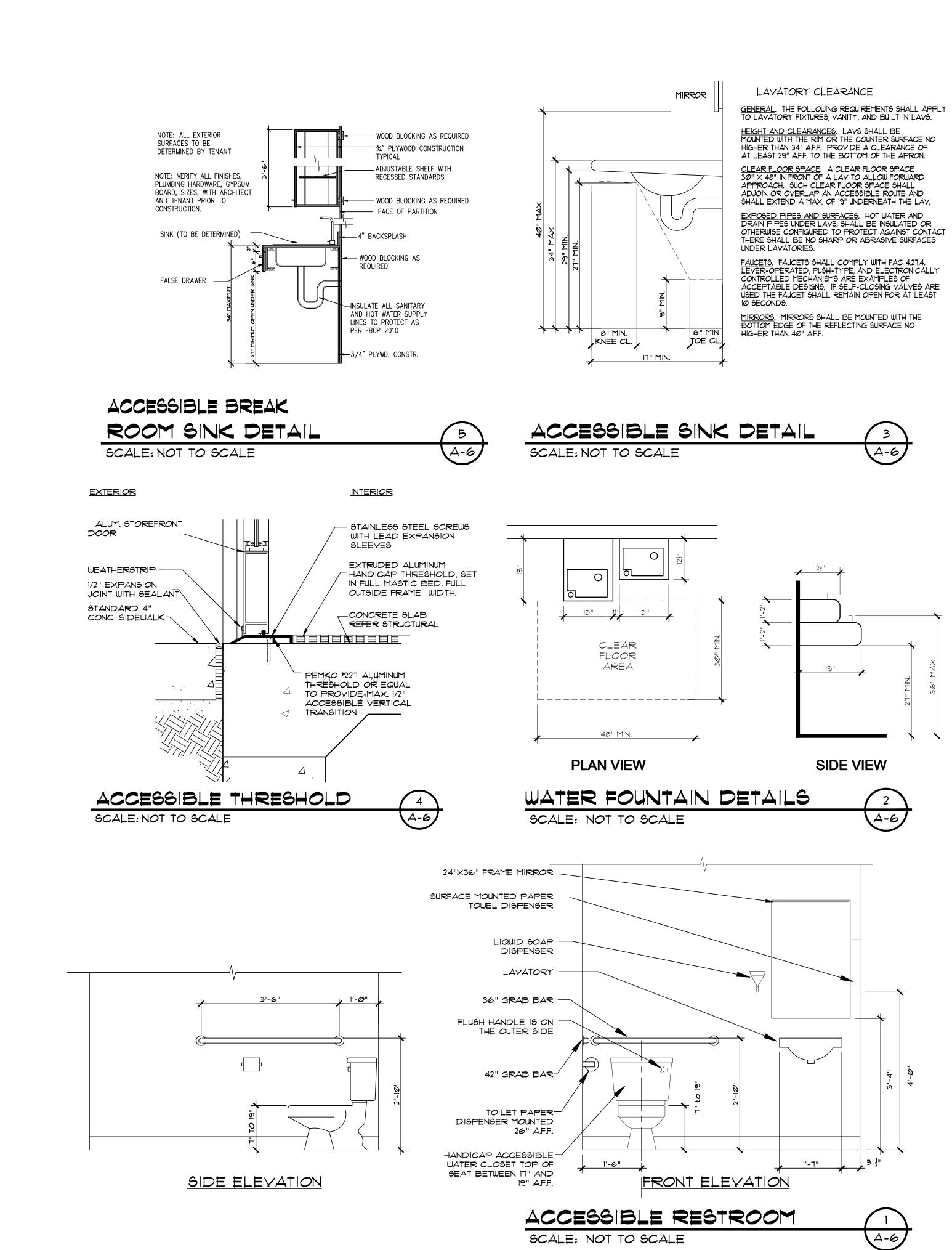
6991 WEST BROWARD BOULEVARD SUITE 100 PLANTATION, FLORIDA 33317 TELEPHONE 954.614.3801 TELEFAX 954.208.0600 ARCHITECT @ DESIGN23.NET

STATE OF FLORIDA REGISTRATION NO. AR12239



Drawn By: Checked By: RSS STB SHOWN 7-29-16

Project Number



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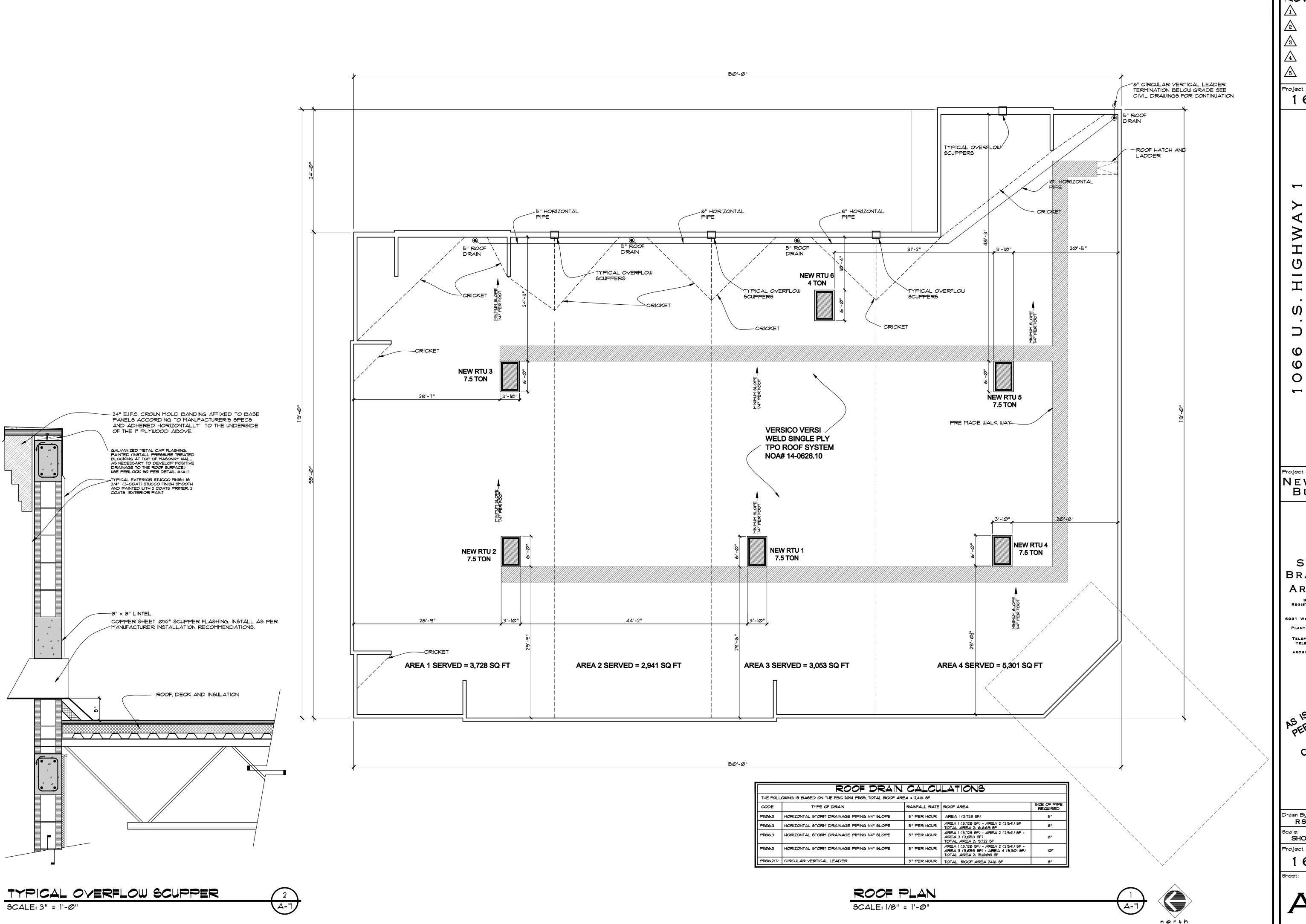
STEPHEN BRASGALLA,

ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

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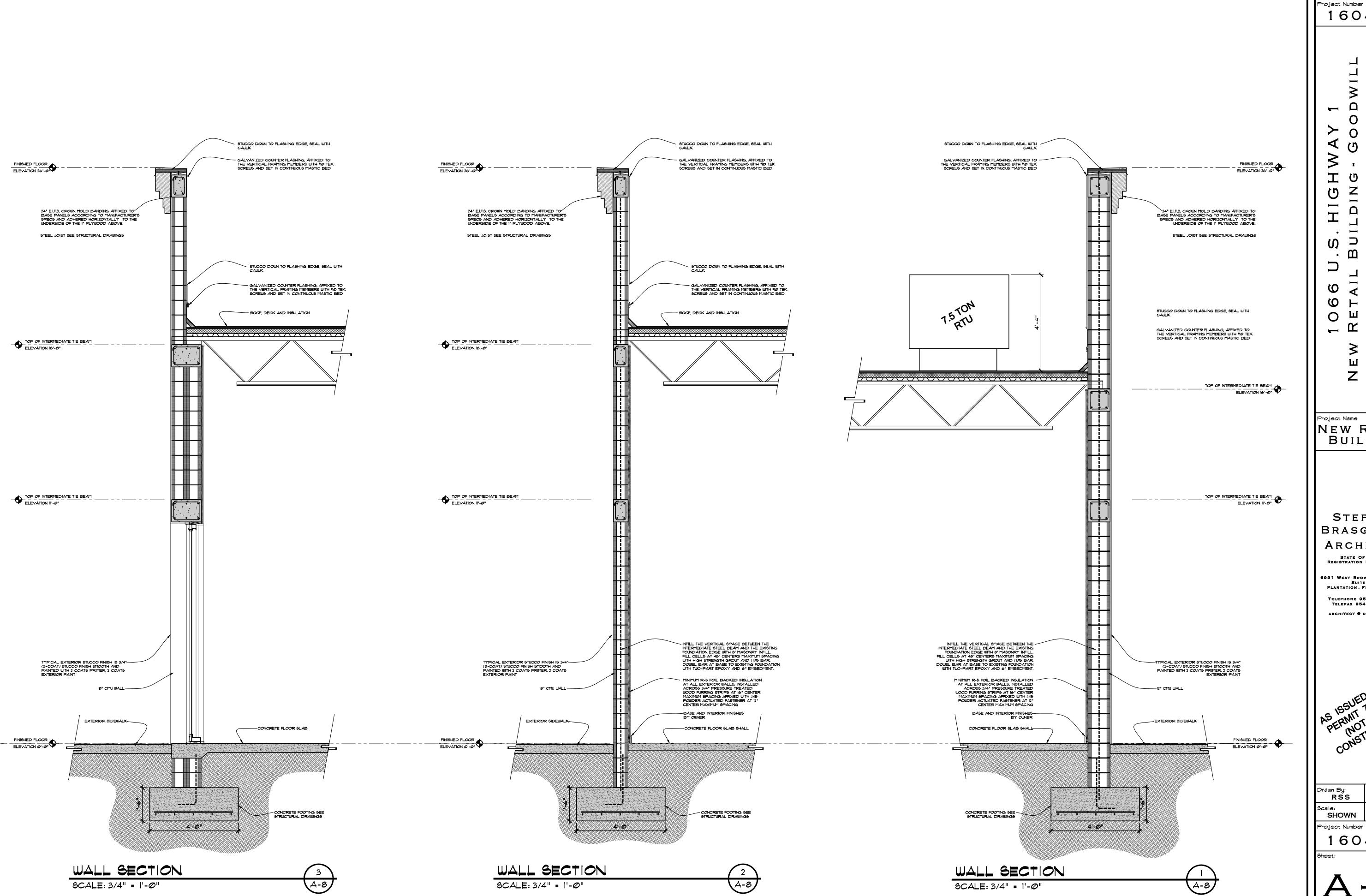
Project Name NEW RETAIL BUILDING

STEPHEN

BRASGALLA, ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

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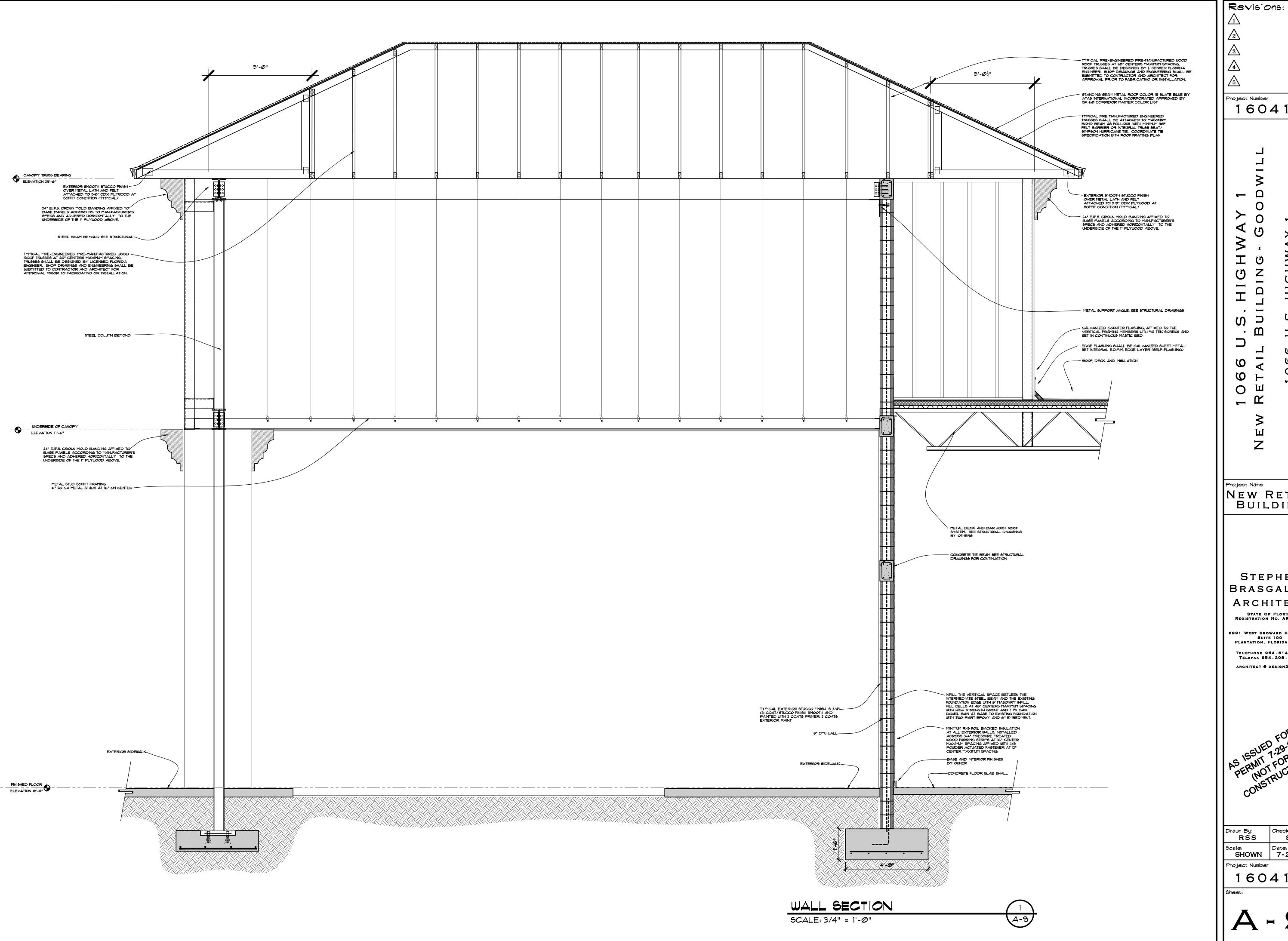
Revisions:

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STEPHEN BRASGALLA, ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

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STEPHEN BRASGALLA, ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

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1. ROOF: A) LIVE LOAD.

2. DESIGN WIND: FLORIDA BUILDING CODE 5TH EDITION BASED ON ASCE 7-10 VELOCITY ...... V = 170 MPH RISK CATEGORY ..

EXPOSURE CATEGORY ..... "D" INTERNAL PRESSURE COEFFICIENT Gcpi = ;0.18

C) TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE STRUCTURAL PLANS AND SPECIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE FIFTH EDITION AND FOLLOWING RATIONAL ANALYSIS PRINCIPLES.

### II. CONSTRUCTION DATA

### A) GENERAL NOTES:

1. THE STRUCTURAL DESIGN IS BASED ONLY ON THE STRUCTURE IN IT'S COMPLETED STATE CONTRACTORS AND THEIR SUBS SHALL TAKE WHATEVER PRECAUTIONS THAT ARE NECESSARY IN THEIR OPINIONS TO WITHSTAND ALL HORIZONTAL AND VERTICAL LOADS THAT MAY BE ENCOUNTERED DURING THE CONSTRUCTION, PRIOR TO COMPLETION.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS AT THE JOB SITE AND BRING TO THE ARCHITECTS / ENGINEERS ATTENTION OF ANY DISCREPANCIES.

3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES, INCLUDING SHORING AND PROTECTION OF ANY ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE WITH LOCAL BUILDING CODES.

4. CONSTRUCTION DEAD AND LIVE LOADS SHALL NOT EXCEEDS ACTUAL DESIGN LOADS FOR ANY STRUCTURAL COMPONENT.

5. TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED TO HOLD ALL COMPONENTS OF THE STRUCTURE IN PLACE UNTIL FINAL SUPPORT IS SECURELY ANCHORED.

6. ALL INSPECTIONS. SPECIAL OR OTHERWISE. THAT ARE REQUIRED BY THE BUILDING CODES, LOCAL BUILDING DEPARTMENT, OR THESE PLANS, SHALL BE DONE BY UNISON STRUCTURAL DESIGN, LLC OR

7. SHOP DRAWINGS SUBMITTED FOR STRUCTURAL REVIEW SHALL CONSIST OF TWO SETS OF PRINTS AND ONE SET OF REPRODUCIBLES. DRAWINGS SHALL BEAR THE CONTRACTORS APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITY AND COORDINATION WITH ALL DISCIPLINES. NO CHANGES OR DEVIATIONS FROM THE CONTRACT DOCUMENTS ARE ACCEPTED UNLESS EACH IS CLEARLY IDENTIFIED AS SUCH, AND EACH IS SPECIFICALLY ACCEPTED OR REJECTED. ANY ACCEPTED CHANGE OR DEVIATION FOR REVISION OF THE PERMITTED CONSTRUCTION DOCUMENTS OR VALUE ENGINEERING COST SAVINGS IS SUBJECT TO A REDUCTION OF THE CONTRACT LUMP SUM. ONLY ONE MARKED UP SET WITH THE STRUCTURAL ENGINEERS COMMENTS WILL BE RETURNED TO THE CONTRACTOR. ALLOW TWO WEEKS TIME FOR SHOP

8. THE CONTRACTOR SHALL COORDINATE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL / SITE WORK PLANS FOR DIMENSIONS AND DETAILS OF THE ITEMS WHICH PENETRATE OR ATTACH TO THE BUILDING STRUCTURE.

9. THIS BUILDING IS DESIGNATED A NON THRESHOLD BUILDING.

DRAWING REVIEW BY UNISON STRUCTURAL DESIGN, LLC.

### 10. NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR REDUCED IN STRENGTH 01000 EARTHWORK

### A) GENERAL NOTES:

1. ALL EARTHWORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT BY: COMPANY NAME

TELEPHONE REPORT DATI

ADDRESS:

JOB NUMBER:

ALLOWABLE BEARING PRESSURE: 2,500 PSF

1. LOCATE EXISTING UTILITIES BY HAND EXCAVATION AND PROVIDE PROTECTION FROM DAMAGE. DO NOT BREAK UTILITY CONNECTIONS WITHOUT NOTIFICATION. A MINIMUM OF 48 HOURS IN ADVANCE AND PROVIDING ACCEPTABLE TEMPORARY SERVICES.

2. REMOVE EXISTING WALKS, DRIVES, CURBS, FOUNDATIONS, CISTERNS, BOULDERS, VEGETATION (TREES, STUMPS, AND ROOTS 1" OR LARGER IN DIAMETER WITHIN THE LINES OF THE BUILDING 5 FEET BEYOND), TRASH AND SIMILAR ITEMS AS NECESSARY TO EXECUTE THE WORK OF THIS PROJECT.

3. EXCAVATE FOR STRUCTURE TO ELEVATIONS AND DIMENSIONS SHOWN, EXTENDING EXCAVATION A SUFFICIENT DISTANCE TO PERMIT PLACING AND REMOVAL OF OTHER WORK AND FOR INSPECTION. TRIM BOTTOM TO REQUIRED LINES AND GRADES TO PROVIDE SOLID BASE TO RECEIVE CONCRETE.

4. REMOVE ANY ABANDONED SEWER OR SERVICE LINE(S) ENCOUNTERED DURING EXCAVATION WITHIN THE BUILDING LINES. SHOULD SUCH LINES BE FOUND BELOW OR ADJACENT TO FOOTING LOCATIONS,

5. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER FACILITIES IN AREAS OF WORK. BARRICADE OPEN EXCAVATIONS AND PROVIDE WARNING LIGHTS. COMPLY WITH REGULATIONS OF AUTHORITIES HAVING JURISDICTION.

6. REPAIR DAMAGES TO EXISTING UTILITIES AT CONTRACTOR'S EXPENSE AS DIRECTED BY THE UTILITY

7. PROVIDE BRACING AND SHORING AS REQUIRED IN EXCAVATIONS, TO MAINTAIN SIDES AND TO PROTECT ADJACENT STRUCTURES FROM SETTLEMENT, COMPLYING WITH LOCAL CODES AND REGULATIONS. MAINTAIN UNTIL EXCAVATIONS ARE BACK FILLED.

8. WATER SHALL NOT BE PERMITTED TO POND IN FOOTING EXCAVATION. KEEP EXCAVATION DRY. FAILURE TO DO SO WILL BE A CAUSE FOR REQUIRING CONTRACTOR TO REMOVE WATER DAMAGED SOILS AND REPLACE WITH CONTROLLED FILL AS DIRECTED. ALL EXCAVATIONS SHALL BE FREE OF WATER PRIOR TO PLACING CONCRETE.

9. SITE FILL AND BACKFILL MATERIAL SHALL CONSIST, IF POSSIBLE, OF EXISTING ON-SITE MATERIALS (SC or CL) FREE OF DEBRIS, BOULDERS, ORGANIC MATERIALS AND SILT.

10. STOCKPILE EXCAVATED MATERIALS WHERE DIRECTED BY G.C. UNTIL REQUIRED FOR BACKFILL AND

11. IF QUESTIONABLE SOIL CONDITIONS ARE ENCOUNTERED DURING EXCAVATION, NOTIFY ARCHITECT / ENGINEER IMMEDIATELY. MAINTAIN EXCAVATIONS IN A CLEAN CONDITION.

12. STRUCTURAL FILL SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS FROM THE REFERENCED GEOTECHNICAL REPORT. FILL MATERIAL SHALL BE CLEAN, FREE OF ORGANIC MATERIAL, AND SHALL BE TESTED IN ACCORDANCE WITH ASTM C136 ASTM C117, AND APPROVED BY SOILS ENGINEERS. SUITABLE MATERIALS OBTAINED FROM EXCAVATION AT THE SITE MAY BE USED, IF APPROVED BY THE SOILS

13. STRUCTURAL FILL (IF REQUIRED) COMPACTION 98% MAXIMUM DENSITY, ASTM D698 (STANDARD PROCTOR DENSITY), OR AS REQUIRED BY APPROVED SOILS REPORT.

14. SITE AND BACKFILL COMPACTION - AS RECOMMENDED BY SOILS ENGINEER. EXCAVATE AS NECESSARY TO REMOVE ALL ORGANIC SOILS AND LOOSE, EXISTING FILL, AND FILL TO GRADE, COMPACTING EACH LIFT OF FILL ACCORDING TO THE RECOMMENDATIONS OF THE SOILS ENGINEER. PROVIDE SAME METHOD OF COMPACTION AT ALL MECHANICAL TRENCHES AND OTHER SIMILAR AREAS.

15. PLACE ALL FILL MATERIALS IN 6" to 8" LOOSE LAYERS, COMPACTING EACH LAYER TO REQUIRED MAXIMUM DENSITY UNLESS OTHERWISE RECOMMENDED IN THE APPROVED SOILS REPORT ON RECORD WITH THE G.C. KEEP COMPACTED LIFTS RELATIVELY SMOOTH AND LEVEL.

16. NO FILL OR BACKFILL SHALL BE "SETTLED" BY THE USE OF WATER.

17. PROVIDE SOIL TREATMENT FOR TERMITE PROTECTION AS REQUIRED BY THE BUILDING CODE.

1. THE OWNER SHALL PROVIDE THE SERVICES OF A QUALIFIED LICENSED, SOILS ENGINEER, TO APPROVE THE EXISTING SOIL AFTER EXCAVATION FOR FOOTINGS, SUPERVISE THE PLACING OF CONTROLLED FILL, AND TEST COMPACTION OF THE CONTROLLED FILL.

2. THE SUBCONTRACTOR SHALL COOPERATE WITH THE SOILS ENGINEER IN THE SCHEDULING AND EXECUTION OF THE WORK SO THAT THE REQUIRED TESTS AND INSPECTIONS MAY BE PERFORMED, AND THE SUBCONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AS FAR AS POSSIBLE IN ADVANCE OF THE READINESS OF THE WORK. NO WORK SHALL PROCEED UNTIL THE REQUIRED INSPECTIONS AND TESTS (VERIFY WITH G.C.) HAVE BEEN PERFORMED.

3. NOTIFY TESTING SERVICES PRIOR TO PROCEEDING WITH PLACEMENT OF FOOTINGS, FILL, OR OTHER CONSTRUCTION OVER SUB GRADES AND FILL. TESTING SERVICE MUST INSPECT AND APPROVE SUB

GRADES AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS PERFORMED THERE ON.

4. REPORTS OF TESTS, INSPECTIONS AND APPROVALS PERFORMED BY THE SOILS ENGINEER SHALL BE SUBMITTED TO THE GENERAL CONTRACTOR, ARCHITECT AND OWNER.

A) QUALITY ASSURANCE:

02000 CONCRETE

1. CODES AND STANDARDS: ACI-301, ACI-315, ACI-318, CRSI, COMPLY WITH APPLICABLE PROVISIONS EXCEPT AS OTHERWISE INDICATED.

2. OWNER SHALL EMPLOY TESTING LABORATORY TO TEST AND EVALUATE CONCRETE DELIVERED TO AND PLACED AT SITE. THIS TESTING DOES NOT RELIEVE SUBCONTRACTOR OF RESPONSIBILITY OF PROVIDING CONCRETE IN COMPLIANCE WITH CONTRACT DOCUMENTS.

3. SAMPLING FRESH CONCRETE: COMPLY WITH ASTM C 172, EXCEPT MODIFIED FOR SLUMP TO COMPLY WITH ASTM C 94.

a) SLUMP - ASTM C143, ONE TEST FOR EACH LOAD AT POINT OF DISCHARGE.

TEST SPECIMENS EXCEPT WHEN FIELD-CURED TEST SPECIMENS ARE REQUIRED.

b) AIR CONTENT - ASTM C173, ONE FOR EACH SET OF COMPRESSIVE STRENGTH SPECIMENS. c) COMPRESSIVE TEST SPECIMEN - ASTM C 31, TWO SET OF TWO STANDARD CYLINDERS SPECIMENS FOR EACH COMPRESSIVE STRENGTH TEST. MOLD AND STORE CYLINDERS FOR LABORATORY-CURED

d) COMPRESSIVE STRENGTH TESTS - ASTM C 39, ONE SET FOR EACH DAY'S POUR EXCEEDING 5 CU. YD. PLUS ADDITIONAL SETS FOR EACH 50 CU. YD. MORE THAN THE SPECIMEN TESTED AT 7 DAYS, ONE SPECIMEN TESTED AT 28 DAYS, AND ONE SPECIMEN RETAINED IN RESERVE FOR LATER TESTING IF

4. REPORT TEST RESULTS TO G.C., ARCHITECT AND OWNER IN WRITING ON SAME DAY TESTS ARE

### B) <u>SUBMITTALS:</u>

1. CONCRETE MIX DESIGN - PER ACI 301. EACH MIX DESIGN SHALL BE LABELED TO INDICATE THE AREA IN WHICH THE CONCRETE IS TO BE PLACED (I.E. FOUNDATIONS, SLAB-ON-GRADE, COLUMNS, ETC. FAILURE TO DO SO WILL CAUSE DELAYS AND/OR REJECTION OF SUBMITTAL.

2. REINFORCING STEEL FABRICATIONS AND PLACEMENT DRAWINGS - PER ACI 315

a) PORTLAND CEMENT - ASTM C 150, TYPE 1 b) FLY ASH - NOT PERMITTED.

c) AGGREGATES - ASTM C33 (NORMAL WEIGHT) ASTM C330 (LIGHT WEIGHT). d) WATER - CLEAN, DRINKABLE

a) DEFORMED REINFORCING BARS - ASTM A 615, GRADE 60. REINFORCING STEEL TO BE WELDED: ASTM A706 (FOR EMBED., ANCHORS, ETC.) b) WELDED WIRE FABRIC - ASTM A 185 MINIMUM YIELD STRENGTH OF 20,000 PSI.

c) FIBER REINFORCEMENTS - ENGINEERED POLYPROPYLENE FIBERS DESIGNED FOR

SECONDARY REINFORCEMENTS OF CONCRETE SLABS. C.3 CHAIRS, BOLSTERS, SPACERS, RUNNERS, OTHER SUPPORT DEVICES: CRSI

C.4 ADMIXTURES: PROVIDE ADMIXTURES THAT CONTAIN NOT MORE THAN 0.1% CHLORIDE IONS. 1) AIR-ENTRAINING ADMIXTURES: ASTM C260

2) WATER-REDUCING, RETARDING, AND ACCELERATING CHEMICAL ADMIXTURES:

a) VAPOR RETARDER - CLEAN 10 MIL THICK POLYETHYLENE ASTM E 154 b) ABSORPTIVE COVER - BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING

APPROXIMATELY 9 oz PER SQ. YD., COMPLY WITH AASHTO M 182, CLASS 2. c) MOISTURE - RETAINING COVER - WATERPROOF PAPER, POLYETHYLENE FILM, OR POLYETHYLENE-COATED BURLAP, COMPLYING WITH ASTM C 171. d) MEMBRANE - FORMING CURING COMPOUND - ASTM C 309, TYPE 1.

e) EVAPORATION CONTROL - MONOMOLECULAR FILM-FORMING COMPOUND APPLIED TO EXPOSED CONCRETE SLAB SURFACES FOR TEMPORARY PROTECTION FROM RAPID MOISTURE LOSS

f) WATER STOPS: FLAT DUMBBELL OR CENTER BULB TYP, SIZE TO SUIT JOINTS, OF EITHER RUBBER OR PVC.

### g) NON SHRINK GROUT - 7,000 PSI CRD C 621 D) MIX DESIGN:

D.1 PROPORTION MIXES COMPLYING WITH MIX DESIGN PROCEDURES SPECIFIED I ACI 301

D.2 PROVED READY-MIX CONCRETE COMPLYING WITH ASTM C 94.

D.3 ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF). WITH MIXES DESIGNED TO MEET THE FOLLOWING CRITERIA FOR USE IN VARIOUS ELEMENTS OF THE STRUCTURE AS FOLLOWS:

OTDUOTUDAL ELEMENT	00140050000/5 (000)	NANY AGODEGATE OLZE	OLL IN AD
STRUCTURAL ELEMENT	COMPRESSIVE (PSI)	MAX. AGGREGATE SIZE	SLUMP
FOOTING, FOUNDATION WALLS	3000	1½"	4 ± 1"
SLAB ON GRADE	3000	1½"	5 ± 1"
ELEVATED FLOORS, FRAMING ROOF BEAMS	4000	1"	5 ± 1"
COLUMNS	4000	1"	5 ± 1"
ELEVATED SLABS (METAL DECK)	3500	1"	5 ± 1"
FILLED CELL GROUT (ASTM C476)	2500	<b>%</b> "	8" TO 11"

NOTE: WATER/ CEMENT RATIO = .56 MAX. (NON-AIR-ENTRAINED) = .46 MAX. (AIR ENTRAINED)

E1. HOT WEATHER COMPLY WITH ACI 305

E2. REINFORCING STEEL PLACEMENT TO COMPLY WITH ACI 315, AND CRSI.

a) WHERE SPLICE LENGTHS ARE NOT SPECIFIED, USE 48 BAR DIAMETER IN MASONRY AND 40 BAR DIAMETERS IN CAST CONCRETE. b) REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED

REINFORCING STEEL SPLICES ARE NOT PERMITTED. c) LAP ALL WELDED WIRE FABRIC A MINIMUM DISTANCE OF ONE CROSS WIRE SPACING PLUS

d) ALL REINFORCING STEEL SHALL BE SUPPORTED ON STANDARD ACCESSORIES, HELD RIGIDLY AND ACCURATELY IN PLACE, AND PROTECTED AGAINST DISPLACEMENT BEFORE AND DURING PLACEMENT OF CONCRETE, SUPPORTING ACCESSORY LEGS THAT REST ON CONCRETE SURFACES THAT WILL BE EXPOSED IN THE FINISHED STRUCTURE SHALL BE FABRICATED ON STAINLESS STEEL.

COLUMN TIES

E3. <u>CONCRETE COVER</u>:
a) FOOTINGS AND FOUNDATION PADS PLACED AGAINST THE GROUND = 3". b) CONCRETE SURFACE AFTER REMOVAL OF FORMS EXPOSED TO WEATHER OR GROUND: No. 5 BAR or SMALLER =  $1\frac{1}{2}$ "

No. 6 BAR or LARGER = 2c) CONCRETE NOT EXPOSED TO WEATHER OR GROUND: SLABS AND WALLS =  $\frac{3}{4}$ " BEAMS AND GIRDER TIES =  $1\frac{1}{2}$ 

E4. FOUNDATION REINFORCEMENTS SHALL BE CONTINUOUS WITH CORNER BARS AT INTERSECTIONS AND CORNERS, ONE FOR EACH EACH HORIZONTAL BAR.

E5. PROVIDE KEYED CONSTRUCTION JOINTS (KCJ) IN EARTH OR FILL SUPPORTED SLABS AT LOCATIONS NOTED ON PLAN. PROVIDE CONTROL JOINTS (CJ) AT ALL LOCATIONS NOTED ON PLAN. IF 'CJ' IS SAW CUT, THE I MUST BE MADE AS SOON AS POSSIBLE, BUT NOT LATER THAN 24 HOURS AFTER THE POUR.

### E6. SLAB FINISHES AS FOLLOWS

a) EXPOSED TO VIEW AND SLAB SURFACES TO BE COVERED WITH RESILIENT FLOORING. CARPET, PAINT, OR OTHER FILM, TO BE FINISH COATING SYSTEM, FLOAT AND TROWEL b) SURFACES TO BE COVERED WITH CERAMIC TILES, TROWEL FINISH FOLLOWED IMMEDIATELY WITH FINE BROOMING TO SLIGHTLY SCARIFY SURFACE.

IMMEDIATELY WITH FIBER BRISTLE BROOM, PERPENDICULAR TO MAIN TRAFFIC ROUTE TO

E7. BEGIN CURING AS SOON AS WATER HAS DISAPPEARED FROM EXPOSED SURFACE. KEEP CONCRETE CONTINUOUSLY MOIST FOR NOT LESS THAN 7 DAYS.

c) EXTERIOR PLATFORMS, STEPS, AND RAMPS TO BE FLOAT FINISHED, FOLLOWED

E8. APPLY MEMBRANE-FORMING CURING COMPOUND AS SOON AS FINAL FINISHING OPERATIONS ARE COMPLETE. APPLY ACCORDING TO MANUFACTURE'S RECOMMENDATIONS.

E9. USE MEMBRANE-CURING COMPOUNDS THAT WILL NOT AFFECT SURFACES TO BE COVERED WITH FINISH MATERIALS APPLIED DIRECTLY TO CONCRETE.

E10. ALL EXPOSE EDGES OF CONCRETE ABOVE FINISHED FLOOR, SHALL HAVE A 3/4" x 3/4"

E11. PROVIDE CORNER BARS, #5 x 2'-6"x2'-6" AT ALL BEAM CORNERS, 2 AT EACH LEVEL OF HORIZONTAL REINFORCING.

E12. PROVIDED #4 NOSING BAR AT EACH CONCRETE STEP.

a) BOTTOM FORMS - WHEN CONCRETE STRENGTH HAS REACH DESIGN COMPRESSIVE STRENGTH AND NOT LESS THAN 14 DAYS.

b) FACING FORMS - AFTER 4 DAYS WITH OUT DISTURBING INTEGRITY OF SUPPORTS OR SHORING.

### 03000 CONCRETE MASONRY UNITS

1. THE LOAD BEARING MASONRY WALLS ARE DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY BY THE NATIONAL CONCRETE MASONRY ASSOCIATION AND BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY ACI 530-11. f'm=1500psi BY UNIT STRENGTH METHOD.

### B. QUALITY ASSURANCE:

1. SUBMIT CERTIFICATION OF COMPLIANCE WITH ASTM SPECIFICATIONS FOR CMU, MASONRY CEMENT, AND REINFORCING PRIOR TO DELIVERY TO SITE.

C. <u>SUBMITTAL</u> D. PRODUCTS

1. <u>HOLLOW, LOAD BEARING UNITS</u>- ASTM C90-90, GRADE-N, MINIMUM COMPRESSIVE STRENGTH = 1900

2. <u>MASONRY CEMENTS MORTAR</u> - ASTM C-270, TYPE-M, MINIMUM COMPRESSIVE STRENGTH = 2500 PSI. 3. COARSE GROUT REINFORCED MASONRY - ASTM C-476, 8" SLUMP, MINIMUM COMPRESSIVE

4. <u>HORIZONTAL JOINT REINFORCING</u> - ALTERNATE HORIZONTAL JOISTS SHALL BE REINFORCED WITH #9 GAUGE GALVANIZED LADDER (16"o.c. MIN.) AND AS INDICATED ON ARCH. DRAWINGS.

5. REBAR POSITIONERS: REINFORCING INDICATED AS TWO BARS PER CELL SHALL BE POSITIONED EA. FACE USING DUR-O-WAL REBAR POSITIONER DA816 OR APPROVED EQUAL. POSITIONER TO BE PLACED AT TOP OF FIRST COURSE EA. FLOOR BELOW THE LAST COURSE ON EA. FLOOR AND AT MAXIMUM SPACING OF 200 x BAR DIAMETER (INCHES).

1. MASONRY SHALL BE PLACED PRIOR TO PLACING CONCRETE COLUMNS - RUNNING BOND WITH FULL

2. ALTERNATE HORIZONTAL JOINTS SHALL BE REINFORCED WITH #9 GAUGE GALVANIZED TRUSS TYPE REINFORCING, CONTINUOUS IN ALL CONCRETE COLUMNS. PROVIDE JOINT REINFORCING AT 8"o.c. ABOVE LINTELS AND BELOW SILLS OF MASONRY OPENINGS. EXTEND REINFORCING 2'-0" BEYOND EACH JAMB.

3. AT ALL WALL ENDS, INTERSECTIONS, CORNERS AND ON EACH SIDE OF WALL OPENINGS, IF A COLUMN IS NOT SHOWN, PROVIDE (1) #6 VERTICAL AND GROUT THE REINFORCED CELL OF THE BLOCK. USE DOWELS AND MAINTAIN CONTINUITY WITH THE STRUCTURE ABOVE. TERMINATE BAR

WITH A STANDARD HOOK INSIDE THE CONCRETE BEAM AT TOP OF THE WALL. 4. PROVIDE CLEAN OUT OPENINGS FOR EACH GROUT FILLED CELLS. FOR HIGH LIFT GROUTING, USE A

MAXIMUM LIFT OF 5'-0" WITH A MINIMUM OF 30 MINUTES AND A MAXIMUM OF 60 MINUTES BETWEEN

5. ALL LAP SPLICES TO BE 58 BAR DIAMETERS.

6. INSTALL PRE CAST LINTELS IN FULL BED OF MORTAR w/ MINIMUM 8" BEARING AT EACH END.

7. CHASES - BUILD IN, DO NOT CUT. MINIMUM INSTALLATION DISTANCE FROM JAMB OF WALL OPENING

8. GROUT PLACEMENT STOPPED FOR (1) HOUR OR MORE SHOULD BE STOPPED 1 1/2" BELOW THE TOP OF THE MASONRY UNIT TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.

9. EXTEND ALL VERTICAL WALL REINFORCEMENT TO WITHIN 2" OF TOP OF WALL OR BEAM UNLESS NOTED OTHERWISE. TERMINATE REINFORCING WITH STANDARD ACI 90 DEGREE HOOK IF ROOF JOIST AND/OR TRUSSES BEAR ON TOP OF WALL AND THERE IS NO PARAPET. IF PARAPET EXISTS, HOOK IS

10. CONTROL JOINTS: CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION AT LOCATIONS INDICATED ON THE ARCHITECTURAL DRAWINGS BUT AT A SPACING NOT GREATER THAN 1.5X (WALL HEIGHT) OR 20'-0" WHICHEVER IS LESS.

11. MASONRY WALL SHALL BE BRACED EITHER BY OTHER INTERSECTING WALLS OR BY ANCHORAGE OR BRACING TO THE STRUCTURE ABOVE, OR TO ADJACENT WALLS, AS DETAILED ON THE

12. ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCED IN THE FINAL CONSTRUCTED CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR VERTICAL AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF LATERAL SUPPORT BY CONNECTIONS AT FLOORS OR ROOF FRAMING LEVELS.

### 05120 STRUCTURAL STEEL

SHOP DRAWINGS - SUBMIT SHOP DRAWINGS INCLUDING COMPLETE DETAILS AND SCHEDULES FOR FABRICATION AND ASSEMBLY OF STRUCTURAL STEEL MEMBERS, PROCEDURES, AND DIAGRAMS. INCLUDE DETAILS OF CUTS, CONNECTIONS, CAMBER, HOLES, AND OTHER PERTINENT DATA. INDICATE WELDS BY STANDARD AWS SYMBOLS AND SHOW SIZES, LENGTHS, AND TYPES OF WELDS. PROVIDE SETTING DRAWINGS, TEMPLATES, AND DIRECTIONS FOR INSTALLATION OF ANCHOR BOLTS AND OTHER ANCHORAGE TO BE INSTALLED AS WORK OF OTHER SECTIONS.

### 2. CODES AND STANDARDS:

a) AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360-05) "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES". PARAGRAPH 4.2.1. OF THE ABOVE CODE IS HEREBY MODIFIED BY DELETION OF THE FOLLOWING: "THIS APPROVAL CONSTITUTES THE OWNER'S ACCEPTANCE OF ALL RESPONSIBILITY FOR THE DESIGN ADEQUACY OF ANY DETAIL CONFIGURATION OF CONNECTIONS DEVELOPED BY THE FABRICATOR AS A PART OF HIS PREPARATION OF THESE SHOP DRAWINGS".

b) AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS ", INCLUDING "COMMENTARY".

e) ASTM A6 "GENERAL REQUIREMENTS FOR DELIVERY OF ROLLED STEEL PLATES, SHAPES,

c) "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.

d) STRUCTURAL WELDING CODE ANSI/AWS D1.1-92, AMERICAN WELDING SOCIETY.

SHEET PILING AND BARS FOR STRUCTURAL USE". 3. QUALIFICATIONS FOR WELDING WORK: QUALIFY WELDING PROCEDURES AND WELDING OPERATORS IN ACCORDANCE WITH AWS "QUALIFICATIONS" REQUIREMENTS. WELDERS SHALL HAVE CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS QUALIFICATION TESTS. THE

## ENGINEER MAY REQUEST SUCH EVIDENCE AT ANY TIME DURING THE PROJECT.

a) STRUCTURAL STEEL SHAPES = ASTM A992, GRADE 50 STEEL PLATES = ASTM A36

b) COLD FORMED STEEL TUBING = ASTM A500, GRADE-B.(Fy=46) STEEL PIPE = ASTM A53, TYPE E OR S, GRADE B

HEXAGON NUTS, AND HARDENED WASHERS, A325 AND A490 BOLTS.

c) ANCHOR BOLTS = ASTM A307, NON-HEADED TYPE UNLESS OTHERWISE INDICATED. d) HIGH STRENGTH THREADED FASTENERS = HEAVY HEXAGON STRUCTURAL BOLTS, HEAVY

e) ELECTRODES FOR WELDING = E70 SERIES.

f) STRUCTURAL STEEL PRIMER PAINT =PAINT 13.

g) NON-METALLIC SHRINKAGE RESISTANT GROUT = PREMIXED, NON-METALLIC NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING SELECTED SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AGENTS, PLASTICIZING AND WATER REDUCING AGENTS, COMPLYING WITH CE-CRD-C621. MIN. 28 DAYS STRENGTH 5000 PSI.

FABRICATION/SHOP FABRICATION AND ASSEMBLY: FABRICATE AND ASSEMBLE STRUCTURAL ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATIONS AND AS INDICATED ON FINAL SHOP DRAWINGS.

6. ALL CONNECTIONS SHALL BE CONSTRUCTED AS DETAILED ON THE DRAWINGS. ALTERNATE CONNECTION DESIGNS SHALL ONLY BE ALLOWED WITH PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. IF SUCH APPROVAL IS GRANTED, ALL CONNECTIONS, SPLICES, AND ERECTION PIECES NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS (FABRICATOR'S DESIGN ) SHALL BE DESIGNED BY THE FABRICATOR'S ENGINEER, REGISTERED IN THE PROJECT'S JURISDICTION. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED BEARING THE ENGINEER'S SEAL AND

7. ALL SHOP AND FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS OR WELDS. ALL HIGH STRENGTH BOLTS AND NUTS SHALL BE CLEARLY MARKED AS REQUIRED BY AISC SPECIFICATIONS. CONNECTIONS MADE WITH UNMARKED BOLTS AND NUTS WILL BE REJECTED.

8. ALL A325 BOLTS SHALL BE TIGHTENED TO THE "SNUG TIGHT" CONDITION DEFINED AS THE TIGHTNESS ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH. THE SNUG TIGHT CONDITION MUST ENSURE THAT THE PLIES OF THE CONNECTED MATERIAL HAVE BEEN BROUGHT INTO SNUG CONTACT.

9. CONNECTIONS SHALL BE DETAILED OR SCHEDULED. NO CONNECTION SHALL CONSIST OF WELDS DEVELOPING LESS THAN 10,000 POUNDS, CAPACITY. MINIMUM WELD SIZE SHALL BE 3/16"

TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AISC AND AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGE IN WELDING IS TO BE REPLACED OR ACCEPTABLY REINFORCED AS ACCEPTABLE TO THE STRUCTURAL ENGINEER.

10. WELDING ELECTRODE, WELDING PROCESS, MINIMUM PRE HEAT AND INTER PASS

11. GAS CUTTING TORCHES SHALL NOT BE USED TO CORRECT FABRICATION ERRORS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

12. ALL STRUCTURAL STEEL THAT IS LOCATED IN EXTERIOR UNHEATED SPACES, INCLUDING STEEL DIRECTLY EXPOSED TO WEATHER, SHALL BE POWER TOOL CLEANED AND PAINTED WITH THREE COATS OF OIL BASED PAINT IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL PAINTING SYSTEM SPECIFICATION No. 109. DO NOT PAINT PORTION EMBEDDED IN CONCRETE.

WITH ASTM A123 AFTER SANDBLAST CLEANING PER SSPC-SP10. USE ASTM A325 BOLTS HOT DIPPED GALVANIZED WITH GALVANIZED HARDENED WASHERS AND GALVANIZED HEAVY HEX NUTS FOR BOLTING OF GALVANIZED ITEMS.

13. ALL EXTERIOR ELEMENTS AND THOSE ELEMENTS NOTED TO BE GALVANIZED IN ACCORDANCE

### 14 STEEL DECK:

a) STEEL DECK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATIONS AND SHALL CONFORM TO STEEL DECK INSTITUTE SPECIFICATIONS. SUBMIT ERECTION / SHOP DRAWINGS TO ARCHITECT / ENGINEER AND CITY FOR REVIEW AND ACCEPTANCE PRIOR TO FABRICATION.

b) ROOF DECK SHALL BE 11/5" DEEP U.N.O. SEE ROOF PLANS FOR GAGE AND PROFILE AND ATTACHMENT SCHEDULE FOR FASTENERS.

c) STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A653-98 WITH COATING DESIGNATION G90. d) ROOF DECK SHALL BE PLACED SO AS TO COVER AT LEAST TWO SPANS. NO SINGLE SPAN

e) STEEL DECK SHALL CONFORM TO ASTM A653 SQ GRADE 33 (Fy = 33,000 PSI)

### 05700 STEEL JOISTS

CONDITION SHALL BE USED U.N.O.

I. SUBMIT FOR REVIEW SHOP DRAWINGS OF JOIST DETAILS FOR FABRICATION AND ERECTION PRIOR TO FABRICATING JOISTS.

2. A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD INSPECTIONS TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS (IF PROVIDED). SUBMIT REPORTS TO ARCHITECT AND ENGINEER.

3. ALL DESIGN, FABRICATION AND ERECTION OF STEEL JOISTS AND BRIDGING SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF STEEL JOISTS INSTITUTE AND RECOMMENDED CODE OF STANDARD PRACTICE.

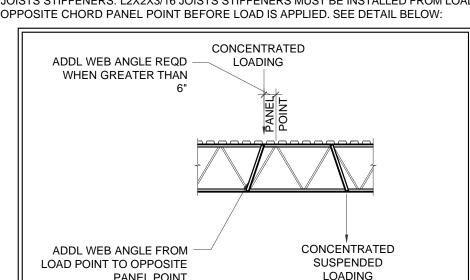
THE WALL OR BEAM.

5. ALL STEEL JOISTS ARE TO BE CAMBERED AS SPECIFIED BY STEEL JOIST INSTITUTE.

6. PROVIDE BOTTOM AND/OR TOP CHORD EXTENSIONS AS SHOWN ON DRAWINGS. 7. UNLESS NOTED OTHERWISE. MINIMUM JOIST BEARING SHALL BE 2-1/2" FOR K-SERIES JOISTS, 4"

FOR LH, DHL AND SLH 15-18, AND 6" FOR SLH 19-25 ON A STEEL MEMBER OR EMBED PLATE. 8. BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE SIZE AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS. ALL JOISTS 40'-0" OR LONGER REQUIRE A ROW OF BOLTED BRIDGING TO BE IN PLACE BEFORE SLACKENING OF HOISTING LINES. OTHER JOIST REQUIRE

SIMILAR BRIDGING (CONSULT LATEST SJI SPECIFICATIONS). 9. ALL HANGERS, CURBS, AND / OR ROOFTOP FRAMES TO SUPPORT MECHANICAL EQUIPMENT, ETC TO BE SUPPORTED BY THE JOISTS SHALL BE LOCATED AT THE PANEL POINTS OF THE JOISTS. IF THE CONCENTRATED LOAD MUST BE LOCATED FURTHER THAN 6" FROM A PANEL POINT, PROVIDE JOISTS STIFFENERS. L2X2X3/16 JOISTS STIFFENERS MUST BE INSTALLED FROM LOAD TO



10. CONTRACTOR TO FURNISH BAR JOIST CERTIFICATIONS SIGNED AND SEALED BY AN ENGINEER

REGISTERED IN THE SAME STATE AS THE PROJECT LOCATION.

11. FOR NET UPLIFT SEE NET UPLIFT PLAN. PROVIDE UPLIFT BRIDGING. 12. ALL ITEMS SUSPENDED FROM JOISTS (I.E. CATWALKS, BALCONIES, OPERABLE PARTITIONS, ETC.) SHALL BE INSTALLED AFTER DEAD LOAD HAS BEEN APPLIED.

13. BOLTED TIE JOISTS (BTJ) ARE USED IN STEEL FRAMES WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS. JOIST(S) AT COLUMN LINES SHALL BE FIELD BOLTED AT THE COLUMNS WITH TWO ½"Ø BOLTS TO PROVIDE LATERAL STABILITY

FIRE PROTECTION, SHOULD NOT BE PRIMED. 15. ANY STEEL JOIST WITHIN A 4'-0" DISTANCE FROM A PARALLEL SUPPORT SHALL BE FABRICATED MORE STRINGENT SPECIFIED BY EACH FASTENER'S MANUFACTURER SHALL BE USED. ALL

14. STEEL JOISTS SHALL RECEIVE SHOP COAT OF PRIMER (COLOR AS DIRECTED BY ARCHITECT)

WHERE EXPOSED TO VIEW. ALL OTHER AREAS INCLUDING THOSE WHICH WILL RECEIVE SPRAY-ON

16. IN THE EVENT THAT FIRE SPRINKLERS ARE REQUIRED FOR THIS PROJECT THE STEEL FABRICATOR SHALL PROVIDE A DIMENSIONED JOIST BRIDGING AND JOIST GIRDER BOTTOM CHORD BRACE PLAN ALONG WITH DETAILS TO THE SPRINKLER CONTRACTOR. THE FABRICATOR AND SPRINKLER CONTRACTOR SHALL COORDINATE WITH EACH OTHER TO ENSURE THAT ANY CONFLICTS ARE RESOLVED BEFORE ANY FABRICATION BEGINS.

### COMPOSITE FLOOR DECK INSTALLATION

1. INSTALL TEMPORARY SHORING, IF REQUIRED, BEFORE PLACING DECK PANELS. 2. PLACE DECK PANELS ON STRUCTURAL SUPPORTS AND ADJUST TO FINAL POSITION WITH ENDS ALIGNED. ATTACH FIRMLY TO THE SUPPORTS IMMEDIATELY AFTER PLACEMENT IN ORDER TO FORM A SAFE WORKING PLATFORM 3. CUT AND NEATLY FIT DECK UNITS AND ACCESSORIES AROUND OPENINGS AND OTHER WORK PROJECTING THROUGH OR ADJACENT TO THE DECKING.

4. ANCHOR FLOOR DECK UNITS TO STEEL SUPPORTING MEMBERS BY ARC SPOT PUDDLE WELDS OF THE FOLLOWING DIAMETER AND SPACING (OR FILLET WELDS OF EQUAL STRENGTH).

a) MINIMUM VISIBLE WELD DIAMETER =  $\frac{5}{8}$ "

b) WELD EDGE RIBS OF PANELS AT EACH SUPPORT, SPACE ADDITIONAL WELDS AN AVERAGE OF 12"o.c. BUT NOT MORE THAN 18"o.c. IN ANY OTHER LOCATION. c) FASTEN SIDE LAPS AND PERIMETER EDGE OF UNITS BETWEEN SUPPORTS AT INTERVALS NOT EXCEEDING 36"o.c. USING ONE OF THE FOLLOWING METHODS:

1. #10 SELF-DRILLING SCREWS.

2. CRIMP OR BUTTON PUNCH. 3. FOR DECKS THAT ARE 20ga AND HEAVIER: ARC PUDDLE WELDS 5/8" MINIMUM VISIBLE DIAMETER OR 1" LONG FILLET WELDS.

5. INSTALL DECK ENDS OVER SUPPORTS WITH A MINIMUM END BEARING OF 11/2. 6. FASTEN POUR STOPS AND GIRDER FILLERS TO SUPPORTING STRUCTURE

7. FASTEN COLUMN CLOSURES, CELL CLOSURES AND Z CLOSURES TO DECK TO PROVIDE TIGHT FITTING CLOSURES AT OPEN ENDS OF RIBS AND SIDES OF DECKING. FASTEN CELL CLOSURES AT CHANGES OF DIRECTION OF FLOOR DECK UNITS.

ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.

### PRE FABRICATED LIGHT GAUGE TRUSSES

1. ALL PRE FABRICATED METAL TRUSSES SHALL BE FURNISHED IN ACCORDANCE WITH DESIGNS PREPARED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF FLORIDA, USING THE DESIGN LOADS AND SPAN CONSIDERATION INDICATED ON THE CONSTRUCTION DOCUMENTS. NO DEVIATION OF TRUSS SHAPE, MEMBER SIZE, BEARING POINT LOCATIONS, OR SUPERIMPOSED LOADS FROM THE CONTRACT DOCUMENTS SHALL BE PERMITTED WITHOUT APPROVAL OF THE ARCHITECT AND/OR ENGINEER. SHOP DRAWINGS INCLUDING AN OVERALL ERECTION PLAN, INDICATING EACH TYPE OF TRUSS, TRUSS BEARING POINT LOCATIONS AND REACTIONS, REQUIRED LATERAL BRACING, AND EACH TRUSS MEMBERS. SIZE AND STRESS, CONNECTIONS DETAILS SHALL BE SUBMITTED FOR PRIOR APPROVAL TO GENERAL CONTRACTOR. CERTIFIED CALCULATIONS SHALL BE PROVIDED FOR EACH TRUSS DESIGN. SEE NOTE #10 FOR FURTHER REQUIREMENTS.

2. HANDLING OF TRUSSES AND ERECTION BRACING IS THE RESPONSIBILITY OF THE

3. THE CONTRACTOR SHALL PROVIDE PERMANENT CROSS BRACING IN THE PLANE OF WEB MEMBERS. ONE SET SHALL BE APPLIED TO A VERTICAL WEB MEMBER OR A WEB MEMBER NEAREST TO VERTICAL., AT MID SPAN OF TRUSS AND OTHER SETS PLACED AT NO GREATER THAN 8'-0" INTERVALS ALONG THE TRUSS LENGTH. THE SETS OF CROSS BRACING SHALL BE LOCATED AT ALL END WALLS WITH SUBSEQUENT SETS NO MORE THAN 20'-0" APART

4. ALL BRACING MEMBERS SHALL BE 6cee x 18ga. BY 8'-0" LONG OR MORE, APPLIED FLAT WISE, AND SCREWED AT EACH TRUSS INTERSECTION WITH (2) #10 TEK SCREW.

5. ALL CROSS AND DIAGONAL BRACING SHALL BE APPLIED AT APPROXIMATELY 45

6. TRUSSES SHALL BE FAST ENDED TO SUPPORT WALLS AS SHOWN IN PLANS AND DETAILS AND SHALL BE NAILED PER MANUFACTURES' RECOMMENDATIONS.

7. TRUSS MANUFACTURES IS RESPONSIBLE FOR DESIGNING AND SUPPLYING ALL

CONNECTIONS TO SUPPORTING TRUSSES AND TRUSS GIRDERS.

8. FABRICATOR'S QUALIFICATIONS: TRUSSES SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY OF PERMANENT NATURE. THEY SHALL BE MANUFACTURED BY EXPERIENCED WORKERS, USING PRECISION CUTTING AND TRUSS ASSEMBLY METHODS AND UNDER THE DIRECT SUPERVISIONS OF A QUALIFIED FOREMAN MANUFACTURER MUST PARTICIPATE IN THE QUALITY CONTROL TEST CRITERIA PROGRAM COMPARABLE TO THE TPI TESTING CRITERIA PROGRAM. THAT QUALITY ASSURANCE PROGRAM MUST INCLUDE, BUT NOT BE LIMITED TO THE INSPECTION OF ALL PHASES OF TRUSS OPERATIONS INCLUDING: LUMBER STORAGE, HANDLING, CUTTING FIXTURES, PRESSES OR ROLLERS, FABRICATION PROCEDURES AND COMPUTER DESIGN PROGRAMS SPECIFICALLY RELATING TO THE SPECIFIC TRUSS BEING FABRICATED FOR THE PROJECT

AS APPROVED IN THE TRUSS DESIGN CALCULATIONS SHEET OR PRINTOUT. 9. PROVIDE BRACING AT RIDGE OF TRUSSES EACH SIDE OF RIDGE VENT.

10. SHOP DRAWINGS FOR TRUSSES SHALL BE SUBMITTED AND APPROVED BY THE CITY 4. THE ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED TO PRIOR TO FABRICATION.

11 DEVIEW ADCHITECTURAL REFLECTED CELLING BLAN AND SECTIONS FOR SPECIAL

### CEILING CONDITIONS, INCLUDING CEILING SLOPES, TROFFERS, COFFERS, TRAYS, STEPS AND OTHER SPECIAL FEATURES.

**SHOP DRAWINGS:** SHOP DRAWINGS SUBMITTED FOR STRUCTURAL REVIEW SHALL CONSIST OF TWO SETS OF PRINTS AND ONE SET OF REPRODUCIBLE. DRAWINGS SHALL BEAR THE CONTRACTORS APPROVAL STAMP ACCEPTING RESPONSIBILITY FOR DIMENSIONS, QUANTITY AND COORDINATION WITH ALL DISCIPLINES. NO CHANGES OR DEVIATIONS FROM THE CONTRACT DOCUMENTS ARE ACCEPTED UNLESS EACH IS CLEARLY IDENTIFIED AS SUCH, AND EACH IS SPECIFICALLY ACCEPTED OR REJECTED. ANY ACCEPTED CHANGE OR DEVIATION FOR REVISION OF THE PERMITTED CONSTRUCTION DOCUMENTS OR VALUE ENGINEERING COST SAVINGS IS SUBJECT TO A REDUCTION OF THE CONTRACT LUMP SUM. ONLY ONE MARKED UP SET WITH THE STRUCTURAL ENGINEERS COMMENTS WILL BE RETURNED TO THE CONTRACTOR. ALLOW TWO WEEKS TIME FOR SHOP DRAWING REVIEW

**EXPANSION ANCHORS:** 

CONCRETE / MASONRY SCREWS:..

PLYWOOD:

1. SHALL COMPLY WITH THE PLYWOOD DESIGN SPECIFICATION BY THE AMERICAN PLYWOOD ASSOCIATION.

2. PLYWOOD SHEATHING SHALL BE 5/8", APA RATED SHEATHING, EXTERIOR, 48/24 PANEL IDENTIFICATION.

### 3. PROVIDE BLOCKING AT ALL PLYWOOD PANEL JOINTS. MECHANICAL FASTENERS

BY UNISON STRUCTURAL DESIGN, LLC.

ALL ANCHORS SHALL PROVIDE EQUAL OR GREATER STRUCTURAL LOAD CAPACITIES (ALLOWABLE OR ULTIMATE) THAN THOSE SPECIFIED BELOW. WHERE ALTERNATE SYSTEMS PREFERRED, THE CONTRACTOR SHALL ENSURE THE ALTERNATE SYSTEM CAN PROVIDE SUCH LOADS, AND SHALL CONTACT THE ENGINEER TO ADVISE SUCH CHANGES. THE CONTRACTOR MUST ALSO PROVIDE LOAD TABLES, OR OTHER LITERATURE WHICH SPECIFIES SUCH

ADHESIVE ANCHORS:. .."EPOXY TIE"(SET, ET, ETF) BY SIMPSON, OR "POWER-FAST" BY POWERS

CAPACITIES, AT THE ENGINEER'S, ARCHITECT'S, OR OWNER'S REQUEST.

POWDER ACTUATED FASTENERS (PAF):.. POWDER ACTUATED FASTENERS BY

ALL FASTENERS SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER. WHERE EMBEDMENT DEPTH, SPACING, EDGE DISTANCE, OR END DISTANCE IS NOT SPECIFIED, THE IN SUCH A WAY THAT CAMBER OF THE JOIST WILL NOT CAUSE A PROBLEM INSTALLING THE METAL FASTENERS SHALL COMPLY WITH THE REQUIREMENTS SET BY THE GOVERNING BUILDING

PERMIT SET 07-29-2016

...FASTENERS OR WED ALL BY SIMPSON.

"TITEN HD" BY SIMPSON, "TAPPER" BY

POWERS, OR WEDGE BOLT BY



Revisions:

Project Number 160412

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Project Name New Retail Building

Stephen Brasgalla

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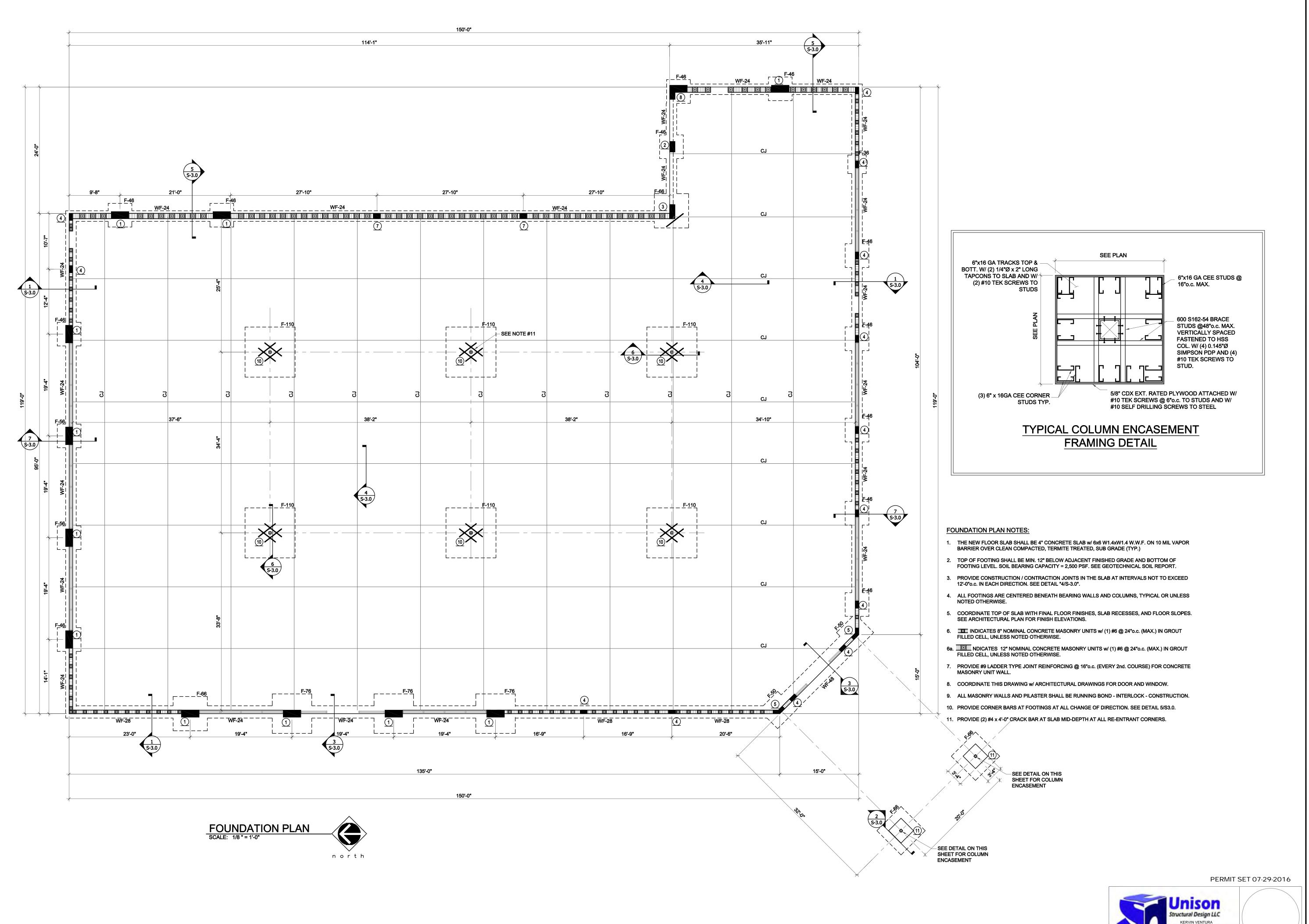
Architect

State Of Florida

Registration No. AR12239

**GENERAL** 

**NOTES** Checked By: RSS STB SHOWN | 7-13-16 Project Number



Project Number 1 6 0 4 1 2

1066 U.S. HIGHWAY 1 Jew Retail Building - Goodwi 1066 U.S. HIGHWAY 1

Project Name
New Retail
Building

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Drawn By:
RSS
SCale:
SHOWN
Project Number

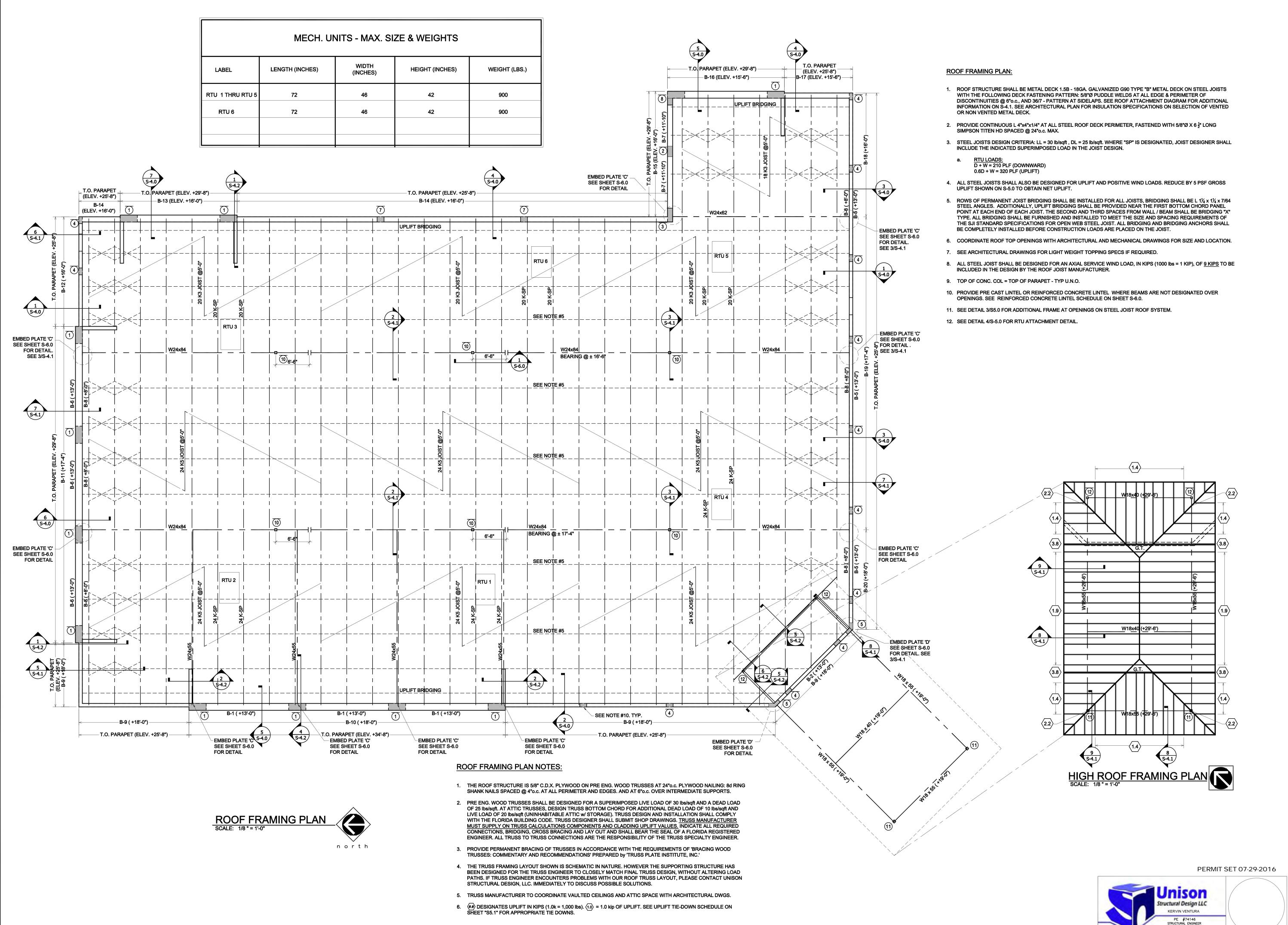
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Sheet:

KERYIN YENTURA, P.E. 74146

PE #74146 STRUCTURAL ENGINEER

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Revisions:

\( \frac{1}{1} \)

\( \frac{2}{3} \)

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Project Number 1 6 0 4 1 2

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J. HIGHWAY 1

9

Project Name
New Retail
Building

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Stephen Brasgalla, Architect

6991 West Broward Boulevard Suite 100 Plantation, Florida 33317 Telephone 954.614.3801 Telefax 954.208.0600 architect @ design23.net

Drawn By:
RSS
Scale:
SHOWN

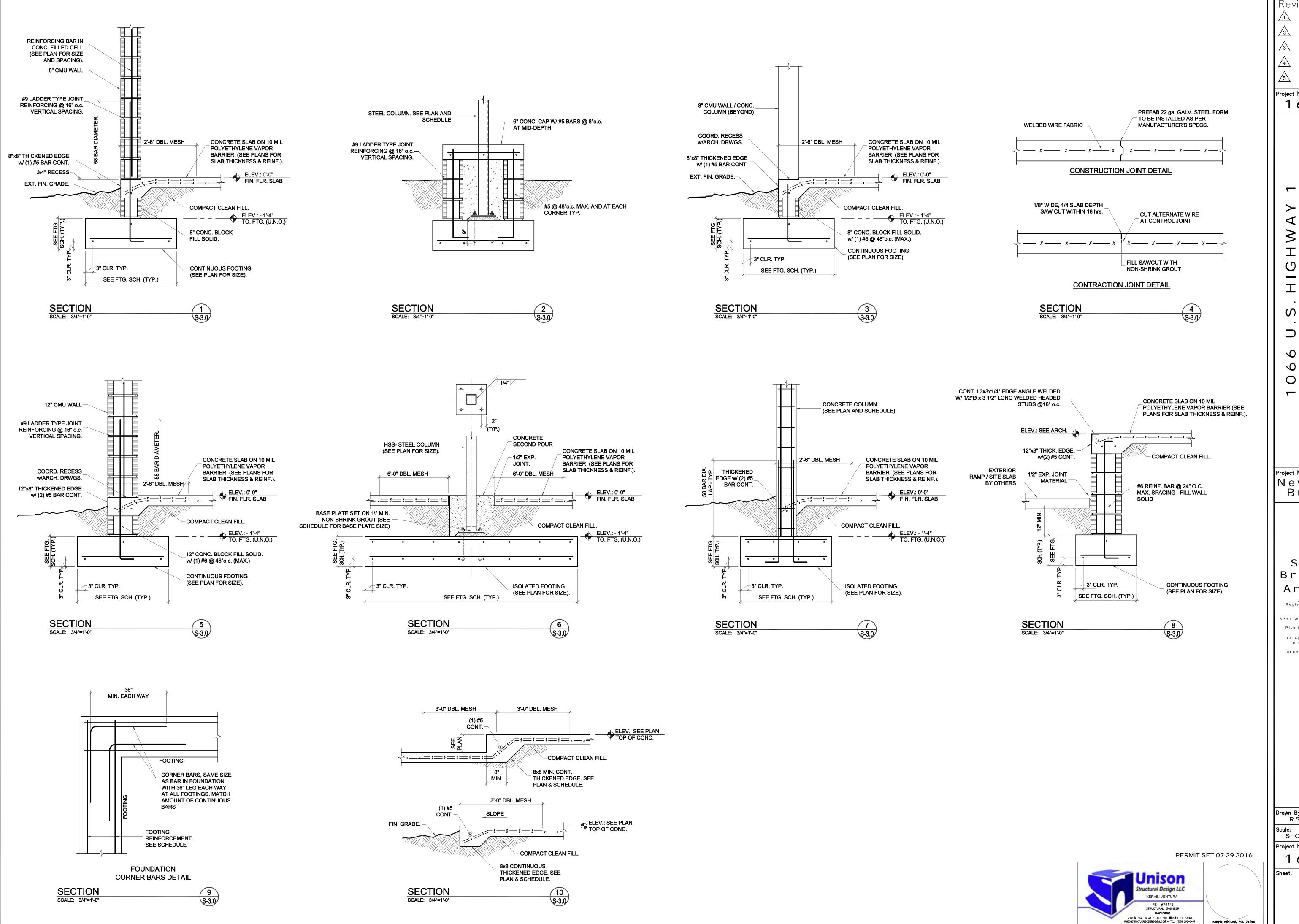
Project Number

160412

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KERVIN VENTURA, P.E. 74146

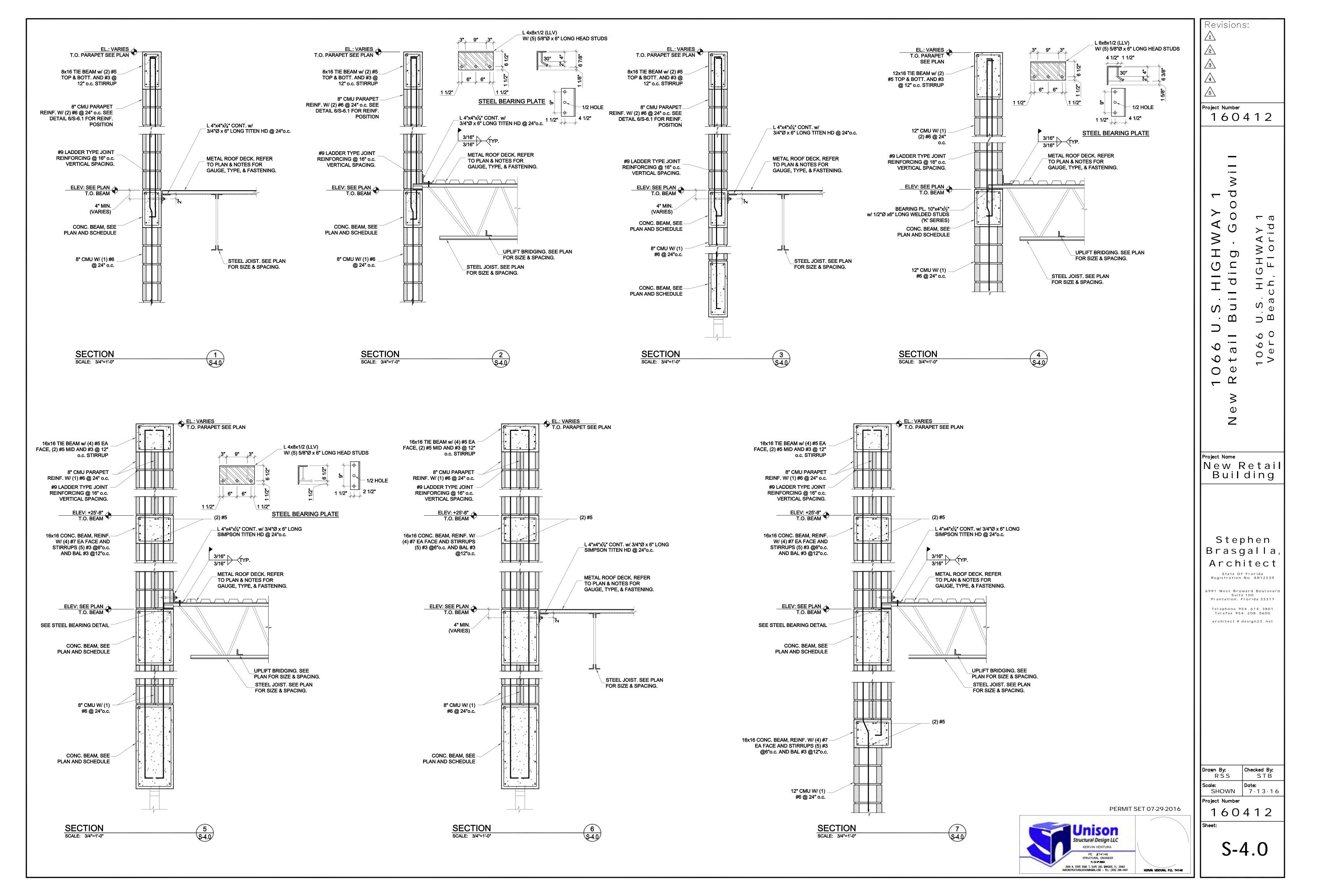
2000 N, STATE ROAD 7, SUITE 200, MARGATE, FL. 33063 UNISONSTRUCTURALDESIGN@GMAIL.COM — TEL.; (305) 298-0467 S-2.0

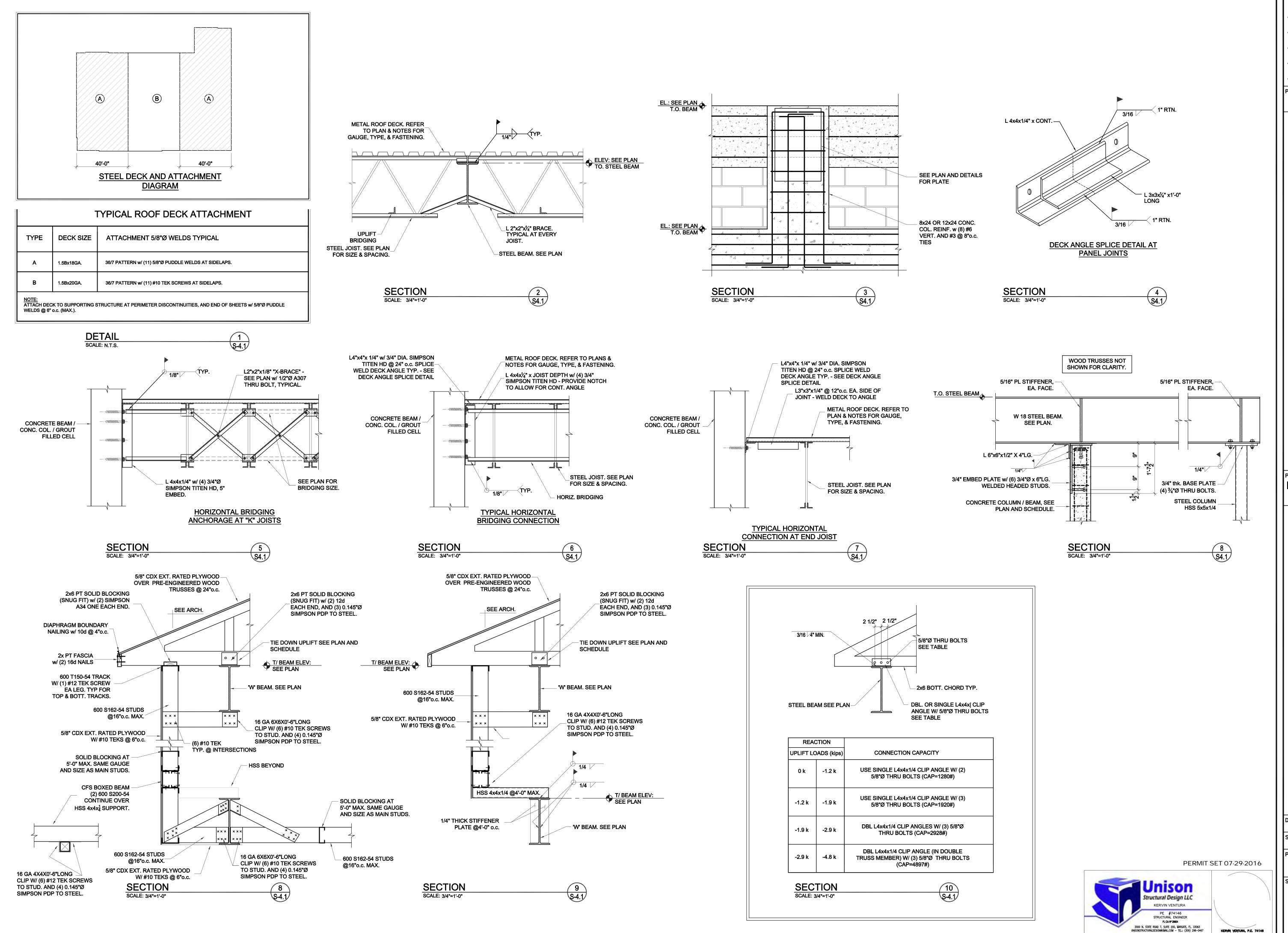


Revisions: Project Number 160412 0 ---9 0 / e 0 Project Name New Retail Building Stephen Brasgalla Architect State Of Florida Registration No. AR12239 6991 West Broward Boulevard Suite 100 Plantation, Florida 33317 Telephone 954.614.3801 Telefax 954.208.0600 architect @ design23.net

Drawn By:
RSS
Scale:
SHOWN
Project Number
160412

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Revisions:

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Project Number 1 6 0 4 1 2

tail Building - Goodwill 066 U.S. HIGHWAY 1

Project Name
New Retail
Building

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Stephen Brasgalla, Architect

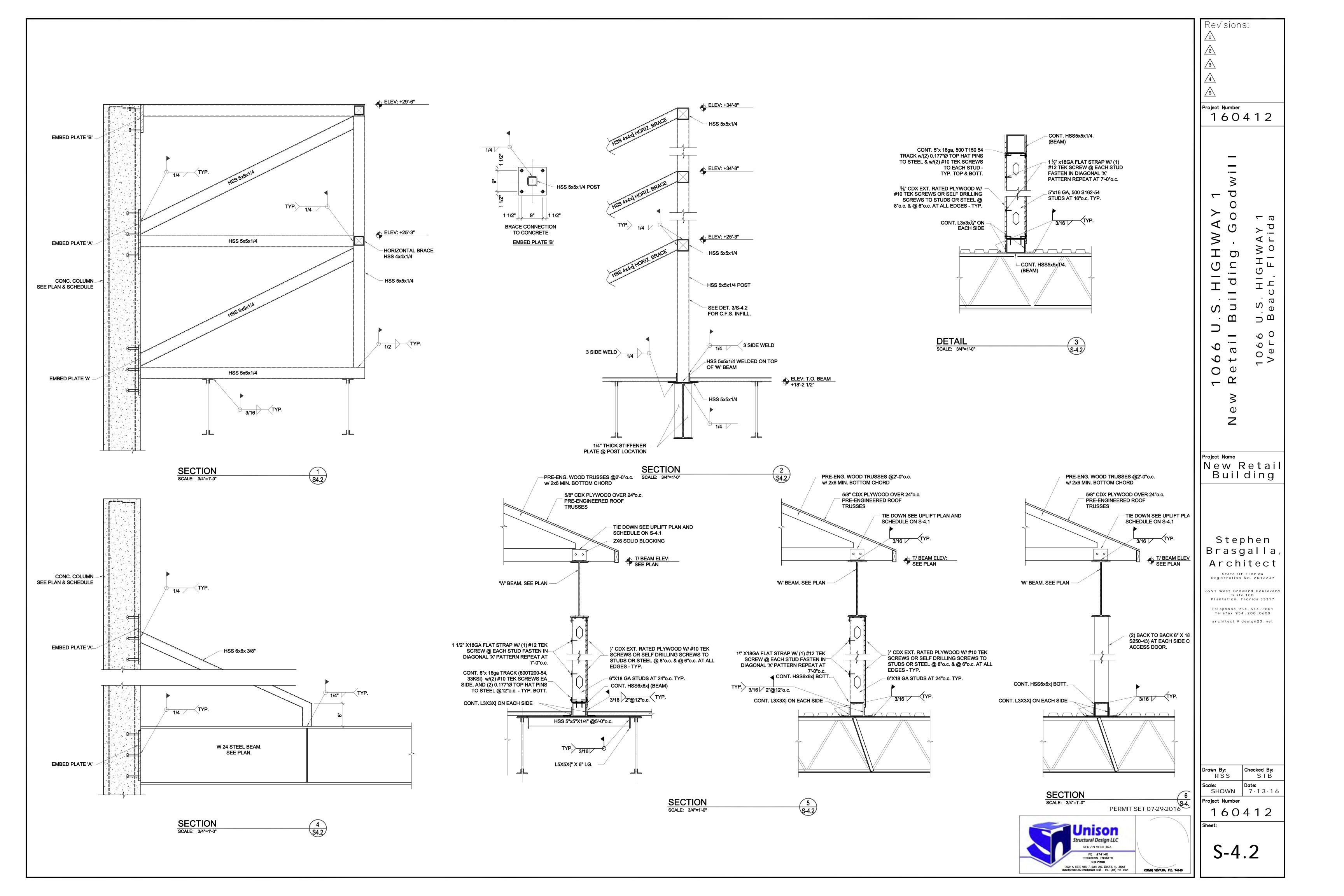
6991 West Broward Boulevard
Suite 100
Plantation, Florida 33317

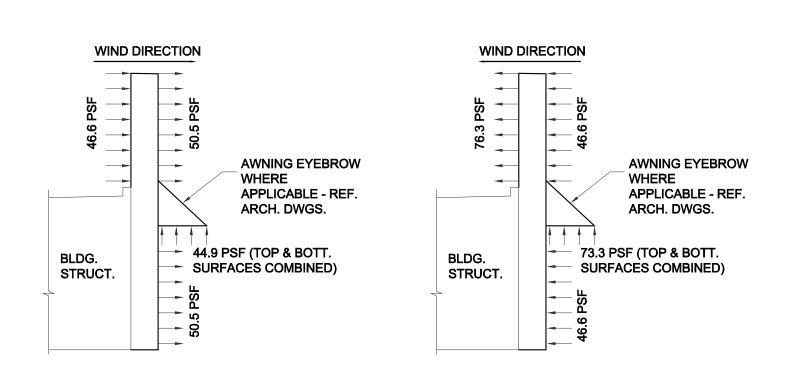
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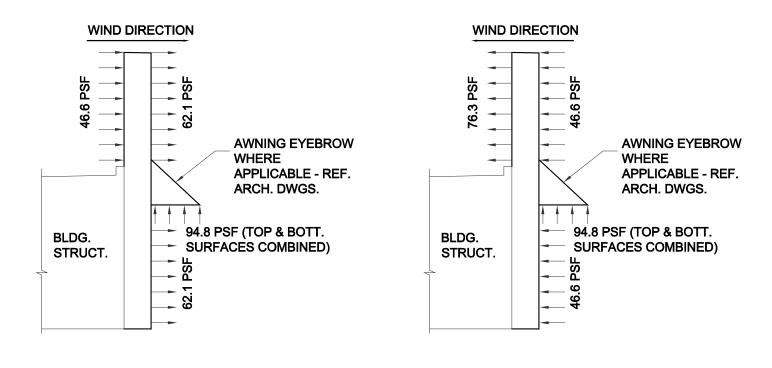
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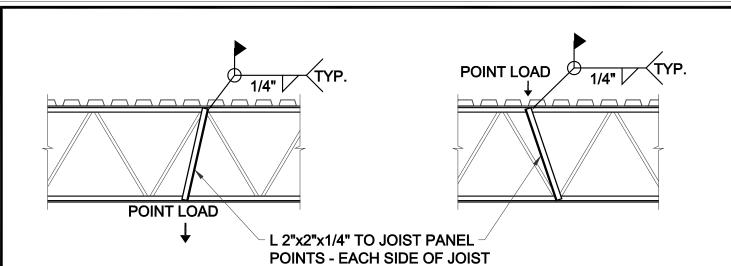
ZONE 4
SOFFITS TO BE DESIGNED FOR: (+) 46.6 PSF PRESSURE (-) 50.5 PSF SUCTION **SECTION** <del>\$-5.0</del>

SCALE: N.T.S.



ZONE 5
SOFFITS TO BE DESIGNED FOR: (+) 46.6 PSF PRESSURE (-) 62.1 PSF SUCTION

> <u>\$-5.0</u> SECTION SCALE: N.T.S.



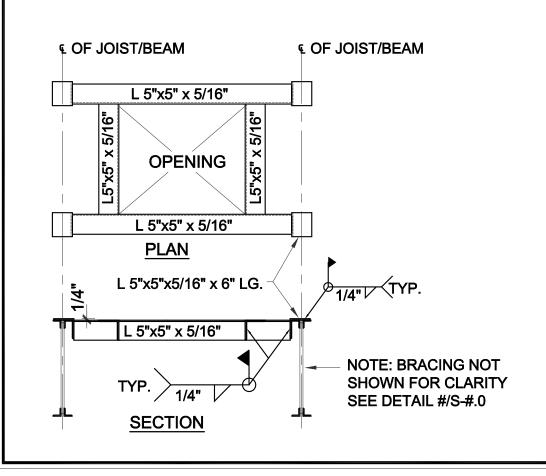
WHEN POINT LOAD DOES NOT BEAR ON A JOIST PANEL POINT INSTALL (2) L 2"x2"x1/4" STRUTS FROM BEARING POINT TO TWO NEAREST PANEL POINTS ON TOP CHORD OF EXIST. JOIST. (ONE EACH SIDE OF

WHEN POINT LOAD DOES NOT BEAR ON A JOIST PANEL POINT INSTALL (2) L 2"x2"x1/4" STRUTS FROM BEARING POINT TO TWO NEAREST PANEL POINTS ON BOTTOM CHORD OF JOIST. (ONE EACH SIDE OF

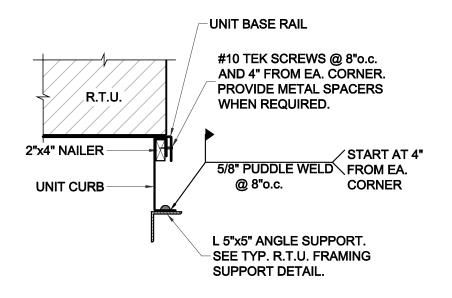
1. ROOF OPENING - SEE ARCHITECTURAL AND MECHANICAL DWGS. FOR SIZE AND LOCATION. COORDINATE FRAME DIMENSIONS W/ ACTUAL EQUIPMENT PURCHASED FOR INSTALLATION.

2. FOR MISC. ROOF OPENINGS - 12" OR SMALLER (EXAMPLE: PIPING CHASE, ETC. FRAME WITH L2 1/2 x 2 1/2 x 3/16 IN LIEU OF L5x5x 5/16 - SEE BELOW FOR DETAIL

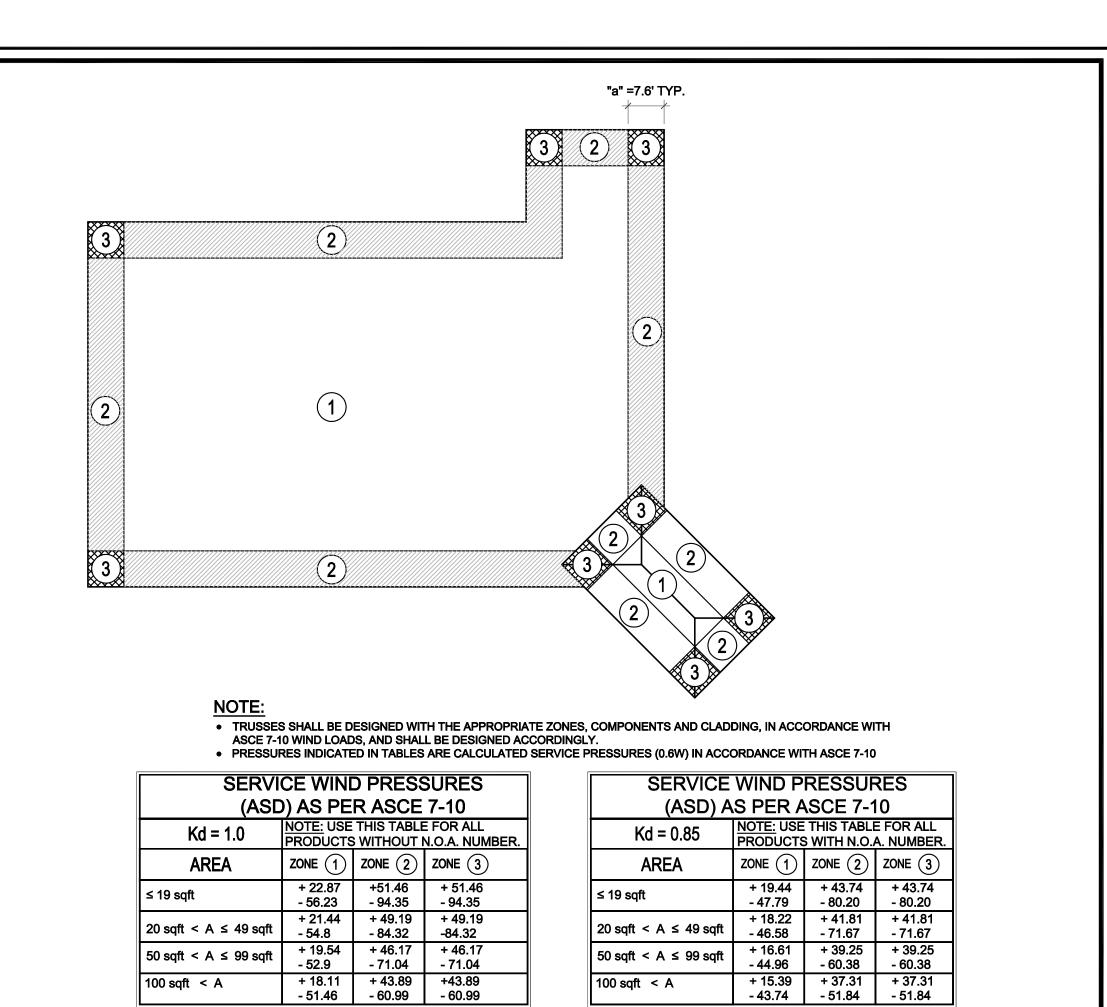
3. WHEN JOIST BRIDGING INTERFERES w/ ROOF OPENING FRAMES STOP BRIDGING AT EACH SIDE OF OPENING AND REPLACE w/ TWO RUNS OF BRIDGING EACH SIDE OF OPENING EXTEND ADDITIONAL BRIDGING ONE SPACE EACH SIDE OF OPENING.



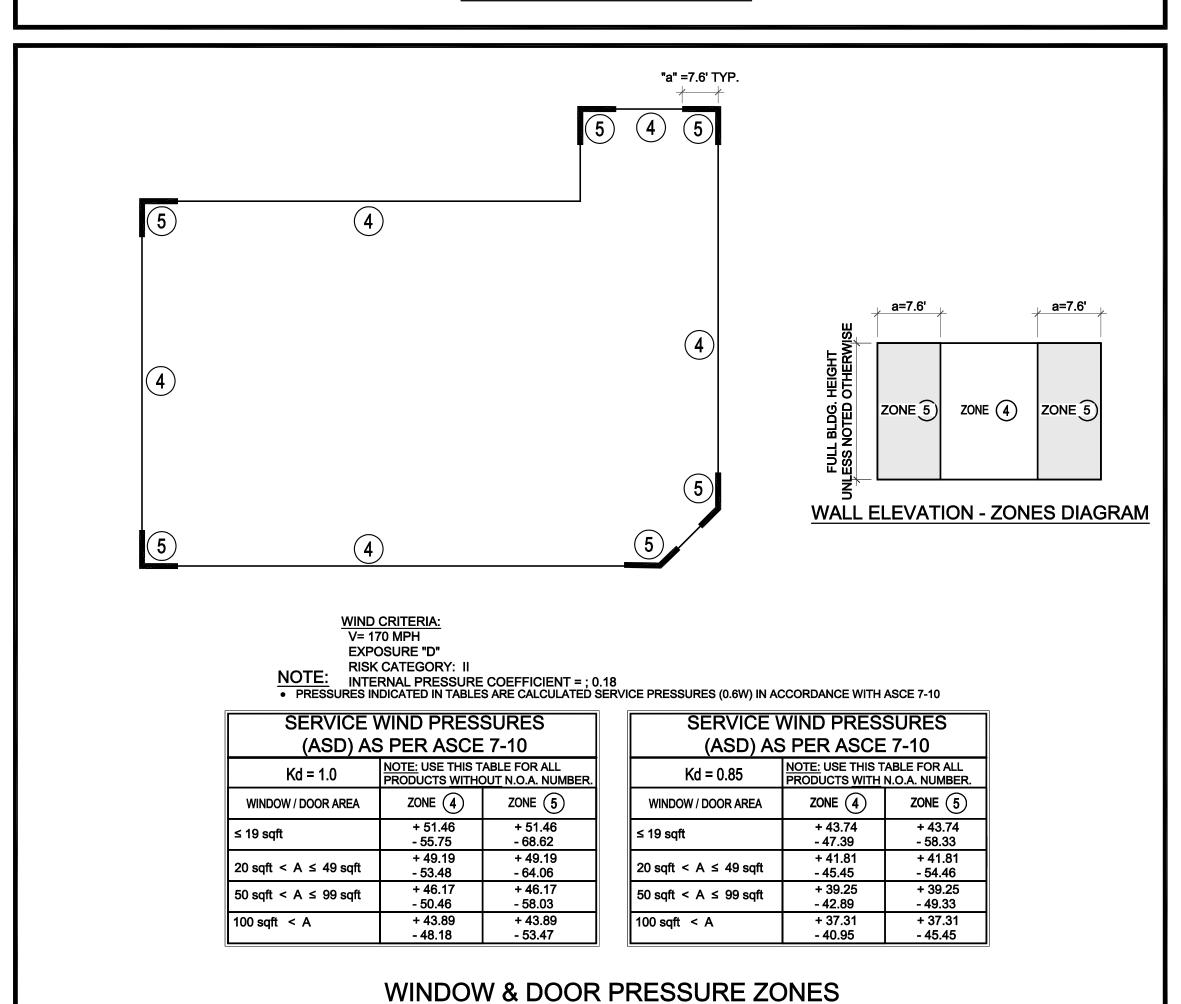
FRAMING DETAIL AT OPENINGS 3 SCALE: N.T.S.















Project Number

160412

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Project Name New Retail Building

Stephen Brasgalla Architect

State Of Florida Registration No. AR12239

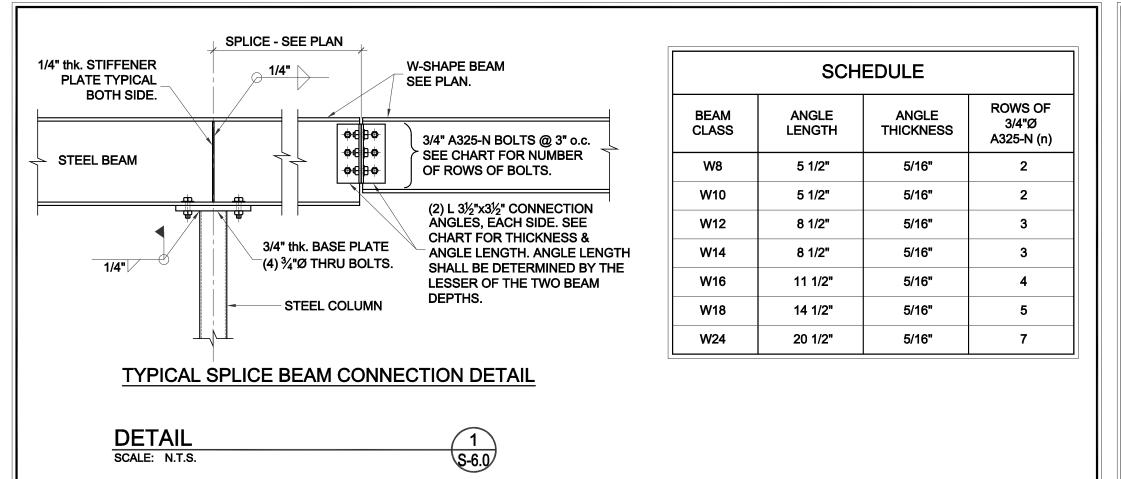
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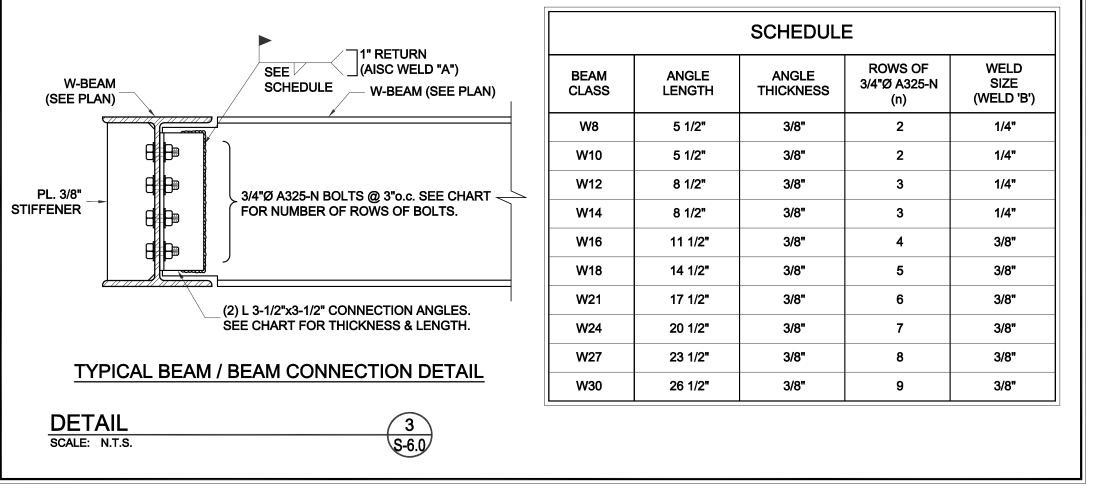
WIND PRESSURES & THAN BYDETANLOS BY:

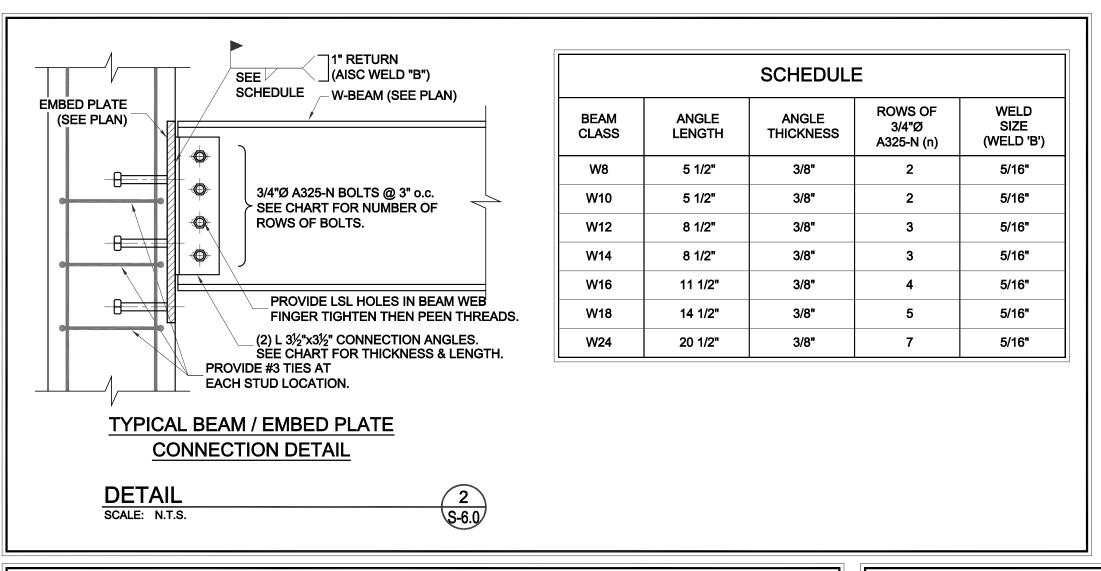
RSSSTB SHOWN 7-13-16 Project Number

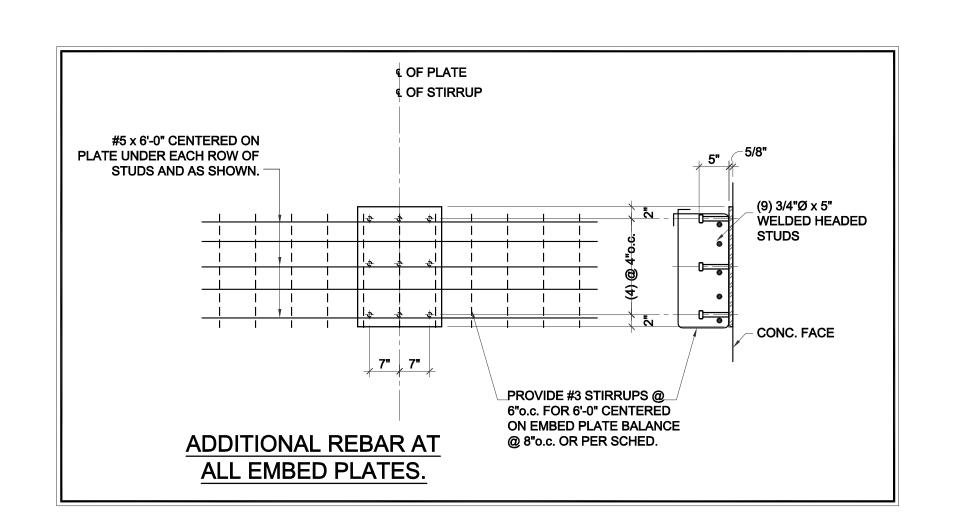
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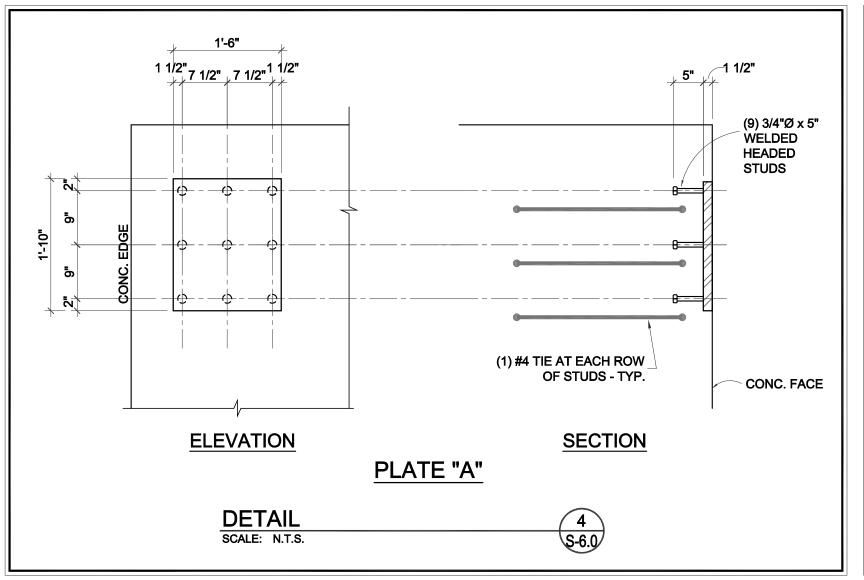
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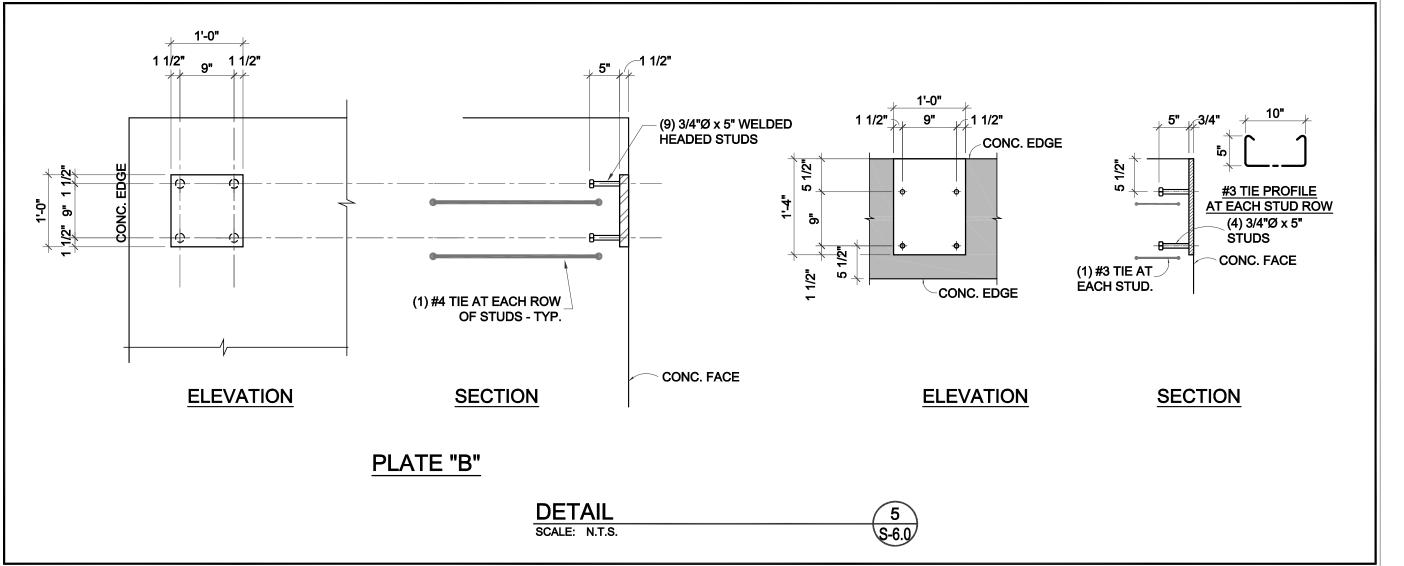


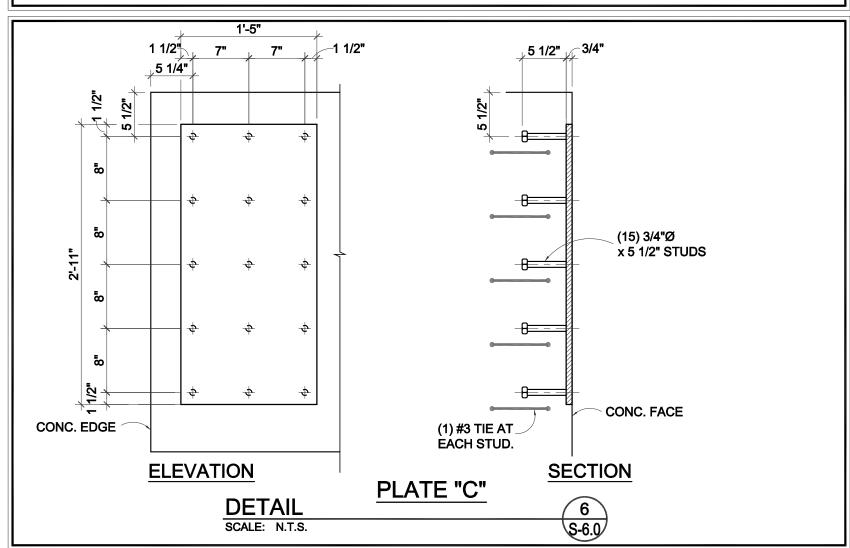


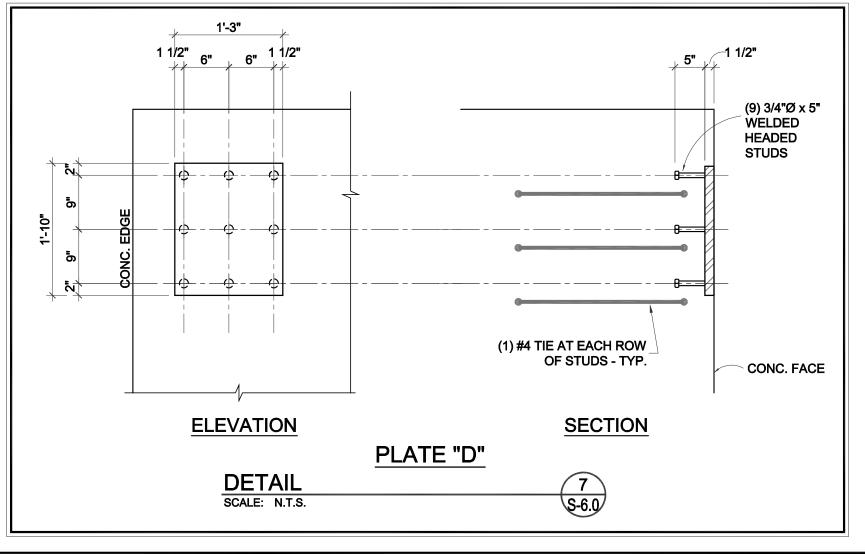












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066 U.S. HIGHWAY 1 tetail Building - Goods 1066 U.S. HIGHWAY 1 Vero Beach, Florida

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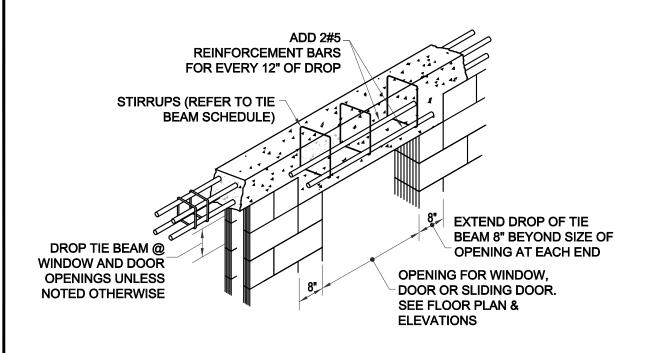
architect @ design23.net

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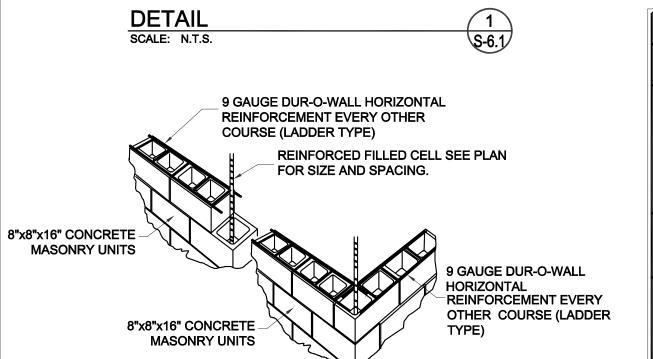
Project Number

160412

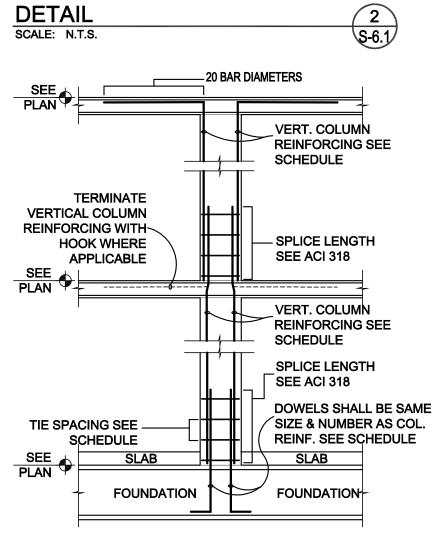
S-6.0

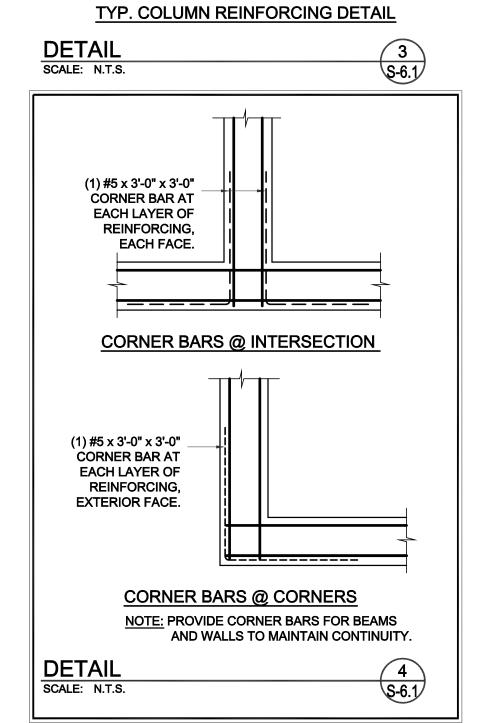


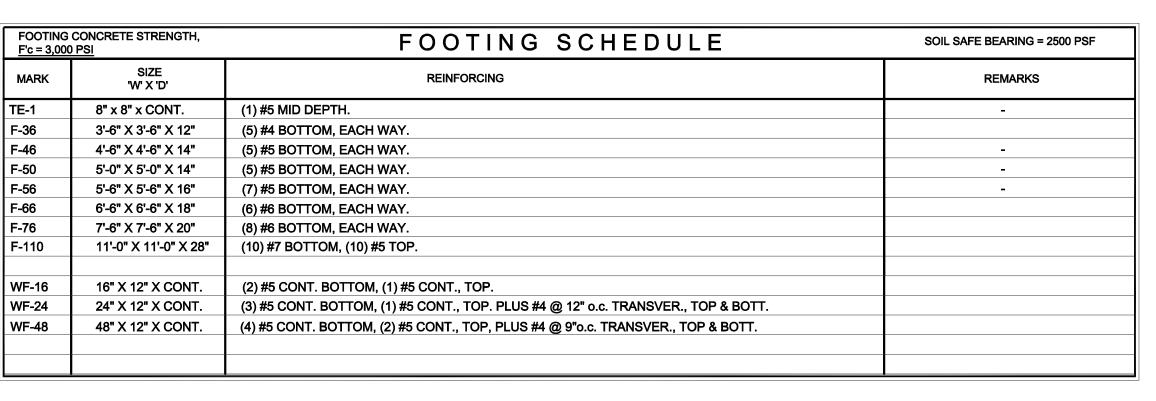
### TYPICAL TIE BEAM DROP AT OPENINGS



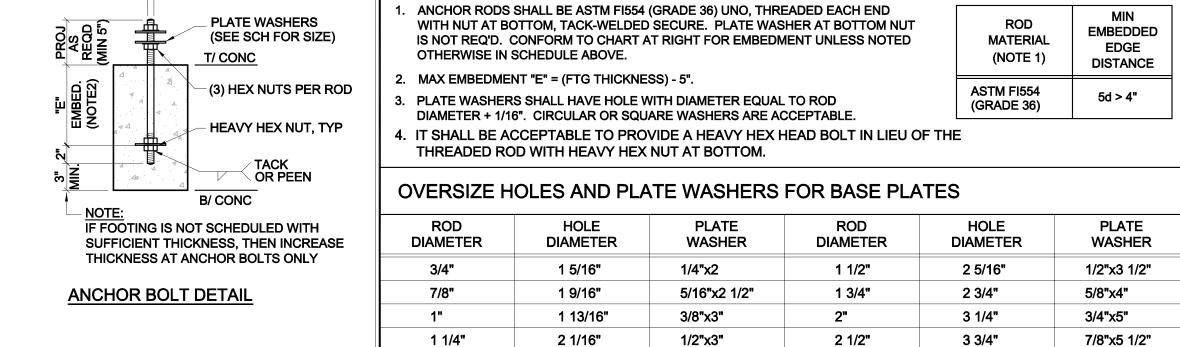
### TYPICAL DUR-O-WALL DETAIL







			COL	UMN SCHED	ULE	
MARK	TYPE	SIZE 'W' x 'D'	VERTICAL REINFORCING	TIE SPACING	REMARKS	
(1) (2) (3) (4) (5) (6) (7) (8)	CONC. CONC. CONC. CONC. CONC. CONC. CONC. STEEL	16 x 40 12 x 24 12 x 28 8 x 16 8 x 12 x 16 8 x 20 12 x 16 SEE DETAIL	(12) # 8 (6) # 7 (6) # 7 (6) # 7 (7) # 7 (6) # 7 (6) # 7 (12) # 8	(1) # 3 @ 8" o.c. (1) # 3 @ 10" o.c.	SEE ADD'L SECTIONS & DETAILS FOR BASE & CAP PLATE'S INFO.	
(10) (11) (12)	STEEL STEEL	HSS 8"x8"x1/2" HSS 5"x 5"x1/4"		' w/ (8) 1"Ø THREAD BOLTS.	SEE ADD'L SECTIONS & DETAILS FOR BASE & CAP PLATE'S INFO.  COLUMN SYMBOLS	
		3'-4"  The control of	② ③ ⑦ ④ ⑥ S:	1'-4" (5)	# COLUMN BELOW # COLUMN CONTINUES  3'-4"  8'-7  2'-4"  8  8	
FABRICAT	TION ADDITION EACH WINDOW	ES ARE MINIMUM STRUCTURAL SIZ IAL CONCRETE MAY BE REQUIRED OR DOOR JAMB. ALL OVERALL CO PLANS PRIOR TO FORMING.	FOR ARCHITECTURAL PUI	RPOSES	1'-0"	



(2) VERT. BARS

TIE BEAM ELEVATION CHANGE

**DETAIL** 

SEE NOTE BELOW.

FILLED CELL

REINF.SEE PLAN.

**S-6.1** 

"d" (ROD DIA)

CELL

REINFORCED

**DETAIL** 

SCALE: N.T.S.

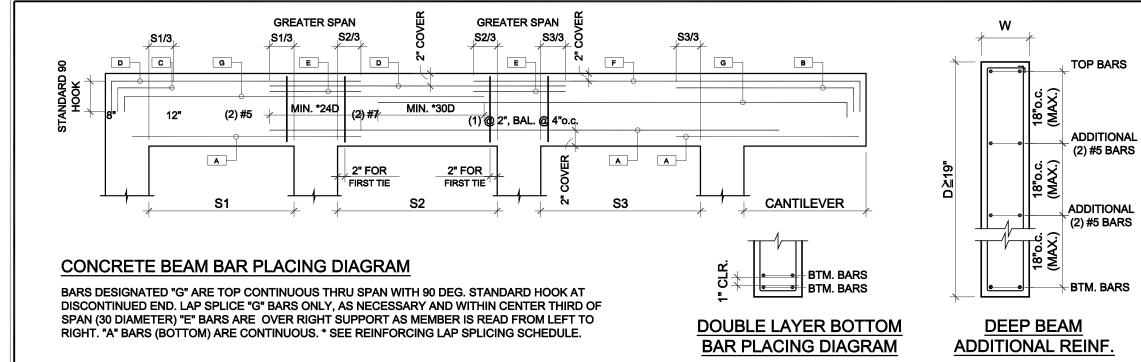
€ CONTROL JOINT

1.5 x H OR 20 FT (MAX.)

JOINT REINF.

JOINT REINF.

**CONTROL JOINT DETAIL** 



						BEA	M SCHEDULE	
	ELEVATION		ZE TE-1	BOTTOM REINFOR	TC . REINFO		STIRRUPS	
MARK	NOTE-1	WIDTH 'B'	DEPTH 'D'	'A'	'C' & 'E'	Ġ	SPACING #3 (UNLESS NOTED OTHERWISE)	REMARKS
PCL :	SEE ARCH. DWGS	. 8	8	(1) #5	-	N/A	N/A	-
B-1	+ 13'-0"	16	36	(3) #8	_	(3) #6	(5) @ 6"o.c., EA. END, BAL. @ 12"o.c.	
B-2	+ 13'-0"	8	36	(2) #7	_	(2) #7	(5) @ 6"o.c., EA. END, BAL. @ 12"o.c.	(2) #6 @ MID-DEPTH EA. FACE
B-3	NOT USED							
B-4	NOT USED							
B-5	+ 13'-0"	8	36	*(4) #8	_	(2) #7	(5) @ 4"o.c., EA. END, BAL. @ 8"o.c.	
B-6	+ 13'-0"	16	36	(4) #8	-	(4) #6	(5) @ 4"o.c., EA. END, BAL. @ 8"o.c.	
B-7	+ 13'-0"	8	36	(2) #7	_	(2) #7	(5) @ 6"o.c., EA. END, BAL. @ 12"o.c.	
B-8	+ 8'-0"	8	16	(2) #5	_	(2) #5	(5) @ 6"o.c., EA. END, BAL. @ 12"o.c.	(2) #5 @ MID-DEPTH EA. FACE
B-9	+ 18'-0"	8	20	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	
B-10	+ 18'-0"	16	20	(4) #6	(2) #5	(4) #6	@ 12"o.c.	
B-11	+ 17'-4"	16	20	(4) #6	(2) #5	(4) #6	@ 12"o.c.	
B-12	+ 16'-0"	8	20	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	
B-13	+ 16'-0"	16	24	(4) #6	(2) #5	(4) #6	@ 12"o.c.	
B-14	+ 16'-0"	12	16	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	
B-15	+ 16'-0"	12	20	(4) #6	(2) #5	(4) #6	@ 12"o.c.	
B-16	+ 15'-6"	16	20	(4) #6	(2) #5	(4) #6	@ 12"o.c.	
B-17	+ 15'-6"	12	16	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	
B-18	+ 16'-0"	8	20	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	
B-19	+ 17'-4"	8	20	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	
B-20	+ 18'-0"	8	20	(2) #5	(2) #5	(2) #5	(4) @ 12"o.c., EA. END, BAL. @ 24"o.c.	

### BEAM SCHEDULE NOTES:

TYP. PRE CAST LINTEL ('PCL')

- THE TOP ELEVATIONS AND DEPTHS INDICATED IN THIS SCHEDULE ARE FOR DETERMINATION OF THE STRUCTURAL ELEVATIONS AND DEPTHS OF BEAMS. ADDITIONAL CONCRETE MAY BE REQUIRED TO REACH TOP OF SLAB ELEVATIONS OR BOTTOM OF BEAM ELEVATIONS REQUIRED FOR ARCHITECTURAL REASONS. ALL BEAM BOTTOM ELEVATIONS SHOULD BE VERIFIED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FORMING. IF THE REQUIRED RISE EXCEEDS 8", ADD .3) #5 AT 12"o.c. HORIZONTAL IF THE REQUIRED DROP EXCEEDS 6", ADD .3) #4 AT 12"o.c. HORIZONTAL AND #3 STIRRUPS @ 12"o.c. VERTICAL.
   ARCHED BEAM PROFILE SEE ARCHITECTURAL DRAWINGS. SEE STRUCTURAL DETAIL FOR ADDITIONAL REINFORCING.
   BEAM DECORATIVE PROFILE SEE ARCHITECTURAL DRAWINGS
- 4. FOR BEAMS EQUAL OR DEEPER THAN 19" DEEP, SEE "DEEP BEAM ADDITIONAL REINFORCING" DETAIL ABOVE.
  5. FOR TIE BEAMS AT CORNERS, INTERSECTIONS, AND BENDS PROVIDE (4) #3 STIRRUPS AT 12"o.c.

ق الله الله الله الله الله الله الله الل		
NOTE: REINFORCING INDICATED AS TWO BARS PER CELL SHALL BE POSITIONED EACH FACE USING DUR-O-WAL 'DA816' REBAR POSITIONER OR APPROVED EQUAL. POSITIONER TO BE PLACED AT TOP OF FIRST COURSE EA. FLOOR, BELOW THE LAST COURSE EA. FLOOR AND AT MAXIMUM SPACING OF 200 x BAR DIAMETER (INCHES)	BEAM REINFORCEMENTS SEE SCHEDULE.	SEE PLAN
DOUBLE REINFORCED		) OCE I EXIV
DETAIL MASONRY WALL DETAIL 6		CONT. TIE BEAM. SEE PLAN & SCHEDULE.
SCALE: N.T.S. S-6.1 TIE BEAM REINF. w/ HOOKS.		J
#3 TIES @ 8"o.c.  (4) #5 Z-BARS  TIE BEAM. SEE PLAN & SCHEDULE.	GROUT FILL SOLID	
w/ 30" HOOKS.		
TIE BEAM REINF. w/ HOOKS.  SEE ARCH. DWGS.		FILL CELL REINF.
TIE BEAM. SEE PLAN &	PRE CAST LINTEL w/ (1) #5	OR CONC. COLUMN. SEE PLAN.
SCHEDULE.	8" SEE PLAN 8" MIN.	

**DETAIL** 

SCALE: N.T.S.

	~ .	ST IN PLACE			
WIDTH DEPTH	CLEAR SPAN	REINFO	RCING	TIES	
WIDTH	(MIN.)	FT.	TOP	ВОТ	IIES
75/8"	12"	3'-0" TO 7'-0"	(2) #5	(2) #5	#3 @ 5"o.c.
75/8"	16"	7'-0" TO 12'-0"	(2) #5	(2) #5	#3 @ 6"o.c.
	PROVIDE 8	" MINIMUM BEARING AT E	EACH SIDE O	F OPENING	

REI	NFOR	CED CONCR	ETE LII	NTEL S	SCHEDUL
WIDTH	LIEIGLIE	CLEAR	REINFO	RCING	
WIDTH	HEIGHT	SPAN IN FT.	TOP	вот	TIES
7-5/8"	7-5/8"	UP TO 3'-0"	(2) #4	(2) #4	#2 @ 12" O.C.
7-5/8"	12"	3'-0" TO 7'-0"	(2) #5	(2) #5	#3 @ 12" O.C.
7-5/8"	16"	7'-0" TO 12'-0"	(2) #5	(2) #5	#3 @ 12" O.C.
11-5/8"	7-5/8"	UP TO 7'-0"	(2) #4	(2) #4	#3 @ 12" O.C.
11-5/8"	12"	7'-0" TO 9'-0"	(2) #5	(2) #5	#3 @ 12" O.C.
11-5/8"	16"	9'-0' TO 10'-0"	(2) #5	(2) #5	#3 @ 12" O.C.

PERMIT SET 07-29-2016



Revisions:

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Project Number 1 6 0 4 1 2

6 U.S. HIGHWAY 1 ail Building - Goodwi 66 U.S. HIGHWAY 1

Project Name
New Retail
Building

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Stephen
Brasgalla,
Architect

State Of Florida
Registration No. AR12239

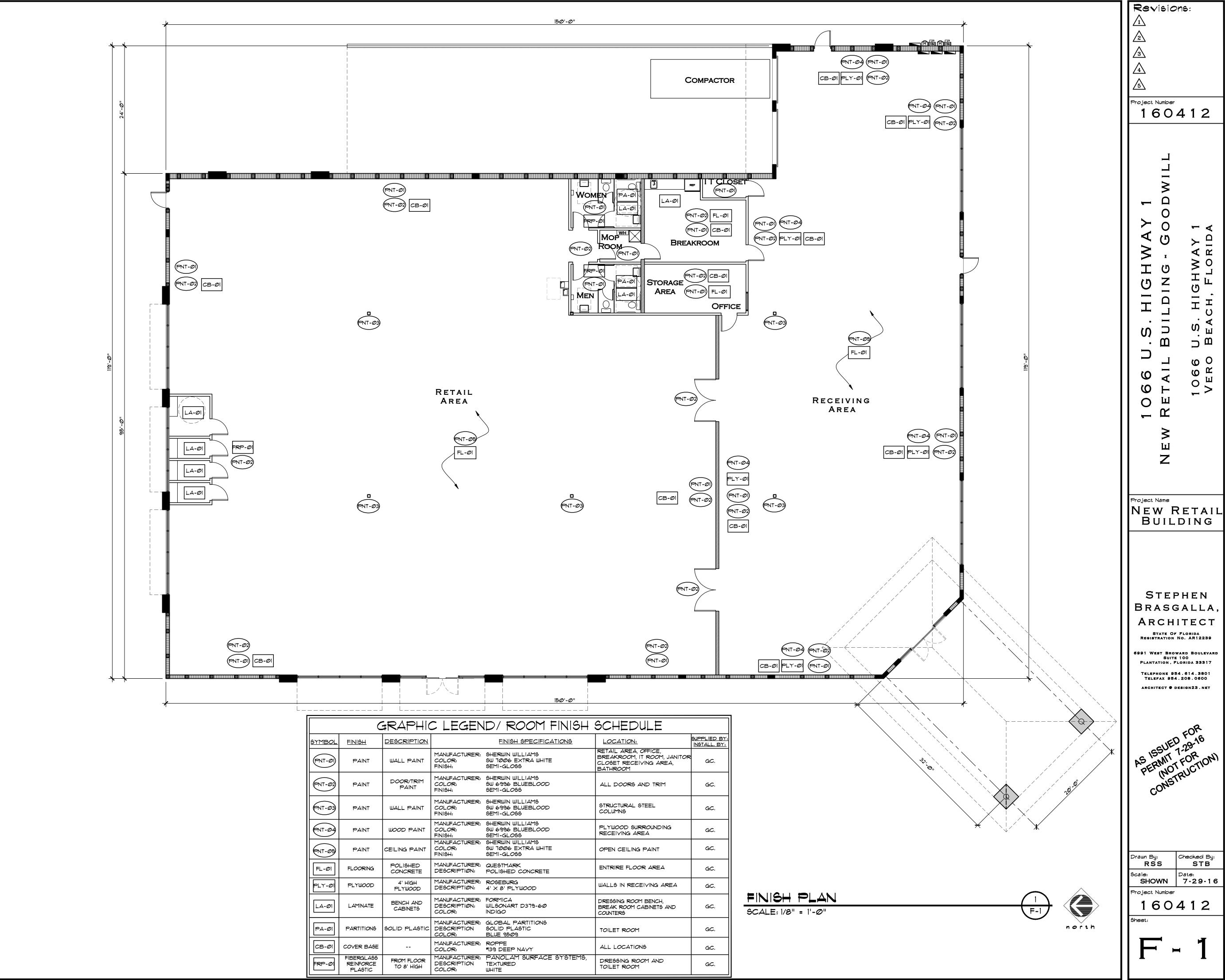
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Drawn By:
RSS
Scale:
SHOWN

Project Number

160412

S-6.1



### SYMBOL LEGEND

- ACCESSIBILITY RATED ILLUMINATED EXIT SIGN WITH BATTERY BACK-UP BY BEGHLLI MODAL VA4-R-SA-AT
- 2 HEAD EMERGENCY FLOOD LIGHT WITH BATTERY BACK-UP BY BEGHLLI MODAL PEH-AT
- NEW COMBO EMERGENCY/EXIT LIGHT WITH BATTERY
  BACK-UP BY BEGHLLI MODAL PCH-G-AT

# INTERIOR FINISHES CLASSIFICATION NOTE

ALL INTERIOR FINISHES TO BE MINIMUM CLASS "C" (FLAMESPREAD 16-200, SMOKE DEVELOPED 0-450 AS NFPA TABLE A. 102.2.

### GOYERNING CODE

FLORIDA BUILDING CODE 2014.

### SIGNAGE

SIGNAGE IS NOT IN THIS SCOPE OF WORK

	OCCUPANO	cy summar	<b>Y</b>
USE	AREA S. F.	S.F. / PERSON	OCCUPANTS
STORAGE	5,000	500 (GROSS)	10
MERCANTILE	10,000	3Ø (GR055)	334
			1 A
	LIFE SAFE	ETY CRITER	I <u>A</u>
OCCUPANCY:	Life Safe	ETY CRITER	IΑ
OCCUPANCY: (TABLE - 1004.1.2 OF		ETY CRITER	1 <b>A</b> 344PERSONS
,	F.B.C2014)		

### FIRE EXTINGUISHER SPECIFICATION

INSTALL MINIMUM CLASS 3A-40BC CERTIFIED DRY CHEMICAL TYPE 5 POUND MANUAL FIRE EXTINGUISHER RATED TO COMPLY WITH ANSI/ UL293 ULC-9504 AND TO MEET ALL REQUIREMENTS OF NFPAI0 AND ALL APPLICABLE CODES. INSTALL SUCH THAT TOP OF UNIT IS NO HIGHER THAN 5'-0" AND BOTTOM IS NOT LOWER THAN 4". COORDINATE INSTALLATION WITH FIRE DEPARTMENT.

### EMERGENCY LIGHTING

THE SHADED AREAS INDICATE A ZONE OF LIGHTING ALONG THE PATH OF EGRESS SHOWN WHICH PROVIDES A MINIMUM OF ONE FOOT-CANDLE OF LIGHTING AT THE FLOOR LEVEL. THIS LIGHTING PATTERN IS PER THE SPECIFICATIONS PROVIDED BY THE MANUFACTURER OF THE EMERGENCY LIGHTING FIXTURE SPECIFIED. ADJUST HEADS DIRECTIONALLY TO INSURE A CENTERED FOCUS ALONG THE VARIOUS PATHS OF EGRESS SHOWN.

### EGRESS DOORS HARDWARE

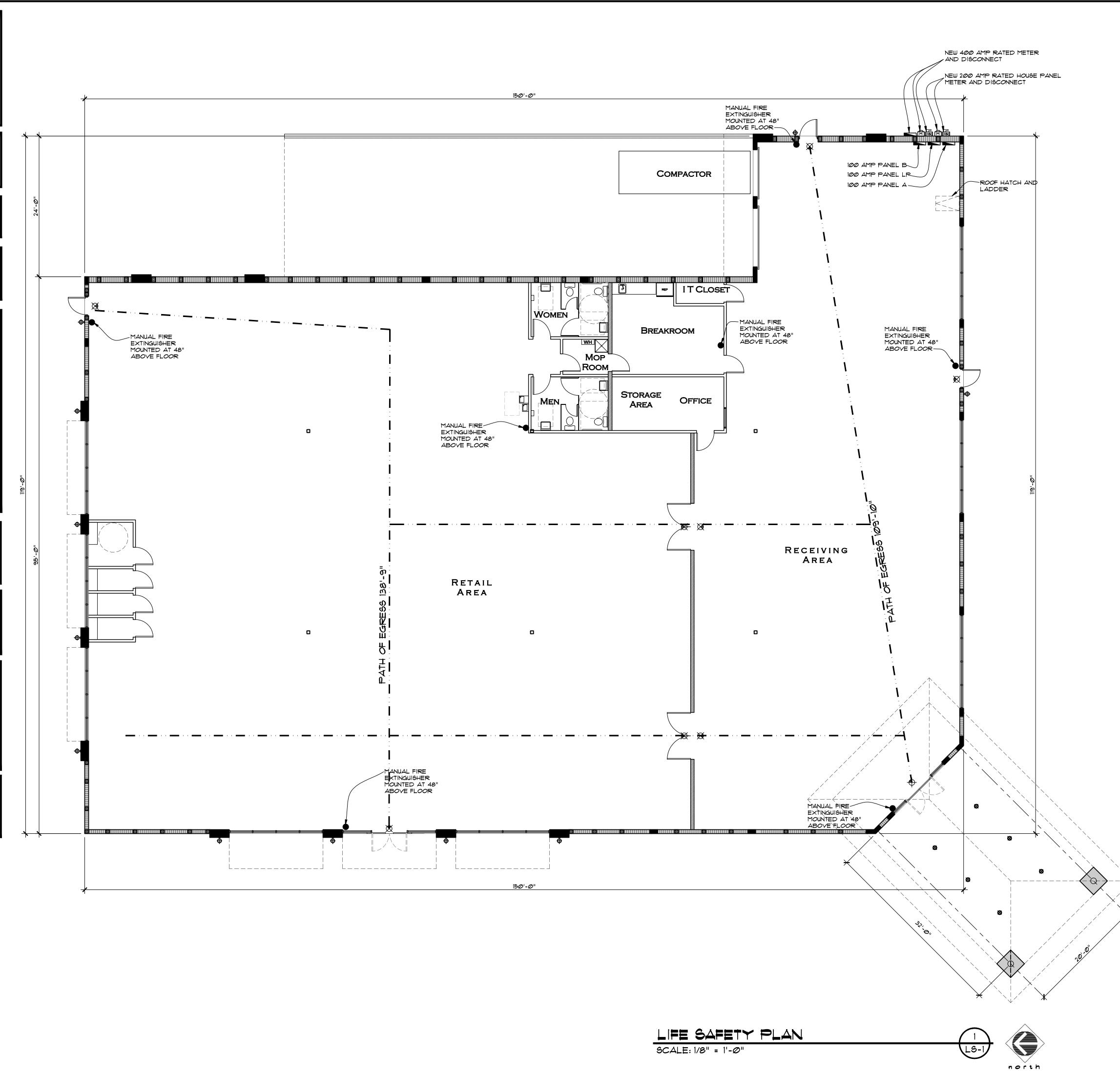
EGRESS EXTERIOR DOORS SHALL COMPLY WITH FLORIDA BUILDING. CODE 2014 - BUILDING, 1008.1.9 DOORS SHALL BE READILY OPERABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. SECTION 1008.1.9.1 DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE BY CHAPTER II SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. SECTION 1008.1.9.4 MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. ALL HARDWARE MUST BE DIRECT ACTING REQUIRING NO MORE THAN ONE OPERATION. CONTRACTOR WILL VERIFY THAT THE LOCKS ON THE EGRESS DOORS COMPLY WITH THESE CODE. IF NOT, CONTRACTOR WILL INSTALL LOCKS PER THESE CODE.

### EGRESS DOORS REQUIREMENTS

DOORS THAT ARE UTILIZED AS A MEANS OF EGRESS SHALL MEET THE REQUIREMENTS OF NFPA 101, 1.2.1.5.3. NOTE: SECURITY ACCESS MECHANISMS ARE ONLY LOCATED ON THE PULL SIDE OF THE DOOR FOR SECURITY ACCESS TO AREAS. CONTINUOUS EXIT ACCESS WITHOUT SECURITY SWIPE IS PROVIDE ON EGRESS (PUSH) SIDE.

THE SPRINKLER SYSTEM SHALL BE BY A LICENSED CONTRACTOR UNDER A SEPARATE PERMIT, INCLUDING SHOP DRAWINGS AND CALCULATIONS.

THE FIRE ALARM SYSTEM SHALL BE BY A LICENSED CONTRACTOR UNDER A SEPARATE PERMIT, INCLUDING SHOP DRAWINGS AND CALCULATIONS.



Revisions:

<u>/2\</u> <u>/3\</u> △

Project Number 160412

160412

WILL

AIL BUILDING - GOOD 66 U.S. HIGHWAY 1 1RO BEACH, FLORIDA

0

0

Project Name
NEW RETAIL

BUILDING

STEPHEN BRASGALLA,

ARCHITECT

STATE OF FLORIDA
REGISTRATION NO. AR12239

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TELEFAX 954.208.0600

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AS ISSUED FOR T.29-16
PERMIT FOR INOT FUCTION CONSTRUCTION

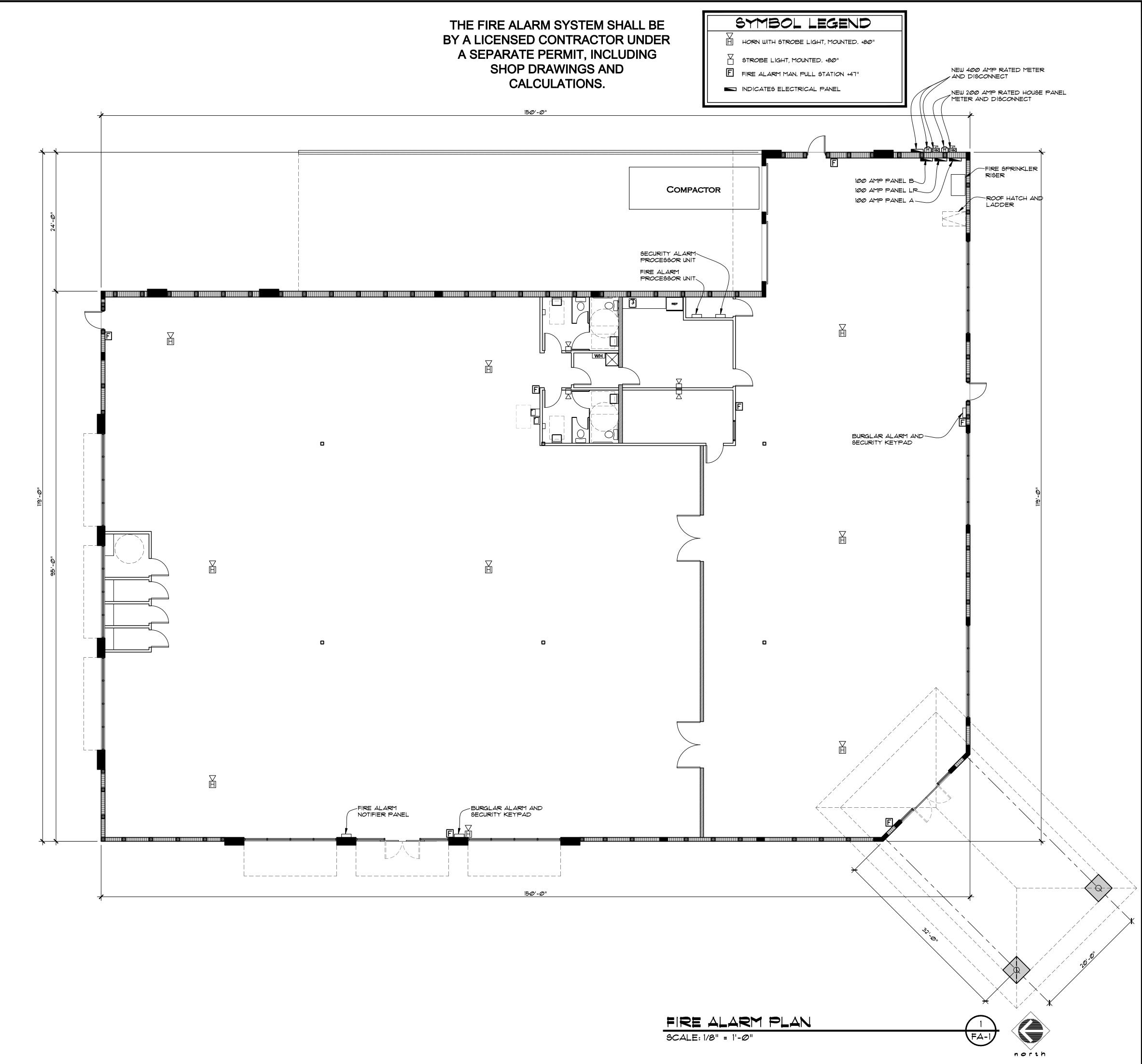
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Checked By:
STB

Date:
7-29-16

Project Number 160412

LS-1



Revisions: Project Number

160412

SHWAY FLORIDA U.S. BEA Q 0

NEW RETAIL BUILDING

STEPHEN BRASGALLA, ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

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Checked By: STB 9cale: Date: 7-29-16

### GENERAL MECHANICAL NOTES

THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS: SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1 MECHANICAL REFRIGERATION. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS REPLEMACNA STANDARDS

INSTALLED AND SUPPORTED AS PER SMACNA STANDARDS.
THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH

OTHER TRADES. TO INSURE AN ORDERLY PROGRESS OF THIS WORK.

4. ALL MATERIAL SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.

5. ALL NON-EXPOSED SUPPLY AND RETURN AIR DUCTWORK SHALL BE MINIMUM R-6 FIELD FABRICATED FIBERBOARD DUCT OR INSULATED

ROUND SPIRAL DUCT AS SHOWN.

5. ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.

DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.

ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIRE, AIRGUIDE. PROVIDE OPPOSED BLADE DAMPERS AT

ALL DIFFUSERS AND REGISTERS.

9. THERMOSTAT SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE TYPE THERMOSTAT. \* CONTRACTOR SHALL FULLY INSTRUCT OWNER ON HOW TO PROPERLY PROGRAM INSTALLED THERMOSTATS. \* PROGRAMMABLE THERMOSTAT SHALL BE BY MANUFACTURER OF INSTALLED AIR HANDLING UNIT. IT IS RECOMMENDED

THAT DURING OCCUPIED HOURS, THE FANS BE SET TO "ON" IN LIEU OF "AUTO".

10. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY

OWNER.

II. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO

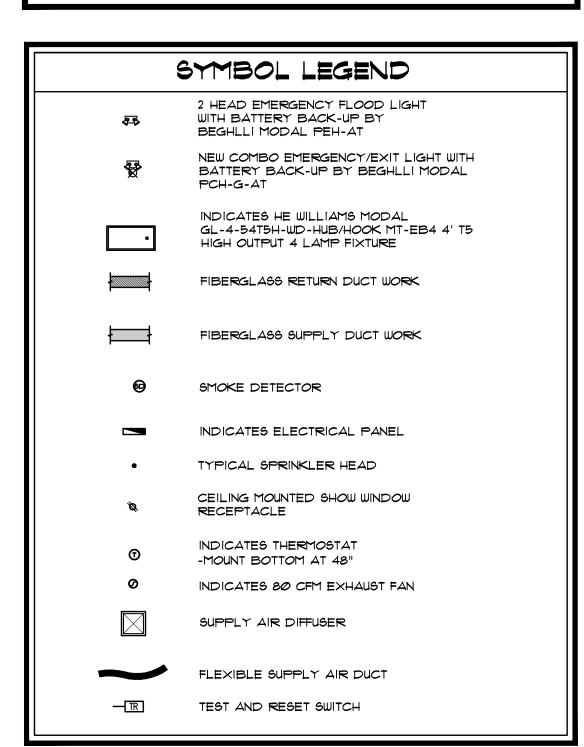
ADDITIONAL COST TO THE OWNER.

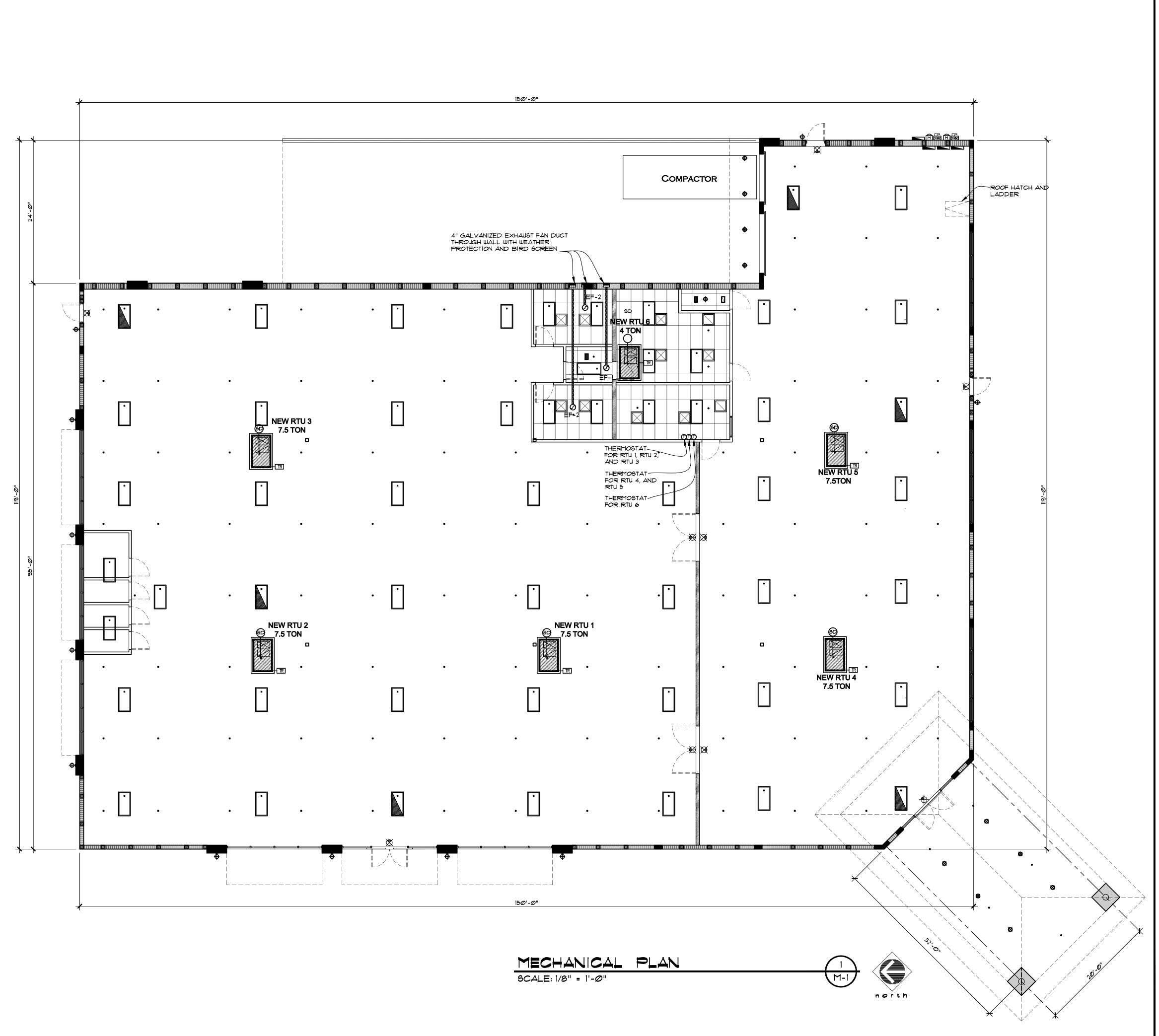
12. CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO

STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.

3. PROVIDE ALL NECESSARY CONTRACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING A/C UNIT

IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.





Revisions:

Project Number 160412

GOODWILL AY 1

1066 U.S. HIGHWAY
RETAIL BUILDING - GO.
1066 U.S. HIGHWAY 1
VERO BEACH, FLORIDA

Project Name
NEW RETAIL
BUILDING

STEPHEN BRASGALLA,

ARCHITECT

STATE OF FLORIDA
REGISTRATION NO. AR12239

6991 WEST BROWARD BOULEVARD
SUITE 100
PLANTATION, FLORIDA 33317

TELEPHONE 954.614.3801
TELEFAX 954.208.0600

ARCHITECT • DESIGN23.NET

AS ISSUED FOR 1-29-16
AS ERMIT FOR INOTERIOR CONSTRUCTION

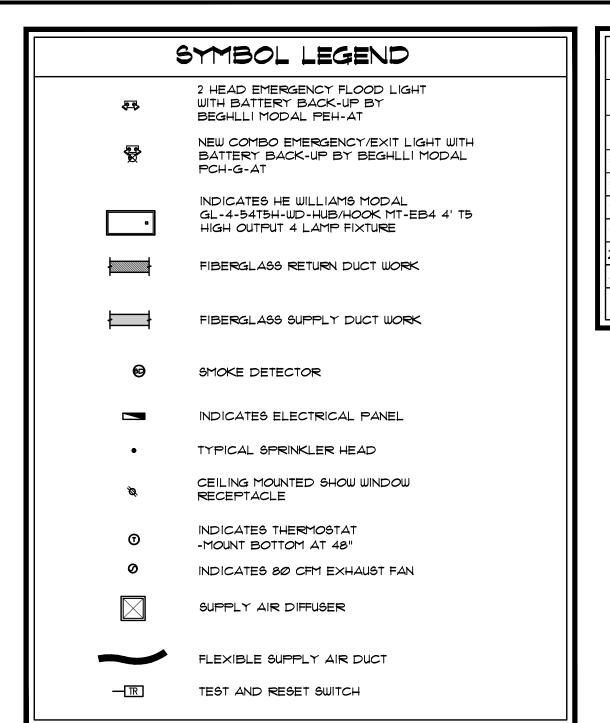
Drawn By:
RSS
STB

Scale:
SHOWN
Date:
7-29-16

Project Number

160412

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OUTSI	DE AIR CALCULATIONS								
THE FOLLOWING IS BASED ON FLORIDA MECHANICAL CODE 2014 TABLE 403.3									
OCCUPANCY CLASSIFICATION	ESTIMATED OUTSIDE AIR REQUIRED (CFM)								
RETAIL AREA: (RTU 1, RTU2, RTU3)	9,118 SF/1000 SF = 9.118 × 15 PEOPLE = 137 PEOPLE × 7.5 CFM = 1027.5 CFM								
RETAIL STORES (SALES)	REQUIRED MAKEUP AIR = 1028 CFM								
RECEIVING AREA: (RTU 4, RTU 5)	4,998 SF × .12 CFM/SF = 599.76 CFM								
RETAIL STORES (SALES)	REQUIRED MAKEUP AIR = 600 CFM								
ZONE 3: (RTU 6)	882 SF/1000 SF = .0882 × 5 PEOPLE = 5 PEOPLE × 5 CFM = 25 CFM								
OFFICES	REQUIRED MAKEUP AIR = 25 CFM								
OFFICES  GRAND TOTAL OF REQUIRE	REQUIRED MAKEUP AIR = 25 C								

HVAC DESIGN REQUIREMENTS:	YES	NO
DUCT SMOKE DETECTOR	×	
FIRE DAMPER(S)		X
SMOKE DAMPERS(S)		X
FIRE RATED ENCLOSURE		X
FIRE RATED ROOF, FLOOR, CEILING ASSEMBLY		X
FIRE STOPPING		X
SMOKE CONTROL		X

TURNING VANES WITH S.M. SCREW FASTENERS IN DUCTS 8" DIA. OR LARGER

SCALE: NOT TO SCALE

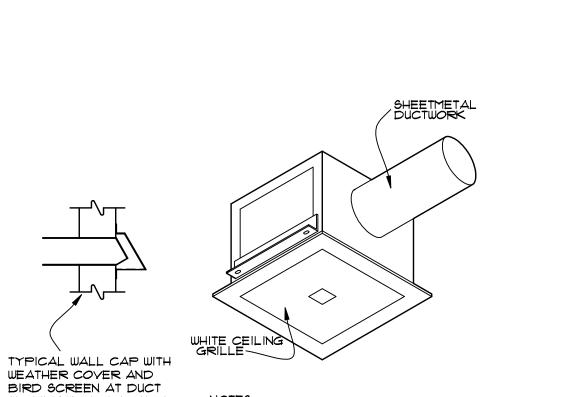
			N	V E W	R	00	F † C	PU	NIT	5	CHE	DULE			
UNIT		I	ı			ROOF	TOP PACK	AGE UNIT	DATA		COOLING CAPACITY			FILTER DATA	
DESIG. RTU/HP	MANUFACTURER & MODEL #	NOM. TONS	MIN. O.A. CFM	TOTAL CFM	FAN RPM	FAN HP	FAN VOLT/PH	VOLT/PH	МСА	MAX FUSE	POWER KW	GROSS CAPACITY	EER/ SEER	SIZE	TYPE
NEW RTU-1	TRANE #YHC0902F3	7.5	343	3,000	1100	0.75	208/3	208-230/ 60/3	53.6	60	10.2 KW	92,000	12.6	(4) 28×26×2	THROWAWAY
NEW RTU-2	TRANE #YHC0902F3	7.5	343	3,000	1100	0.75	208/3	208-230/ 60/3	53.6	60	10.2 KW	92,000	12.6	(4) 28x26x2	THROWAWAY
NEW RTU-3	TRANE #YHC0902F3	7.5	343	3,000	1100	0.75	208/3	208-230/ 60/3	53.6	60	10.2 KW	92,000	12.6	(4) 20×25×2	THROWAWAY
NEW RTU-4	TRANE #YHC0902F3	7.5	300	3,000	1100	0.75	208/3	208-230/ 60/3	53.6	60	10.2 KW	92,000	12.6	(4) 20x25x2	THROWAWAY
NEW RTU-5	TRANE #YHC0902F3	7.5	300	3,000	1100	0.75	208/3	208-230/ 60/3	53.6	60	10.2 KW	92,000	12.6	(4) 20x25x2	THROWAWAY
NEW RTU-6	TRANE #YHC048E3	4.0	25	1,600	800	0.75	208/3	208-230/ 60/3	53.6	60	10.2 KW	48,000	14.2	(4) 20×25×2	THROWAWAY

	SUPPLY I	OIFFUSE	r sched	PULE								
<b>250</b> \ ¹	<del>⟨                                    </del>											
B	DESIGNATES LABEL FOR DIFFUSER	OTHERWISE SPECIFIED ON PLANS.										
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS								
Д	TITUS TMS-AA OR EQUIVALENT	6"	100	24"x24" LOUVERED FACE								
В	TITUS TMS-AA OR EQUIVALENT	8"	200	24"x24" LOUVERED FACE								

	EXHAUST F	an sc	HEDULE		
LABEL	MANUFACTURER AND MODEL NUMBER	CFM	MOUNTING	<u>Q</u>	DRIVE
<b>E</b> F-1	BROAN 684 EXHAUST FAN	100	CEILING	1	DIRECT
<b>E</b> F-2	BROAN 684 EXHAUST FAN	200	CEILING		DIRECT

TYPICAL CHANNEI AND STRAP DUCT HANGING DETAIL 20 GAUGE METAL BARS TYPICAL @ 4'-0" O.C.

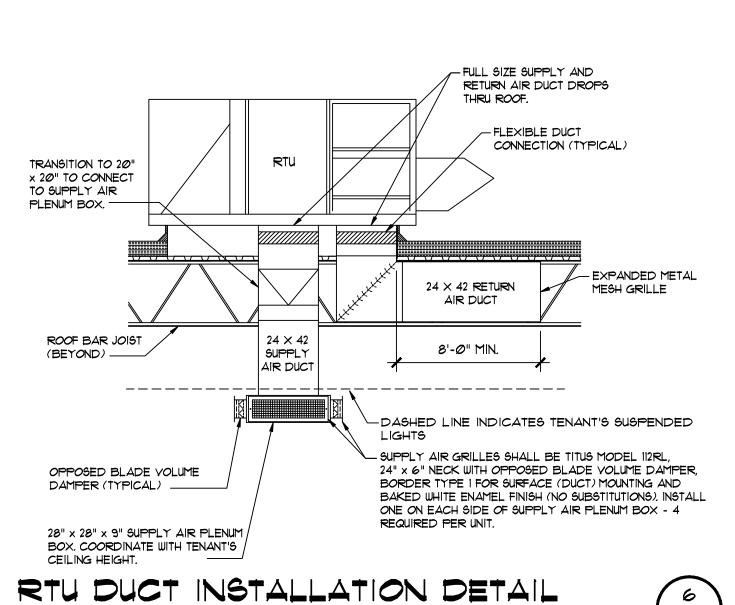
HANG DUCTS ACCORDING TO SMACNA STANDARDS



1 - PROVIDE BACKDRAFT DAMPER W/ BIRDSCREEN 2 - FLASH & SEAL WALL AND ROOF CAP

M-2

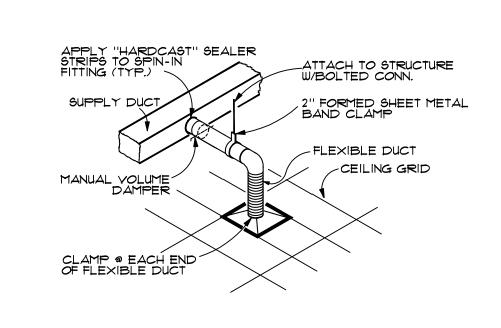




TERMINATION OF EXTERIOR

VERTICAL WALL

SCALE: NOT TO SCALE



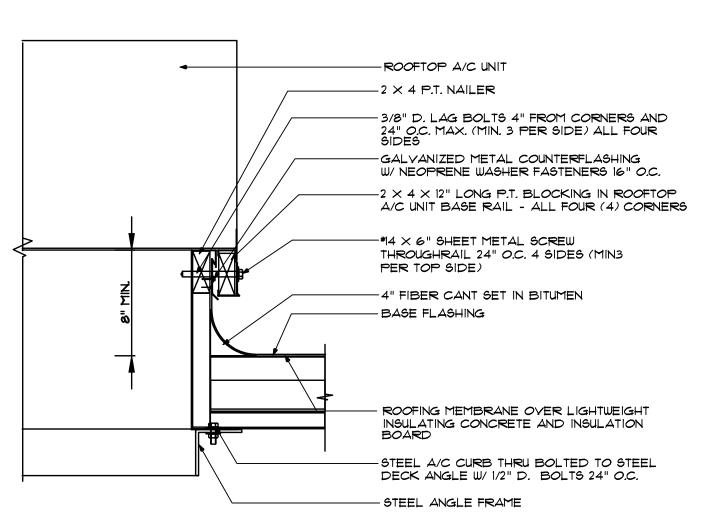
TYPICAL DUCT DETAIL



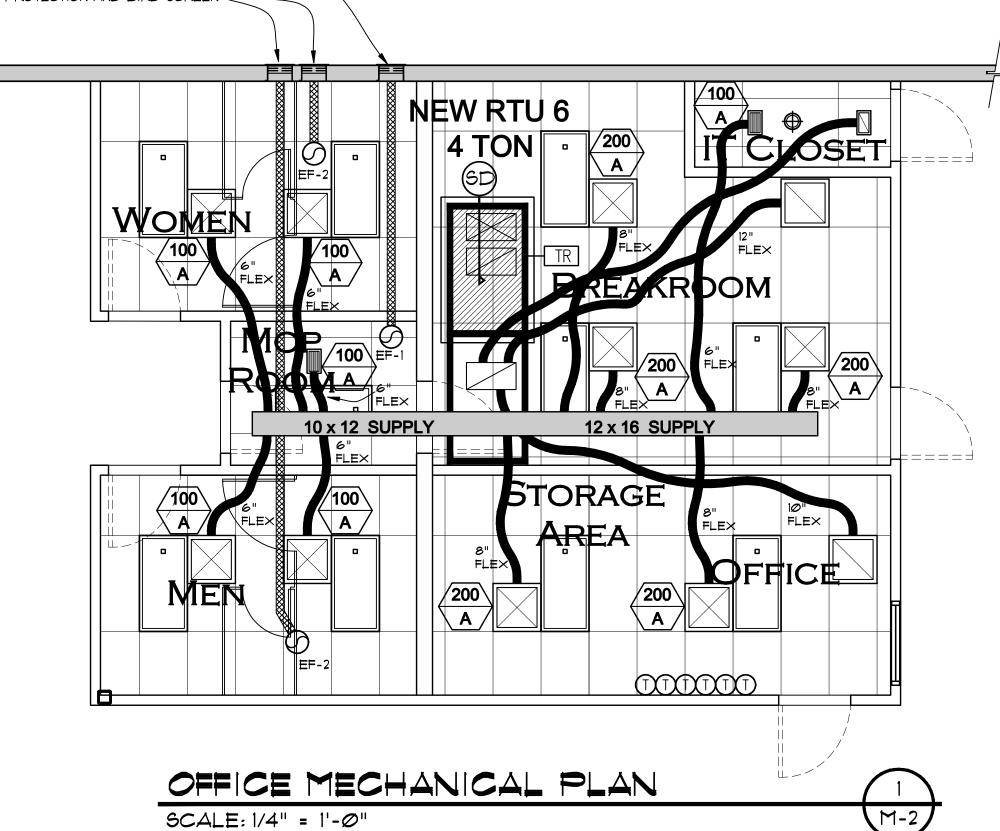
BRANCH TAKE-OFF & DAMPER ASSY.

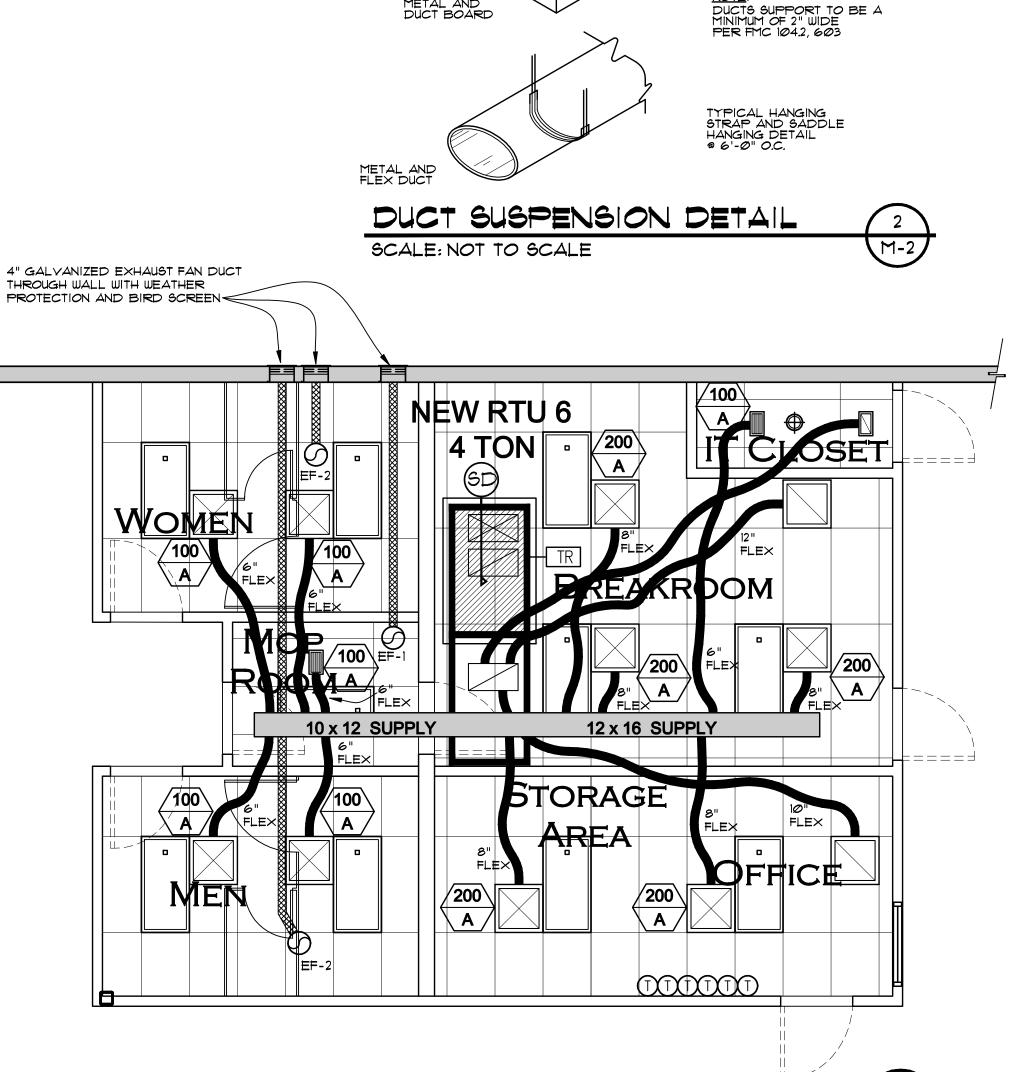
BUTTERFLY DAMPER WITH EXTERNAL POSITION INDICATOR AND OPERATOR

M-2









Revisions:

Project Number 160412

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106 VE

Project Name NEW RETAIL BUILDING

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STEPHEN BRASGALLA, ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

6991 WEST BROWARD BOULEVARD SUITE 100 PLANTATION, FLORIDA 33317 TELEPHONE 954.614.3801 TELEFAX 954.208.0600 ARCHITECT • DESIGN23.NET

AS ISSUED FOR PERMIT FOR CONSTRUCT

Drawn By: Checked By: RSS STB SHOWN 7-29-16 Project Number

### ELECTRICAL NOTES

GENERAL: ALL WORK SHALL CONFORM TO THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL JURISDICTIONAL CODES.

THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION TO BE TAKEN.

THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATION OF THOSE ITEMS.

COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES, CONDUIT, AND SLEEVES TO BE SET IN CAST-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.

UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL SPECS ARE NOT INTENDED TO BE PROPRIETARY, SUBSTITUTIONS WILL BE ACCEPTABLE FOR EQUAL RATED AND LISTED

SCOPE: EXCEPT WHERE OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS BY "FUTURE", "BY OTHERS", OR BY A SIMILAR NOTATION, IT IS THE INTENT THAT THE CONTRACTOR FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS NECESSARY TO PROVIDE ALL SYSTEMS IN COMPLETE AND OPERATING CONDITION.

3. EXCAVATE AS NECESSARY FOR THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT. YERIFY THE LOCATIONS OF UNDERGROUND UTILITIES OR STRUCTURES BEFORE EXCAYATING AND EXERCISE CARE TO AVOID DAMAGE TO SUCH ITEMS DURING EXCAVATION. BACKFILL WITH EARTH FREE OF LARGE CLODG, LARGE STONES AND FOREIGN DEBRIS, DEPOSITED IN 6" LAYERS AND COMPACTED TO A DENSITY OF NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS: SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS, THE ELECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITTERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING

5. GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC.

CONDUITS: PROVIDE CONDUITS WHERE CALLED FOR ON PANEL SCHEDULES: ELECTRICAL METALLIC TUBING (EMT) SHALL BE INSTALLED ONLY IN DRY LOCATIONS, IN CONCRETE ABOVE GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE.

CONDUITS INSTALLED UNDERGROUND SHALL BE POLYVINYLCHLORIDE (PVC) AND SHALL NOT BE SMALLER THAN 3/4" TRADE SIZE, WHERE PVC CONDUIT IS INSTALLED UNDERGROUND, ELBOWS TURNING UP AND CONDUIT EMERGING ABOVE GRADE SHALL BE RSC. THE TOPS OF CONDUITS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE. PVC CONDUIT INSTALLED ABOVE GRADE OR DIRECT-BURIED IN EARTH SHALL BE NEMA TC2 TYPE EPC-40-PVC (SCHEDULE 40) EXCEPT THAT WHERE UNDER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFIC, IT SHALL BE NEMA TC2 TYPE EPC-80-PVC (SCHEDULE

ALL ARMOR CLAD CABLE (AC CABLE) WIRING SHALL MEET OR EXCEED ALL NEC, OSHA AND HUD STANDARDS.

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8. PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR AS REQUIRED BY NEC. WHERE FEEDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.

9. LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS, AND SHALL BE INSTALLED COMPLETE WITH LAMPS.

FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE SET TO PROVIDE THE REQUIRED LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST.

10. TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE.

TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 15° C. OPERATION.

### SYMBOL LEGEND

INDICATES TYPICAL DUPLEX 110 YOLT RECEPTACLE INDICATES TYPICAL DUPLEX 110

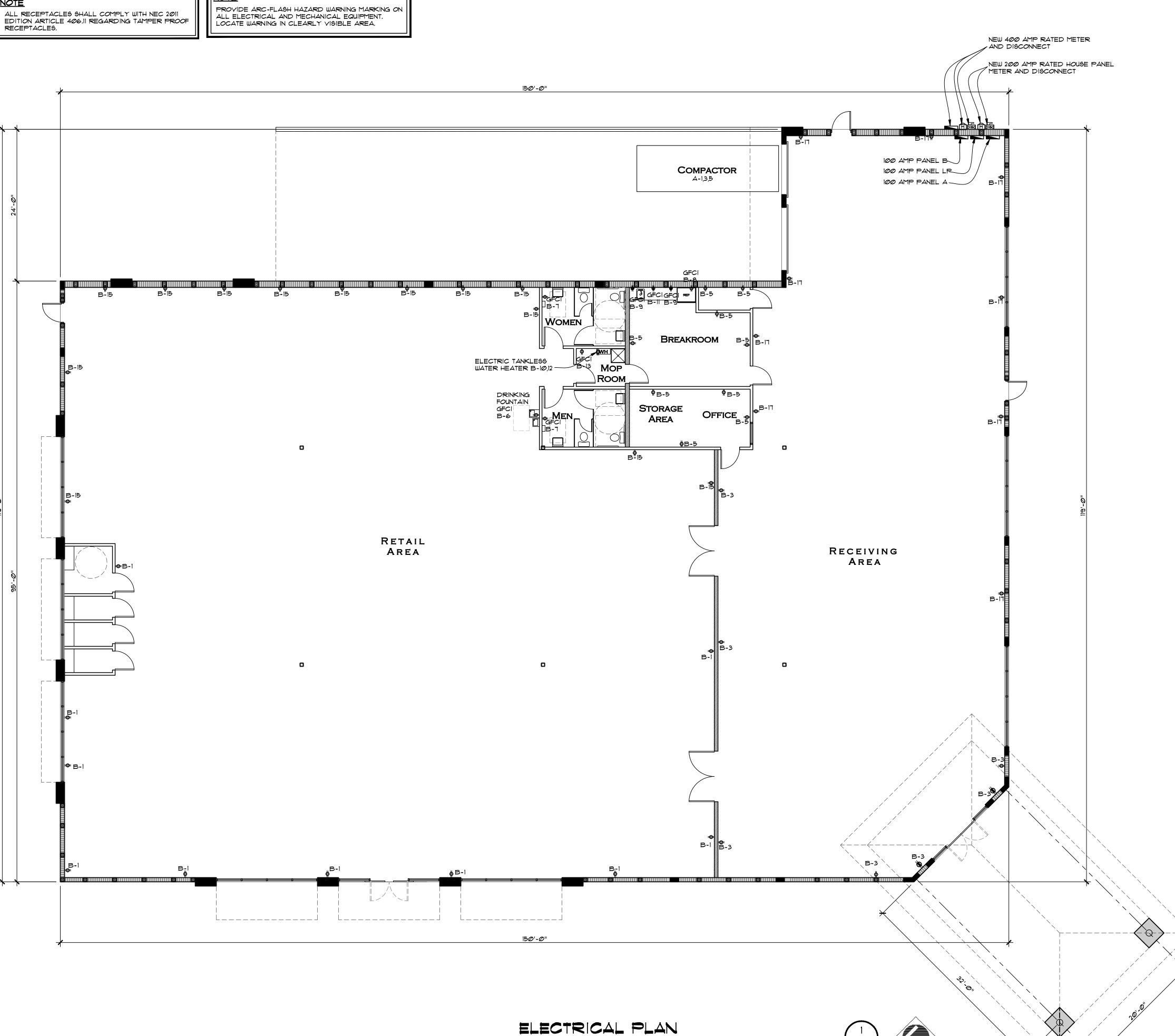
VOLT RECEPTACLE MOUNTED 96"

INDICATES SPECIALTY HIGH VOLTAGE APPLIANCE RECEPTACLE INDICATES ELECTRICAL DISTRIBUTION

INDICATES TYPICAL TELEPHONE OUTLET BY OTHERS

INDICATES TYPICAL DATA OUTLET BY OTHERS

NOTE NOTE EXTERIOR SIGNAGE J-BOX SHALL BE ON A 20 AMP ELECTRICAL INSTALLATION SHALL COMPLY WITH NEC 2011 EDITION ARTICLE 220.84 (A) THRU (C). CIRCUIT WITH NO OTHER LOADS. NOTE NOTE PROVIDE ARC-FLASH HAZARD WARNING MARKING ON ALL ELECTRICAL AND MECHANICAL EQUIPMENT. LOCATE WARNING IN CLEARLY VISIBLE AREA.



SCALE: 1/8" = 1'-0"

Revisions:

Project Number 160412

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**ω** 0

106 VE

Project Name

NEW RETAIL BUILDING

STEPHEN BRASGALLA, ARCHITECT

6991 WEST BROWARD BOULEVARD SUITE 100
PLANTATION, FLORIDA 33317 TELEPHONE 954.614.3801 TELEFAX 954.208.0600

ARCHITECT • DESIGN23.NET

STATE OF FLORIDA REGISTRATION NO. AR12239

Drawn By: Checked By: RSS STB SHOWN 7-29-16

Project Number 160412

# ELECTRICAL NOTES

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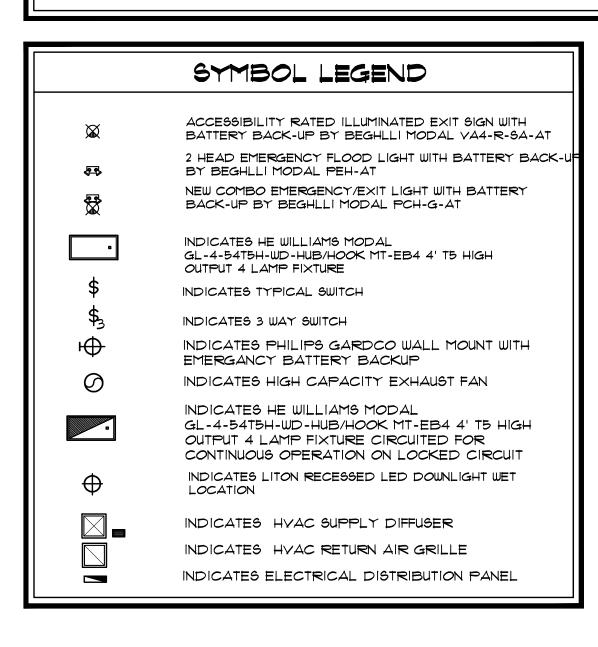
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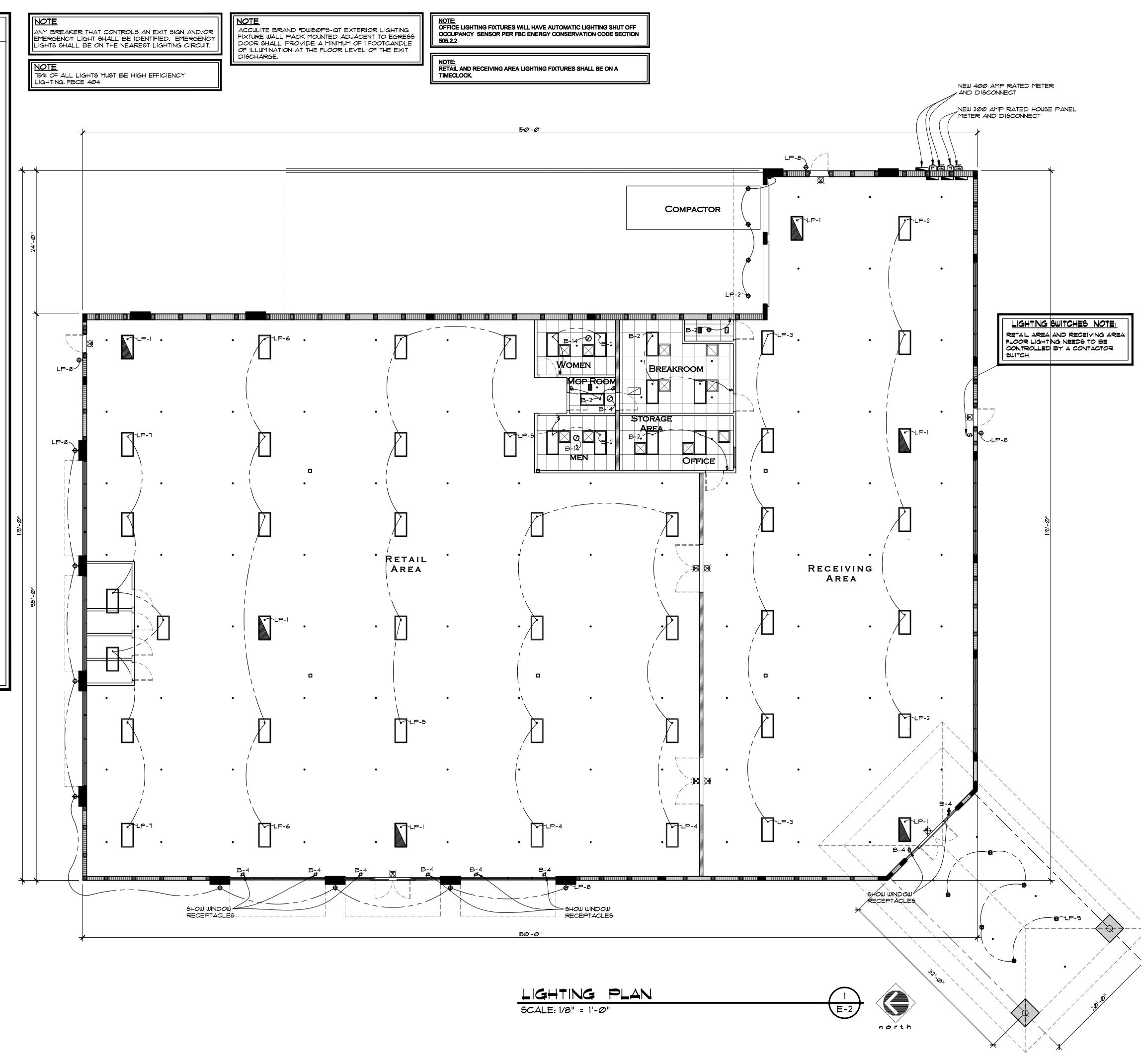
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II. TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 15°C. OPERATION.





Project Number 160412

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L BUILDING - GOOD
6 U.S. HIGHWAY 1
o BEACH, FLORIDA

Project Name

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NEW RETAIL BUILDING

STEPHEN
BRASGALLA,
ARCHITECT
STATE OF FLORIDA
REGISTRATION NO. AR12239

6991 WEST BROWARD BOULEVARD
SUITE 100
PLANTATION, FLORIDA 33317

TELEPHONE 954.614.3801
TELEFAX 954.208.0600

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AS ISSUED FOR 1-29-16
AS ISSUED 7-29-16
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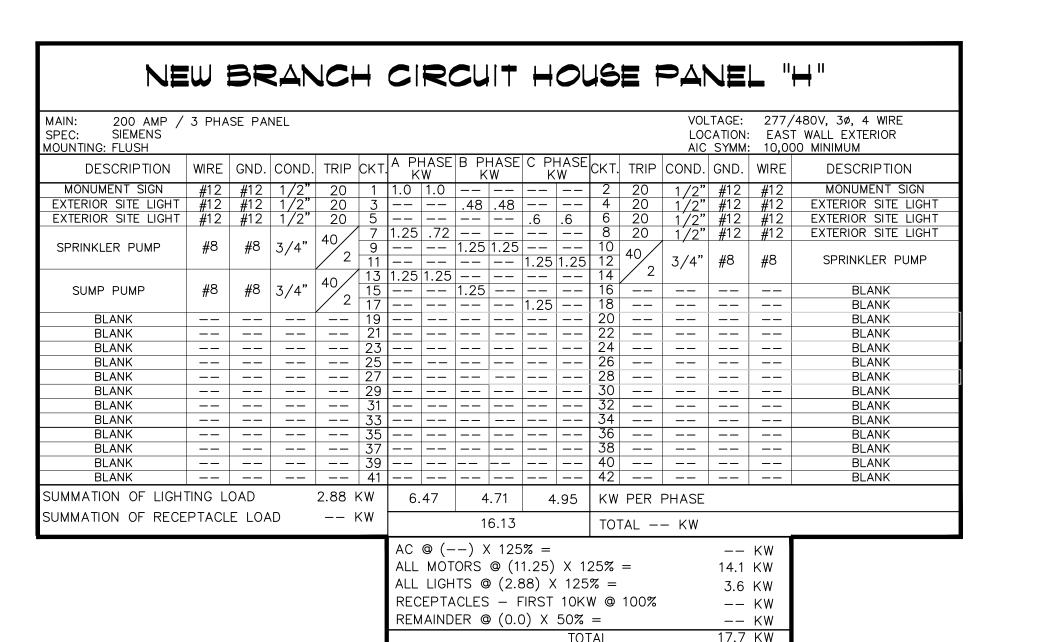
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ale: Date: 7-29-16

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PANEL A =  $\frac{17.7 \text{ KW}}{(480\text{V})(\sqrt{3})}(1000)$  = 21.3 AMPS

MAIN: 100 AMP / SPEC: SIEMENS IOUNTING: FLUSH	3 PHA	SE PAN	NEL				VOLTAGE: 120/208V, 3Ø, 4 WIF LOCATION: EAST WALL INTERIOR AIC SYMM: 10,000 MINIMUM PHASE B PHASE C PHASE CKT. TRIP COND. GND. WIRE DESCRIPTION										
DESCRIPTION	WIRE	GND.	COND.	TRIP	CKT.	A PI   K	HASE W	B PI   K	HASE W	C PI	HASE   W	скт.	TRIP	COND.	GND.	WIRE	DESCRIPTION
RECEPTACLES	#12	#12	1/2"	20	1	1.8	.9					2	20	1/2"	#12	#12	LIGHTING
RECEPTACLES	#12	#12	1/2"	20	3			1.44	1.65			4	20	1/2"	#12	#12	SHOW WINDOW RECE
RECEPTACLES	#12		1/2"	20	5					1.26	.25	6	20	1/2"	#12	#12	DRINKING FOUNTAIN
BATHROOM GFCI	#12	#12	1/2"	20	7	1.0	.25					8	20	1/2"	#12	#12	REFRIGERATOR
MALL APPLIANCE GFCI MALL APPLIANCE GFCI		#12 #12	1/2"	20 20	9	 		.25	2.25		 2.25	10	2 30	3/4"	#10	#10	WATER HEATER
RECEPTACLES GFCI	#12	#12	1/2"	20	13	.25	1.5					14	20	1/2"	#12	#12	EXHAUST FANS
RECEPTACLES	#12	#12	1/2"	20	15			2.34		<b> </b>		16					BLANK
RECEPTACLES	#12	#12	1/2"	20	17					1.62		18					BLANK
BLANK	<u>"</u>	——			19							20					BLANK
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BLANK	-				41							42					BLANK
SUMMATION OF LIGHT	TING L	OAD		.9 KW	'	5.7	7	7.9	93	5.6	3	KW	PER I	PHASE			
SUMMATION OF RECE	≺W								TOTAL KW								

RECEPTACLES - FIRST 10KW @ 100%

PANEL A =  $\frac{16.42 \text{ KW}}{(208\text{V})(\sqrt{3})}(1000)$  = 45.53 AMPS

REMAINDER @  $(6.86) \times 50\% =$ 

10.0 KW

3.43 KW

16.42 KW

-- KW

13.2 KW

7.5 KW

-- KW

111.0 KW

•	NE	W !	3R	ΔN	10	$\vdash$	C	R	CL	<b>!</b>  †	F		VΕ		LP	-1"	
MAIN: 100 AMP / SPEC: SIEMENS MOUNTING: FLUSH	3 PHA	SE PAI	NEL											LO	TAGE: CATION: SYMM:	: EAŚ	7480V, 3Ø, 4 WIRE T WALL INTERIOR DO MINIMUM
DESCRIPTION	WIRE	GND.	COND.	TRIP	СКТ.		HASE W	B Pł K		C PI K	HASE W	СКТ.	TRIP	COND.	GND.	WIRE	DESCRIPTION
NIGHT LIGHTING	#12	#12	1/2"	20	1	.9	1.95					2	20	1/2"	#12	#12	LIGHTING
LIGHTING	#12		1/2"	20	3				1.65			4	20	1/2"		#12	LIGHTING
LIGHTING	#12		1/2"	20	5					1.5	1.5	6	20	1/2"		#12	LIGHTING
LIGHTING	#12		1/2"	20	7	1.65	1.2					8	20	1/2"		#12	LIGHTING
LIGHTING	#12		1/2"	20	9			1.2				10			<u>"-</u> -		BLANK
BLANK			·/ <u>-</u> -		11							12					BLANK
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SUMMATION OF LIGHT	TING L	OAD	1	3.2 K	(W	5.	.7	4.5	5	3	.0	KW	PER	PHASE			
SUMMATION OF RECE	PTACL	E LOA	<b>AD</b>	k	(W				13.2	I		тот	TAL -	- KW			
						AC	@ (-	) x	( 125	% =						KW	

ALL MOTORS @(--) X 125% =

ALL LIGHTS @ (13.2) X 125% =

REMAINDER @ (0.0) X 50% =

RECEPTACLES - FIRST 10KW @ 100%

PANEL A =  $\frac{16.5 \text{ KW}}{(480 \text{V})(\sqrt{3})}(1000)$ 

MAIN: 200 AMP / SPEC: SIEMENS IOUNTING: FLUSH	3 PHA	SE PA	NEL											LOC	TAGE: CATION: SYMM	: EAŚT	180V, 3Ø, 4 WIRE WALL INTERIOR MINIMUM
DESCRIPTION	WIRE	GND.	COND.	TRIP	CKT	A PH	HASE W	B PI K	HASE W	C P	HASE (W	СКТ.	TRIP	COND.	GND.	WIRE	DESCRIPTION
COMPACTOR	#6	#6	3/4"	60 3	1 3 5	2.5	4.4	2.5 	4.4	 2.5	  4.4	2 4 6	100/	#8	#8	1 1/4"	SUB PANEL LP-1
RTU-1	#6	#6	3/4"	60 / 3	7 9 11	4.0 	4.0	4.0 	4.0	4.0	 4.0	8 10 12	60 / 3	3/4"	#6	#6	RTU-4
RTU-2	#6	#6	3/4"	60 3	13 15 17	4.0	4.0	4.0 	4.0	 4.0	  4.0	14 16 18	60/ 3	3/4"	#6	#6	RTU-5
RTU-3	#6	#6	3/4"	60/ 3	19 21 23	4.0	2.0	 4.0 	2.0	 4.0	2.0	20 22 24	60 / 3	3/4"	#8	#8	RTU-6
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SUMMATION OF LIGH	TING L	OAD		K	W	l 28	a a	28	3.9	28	. a	I KW	DED	PHASE			

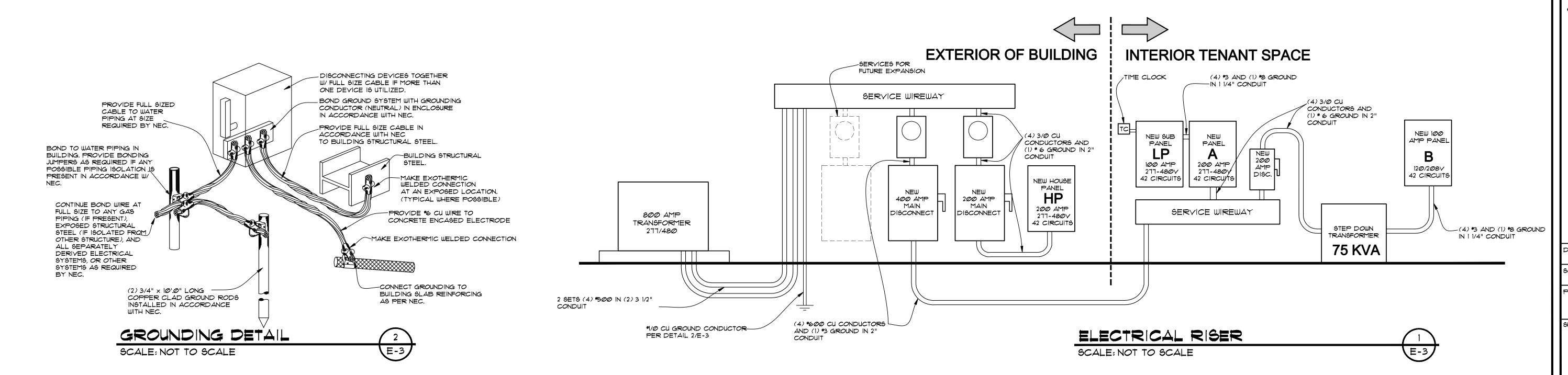
ALL LIGHTS @(--) X 125% =

REMAINDER @ (0.0) X 50% =

RECEPTACLES (7.5) FIRST 10KW @ 100%

PANEL A =  $\frac{103.2 \text{ KW}}{(480 \text{V})(\sqrt{3})}(1000)$  = 124.1 AMPS

SUP-PANEL



-- KW

16.5 KW

-- KW

-- KW

\_\_ KW

= 19.8 AMPS

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Project Name

NEW RETAIL

BUILDING

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S. E.A

D. B.

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Revisions:

Project Number

160412

STEPHEN
BRASGALLA,
ARCHITECT

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AS ISSUED FOR 1-29-16
AS ERMIT FOR INOTERIOR CONSTRUCTION

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### ELECTRICAL NOTES

1. GENERAL: ALL WORK SHALL CONFORM TO THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC.) AND ALL LOCAL JURISDICTIONAL CODES.

THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION

THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATION OF THOSE ITEMS.

COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES, CONDUIT, AND SLEEVES TO BE SET IN CAST-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.

UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL SPECS ARE NOT INTENDED TO BE PROPRIETARY, SUBSTITUTIONS WILL BE ACCEPTABLE FOR EQUAL RATED AND LISTED INITE

2. SCOPE: EXCEPT WHERE OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS BY "FUTURE", "BY OTHERS", OR BY A SIMILAR NOTATION, IT IS THE INTENT THAT THE CONTRACTOR FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS NECESSARY TO PROVIDE ALL SYSTEMS IN COMPLETE AND OPERATING CONDITION.

3. EXCAYATE AS NECESSARY FOR THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT. VERIFY THE LOCATIONS OF UNDERGROUND UTILITIES OR STRUCTURES BEFORE EXCAYATING AND EXERCISE CARE TO AVOID DAMAGE TO SUCH ITEMS DURING EXCAYATION. BACKFILL WITH EARTH FREE OF LARGE CLODS, LARGE STONES AND FOREIGN DEBRIS, DEPOSITED IN 6" LAYERS AND COMPACTED TO A DENSITY OF NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

4. MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS: SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS. THE ELECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITTERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING AUTHORITY.

5. GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC.

6. CONDUITS: PROVIDE CONDUITS WHERE CALLED FOR ON PANEL SCHEDULES: ELECTRICAL METALLIC TUBING (EMT) SHALL BE INSTALLED ONLY IN DRY LOCATIONS, IN CONCRETE ABOVE GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE.

CONDUITS INSTALLED UNDERGROUND SHALL BE POLYVINYLCHLORIDE (PVC) AND SHALL NOT BE SMALLER THAN 3/4" TRADE SIZE. WHERE PVC CONDUIT IS INSTALLED UNDERGROUND, ELBOWS TURNING UP AND CONDUIT EMERGING ABOVE GRADE SHALL BE RSC. THE TOPS OF CONDUITS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE. PVC CONDUIT INSTALLED ABOVE GRADE OR DIRECT-BURIED IN EARTH SHALL BE NEMA TC2 TYPE EPC-40-PVC (SCHEDULE 40) EXCEPT THAT WHERE UNDER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFIC, IT SHALL BE NEMA TC2 TYPE EPC-80-PVC (SCHEDULE 80).

ALL ARMOR CLAD CABLE (AC CABLE) WIRING SHALL MEET OR EXCEED ALL NEC, OSHA AND HUD STANDARDS.

T. CONDUCTORS: CONDUCTORS SHALL BE AS SCHEDULED ON PANEL SCHEDULES. ALL POWER CONDUCTORS SHALL NOT BE SMALLER THAN \*14 AWG (CU), OR \*12 AWG (AL), CONTROL CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN \*18 AWG CU. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET WITHOUT SPLICES EXCEPT WITHIN WIREWAY OR JUNCTION BOXES. MARK CONDUCTORS IN PANELS, PULL BOXES OR WIREWAYS AND TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS. CONDUCTORS SHALL BE JOINED USING COMPRESSION SPLICES, EXCEPT THAT CONDUCTORS \*10 AND SMALLER MAY BE JOINED USING WIRE NUT TYPE CONNECTORS. CONDUCTORS SHALL BE TERMINATED USING COMPRESSION OR PRESSURE TYPE TERMINAL LUGS, OR IN PRESSURE TERMINALS. COMPRESSION SPLICES USED ON CONDUCTORS \*10 AWG. AND SMALLER, SHALL BE THE SELF-INSULATED TYPE! OTHER SPLICES SHALL BE INSULATED USING 3M \*33+ OR \*88 PLASTIC TAPE. SPLICES IN WET LOCATIONS SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH SCOTCHCAST OR EQUAL POTTING COMPOUND.

8. PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR AS REQUIRED BY NEC. WHERE FEEDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.

9. LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS, AND SHALL BE INSTALLED COMPLETE WITH LAMPS.

FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE SET TO PROVIDE THE REQUIRED LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST.

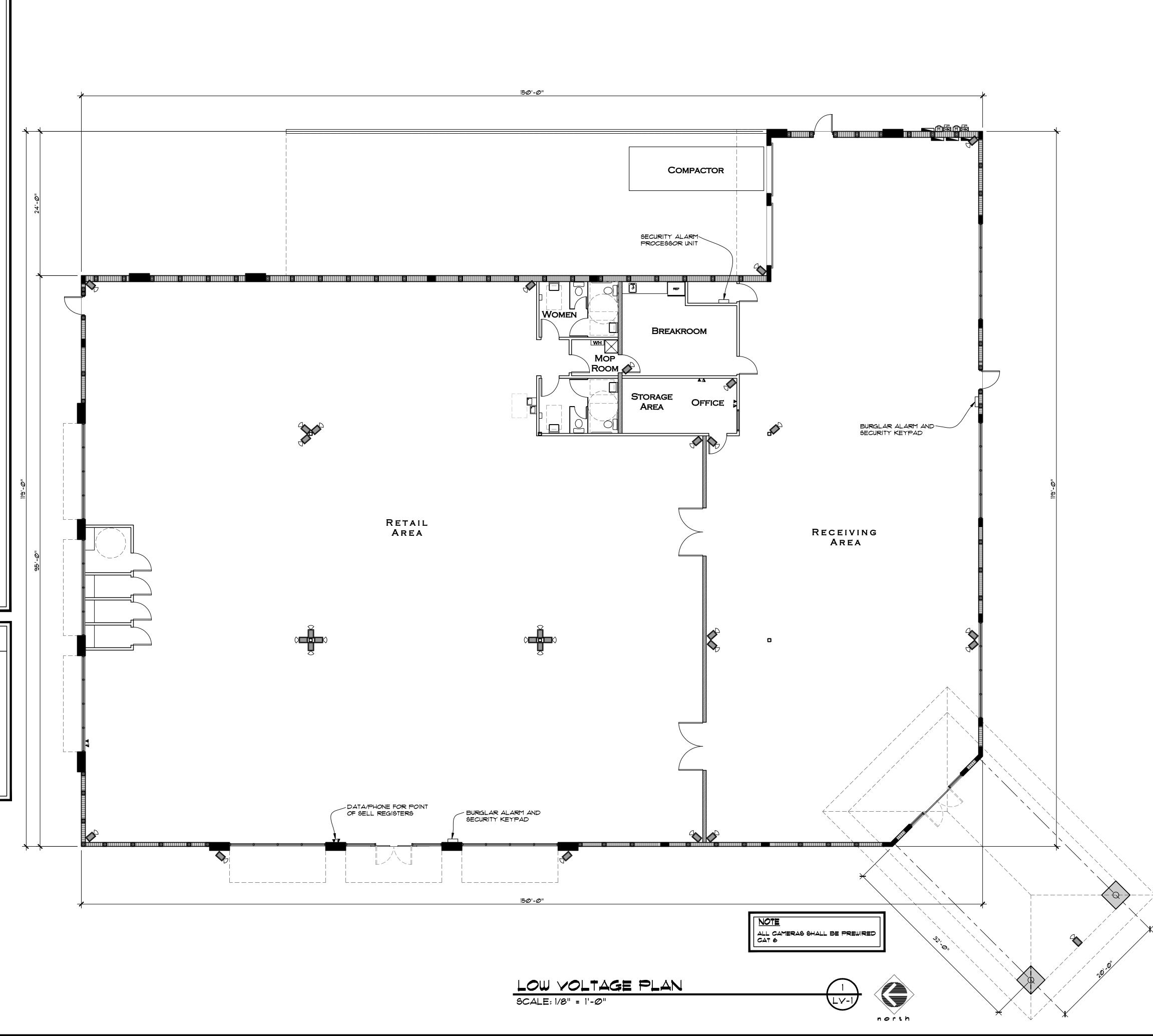
10. TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE.

11. TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 15° C. OPERATION.

# SYMBOL LEGEND

- INDICATES TYPICAL DUPLEX 110 VOLT RECEPTACLE
- INDICATES TYPICAL DUPLEX 110
  VOLT RECEPTACLE MOUNTED 42"
- INDICATES SPECIALTY HIGH

  VOLTAGE APPLIANCE RECEPTACLE
- INDICATES ELECTRICAL DISTRIBUTION
- INDICATES TYPICAL TELEPHONE
  OUTLET BY OTHERS
  - INDICATES TYPICAL DATA OUTLET BY OTHERS
- INDICATES SECURITY CAMERA



Revisions:

Project Number 160412

160412

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Project Name
NEW RETAIL
BUILDING

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AS ISSUED FOR 1.29.16
AS ISSUED 7.29.16
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RSS
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Scale:
SHOWN
Date:
7-29-16

Project Number

160412

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## GENERAL PLUMBING NOTES

Drawings are diagrammatic and shall not be scaled. Refer to architectural plans and elevations for exact location of all plumbing fixtures, equipment, etc.. Plumbing contractor shall furnish and install all items required for a complete and acceptable working installation.

- 2. All work and materials shall comply with the latest edition of the National, State, and all local codes and Ordinances having jurisdiction.
- 3. The plumbing contractor shall visit the site and thoroughly familiarize himself with all existing conditions. All execution and backfill as required for this phase of construction shall be a part of this contract.
- 4. All material shall be new.
- 5. All work shall be performed by a licensed plumbing contractor in a first class workmanlike manner. The completed system shall be fully operative and accepted by engineer/architect.
- 6. All required insurance shall be provided for protection against public liability or property damage for the duration of the work
- 7. The plumbing contractor shall secure and pay all permit fees,
- 8. All work shall be coordinated with other trades to avoid interference with the progress of construction.
- 9. The plumbing contractor shall guarantee all materials and workmanship free from defects for a period of not less than (1) one year from date of acceptance. Correction of any defects shall be completed without additional charge and shall include replacement or repair of any other phase of the installation which may have been damaged thereby.
- 10. Verify location, size and inverts of all existing utilities prior to start of construction. Advise architect/engineer of any discrepancies.
- 11. All fixtures shall be provided with readily accessible stops.
- 12. Water piping shall be type "L" copper for up to and including 2" and shall be type "K" for 2 1/2" and larger. P.E.X., Polyvinyl Chloride, or other approved polyvinyl and composite piping may be used in lieu of copper.
- 13. Soil, wastes and vent piping shall be PVC #40 DMV. Waste and vent piping above slab shall be PVC, if approved by local authorities having jurisdiction, otherwise cast iron. PVC shall not be installed in A/C return air plenum or penetrate fire rated walls or floors.
- 14. Air conditioning condensate drain piping shall be PVC \*40 or copper drain waste and bent pipe and fittings. Insulate all condensate piping except exterior piping. Install all condensate piping for air conditioning units as required per
- and PDI approved shock arresters on main lines and risers.

  15. Furnish and install approved air chambers at each plumbing fixture
- 6. Provide chrome plated combination covered plate and cleanout plug for all wall cleanouts, Josam 58890.
- | 17. Insulate lines as follows:

a) Hot and Cold water supply and return: 1" thick fiberglass. b) Condensate piping: 1/2" thick armaflex preformed.

# PLUMBING SYMBOL LEGEND

CO CLEAN OUT
CW DOMESTIC COLD WATER
VTR VENT THRU ROOF
SEWER AND WASTE WATER

 $\neg$ 

SEWER AND WASTE WATER PIPING
 VENT PIPING
 DOMESTIC COLD WATER PIPING

P-TRAP

### PLUMBING FIXTURE SCHEDULE

HWC (HANDICAPPED WATER CLOSET)

- SHALL BE AN AMERICAN STANDARD MODEL CADET 2998.012
  ELONGATED 18" HIGH, 1.6 GPF, VITREOUS CHINA, SIPHON ACTION BOWL,
  CLOSE-COUPLED TANK, SPEED CONNECT TANK/BOWL COUPLING.
  SYSTEM TOILET AND AN OLSONITE \*95 OPEN FRONT SEAT LESS COVER
  CONTRACTOR TO ORDER LEFT OR RIGHT HAND ACTUATOR LEVER
  PLACEMENT TO ALLOW LEVER PLACEMENT TO BE ON THE OPEN SIDE
  OF THE TOILET TO MEET HANDICAP CODE REQUIREMENTS.
- HLAY (HANDICAPPED WALL HUNG WITH CARRIER & RECEIVERS LAVATORY)
  SHALL BE A DELTA, AMERICAN STANDARD, KOHLER OR EQUAL
  ENAMELED CAST IRON ACID RESISTING LAVATORY. PROVIDE CHICAGO
  FAUCET \*895-31TE2805-5VPHCP, DECK MOUNTED 4" FIXED CENTER HOT
  AND COLD SINK FAUCET TO INCLUDE AN OMNI PRESSURE COMPENSATING
  0.5 GPM FLOW RESTRICTOR AQUASEAL VALVES AND CHROME FINISH.
  GRID DRAIN: OFFSET PERFORATED WHEELCHAIR LAVATORY DRAIN
  ASSEMBLY WITH 1-1/2" TAILPIECE. MCGUIRE \*155WC. PROVIDE PROTECTIVE
  INSULATION ON DRAIN AND HOT WATERLINE TO MEET HANDICAP CODE

DRINKING FOUNTAIN (HI-LO ACCESSIBLE)
HI-LO ACCESSIBLE DRINKING FOUNTAIN SHALL BE HALSEY TAYLOR 4540
DRINKING FOUNTAIN - BY TENANT OR EQUAL

REQUIREMENTS ON ALL INSTALLATIONS WITH EXPOSED PIPING.

TANKLESS ELECTRICAL WATER HEATER RHEEM MODAL RTE 9

) ALL PLUMBING FIXTURES SHALL BE AS SPECIFIED OR

APPROVED EQUAL.

2) PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.

### CONTRACTOR'S RESPONSIBILITY

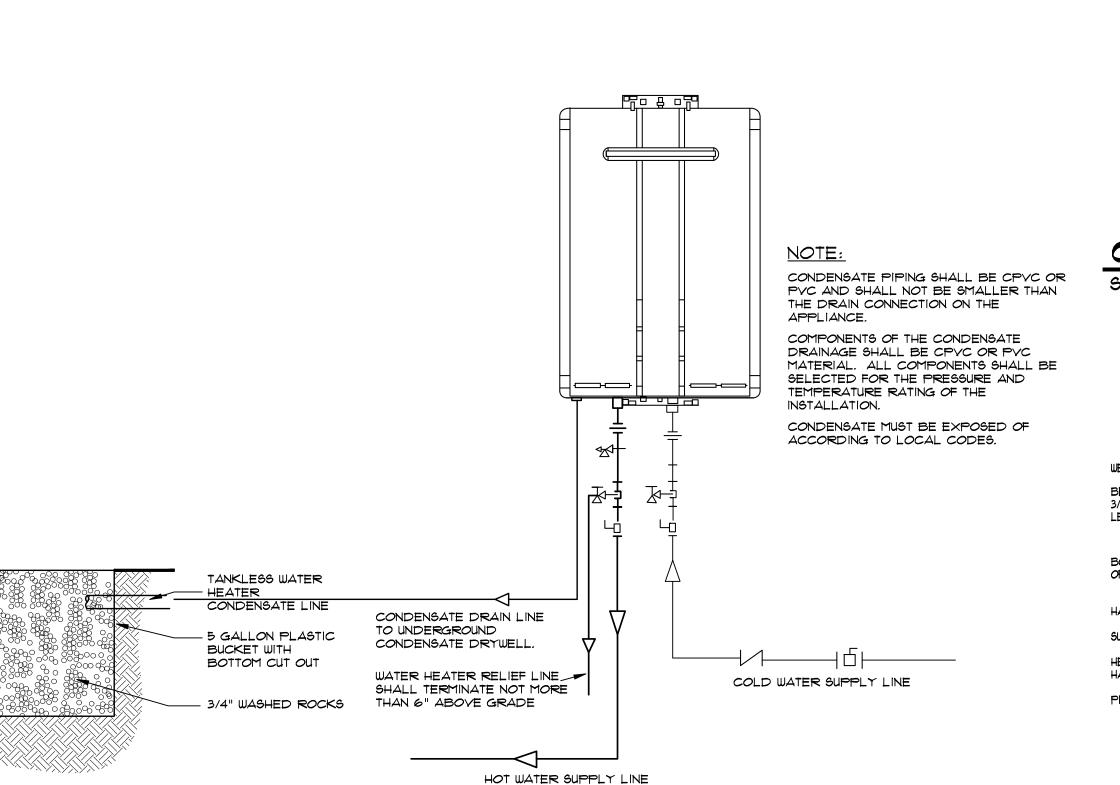
CONTRACTOR SHALL COORDINATE WITH LANDLORD TO LOCATE UNDERGROUND PLUMBING, UTILITIES. CONDUITS OR ANY OTHER CONCEIVABLE COMPONENTS LOCATED UNDERGROUND. IF SPECIFIC DIMENSIONS ARE NOT AVAILABLE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO EXAMINE THE SLAB COMPOSITION OR OTHER AREAS WITH GROUND PENETRATING RADAR TO IDENTIFY UNDERGROUND COMPONENTS.

IMPORTANT: THE ARCHITECT, THE OWNER, AND THE LANDLORD SHALL NOT BE RESPONSIBLE FOR DAMAGE TO UNDERGROUND UTILITIES. DAMAGE CAUSED BY SLAB CUTTING SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND REPLACE.

### SOIL TREATMENT NOTE

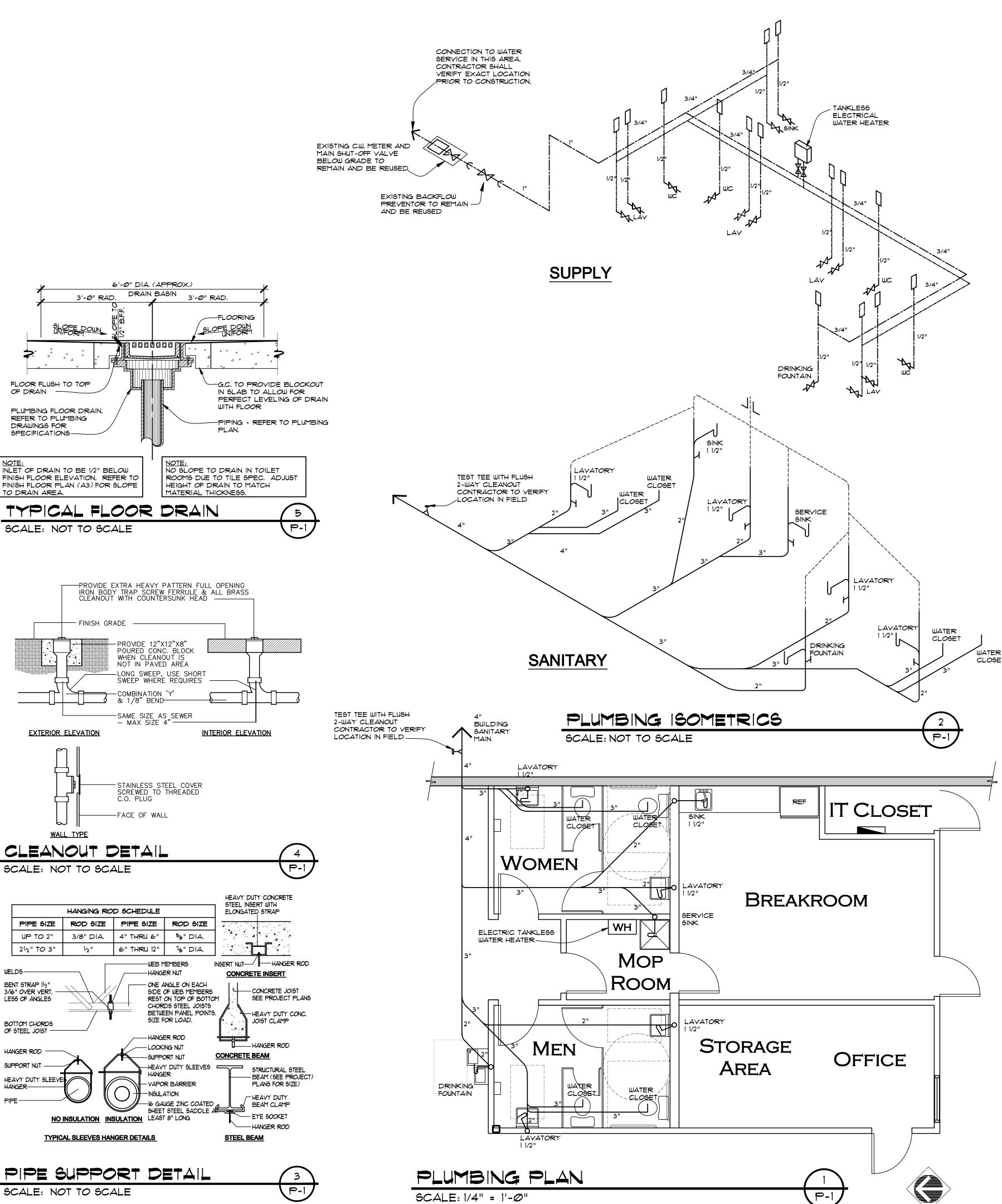
ALL BUILDINGS SHALL HAVE PRE-CONSTRUCTION TREATMENT AGAINST SUBTERRANEAN TERMITES. THE RULES AND LAWS AS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES SHALL BE DEEMED AS APPROVED WITH RESPECT TO PRE-CONSTRUCTION SOIL TREATMENT FOR PROTECTION AGAINST SUBTERRANEAN TERMITES. A CERTIFICATE OF COMPLIANCE SHALL BE ISSUED TO THE BUILDING DEPARTMENT BY THE LICENSED PEST CONTROL COMPANY THAT CONTAINS THE FOLLOWINGS STATEMENT:

"THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. TREATMENT IS IN ACCORDANCE WITH RULES AND LAWS ESTABLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES." FBC 1816.1.17









Revisions:

Project Number

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Project Name

NEW RETAIL

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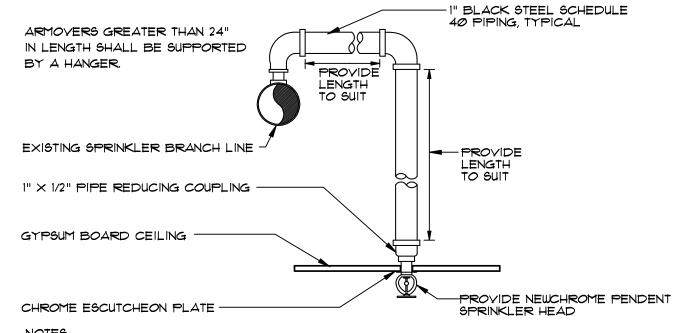
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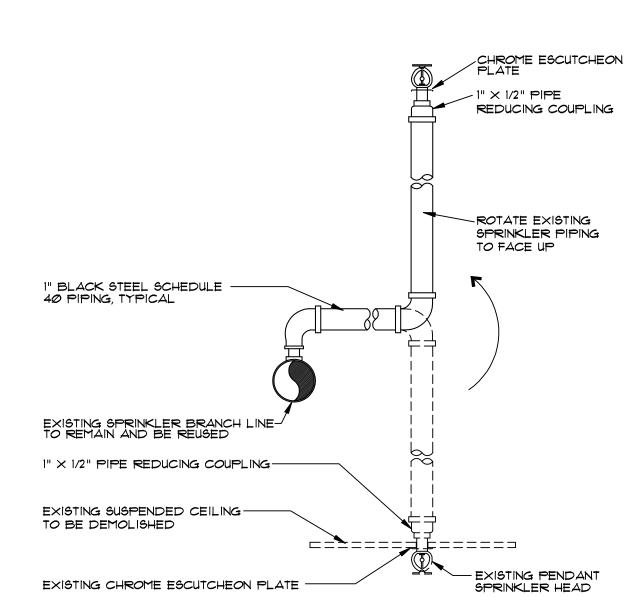
### FIRE SPRINKLER SPECIFICATIONS THE DRAWINGS ARE DIAGRAMMATIC AND REQUIRE COORDINATION WITH ARCHITECTURAL, AIR CONDITIONING AND ELECTRICAL PLANS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE ENGINEER'S REVIEW, FOR ALL SPECIFIED MATERIALS AND EQUIPMENT PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL GUARANTEE ALL WORK AND INSTALLED SPRINKLER SYSTEMS FOR A PERIOD OF ONE YEAR FROM DATE OF "CERTIFICATE OF OCCUPANCY". THIS BUILDING IS TOTALLY SPRINKLED PER NFPA 13 AND CONTAINS A STANDPIPE SYSTEM CONFORMING TO NFPA 14. CONTRACTOR MAY SUBMIT AN ALTERNATE HYDRAULICALLY DESIGNED FIRE SPRINKLER SYSTEM, DESIGNED AND SIGNED AND SEALED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER. SUBMIT 6 SETS OF 1/4" SCALE DIMENSIONED SHOP DRAWINGS AND HYDRAULIC CALCULATIONS FOR THE ENGINEERS REVIEW PRIOR TO ORDERING EQUIPMENT AND MATERIALS AND INSTALLING PIPING. DESIGN DENSITY, HEAD TEMPERATURE AND SPACE CLASSIFICATION SHALL BE AS NOTED ON THE PLANS. ALL VALVES SHALL BE "UL" FM LISTED VALVES WITH TAMPER SWITCHES OSAY CAST IRON BODY. UNDERGROUND PIPING SHALL BE DUCTILE IRON PIPE. ALL ABOVE GROUND PIPING 2 1/2" AND LARGER SHALL BE SCHEDULE 40 BLACK STEEL WITH VICTAULIC FITTINGS. INTERIOR PIPE 2" AND SMALLER SHALL SCHEDULE 10 THIN WALL WITH VICTAULIC FITTINGS. ALL EXPOSED FIRE SPRINKLER PIPING AND FITTINGS, GARAGE AND EXTERIOR, SHALL BE GALYANIZED STEEL WITH (2) COATS OF EPOXY PAINT. 10. SPRINKLER PIPING SHALL BE PRESSURE TESTED AT 200 PSI FOR 24 HOURS. NOTE TO INSTALLING CONTRACTOR

INSTALLING CONTRACTOR SHALL PROVIDE OWNER WITH THE FOLLOWING: (1) ALL LITERATURE AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER DESCRIBING PROPER OPERATION AND MAINTENANCE OF ANY EQUIPMENT AND DEVICES INSTALLED. (2) NFPA 25, STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS.

### THE SPRINKLER SYSTEM SHALL BE BY A LICENSED CONTRACTOR UNDER A SEPARATE PERMIT, INCLUDING **SHOP DRAWINGS AND** CALCULATIONS.

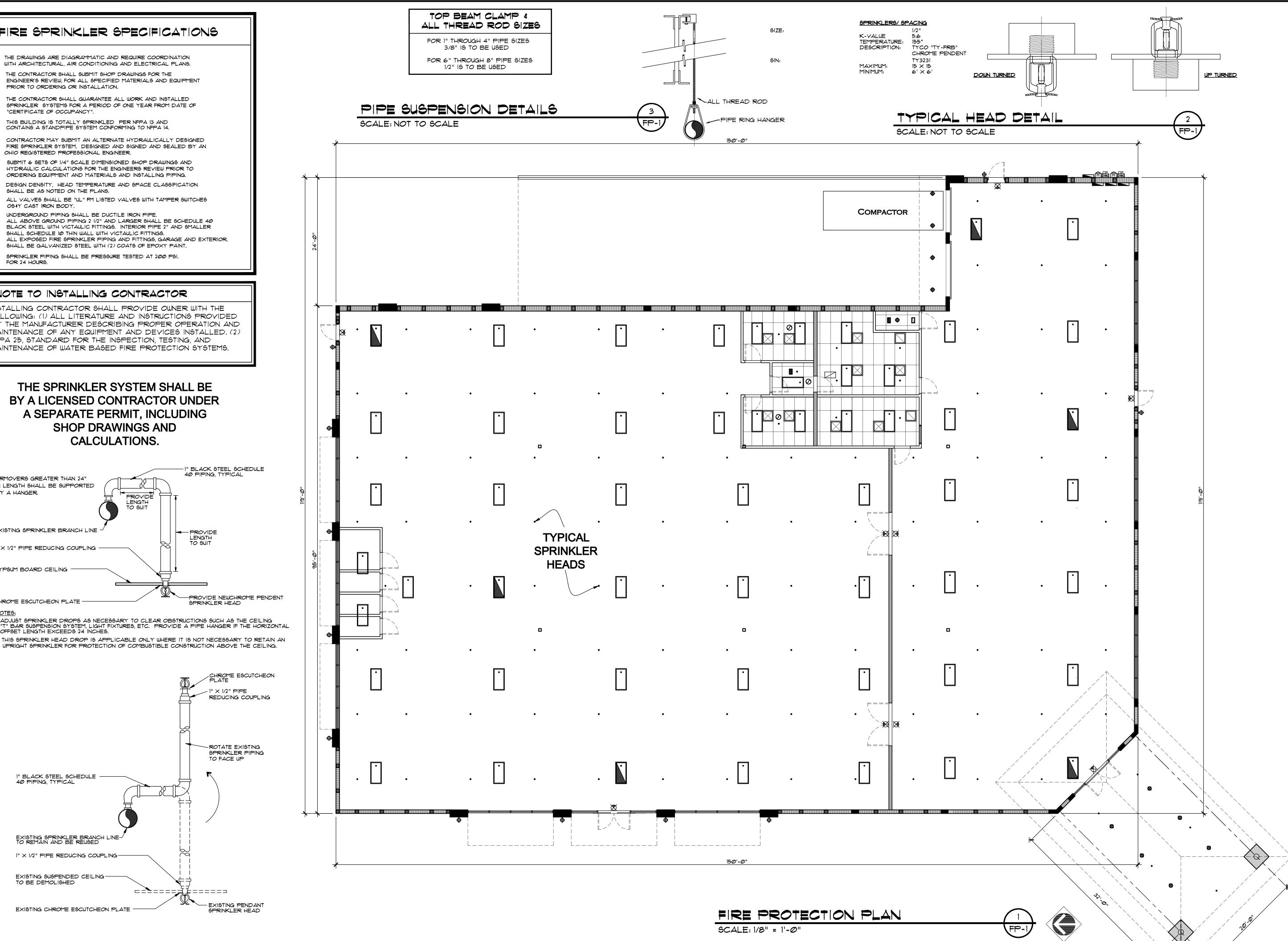


1. ADJUST SPRINKLER DROPS AS NECESSARY TO CLEAR OBSTRUCTIONS SUCH AS THE CEILING "T" BAR SUSPENSION SYSTEM, LIGHT FIXTURES, ETC. PROVIDE A PIPE HANGER IF THE HORIZONTAL OFFSET LENGTH EXCEEDS 24 INCHES. 2. THIS SPRINKLER HEAD DROP IS APPLICABLE ONLY WHERE IT IS NOT NECESSARY TO RETAIN AN



# HEAD RELOCATION DETAILS

SCALE: NOT TO SCALE



Revisions:

Project Number

0

0

Project Name

NEW RETAIL BUILDING

STEPHEN

BRASGALLA

ARCHITECT

STATE OF FLORIDA REGISTRATION NO. AR12239

6991 WEST BROWARD BOULEVARD SUITE 100 PLANTATION, FLORIDA 33317

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Drawn By:

RSS

Project Number

Checked By:

SHOWN 7-29-16

160412

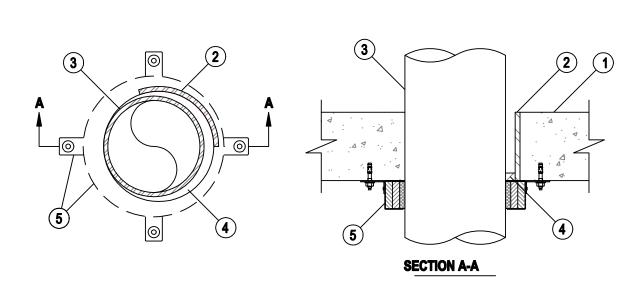
STB

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≥ 0

S. E.A

D. B.



. Floor or Wall Assembly —Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete

Blocks\*. Max diameter of opening is 12 in. (305 mm).

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufactures.

2. Steel Sleeve — (Optional) - Nom 12 in. (305 mm) diameter (or smaller) Schedule 40 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces. The W Rating does not apply when the steel sleeve is used.

3. Through Penetrants —One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. For max 6 in. (152 mm) diameter pipes, the annular space between the pipe and the periphery of opening shall be min @ in. (@ mm, point contact) to max 1/2 in. (13 mm). For nom 8 in. (203 mm) and 10 in. (254 mm) diameter pipes, the annular space between the pipe and the periphery of opening shall be min Ø in. (Ø mm, point contact) to max 1-1/4 in. (32 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. For systems with a W Rating, the max annular space is 1/2 in. (13 mm). The T Ratings are dependent on the size and/or type of pipe as shown in the table below. The following types and sizes of nonmetallic pipes may be used:

A. Polyvinyl Chloride (PVC) Pipe —Nom 10 in. (254 mm) diameter (or smaller) Schedule 40 solid core

or cellular core PVC pipe for use in closed (process or supply ) or vented (drain, waste or vent) piping systems. For systems with a W Rating, the nom diameter of pipe shall not exceed 6 in. (152 mm). B. Chlorinated Polyvinyl Chloride (CPVC) Pipe —Nom 10 in. (254 mm) diameter (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems. For systems with a W Rating, the nom diameter of pipe shall not exceed 6 in. (152 mm).

C. Acrylonitrile Butadiene Styrene (ABS) Pipe —Nom 6 in. (152 mm) diameter (or smaller) Schedule 40 solid-core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste D. Flame Retardant Polypropylene (FRPP) Pipe —Nom 6 in. (152 mm) diameter (or smaller) Schedule

40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping

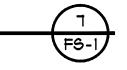


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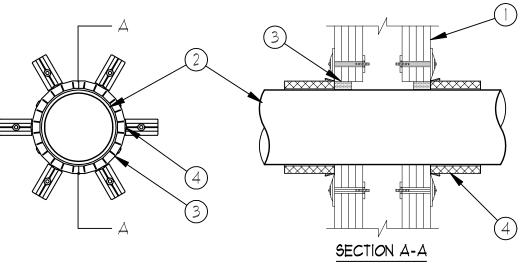
# FIRE STOP PENETRATION DETAIL

SCALE: NOT TO SCALE



# System No. W-L-2245

F Rating - 4 Hr T Rating - 2 and 4 Hr (See Item 2)



. Floor or Wall Assembly Min 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs Wall framing shall consist of steel channel studs. Steel studs to be min 3-1/2 in. wide and spaced max

B. Gypsum Board\* Four layers of nom 5/8 in. thick, gypsum board as specified in the individual wall and partition Design. Max diameter of opening is 7-3/8 in.

Through-Penetrants One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. The annular space between the pipe and the periphery of the opening shall be a min  $\emptyset$  in (point contact) to max. 3/4 in. for nom 6 in. diameter pipes and min 0 in (point contact) to max 1/2 in. for nom 4 in. diameter (or smaller) pipes. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic A. Polyvinyl Chloride (PVC) Pipe Nom 6 in diameter (or smaller) Schedule 40 solid or cellular PVC core pipe,

for use in closed (process or supply) or vented (drain, waste or vent) piping systems. B. Chlorinated Polyvinyl Chloride (CPVC) Pipe Nom 6 in. diameter (or smaller) SDR 13.5 CPVC pipe. For use in closed (process or supply) piping systems.

The T Rating is dependent upon the diameter of pipe used in the firestop system. For nom 4 in. diameter

(or smaller) pipes, the T Rating is 4 hr. For pipes greater than nom 4 in. diameter the T Rating is 2 hr.

. Firestop System he firestop system shall consist of the following: A. Fill, Void or Cavity Material - Sealant\* Min 1-1/2 in. thickness of fill material applied within annulus of aypsum board, flush with surface of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC FS-ONE Sealant

B. Firestop Device - Firestop Collar The firestop collar shall be installed in accordance with the accompanying installation instructions. The collar shall be installed and latched around the pipe and secured to the gypsum board with the anchor hooks provided with the collar. (Min 2 anchor hooks for 1-1/2 and 2 in. diameter pipes, 3 anchor hooks for 3 and 4 in. diameter pipes and 6 anchor hooks for 6 in. diameter pipes). The anchor hooks are to be secured to the wall with 1/4 in. by 3 in. toggle bolts along with min 3/4 in. diameter steel washers.

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI ING - CP 643 50/15", CP 643 63/2", CP 643 90/3", CP 643 110/4" or CP 642 160/6" Firestop Collar

FIRE STOP PENETRATION DETAIL

\*Bearing the UL Classification Mark



SCALE: NOT TO SCALE

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FIRE STOP PENETRATION DETAIL

System No. W-L-2098

F Ratings - 1 and 2 Hr (See Item 1)

T Ratings - 1 and 2 Hr (see Item 1

L Rating At Ambient - Less Than I CFM/Sq Ft

SECTION A-A

L Rating At 400 F - 4 CFM/Sq Ft

Wall Assembly -- The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the

consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and

2. Through Penetrants --One nonmetallic pipe installed within the firestop system. Pipe to be rigidly

be min 3/4 in. to max 1-1/4 in. Pipe to be rigidly supported on both sides of the floor or wall

the UL Fire Resistance Directory and shall include the following construction features:

individual Wall and Partition Design. Max diameter of opening is 4-3/8 in.

assembly. The following types and sizes of nonmetallic pipes may be used:

closed (process or supply) piping system.

pipes and gypsum wallboard on both sides of wall.

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SCALE: NOT TO SCALE

\*Bearing the UL Classification Mark

HILTI INC-- FS-One Sealant

for use in closed (process or supply) piping systems.

spaced max 24 in, OC.

which it is installed.

materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in

A. Stude -- Wall framing may consist of either wood stude or steel channel stude. Wood stude to

B. Gypsum Board\* -- 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard

type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the

The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in

supported on both sides of floor or wall assembly. The space between pipe and periphery of opening shall

A. Polyvinyl Chloride (PVC) Pipe -- Nom 2 in. diameter (or smaller) Schedule 40 PVC pipe for use in

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe -- Nom 2 in. diameter (or smaller) SDRIT CPVC pipe

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System No. W-L-4007

F Rating - 2 Hr

T Rating - 2 Hr

L Rating At Ambient - 17 CFM/Sq Ft

L Rating At 400 F - 7 CFM/Sq Ft

1. Wall Assembly -- The fire-rated gypsum wallboard/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 Series Wall and Partition Design in

A. Steel Studs -- Steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC. The opening in the

wall to accommodate the cable tray (Item 2) shall be framed on all sides. The stude on each side of

the opening and the stud sections used for the header and sill of the opening shall be doubled such

that the flanged steel casing of the fill material kit (Item 5A) may be secured to the steel framing members, through the gypsum wallboard layers, on all sides. The framed opening in the wall shall be min 1

in. to max 4 in. wider and higher than the width and height of the cable tray such that, when the cable tray is centered in the opening, a 1/2 to 2 in. clearance is present between the cable tray and the

B. Gypsum Board\* -- Two layers of nom 5/8 in. thick gypsum wallboard, as specified in the individual

thick (No. 12 gauge) galv steel or min 0.125 in. thick aluminum and with rungs spaced 9 in. OC. Max one

based on a max 3 in. cable loading depth within the tray. Any combination of the following types and

A. Max 300 kcmil single-conductor power cable± cross-linked polyethylene insulation.

B. Max 12 AllG multiconductor power and control cables± cross-linked polyethylene insulation, polyviny

Cables to be installed min 1/2 in. apart in layers with a layer of intumescent sponge sheet (Item 5A) between layers of cable. When diameter of cables is larger than 9/16 in., narrow strips of intumescent

4. Mineral-Wool Batt Insulation -- Min 4 pcf mineral wool batts tightly-packed into through opening to

5. Firestop System -- Firestop system consists of a fill material kit (Item 5A) in conjunction with caulk fil

A. Fill, Void or Cavity Materials\* -- Fill Material Kit -- Fill material kit consists of a nom 10 in. high by 10

in. deep modular steel casing with elastomeric gasket strips, elastomeric liner blocks and intumescent

cable tray. The fill material kit is to be installed in accordance with the accompanying instructions. The

fasteners used to secure the steel casing to the wall surface shall be nom 1/4 in. diameter by min 2-1/4

sponge filler sheets. The width of the steel casing shall be 6 to 8 in. greater than the width of the

in, long steel screws in conjunction with steel washers. All voids within the lined steel casing to be

tightly-filled with intumescent sponge sheets. The intumescent sponge sheets shall also be installed between the cable tray rungs and the cables as well as between layers of cables in the cable tray. BEELE ENGINEERING B  $\vee$  -- Type F6P

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January 09, 2003

2. Cable Tray -- Max 24 in. wide by max 6 in. deep open ladder cable tray formed of min 0.093 in

3. Cables -- Aggregate cross-sectional area of cables in cable tray not to exceed 40 percent

cable tray per opening. Cable tray to be rigidly supported on both sides of wall assembly.

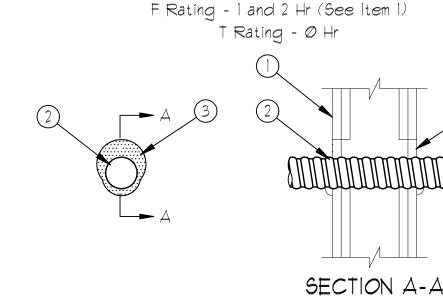
sponge to be installed between individual cables in each layer of cables.

the UL Fire Resistance Directory and shall include the following construction features:

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FIRE STOP PENETRATION DETAIL

3. Fill, Void or Cavity Materials\* -- Sealant -- Installed to completely fill the annular space between the



Wall Assembly The 1 or 2 Hr. fire-rate gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Design

System No. W-L-1243

in the Fire Resistance Directory and shall include the following construction features: A. StudsWall framing shall consist of either wood studs or channel shaped steel studs. Wood studs to consist of 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide, fabricated from min 25 MSG galvanized steel, spaced max 24 in. OC.

B. Gypsum Board\* 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum board type, number of layers and sheet orientation shall be as specified in the individual U300 or U400 Series Designs in the UL Fire Resistance Directory. Max diameter of opening is 3-1/2 in.

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it

Through-Penetrant-Flexible Metal Conduit+Nom. 2 in. diameter (or smaller) aluminum or steel flexible conduit installed either concentrically or eccentrically within the firestop system. The annular space between conduit and periphery of opening shall be min 0 in. (point contact) to max 1 in. Conduit to be rigidly supported on both sides of wall

See Flexible Metal Conduit (DXUZ) category in the Electrical Construction Materials Directory for names of

Fill, Yoid or Cavity Material\*- Sealant Min 5/8 in. thickness of fill material applied with annulus, flush with both surfaces of the wall. At point contact location between conduit and gypsum board, a min 1/2 in. bead of fill material shall be applied at the conduit/qupsum board interface on both sides of wall.

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HILTI INC FS-ONE Sealant

+Bearing the UL Listing Mark

Bearing the UL Classification Mark



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November 13, 2001

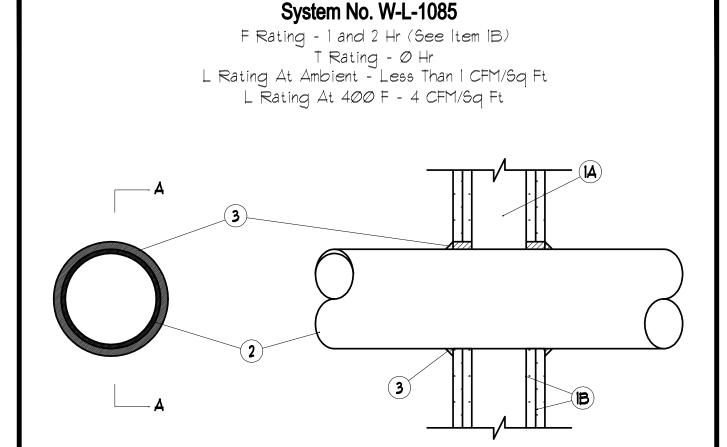


# FIRE STOP PENETRATION DETAIL

SCALE: NOT TO SCALE



SECTION A-A



1. Wall Assembly The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition

Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist

of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

3. Gypsum Board\* 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diameter of opening is 13-1/4 in. Diameter of circular opening cut through gypsum wallboard on each side of wall assembly to be min 1/4 in. to max 1/2 in. larger than outside diameter of through penetrant (Item 2). The hourly F Rating of the

Through penentrants one metallic pipe, conduit, or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit, or tubing to be rigidly supported on both sides of wall assembly. The annular space between the through-penetrant and the periphery of the opening shall be minimum 0" to maximum 1/4 inches. The following types and sizes of metallic pipes, conduits, or tubing may be used:

firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

A. Steel pipe, nominal 12" diameter (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron pipe, nominal 12" diameter (or smaller) cast or ductile iron pipe. C. Conduit nominal 6" diameter (or smaller) steel electrical metallic tubing or steel conduit.

D. Copper tubing nominal 6" diameter (or smaller) Style L (or heavier) copper tubing.

E. Copper pipe nominal 6" diameter (or smaller) Regular (or heavier) copper pipe. Fill, Void, or Cavity Material\* -- Sealant Fill material to be forced into the annulus to maximum extent possible. Additional fill material to be installed such that a minimum 1/2" crown is formed

around the penetrating item and lapping 1/4 inch beyond the periphery of the opening. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. -- FS-One Sealant

Bearing the UL Classification Marking.

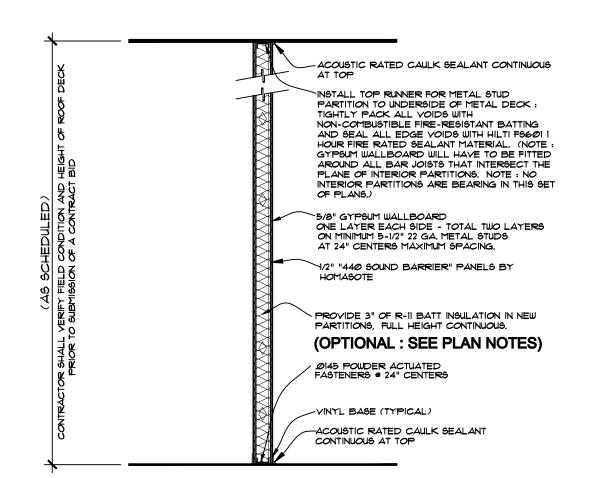
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FIRE STOP PENETRATION DETAIL



ACOUSTIC RATED CAULK SEALANT CONTINUOUS NINSTALL TOP RUNNER FOR METAL STUD PARTITION TO UNDERSIDE OF METAL DECK: TIGHTLY PACK ALL VOIDS WITH NON-COMBUSTIBLE FIRE-RESISTANT BATTING AND SEAL ALL EDGE VOIDS WITH HILTI FS601 I HOUR FIRE RATED SEALANT MATERIAL. (NOTE GYPSUM WALLBOARD WILL HAVE TO BE FITTED AROUND ALL BAR JOISTS THAT INTERSECT THE PLANE OF INTERIOR PARTITIONS. NOTE: NO INTERIOR PARTITIONS ARE BEARING IN THIS SET - 5/8" GYPSUM WALLBOARD TWO LAYERS EACH SIDE - TOTAL FOUR LAYERS ON MINIMUM 5-1/2" 22 GA. METAL STUDS AT 24" CENTERS MAXIMUM SPACING. PROVIDE 3" OF R-11 BATT INSULATION IN NEW PARTITIONS, FULL HEIGHT CONTINUOUS. (OPTIONAL: SEE PLAN NOTES) 1/2" "440 SOUND BARRIER" PANELS BY Ø145 POWDER ACTUATED FASTENERS @ 24" CENTER: /INYL BASE (TYPICAL) -ACOUSTIC RATED CAULK SEALANT CONTINUOUS AT TOP

NON-BEARING, TWO HOUR FIRE-RATED



NON-BEARING. ONE HOUR FIRE-RATED

# PRESCRIPTIVES FOR UL DESIGN NO. U419

FLOOR AND CEILING RUNNERS -- CHANNEL SHAPED, FABRICATED FROM MINIMUM 25 MSG CORROSION-PROTECTED STEEL, MINIMUM DEPTH TO ACCOMMODATE STUD SIZE, WITH MINIMUM 1-1/4 INCH LONG LEGS, ATTACHED TO FLOOR AND CEILING WITH FASTENERS 24 INCH ON CENTER MAXIMUM.

STEEL STUDS -- CHANNEL SHAPED, FABRICATED FROM MINIMUM 25 MSG CORROSION-PROTECTED STEEL, SPACED A MAXIMUM OF 24 INCHES ON CENTER STUDS TO BE CUT 3/8 TO 3/4 INCH LESS THAN ASSEMBLY HEIGHT.

BATTS AND BLANKETS\* -- (OPTIONAL) -- MINERAL WOOL BATTS, FRICTION FITTED BETWEEN STUDS AND RUNNERS.

GYPSUM BOARD :-- GYPSUM PANELS WITH BEVELED, SQUARE OR TAPERED EDGES, APPLIED VERTICALLY OR HORIZONTALLY. VERTICAL JOINTS CENTERED OVER STUDS AND STAGGERED ONE STUD CAVITY ON OPPOSITE SIDES OF STUDS, VERTICAL JOINTS IN ADJACENT LAYERS (MULTILAYER SYSTEMS) STAGGERED ONE STUD CAVITY. HORIZONTAL JOINTS NEED NOT BE BACKED BY STEEL FRAMING. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS ON OPPOSITE SIDES OF STUDS NEED NOT BE STAGGERED. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS IN ADJACENT LAYERS (MULTILAYER SYSTEMS) STAGGERED A MINIMUM OF 12 INCHES.

FASTENERS -- TYPE 5 OR 5-12 STEEL SCREWS USED TO ATTACH PANELS TO STUDS OR FURRING CHANNELS. SINGLE LAYER SYSTEMS: 1 INCH LONG FOR 1/2 AND 5/8 INCH THICK PANELS OR 1-1/4 INCHES LONG FOR 3/4 INCH THICK PANELS, SPACED 8 INCHES ON CENTER WHEN PANELS ARE APPLIED HORIZONTALLY, OR 8 INCHES ON CENTER ALONG VERTICAL AND BOTTOM EDGES AND 12 INCHES ON CENTER IN THE FIELD WHEN PANELS ARE APPLIED VERTICALLY. TWO LAYER SYSTEMS: FIRST LAYER- 1 INCH LONG FOR 1/2 AND 5/8 INCH THICK PANELS OR 1-1/4 INCH LONG FOR 3/4 INCH THICK PANELS, SPACED 16 INCHES ON CENTER. SECOND LAYER- 1-5/8 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS OR 2-1/4 INCH LONG FOR 3/4 INCH THICK PANELS, SPACED 16 INCHES ON CENTER WITH SCREWS OFFSET 8 INCHES FROM FIRST LAYER. THREE-LAYER SYSTEMS FIRST LAYER- 1 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. SECOND LAYER- 1-5/8 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. THIRD LAYER- 2-1/4 INCHES LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS OR 2-5/8 INCHES LONG FOR 5/8 INCH THICK PANELS, SPACED 12 INCHES ON CENTER. SCREWS OFFSET MINIMUM 6 INCHES FROM LAYER BELOW. FOUR-LAYER SYSTEMS: FIRST LAYER- 1 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. SECOND LAYER- 1-5/8 INCH LONG FOR 1/2 INCH, 5/8 INCH THICK PANELS, SPACED 24 INCHES ON CENTER. THIRD LAYER- 2-1/4 INCHES LONG FOR 1/2 INCH THICK PANELS OR 2-5/8 INCHES LONG FOR 5/8 INCH. THICK PANELS, SPACED 24 INCHES ON CENTER, FOURTH LAYER- 2-5/8 INCHES LONG FOR 1/2 INCH THICK PANELS OR 3 INCHES LONG FOR 5/8 INCH THICK PANELS, SPACED 12 INCHES ON CENTER. SCREWS OFFSET MINIMUM 6 INCHES FROM LAYER BELOW.

FURRING CHANNELS -- (OPTIONAL FOR SINGLE OR DOUBLE LAYER SYSTEMS) --RESILIENT FURRING CHANNELS FABRICATED FROM MINIMUM 25 MSG CORROSION-PROTECTED STEEL, SPACED VERTICALLY A MAXIMUM OF 24 INCHES ON CENTER. FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 INCH LONG TYPE S-12 STEEL SCREWS.

JOINT TAPE AND COMPOUND -- VINYL OR CASEIN, DRY OR PREMIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS OF OUTER LAYERS. PAPER TAPE, NOMINAL 2 INCHES WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS OF OUTER LAYER PANELS. PAPER TAPE AND JOINT COMPOUND MAY BE OMITTED WHEN GYPSUM PANELS ARE SUPPLIED WITH A SQUARE EDGE.

SIDING, BRICK OR STUCCO -- (OPTIONAL) -- ALUMINUM, VINYL OR STEEL SIDING, BRICK VENEER OR STUCCO, MEETING THE REQUIREMENTS OF LOCAL CODE AGENCIES, INSTALLED OVER GYPSUM PANELS. BRICK VENEER ATTACHED TO STUDS WITH CORRUGATED METAL WALL TIES ATTACHED TO EACH STUD WITH STEEL SCREWS, NOT MORE THAN EACH SIXTH COURSE OF BRICK CAULKING AND SEALANTS: -- (OPTIONAL) -- A BEAD OF ACOUSTICAL SEALANT APPLIED

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FIRE RATED PARTITION

AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.

<u></u>
5 Project Number 160412

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Revisions:

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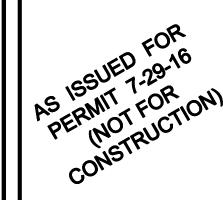
Project Name NEW RETAIL

BUILDING

STEPHEN BRASGALLA, ARCHITECT STATE OF FLORIDA REGISTRATION NO. AR12239

6991 West Broward Boulevard Suite 100 PLANTATION, FLORIDA 33317 TELEPHONE 954.614.3801

TELEFAX 954.208.0600 ARCHITECT • DESIGN23.NET



Checked By: RSS STB SHOWN 7-29-16

Project Number 60412

SCALE: NOT TO SCALE

framing on all four sides.

Wall and Partition Design.

chloride jacket

sizes of copper conductor cables may be used:

completely fill framed opening in wall assembly.

FS-1

FS-1

SCALE: NOT TO SCALE

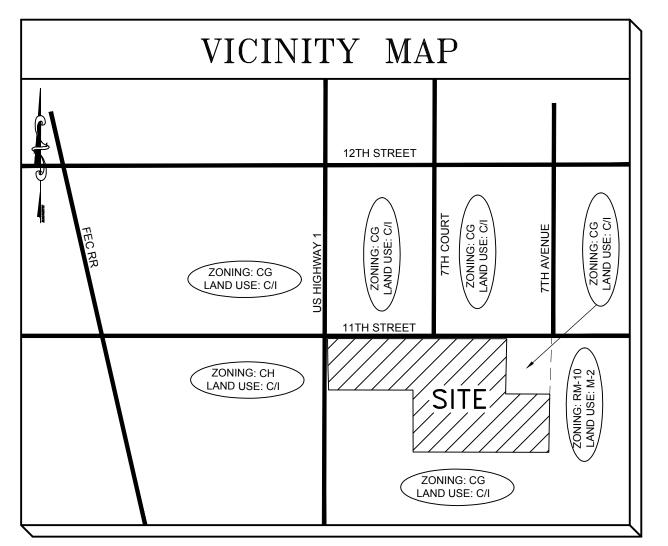
June 22, 1998

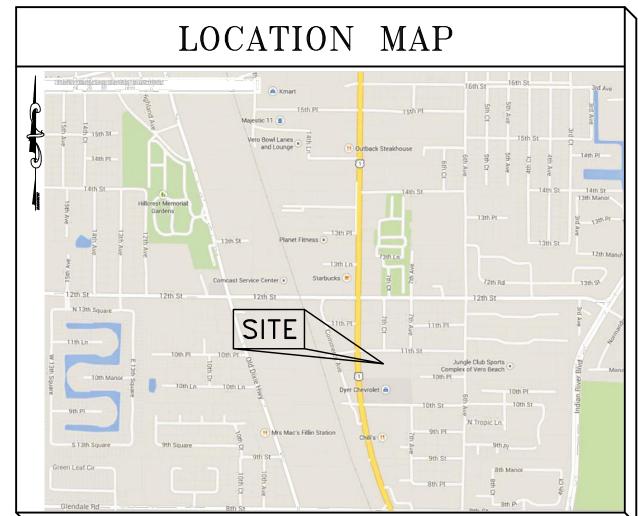
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FS-1/

# CONSTRUCTION PLANS FOR SHOPPES AT 11TH

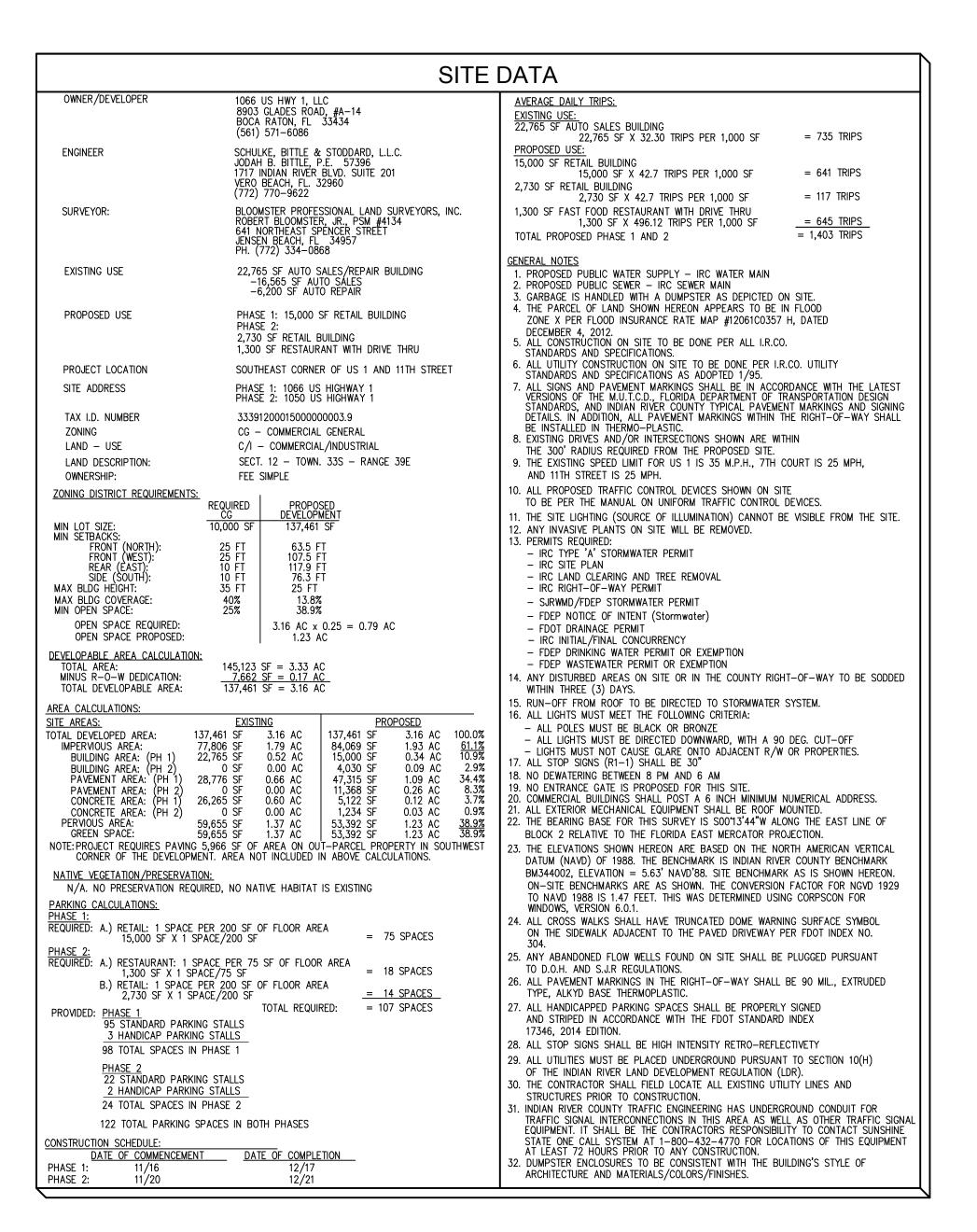
SECTION 12, TOWNSHIP 33 S, RANGE 39 E VERO BEACH, FLORIDA





### LEGAL DESCRIPTION THE WEST ONE-HALF (1/2) OF LOT 3, OF VERO LAND COMPANY SUBDIVISION, ACCORDING TO THE PLAT THEREOF, RECORDED IN PLAT BOOK 3, PAGE 19, PUBLIC RECORDS OF ST LUCIE COUNTY, FLORIDA. SAID LAND NOW LYING AND BEING IN INDIAN RIVER COUNTY, FLORIDA. LESS AND EXCEPT THE FOLLOWING DESCRIBED PART OF THE WEST ONE-HALF (1/2) OF SAID LOT 3 TO WIT: FROM THE NORTHEAST CORNER OF THE NE1/4 OF THE SW1/4 OF THE SE1/4 OF SECTION 12, TOWNSHIP 33 SOUTH, RANGE 39 EAST; RUN WEST A DISTANCE OF 663.80 FEET TO A POINT BEING IN THE CENTERLINE OF 10th STREET: THENCE RUN A DEFLECTION ANGLE TO THE RIGHT 90 DEGREES 10' A DISTANCE OF 494 93 FEET TO THE POINT OF BEGINNING THENCE. RUN A DEFLECTION ANGLE TO THE LEFT OF 90 DEGREES 13' RUN A DISTANCE OF 124.00 FEET: THENCE ON A DEFLECTION ANGLE TO THE RIGHT OF WAY 90 DEGREES 13' RUN A DISTANCE OF 155.41 FEET TO A POINT BEING 12 FEET SOUTH OF THE NORTH LINE OF LOT 3 OF THE VERO LAND COMPANY SUBDIVISION; THENCE RUN EASTERLY PARALLEL TO THE NORTH LINE OF SAID LOT 3 A DISTANCE OF 123.85 FEET TO A POINT; THENCE RUN SOUTH 155.68 FEET TO THE POINT OF BEGINNING, LESS AND EXCEPT THE LESS THE FOLLOWING DESCRIBED PROPERTY AS RECORDED IN OFFICIAL RECORDS BOOK 2890, PAGE 545, INDIAN RIVER COUNTY PUBLIC RECORDS. ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN SECTION 12, TOWNSHIP 33 SOUTH, RANGE 39 EAST, INDIAN RIVER COUNTY, FLORIDA, BEING MORE PARTICULARLY COMMENCING AT A NAIL & DISC FOUND (LB 7056) AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY OF 11TH STREET (47' APPARENT R/W) AND THE EASTERLY RIGHT OF WAY OF U.S. HIGHWAY 1 (A.K.A. STATE ROAD NO. 5. 80' R/W). THENCE ALONG SAID RIGHT OF WAY OF U.S. HIGHWAY 1. ALONG A CURVE TO THE LEFT AN ARC LENGTH OF 144.24 FEET, SAID CURVE HAVING A RADIUS OF 4871.15 FEET TO THE POINT OF BEGINNING: THENCE LEAVING SAID RIGHT OF WAY S.89°48'58" EAST, A DISTANCE OF 236.60 FEET TO A POINT: THENCE SOUTH 00°05'01" EAST, A DISTANCE OF 173.82 FEET TO A POINT: THENCE NORTH 89°51'48" WEST, A DISTANCE OF 227.08 FEET TO A 5/8 INCH REBAR AND CAP FOUND (LB 4659) ON THE AFORESAID EASTERLY RIGHT OF WAY OF U.S. HIGHWAY 1; THENCE ALONG SAID RIGHT OF WAY, ALONG A CURVE HAVING A RADIUS OF 4871.15 FEET AND BEING SUBTENDED BY A CHORD BEARING NORTH 03°12'55" WEST. A DISTANCE OF 174.31 FEET TO THE POINT OF BEGINNING

	DRAWING INDEX
SHEET	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS/DEMOLITION PLAN AND POLLUTION PREVENTION PLAN
3	POLLUTION PREVENTION DETAILS
4	SOIL BORINGS
5A & 5B	SITE PLAN - (PHASE 1 AND 2)
6A & 6B	PAVING, GRADING, DRAINAGE AND UTILITY PLAN - (PHASE 1 AND 2)
7A & 7B	LANDSCAPE PLAN - (PHASE 1 & 2)
8A & 8B	IRRIGATION PLAN - (PHASE 1 & 2)
9	CROSS SECTIONS & UTILITY PROFILES
10 - 12	MISCELLANEOUS DETAILS
13	AERIAL
14	SURVEY

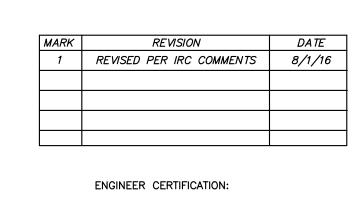


# SCHULKE, BITTLE & STODDARD, L.L.C.

CIVIL & STRUCTURAL ENGINEERING • LAND PLANNING • ENVIRONMENTAL PERMITTING

CERTIFICATION OF AUTHORIZATION NO.: 00008668

1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960 TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbsengineers.com



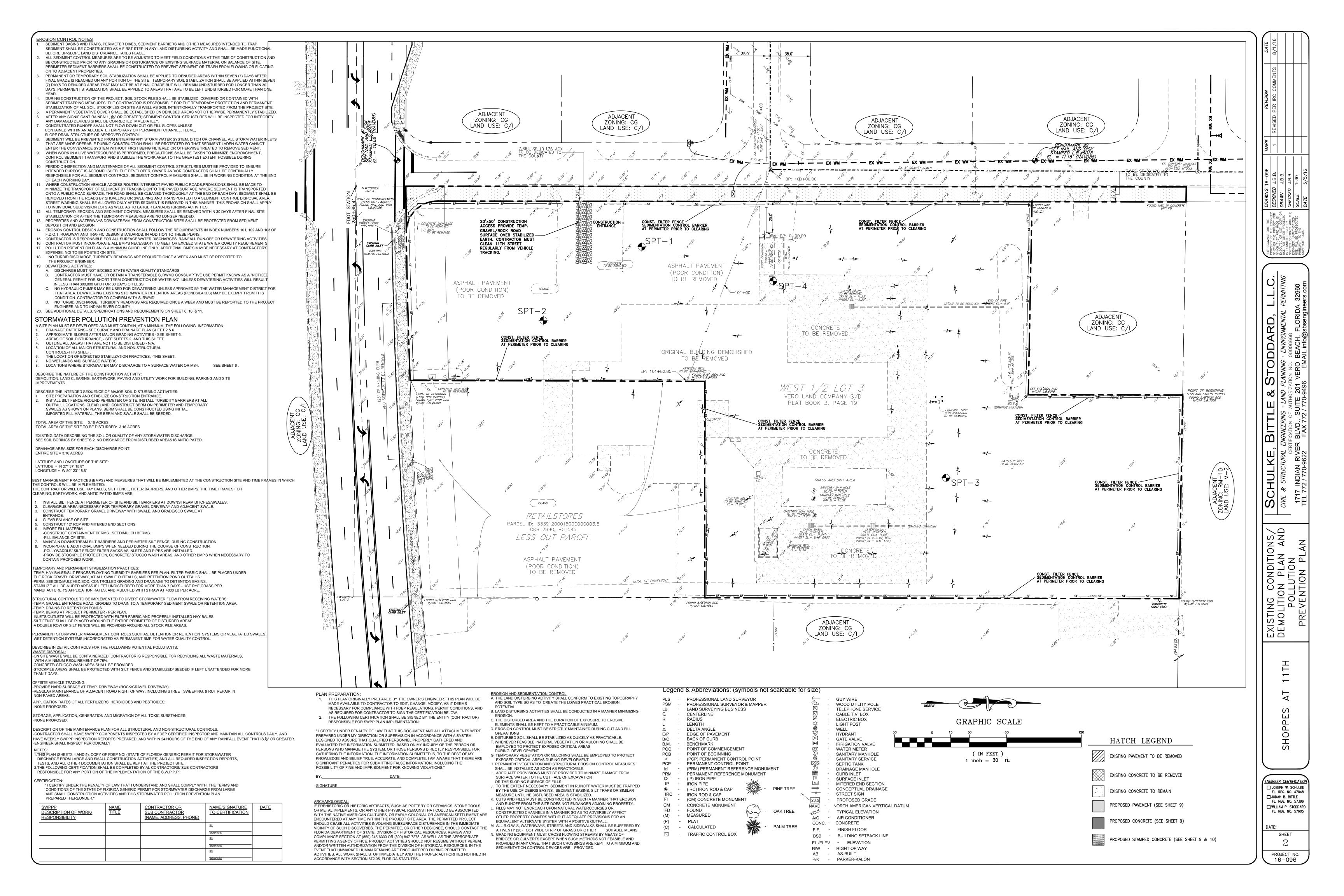
DATE:

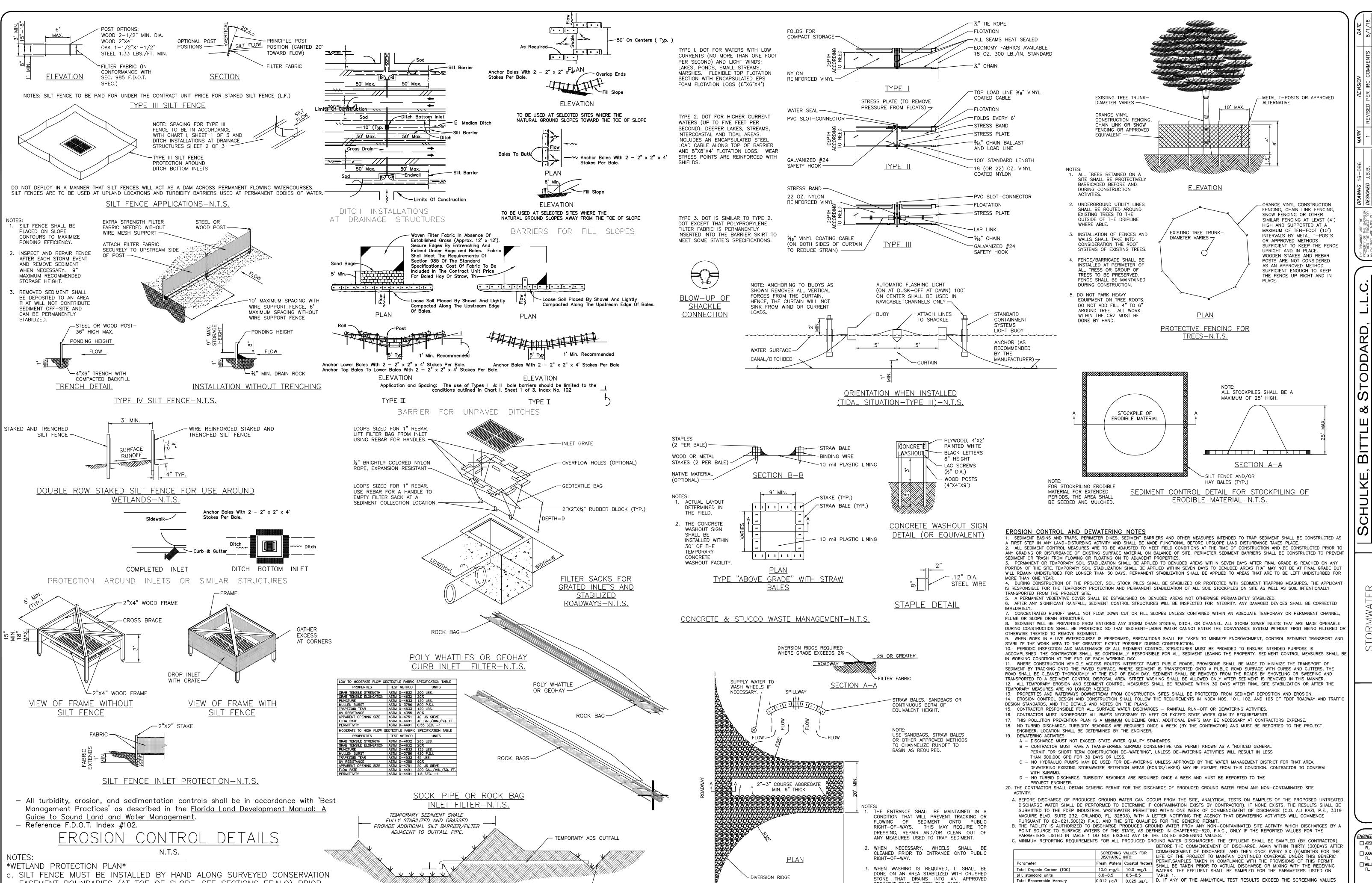
DATE:

JOSEPH W. SCHULKE, P.E. REG. No 47048

JODAH B. BITTLE, P.E. REG. No 57396

WILLIAM P. STODDARD, Ph.D., P.E. REG. No 57605





- RECEIVING OUTFALL SWALE OR

PROPERTY LIMITS. CONTRACTOR

DITCH. STABILIZE/GRASS OR

TO TEST TURBIDITY LEVELS

REVEGETATE. PROVIDE SILT

BARRIER AT DOWNSTREAM

WEEKLY.

- 90° FITTING (SKIMMING MECHANISM)

TEMPORARY ADS OUTFALL

EASEMENT BOUNDARIES (AT TOE OF SLOPE-SEE SECTIONS EE,N,O) PRIOR

c. ALL STOCKPILE AND/OR CONSTRUCTION STAGING AREAS MUST BE LOCATED

b. NO TURBID DISCHARGE TO WETLANDS IS PERMITTED.

TO CONSTRUCTION.

100 FT. FROM WETLANDS.

STONE THAT DRAINS INTO AN APPROVED

SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION

<u>ENTRANCE/EXIT-N.T.S</u>

Total Recoverable Mercury

Total Recoverable Cadmium

Total Recoverable Copper

Total Recoverable Chromium (Hex.)

Total Recoverable Lead

Total Recoverable Zinc

Benzene

0.012 µg/L | 0.025 µg/L

9.3 µg/L

2.9 µg/L

86.0 µg/L

1.0 µg/L

9.3 µg/L

2.9 µg/L

LISTED IN TABLE 1, EXCEPT TOC, THE DISCHARGE IS NOT AUTHORIZED BY THIS

COMPOUNDS, THE RESULT AND EXPLANATION FOR THE HIGH READING MUST BE

PERMIT. IF T.O.C. IS EXCEEDED BECAUSE OF NATURALLY OCCURRING ORGANIC

E. IF ANY SCREENING VALUES (OTHER THAN TOC) EXCEED THE THRESHOLDS,

THEN A GENERIC PERMIT CANNOT BE ISSUED, AND A SEPARATE INDIVIDUAL

WASTERWATER PERMIT APPLICATION MUST BE SUBMITTED AT LEAST 90 DAYS

PRIOR TO DATE OF DISCHARGE. THE ENGINEER OF RECORD MUST BE NOTIFIED

SUBMITTED TO THE FDEP FOR REVIEW AND ISSUANCE OF AN EXEMPTION.

ENGINEER CERTIFICATION ☐ JOSEPH W. SCHULKE FL. REG. NO. 47048 ☐ JODAH B. BITTLE FL. REG. NO. 57396 ■ WILLIAM P. STODDARD FL. REG. NO. 57605

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S S

PROJECT NO. 16-096

Report of Geotechnical Exploration **Proposed Commercial Site** 1066 US Hwy 1

Vero Beach, Indian River County, Florida

May 7, 2015 GFA Project No.: 15-0422.00



activities. The classifications and descriptions shown on the logs are generally based upon

visual characterizations of the recovered soil samples. All soil samples reviewed have been

nodified as necessary to describe typical Florida conditions. See Appendix E: "Discussion of

The subsurface soil conditions encountered at this site generally consist of medium dense sand

(SP) with occasional loose layers to a depth of 8 feet, and then medium dense to very

dense/hard sand (SP) to the boring and probe termination depths. Very dark brown organically

stained sand with little/some silt (SP-SM,SM) layers ranging from 1 to 2 feet thick was

occasionally encountered with the top as shallow as 2 feet and the bottom as deep as 6 feet

below ground surface was encountered. Please refer to Appendix D - Record of Test Borings for

On the dates of our field exploration, the groundwater table was encountered at depths ranging

from approximately 5 to 6 feet below the existing ground surface. The groundwater table will

Brief ponding of stormwater may occur across the site after heavy rains.

necessary, please contact our office for additional guidance.

failures in structural design and are usually sudden and catastrophic.

and is limited by the structural flexibility.

than 1/2 inch differential.

luctuate seasonally depending upon local rainfall and other site specific and/or local influences.

No additional investigation was included in our scope of work in relation to the wet seasonal

high groundwater table or any existing well fields in the vicinity. Well fields may influence water table levels and cause significant fluctuations. If a more comprehensive water table analysis is

A foundation system for any structure must be designed to resist bearing capacity failures, have

settlements that are tolerable, and resist the environmental forces that the foundation may be

subjected to over the life of the structure. The soil bearing capacity is the soil's ability to support

oads without plunging into the soil profile. Bearing capacity failures are analogous to shear

The amount of settlement that a structure may tolerate is dependent on several factors

including: uniformity of settlement, time rate of settlement, structural dimensions and properties

of the materials. Generally, total or uniform settlement does not damage a structure but may

affect drainage and utility connections. These can generally tolerate movements of several

inches for building construction. In contrast, differential settlement affects a structure's frame

The subsurface soil conditions at the project site are generally favorable for the support of the

proposed structure on shallow foundations. An allowable bearing capacity of 2,500 psf may be

used for foundation design. Expected settlement of the structure is 1 inch or less total and less

depicted and classified in general accordance with the Unified Soil Classification System

Proposed Commercial Site

GFA Project No. 15-0422.00

1066 US Hwy 1, Vero Beach, Florida

Soil Groups", for a detailed description of various soil groups.

a detailed account of each boring and sounding.

2.5 Hydrogeological Conditions

3.1 General

May 7, 2015 Roberts Equities, LLC Attention: Rick Bittner 8903 Glades Road, #A-14

Boca Raton, Florida 33434 Site: Proposed Commercial Site 1066 US Hwv 1 Vero Beach, Indian River County, Florida GFA Project # 15-0422.00

Dear Mr. Bittner:

GFA International, Inc. (GFA) has completed the subsurface exploration and geotechnical engineering evaluation for the above-referenced project in accordance with the geotechnical and engineering service agreement for this project. The scope of services was completed in accordance with our Geotechnical Engineering Proposal (15-0422.00) dated April 24, 2015, planned in conjunction with and authorized by you.

EXECUTIVE SUMMARY

The purpose of our subsurface exploration was to classify the nature of the subsurface soils and general geomorphic conditions and evaluate their impact upon the proposed construction. This report contains the results of our subsurface exploration at the site and our engineering interpretations of these, with respect to the project characteristics described to us including providing recommendations for site preparation and the design of the foundation system.

Based on a site plan prepared by Thomas Engineering Group dated 12/10/2014 (reproduced in Appendix B - Test Location Plan) and conversations with the client, the project consists of demolishing and removing an existing structure and then constructing two one-story commercial structures. There will be a stormwater retention area at the southeast area of the property. We have not received any information regarding structural loads. For the foundation nmendations presented in this report we assumed the maximum column load will be 70 kips and the maximum wall loading will be 4 kips per linear foot. GFA estimates the site is at or near final grade.

The recommendations provided herein are based upon the above considerations. If the project description has been revised, please inform GFA International so that we may review our recommendations with respect to any modifications

A total of four (4) standard penetration test (SPT) borings to depths of approximately fifteen (15) feet below ground surface (BGS) were completed for this study.

521 NW Enterprise Drive • Port St. Lucie, Florida 34986 • (772) 924-3575 • (772) 924-3580 (fax) • www.teamgfa.com

Proposed Commercial Site 066 US Hwy 1, Vero Beach, Florida

GFA Project No. 15-0422.00 The subsurface soil conditions encountered at this site generally consist of medium dense sand (SP) with occasional loose layers to a depth of 8 feet, and then medium dense to very dense/hard sand (SP) to the boring and probe termination depths. Very dark brown organical stained sand with little/some silt (SP-SM,SM) layers ranging from 1 to 2 feet thick was occasionally encountered with the top as shallow as 2 feet and the bottom as deep as 6 feet below ground surface was encountered. Please refer to Appendix D - Record of Test Borings for a detailed account of each boring and sounding.

The subsurface soil conditions at the project site are generally favorable for the support of the proposed structures on shallow foundations. An allowable bearing capacity of 2,500 psf may be used for foundation design.

The subgrade soils should be improved with compaction from the stripped grade prior to constructing the foundation pads. The top 2 feet below stripped grade should be compacted to a minimum of 95% density prior to placing fill to achieve final grade. Fill (including stemwall backfill) should be placed in 12-inch lifts and compacted to achieve a minimum 95% density... After excavation for footings, the subgrade to a depth of 2 feet below bottom of footings should be compacted to achieve a minimum 95% density.

We appreciate the opportunity to be of service to you on this project and look forward to a continued association. Please do not hesitate to contact us if you have any questions or



Copies: 2, Addresses

Proposed Commercial Site 1066 US Hwy 1, Vero Beach, Florida GFA Project No. 15-0422.00 TABLE OF CONTENTS 1.0 INTRODUCTION .. 1.2 Project Description 2.0 OBSERVATIONS 2.1 Site Inspection . 2.2 Field Exploration .. .3 Laboratory Analysis 2.4 Geomorphic Conditions 2.5 Hydrogeological Conditions... 3.0 ENGINEERING EVALUATION AND RECOMMENDATIONS ... 3.1 General ....... 3.2 Site Preparation. 3.3 Design of Footings 3.4 Ground Floor Slabs 4.0 REPORT LIMITATIONS.... 5.0 BASIS FOR RECOMMENDATIONS...

Appendix A - Vicinity Map Appendix B - Test Location Plan Appendix C - Notes Related to Borings Appendix D - Record of Test Borings Appendix E - Discussion of Soil Groups

Proposed Commercial Site

GFA Project No. 15-0422.00

1066 US Hwy 1, Vero Beach, Florida

Proposed Commercial Site 1066 US Hwy 1, Vero Beach, Florida GFA Project No. 15-0422.00 Page 4 of 9

1.0 INTRODUCTION

The objective of our geotechnical services was to collect subsurface data for the subject project, summarize the test results, and discuss any apparent site conditions that may have geotechnical significance for building construction. The following scope of services is provided within this report:

1. Prepare records of the soil boring logs depicting the subsurface soil conditions encountered during our field exploration.

2. Conduct a review of each soil sample obtained during our field exploration for classification and additional testing if necessary.

3. Analyze the existing soil conditions found during our exploration with respect to foundation support for the proposed structure. 4. Provide recommendations with respect to foundation support of the structure, including

allowable soil-bearing capacity, bearing elevations, and foundation design parameters. 5. Provide criteria and site preparation procedures to prepare the site for the proposed

construction. 1.2 Project Description

1.1 Scope of Services

Based on a site plan prepared by Thomas Engineering Group dated 12/10/2014 (reproduced in Appendix B - Test Location Plan) and conversations with the client, the project consists of demolishing and removing an existing structure and then constructing two one-story commercial structures. There will be a stormwater retention area at the southeast area of the property. We have not received any information regarding structural loads. For the foundation recommendations presented in this report we assumed the maximum column load will be 70 kips and the maximum wall loading will be 4 kips per linear foot. GFA estimates the site is at or

The recommendations provided herein are based upon the above considerations. If the project description has been revised, please inform GFA International so that we may review our recommendations with respect to any modifications.

2.0 OBSERVATIONS

2.1 Site Inspection

near final grade.

The project site was generally flat and paved except for the ease side which was grassy with trees. The grade at the site was estimated to be 1 foot above the adjacent road at the time of drilling. A one-story structure occupied the site. Structures were adjacent to the property.

GFA INTERNATIONAL

Proposed Commercial Site

2.2 Field Exploration

GFA Project No. 15-0422.00

2.3 Laboratory Analysis

additional fee, if required.

2.4 Geomorphic Conditions

1066 US Hwy 1, Vero Beach, Florida

A total of four (4) standard penetration test (SPT) borings to depths of approximately fifteen (15)

feet below ground surface (BGS) were completed for this study. The locations of the borings

performed are illustrated in Appendix B: "Test Location Plan". The Standard Penetration Tes

SPT) method was used as the investigative tools within the borings. SPT tests were performed

in substantial accordance with ASTM Procedure D-1586, "Penetration Test and Split-Barrel

Sampling of Soils". The SPT test procedure consists of driving a 1.4-inch I.D. split-tube sampler

nto the soil profile using a 140-pound hammer falling 30 inches. The number of blows per foot,

The soil samples recovered from the soil borings were visually classified and their stratification

might vary between the strata interfaces, which are shown. The soil boring data reflect

nformation from a specific test location only. Site specific survey staking for the test locations

was not provided for our field exploration. The indicated depth and location of each test was

approximated based upon existing grade and estimated distances and relationships to obvious

Soil samples recovered from our field exploration were returned to our laboratory where they

were visually examined in general accordance with ASTM D-2488. Samples were evaluated to

thorough visual examination of the recovered site soils, no laboratory testing was deemed

necessary. Bag samples of the soil encountered during our field exploration will be held in our

laboratory for your inspection for 30 days and then discarded unless we are notified otherwise in

The recovered samples were not examined, either visually or analytically, for chemical

composition or environmental hazards. GFA would be pleased to perform these services for an

The geology of the site as mapped on the USDA Soil Survey website consists of Immokalee fine

sand (4) at the east side of the property, and Urban land (22) for the remainder of the property.

These are sandy soils and organic soils are not indicated. However, Urban land (22) is areas that have been covered (buildings, parking lots, etc.), the natural soil cannot be observed,

and the soils have been generally altered by grading, shaping, and covered with fill and

therefore the soils can be variable. It should be noted that the Soil Survey generally extends to a

maximum depth of 80 inches (approximately 6% feet) below ground surface and is not indicative

Boring logs derived from our field exploration are presented in Appendix D: "Record of Test

Borings". The boring logs depict the observed soils in graphic detail. The Standard Penetration Test borings indicate the penetration resistance, or N-values, during the drilling and sampling

obtain an accurate understanding of the soil properties and site geomorphic conditions. After a

landmarks. The boring depths were confined to the zone of soil likely to be stressed by the

is illustrated in Appendix D: "Record of Test Borings". It should be noted that soil conditions

for the second and third 6-inch increment, is an indication of soil strength.

proposed construction and knowledge of vicinity soils.

May 7, 2015

1066 US Hwy 1, Vero Beach, Florida

3.2 Site Preparation GFA recommends the following compaction requirements for this project:

....95% of a Modified Proctor Proof Roll... Building Pad Fill ...... ....95% of a Modified Procto ...95% of a Modified Proctor

The compaction percentages presented above are based upon the maximum dry density as determined by a "modified proctor" test (ASTM D-1557). All density tests should be performed to a depth of 2 feet below stripped surface and below bottom of footings. Al density tests should be performed using the nuclear method (ASTM D-2922), the sand cone method (ASTM D-1556), or Hand Cone Penetrometer (HCP) tests.

Our recommendations for preparation of the site for use of shallow foundation systems are presented below. This approach to improving and maintaining the site soils has been found to

be successful on projects with similar soil conditions. 1. Initial site preparation should consist of performing stripping (removing surface vegetation near surface roots, and other deleterious matter) and clearing operations. This should be done within, and to a distance of five (5) feet beyond, the perimeter of the proposed building ootprint (including exterior isolated columns). Foundations and any below grade remains of any structures that are within the footprint of the new construction should be removed, and utility lines should be removed or properly abandoned so as to not affect structures.

2. Following site stripping and prior the placement of any fill, areas of surficial sand (not a steel drum vibratory roller with sufficient static weight and vibratory impact energy to achieve the required compaction. Density tests should be performed on the proof rolled surface at a frequency of not less than one test per 2,500 square feet, or a minimum of three (3) tests, whichever is greater. Areas of exposed intact limestone shall be visually confirmed by the project geotechnical engineer prior to fill placement, in lieu of proof rolling.

3. Fill material may then be placed in the building pad as required. The fill material should be inorganic (classified as SP, SW, GP, GW, SP-SM, SW-SM, GW-GP, GP-GM) containing no more than 5 percent (by weight) organic materials. Fill materials with silt/clay-size soil fines in excess of 12% should not be used. Fill should be placed in lifts with a maximum lift thickness not exceeding 12-inches. Each lift should be compacted and tested prior to the placement of the next lift. Density tests should be performed within the fill at a frequency of not less than one test per 2,500 square feet per lift in the building areas, or a minimum of

4. For any footings bearing on a limestone formation, the bottom of all footing excavation shall be examined by the engineer / geologist or his representative to determine the condition of the limestone. The limestone shall be probed for voids and loose pockets of sand. Such areas shall be cleaned to depth of 3 times the greatest horizontal dimension and backfilled

1066 US Hwy 1, Vero Beach, Indian River County, FL

SPT - 4 N27.62126° W80.38832

USCS

SP Gray fine sand

SP Light brown fine sand

Brown fine sand and shell

SP Gray fine sand, trace shell

three (3) tests per lift, whichever is greater.

Roberts Equities, LLC

Elevation: Existing Grade

EST LOCATION:

Water Level: 53/4 feet after 0 hours

Proposed Commercial Site

with lean concrete.

1066 US Hwy 1, Vero Beach, Florida

Geotechnical Repor

5. For footings placed on structural fill or compacted native granular soils, the bottom of all footings shall be tested for compaction and examined by the engineer / geologist or his representative to determine if the soil is free of organic and/or deleterious material. Density ests should be performed at a frequency of not less than one (1) density test per each isolated column footing and one (1) test per each seventy five (75) lineal feet of wall footings. If compaction cannot be attained due to persistent wetness or the water table near ne bottom of the footing excavation, or due to silty/clayey soil 'pumping' during compaction GFA recommends undercutting below bottom of footing and replacement with No. 57 stone, or rock/sand fill for subgrade that cannot be compacted. The rock/sand fill should be ompacted and tamped into the excavation and inspected and verified by a representative from GFA, and tested with hand cone penetrometers, probe rods, or density tests

6. The contractor should take into account the final contours and grades as established by the plan when executing his backfilling and compaction operations. Using vibratory compaction equipment at this site may disturb adjacent structures. We recommend that you monitor nearby structures before and during proof-compaction operations. A representative of GFA International can monitor the vibration disturbance of adiacent

structures. A proposal for vibration monitoring during compaction operations can be supplied

3.3 Design of Footings

Footings may be designed using an allowable soil bearing pressure of 2,500 psf. Shallow foundations should be embedded a minimum of 12 inches below final grade. This embedment shall be measured from the lowest adjacent grade. Isolated column footings should be at least 24 inches in width and continuous strip footings should have a width of at least 18 inches

Once site preparation has been performed in accordance with the recommendations described in this report, the soil should readily support the proposed structure resting on a shallow foundation system. Settlements have been projected to be less than 1-inch total and 1/2-inch differential. All footings and columns should be structurally separated from the floor slab, as they will be loaded differently and at different times, unless a monolithic mat foundation is

3.4 Ground Floor Slabs

The ground floor slabs may be supported directly on the existing grade or on granular fill following the foundation site preparation and fill placement procedures outlined in this report. For purposes of design, a coefficient of subgrade modulus 150 pounds per cubic inch may be used. The ground floor slab should be structurally separated from all walls and columns to allow for differential vertical movement unless a monolithic foundation is used.

Excessive moisture vapor transmission through floor slabs-on-grade can result in damage to floor coverings as well as cause other deleterious affects. An appropriate moisture vapor retarder should be placed beneath the floor slab to reduce moisture vapor from entering the

building through the slab. The retarder should be installed in general accordance with

**GFA INTERNATIONAL** Geotechnical Repo

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4.0 REPORT LIMITATIONS

applicable ASTM procedures including sealing around pipe penetrations and at the edges of

This consulting report has been prepared for the exclusive use of the current project owners and other members of the design team for the Proposed Commercial Site located at 1066 US Hwy 1, Vero Beach, Indian River County, Florida. This report has been prepared in accordance with generally accepted local geotechnical engineering practices; no other warranty is expressed or implied. The evaluation submitted in this report, is based in part upon the data collected during a field exploration, however, the nature and extent of variations throughout the subsurface profile may not become evident until the time of construction. If variations then appear evident, it may be necessary to reevaluate information and professional opinions as provided in this report. In the event changes are made in the nature, design, or locations of the proposed structure, the evaluation and opinions contained in this report shall not be considered valid unless the changes are reviewed and conclusions modified or verified in writing by GFA International.

5.0 BASIS FOR RECOMMENDATIONS

The analysis and recommendations submitted in this report are based on the data obtained from the tests performed at the locations indicated on the attached figure in Appendix B. This report does not reflect any variations, which may occur between borings. While the borings are representative of the subsurface conditions at their respective locations and for their vertical reaches, local variations characteristic of the subsurface soils of the region are anticipated and may be encountered. The delineation between soil types shown on the soil logs is approximate boring locations on the particular date drilled.

Any third party reliance of our geotechnical report or parts thereof is strictly prohibited without the expressed written consent of GFA International. The applicable SPT methodology (ASTM D-1586), CPT methodology (ASTM D-3441), and Auger Boring methodology (ASTM D-1452) used in performing our borings and sounding, and for determining penetration and cone resistance is specific to the sampling tools utilized and does not reflect the ease or difficulty to advance other tools or materials.

521 N.W. ENTERPRISE DRIVE, PORT ST. LUCIE, FLORIDA 34986 PHONE: (772) 924-3575 - FAX: (772) 924-3580

STANDARD PENETRATION TEST BORING (ASTM D-1586) Client: Roberts Equities, LLC Project No.: 15-0422.00 Lab No.: Project: Proposed Commercial Site Page: 1 of 1 5/5/2015 1066 US Hwy 1, Vero Beach, Indian River County, FI Elevation: Existing Grade Drill Rig: Simco-24 Drilling Fluid commenced at depth of 10 feet Field Party: WN/JB Water Level: 6 feet after 0 hours

	LOCA				N27.62120°	W80.38886°	Lal	oratory 1	ests
Depth (feet)	Blows/ 6 in.	N Value	Sample No.	Layer: From/to	USCS	Description	Passing No. 200	Moisture Content	Organi Conten
<b>—</b> 0	10			0 - 1/2		Asphalt (2") Base (4")			
1	8			1/2 - 4	SP	Dark gray fine sand, trace silt			
	6	14	1						
2	10								
	5								
3	6								
	6	12	2						
- 4	8 5			4 - 5	SM	Dark brown organically stained fine sand,			
	6			4-3	Sivi	some silt (weakly cemented			
5	5	11	3	5 - 13½	SP	Brown fine sand, some shell			
6	6					,			
_ 6	6								
7	7								
	8	15	4						
- 8	8								
	10								
9	16 25	41	5						
	31	41							
10									
11									
12									
13									
	10			13½ - 15	SP	Gray fine sand, little shell	-		
14	15			13/2 - 13	51	Gray The Sand, fittle Sheff			
	31	46	6						
15						Boring Terminated at 15 feet			
16						_			
17									
18									
19									

521 N.W. ENTERPRISE DRIVE, PORT ST. LUCIE, FLORIDA 34986 PHONE: (772) 924-3575 - FAX: (772) 924-3580

Geotechnical Repo

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STANDARD PENETRATION TEST BORING (ASTM D-1586) 1066 US Hwy 1, Vero Beach, Indian River County, FI 5/5/2015 Drill Rig: Simco-24 Elevation: Existing Grade Drilling Fluid commenced at depth of 10 feet Field Party: WN/JB Water Level: 6 feet after 0 hours

	LOCATION:			SPT - 2 N27.6	N27.62156°	W80.38867°		Laboratory Tests	
Depth (feet)	Blows/ 6 in.	N Value	Sample No.	Layer: From/to	USCS	Description	Passing No. 200	Moisture Content	Organic Content
- 0	9			0 - 1/2		Asphalt (2") Base (4")			
1	10		İ	0 - ½ ½ - 2	SP	Brown fine sand			
'	9	19	1						
2	11								
	6			2 - 4	SP-SM	Dark brown organically stained fine sand,			
3	7 8	15	2			little silt (weakly cemented)			
	8	15	2						
4	6		İ	4 - 6	SP	Brown fine sand			
5	10								
	11	21	3						
6	13			6 - 8	SP	Brown fine sand and shell			
	12 17			6 - 8	SP	Brown fine sand and shell			
7	23	40	4						
8	35								
- 8	22		Ī	8 - 13½	SP	Gray fine sand and shell			
9	30								
	50/5"	50/5"	5						
10									
<del></del>									
12									
12									
13									
				13½ - 15	SP	Gray fine sand, trace shell	-		
14	8 11			1372 - 13	SP	Gray fine sand, trace shen			
 15	13	24	6						
15						Boring Terminated at 15 feet			
16									
17									
18									
19									
19									
					l		1		l

GFA INTERNATIONAL 521 N.W. ENTERPRISE DRIVE, PORT ST. LUCIE, FLORIDA 34986

STANDARD PENETRATION TEST BORING (ASTM D-1586) Project No.: 15-0422.00 Client: Roberts Equities, LLC Lab No.: Page: 1 of 1 **Proposed Commercial Site** 1066 US Hwy 1, Vero Beach, Indian River County, FL Date: 5/5/2015 Drill Rig: Simco-24 Elevation: Existing Grade Drilling Fluid commenced at depth of 10 feet Field Party: WN/JB Water Level: 5 feet after 0 hours

PHONE: (772) 924-3575 - FAX: (772) 924-3580

	LOCATION:			SPT - 3	N27.62092°	W80.38798°	Laboratory T		ests	
Depth (feet)	Blows/ 6 in.	N Value	Sample No.	Layer: From/to	USCS	Description	Passing No. 200	Moisture Content	Organi Conten	
0	2			0 - 3	SP	Dark gray fine sand, trace silt				
1	3	5	1							
2	3									
3	4									
	5 4	9	2	3 - 5	SP	Brown fine sand				
4	6									
_ 5	10 28	38	3	5 - 6	SM	Dark brown organically stained fine sand,				
6	12					some silt (weakly cemented)				
7	4 6			6 - 8	SP	Brown fine sand, trace silt				
/	14	20	4							
- 8	12 6			8 - 13½	SP	Brown fine sand and shell	+			
9	20			0 10/2						
	30 50	50	5							
<u> </u>										
11										
12										
13										
	10			13½ - 15	SP	Gray fine sand, little shell				
14	15			13/2 - 13	51	oray fine saira, nate sheri				
15	21	36	6			Boring Terminated at 15 feet				
16										
17										
18										
19	ļ	ļ								

Description

Drilling Fluid commenced at depth of 10 feet Field Party: WN/JB

**GFA INTERNATIONAL** 

521 N.W. ENTERPRISE DRIVE, PORT ST. LUCIE, FLORIDA 34986 PHONE: (772) 924-3575 - FAX: (772) 924-3580

STANDARD PENETRATION TEST BORING (ASTM D-1586)

Date:

Project No.: 15-0422.00

Drill Rig: Simco-24

Passing Moisture Organic No. 200 Content Content

1 of 1

5/5/2015

### DISCUSSION OF SOIL GROUPS COARSE GRAINED SOILS

GW and SW GROUPS. These groups comprise well-graded gravelly and sandy soils having little or no plastic fines (less than percent passing the No. 200 sieve). The presence of the fines must not noticeably change the strength characteristics of the coarse-grained friction and must not interface with it's free-draining

GP and SP GROUPS. Poorly graded gravels and sands containing little of no plastic fines (less than 5 percent passing the No. 200 sieve) are classed in GP and SP groups. The materials may be called uniform gravels, uniform sands or non-uniform mixtures of very coarse materials and very fine sand, with intermediate sizes lacking (sometimes called skip-graded, gap graded or stepgraded). This last group often results from borrow pit excavation in which gravel and sand layers are mixed.

GM and SM GROUPS. In general, the GM and SM groups comprise gravels or sands with fines (more than 12 percent the No. 200 sieve) having low or no plasticity. The plasticity index and liquid limit of soils in the group should plot below the "A" line on the plasticity chart. The gradation of the material is not considered significant and both well and poorly graded materials are included.

GC and SC GROUPS. In general, the GC and SC groups comprise gravelly or sandy soils with fines (more than 12 percent passing the No, 200 sieve) which have a fairly high plasticity. The liquid limit and plasticity index should plat above the "A" line on the plasticity chart.

### FINE GRAINED SOILS

ML and MH GROUPS. In these groups, the symbol M has been used to designate predominantly silty material. The symbols L and H represent low and high liquid limits, respectively, and an arbitrary dividing line between the two set at a liquid limit of 50. The soils in the ML and MH groups are sandy silts, clayey silts or inorganic silts with relatively low plasticity. Also included are loose type

**CL and CH GROUPS.** In these groups the symbol C stands for clay, with L and H denoting low or high liquid limits, with the dividing line again set at a liquid of 50. The soils are primarily organic clays. Low plasticity clays are classified as CL and are usually lean clays, sandy clays or silty clays. The medium and high plasticity clays are classified as CH. These include the fat clays, gumbo clays and some volcanic clays.

The highly organic soils are usually very soft and compressible and have undesirable construction characteristics. Particles of leaves, grasses, branches, or other fibrous vegetable matter are common components of these soils. They are not subdivided and are classified into one group with the symbol PT. Peat humus and swamp soils with a highly organic texture are typical soils of the

OL and OH GROUPS. The soil in the OL and OH groups are characterized by the presence of organic odor or color, hence the symbol O. Organic silts and clays are classified in these groups. The materials have a plasticity range that corresponds with the ML and MH groups. HIGHLY ORGANIC SOILS

SH ENGINEER CERTIFICATION ☐ JOSEPH W. SCHULKE FL. REG. NO. 47048

□JODAH B. BITTLE

FL. REG. NO. 57396

■WILLIAM P. STODDARD

FL. REG. NO. 57605

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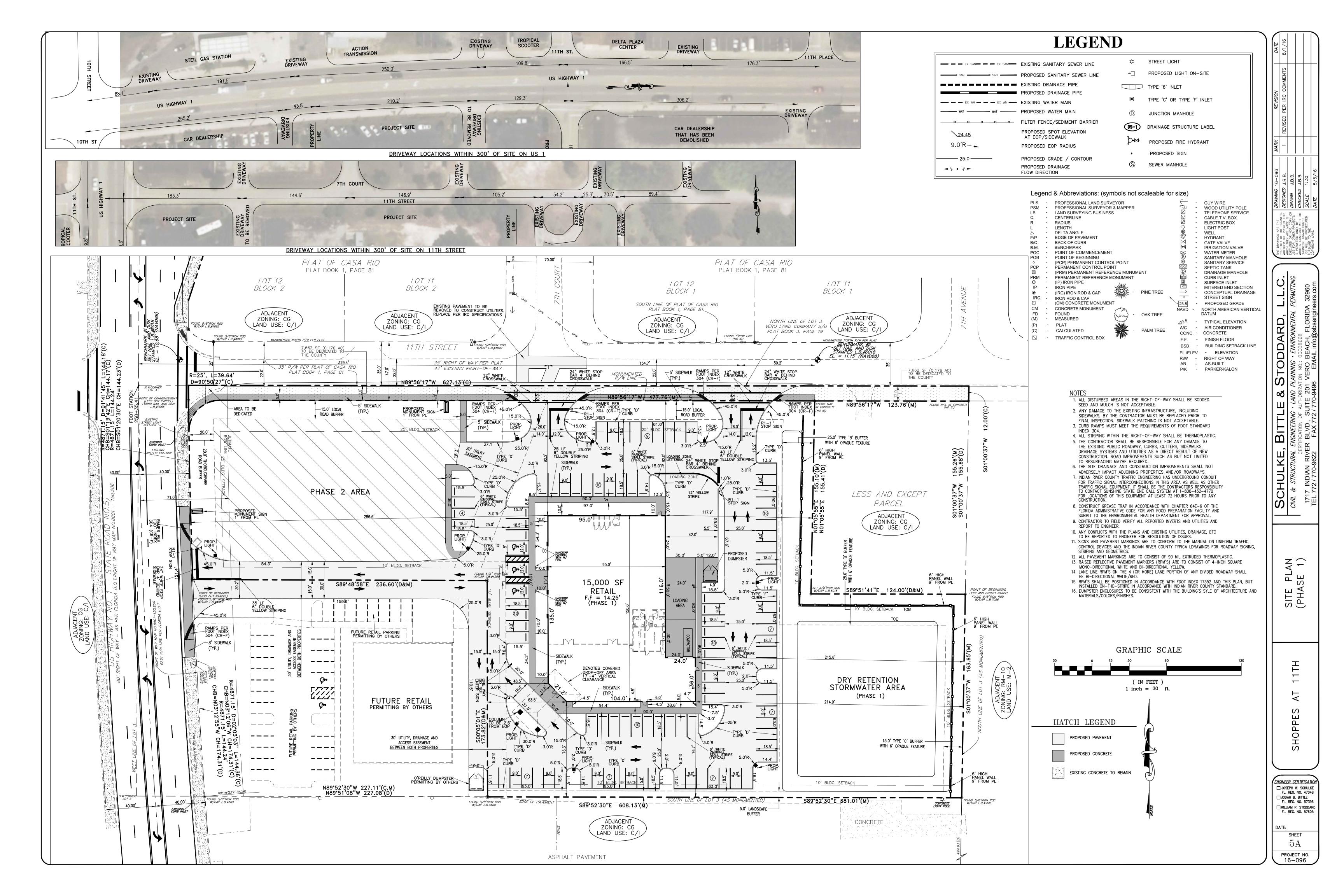
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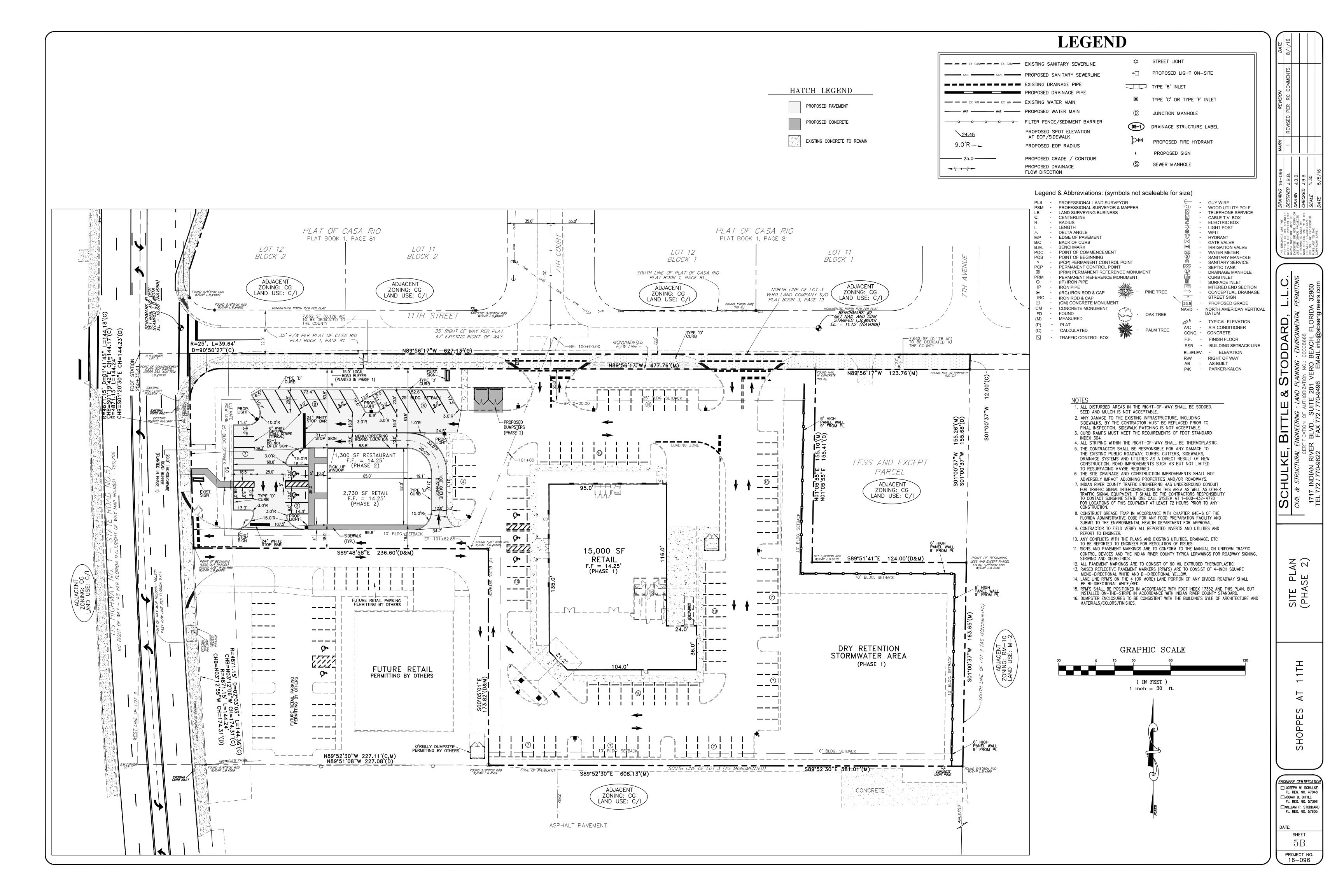
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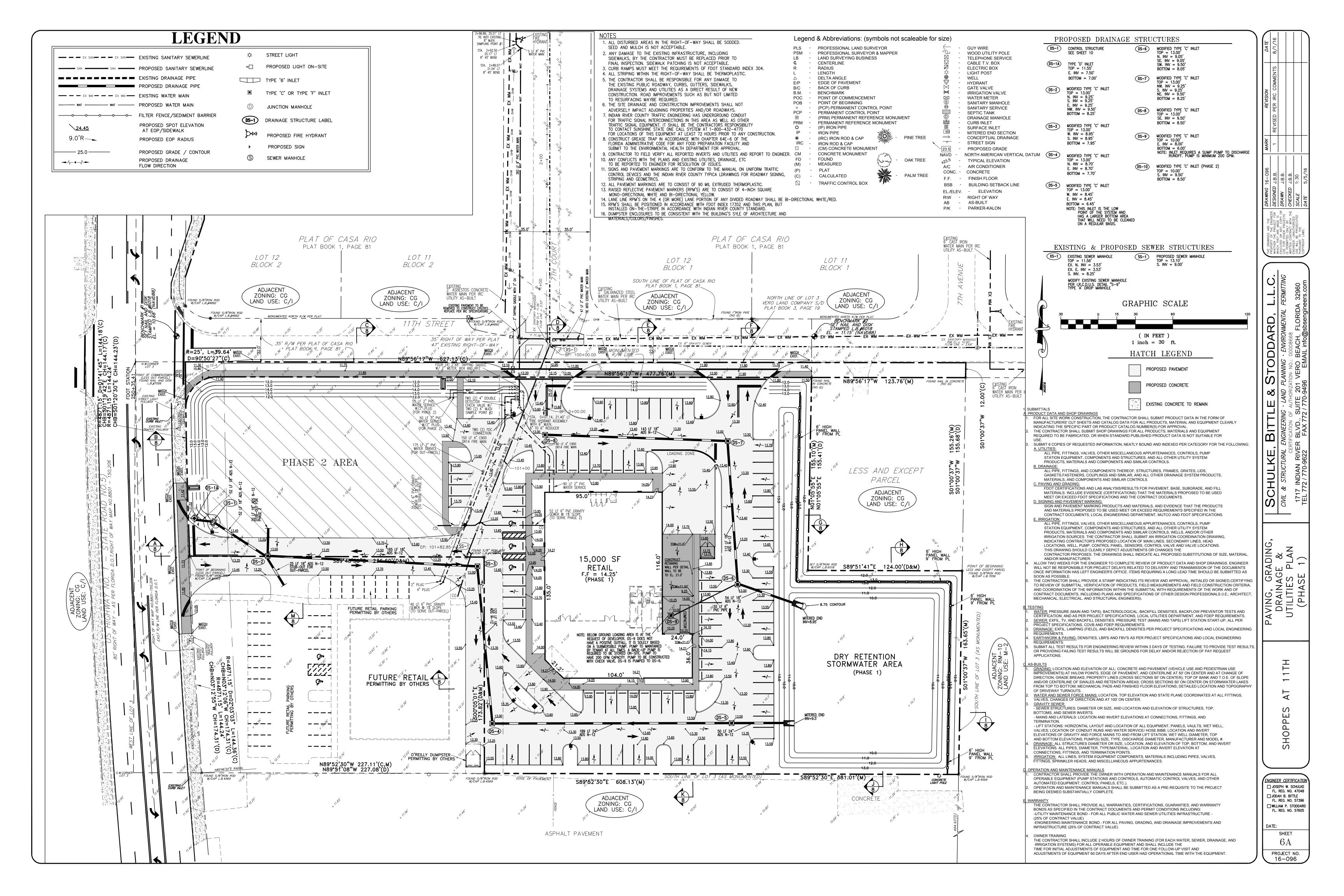
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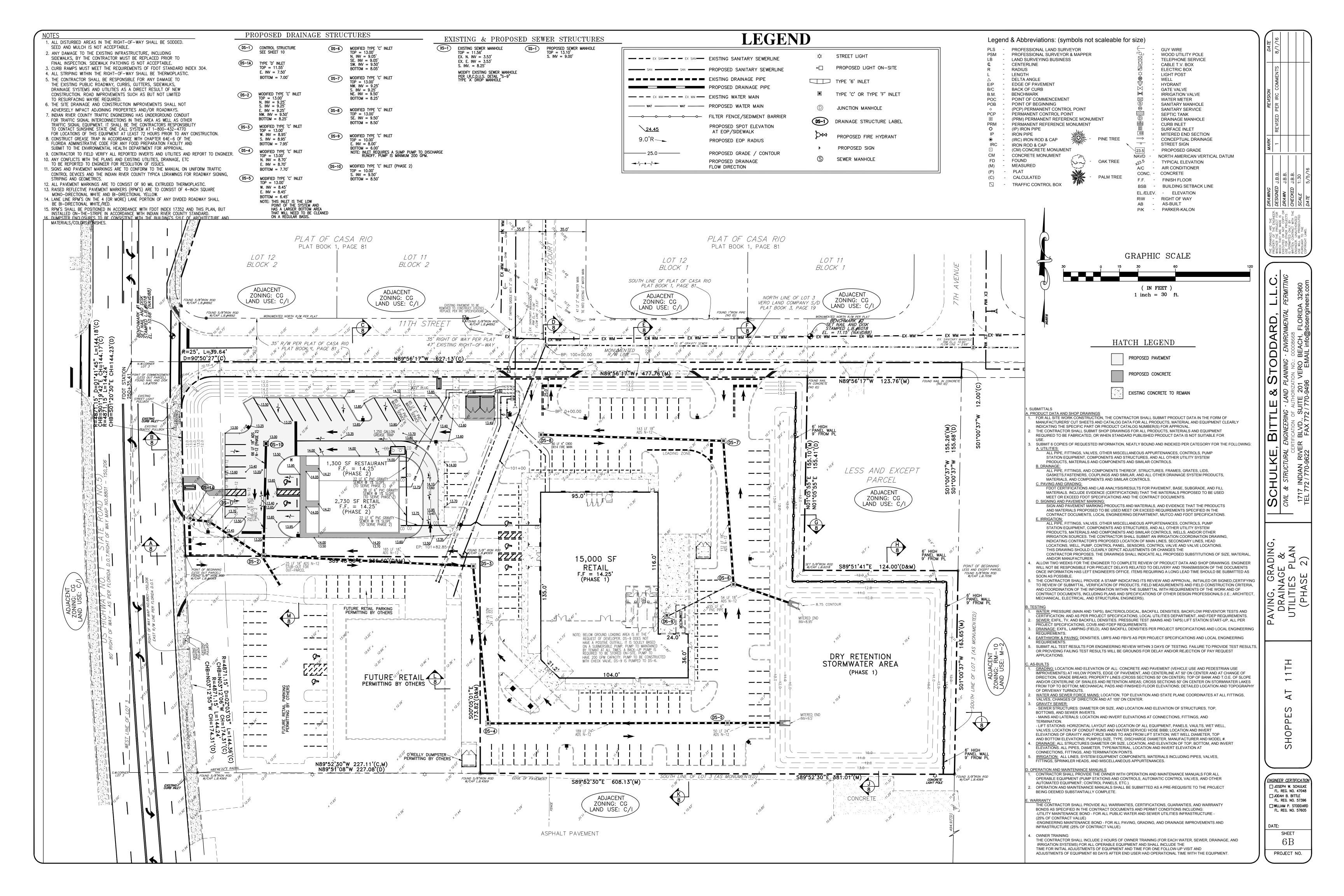
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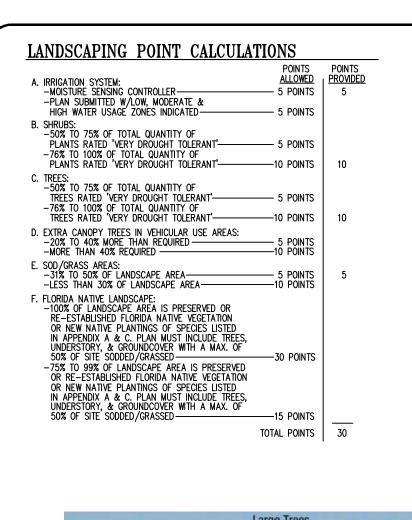
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LANDSCAPE MATERIAL STANDARDS & NOTES

(1) QUALITY. PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, AS GIVEN IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II, STATE OF FLORIDA.

(2) DROUGHT TOLERANCE REQUIREMENTS. A MINIMUM OF FIFTY (50) PERCENT OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THE I.R.C. L.D.R., CHAPT. 926, SHALL BE "VERY DROUGHT TOLERANT," AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE "SOUTH FLORIDA" WATER MANAGEMENT DISTRICT XERISCAPE PLANT GUIDE." (A) CANOPY TREES SHALL BE SPECIES HAVING AN AVERAGE MATURE SPREAD OF CROWN GREATER THAN FIFTEEN (15)

(B) PALMS SHALL BE CONSIDERED 1/3 OF A CANOPY TREE AND, IF USED, THEY SHALL CONSIST OF NO MORE 1/3 OR 33% OF THE TOTAL NEW TREE REQUIREMENT. ADDITIONALLY, 3 PALMS = 1 CANOPY TREE. PALM TREES MUST HAVE AT LEAST 12 FEET OF CLEAR WOOD AT TIME OF PLANTING. (C) TREE SPECIES SHALL BE A MINIMUM OF TWELVE (12) FEET OVERALL IN HEIGHT AND TWO (2) INCH

CALIPER AT THE TIME OF PLANTING. (D) AT LEAST FIFTY (50) PERCENT OF ALL NEW REQUIRED TREES SHALL BE OF A NATIVE SPECIES, AND AT LEAST 50% OF ALL TREES SHALL BE RATED "VERY DROUGHT TOLERANT." (4) GRASS. GRASS AREAS MAY BE SODDED, PLUGGED, SPRIGGED OR SEEDED, EXCEPT THAT SOLID SOD SHALL BE USED IN SWALES OR OTHER AREAS SUBJECT TO EROSION. SEED, WHERE USED, SHALL BE OF A VARIETY THAT

WILL PRODUCE COVERAGE WITHIN NINETY (90) DAYS FROM SOWING. SOD TO BE ZOYSIA ONLY PER WAWA. (A) 50% OF ALL SHRUBS & HEDGES SHALL BE RATED "VERY DROUGHT TOLERANT"

(B) SHRUBS SHALL BE A MIN. OF 18" AT PLANTING.
(C) HEDGES SHALL BE PLANTED AT A MIN. OF 30" O.C. D) HEDGES TO BE 3' TALL AT PLANTING. (6) IRRIGATION USAGE ZONES SHALL BE AS FOLLOWS

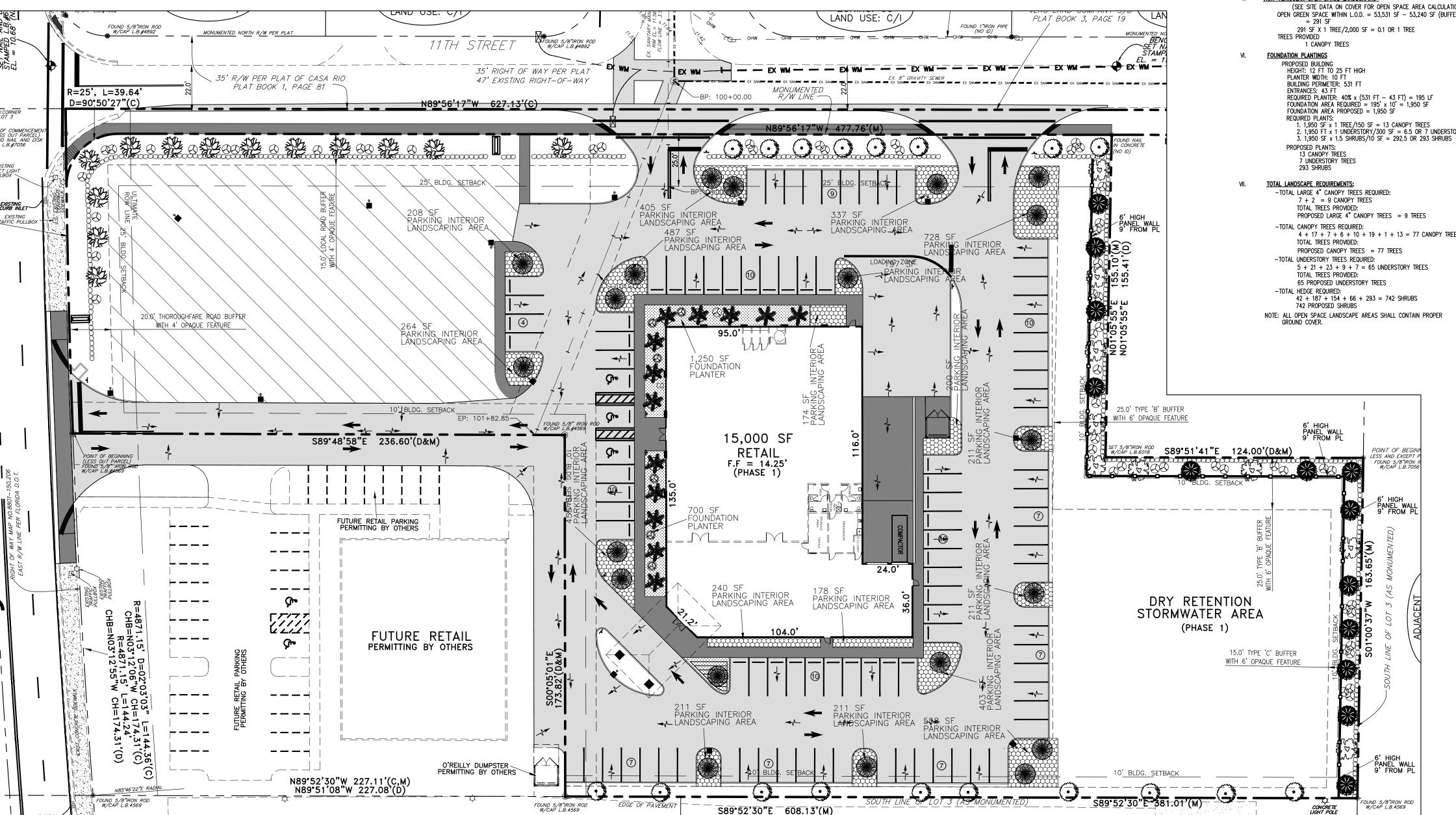
I.R.C. ORDINANCE, CHAPT. 926.

(9) THE CONTRACTOR SHALL ATTEMPT TO PRESERVE AS MANY EXISTING TREES AS POSSIBLE AND FEASIBLE. TREES THAT ARE PRESERVED MAY BE CREDITED TOWARDS THE SITE TREE REQUIREMENT IF THEY MEET THE ABOVE SPECIFICATIONS. (10) THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF TREES AND SIGNS SUCH THAT ALL SIGNAGE IS EASILY SEEN FOR ITS INTENDED PURPOSE. TREE PLACEMENT MAY VARY FROM THIS PLAN TO ACHIEVE THIS REQUIREMENT. (11) ALL LANDSCAPE ISLANDS MUST BE BERMED. 12) ANY LANDSCAPE MATERIAL IN SHOCK MUST BE REPLACED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. (13) A MIN. OF 9 SPECIES OF SHRUBS ARE REQUIRED, OF WHICH AT LEAST 6 SPECIES MUST BE NATIVE. 14) TURF GRASS SHALL BE LIMITED TO A MAX. 50% OF TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING R/W, ACTIVE RECREATION AREAS AND SLOPES WITHIN DRY RETENTION AREAS. (15) THE LANDSCAPE PLAN MUST INCLUDE A CERTIFICATION THAT THE PROJECT'S IRRIGATION SYSTEM WILL COMPLY WITH

SYMBOL		AMOUNT	BOTANICAL NAME	COMMON NAME	SIZE	HGT	OTHER	NATIVE	DROUGHT TOLERAN
		9	Quercus virginiana 'Highrise'	LIVE OAK	4" DIA 6" AG	18'	6' SPREAD	YES	YES
Sec. all of	رابلا	18	Lagerstroemia indica	RED CRAPE MYRTLE	2" DIA 6" AG	12'	6' SPREAD	YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES YES  YES NO  YES NO  NO NO	YES
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		13	Roystonea regia	ROYAL PALM	10' CLEAR TRUNK	12'	6' SPREAD	YES	YES YES YES YES YES YES YES YES YES YES
*	0010m	13	Magnolia grandiflora	SOUTHERN MAGNOLIA	2" DIA 6" AG	12'	6' SPREAD	YES	YES
~VV		20	llex attenuata 'Eagleston'	EAST PALATKA HOLLY	2" DIA 6" AG	12'	6' SPREAD	YES	YES
	2000	13	Myrica cerifera	WAX MYRTLE	2" DIA 6" AG	12'	6' SPREAD	YES	YES
· KI	$\otimes$	65	Conocarpus erectus  Myrica cerifera	SILVER BUTTONWOOD WAX MYRTLE	1.5" DIA 6" AG	6'	3' CLR / 5' SPREAD	YES	YES
0000	OVB	B 449 Chrysobalanus icaco COCO PLUM - 24"	30" O.C.	YES	YES				
	CHR	36	Chrysoblanus icaco 'Red Tip'	RED TIP COCOPLUM	_	12"	30" O.C.	YES	YES
	FOR	36	llex vomitoria	YAPOON HOLLY	_	12"	30" O.C.	YES	YES
	НАМ	36	Hamelia patens	FIREBUSH	_	12"	30" O.C.	YES	NO
	ILE	36	Callicarpa americana	BEAUTYBERRY	_	12"	30" O.C.	YES	NO
	OVB	36	Viburnum obovatum	WALTERS VIBURNUM	_	12"	30" O.C.	YES	YES
	LYN	36	Duranta repens	GOLD MOND DURANTA	_	12"	30" O.C.	YES	NO
	IXO	36	Ixora 'Nora Grant'	IXORA	_	12"	30" O.C.	NO	NO
	TRI	41	Tripsacum dactyloides	FAKAHATCHEE GRASS	_	12"	30" O.C.	NO	YES
	DENOTES PARKING INTERIO		DENOTES FOUNDATION PLANTER AREA						

(A) GRASS AREA SHALL BE IN HIGH USAGE ZONES (B) TREES & SHRUBS SHALL BE IN LOW USAGE ZONES. (7) IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A MOISTURE SENSING CONTROLLER (8) THERE SHALL BE SIX (6) DIFFERENT SPECIES OF TREES USED, PER Large Palms SECTION 926.11 REQUIREMENTS AS WELL AS ANY WATER USE RESTRICTIONS BY SJRWMD. **Medium Trees** (16) ROOT BARRIERS ARE REQUIRED FOR CANOPY TREES WITHIN 6' OF A SIDEWALK, PARKING AREA, DRIVEWAY OR STRUCTURE. plus 3 feet --------

FLORIDA POWER AND LIGHT DETAIL FOR PLANTINGS ADJACENT TO WIRES.



<u> LANDSCAPE CALCULATIONS - PHASE 1</u>

PERIMETER LANDSCAPING ADJACENT TO PUBLIC RIGHT-OF-WAYS WEST PROPERTY LINE - US HIGHWAY 1
THOROUGHFARE ROAD BUFFER = 144 LF - 60 LF (DRIVEWAY AND SIGN) = 84 LF 20' WIDE BUFFER W/ 4' OPAQUE FEATURE - 1 FOOT BERM WITH 3' HEDGE

84 LF X (4.5 CANOPY/100 LF) = 3.8 OR 4 CANOPY TREES 84 LF  $\times$  (5.5 UNDERSTORY/100 LF) = 4.6 OR 5 UNDERSTORY 84 LF X (50 SHRUBS/100 LF) = 42 SHRUBS PROPOSED:

4 PROPOSED CANOPY TREES 5 PROPOSED UNDERSTORY TREES 42 SHRUBS TO FORM CONTINUOUS HEDGE AT MAXIMUM 2.5' O.C. NORTH PROPERTY LINE - 11TH STREET LOCAL ROAD BUFFER = 503 LF - 130 LF (DRIVEWAY AND SIGN) = 373 LF 15' WIDE BUFFER W/ 4' OPAQUE FEATURE - 1 FOOT BERM WITH 3' HEDGE

373 LF X (4.5 CANOPY/100 LF) = 16.8 OR 17 CANOPY TREES 373 LF X (5.5 UNDERSTORY/100 LF) = 20.5 OR 21 UNDERSTORY 373 LF X (50 SHRUBS/100 LF) = 186.5 OR 187 SHRUBS 17 PROPOSED CANOPY TREES

21 PROPOSED UNDERSTORY TREES 187 SHRUBS TO FORM CONTINUOUS HEDGE AT MAXIMUM 2.5' O.C. PERIMETER LANDSCAPING ADJACENT TO ABUTTING NON-COMPATIBLE USE NORTHEAST PROPERTY LINE - ADJACENT TO SINGLE FAMILY RESIDENCE 25' WIDE TYPE 'B' BUFFER W/ 6' OPAQUE FEATURE - 6' HIGH PANEL WALL - 279 LF

279 LF X (2.5 LARGE 4" CANOPY/100 LF) = 6.9 OR 7 LARGE 4" CANOPY TREES 279 LF X (2.5 CANOPY/100 LF) = 6.7 OR 7 CANOPY TREES 279 LF X (8 UNDERSTORY/100 LF) = 22.3 OR 23 UNDERSTORY

279 LF X (55 SHRUBS/100 LF) = 153.5 OR 154 SHRUBS 7 PROPOSED 4" CANOPY TREES 7 PROPOSED CANOPY TREES

23 PROPOSED UNDERSTORY TREES 154 SHRUBS TO FORM CONTINUOUS HEDGE AT MAXIMUM 2.5' O.C. B. SOUTHEAST PROPERTY LINE - ADJACENT TO MULTI-FAMILY COMPLEX 15' WIDE TYPE 'C' BUFFER W/ 6' OPAQUE FEATURE - 6' HIGH PANEL WALL - 164 LF

164 LF X (1.0 LARGE 4" CANOPY/100 LF) = 1.6 OR 2 LARGE 4" CANOPY TREES 164 LF X (3.5 CANOPY/100 LF) = 5.7 OR 6 CANOPY TREES 164 LF X (5 UNDERSTORY/100 LF) = 8.2 OR 9 UNDERSTORY 164 LF X (40 SHRUBS/100 LF) = 65.6 OR 66 SHRUBS

2 PROPOSED 4" CANOPY TREES 6 PROPOSED CANOPY TREES

9 PROPOSED UNDERSTORY TREES 66 SHRUBS TO FORM CONTINUOUS HEDGE AT MAXIMUM 2.5' O.C. OFF-STREET PARKING PERIMETER LANDSCAPING ADJACENT TO ABUTTING PROPERTY

A. SOUTH PROPERTY LINE ADJACENT TO OUT-PARCEL ALONG EASTERN SIDE OF THE PROPERTY 5' WIDE BUFFER NOTE: WE ARE EXEMPT FROM THIS REQUIREMENT DUE TO 30' ACCESS EASEMENT. B. SOUTH PROPERTY LINE ADJACENT TO WESTERN SIDE OF THE PROPERTY

5' WIDE BUFFER - 365 LF REQUIRED: 1. 365 LF X (1.0 CANOPY/40 LF) = 9.1 OR 10 CANOPY TREES

PROPOSED: 1. 10 PROPOSED CANOPY TREES

IV. <u>OFF-STREET PARKING INTERIOR LANDSCAPING</u> (SEE SITE DATA ON COVER FOR IMPERVIOUS AREA CALCULATIONS) PARKING AREA = 47,315 SF

= 47,315 SF X 12% = 5,678 SF= 5,678 SF X 1 TREE/300 SF = 18.9 OR 19 TREES INTERIOR LANDSCAPE AREA AND TREES PROVIDED 5,678 SF INTERIOR LANDSCAPING WITH 19 PROPOSED CANOPY TREES

NON-VEHICULAR OPEN SPACE LANDSCAPING (SEE SITE DATA ON COVER FOR OPEN SPACE AREA CALCULATIONS)

OPEN GREEN SPACE WITHIN L.O.D. = 53,531 SF - 53,240 SF (BUFFERS/VOS/FOUNDATION/STORMWATER)

1. 1,950 SF x 1 TREE/150 SF = 13 CANOPY TREES 2. 1,950 FT x 1 UNDERSTORY/300 SF = 6.5 OR 7 UNDERSTORY

4 + 17 + 7 + 6 + 10 + 19 + 1 + 13 = 77 CANOPY TREES

LANDSCAPE NOTES

LANDSCAPE MATERIAL STANDARDS

1. QUALITY. PLANT MATERIALS USED IN CONFORMANCE WITH THE PROVISIONS OF THIS CHAPTER SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, UNLESS SPECIFICALLY EXCEPTED BELOW, AS GIVEN IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, OR EQUAL THERETO. A CANOPY TREE MAY BE DEEMED TO MEET FLORIDA NO. 1 STANDARDS IF THE MAIN LEADER SPLITS INTO NO MORE THAN TWO (2) LEADERS AT OR ABOVE A HEIGHT OF TEN (10) FEET. PALMS SHALL HAVE A FULL, HEALTHY HEAD AND SHALL NOT BE EXCESSIVELY PRUNED, GRASS SOD SHALL BE CLEAN AND FREE OF WEEDS AND NOXIOUS PESTS OR DISEASES. GRASS SEEDS SHALL BE DELIVERED TO THE JOB SITE IN BAGS WITH FLORIDA DEPARTMENT OF AGRICULTURE TAGS ATTACHED, INDICATING THE SEED GROWER'S COMPLIANCE WITH THE DEPARTMENT'S QUALITY CONTROL PROGRAM. PLANT MATERIALS WHICH ARE KNOWN TO BE INTOLERANT OF PAVING ENVIRONMENTS, OR WHOSE PHYSICAL

CHARACTERISTICS MAY BE INJURIOUS TO THE PUBLIC, SHALL NOT BE SPECIFIED FOR USE. (A) COUNTY-ACCEPTABLE FLORIDA NO. 2\* OR BETTER REQUIRED CANOPY TREES MAY BE USED AROUND WATER BODIES AND STORMWATER AREAS, WITHIN PARK AND COMMON GREEN SPACE AREAS. AROUND AND WITHIN CONSERVATION OR PRESERVATION AREAS. AND WITHIN REAR YARD AND SIDE YARD BUFFERS WHERE THE BUFFER DEPTH IS GREATER THAN OR FOUAL TO FORTY (40) FEET. IN NO INSTANCE SHALL A REQUIRED CANOPY TREE THAT IS LESS THAN FLORIDA NO. 1 BE INSTALLED CLOSER THAN TWENTY-FIVE (25) FEET TO THE NEAREST BUILDING, DRIVEWAY, STREET, OR PARKING AREA.

\* A "COUNTY-ACCEPTABLE FLORIDA NO. 2 CANOPY TREE" SHALL MEAN A FLORIDA NO. 2 TREE WITH NO DISTORTED OR LOP-SIDED CROWN, NO SPLIT LEADER BELOW EIGHT (8) FEET, NO MORE THAN TWO (2) LEADERS BELOW TWELVE (12) FEET, AND NO SPLIT LEADER BELOW TWELVE (12) FEET WITH A DEGREE OF SEPARATION THAT EXCEEDS THIRTY (30) DEGREES.

2. DROUGHT TOLERANCE REQUIREMENTS. A MINIMUM OF FIFTY (50) PERCENT OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THIS CHAPTER SHALL BE "MODERATELY" OR "VERY" DROUGHT TOLERANT, AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE "SOUTH FLORIDA WATER MANAGEMENT DISTRICT XERISCAPE PLANT GUIDE" OR A COMPARABLE PUBLICATION. EXISTING NATIVE PLANT SPECIES

PRESERVED ON-SITE MAY BE CONSIDERED AS CREDIT TOWARD THE DROUGHT TOLERANCE PERCENTAGE REQUIREMENT. TREES. CANOPY TREES.

1. CANOPY TREES, EXCEPT FOR NARROW CANOPY TREE SPECIES IDENTIFIED UNDER [SUBSECTION] 926.06(3)(D)1.B., BELOW, SHALL BE SPECIES HAVING AN AVERAGE MATURE CROWN SPREAD OF GREATER THAN FIFTEEN (15) FEET (UNDER LOCAL CLIMATIC CONDITIONS) AND HAVING A TRUNK(S) WITH OVER FIVE (5) FEET OF CLEAR WOOD. "CLEAR WOOD" REFERS TO THAT PORTION OF THE TRUNK BETWEEN THE GROUND AND THE LOWEST LATERAL LIMBS

2.. ALL NEW CANOPY TREES SHALL BE PLANTED IN A PLANTING AREA OF AT LEAST ONE HUNDRED FORTY-FOUR (144) SQUARE FEET, WITH MINIMUM DIMENSIONS BEING AT LEAST TWELVE (12) FEET IN ANY DIRECTION. LARGER AREAS MAY BE REQUIRED BY THE COMMUNITY DEVELOPMENT DIRECTOR OR HIS DESIGNEE FOR NEWLY PLANTED OR EXISTING TREES TO BE PRESERVED, AS REQUIRED BY CHAPTER 927,

3. CLUSTERS OF PALMS, SUCH AS SABAL PALMS, MAY BE USED AS CANOPY TREES PROVIDED THAT A MINIMUM OF THREE (3) PALMS ARE CLUSTERED TO EQUAL ONE (1) CANOPY TREE. CLUSTERS OF PALMS AND SPECIMEN PALMS (SPECIFIED BELOW), IF USED, SHALL CONSIST OF NO MORE THAN ONE-THIRD (1/3) OF THE TOTAL CANOPY TREE REQUIREMENT.

A. MULTI-TRUNK PALM MAY BE SUBSTITUTED FOR ONE (1) CANOPY TREE PROVIDED THAT THE TOTAL HEIGHT OF THE COMBINED CLEAR TRUNKS (GROUND TO LOWEST FROND, MEASURED ALONG THE TRUCK) IS A MINIMUM OF EIGHTEEN (18) FEET. A CANARY ISLAND DATE PALM, SYLVESTER PALM, OR BISMARK PALM WITH A CLEAR TRUNK OF AT LEAST TWO (2) FEET AND AN OVERALL HEIGHT OF AT LEAST TWELVE (12) FEET MAY COUNT AS ONE (1) CANOPY TREE. SUCH A PALM MAY COUNT AS TWO (2) CANOPY TREES IF IT HAS A CLEAR TRUNK OF AT LEAST EIGHT (8) FEET AND AN OVERALL HEIGHT OF AT LEAST EIGHTEEN (18)

A PALM OF THE ROYSTONEA GENUS WITH A MINIMUM CLEAR TRUNK OF TEN (10) FEET MAY BE COUNTED AS ONE (1) CANOPY

MINIMUM CANOPY TREE SPACING SHALL BE PROVIDED AS FOLLOWS: A. BETWEEN FULL CANOPY TREES (E.G. OAK, PINE, BAY): TWENTY-FIVE (25) FEET.

B. BETWEEN NARROW CANOPY TREE VARIETIES (E.G., CYPRESS AND HOLLY) NOT INCLUDING MAGNOLIA: FIFTEEN (15) FEET. C. BETWEEN FULL CANOPY TREES AND NARROW CANOPY TREE VARIETIES (E.G., CYPRESS AND HOLLY) NOT INCLUDING MAGNOLIA: TWENTY B. TREES HAVING AN AVERAGE MATURE CROWN SPREAD LESS THAN FIFTEEN (15) FEET MAY BE SUBSTITUTED BY GROUPING THE SAME SO AS TO

CREATE THE EQUIVALENT OF A 15 CROWN SPREAD. UNDERSTORY TREES SHALL BE SPECIES DEFINED AS MEDIUM OR SMALL TREES HAVING A MATURE CROWN SPREAD OF FIFTEEN (15) FEET OR

REQUIRED CANOPY TREES SHALL BE A MINIMUM OF TWELVE (12) FEET OVERALL IN HEIGHT AND TWO (2) INCH DIAMETER AT ONE—HALF (0.5) FEET ABOVE GRADE WITH A MINIMUM CROWN SPREAD OF FOUR AND ONE-HALF (4.5) FEET, AT THE TIME OF PLANTING, EXCEPT AS

A. UNLESS OTHERWISE SPECIFIED IN [SUBSECTION] (3)(A) ABOVE, PALMS USED TOWARD CANOPY TREE CREDIT SHALL HAVE A MINIMUM CLEAR TRUNK (GROUND TO LOWEST FROND, MEASURED ALONG THE TRUNK) OF TEN (10) FEET. WHERE AN ARRANGEMENT OF SUCH PALMS WITH VARYING HEIGHTS BETWEEN SIX (6) FEET CLEAR TRUNK AND EIGHTEEN (18) FEET CLEAR TRUNK IS PROPOSED AND THE AVERAGE CLEAR TRUNK OF THE ARRANGEMENT IS TEN (10) FEET. EACH PALM IN THE ARRANGEMENT SHALL COUNT AS ONE (1) TEN-FOOT CLEAR TRUNK PALM FOR TREE CANOPY REQUIREMENT PURPOSES.

NARROW, UPRIGHT CANOPY TREE SPECIES, SUCH AS VARIETIES OF CYPRESS, HOLLY, AND MAGNOLIA, SHALL HAVE A MINIMUM SPREAD OF THREE AND ONE-HALF (3.5) FEET AT THREE (3) FEET ABOVE GROUND LEVEL.

WHERE A BUILDING BETWEEN TWELVE (12) FEET AND TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED TO BE LOCATED WITHIN FIFTY (50) FEET OF A PERIMETER PROPERTY LINE THAT SEPARATES THE DEVELOPMENT PROJECT FROM AN ABUTTING RESIDENTIAL USE LOCATED OUTSIDE THE PROJECT, CANOPY TREES WITHIN REQUIRED BUFFERS (TYPES (A-C) LOCATED BETWEEN THE BUILDING AND A SITE PERIMETER SHALL BE A MINIMUM OF FIFTEEN (15) FEET IN HEIGHT WITH A THREE-INCH DIAMETER AT 0.5 FEET ABOVE GRADE AT PLANTING AND A MINIMUM SIX-FOOT SPREAD. WHERE A BUILDING BETWEEN TWELVE (12) FEET AND TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED MORE THAN FIFTY (50) FEET FROM A PERIMETER, THE CANOPY TREE HEIGHT REQUIREMENTS OF [SUBSECTION] (D)1. ABOVE, SHALL APPLY TO CANOPY TREES WITHIN THE BUFFER.

WHERE A BUILDING OVER TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED TO BE LOCATED WITHIN SEVENTY (70) FEET OF A PERIMETER PROPERTY LINE THAT SEPARÀTES THE DEVELOPMENT FROM AN ABUTTING RESIDENTIAL USE LOCATED OUTSIDE THE PROJECT, ALL CANOPY TREES WITHIN REQUIRED BUFFERS (TYPES A-C) LOCATED BETWEEN THE BUILDING AND A SITE PERIMETER SHALL BE A MINIMUM OF SIXTEEN (16) FEET IN HEIGHT WITH A THREE-INCH DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE AND A MINIMUM EIGHT-FOOT SPREAD AT PLANTING. WHERE A BUILDING OVER TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED MORE THAN SEVENTY (70) FEET FROM A PERIMETER, THE CANOPY TREE HEIGHT REQUIREMENTS OF SUBSECTION] (D)1. ABOVE, SHALL APPLY TO CANOPY TREES WITHIN THE BUFFER.

REQUIRED UNDERSTORY TREES SHALL BE A MINIMUM OF SIX (6) FEET OVERALL IN HEIGHT AND ONE- AND ONE-HALF (1.5) INCHES DIAMETER AT ONE—HALF (0.5) FEET ABOVE GRADE AT THE TIME OF PLANTING, MULTI—TRUNK TREES SHALL HAVE A COMBINED ONE— AND ONE-HALF-INCH CALIPER FOR ALL TRUNKS AT SIX (6) INCHES ABOVE GRADE. PALM TREES USED AS UNDERSTORY TREES SHALL HAVE A MINIMUM OVERALL HEIGHT OF SIX (6) FEET AND SHALL NOT COMPRISE MORE THAN ONE-THIRD (1/3) OF THE TOTAL UNDERSTORY TREE

E. THE NUMBER OF DIFFERENT SPECIES OF TREES, OTHER THAN PALMS, SHALL BE AS FOLLOWS: FOR SITES OR PARCELS LOCATED IN A SAND RIDGE OR XERIC SCRUB ENVIRONMENT AS DETERMINED BY COUNTY ENVIRONMENTAL PLANNING STAFF. A MINIMUM OF SIX (6) SPECIES SHALL BE REQUIRED, REGARDLESS OF THE REQUIRED NUMBER OF TREES. SUCH TREES SHALL BE INDIGENOUS TO, AND TOLERANT OF, SAND RIDGE OR XERIC SCRUB CONDITIONS.

AT LEAST FIFTY (50) PERCENT OF ALL REQUIRED CANOPY TREES, UNDERSTORY TREES, AND PALMS SHALL BE A NATIVE SPECIES AS LISTED IN APPENDIX A. TREES IN PROXIMITY TO PUBLIC WORKS OR EASEMENTS. TREES OF A SPECIES WHOSE ROOTS ARE KNOWN TO CAUSE DAMAGE TO SIDEWALKS, ROADS, OR DRIVEWAYS SHALL NOT BE PLANTED CLOSER THAN SIX (6) FEET TO SUCH STRUCTURES UNLESS A TREE ROOT SYSTEM BARRIER, APPROVED BY THE PUBLIC WORKS DIRECTOR OR HIS DÈSIGNEE, IS PROVIDED THAT PROTECTS THE STRUCTURE(S) FROM DAMAGE BY THE ROOT SYSTEM. SAID ROOT BARRIER, WHERE REQUIRED, SHALL BE INSTALLED PRIOR TO I ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR CERTIFICATE OF COMPLETION. PROHIBITED TREES. THE INSTALLATION OF ANY OF THE SPECIES LISTED IN APPENDIX B IS PROHIBITED

CREDITS FOR THE USE OF NEWLY PLANTED TREES LARGER THAN THE MINIMUM SIZE SHALL BE AS INDICATED IN TABLE 2. FRACTIONAL MEASUREMENTS SHALL BE ATTRIBUTED TO THE

NEXT LOWEST CATEGORY. SEE TABLE 3 REGARDING CREDITS FOR TREES PRE-EXISTING OR RELOCATED ON-SITE.

SHRUBS SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING, EXCEPT THAT SHRUBS NON-NATIVE VIBURNUM AND LIGUSTRUM SPECIES SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES IN HEIGHT IMMEDIATELY AFTER

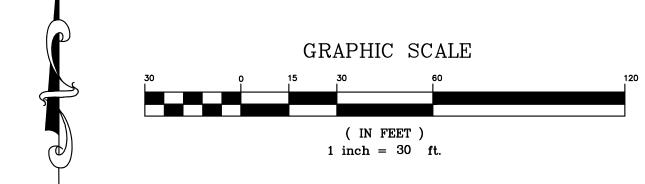
SHRUBS, WHERE REQUIRED, SHALL BE PLANTED IN AN OFFSET DOUBLE ROW AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID SCREEN. WHERE REQUIRED TO FORM A CONTINUOUS SCREEN TO SATISFY A BUFFER OR OPAQUE FEATURE REQUIREMENT, SHRUBS SHALL BE PLANTED ON TWENTY-FOUR (24)-TO-THIRTY (30) INCH CENTERS, UNLESS A GREATER SPACING IS NECESSARY TO ACCOMMODATE larger shrubs and is approved by plánning división staff

EVERY LANDSCAPE PLAN SHALL CONTAIN A MINIMUM NUMBER OF SHRUB SPECIES AS INDICATED IN THE TABLE BELOW. EXCLUDING SHRUBS USED IN OPAQUE FEATURES, AT LEAST FIFTY (50) PERCENT OF THE REQUIRED NUMBER OF SHRUBS SHALL BE OF NATIVE SPECIES, LISTED VINES. VINES SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT DIRECTLY AFTER PLANTING AND NO LESS THAN THIRTY (30) INCHES

APART. VINES MAY BE USED IN CONJUNCTION WITH FÉNCES, SCREENS OR WALLS TO MEET PHYSICAL BARRIER REQUIREMENTS AS SPÉCIFIED. AT LEAST FIFTY (50) PERCENT MUST BE NATIVE. VINES QUALIFYING AS NATIVE ARE LISTED IN APPENDIX A. THE INSTALLATION OF ANY SPECIES LISTED IN APPENDIX B IS PROHIBITED.

MULCH AND GROUND COVERS. THE USE OF CYPRESS MULCH IS PROHIBITED. MULCH THAT IS NOT CYPRESS MAY BE USED, GROUND COVERS (NOT INCLUDING SOD GRASS) SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND REASONABLY COMPLETE COVERAGE WITHIN ONE YEAR AFTÉR PLANTING. AT LEAST FIFTY (50) PERCENT OF THE AREA COVERED BY LIVING MATERIAL SHALL BE OF NATIVE SPECIES. REFER TO APPENDIX FOR A LIST OF NATIVE GROUND COVERS AND FLOWERS. THE COMPLETE COVERAGE OF AN AREA BY GROUND COVERS PRECLUDES THE USE OF MULCH THEREAFTER.

TURF GRASS. TURF GRASS AREAS SHALL BE IDENTIFIED ON THE LANDSCAPE PLAN AND SHALL BE LIMITED TO A MAXIMUM OF FIFTY (50) PERCENT OF THE TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING RIGHTS-OF-WAY, ACTIVE RECREATION AREAS (E.G. PLAYFIELDS), ND SLOPES WITHIN DRY RETENTION AREAS. TURF GRASS SHALL BE PLACED SO THAT IT CAN BE IRRIGATED IN A SEPARATE ZONE. PREFERRED TURF GRASSES ARE THOSE QUALIFYING AS NATIVE AND ARE LISTED IN APPENDIX C. GRASS AREAS MAY BE SODDED, PLUGGED, STRIGGED OR SEEDED, EXCEPT THAT SOLID SOD OR HYDRO-SEEDING SHALL BE USED IN SWALES OR OTHER AREAS SUBJECT TO EROSION. SEED, WHERE USED, SHALL BE OF A VARIETY THAT WILL PRODUCE COVERAGE WITHIN NINETY (90) DAYS FROM SOWING: WHERE OTHER THAN SOLID SOD, GRASS SEED OR GRASS SPRIGGING IS USED, NURSE GRASS SEED SHALL BE SOWN FOR IMMEDIATE EFFECT AND PROTECTION UNTIL COVERAGE IS OTHERWISE ACHIEVED. WHEN NECESSARY, A RESEEDING PROGRAM SHALL BE IMPLEMENTED TO PRODUCE COMPLETE COVERAGE WITHIN ONE (1) YEAR.





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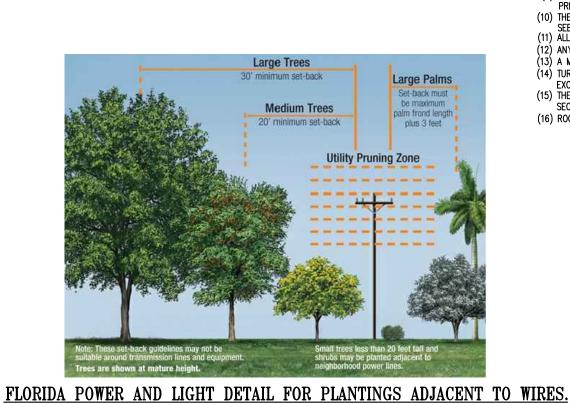
ENGINEER CERTIFICATION ☐ JOSEPH W. SCHULKE FL. REG. NO. 47048 FL. REG. NO. 57396 FL. REG. NO. 57605 SHEET

☐ JODAH B. BITTLE □WILLIAM P. STODDARD

16-096

7APROJECT NO.

## LANDSCAPING POINT CALCULATIONS A. IRRIGATION SYSTEM: -MOISTURE SENSING CONTROLLER— -PLAN SUBMITTED W/LOW, MODERATE & HIGH WATER USAGE ZONES INDICATED— 5 POINTS SHRUBS: -50% TO 75% OF TOTAL QUANTITY OF PLANTS RATED 'VERY DROUGHT TOLERANT' -76% TO 100% OF TOTAL QUANTITY OF PLANTS RATED 'VERY DROUGHT TOLERANT' — 5 POINTS —10 POINTS C. TREES: -50% TO 75% OF TOTAL QUANTITY OF TREES RATED 'VERY DROUGHT TOLERANT'--76% TO 100% OF TOTAL QUANTITY OF TREES RATED 'VERY DROUGHT TOLERANT'— D. EXTRA CANOPY TREES IN VEHICULAR USE AREAS: -20% TO 40% MORE THAN REQUIRED -MORE THAN 40% REQUIRED F. FLORIDA NATIVE LANDSCAPE: -100% OF LANDSCAPE AREA IS PRESERVED OR RE-ESTABLISHED FLORIDA NATIVE VEGETATION OR NEW NATIVE PLANTINGS OF SPECIES LISTED IN APPENDIX A & C. PLAN MUST INCLUDE TREES, UNDERSTORY, & GROUNDCOVER WITH A MAX. OF 50% OF SITE SODDED/GRASSED -75% TO 99% OF LANDSCAPE AREA IS PRESERVED OR RE-ESTABLISHED FLORIDA NATIVE VEGETATION OR RE-ESTABLISHED FLORIDA NATIVE VEGETATION OR NEW NATIVE PLANTINGS OF SPECIES LISTED IN APPENDIX A & C. PLAN MUST INCLUDE TREES, UNDERSTORY, & GROUNDCOVER WITH A MAX. OF 50% OF SITE SODDED/GRASSED— TOTAL POINTS 30



R=25',L=39.64'

MONUMENTED NORTH R/W PER PLAT

35' R/W PER PLAT OF CASA RIO

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#### LANDSCAPE MATERIAL STANDARDS & NOTES

- (1) QUALITY. PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, AS GIVEN IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II, STATE OF FLORIDA.
- (2) DROUGHT TOLERANCE REQUIREMENTS. A MINIMUM OF FIFTY (50) PERCENT OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THE I.R.C. L.D.R., CHAPT. 926, SHALL BE "VERY DROUGHT TOLERANT," AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE "SOUTH FLORIDA WATER MANAGEMENT DISTRICT XERISCAPE PLANT GUIDE."
- (A) CANOPY TREES SHALL BE SPECIES HAVING AN AVERAGE MATURE SPREAD OF CROWN GREATER THAN FIFTEEN (15) (B) PALMS SHALL BE CONSIDERED 1/3 OF A CANOPY TREE AND, IF USED, THEY SHALL CONSIST OF NO MORE 1/3 OR 33% OF THE TOTAL NEW TREE REQUIREMENT. ADDITIONALLY, 3 PALMS = 1 CANOPY TREE . PALM TREES MUST HAVE AT LEAST 12 FEET OF CLEAR WOOD AT TIME OF PLANTING.
- (C) TREE SPECIES SHALL BE A MINIMUM OF TWELVE (12) FEET OVERALL IN HEIGHT AND TWO (2) INCH CALIPER AT THE TIME OF PLANTING.
- (D) AT LEAST FIFTY (50) PERCENT OF ALL NEW REQUIRED TREES SHALL BE OF A NATIVE SPECIES, AND AT LEAST 50% OF ALL TREES SHALL BE RATED "VERY DROUGHT TOLERANT." (4) GRASS. GRASS AREAS MAY BE SODDED, PLUGGED, SPRIGGED OR SEEDED, EXCEPT THAT SOLID SOD SHALL BE USED IN SWALES OR OTHER AREAS SUBJECT TO EROSION. SEED, WHERE USED, SHALL BE OF A VARIETY THAT WILL PRODUCE COVERAGE WITHIN NINETY (90) DAYS FROM SOWING. SOD TO BE ZOYSIA ONLY PER WAWA.
- (A) 50% OF ALL SHRUBS & HEDGES SHALL BE RATED "VERY DROUGHT TOLERANT" (B) SHRUBS SHALL BE A MIN. OF 18" AT PLANTING.
  (C) HEDGES SHALL BE PLANTED AT A MIN. OF 30" O.C.
- (D) HEDGES TO BE 3' TALL AT PLANTING.
- (6) IRRIGATION USAGE ZONES SHALL BE AS FOLLOWS: (A) GRASS AREA SHALL BE IN HIGH USAGE ZONES.
- (B) TREES & SHRUBS SHALL BE IN LOW USAGE ZONES. 7) IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A MOISTURE SENSING CONTROLLER
- (8) THERE SHALL BE SIX (6) DIFFERENT SPECIES OF TREES USED, PER I.R.C. ORDINANCE, CHAPT. 926.

  (9) THE CONTRACTOR SHALL ATTEMPT TO PRESERVE AS MANY EXISTING TREES AS POSSIBLE AND FEASIBLE. TREES THAT ARE PRESERVED MAY BE CREDITED TOWARDS THE SITE TREE REQUIREMENT IF THEY MEET THE ABOVE SPECIFICATIONS. (10) THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF TREES AND SIGNS SUCH THAT ALL SIGNAGE IS EASILY
- SEEN FOR ITS INTENDED PURPOSE. TREE PLACEMENT MAY VARY FROM THIS PLAN TO ACHIEVE THIS REQUIREMENT (11) ALL LANDSCAPE ISLANDS MUST BE BERMED. Y) ANY LANDSCAPE MATERIAL IN SHOCK MUST BE REPLACED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. 13) A MIN. OF 9 SPECIES OF SHRUBS ARE REQUIRED, OF WHICH AT LEAST 6 SPECIES MUST BE NATIVE.
- (14) TURF GRASS SHALL BE LIMITED TO A MAX. 50% OF TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING R/W, ACTIVE RECREATION AREAS AND SLOPES WITHIN DRY RETENTION AREAS.

  (15) THE LANDSCAPE PLAN MUST INCLUDE A CERTIFICATION THAT THE PROJECT'S IRRIGATION SYSTEM WILL COMPLY WITH SECTION 926.11 REQUIREMENTS AS WELL AS ANY WATER USE RESTRICTIONS BY SJRWMD. (16) ROOT BARRIERS ARE REQUIRED FOR CANOPY TREES WITHIN 6' OF A SIDEWALK, PARKING AREA, DRIVEWAY OR STRUCTURE.

11TH STREET

35' RIGHT OF WAY PER PLAT

47' EXISTING RIGHT-OF-WAY

			LANDSCAPE MAT	TERIAL SCHEDU	LE				
SYMBOL		AMOUNT	BOTANICAL NAME	COMMON NAME	SIZE	HGT	OTHER	NATIVE	DROUG TOLERA
ATTIM		7	Roystonea regia	ROYAL PALM	10' CLEAR TRUNK	12'	6' SPREAD	YES	YES
		7	llex attenuata 'Eagleston'	EAST PALATKA HOLLY	2" DIA 6" AG	12'	6' SPREAD	YES	YES
	$\otimes$	4	Conocarpus erectus	SILVER BUTTONWOOD	1.5" DIA 6" AG	6'	3' CLR / 5' SPREAD	YES	YES
	CHR	18	Chrysoblanus icaco 'Red Tip'	RED TIP COCOPLUM	_	12"	30" O.C.	YES	YES
	FOR	18	llex vomitoria	YAPOON HOLLY	_	12"	30" O.C.	YES	YES
	HAM	18	Hamelia patens	FIREBUSH	_	12"	30" O.C.	YES	NO
	ILE	18	Callicarpa americana	BEAUTYBERRY	_	12"	30" O.C.	YES	NO
	OVB	18	Viburnum obovatum	WALTERS VIBURNUM	_	12"	30" O.C.	YES	YES
	LYN	18	Duranta repens	GOLD MOND DURANTA	_	12"	30" O.C.	YES	YES
	IXO	18	Ixora 'Nora Grant'	IXORA	_	12"	30" O.C.	NO	NO
	TRI	17	Tripsacum dactyloides	FAKAHATCHEE GRASS	_	12"	30" O.C.	NO	NO
DENOTES PARKING INTERIOR		PARKING INTERIOR	DENOTES FOUNDATION						

ΙΖΕ	HGT	OTHER	NATIVE	DROUGHT TOLERANT
CLEAR UNK	12'	6' SPREAD	YES	YES
DIA AG	12'	6' SPREAD	YES	YES
'DIA AG	6	3' CLR / 5' SPREAD	YES	YES
_	12"	30" O.C.	YES	YES
_	12"	30" O.C.	YES	YES
_	12"	30" O.C.	YES	NO
_	12"	30" O.C.	YES	NO
_	12"	30" O.C.	YES	YES
_	12"	30 <b>"</b> 0 C	YES	YFS

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			•			
DENOTES LANDSCAP	PARKING ING AREA	INTERIOR		DENOTES PLANTER	FOUNDATION AREA	

LAND USE: C/I

EX. 8" GRAVITY SEWER

EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND FOR EX SAND

### LANDSCAPE CALCULATIONS - PHASE 2

- OFF-STREET PARKING PERIMETER LANDSCAPING ADJACENT TO ABUTTING PROPERTY SOUTH PROPERTY LINE ADJACENT TO OUT-PARCEL ALONG EASTERN SIDE OF THE PROPERTY 5' WIDE BUFFER
- NOTE: WE ARE EXEMPT FROM THIS REQUIREMENT DUE TO 30' ACCESS EASEMENT. OFF-STREET PARKING INTERIOR LANDSCAPING (SEE SITE DATA ON COVER FOR IMPERVIOUS AREA CALCULATIONS) PARKING AREA = 11.368 SF
- = 11,368 SF X 12% = 1,365 SF = 1,365 SF X 1 TREE/300 SF = 4.5 OR 5 TREES INTERIOR LANDSCAPE AREA AND TREES PROVIDED
- 1,365 SF INTERIOR LANDSCAPING WITH 5 PROPOSED CANOPY TREES II. NON-VEHICULAR OPEN SPACE LANDSCAPING (SEE SITE DATA ON COVER FOR OPEN SPACE AREA CALCULATIONS)
- OPEN GREEN SPACE WITHIN L.O.D. = 4,913 SF 2,315 SF = 2,598 SF (VOS/FOUNDATION) 2,598 SF X 1 TREE/2,000 SF = 1.3 OR 2 TREE
- TREES PROVIDED 2 CANOPY TREES FOUNDATION PLANTINGS
- PROPOSED BUILDING HEIGHT: 12 FT TO 25 FT HIGH PLANTER WIDTH: 10 FT BUILDING PERIMETER: 254 FT ENTRANCES: 18 FT
  - REQUIRED PLANTER: 40% x (254 FT 18 FT) = 95 LF FOUNDATION AREA REQUIRED = 95' x 10' = 950 SF FOUNDATION AREA PROPOSED = 950 SF REQUIRED PLANTS:
  - 1. 950 SF x 1 TREE/150 SF = 6.3 OR 7 CANOPY TREES 2. 950 FT x 1 UNDERSTORY/300 SF = 3.2 OR 4 UNDERSTORY 3. 950 SF x 1.5 SHRUBS/10 SF = 142.5 OR 143 SHRUBS PROPOSED PLANTS: 7 CANOPY TREES
- 4 UNDERSTORY TREES 143 SHRUBS TOTAL LANDSCAPE REQUIREMENTS:
- -TOTAL CANOPY TREES REQUIRED 5 + 2 + 7 = 14 CANOPY TREES
- TOTAL TREES PROVIDED: PROPOSED CANOPY TREES = 14 TREES -TOTAL UNDERSTORY TREES REQUIRED:
- 4 UNDERSTORY TREES TOTAL TREES PROVIDED: 4 PROPOSED UNDERSTORY TREES
- -TOTAL HEDGE REQUIRED: 143 PROPOSED SHRUBS

NOTE: ALL OPEN SPACE LANDSCAPE AREAS SHALL CONTAIN PROPER GROUND COVER.

#### LANDSCAPE NOTES

LANDSCAPE MATERIAL STANDARDS QUALITY. PLANT MATERIALS USED IN CONFORMANCE WITH THE PROVISIONS OF THIS CHAPTER SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER, UNLESS SPECIFICALLY EXCEPTED BELOW, AS GIVEN IN THE MOST CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, OR EQUAL THERETO. A CANOPY TREE MAY BE DEEMED TO MEET FLORIDA NO. 1 STANDARDS IF THE MAIN LEADER SPLITS INTO NO MORE THAN TWO (2) LEADERS AT OR ABOVE A HEIGHT OF TEN (10) FEET, PALMS SHALL HAVE A FULL, HEALTHY HEAD AND SHALL NOT BE EXCESSIVELY PRUNED, GRASS SOD SHALL BE CLEAN AND FREE OF WEEDS AND NOXIOUS PESTS OR DISEASES. GRASS SEEDS SHALL BE DELIVERED TO THE JOB SITE IN BAGS WITH FLORIDA DEPARTMENT OF AGRICULTURE TAGS ATTACHED, INDICATING THE SEED GROWER'S COMPLIANCE WITH THE DEPARTMENT'S QUALITY CONTROL PROGRAM. PLANT MATERIALS WHICH ARE KNOWN TO BE INTOLERANT OF PAVING ENVIRONMENTS, OR WHOSE PHYSICAL

CHARACTERISTICS MAY BE INJURIOUS TO THE PUBLIC, SHALL NOT BE SPECIFIED FOR USE. (A) COUNTY-ACCEPTABLE FLORIDA NO. 2\* OR BETTER REQUIRED CANOPY TREES MAY BE USED AROUND WATER BODIES AND STORMWATER AREAS. WITHIN PARK AND COMMON GREEN SPACE AREAS, AROUND AND WITHIN CONSERVATION OR PRESERVATION AREAS, AND WITHIN REAR YARD AND SIDE YARD BUFFERS WHERE THE BUFFER DEPTH IS GREATER THAN OR EQUAL TO FORTY (40) FEET. IN NO INSTANCE SHALL A REQUIRED CANOPY TREE THAT IS LESS THAN FLORIDA NO. 1 BE INSTALLED CLOSER THAN TWENTY-FIVE (25) FEET TO THE NEAREST BUILDING, DRIVEWAY, STREET,

OR PARKING AREA. \* A "COUNTY-ACCEPTABLE FLORIDA NO. 2 CANOPY TREE" SHALL MEAN A FLORIDA NO. 2 TREE WITH NO DISTORTED OR LOP-SIDED CROWN, NO SPLIT LEADER BELOW EIGHT (8) FEET, NO MORE THAN TWO (2) LEADERS BELOW TWELVE (12) FEET, AND NO SPLIT LEADER BELOW

TWELVE (12) FEET WITH A DEGREE OF SEPARATION THAT EXCEEDS THIRTY (30) DEGREES. DROUGHT TOLERANCE REQUIREMENTS. A MINIMUM OF FIFTY (50) PERCENT OF TOTAL CUMULATIVE LANDSCAPE PLANT MATERIAL USED TO MEET THE PROVISIONS OF THIS CHAPTER SHALL BE "MODERATELY" OR "VERY" DROUGHT TOLERANT, AS CLASSIFIED AND LISTED IN THE MOST RECENT EDITION OF THE "SOUTH FLORIDA WATER MANAGEMENT DISTRICT XERISCAPE PLANT GUIDE" OR A COMPARABLE PUBLICATION. EXISTING NATIVE PLANT SPECIES PRESERVED ON-SITE MAY BE CONSIDERED AS CREDIT TOWARD THE DROUGHT TOLERANCE PERCENTAGE REQUIREMENT.

# CANOPY TREES, EXCEPT FOR NARROW CANOPY TREE SPECIES IDENTIFIED UNDER [SUBSECTION] 926.06(3)(D)1.B., BELOW, SHALL BE SPECIES HAVING AN AVERAGE MATURE CROWN SPREAD OF GREATER THAN FIFTEEN (15) FEET (UNDER LOCAL CLIMATIC CONDITIONS) AND

- HAVING A TRUNK(S) WITH OVER FIVE (5) FEET OF CLEAR WOOD. "CLEAR WOOD" REFERS TO THAT PORTION OF THE TRUNK BETWEEN THE GROUND AND THE LOWEST LATERAL LIMBS. 2.. ALL NEW CANOPY TREES SHALL BE PLANTED IN A PLANTING AREA OF AT LEAST ONE HUNDRED FORTY-FOUR (144) SQUARE FEET, WITH
  - MINIMUM DIMENSIONS BEING AT LEAST TWELVE (12) FEET IN ANY DIRECTION. LARGER AREAS MAY BE REQUIRED BY THE COMMUNITY DEVELOPMENT DIRECTOR OR HIS DESIGNEE FOR NEWLY PLANTED OR EXISTING TREES TO BE PRESERVED, AS REQUIRED BY CHAPTER 927, 3. CLUSTERS OF PALMS, SUCH AS SABAL PALMS, MAY BE USED AS CANOPY TREES PROVIDED THAT A MINIMUM OF THREE (3) PALMS ARE
  - CLUSTERED TO EQUAL ONE (1) CANOPY TREE. CLUSTERS OF PALMS AND SPECIMEN PALMS (SPECIFIED BELOW), IF USED, SHALL CONSIST OF NO MORE THAN ONE-THIRD (1/3) OF THE TOTAL CANOPY TREE REQUIREMENT. A. MULTI-TRUNK PALM MAY BE SUBSTITUTED FOR ONE (1) CANOPY TREE PROVIDED THAT THE TOTAL HEIGHT OF THE COMBINED CLEAR TRUNKS (GROUND TO LOWEST FROND, MEASURED ALONG THE TRUCK) IS A MINIMUM OF EIGHTEEN (18) FEET.
  - CANOPY TREES IF IT HAS A CLEAR TRUNK OF AT LEAST EIGHT (8) FEET AND AN OVERALL HEIGHT OF AT LEAST EIGHTEEN (18) C. A PALM OF THE ROYSTONEA GENUS WITH A MINIMUM CLEAR TRUNK OF TEN (10) FEET MAY BE COUNTED AS ONE (1) CANOPY

B. A CANARY ISLAND DATE PALM, SYLVESTER PALM, OR BISMARK PALM WITH A CLEAR TRUNK OF AT LEAST TWO (2) FEET AND AN

OVERALL HEIGHT OF AT LEAST TWELVE (12) FEET MAY COUNT AS ONE (1) CANOPY TREE. SUCH A PALM MAY COUNT AS TWO (2)

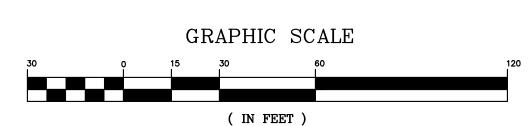
- 4. MINIMUM CANOPY TREE SPACING SHALL BE PROVIDED AS FOLLOWS:
- A. BETWEEN FULL CANOPY TREES (E.G. OAK, PINE, BAY): TWENTY-FIVE (25) FEET. B. BETWEEN NARROW CANOPY TREE VARIETIES (E.G., CYPRESS AND HOLLY) NOT INCLUDING MAGNOLIA: FIFTEEN (15) FEET.
- C. BETWEEN FULL CANOPY TREES AND NARROW CANOPY TREE VARIETIES (E.G., CYPRESS AND HOLLY) NOT INCLUDING MAGNOLIA: TWENTY TREES HAVING AN AVERAGE MATURE CROWN SPREAD LESS THAN FIFTEEN (15) FEET MAY BE SUBSTITUTED BY GROUPING THE SAME SO AS TO
- CREATE THE EQUIVALENT OF A 15 CROWN SPREAD.
- UNDERSTORY TREES SHALL BE SPECIES DEFINED AS MEDIUM OR SMALL TREES HAVING A MATURE CROWN SPREAD OF FIFTEEN (15) FEET OR
- D. TREE SIZES:
- REQUIRED CANOPY TREES SHALL BE A MINIMUM OF TWELVE (12) FEET OVERALL IN HEIGHT AND TWO (2) INCH DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE WITH A MINIMUM CROWN SPREAD OF FOUR AND ONE-HALF (4.5) FEET, AT THE TIME OF PLANTING, EXCEPT AS
- A. UNLESS OTHERWISE SPECIFIED IN [SUBSECTION] (3)(A) ABOVE, PALMS USED TOWARD CANOPY TREE CREDIT SHALL HAVE A MINIMUM CLEAR TRUNK (GROUND TO LOWEST FROND, MEASURED ALONG THE TRUNK) OF TEN (10) FEET. WHERE AN ARRANGEMENT OF SUCH PALMS WITH VARYING HEIGHTS BETWEEN SIX (6) FEET CLEAR TRUNK AND EIGHTEEN (18) FEET CLEAR TRUNK IS PROPOSED AND
- THE AVERAGE CLEAR TRUNK OF THE ARRANGEMENT IS TEN (10) FEET, EACH PALM IN THE ARRANGEMENT SHALL COUNT AS ONE (1) TEN-FOOT CLEAR TRUNK PALM FOR TREE CANOPY REQUIREMENT PURPOSES. NARROW, UPRIGHT CANOPY TREE SPECIES, SUCH AS VARIETIES OF CYPRESS, HOLLY, AND MAGNOLIA, SHALL HAVE A MINIMUM SPREAD OF THREE AND ONE-HALF (3.5) FEET AT THREE (3) FEET ABOVE GROUND LEVEL. WHERE A BUILDING BETWEEN TWELVE (12) FEET AND TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED TO BE LOCATED WITHIN
- FIFTY (50) FEET OF A PERIMETER PROPERTY LINE THAT SEPARATES THE DEVELOPMENT PROJECT FROM AN ABUTTING RESIDENTIAL USE LOCATED OUTSIDE THE PROJECT, CANOPY TREES WITHIN REQUIRED BUFFERS (TYPES (A-C) LOCATED BETWEEN THE BUILDING AND A SITE PERIMETER SHALL BE A MINIMUM OF FIFTEEN (15) FEET IN HEIGHT WITH A THREE-INCH DIAMETER AT 0.5 FEET ABOVE GRADE AT PLANTING AND A MINIMUM SIX-FOOT SPREAD. WHERE A BUILDING BETWEEN TWELVE (12) FEET AND TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED MORE THAN FIFTY (50) FEET FROM A PERIMETER, THE CANOPY TREE HEIGHT REQUIREMENTS OF [SUBSECTION] (D)1. ABOVE, SHALL APPLY TO CANOPY TREES WITHIN THE BUFFER.
- D. WHERE A BUILDING OVER TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED TO BE LOCATED WITHIN SEVENTY (70) FEET OF A PERIMETER PROPERTY LINE THAT SEPARATES THE DEVELOPMENT FROM AN ABUTTING RESIDENTIAL USE LOCATED OUTSIDE THE PROJECT, ALL CANOPY TREES WITHIN REQUIRED BUFFERS (TYPES A-C) LOCATED BETWEEN THE BUILDING AND A SITE PERIMETER SHALL BE A MINIMUM OF SIXTEEN (16) FEET IN HEIGHT WITH A THREE-INCH DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE AND A MINIMUM EIGHT-FOOT SPREAD AT PLANTING. WHERE A BUILDING OVER TWENTY-FIVE (25) FEET IN HEIGHT IS PROPOSED MORE THAN SEVENTY (70) FEET FROM A PERIMETER, THE CANOPY TREE HEIGHT REQUIREMENTS OF [SUBSECTION] (D)1. ABOVE, SHALL APPLY TO CANOPY TREES WITHIN THE BUFFER.
- REQUIRED UNDERSTORY TREES SHALL BE A MINIMUM OF SIX (6) FEET OVERALL IN HEIGHT AND ONE- AND ONE-HALF (1.5) INCHES DIAMETER AT ONE-HALF (0.5) FEET ABOVE GRADE AT THE TIME OF PLANTING. MULTI-TRUNK TREES SHALL HAVE A COMBINED ONE- AND ONE-HALF-INCH CALIPER FOR ALL TRUNKS AT SIX (6) INCHES ABOVE GRADE. PALM TREES USED AS UNDERSTORY TREES SHALL HAVE A MINIMUM OVERALL HEIGHT OF SIX (6) FEET AND SHALL NOT COMPRISE MORE THAN ONE-THIRD (1/3) OF THE TOTAL UNDERSTORY TREE
- THE NUMBER OF DIFFERENT SPECIES OF TREES, OTHER THAN PALMS, SHALL BE AS FOLLOWS: FOR SITES OR PARCELS LOCATED IN A SAND RIDGE OR XERIC SCRUB ENVIRONMENT AS DETERMINED BY COUNTY ENVIRONMENTAL PLANNING STAFE, A MINIMUM OF SIX (6) SPECIES SHALL BE REQUIRED, REGARDLESS OF THE REQUIRED NUMBER OF TREES. SUCH TREES SHALL BE INDIGENOUS TO, AND OLERANT OF, SAND RIDGE OR XERIC SCRUB CONDITIONS.
- AT LEAST FIFTY (50) PERCENT OF ALL REQUIRED CANOPY TREES, UNDERSTORY TREES, AND PALMS SHALL BE A NATIVE SPECIES AS TREES IN PROXIMITY TO PUBLIC WORKS OR EASEMENTS. TREES OF A SPECIES WHOSE ROOTS ARE KNOWN TO CAUSE DAMAGE TO SIDEWALKS, ROADS, OR DRIVEWAYS SHALL NOT BE PLANTED CLOSER THAN SIX (6) FEET TO SUCH STRUCTURES UNLESS A TREE

ROOT SYSTEM BARRIER, APPROVED BY THE PUBLIC WORKS DIRECTOR OR HIS DESIGNEE, IS PROVIDED THAT PROTECTS THE

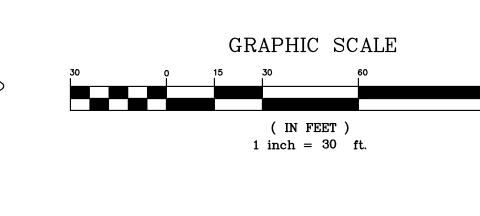
STRUCTURE(S) FROM DAMAGE BY THE ROOT SYSTEM. SAID ROOT BARRIER, WHERE REQUIRED, SHALL BE INSTALLED PRIOR TO I ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR CERTIFICATE OF COMPLETION. PROHIBITED TREES. THE INSTALLATION OF ANY OF THE SPECIES LISTED IN APPENDIX B IS PROHIBITED. CREDITS FOR THE USE OF NEWLY PLANTED TREES LARGER THAN THE MINIMUM SIZE SHALL BE AS INDICATED IN TABLE 2.

FRACTIONAL MEASUREMENTS SHALL BE ATTRIBUTED TO THE

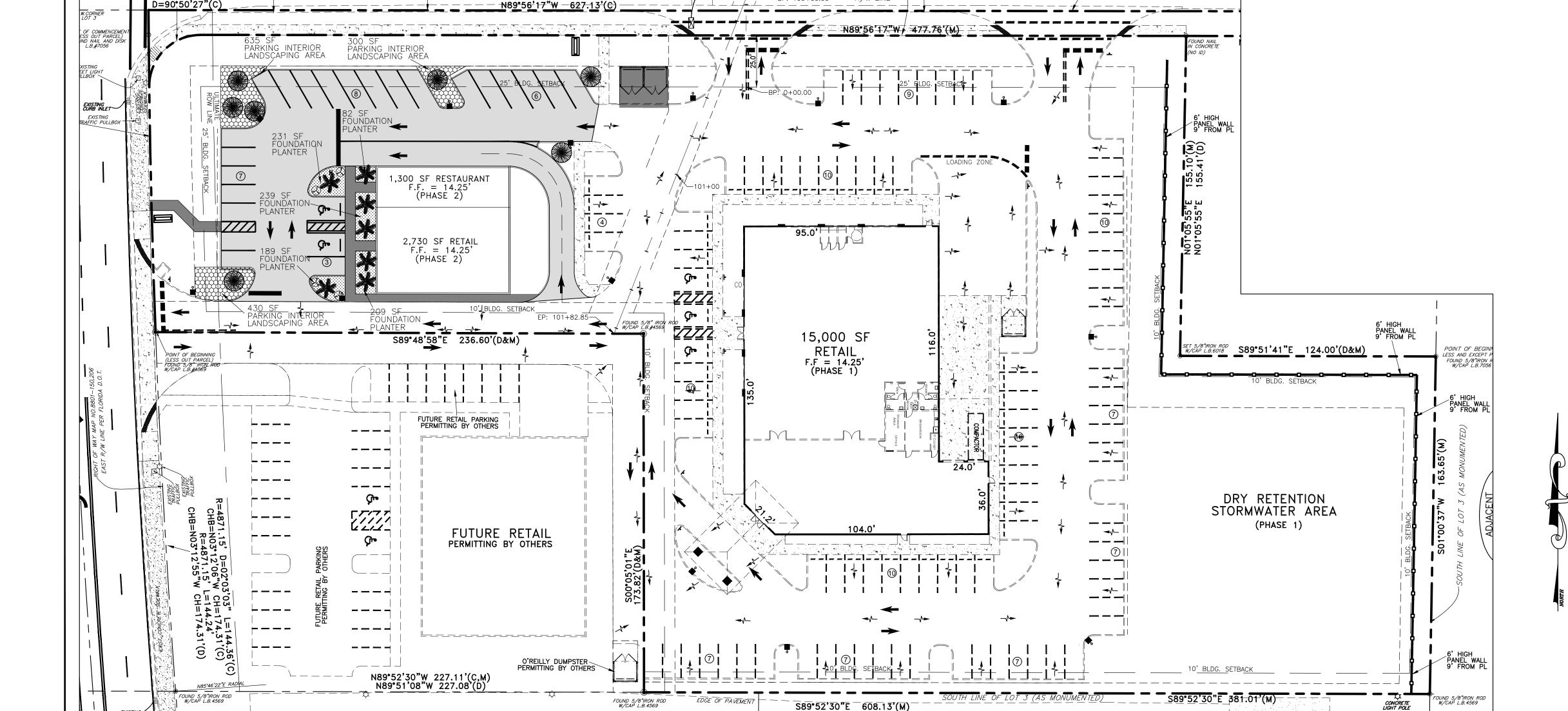
- NEXT LOWEST CATEGORY. SEE TABLE 3 REGARDING CREDITS FOR TREES PRE-EXISTING OR RELOCATED ON-SITE. SHRUBS SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING, EXCEPT THAT SHRUBS NON-NATIVE VIBURNUM AND LIGUSTRUM SPECIES SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES IN HEIGHT IMMEDIATELY AFTER
- B. SHRUBS, WHERE REQUIRED, SHALL BE PLANTED IN AN OFFSET DOUBLE ROW AND MAINTAINED SO AS TO FORM A CONTINUOUS, UNBROKEN, SOLID SCREEN. WHERE REQUIRED TO FORM A CONTINUOUS SCREEN TO SATISFY A BUFFER OR OPAQUE FEATURE REQUIREMENT, SHRUBS
- SHALL BE PLANTED ON TWENTY-FOUR (24)-TO-THIRTY (30) INCH CENTERS, UNLESS A GREATER SPACING IS NECESSARY TO ACCOMMODATE LARGER SHRUBS AND IS APPROVED BY PLANNING DIVISION STAFF. EVERY LANDSCAPE PLAN SHALL CONTAIN A MINIMUM NUMBER OF SHRUB SPECIES AS INDICATED IN THE TABLE BELOW. EXCLUDING SHRUBS
- USED IN OPAQUE FEATURES, AT LEAST FIFTY (50) PERCENT OF THE REQUIRED NUMBER OF SHRUBS SHALL BE OF NATIVE SPECIES, LISTED VINES. VINES SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES IN HEIGHT DIRECTLY AFTER PLANTING AND NO LESS THAN THIRTY (30) INCHES APART. VINES MAY BE USED IN CONJUNCTION WITH FÉNCES, SCREENS OR WALLS TO MEET PHYSICAL BARRIER REQUIREMENTS AS SPÉCIFIED. AT LEAST FIFTY (50) PERCENT MUST BE NATIVE. VINES QUALIFYING AS NATIVE ARE LISTED IN APPENDIX A. THE INSTALLATION OF ANY SPECIES LISTED
- MULCH AND GROUND COVERS. THE USE OF CYPRESS MULCH IS PROHIBITED. MULCH THAT IS NOT CYPRESS MAY BE USED, GROUND COVERS (NOT INCLUDING SOD GRASS) SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND REASONABLY COMPLETE COVERAGE WITHIN ONE YEAR AFTÉR PLANTING. AT LEAST FIFTY (50) PERCENT OF THE AREA COVERED BY LIVING MATERIAL SHALL BE OF NATIVE SPECIES. REFER TO APPENDIX FOR A LIST OF NATIVE GROUND COVERS AND FLOWERS. THE COMPLETE COVERAGE OF AN AREA BY GROUND COVERS PRECLUDES THE USE OF MULCH THEREAFTER.
- TURF GRASS. TURF GRASS AREAS SHALL BE IDENTIFIED ON THE LANDSCAPE PLAN AND SHALL BE LIMITED TO A MAXIMUM OF FIFTY (50) PERCENT OF THE TOTAL IRRIGATED, LANDSCAPED AND VEGETATED PROJECT AREA, EXCLUDING RIGHTS-OF-WAY, ACTIVE RECREATION AREAS (E.G. PLAYFIELDS), AND SLOPES WITHIN DRY RETENTION AREAS. TURF GRASS SHALL BE PLACED SO THAT IT CAN BE IRRIGATED IN A SEPARATE ZONE. PREFERRED TURF GRASSES ARE THOSE QUALIFYING AS NATIVE AND ARE LISTED IN APPENDIX C GRASS AREAS MAY BE SODDED, PLUGGED, STRIGGED OR SEEDED. EXCEPT THAT SOLID SOD OR HYDRO-SFEDING SHALL BE USED IN SWALES OR OTHER AREAS SUBJECT TO EROSION, SEED, WHERE USED, SHALL BE OF A VARIETY THAT WILL PRODUCE COVERAGE WITHIN NINETY (90) DAYS FROM SOWING: WHERE OTHER THAN SOLID SOD, GRASS SEED OR GRASS SPRIGGING IS USED, NURSE GRASS SEED SHALL BE SOWN FOR



IMPLEMENTED TO PRODUCE COMPLETE COVERAGE WITHIN ONE (1) YEAR.







IMMEDIATE EFFECT AND PROTECTION UNTIL COVERAGE IS OTHERWISE ACHIEVED. WHEN NECESSARY, A RESEEDING PROGRAM SHALL BE 0

ENGINEER CERTIFICATI ☐ JOSEPH W. SCHULKE FL. REG. NO. 47048 ☐ JODAH B. BITTLE FL. REG. NO. 57390 ■ WILLIAM P. STODDAF SHEET

STODDARD,

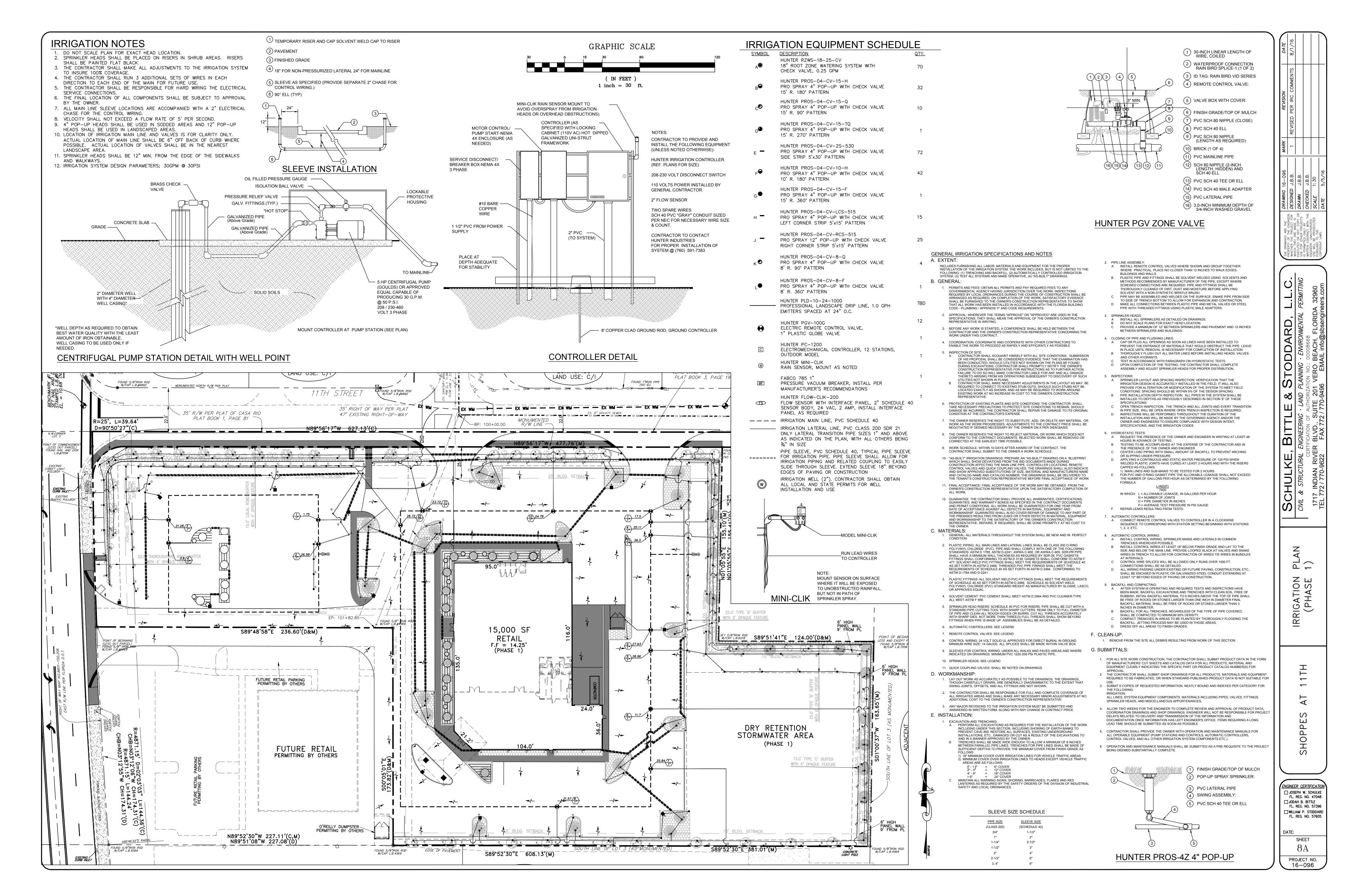
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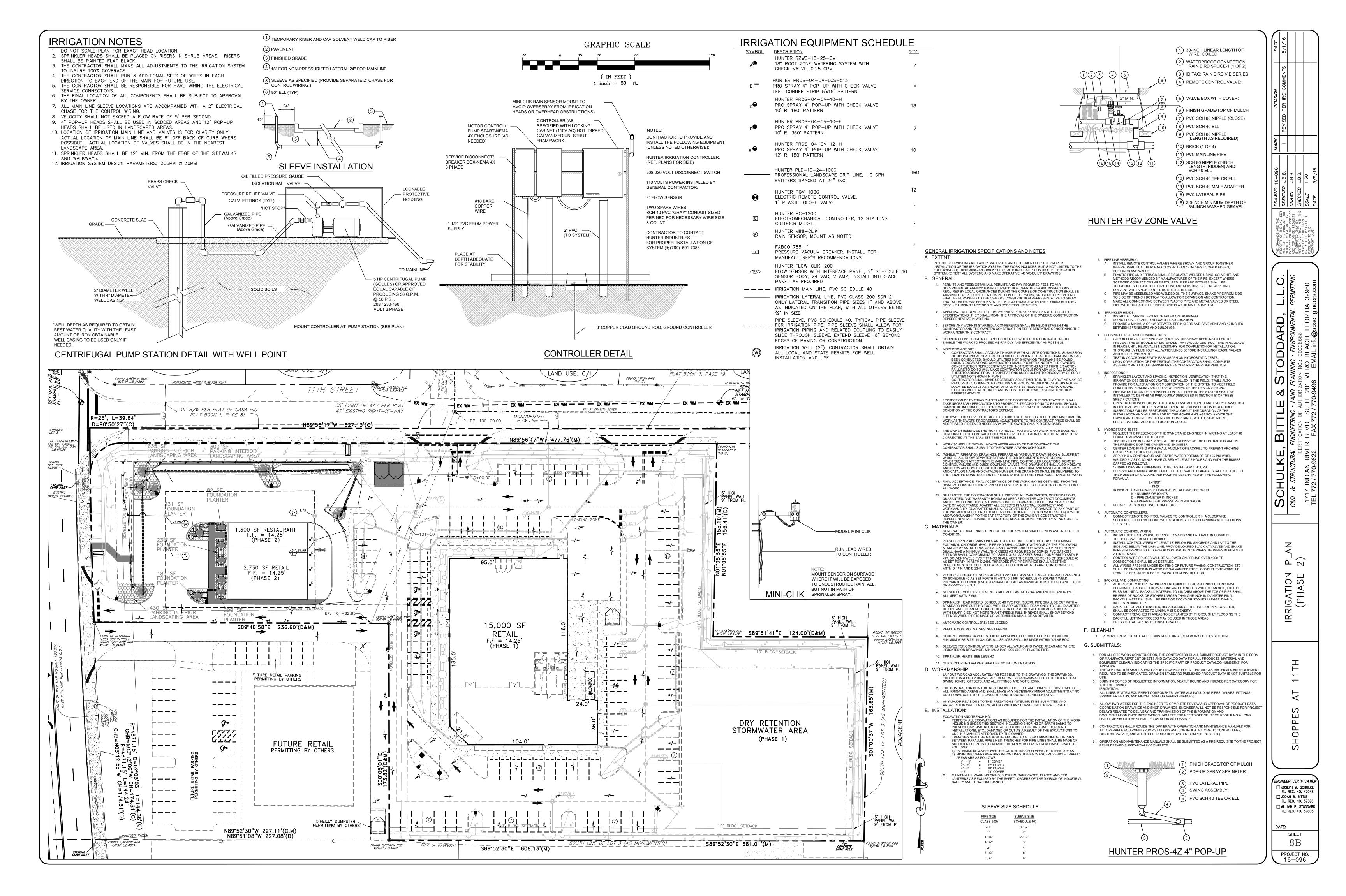
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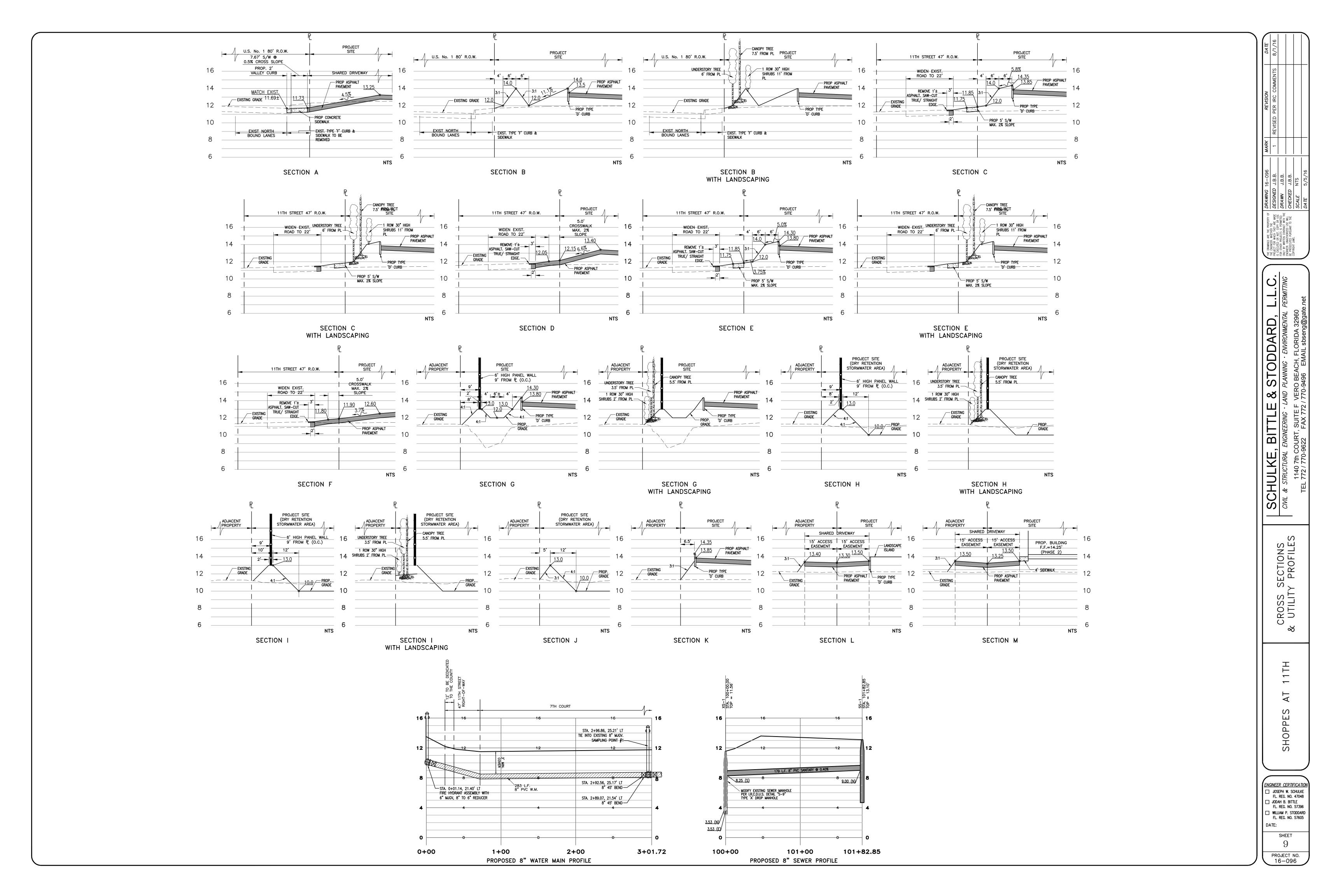
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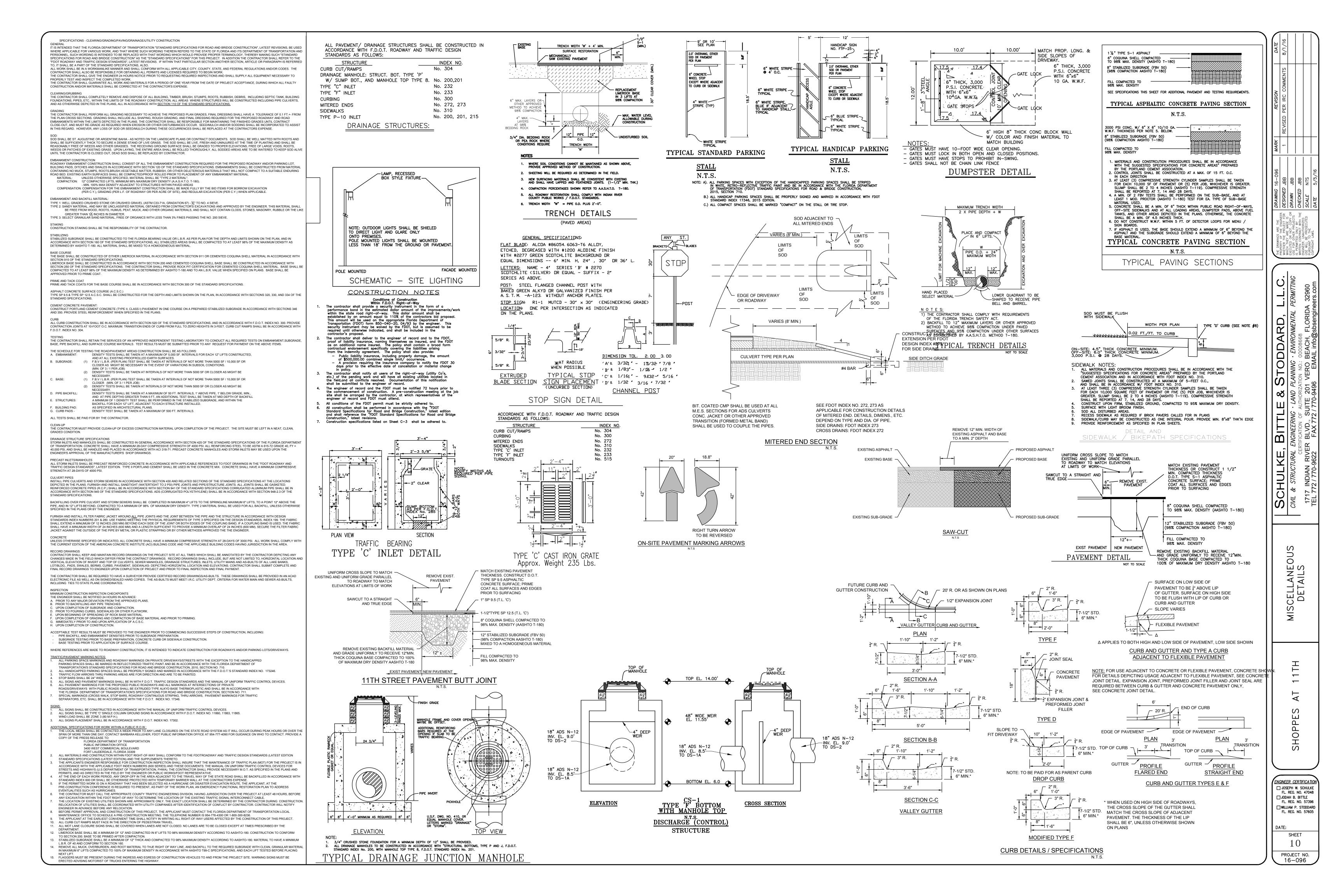
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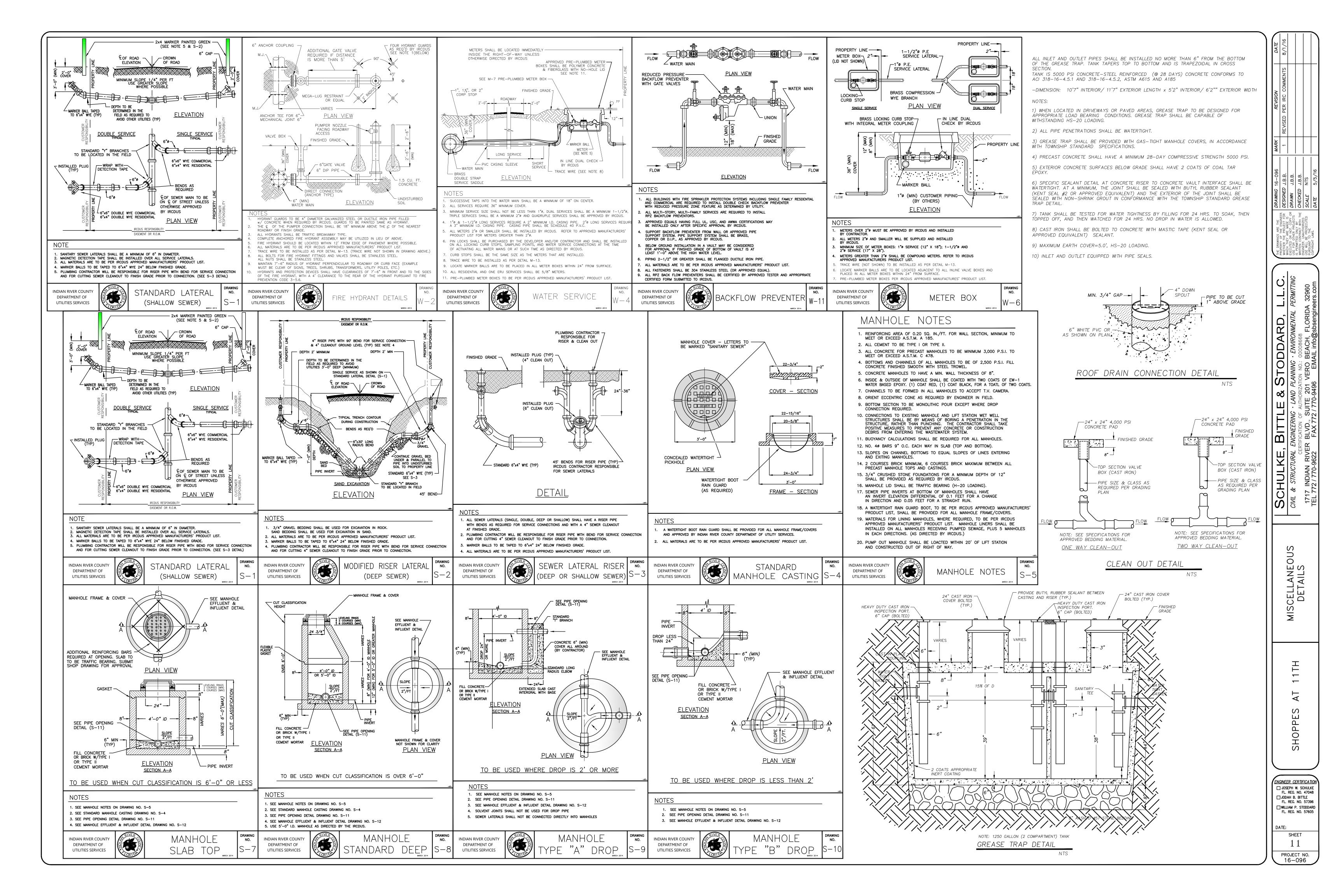
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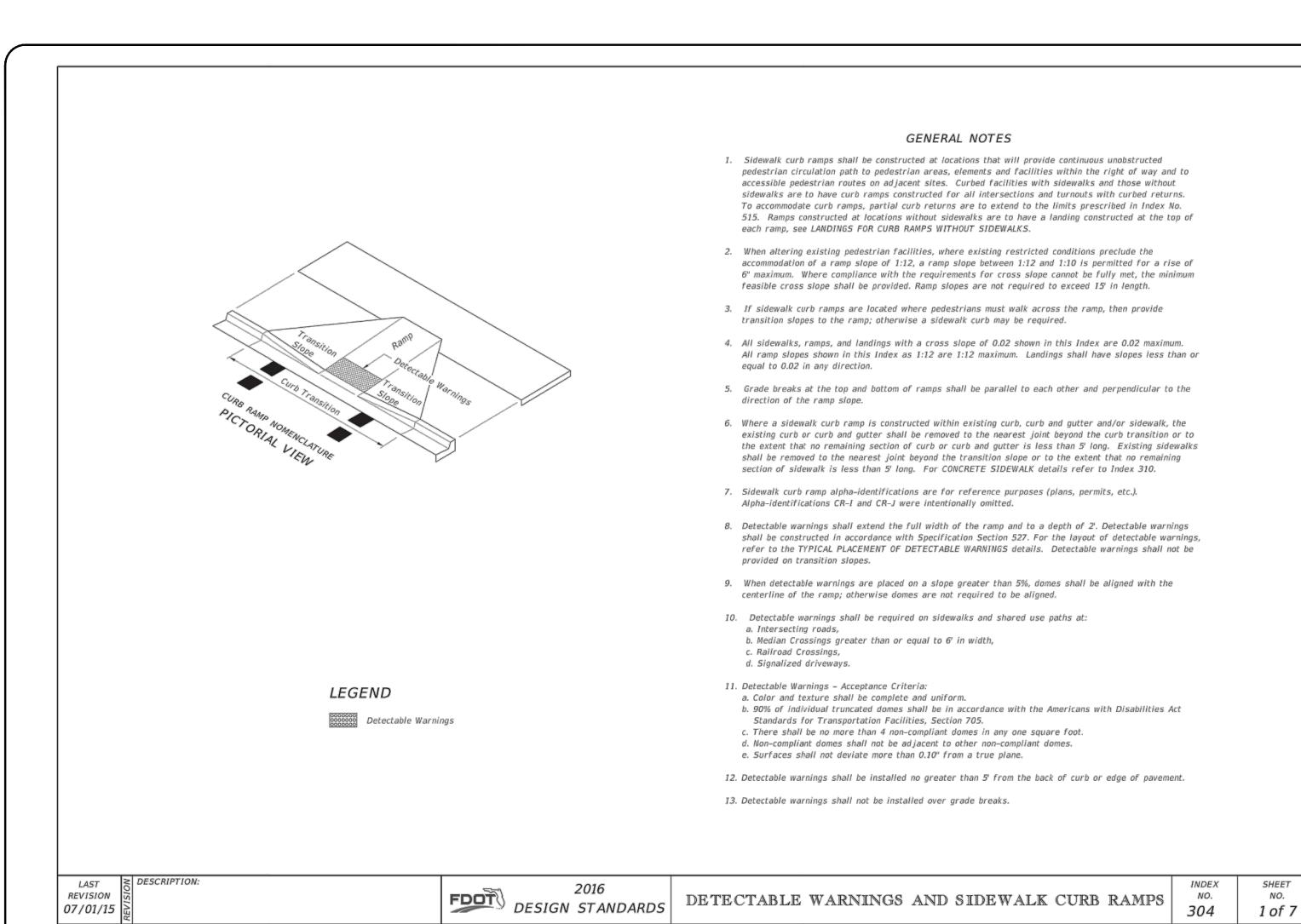


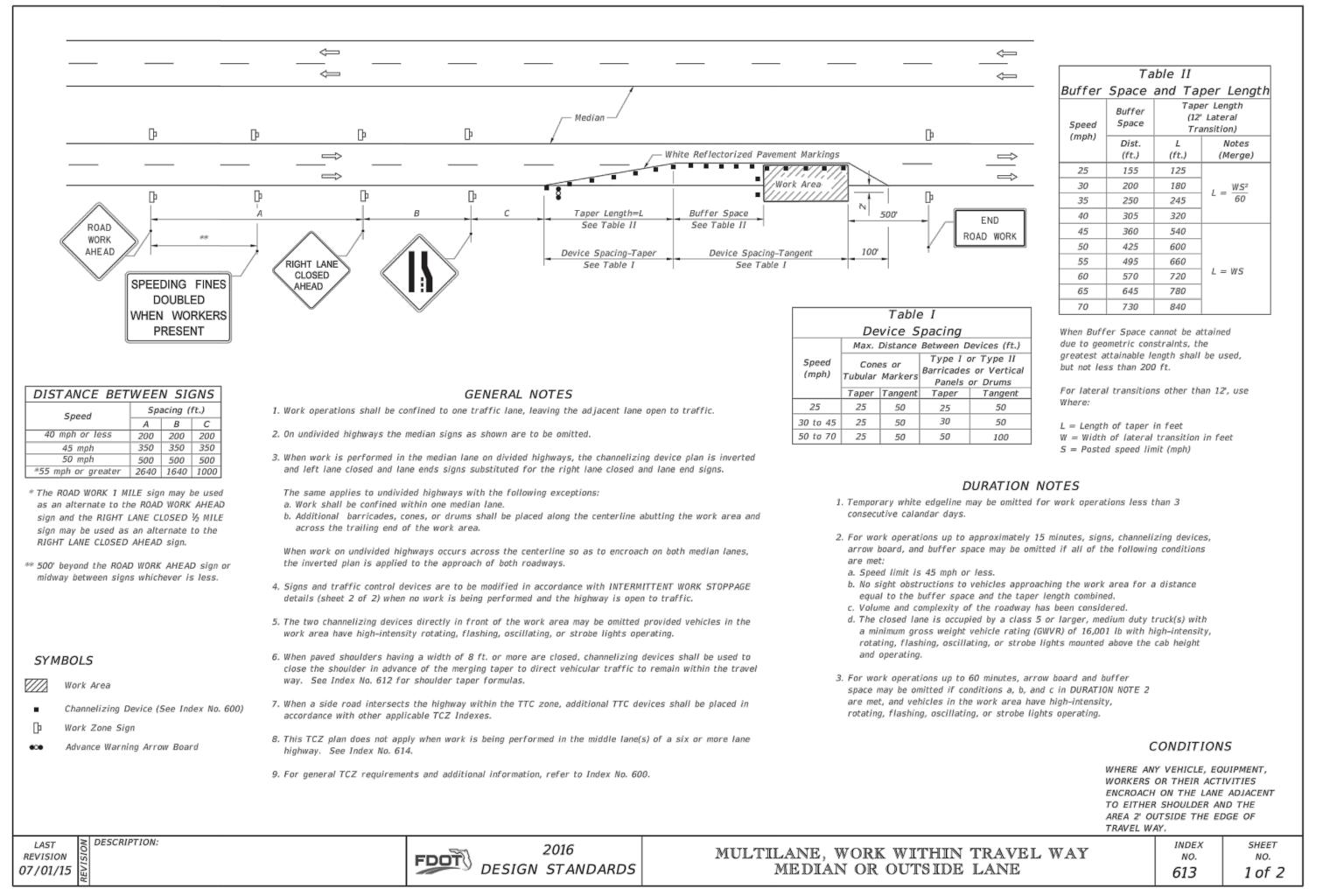


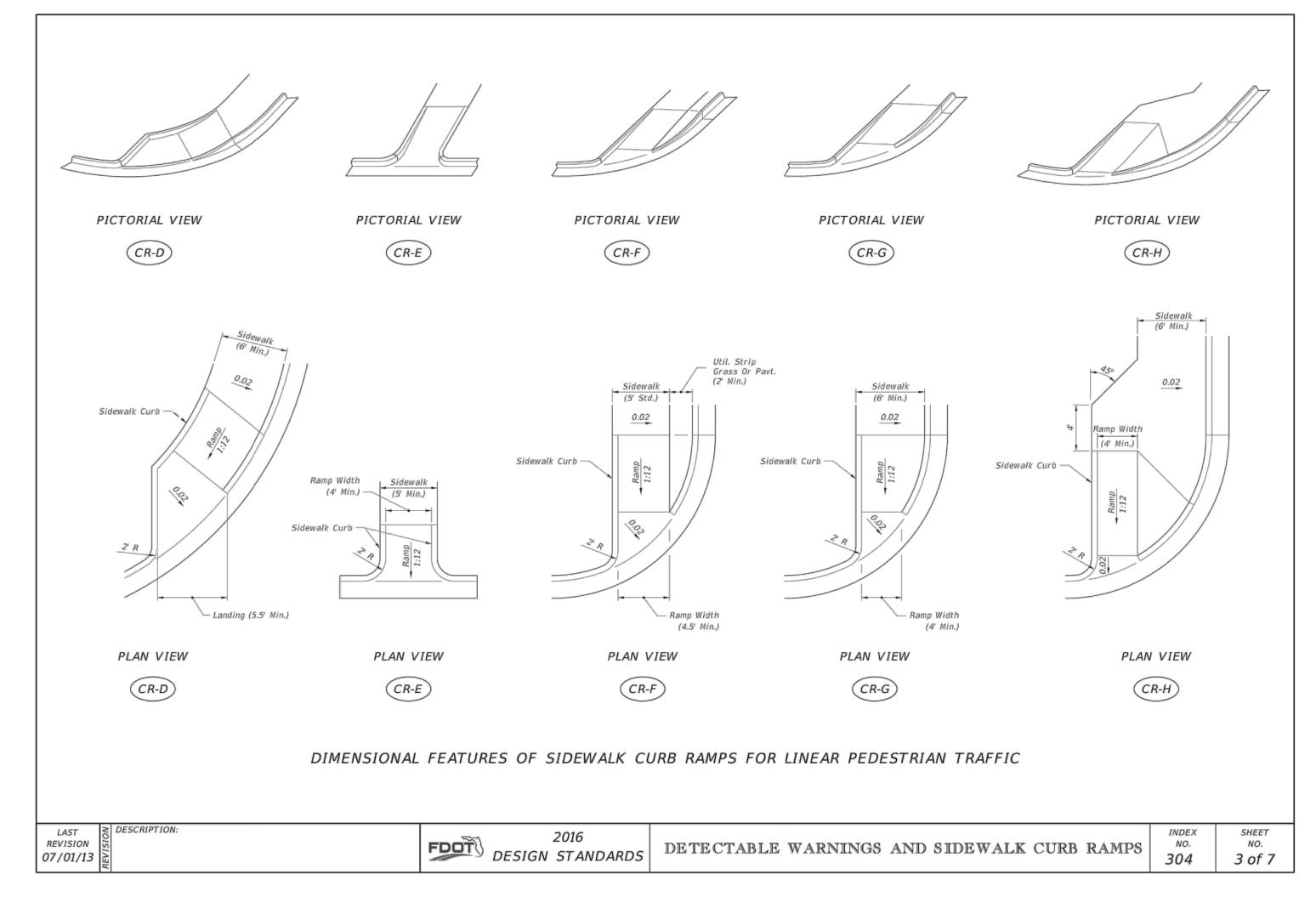


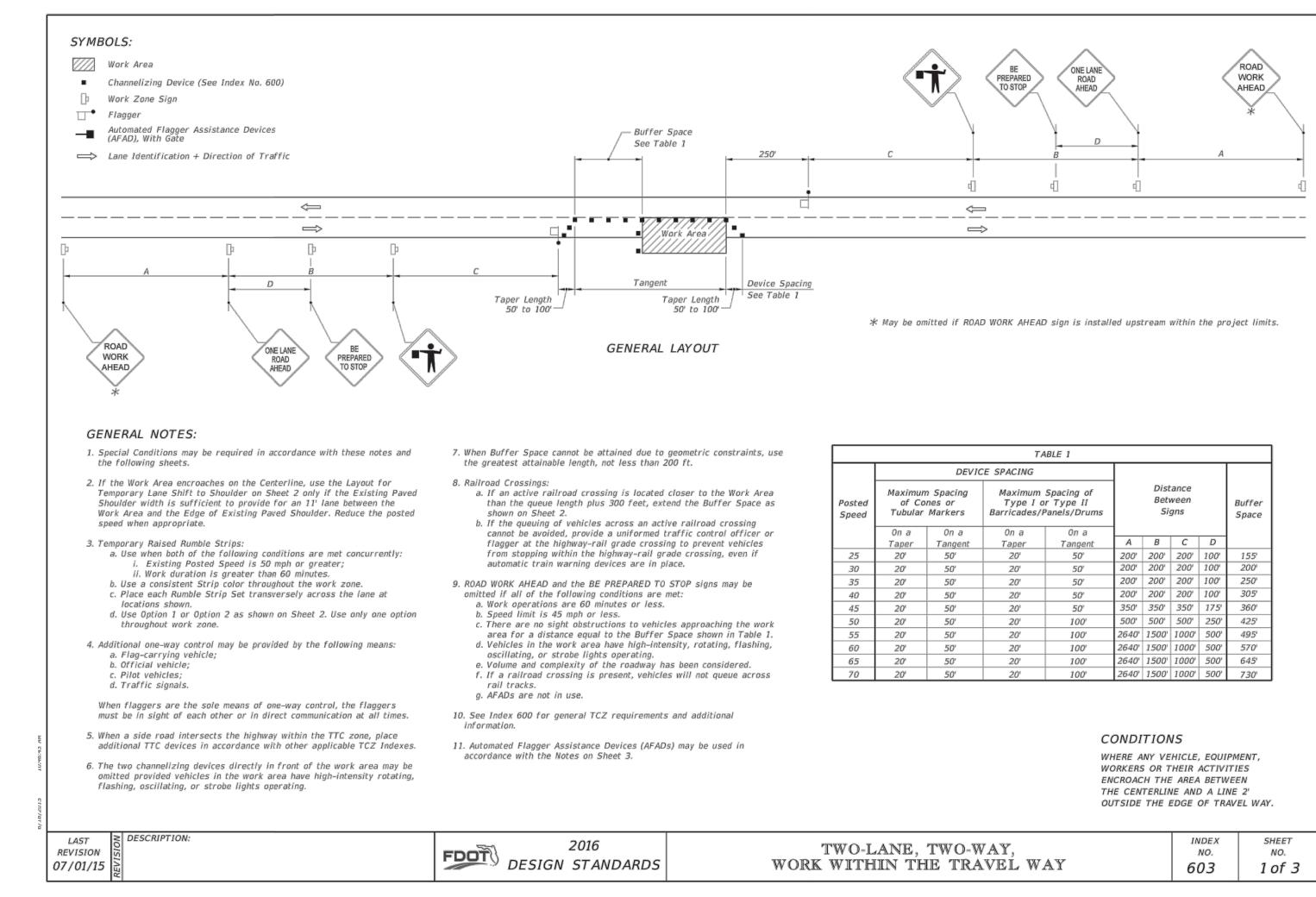












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ENGINEER CERTIFICATION

☐ JOSEPH W. SCHULKE

FL. REG. NO. 47048 ☐ JODAH B. BITTLE

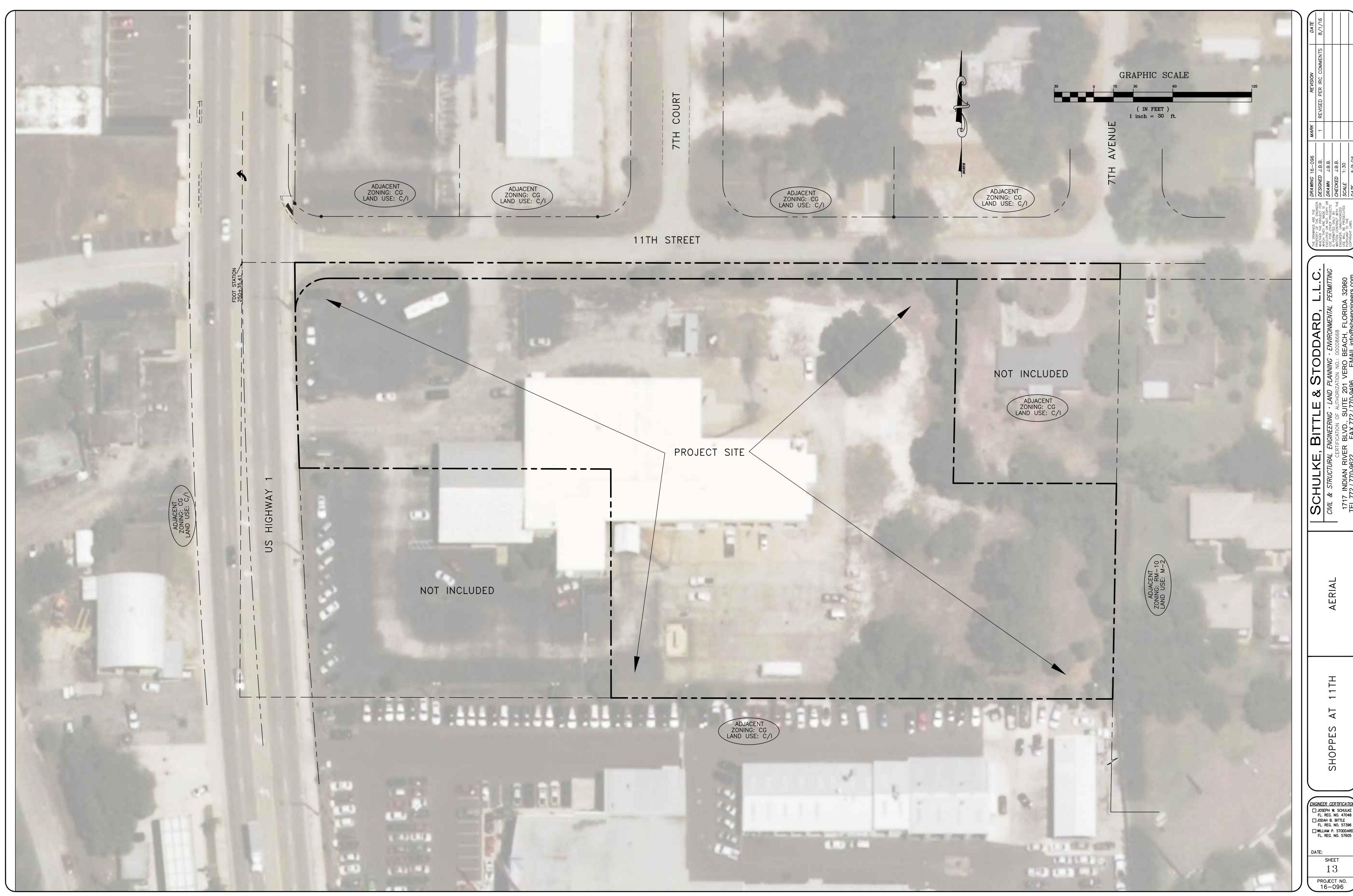
FL. REG. NO. 57396

■WILLIAM P. STODDARD

SHEET

PROJECT NO. 16-096

FL. REG. NO. 57605



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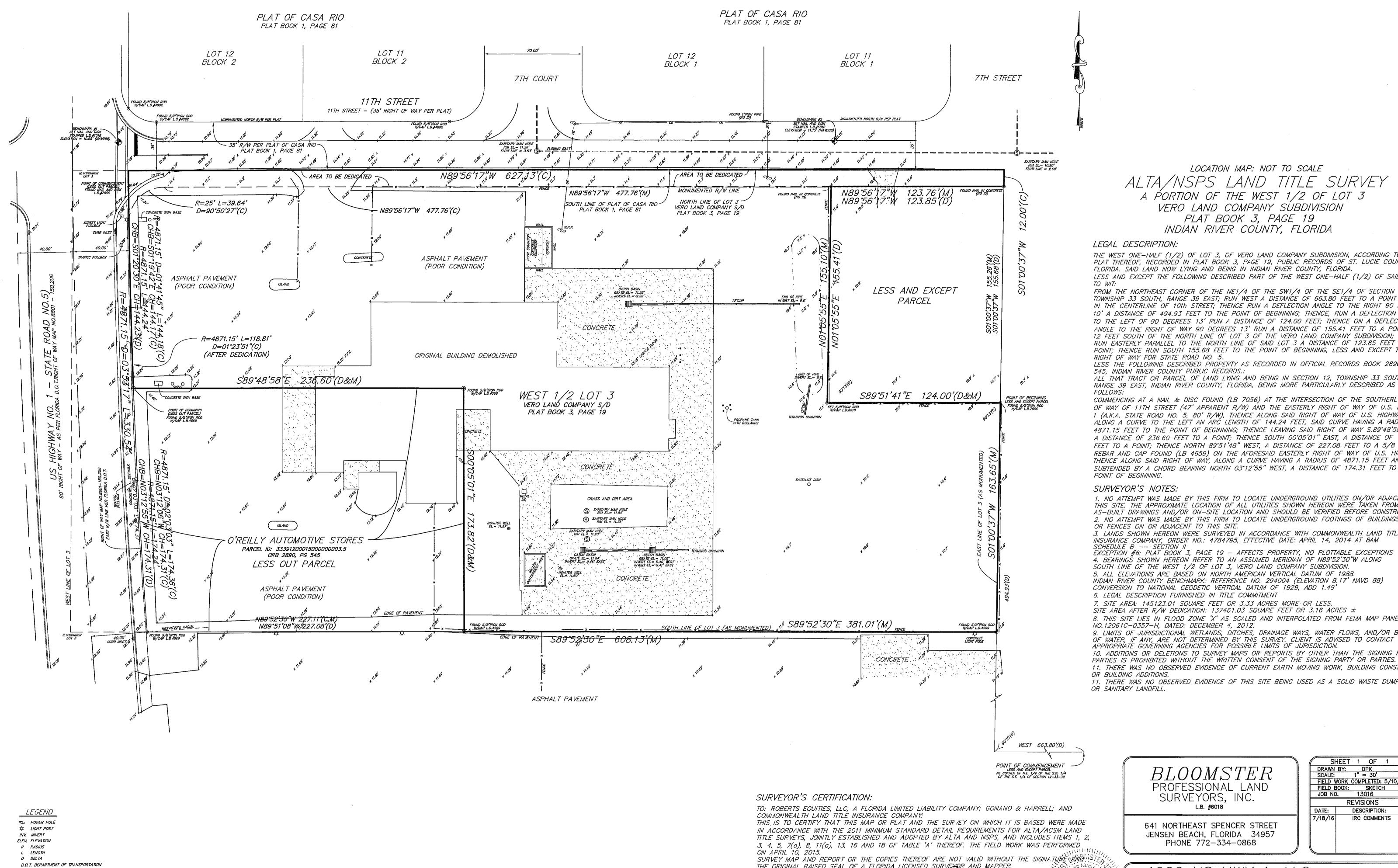
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ENGINEER CERTIFICATION

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FL. REG. NO. 57396

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FL. REG. NO. 57605



LOCATION MAP: NOT TO SCALE ALTA/NSPS LAND TITLE SURVEY A PORTION OF THE WEST 1/2 OF LOT 3 VERO LAND COMPANY SUBDIVISION PLAT BOOK 3, PAGE 19
INDIAN RIVER COUNTY, FLORIDA

THE WEST ONE-HALF (1/2) OF LOT 3, OF VERO LAND COMPANY SUBDIVISION, ACCORDING TO THE PLAT THEREOF. RECORDED IN PLAT BOOK 3, PAGE 19, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA. SAID LAND NOW LYING AND BEING IN INDIAN RIVER COUNTY, FLORIDA LESS AND EXCEPT THE FOLLOWING DESCRIBED PART OF THE WEST ONE-HALF (1/2) OF SAID LOT 3

FROM THE NORTHEAST CORNER OF THE NE1/4 OF THE SW1/4 OF THE SE1/4 OF SECTION 12, TOWNSHIP 33 SOUTH, RANGE 39 EAST; RUN WEST A DISTANCE OF 663.80 FEET TO A POINT BEING IN THE CENTERLINE OF 10th STREET; THENCE RUN A DEFLECTION ANGLE TO THE RIGHT 90 DEGREES 10' A DISTANCE OF 494.93 FEET TO THE POINT OF BEGINNING; THENCE, RUN A DEFLECTION ANGLE TO THE LEFT OF 90 DEGREES 13' RUN A DISTANCE OF 124.00 FEET; THENCE ON A DEFLECTION ANGLE TO THE RIGHT OF WAY 90 DEGREES 13' RUN A DISTANCE OF 155.41 FEET TO A POINT BEING 12 FEET SOUTH OF THE NORTH LINE OF LOT 3 OF THE VERO LAND COMPANY SUBDIVISION; THENCE RUN EASTERLY PARALLEL TO THE NORTH LINE OF SAID LOT 3 A DISTANCE OF 123.85 FEET TO A POINT; THENCE RUN SOUTH 155.68 FEET TO THE POINT OF BEGINNING, LESS AND EXCEPT THE

LESS THE FOLLOWING DESCRIBED PROPERTY AS RECORDED IN OFFICIAL RECORDS BOOK 2890, PAGE 545, INDIAN RIVER COUNTY PUBLIC RECORDS.: ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN SECTION 12, TOWNSHIP 33 SOUTH,

COMMENCING AT A NAIL & DISC FOUND (LB 7056) AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY OF 11TH STREET (47' APPARENT R/W) AND THE EASTERLY RIGHT OF WAY OF U.S. HIGHWAY 1 (A.K.A. STATE ROAD NO. 5, 80' R/W), THENCE ALONG SAID RIGHT OF WAY OF U.S. HIGHWAY 1, ALONG A CURVE TO THE LEFT AN ARC LENGTH OF 144.24 FEET, SAID CURVE HAVING A RADIUS OF 4871.15 FEET TO THE POINT OF BEGINNING; THENCE LEAVING SAID RIGHT OF WAY S.89'48'58" EAST, A DISTANCE OF 236.60 FEET TO A POINT; THENCE SOUTH 00°05'01" EAST, A DISTANCE OF 173.82 FEET TO A POINT; THENCE NORTH 89'51'48" WEST, A DISTANCE OF 227.08 FEET TO A 5/8 INCH REBAR AND CAP FOUND (LB 4659) ON THE AFORESAID EASTERLY RIGHT OF WAY OF U.S. HIGHWAY THENCE ALONG SAID RIGHT OF WAY, ALONG A CURVE HAVING A RADIUS OF 4871.15 FEET AND BEING SUBTENDED BY A CHORD BEARING NORTH 03 12 55" WEST, A DISTANCE OF 174.31 FEET TO THE

1. NO ATTEMPT WAS MADE BY THIS FIRM TO LOCATE UNDERGROUND UTILITIES ON/OR ADJACENT TO THIS SITE. THE APPROXIMATE LOCATION OF ALL UTILITIES SHOWN HEREON WERE TAKEN FROM AS-BUILT DRAWINGS AND/OR ON-SITE LOCATION AND SHOULD BE VERIFIED BEFORE CONSTRUCTION 2. NO ATTEMPT WAS MADE BY THIS FIRM TO LOCATE UNDERGROUND FOOTINGS OF BUILDINGS OR FENCES ON OR ADJACENT TO THIS SITE.

3. LANDS SHOWN HEREON WERE SURVEYED IN ACCORDANCE WITH COMMONWEALTH LAND TITLE INSURANCE COMPANY, ORDER NO.: 4784795, EFFECTIVE DATE: APRIL 14, 2014 AT 8AM

4. BEARINGS SHOWN HEREON REFER TO AN ASSUMED MERIDIAN OF N89°52'30"W ALONG SOUTH LINE OF THE WEST 1/2 OF LOT 3, VERO LAND COMPANY SUBDIVISION. 5. ALL ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. INDIAN RIVER COUNTY BENCHMARK: REFERENCE NO. 294004 (ELEVATION 8.17' NAVD 88)

CONVERSION TO NATIONAL GEODETIC VERTICAL DATUM OF 1929, ADD 1.49' 6. LEGAL DESCRIPTION FURNISHED IN TITLE COMMITMENT

7. SITE AREA: 145123.01 SQUARE FEET OR 3.33 ACRES MORE OR LESS. SITE AREA AFTER R/W DEDICATION: 137461.03 SQUARE FEET OR 3.16 ACRES ± 8. THIS SITE LIES IN FLOOD ZONE 'X' AS SCALED AND INTERPOLATED FROM FEMA MAP PANEL

9. LIMITS OF JURISDICTIONAL WETLANDS, DITCHES, DRAINAGE WAYS, WATER FLOWS, AND/OR BODIES OF WATER, IF ANY, ARE NOT DETERMINED BY THIS SURVEY. CLIENT IS ADVISED TO CONTACT APPROPRIATE GOVERNING AGENCIES FOR POSSIBLE LIMITS OF JURISDICTION.

10. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES. 11. THERE WAS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION

11. THERE WAS NO OBSERVED EVIDENCE OF THIS SITE BEING USED AS A SOLID WASTE DUMP, SUMP

BLOOMSTERPROFESSIONAL LAND SURVEYORS, INC.

641 NORTHEAST SPENCER STREET JENSEN BEACH, FLORIDA 34957 PHONE 772-334-0868

FIELD WORK COMPLETED: 5/10/15 FIELD BOOK: SKETCH
JOB NO. 13016 REVISIONS DESCRIPTION: 7/18/16 IRC COMMENTS

1066 US HWY 1, LLC

1066 U.S. HIGHWAY NO. 1 VERO BEACH, INDIAN RIVER COUNTY, FLORIDA

THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEXOR AND MAPPER.

PROFESSIONAL LAND SURVEYOR NO. 4134 STATE OF FLORIDA

T LEGISA

W/ WITH NO. NUMBER M = MEASUREDC = CALCULATED

L.B. LICENSED BUSINESS

SPOT ELEVATIONS