NOT FOR OCCUPANCY:

THESE DRAWINGS REPRESENT THE SHELL BUILDING CONSTRUCTION DOCUMENTATION AND INCLUDE ASSOCIATED LANDLORD PROVIDED ITEMS VARIOUSLY REQUIRED BY KNOWN TENANTS. NO CERTIFICATE OF OCCUPANCY IS BEING ASKED FOR. EACH TENANT IS REQUIRED TO SUBMIT SEPARATE INTERIOR CONSTRUCTION DOCUMENTS FOR REVIEW AND APPROVAL BY THE CITY FOR WHICH THEIR RESPECTIVE CERTIFICATE OF OCCUPANCIES WILL BE BASED UPON AND ISSUED. IF ANY MODIFICATIONS TO THE SHELL STRUCTURE BECOMES NECESSARY DUE TO TENANT REQUIREMENTS A REVISION TO THE SHELL DRAWINGS WILL BE DOCUMENTED AND ISSUED FOR REVIEW AND APPROVAL BY THE CITY.

PROJECT SUMMARY

THE SCOPE OF WORK PROPOSED UNDER THIS PERMIT INCLUDES THE CONSTRUCTION OF A NEW SINGLE-STORY SHELL BUILDING WITH SELECT TENANT IMPROVEMENTS. THE PROPOSED TOTAL BUILDING AREA IS 6,000 SQUARE FEET.

THE BUILDING WILL BE OF TYPE II-B CONSTRUCTION. WORK SHALL INCLUDE ALL STRUCTURAL COMPONENTS AND FINISHES THAT COMPRISE THE BUILDING ENVELOPE. INCLUDED IN THE SCOPE OF WORK WILL BE THE ELECTRICAL SERVICE AND HOUSE POWER. IN ADDITION TO THE SHELL CONSTRUCTION, SELECT WORK WILL BE PROVIDED FOR THE FUTURE TENANTS PER THE TENANT SCOPE OF WORK SCHEDULE ON THIS SHEET.

CONSTRUCTION DRAWINGS FOR EACH TENANT'S INTERIOR FINISH-OUT SHALL BE PROVIDED BY OTHERS AND SUBMITTED TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL AND PERMIT PRIOR TO CONSTRUCTION.

PROJECT CODE DATA

APPLICABLE CODES

- FLORIDA BUILDING CODE-BUILDING (8TH EDITION)
- FLORIDA BUILDING CODE-EXISTING (8TH EDITION)
- FLORIDA BUILDING CODE-ACCESSIBILITY (8TH EDITION)
- FLORIDA BUILDING CODE-ENERGY CONSERVATION (8TH EDITION)
- FLORIDA BUILDING CODE-FUEL GAS (8TH EDITION)
- FLORIDA BUILDING CODE-MECHANICAL (8TH EDITION)
- FLORIDA BUILDING CODE-PLUMBING (8TH EDITION)
- NATIONAL ELECTRIC CODE (2020 EDITION)
- FLORIDA FIRE PREVENTION CODE (8TH EDITION)

BUILDING STATISTICS

OCCUPANCY	MIXED USE (GROUPS M AND B)
TABLE 508.4 OCCUPANCY SEPARATIONS	1-HOUR
CONSTRUCTION TYPE	TYPE II-B
FIRE SPRINKLERED	NO
FIRE ALARM	NO
ALLOWABLE AREA	12,500 GROSS SQUARE FT. PER FBC TABLE 506.2 (M OCCUPANCY)
PROPOSED AREA	6,000 SQ. FT.
NO. OF STORIES	2 ALLOWED / 1 PROPOSED
ALLOWABLE HEIGHT	55'-0" / PROPOSED HEIGHT 23'-4" (HIGHEST POINT)
ALLOWABLE HEIGHT (MODIFIED)	HEIGHT MODIFICATIONS ARE NOT REQUIRED
MAXIMUM TRAVEL DISTANCE	200' (NON-SPRINKLERED)
MAX. DEAD END CORRIDOR	OCCUPANCY M = 20'
MINIMUM CORRIDOR WIDTH	44" REQUIRED
MINIMUM STAIR WIDTH	N/A

TABLE 601 - FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS

PRIMARY STRUCT. FRAMEWORK	0
EXTERIOR BEARING WALLS	0
INTERIOR BEARING WALLS	0
EXTERIOR NON-BEARING WALLS	(SEE NOTES BELOW FOR TABLE FBC 602)
INTERIOR NON-BEARING WALLS	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

TABLE 602 - FIRE RESISTANCE RATINGS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE

SEC. 705.8 MAXIMUM AREA OF EXTERIOR WALL OPENING BASED ON FIRE SEPARATION DISTANCE

	SEPARATION DISTANCE	FIRE RATING	WALL AREA	OPENING AREA	% OPENINGS ALLOWED	% OPENINGS PROPOSED
EAST	> 30'	0	*	*	NL	*
NORTH	> 30'	0	*	*	NL	*
WEST	> 30'	0	*	*	NL	*
SOUTH	> 30'	0	*	*	NL	*

SEC. 713 SHAFT ENCLOSURES N/A

* WHERE SEPARATION FROM PROPERTY LINES EXCEEDS 30 FEET, THERE ARE NO LIMITS FOR UNPROTECTED WALL OPENINGS. CALCULATIONS FOR WALL AREA, OPENING AREA AND PROPOSED OPENING PERCENTAGES NOT PROVIDED IN SUCH INSTANCES

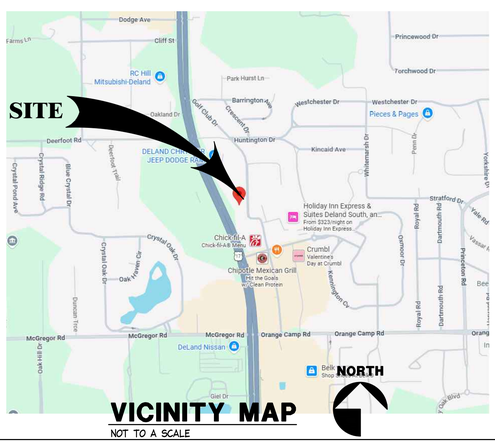
TABLE OF AREAS, OCCUPANT LOAD, EGRESS REQUIREMENTS AND PLUMBING CALCULATIONS

		OCCUPANT LOAD				EGRESS			PLUMBING CALCULATIONS														
ROOM NAME	ROOM NUM.	AREA (GROSS)	USE	OCC. RATIO	OCC. LOAD	WIDTH FACT.	WIDTH REQ'D	WIDTH PROV'D	W.C. RATIO (MEN)	W.C. REQ'D	W.C. PROV'D	W.C. RATIO (WOMEN)	W.C. REQ'D	W.C. PROV'D	LAV. RATIO (MEN)	LAV. REQ'D	LAV. PROV'D	LAV. RATIO (WOMEN)	LAV. REQ'D	LAV. PROV'D	D.F. RATIO	D.F. REQ'D	D.F. PROV'D	SERV. SINK REQ'D	NOTES
TENANT A	101	2,000 SQ. FT.	M	60	34	0.2"	6.8"	108"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A,B
TENANT B	102	4,000 SQ. FT.	B	150	27	0.2"	5.4"	108"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A,B
	TOTAL:	6,000 SQ. FT.																						

NOTES: A. OCCUPANT LOAD FOR SHELL PURPOSES IS BASED ON KNOWN TENANT USE AND WORST CASE OCCUPANT-TO-FLOOR AREA RATIO. THE TENANT'S ARCHITECT OF RECORD SHALL SUBMIT FINAL OCCUPANT LOADS PER THE TENANT DOCUMENTS AND MAKE MODIFICATIONS TO THE NUMBER OF MEANS OF EGRESS OR EGRESS WIDTHS AT THAT TIME.
B. PLUMBING FIXTURES AND CALCULATIONS SHALL BE PROVIDED BY THE TENANT'S ARCHITECT OF RECORD AS PART OF THE TENANT'S DOCUMENTS.

TENANT REQUIREMENTS SCHEDULE

	USE			DEFINITION			SCOPE																					
							SLAB			EXT. WALL			INT. WALL			RESTROOM	CEILING	ELEC.			MECH.			PLUMB.				
SPACE	BUSINESS (B)	MERCANTILE (M)	RESTAURANT (A-2)	VANILLA BOX	GREY BOX	DARK SHELL	CONCRETE SLAB	FULL LEAVE-OUT	PARTIAL LEAVE-OUT	INSULATION AND GWB	EXPOSED INSUL. & STUDS	EXPOSED CMU	PROVIDED - DEMISING	PROVIDED - LAYOUT	PROVIDED AT RR ONLY	PROVIDED WITH FINISHES	LAY-IN	EXPOSED STRUCTURE	TENANT SPACE PANEL	CONDUIT STUB W/PULL	CEILING LIGHTS	EMERGENCY LIGHTS	HVAC SYSTEM PROVIDED	DUCT DROPS ONLY	FULL DISTRIBUTION	CAPPED ROOF CURBS	DOMESTIC WATER	SANITARY	GREASE	GAS	STUB-INS ONLY
A-101		●				●		●				●						●		●		●					●	●			●
B-102	●				●		●			●			●					●	●			●	●	●			●	●			●



VICINITY MAP
NOT TO A SCALE

FLORIDA PRODUCT DATA INDEX

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	FL APPROVAL No.	DATE
ROOFING	SINGLE-PLY ROOFING SYSTEMS (TPO)	HOUGM SOLUTIONS & PRODUCTS	10264-R17	06/20/2023
PANEL WALLS	ALUM. STOREFRONT (NON-IMPACT RATED)	YKK AP AMERICA	28262	04/13/2022
EXTERIOR DOORS	ALUM. ENTRANCES (NON-IMPACT RATED)	YKK AP AMERICA	28923	10/12/2021
EXTERIOR DOORS	SWINGING EXTERIOR DOOR ASSEMBLIES	CECO STEEL DOORS	45531 - R13	12/10/2020
STRUCTURAL COMPONENTS	PROD. INTRO. AS A RESULT OF NEW TECH.	CAST-CRETE USA, INC.	1581 - R15	5/11/2022
PANEL WALLS	SIDING	NICHIHA USA, INC.	423921	09/14/2023
STRUCTURAL COMPONENTS	STRUCTURAL WALL	BERRIDGE MANUFACTURING COO.	17437.2	12/12/2023

THE PRODUCTS LISTED ABOVE ARE THE BASIS OF DESIGN

THE CONTRACTOR SHALL MAKE AVAILABLE TO THE BUILDING INSPECTOR DOCUMENTATION NECESSARY TO VERIFY THAT ALL COMPONENTS REQUIRING PRODUCT APPROVAL PER FS 553.842 ARE IN COMPLIANCE WITH PRODUCT APPROVAL INSTALLATION REQUIREMENTS

WIND DESIGN CRITERIA

1. ULTIMATE WIND SPEED = 133 MPH (FBC FIGURE 1609.3(1))
2. WIND EXPOSURE "B"
3. BUILDING RISK CATEGORY II (PER FBC TABLE 1604.5)
4. INTERNAL PRESSURE COEFFICIENT (GCpi) = +/- 0.18, TOTALLY ENCLOSED (PER ASCE 7-22)
5. COMPONENTS AND CLADDING - REFER TO STRUCTURAL DRAWINGS FOR WIND DESIGN CRITERIA

MULTI-TENANT RETAIL AT DELAND

2235 S. WOODLAND BLVD DELAND, FL

PROJECT TEAM

DEVELOPER
ALAKAI CAPITAL
33 E. ROBINSON ST, STE. 210
ORLANDO, FL 32801
ATTN: NICK JONES
TEL: (407) 487-4839

JURISDICTION
CITY OF DELAND
PERMITTING
120 S. FLORIDA AVE
DELAND, FL 32720
ATTN: COMMERCIAL PLAN REVIEW
TEL.: (386) 626-7007

CIVIL ENGINEER
INTERPLAN LLC
220 E. CENTRAL PARKWAY
SUITE 4000
ALTAMONTE SPRINGS, FL 32701
ATTN: CHRIS BLURTON
TEL: (407) 645-5008

ARCHITECT
FWH ARCHITECTS, INC.
3336 GRAND BOULEVARD
SUITE 201
HOLIDAY, FL 34690
ATTN: ADRIENNE BAUER
TEL: (727) 815-3336

STRUCTURAL
ACG PROFESSIONAL ENGINEERING, INC.
16912 MELISSA ANN DRIVE
LUTZ, FL 33558
ATTN: ALAN GUENTHER
TEL: (813) 963-1906

MECHANICAL/PLUMBING
STEPANEK-LEWIS AND ASSOCIATES
2257 TWELVE OAKS WAY,
SUITE 103
WESLEY CHAPEL, FL 33544
ATTN: MATTHEW LEWIS
TEL: (813) 991-1248

ELECTRICAL
CHEHAYEB & ASSOCIATES
3702 AZEELE STREET
TAMPA, FL 33609
ATTN: SOUHEIL CHEHAYEB
TEL: (813) 876-1415

DRAWING INDEX

SHT. NO.	DRAWING TITLE
A0	INDEX, KEY MAP AND CODE INFORMATION
	CIVIL
	CIVIL AND LANDSCAPE DRAWINGS SUBMITTED UNDER SEPARATE PERMIT BY OTHERS
	ARCHITECTURAL
A0.1	ARCHITECTURAL SPECIFICATIONS
A0.2	ARCHITECTURAL SPECIFICATIONS
A0.3	ARCHITECTURAL SPECIFICATIONS
A0.4	KEYNOTE SCHEDULE
A0.5	REQUIRED SUBMITTALS
AS.1	ARCHITECTURAL SITE PLAN AND DETAILS
AS.2	ARCHITECTURAL SITE DETAILS
A1.0	FLOOR PLAN, NOTES AND LIFE SAFETY INFORMATION
A1.1	ROOF PLAN
A1.2	ROOF DETAILS
A1.2A	ROOF DETAILS
A1.3	CANOPY AND AWNING DETAILS
A2.0	REFLECTED CEILING PLAN
A3.0A	EXTERIOR ELEVATIONS AND EXTERIOR FINISH SCHEDULE
A3.1A	EXTERIOR ELEVATIONS
A4.0	FRAME OPENING SCHEDULE
A4.1	FRAME OPENING DETAILS
A5.0	WALL SECTIONS
A5.1	WALL SECTIONS
A5.2	WALL SECTIONS
A5.3	WALL SECTIONS
A6.0	U.L. ASSEMBLY DETAILS
	STRUCTURAL
S0.1	STRUCTURAL NOTES
S1.1	FOUNDATION PLAN
S2.1	ROOF FRAMING PLAN
S3.1	WALL SECTIONS
S3.2	WALL ELEVATIONS AND DETAILS
S4.1	SECTIONS AND DETAILS
S4.2	SECTIONS AND DETAILS
S4.3	SECTIONS AND DETAILS
S4.4	SECTIONS AND DETAILS

SHT. NO.	DRAWING TITLE
	MECHANICAL
M1.0	MECHANICAL SPECIFICATIONS
M2.0	MECHANICAL ROOF PLAN
M3.0	MECHANICAL SCHEDULES AND DETAILS
	PLUMBING
P1.0	PLUMBING NOTES & SPECIFICATIONS
P2.0	PLUMBING FLOOR PLAN
P3.0	PLUMBING SCHEDULES RISERS AND DETAILS
	ELECTRICAL
E0.1	ELECTRICAL NOTES AND LEGEND
E1.1	ELECTRICAL SITE PLAN
E2.1	LIGHTING PLAN
E2.2	LIGHTING DETAILS
E3.1	POWER PLAN
E3.2	ELECTRICAL DETAILS
E4.1	POWER RISER DIAGRAM
E5.1	ELECTRICAL SPECIFICATIONS

REVISION LOG — ● INDICATES SHEETS AFFECTED

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

no.	date	revision descriptions

RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date
26005
comm. no.
INDEX, KEY MAP AND CODE INFORMATION

A0

6/11/2026 11:38 AM

SPECIFICATIONS

SECTION 01330 - SUBMITTALS

PART 1 - GENERAL
1.1 SUMMARY
A. SECTION INCLUDES:
1. SUBMITTAL PROCEDURES PRIOR TO AND DURING CONSTRUCTION.

1.2 PROCESS AND RESPONSIBILITIES
A. CONTRACTOR RESPONSIBILITIES:
1. SUBMIT REQUIRED SUBMITTALS TO ARCHITECT UNLESS OTHERWISE SPECIFIED.
2. ELECTRONIC SUBMITTALS SHALL BE PROCESSED THROUGH EMAIL OF A WEB-BASED PROJECT MANAGEMENT PROGRAM.
3. COMPLY WITH SUBMITTAL REQUIREMENTS DEFINED WITHIN INDIVIDUAL SECTIONS. SUBMITTALS PROCEDURES DESCRIBED HEREIN SHALL APPLY UNLESS OTHERWISE STATED IN INDIVIDUAL SECTIONS.
4. PACKAGE EACH SUBMITTAL APPROPRIATELY FOR TRANSMITTAL AND HANDLING.
5. IDENTIFY PROJECT, CONTRACTOR, SUBCONTRACTOR OR SUPPLIER, PRODUCT OR ITEMS BEING SUBMITTED, PERTINENT DRAWING SHEET AND DETAIL NUMBERS, AND SPECIFICATION SECTION NUMBER, AS APPLICABLE.
6. ASSEMBLE, COORDINATE, AND REVIEW SUBMITTALS OF SUBCONTRACTORS, SUPPLIERS, AND MANUFACTURERS.
7. REVIEW SUBMITTAL FOR VERIFICATION OF PRODUCTS REQUIRED, FIELD DIMENSIONS, ADJACENT CONSTRUCTION, AND COORDINATION OF INFORMATION.
8. APPLY CONTRACTOR'S SUBMITTAL REVIEW STAMP, SIGNED OR INITIALED AND DATED, CERTIFYING COMPLIANCE WITH CONTRACT DOCUMENTS.
9. NUMBER SUBMITTALS SEQUENTIALLY USING A 3-DIGIT FORMAT BEGINNING WITH "001."
10. ELECTRONIC SUBMITTALS SHALL BE IN A SINGLE MULTI-PAGE .PDF FILE.
11. IDENTIFY EMAIL TRANSMITTAL OF SUBMITTALS IN THE SUBJECT LINE AS FOLLOWS:
a. PROJECT NAME, SUBMITTAL NAME (E.G. CONCRETE MIX DESIGN, SIEVE ANALYSIS, ETC), DATE OF SUBMITTAL
12. SCHEDULE SUBMITTALS TO EXPEDITE THE WORK. COORDINATE SUBMISSION OF RELATED ITEMS INTO SINGLE SUBMITTAL.
13. SUBMIT SUBMITTALS ITEMS REQUIRED WITHIN AN INDIVIDUAL SPECIFICATION SECTION INTO A SINGLE SUBMITTAL.
14. IDENTIFY VARIATIONS FROM CONTRACT DOCUMENTS AND LIMITATIONS OF PRODUCT AND SYSTEM WHICH MAY BE DETRIMENTAL TO SUCCESSFUL PERFORMANCE OF THE COMPLETED WORK.
15. PROVIDE SPACE ON SUBMITTAL FOR CONTRACTOR, ARCHITECT, AND ARCHITECT'S CONSULTANTS REVIEW STAMPS.
16. ALLOW TEN (10) WORKING DAYS FOR REVIEW.
17. REVISE AND RESUBMIT SUBMITTALS WHEN REQUIRED. IDENTIFY CHANGES MADE SINCE PREVIOUS SUBMITTAL.
18. NOTIFY VENDOR OR SUBCONTRACTOR OF APPROVAL BY AUTHORITY HAVING JURISDICTION OF DEFERRED SUBMITTAL PACKAGE.
19. DISTRIBUTE COPIES OF REVIEWED SUBMITTALS TO CONCERNED PARTIES AND TO RECORD DOCUMENTS FILE. INSTRUCT PARTIES TO PROMPTLY REPORT INABILITY TO COMPLY WITH PROVISIONS.
B. ARCHITECT RESPONSIBILITIES: REVIEW SUBMITTALS AND TAKE APPROPRIATE ACTION AS FOLLOWS.
1. SHOP DRAWINGS AND PRODUCT DATA: ARCHITECT WILL MARK SUBMITTALS TO INDICATE APPROPRIATE ACTION.
2. RETURN REVIEWED SUBMITTALS TO CONTRACTOR.
3. SUBMITTALS FOR INFORMATION: ARCHITECT WILL NOT RETURN SUBMITTALS SENT FOR INFORMATION ONLY.
4. FORWARD SUBMITTALS TO PROPER SUB-CONSULTANT FOR REVIEW AS NECESSARY.
C. UN-REQUESTED SUBMITTALS: SUBMITTALS TRANSMITTED TO ARCHITECT OR ARCHITECT'S CONSULTANTS THAT ARE NOT INDICATED OR REQUESTED WILL NOT BE REVIEWED. ARCHITECT WILL DISPOSE OF UN-REQUESTED SUBMITTAL ITEMS.

1.3 TRANSMITTAL
A. TRANSMIT EACH SUBMITTAL USING A TRANSMITTAL FORM. SUBMIT TO ARCHITECT UNLESS INDICATED OTHERWISE.
B. IN ADDITION TO RECIPIENTS STATED ABOVE, TRANSMIT SUBMITTALS TO THOSE PARTIES AS MAY BE REQUIRED IN THE INDIVIDUAL SPECIFICATION SECTION.

1.4 DEFERRED SUBMITTALS
A. DEFINITION: DEFERRED SUBMITTAL ARE SUBMITTALS REQUIRED BY THE AHJ FOR CODE COMPLIANCE BUT WHICH, RATHER THAN BEING SUBMITTED AT THE TIME OF PERMIT APPLICATION, HAVE BEEN ALLOWED BY THE AHJ TO BE DEFERRED UNTIL AFTER CONTRACT AWARD TO ENABLE THE SUCCESSFUL CONTRACTOR, SUBCONTRACTOR, OR SUPPLIER TO SUBMIT THE APPLICABLE SUBMITTALS.
B. PREPARE SUBMITTALS IN ACCORDANCE WITH REQUIREMENTS STATED IN THE APPLICABLE INDIVIDUAL SPECIFICATIONS SECTIONS AND THE APPLICABLE REQUIREMENTS HEREIN
C. PROCESS:
1. IMMEDIATELY AFTER AWARD OF THE CONTRACT, THE CONTRACTOR SHALL CONTACT THE AHJ TO COORDINATE AND DETERMINE THE AHJ REQUIREMENTS FOR DEFERRED SUBMITTALS. INFORMATION OBTAINED SHALL INCLUDE SUCH REQUIREMENTS AS NUMBER OF COPIES; EXTENT OF DETAIL OF INFORMATION TO BE SUBMITTED; REVIEW, IF REQUIRED, BY PROFESSIONAL OF RECORD (ARCHITECT OR ENGINEER); AND OTHER NECESSARY PROCESS AND PROCEDURAL REQUIREMENTS.
2. THE CONTRACTOR, OR OTHER ENTITY, RESPONSIBLE FOR THE SUBMITTAL SHALL SUBMIT, TRACK, AND REPORT SUBMITTAL STATUS THROUGH FINAL APPROVAL AND ISSUE OF PERMIT.
3. COMMUNICATE WITH VENDORS, SUPPLIERS, AND SUBCONTRACTORS THE AHJ REQUIREMENTS FOR DEFERRED SUBMITTALS. RECEIVE, REVIEW, AND STAMP SUBMITTALS IN ACCORDANCE WITH SUBMITTAL REQUIREMENTS HEREIN.
4. TRANSMIT DEFERRED SUBMITTALS DIRECTLY TO AHJ UNLESS OTHERWISE REQUESTED BY AHJ TO OBTAIN PRIOR REVIEW AND APPROVAL BY PROFESSIONAL OF RECORD.
5. UPON APPROVAL BY AHJ, OBTAIN PERMITS AND PAY PERMIT FEES AND OTHER FEES REQUIRED BY THE AHJ.
6. ATTACH APPROVED DEFERRED SUBMITTALS TO THE APPROVED "PERMIT SET" DOCUMENTS AT THE PROJECT SITE.
7. DO NOT INSTALL DEFERRED SUBMITTALS UNTIL CORRESPONDING SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE AHJ.]

1.5 SUBMITTAL REQUIREMENTS
A. SHOP DRAWINGS
1. SUBMIT DRAWINGS WITH GRAPHIC INFORMATION AT ACCURATE SCALE. SHOW DIMENSIONS AND NOTE WHICH DIMENSIONS ARE BASED ON FIELD MEASUREMENT. IDENTIFY MATERIALS AND PRODUCTS IN WORK SHOWN. INDICATE COMPLIANCE WITH SPECIFIED STANDARDS AND SPECIAL COORDINATION REQUIREMENTS. DO NOT USE REPRODUCTIONS OF CONTRACT DRAWINGS AS SHOP DRAWINGS.
2. INCLUDE ON EACH SHOP DRAWING THE DRAWING TITLE, NUMBER, ORIGINAL ISSUE DATE, AND REVISION NUMBERS AND DATES, IN ADDITION TO OTHER REQUIRED IDENTIFYING INFORMATION.
3. IDENTIFY DETAILS BY REFERENCE TO SHEET, DETAIL, SCHEDULE, OR ROOM NAMES SHOWN ON THE CONTRACT DRAWINGS.
4. IDENTIFY NUMERICAL VALUES IN ENGLISH UNITS.
5. SIZE: NOT LESS THAN 8-1/2 BY 11 INCHES NOR MORE THAN 30 BY 42 INCHES.
6. NUMBER OF COPIES REQUIRED:
a. FOR NON-MATERIAL SUBMITTALS, SUBMIT ONE ELECTRONIC FILE IN ADOBE .PDF FORMAT WITHOUT RESTRICTIONS TO PRINT AND/OR COMMENT ELECTRONICALLY.
b. FOR MATERIAL OR COLOR SELECTIONS, SUBMIT ONE COPY FOR REVIEW. UPON APPROVAL, PROVIDE ONE EACH FOR THE CONTRACTOR'S AND ONE FOR THE OWNER'S RECORDS.
B. PRODUCT DATA
1. MANUFACTURER'S STANDARD SCHEMATIC DRAWINGS AND DIAGRAMS:
a. CLEARLY MARK TO IDENTIFY PERTINENT PRODUCTS.
b. SHOW PERFORMANCE CHARACTERISTICS AND CAPACITIES.
c. SHOW DIMENSIONS AND CLEARANCES REQUIRED.
d. SHOW WIRING OR PIPING DIAGRAMS AND CONTROLS.
e. MODIFY DRAWINGS AND DIAGRAMS TO DELETE INFORMATION NOT APPLICABLE TO THIS WORK.
f. SUPPLEMENT STANDARD DRAWINGS AND DIAGRAMS TO PROVIDE COMPLETE INFORMATION APPLICABLE TO THIS WORK.
2. MARK EACH COPY TO IDENTIFY APPLICABLE PRODUCTS, MODELS, OPTIONS, AND OTHER DATA. SUPPLEMENT PRODUCT DATA WITH MATERIAL PREPARED FOR THE WORK TO SATISFY SUBMITTAL REQUIREMENTS FOR WHICH PRODUCT DATA DOES NOT EXIST. NOTE THAT THE MATERIAL IS DEVELOPED SPECIFICALLY FOR THIS CONTRACT.
3. SUBMIT PRODUCT DATA FOR EACH SECTION AS A COMPLETE, BOUND VOLUME. INCLUDE TABLE OF CONTENTS LISTING PAGE AND CATALOG ITEM NUMBERS FOR PRODUCT DATA.
4. INDICATE, BY PROMINENT CONTRASTING COLOR NOTATION ON EACH PRODUCT BEING SUBMITTED, THE SPECIFICATIONS SECTION AND PARAGRAPH NUMBERS TO WHICH IT PERTAINS.
5. WHERE PRINTED PRODUCT DATA INCLUDES INFORMATION ON SEVERAL PRODUCTS, SOME OF WHICH ARE NOT REQUIRED, MARK COPIES TO INDICATE INFORMATION APPLICABLE TO WORK AND CLEARLY CROSS OUT OTHER INFORMATION NOT APPLICABLE TO WORK. INCLUDE THE FOLLOWING INFORMATION:
a. MANUFACTURER'S PRINTED RECOMMENDATIONS OR INSTRUCTIONS.
b. COMPLIANCE WITH REFERENCED STANDARDS.
c. APPLICATION OF TESTING AGENCY LABELS AND SEALS.
d. NOTATION OF DIMENSIONS VERIFIED BY FIELD MEASUREMENT.
e. NOTATION OF COORDINATION REQUIREMENTS.
6. PRODUCT DATA FOR INFORMATION: WRITTEN INFORMATION NOT REQUIRING ACTION BY OWNER OR ARCHITECT; FOR VERIFICATION OF COMPLIANCE WITH REQUIREMENT. SUBMITTAL NOT COMPLYING WITH REQUIREMENTS WILL BE REJECTED.
7. NUMBER OF COPIES REQUIRED: FOUR.
C. ENGINEERING CALCULATIONS
1. SUBMIT CALCULATIONS SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE PROJECT IS LOCATED. COMPLY WITH REQUIREMENTS OF AUTHORITY HAVING JURISDICTION WITH REGARD TO SIGNING AND SEALING OF SUBMITTALS.
D. CERTIFICATIONS
1. CERTIFY MANUFACTURER'S OR INSTALLER'S QUALIFICATIONS, COMPLIANCE WITH TESTS OR SPECIFIED CRITERIA, OR OTHER FACTORS AS REQUIRED IN INDIVIDUAL SPECIFICATION SECTIONS.
2. SUBMIT SUPPORTING REFERENCE DATA, AFFIDAVITS, AND CERTIFICATIONS AS REQUIRED.

PART 2 - PRODUCTS
A. NOT USED.
PART 3 - EXECUTION
A. NOT USED.
END OF SECTION 01330

SECTION 02361 - TERMITE PROTECTION

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA AND PRODUCT CERTIFICATES SIGNED BY MANUFACTURER CERTIFYING THAT PRODUCTS USED COMPLY WITH U.S. EPA REGULATIONS FOR TERMITICIDES. INCLUDE APPLICATION INSTRUCTIONS AND A EPA-REGISTERED LABEL.
B. ENGAGE A LICENSED PROFESSIONAL PEST CONTROL OPERATOR TO APPLY TERMITE CONTROL SOLUTION.
PART 2 - PRODUCTS
2.1 TERMITICIDES
A. PROVIDE AN EPA-REGISTERED TERMITICIDE COMPLYING WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, IN A SOLUBLE OR EMULSIBLE, CONCENTRATED FORMULATION THAT DILUTES WITH WATER OR FOAMING AGENT. USE ONLY SOIL TREATMENT SOLUTIONS THAT ARE NOT HARMFUL TO PLANTS. PROVIDE QUANTITY REQUIRED FOR APPLICATION AT THE LABEL VOLUME AND RATE FOR THE MAXIMUM TERMITICIDE CONCENTRATION ALLOWED FOR EACH SPECIFIC USE, ACCORDING TO THE PRODUCT'S EPA-REGISTERED LABEL.
PART 3 - EXECUTION
3.1 INSTALLATION
A. PREPARE SURFACES AND APPLY TREATMENT AT RATES AND CONCENTRATIONS RECOMMENDED IN MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. APPLY TERMITE CONTROL TO THE FOLLOWING:
1. AT FOUNDATIONS.
2. UNDER CONCRETE FLOOR SLABS ON GRADE.
3. AT HOLLOW MASONRY.
4. AT EXPANSION AND CONTROL JOINTS AND SLAB PENETRATIONS.
5. TREAT ADJACENT AREAS INCLUDING AROUND ENTRANCE PLATFORM AND EQUIPMENT BASES. APPLY OVERALL TREATMENT ONLY WHERE ATTACHED CONCRETE PLATFORM ARE ON FILL OR GROUND.
C. POST WARNING SIGNS IN AREAS OF APPLICATION.
D. REAPPLY SOIL TERMITICIDE TREATMENT SOLUTION TO AREAS DISTURBED BY SUBSEQUENT EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES FOLLOWING APPLICATION.
END OF SECTION 02361

SECTION 02751 - CONCRETE PAVEMENT

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA, DESIGN MIXES FOR CONCRETE, LABORATORY TEST REPORTS.
B. COMPLY WITH ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE."
PART 2 - PRODUCTS
2.1 MATERIALS
A. REINFORCING BARS: ASTM A 615/A 615M, GRADE 60 (GRADE 420), DEFORMED.
B. WELDED STEEL WIRE FABRIC: ASTM A 185, FLAT SHEETS NOT ROLLS.
C. AIR-ENTRAINING ADMIXTURE: ASTM C 260.
D. CHEMICAL ADMIXTURES: ASTM C 494. CALCIUM CHLORIDE SHALL NOT BE USED.
E. LIQUID MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, CLEAR, TYPE 1, CLASS B, WATERBORNE.
F. PAVEMENT-MARKING PAINT: FS TT-P-1952, LATEX, WATER-BASE EMULSION.
2.2 MIXES
A. PROPORTION NORMAL-WEIGHT CONCRETE MIXES TO PROVIDE THE FOLLOWING PROPERTIES:
1. COMPRESSIVE STRENGTH: 3000 PSI (20.7 MPA) AT 28 DAYS.
2. SLUMP LIMIT: 4 INCHES (100 MM) AT POINT OF PLACEMENT.
3. W/C RATIO: 0.45 MAXIMUM AT POINT OF PLACEMENT.
4. AIR CONTENT: 5.5 TO 7.0 PERCENT.
PART 3 - EXECUTION
3.1 PAVING
A. ACCURATELY POSITION AND SUPPORT REINFORCEMENT, AND SECURE AGAINST DISPLACEMENT.
B. LOCATE AND INSTALL CONTRACTION, CONSTRUCTION, ISOLATION, AND EXPANSION JOINTS AS INDICATED OR REQUIRED.
C. PLACE CONCRETE IN A CONTINUOUS OPERATION WITHIN PLANNED JOINTS OR SECTIONS. DO NOT ADD WATER TO ADJUST SLUMP.
D. FLOAT SURFACES TO TRUE PLANES WITHIN A TOLERANCE OF 1/4 INCH IN 10 FEET (1:480) AND MEDIUM-TO-COARSE-TEXTURED BROOM FINISH.
E. TOOL EDGES AND JOINTS TO A RADIUS OF 3/8 INCH (9.5 MM).
F. BEGIN CURING AFTER FINISHING CONCRETE. APPLY MEMBRANE-FORMING CURING COMPOUND TO CONCRETE.
G. APPLY TRAFFIC PAINT WITH MECHANICAL EQUIPMENT TO A MINIMUM WET FILM THICKNESS OF 15 MILS (0.4 MM).
H. OWNER WILL EMPLOY A TESTING AGENCY TO SAMPLE CONCRETE, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT.
1. GENERAL CONTRACTOR AND REPLACE CONCRETE PAVING THAT IS BROKEN, DAMAGED, OR DEFECTIVE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS.
END OF SECTION 02751

SECTION 04710 - THIN BRICK MASONRY

PART 1 - GENERAL
1.1 SUMMARY
A. SCOPE OF WORK - PROVIDE THIN BRICK MASONRY VENEER, VENEER INSTALLATION MATERIALS AND ACCESSORIES AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR COMPLETE AND PROPER INSTALLATION.
B. RELATED DOCUMENTS - PROVISIONS WITHIN GENERAL AND SUPPLEMENTARY GENERAL CONDITIONS OF THE CONTRACT
1.2 SECTION INCLUDES
A. THIN BRICK MASONRY VENEER UNITS
B. INSTALLATION PRODUCTS; ADHESIVES, MORTARS, POINTING MORTARS, AND SEALANTS
C. AIR BARRIER AND WATERPROOFING MEMBRANES
D. ANTI-FRACTURE MEMBRANES
1.3 REFERENCE STANDARDS
A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C91 STANDARD SPECIFICATION FOR MASONRY CEMENT
B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C109 STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF HYDRAULIC CEMENT MORTARS (USING 2-IN. OR 50-MM CUBE SPECIMENS)
C. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C144 STANDARD SPECIFICATION FOR AGGREGATE FOR MASONRY MORTAR
D. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C150 STANDARD SPECIFICATION FOR PORTLAND CEMENT
E. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C270 STANDARD SPECIFICATION FOR MORTAR FOR UNIT MASONRY
F. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C531 STANDARD TEST METHOD FOR LINEAR SHRINKAGE AND COEFFICIENT OF THERMAL EXPANSION OF CHEMICAL-RESISTANT MORTARS, GROUTS, MONOLITHIC SURFACINGS AND POLYMER CONCRETES
G. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C847 STANDARD SPECIFICATION FOR METAL LATH
H. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C905 STANDARD TEST METHOD FOR APPARENT DENSITY OF CHEMICAL-RESISTANT MORTARS, GROUTS, AND MONOLITHIC SURFACINGS
I. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C920 STANDARD SPECIFICATION FOR ELASTOMERIC JOINT SEALANTS
J. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) E84 STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS
K. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) E96 STANDARD TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS
L. MASONRY VENEER MANUFACTURERS ASSOCIATION (MVMA) INSTALLATION GUIDE FOR ADHERED CONCRETE MASONRY VENEER
1.4 SYSTEM DESCRIPTION
A. THIN ADHERED MASONRY VENEER INSTALLED USING LATEX-MODIFIED PORTLAND CEMENT MORTAR.
1.5 SUBMITTALS
A. SUBMIT SHOP DRAWINGS AND MANUFACTURERS' PRODUCT DATA.
B. SUBMIT SAMPLES OF EACH TYPE/STYLE/FINISH/SIZE/COLOR OF THIN ADHERED MASONRY.
C. SUBMIT MANUFACTURERS' INSTALLATION INSTRUCTIONS.
D. SUBMIT MANUFACTURER'S QUALIFICATIONS THAT THE MATERIALS SUPPLIED CONFORM TO RELEVANT STANDARDS.
E. SUBMIT PROOF OF WARRANTY.
F. SUBMIT SAMPLE OF INSTALLATION SYSTEM DEMONSTRATING COMPATIBILITY/FUNCTIONAL RELATIONSHIPS BETWEEN ADHESIVES, MORTARS, MEMBRANES AND OTHER COMPONENTS. SUBMIT PROOF FROM VENEER MANUFACTURER OR SUPPLIER VERIFYING SUITABILITY OF VENEER FOR SPECIFIC APPLICATION AND USE; INCLUDING DIMENSIONAL STABILITY, WATER ABSORPTION, FREEZE/THAW RESISTANCE (IF APPLICABLE), RESISTANCE TO THERMAL CYCLING, AND OTHER CHARACTERISTICS THAT THE MAY PROJECT MAY REQUIRE. THESE CHARACTERISTICS MUST BE REVIEWED AND APPROVED BY THE PROJECT DESIGN PROFESSIONAL(S).
1.6 QUALITY ASSURANCE
A. ADHERED MASONRY VENEER OR THIN BRICK MANUFACTURER (SINGLE SOURCE RESPONSIBILITY): COMPANY SPECIALIZING IN MANUFACTURED MASONRY VENEER OR THIN BRICK PRODUCTS WITH THREE (3) YEARS MINIMUM EXPERIENCE. OBTAIN VENEER UNITS FROM A SINGLE SOURCE WITH RESOURCES TO PROVIDE PRODUCTS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.
B. INSTALLATION SYSTEM MANUFACTURER (SINGLE SOURCE RESPONSIBILITY): COMPANY SPECIALIZING IN ADHESIVES, MORTARS, MEMBRANES AND OTHER INSTALLATION MATERIALS WITH TEN (10) YEARS MINIMUM EXPERIENCE AND ISO 9001-2008 CERTIFICATION. OBTAIN INSTALLATION MATERIALS FROM SINGLE SOURCE MANUFACTURER TO INSURE CONSISTENT QUALITY AND FULL COMPATIBILITY.
C. SUBMIT LABORATORY CONFIRMATION OF ADHESIVES, MORTARS, MEMBRANES AND OTHER INSTALLATION MATERIALS:
1. IDENTIFY PROPER USAGE OF SPECIFIED MATERIALS USING POSITIVE ANALYTICAL METHOD.
2. IDENTIFY COMPATIBILITY OF SPECIFIED MATERIALS USING POSITIVE ANALYTICAL METHOD.
3. IDENTIFY PROPER COLOR MATCHING OF SPECIFIED MATERIALS USING A POSITIVE ANALYTICAL METHOD.
D. INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN INSTALLATION OF ADHERED MASONRY VENEER, THIN BRICK, AND/OR PAVERS WITH FIVE (5) YEARS DOCUMENTED EXPERIENCE WITH INSTALLATIONS OF SIMILAR SCOPE, MATERIALS AND DESIGN.
1.7 MOCK-UPS
A. PROVIDE MOCK-UP OF EACH TYPE/STYLE/FINISH/SIZE/COLOR OF ADHERED MASONRY VENEER, THIN BRICK, AND PAVERS ALONG WITH RESPECTIVE INSTALLATION ADHESIVES, MORTARS, POINTING MORTARS, MEMBRANES AND OTHER INSTALLATION MATERIALS, UNDER PROVISIONS OF SECTION (01 43 00) (01 45 00).
1. CONSTRUCT AREAS DESIGNATED BY ARCHITECT.
2. DO NOT PROCEED WITH REMAINING WORK UNTIL MATERIAL, DETAILS AND WORKMANSHIP ARE APPROVED BY ARCHITECT.
3. REFINISH MOCK-UP AREA AS REQUIRED TO PRODUCE ACCEPTABLE WORK.
4. AS APPROVED BY ARCHITECT, MOCK-UP MAY BE INCORPORATED INTO FINISHED WORK.
1.8 PRE-INSTALLATION CONFERENCE
A. PRE-INSTALLATION CONFERENCE: AT LEAST THREE WEEKS PRIOR TO COMMENCING THE WORK ATTEND A MEETING AT THE JOBSITE TO DISCUSS CONFORMANCE WITH REQUIREMENTS OF SPECIFICATION AND JOB SITE CONDITIONS. REPRESENTATIVES OF OWNER, ARCHITECT, GENERAL CONTRACTOR, SUBCONTRACTOR, ADHERED VENEER MANUFACTURER, INSTALLATION SYSTEM MANUFACTURER AND ANY OTHER PARTIES WHO ARE INVOLVED IN THE SCOPE OF THIS INSTALLATION MUST ATTEND THE MEETING.
1.9 DELIVERY, STORAGE AND HANDLING
A. ACCEPTANCE AT SITE: DELIVER AND STORE PACKAGED MATERIALS IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN AND LABELS, INCLUDING GRADE SEAL, INTACT UNTIL TIME OF USE, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. STORE INSTALLATION SYSTEM MATERIALS IN A DRY LOCATION; HANDLE IN A MANNER TO PREVENT CHIPPING, BREAKAGE, AND CONTAMINATION.
C. PROTECT LATEX ADDITIVES, ORGANIC ADHESIVES, EPOXY ADHESIVES AND SEALANTS FROM FREEZING OR OVERHEATING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS; STORE AT ROOM TEMPERATURE WHEN POSSIBLE.
D. STORE PORTLAND CEMENT MORTARS IN A DRY LOCATION.
1.10 PROJECT/SITE CONDITIONS
A. PROVIDE VENTILATION AND PROTECTION OF ENVIRONMENT AS RECOMMENDED BY MANUFACTURER.
B. PREVENT CARBON DIOXIDE DAMAGE TO FINISHES AS WELL AS ADHESIVES, MORTARS, MEMBRANES AND OTHER INSTALLATION MATERIALS, BY VENTING TEMPORARY HEATERS TO THE EXTERIOR.
C. MAINTAIN AMBIENT TEMPERATURES NOT LESS THAN 40ºF (10ºC) OR MORE THAN 100ºF (38ºC) DURING INSTALLATION AND FOR A MINIMUM OF SEVEN (7) DAYS AFTER COMPLETION. SETTING OF PORTLAND CEMENT IS RETARDED BY LOW TEMPERATURES. PROTECT WORK FOR EXTENDED PERIOD OF TIME AND FROM DAMAGE BY OTHER TRADES. INSTALLATION WITH LATEX PORTLAND CEMENT MORTARS REQUIRES SUBSTRATE, AMBIENT AND MATERIAL TEMPERATURES AT LEAST 37ºF (3ºC). THERE SHOULD BE NO ICE IN SLAB. FREEZING AFTER INSTALLATION WILL NOT DAMAGE LATEX PORTLAND CEMENT MORTARS. PROTECT PORTLAND CEMENT BASED MORTARS FROM DIRECT SUNLIGHT, RADIANT HEAT, FORCED VENTILATION (HEAT & COLD) AND DRAFTS UNTIL CURED TO PREVENT PREMATURE EVAPORATION OF MOISTURE. EPOXY MORTARS REQUIRE SURFACE TEMPERATURES BETWEEN 60ºF (16ºC) AND 90ºF (32ºC) AT TIME OF INSTALLATION. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO MAINTAIN TEMPERATURE CONTROL.
1.11 SEQUENCING AND SCHEDULING
A. COORDINATE INSTALLATION OF VENEER WORK WITH RELATED WORK.
B. PROCEED WITH VENEER WORK ONLY AFTER VENTS, DRAINS, PIPING, AND OTHER PROJECTIONS THROUGH SUBSTRATE HAVE BEEN INSTALLED AND WHEN SUBSTRATE CONSTRUCTION AND FRAMING OF OPENINGS HAVE BEEN COMPLETED.
1.12 WARRANTY
A. THE CONTRACTOR WARRANTS THE WORK OF THIS SECTION TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND FREE FROM FAULTS AND DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 15 YEARS. THE MANUFACTURER OF ADHESIVES, MORTARS, POINTING MORTARS, MEMBRANES AND OTHER INSTALLATION MATERIALS SHALL PROVIDE A WRITTEN FIFTEEN (15) YEAR WARRANTY. REFERENCE LATICRETE WARRANTY DATA SHEET 230.15SPD FOR COMPLETE DETAILS AND REQUIREMENTS.
1.13 MAINTENANCE
A. SUBMIT MAINTENANCE DATA UNDER PROVISIONS OF SECTION (01 78 00) (01 93 00). INCLUDE CLEANING METHODS, CLEANING SOLUTIONS RECOMMENDED AND STAIN REMOVAL METHODS RECOMMENDED.
PART 2 - PRODUCTS
2.1 THIN BRICK MATERIALS
A. THIN BRICK: ASTM C 216, GRADE SW, TYPE FBS.
1. SIZE: MODULAR, 1/2" X 2 1/4" X 7 5/8"
2. SOLID BRICK WITH EXPOSED SURFACES FINISHED FOR ENDS OF SILLS AND CAPS.
3. SPECIAL SHAPES FOR APPLICATIONS WHERE SHAPES PRODUCED BY SAWING WOULD RESULT IN SAWED SURFACES BEING EXPOSED TO VIEW.
B. MANUFACTURER, STYLE AND COLOR
1. AS INDICATED ON DRAWINGS.
2.2 VENEER INSTALLATION MATERIALS MANUFACTURER
A. LATICRETE INTERNATIONAL, INC., 1 LATICRETE PARK NORTH, BETHANY, CT 06524-3423 USA PHONE 800-243-4788, (203) 393-0010 TECHNICALSERVICES@LATICRETE.COM, HTTP://WWW.LATICRETE.COM/MVIS; WWW.LATICRETE.COM/GREEN
1. AIR BARRIER AND WATERPROOFING MEMBRANE: LATICRETE AIR & WATER BARRIER** AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
2. LATEX PORTLAND CEMENT THIN BED MORTAR: LATICRETE THIN BRICK MORTAR AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
3. LATEX PORTLAND CEMENT POINTING MORTAR: LATICRETE MASONRY POINTING MORTAR AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
4. EXPANSION AND CONTROL JOINT SEALANT: LATICRETE LATASIL AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
2.3 INSTALLATION ACCESSORIES
A. INSTALLATION ACCESSORIES AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC., 1 LATICRETE PARK NORTH, BETHANY, CT 06524-3423 USA. PHONE 800-243-4788, WWW.LATICRETE.COM
END OF SECTION 04710

SECTION 04812 THIN BRICK VENEER

PART 1 - GENERAL
1.01 SUMMARY
A. SECTION INCLUDES: THIN BRICK VENEER
1.02 REFERENCES
A. AMERICAN CONCRETE INSTITUTE (ACI).
B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
1. ASTM C 39, STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS.
2. ASTM C 67, STANDARD TEST METHODS FOR SAMPLING AND TESTING BRICK AND STRUCTURAL CLAY TILE.
3. ASTM C 177, STANDARD TEST METHOD FOR STEADY-STATE HEAT FLUX MEASUREMENTS AND THERMAL TRANSMISSION PROPERTIES BY MEANS OF THE GUARDED-HOT-PLATE APPARATUS.
4. ASTM C 192, STANDARD PRACTICE FOR MAKING AND CURING CONCRETE TEST SPECIMENS IN THE LABORATORY.
5. ASTM C 270, STANDARD SPECIFICATION FOR MORTAR FOR UNIT MASONRY.
6. ASTM C 482, STANDARD TEST METHOD FOR BOND STRENGTH OF CERAMIC TILE TO PORTLAND CEMENT.
7. ASTM D 226, STANDARD SPECIFICATION FOR ASPHALT-SATURATED ORGANIC FELT USED IN ROOFING AND WATERPROOFING.
8. ASTM E 2556/ E 2556M STANDARD SPECIFICATION FOR VAPOR PERMEABLE FLEXIBLE SHEET WATER RESISTIVE BARRIERS INTENDED FOR MECHANICAL ATTACHMENT.
1.03 SUBMITTALS
A. SUBMIT FOLLOWING ITEMS:
B. PRODUCT DATA: THIN BRICK AND APPLICATION MATERIALS INCLUDING MORTAR COLOR CHARTS, AND WATER RESISTIVE BARRIER.
C. SAMPLES: PANEL CONTAINING FULL-SIZE SAMPLES OF SPECIFIED MANUFACTURED MASONRY SHOWING FULL RANGE OF COLORS AND TEXTURES COMPLETE WITH SPECIFIED MORTAR.
1. ACTUAL SIZE OF MASONRY SAMPLE APPROXIMATELY 12 BY 12 INCHES (300 BY 300 MM).
D. QUALITY ASSURANCE/CONTROL SUBMITTALS:
1. QUALIFICATIONS:
a. PROOF OF MANUFACTURER QUALIFICATIONS.
b. PROOF OF INSTALLER QUALIFICATIONS.
2. CERTIFICATES: ICC-ES REPORT.
3. TEST REPORTS FOR PHYSICAL PROPERTIES.
4. MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. FLORIDA PRODUCT APPROVAL NUMBER.
E. FIELD SAMPLES: PROVIDE IN A LOCATION SELECTED BY OWNER SHOWING REPRESENTATIVE SAMPLE OF INSTALLED PRODUCT INCLUDING PENETRATION AND TERMINATION DETAILS, CORNER DETAIL, AND MORTAR COLOR AND TOOLING.
1. MINIMUM SIZE: 4 BY 4 FEET.
2. APPROVED FIELD SAMPLES MAY REMAIN AS PART OF COMPLETED WORK.
1.04 DELIVERY, STORAGE, AND HANDLING
A. FOLLOW MANUFACTURER'S INSTRUCTIONS.
B. STORE MOISTURE-SENSITIVE MATERIALS IN WEATHER PROTECTED ENCLOSURES.
1.05 PROJECT/SITE CONDITIONS
A. ENVIRONMENTAL REQUIREMENTS: MAINTAIN MATERIALS AND AMBIENT TEMPERATURE IN AREA OF INSTALLATION AT MINIMUM 40 DEGREES F (4 DEGREES C) PRIOR TO, DURING, AND FOR 48 HOURS FOLLOWING INSTALLATION.
1.06 WARRANTY
A. SPECIAL WARRANTY: PROVIDE MANUFACTURER'S STANDARD LIMITED WARRANTY AGAINST DEFECTS IN MANUFACTURING FOR A PERIOD OF 50 YEARS FOLLOWING DATE OF SUBSTANTIAL COMPLETION.
1.07 MAINTENANCE
A. EXTRA MATERIALS: FURNISH EXTRA MANUFACTURED STONE MATERIAL IN A VARIETY OF SHAPES AND SIZES IN QUANTITY EQUAL TO THREE PERCENT OF THE INSTALLED STONE.
PART 2 - PRODUCTS
2.01 MANUFACTURER
A. THIN BRICK: ASTM C 216, GRADE SW, TYPE FBS.
1. SIZE: MODULAR, 1/2" X 2 1/4" X 7 5/8"
2. SOLID BRICK WITH EXPOSED SURFACES FINISHED FOR ENDS OF SILLS AND CAPS.
3. SPECIAL SHAPES FOR APPLICATIONS WHERE SHAPES PRODUCED BY SAWING WOULD RESULT IN SAWED SURFACES BEING EXPOSED TO VIEW.
B. MANUFACTURER, STYLE AND COLOR
1. AS INDICATED ON DRAWINGS.
2.02 RELATED MATERIALS
A. LATICRETE INTERNATIONAL, INC., 1 LATICRETE PARK NORTH, BETHANY, CT 06524-3423 USA PHONE 800-243-4788, (203) 393-0010 TECHNICALSERVICES@LATICRETE.COM, HTTP://WWW.LATICRETE.COM/MVIS; WWW.LATICRETE.COM/GREEN
1. AIR BARRIER AND WATERPROOFING MEMBRANE: LATICRETE AIR & WATER BARRIER AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
2. LATEX PORTLAND CEMENT THIN BED MORTAR: LATICRETE THIN BRICK MORTAR AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
A. COLOR: AS SELECTED BY ARCHTITECT
3. LATEX PORTLAND CEMENT POINTING MORTAR: LATICRETE MASONRY POINTING MORTAR AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
A. COLOR: AS SELECTED BY ARCHITECT
4. EXPANSION AND CONTROL JOINT SEALANT: LATICRETE LATASIL AS MANUFACTURED BY LATICRETE INTERNATIONAL, INC.
A. COLOR: AS SELECTED BY ARCHITECT
B. METAL LATH: 2.5 LB (1.4 KG/M2) GALVANIZED EXPANDED METAL LATH.

C. FASTENERS:
1. INTO METAL STUDS: MINIMUM 7/16 INCH (11.1 MM) HEAD DIAMETER, CORROSION-RESISTANT, SELF-DRILLING, SELF TAPPING, PANCAKE HEAD SCREWS OF SUFFICIENT LENGTH TO PENETRATE 3/8 INCH (10 MM) MINIMUM INTO THE STUD.
2.03 WEEP SCREED AS REQUIRED FOR INSTALLATION OVER FRAMED CONSTRUCTION.
PART 3 - EXECUTION
3.01 EXAMINATION
A. EXAMINE SUBSTRATES UPON WHICH THIN BRICK WILL BE INSTALLED.
B. COORDINATE WITH RESPONSIBLE ENTITY TO CORRECT UNSATISFACTORY CONDITIONS.
C. COMMENCEMENT OF WORK BY INSTALLER IS ACCEPTANCE OF SUBSTRATE CONDITIONS.
3.02 PREPARATION
A. PROTECTION: PREVENT WORK FROM OCCURRING ON THE OPPOSITE OF WALLS TO WHICH THIN BRICK IS APPLIED DURING AND FOR 48 HOURS FOLLOWING INSTALLATION OF THE THIN BRICK.
B. SURFACE PREPARATION: FOLLOW MANUFACTURER'S INSTRUCTIONS DESIGNATED BELOW FOR THE APPROPRIATE TYPE OF MANUFACTURED MASONRY AND SUBSTRATE.
3.03 INSTALLATION
A. INSTALL THIN BRICK PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS
B. INSTALLATION INSTRUCTIONS USING GROUTED JOINTS.
3.04 CLEANING
A. CLEAN THIN BRICK IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3.05 PROTECTION
A. PROTECT FINISHED WORK FROM RAIN DURING AND FOR 48 HOURS FOLLOWING INSTALLATION.
B. PROTECT FINISHED WORK FROM DAMAGE DURING REMAINDER OF CONSTRUCTION PERIOD.
END OF SECTION 04812

SECTION 06100 - ROUGH CARPENTRY

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: MODEL CODE EVALUATION REPORTS FOR ENGINEERED WOOD PRODUCTS, FOAM-PLASTIC SHEATHING, AND FIRE-RETARDANT-TREATED WOOD.
PART 2 - PRODUCTS
2.1 LUMBER, GENERAL
A. DRESSED LUMBER, S4S, 15 PERCENT MAXIMUM MOISTURE CONTENT FOR 2-INCH (38-MM) THICKNESS OR LESS, MARKED WITH GRADE STAMP OF INSPECTION AGENCY.
2.2 TREATED MATERIALS
A. PRESERVATIVE-TREATED MATERIALS: AWPA C2 LUMBER AND AWPA C9 PLYWOOD, LABELED BY AN INSPECTION AGENCY APPROVED BY ALSC'S BOARD OF REVIEW. AFTER TREATMENT, KILN-DRY LUMBER AND PLYWOOD TO 19 AND 15 PERCENT MOISTURE CONTENT, RESPECTIVELY. TREAT INDICATED ITEMS AND THE FOLLOWING:
1. WOOD MEMBERS IN CONNECTION WITH ROOFING, FLASHING, VAPOR BARRIERS, AND WATERPROOFING.
2. CONCEALED MEMBERS IN CONTACT WITH MASONRY OR CONCRETE.
3. WOOD FRAMING MEMBERS LESS THAN 18 INCHES (460 MM) ABOVE GRADE.
4. WOOD FLOOR PLATES INSTALLED OVER CONCRETE SLABS DIRECTLY IN CONTACT WITH EARTH.
B. FIRE-RETARDANT-TREATED MATERIALS: AWPA C20 LUMBER AND AWPA C27 PLYWOOD, INTERIOR TYPE A TREATMENT, LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
1. USE TREATED LUMBER AND PLYWOOD WITH BENDING STRENGTH, STIFFNESS, AND FASTENER-HOLDING CAPACITIES THAT ARE NOT REDUCED BELOW VALUES PUBLISHED BY MANUFACTURER OF CHEMICAL FORMULATION UNDER ELEVATED TEMPERATURE AND HUMIDITY CONDITIONS.
2.3 LUMBER
A. DIMENSION LUMBER: THE FOLLOWING GRADES PER INSPECTION AGENCY INDICATED. SELECT ONE GRADE REQUIREMENT AND ONE OR MORE SPECIES GROUP IN SUBPARAGRAPHS BELOW FOR EACH APPLICATION DEPENDING ON AVAILABILITY AND SUITABILITY FOR PROJECT. DESIGNATE LOAD-BEARING WALLS ON DRAWINGS.
1. NON-LOAD-BEARING INTERIOR PARTITIONS: CONSTRUCTION, STUD, OR NO. 3.
2. FRAMING OTHER THAN NON-LOAD-BEARING PARTITIONS: CONSTRUCTION, STUD, OR NO.
B. CONCEALED BOARDS: 19 PERCENT MAXIMUM MOISTURE CONTENT: EASTERN SOFTWOODS: NO. 3 COMMON PER NELMA RULES.
C. MISCELLANEOUS LUMBER: NO. 3 OR STANDARD GRADE OF ANY SPECIES FOR NAILERS, BLOCKING, AND SIMILAR MEMBERS.
2.4 ENGINEERED WOOD PRODUCTS
A. ENGINEERED WOOD PRODUCTS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND WITH ALLOWABLE DESIGN STRESSES, AS PUBLISHED BY MANUFACTURER, THAT MEET OR EXCEED THOSE INDICATED. MANUFACTURER'S PUBLISHED VALUES SHALL BE DEMONSTRATED BY COMPREHENSIVE TESTING.
B. LAMINATED-VENEER LUMBER: LAMINATED WITH AN EXTERIOR-TYPE ADHESIVE COMPLYING WITH ASTM D 2559, WITH GRAIN OF VENEERS PARALLEL TO THEIR LENGTHS.
1. EXTREME FIBER STRESS IN BENDING: 2500 PSI (17 MPA) FOR 12-INCH NOMINAL- (286-MM ACTUAL-) DEPTH MEMBERS.
2. MODULUS OF ELASTICITY: 2,000,000 PSI (13 800 MPA). STRUCTURAL PROPERTIES FOR PRODUCT ABOVE AND BELOW ARE BASED ON PRODUCTS OF ONE MANUFACTURER. VERIFY ADEQUACY AND LOCAL AVAILABILITY BEFORE RETAINING. REVISE AS NEEDED.
C. PARALLEL-STRAND LUMBER: LAID UP FROM WOOD STRANDS WITH EXTERIOR-TYPE ADHESIVE COMPLYING WITH ASTM D 2559,WITH GRAIN OF STRANDS PARALLEL TO THEIR LENGTHS.
1. EXTREME FIBER STRESS IN BENDING: 2900 PSI (20 MPA) FOR 12-INCH NOMINAL - (286-MM ACTUAL-) DEPTH MEMBERS.
2. MODULUS OF ELASTICITY: 2,000,000 PSI (13 800 MPA).
2.5 PANEL PRODUCTS
A. WOOD-BASED STRUCTURAL-USE PANELS: DOC PS 2. PROVIDE PLYWOOD COMPLYING WITH DOC PS 1, WHERE PLYWOOD IS INDICATED.
1. FACTORY MARK PANELS EVIDENCING COMPLIANCE WITH GRADE REQUIREMENTS.
2. PROVIDE PANELS WITH SPAN RATINGS REQUIRED BY SUPPORT SPACING INDICATED.
3. WALL SHEATHING: APA-RATED STRUCTURAL 1 SHEATHING, EXPOSURE 1.
4. ROOF SHEATHING: APA-RATED STRUCTURAL 1 SHEATHING, EXTERIOR.
2.6 MISCELLANEOUS PRODUCTS
A. AIR-INFILTRATION BARRIER: ASTM D 226, TYPE 1, NO. 15 ASPHALT FELT, UNPERFORATED OR POLYOLEFIN MATERIAL COMPLYING WITH ASTM E 1677, TYPE 1, W/ MINIMUM WATER-VAPOR TRANSMISSION OF 10 PERMS (575 NG/PA X S X SQ. M).
B. FASTENERS: SIZE AND TYPE INDICATED. WHERE ROUGH CARPENTRY IS EXPOSED TO WEATHER, IN GROUND CONTACT, OR IN AREA OF HIGH RELATIVE HUMIDITY, PROVIDE FASTENERS WITH A HOT-DIP ZINC COATING PER ASTM A 153 OR OF TYPE 304 STAINLESS STEEL.
1. POWER-DRIVEN FASTENERS: CABO NER-272.
2. BOLTS: STEEL BOLTS COMPLYING WITH ASTM A 307, GRADE A (ASTM F 568, PROPERTY CLASS 4.6); WITH ASTM A 563 (ASTM A 563M) HEX NUTS AND, WHERE INDICATED, FLAT WASHERS.
C. METAL FRAMING ANCHORS: HOT-DIP GALVANIZED STEEL OF STRUCTURAL CAPACITY, TYPE, AND SIZE INDICATED.
D. SILL-SEALER: GLASS-FIBER INSULATION, 1-INCH (25-MM) THICK, COMPRESSIBLE TO 1/32 INCH (0.8 MM).
E. ADHESIVES FOR FIELD GLUING PANELS TO FRAMING: APA AFG-01.
PART 3 - EXECUTION
3.1 INSTALLATION
A. FIT ROUGH CARPENTRY TO OTHER CONSTRUCTION; SCRIBE AND COPE FOR ACCURATE FIT. CORRELATE LOCATION OF FURRING, BLOCKING, AND SIMILAR SUPPORTS TO ALLOW ATTACHMENT OF OTHER CONSTRUCTION.
B. SECURELY ATTACH ROUGH CARPENTRY WORK TO SUBSTRATE BY ANCHORING AND FASTENING AS INDICATED, COMPLYING WITH THE FOLLOWING:
1. CABO NER-272 FOR POWER-DRIVEN STAPLES, P-NAILS, AND ALLIED FASTENERS.
2. PUBLISHED REQUIREMENTS OF METAL FRAMING ANCHOR MANUFACTURER.
END OF SECTION 06100

SECTION 07110 - DAMPROOFING

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. AT LOCATIONS BETWEEN BRICK VENEER OR MANUFACTURED STONE AND CMU CONSTRUCTION, THE FACE OF THE CMU SHALL BE PROVIDED WITH DAMPROOFING APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMPROOFING SHALL CONSIST OF A WATER EMULSION OF ASPHALT FORMULATED FOR SPRAYING OR BRUSHING, AND USE FOR ON GREEN OR SLIGHTLY DAMPENED WALLS. ACCEPTABLE PRODUCTS ARE:
1. KARNAK CHEMICAL CORP., KARNAK 100 AF NON-FIBERED EMULSION DAMPROOFING
2. BASF BUILDING SYSTEMS, HYDROCIDE 700B
3. TEXMASTIC INTERNATIONAL, INC., TEXMASTIC SPRAY MASTIC #712-B
4. GRACE CONSTRUCTION PRODUCTS, GRACE PROCOR 75
END OF SECTION 07110

SECTION 07210 - BUILDING INSULATION

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA FOR EACH TYPE OF INSULATION PRODUCT SPECIFIED. MODIFY RATINGS IN PARAGRAPH BELOW TO SUIT AUTHORITIES HAVING JURISDICTION, INSULATION MATERIAL SELECTED, OR IF INSULATION MATERIALS WILL REMAIN EXPOSED.
B. SURFACE-BURNING CHARACTERISTICS: ASTM E 84, FLAME-SPREAD RATINGS OF 75 OR LESS AND SMOKE-DEVELOPED RATINGS OF 450 OR LESS.
PART 2 - PRODUCTS
2.1 INSULATION PRODUCTS
A. EXTRUDED-POLYSTYRENE BOARD INSULATION: ASTM C 578, TYPE [IV] [V] [VI] [VII] [X].
B. MOLDED-POLYSTYRENE BOARD INSULATION: ASTM C 578, TYPE [I] [II] [VIII].
C. POLYISOCYANURATE BOARD INSULATION: ASTM C 1289, TYPE I, CLASS 1 OR 2, FACED ON BOTH SIDES WITH ALUMINUM FOIL.
D. FLEXIBLE GLASS-FIBER-BOARD INSULATION: ASTM C 612, TYPE IA OR ASTM C 553, TYPES I, II, AND III; FOIL-SCRIM-KRAFT FACED; NOMINAL DENSITY OF 1.5 LB/CU. FT. (24 KG/CU. M).
E. GLASS-FIBER-BOARD INSULATION: ASTM C 612, TYPE IA OR TYPE IA AND IB; FOIL-SCRIM-KRAFT OR FOIL-SCRIM-POLYETHYLENE FACED; NOMINAL DENSITY OF 3 LB/CU. FT. (48 KG/CU. M).
F. MINERAL-FIBER-BLANKET INSULATION: ASTM C 665, TYPE III, CLASS A, FOIL-SCRIM-KRAFT, FOIL-SCRIM, OR FOIL-SCRIM-POLYETHYLENE VAPOR-RETARDER MEMBRANE ON ONE FACE WITH FIBERS MANUFACTURED FROM GLASS.
2.2 ACCESSORIES
A. VAPOR RETARDER: REINFORCED POLYETHYLENE OR FIRE-RETARDANT, REINFORCED POLYETHYLENE, MIN. 6 MILL THICK.
B. EAVE VENTILATION TROUGHS: PREFORMED, RIGID FIBERBOARD OR PLASTIC SHEETS DESIGNED TO FIT BETWEEN ROOF FRAMING MEMBERS AND TO PROVIDE CROSS-VENTILATION BETWEEN ATTIC SPACES AND VENTED EAVES.
PART 3 - EXECUTION
3.1 INSTALLATION
A. INSTALL INSULATION IN AREAS AND IN THICKNESSES INDICATED OR REQUIRED TO PRODUCE R-VALUES INDICATED. CUT AND FIT TIGHTLY AROUND OBSTRUCTIONS AND FILL VOIDS WITH INSULATION.
B. EXTEND VAPOR RETARDER TO EXTREMITIES OF AREAS TO BE PROTECTED FROM VAPOR TRANSMISSION. SECURE IN PLACE WITH ADHESIVES OR OTHER ANCHORAGE.
END OF SECTION 07210

SECTION 07241 - EXT. INSULATION AND FIN. SYS.- CLASS PB

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. COMPLY WITH EIFS INDUSTRY MEMBERS ASSOCIATION'S (EIMA) "GUIDELINE SPECIFICATION FOR EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) CLASS PB" WITH IMPACT CLASSIFICATION AND RANGE PER EIMA 101.86 OF STANDARD IMPACT RESISTANCE: 25-49 INCH-LB (2.8-5.6 J).
B. STRUCTURAL PERFORMANCE: ENGINEER, FABRICATE, AND INSTALL PREFABRICATED PANELS TO WITHSTAND THE EFFECTS OF NORMAL THERMAL MOVEMENT, GRAVITY LOADS, INWARD- OR OUTWARD-ACTING UNIFORM WIND VELOCITY PRESSURES, AND DEFLECTION OF LESS THAN L/240 OF SPAN OF FRAMING MEMBERS.
C. SUBMITTALS: PRODUCT DATA AND SAMPLES OF FINISHES.
D. INSTALLER QUALIFICATIONS: CERTIFIED IN WRITING BY SYSTEM MANUFACTURER.
PART 2 - PRODUCTS
2.1 MANUFACTURERS
A. DRYVIT OR EQUAL (SUBMIT FOR APPROVAL), AND FINISH TO BE SELECTED BY ARCHITECT.
2.2 MATERIALS
A. EXTERIOR CEMENT BOARD: 1/2-INCH- (12.7-MM-) THICK, FIBER CEMENT BOARD COMPLYING WITH ASTM C 1186, TYPE A, RECOMMENDED BY BOARD MANUFACTURER FOR EXTERIOR APPLICATIONS.
B. ASPHALT-SATURATED ORGANIC FELT: ASTM D 226, TYPE I (NO. 15 ASPHALT FELT), UNPERFORATED.
C. MOLDED-POLYSTYRENE BOARD INSULATION: ASTM C 578, TYPE I, COMPLYING WITH EIMA'S "GUIDELINE SPECIFICATION FOR EXPANDED POLYSTYRENE (EPS) INSULATION BOARD."
D. EXTERIOR SHEATHING: 5/8" DENS GLASS SHEATHING BY GEORGIA PACIFIC
E. REINFORCING MESH: BALANCED, ALKALI-RESISTANT, OPEN-WEAVE GLASS-FIBER MESH TREATED FOR COMPATIBILITY WITH OTHER SYSTEM MATERIALS, COMPLYING WITH ASTM D 578, AND WITH MINIMUM WEIGHT NOT LESS THAN 9.5 OZ./SQ. YD. (322 G/SQ. M).
PART 3 - EXECUTION
3.1 INSTALLATION
A. COMPLY WITH ASTM PS 49 AND SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLATION OF SYSTEM AS APPLICABLE TO EACH TYPE OF SUBSTRATE INDICATED.
1. INSTALL BASE COAT IN 2 APPLICATIONS, WITH A MINIMUM TOTAL THICKNESS AT LEAST 3/32 INCH (2.4 MM), AND COMPLETELY COVERING REINFORCING MESH.
2. PROVIDE TOTAL THICKNESS OF BASE AND FINISH COATS AT LEAST 1/8 INCH (3.2 MM).
B. PREPARE JOINTS AND APPLY SEALANTS TO COMPLY WITH APPLICABLE REQUIREMENTS OF DIVISION 7 SECTION "JOINT SEALANTS" AND WITH EIMA'S "GUIDE FOR USED SEALANTS WITH EXTERIOR INSULATION AND FINISH SYSTEMS CLASS PB."
END OF SECTION 07241

SECTION 07242 - ROOF INSULATION

SEE SECTION 07500

SECTION 07271 SELF-ADHERING WATER RESTIVE BARRIER

PART 1 - GENERAL
1.01 GENERAL REQUIREMENTS
A. THIS SPECIFICATION SHALL BE READ AS A WHOLE BY ALL PARTIES CONCERNED. EACH SECTION MAY CONTAIN MORE OR LESS THE COMPLETE WORK OF ANY TRADE. THE CONTRACTOR IS SOLELY RESPONSIBLE TO MAKE CLEAR TO THE SUBCONTRACTORS THE EXTENT OF THEIR WORK AND COORDINATE OVERLAPPING WORK.
1.02 SYSTEM DESCRIPTION
A. SUPPLY LABOR, MATERIALS AND EQUIPMENT FOR A FULLY ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MEMBRANE SYSTEM.
B. COMPLETE WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN TO BRIDGE GAPS AND SEAL THE WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MEMBRANE AGAINST AIR LEAKAGE AND WATER INTRUSION, INCLUDING:
1. CONNECTIONS OF THE WALLS TO THE ROOF MEMBRANE
2. CONNECTIONS OF THE WALLS TO THE FOUNDATIONS
3. SEISMIC AND EXPANSION JOINTS
4. OPENINGS AND PENETRATIONS OF WINDOW AND DOOR FRAMES, STORE FRONT, CURTAIN WALL
5. PIPING, CONDUIT, DUCT AND SIMILAR PENETRATIONS
6. MASONRY TIES, SCREWS, BOLTS AND SIMILAR PENETRATIONS
7. ALL OTHER AIR LEAKAGE PATHWAYS IN THE BUILDING ENVELOPE
C. INSTALL PRIMARY WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER, FLASHING, AND VENTILATION STRIP ACCESSORIES.
1.03 RELATED PRODUCTS MAY INCLUDE:
A. MASONRY VENEER
B. GYPSUM SHEATHING
C. PLYWOOD SHEATHING
D. INSULATION
E. ROOFING
F. WALL PANELS
G. FLASHING
H. SEALANTS
I. DOOR FRAMES
J. WINDOW FRAMES
1.04 REFERENCE STANDARDS
A. ASTM INTERNATIONAL (ASTM):
1. ASTM D 5034 - TEST METHOD FOR BREAKING STRENGTH AND ELONGATION OF TEXTILE FABRICS (GRAB TEST).
2. ASTM E 96/E 96M - TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS.
3. ASTM E398 STANDARD TEST METHOD FOR WATER VAPOR TRANSMISSION RATE OF SHEET MATERIALS USING DYNAMIC RELATIVE HUMIDITY MEASUREMENT.
4. ASTM E 2178 - STANDARD TEST METHOD FOR AIR PERMEANCE OF BUILDING MATERIALS.
5. ASTM E 2357 - STANDARD TEST METHOD FOR DETERMINING AIR LEAKAGE OF AIR BARRIER ASSEMBLIES.
6. ASTM E 283 - STANDARD TEST METHOD FOR DETERMINING RATE OF AIR LEAKAGE THROUGH EXTERIOR WINDOWS, CURTAIN WALLS, AND DOORS UNDER SPECIFIED PRESSURE DIFFERENCES ACROSS THE SPECIMEN.
7. ASTM E 84 - TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
B. AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC): ATCC 127 - TEST METHOD FOR WATER RESISTANCE: HYDROSTATIC PRESSURE TEST.
C. INTERNATIONAL CODE COUNCIL EVALUATION SERVICE, INC. (ICC-ES): ICC-ES AC38 - ACCEPTANCE CRITERIA FOR WATER-RESISTIVE BARRIERS.
1.05 SUBMITTALS
A. SUBMIT MANUFACTURERS' CURRENT PRODUCT DATA SHEETS, DETAILS AND INSTALLATION INSTRUCTIONS FOR THE WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MEMBRANE COMPONENTS AND ACCESSORIES.
B. SUBMIT SAMPLES OF THE FOLLOWING:
1. MANUFACTURER'S SAMPLE WARRANTY
2. WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER SHEET, MINIMUM 8 BY 10 INCHES (203 BY 254 MM)
3. COMPONENTS, MINIMUM 12 INCH (305 MM) LENGTHS
4. MEMBRANE FLASHINGS
5. FASTENERS, CLIPS, STRAPPING, CLADDING ATTACHMENT FASTENERS AND MASONRY TIES
6. SEALANTS
1.06 QUALITY ASSURANCE
A. SINGLE SOURCE: SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MEMBRANE COMPONENTS AND ACCESSORIES MUST BE OBTAINED AS A SINGLE-SOURCE MEMBRANE SYSTEM TO ENSURE TOTAL SYSTEM COMPATIBILITY AND INTEGRITY.
B. MANUFACTURER QUALIFICATIONS
1. MANUFACTURER OF SPECIFIED PRODUCTS LISTED IN THIS SECTION TO HAVE MINIMUM 10 YEARS OF CONTINUED EXPERIENCE IN THE MANUFACTURE AND SUPPLY OF HIGHLY VAPOR PERMEABLE WATER RESISTIVE AIR BARRIER PRODUCTS SUCCESSFULLY INSTALLED IN SIMILAR PROJECT APPLICATIONS.
2. MANUFACTURER OF SPECIFIED PRODUCTS LISTED IN THIS SECTION TO HAVE EXPERIENCED IN-HOUSE TECHNICAL AND FIELD OBSERVATION PERSONAL QUALIFIED TO PROVIDE EXPERT TECHNICAL SUPPORT.
C. FIRE PERFORMANCE CHARACTERISTICS: PROVIDE WATER-RESISTIVE BARRIER MEETING THE FOLLOWING FIRE-TEST CHARACTERISTICS.
1. SURFACE-BURNING CHARACTERISTICS: ASTM E 84
2. FLAME SPREAD INDEX: 5 OR LESS
3. SMOKE DEVELOPED INDEX: 15 OR LESS
1.07 DELIVERY, STORAGE AND HANDLING
A. REFER TO CURRENT PRODUCT INSTALLATION INSTRUCTIONS AND SDS AT WWW.VAPROSHIELD.COM FOR PROPER STORAGE AND HANDLING.
1.08 COORDINATION
A. ENSURE CONTINUITY OF THE FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER SYSTEM THROUGHOUT THE SCOPE OF THIS SECTION.
1. AIR BARRIER VAPOR PERMEABLE MEMBRANE TO INCLUDE SELF-ADHERED AIR BARRIER, TRANSITION MEMBRANES AND SEALANTS AT PENETRATIONS.
2. DRAINAGE PLANE TO INCLUDE DRAINAGE CAVITY, WATER RESISTIVE BARRIER AND FLASHINGS TO THE EXTERIOR.
1.09 WARRANTY
A. PROVIDE MANUFACTURER'S STANDARD MATERIAL WARRANTY IN WHICH MANUFACTURER AGREES TO PROVIDE REPLACEMENT MATERIAL FOR THE FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER SHEETS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS THAT FAIL DUE TO MATERIAL DEFECTS WITHIN 20 YEARS OF THE DATE OF PURCHASE.
PART 2 - PRODUCTS
2.01 MATERIALS
A. PRIMARY FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MEMBRANE COMPONENTS AND ACCESSORIES MUST BE OBTAINED FROM A SINGLE-SOURCE MANUFACTURE TO ENSURE TOTAL SYSTEM COMPATIBILITY AND INTEGRITY.
1. SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER MEMBRANE BY VAPROSHIELD LLC., GIG HARBOR, WA, PHONE: (866) 731-7663, WEBSITE: WWW.VAPROSHIELD.COM.
B. WATER-RESISTIVE VAPOR PERMEABLE SELF-ADHERED AIR BARRIER MATERIALS (BASIS OF DESIGN)
1. PRIMARY FULLY SELF-ADHERED AIR BARRIER SHEET MEMBRANE SHALL BE WRAPSHIELD SA© SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER SHEET BY VAPROSHIELD, A ZERO VOC FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEET MEMBRANE CONSISTING OF MULTIPLE LAYERS OF SPUN-BONDED POLYPROPYLENE TESTED IN ACCORDANCE WITH ICC-ES AC 38 CRITERIA TO MEET IBC AND IRC REQUIREMENTS FOR WEATHER RESISTIVE BARRIERS HAVING THE FOLLOWING PROPERTIES:
a. COLOR: ORANGE WITH ALLOWABLE UV EXPOSURE FOR 180 DAYS, PRIOR TO COVERAGE.
b. BREAKING STRENGTH AND ELONGATION TO ASTM D 5034: 88 LBF (391 N), MACHINE DIRECTION; 83 LBF (369 N), CROSS-MACHINE DIRECTION.
c. WATER VAPOR PERMEANCE TESTED TO ASTM E 96 METHOD B: MINIMUM OF 50 PERMS (2861 NG/PA.S.M2)
d. WATER VAPOR PERMEANCE TESTED TO ASTM E398: MINIMUM OF 50 PERMS (2861 NG/PA.S.M2)
e. AIR LEAKAGE: ≤0.00002 CFM/FT2 @ 1.57 PSF (≤0.0001 L/S M2 @ 75 PA) WHEN TESTED IN ACCORDANCE WITH ASTM E 2178 AND <0.01 CFM/FT2 @ 1.57 PSF (<0.01 L/S M2 @ 75 PA)) WHEN TESTED IN ACCORDANCE WITH ASTM E 2357 AND. MEETS AIR BARRIER ASSOCIATION OF AMERICA (ABAA) REQUIREMENTS FOR ©ADHESIVE BACKED COMMERCIAL BUILDING WRAPS".
f. WATER RESISTANCE TESTED TO AATCC 127, 550 MM HYDROSTATIC HEAD FOR 5 HOURS: NO LEAKAGE
g. APPLICATION TEMPERATURE: AMBIENT TEMPERATURE MUST BE ABOVE 20 °F (MINUS 6.7 °C)
h. SURFACE BURNING CHARACTERISTICS TESTED TO ASTM E 84: CLASS A, FLAME-SPREAD INDEX OF LESS THAN 5, SMOKE-DEVELOPED INDEX OF LESS THAN 15
i. PHYSICAL DIMENSIONS: 0.022 INCHES (0.56 MM) THICK AND 59 INCHES (1.5 M) WIDE AND 7.58 OZ/YD2 (257 G/M2).
C. WATER-RESISTIVE VAPOR PERMEABLE TRANSITION AND FLASHING MEMBRANE
1. SELF-ADHERED AIR BARRIER TRANSITION AND FLASHING MEMBRANE FOR ALL WINDOW JAMBS, HEADERS, DOOR OPENINGS, INSIDE AND OUTSIDE CORNERS, AND OTHER TRANSITIONS SHALL BE PRE-CUT VAPROFLASHING SA© BY VAPROSHIELD, A ZERO VOC FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE SHEET MEMBRANE HAVING THE FOLLOWING PROPERTIES:
a. VAPROFLASHING SA© ORANGE: 6 ½ INCHES (17.8 CM), 11 3/4 INCHES (30 CM) OR 19 2/3 INCHES (50 CM) WIDE X 164 FEET (50 M) LONG
b. AIR LEAKAGE: ≤0.00002 CFM/FT2 @ 1.57 PSF (≤0.0001 L/S M2 @ 75 PA) WHEN TESTED IN ACCORDANCE WITH ASTM E 2178 AND <0.01 CFM/FT2 @ 1.57 PSF (<0.01 L/S M2 @ 75 PA)) WHEN TESTED IN ACCORDANCE WITH ASTM E 2357
WATER VAPOR PERMEANCE TESTED TO ASTM E 96 METHOD B: MINIMUM 50 PERMS (2861 NG/PA.S.M2)
WATER VAPOR PERMEANCE TESTED TO ASTM E398: MINIMUM OF 50 PERMS (2861 NG/PA.S.M2)
WATER RESISTANCE TESTED TO AATCC 127, 550 MM HYDROSTATIC HEAD FOR 5 HOURS: NO LEAKAGE
D. VAPROLIQUI-FLASH© VAPOR PERMEABLE WATER RESISTIVE FLASHING FOR ROUGH OPENINGS PART II OF II FLASHING SYSTEM
1. WINDOW AND DOOR PRE-CUT VAPROFLASHING SA© SHALL INCLUDE VAPROLIQUI-FLASH BY VAPROSHIELD, A LIQUID-APPLIED VAPOR PERMEABLE AIR BARRIER FLASHING MATERIAL WITH VAPOR PERMEANCE AND RESISTANCE TO AIR LEAKAGE PROPERTIES COMPATIBLE WITH THE PRIMARY AIR BARRIER MEMBRANE.
E. THROUGH WALL FLASHING
1. THRU-WALL FLASHING SHALL INCLUDE VAPRO-SS FLASHING© BY VAPROSHIELD, A FLEXIBLE 2 MIL (0.05 MM) STAINLESS STEEL SHEET WITH AN 8 MIL (0.20 MM) BUTYL ADHESIVE BACKING AND MAY INCLUDE A VAPROTERMINATION BAR© WHEN THE TOP SECTION OF THE VAPRO-SS FLASHING© IS EXPOSED.
a. VAPRO-SS FLASHING©: 4, 6, 9, 12, 18 OR 24 INCHES (10.2, 15.2, 22.9, 30.5, 45.7, 61 CM) X 50 FEET (15.24 M) LONG.
b. TENSILE STRENGTH/PUNCTURE: 100,000 PSI WHEN TESTED IN ACCORDANCE WITH ASTM D882 AND 2,500 PSI WHEN TESTED IN ACCORDANCE WITH ASTM E154
c. VAPROTERMINATION BAR©: 1 INCH (25 MM) WIDE X 8 FEET (2.4 M) LONG, UV-RESISTANCE RIGID THERMOPLASTIC EXTRUSION, IF REQUIRED BY SEQUENCE OF INSTALLATION.
F. WATER-RESISTIVE WEATHER BARRIER BATTEN, SHIM OR MAT ACCESSORIES OPTIONS
1. WATER-RESISTIVE WEATHER BARRIER BATTEN AND VENTILATION ACCESSORIES BY VAPROSHIELD SHALL BE MADE OF BLACK PVC MATERIAL.
a. VAPROBATTENTM BLACK VINYL EXTRUSION WITH PRE-FORMED MOISTURE DRAINAGE CHANNELS CONFIGURED TO CREATE A VENTILATED AIRSPACE BETWEEN WALL CLADDING AND WEATHER-RESISTIVE BARRIER, BULL NOSE EDGES PREVENT MEMBRANE TEARING. FASTENERS ARE INSTALLED DIRECTLY THROUGH VAPROBATTEN INTO THE STRUCTURAL ELEMENTS REGARDLESS OF WEATHER CONDITIONS.
b. VAPROVENT© STRIPS ARE AVAILABLE IN TWO TYPES: VAPROVENT L STRIP AND VAPROVENT HOOK STRIP.
i. VAPROVENT© GRAY VINYL L STRIPS ARE ATTACHED TO THE TOP AND BOTTOM OF VAPROBATTENS. THEY PREVENT INSECT INVASION AND PROVIDE MAXIMUM VENTILATION.
ii. VAPROVENT© GRAY VINYL HOOK STRIPS ARE USED WITH VAPROBATTENS AS A STARTER STRIP FOR VINYL AND BEVELED SIDING APPLICATIONS, IN PLACE OF THE VAPROVENT L STRIP AT THE BOTTOM OF THE ASSEMBLY.
c. VAPROSHIM SA© SELF-ADHERED, NEOPRENE/EPDM ACCESSORY USED UNDER HORIZONTAL OR VERTICAL CLADDING ATTACHMENT COMPONENTS TO CREATE A VERTICAL RAIN SCREEN DRAINAGE PLANE FOR CLADDING, WHILE SEALING FASTENER PENETRATIONS.
d. VAPROMAT© LIGHTWEIGHT, HYDROPHOBIC FILTER FABRIC WITH A 3 MM OR 7 MM POLYPROPYLENE DRAINAGE MATRIX ATTACHED, DESIGNED TO KEEP THE DRAINAGE CAVITY CLEAN AND UNOBSTRUCTED DURING THE LATH AND PLASTER OR ADHESIVE MORTAR INSTALLATION, PROMOTING RAPID DRAINING AND DRYING OF THE RAIN SCREEN CAVITY.
2.02 PENETRATION SEALANT
A. PROVIDE SEALANT FOR PENETRATIONS AS RECOMMENDED BY MANUFACTURER OR AS SPECIFIED UNDER DIVISION 07 SECTION: SEALANTS. APPROPRIATE SEALANTS SHALL BE VAPROBOND© OR VAPROLIQUI-FLASH©.
PART 3 EXECUTION
3.01 GENERAL
A. VERIFY THAT SURFACES AND CONDITIONS ARE READY TO ACCEPT THE WORK OF THIS SECTION. NOTIFY [ENGINEER] [ARCHITECT] [CONSULTANT] IN WRITING OF ANY DISCREPANCIES. COMMENCEMENT OF THE WORK OR ANY PARTS THEREOF SHALL MEAN ACCEPTANCE OF THE PREPARED SUBSTRATES.
B. ALL SURFACES MUST BE DRY, SOUND, CLEAN, FREE OF OIL, GREASE, DIRT, EXCESS MORTAR OR OTHER CONTAMINANTS DETRIMENTAL TO THE ADHESION OF THE WATER RESISTIVE AIR BARRIER MEMBRANE AND FLASHINGS. FILL VOIDS AND GAPS IN SUBSTRATE GREATER THAN 7/8 INCH IN WIDTH TO PROVIDE AN EVEN SURFACE. STRIKE MASONRY JOINTS FULL-FLUSH.
C. MINIMUM APPLICATION TEMPERATURE OF FULLY SELF-ADHERED MEMBRANE AND FLASHINGS TO BE ABOVE 20 °F (MINUS 6.0 °C).
D. ENSURE ALL PREPARATORY WORK IS COMPLETE PRIOR TO APPLYING PRIMARY FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEET MEMBRANE.
E. MECHANICAL FASTENERS USED TO SECURE SHEATHING SURFACES OR PENETRATE SHEATHING SURFACES SHALL BE SET FLUSH WITH SHEATHING, FASTENED INTO SOLID BACKING AND COVERED WITH THE UPPER OVERLAPPING MEMBRANE. IF EXPOSED FASTENERS ARE PRESENT ON THE SURFACE OF THE MEMBRANE, COVER AND SEAL WITH VAPRO-LIQUIFLASH OR VAPROBOND©.
F. IF EXPOSED FASTENERS ARE REQUIRED, USE VAPROCAPS TO INSURE WATER/AIR TIGHT SEAL.
3.02 COORDINATION OF SELF-ADHERED VAPOR PERMEABLE AIR BARRIER MEMBRANE INSTALLATION
A. DOWNLOAD INSTALLATION INSTRUCTIONS AT HTTP://VAPROSHIELD.COM/PUBLIC-DOCUMENTS/INSTALLATION-INSTRUCTIONS.
B. INSTALLATION SUMMARY:
a. SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEETS MAY BE INSTALLED VERTICALLY OR HORIZONTALLY OVER THE OUTSIDE FACE OF EXTERIOR SHEATHING BOARD OR OTHER APPROVED SUBSTRATES.
b. COMPLETE DETAIL WORK AT; WALL OPENINGS, BUILDING TRANSITIONS AND PENETRATIONS PRIOR TO FIELD APPLICATIONS.
c. INSTALL FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEET OVER THE OUTSIDE FACE OF EXTERIOR SHEATHING BOARD OR SUBSTRATE, MEASURE AND PRE-CUT INTO MANAGEABLE SIZED SHEETS TO SUIT THE APPLICATION CONDITIONS.
d. INSTALL FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEET COMPLETE AND CONTINUOUS TO SUBSTRATE IN A SEQUENTIAL MINIMAL 3 INCH (76.2 MM) OVERLAPPING WEATHERBOARD.
e. STAGGER ALL END LAP SEAMS.
f. ROLL INSTALLED MEMBRANE WITH ROLLER TO ENSURE POSITIVE CONTACT AND ADHESION WITH SUBSTRATE IMMEDIATELY.
3.03 BUILDING TRANSITION CONDITIONS
A. CONSULT PUBLISHED DETAILS AT WWW.VAPROSHIELD.COM.
B. TIE-IN TO STRUCTURAL BEAMS, COLUMNS, FLOOR SLABS AND INTERMITTENT FLOORS, PARAPET CURBS, FOUNDATION WALLS, ROOFING SYSTEMS AND AT THE INTERFACE OF DISSIMILAR MATERIALS WITH SELF-ADHERING AIR BARRIER TRANSITION AND FLASHING MEMBRANE.
C. ALIGN AND POSITION FULLY SELF-ADHERED AIR BARRIER TRANSITION AND FLASHING MEMBRANE, REMOVE PROTECTIVE FILM AND PRESS FIRMLY INTO PLACE. PROVIDE MINIMUM 3 INCH (76.2 MM) LAP ON TO SUBSTRATES.
D. ENSURE MINIMUM 3 INCH (76.2 MM) OVERLAP AT SIDE AND END LAPS OF MEMBRANE AND 6 INCH (152.4 MM) AT INSIDE AND OUTSIDE CORNERS, IF JOINTS OCCUR AT CORNER LOCATIONS.
E. ROLL MEMBRANE AND LAP SEAMS WITH ROLLER TO ENSURE POSITIVE CONTACT AND ADHESION, IMMEDIATELY.
3.04 MECHANICAL EQUIPMENT PENETRATIONS
A. MECHANICAL PIPE, ELECTRICAL CONDUIT AND/OR DUCT WORK MUST BE SECURED SOLID INTO POSITION PRIOR TO INSTALLATION OF FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER MEMBRANE.
B. ELECTRICAL SERVICES PENETRATING THE WALL ASSEMBLY AND FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER MEMBRANE MUST BE PLACED IN APPROPRIATE CONDUIT AND SECURED SOLID INTO POSITION.
C. INSTALL MANUFACTURED FLANGED PENETRATION SLEEVES AS RECOMMENDED BY SLEEVE MANUFACTURER.
D. FOR STRAIGHT SIDED PENETRATIONS, CUT AND FIT FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER TO ACCOMMODATE SLEEVE, INSTALL VAPROLIQUI-FLASH TO SEAL THE AIR BARRIER MEMBRANE TO DUCTWORK OR PREFORMED FLANGE SLEEVE.
E. FOR PIPE PENETRATIONS, REFER TO MANUFACTURER'S STANDARD DETAILS.

3.05 WINDOW, DOOR AND OTHER WALL OPENINGS
A. CONSULT PUBLISHED INSTALLATION INSTRUCTIONS AT WWW.VAPROSHIELD.COM.
B. REVEALFLASHING© SA FULLY SELF-ADHERED FLASHING AND VAPROLIQUI-FLASH OR VAPRO-SS FLASHINGS BY VAPROSHIELD AROUND WINDOW OR WALL OPENINGS SUBJECT TO THE OPENING SIZE AND INSTALLATION OF WINDOW, DOOR OR LOUVER TYPE.
C. REVEALFLASHING© SA FULLY SELF-ADHERED AIR BARRIER TRANSITION AND FLASHING MEMBRANE INSTALLED 2 ¾ INCH (70 MM) INTO ROUGH WALL OPENINGS FOR THE SILL, JAMBS AND HEAD.
D. REMOVE RELEASE FILM, ALIGN FLASHING MEMBRANE AND APPLY PRESSURE TO ENSURE POSITIVE CONTACT. ROLL LAP SEAMS TO ENSURE ADHESION. PROVIDE LAP SEAMS IN SINGLED FASHION, TO SHED WATER.
E. VAPROLIQUI-FLASH VAPOR PERMEABLE WATER RESISTIVE FLASHING FOR ROUGH OPENINGS
1. DOWNLOAD INSTALLATION INSTRUCTIONS AT HTTP://VAPROSHIELD.COM/PUBLIC-DOCUMENTS/INSTALLATION-INSTRUCTIONS.
2. LIQUID-APPLIED WINDOW AND DOOR FLASHING SHALL BE VAPROLIQUI-FLASH© BY VAPROSHIELD, A LIQUID-APPLIED VAPOR PERMEABLE AIR BARRIER FLASHING MATERIAL WITH RESISTANCE TO MOISTURE AND AIR LEAKAGE PROPERTIES COMPATIBLE WITH THE PRIMARY WEATHER RESISTANT AIR BARRIER MEMBRANE.
3. APPLY A 12-15 WET MIL (0.030-0.038 MM) COATING ONTO THE INSTALLED VAPROFLASHING© SA, 1 INCH (25.4 MM) ONTO THE FACE CONTINUING INTO THE ROUGH OPENING, COVERING THE 2 ¾ INCH (70 MM) VAPROFLASHING© SA AND THE EXPOSED ROUGH OPENING SURFACE.
A. THROUGH-WALL FLASHING MEMBRANE
1. DOWNLOAD INSTALLATION INSTRUCTIONS AT HTTP://VAPROSHIELD.COM/PUBLIC-DOCUMENTS/INSTALLATION-INSTRUCTIONS.
2. APPLY THROUGH-WALL SELF-ADHERED FLASHING MEMBRANE ALONG THE BASE OF MASONRY VENEER WALLS AND OVER SHELF ANGLES AS DETAILED BY DESIGNER.
a. PRESS MEMBRANE FIRMLY INTO PLACE, OVERLAP MINIMUM 3 INCHES (76 MM) AT ALL LAPS. PROMPTLY ROLL ALL SURFACES USING A HAND ROLLER TO ENSURE GOOD ADHESION.
b. APPLICATIONS SHALL FORM A CONTINUOUS FLASHING MEMBRANE AND SHALL EXTEND UP A MINIMUM OF 8 INCHES (20 CM) UP THE BACK-UP WALL.
c. SEAL THE TOP EDGE OF THE MEMBRANE WHERE IT MEETS THE SUBSTRATE USING VARPOBOND. TROWEL-APPLY A FEATHERED EDGE TO SEAL TERMINATION TO SHED WATER OR INSTALL VARPOTERMINATION BAR AND VAPROBOND© SEALANT AT THE TOP EDGE.
d. INSTALL THROUGH-WALL FLASHING MEMBRANE ½ INCH (13 MM) FROM OUTSIDE EDGE OF VENEER. PROVIDE ©END DAM" FLASHING AS DETAILED BY DESIGNER.
B. OPTIONAL VAPRO-SS FLASHING VAPOR IMPERMIABLE FLASHING FOR ROUGH OPENINGS
1. SELF-ADHERED STAINLESS STEEL MEMBRANE FOR WINDOW AND DOOR FLASHING SHALL BE VAPRO-SS FLASH© BY VAPROSHIELD, AN IMPERMEABLE AIR AND WATER BARRIER FLASHING MATERIAL, REPLACES VAPROLIQUI-FLASH.
2. APPLY VAPROFLASHING© SA, 1 INCH (25 MM) ONTO THE FACE CONTINUING INTO THE ROUGH OPENING, COVERING THE 2 ¾ INCH (70 MM) VAPROFLASHING© SA AND THE EXPOSED ROUGH OPENING SURFACE.
3.06 VERTICAL APPLICATIONS SUMMARY
A. DOWNLOAD INSTALLATION INSTRUCTIONS AT HTTP://VAPROSHIELD.COM/PUBLIC-DOCUMENTS/INSTALLATION-INSTRUCTIONS.
B. FOR VERTICAL APPLICATIONS, ALIGN SHEETS WITH AN 'INSIDE' OR 'OUTSIDE' CORNER TO AVOID WRINKLES AND MISALIGNMENT OF SUBSEQUENT APPLICATIONS.
C. MEASURE AND PRE-CUT INTO MANAGEABLE SIZED FULLY SELF-ADHERED SHEETS TO SUIT THE APPLICATION CONDITIONS.
D. ALLOW FOR EXCESS MATERIAL AT BOTTOM OF WALL TO ACCOMMODATE TIE-INS AND CONNECTIONS TO ADJACENT SURFACES.
E. ROLL UP PRE-CUT MATERIAL LENGTHS WITH RELEASE PAPER FACING OUTWARD.
F. STARTING AT A CORNER OF THE ROLL, PEEL BACK APPROX. 6" (152.4 MM) OF RELEASE FILM FROM ACROSS THE WIDTH OF THE PRE-CUT MATERIAL ROLL.
G. USING HAND PRESSURE, LIGHTLY APPLY THE EXPOSED ADHESIVE SURFACE TO THE SUBSTRATE.
H. ALLOW THE ROLLED UP MATERIAL TO DROP DOWN THE WALL, WITH THE REMAINDER OF THE RELEASE FILM STILL ATTACHED (FACING THE WALL), AND EXTEND DOWN TO LOWEST POINT OF WALL, CHECKING FOR PROPER ALIGNMENT, REPOSITIONING AS NECESSARY.
I. ALLOW FOR EXCESS MATERIAL AT BOTTOM OF WALL TO ACCOMMODATE TIE-INS AND CONNECTIONS TO ADJACENT SURFACES.
J. ALIGN AND POSITION FULLY SELF-ADHERED MEMBRANE, REMOVE RELEASE FILM AND PRESS FIRMLY INTO PLACE. PROVIDE MINIMUM 3 INCH (76 MM) OVERLAP AT SIDE AND END LAPS OF MEMBRANE.
K. CONTINUE TO REMOVE RELEASE FILM AND APPLY PRESSURE TO ENSURE POSITIVE CONTACT ONTO WALL SUBSTRATE.
L. INSTALL SUBSEQUENT SHEETS OF FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEETS IN OVERLAPPING WEATHERBOARD FORMAT. ENSURE SHEETS LAY SMOOTH AND FLAT TO SURFACES. ROLL MEMBRANE AND LAP SEAMS WITH TWO HANDED ROLLER TO ENSURE CONTACT AND ADHESION.
M. REFER TO HTTP://VAPROSHIELD.COM/INSTALLATION/INSTRUCTIONS FOR THE MOST CURRENT AND COMPLETE INSTALLATION INSTRUCTIONS.
3.07 HORIZONTAL APPLICATIONS
A. FOR HORIZONTAL APPLICATIONS, ALIGN SHEETS AND BEGIN INSTALLATION OF WATER-RESISTIVE WEATHER BARRIER AT BOTTOM OR LOWEST POINT OF WALL.
B. TO AVOID WRINKLES AND MISALIGNMENT OF SUBSEQUENT APPLICATIONS, IT IS RECOMMENDED TO PRE-MARK OR "SNAP" A LEVEL LINE TO WORK FROM.
C. MEASURE AND PRE-CUT INTO MANAGEABLE SIZED SHEETS TO SUIT THE APPLICATION CONDITIONS.
D. ALLOW FOR EXCESS MATERIAL AT BOTTOM OF WALL TO ACCOMMODATE TIE-INS AND CONNECTIONS TO ADJACENT SURFACES.
E. ALIGN AND POSITION FULLY SELF-ADHERED MEMBRANE, REMOVE RELEASE FILM AND PRESS FIRMLY INTO PLACE. PROVIDE MINIMUM 3 INCH (76 MM) OVERLAP AT ALL SIDE AND END LAPS OF MEMBRANE. ROLL MEMBRANE AND LAPPED SEAMS WITH A TWO HANDED ROLLER TO ENSURE CONTACT AND ADHESION.
F. CONTINUE TO REMOVE RELEASE FILM AND APPLY PRESSURE TO ENSURE POSITIVE CONTACT ONTO WALL SUBSTRATE.
G. INSTALL SUBSEQUENT SHEETS OF FULLY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER SHEETS IN OVERLAPPING WEATHERBOARD FORMAT. ENSURE SHEETS LAY SMOOTH AND FLAT TO SURFACES. ROLL MEMBRANE AND LAPPED SEAMS WITH A TWO HANDED ROLLER TO ENSURE CONTACT AND ADHESION.
H. REFER TO HTTP://VAPROSHIELD.COM/INSTALLATION/INSTRUCTIONS FOR THE MOST CURRENT AND COMPLETE INSTALLATION INSTRUCTIONS.
3.08 BATTENS VENTILATION STRIPS, SHIMS OR MAT FOR RAIN SCREEN CLADDING SYSTEMS
A. PROVIDE AND INSTALL SPECIFIED BATTENS AND VENTILATION STRIPS UNDER CLADDING SYSTEMS.
B. INSTALL HORIZONTAL STARTER STRIP OR VENT STRIP AT BASE OF WALL, VERTICAL BATTENS AND TOP VENT STRIP, SECURE INTO SOLID BACKING READY FOR INSTALLATION OF CLADDING SYSTEM.
C. COORDINATE SPACING OF BATTENS AND VENT STRIPS TO ACCOMMODATE CLADDING SYSTEM.
D. COORDINATE SPACING OF VAPROSHIM© TO ACCOMMODATE CLADDING SYSTEM ATTACHMENTS.
E. COORDINATE ATTACHMENT OF VAPROMAT© TO ACCOMMODATE CLADDING SYSTEM ATTACHMENTS.
3.09 FASTENING CLIPS AND MASONRY TIES
A. INSTALL CLIPS AND MASONRY TIES OVER PRIMARY SELF-ADHERED VAPOR PERMEABLE AIR BARRIER MEMBRANE.
B. SECURE CLIPS AND MASONRY TIES WITH CORROSION-RESISTANT, OR STAINLESS STEEL SCREWS WITH GASKETED FASTENERS.
C. CONSULT VAPROSHIELD TECHNICAL SERVICES FOR RECOMMENDATIONS ON FASTENER TREATMENTS FOR RAIN SCREEN CLADDING ATTACHMENT COMPONENTS BY OTHERS.
3.10 FIELD QUALITY CONTROL
A. MAKE NOTIFICATION WHEN SECTIONS OF WORK ARE COMPLETE TO ALLOW REVIEW PRIOR TO COVERING FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER SYSTEM.
B. OWNER TO ENGAGE INDEPENDENT CONSULTANT TO OBSERVE SUBSTRATE AND MEMBRANE INSTALLATION PRIOR TO PLACEMENT OF CLADDING SYSTEM(S) AND PROVIDE WRITTEN DOCUMENTATION OF OBSERVATIONS.
3.11 PROTECTION
A. PROTECT WALL AREAS COVERED WITH SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES, HIGH WIND CONDITIONS, AND EXTENDED EXPOSURE TO INCLEMENT WEATHER.
B. REVIEW CONDITION OF FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER PRIOR TO INSTALLATION OF CLADDING. REPAIR, OR REMOVE AND REPLACE DAMAGED SECTIONS WITH NEW MEMBRANE.
C. RECOMMEND TO CAP AND PROTECT EXPOSED BACK-UP WALLS AGAINST WET WEATHER CONDITIONS DURING AND AFTER APPLICATION OF MEMBRANE, INCLUDING WALL OPENINGS AND CONSTRUCTION ACTIVITY ABOVE COMPLETED FULLY SELF-ADHERED WATER-RESISTIVE VAPOR PERMEABLE AIR BARRIER INSTALLATIONS.
D. REMOVE AND REPLACE WATER-RESISTIVE WEATHER BARRIER MEMBRANE AFFECTED BY CHEMICAL SPILLS OR SURFACTANTS.
END OF SECTION 07271

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
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RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date

26005
comm. no.

ARCHITECTURAL SPECIFICATIONS

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SECTION 07423 COMPOSITE WALL PANELS

PART I - GENERAL

1.1 SECTION INCLUDES:

A. EXTERIOR, PANELIZED FIBER CEMENT CLADDING SYSTEM AND ACCESSORIES TO COMPLETE A DRAINED AND BACK-VENTILATED RAINSCREEN.

1.2 RELATED SYSTEMS

A. STRUCTURAL METAL STUD FRAMING
B. ROUGH CARPENTRY
C. SHEATHING
D. THERMAL PROTECTION
E. WEATHER BARRIERS
F. FLASHING AND SHEET METAL
G. JOINT PROTECTION

1.3 REFERENCES

A. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA):
1. AAMA 509-09 - VOLUNTARY TEST AND CLASSIFICATION METHOD OF DRAINED AND BACK VENTILATED RAIN SCREEN WALLCLADDING SYSTEMS
B. ASTM INTERNATIONAL (ASTM):
1. ASTM C 518 - STANDARD TEST METHOD FOR STEADY-STATE THERMAL TRANSMISSION PROPERTIES BY MEANS OF THE HEAT FLOW METER APPARATUS.
2. ASTM C 1185 - STANDARD TEST METHODS FOR SAMPLING AND TESTING NON-ASBESTOS FIBER CEMENT.
A. ASTM C 1186 - STANDARD SPECIFICATION FOR FLAT FIBER-CEMENT SHEETS.
3. ASTM E-84 - STANDARD TEST FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
4. ASTM E 119 - STANDARD TEST METHODS FOR FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS.
5. ASTM E 228 - STANDARD TEST METHOD FOR LINEAR THERMAL EXPANSION OF SOLID MATERIALS WITH A VITREOUS SILICA DILATOMETER.
6. ASTM E 330 - STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF EXTERIOR WINDOWS, CURTAIN WALLS, AND DOORS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE.
7. ASTM E 331 - STANDARD TEST METHOD FOR WATER PENETRATION OF EXTERIOR WINDOWS, CURTAIN WALLS, AND DOORS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE.
8. ASTM G 23 - STANDARD PRACTICE FOR OPERATING LIGHT-EXPOSURE APPARATUS (CARBON-ARC TYPE) WITH AND WITHOUT WATER FOR EXPOSURE OF NONMETALLIC MATERIALS, REPLACED BY G152 AND G153.
C. FLORIDA BUILDING CODE - TEST PROTOCOL HVHZ
1. TESTING APPLICATION STANDARD (TAS) 201, 202, 203 - IMPACT TEST PROCEDURES
D. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):
1. NFPA 285 - FIRE TEST METHOD FOR EXTERIOR WALL ASSEMBLIES CONTAINING COMBUSTIBLE MATERIAL.
2. NFPA 268 - IGNITION RESISTANCE OF EXTERIOR WALL ASSEMBLIES.

1.4 SUBMITTALS

A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DESCRIPTION, STORAGE AND HANDLING REQUIREMENTS, AND INSTALLATION INSTRUCTIONS.
B. PRODUCT TEST REPORTS AND CODE COMPLIANCE: DOCUMENTS DEMONSTRATING PRODUCT COMPLIANCE WITH LOCAL BUILDING CODE, SUCH AS TEST REPORTS OR EVALUATION REPORTS FROM QUALIFIED, INDEPENDENT TESTING AGENCIES.
C. MANUFACTURER'S DETAILS: SUBMIT DRAWINGS (.DWG, .RVT, AND/OR .PDF FORMATS), INCLUDING PLANS, SECTIONS, SHOWING INSTALLATION DETAILS THAT DEMONSTRATE PRODUCT DIMENSIONS, EDGE/TERMINATION CONDITIONS/TREATMENTS, COMPRESSION AND CONTROL JOINTS, CORNERS, OPENINGS, AND PENETRATIONS.
D. SAMPLES: VERIFY IF REQUIRED BY OWNER OR ARCHITECT. IF REQUIRED, SUBMIT SAMPLES OF EACH PRODUCT TYPE PROPOSED FOR USE.

1.5 QUALITY ASSURANCE

A. MANUFACTURER QUALIFICATIONS:
1. ALL FIBER CEMENT PANELS SPECIFIED IN THIS SECTION MUST BE SUPPLIED BY A MANUFACTURER WITH A MINIMUM OF 10 YEARS OF EXPERIENCE IN FABRICATING AND SUPPLYING FIBER CEMENT CLADDING SYSTEMS.
A. PRODUCTS COVERED UNDER THIS SECTION ARE TO BE MANUFACTURED IN AN ISO 9001 CERTIFIED FACILITY.
2. PROVIDE TECHNICAL AND DESIGN SUPPORT AS NEEDED REGARDING INSTALLATION REQUIREMENTS AND WARRANTY COMPLIANCE PROVISIONS.
B. INSTALLER QUALIFICATIONS: ALL PRODUCTS LISTED IN THIS SECTION ARE TO BE INSTALLED BY A SINGLE INSTALLER TRAINED BY MANUFACTURER OR REPRESENTATIVE.
C. MOCK-UP WALL: VERIFY IF REQUIRED BY OWNER OR ARCHITECT. IF REQUIRED, PROVIDE A MOCK-UP WALL AS EVALUATION TOOL FOR PRODUCT AND INSTALLATION WORKMANSHIP.
D. PRE-INSTALLATION MEETINGS: PRIOR TO BEGINNING INSTALLATION, CONDUCT CONFERENCE TO VERIFY AND DISCUSS SUBSTRATE CONDITIONS, MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WARRANTY REQUIREMENTS, AND PROJECT REQUIREMENTS.

1.6 DELIVERY, STORAGE, AND HANDLING

A. PANELS MUST BE STORED FLAT AND KEPT DRY BEFORE INSTALLATION. A WATERPROOF COVER OVER PANELS AND ACCESSORIES SHOULD BE USED AT ALL TIMES PRIOR TO INSTALLATION.
B. IF PANELS ARE EXPOSED TO WATER OR WATER VAPOR PRIOR TO INSTALLATION, ALLOW TO COMPLETELY DRY BEFORE INSTALLING. FAILURE TO DO SO MAY RESULT IN PANEL SHRINKAGE AT SHIP LAP JOINTS, AND SUCH ACTION MAY VOID WARRANTY.
C. PANELS MUST BE CARRIED ON EDGE. DO NOT CARRY OR LIFT PANELS FLAT. IMPROPER HANDLING MAY CAUSE CRACKING OR PANEL DAMAGE.
D. DIRECT CONTACT BETWEEN THE PANELS AND THE GROUND SHOULD BE AVOIDED AT ALL TIMES. IT IS NECESSARY TO KEEP PANELS CLEAN DURING INSTALLATION PROCESS.

1.7 WARRANTY

A. PROVIDE MANUFACTURER'S 50-YEAR WARRANTY AGAINST MANUFACTURED DEFECTS IN FIBER CEMENT PANELS.
B. PROVIDE MANUFACTURER'S 15-YEAR WARRANTY AGAINST MANUFACTURED DEFECTS IN PANEL FINISH.
C. WARRANTY PROVIDES FOR THE ORIGINAL PURCHASER. SEE WARRANTY FOR DETAILED INFORMATION ON TERMS, CONDITIONS AND LIMITATIONS.

PART II: PRODUCTS

2.1 MANUFACTURERS

A. ACCEPTABLE MANUFACTURER: NICHIHA CORPORATION, 18-19 NISHIKI 2-CHOME NAKA-KU, NAGOYA, AICHI 460-8610, JAPAN.
B. ACCEPTABLE MANUFACTURER'S REPRESENTATIVE: NICHIHA USA, INC., 6465 E. JOHNS CROSSING, SUITE 250, JOHNS CREEK, GA 30097. TOLL FREE: 1.866.424.4421, OFFICE: 770.805.9466, FAX: 770.805.9467, WWW.NICHIHA.COM.
1. BASIS OF DESIGN PRODUCT: NICHIHA VINTAGEWOOD / ILLUMINATION.
A. PROFILE COLORS: SEE EXTERIOR FINISH SCHEDULE
B. PROFILES: VINTAGEWOOD - WOOD PLANK TEXTURE WITH THREE, 3/8" GROOVES RUNNING LENGTHWISE, SPACED 5-5/8" APART.
C. ACCESSORY/COMPONENT OPTIONS:
I. ~~MANUFACTURED CORNERS WITH 3-1/2" RETURNS FOR EACH PROFILE COLOR.~~
II. ALUMINUM TRIM TO BE PAINTED PER FINISH SCHEDULE: OUTSIDE CORNERS (CORNER KEY, OPEN OUTSIDE CORNER), VERTICAL JOINTS (H-MOLD), TERMINATIONS (J-MOLD)
III. ESSENTIAL FLASHING SYSTEM: STARTER, COMPRESSION JOINT, OVERHANG.
D. DIMENSIONS - AWP-3030: 455MM (17-7/8") (H) X 3,030 MM (119-5/16") (L).
E. PANEL THICKNESS: 16 MM (5/8").
F. WEIGHT: 57.32 LBS. PER PANEL.
G. COVERAGE: 14.81 SQ. FT. PER PANEL.
H. FACTORY SEALED ON SIX [6] SIDES.
C. SUBSTITUTIONS: NOT PERMITTED.

2.2 MATERIALS

A. FIBER CEMENT PANELS MANUFACTURED FROM A PRESSED, STAMPED, AND AUTOCLAVED MIX OF PORTLAND CEMENT, FLY ASH, SILICA, RECYCLED REJECTS, AND WOOD FIBER BUNDLES.
B. PANEL SURFACE PRE-FINISHED AND MACHINE APPLIED.
C. PANELS PROFILED ALONG ALL FOUR EDGES, SUCH THAT BOTH HORIZONTAL AND VERTICAL JOINTS BETWEEN THE INSTALLED PANELS ARE SHIP-LAPPED.
D. FACTORY-APPLIED SEALANT GASKET ADDED TO TOP AND RIGHT PANEL EDGES; ALL JOINTS CONTAIN A FACTORY SEALANT.

2.3 PERFORMANCE REQUIREMENTS:

A. FIBER CEMENT CLADDING - MUST COMPLY WITH ASTM C-1186, TYPE A, GRADE II REQUIREMENTS:
1. WET FLEXURAL STRENGTH, LOWER LIMIT: 1015 PSI.
2. WATER TIGHTNESS: NO WATER DROPLETS OBSERVED ON ANY SPECIMEN.
3. FREEZE-THAW: NO DAMAGE OR DEFECTS OBSERVED.
4. WARM WATER: NO EVIDENCE OF CRACKING, DELAMINATION, SWELLING, OR OTHER DEFECTS OBSERVED.
5. HEAT-RAIN: NO CRAZING, CRACKING, OR OTHER DELETERIOUS EFFECTS, SURFACE OR JOINT CHANGES OBSERVED IN ANY SPECIMEN.
B. MEAN COEFFICIENT OF LINEAR THERMAL EXPANSION (ASTM E-228): MAX 1.0*10^-5 IN./IN. F.
C. SURFACE BURNING (CAN-ULC S102/ASTM E-84): FLAME SPREAD: 0, SMOKE DEVELOPED: 5.
D. WIND LOAD (ASTM E-330): CONTACT MANUFACTURER FOR ULTIMATE TEST PRESSURE DATA CORRESPONDING TO FRAMING TYPE, DIMENSIONS, FASTENER TYPE, AND ATTACHMENT CLIPS. PROJECT ENGINEER(S) MUST DETERMINE ZONE 4 AND 5 DESIGN PRESSURES BASED ON PROJECT SPECIFICS.
1. MINIMUM LATERAL DEFLECTION: L/120.
E. WATER PENETRATION (ASTM E-331): NO WATER LEAKAGE OBSERVED INTO WALL CAVITY.
F. WEATHER RESISTANT (ASTM G-23): NO CRACKING, CHECKING, CRAZING, EROSION, OR OTHER DETRIMENTAL EFFECTS OBSERVED.
G. STEADY-STATE HEAT FLUX AND THERMAL TRANSMISSION PROPERTIES TEST (ASTM C-518): THERMAL RESISTANCE R VALUE OF 1.23.
H. FIRE RESISTANT (ASTM E-119): THE WALL ASSEMBLY MUST SUCCESSFULLY ENDURE 60-MINUTE FIRE EXPOSURE WITHOUT DEVELOPING EXCESSIVE UNEXPOSED SURFACE TEMPERATURE OR ALLOWING FLAMING ON THE UNEXPOSED SIDE OF THE ASSEMBLY.
I. IGNITION RESISTANCE (NFPA 268): NO SUSTAINED FLAMING OF PANELS, ASSEMBLY WHEN SUBJECTED TO A MINIMUM RADIANT HEAT FLUX OF 12.5 KW/M2 ± 5% IN THE PRESENCE OF A PILOT IGNITION SOURCE FOR A 20-MINUTE PERIOD.
J. FIRE PROPAGATION (NFPA 285): WALL ASSEMBLY OF NICHIHA AWP, ULTIMATE CLIPS AND STARTER TRACK, TYVEK COMMERCIAL WRAP, ½" DENSGLASS GOLD SHEATHING, 16" O.C. 18 GAUGE STEEL STUDS, MINERAL WOOL IN-CAVITY INSULATION, AND INTERIOR 5/8" TYPE X GYPSUM MET THE ACCEPTANCE CRITERIA OF NFPA 285.
K. FIRE PROPAGATION (CAN/ULC S-134): WALL ASSEMBLY OF NICHIHA AWP, ULTIMATE CLIPS AND STARTER TRACK, TYVEK HOUSEWRAP, 5/8" FRT PLYWOOD, 16" O.C. 2X WOOD STUDS, FIBERGLASS IN-CAVITY INSULATION, AND INTERIOR 5/8" TYPE X GYPSUM MET THE ACCEPTANCE CRITERIA OF CAN/ULC S-134.
L. DRAINED AND BACK VENTILATED RAINSCREEN (AAMA 509-09): SYSTEM MUST PASS ALL COMPONENT TESTS.
M. FLORIDA BUILDING CODE - TEST PROTOCOL HVHZ (TAS 201, 202, 203): PASSED.

2.4 INSTALLATION COMPONENTS

A. ULTIMATE CLIP SYSTEM:
1. STARTER TRACK:
A. HORIZONTAL PANEL INSTALLATIONS - FA 700 - 3,030MM (L) GALVALUME.
B. VERTICAL PANEL INSTALLATIONS (AWP-3030 ONLY) - FA 710T - 3,030MM (L) GALVALUME.
2. PANEL CLIPS: JEL 777 "ULTIMATE CLIP" (10MM RAINSCREEN FOR 16MM AWP) - ZINC-ALUMINUM-MAGNESIUM ALLOY COATED STEEL.
A. JOINT TAB ATTACHMENTS (INCLUDED) - USED AT ALL AWP-1818 PANEL TO PANEL VERTICAL JOINTS - NOT USED WITH AWP-3030 INSTALLATIONS.
3. SINGLE FLANGE SEALANT BACKER - FHK 1017 (10MM) - 6.5' (L) FLUORINE COATED GALVALUME.
4. DOUBLE FLANGE SEALANT BACKER - FH 1020 (10MM) - 10' (L) FLUORINE COATED GALVALUME.
5. CORRUGATED SPACER - FS 1005 (5MM), FS 1010 (10MM) - 4' (L).
6. FINISH CLIP (OPTIONAL) - JE310 (5MM)
B. ALUMINUM TRIM (OPTIONAL): PAINT AS SPECIFIED IN FINISH SCHEDULE.
C. ESSENTIAL FLASHING SYSTEM (OPTIONAL):
1. STARTER - MAIN SEGMENTS (3,030MM), INSIDE CORNERS, OUTSIDE CORNERS
2. COMPRESSION JOINT - MAIN SEGMENTS (3,030MM)
3. OVERHANG - MAIN SEGMENTS (3,030MM), INSIDE CORNERS, OUTSIDE CORNERS, JOINT CLIPS
D. FASTENERS: CORROSION RESISTANT FASTENERS, SUCH AS HOT-DIPPED GALVANIZED SCREWS APPROPRIATE TO LOCAL BUILDING CODES AND PRACTICES MUST BE USED. USE STAINLESS STEEL FASTENERS IN HIGH HUMIDITY AND HIGH-MOISTURE REGIONS. PANEL MANUFACTURER IS NOT LIABLE FOR CORROSION RESISTANCE OF FASTENERS. DO NOT USE ALUMINUM FASTENERS, STAPLES OR FASTENERS THAT ARE NOT RATED OR DESIGNED FOR INTENDED USE. SEE MANUFACTURER'S INSTRUCTIONS FOR APPROPRIATE FASTENERS FOR CONSTRUCTION METHOD USED.
E. FLASHING: FLASH ALL AREAS SPECIFIED IN MANUFACTURER'S INSTRUCTIONS. DO NOT USE RAW ALUMINUM FLASHING. FLASHING MUST BE GALVANIZED, ANODIZED, OR PVC COATED.
F. SEALANT: SEALANT SHALL COMPLY WITH ASTM C920.

PART III: EXECUTION

3.1 EXAMINATION

A. VERIFICATION OF CONDITIONS:
1. FIBER CEMENT PANELS CAN BE INSTALLED OVER BRACED WOOD, STEEL STUDS AND SHEATHING INCLUDING PLYWOOD, OSB, PLASTIC FOAM OR FIBERBOARD SHEATHING. FIBER CEMENT PANELS CAN ALSO BE INSTALLED OVER STRUCTURAL INSULATED PANELS (SIP'S), CONCRETE MASONRY UNITS (CMU'S) AND CONCRETE BLOCK STRUCTURES (CBS'S) WITH FURRING STRIPS, AND PRE-ENGINEERED METAL CONSTRUCTION. INSULATED CONCRETE FORMS (ICFS) ARE NOT AN APPROVED SUBSTRATE UNDER ANY CONDITION.
2. ALLOWABLE STUD SPACING: 16" O.C. MAXIMUM.
3. A WEATHER RESISTIVE BARRIER IS REQUIRED WHEN INSTALLING FIBER CEMENT PANELS. USE AN APPROVED WEATHER RESISTIVE BARRIER (WRB) AS DEFINED BY THE 2015 IBC OR IRC. REFER TO LOCAL BUILDING CODES.
4. APPROPRIATE METAL FLASHING SHOULD BE USED TO PREVENT MOISTURE PENETRATION AROUND ALL DOORS, WINDOWS, WALL BOTTOMS, MATERIAL TRANSITIONS AND PENETRATIONS. REFER TO LOCAL BUILDING CODES FOR BEST PRACTICES.
B. EXAMINE SITE TO ENSURE SUBSTRATE CONDITIONS ARE WITHIN SPECIFICATION FOR PROPER INSTALLATION.
C. DO NOT BEGIN INSTALLATION UNTIL UNACCEPTABLE CONDITIONS HAVE BEEN CORRECTED.
D. DO NOT INSTALL PANELS OR COMPONENTS THAT APPEAR TO BE DAMAGED OR DEFECTIVE. DO NOT INSTALL WET PANELS.

3.2 INSTALLATION

A. GENERAL: INSTALL PRODUCTS IN ACCORDANCE WITH THE LATEST INSTALLATION GUIDELINES OF THE MANUFACTURER AND ALL APPLICABLE BUILDING CODES AND OTHER LAWS, RULES, REGULATIONS AND ORDINANCES. REVIEW ALL MANUFACTURER INSTALLATION, MAINTENANCE INSTRUCTIONS, AND OTHER APPLICABLE DOCUMENTS BEFORE INSTALLATION.
1. CONSULT WITH YOUR LOCAL DEALER OR NICHIHA TECHNICAL DEPARTMENT BEFORE INSTALLING ANY NICHIHA FIBER CEMENT PRODUCT ON A BUILDING HIGHER THAN 45 FEET OR THREE STORIES OR FOR CONDITIONS NOT MATCHING PRESCRIBED STANDARD INSTALLATION GUIDE REQUIREMENTS AND METHODS. SPECIAL INSTALLATION CONDITIONS MAY BE REQUIRED VIA A TECHNICAL REVIEW AND SPECIAL APPLICATIONS FORM (SAF) PROCESS.
2. VERTICAL CONTROL/EXPANSION JOINTS ARE REQUIRED WITHIN 2-10 FEET OF OUTSIDE CORNERS FINISHED WITH METAL TRIM AND APPROXIMATELY EVERY 30 FEET THEREAFTER.
3. HORIZONTAL/COMPRESSION JOINTS ARE REQUIRED FOR MULTI-STORY INSTALLATIONS OF AWP. LOCATE JOINTS AT FLOOR LINES. JOINTS ARE FLASHED MINIMUM 1/2" BREAKS. DO NOT CAULK. REFER TO INSTALLATION GUIDE(S).
A. WOOD FRAMED BUILDINGS OF THREE OR MORE FLOORS REQUIRE A COMPRESSION JOINT AT EACH FLOOR.
B. STEEL FRAMED BUILDINGS (INCLUDING REINFORCED CONCRETE CORE WITH LGMF EXTERIOR WALLS) OF MORE THAN THREE FLOORS (OR 45 FEET) REQUIRE A COMPRESSION JOINT EVERY 25 FEET AT A FLOOR LINE.
B. PANEL CUTTING
1. ALWAYS CUT FIBER CEMENT PANELS OUTSIDE OR IN A WELL VENTILATED AREA. DO NOT CUT THE PRODUCTS IN AN ENCLOSED AREA.
2. ALWAYS WEAR SAFETY GLASSES AND NIOSH/OSHA APPROVED RESPIRATOR WHENEVER CUTTING, DRILLING, SAWING, SANDING OR ABRADING THE PRODUCTS. REFER TO MANUFACTURER SDS FOR MORE INFORMATION.
3. USE A DUST-REDUCING CIRCULAR SAW WITH A DIAMOND-TIPPED OR CARBIDE-TIPPED BLADE.
A. RECOMMENDED CIRCULAR SAW: MAKITA 7-1/4" CIRCULAR SAW WITH DUST COLLECTOR (#5057KB).
B. RECOMMENDED BLADE: TENRYU BOARD-PRO PLUS PCD BLADE (#BP-18505).
C. SHEARS (ELECTRIC OR PNEUMATIC) OR JIG SAW CAN BE USED FOR COMPLICATED CUTTINGS, SUCH AS SERVICE OPENINGS, CURVES, RADII AND SCROLLWORK.
4. SILICA DUST WARNING: FIBER CEMENT PRODUCTS MAY CONTAIN SOME AMOUNTS OF CRYSTALLINE SILICA, A NATURALLY OCCURRING, POTENTIALLY HAZARDOUS MINERAL WHEN AIRBORNE IN DUST FORM. CONSULT PRODUCT SDS OR VISIT HTTPS://WWW.OSHA.GOV/DSG/TOPICS/SILICACRYSTALLINE/.

3.3 CLEANING AND MAINTENANCE

A. REVIEW MANUFACTURER GUIDELINES FOR DETAILED CARE INSTRUCTIONS.

END OF SECTION 07423

SECTION 07500 - SINGLE-PLY ROOFING (TPO)

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. THERMOPLASTIC MEMBRANE ROOFING SYSTEM, INCLUDING ALL COMPONENTS SPECIFIED.
B. COMPLY WITH THE PUBLISHED RECOMMENDATIONS AND INSTRUCTIONS OF THE ROOFING MEMBRANE MANUFACTURER, AT WWW.HOLCIMELEVATE.COM.
C. COMMENCEMENT OF WORK BY CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGEMENT BY CONTRACTOR THAT THIS SPECIFICATION CAN BE SATISFACTORILY EXECUTED, UNDER THE PROJECT CONDITIONS AND WITH ALL NECESSARY PREREQUISITES FOR WARRANTY ACCEPTANCE BY ROOFING MEMBRANE MANUFACTURER. NO MODIFICATION OF THE CONTRACT SUM WILL BE MADE FOR FAILURE TO ADEQUATELY EXAMINE THE CONTRACT DOCUMENTS OR THE PROJECT CONDITIONS.

1.2 RELATED REQUIREMENTS

A. SECTION 06100 - ROUGH CARPENTRY: WOOD NAILERS ASSOCIATED WITH ROOFING AND ROOF INSULATION.

1.3 REFERENCE STANDARDS

A. ASTM C1177/C1177M - STANDARD SPECIFICATION FOR GLASS MAT GYPSUM SUBSTRATE FOR USE AS SHEATHING; 2013.
B. ASTM C1289 - STANDARD SPECIFICATION FOR FACED RIGID CELLULAR POLYISOCYANURATE THERMAL INSULATION BOARD; 2014.
C. ASTM C1549 - STANDARD TEST METHOD FOR DETERMINATION OF SOLAR REFLECTANCE NEAR AMBIENT TEMPERATURE USING A PORTABLE SOLAR REFLECTOMETER; 2009 (REAPPROVED 2014).
D. ASTM D638 - STANDARD TEST METHOD FOR TENSILE PROPERTIES OF PLASTICS; 2010.
E. ASTM D1004 - STANDARD TEST METHOD FOR TEAR RESISTANCE (GRAVES TEAR) OF PLASTIC FILM AND SHEETING; 2013.
F. ASTM D6878/D6878M - STANDARD SPECIFICATION FOR THERMOPLASTIC POLYOLEFIN BASED SHEET ROOFING; 2013.
G. FM DS 1-28 - WIND DESIGN; FACTORY MUTUAL SYSTEM; 2007.
H. FM DS 1-29 - ROOF DECK SECUREMENT AND ABOVE-DECK ROOF COMPONENTS; FACTORY MUTUAL SYSTEM; 2006.
I. PS 1 - STRUCTURAL PLYWOOD; 2009.
J. PS 20 - AMERICAN SOFTWOOD LUMBER STANDARD; 2010.
K. SPRI ES-1 - WIND DESIGN STANDARD FOR EDGE SYSTEMS USED WITH LOW SLOPE ROOFING SYSTEMS; 2011. (ANSI/SPRI/FM 4435/ES-1)

1.4 SUBMITTALS

A. PRODUCT DATA:
1. PROVIDE MEMBRANE MANUFACTURER'S PRINTED DATA SUFFICIENT TO SHOW THAT ALL COMPONENTS OF ROOFING SYSTEM, INCLUDING INSULATION AND FASTENERS, COMPLY WITH THE SPECIFIED REQUIREMENTS AND WITH THE MEMBRANE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR THE SYSTEM TYPE SPECIFIED; INCLUDE DATA FOR EACH PRODUCT USED IN CONJUNCTION WITH ROOFING MEMBRANE.
B. SAMPLES: SUBMIT SAMPLES OF EACH PRODUCT TO BE USED.
C. SHOP DRAWINGS: PROVIDE:
1. THE ROOF MEMBRANE MANUFACTURER'S STANDARD DETAILS CUSTOMIZED FOR THIS PROJECT FOR ALL RELEVANT CONDITIONS, INCLUDING FLASHINGS, BASE TIE-INS, ROOF EDGES, TERMINATIONS, EXPANSION JOINTS, PENETRATIONS, AND DRAINS.

1.5 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: ROOFING INSTALLER SHALL HAVE THE FOLLOWING:
1. CURRENT ELEVATE RED SHIELD LICENSED CONTRACTOR STATUS.

1.6 DELIVERY, STORAGE AND HANDLING

A. DELIVER PRODUCTS IN MANUFACTURER'S ORIGINAL CONTAINERS, DRY AND UNDAMAGED, WITH SEALS AND LABELS INTACT AND LEGIBLE.
B. STORE MATERIALS CLEAR OF GROUND AND MOISTURE WITH WEATHER PROTECTIVE COVERING.
C. KEEP COMBUSTIBLE MATERIALS AWAY FROM IGNITION SOURCES.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. ACCEPTABLE MANUFACTURER - ROOFING SYSTEM: ELEVATE ROOFING, NASHVILLE, TN.
B. MANUFACTURER OF INSULATION AND COVER BOARDS: SAME MANUFACTURER AS ROOF MEMBRANE.
C. MANUFACTURER OF METAL ROOF EDGING: SAME MANUFACTURER AS ROOF MEMBRANE.

2.2 ROOFING SYSTEM DESCRIPTION

A. ROOFING SYSTEM: THERMOPLASTIC POLYOLEFIN (TPO) SINGLE-PLY MEMBRANE.
1. MEMBRANE ATTACHMENT: MECHANICALLY FASTENED.
2. WARRANTY: FULL SYSTEM WARRANTY; ELEVATE 20 YEAR RED SHIELD LIMITED WARRANTY COVERING MEMBRANE, ROOF INSULATION, AND MEMBRANE ACCESSORIES.
3. COMPLY WITH APPLICABLE LOCAL BUILDING CODE REQUIREMENTS AND FLORIDA PRODUCT APPROVALS
4. PROVIDE ASSEMBLY HAVING UNDERWRITERS LABORATORIES, INC. (UL) CLASS A FIRE HAZARD CLASSIFICATION.
5. PROVIDE ASSEMBLY COMPLYING WITH FACTORY MUTUAL CORPORATION (FM) ROOF ASSEMBLY CLASSIFICATION, FM DS 1-28 AND 1-29, AND MEETING MINIMUM REQUIREMENTS OF FM 1-90 WIND UPLIFT RATING.
B. ROOFING SYSTEM COMPONENTS: LISTED IN ORDER FROM THE TOP OF THE ROOF DOWN:
1. MEMBRANE: THICKNESS AS SPECIFIED.
2. INSULATION:
a. BOARD THICKNESS: 1.5 INCHES MINIMUM, 2.5 INCHES MAXIMUM; USE AS MANY LAYERS AS NECESSARY; STAGGER JOINTS IN ADJACENT LAYERS.
b. TOTAL R-VALUE OF 23, MINIMUM.
c. BOTTOM LAYER: POLYISOCYANURATE FOAM BOARD, NON-COMPOSITE; LOOSE-LAID, NO ATTACHMENT.
d. CRICKETS: TAPERED INSULATION OF SAME TYPE AS SPECIFIED FOR TOP LAYER; SLOPE AS INDICATED.

2.3 MEMBRANE MATERIALS

A. MEMBRANE: FLEXIBLE, HEAT WELDABLE SHEET COMPOSED OF THERMOPLASTIC POLYOLEFIN POLYMER AND ETHYLENE PROPYLENE RUBBER; COMPLYING WITH ASTM D6878/D6878M, WITH POLYESTER WEFT INSERTED REINFORCEMENT AND THE FOLLOWING ADDITIONAL CHARACTERISTICS:
1. THICKNESS: 0.060 INCH (1.52 MM) PLUS/MINUS 10 PERCENT, WITH COATING THICKNESS OVER REINFORCEMENT OF 0.024 INCH (0.61 MM) PLUS/MINUS 10 PERCENT.
2. COLOR: WHITE (FIELD OF ROOF AREA)
3. COLOR: TAN (PARAPET WALL AREAS)
4. ACCEPTABLE PRODUCT: ULTRAPLY TPO BY ELEVATE.
B. MEMBRANE FASTENERS: TYPE AND SIZE AS REQUIRED BY ROOF MEMBRANE MANUFACTURER FOR ROOFING SYSTEM AND WARRANTY TO BE PROVIDED; USE ONLY FASTENERS FURNISHED BY ROOF MEMBRANE MANUFACTURER.
C. CURB AND PARAPET FLASHING: SAME MATERIAL AS MEMBRANE (TAN IN COLOR), WITH ENCAPSULATED EDGE WHICH ELIMINATES NEED FOR SEAM SEALING THE FLASHING-TO-ROOF SPLICE.
D. FORMABLE FLASHING: NON-REINFORCED, FLEXIBLE, HEAT WELDABLE SHEET, COMPOSED OF THERMOPLASTIC POLYOLEFIN POLYMER AND ETHYLENE PROPYLENE RUBBER.
1. THICKNESS: 0.060 INCH (1.52 MM) PLUS/MINUS 10 PERCENT.
2. COLOR: WHITE.
3. ACCEPTABLE PRODUCT: ULTRAPLY TPO FLASHING BY ELEVATE.
E. TAPE FLASHING: 5-1/2 INCH (140 MM) NOMINAL WIDE TPO MEMBRANE LAMINATED TO CURED RUBBER POLYMER SEAMING TAPE, OVERALL THICKNESS 0.065 INCH (1.6 MM) NOMINAL; TPO QUICKSEAM FLASHING BY ELEVATE.
F. BONDING ADHESIVE: NEOPRENE AND SBR RUBBER BLEND, FORMULATED FOR COMPATIBILITY WITH THE MEMBRANE OTHER SUBSTRATE MATERIALS, INCLUDING MASONRY, WOOD, AND INSULATION FACINGS; ULTRAPLY BONDING ADHESIVE BY ELEVATE.
G. POURABLE SEALER: TWO-PART POLYURETHANE, TWO-COLOR FOR RELIABLE MIXING; POURABLE SEALER BY ELEVATE.
H. SEAM PLATES: STEEL WITH BARBS AND GALVALUME COATING; CORROSION-RESISTANCE COMPLYING WITH FM 4470; HEAVY DUTY SEAM PLATES BY ELEVATE.
I. TERMINATION BARS: ALUMINUM BARS WITH INTEGRAL CAULK LEDGE; 1.3 INCHES (33 MM) WIDE BY 0.10 INCH (2.5 MM) THICK; TERMINATION BAR BY ELEVATE.
J. CUT EDGE SEALANT: SYNTHETIC RUBBER-BASED, FOR USE WHERE MEMBRANE REINFORCEMENT IS EXPOSED; ULTRAPLY TPO CUT EDGE SEALANT BY ELEVATE.
K. GENERAL PURPOSE SEALANT: EPDM-BASED, ONE PART, WHITE GENERAL PURPOSE SEALANT; ULTRAPLY TPO GENERAL PURPOSE SEALANT BY ELEVATE.
L. COATED METAL FLASHING AND EDGINGS: GALVANIZED STEEL WITH ROOFING MANUFACTURER'S BONDED TPO COATING; ULTRAPLY TPO COATED METAL BY ELEVATE.
M. MOLDED FLASHING ACCESSORIES: UNREINFORCED TPO MEMBRANE PRE-MOLDED TO SUIT A VARIETY OF FLASHING DETAILS, INCLUDING PIPE BOOTS, INSIDE CORNERS, OUTSIDE CORNERS, ETC.; ULTRAPLY TPO SMALL AND LARGE PIPE FLASHING BY ELEVATE.
N. WATER BLOCK SEAL: BUTYL RUBBER SEALANT FOR USE BETWEEN TWO SURFACES, NOT EXPOSED; WATER BLOCK SEAL BY ELEVATE.
O. ROOF WALKWAY PADS: NON-REINFORCED TPO WALKWAY PADS, 0.130 INCH (3 MM) BY 30 INCHES (760 MM) BY 40 FEET (12.19 M) LONG WITH PATTERNED TRAFFIC BEARING SURFACE; ULTRAPLY TPO WALKWAY PADS BY ELEVATE.

2.4 ROOF INSULATION

A. POLYISOCYANURATE BOARD INSULATION: CLOSED CELL POLYISOCYANURATE FOAM WITH BLACK GLASS REINFORCED MAT LAMINATED TO FACES, COMPLYING WITH ASTM C1289 TYPE II CLASS 1, WITH THE FOLLOWING ADDITIONAL CHARACTERISTICS:
1. SIZE: 48 INCHES (1220 MM) BY 96 INCHES (2440 MM), NOMINAL.
2. R-VALUE (RSI-VALUE) (LTTR):
a. 4 INCH THICKNESS: R=23 MINIMUM.
3. COMPRESSIVE STRENGTH: 20 PSI (138 KPA) WHEN TESTED IN ACCORDANCE WITH ASTM C1289.
4. ACCEPTABLE PRODUCT: POLYISOCYANURATE INSULATION BY ELEVATE.
B. INSULATION FASTENERS: TYPE AND SIZE AS REQUIRED BY ROOF MEMBRANE MANUFACTURER FOR ROOFING SYSTEM AND WARRANTY TO BE PROVIDED; USE ONLY FASTENERS FURNISHED BY ROOF MEMBRANE MANUFACTURER: HEAVY DUTY FASTENERS BY ELEVATE.

2.5 METAL ACCESSORIES

A. METAL ROOF EDGING AND FASCIA: CONTINUOUS METAL EDGE MEMBER SERVING AS TERMINATION OF ROOF MEMBRANE AND RETAINER FOR METAL FASCIA; WATERTIGHT WITH NO EXPOSED FASTENERS; MOUNTED TO ROOF EDGE NAILER.
1. WIND PERFORMANCE:
a. MEMBRANE PULL-OFF RESISTANCE: 100 LBS/FT (1460 N/M), MINIMUM, WHEN TESTED IN ACCORDANCE WITH ANSI/SPRI/FM 4435/ES-1 TEST METHOD RE-1, CURRENT EDITION.
2. DESCRIPTION: TWO-PIECE; EXTRUDED ALUMINUM T-SHAPED EDGE MEMBER SECURING TOP AND BOTTOM EDGES OF FLAT-FACED FORMED METAL FASCIA; METAL ERA .
3. FASCIA MATERIAL AND FINISH: 24 GAGE, 0.024 INCH (0.06 MM) GALVANIZED STEEL WITH KYNAR 500 FINISH IN MANUFACTURER'S STANDARD COLOR; MATCHING CONCEALED JOINT SPLICE PLATES; FACTORY-INSTALLED PROTECTIVE PLASTIC FILM.

2.6 ACCESSORY MATERIALS

A. WOOD NAILERS: PS 20 DIMENSION LUMBER, STRUCTURAL GRADE NO. 2 OR BETTER SOUTHERN PINE, DOUGLAS FIR; OR PS 1, APA EXTERIOR GRADE PLYWOOD; PRESSURE PRESERVATIVE TREATED.
1. WIDTH: 3-1/2 INCHES (90 MM), NOMINAL MINIMUM, OR AS WIDE AS THE NAILING FLANGE OF THE ROOF ACCESSORY TO BE ATTACHED TO IT.
2. THICKNESS: SAME AS THICKNESS OF ROOF INSULATION.

PART 3 - INSTALLATION

3.1 GENERAL

A. INSTALL ROOFING, INSULATION, FLASHINGS, AND ACCESSORIES IN ACCORDANCE WITH ROOFING MANUFACTURER'S PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS FOR THE SPECIFIED ROOFING SYSTEM. WHERE MANUFACTURER PROVIDES NO INSTRUCTIONS OR RECOMMENDATIONS, FOLLOW GOOD ROOFING PRACTICES AND INDUSTRY STANDARDS. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
B. OBTAIN ALL RELEVANT INSTRUCTIONS AND MAINTAIN COPIES AT PROJECT SITE FOR DURATION OF INSTALLATION PERIOD.
C. DO NOT START WORK UNTIL PRE-INSTALLATION NOTICE HAS BEEN SUBMITTED TO MANUFACTURER AS NOTIFICATION THAT THIS PROJECT REQUIRES A MANUFACTURER'S WARRANTY.
D. PERFORM WORK USING COMPETENT AND PROPERLY EQUIPPED PERSONNEL.
E. TEMPORARY CLOSURES, WHICH ENSURE THAT MOISTURE DOES NOT DAMAGE ANY COMPLETED SECTION OF THE NEW ROOFING SYSTEM, ARE THE RESPONSIBILITY OF THE APPLICATOR. COMPLETION OF FLASHINGS, TERMINATIONS, AND TEMPORARY CLOSURES SHALL BE COMPLETED AS REQUIRED TO PROVIDE A WATERTIGHT CONDITION.
F. INSTALL ROOFING MEMBRANE ONLY WHEN SURFACES ARE CLEAN, DRY, SMOOTH AND FREE OF SNOW OR ICE; DO NOT APPLY ROOFING MEMBRANE DURING INCLEMENT WEATHER OR WHEN AMBIENT CONDITIONS WILL NOT ALLOW PROPER APPLICATION; CONSULT MANUFACTURER FOR RECOMMENDED PROCEDURES DURING COLD WEATHER. DO NOT WORK WITH SEALANTS AND ADHESIVES WHEN MATERIAL TEMPERATURE IS OUTSIDE THE RANGE OF 60 TO 80 DEGREES F (15 TO 25 DEGREES C).
G. PROTECT ADJACENT CONSTRUCTION, PROPERTY, VEHICLES, AND PERSONS FROM DAMAGE RELATED TO ROOFING WORK; REPAIR OR RESTORE DAMAGE CAUSED BY ROOFING WORK.
1. PROTECT FROM SPILLS AND OVERSPRAY FROM BITUMEN, ADHESIVES, SEALANTS AND COATINGS.
2. PARTICULARLY PROTECT METAL, GLASS, PLASTIC, AND PAINTED SURFACES FROM BITUMEN, ADHESIVES, AND SEALANTS WITHIN THE RANGE OF WIND-BORNE OVERSPRAY.
3. PROTECT FINISHED AREAS OF THE ROOFING SYSTEM FROM ROOFING RELATED WORK TRAFFIC AND TRAFFIC BY OTHER TRADES.
H. UNTIL READY FOR USE, KEEP MATERIALS IN THEIR ORIGINAL CONTAINERS AS LABELED BY THE MANUFACTURER.
I. CONSULT MEMBRANE MANUFACTURER'S INSTRUCTIONS, CONTAINER LABELS, AND MATERIAL SAFETY DATA SHEETS (MSDS) FOR SPECIFIC SAFETY INSTRUCTIONS. KEEP ALL ADHESIVES, SEALANTS, PRIMERS AND CLEANING MATERIALS AWAY FROM ALL SOURCES OF IGNITION.

3.2 EXAMINATION

A. EXAMINE ROOF DECK TO DETERMINE THAT IT IS SUFFICIENTLY RIGID TO SUPPORT INSTALLERS AND THEIR MECHANICAL EQUIPMENT AND THAT DEFLECTION WILL NOT STRAIN OR RUPTURE ROOF COMPONENTS OR DEFORM DECK.
B. VERIFY THAT SURFACES AND SITE CONDITIONS ARE READY TO RECEIVE WORK. CORRECT DEFECTS IN THE SUBSTRATE BEFORE COMMENCING WITH ROOFING WORK.
C. EXAMINE ROOF SUBSTRATE TO VERIFY THAT IT IS PROPERLY SLOPED TO DRAINS.
D. VERIFY THAT THE SPECIFICATIONS AND DRAWING DETAILS ARE WORKABLE AND NOT IN CONFLICT WITH THE ROOFING MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS; START OF WORK CONSTITUTES ACCEPTABLE OF PROJECT CONDITIONS AND REQUIREMENTS.
E. VERIFY THAT WOOD NAILERS HAVE BEEN PROPERLY INSTALLED.

3.3 PREPARATION

A. TAKE APPROPRIATE MEASURES TO ENSURE THAT FUMES FROM ADHESIVE SOLVENTS ARE NOT DRAWN INTO THE BUILDING THROUGH AIR INTAKES.
B. PRIOR TO PROCEEDING, PREPARE ROOF SURFACE SO THAT IT IS CLEAN, DRY, AND SMOOTH, AND FREE OF SHARP EDGES, FINS, ROUGHENED SURFACES, LOOSE OR FOREIGN MATERIALS, OIL, GREASE AND OTHER MATERIALS THAT MAY DAMAGE THE MEMBRANE.
C. FILL ALL SURFACE VOIDS IN THE IMMEDIATE SUBSTRATE THAT ARE GREATER THAN 1/4 INCH (6 MM) WIDE WITH FILL MATERIAL ACCEPTABLE INSULATION TO MEMBRANE MANUFACTURER.
D. SEAL, GROUT, OR TAPE DECK JOINTS, WHERE NEEDED, TO PREVENT BITUMEN SEEPAGE INTO BUILDING.
E. WOOD NAILERS: PROVIDE WOOD NAILERS AT ALL PERIMETERS AND OTHER LOCATIONS WHERE INDICATED ON THE DRAWINGS, OF TOTAL HEIGHT MATCHING THE TOTAL THICKNESS OF INSULATION BEING USED.

3.4 INSULATION AND COVER BOARD INSTALLATION

A. INSTALL INSULATION IN CONFIGURATION AND WITH ATTACHMENT METHOD(S) SPECIFIED IN PART 2, UNDER ROOFING SYSTEM.
B. INSTALL ONLY AS MUCH INSULATION AS CAN BE COVERED WITH THE COMPLETED ROOFING SYSTEM BEFORE THE END OF THE DAY'S WORK OR BEFORE THE ONSET OF INCLEMENT WEATHER.
C. LAY ROOF INSULATION IN COURSES PARALLEL TO ROOF EDGES.
D. NEATLY AND TIGHTLY FIT INSULATION TO ALL PENETRATIONS, PROJECTIONS, AND NAILERS, WITH GAPS NOT GREATER THAN 1/4 INCH (6 MM). FILL GAPS GREATER THAN 1/4 INCH (6 MM) WITH ACCEPTABLE INSULATION. DO NOT LEAVE THE ROOFING MEMBRANE UNSUPPORTED OVER A SPACE GREATER THAN 1/4 INCH (6 MM).
E. MECHANICAL FASTENING: USING SPECIFIED FASTENERS AND INSULATION PLATES ENGAGE FASTENERS THROUGH INSULATION INTO DECK TO DEPTH AND IN PATTERN REQUIRED BY FACTORY MUTUAL FOR FM CLASS SPECIFIED IN PART 2 AND MEMBRANE MANUFACTURER, WHICHEVER IS MORE STRINGENT.

3.5 SINGLE-PLY MEMBRANE INSTALLATION

A. BEGINNING AT LOW POINT OF ROOF, PLACE MEMBRANE WITHOUT STRETCHING OVER SUBSTRATE AND ALLOW TO RELAX AT LEAST 30 MINUTES BEFORE ATTACHMENT OR SPLICING; IN COLDER WEATHER ALLOW FOR LONGER RELAX TIME.
B. LAY OUT THE MEMBRANE PIECES SO THAT FIELD AND FLASHING SPLICES ARE INSTALLED TO SHED WATER.
C. INSTALL MEMBRANE WITHOUT WRINKLES AND WITHOUT GAPS OR FISHMOUTHS IN SEAMS; BOND AND TEST SEAMS AND LAPS IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S INSTRUCTIONS AND DETAILS.
D. INSTALL MEMBRANE MECHANICALLY ATTACHED TO THE SUBSTRATE USING SEAM BATTENS, FASTENERS, AND EDGE SECUREMENT AS SPECIFIED AND AS REQUIRED BY MEMBRANE MANUFACTURERS.
E. MECHANICAL ATTACHMENT: INSTALL FASTENERS IN THE SEAMS, COVERED BY MEMBRANE.
1. LAY OUT FASTENERS IN COMPLIANCE WITH FM CLASS SPECIFIED IN PART 2, AS RECOMMENDED BY MEMBRANE MANUFACTURER, AND AS INDICATED, WHICHEVER IS MOST STRINGENT.
2. PROPERLY ENGAGE FASTENERS IN THE DECK WITH HEAD FLUSH WITH THE COUNTERSUNK PORTION OF SEAM PLATE.
F. EDGE SECUREMENT: SECURE MEMBRANE AT ALL LOCATIONS WHERE MEMBRANE TERMINATES OR GOES THROUGH AN ANGLE CHANGE GREATER THAN 2 IN 12 INCHES (1:6) USING MECHANICALLY FASTENED REINFORCED PERIMETER FASTENING STRIPS, PLATES, OR METAL EDGING AS INDICATED OR AS RECOMMENDED BY ROOFING MANUFACTURER.
1. EXCEPTIONS: ROUND PIPE PENETRATIONS LESS THAN 18 INCHES (460 MM) IN DIAMETER AND SQUARE PENETRATIONS LESS THAN 4 INCHES (200 MM) SQUARE.
2. METAL EDGING IS NOT MERELY DECORATIVE; ENSURE ANCHORAGE OF MEMBRANE AS INTENDED BY ROOFING MANUFACTURER.

3.6 FLASHING AND ACCESSORIES INSTALLATION

A. INSTALL FLASHINGS, INCLUDING LAPS, SPLICES, JOINTS, BONDING, ADHESION, AND ATTACHMENT, AS REQUIRED BY MEMBRANE MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
B. METAL ACCESSORIES: INSTALL METAL EDGINGS, GRAVEL STOPS, AND COPINGS IN LOCATIONS INDICATED ON THE DRAWINGS, WITH HORIZONTAL LEG OF EDGE MEMBER OVER MEMBRANE AND FLASHING OVER METAL ONTO MEMBRANE.
1. FOLLOW ROOFING MANUFACTURER'S INSTRUCTIONS.
2. REMOVE PROTECTIVE PLASTIC SURFACE FILM IMMEDIATELY BEFORE INSTALLATION.
3. INSTALL WATER BLOCK SEALANT UNDER THE MEMBRANE ANCHORAGE LEG.
4. FLASH WITH MANUFACTURER'S RECOMMENDED FLASHING SHEET UNLESS OTHERWISE INDICATED.
5. WHERE SINGLE APPLICATION OF FLASHING WILL NOT COMPLETELY COVER THE METAL FLANGE, INSTALL ADDITIONAL PIECE OF FLASHING TO COVER THE METAL EDGE.
6. IF THE ROOF EDGE INCLUDES A GRAVEL STOP AND SEALANT IS NOT APPLIED BETWEEN THE LAPS IN THE METAL EDGING, INSTALL AN ADDITIONAL PIECE OF SELF-ADHESIVE FLASHING MEMBRANE OVER THE METAL LAP TO THE TOP OF THE GRAVEL STOP; APPLY SEAM EDGE TREATMENT AT THE INTERSECTIONS OF THE TWO FLASHING SECTIONS.
7. WHEN THE ROOF SLOPE IS GREATER THAN 1:12, APPLY SEAM EDGE TREATMENT ALONG THE BACK EDGE OF THE FLASHING.
C. SCUPPERS: SET IN SEALANT AND SECURE TO STRUCTURE; FLASH AS RECOMMENDED BY MANUFACTURER.
D. ROOFING EXPANSION JOINTS: INSTALL AS SHOWN ON DRAWINGS AND AS RECOMMENDED BY ROOFING MANUFACTURER.
E. FLASHING AT WALLS, CURBS, AND OTHER VERTICAL AND SLOPED SURFACES: INSTALL WEATHERTIGHT FLASHING AT ALL WALLS, CURBS, PARAPETS, CURBS, SKYLIGHTS, AND OTHER VERTICAL AND SLOPED SURFACES THAT THE ROOFING MEMBRANE ABUTS TO; EXTEND FLASHING AT LEAST 8 INCHES (200 MM) HIGH ABOVE MEMBRANE SURFACE.
1. USE THE LONGEST PRACTICAL FLASHING PIECES.
2. EVALUATE THE SUBSTRATE AND OVERLAY AND ADJUST INSTALLATION PROCEDURE IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S RECOMMENDATIONS.
3. COMPLETE THE SPLICE BETWEEN FLASHING AND THE MAIN ROOF SHEET WITH SPECIFIED SPLICE ADHESIVE BEFORE ADHERING FLASHING TO THE VERTICAL SURFACE.
4. PROVIDE TERMINATION DIRECTLY TO THE VERTICAL SUBSTRATE AS SHOWN ON ROOF DRAWINGS.
F. ROOF DRAINS:
1. TAPER INSULATION AROUND DRAIN TO PROVIDE SMOOTH TRANSITION FROM ROOF SURFACE TO DRAIN. USE SPECIFIED PRE-MANUFACTURED TAPERED INSULATION WITH FACER OR SUITABLE BONDING SURFACE TO ACHIEVE SLOPE; SLOPE NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS.
2. POSITION MEMBRANE, THEN CUT A HOLE FOR ROOF DRAIN TO ALLOW 1/2 TO 3/4 INCH (12 TO 19 MM) OF MEMBRANE TO EXTEND INSIDE CLAMPING RING PAST DRAIN BOLTS.
3. MAKE ROUND HOLES IN MEMBRANE TO ALIGN WITH CLAMPING BOLTS; DO NOT CUT MEMBRANE BACK TO BOLT HOLES.
4. APPLY SEALANT ON TOP OF DRAIN BOWL WHERE CLAMPING RING SEATS BELOW THE MEMBRANE
5. INSTALL ROOF DRAIN CLAMPING RING AND CLAMPING BOLTS; TIGHTEN CLAMPING BOLTS TO ACHIEVE CONSTANT COMPRESSION.
G. FLASHING AT PENETRATIONS: FLASH ALL PENETRATIONS PASSING THROUGH THE MEMBRANE; MAKE FLASHING SEALS DIRECTLY TO THE PENETRATION.
1. PIPES, ROUND SUPPORTS, AND SIMILAR ITEMS: FLASH WITH SPECIFIED PRE-MOLDED PIPE FLASHINGS WHEREVER PRACTICAL; OTHERWISE USE SPECIFIED SELF-CURING ELASTOMERIC FLASHING.
2. PIPE CLUSTERS AND UNUSUAL SHAPED PENETRATIONS: PROVIDE PENETRATION POCKET AT LEAST 2 INCHES (50 MM) DEEP, WITH AT LEAST 1 INCH (25 MM) CLEARANCE FROM PENETRATION, SLOPED TO SHED WATER.
3. STRUCTURAL STEEL TUBING: IF CORNER RADII ARE GREATER THAN 1/4 INCH (6 MM) AND LONGEST SIDE OF TUBE DOES NOT EXCEED 12 INCHES (305 MM), FLASH AS FOR PIPES; OTHERWISE, PROVIDE A STANDARD CURB WITH FLASHING.
4. FLEXIBLE AND MOVING PENETRATIONS: PROVIDE WEATHERTIGHT GOOSENECK SET IN SEALANT AND SECURED TO DECK, FLASHED AS RECOMMENDED BY MANUFACTURER.
5. HIGH TEMPERATURE SURFACES: WHERE THE IN-SERVICE TEMPERATURE IS, OR IS EXPECTED TO BE, IN EXCESS OF 180 DEGREES F (82 DEGREES C), PROTECT THE ELASTOMERIC COMPONENTS FROM DIRECT CONTACT WITH THE HOT SURFACES USING AN INTERMEDIATE INSULATED SLEEVE AS FLASHING SUBSTRATE AS RECOMMENDED BY MEMBRANE MANUFACTURER.

3.7 FINISHING AND WALKWAY INSTALLATION

A. INSTALL WALKWAYS AT ACCESS POINTS TO THE ROOF, AROUND ROOFTOP EQUIPMENT THAT MAY REQUIRE MAINTENANCE, AND WHERE INDICATED ON THE DRAWINGS.
1. USE SPECIFIED WALKWAY PADS UNLESS OTHERWISE INDICATED.
B. WALKWAY PADS: ADHERE TO THE ROOFING MEMBRANE, SPACING EACH PAD AT MINIMUM OF 1.0 INCH (25 MM) AND MAXIMUM OF 3.0 INCHES (75 MM) FROM EACH OTHER TO ALLOW FOR DRAINAGE.
1. IF INSTALLATION OF WALKWAY PADS OVER FIELD FABRICATED SPLICES OR WITHIN 6 INCHES (150 MM) OF A SPLICE EDGE CANNOT BE AVOIDED, ADHERE ANOTHER LAYER OF FLASHING OVER THE SPLICE AND EXTENDING BEYOND THE WALKWAY PAD A MINIMUM OF 6 INCHES (150 MM) ON EITHER SIDE.
2. PRIME THE MEMBRANE, REMOVE THE RELEASE PAPER ON THE PAD, PRESS IN PLACE, AND WALK ON PAD TO ENSURE PROPER ADHESION.

3.8 FIELD QUALITY CONTROL

A. INSPECTION BY MANUFACTURER: PROVIDE FINAL INSPECTION OF THE ROOFING SYSTEM BY A TECHNICAL REPRESENTATIVE EMPLOYED BY ROOFING SYSTEM MANUFACTURER SPECIFICALLY TO INSPECT INSTALLATION FOR WARRANTY PURPOSES (I.E. NOT A SALES PERSON).
B. PERFORM ALL CORRECTIONS NECESSARY FOR ISSUANCE OF WARRANTY.

3.9 CLEANING

A. CLEAN ALL CONTAMINANTS GENERATED BY ROOFING WORK FROM BUILDING AND SURROUNDING AREAS, INCLUDING BITUMEN, ADHESIVES, SEALANTS, AND COATINGS.
B. REPAIR OR REPLACE BUILDING COMPONENTS AND FINISHED SURFACES DAMAGED OR DEFACED DUE TO THE WORK OF THIS SECTION; COMPLY WITH RECOMMENDATIONS OF MANUFACTURERS OF COMPONENTS AND SURFACES.
C. REMOVE LEFTOVER MATERIALS, TRASH, DEBRIS, EQUIPMENT FROM PROJECT SITE AND SURROUNDING AREAS.

3.10 PROTECTION

A. WHERE CONSTRUCTION TRAFFIC MUST CONTINUE OVER FINISHED ROOF MEMBRANE, PROVIDE DURABLE PROTECTION AND REPLACE OR REPAIR DAMAGED ROOFING TO ORIGINAL CONDITION.

END OF SECTION 07500

SECTION 07620 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA, SHOP DRAWINGS, AND SAMPLES.

PART 2 - PRODUCTS

2.1 SHEET METAL

A. GALVANIZED STEEL SHEET: ASTM A 653/A 653M, G90 (Z275), MILL PHOSPHATIZED WHERE INDICATED FOR PAINTING; AT LEAST 0.0396 INCH (1.0 MM) THICK.

2.2 FLASHING AND TRIM

A. FABRICATE SHEET METAL FLASHING AND TRIM TO COMPLY WITH RECOMMENDATIONS OF SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL" THAT APPLY TO THE DESIGN, DIMENSIONS, METAL, AND OTHER CHARACTERISTICS OF THE ITEM INDICATED.
B. COIL-COAT GALVANIZED STEEL SHEET WITH 2-COAT FLUOROPOLYMER HYLAR 5000 OR KYNAR 500 FINISH.
C. FINISH ALUMINUM GUTTERS, DOWNSPOUTS, AND SIMILAR EXPOSED UNITS WITH BAKED-ON, ACRYLIC SHOP FINISH (COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD SELECTIONS); 1.0-MIL (0.025-MM) DRY FILM THICKNESS.

2.3 ACCESSORIES

A. SOLDER: ASTM B 32, GRADE SN50.
B. SOLDER FOR STAINLESS STEEL: ASTM B 32, GRADE SN60.
C. ASPHALT MASTIC: SSPC-PAINT 12, ASBESTOS FREE, SOLVENT TYPE.
D. ROOFING CEMENT: ASTM D 4586, TYPE I, ASBESTOS FREE, ASPHALT BASED.

PART 3 - EXECUTION

3.1 INSTALLATION

A. COMPLY WITH SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL." ALLOW FOR THERMAL EXPANSION; SET TRUE TO LINE AND LEVEL. INSTALL WORK WITH LAPS, JOINTS, AND SEAMS PERMANENTLY WATERTIGHT AND WEATHERPROOF; CONCEAL FASTENERS WHERE POSSIBLE.
1. ROOF-EDGE FLASHINGS: SECURE METAL FLASHINGS AT ROOF EDGES ACCORDING TO FM LOSS PREVENTION DATA SHEET 1-49 FOR SPECIFIED WIND ZONE.
B. SEALED JOINTS: FORM NONEXPANSION, BUT MOVABLE, JOINTS IN METAL TO ACCOMMODATE ELASTOMERIC SEALANT TO COMPLY WITH SMACNA STANDARDS.
C. FABRICATE NONMOVING SEAMS IN SHEET METAL WITH FLAT-LOCK SEAMS.
1. CLEAN SURFACES TO BE SOLDERED, REMOVING OILS AND FOREIGN MATTER. PRE-TIN EDGES OF SHEETS TO BE SOLDERED TO A WIDTH OF 1-1/2 INCHES (38 MM), UNLESS PRE-TINNED SURFACE WOULD SHOW IN FINISHED WORK.
D. SEPARATIONS: SEPARATE NONCOMPATIBLE METALS OR CORROSIVE SUBSTRATES WITH A COATING OF ASPHALT MASTIC OR OTHER PERMANENT SEPARATION.

END OF SECTION 07620

SECTION 07710 - MANUFACTURED ROOF SPECIALTIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA, SHOP DRAWINGS, AND COLOR SAMPLES.
B. PROVIDE PRODUCTS THAT COMPLY WITH APPLICABLE REQUIREMENTS OF SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL," UNLESS OTHERWISE INDICATED.

PART 2 - PRODUCTS

2.1 ROOF SPECIALTIES

A. PAINT GRIP GALVANIZED STEEL COPINGS: SEE DRAWINGS AND PROPOSE MANUF. FOR OWNERS REP. APPROVAL.
B. PAINT GRIP GALVANIZED STEEL FASCIA: SEE DRAWINGS AND PROPOSE MANUF. FOR OWNERS REP. APPROVAL.
C. PAINT GRIP GALVANIZED STEEL GRAVEL STOPS: SEE DRAWINGS AND PROPOSE MANUF. FOR OWNERS REP. APPROVAL.
D. PAINT GRIP GALVANIZED STEEL GUTTERS AND DOWNSPOUTS: SEE DRAWINGS AND PROPOSE MANUF. FOR OWNERS REP. APPROVAL.
E. PAINT GRIP GALVANIZED STEEL SHEET: GALVANIZED STEEL SHEET, ASTM A 653/A 653M, G90 (Z275), 0.028 INCH (0.7 MM) THICK,; PREPAINTED WITH 2-COAT, COMPOSED OF INHIBITIVE PRIMER.

PART 3 - EXECUTION

3.1 INSTALLATION

A. COORDINATE WITH INSTALLATION OF ROOF DECKS AND OTHER SUBSTRATES TO PRODUCE A WATERTIGHT ASSEMBLY CAPABLE OF WITHSTANDING INWARD AND OUTWARD LOADING PRESSURES, AND THERMAL AND LATERAL LOADS.
B. COAT BACK SIDE OF ALL ROOF SPECIALTIES WITH BITUMINOUS COATING WHERE THEY WILL CONTACT WOOD, FERROUS METAL, OR CEMENTITIOUS CONSTRUCTION.
C. EXPANSION PROVISIONS: INSTALL RUNNING LENGTHS TO ALLOW CONTROLLED EXPANSION FOR MOVEMENT OF METAL COMPONENTS, TO PREVENT WATER LEAKAGE, DEFORMATION, OR DAMAGE.

END OF SECTION 07710

SECTION 07720 - ROOF ACCESSORIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA, SHOP DRAWINGS, AND COLOR SAMPLES.

PART 2 - PRODUCTS

2.1 MATERIALS

A. ALUMINUM SHEET: ASTM B 209 (ASTM B 209M), ALCLAD ALLOY 3005H25, OR ALLOY AND TEMPER REQUIRED TO SUIT FORMING OPERATIONS, WITH MILL FINISH, UNLESS OTHERWISE INDICATED.
B. EXTRUDED ALUMINUM: ASTM B 221 (ASTM B 221M), ALLOY 6063-T52, OR ALLOY AND TEMPER REQUIRED TO SUIT STRUCTURAL AND FINISH REQUIREMENTS, WITH MILL FINISH, UNLESS OTHERWISE INDICATED.
C. GALVANIZED STEEL SHEET: ASTM A 653/A 653M, G90 (Z275).

2.2 ROOF ACCESSORIES

A. ROOF CURBS AND EQUIPMENT SUPPORTS: FABRICATE FROM .0747-INCH- (1.9-MM-) THICK, GALVANIZED STRUCTURAL STEEL; FACTORY PRIMED AND PREPARED FOR PAINTING WITH WELDED OR SEALED MECHANICAL CORNER JOINTS.
1. PROVIDE UNITS WITH CANT STRIPS AND BASE PROFILE COORDINATED WITH ROOF INSULATION THICKNESS AND ROOF DECK SLOPE.
2. PROVIDE PRESERVATIVE-TREATED WOOD NAILERS AT TOPS OF CURBS.
3. PROVIDE MANUFACTURER'S STANDARD RIGID OR SEMIRIGID INSULATION.
4. SEE DRAWINGS AND PROPOSE FOR OWNERS REP. APPROVAL.
B. LOW-PROFILE GRAVITY VENTILATORS: FABRICATE FROM GALVANIZED STEEL SHEET WITH HIGH-PERFORMANCE ORGANIC FINISH.
1. PROVIDE UNITS WITH INTEGRAL DOUBLE-WALL CURB, WITH MINIMUM 1-INCH- (25-MM-) THICK, GLASS-FIBER BOARD INSULATION, AND WITH MINIMUM 3-INCH (75-MM) ROOF FLANGES.
2. PROVIDE BIRD SCREENS FABRICATED FROM 1/2-INCH- (13-MM-) SQUARE MESH, 0.062-INCH- (1.6-MM-) DIAMETER, STAINLESS-STEEL WIRE.
3. SEE DRAWINGS, PROPOSE FOR OWNERS REP. APPROVAL.
C. RIDGE VENT: HIGH-DENSITY POLYPROPYLENE, NONWOVEN MODIFIED POLYESTER, OR OTHER UV-STABILIZED PLASTIC DESIGNED TO BE INSTALLED UNDER ASPHALT SHINGLES AT RIDGE.

PART 3 - EXECUTION

3.1 INSTALLATION

A. INSTALLATION: UNLESS OTHERWISE INDICATED, INSTALL ROOF ACCESSORY ITEMS ACCORDING TO CONSTRUCTION DETAILS OF NRCA'S "ROOFING AND WATERPROOFING MANUAL." COORDINATE WITH INSTALLATION OF ROOF DECK, VAPOR BARRIERS, ROOF INSULATION, ROOFING, AND FLASHING TO ENSURE COMBINED ELEMENTS ARE SECURE, WATERPROOF, AND WEATHERTIGHT.

END OF SECTION 07720

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:
1. SILICONE JOINT SEALANTS.
2. URETHANE JOINT SEALANTS.
3. LATEX JOINT SEALANTS.

1.2 SUBMITTALS

A. PRODUCT DATA: FOR EACH JOINT-SEALANT PRODUCT INDICATED.
1. FOR SEALANTS AND SEALANT PRIMERS USED INSIDE THE WEATHERPROOFING SYSTEM, PROVIDE PRINTED STATEMENT OF VOC CONTENT.
B. SAMPLES: FOR EACH KIND AND COLOR OF JOINT SEALANT REQUIRED.
C. JOINT-SEALANT SCHEDULE: INCLUDE THE FOLLOWING INFORMATION:
1. JOINT-SEALANT APPLICATION, JOINT LOCATION, AND DESIGNATION.
2. JOINT-SEALANT MANUFACTURER AND PRODUCT NAME.
3. JOINT-SEALANT FORMULATION.
4. JOINT-SEALANT COLOR.
D. PRODUCT TEST REPORTS.
E. FIELD-ADHESION TEST REPORTS.
F. WARRANTIES.

1.3 WARRANTY

A. SPECIAL INSTALLER'S WARRANTY: ORIGINAL STATEMENT ON INSTALLER'S LETTERHEAD IN WHICH INSTALLER AGREES TO REPAIR OR REPLACE JOINT SEALANTS THAT DEMONSTRATE DETERIORATION OR FAILURE WITHIN WARRANTY PERIOD SPECIFIED. OF PROJECTS OF SIMILAR SCOPE.
1. WARRANTY PERIOD: TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
B. SPECIAL MANUFACTURER'S WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH JOINT SEALANT MANUFACTURER AGREES TO FURNISH JOINT SEALANTS TO REPAIR OR REPLACE THOSE THAT DEMONSTRATE DETERIORATION OR FAILURE UNDER NORMAL USE WITHIN WARRANTY PERIOD SPECIFIED.
1. WARRANTY PERIOD FOR SILICONE SEALANTS: 20 YEARS FOLLOWING DATE OF SUBSTANTIAL COMPLETION.
C. WARRANTY CONDITIONS: SPECIAL WARRANTIES EXCLUDE DETERIORATION OR FAILURE OF JOINT SEALANTS IN NORMAL USE DUE TO STRUCTURAL MOVEMENT RESULTING IN STRESSES ON JOINT SEALANTS EXCEEDING SEALANT MANUFACTURER'S WRITTEN SPECIFICATIONS, JOINT SUBSTRATE DETERIORATION, MECHANICAL DAMAGE, OR NORMAL ACCUMULATION OF DIRT OR OTHER CONTAMINANTS.

PART 2 - PRODUCTS

2.2 MATERIALS, GENERAL

A. VOC CONTENT OF INTERIOR SEALANTS: PROVIDE SEALANTS AND SEALANT PRIMERS FOR USE INSIDE THE WEATHERPROOFING SYSTEM THAT COMPLY WITH THE FOLLOWING LIMITS FOR VOC CONTENT WHEN CALCULATED ACCORDING TO 40 CFR 59, PART 59, SUBPART D (EPA METHOD 24):
1. ARCHITECTURAL SEALANTS: 250 G/L.
2. SEALANT PRIMERS FOR NONPOROUS SUBSTRATES: 250 G/L.
3. SEALANT PRIMERS FOR POROUS SUBSTRATES: 775 G/L.
B. LIQUID-APPLIED JOINT SEALANTS: COMPLY WITH ASTM C 920 AND OTHER REQUIREMENTS INDICATED FOR EACH LIQUID-APPLIED JOINT SEALANT SPECIFIED, INCLUDING THOSE REFERENCING ASTM C 920 CLASSIFICATIONS FOR TYPE, GRADE, CLASS, AND USES RELATED TO EXPOSURE AND JOINT SUBSTRATES.
C. STAIN-TEST-RESPONSE CHARACTERISTICS: WHERE SEALANTS ARE SPECIFIED TO BE NONSTAINING TO POROUS SUBSTRATES, PROVIDE PRODUCTS THAT HAVE UNDERGONE TESTING ACCORDING TO ASTM C 1248 AND HAVE NOT STAINED POROUS JOINT SUBSTRATES INDICATED FOR PROJECT.
D. SUITABILITY FOR CONTACT WITH FOOD: WHERE SEALANTS ARE INDICATED FOR JOINTS THAT WILL COME IN REPEATED CONTACT WITH FOOD, PROVIDE PRODUCTS THAT COMPLY WITH 21 CFR 177.2600.

2.3 SILICONE JOINT SEALANTS

A. MILDEW-RESISTANT SILICONE JOINT SEALANT: ASTM C 920.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
A. DOW CORNING CORPORATION.
B. GE ADVANCED MATERIALS - SILICONES.
C. PECORA CORPORATION.
D. SIKA CORPORATION; CONSTRUCTION PRODUCTS DIVISION.
E. TREMCO INCORPORATED.
2. TYPE: SINGLE COMPONENT (S).
3. GRADE: NONSAG (NS).
4. CLASS: 25.
5. USES RELATED TO EXPOSURE: NONTRAFFIC (NT).

2.4 URETHANE JOINT SEALANTS

A. URETHANE JOINT SEALANT - HORIZONTAL TRAFFIC JOINTS : ASTM C 920.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
A. BOSTIK, INC.
B. PECORA CORPORATION.
C. SIKA CORPORATION; CONSTRUCTION PRODUCTS DIVISION.
D. TREMCO INCORPORATED.
2. TYPE: MULTICOMPONENT (M).
3. GRADE: POURABLE (P).
4. CLASS: 25.
5. USES RELATED TO EXPOSURE: TRAFFIC (T).
B. URETHANE JOINT SEALANT - VERTICAL AND HORIZONTAL NON-TRAFFIC JOINTS : ASTM C 920.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
A. BOSTIK, INC.
B. PECORA CORPORATION.
C. SIKA CORPORATION; CONSTRUCTION PRODUCTS DIVISION.
D. TREMCO INCORPORATED.
2. TYPE: MULTICOMPONENT (M).
3. GRADE: NONSAG (NS).
4. CLASS: 25.
5. USES RELATED TO EXPOSURE: NONTRAFFIC (NT).

2.5 LATEX JOINT SEALANTS

A. LATEX JOINT SEALANT: ACRYLIC LATEX OR SILICONIZED ACRYLIC LATEX, ASTM C 834, TYPE OP, GRADE NF.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
A. BOSTIK, INC.
B. PECORA CORPORATION.
C. TREMCO INCORPORATED.

2.6 JOINT SEALANT BACKING

A. CYLINDRICAL SEALANT BACKINGS: ASTM C 1330, TYPE C (CLOSED-CELL MATERIAL WITH A SURFACE SKIN), TYPE O (OPEN-CELL MATERIAL), TYPE B (BICELLULAR MATERIAL WITH A SURFACE SKIN) OR ANY OF THE PRECEDING TYPES, AS APPROVED IN WRITING BY JOINT-SEALANT MANUFACTURER FOR JOINT APPLICATION INDICATED, AND OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEALANT PERFORMANCE.
B. BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER.

2.7 MISCELLANEOUS MATERIALS

A. PRIMER: MATERIAL RECOMMENDED BY JOINT-SEALANT MANUFACTURER WHERE REQUIRED FOR ADHESION OF SEALANT TO JOINT SUBSTRATES INDICATED, AS DETERMINED FROM PRECONSTRUCTION JOINT-SEALANT-SUBSTRATE TESTS AND FIELD TESTS.
B. CLEANERS FOR NONPOROUS SURFACES: CHEMICAL CLEANERS ACCEPTABLE TO MANUFACTURERS OF SEALANTS AND SEALANT BACKING MATERIALS.
C. MASKING TAPE: NONSTAINING, NONABSORBENT MATERIAL COMPATIBLE WITH JOINT SEALANTS AND SURFACES ADJACENT TO JOINTS.

PART 3 - EXECUTION

3.1 PREPARATION

A. SURFACE CLEANING OF JOINTS: CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS.
1. REMOVE LAITANCE AND FORM-RELEASE AGENTS FROM CONCRETE.
2. CLEAN NONPOROUS JOINT SUBSTRATE SURFACES WITH CHEMICAL CLEANERS OR OTHER MEANS THAT DO NOT STAIN, HARM SUBSTRATES, OR LEAVE RESIDUES CAPABLE OF INTERFERING WITH ADHESION OF JOINT SEALANTS.
B. JOINT PRIMING: PRIME JOINT SUBSTRATES WHERE RECOMMENDED BY JOINT-SEALANT MANUFACTURER OR AS INDICATED BY PRECONSTRUCTION JOINT-SEALANT-SUBSTRATE TESTS OR PRIOR EXPERIENCE. APPLY PRIMER TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS. CONFINE PRIMERS TO AREAS OF JOINT- SEALANT BOND; DO NOT ALLOW SPILLAGE OR MIGRATION ONTO ADJOINING SURFACES.
C. MASKING TAPE: USE MASKING TAPE WHERE REQUIRED TO PREVENT CONTACT OF SEALANT OR PRIMER WITH ADJOINING SURFACES THAT OTHERWISE WOULD BE PERMANENTLY STAINED OR DAMAGED BY SUCH CONTACT OR BY CLEANING METHODS REQUIRED TO REMOVE SEALANT SMEARS. REMOVE TAPE IMMEDIATELY AFTER TOOLING WITHOUT DISTURBING JOINT SEAL.

3.2 INSTALLATION

A. SEALANT INSTALLATION STANDARD: COMPLY WITH RECOMMENDATIONS IN ASTM C 1193 FOR USE OF JOINT SEALANTS AS APPLICABLE TO MATERIALS, APPLICATIONS, AND CONDITIONS INDICATED.
B. INSTALL SEALANT BACKINGS OF KIND INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.
1. DO NOT LEAVE GAPS BETWEEN ENDS OF SEALANT BACKINGS.
2. DO NOT STRETCH, TWIST, PUNCTURE, OR TEAR SEALANT BACKINGS.
3. REMOVE ABSORBENT SEALANT BACKINGS THAT HAVE BECOME WET BEFORE SEALANT APPLICATION AND REPLACE THEM WITH DRY MATERIALS.
C. INSTALL BOND-BREAKER TAPE BEHIND SEALANTS WHERE SEALANT BACKINGS ARE NOT USED BETWEEN SEALANTS AND BACKS OF JOINTS.
D. INSTALL SEALANTS USING PROVEN TECHNIQUES THAT COMPLY WITH THE FOLLOWING AND AT THE SAME TIME BACKINGS ARE INSTALLED:
1. PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES.
2. COMPLETELY FILL RECESSES IN EACH JOINT CONFIGURATION.
3. PRODUCE UNIFORM, CROSS-SECTIONAL SHAPES AND DEPTHS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY.
E. TOOLING OF NONSAG SEALANTS: IMMEDIATELY AFTER SEALANT APPLICATION AND BEFORE SKINNING OR CURING BEGINS, TOOL SEALANTS ACCORDING TO REQUIREMENTS SPECIFIED IN SUBPARAGRAPHS BELOW TO FORM SMOOTH, UNIFORM BEADS OF CONFIGURATION INDICATED; TO ELIMINATE AIR POCKETS; AND TO ENSURE CONTACT AND ADHESION OF SEALANT WITH SIDES OF JOINT.
1. REMOVE EXCESS SEALANT FROM SURFACES ADJACENT TO JOINTS.
2. USE TOOLING AGENTS THAT ARE APPROVED IN WRITING BY SEALANT MANUFACTURER AND THAT DO NOT DISCOLOR SEALANTS OR ADJACENT SURFACES.
3. PROVIDE CONCAVE JOINT PROFILE PER FIGURE 8A IN ASTM C 1193, UNLESS OTHERWISE INDICATED.
F. CLEAN OFF EXCESS SEALANT OR SEALANT SMEARS ADJACENT TO JOINTS AS THE WORK PROGRESSES BY METHODS AND WITH CLEANING MATERIALS APPROVED IN WRITING BY MANUFACTURERS OF JOINT SEALANTS AND OF PRODUCTS IN WHICH JOINTS OCCUR.

3.3 JOINT-SEALANT SCHEDULE

A. JOINT-SEALANT APPLICATION: EXTERIOR JOINTS IN HORIZONTAL TRAFFIC SURFACES.
1. JOINT LOCATIONS:
A. ISOLATION AND CONTRACTION JOINTS IN CAST-IN-PLACE CONCRETE SLABS.
2. JOINT SEALANT: URETHANE.
3. JOINT-SEALANT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.
B. JOINT-SEALANT APPLICATION: EXTERIOR JOINTS IN VERTICAL SURFACES AND HORIZONTAL NON-TRAFFIC SURFACES.
1. JOINT LOCATIONS:
A. JOINTS BETWEEN PLANT-PRECAST ARCHITECTURAL CONCRETE UNITS.
B. CONTROL AND EXPANSION JOINTS IN UNIT MASONRY.
C. JOINTS IN SIDING, SOFFITS AND EXTERIOR TRIM.
D. JOINTS BETWEEN DIFFERENT MATERIALS LISTED ABOVE.
E. PERIMETER JOINTS BETWEEN MATERIALS LISTED ABOVE AND FRAMES OF DOORS, WINDOWS AND LOUVERS.
F. OTHER JOINTS AS INDICATED.
2. JOINT SEALANT: URETHANE.
3. JOINT-SEALANT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.
C. JOINT-SEALANT APPLICATION: INTERIOR JOINTS IN HORIZONTAL TRAFFIC SURFACES.
1. JOINT LOCATIONS:
A. ISOLATION JOINTS IN CAST-IN-PLACE CONCRETE SLABS.
2. JOINT SEALANT: URETHANE.
3. JOINT-SEALANT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.
D. JOINT-SEALANT APPLICATION: INTERIOR JOINTS IN VERTICAL SURFACES AND HORIZONTAL NONTRAFFIC SURFACES.
1. JOINT LOCATIONS:
A. CONTROL AND EXPANSION JOINTS ON EXPOSED INTERIOR SURFACES OF EXTERIOR WALLS.
B. PERIMETER JOINTS OF EXTERIOR OPENINGS WHERE INDICATED.
C. VERTICAL JOINTS ON EXPOSED SURFACES OF INTERIOR UNIT MASONRY WALLS.
D. PERIMETER JOINTS BETWEEN INTERIOR WALL SURFACES AND FRAMES OF INTERIOR DOORS AND WINDOWS.
2. JOINT SEALANT: LATEX.
3. JOINT-SEALANT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.
E. JOINT-SEALANT APPLICATION: MILDEW-RESISTANT INTERIOR JOINTS IN VERTICAL SURFACES AND HORIZONTAL NONTRAFFIC SURFACES.
1. JOINT SEALANT LOCATION:
A. JOINTS BETWEEN PLUMBING FIXTURES AND ADJOINING WALLS, FLOORS, AND COUNTERS.
B. TILE CONTROL AND EXPANSION JOINTS WHERE INDICATED.
2. JOINT SEALANT: SILICONE.
3. JOINT-SEALANT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLORS.

END OF SECTION 079200

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

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ARCHITECTURAL SPECIFICATIONS

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SECTION 08110 - STEEL DOORS AND FRAMES

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA AND DOOR SCHEDULE.
B. COMPLY WITH ANSI/SDI 100.
C. FIRE-RATED DOOR ASSEMBLIES: NFPA 80, TESTED PER ASTM E 152, AND LABELED AND LISTED BY UL, ITS, OR ANOTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
PART 2 - PRODUCTS
2.1 MATERIALS
A. HOT-ROLLED STEEL SHEETS: ASTM A 569/A 569M.
B. COLD-ROLLED STEEL SHEETS: ASTM A 366/A 366M OR ASTM A 620/A 620M.
C. GALVANIZED STEEL SHEETS: ASTM A 653/A 653M, COMMERCIAL STEEL, OR ASTM A 642/A 642M, DRAWING QUALITY, WITH A60 OR G60 (ZF180 OR Z180) COATING DESIGNATION, MILL PHOSPHATIZED.
2.2 STEEL DOORS AND FRAMES
A. PROVIDE STEEL DOORS AND FRAMES MANUFACTURED BY STEELCRAFT, CURRIES, CECO OR ARCHITECT APPROVED EQUIVALENT
B. STEEL DOORS: 1-3/4-INCH- (44-MM-) THICK OF MATERIALS AND ANSI/SDI 100 GRADES AND MODELS INDICATED ON DRAWINGS, SCHEDULES OR IF NOT SHOWN - PROPOSE FOR OWNERS REP. APPROVAL.
1. INTERIOR DOORS: GRADE II, HEAVY-DUTY, MODEL 2, SEAMLESS DESIGN, MINIMUM 0.0478-INCH- (1.2-MM-) THICK, COLD-ROLLED STEEL SHEET FACES.
2. EXTERIOR DOORS: GRADE III, EXTRA HEAVY-DUTY, MODEL 2, SEAMLESS DESIGN, MINIMUM 0.0635-INCH- (1.6-MM-) THICK, GALVANIZED STEEL SHEET FACES.
C. DOOR SILENCERS: THREE ON STRIKE JAMBS OF SINGLE-DOOR FRAMES AND TWO ON HEADS OF DOUBLE-DOOR FRAMES.
D. PLASTER GUARDS: PROVIDE WHERE MORTAR MIGHT OBSTRUCT HARDWARE OPERATION AND TO CLOSE OFF INTERIOR OF OPENINGS.
E. FABRICATE STEEL FRAMES TO BE RIGID, NEAT IN APPEARANCE, AND FREE FROM DEFECTS, WARP, OR BUCKLE.
1. EXTERIOR FRAMES: FABRICATE WITH MITERED OR COPED AND CONTINUOUSLY WELDED CORNERS, FORMED FROM 0.0635-INCH- (1.6-MM-) THICK, GALVANIZED STEEL SHEET.
F. PREPARE DOORS AND FRAMES TO RECEIVE MORTISED AND CONCEALED HARDWARE ACCORDING TO SDI 107.
G. PRIME COAT: GALVANIZED STEEL, FS TT-P-641, TYPE II ZINC-DUST, ZINC-OXIDE PRIMER.
PART 3 - EXECUTION
3.1 INSTALLATION
A. PLACE STEEL FRAMES TO COMPLY WITH SDI 105.
B. INSTALL STEEL DOORS ACCURATELY IN FRAMES, WITHIN CLEARANCES SPECIFIED IN ANSI/SDI 100.
1. FIRE-RATED DOORS: INSTALL WITH CLEARANCES SPECIFIED IN NFPA 80.
2. SMOKE-CONTROL DOORS: COMPLY WITH NFPA 105.
C. PRIME COAT REPAIR: IMMEDIATELY AFTER ERECTION, SAND SMOOTH ANY RUSTED OR DAMAGED AREAS OF PRIME COAT AND REPAIR FINISH WITH COMPATIBLE AIR-DRYING PRIMER.
END OF SECTION 08110

SECTION 08411 - ALUMINUM FRAMED STOREFRONTS

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. STRUCTURAL PERFORMANCE: PROVIDE SYSTEMS, INCLUDING ANCHORAGE, CAPABLE OF WITHSTANDING MIN. CODE COMPLIANT LOADS.
1. MAIN-FRAMING-MEMBER DEFLECTION: LIMITED TO 1/175 OF CLEAR SPAN WITH A SAFETY FACTOR OF 1.65
2. STRUCTURAL-TESTING: SYSTEMS TESTED ACCORDING TO ASTM E 330 AT 150 SAFETY FACTOR> PERCENT OF INWARD AND OUTWARD WIND-LOAD DESIGN PRESSURES DO NOT EVIDENCE MATERIAL FAILURES, STRUCTURAL DISTRESS, DEFLECTION FAILURES, OR PERMANENT DEFORMATION OF MAIN FRAMING MEMBERS EXCEEDING 0.2 PERCENT OF CLEAR SPAN.
B. AIR INFILTRATION: LIMITED TO 0.06 CFM/SQ. FT. (0.3 L/S PER SQ. M) OF SYSTEM SURFACE AREA WHEN TESTED ACCORDING TO ASTM E 283 AT A STATIC-AIR-PRESSURE DIFFERENCE OF THE INDUSTRY STD.
C. WATER PENETRATION: SYSTEMS DO NOT EVIDENCE WATER LEAKAGE WHEN TESTED ACCORDING TO ASTM E 331 AT MINIMUM DIFFERENTIAL PRESSURE OF 20 PERCENT OF INWARD ACTING WIND LOAD DESIGN PRESSURE BUT NOT LESS THAN THE INDUSTRY STANDARD (8 PERCENT).
D. AVERAGE U-VALUE: NOT MORE THAN AS INDICATED ON MECH. PLANS AND PER AAMA 1503.1.
E. SUBMITTALS: PRODUCT DATA, SHOP DRAWINGS, AND COLOR SAMPLES.
1. FOR ENTRANCE SYSTEMS, INCLUDE HARDWARE SCHEDULE AND LOCATIONS.
PART 2 - PRODUCTS
2.1 ALUMINUM-FRAMED STOREFRONTS
A. PROVIDE YKK YES 45 FI SERIES (NON-IMPACT RATED) W/ 2" X 4 1/2"" FRAME COMPONENTS OR ARCHITECT APPROVED EQUAL
B. ALUMINUM: ASTM B 209 (ASTM B 209M) SHEET; ASTM B 221 (ASTM B 221M) EXTRUSIONS.
C. GLAZING: REFER TO NOTES ON DRAWINGS.
D. SEALANTS AND JOINT FILLERS: FOR JOINTS AT PERIMETER OF SYSTEMS AS SPECIFIED IN DIVISION 7 SECTION "JOINT SEALANTS."
E. DOORS: 1 3/4-INCH (54-MM) THICK GLAZED DOORS WITH MINIMUM 0.125-INCH (3.2-MM) THICK, EXTRUDED TUBULAR RAIL AND MEDIUM STILE MEMBERS, MECHANICALLY FASTENED CORNERS WITH REINFORCING BRACKETS THAT ARE DEEP PENETRATION AND FILLET WELDED OR THAT INCORPORATE CONCEALED TIE-RODS, SNAP-ON EXTRUDED-ALUMINUM GLAZING STOPS, AND PREFORMED GASKETS.
1. INTERIOR DOORS: PROVIDE ANSI/BHMA A156.16 SILENCERS, THREE ON STRIKE JAMB OF SINGLE-DOOR FRAMES AND TWO ON HEAD OF DOUBLE-DOOR FRAMES.
2. EXTERIOR DOORS: PROVIDE COMPRESSION WEATHER STRIPPING AT FIXED STOPS. AT OTHER LOCATIONS, PROVIDE SLIDING WEATHER STRIPPING RETAINED IN ADJUSTABLE STRIP MORTISED INTO DOOR EDGE.
3. HARDWARE: SEE HARDWARE SCHEDULE ON DRAWINGS.
F. FASTENERS AND ACCESSORIES: COMPATIBLE WITH ADJACENT MATERIALS, CORROSION-RESISTANT, NONSTAINING, AND NONBLEEDING. USE CONCEALED FASTENERS EXCEPT FOR APPLICATION OF DOOR HARDWARE.
G. FABRICATION: FABRICATE FRAMING IN PROFILES INDICATED FOR FLUSH GLAZING (WITHOUT PROJECTING STOPS). PROVIDE SUBFRAMES AND REINFORCING OF TYPES INDICATED OR, IF NOT INDICATED, AS REQUIRED FOR A COMPLETE SYSTEM. FACTORY ASSEMBLE COMPONENTS TO GREATEST EXTENT POSSIBLE. DISASSEMBLE COMPONENTS ONLY AS NECESSARY FOR SHIPMENT AND INSTALLATION.
1. DOOR FRAMING: REINFORCE TO SUPPORT IMPOSED LOADS. FACTORY ASSEMBLE DOOR AND FRAME UNITS AND FACTORY INSTALL HARDWARE TO GREATEST EXTENT POSSIBLE. REINFORCE DOOR AND FRAME UNITS FOR HARDWARE INDICATED. CUT, DRILL, AND TAP FOR FACTORY-INSTALLED HARDWARE BEFORE FINISHING COMPONENTS. CLASS I ANODIC FINISHES BELOW ARE HEAVIER THAN CLASS II FINISHES AND ARE RECOMMEND FOR EXTERIOR APPLICATIONS.
H. ALUMINUM FINISH: COMPLY WITH NAAMMS "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS." AS PER DRAWINGS AND AS PER OWNERS REP. REQUIREMENTS.
1. COLOR: SEE DRAWINGS.
PART 3 - EXECUTION
3.1 INSTALLATION
A. ISOLATE METAL SURFACES IN CONTACT WITH INCOMPATIBLE METAL OR CORROSIVE SUBSTRATES, INCLUDING WOOD, BY PAINTING CONTACT SURFACES WITH BITUMINOUS COATING OR PRIMER, OR BY APPLYING SEALANT OR TAPE RECOMMENDED BY MANUFACTURER.
B. INSTALL COMPONENTS TO PROVIDE A WEATHERPROOF SYSTEM.
C. INSTALL FRAMING COMPONENTS TRUE IN ALIGNMENT WITH ESTABLISHED LINES AND GRADES TO THE FOLLOWING TOLERANCES:
1. VARIATION FROM PLANE: LIMIT TO 1/8 INCH IN 12 FEET (3 MM IN 3.7 M); 1/4 INCH (6 MM) OVER TOTAL LENGTH.
2. ALIGNMENT: FOR SURFACES ABUTTING IN LINE, LIMIT OFFSET TO 1/16 INCH (1.5 MM). FOR SURFACES MEETING AT CORNERS, LIMIT OFFSET TO 1/32 INCH (0.8 MM).
3. DIAGONAL MEASUREMENTS: LIMIT DIFFERENCE BETWEEN DIAGONAL MEASUREMENTS TO 1/8 INCH (3 MM).
D. INSTALL DOORS WITHOUT WARP OR RACK. ADJUST DOORS AND HARDWARE TO PROVIDE TIGHT FIT AT CONTACT POINTS AND SMOOTH OPERATION.
END OF SECTION 08411

SECTION 08710 - DOOR HARDWARE

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: HARDWARE SCHEDULE.
B. DELIVER KEYS TO OWNER.
C. FOR FIRE-RATED OPENINGS PROVIDE HARDWARE TESTED AND LISTED BY UL OR FM (NFPA 80). ON EXIT DEVICES PROVIDE UL OR FM LABEL INDICATING "FIRE EXIT HARDWARE."
PART 2 - PRODUCTS
2.1 HARDWARE
A. HINGES: PROVIDE THE FOLLOWING:
1. STAINLESS-STEEL OR BRASS/BRONZE HINGES WITH STAINLESS-STEEL PINS FOR EXTERIOR.
2. NONREMOVABLE HINGE PINS FOR EXTERIOR AND PUBLIC INTERIOR EXPOSURE.
3. THREE HINGES FOR 1-3/4-INCH- (45-MM-) THICK DOORS 90 INCHES (2300 MM) OR LESS IN HEIGHT; FOUR HINGES FOR DOORS MORE THAN 90 INCHES (2300 MM) IN HEIGHT.
B. LOCKSETS AND LATCHSETS AS FOLLOWS:
1. BHMA A156.2, SERIES 4000, GRADE (AS PER OWNERS REP.) FOR BORED LOCKS AND LATCHES.
2. BHMA A156.3, GRADE 1 FOR EXIT DEVICES.
3. BHMA A156.5, GRADE (AS PER OWNERS REP.) FOR AUXILIARY LOCKS.
4. BHMA A156.12, SERIES 5000, GRADE (AS PER OWNERS REP.) FOR INTERCONNECTED LOCKS AND LATCHES.
5. BHMA A156.13, SERIES 1000, GRADE (AS PER OWNERS REP.) FOR MORTISE LOCKS AND LATCHES.
6. LEVER HANDLES ON LOCKSETS AND LATCHSETS, (AS PER OWNERS REP.).
7. PROVIDE TRIM ON EXIT DEVICES MATCHING LOCKSETS.
C. KEY LOCKS TO OWNER'S NEW MASTER-KEY SYSTEM.
1. CYLINDERS WITH SIX-PIN TUMBLERS AND REMOVABLE CORES.
2. PROVIDE CYLINDERS FOR STOREFRONT DOORS, AND OTHER LOCKING DOORS THAT DO NOT REQUIRE OTHER HARDWARE.
3. PROVIDE CONSTRUCTION KEYING.
4. PROVIDE KEY CONTROL SYSTEM, INCLUDING CABINET.
D. CLOSERS: PROVIDE THE FOLLOWING:
1. MOUNT CLOSERS ON INTERIOR SIDE (ROOM SIDE) OF DOOR OPENING. PROVIDE REGULAR-ARM, PARALLEL-ARM, OR TOP-JAMB-MOUNTED CLOSERS AS NECESSARY.
2. ADJUSTABLE DELAYED OPENING (ACCESSIBLE TO THE DISABLED) FEATURE ON CLOSERS.
E. PROVIDE WALL STOPS OR FLOOR STOPS FOR DOORS WITHOUT CLOSERS.
F. PROVIDE HARDWARE FINISHES AS FOLLOWS:
1. HINGES: MATCHING FINISH OF LOCKSET/LATCHSET.
2. LOCKSETS, LATCHSETS, AND EXIT DEVICES: SATIN CHROME PLATED.
3. CLOSERS: MATCHING FINISH OF LOCKSET/LATCHSET.
4. OTHER HARDWARE: MATCHING FINISH OF LOCKSET/LATCHSET.
PART 3 - EXECUTION
3.1 INSTALLATION
A. MOUNT HARDWARE IN LOCATIONS RECOMMENDED BY THE DOOR AND HARDWARE INSTITUTE, UNLESS OTHERWISE INDICATED.
3.2 HARDWARE SCHEDULE
A. HARDWARE - SEE PLANS.
END OF SECTION 08710

SECTION 08800 - GLAZING

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA AND 12-INCH- (300-MM-) SQUARE SAMPLES.
B. COMPLY WITH WRITTEN INSTRUCTIONS OF GLASS PRODUCT MANUFACTURERS; GANA'S "GLAZING MANUAL;" AND PUBLICATIONS OF GANA, AAMA, AND SIGMA AS APPLICABLE TO PRODUCTS INDICATED, UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.
C. GLASS AND GLAZING WORK INCLUDES STOREFRONT AND ENTRANCE GLAZING (NOT INDICATED AS PRE-GLAZED, HURRICANE RESISTANT GLASS.
1.2 SYSTEM PERFORMANCE
A. PROVIDE GLASS AND GLAZING THAT WILL WITHSTAND NORMAL TEMPERATURE CHANGES, WIND LOADING, IMPACT LOADING, ETC. WITHOUT BREAKAGE OF GLASS, FAILURE OF SEALS AND LOSS OF AIR-TIGHTNESS AND WATER-TIGHTNESS
1.3 QUALITY ASSURANCE
A. COMPLY WITH RECOMMENDATIONS OF THE FLAT GLASS MARKETING ASSOCIATION "GLAZING MANUAL" AND "SEALANT MANUAL"
B. COMPLY WITH INSULATED GLASS MANUFACTURER'S ASSOCIATION (SIGMA) #65-7-2
C. HURRICANE / IMPACT RESISTANT GLAZING SYSTEM: MUST PASS DADE AND BROWARD COUNTY HURRICANE CYCLING AND IMPACT TESTS AND COMPLY WITH ANSI Z97.1 AND CPSC CATEGORY II
D. WARRANTY: PROVIDE WRITTEN WARRANTY COVERING MANUFACTURER DEFECTS, SIGNED BY THE MANUFACTURER, FOR THE PERIODS STATED BELOW AFTER SUBSTANTIAL COMPLETION
1. INSULATED GLASS: MANUFACTURER'S STANDARD TEN-YEAR MINIMUM PERIOD
2. FLOAT GLASS: MANUFACTURER'S STANDARD FIVE-YEAR MINIMUM PERIOD
3. LAMINATED GLASS: MANUFACTURER'S STANDARD FOUR-YEAR MINIMUM PERIOD
PART 2 - PRODUCTS
2.0 MANUFACTURERS
A. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ZELEDYNE GLASS PRODUCTS, PPG INDUSTRIES (GLASS GROUP), GUARDIAN INDUSTRIES CORP., VIRACON INC.
B. HURRICANE / IMPACT RESISTANT GLASS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ARCH ALUMINUM AND GLASS CO., INC, GLASSLAM, N.G.I., INSULGARD CORP., INTERPANE, SAFLEX, VIRACON, INC.
2.1 GLASS PRODUCTS
A. CLEAR TEMPERED FLOAT GLASS: GRADE B (FULLY TEMPERED), STYLE 1 (UNCOATED SURFACES), TYPE 1, QUALITY Q3, CLASS 1
~~B. INSULATED IMPACT~~
1. BASIS OF DESIGN: 1 5/16" NOMINALLY THICK, INSULATING, LAMINATED, LOW E COATED GLASS AS MANUFACTURED BY VIRACON.
A. EXTERIOR GLASS PLY: 1/4" CLEAR HS OR FT AS REQUIRED BY CODE
B. COATING: VIRACON VE-2M NEUTRAL LOW E ON #2 SURFACE
C. AIRSPACE: 1/2" AIR FILLED, BLACK PAINTED
D. SILICONE: BLACK
E. INTERIOR GLASS PLY 1: 1/4" CLEAR HS
F. INTERLAYER: SELECT KIND AND THICKNESS AS TESTED IN THE COMBINED ASSEMBLY FOR HURRICANE RESISTANCE TO MEET THE CURRENT FLORIDA BUILDING CODE EDITION
G. INTERIOR GLASS PLY 2: 1/4" CLEAR HS
~~2. PERFORMANCE REQUIREMENTS~~
A. VISIBLE LIGHT TRANSMITTANCE 68%
B. EXTERIOR (VIS-OUT) REFLECTANCE 11%
C. INTERIOR (VIS-IN) REFLECTANCE 11%
D. WINTER U-VALUE 0.29
E. SUMMER U-VALUE 0.26
F. SOLAR HEAT GAIN COEFFICIENT 0.37
G. LIGHT TO SOLAR GAIN RATIO 1.84
C. INSULATED NON-IMPACT
1. BASIS OF DESIGN: 1" NOMINALLY THICK, INSULATING, LOW E COATED GLASS AS MANUFACTURED BY VIRACON.
A. EXTERIOR GLASS PLY: 1/4" CLEAR HS OR FT AS REQUIRED BY CODE
B. COATING: VIRACON VE-2M NEUTRAL LOW E ON #2 SURFACE
C. AIRSPACE: 1/2" AIR FILLED, BLACK PAINTED
D. SILICONE: BLACK
E. INTERIOR GLASS PLY 1: 1/4" CLEAR HS OR FT AS REQUIRED BY CODE
2. PERFORMANCE REQUIREMENTS
A. VISIBLE LIGHT TRANSMITTANCE 70%
B. EXTERIOR (VIS-OUT) REFLECTANCE 11%
C. INTERIOR (VIS-IN) REFLECTANCE 12%
D. WINTER U-VALUE 0.29
E. SUMMER U-VALUE 0.26
F. SOLAR HEAT GAIN COEFFICIENT 0.38
G. LIGHT TO SOLAR GAIN RATIO 1.84
D. SINGLE PANEL, NON-IMPACT, CLEAR
1. BASIS OF DESIGN: 1/4" NOMINALLY THICK, LOW E COATED GLASS AS MANUFACTURED BY VIRACON.
A. EXTERIOR GLASS PLY: 1/4" CLEAR HS OR FT AS REQUIRED BY CODE
B COATING: VIRACON ROOM SIDE NEUTRAL LOW E ON #2 SURFACE
2. PERFORMANCE REQUIREMENTS
A. VISIBLE LIGHT TRANSMITTANCE 88 %
B. EXTERIOR (VIS-OUT) REFLECTANCE 7%
C. INTERIOR (VIS-IN) REFLECTANCE 7%
D. WINTER U-VALUE 0.64
E. SUMMER U-VALUE 0.49
F. SOLAR HEAT GAIN COEFFICIENT 0.74
G. LIGHT TO SOLAR GAIN RATIO 1.19
E. IMPACT RESISTANT LAMINATED COATED GLASS:
1. 9/16" VIRACON VLE1-70 LAMINATED COATED GLASS AS MANUFACTURED BY VIRACON.
A. EXTERIOR GLASS PLY: 1/4" CLEAR HS
B. COATING: VLE-70 LOW E ON #2 SURFACE
C. INTERLAYER: SELECT KIND AND THICKNESS AS TESTED IN THE STOREFRONT ASSEMBLY FLORIDA PRODUCT APPROVAL OR MIAMI DADE NOTICE OF ACCEPTANCE FOR HURRICANE PROTECTION
D. INTERIOR GLASS PLY: 1/4" CLEAR HS
2. PERFORMANCE REQUIREMENTS
A. VISIBLE LIGHT TRANSMITTANCE 68%
B. EXTERIOR REFLECTANCE 13%
C. WINTER U-VALUE 0.95
D. SUMMER U-VALUE 0.86
E. SOLAR HEAT GAIN COEFFICIENT 0.43
F. LIGHT TO SOLAR GAIN RATIO 1.58
F. VIRASPAN MONOLITHIC SPANDREL GLASS
1. 1/4" VIRASPAN MONOLITHIC SPANDREL GLASS AS MANUFACTURED BY VIRACON.
A. GLASS PLY: 1/4" CLEAR HEAT TREATED (TEMPER WHERE REQUIRED BY CODE)
B. CERAMIC FRIT: V948 MEDIUM GRAY VIRASPAN CERAMIC PAINT ON #2 SURFACE
2. PERFORMANCE REQUIREMENTS
A. WINTER U-VALUE 1.05
B. SUMMER U-VALUE 1.02
2.2 GLAZING GASKETS / TAPE
A. GLAZING GASKETS: ASTM C864, RESILIENT POLYVINYL CHLORIDE, EXTRUDED SHAPE TO FIT GLAZING CHANNEL RETAINING SLOT; BLACK COLOR.
B. GLAZING TAPE: CLOSED CELL POLYVINYL CHLORIDE FOAM, MAXIMUM WATER ABSORPTION BY VOLUME 2 PERCENT, DESIGNED FOR 25 PERCENT COMPRESSION FOR AIR BARRIER VAPOR RETARDER SEAL, BLACKCOLOR, COILED ON RELEASE PAPER OVER ADHESIVE ON TWO SIDES; WIDTHS REQUIRED FOR SPECIFIC INSTALLATION
C. GLAZING TAPE: BUTYL COMPOUND TAPE WITH INTEGRAL RESILIENT TUBE SPACER, 10 TO 15 SHORE A DUROMETER HARDNESS, BLACK COLOR, COILED ON RELEASE PAPER, WIDTHS REQUIRED FOR SPECIFIC INSTALLATION.
2.3 MISCELLANEOUS GLAZING MATERIALS
A. COMPATIBILITY: ALL MATERIALS SHALL BE COMPATIBLE WITH SURFACES CONTACTED IN INSTALLATION
B. CLEANERS, PRIMERS AND SEALERS: AS RECOMMENDED BY SEALANT/GASKET MANUFACTURER.
C. SETTING BLOCKS: ASTM C 864 NEOPRENE, 80 TO 90 SHORE A DUROMETER HARDNESS; LENGTH 4 INCHES, WIDTH OF GLAZING RABBET SPACE LESS 1/16 INCH, HEIGHT REQUIRED FOR GLAZING METHOD, PANE WEIGHT AND PANE AREA.
D. SPACERS: SHIMS: ASTM C 864: NEOPRENE, 50 TO 60 SHORE A DUROMETER HARDNESS; LENGTH 3 INCHES, ONE HALF HEIGHT OF GLAZING STOP, THICKNESS REQUIRED FOR APPLICATION, ONE FACE SELF-ADHESIVE.
E. GLAZING SPLINES: ASTM C 864, RESILIENT POLYVINYL CHLORIDE, EXTRUDED SHAPE TO FIT GLAZING CHANNEL RETAINING SLOT; BLACK COLOR
PART 3 - EXECUTION
3.1 PREPARATION / INSTALLATION
A. CLEAN GLAZING / FRAMING MEMBERS IMMEDIATELY BEFORE GLAZING TO REMOVE ALL DETRIMENTAL SUBSTANCES
B. ADJUST GLAZING CHANNEL DIMENSIONS AS REQUIRED BY CONDITIONS FOR PROPER BITE, EDGE/FACE CLEARANCES, AND SEAL THICKNESS
C. INSTALL PROPERLY SIZED SETTING BLOCKS IN SILL RABBET AT ONE QUARTER OF GLASS WIDTH FROM EACH CORNER, BUT NOT CLOSER THAN 6 INCHES UNLESS NOTED. SET BLOCKS IN THIN COURSE OF SEALANT SUITABLE FOR HEEL BEAD USE.
D. PROVIDE SPACERS AND EDGE BLOCKS, CORRECTLY SIZED FOR CONDITIONS. PROVIDE 1/8 INCH MINIMUM BITE OF SPACERS ON GLASS.
E. MITER WEDGE-SHAPED GASKETS AT CORNERS, PREVENT PULL AWAY AT CORNERS, SEAL CORNER AND BUTT JOINTS AS RECOMMENDED BY GASKET MANUFACTURER.
F. TRIM SIGHT EXPOSED TAPE FLUSH WITH STOP AND FINISH SEALANT FLUSH WITH SIGHT LINE
3.2 PROTECTION AND CLEANING
A. PROTECT GLASS FROM CONTAMINATING SUBSTANCES
B. REMOVE AND REPLACE BROKEN, CHIPPED, CRACKED, ABRADED OR DAMAGED GLASS
C. REMOVE LABELS AND WASH GLASS ON BOTH FACES PRIOR TO FINAL ACCEPTANCE
D. REMOVE GLAZING MATERIALS FROM FINISHED SURFACES
END OF SECTION 08800

SECTION 09240 - COMMERCIAL CEMENT PLASTER 1

PART 1 - GENERAL
1.01 SUMMARY:
THIS DOCUMENT IS INTENDED TO BE USED IN PREPARING SPECIFICATIONS FOR PROJECTS UTILIZING COMMERCIAL CEMENT PLASTER 1 BY DRYVIT APPLIED TO CONCRETE OR CMU SUBSTRATES.
1.02 REFERENCES
A. INTERNATIONAL BUILDING CODES (IBC AND IRC)
B. AMERICAN CONCRETE INSTITUTE ACI 524R: GUIDE TO PORTLAND CEMENT PLASTERING
C. PORTLAND CEMENT ASSOCIATION: PORTLAND CEMENT PLASTER (STUCCO) MANUAL
D. ASTM A 526: STEEL SHEET, HOT-DIP GALVANIZED, COMMERCIAL QUALITY
E. ASTM C 150: STANDARD SPECIFICATION FOR PORTLAND CEMENT
F. ASTM C 754: STANDARD SPECIFICATION FOR INSTALLATION OF STEEL FRAMING MEMBERS TO RECEIVE SCREW-ATTACHED GYPSUM PANEL PRODUCTS
G. ASTM C 847: STANDARD SPECIFICATION FOR METAL LATH
H. ASTM C 897: STANDARD SPECIFICATION FOR AGGREGATE FOR JOB MIXED PORTLAND CEMENT BASED PLASTERS
I. ASTM C 920: STANDARD SPECIFICATION FOR ELASTOMERIC JOINT SEALANTS
J. ASTM C 926: STANDARD SPECIFICATION FOR APPLICATION OF PORTLAND CEMENT-BASED PLASTER
K. ASTM C 1007: STANDARD SPECIFICATION FOR INSTALLATION OF LOAD BEARING (TRANSVERSE AND AXIAL) STEEL STUDS AND RELATED ACCESSORIES.
L. ASTM C 1063: STANDARD SPECIFICATION FOR INSTALLATION OF LATHING AND FURRING TO RECEIVE INTERIOR AND EXTERIOR PORTLAND CEMENT-BASED PLASTER
M. ASTM C 1328: STANDARD SPECIFICATION FOR PLASTIC (STUCCO) CEMENT
N. ASTM D 226: STANDARD SPECIFICATION FOR ASPHALT SATURATED ORGANIC FELT USED IN ROOFING AND WATERPROOFING
O. ASTM D 1784: STANDARD SPECIFICATION FOR RIGID POLY (VINYL CHLORIDE) (PVC) COMPOUNDS AND CHLORINATED POLY (VINYL CHLORIDE) (CPVC) COMPOUNDS
P. ICC-ES AC11: CEMENTITIOUS EXTERIOR WALL COATINGS
1.03 SUBMITTALS
A. SUBMITTAL REQUIREMENTS BY THE CONTRACTOR ARE TO BE INDICATED IN THE CONSTRUCTION DOCUMENTS AS REQUIRED, INCLUDING:
1. PRODUCT LITERATURE, SAMPLES OR MOCK UP.
2. FINISH SAMPLE INDICATING COLOR AND TEXTURE FOR APPROVAL BY ARCHITECT/OWNER.
1.04 DESCRIPTION
A. COMMERCIAL CEMENT PLASTER 1 CONSISTS OF DRYVIT CCP BASE - SANDED OR CONCENTRATE*, DRYVIT ACRYLIC PRIMER AND DRYVIT ACRYLIC COATING OR FINISH. CCP BASE MAY BE APPLIED DIRECTLY TO THE PROPERLY PREPARED CONCRETE OR CMU SUBSTRATE OR TO METAL LATH AND WATER-RESISTIVE BARRIER (AS SPECIFIED).
1. DESIGN REQUIREMENTS:
A. SUBSTRATES SHALL COMPLY WITH LOCAL CODE REQUIREMENTS AND PRACTICES FOR USE UNDER CEMENT PLASTER AND SHALL BE:
1) POURED IN PLACE OR PRECAST CONCRETE
2) CMU MASONRY
B. THE ROOFING MATERIALS SHALL BE LOADED ONTO THE ROOF AND INTERIOR WALLBOARD STOCKED IN THE BUILDING PRIOR TO THE INSTALLATION OF THE COMMERCIAL CEMENT PLASTER 1.
C. DEFLECTION OF SUBSTRATE SYSTEMS SHALL NOT EXCEED L/360.
D. THE SLOPE OF INCLINED SURFACES SHALL NOT BE LESS THAN 6:12 (27°) AND THE LENGTH SHALL NOT EXCEED 12".
E. SLOPES ON WINDOWSILLS PROJECTING 4 IN (102 MM) OR LESS, SHALL NOT BE LESS THAN 3:12.
F. EXPANSION JOINTS:
1) DESIGN AND LOCATION OF EXPANSION JOINTS SHALL BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL AND INDICATED ON THE CONTRACT DOCUMENTS. AS A MINIMUM, EXPANSION JOINTS IN THE COMMERCIAL CEMENT PLASTER 1 ARE REQUIRED AT THE FOLLOWING LOCATIONS:
A) WHERE EXPANSION JOINTS OCCUR IN THE SUBSTRATE SYSTEM.
B) WHERE BUILDING EXPANSION JOINTS OCCUR.
C) AT FLOOR LINES IN WOOD FRAME CONSTRUCTION.
D) WHERE COMMERCIAL CEMENT PLASTER 1 ABUTS DISSIMILAR MATERIALS.
E) WHERE THE SUBSTRATE CHANGES.
F) WHERE SIGNIFICANT STRUCTURAL MOVEMENT OCCURS SUCH AS CHANGES IN ROOFLINE, BUILDING SHAPE OR STRUCTURAL SYSTEM.
G. CONTROL JOINTS:
1) DESIGN AND LOCATION OF CONTROL JOINTS SHALL BE DETERMINED BY THE DESIGN PROFESSIONAL IN GENERAL ACCORDANCE WITH ASTM C 1063 AND INDICATED ON THE CONTRACT DRAWINGS. AS A MINIMUM, CONTROL JOINTS SHALL BE LOCATED AT THE FOLLOWING LOCATIONS:
A) CORNERS OF OPENINGS
B) SUCH THAT MONOLITHIC WALL AREAS DO NOT EXCEED 144 FT^2 (13.4 M^2)
C) LENGTH TO WIDTH RATIOS OF WALL AREAS SHALL NOT EXCEED 2.5:1
D) MAXIMUM SPACING OF CONTROL JOINTS SHALL NOT EXCEED 18 FT (5.5 M)
H. SEALANTS
1) REFER TO DRYVIT PUBLICATION DS153 FOR A LIST OF SEALANTS THAT HAVE BEEN TESTED FOR COMPATIBILITY WITH DRYVIT PRODUCTS.
I. VAPOR RETARDERS
1) USE AND LOCATION OF VAPOR RETARDERS WITHIN A WALL ASSEMBLY IS THE RESPONSIBILITY OF THE PROJECT DESIGNER AND SHALL COMPLY WITH LOCAL BUILDING CODE REQUIREMENTS. TYPE AND LOCATION SHALL BE NOTED ON THE CONTRACT DOCUMENTS. VAPOR RETARDERS MAY BE INAPPROPRIATE IN CERTAIN AREAS AND CAN RESULT IN CONDENSATION WITHIN THE WALL ASSEMBLY WHEN INCORRECTLY USED. REFER TO DRYVIT PUBLICATION DS159 FOR ADDITIONAL INFORMATION.
J. FLASHING SHALL BE PROVIDED AT ALL ROOF-WALL INTERSECTIONS, WINDOWS, DOORS, CHIMNEYS, DECKS, BALCONIES, AND OTHER AREAS AS NECESSARY TO PREVENT WATER PENETRATION BEHIND COMMERCIAL CEMENT PLASTER 1.
K. SITE COATED EPS SHAPES AND STARTER BOARDS: SHALL BE COATED ON SITE UTILIZING THE SAME MATERIALS (EPS, BASE MATERIAL MIXTURE, REINFORCING MESH, AND FINISH) AS SPECIFIED FOR THE PROJECT.
L. PRE BASE COATED EPS SHAPES AND STARTER BOARDS: SHALL BE SUPPLIED BY ACROCORE OR OTHER APPROVED SHAPE MANUFACTURER.
2. PERFORMANCE REQUIREMENTS: AS A MINIMUM, DRYVIT COMMERCIAL CEMENT PLASTER 1 PRODUCTS SHALL MEET:
A. ASTM C 1328: STANDARD SPECIFICATION FOR PLASTIC (STUCCO) CEMENT
1.05 QUALITY ASSURANCE
A. QUALIFICATIONS:
1. MANUFACTURER: SHALL BE DRYVIT SYSTEMS, INC. OR APPROVED SUPPLIERS. ALL MATERIALS SHALL BE OBTAINED FROM DRYVIT SYSTEMS, INC. OR ITS AUTHORIZED DISTRIBUTORS.
2. PLASTERING CONTRACTOR:
A. SHALL BE KNOWLEDGEABLE IN THE PROPER INSTALLATION OF EXTERIOR LATHING AND CEMENT PLASTER PRODUCTS.
B. SHALL HAVE QUALIFIED AND PROPERLY TRAINED PEOPLE TO PERFORM WORK.
C. SHALL BE LICENSED, BONDED AND INSURED.
D. SHALL HAVE EXPERIENCE IN APPLICATION OF CEMENT PLASTER PRODUCTS ON PROJECTS OF COMPARABLE SCOPE.
3. MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS: SHALL BE SUPPLIED BY ACROCORE OR OTHER MANUFACTURER THAT SUBSCRIBES TO THE DRYVIT THIRD PARTY CERTIFICATION AND QUALITY ASSURANCE PROGRAM.
B. MOCK-UP
1. THE CONTRACTOR SHALL, BEFORE THE PROJECT COMMENCES, PROVIDE THE OWNER/ARCHITECT WITH A MOCK-UP FOR APPROVAL.
2. THE MOCK-UP SHALL BE OF SUITABLE SIZE AS REQUIRED TO ACCURATELY REPRESENT EACH COLOR AND TEXTURE TO BE UTILIZED ON THE PROJECT.
3. THE MOCK-UP SHALL BE PREPARED WITH THE SAME PRODUCTS, TOOLS, EQUIPMENT AND TECHNIQUES REQUIRED FOR THE ACTUAL APPLICATIONS. THE FINISH USED SHALL BE FROM THE SAME BATCH AS THAT BEING USED FOR THE PROJECT.
4. THE APPROVED MOCK-UP SHALL BE AVAILABLE AND MAINTAINED AT THE JOB SITE.
1.06 DELIVERY, STORAGE AND HANDLING
A. ALL COMMERCIAL CEMENT PLASTER 1 MATERIALS SHALL BE DELIVERED TO THE JOB SITE IN THE ORIGINAL, UNOPENED PACKAGES WITH LABELS INTACT. QUESTIONABLE MATERIALS SHALL NOT BE USED.
B. MATERIALS SHALL BE STORED AT THE JOB SITE, AND AT ALL TIMES, IN A COOL, DRY LOCATION, OUT OF DIRECT SUNLIGHT, PROTECTED FROM WEATHER AND OTHER SOURCES OF DAMAGE. MINIMUM STORAGE TEMPERATURE SHALL BE AS FOLLOWS:
1. DPR, PMR®, HDP®, WEATHERLASTIC AND E FINISHES, COLOR PRIME, PRIMUS, GENESIS AND NCB: 40 °F (4 °C).
C. FOR OTHER PRODUCTS, REFER TO SPECIFIC PRODUCT DATA SHEETS.
D. PROTECT ALL PRODUCTS FROM WEATHER AND DIRECT SUNLIGHT.
E. MAXIMUM STORAGE TEMPERATURE SHALL NOT EXCEED 100 °F (38 °C). NOTE: MINIMIZE EXPOSURE OF MATERIALS TO TEMPERATURES OVER 90 °F (32 °C). FINISHES EXPOSED TO TEMPERATURES OVER 110 °F (43 °C) FOR EVEN SHORT PERIODS MAY EXHIBIT SKINNING, INCREASED VISCOSITY AND SHOULD BE INSPECTED PRIOR TO USE.
1.07 PROJECT CONDITIONS
A. APPLICATION OF WET MATERIALS SHALL NOT TAKE PLACE DURING INCLEMENT WEATHER UNLESS APPROPRIATE PROTECTION IS PROVIDED. PROTECT MATERIALS FROM INCLEMENT WEATHER UNTIL THEY ARE DRY.
B. DRYVIT CCP BASE SHALL NOT BE APPLIED WHEN WALL OR AMBIENT TEMPERATURES ARE BELOW 40 °F (4 °C).
C. AT THE TIME OF DRYVIT PRODUCT APPLICATION, THE AIR AND WALL SURFACE TEMPERATURES SHALL BE FROM 40 °F (4 °C) MINIMUM TO 100 °F (38 °C) MAXIMUM FOR THE FOLLOWING PRODUCTS:
1. DPR, PMR, HDP, WEATHERLASTIC AND E FINISHES®, COLOR PRIME, PRIMUS, GENESIS AND NCB.
2. FOR OTHER PRODUCTS, REFER TO SPECIFIC PRODUCT DATA SHEETS.
D. THESE TEMPERATURES SHALL BE MAINTAINED WITH ADEQUATE AIR VENTILATION AND CIRCULATION FOR A MINIMUM OF 24 HOURS (48 HOURS FOR WEATHERLASTIC FINISHES, AMERISTONE, AND TERRANEO) THEREAFTER, OR UNTIL THE PRODUCTS ARE COMPLETELY DRY. REFER TO PUBLISHED PRODUCT DATA SHEETS FOR MORE SPECIFIC INFORMATION.
E. CCP BASE SHALL BE COMPLETELY DRY AND PROPERLY CURED FOR A MINIMUM OF 7 DAYS PRIOR TO PRIMER APPLICATION.
F. IF NECESSARY, TENTING, HEATING AND VENTILATION MAY BE UTILIZED TO MAINTAIN REQUIRED CONDITIONS. HEATERS SHALL BE VENTED TO THE OUTSIDE.
G. PROTECT THE COMMERCIAL CEMENT PLASTER 1 MATERIALS FROM UNEVEN AND EXCESSIVE EVAPORATION IN DRY, WARM, OR WINDY WEATHER. ALWAYS WORK THE SHADY SIDE OF THE WALL. REFER TO SECTION 3.03.B AND 3.03.C FOR CCP BASE CURING REQUIREMENTS.
1.08 SEQUENCING AND SCHEDULING
A. INSTALLATION OF THE COMMERCIAL CEMENT PLASTER 1 SHALL BE COORDINATED WITH OTHER CONSTRUCTION TRADES.
1.09 WARRANTY
A. DRYVIT SYSTEMS, INC. SHALL PROVIDE A LIMITED WARRANTY AGAINST DEFECTIVE MATERIAL UPON WRITTEN REQUEST. DRYVIT SHALL MAKE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED. DRYVIT DOES NOT WARRANT WORKMANSHIP. FULL DETAILS ARE AVAILABLE FROM DRYVIT SYSTEMS, INC.
PART II - PRODUCTS
2.01 MANUFACTURER:
A. ALL COMPONENTS OF COMMERCIAL CEMENT PLASTER 1 SHALL BE OBTAINED FROM DRYVIT OR ITS AUTHORIZED DISTRIBUTORS.
2.02 MATERIALS
A. PAPER BACKED METAL LATH (BY OTHERS): SPECIFIC TYPE TO BE SELECTED BY DESIGNER BASED ON SPECIFIC PROJECT REQUIREMENTS. PAPER BACKING OR OTHER SLIP SHEET IS REQUIRED WHEN INSTALLED OVER BACKSTOP NT LIQUID AIR/WATER RESISTIVE BARRIER.
1. SELF-FURRING DIAMOND MESH METAL LATH SHALL BE GALVANIZED, MINIMUM 2.5 LBS/SQ YD (1.4 KG/M^2) OR 3.4 LBS/YD^2 (1.9 KG/M^2) AND COMPLY WITH ASTM C 847.
2. SELF FURRING WELDED WIRE LATH, MINIMUM 16 GAUGE, SHALL BE GALVANIZED WITH OPENINGS NOT EXCEEDING 2 IN X 2 IN (51 MM X 51 MM), AND COMPLY WITH ASTM C 933.
3. 3/8 IN (9.5 MM) GALVANIZED RIB LATH SHALL COMPLY WITH ASTM C 847.
4. SELF FURRING WOVEN WIRE LATH, MINIMUM 17 GAUGE, SHALL BE GALVANIZED WITH OPENINGS NOT EXCEEDING 1 1/2 IN X 1 1/2 IN (38 MM X 38 MM) MEETING ASTM C 1032.
B. ACCESSORIES (BY OTHERS).
1. TYPE, STYLE AND MANUFACTURER SHALL BE INDICATED ON CONSTRUCTION DOCUMENTS.
2. DEPTH OF ACCESSORIES (GROUNDS) SHALL BE SIZED FOR THE PLASTER THICKNESS.
3. IN CORROSIVE ENVIRONMENTS, ACCESSORIES MANUFACTURED OF PVC OR ZINC ARE RECOMMENDED.
4. STEEL ACCESSORIES SHALL MEET ASTM C 841.
5. PVC ACCESSORIES SHALL MEET ASTM D 1784 AND ASTM C 1063.
C. PLASTER BASE COAT:
1. DRYVIT CCP BASE - SANDED: A FIBERGLASS REINFORCED, CEMENT PLASTER MIX UTILIZING ALKALI RESISTANT FIBERS AND PROPRIETARY CEMENTITIOUS ADMIXTURES WHICH IS FIELD MIXED WITH WATER AND DRYVIT AC-100 ACTIVATOR (WHEN SPECIFIED). CCP BASE - SANDED IS PACKAGED IN 80 LB (36.3 KG) BAGS.
D. MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS: SHALL BE SUPPLIED BY ACROCORE OR OTHER MANUFACTURER THAT SUBSCRIBES TO THE DRYVIT THIRD PARTY CERTIFICATION AND QUALITY ASSURANCE PROGRAM.

E. PRIMER:
1. DRYVIT COLOR PRIME®, COLOR PRIME-W OR PRIMER WITH SAND®: A WATER-BASED, PIGMENTED ACRYLIC PRIMER APPLIED OVER THE CURED COMMERCIAL CEMENT PLASTER BASE COAT TO IMPROVE ADHESION AND PROVIDE A MORE UNIFORM APPEARANCE OF THE FINISH.
F. DRYVIT COATING:
1. DEMANDIT SMOOTH - INTEGRALLY COLORED SMOOTH EXTERIOR WALL COATING ENHANCED WITH PROVEN MILDEW RESISTANCE. A MINIMUM OF 2 COATS ARE REQUIRED.
G. DRYVIT FINISH(ES): 100% ACRYLIC FINISHES WITH INTEGRAL COLOR AND TEXTURE. SHALL BE THE TYPE, COLOR AND TEXTURE AS SELECTED BY THE ARCHITECT/OWNER AND SHALL BE OF THE FOLLOWING TYPES:
1. STANDARD DPR (DIRT PICKUP RESISTANCE): WATER-BASED, ACRYLIC COATING WITH INTEGRAL COLOR AND TEXTURE AND FORMULATED WITH DPR CHEMISTRY:
A. SANDPEBBLE FINE DPR: FINE PEBBLE TEXTURE
PART III - EXECUTION
3.01 EXAMINATION
A. PRIOR TO INSTALLATION OF COMMERCIAL CEMENT PLASTER 1, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT:
1. THE SURFACES TO RECEIVE PLASTER ARE FREE OF DUST, LOOSE PARTICLES, OIL AND OTHER CONDITIONS THAT WOULD AFFECT THE ADHESION, INSTALLATION OR PERFORMANCE OF COMMERCIAL CEMENT PLASTER 1 MATERIALS.
2. THE LATH IS OF THE PROPER TYPE, INSTALLED TIGHT, PROPERLY FASTENED, AND MEETS THE REQUIREMENTS OF ASTM C 1063, ASTM C 847 (EXPANDED METAL), ASTM C 933 (WELDED WIRE), OR ASTM C 1032 (WOVEN WIRE), AND LOCAL BUILDING CODE REQUIREMENTS.
3. ALL ACCESSORIES INCLUDING CORNER AIDS, CONTROL AND EXPANSION JOINTS, CASING BEADS, ETC. ARE PROPERLY FASTENED AND POSITIONED ACCORDING TO CONTRACT DRAWINGS AND LOCAL BUILDING CODE REQUIREMENTS.
4. THE WATER-RESISTIVE BARRIER (IF SPECIFIED) IS OF A PROPER TYPE AND HAS BEEN INSTALLED IN A WEATHERBOARD FASHION IN ACCORDANCE WITH BUILDING CODE AND MANUFACTURER'S REQUIREMENTS.
5. DOORS, WINDOWS, DECKS, AND OTHER OPENINGS AND PENETRATIONS HAVE BEEN PROPERLY FLASHED IN ACCORDANCE WITH BUILDING CODE AND CONTRACT DOCUMENTS AND COMMERCIAL CEMENT PLASTER 1 INSTALLATION DETAILS DS824.
6. METAL ROOF FLASHING HAS BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, ASPHALT ROOFING MANUFACTURERS ASSOCIATION (ARMA) STANDARDS AND COMMERCIAL CEMENT PLASTER 1 INSTALLATION DETAILS DS824, OR AS OTHERWISE NECESSARY TO MAINTAIN A WATERTIGHT ENVELOPE.
7. THE SUBSTRATE IS FLAT WITHIN 1/4 IN (6.4 MM) IN 10 FT (3.0 M).
8. THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND/OR OWNER AND/OR ARCHITECT OF ALL DISCREPANCIES. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE RESOLVED.
3.02 PREPARATION
A. PROTECTION
1. THE COMMERCIAL CEMENT PLASTER 1 MATERIALS SHALL BE PROTECTED BY PERMANENT OR TEMPORARY MEANS FROM WEATHER AND OTHER DAMAGE PRIOR TO, DURING, AND FOLLOWING APPLICATION, UNTIL DRY.
2. PROTECT ADJOINING WORK AND PROPERTY.
B. SOLID SURFACES SUCH AS PRECAST OR CAST-IN-PLACE CONCRETE OR MASONRY, SHALL HAVE ADEQUATE SUCTION AND SURFACE ROUGHNESS TO PROVIDE BOND. SMOOTH OR NON-ABSORPTIVE SURFACES SHALL BE PREPARED BY THE FOLLOWING METHODS:
1. SANDBLASTING, WIRE BRUSHING, ACID ETCHING, CHIPPING OR ANY COMBINATION THEREOF. REFER TO ASTM D 4258, ASTM D 4259 ASTM D 4260, OR ASTM D 4261 AS APPLICABLE.
2. APPLICATION OF AN APPROVED BONDING AGENT.
3. WHERE EFFECTIVE BOND CANNOT BE ACHIEVED, THE ENTIRE SURFACE SHALL BE COVERED WITH FURRED METAL LATH IN ACCORDANCE WITH ASTM C 1063 AND BUILDING CODE REQUIREMENTS.
3.03 INSTALLATION
A. MIXING AND APPLICATION INSTRUCTIONS - REFER TO THE PRODUCT LITERATURE FOR SPECIFIC MIXING AND APPLICATION INSTRUCTIONS OF EACH PRODUCT.
B. CCP BASE SHALL BE MOIST CURED FOR A MINIMUM OF 48 HOURS FOLLOWING APPLICATION.
C. CCP BASE SHALL BE COMPLETELY DRY AND CURED FOR A MINIMUM OF 7 DAYS PRIOR TO APPLICATION OF PRIMER AND FINISH.
D. THE INSTALLATION OF MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS SHALL BE IN ACCORDANCE WITH DRYVIT PUBLICATION DS854.
3.04 FIELD QUALITY CONTROL
A. THE LATH AND WATER-RESISTIVE BARRIER INSTALLATION SHALL BE INSPECTED AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT PRIOR TO PLASTER MATERIALS BEING APPLIED.
B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THE COMMERCIAL CEMENT PLASTER 1 MATERIALS.
C. DRYVIT ASSUMES NO RESPONSIBILITY FOR ON-SITE INSPECTIONS OR APPLICATION OF ITS PRODUCTS.
3.05 CLEANING
A. ALL EXCESS COMMERCIAL CEMENT PLASTER 1 MATERIALS SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR IN ACCORDANCE WITH CONTRACT PROVISIONS.
B. ALL SURROUNDING AREAS, WHERE THE DRYVIT COMMERCIAL CEMENT PLASTER 1 HAS BEEN APPLIED, SHALL BE LEFT FREE OF DEBRIS AND FOREIGN SUBSTANCES RESULTING FROM THE CONTRACTOR'S WORK.
3.06 PROTECTION
A. THE COMMERCIAL CEMENT PLASTER 2 MATERIALS SHALL BE PROTECTED FROM WEATHER AND OTHER DAMAGE UNTIL PERMANENT PROTECTION IN THE FORM OF FLASHINGS, SEALANTS, ETC. ARE INSTALLED.
END OF SECTION 09240

SECTION 09245 - COMMERCIAL CEMENT PLASTER 2

PART 1 - GENERAL
1.01 SUMMARY:
THIS DOCUMENT IS INTENDED TO BE USED IN PREPARING SPECIFICATIONS FOR PROJECTS UTILIZING COMMERCIAL CEMENT PLASTER 2 BY DRYVIT APPLIED TO PROPERLY FRAMED AND SHEATHED EXTERIOR WALL ASSEMBLIES.
1.02 REFERENCES
A. INTERNATIONAL BUILDING CODES (IBC AND IRC)
B. AMERICAN CONCRETE INSTITUTE ACI 524R: GUIDE TO PORTLAND CEMENT PLASTERING
C. PORTLAND CEMENT ASSOCIATION: PORTLAND CEMENT PLASTER (STUCCO) MANUAL
D. ASTM A 526: STEEL SHEET, HOT-DIP GALVANIZED, COMMERCIAL QUALITY
E. ASTM C 150: STANDARD SPECIFICATION FOR PORTLAND CEMENT
F. ASTM C 754: STANDARD SPECIFICATION FOR INSTALLATION OF STEEL FRAMING MEMBERS TO RECEIVE SCREW-ATTACHED GYPSUM PANEL PRODUCTS
G. ASTM C 847: STANDARD SPECIFICATION FOR METAL LATH
H. ASTM C 897: STANDARD SPECIFICATION FOR AGGREGATE FOR JOB MIXED PORTLAND CEMENT BASED PLASTERS
I. ASTM C 920 STANDARD SPECIFICATION FOR ELASTOMERIC JOINT SEALANTS
J. ASTM C 926: STANDARD SPECIFICATION FOR APPLICATION OF PORTLAND CEMENT-BASED PLASTER
K. ASTM C 933: STANDARD SPECIFICATION FOR WELDED WIRE LATH
L. ASTM C 1007: STANDARD SPECIFICATION FOR INSTALLATION OF LOAD BEARING (TRANSVERSE AND AXIAL) STEEL STUDS AND RELATED ACCESSORIES.
M. ASTM C 1032: STANDARD SPECIFICATION FOR WOVEN WIRE PLASTER BASE
N. ASTM C 1063: STANDARD SPECIFICATION FOR INSTALLATION OF LATHING AND FURRING TO RECEIVE INTERIOR AND EXTERIOR PORTLAND CEMENT-BASED PLASTER
O. ASTM C 1328: STANDARD SPECIFICATION FOR PLASTIC (STUCCO) CEMENT
P. ASTM D 226: STANDARD SPECIFICATION FOR ASPHALT SATURATED ORGANIC FELT USED IN ROOFING AND WATERPROOFING
Q. ASTM D 4258: STANDARD PRACTICE FOR SURFACE CLEANING CONCRETE FOR COATING
R. ASTM D 4259: STANDARD PRACTICE FOR ABRADING CONCRETE
S. ASTM D 4260: STANDARD PRACTICE FOR ACID ETCHING CONCRETE
T. ASTM D 4261: STANDARD PRACTICE FOR SURFACE CLEANING CONCRETE MASONRY UNITS FOR COATING
U. ASTM D 1784: STANDARD SPECIFICATION FOR RIGID POLY (VINYL CHLORIDE) (PVC) COMPOUNDS AND CHLORINATED POLY (VINYL CHLORIDE) (CPVC) COMPOUNDS
V. ICC-ES AC11: CEMENTITIOUS EXTERIOR WALL COATINGS
1.03 SUBMITTALS
A. SUBMITTAL REQUIREMENTS BY THE CONTRACTOR ARE TO BE INDICATED IN THE CONSTRUCTION DOCUMENTS AS REQUIRED, INCLUDING:
1. PRODUCT LITERATURE, SAMPLES OR MOCK UP.
2. FINISH SAMPLE INDICATING COLOR AND TEXTURE FOR APPROVAL BY ARCHITECT/OWNER.
1.04 DESCRIPTION
A. COMMERCIAL CEMENT PLASTER 2 CONSISTS OF DRYVIT CCP BASE - SANDED OR CONCENTRATE, DRYVIT ACRYLIC PRIMER AND DRYVIT ACRYLIC COATING OR FINISH. CCP BASE IS APPLIED DIRECTLY TO THE PROPERLY INSTALLED METAL LATH (AS SPECIFIED).
1. DESIGN REQUIREMENTS:
A. SUBSTRATES SHALL COMPLY WITH LOCAL CODE REQUIREMENTS AND PRACTICES FOR USE UNDER CEMENT PLASTER AND SHALL BE WOOD OR METAL FRAMED WALL ASSEMBLIES SHEATHED WITH APPROVED SUBSTRATES AS FOLLOWS:
1) EXTERIOR GRADE GYPSUM SHEATHING MEETING ASTM C 1396 (FORMERLY C 79) REQUIREMENTS FOR WATER RESISTANT CORE OR TYPE X CORE AT THE TIME OF APPLICATION OF THE COMMERCIAL CEMENT PLASTER SYSTEM 2.
2) EXTERIOR SHEATHING HAVING A WATER-RESISTANT CORE WITH FIBERGLASS MAT FACERS MEETING ASTM C 1177.
3) EXTERIOR FIBER REINFORCED CEMENT OR CALCIUM SILICATE BOARDS.
4) APA EXTERIOR OR EXPOSURE 1 RATED PLYWOOD, GRADE C-D OR BETTER, NOMINAL 1/2 IN (12.7 MM), MINIMUM, INSTALLED WITH THE C FACE OUT.
5) APA EXTERIOR OR EXPOSURE 1 FIRE RETARDANT TREATED (FRT) PLYWOOD, GRADE C-D OR BETTER, NOMINAL 1/2 IN (12.7 MM), MINIMUM, INSTALLED WITH THE C FACE OUT.
6) APA EXPOSURE 1 RATED ORIENTED STRAND BOARD (OSB) NOMINAL 1/2 IN (12.7 MM), MINIMUM. NOTE: APPLICATIONS OVER OSB SHEATHING REQUIRES A MINIMUM OF 2 COATS OF BACKSTOP NT - SMOOTH OR SPRAY. BACKSTOP NT - TEXTURE IS NOT RECOMMENDED FOR THE FIELD OF WALL APPLICATION OVER OSB.
B. THE ROOFING MATERIALS SHALL BE LOADED ONTO THE ROOF AND INTERIOR WALLBOARD STOCKED IN THE BUILDING PRIOR TO THE INSTALLATION OF THE COMMERCIAL CEMENT PLASTER 2.
C. DEFLECTION OF SUBSTRATE SYSTEMS SHALL NOT EXCEED L/360.
D. THE SLOPE OF INCLINED SURFACES SHALL NOT BE LESS THAN 6:12 (27°) AND THE LENGTH SHALL NOT EXCEED 12 IN (305 MM).
E. SLOPES ON WINDOWSILLS PROJECTING 4 IN (102 MM) OR LESS, SHALL NOT BE LESS THAN 3:12.
F. EXPANSION JOINTS:
1) DESIGN AND LOCATION OF EXPANSION JOINTS SHALL BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL AND INDICATED ON THE CONTRACT DOCUMENTS. AS A MINIMUM, EXPANSION JOINTS IN COMMERCIAL CEMENT PLASTER 2 ARE REQUIRED AT THE FOLLOWING LOCATIONS:
A) WHERE EXPANSION JOINTS OCCUR IN THE SUBSTRATE SYSTEM.
B) WHERE BUILDING EXPANSION JOINTS OCCUR.
C) AT FLOOR LINES IN WOOD FRAME CONSTRUCTION.
D) WHERE COMMERCIAL CEMENT PLASTER 2 ABUTS DISSIMILAR MATERIALS.
E) WHERE THE SUBSTRATE CHANGES.
F) WHERE SIGNIFICANT STRUCTURAL MOVEMENT OCCURS SUCH AS CHANGES IN ROOFLINE, BUILDING SHAPE OR STRUCTURAL SYSTEM.
G. CONTROL JOINTS:
1) DESIGN AND LOCATION OF CONTROL JOINTS SHALL BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL IN ACCORDANCE WITH ASTM C 1063 AND INDICATED ON THE CONTRACT DRAWINGS. AS A MINIMUM, CONTROL JOINTS SHALL BE LOCATED AT THE FOLLOWING LOCATIONS:
A) CORNERS OF OPENINGS
B) SUCH THAT MONOLITHIC WALL AREAS DO NOT EXCEED 144 FT^2 (13.4 M^2)
C) LENGTH TO WIDTH RATIOS OF WALL AREAS SHALL NOT EXCEED 2.5:1
D) MAXIMUM SPACING OF CONTROL JOINTS SHALL NOT EXCEED 18 FT (5.5 M)
H. SEALANTS
1) SHALL MEET ASTM C 920
2) REFER TO DRYVIT PUBLICATION DS153 FOR A LIST OF SEALANTS THAT HAVE BEEN TESTED FOR COMPATIBILITY WITH DRYVIT PRODUCTS.
I. VAPOR RETARDERS
1) USE AND LOCATION OF VAPOR RETARDERS WITHIN A WALL ASSEMBLY IS THE RESPONSIBILITY OF THE PROJECT DESIGNER AND SHALL COMPLY WITH LOCAL BUILDING CODE REQUIREMENTS. TYPE AND LOCATION SHALL BE NOTED ON THE CONTRACT DOCUMENTS. VAPOR RETARDERS MAY BE INAPPROPRIATE IN CERTAIN AREAS AND CAN RESULT IN CONDENSATION WITHIN THE WALL ASSEMBLY WHEN INCORRECTLY USED. REFER TO DRYVIT PUBLICATION DS159 FOR ADDITIONAL INFORMATION.
J. FLASHING SHALL BE PROVIDED AT ALL ROOF-WALL INTERSECTIONS, WINDOWS, DOORS, CHIMNEYS, DECKS, BALCONIES, AND OTHER AREAS AS NECESSARY TO PREVENT WATER PENETRATION BEHIND COMMERCIAL CEMENT PLASTER 2.
K. SITE COATED EPS SHAPES AND STARTER BOARDS: SHALL BE COATED ON SITE UTILIZING THE SAME MATERIALS (EPS, BASE MATERIAL MIXTURE, REINFORCING MESH, AND FINISH) AS SPECIFIED FOR THE PROJECT.
L. PRE BASE COATED EPS SHAPES AND STARTER BOARDS: SHALL BE SUPPLIED BY ACROCORE OR OTHER APPROVED SHAPE MANUFACTURER.
2. PERFORMANCE REQUIREMENTS: AS A MINIMUM, DRYVIT COMMERCIAL CEMENT PLASTER 2 PRODUCTS SHALL MEET:
A. ASTM C 1328: STANDARD SPECIFICATION FOR PLASTIC (STUCCO) CEMENT
1.05 QUALITY ASSURANCE
A. QUALIFICATIONS:
1. MANUFACTURER: SHALL BE DRYVIT SYSTEMS, INC. OR APPROVED SUPPLIERS. ALL MATERIALS SHALL BE OBTAINED FROM DRYVIT SYSTEMS, INC. OR ITS AUTHORIZED DISTRIBUTORS.
2. PLASTERING CONTRACTOR:
A. SHALL BE KNOWLEDGEABLE IN THE PROPER INSTALLATION OF EXTERIOR LATHING AND CEMENT PLASTER PRODUCTS.
B. SHALL HAVE QUALIFIED AND PROPERLY TRAINED PEOPLE TO PERFORM WORK.
C. SHALL BE LICENSED, BONDED AND INSURED.
D. SHALL HAVE EXPERIENCE IN APPLICATION OF CEMENT PLASTER PRODUCTS ON PROJECTS OF COMPARABLE SCOPE.
3. MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS: SHALL BE SUPPLIED BY ACROCORE OR OTHER MANUFACTURER THAT SUBSCRIBES TO THE DRYVIT THIRD PARTY CERTIFICATION AND QUALITY ASSURANCE PROGRAM.
B. MOCK-UP
1. THE CONTRACTOR SHALL, BEFORE THE PROJECT COMMENCES, PROVIDE THE OWNER/ARCHITECT WITH A MOCK-UP FOR APPROVAL.
2. THE MOCK-UP SHALL BE OF SUITABLE SIZE AS REQUIRED TO ACCURATELY REPRESENT EACH COLOR AND TEXTURE TO BE UTILIZED ON THE PROJECT.
3. THE MOCK-UP SHALL BE PREPARED WITH THE SAME PRODUCTS, TOOLS, EQUIPMENT AND TECHNIQUES REQUIRED FOR THE ACTUAL APPLICATIONS. THE FINISH USED SHALL BE FROM THE SAME BATCH AS THAT BEING USED FOR THE PROJECT.
4. THE APPROVED MOCK-UP SHALL BE AVAILABLE AND MAINTAINED AT THE JOB SITE.
1.06 DELIVERY, STORAGE AND HANDLING
A. ALL COMMERCIAL CEMENT PLASTER 2 MATERIALS SHALL BE DELIVERED TO THE JOB SITE IN THE ORIGINAL, UNOPENED PACKAGES WITH LABELS INTACT. QUESTIONABLE MATERIALS SHALL NOT BE USED.
B. MATERIALS SHALL BE STORED AT THE JOB SITE, AND AT ALL TIMES, IN A COOL, DRY LOCATION, OUT OF DIRECT SUNLIGHT, PROTECTED FROM WEATHER AND OTHER SOURCES OF DAMAGE. MINIMUM STORAGE TEMPERATURE SHALL BE AS FOLLOWS:
1. DPR, PMR®, HDP®, WEATHERLASTIC AND E FINISHES, COLOR PRIME, PRIMUS, GENESIS AND NCB®: 40 °F (4 °C).
C. FOR OTHER PRODUCTS, REFER TO SPECIFIC PRODUCT DATA SHEETS.
D. PROTECT ALL PRODUCTS FROM WEATHER AND DIRECT SUNLIGHT.
E. MAXIMUM STORAGE TEMPERATURE SHALL NOT EXCEED 100 °F (38 °C). NOTE: MINIMIZE EXPOSURE OF MATERIALS TO TEMPERATURES OVER 90 °F (32 °C). FINISHES EXPOSED TO TEMPERATURES OVER 110 °F (43 °C) FOR EVEN SHORT PERIODS MAY EXHIBIT SKINNING, INCREASED VISCOSITY AND SHOULD BE INSPECTED PRIOR TO USE.
1.07 PROJECT CONDITIONS
A. APPLICATION OF WET MATERIALS SHALL NOT TAKE PLACE DURING INCLEMENT WEATHER UNLESS APPROPRIATE PROTECTION IS PROVIDED. PROTECT MATERIALS FROM INCLEMENT WEATHER UNTIL THEY ARE DRY.
B. DRYVIT CCP BASE SHALL NOT BE APPLIED WHEN WALL OR AMBIENT TEMPERATURES ARE BELOW 40 °F (4 °C).
C. AT THE TIME OF DRYVIT PRODUCT APPLICATION, THE AIR AND WALL SURFACE TEMPERATURES SHALL BE FROM 40 °F (4 °C) MINIMUM TO 100 °F (38 °C) MAXIMUM FOR THE FOLLOWING PRODUCTS:
1. DPR, PMR, HDP, WEATHERLASTIC AND E FINISHES, COLOR PRIME, PRIMUS, GENESIS AND NCB.
2. FOR OTHER PRODUCTS, REFER TO SPECIFIC PRODUCT DATA SHEETS.
D. THESE TEMPERATURES SHALL BE MAINTAINED WITH ADEQUATE AIR VENTILATION AND CIRCULATION FOR A MINIMUM OF 24 HOURS (48 HOURS FOR WEATHERLASTIC FINISHES, AMERISTONE, AND TERRANEO) THEREAFTER, OR UNTIL THE PRODUCTS ARE COMPLETELY DRY. REFER TO PUBLISHED PRODUCT DATA SHEETS FOR MORE SPECIFIC INFORMATION.
E. CCP BASE SHALL BE COMPLETELY DRY AND PROPERLY CURED FOR A MINIMUM OF 7 DAYS PRIOR TO PRIMER APPLICATION.
F. IF NECESSARY, TENTING, HEATING AND VENTILATION MAY BE UTILIZED TO MAINTAIN REQUIRED CONDITIONS. HEATERS SHALL BE VENTED TO THE OUTSIDE.
G. PROTECT THE COMMERCIAL CEMENT PLASTER 2 MATERIALS FROM UNEVEN AND EXCESSIVE EVAPORATION IN DRY, WARM, OR WINDY WEATHER. ALWAYS WORK THE SHADY SIDE OF THE WALL. REFER TO SECTION 3.03.B AND 3.03.C FOR CCP BASE CURING REQUIREMENTS.
1.08 SEQUENCING AND SCHEDULING
A. INSTALLATION OF THE COMMERCIAL CEMENT PLASTER 2 SHALL BE COORDINATED WITH OTHER CONSTRUCTION TRADES.
1.09 WARRANTY
A. DRYVIT SYSTEMS, INC. SHALL PROVIDE A LIMITED WARRANTY AGAINST DEFECTIVE MATERIAL UPON WRITTEN REQUEST. DRYVIT SHALL MAKE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED. DRYVIT DOES NOT WARRANT WORKMANSHIP. FULL DETAILS ARE AVAILABLE FROM DRYVIT SYSTEMS, INC.
PART II - PRODUCTS
2.01 MANUFACTURER:
A. ALL COMPONENTS OF COMMERCIAL CEMENT PLASTER 2 SHALL BE OBTAINED FROM DRYVIT OR ITS AUTHORIZED DISTRIBUTORS.
2.02 MATERIALS
A. WATER-RESISTIVE BARRIER (BY OTHERS):
1. SHALL COMPLY WITH ALL LOCAL BUILDING CODE REQUIREMENTS. MINIMUM 2 LAYERS ARE REQUIRED OVER WOOD BASED SUBSTRATES.
B. LATH (BY OTHERS): SHALL BE ONE OF THE FOLLOWING. SPECIFIC TYPE TO BE SELECTED BY DESIGNER BASED ON SPECIFIC PROJECT REQUIREMENTS.
1. SELF-FURRING DIAMOND MESH METAL LATH SHALL BE GALVANIZED, MINIMUM 2.5 LBS/SQ YD (1.4 KG/M^2) OR 3.4 LBS/YD^2 (1.9 KG/M^2) AND COMPLY WITH ASTM C 847.
2. SELF FURRING WELDED WIRE LATH, MINIMUM 16 GAUGE, SHALL BE GALVANIZED WITH OPENINGS NOT EXCEEDING 2 IN X 2 IN (51 MM X 51 MM), AND COMPLY WITH ASTM C 933.
3. 3/8 IN (9.5 MM) GALVANIZED RIB LATH SHALL COMPLY WITH ASTM C 847.
4. SELF FURRING WOVEN WIRE LATH, MINIMUM 17 GAUGE, SHALL BE GALVANIZED WITH OPENINGS NOT EXCEEDING 1 1/2 IN X 1 1/2 IN (38 MM X 38 MM) MEETING ASTM C 1032.
C. ACCESSORIES (BY OTHERS).
1. YPE, STYLE AND MANUFACTURER SHALL BE INDICATED ON CONSTRUCTION DOCUMENTS.
2. DEPTH OF ACCESSORIES (GROUNDS) SHALL BE SIZED FOR THE PLASTER THICKNESS.
3. IN CORROSIVE ENVIRONMENTS, ACCESSORIES MANUFACTURED OF PVC OR ZINC ARE RECOMMENDED.
4. STEEL ACCESSORIES SHALL MEET ASTM C 841.
5. PVC ACCESSORIES SHALL MEET ASTM D 1784 AND ASTM C 1063.
D. PLASTER BASE COAT:
1. DRYVIT CCP BASE - SANDED: A FIBERGLASS REINFORCED, CEMENT PLASTER MIX UTILIZING ALKALI RESISTANT FIBERS AND PROPRIETARY CEMENTITIOUS ADMIXTURES WHICH IS FIELD MIXED WITH WATER AND DRYVIT AC-100 ACTIVATOR (WHEN SPECIFIED). CCP BASE - SANDED IS PACKAGED IN 80 LB (36.3 KG) BAGS.
E. MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS: SHALL BE SUPPLIED BY ACROCORE OR OTHER MANUFACTURER THAT SUBSCRIBES TO THE DRYVIT THIRD PARTY CERTIFICATION AND QUALITY ASSURANCE PROGRAM.
F. PRIMER:
1. DRYVIT COLOR PRIME®, COLOR PRIME-W® OR PRIMER WITH SAND®: A WATER-BASED, PIGMENTED ACRYLIC PRIMER APPLIED OVER THE CURED CCP BASE COAT TO IMPROVE ADHESION AND PROVIDE A MORE UNIFORM APPEARANCE OF THE FINISH.
G. DRYVIT COATING:
1. DEMANDIT SMOOTH - INTEGRALLY COLORED SMOOTH EXTERIOR WALL COATING ENHANCED WITH PROVEN MILDEW RESISTANCE. A MINIMUM OF 2 COATS ARE REQUIRED.
H. DRYVIT FINISH(ES): 100% ACRYLIC FINISHES WITH INTEGRAL COLOR AND TEXTURE. SHALL BE THE TYPE, COLOR AND TEXTURE AS SELECTED BY THE ARCHITECT/OWNER AND SHALL BE OF THE FOLLOWING TYPES:
1. STANDARD DPR (DIRT PICKUP RESISTANCE): WATER-BASED, ACRYLIC COATING WITH INTEGRAL COLOR AND TEXTURE AND FORMULATED WITH DPR CHEMISTRY:
A. SANDPEBBLE FINE DPR: FINE PEBBLE TEXTURE
PART III - EXECUTION
3.01 EXAMINATION
A. PRIOR TO INSTALLATION OF COMMERCIAL CEMENT PLASTER 2, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT:
1. THE SURFACES TO RECEIVE PLASTER ARE FREE OF DUST, LOOSE PARTICLES, OIL AND OTHER CONDITIONS THAT WOULD AFFECT THE ADHESION, INSTALLATION OR PERFORMANCE OF COMMERCIAL CEMENT PLASTER 2 MATERIALS.
2. THE LATH IS OF THE PROPER TYPE, INSTALLED TIGHT, PROPERLY FASTENED, AND MEETS THE REQUIREMENTS OF ASTM C 1063, ASTM C 847 (EXPANDED METAL), ASTM C 933 (WELDED WIRE), OR ASTM C 1032 (WOVEN WIRE), AND LOCAL BUILDING CODE REQUIREMENTS.
3. ALL ACCESSORIES INCLUDING CORNER AIDS, CONTROL AND EXPANSION JOINTS, CASING BEADS, ETC. ARE PROPERLY FASTENED AND POSITIONED ACCORDING TO CONTRACT DRAWINGS AND LOCAL BUILDING CODE REQUIREMENTS.
4. DOORS, WINDOWS, DECKS, AND OTHER OPENINGS AND PENETRATIONS HAVE BEEN PROPERLY FLASHED IN ACCORDANCE WITH BUILDING CODE AND CONTRACT DOCUMENTS AND COMMERCIAL CEMENT PLASTER 2 INSTALLATION DETAILS DS825.
5. METAL ROOF FLASHING HAS BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS, ASPHALT ROOFING MANUFACTURERS ASSOCIATION (ARMA) STANDARDS AND COMMERCIAL CEMENT PLASTER 2 INSTALLATION DETAILS DS825, OR AS OTHERWISE NECESSARY TO MAINTAIN A WATERTIGHT ENVELOPE.
6. THE SUBSTRATE IS FLAT WITHIN 1/4 IN (6.4 MM) IN 10 FT (3.0 M).
7. THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND/OR OWNER AND/OR ARCHITECT OF ALL DISCREPANCIES. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE RESOLVED.
3.02 PREPARATION
A. PROTECTION
1. THE COMMERCIAL CEMENT PLASTER 2 MATERIALS SHALL BE PROTECTED BY PERMANENT OR TEMPORARY MEANS FROM WEATHER AND OTHER DAMAGE PRIOR TO, DURING, AND FOLLOWING APPLICATION, UNTIL DRY.
2. PROTECT ADJOINING WORK AND PROPERTY.
B. SOLID SURFACES SUCH AS PRECAST OR CAST-IN-PLACE CONCRETE OR MASONRY, SHALL HAVE ADEQUATE SUCTION AND SURFACE ROUGHNESS TO PROVIDE BOND. SMOOTH OR NON-ABSORPTIVE SURFACES SHALL BE PREPARED BY THE FOLLOWING METHODS:
1. SANDBLASTING, WIRE BRUSHING, ACID ETCHING, CHIPPING OR ANY COMBINATION THEREOF. REFER TO ASTM D 4258, ASTM D 4259 ASTM D 4260, OR ASTM D 4261 AS APPLICABLE.
2. APPLICATION OF AN APPROVED BONDING AGENT.
3. WHERE EFFECTIVE BOND CANNOT BE ACHIEVED, THE ENTIRE SURFACE SHALL BE COVERED WITH FURRED METAL LATH IN ACCORDANCE WITH ASTM C 1063 AND BUILDING CODE REQUIREMENTS.
3.03 INSTALLATION
A. MIXING AND APPLICATION INSTRUCTIONS - REFER TO THE PRODUCT LITERATURE FOR SPECIFIC MIXING AND APPLICATION INSTRUCTIONS OF EACH PRODUCT.
B. CCP BASE SHALL BE MOIST CURED FOR A MINIMUM OF 48 HOURS FOLLOWING APPLICATION.
C. CCP BASE SHALL BE COMPLETELY DRY AND CURED FOR A MINIMUM OF 7 DAYS PRIOR TO APPLICATION OF PRIMER AND FINISH.
D. THE INSTALLATION OF MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS SHALL BE IN ACCORDANCE WITH DRYVIT PUBLICATION DS854.
3.04 FIELD QUALITY CONTROL
A. THE LATH AND WATER-RESISTIVE BARRIER INSTALLATION SHALL BE INSPECTED AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT PRIOR TO PLASTER MATERIALS BEING APPLIED.
B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THE COMMERCIAL CEMENT PLASTER 2 MATERIALS.
C. DRYVIT ASSUMES NO RESPONSIBILITY FOR ON-SITE INSPECTIONS OR APPLICATION OF ITS PRODUCTS.
3.05 CLEANING
A. ALL EXCESS COMMERCIAL CEMENT PLASTER 2 MATERIALS SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR IN ACCORDANCE WITH CONTRACT PROVISIONS.
B. ALL SURROUNDING AREAS, WHERE THE DRYVIT COMMERCIAL CEMENT PLASTER 2 HAS BEEN APPLIED, SHALL BE LEFT FREE OF DEBRIS AND FOREIGN SUBSTANCES RESULTING FROM THE CONTRACTOR'S WORK.
3.06 PROTECTION
A. THE COMMERCIAL CEMENT PLASTER 2 MATERIALS SHALL BE PROTECTED FROM WEATHER AND OTHER DAMAGE UNTIL PERMANENT PROTECTION IN THE FORM OF FLASHINGS, SEALANTS, ETC. ARE INSTALLED.
END OF SECTION 09245

SECTION 09900 - PAINTING

PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUMMARY: PAINT ALL EXPOSED SURFACES, UNLESS OTHERWISE INDICATED.
1. PAINT THE BACK SIDE OF ACCESS PANELS.
2. COLOR CODE MECHANICAL PIPING IN ACCESSIBLE CEILING SPACES.
3. DO NOT PAINT PREFINISHED ITEMS, FINISHED METAL SURFACES, OPERATING PARTS, LABELS, AND MATERIALS OBVIOUSLY INTENDED TO BE LEFT EXPOSED SUCH AS BRICK AND TILE.
4. UNLESS OTHERWISE INDICATED DO NOT PAINT CONCEALED SURFACES.
B. SUBMITTALS: PRODUCT DATA AND COLOR SAMPLES.
C. MOCKUPS: FULL-COAT FINISH SAMPLE (BENCHMARK SAMPLE) OF EACH TYPE OF COATING, SUBSTRATE, COLOR, AND FINISH REQUIRED IN AREA OF NOT LESS THAN 100 SQ. FT (9 SQ. M). COMPLY WITH PDCA P5.
D. OBTAIN BLOCK FILLERS, PRIMERS, AND UNDERCOAT MATERIALS FOR EACH COATING SYSTEM FROM THE SAME MANUFACTURER AS THE FINISH COATS.
E. EXTRA MATERIALS: DELIVER TO OWNER A 1-GAL. (3.8-L) CONTAINER, PROPERLY LABELED AND SEALED, OF EACH COLOR AND TYPE OF FINISH COAT PAINT USED ON PROJECT.
PART 2 - PRODUCTS
2.1 PAINT
A. SEE DRAWINGS
1. COLORS: AS SELECTED OR AS SCHEDULED.
B. MATERIAL QUALITY: MANUFACTURER'S BEST-QUALITY OF COATING TYPES SPECIFIED.
C. MATERIAL COMPATIBILITY: COMPLETE SYSTEM OF COMPATIBLE COMPONENTS THAT IS RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED.
PART 3 - EXECUTION
3.1 APPLICATION
A. COMPLY WITH PAINT MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SURFACE PREPARATION, ENVIRONMENTAL AND SUBSTRATE CONDITIONS, PRODUCT MIXING, AND APPLICATION.
3.2 EXTERIOR/INTERIOR PAINT APPLICATION SCHEDULE
A. AS SHOWN BELOW AND ON DRAWINGS, IF NOT SHOWN, TO BE SPECIFIED BY OWNERS REP.
B. EXTERIOR WOOD - PAINTED
1. 1ST COAT - ALKYD EXTERIOR PRIMER
2. 2ND COAT - LATEX EXTERIOR TRIM
3. 3RD COAT - LATEX EXTERIOR TRIM
C. EXTERIOR CONCRETE, CONCRETE BLOCK, CEMENT PLASTER (STUCCO) AND EFIS
1. 1ST COAT - ACRYLIC MASONRY SEALER
2. 2ND COAT - LATEX EXTERIOR
3. 3RD COAT - LATEX EXTERIOR
D. EXTERIOR GYPSUM BOARD AND CEMENTITIOUS MATERIALS
1. 1ST COAT - LATEX EXTERIOR
2. 2ND COAT - LATEX EXTERIOR
E. EXTERIOR STEEL - SHOP PRIMED
1. TOUCH-UP PRIMER - ALKYD METAL PRIMER
2. 2ND COAT - ACRYLIC GLOSS ENAMEL
3. 3RD COAT - ACRYLIC GLOSS ENAMEL
F. EXTERIOR STEEL - GALVANIZED
1. 1ST COAT - ACRYLIC METAL PRIMER
2. 2ND COAT - ACRYLIC GLOSS ENAMEL
3. 3RD COAT - ACRYLIC GLOSS ENAMEL
G. INTERIOR WOOD - PAINTED
1. 1ST COAT - LATEX PRIMER
2. 2ND COAT - LATEX SEMI-GLOSS
3. 3RD COAT - LATEX SEMI-GLOSS
H. INTERIOR CONCRETE, CONCRETE BLOCK, AND CEMENT PLASTER
1. 1ST COAT - LATEX BLOCK FILLER
2. 2ND COAT - LATEX SEMI-GLOSS
3. 3RD COAT - LATEX SEMI-GLOSS
I. INTERIOR STEEL - UNPRIMED
1. 1ST COAT - ALKYD METAL PRIMER
2. 2ND COAT - ACRYLIC GLOSS ENAMEL
3. 3RD COAT - ACRYLIC GLOSS ENAMEL
J. INTERIOR STEEL - PRIMED
1. TOUCH-UP PRIMER - ALKYD METAL PRIMER
2. 2ND COAT - ACRYLIC GLOSS ENAMEL
3. 3RD COAT - ACRYLIC GLOSS ENAMEL
K. INTERIOR STEEL - GALVANIZED
1. 1ST COAT - ALKYD METAL PRIMER
2. 2ND COAT - ACRYLIC GLOSS ENAMEL
3. 3RD COAT - ACRYLIC GLOSS ENAMEL
L. INTERIOR WALLS - GYPSUM BOARD
1. 1ST COAT - LATEX PRIMER
2. 2ND COAT - LATEX EGG SHELL
3. 3RD COAT - LATEX EGG SHELL
M. INTERIOR FIRE RETARDANT
1. 1ST COAT - CODE COMPLIANT, FIRE RETARDANT PAINT
END OF SECTION 09910

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

no.	date	revision descriptions

RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date

26005
comm. no.

ARCHITECTURAL SPECIFICATIONS

A0.3

6/11/2026 11:46 AM

KEYNOTE SCHEDULE

NOTES:
A. NOTES PROVIDED ON THIS SHEET ARE ASSOCIATED WITH THE KEYNOTE SYMBOLS PROVIDED THROUGHOUT ALL SHEETS IN THE CONSTRUCTION DOCUMENTS
B. NOTES PROVIDED ON THIS SHEET ARE A MASTER LIST. ALL NOTES MAY NOT APPLY TO THE CONSTRUCTION DOCUMENTS FOR THIS SPECIFIC PROJECT

DIVISION 1 - GENERAL

1.10 ROOF PARAPET, SEE WALL SECTIONS AND ROOF DETAILS
1.20 BUILDING ELEMENT/CONSTRUCTION BEYOND
1.21 DASHED LINE INDICATES OUTLINE OF ROOF BEYOND OR ABOVE
1.30 PARAPET BREAK FOR ROOF ACCESS, REFER TO ROOF PLAN
1.32 PARAPET RETURN ON ROOF, SEE ROOF PLAN AND EXTERIOR ELEVATIONS
1.40 BULKHEAD OR SOFFIT ABOVE, SEE REFLECTED CEILING PLAN AND/OR WALL SECTIONS
1.41 DASHED LINE INDICATES CANOPY OR AWNING ABOVE (OR BELOW AS APPLICABLE). REFER TO WALL SECTIONS AND EXTERIOR ELEVATIONS
1.42 OUTLINE OF RTU CURB ABOVE
1.50 LINE OF WALL BELOW
1.51 DASHED LINE INDICATES LOCATION OF ROOF JOIST FRAMING BELOW. REFER TO WALL SECTIONS AND STRUCTURAL DRAWINGS

DIVISION 2 - SITE CONSTRUCTION

2.01 PROPERTY OR LOT LINE, REFER TO CIVIL DRAWINGS
2.10 REFER TO CIVIL DRAWINGS FOR ALL PAVEMENT/SURFACING BEYOND BUILDING AND SIDEWALK INCLUDING ALL PAVEMENT MARKINGS, PARKING STRIPPING, HC GRAPHICS, CROSSWALKS AND DIRECTIONAL ARROWS
2.20 CONCRETE SIDEWALK, 4" THICK 3,000 PSI W/ 6 X 6, W1.4 X W1.4 WWM. PROVIDE 12" DEEP X 8" WIDE TURNED DOWN EDGE WITH (1) #5 REBAR CONTINUOUS AT PERIMETER. REFER TO ARCHITECTURAL SITE PLAN ON **SHEET A5.1** FOR REQUIREMENTS
2.21 CONCRETE SIDEWALK, REFER TO SEE CIVIL DRAWINGS FOR EXTENTS
2.23 CONCRETE CURB, REFER TO CIVIL DRAWINGS FOR REQUIREMENTS
2.30 LANDSCAPE AREA. REFER TO CIVIL AND LANDSCAPE DRAWINGS
2.33 DASHED LINE INDICATES PVC DRAIN FROM LANDSCAPE AREA THROUGH THICKENED SIDEWALK. DISCHARGE AT FACE OF CURB. REFER TO DETAIL ON **SHEET A5.2**
2.40 HANDICAP RAMP WITH 1:12 MAXIMUM SLOPE, REFER TO CIVIL DRAWINGS
2.42 EXPOSED AGGREGATE DETECTABLE WARNING SURFACE, LARGE AGGREGATE GRAVEL AASHTO #3 OR #57
2.50 HANDICAPPED PARKING SIGN. REFER TO CIVIL DRAWINGS
2.60 BIKE RACK, REFER TO CIVIL DRAWINGS
2.61 STEEL PIPE BOLLARD, SCHEDULE 40 WITH GROUT FILL (SIZE AS INDICATED). STEEL TO BE RUST FREE PRIMED AND PAINTED TRAFFIC YELLOW UNLESS OTHERWISE NOTED. REFER TO DETAIL ON **SHEET A5.2**
2.80 TRANSFORMER ON CONCRETE PAD, REFER TO CIVIL AND ELECTRICAL DRAWINGS
2.90 DUMPSTER ENCLOSURE, REFER TO DETAILS ON **SHEET A5.2**. SEE ALSO EXTERIOR FINISH SCHEDULE

DIVISION 3 - CONCRETE

3.03 PROVIDE SOLID CONCRETE FILL AT CMU CELLS BELOW FINISHED FLOOR (OR AS SHOWN)
3.10 CONTINUOUS CONCRETE FOOTING, REFER TO FOUNDATION PLAN AND DETAILS FOR REQUIREMENTS
3.20 CONCRETE FLOOR SLAB OVER 10 MIL VAPOR BARRIER AND CLEAN, COMPACT, TERMITE TREATED FILL. REFER TO STRUCTURAL FOUNDATION PLAN AND DETAILS FOR SLAB DEPTH, COMPRESSIVE CONCRETE STRENGTH AND REINFORCEMENT REQUIREMENTS
3.23 SHADED AREA / DASHED LINE INDICATES CONCRETE SLAB LEAVE-OUT; SLAB BY FUTURE TENANT (UNDER SEPARATE PERMIT). REFER TO STRUCTURAL FOUNDATION PLAN AND DETAILS
3.24 CONCRETE CAP AT FOUNDATION WALL WHERE STOREFRONT OR DOOR OPENING OCCURS ADJACENT TO CONCRETE SLAB LEAVE-OUTS. REFER TO WALL SECTIONS AND STRUCTURAL DRAWINGS
3.25 PARTIAL SLAB / FOUNDATION AT DEMISING WALL, REFER TO STRUCTURAL DRAWINGS
3.30 CAST-IN-PLACE CONCRETE BEAM, REFER TO STRUCTURAL DRAWINGS
3.31 CAST-IN-PLACE CONCRETE COLUMN, REFER TO STRUCTURAL DRAWINGS

DIVISION 4 - MASONRY

4.02 MASONRY CONTROL JOINT WITH BACKER ROD AND SEALANT. SEALANT TO MATCH ADJACENT MATERIAL. REFER TO EXTERIOR ELEVATIONS AND STRUCTURAL DRAWINGS
4.10 CONCRETE MASONRY UNIT (CMU), WIDTH AS INDICATED, REFER TO STRUCTURAL DRAWINGS FOR REINFORCEMENT AND FILLED CELL LOCATIONS
4.12 PRECAST CONCRETE LINTEL, GROUT FILLED WITH GROUT FILLED KNOCK-OUT BLOCK ABOVE (AS APPLICABLE), REFER TO STRUCTURAL DRAWINGS EXACT CONFIGURATION AND REINFORCEMENT REQUIREMENTS
4.13 CMU KNOCK-OUT BLOCK BOND BEAM, GROUT FILLED. REFER TO STRUCTURAL DRAWINGS EXACT CONFIGURATION AND REINFORCEMENT REQUIREMENTS
4.20 THIN BRICK VENEER OVER PAPER BACKED, GALVANIZED WIRE LATH AND TYVEK BUILDING WRAP ON 5/8" DENSGLASS SHEATHING. AT CMU LOCATIONS, PROVIDE THIN BRICK VENEER OVER GALVANIZED WIRE LATH ON BITUMINOUS WATERPROOFING ON CMU. REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS
4.32 CAST STONE CONCRETE WATERTABLE, ROCKCAST NO. SL-100, COLOR - MATCH BRICK, TEL. 1(800)482-6466. REFER TO PROFILE ON SHEET A5.0

DIVISION 5 - METALS

5.10 STEEL COLUMN, REFER TO STRUCTURAL DRAWINGS
5.12 STEEL ANGLE, REFER TO STRUCTURAL DRAWINGS
5.20 STEEL JOIST, REFER TO STRUCTURAL DRAWINGS
5.23 STEEL PIPE PARAPET BRACING, REFER TO STRUCTURAL DRAWINGS
5.30 METAL ROOF OR FLOOR DECK, REFER TO STRUCTURAL DRAWINGS
5.34 PREFINISHED METAL WALL PANEL. INSTALL OVER UNDERLAYMENT AND METAL FURRING PER MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS AND EXTERIOR FINISH SCHEDULE ON SHEET A3.0
5.35 PREFINISHED METAL WALL PANEL TRIM. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE ALSO NOTES AND DETAILS ON SHEET A1.2A AND EXTERIOR COLOR SCHEDULE ON SHEET A3.0
5.36 EXPOSED FASTENER, PAINTED
5.37 CONCEALED CLEAT AND FASTENER
5.38 METAL CLIP AND FASTENER AS RECOMMENDED BY PANEL MANUFACTURER
5.40 METAL STUD FRAMING (WIDTH AS INDICATED), REFER TO STRUCTURAL DRAWINGS FOR GAUGE, SPACING AND CONNECTION DETAILS
5.42 METAL CLIP ANGLE, REFER TO STRUCTURAL DRAWINGS FOR SIZE, GAUGE AND FASTENING REQUIREMENTS
5.45 7/8" METAL HAT CHANNEL FURRING AT 16" O.C. (VERTICAL)
5.50 ROOF ACCESS LADDER WITH LOCKABLE SECURITY ENCLOSURE. REFER TO EXTERIOR ELEVATIONS AND DETAIL ON **SHEET A5.3**
5.70 18 GAUGE FLAT STOCK METAL FABRICATED TO WRAP OUTSIDE CORNER
5.80 VERTICAL WALL REINFORCEMENT IN GROUT FILLED CELL, TYP. REFER TO STRUCTURAL DRAWINGS

DIVISION 6 - WOOD AND PLASTICS

6.10 PT 2 X WOOD BLOCKING, BUCK OR DRAFT STOP
6.11 PT 1 X WOOD BLOCKING OR BUCK
6.12 PT WOOD SHIM AS REQUIRED
6.15 PT 2 X WOOD PLATE WITH 1/2" DIAMETER ANCHOR BOLTS (6" MINIMUM EMBEDMENT) AT 4'-0" O.C. MAXIMUM. IN LIEU OF SPECIFIED ANCHOR BOLT, 1/4" DIA. X 4" LONG TAPCONS STAGGERED AT 24" O.C. MAY BE PROVIDED FOR PLATE ATTACHMENT. FASTENERS SHALL BE PLACED MINIMUM 2 1/2" FROM EDGE OF WOOD PLATE
6.21 5/8" CDX PLYWOOD, REFER TO STRUCTURAL DRAWINGS AS REQUIRED

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

7.03 PRE-FORMED JOINT FILLER (3/4" MAX.) CUT BACK EXCESS BELOW SLAB AND PROVIDE SEALANT BEAD, CONTINUOUS. DO NOT PLUG WEEP HOLES
7.04 PROVIDE ROOFTOP WALKWAY PADS AS SHOWN AND AROUND ALL ROOFTOP EQUIPMENT
7.08 SEALANT AND BACKER ROD, CONTINUOUS. SEALANT COLOR TO MATCH ADJACENT MATERIAL AS APPLICABLE
7.09 SEALANT BEAD, CONTINUOUS. SEALANT COLOR TO MATCH ADJACENT MATERIAL AS APPLICABLE
7.12 SINGLE-PLY ROOF MEMBRANE OVER (**R-23**) RIGID INSULATION, REFER TO SPECIFICATIONS
7.13 SINGLE-PLY ROOF MEMBRANE FULLY ADHERED TO REAR FACE OF PARAPET (OR CURB). EXTEND FROM TOP OF COUNTERFLASHING (OR ROOF AS APPLICABLE), OVER PARAPET AND TERMINATE BEHIND HOLD DOWN CLEAT
7.14 ROOFING MEMBRANE EDGE REINFORCEMENT
7.15 ROOFING MEMBRANE FLASHING STRIP OVER TPO COATED ROOF EDGE METAL
7.16 MANUFACTURER APPROVED PLATES FASTENED WITH MANUFACTURER APPROVED FASTENERS
7.18 HEAT WELDED SEAM AT SINGLE-PLY MEMBRANE
7.19 ROOFING SYSTEM TERMINATION BAR BETWEEN ROOF MEMBRANE AND WALL FINISH
7.30 PREFINISHED ALUMINUM DOWNSPOUT (SIZE AS INDICATED ON ROOF PLAN) WITH STRAPS AT 6'-0" O.C. MAXIMUM, REFER TO EXTERIOR ELEVATIONS, EXTERIOR FINISH SCHEDULE AND ROOF PLAN. WHERE APPLICABLE, EXTEND BELOW GRADE TO STORM SEWER PER CIVIL DRAWINGS AND PROVIDE CAST TRANSITION BOOT WITH CLEANOUT. J.R. HOE AND SONS A-STYLE. SEE DETAIL ON **SHEET A5.1**
7.32 PREFINISHED ALUMINUM CONDUCTOR HEAD, 16" WIDE X 12" HIGH X 10" DEEP. REFER TO ROOF PLAN AND DETAILS
7.33 PREFINISHED ALUMINUM SCUPPER / EMERGENCY OVERFLOW SCUPPER, 16" W X 8" HIGH. REFER TO ROOF PLAN AND DETAILS
7.55 TAPERED INSULATION, WITH 1/2" PER FOOT MINIMUM SLOPE. PROVIDE AT LOCATIONS INDICATED INCLUDING ALL ROOF MOUNTED EQUIPMENT CURBS
7.59 PROVIDE CUSTOM, PREFINISHED ALUMINUM TRIM AT CWPS TERMINATION. COORDINATE WITH CWPS SUBCONTRACTOR
7.60 PROVIDE TYVEK COMMERCIAL WRAP AT FRAMED SUBSTRATES AND FLUID APPLIED TYVEK AT CMU BEHIND COMPOSITE WALL PANELS. LAP SHEETS AND FLASH OPENINGS PER MANUFACTURER'S INSTRUCTIONS
7.61 COMPOSITE WALL PANEL SYSTEM (CWPS). REFER TO EXTERIOR FINISH SCHEDULE AND SPECIFICATIONS
7.62 CWPS CORNER KEY TRIM, PAINTED. (PRE-FORMED CWPS CORNERS NOT ACCEPTABLE)
7.63 CWPS STARTER TRACK
7.64 CWPS CLIP
7.65 CWPS SPACER
7.70 PROVIDE CUSTOM ALUMINUM TRIM AT CWPS TERMINATION, PAINTED. COORDINATE WITH CWPS SUBCONTRACTOR
7.73 SINGLE-PLY PEEL AND STICK MEMBRANE FULLY ADHERED TO SUBSTRATE
7.79 PREFINISHED ALUMINUM FLASHING OR COUNTERFLASHING, REFER TO EXTERIOR FINISH SCHEDULE
7.80 PREFINISHED 24 GA. ALUMINUM COPING, SLOPED TO FACILITATE DRAINAGE. SEE TYP. ROOF DETAILS. REFER TO EXTERIOR FINISH SCHEDULE FOR COLOR
7.81 PREFINISHED 24 GA. METAL DRIP EDGE / GRAVEL STOP (4" OR AS INDICATED). SET IN BED OF COMPATIBLE ROOF CEMENT AND AFFIX WITH CONTINUOUS HOLD DOWN CLEAT. PRIME COAT TOP PRIOR TO APPLICATION OF SINGLE-PLY FLASHING STRIP. REFER TO EXTERIOR FINISH SCHEDULE FOR COLOR
7.87 MECHANICAL FASTENER WITH NEOPRENE WASHER
7.88 FLASHING AT ROOF SIDE OF SCUPPER OPENING
7.98 PROVIDE (3) ONE INCH DIAMETER OVERFLOW HOLES

DIVISION 8 - DOORS AND WINDOWS

8.01 IN FLORIDA LOCATIONS, ALUMINUM STOREFRONT ENTRANCE SYSTEMS SHALL PER INSTALLED WITH ANCHORS AS STIPULATED IN THE MANUFACTURER'S FLORIDA PRODUCT APPROVAL DATA. REFER TO THE FLORIDA PRODUCT APPROVAL INDEX ON **SHEET A.0** FOR THE APPROPRIATE FLORIDA PRODUCT NUMBER
8.02 ALUMINUM SILL PAN FLASHING WITH FINISH TO MATCH ALUMINUM STOREFRONT FRAME COMPONENTS. INSTALL PER MANUFACTURER'S RECOMMENDED DETAILS. SET IN SEALANT BED, OVER SLAB OR WALL EDGE AND EXTEND UP INSIDE FRAME FACE 3/4" MINIMUM
8.04 PREFINISHED ALUMINUM BREAK METAL TO MATCH ALUMINUM STOREFRONT FRAME COMPONENTS. REFER TO EXTERIOR FINISH SCHEDULE
8.10 ALUMINUM STOREFRONT SYSTEM, REFER TO FRAME OPENING SCHEDULE AND EXTERIOR FINISH SCHEDULE
8.11 ALUMINUM STOREFRONT ENTRANCE SYSTEM, REFER TO FRAME OPENING SCHEDULE AND EXTERIOR FINISH SCHEDULE
8.20 HOLLOW METAL DOOR AND FRAME, REFER TO FRAME OPENING SCHEDULE. PROVIDE (3) JAMB ANCHORS PER SIDE
8.50 ADA COMPLIANT ALUMINUM THRESHOLD, 1/4" HIGH X 4" WIDE X FULL LENGTH OF OPENING. THRESHOLD SHALL HAVE BEVELED EDGES AND SHALL BE RIBBED. SET IN BED OF SEALANT
8.57 RAIN DRIP, REFER TO HARDWARE SCHEDULE

DIVISION 9 - FINISHES

9.10 1-HOUR RATED DEMISING WALL. CONSTRUCT PER U.L. ASSEMBLY U-465 WITH (1) LAYER OF 5/8" FIRE RATED GWB EACH SIDE OVER 6" 20 GA. METAL STUDS AT 16" O.C. PROVIDE SOUND ATTENUATION BATT INSULATION CONTINUOUS AT CAVITY. EXTEND ALL FULL HEIGHT TO UNDERSIDE OF ROOF DECK. REFER TO U.L. ASSEMBLY DETAILS ON **SHEET A6.0**. GWB SHALL BE SPECIFIC TYPE AND MANUFACTURER LISTED IN SPECIFIED U.L. ASSEMBLY DETAIL. USE MOISTURE RESISTANT GWB AT ALL UNCONDITIONED SPACES. PROVIDE MOLD AND MILDEW PREVENTION COATING. REFER TO SPECIFICATION SECTION 09260
9.13 EXPOSED CONCRETE BLOCK FINISH AT ALL PERIMETER CMU WALLS WITHIN TENANT SPACE AS INDICATED. FURRING, INSULATION AND GWB SHALL BE PROVIDED DURING FUTURE TENANT BUILD-OUT BY OTHERS (UNDER SEPARATE PERMIT)
9.14 PROVIDE 5/8" GWB OVER 1 1/2" TZ" FURRING AT 16" O.C. (VERTICAL) W/ 1 1/2" RIGID INSULATION FROM FINISHED FLOOR TO ROOF DECK AT ALL PERIMETER CMU WALLS, U.O.N. GWB MAY STOP 6" ABOVE CEILINGS WHEN THEY ARE PRESENT
9.40 ACRYLIC (EIFS) FINISH COAT OVER 3/4" PORTLAND CEMENT BASE OVER CMU. REFER TO EXTERIOR ELEVATIONS AND EXTERIOR FINISH SCHEDULE FOR TEXTURE AND COLOR REQUIREMENTS
9.41 ACRYLIC (EIFS) FINISH COAT OVER 3/4" PORTLAND CEMENT BASE OVER PAPER BACKED GALVANIZED WIRE LATH OVER 'TYVEK' BUILDING WRAP ALL OVER 5/8" CDX PLYWOOD SHEATHING. REFER TO EXTERIOR ELEVATIONS AND EXTERIOR FINISH SCHEDULE FOR TEXTURE AND COLOR REQUIREMENTS
9.42 ACRYLIC DIRECT APPLIED EXTERIOR FINISH SYSTEM (DEFS) OVER 5/8" DENS GLASS SHEATHING OR CMU
9.44 CONTROL JOINT IN CEMENT PLASTER, "M" SHAPE. 'CLARK DIETRICH BUILDING SYSTEMS' #15 ZINC DOUBLE-V CONTROL JOINT WITH EXPANDED WIRE MESH FLANGES
9.45 CEMENT PLASTER DRIP SCREED, CONTINUOUS AS MANUFACTURED BY FRY REGLET, NO. DS-875-875. PROVIDE WITH FACTORY PRIMER FOR FIELD APPLIED PAINT FINISH
9.47 GWB OR CEMENT PLASTER "J" MOLD, CONTINUOUS. PROVIDE FINISH TO MATCH WALL OR CEILING SURFACE
9.52 EXPOSED STRUCTURE, NO CEILING REQUIRED

DIVISION 10 - SPECIALITIES

10.05 TENANT ADDRESS/SPACE NUMBER. PROVIDE MIN. 6" HIGH NUMBERS (IN CONTRASTING COLOR TO BACKGROUND) SO THAT NUMBERS ARE PLAINLY VISIBLE FROM THE STREET. REFER TO NOTES ON **SHEET A3.0**
10.10 WALL SIGN LOCATION. SIGN TO BE PERMITTED AND INSTALLED BY TENANT'S SIGN VENDOR. SHELL G.C. SHALL REFER TO ELECTRICAL FOR POWER REQUIREMENTS. PROVIDE 5/8" CDX PLYWOOD SHEATHING IN LIEU OF DENSGLASS SHEATHING WHERE APPLICABLE AT SIGN LOCATIONS. RUN ALL CONDUIT TIGHT TO ROOF STRUCTURE SEAL ALL WALL PENETRATIONS
10.11 PYLON OR MONUMENT SIGN. REFER TO WORK SCOPE SUMMARY ON **SHEET A5.1** FOR COMPLETE PERMITTING AND CONSTRUCTION RESPONSIBILITIES. REFER ALSO TO ELECTRICAL DRAWINGS
10.60 FIRE EXTINGUISHER, 5LB 2A-10B:C WITH SURFACE MOUNTED WALL BRACKET

DIVISION 13 - SPECIAL CONSTRUCTION

13.22 PRE-ENGINEERING ALUMINUM CANOPY, PREFINISHED. REFER TO DETAILS ON SHEET A1.3. REFER ALSO TO EXTERIOR FINISH SCHEDULE ON SHEET A3.0

DIVISION 15 - MECHANICAL

15.10 ROOFTOP HVAC UNIT AND CURB. SEE ROOF PLAN, MECHANICAL AND STRUCTURAL DRAWINGS. REFER TO CURB DETAIL ON **SHEET A1.2A**. ALL RTU'S TO BE LOCATED 10'-0" MINIMUM FROM PARAPET WALLS. COORDINATE RTU LOCATIONS WITH ROOF FRAMING PLAN (EXACT LOCATIONS MAY BE SHIFTED TO ALIGN WITH STEEL JOIST LAYOUT)
15.16 ROOF CURB FOR FUTURE RTU. PROVIDE WEATHER-TIGHT SHEET METAL CAP
15.41 HOSE BIBB IN RECESSED, FROST-FREE, KEYED BOX. REFER TO PLUMBING DRAWINGS. WHERE APPLICABLE, COORDINATE LOCATION WITH TENANT REPRESENTATIVE
15.50 VENT THRU ROOF (VTR), REFER TO PLUMBING DRAWINGS AND DETAIL ON **SHEET A1.2A**. LOCATE VTR SO 15'-0" MINIMUM FROM RTU FRESH AIR INTAKES. COORDINATE IN FIELD

DIVISION 16 - ELECTRICAL

16.10 LOCATION OF ELECTRIC SERVICE, HOUSE PANEL, AND TELEPHONE/CABLE CABINETS. REFER TO ELECTRICAL DRAWINGS. WHERE APPLICABLE, PROVIDE 5/8" CDX PLYWOOD SHEATHING IN LIEU OF DENSGLASS SHEATHING. PAINT ALL EQUIPMENT AND CONDUIT TO MATCH ADJACENT WALL COLOR
16.20 ELECTRICAL PANEL, REFER TO ELECTRICAL DRAWINGS. WHERE APPLICABLE, CONFIRM PLACEMENT WITH TENANT REPRESENTATIVE
16.30 WALL PACK LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
16.31 DECORATIVE LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
16.32 CEILING MOUNTED LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
16.33 EMERGENCY LIGHT FIXTURE, REFER TO ELECTRICAL DRAWINGS
16.38 EXIT SIGN / EMERGENCY LIGHT COMBINATION FIXTURE, REFER TO ELECTRICAL DRAWINGS
16.39 TEMPORARY STRIP LIGHTING, REFER TO ELECTRICAL DRAWINGS
16.53 POLE MOUNTED SITE LIGHTING, REFER TO CIVIL DRAWINGS

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

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no.	revision descriptions	date

RETAIL BUILDING TWO
AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date
26005
comm. no.
KEYNOTE SCHEDULE

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SHOP DRAWING SUBMITTAL REQUIREMENTS

REQ'D		REQ'D		REQ'D		REQ'D	
●	DIVISION 02 - SITE WORK		DIVISION 5 - METALS	●	ROOFING		DIVISION 9 - FINISHES
●	TERMITE TREATMENT	●	REBAR (SEE CONCRETE AND MASONRY)	●	ROOFING SYSTEM AS SPECIFIED		EXTERIOR INSULATED FINISH SYSTEM (TRIM PIPROFILES)
●	PRODUCT DATA OF REGISTERED TERMICIDES	●	STRUCTURAL STEEL	●	FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION		FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION (EXTERIOR APPLICATION)
●	CERTIFICATE OF COMPLIANCE	●	SHOP DRAWINGS	●	APPROVED FOR USE OUTSIDE HVHZ		APPROVED FOR USE OUTSIDE HVHZ
●	SUBMIT TO BUILDING DEPARTMENT UPON COMPLETION	●	ANCHOR BOLTS LAYOUT		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DATE COUNTY)		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)
●	CONTAINS REQUIRED STATEMENT PER FBC 1816.1	●	STEEL ERECTION AND FABRICATION DRAWINGS	●	PRODUCT DATA / CUT SHEETS WITH REQUIRED ACCESSORIES		PRODUCT DATA / CUT SHEETS WITH ALL REQUIRED ACCESSORIES
	PATIO RAILING	●	TEST REPORT AND CERTIFICATES		ASPHALT SHINGLES		SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS
	PRODUCT DATA AND CUT SHEETS	●	WELDER QUALIFICATIONS		ROOF TILES		COLOR SELECTION CHART (IF NOT AS SPECIFIED)
	DETAILS	●	MILL ANALYSIS AND TEST REPORTS		ARCHITECTURAL STANDING SEAM		SAMPLES FOR VERIFICATION (IF NOT AS SPECIFIED)
	SAMPLES (ONLY WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)	●	METAL JOISTS		STRUCTURAL SEAMED METAL	●	STUCCO
	PATIO PAVERS	●	ERECTION PLANS AND DETAILS	●	MEMBRANE ROOFING	●	PRODUCT DATA / CUT SHEETS WITH ALL REQUIRED ACCESSORIES
	PRODUCT DATA AND CUT SHEETS	●	METAL DECK		BUILT - UP	●	DIRECT APPLIED TO CONCRETE BLOCK
	DETAILS	●	PRODUCT DATA / CUT SHEETS	●	SINGLE - PLY MEMBRANE	●	STUCCO CEMENT
	SAMPLES (ONLY WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)	●	LAYOUT / ERECTION SHOP DRAWINGS	●	SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS	●	FIBER REINFORCEMENT
●	BIKE RACK (COORDINATE WITH CIVIL)	●	COLD FORMED / LIGHT GAGE STEEL FRAMING	●	KEY PLAN	●	BONDING AGENT
●	PRODUCT DATA AND CUT SHEETS	●	PRODUCT DATA / CUT SHEETS	●	TERMINATION / TIE - IN DETAILS TO ADJACENT CONSTRUCTION	●	VINYL ACCESSORIES AND WEEP SCREED
●	DETAILS		ENGINEERED SHOP DRAWINGS	●	TAPER INSULATION PLAN WITH DETAILS INDICATING SLOPE	●	ACRYLIC DPR FINISH
●	DOWNSPOUT TRANSITION BOOT		SIGNED AND SEALED ERECTION PLANS W / DETAILS	●	LAYOUT FOR WALKWAY PADS	●	COLOR SELECTION CHART (IF NOT AS SPECIFIED)
●	PRODUCT DATA AND CUT SHEETS		SIGNED AND SEALED CALCULATIONS	●	COLOR SELECTION CHART	●	OVER LATH (FRAMED CONSTRUCTION)
		●	MISCELLANEOUS METAL FABRICATIONS	●	SAMPLES FOR VERIFICATION (IF NOT AS SPECIFIED)	●	STUCCO CEMENT
	DIVISION 03 - CONCRETE		METAL PANEL	●	SAMPLE WARRANTY	●	FIBER REINFORCEMENT
●	REINFORCING SHOP DRAWINGS		FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION		15 YEAR NDL	●	PAPER BACKED METAL LATH
	SHORING PLAN (IF APPLICABLE)		PRODUCT DATA / CUT SHEETS WITH REQUIRED ACCESSORIES	●	20 YEAR NDL	●	VINYL ACCESSORIES AND WEEP SCREED
●	MIX DESIGN		COLOR SELECTION CHART	●	FLASHING AND SHEET METAL	●	ACRYLIC DPR FINISH
●	INDEX WITH MIX CODE AND DESCRIPTION			●	FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION	●	COLOR SELECTION CHART (IF NOT AS SPECIFIED)
●	ACI STATISTICAL ANALYSIS AND TEST REPORTS	●	LADDERS	●	APPROVED FOR USE OUTSIDE HVHZ	●	EXTERIOR PAINTING
●	AGENTS AND ADMIXTURES PRODUCT DATA	●	SHOP DRAWINGS W / DETAILS		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)	●	SCHEDULE
●	FIBER REINFORCEMENT PRODUCT DATA	●	ROOF ACCESS	●	PRODUCT DATA / CUT SHEET - MANUFACTURED PRODUCTS	●	SAMPLES (ONLY WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)
●	CONCRETE ACCESSORIES		ELEVATOR PIT	●	SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS TO INCLUDE BUT NOT LIMITED TO:	●	EXTERIOR SHEATHING
●	VAPOR BARRIER		ELEVATOR SUMP PIT COVERS	●	FLASHING AND COUNTERFLASHING	●	PRODUCT DATA AND CUT SHEETS
	WATER STOP		SHOP DRAWINGS W / DETAILS	●	COPING CAP AND EDGE METAL / GRAVEL STOPS FASCIA		PATIO TILE
●	FIBER EXPANSION JOINT	●	GATES FOR DUMPSTER ENCLOSURE	●	SCUPPER, EMERGENCY OVERFLOW AND DOWNSPOUTS		PRODUCT DATA AND CUT SHEETS
●	BOND BREAKER	●	SHOP DRAWINGS W / DETAILS		GUTTER AND DOWNSPOUTS		
●	EVAPORATION RETARDER	●	STEEL PIPE BOLLARDS	●	ROOF SPECIALTIES		
●	CURING COMPOUND	●	SHOP DRAWINGS W / DETAILS	●	FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION		DIVISION 10 - SPECIALITIES
●	NON-SHRINK GROUT			●	APPROVED FOR USE OUTSIDE HVHZ	●	CANOPIES AND AWNINGS
●	PATCHING MATERIAL		DIVISION 06 - WOOD AND PLASTIC		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)	●	PRODUCT DATA AND CUT SHEETS
●	BONDING AGENT		WOOD TRUSSES		PRODUCT DATA / CUT SHEET - MANUFACTURED PRODUCTS	●	PROJECT SPECIFIC DETAILS
●	EPOXY ADHESIVE		SIGNED AND SEALED ENGINEERED SHOP DRAWINGS		ROOF ACCESS HATCH	●	ENGINEERING CERTIFICATION
●	DOWELS		SIGNED AND SEALED CALCULATIONS		ROOF ACCESS EXTENSION POLE	●	SAMPLES (ONLY WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)
●	WIRE MESH	●	PLYWOOD AND WOOD BLOCKING		ROOF EXPANSION ASSEMBLIES		GREEN SCREEN
●	REINFORCING SUPPORTS	●	PRODUCT DATA / CUT SHEETS		SOFFIT PANELS		PRODUCT DATA AND CUT SHEETS
●	PRODUCT DATA AND CUT SHEETS	●	EXTERIOR PRESSURE TREATED		MANUFACTURED SOFFIT PANELS AS SPECIFIED		CONFIRMATION OF COLORS OR MATERIALS
●	PRECAST CONCRETE LINTELS	●	EXTERIOR FIRE TREATED		FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION		TOILET ACCESSORIES
●	PRODUCT DATA AND CUT SHEETS		INTERIOR FIRE TREATED		APPROVED FOR USE OUTSIDE HVHZ		PRODUCT DATA AND CUT SHEETS
	ARCHITECTURAL PRECAST CONCRETE		MILLWORK / CABINETRY		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)		
	PROJECT SPECIFIC DETAILS		FABRICATION SHOP DRAWINGS		PRODUCT DATA / CUT SHEETS WITH ALL REQUIRED ACCESSORIES		
	PRODUCT DATA AND CUT SHEETS		FINISH AND COLOR SELECTION CHARTS		SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS		
			SAMPLES FOR VERIFICATION (IF NOT AS SPECIFIED)		COLOR SELECTION CHART		
	DIVISION 4 - MASONRY				SAMPLES FOR VERIFICATION (IF NOT AS SPECIFIED)		
●	CONCRETE MASONRY UNITS		DIVISION 7 - THERMAL AND MOISTURE PROTECTION	●	JOINT SEALANTS		
●	REINFORCING SHOP DRAWINGS	●	TYPE OF AIR AND WATER - RESISTIVE BARRIER AS SPECIFIED	●	TYPE AND LOCATIONS AS SPECIFIED		
●	GROUT MIX DESIGN	●	PRODUCT DATA / CUT SHEETS TO INCLUDE ALL REQUIRED ACCESSORY PRODUCTS	●	PRODUCT DATA / CUT SHEETS		DIVISION 15 - MECHANICAL / PLUMBING
●	ANALYSIS AND TEST REPORTS	●	VAPOR IMPERMEABLE AWB	●	COLOR SELECTION CHART	●	PACKAGED ROOFTOP UNITS
●	AGENTS AND ADMIXTURES	●	HOT, HUMID CLIMATE (ZONE 1 AND 2)			●	PRODUCT DATA AND CUT SHEETS
	SPLIT FACE CERTIFICATION AND TEST REPORTS	●	FRAMED CONSTRUCTION - SHEET OR FLUID APPLIED		DIVISION 8 - DOORS AND WINDOWS	●	WARRANTY INFORMATION
●	STANDARD LOAD BEARING UNITS CERTIFICATION AND TEST REPORTS	●	CONCRETE OR CMU BACKUP - FLUID APPLIED	●	DOORS, FRAMES AND FINISH HARDWARE	●	EQUIPMENT CURBS
●	CMU ACCESSORIES PRODUCT DATA	●	VAPOR PERMEABLE AWB	●	FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION	●	PRODUCT DATA AND CUT SHEETS
●	TRUSS/LADDER REINFORCING	●	HOT, HUMID CLIMATE (ZONE 1 AND 2; INTERIOR SURFACES MUST NOT ACT AS VAPOR RETARDER)	●	APPROVED FOR USE OUTSIDE HVHZ		EXHAUST FANS
●	WITH ADJUSTABLE BRICK TIE (WHEN REQUIRED)	●	FRAMED CONST. (AS LONG AS INT. SURFACES DO NOT ACT AS VAP. RET. - SHT OR FLUID APP.		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)		PRODUCT DATA AND CUT SHEETS
●	MORTAR MIX	●	CONCRETE OR CMU BACKUP - FLUID APPLIED	●	SCHEDULE		DUCTWORK
●	MORTAR COLOR CHART (IF NOT SPECIFIED WHEN USED WITH INTEGRAL COLOR CMU)	●	MIXED CLIMATE (ZONE 3 AND 4)	●	OPENINGS SCHEDULE		PRODUCT DATA AND CUT SHEETS
●	PRECAST LINTEL	●	FRAMED (NO VAPOR RETARDER INSIDE) - SHEET OR FLUID APPLIED	●	FINISH HARDWARE SCHEDULE		AIR DEVICES
	ADJUSTABLE DOVETAIL ANCHORS (MASONRY TO CONCRETE)	●	CONCRETE OR CMU (NO VAPOR RETARDER INSIDE) - FLUID APPLIED	●	PRODUCT DATA / CUT SHEETS		PRODUCT DATA AND CUT SHEETS
	STANDARD BRICK VENEER		COLD NORTHERN CLIMATE (ZONE 5+ OR HIGH MOISTURE LOADED BUILDINGS)		ACCESS DOORS AND PANELS	●	PLUMBING FIXTURES
	PRODUCT DATA		FRAMED (VAPOR RETARDER INSIDE) - SHEET OR FLUID APPLIED		FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION (EXTERIOR APPLICATION)	●	PRODUCT DATA AND CUT SHEETS
	SAMPLES (WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)		CONCRETE OR CMU (VAPOR RETARDER INSIDE) - FLUID APPLIED		APPROVED FOR USE OUTSIDE HVHZ	●	PIPING MATERIAL AND ACCESSORIES
	ACCESSORIES PRODUCT DATA	●	JOB SPECIFIC DETAILS AND MANUFACTURERS STANDARD DETAILS		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)	●	PRODUCT DATA AND CUT SHEETS
	BRICK TIE (STANDARD BRICK VENEER)	●	SAMPLE WARRANTY		PRODUCT DATA / CUT SHEETS		BOOSTER PUMP
	NON-INSULATED CAVITY	●	DAMPROOFING AND WATERPROOFING	●	ENTRANCES AND STOREFRONTS		PRODUCT DATA AND CUT SHEETS
	DW-10 ADJUSTABLE - CMU, METAL OR WOOD STUD BACKUP	●	BELOW OR ABOVE GRADE PRODUCTS AS SPECIFIED (ABOVE GRADE IF AIR BARRIER NOT REQUIRED)	●	FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION (EXTERIOR APPLICATION)		ROOF DRAINS
	150 TRUSS BOX - MESH (NON-ADJUSTABLE) - CMU BACKUP	●	PRODUCT DATA/ CUT SHEETS TO INCLUDE ALL REQUIRED ACCESSORY PRODUCTS	●	APPROVED FOR USE OUTSIDE HVHZ		PRODUCT DATA AND CUT SHEETS
	305 DOVETAIL SLOT W / FLEXIBLE DOVETAIL TIE - CONCRETE	●	DAMPROOFING		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)		DIVISION 16 - ELECTRICAL
	INSULATED CAVITY	●	FLUID - APPLIED	●	PRODUCT DATA / CUT SHEETS		SITE LIGHTING
	HB 213 ADJUSTABLE - METAL AND WOOD STUD BACKUP		WATERPROOFING (NON-HYDROSTATIC CONDITION)	●	SYSTEM PRODUCT DATA		PRODUCT DATA AND CUT SHEETS
	170 ADJUSTABLE TRUSS - CMU BACKUP		FLUID - APPLIED WATERPROOFING	●	GLAZING PRODUCT DATA / PERFORMANCE CUT SHEET		LIGHT POLE CUT SHEET AND ENGINEERING
	305 DOVETAIL SLOT W / FLEXIBLE DOVETAIL TIE - CONCRETE		CEMENTITIOUS WATERPROOFING	●	SEALANT PRODUCT DATA	●	BUILDING LIGHTING
	MORTAR MIX		BENTONITE WATERPROOFING	●	ALUMINUM TO ALUMINUM	●	PRODUCT DATA AND CUT SHEETS
	MORTAR COLOR CHART (IF NOT SPECIFIED)		SHEET WATERPROOFING	●	GLAZING TO ALUMINUM	●	LIGHTING CONTROLS
	THROUGH WALL FLASHING & ACCESSORIES		WATERPROOFING (HYDROSTATIC CONDITION W / HEAD PRESSURE)	●	ALUMINUM TO SUBSTRATE	●	PRODUCT DATA AND CUT SHEETS
	FLEXIBLE MEMBRANE FLASHING		SHEET WATERPROOFING	●	SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS TO INCLUDE GLAZING SCHEDULE	●	ELECTRICAL DEVICES SENSORS
	METAL DRIP EDGE	●	JOB SPECIFIC DETAILS AND MANUFACTURER STANDARD DETAILS	●	FINISH HARDWARE SCHEDULE	●	PRODUCT DATA AND CUT SHEETS
	TERMINATION BAR	●	SAMPLE WARRANTY	●	COLOR SELECTION CHART	●	ELECTRICAL GEAR
	MORTAR NET	●	THERMAL PROTECTION		SAMPLES FOR VERIFICATION	●	PRODUCT DATA AND CUT SHEETS
	WEEP VENT		THERMAL INSULATION TYPE AS SCHEDULED	●	WINDOWS	●	ELECTRICAL SYSTEMS
●	THIN BRICK		PRODUCT DATA/ CUT SHEETS TO INCLUDE ALL REQUIRED ACCESSORIES		FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION (EXTERIOR APPLICATION)	●	PRODUCT DATA AND CUT SHEETS
●	PRODUCT DATA		FIBERGLASS		APPROVED FOR USE OUTSIDE HVHZ		
●	SAMPLES (WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)		MINERAL WOOL		APPROVED FOR USE IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)		
●	THIN BRICK ACCESSORIES		CELLULOSE		PRODUCT DATA / CUT SHEETS		
	THIN SET MORTAR		POLYURETHANE FOAM (XPS)		SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS		
	MORTAR COLOR CHART (IF NOT SPECIFIED)		POLYSTYRENE (EPS)		COLOR SELECTION CHART		
	WEEP SCREED		SPRAY POLYURETHANE FOAM		SAMPLES FOR VERIFICATION (IF NOT AS SPECIFIED)		
	MANUFACTURED STONE	●	COMPOSITE WALL PANEL SYSTEM / SIDING				
	PRODUCT DATA	●	FLORIDA PRODUCT APPROVAL / MIAMI-DADE NOA DOCUMENTATION				
	SAMPLES (WHEN DEVIATING FROM SPECIFIED OR WHEN UNSPECIFIED)		APPROVED FOR USE OUTSIDE HVHZ				
	CULTURED STONE ACCESSORIES		APPROVED FOR IN HVHZ (BROWARD AND MIAMI-DADE COUNTY)				
	CAST-FIT WATERTABLE / SILL	●	PRODUCT DATA / CUT SHEET WITH ALL REQUIRED ACCESSORIES				
		●	NICHIHA				
			HARDIE SIDING				
			ACM				
		●	SHOP DRAWINGS WITH PROJECT SPECIFIC DETAILS				
		●	COLOR SELECTION CHART				
			SAMPLES FOR VERIFICATION (IF NOT AS SPECIFIED)				
			SAMPLE WARRANTY				

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

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no.	date	revision descriptions

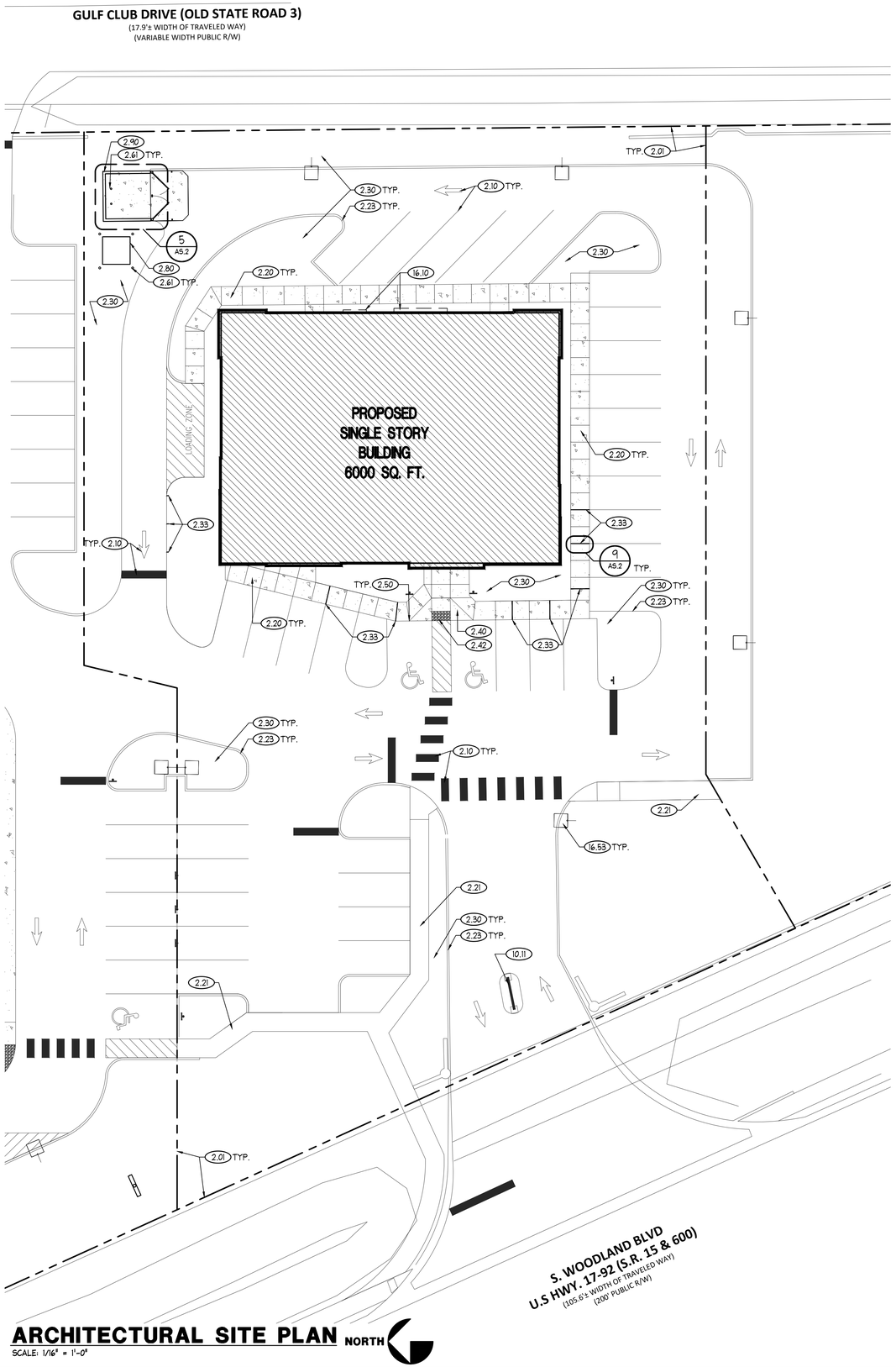
RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date

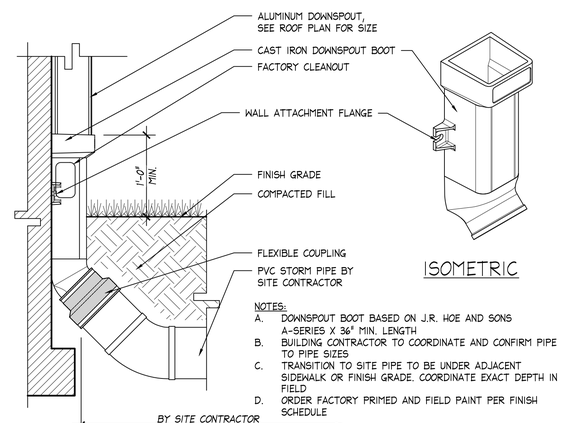
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REQUIRED SUBMITTALS

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ARCHITECTURAL SITE PLAN
SCALE: 1/16" = 1'-0"



NOTES:
A. DOWNSPOUT BOOT BASED ON J.R. HOE AND SONS A-SERIES X 36" MIN. LENGTH
B. BUILDING CONTRACTOR TO COORDINATE AND CONFIRM PIPE TO PIPE SIZES
C. TRANSITION TO SITE PIPE TO BE UNDER ADJACENT SIDEWALK OR FINISH GRADE. COORDINATE EXACT DEPTH IN FIELD
D. ORDER FACTORY PRIMED AND FIELD PAINT PER FINISH SCHEDULE

1 DOWNSPOUT CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"

GENERAL NOTES

1. SEE REQUIREMENTS FOR EXTERIOR CONCRETE ON THIS SHEET
2. AT THE BUILDING EXTERIOR, THE GC SHALL BE RESPONSIBLE FOR ALL SUB-GRADE ELECTRICAL CONDUIT AND FOUNDATIONS (AS APPLICABLE) FOR SITE LIGHTING. REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC REQUIREMENTS FOR CONDUIT RUNS

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS FOR EXTERIOR WALL FINISHES

REQUIREMENTS FOR EXTERIOR CONCRETE:

PERIMETER SIDEWALK: SHALL BE A MINIMUM OF 4" THICK, 3,000 PSI CONCRETE REINFORCED WITH 6' X 6', W1.4 X W1.4 WWM AND 1'-0" DEEP X 8" WIDE THICKENED SLAB EDGE, NATURAL GRAY COLOR. SURFACE TO RECEIVE MEDIUM BROOM FINISH. MEDIUM BROOM FINISH. RETOOL (WITH HAND EDGER) ALL CONTROL JOINTS AND EXPANSION JOINTS AFTER BROOM FINISHING TO ACHIEVE 'PICTURE FRAME' IN CONCRETE. THIS SHALL INCLUDE ALL ABUTMENTS TO WALLS, CURBS, COLUMNS, ETC.

SIDEWALK CONTROL JOINTS SHALL BE SEPARATED BY NO MORE THAN 5'-0" IN EITHER DIRECTION WITH PRE-MOLDED EXPANSION JOINTS LOCATED EVERY 20'-0" MAXIMUM

GROUND SIGN RESPONSIBILITIES:

THE SHELL GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING ITEMS REGARDING THE GROUND SIGN(S):

1) POWER SUPPLY TO THE SIGN AS SPECIFIED IN THE ELECTRICAL DRAWINGS

2) THE GROUND SIGN CABINETS (INTERNALLY ILLUMINATED) SHALL BE PERMITTED AND CONSTRUCTED BY A SIGN COMPANY ENGAGED BY THE LANDLORD. GC SHALL LOCATE AND INSTALL CONCRETE FOUNDATION AS SHOWN ON SIGN VENDOR'S PERMIT DRAWINGS

TENANT B DOMESTIC WATER SERVICE REQUIREMENTS:
THE DOMESTIC WATER SERVICE SHALL BE A MINIMUM OF 60 PSI AND 30-GPM AT THE POINT OF BUILDING ENTRY. IF THE PRESSURE IS UNDER 60 PSI OR FLOW 30-GPM AT THE POINT OF ENTRY, A BOOSTER PUMP SHALL BE PROVIDED AND INSTALLED.

IMMEDIATELY UPON INSTALLATION OF THE WATER SERVICE TO THE BUILDING, THE PLUMBING CONTRACTOR SHALL PERFORM A PRESSURE TEST. SHOULD THE PRESSURES NOT MEET THE ABOVE STATED CRITERIA, THE GENERAL CONTRACTOR SHALL PROVIDE RESULTS TO THE ARCHITECT AT THE EARLIEST POSSIBLE DATE. THE ARCHITECT WILL THEN PROVIDE THE NECESSARY DESIGN REMEDIES TO THE CONTRACTOR FOR PRICING, PERMIT AND CONSTRUCTION

REFER TO THE FINISH SCHEDULE ON SHEET A3.0 FOR EXTERIOR FINISH DESCRIPTIONS

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no.	date	revision descriptions

RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

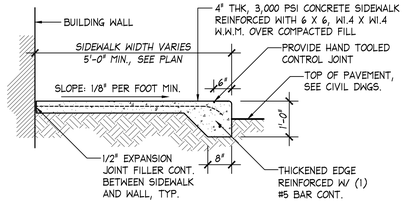
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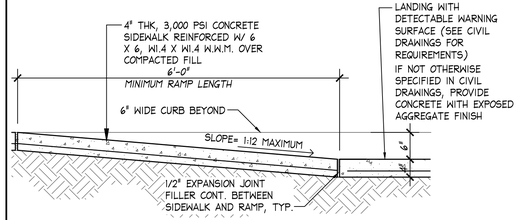
ARCHITECTURAL SITE PLAN AND DETAILS

AS.1

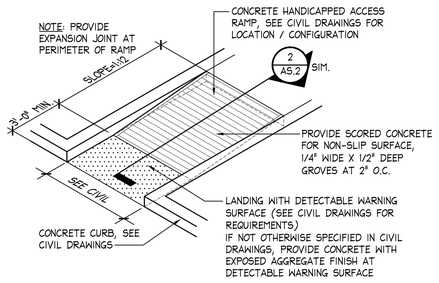
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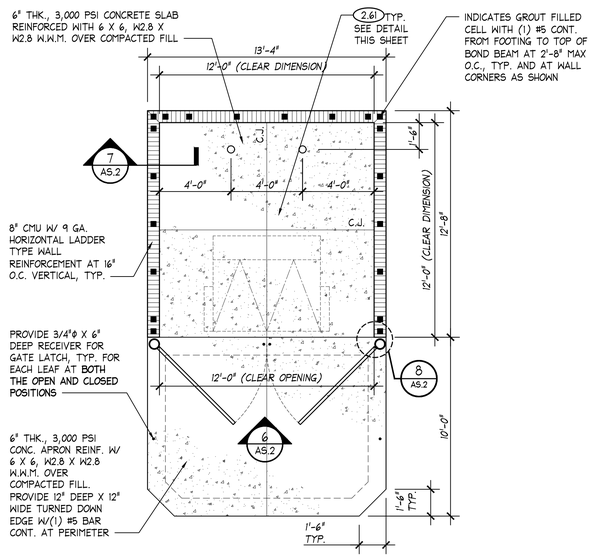
1 CONCRETE SIDEWALK SECTION
SCALE: 1/2" = 1'-0"



2 HANDICAP RAMP SECTION
SCALE: 3/4" = 1'-0"

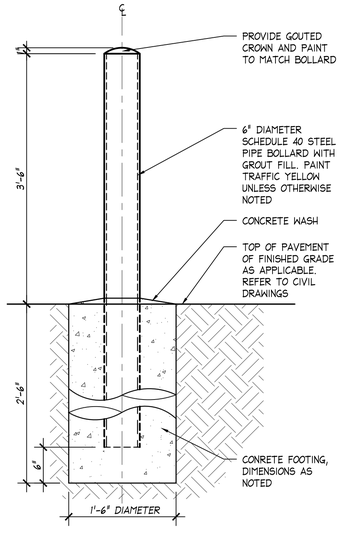


3 HANDICAP RAMP SECTION
NOT TO SCALE

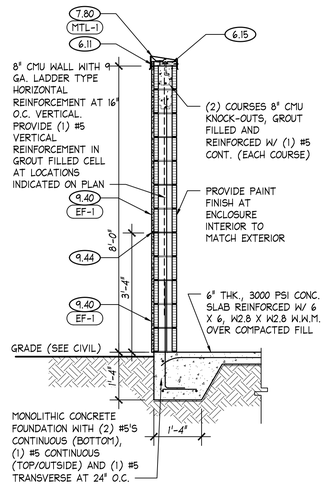


5 DUMPSTER ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"

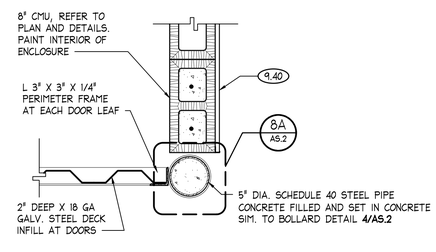
6 DUMPSTER ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



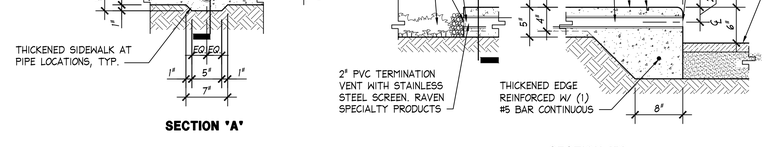
4 BOLLARD DETAIL
SCALE: 1" = 1'-0"



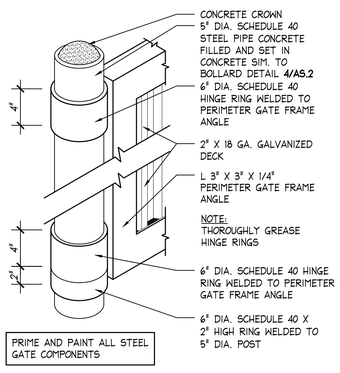
7 WALL SECTION
SCALE: 1/2" = 1'-0"



8 GATE POST DETAIL
SCALE: 1" = 1'-0"



9 SIDEWALK DRAIN DETAILS
SCALE: 1" = 1'-0"



8A GATE POST ISOMETRIC DETAIL
SCALE: 1/2" = 1'-0"

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REFER TO ARCHITECTURAL SITE PLAN AND CIVIL DRAWINGS FOR ALL REQUIREMENTS OUTSIDE BUILDING LINE

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS FOR EXTERIOR WALL FINISHES

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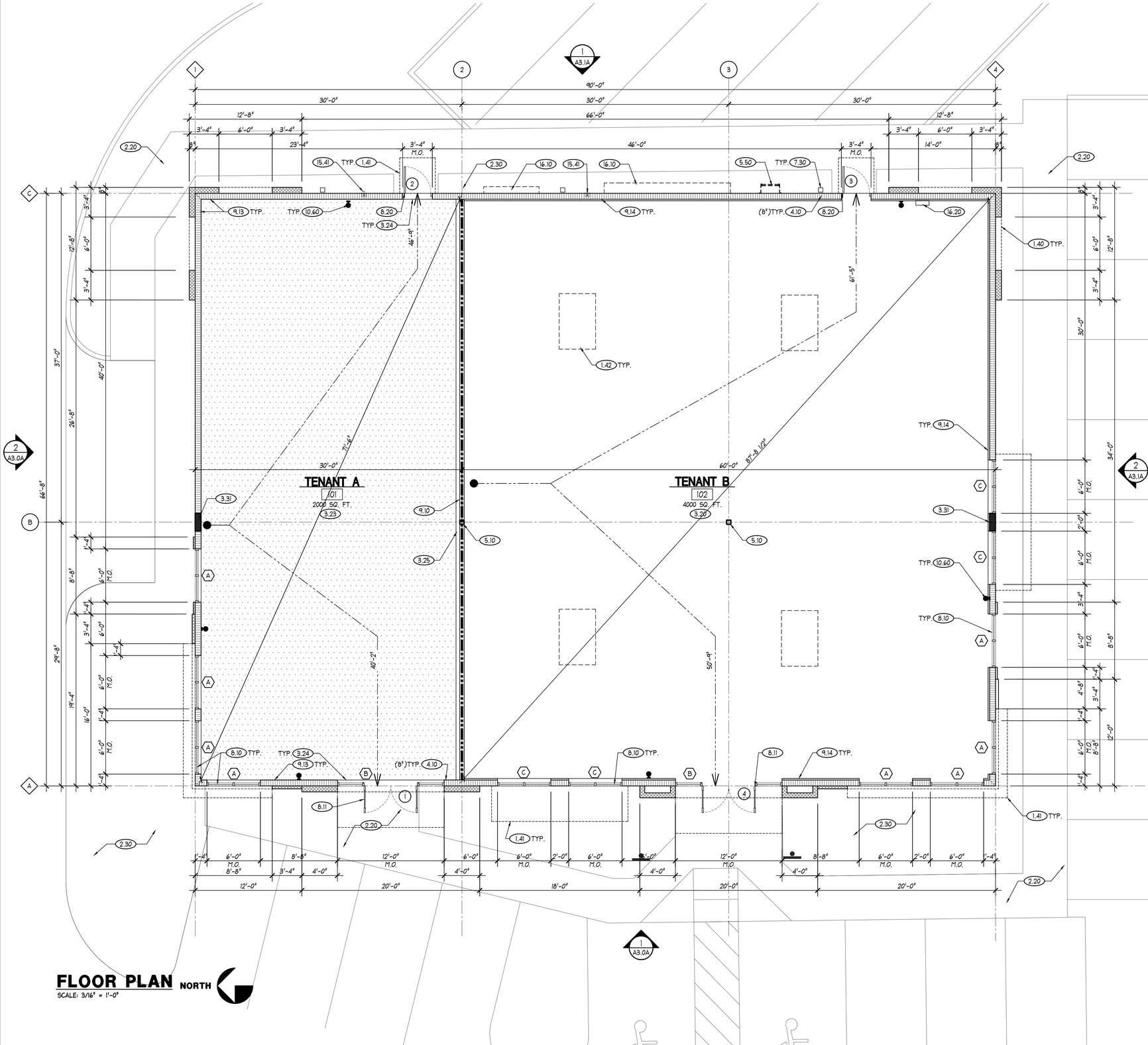
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RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
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ARCHITECTURAL SITE DETAILS

AS.2

6/11/2026 11:35 AM



FLOOR PLAN NORTH

SCALE: 3/16" = 1'-0"

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GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISHED FACE OF GWB PARTITIONS, FACE OF CMU AND CENTERLINE OF COLUMNS UNLESS OTHERWISE INDICATED

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO ARCHITECTURAL SITE PLAN AND CIVIL DRAWINGS FOR ALL REQUIREMENTS OUTSIDE BUILDING LINE

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

REFER TO THE WALL LEGEND ON THIS SHEET FOR THE DESCRIPTIONS OF WALL CONSTRUCTION

REFER TO EXTERIOR ELEVATIONS FOR WALL SECTION CUT LOCATIONS

REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS FOR EXTERIOR WALL FINISHES

WALL LEGEND AND NOTES

8" CMU WALL CONSTRUCTION. REFER TO STRUCTURAL DRAWINGS FOR REINFORCEMENT AND FILLED CELL LOCATIONS. WHERE NOTED AT INTERIOR, PROVIDE METAL STUD FURRING WITH INSULATION (SIZE AND TYPE NOTED), FULL HEIGHT TO ROOF DECK

1-HOUR RATED DEMISING WALL. CONSTRUCT PER U.L. ASSEMBLY U-465 WITH (1) LAYER OF 5/8" FIRE RATED GWB EACH SIDE OVER 6" 20 GA. METAL STUDS AT 16" O.C. PROVIDE SOUND ATTENUATION BATT INSULATION CONTINUOUS AT CAVITY. EXTEND ALL FULL HEIGHT TO UNDERSIDE OF ROOF DECK. REFER TO U.L. ASSEMBLY DETAILS ON **SHEET A6.0**. GWB SHALL BE SPECIFIC TYPE AND MANUFACTURER LISTED IN SPECIFIED U.L. ASSEMBLY DETAIL. USE MOISTURE RESISTANT GWB AT ALL UNCONDITIONED SPACES. PROVIDE MOLD AND MILDEW PREVENTION COATING. REFER TO SPECIFICATION SECTION 09260

EXTERIOR METAL STUD WALL CONSTRUCTION. REFER TO WALL SECTIONS AND STRUCTURAL DRAWINGS FOR DESCRIPTION

5/8" TYPE 'X' GYPSUM WALLBOARD IS REQUIRED AT THE DEMISING WALL (OR AS OTHERWISE SPECIFIED IN THE UL ASSEMBLY DETAIL PROVIDED). GWB SURFACES AT THE DEMISING WALL SHALL BE TAPED, MUDDED AND SANDED (TO A LEVEL 4 FINISH) AND READY TO RECEIVE TENANT'S PAINT FINISH

LIFE SAFETY LEGEND

MOST REMOTE POINT IN SPACE
PATH OF EGRESS TRAVEL
POINT OF EGRESS
TRAVEL DISTANCE
XX'-X"

FIRE EXTINGUISHER, 5LB 2A-10B:C ON SURFACE MOUNTED WALL BRACKET

EXIT SIGN / EMERGENCY LIGHT COMBINATION FIXTURE, REFER TO ELECTRICAL DRAWINGS

(#) DOOR SYMBOL, REFER TO **SHEET A4.0** FOR DOOR AND HARDWARE SCHEDULE

F.A.C. 69A-60.0081 NOTICE

F.A.C. 69A-60.0081 NOTICE REQUIRED FOR STRUCTURES WITH LIGHT-FRAME TRUSS-TYPE CONSTRUCTION

NOTE: THIS BUILDING **DOES NOT** CONTAIN PRIMARY STRUCTURAL ELEMENTS WHICH ARE OF LIGHT-FRAME TRUSS-TYPE CONSTRUCTION

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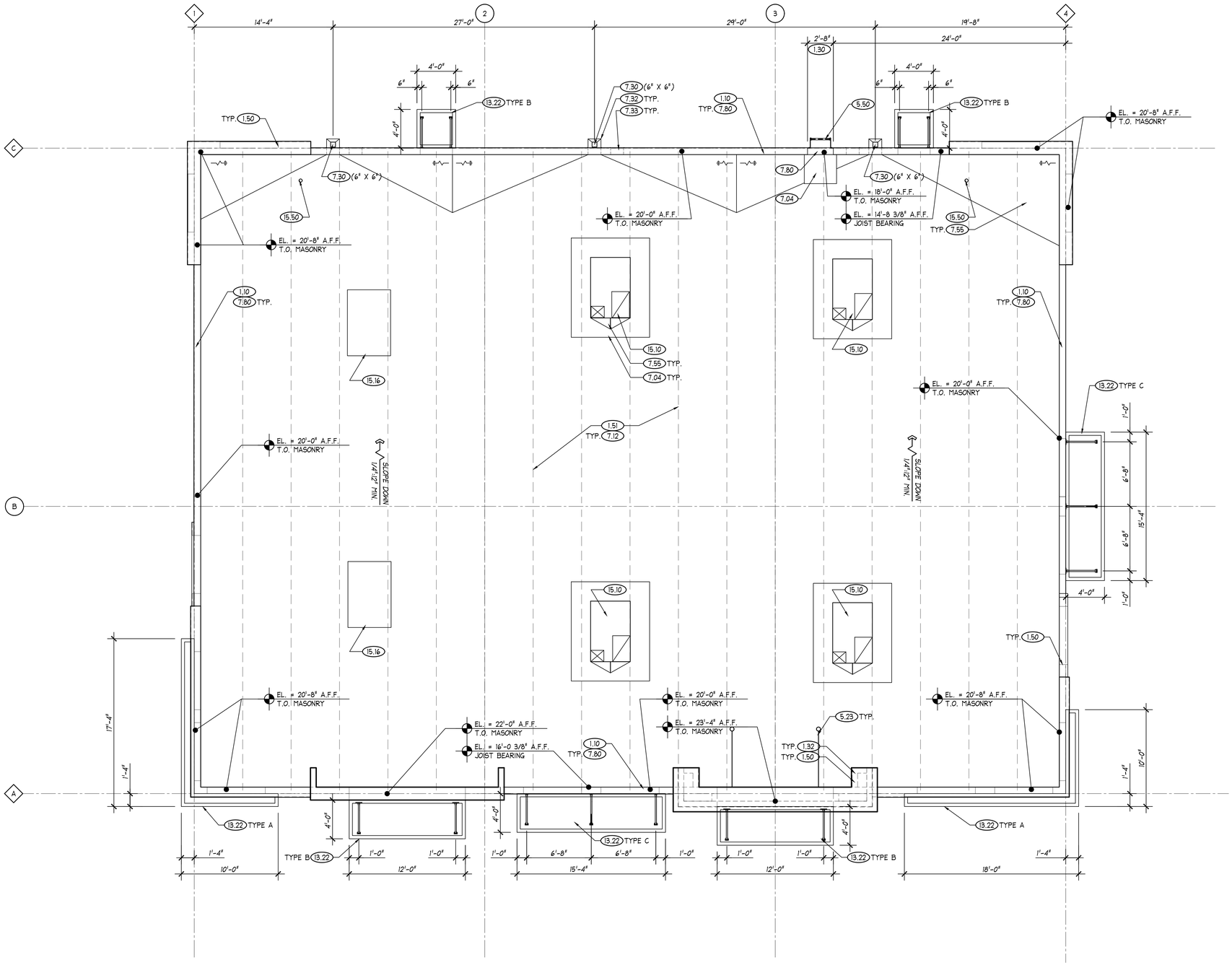
RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date

26005
comm. no.

FLOOR PLAN, NOTES AND LIFE SAFETY INFORMATION

A1.0



ROOF PLAN NORTH

SCALE: 3/16" = 1'-0"

6/11/2026 11:36 AM

GENERAL NOTES

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

DOWNSPOUT REQUIREMENTS:

ALL DOWNSPOUTS EXTENDING TO GRADE SHALL BE CONNECTED TO THE UNDERGROUND STORM SEWER UNLESS OTHERWISE NOTED. REFER TO CIVIL DRAWINGS. A CAST ALUMINUM TRANSITION BOOT WITH CLEAN OUT SHALL BE PROVIDED FOR THIS CONNECTION. REFER TO DETAIL ON SHEET A5.2

WHERE APPLICABLE, THE GENERAL CONTRACTOR SHALL CLOSELY COORDINATE LOCATIONS OF UNDERGROUND PIPING TO PRECISELY ALIGN WITH ROOF SCUPPERS AND DOWNSPOUTS

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

REFER TO WALL SECTIONS FOR DESCRIPTION OF CANOPIES AND AWNINGS AND REFERENCES TO DETAILS

REFER WALL SECTIONS FOR REFERENCES TO PARAPET AND ROOF DETAILS. SEE STRUCTURAL DRAWINGS FOR JOIST REQUIREMENTS

CRITICAL NOTES

WALL FINISHES AT PARAPET RETURNS:
THE DESIGN INTENT FOR PARAPET WALLS THAT RETURN ONTO THE ROOF SURFACE IS THAT THEY, WHERE EXPOSED TO VIEW, ARE TO BE PROVIDED WITH WALL FINISHES THAT ARE CONSISTENT WITH THE ADJACENT BUILDING ELEVATIONS. FOR EXAMPLE, IF CEMENT PLASTER IS PROVIDED ALONG THE MAIN BUILDING ELEVATION, THE PARAPET RETURNS ARE TO BE PROVIDED WITH EQUAL FINISHES

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE WALL FINISHES WITH APPLICABLE TRADES PRIOR TO INSTALLATION. UNDER NO CIRCUMSTANCES WILL EXPOSED ROOF MEMBRANE BE ACCEPTED AS A WALL FINISH AT THE PARAPET RETURN CONDITIONS NOTED

WALL COUNTERFLASHING DETAILS:
REFER TO WALL SECTIONS AND ENLARGED DETAILS FOR THE SPECIFIED COUNTERFLASHING REQUIRED ABOVE CANOPIES, AWNINGS, PILASTER CAPS AND, WHERE APPLICABLE, TRIM MOULDING. IN SUCH CASES, THE DESIGN INTENT IS TO LIMIT THE VISIBILITY OF COUNTERFLASHINGS BY INCORPORATING LOW PROFILE OR CONCEALED FLASHINGS

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE ALL WALL COUNTERFLASHING REQUIREMENTS WITH THE ROOFER AND APPLICABLE TRADES PRIOR TO INSTALLATION. SHOULD CLARIFICATION OF ANY DETAIL BE NEEDED, THE SHELL GENERAL CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT PRIOR TO INSTALLATION

UNDER NO CIRCUMSTANCES WILL EXPOSED SINGLE-PLY MEMBRANE BE AN ACCEPTABLE MEANS OF FLASHING AT THE CONDITIONS NOTED

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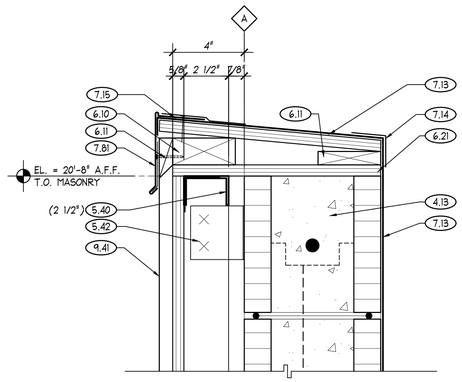
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DELAND, FL

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ROOF PLAN

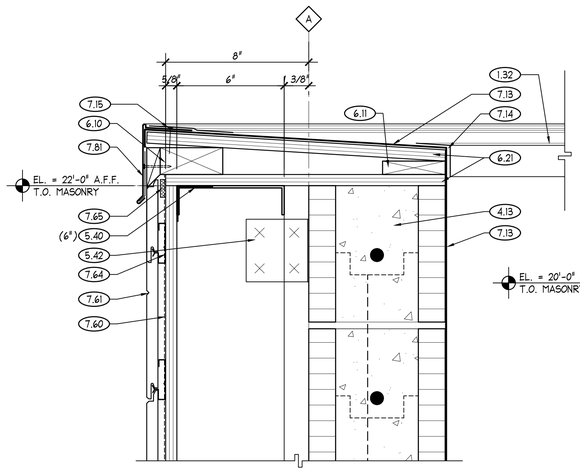
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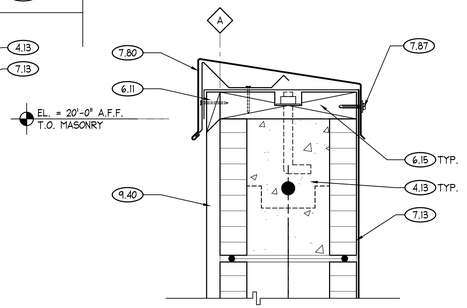
REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS



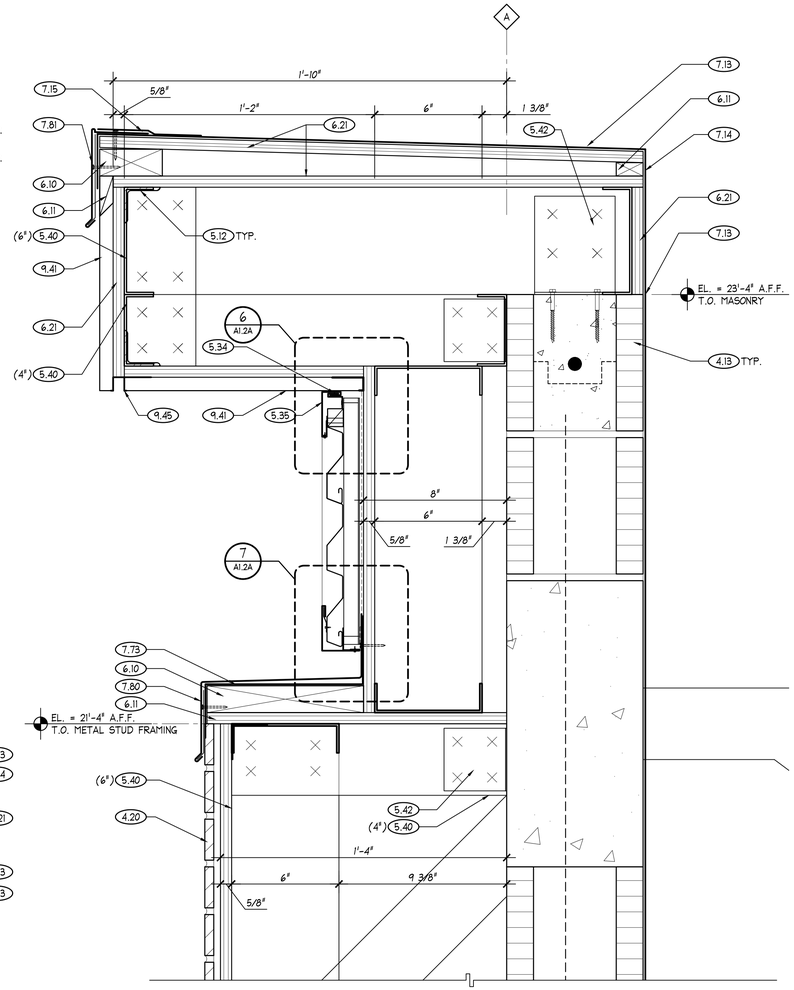
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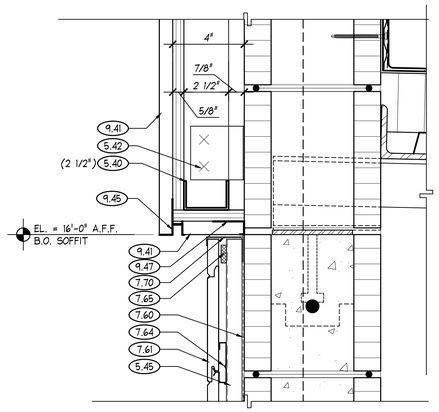
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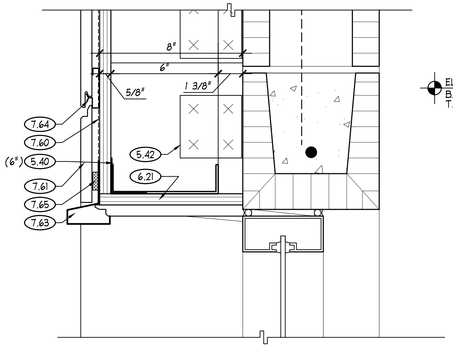
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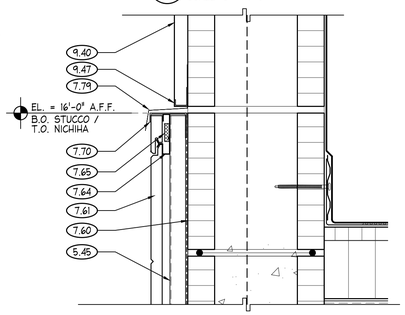
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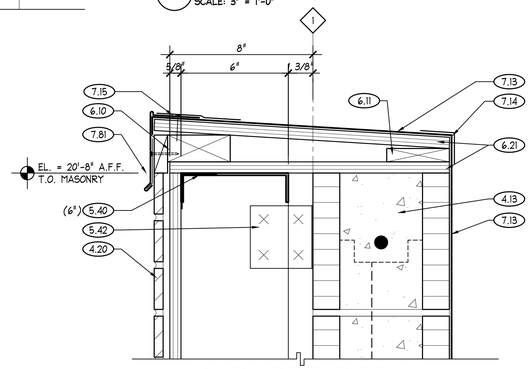
7 SOFFIT DETAIL
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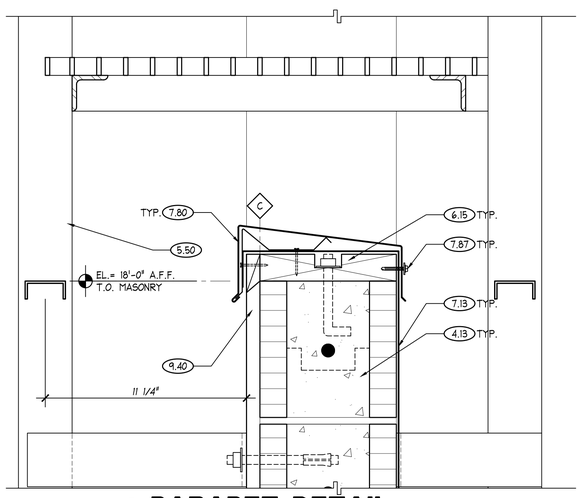
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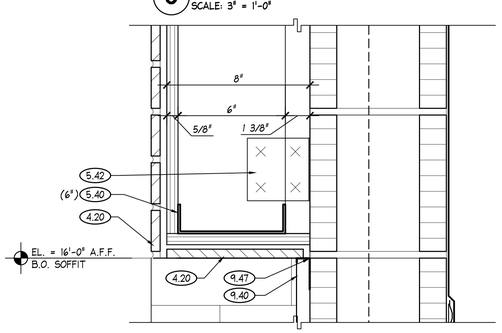
11 TRIM DETAIL
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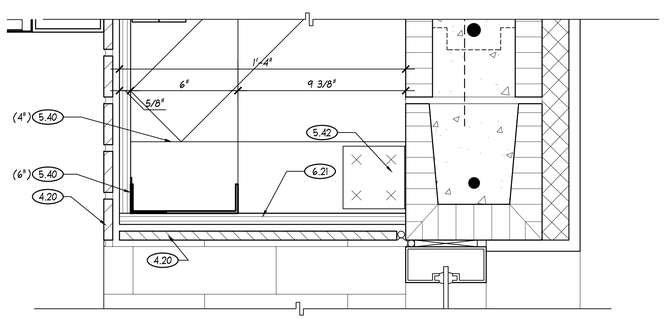
5 PARAPET DETAIL
SCALE: 3" = 1'-0"



6 PARAPET DETAIL
SCALE: 3" = 1'-0"



10 SOFFIT DETAIL
SCALE: 3" = 1'-0"



9 SOFFIT DETAIL
SCALE: 3" = 1'-0"

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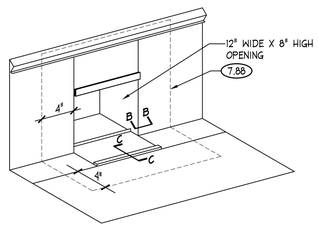
ROOF DETAILS

A1.2

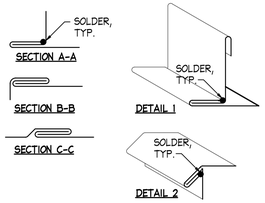
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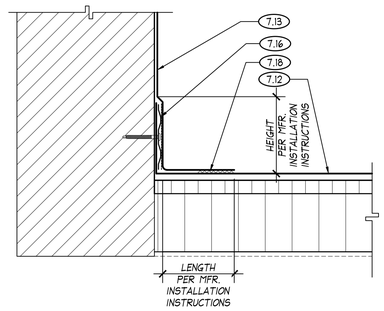
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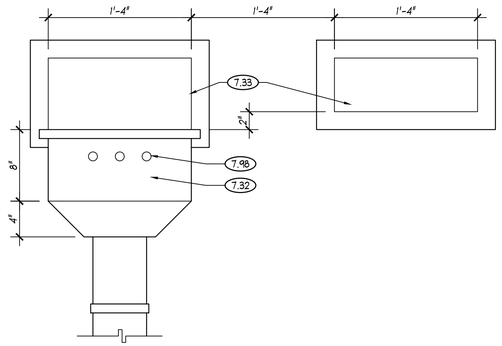
FLASHING DETAIL
NOT TO SCALE



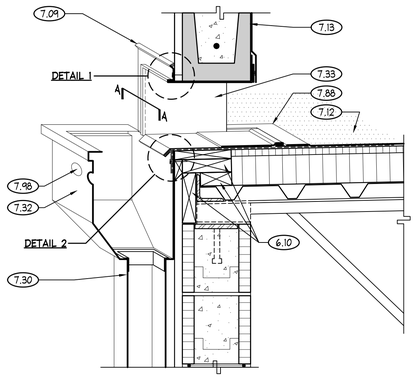
FLASHING DETAILS
NOT TO SCALE



3 TYPICAL PARAPET FLASHING DETAIL
SCALE: 3" = 1'-0"

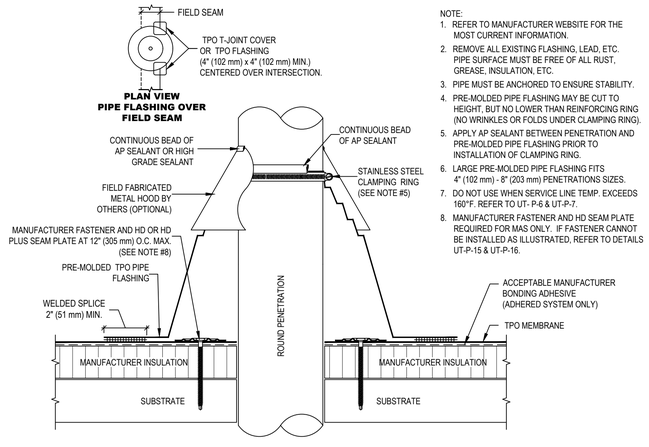


ELEVATION



SECTION

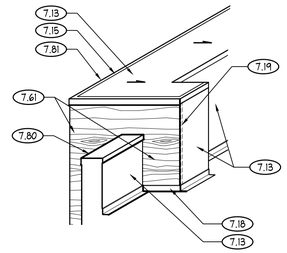
1 TYPICAL SCUPPER DETAILS
SCALE: 1-1/2" = 1'-0"



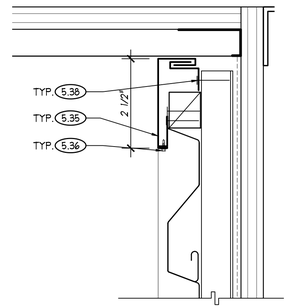
NOTE:
1. REFER TO MANUFACTURER WEBSITE FOR THE MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHING, LEAD, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
4. PRE-MOLDED PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING. (NO WRINKLES OR FOLDS UNDER CLAMPING RING).
5. APPLY AP SEALANT BETWEEN PENETRATION AND PRE-MOLDED PIPE FLASHING PRIOR TO INSTALLATION OF CLAMPING RING.
6. LARGE PRE-MOLDED PIPE FLASHING FITS 4" (102 mm) - 8" (203 mm) PENETRATIONS SIZES.
7. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 160°F. REFER TO UT- P-6 & UT-P-7.
8. MANUFACTURER FASTENER AND HD SEAM PLATE REQUIRED FOR MAS ONLY. IF FASTENER CANNOT BE INSTALLED AS ILLUSTRATED, REFER TO DETAILS UT-P-15 & UT-P-16.

2 PLUMBING VENT DETAIL
SCALE: 6" = 1'-0"

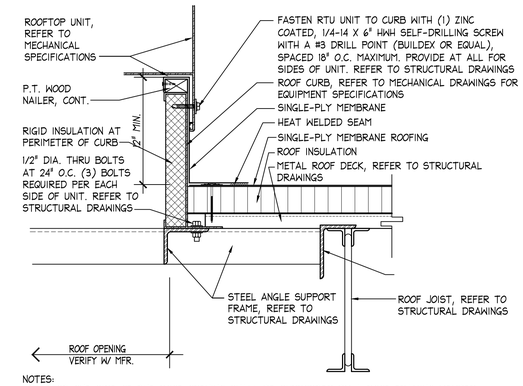
REFER TO STRUCTURAL DRAWINGS FOR FRAMING OF PARAPET RETURN ON ROOF



4 PARAPET RETURN DETAIL
SCALE: 1/4" = 1'-0"



6 TRIM DETAIL
SCALE: 6" = 1'-0"



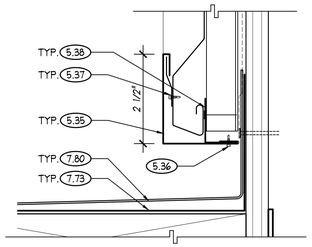
NOTES:
AT LEAST ONE SIDE OF THE ROOF OPENING SHALL BE SUPPORTED BY A ROOF FRAMING MEMBER

THE ROOF CURBS MAY BE WITHOUT INSULATION. TOP OF ROOF CURB SHALL BE INSTALLED LEVEL, SHIMMED FROM BENEATH SO TOP OF CURB HEIGHT WILL BE AS STATED IN FBC-BUILDING TABLE 1522.3 ABOVE ROOF SURFACE.

NOTE:
REFER TO STRUCTURAL ROOF FRAMING PLAN FOR ASSOCIATED STRUCTURAL DETAILS

NOTE:
REFER TO STRUCTURAL DRAWINGS FOR FASTENING METHODS AND SPECIFICATIONS

5 TYPICAL ROOFTOP UNIT CURB DETAIL
SCALE: 1-1/2" = 1'-0"



7 TRIM DETAIL
SCALE: 6" = 1'-0"

METAL WALL CLADDING - DESIGN INTENT:

THE DESIGN INTENT FOR THE METAL WALL CLADDING IS TO INSTALL WALL PANELS AND TRIM WITH CONCEALED FASTENERS TO THE FULLEST EXTENT POSSIBLE

DETAILS PROVIDED ILLUSTRATE THE ABOVE-MENTIONED DESIGN INTENT. IT SHALL BE THE RESPONSIBILITY OF THE METAL PANEL FABRICATOR/INSTALLER TO PROVIDE SHOP DRAWINGS INDICATING ALL DETAILS FOR THE INSTALLATION OF METAL PANELS AND TRIM FOR APPROVAL BY THE ARCHITECT PRIOR TO INSTALLATION

WHERE FASTENERS MAY BE REQUIRED TO BE EXPOSED, FASTENERS SHALL BE PAINTED TO MATCH THE RESPECTIVE WALL PANEL OR TRIM COLOR

REFER TO THE SPECIFICATIONS AND EXTERIOR COLOR SCHEDULE PROVIDED ON SHEET A3.0

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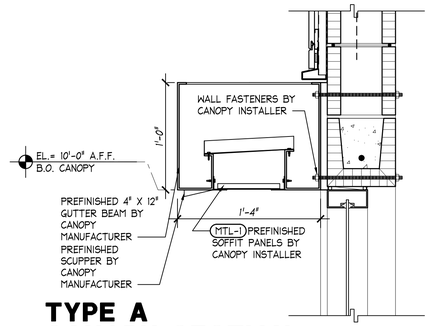
RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date
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comm. no.

ROOF DETAILS

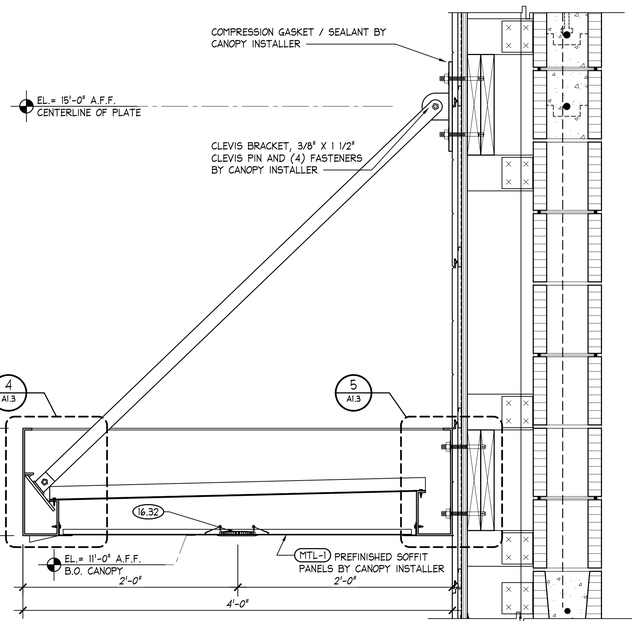
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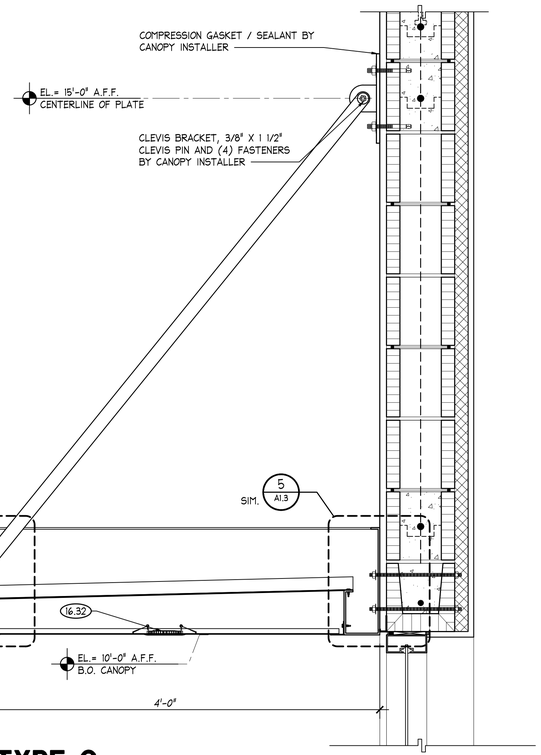
1 TYPE A CANOPY SECTION

SCALE: 1 1/2" = 1'-0"



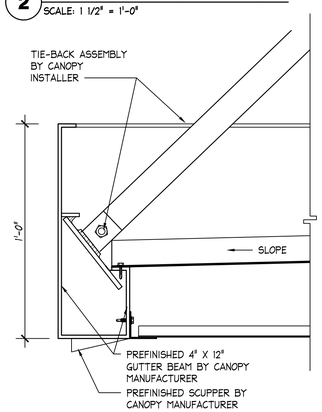
2 TYPE B CANOPY SECTION

SCALE: 1 1/2" = 1'-0"



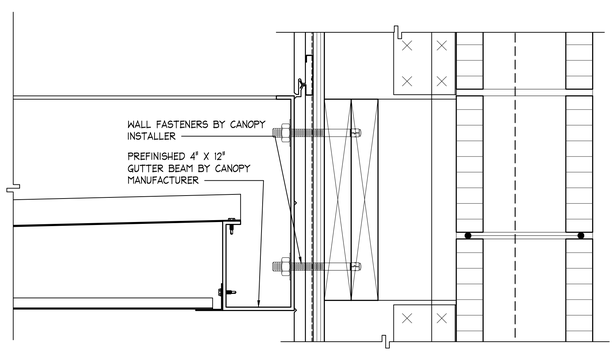
3 TYPE C CANOPY SECTION

SCALE: 1 1/2" = 1'-0"



4 CANOPY DETAIL

SCALE: 3" = 1'-0"



5 CANOPY DETAIL

SCALE: 3" = 1'-0"

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

PRE-ENGINEERED CANOPY NOTES

THE GENERAL CONTRACTOR SHALL ENGAGE A CANOPY MANUFACTURER TO PROVIDE FULLY ENGINEERED CANOPIES IN COMPLIANCE WITH THE DESIGN INTENT PROVIDED IN THE CONSTRUCTION DOCUMENTS

THE CANOPY MANUFACTURER SHALL PROVIDE A CANOPY ASSEMBLY THAT IS DESIGNED TO MEET THE WIND LOADS AT THE SUBJECT PROPERTY AND, ADDITIONALLY, THAT IS TESTED AND APPROVED BY MIAMI-DADE NOA OR FLORIDA PRODUCT APPROVAL

THE CANOPY MANUFACTURER SHALL PROVIDE FULLY ENGINEERED SHOP DRAWINGS WHICH SPECIFY ALL CANOPY COMPONENTS INCLUDING CONNECTIONS TO PRIMARY STRUCTURE. THE CONNECTION TO PRIMARY STRUCTURE INCLUDES ANY AND ALL NECESSARY SUPPORT BLOCKING REQUIREMENTS AND METHOD OF ATTACHMENT TO PRIMARY STRUCTURE. SHOP DRAWINGS SHALL BE SUBMITTED TO THE GENERAL CONTRACTOR FOR REVIEW AND APPROVAL

UPON RECEIPT OF SHOP DRAWING APPROVAL, THE CANOPY MANUFACTURER SHALL BE RESPONSIBLE FOR SUBMISSION OF SIGNED AND SEALED PLANS FOR PERMIT TO THE AUTHORITY HAVING JURISDICTION

UPON APPROVAL BY THE JURISDICTION, THE CANOPY MANUFACTURER SHALL BE RESPONSIBLE FOR THE FABRICATION AND COMPLETE INSTALLATION OF THE CANOPIES.

ALL SUPPORT BLOCKING AND ATTACHMENT TO THE BUILDING SHALL BE FULLY COORDINATED WITH THE GENERAL CONTRACTOR.

REFER TO ENLARGED DETAILS ON THIS SHEET FOR DESIGN INTENT AND PHYSICAL CANOPY PARAMETERS. A WRITTEN DESCRIPTION IS AS FOLLOWS:

1) THE CANOPIES SHALL BE PRE-ENGINEERED, PRE-FINISHED ALUMINUM
2) CANOPIES SHALL HAVE INTEGRAL GUTTERS ON ALL FOUR SIDES WITH SCUPPERS THAT SPILL OUTWARD, AWAY FROM THE BUILDING AND ENTRANCES
3) THE CANOPY SOFFIT MATERIAL SHALL BE PRE-FINISHED ALUMINUM ONLY, COLOR AS INDICATED ON THIS SHEET
4) CANOPIES SHALL INCLUDE RECESSED DOWN LIGHTING AS INDICATED ON THE REFLECTED CEILING PLAN AND ELECTRICAL DRAWINGS
5) WIRING FOR RECESS MOUNTED LIGHTING, EMERGENCY LIGHTING, ETC. AT THE UNDERSIDE OF CANOPIES SHALL BE FULLY CONCEALED WITHIN SOFFIT. THE ELECTRICIAN SHALL PROVIDE DETAILS SHOWING ROUTING OF WIRING FOR APPROVAL PRIOR TO INSTALLATION
6) ALUMINUM COMPONENTS TO BE FINISHED WITH STANDARD, OVEN CURED POWDER COAT AND SHALL MEET AAMA 2604 REQUIREMENTS
7) ANY GALVANIZED STEEL COMPONENTS SHALL BE PRIMED AND PAINTED
8) ALUMINUM AND GALVANIZED STEEL COMPONENTS SHALL BE ISOLATED FROM ONE ANOTHER TO PREVENT GALVANIC ACTION

REFER TO THE FINISH SCHEDULE ON SHEET A3.0 FOR CANOPY FINISH COLOR

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RETAIL BUILDING TWO AT DELAND

2235 S. WOODLAND BLVD
DELAND, FL

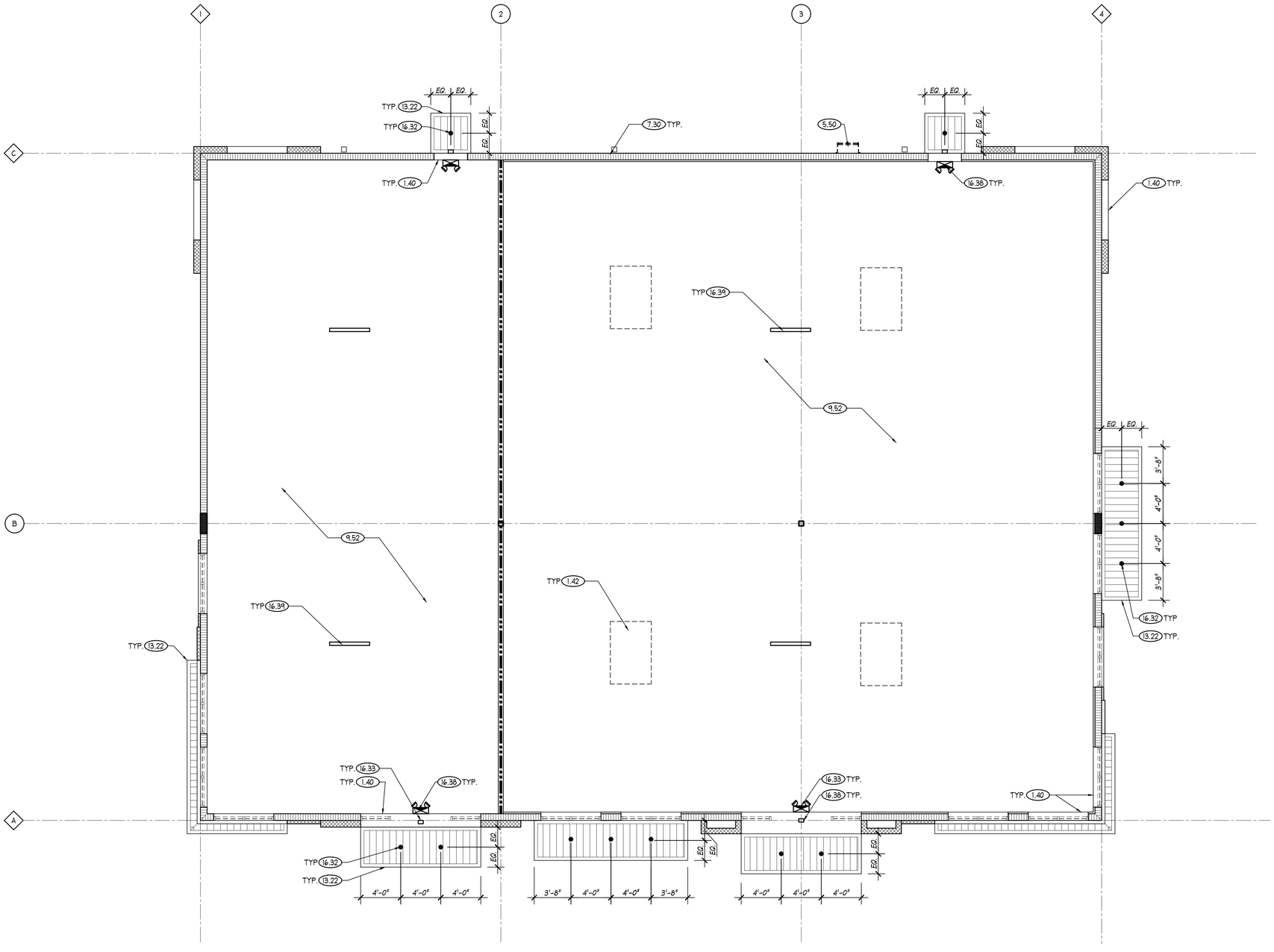
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CANOPY AND AWNING DETAILS

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REFLECTED CEILING PLAN

NORTH

SCALE: 3/16" = 1'-0"

GENERAL NOTES

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

1. REFER TO ELECTRICAL DRAWINGS FOR ALL LIGHTING SPECIFICATIONS AND LOCATIONS OF EMERGENCY LIGHTING
2. REFER TO MECHANICAL PLANS FOR ROOFTOP EQUIPMENT AND DROPS
3. REFER TO ELECTRICAL DRAWINGS FOR ELECTRIC POWER SUPPLY / RECEPTACLES ABOVE STOREFRONT OPENINGS AND THE BUILDING EXTERIOR FOR WALL MOUNTED SIGNAGE. REFER ALSO TO THE EXTERIOR ELEVATIONS
4. REFER TO **SHEET A4.1** FOR HEAD, JAMB AND SILL DETAILS

REFLECTED CEILING LEGEND

SYMBOL	DESCRIPTION	REMARKS
◉	RECESSED DOWN LIGHT FIXTURE	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS
	EMERGENCY/EXIT LIGHT COMBINATION FIXTURE	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS AND LOCATIONS
▭	EXTERIOR EMERGENCY LIGHT FIXTURE, WALL OR CEILING MOUNTED	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS. SEE ALSO EXTERIOR ELEVATIONS
▬	TEMPORARY LIGHTING FIXTURE	REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS

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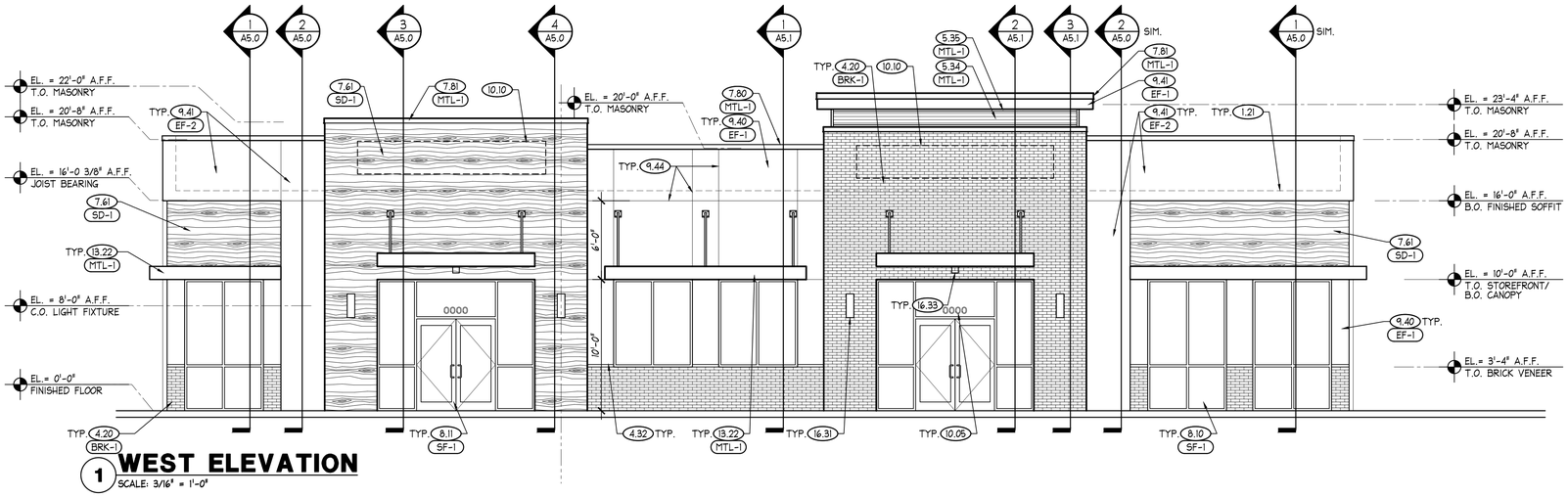
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REFLECTED CEILING PLAN

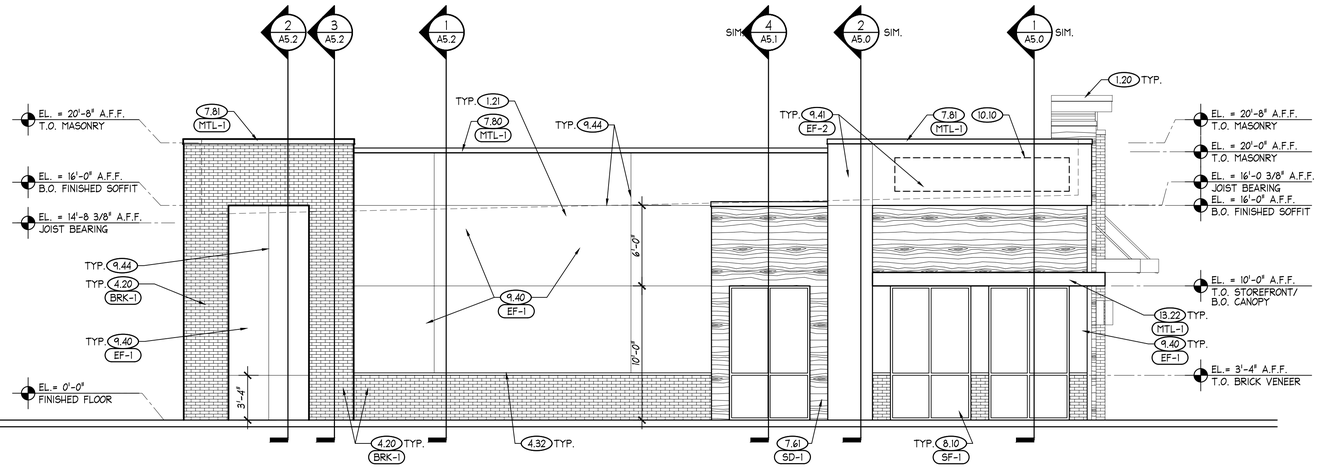
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1 WEST ELEVATION

SCALE: 3/16" = 1'-0"



2 NORTH ELEVATION

SCALE: 3/16" = 1'-0"

GENERAL NOTES

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

SIGNAGE NOTES:

ANY BUILDING MOUNTED SIGNAGE DEPICTED IN THESE DOCUMENTS IS FOR COORDINATION PURPOSES ONLY AND IS NOT INTENDED FOR FABRICATION OR INSTALLATION BY THE GENERAL CONTRACTOR. IT SHALL BE UNDERSTOOD THAT ALL EXTERIOR BUILDING MOUNTED AND SITE SIGNAGE WILL BE PERMITTED SEPARATELY BY THE OWNER'S SIGN VENDOR. AT THAT TIME, COMPLETE DETAILS INCLUDING, BUT NOT LIMITED TO, SIGN FABRICATION, SIGN INSTALLATION, SIGN AREA AND QUANTITIES, ETC. SHALL BE SUBMITTED (BY THE SIGN VENDOR) FOR PERMIT AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS

FACILITY ADDRESS REQUIREMENTS:
NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS PLACED IN A POSITION TO BE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY

ADDRESS NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. NUMERALS SHALL BE AT LEAST 6 INCHES IN HEIGHT

WHERE ADDRESS IDENTIFICATION IS REQUIRED BY THE FIRE OFFICIAL ON OTHER ELEVATIONS OF BUILDINGS, SUCH NUMERALS SHALL NOT BE LESS THAN SIX INCHES IN HEIGHT

ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS

CRITICAL NOTES

WALL FINISHES AT PARAPET RETURNS:
THE DESIGN INTENT FOR PARAPET WALLS THAT RETURN ONTO THE ROOF SURFACE IS THAT THEY, WHERE EXPOSED TO VIEW, ARE TO BE PROVIDED WITH WALL FINISHES THAT ARE CONSISTENT WITH THE ADJACENT BUILDING ELEVATIONS. FOR EXAMPLE, IF CEMENT PLASTER IS PROVIDED ALONG THE MAIN BUILDING ELEVATION, THE PARAPET RETURNS ARE TO BE PROVIDED WITH EQUAL FINISHES

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE WALL FINISHES WITH APPLICABLE TRADES PRIOR TO INSTALLATION. UNDER NO CIRCUMSTANCES WILL EXPOSED ROOF MEMBRANE BE ACCEPTED AS A WALL FINISH AT THE PARAPET RETURN CONDITIONS NOTED

WALL COUNTERFLASHING DETAILS:
REFER TO WALL SECTIONS AND ENLARGED DETAILS FOR THE SPECIFIED COUNTERFLASHING REQUIRED ABOVE CANOPIES, AWNINGS, PILASTER CAPS AND, WHERE APPLICABLE, TRIM MOULDING. IN SUCH CASES, THE DESIGN INTENT IS TO LIMIT THE VISIBILITY OF COUNTERFLASHINGS BY INCORPORATING LOW PROFILE OR CONCEALED FLASHINGS

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE ALL WALL COUNTERFLASHING REQUIREMENTS WITH THE ROOFER AND APPLICABLE TRADES PRIOR TO INSTALLATION. SHOULD CLARIFICATION OF ANY DETAIL BE NEEDED, THE SHELL GENERAL CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT PRIOR TO INSTALLATION

UNDER NO CIRCUMSTANCES WILL EXPOSED SINGLE-PLY MEMBRANE BE AN ACCEPTABLE MEANS OF FLASHING AT THE CONDITIONS NOTED

EXTERIOR FINISH NOTES

EXTERIOR INSULATION FINISH SYSTEM (EIFS) REQUIREMENTS:

1. THE STANDARD FINISH COAT OVER CEMENT PLASTER SURFACES SHALL BE AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) AS MANUFACTURED BY DRYVIT SYSTEMS, INC. COLORS, AS SPECIFIED ON THE EXTERIOR FINISH SCHEDULE, HAVE BEEN SELECTED FROM DRYVIT'S STANDARD COLORS. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 10-YEAR MANUFACTURER WARRANTY

2. WHERE A CUSTOM COLOR IS REQUIRED FOR THE FINISH COAT OVER CEMENT PLASTER SURFACES, AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) WITH STRATOTONE COLOR MATCHING SYSTEM AS MANUFACTURED BY DRYVIT SYSTEMS, INC. SHALL BE PROVIDED. CUSTOM COLORS ARE SPECIFIED ON THE EXTERIOR FINISH SCHEDULE. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 5-YEAR MANUFACTURER WARRANTY

3. ALL FINISH COAT TEXTURES SHALL BE "SANDPEBBLE" UNLESS OTHERWISE NOTED

4. WHERE FOAM TRIM, CORNICE MOLDING OR OTHER SHAPES ARE SPECIFIED, COMPONENTS SHALL BE AS MANUFACTURED BY "DRYVIT SHAPES BY ACROCORE" AND SHALL BE COMPRISED OF A TYPE 1 CLASSIFICATION EXPANDED POLYSTYRENE WRAPPED IN A FLEXIBLE IMPACT RESISTANT FIBERGLASS MESH AND COATED WITH A FACTORY APPLIED POLYMER MODIFIED, FLEXIBLE CEMENT COATING

5. ALL GENERAL CONTRACTOR BIDS SHALL INCLUDE THE ABOVE STATED SYSTEMS / PRODUCTS IN THEIR BASE BIDS. SUBSTITUTIONS WILL BE CONSIDERED FOR APPROVAL BUT ONLY IF FULLY QUALIFIED IN BIDS INCLUDING COMPLETE SYSTEM / PRODUCT SPECIFICATIONS AND ASSOCIATED COSTS

ALUMINUM COPING, DRIP EDGES, SCUPPERS AND DOWNSPOUT REQUIREMENTS:

1. ALL COMPONENTS SHALL BE PREFINISHED WITH A FACTORY APPLIED, KYNAR 500 FINISH OR MANUFACTURER EQUIVALENT. COLORS SHALL BE AS SPECIFIED FROM THE MANUFACTURER'S STANDARD COLOR OPTIONS

GENERAL:

1. WHERE PLASTER REVEALS ARE NOT PREFINISHED, REVEALS SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR UNLESS OTHERWISE NOTED

2. ALL EXPOSED, BUILDING MOUNTED UTILITIES AND CONDUITS SHALL BE PAINTED TO MATCH THE ADJACENT WALL SURFACES UNLESS OTHERWISE NOTED

THE CONTRACTOR SHALL REQUEST A COLORIZED COPY OF THE ELEVATIONS FROM THE ARCHITECT PRIOR TO ORDERING OR APPLYING EIFS, PAINT AND OTHER EXTERIOR FINISHES. THE COLORIZED ELEVATIONS WILL HELP CONFIRM COLORS AND ASSIST THE PAINTER WHERE COLOR CHANGES OCCUR

EXTERIOR FINISH SCHEDULE

CEMENT PLASTER / EIFS FINISHES
(ACRYLIC EIFS FINISH WITH INTEGRAL COLOR AND TEXTURE)

TAG	MANUFACTURER	COLOR	DESCRIPTION
EF-1	DRYVIT	MATCH SHERWIN WILLIAMS #SW7570 "EGRET WHITE" (LRV 70)	CUSTOM DRYVIT STRATOTONE COLOR
EF-1	DRYVIT	MATCH SHERWIN WILLIAMS #SW7524 "DHURRIE BEIGE" (LRV 50)	CUSTOM DRYVIT STRATOTONE COLOR
PAINT FINISHES			
PT-1	SHERWIN WILLIAMS	SW#7570 "EGRET WHITE"	
BRICK			
BRK-1	VEE BRICK CLASSICS	COLOR: "710 SEASHELL" MORTAR: SM330 "BURLYWOOD"	
METAL TRIM, COPING, DOWNSPOUTS AND SCUPPERS			
MTL-1	BERRIDGE	"CHARCOAL"	KYNAR 500
ALUMINUM STOREFRONT			
SF-1	YKK	"BLACK"	
SIDING			
SD-1	NICHIHA	VINTAGE WOOD "SPRUCE"	CEMENTITOUS SIDING

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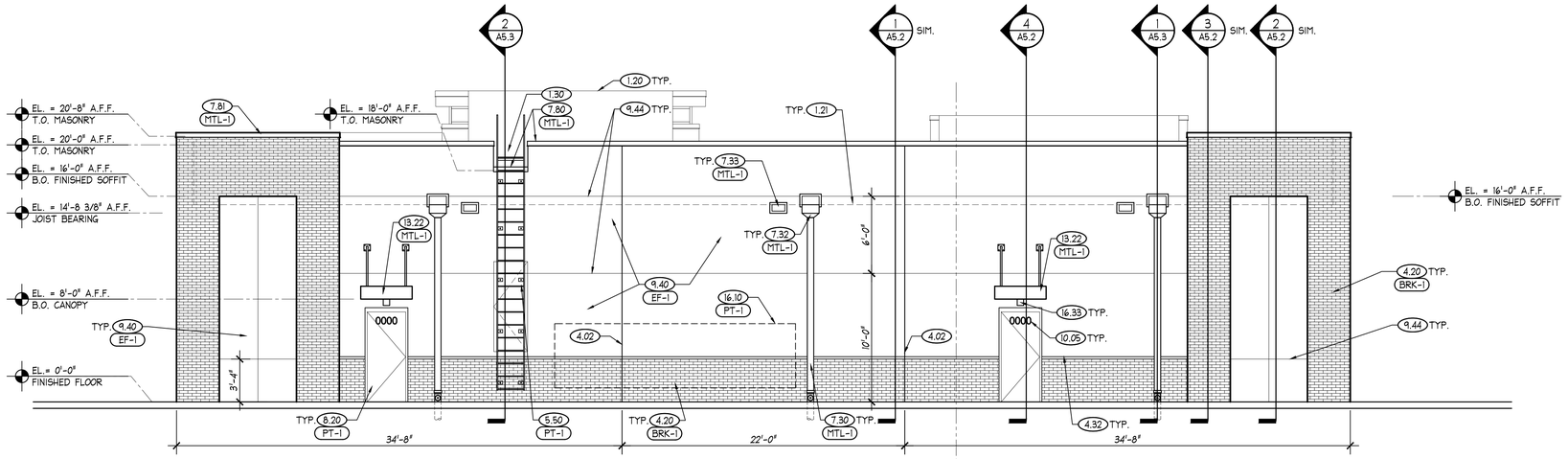
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RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

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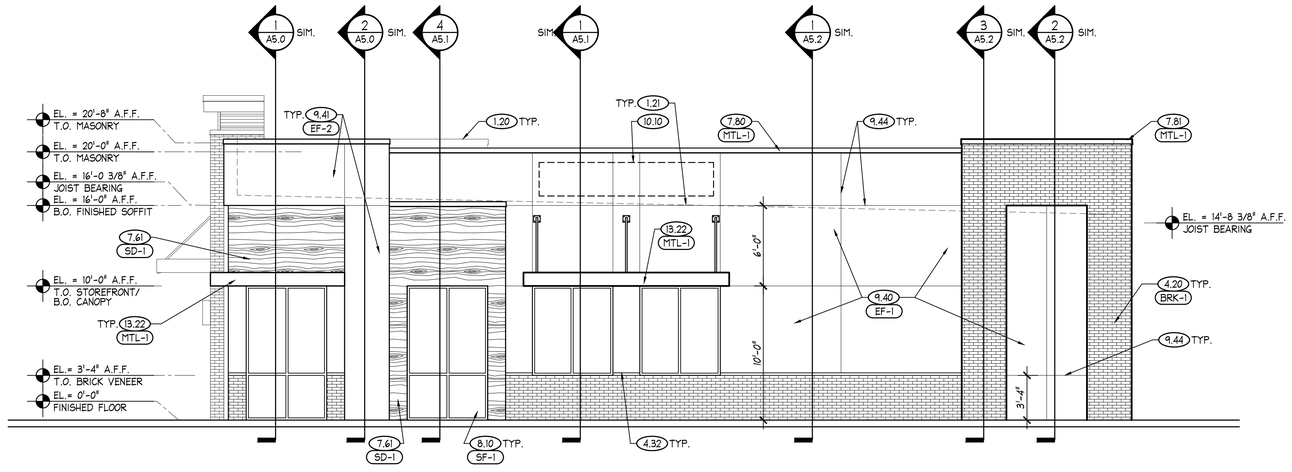
EXTERIOR ELEV. AND EXTERIOR FINISH SCHEDULE

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1 EAST ELEVATION

SCALE: 3/16" = 1'-0"



2 SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

GENERAL NOTES

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS

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SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS

FACILITY ADDRESS REQUIREMENTS:
NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS PLACED IN A POSITION TO BE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY

ADDRESS NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. NUMERALS SHALL BE AT LEAST 6 INCHES IN HEIGHT

WHERE ADDRESS IDENTIFICATION IS REQUIRED BY THE FIRE OFFICIAL ON OTHER ELEVATIONS OF BUILDINGS, SUCH NUMERALS SHALL NOT BE LESS THAN SIX INCHES IN HEIGHT

ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS

CRITICAL NOTES

WALL FINISHES AT PARAPET RETURNS:
THE DESIGN INTENT FOR PARAPET WALLS THAT RETURN ONTO THE ROOF SURFACE IS THAT THEY, WHERE EXPOSED TO VIEW, ARE TO BE PROVIDED WITH WALL FINISHES THAT ARE CONSISTENT WITH THE ADJACENT BUILDING ELEVATIONS. FOR EXAMPLE, IF CEMENT PLASTER IS PROVIDED ALONG THE MAIN BUILDING ELEVATION, THE PARAPET RETURNS ARE TO BE PROVIDED WITH EQUAL FINISHES

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE WALL FINISHES WITH APPLICABLE TRADES PRIOR TO INSTALLATION. UNDER NO CIRCUMSTANCES WILL EXPOSED ROOF MEMBRANE BE ACCEPTED AS A WALL FINISH AT THE PARAPET RETURN CONDITIONS NOTED

WALL COUNTERFLASHING DETAILS:
REFER TO WALL SECTIONS AND ENLARGED DETAILS FOR THE SPECIFIED COUNTERFLASHING REQUIRED ABOVE CANOPIES, AWNINGS, PILASTER CAPS AND, WHERE APPLICABLE, TRIM MOULDING. IN SUCH CASES, THE DESIGN INTENT IS TO LIMIT THE VISIBILITY OF COUNTERFLASHINGS BY INCORPORATING LOW PROFILE OR CONCEALED FLASHINGS

THE SHELL GENERAL CONTRACTOR SHALL FULLY REVIEW AND COORDINATE ALL WALL COUNTERFLASHING REQUIREMENTS WITH THE ROOFER AND APPLICABLE TRADES PRIOR TO INSTALLATION. SHOULD CLARIFICATION OF ANY DETAIL BE NEEDED, THE SHELL GENERAL CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT PRIOR TO INSTALLATION

UNDER NO CIRCUMSTANCES WILL EXPOSED SINGLE-PLY MEMBRANE BE AN ACCEPTABLE MEANS OF FLASHING AT THE CONDITIONS NOTED

EXTERIOR FINISH NOTES

EXTERIOR INSULATION FINISH SYSTEM (EIFS) REQUIREMENTS:

1. THE STANDARD FINISH COAT OVER CEMENT PLASTER SURFACES SHALL BE AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) AS MANUFACTURED BY DRYVIT SYSTEMS, INC. COLORS, AS SPECIFIED ON THE EXTERIOR FINISH SCHEDULE, HAVE BEEN SELECTED FROM DRYVIT'S STANDARD COLORS. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 10-YEAR MANUFACTURER WARRANTY

2. WHERE A CUSTOM COLOR IS REQUIRED FOR THE FINISH COAT OVER CEMENT PLASTER SURFACES, AN ACRYLIC EIFS FINISH COAT, "DRYVIT TAFTS" (OPTION 1) WITH STRATOTONE COLOR MATCHING SYSTEM AS MANUFACTURED BY DRYVIT SYSTEMS, INC. SHALL BE PROVIDED. CUSTOM COLORS ARE SPECIFIED ON THE EXTERIOR FINISH SCHEDULE. THIS SYSTEM CONSISTS OF A TINTED PRIMER AND TEXTURED ACRYLIC FINISH WITH INTEGRAL COLOR. THE SPECIFIED SYSTEM HAS A 5-YEAR MANUFACTURER WARRANTY

3. ALL FINISH COAT TEXTURES SHALL BE "SANDPEBBLE" UNLESS OTHERWISE NOTED

4. WHERE FOAM TRIM, CORNICE MOLDING OR OTHER SHAPES ARE SPECIFIED, COMPONENTS SHALL BE AS MANUFACTURED BY "DRYVIT SHAPES BY ACROCORE" AND SHALL BE COMPRISED OF A TYPE 1 CLASSIFICATION EXPANDED POLYSTYRENE WRAPPED IN A FLEXIBLE IMPACT RESISTANT FIBERGLASS MESH AND COATED WITH A FACTORY APPLIED POLYMER MODIFIED, FLEXIBLE CEMENT COATING

5. ALL GENERAL CONTRACTOR BIDS SHALL INCLUDE THE ABOVE STATED SYSTEMS / PRODUCTS IN THEIR BASE BIDS. SUBSTITUTIONS WILL BE CONSIDERED FOR APPROVAL BUT ONLY IF FULLY QUALIFIED IN BIDS INCLUDING COMPLETE SYSTEM / PRODUCT SPECIFICATIONS AND ASSOCIATED COSTS

ALUMINUM COPING, DRIP EDGES, SCUPPERS AND DOWNSPOUT REQUIREMENTS:

1. ALL COMPONENTS SHALL BE PREFINISHED WITH A FACTORY APPLIED, KYNAR 500 FINISH OR MANUFACTURER EQUIVALENT. COLORS SHALL BE AS SPECIFIED FROM THE MANUFACTURER'S STANDARD COLOR OPTIONS

GENERAL:

1. WHERE PLASTER REVEALS ARE NOT PREFINISHED, REVEALS SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR UNLESS OTHERWISE NOTED

2. ALL EXPOSED, BUILDING MOUNTED UTILITIES AND CONDUITS SHALL BE PAINTED TO MATCH THE ADJACENT WALL SURFACES UNLESS OTHERWISE NOTED

THE CONTRACTOR SHALL REQUEST A COLORIZED COPY OF THE ELEVATIONS FROM THE ARCHITECT PRIOR TO ORDERING OR APPLYING EIFS, PAINT AND OTHER EXTERIOR FINISHES. THE COLORIZED ELEVATIONS WILL HELP CONFIRM COLORS AND ASSIST THE PAINTER WHERE COLOR CHANGES OCCUR

EXTERIOR FINISH SCHEDULE

CEMENT PLASTER / EIFS FINISHES
(ACRYLIC EIFS FINISH WITH INTEGRAL COLOR AND TEXTURE)

TAG	MANUFACTURER	COLOR	DESCRIPTION
EF-1	DRYVIT	MATCH SHERWIN WILLIAMS #SW7570 "EGRET WHITE" (LRV 70)	CUSTOM DRYVIT STRATOTONE COLOR
EF-1	DRYVIT	MATCH SHERWIN WILLIAMS #SW7524 "DHURRIE BEIGE" (LRV 50)	CUSTOM DRYVIT STRATOTONE COLOR
PAINT FINISHES			
PT-1	SHERWIN WILLIAMS	SW7570 "EGRET WHITE"	
BRICK			
BRK-1	VEE BRICK CLASSICS	COLOR: "710 SEASHELL" MORTAR: SM330 "BURLYWOOD"	
METAL TRIM, COPING, DOWNSPOUTS AND SCUPPERS			
MTL-1	BERRIDGE	"CHARCOAL"	KYNAR 500
ALUMINUM STOREFRONT			
SF-1	YKK	"BLACK"	
SIDING			
SD-1	NICHIHA	VINTAGE WOOD "SPRUCE"	CEMENTITOUS SIDING

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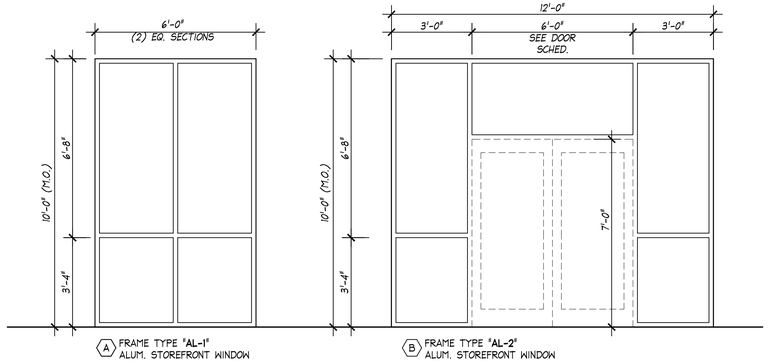
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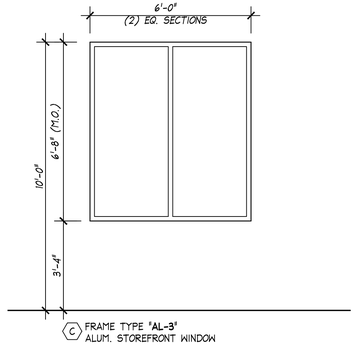
RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date
26005
comm. no.
EXTERIOR ELEVATIONS

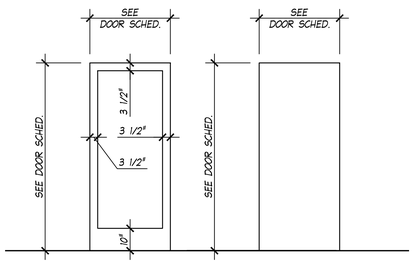
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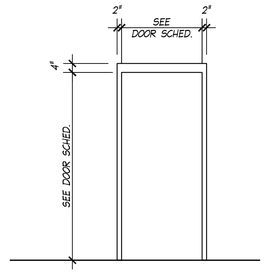




1 ALUMINUM STOREFRONT FRAME TYPES
SCALE: 3/8" = 1'-0"



2 DOOR TYPES
SCALE: 3/8" = 1'-0"



3 HOLLOW METAL FRAME TYPES
SCALE: 3/8" = 1'-0"

FRAME OPENING SCHEDULE

OPNG NO.	SPACE LOCATION	DOOR (AS APPLICABLE) TYPE	WIDTH	HGT.	THK.	MAT'L	HDW	FRAME TYPE	MAT'L	DETAIL REFERENCE HEAD	JAMB	THRES./ SILL	FINISH DR.	FRM.	REMARKS REFER TO "FRAME OPENING SCHEDULE REMARKS" AS REFERENCED BELOW	NO.
1	STOREFRONT	A	PR. 3'-0"	PR. 7'-0"	BY MFR.	ALUM/ GLASS	1	AL-2	ALUM.	1/A4.1	-	1/A4.1	PREFIN	PREFIN	SEE NOTES 3, 4, 5 & 6	1
2	EXIT	B	3'-0"	7'-0"	1-3/4"	HOLLOW MTL	2	HM-1	HM	5/A4.1	6/A4.1	4/A4.1	PAINT	PAINT	SEE NOTES 1, 2 & 5	2
3	EXIT	B	3'-0"	7'-0"	1-3/4"	HOLLOW MTL	2	HM-1	HM	5/A4.1	6/A4.1	4/A4.1	PAINT	PAINT	SEE NOTES 1, 2 & 5	3
4	STOREFRONT	A	PR. 3'-0"	PR. 7'-0"	BY MFR.	ALUM/ GLASS	1	AL-2	ALUM.	1/A4.1	-	1/A4.1	PREFIN	PREFIN	SEE NOTES 3, 4, 5 & 6	4
A	SEE ELEVATION							AL-1	ALUM.	2/A4.1	-	2/A4.1	-	PREFIN	SEE NOTES 3, 4, 5 & 6	A
B	SEE ELEVATION							AL-2	ALUM.	1/A4.1 2/A4.1	-	1/A4.1 2/A4.1	-	PREFIN	SEE NOTES 3, 4, 5 & 6	B
C	SEE ELEVATION							AL-3	ALUM.	2/A4.1	-	3/A4.1	-	PREFIN	SEE NOTES 3, 4, 5 & 6	C

GENERAL DOOR AND HARDWARE NOTES

A. DOOR CLOSURE ARMS SHALL PERMIT MAXIMUM DEGREE OF OPENING PERMITTED BY WALL CONDITIONS
B. DOOR CLOSURES SHALL BE APPLIED TO BOTH LEAVES OF A PAIR OF DOORS
C. SILENCERS TO BE FURNISHED ON ALL DOOR OPENINGS
D. THRESHOLDS TO BE FURNISHED WITH STAINLESS STEEL MACHINE SCREWS AND LEAD ANCHORS
E. FURNISH RESTROOM DOORS WITH 1" UNDERCUT, U.O.N.
F. ALL DOOR HANDLES SHALL BE LEVER TYPE WITH RETURNS TO WITHIN 1/2" OF THE DOOR FACE AND IN CONFORMANCE WITH THE **FLORIDA BUILDING CODE, ACCESSIBILITY.** CONTRACTOR SHALL RE-KEY DOORS AT COMPLETION OF PROJECT
G. ALL STEEL DOORS SHALL BE PAINTED PRIOR TO INSTALLATION OF HARDWARE
H. ALL EXTERIOR HOLLOW METAL DOORS AND FRAMES TO BE GALVANIZED
I. REFER TO FLOOR PLAN FOR DOOR SWINGS
J. EXIT DOORS: DURING BUSINESS HOURS EXIT DOORS SHALL BE OPERABLE FROM INSIDE WITHOUT USE OF A KEY
K. HARDWARE SUPPLIER TO VERIFY ALL HARDWARE COMPONENTS ARE COMPATIBLE WITH ACCOMPANYING ITEMS AND ARE IN COMPLIANCE WITH ALL STATE OR PRODUCT APPROVALS
L. HARDWARE SUPPLIER TO CONFIRM HARDWARE FINISHES MATCH STOREFRONT FINISH COLOR
M. ALL EXTERIOR DOORS SHALL MEET FLORIDA WINDSTORM REQUIREMENTS. THE DOOR HARDWARE SPECIFIED IS LISTED AS A BASIS OF DESIGN. IF ALTERNATE HARDWARE IS PROPOSED, PROVIDE FBC COMPLIANCE INFORMATION
N. DOOR CLOSERS SHALL MEET THE REQUIREMENTS OF THE **FLORIDA ACCESSIBILITY CODE** AND SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90°, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12° FROM THE LATCH IS 5 SECONDS, MINIMUM
O. EXTERIOR HINGED DOORS SHALL MEET THE REQUIREMENTS OF THE **FLORIDA ACCESSIBILITY CODE** AND SHALL BE DESIGNED SO THAT SUCH DOORS CAN BE PUSHED OR PULLED WITH A FORCE NOT EXCEEDING 8.5 POUNDS

FRAME OPENING SCHEDULE REMARKS

1. PAINT DOOR AND FRAME, SEMI-GLOSS PAINT, U.O.N. COLOR TO MATCH ADJACENT WALL COLOR
2. PROVIDE INSULATED HOLLOW METAL DOOR
3. ALUMINUM STOREFRONT FRAME AND DOOR COMPONENTS SHALL BE **"BLACK"**
4. **ALUMINUM STOREFRONT BASED ON YKK YES 45FI SYSTEM WITH 1" INSULATED GLASS, CLEAR, LOW-E. DOORS SHOULD BE MEDIUM STYLE, HEAVY DUTY, BASED ON YKK MODEL 35D WITH 1" INSULATED GLASS**
5. THE CONTRACTOR SHALL COORDINATE SUBMITTAL OF MANUFACTURER'S FLORIDA PRODUCT APPROVAL DATA AND INSTALLATION REQUIREMENTS WITH THE BUILDING DEPARTMENT, IF REQUIRED
6. PROVIDE SILL FLASHING CONTINUOUS ALONG BOTTOM OF ALL SILL MEMBERS. AT TERMINATION OF SILL FLASHING, PROVIDE END CAP OF EQUAL MATERIAL. SET ALL IN BED OF CONTINUOUS SEALANT

HARDWARE SCHEDULE

HARDWARE SET NO. 1 - EXTERIOR STOREFRONT ENTRANCE - PAIR

(4) OFFSET PIVOTS	BY MFR.		
(1) FLUSH BOLT	MS2180	121	ADAMS RITE
(1) THRESHOLD BOLT	4015-18-1B		ADAMS RITE
(1) HEADER BOLT	4016		ADAMS RITE
(1) MORTISE DEADLOCK	MS1850S	313	ADAMS RITE
(1) CYLINDER	72 41 101	US20D	SARGENT
(1) THUMBTURN CYLINDER	4066-01	313	ADAMS RITE
(1) EXIT INDICATOR	4089	121	ADAMS RITE
(2) PUSH BAR	BY MFR.		
(2) OFFSET PULLS	BY MFR.		
(2) DOOR CLOSER	351 O (TOP JAMB)	EB	SARGENT
(2) TOP JAMB MOUNTING PLATE	351A OR 351B (AS REQ'D.)	EB	SARGENT
(1) THRESHOLD	170D MSES2555 X OPEN'G WIDTH SET IN NON-SHRINK GROUT BED		PEMKO
(1) WEATHERSTRIPPING	BY MFR.		
(2) SWEEP	315DN TKSPB X DOOR WIDTH		PEMKO

HARDWARE SET NO. 2 - EXTERIOR HOLLOW METAL EXIT - SINGLE

QTY. ITEM			
(3) HINGE	T4A2314 X NRP 4 1/2" x 4 1/2"	US32D	MCKINNEY
(1) EXIT DEVICE	HC 43 72 8806ETL	US32D	SARGENT
(1) DOOR CLOSER	351 CPSH	EN	SARGENT
(1) KICK PLATE	K1050 8" X LAR 4BE CSK	US32D	ROCKWOOD
(1) THRESHOLD	2005AV MSES2555 X OPN'G WIDTH SET IN NON-SHRINK GROUT BED		PEMKO
(1) RAIN DRIP	346C TKSPB X OPEN'G WIDTH +4"		PEMKO
(1) WEATHER STRIPPING	303AV TKSPB HEAD AND JAMBS		PEMKO
(1) SWEEP	315CN TKSPB X DOOR WIDTH		PEMKO
(3) SILENCER	608		ROCKWOOD
(1) DOOR VIEWER	622	DCRM	ROCKWOOD
(1) LATCH PROTECTOR	321	US32D	ROCKWOOD

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RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

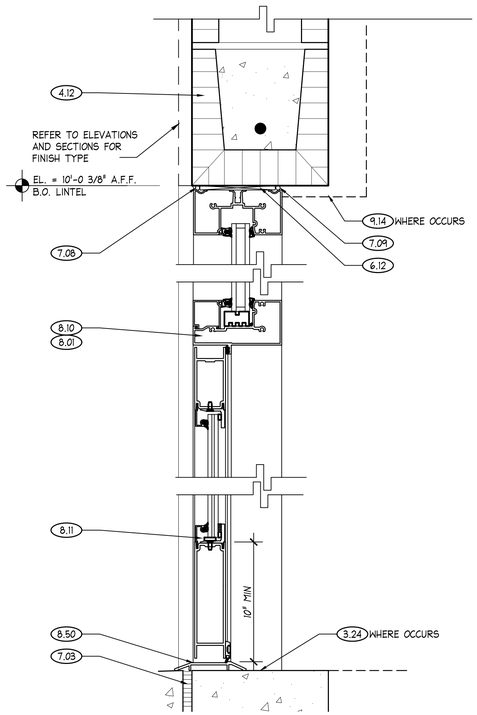
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FRAME OPENING SCHEDULE

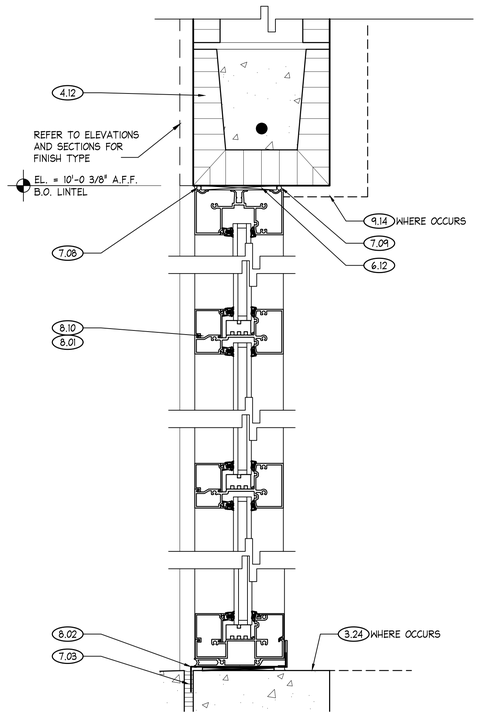
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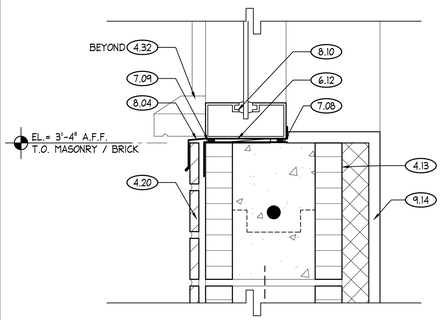
STOREFRONT HEAD/ THRESHOLD DETAIL

1 SCALE: 3" = 1'-0"



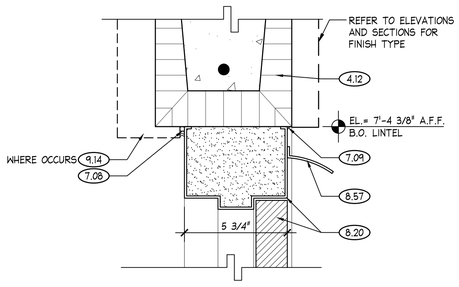
STOREFRONT HEAD/ SILL DETAIL

2 SCALE: 3" = 1'-0"



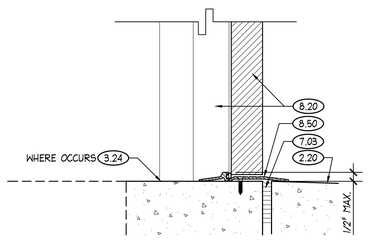
STOREFRONT SILL DETAIL

3 SCALE: 3" = 1'-0"



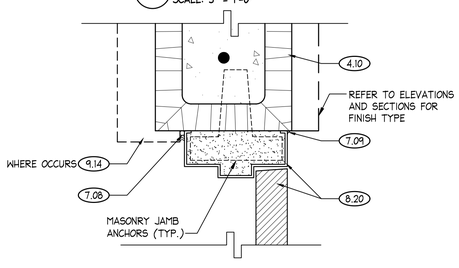
DOOR HEAD DETAIL

5 SCALE: 3" = 1'-0"



ALUMINUM THRESHOLD DETAIL

4 SCALE: 3" = 1'-0"



DOOR JAMB DETAIL

6 SCALE: 3" = 1'-0"

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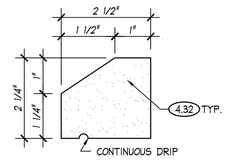
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date

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FRAME OPENING DETAILS

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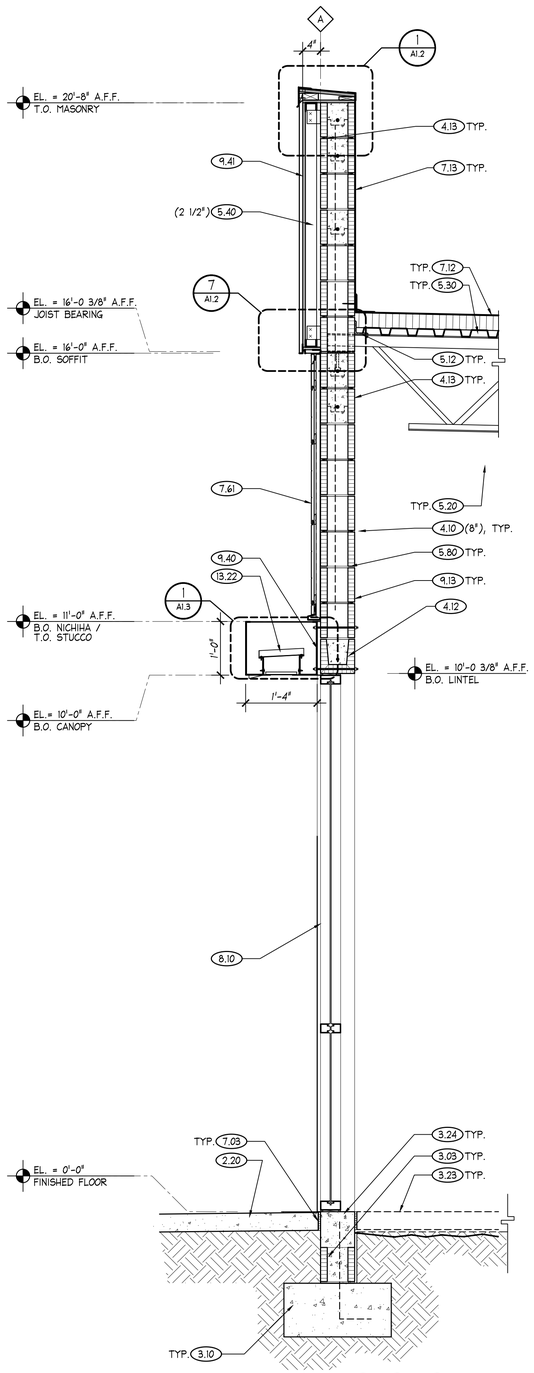


5 PRECAST CONCRETE WATERTABLE PROFILE

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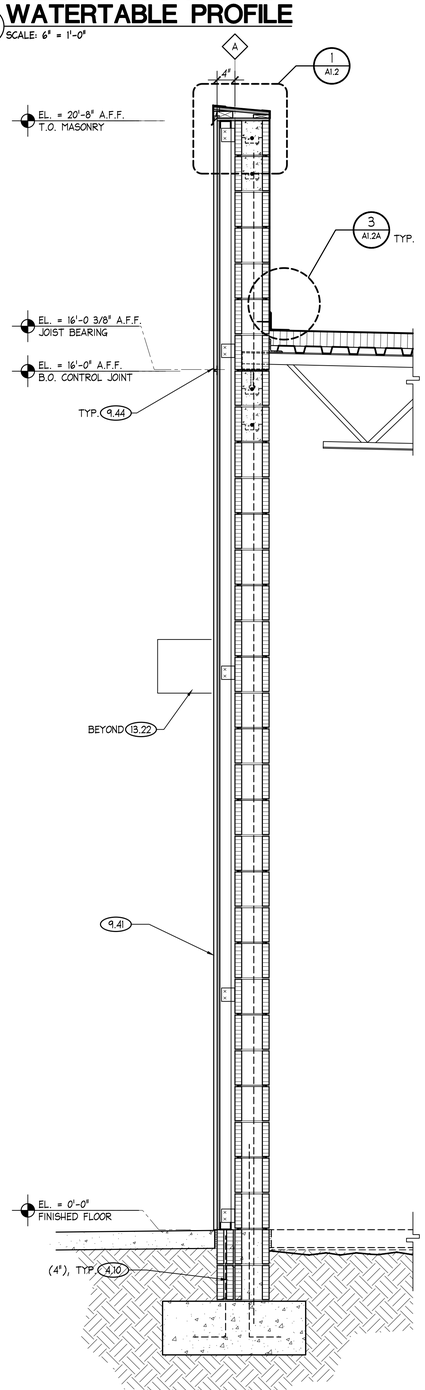
TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS



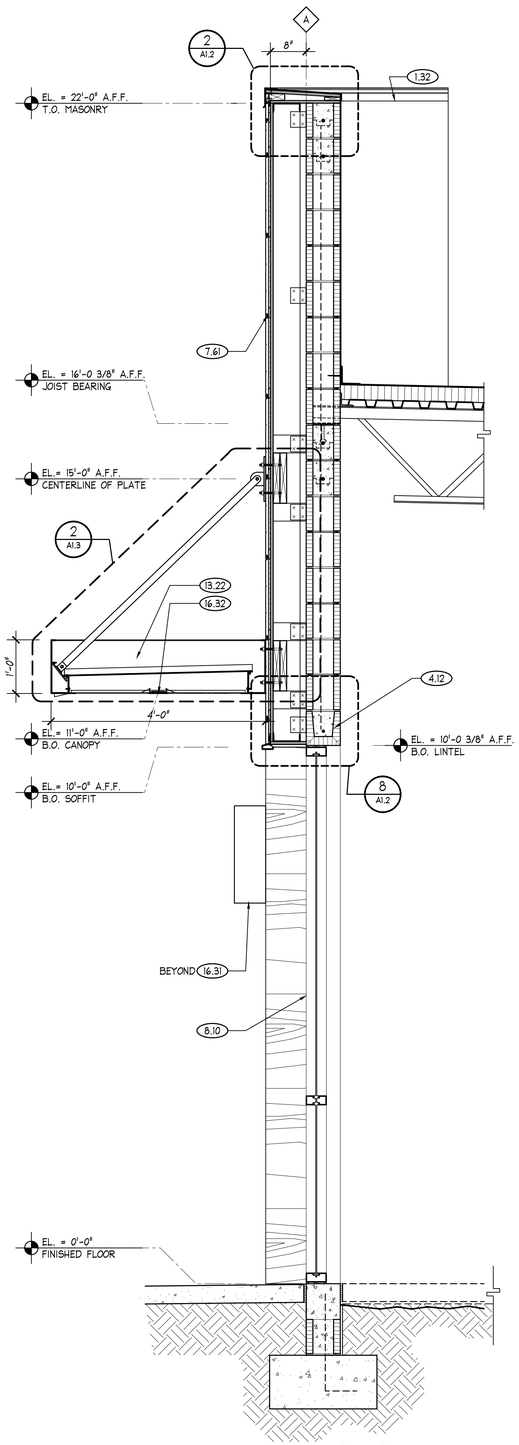
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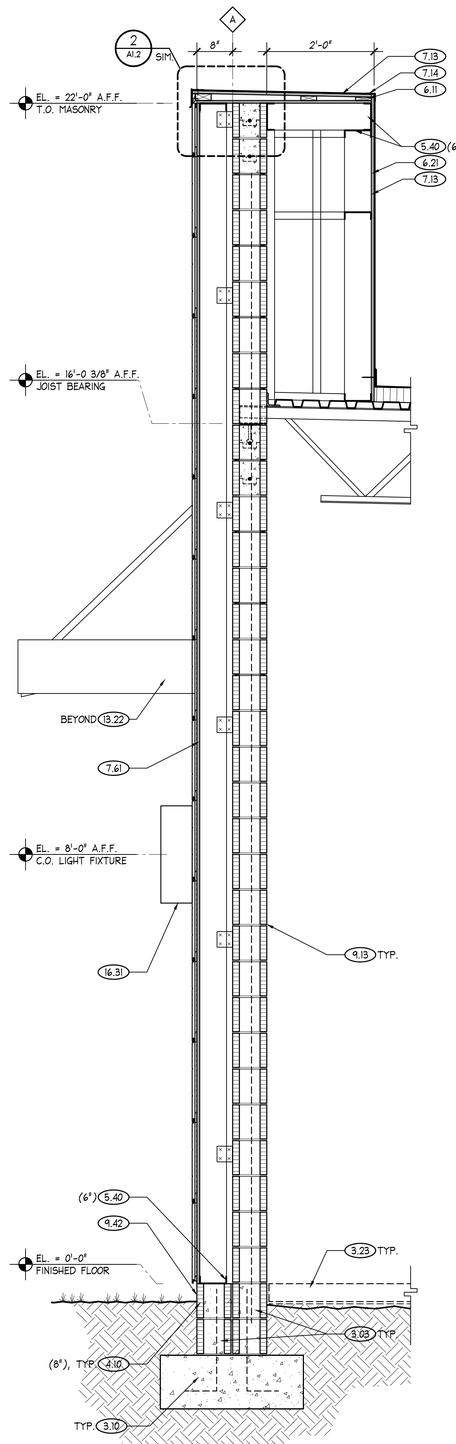
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SCALE: 3/4" = 1'-0"



3 WALL SECTION

SCALE: 3/4" = 1'-0"



4 WALL SECTION

SCALE: 3/4" = 1'-0"

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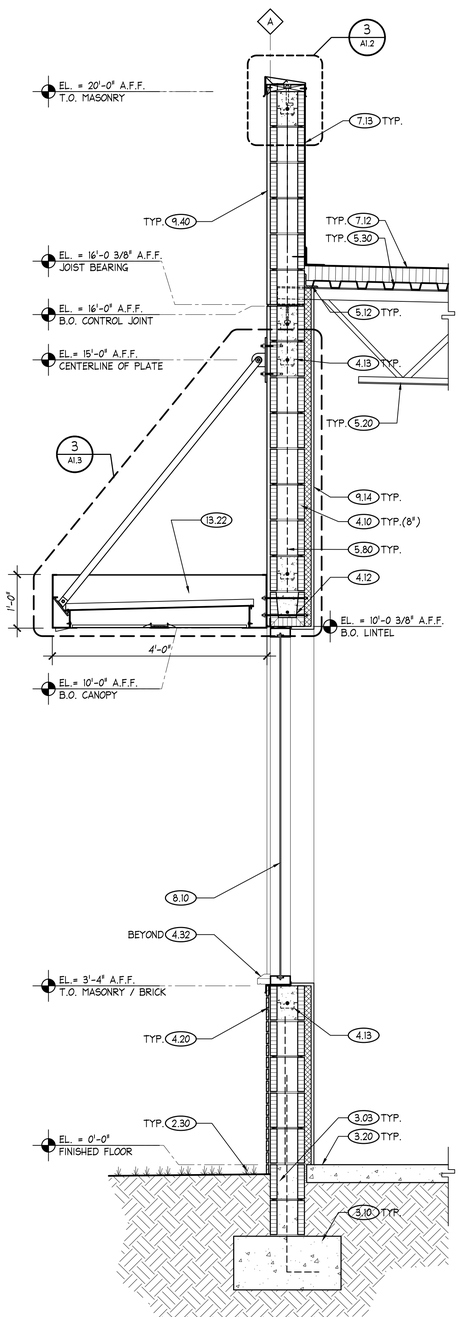
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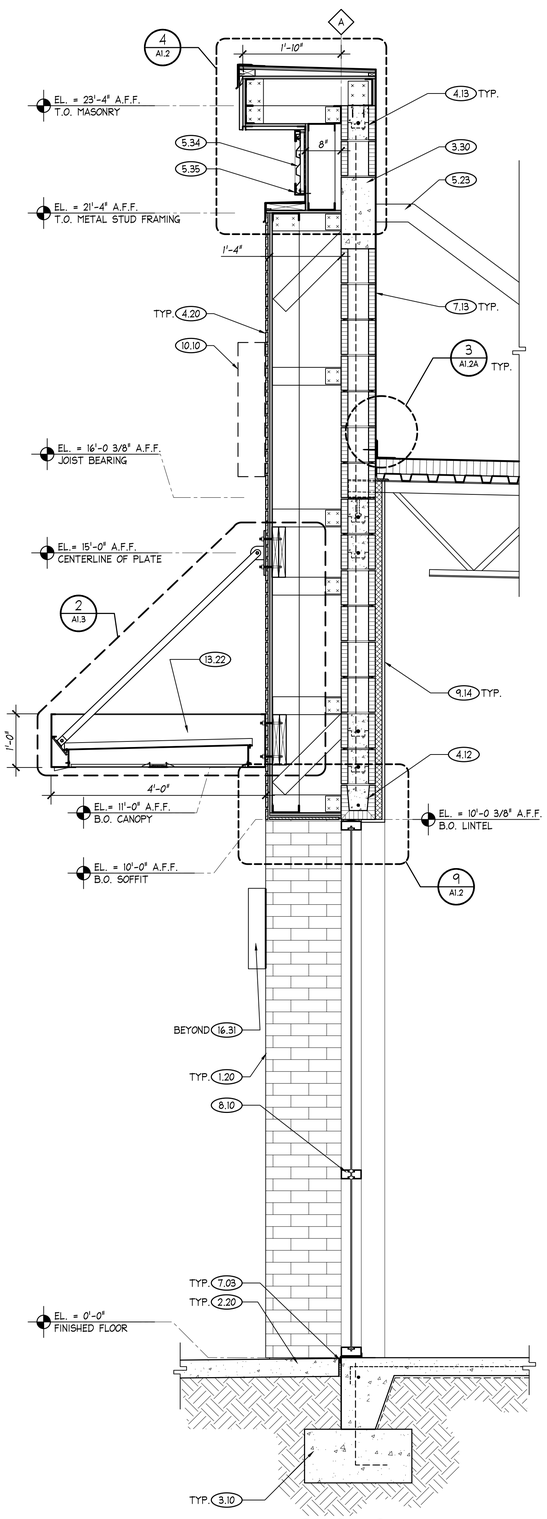
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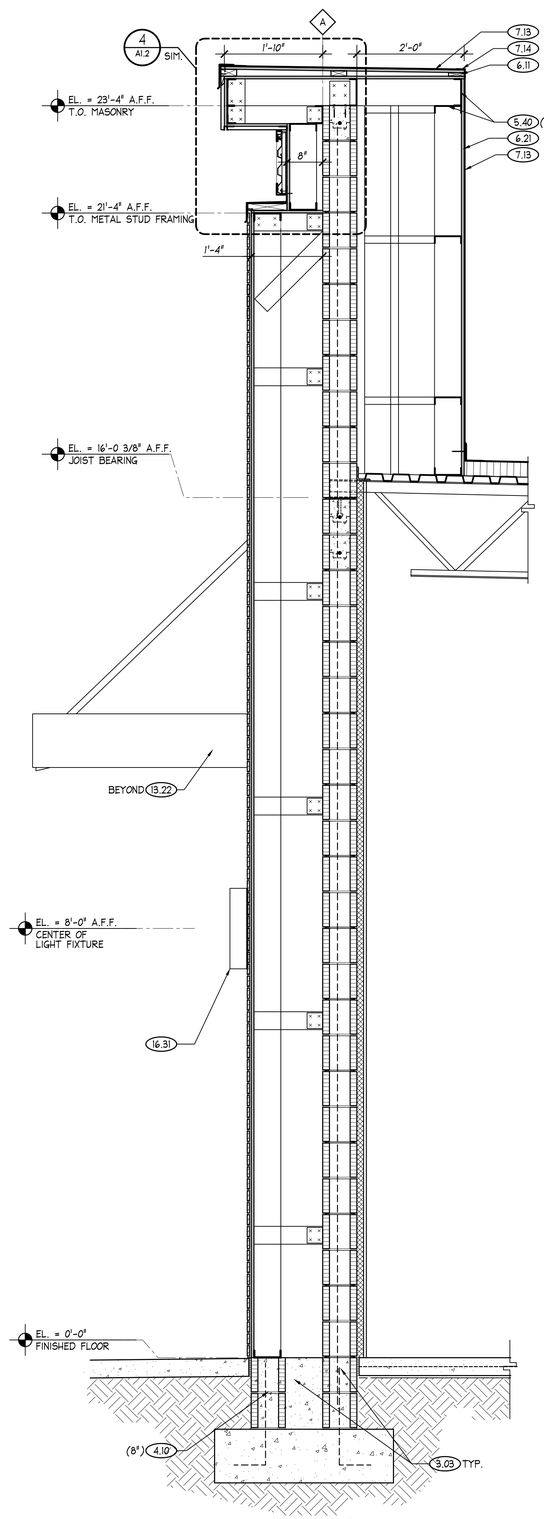
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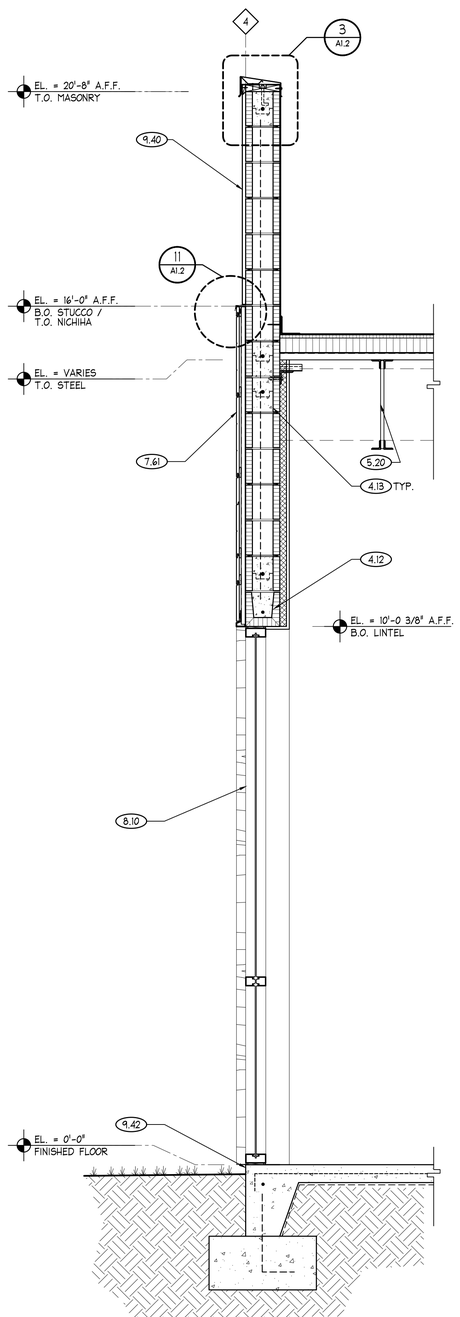
1 WALL SECTION
SCALE: 3/4" = 1'-0"



2 WALL SECTION
SCALE: 3/4" = 1'-0"



3 WALL SECTION
SCALE: 3/4" = 1'-0"



4 WALL SECTION
SCALE: 3/4" = 1'-0"

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2235 S. WOODLAND BLVD
DELAND, FL

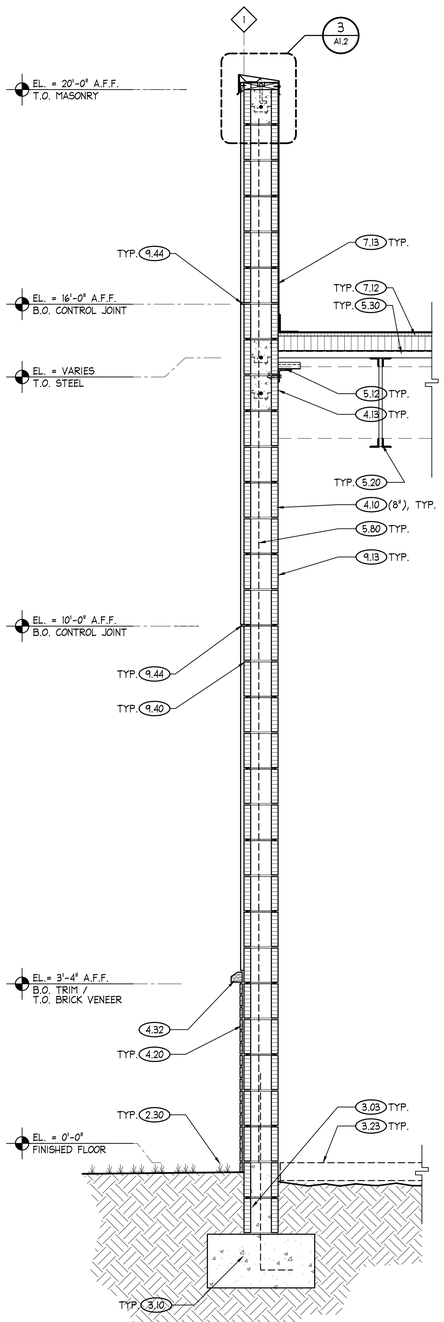
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WALL SECTIONS

A5.1

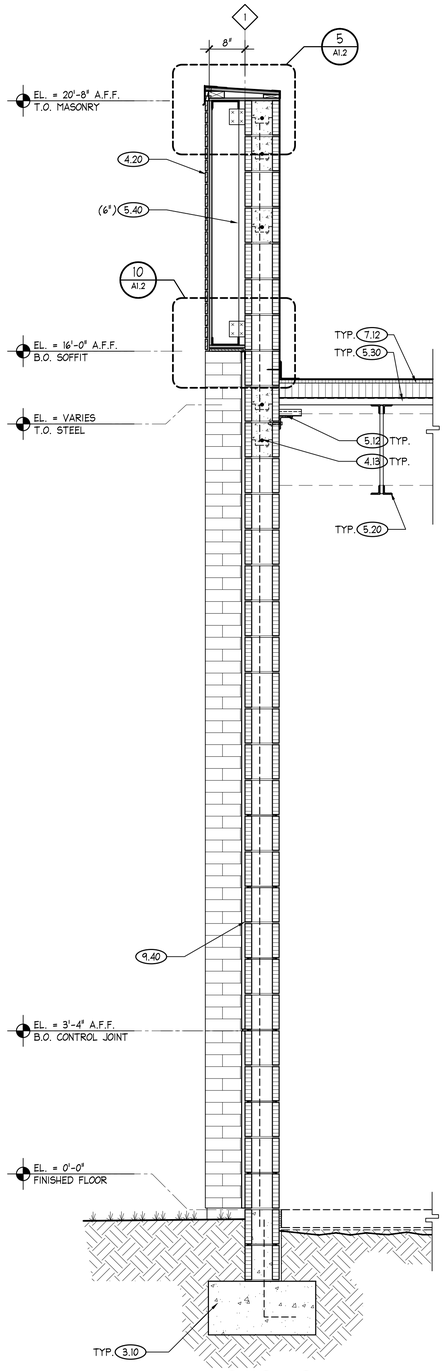
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TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

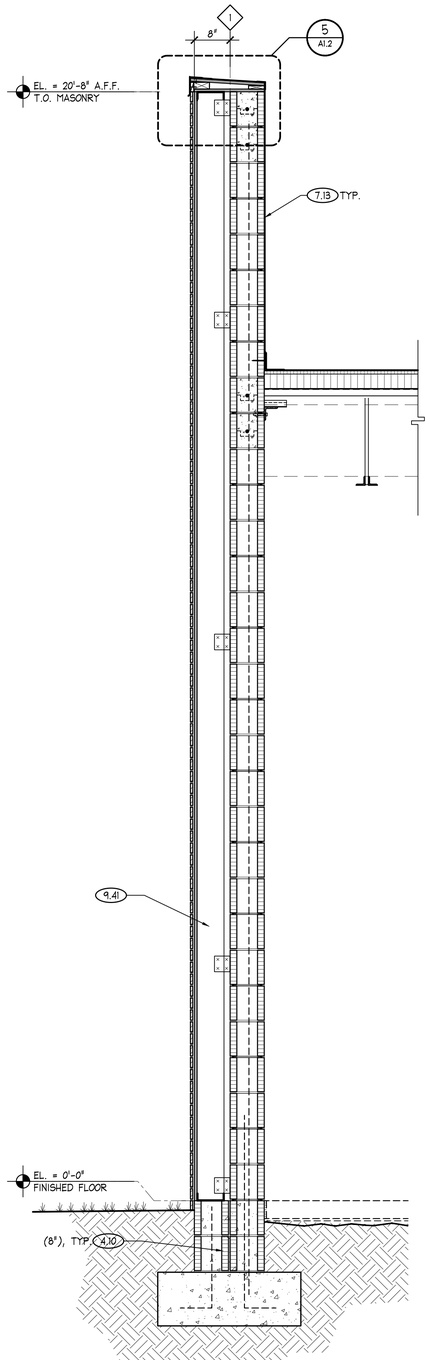
REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS



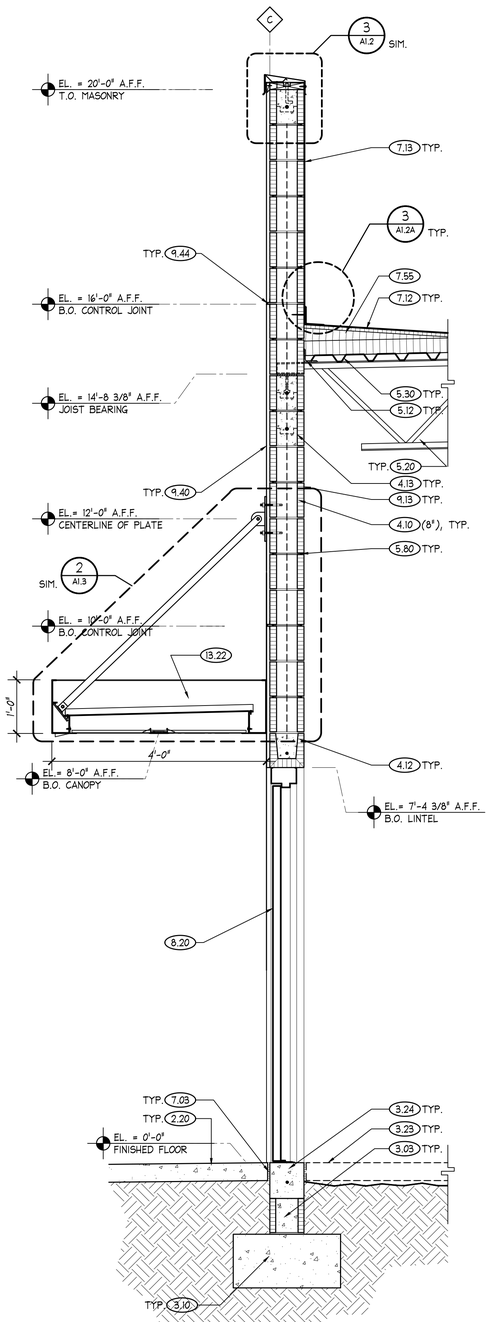
1 WALL SECTION
SCALE: 3/4" = 1'-0"



2 WALL SECTION
SCALE: 3/4" = 1'-0"



3 WALL SECTION
SCALE: 3/4" = 1'-0"



4 WALL SECTION
SCALE: 3/4" = 1'-0"

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FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
seal

no.	date	revision descriptions

RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

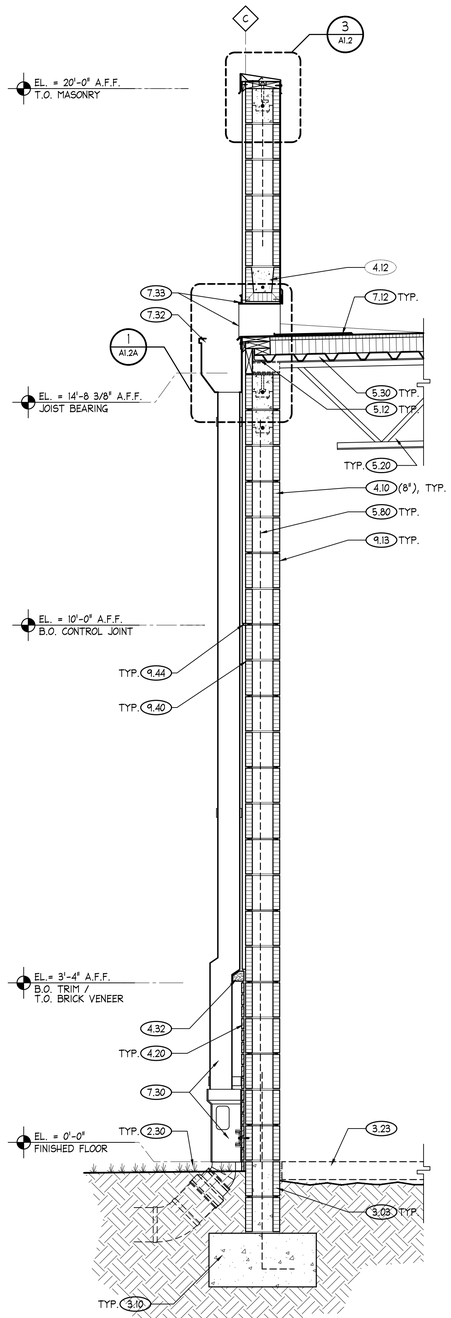
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WALL SECTIONS

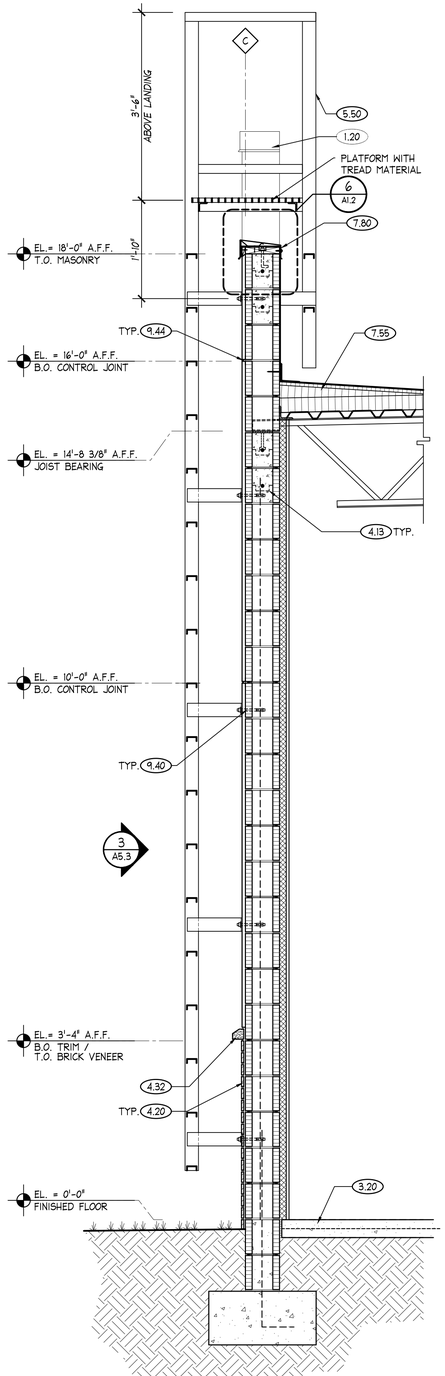
A5.2

TO THE FULLEST EXTENT POSSIBLE, BUILDING COMPONENTS WILL BE MARKED AS 'TYPICAL' (TYP.). WHERE SO, KEYED NOTES WILL NOT BE DUPLICATED FOR COMPONENTS OF LIKE KIND. SHOULD THE CONTRACTOR REQUIRE CLARIFICATION OF ANY SUCH COMPONENT, A REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO BID

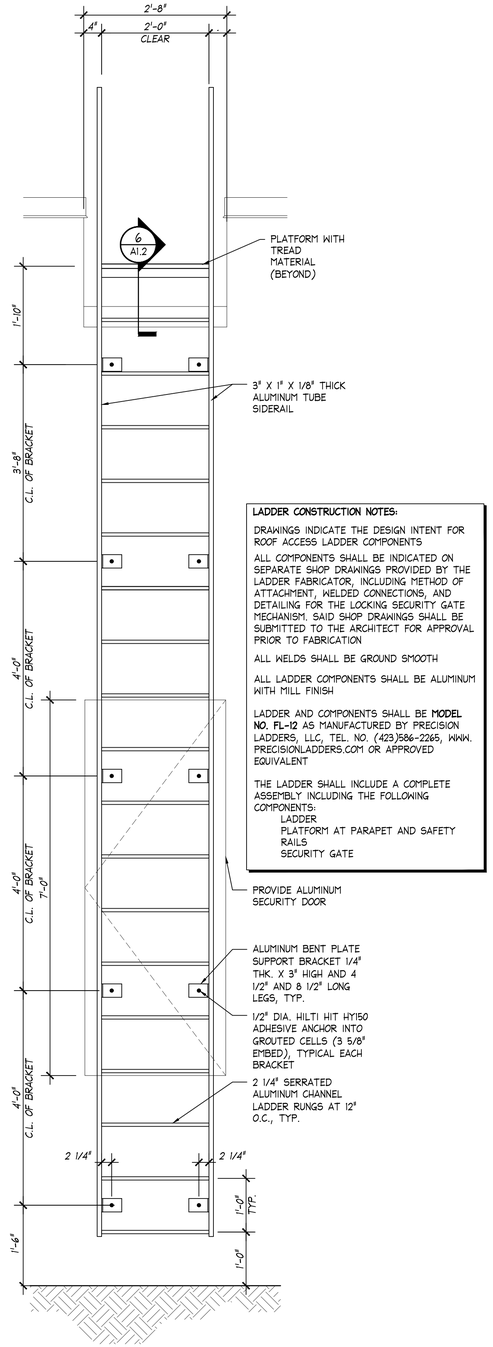
REFER TO SHEET A0.4 FOR THE KEYNOTES REFERENCED THROUGHOUT THE CONSTRUCTION DRAWINGS



1 WALL SECTION
SCALE: 3/4" = 1'-0"



2 WALL SECTION
SCALE: 3/4" = 1'-0"



LADDER CONSTRUCTION NOTES:

DRAWINGS INDICATE THE DESIGN INTENT FOR ROOF ACCESS LADDER COMPONENTS

ALL COMPONENTS SHALL BE INDICATED ON SEPARATE SHOP DRAWINGS PROVIDED BY THE LADDER FABRICATOR, INCLUDING METHOD OF ATTACHMENT, WELDED CONNECTIONS, AND DETAILING FOR THE LOCKING SECURITY GATE MECHANISM. SAID SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION

ALL WELDS SHALL BE GROUND SMOOTH

ALL LADDER COMPONENTS SHALL BE ALUMINUM WITH MILL FINISH

LADDER AND COMPONENTS SHALL BE **MODEL NO. FL-12** AS MANUFACTURED BY PRECISION LADDERS, LLC, TEL. NO. (423)586-2265, WWW.PRECISIONLADDERS.COM OR APPROVED EQUIVALENT

THE LADDER SHALL INCLUDE A COMPLETE ASSEMBLY INCLUDING THE FOLLOWING COMPONENTS:
- LADDER
- PLATFORM AT PARAPET AND SAFETY RAILS
- SECURITY GATE

3 LADDER DETAIL
SCALE: 3/4" = 1'-0"

FWH Architects
3336 Grand Blvd. Suite 201
Holiday, Florida 34690
Ph. 727. 815. 3336

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

GUY F. FABER
FL License No. AR0015323
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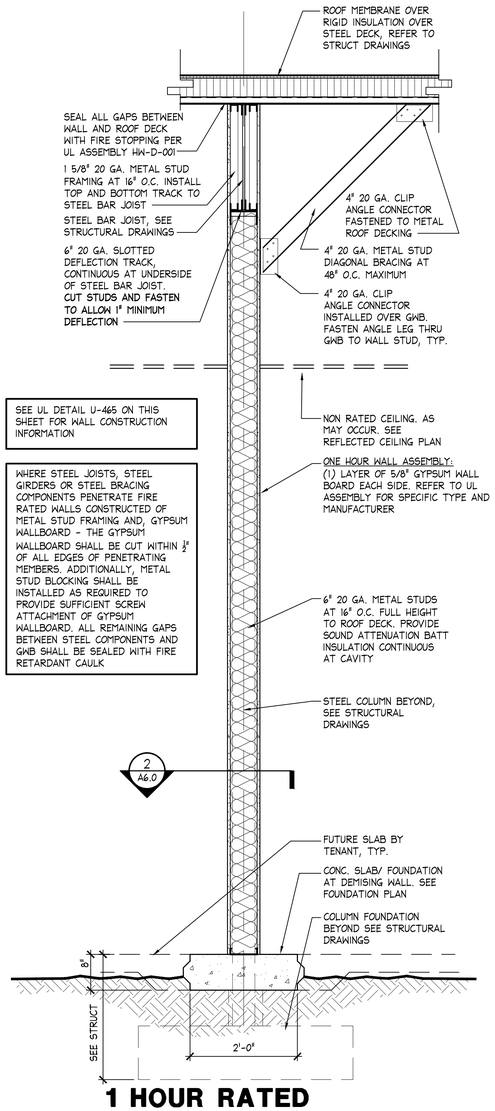
RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
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WALL SECTIONS

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STANDARD FIRE PENETRATION DETAILS ARE PROVIDED ON THIS SHEET AND IN MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. IF THE GENERAL CONTRACTOR OR HIS/HER SUBCONTRACTOR SHOULD ENCOUNTER A PENETRATION THRU A RATED ASSEMBLY THAT IS NOT EXPLICITLY ALLOWED BY THE DETAILS PROVIDED, IT SHALL BE UNDERSTOOD THAT THE GC SHALL NOTIFY THE ARCHITECT AND INFORM HIM OF THE CONDITION. AN APPROPRIATE UL ASSEMBLY WILL BE PROVIDED TO THE GC AND, ACCORDINGLY, TO THE BUILDING DEPARTMENT.

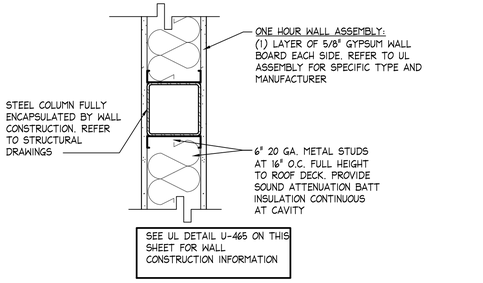


SEE UL DETAIL U-465 ON THIS SHEET FOR WALL CONSTRUCTION INFORMATION

WHERE STEEL JOISTS, STEEL GIRDERS OR STEEL BRACING COMPONENTS PENETRATE FIRE RATED WALLS CONSTRUCTED OF METAL STUD FRAMING AND, GYPSUM WALLBOARD - THE GYPSUM WALLBOARD SHALL BE CUT WITHIN ½" OF ALL EDGES OF PENETRATING MEMBERS. ADDITIONALLY, METAL STUD BLOCKING SHALL BE INSTALLED AS REQUIRED TO PROVIDE SUFFICIENT SCREW ATTACHMENT OF GYPSUM WALLBOARD. ALL REMAINING GAPS BETWEEN STEEL COMPONENTS AND GWB SHALL BE SEALED WITH FIRE RETARDANT CAULK

1 HOUR RATED DEMISING WALL SECTION

1 SCALE: 3/4" = 1'-0"



SEE UL DETAIL U-465 ON THIS SHEET FOR WALL CONSTRUCTION INFORMATION

HORIZONTAL SECTION AT COLUMN

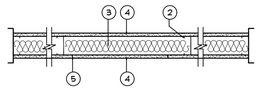
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UL DESIGN NO. U465

SCALE: N.T.S.

NON-BEARING WALL RATING - 1HR.



MARCH 2, 2022

NONBEARING WALL RATING —1 HR.
# INDICATES SUCH PRODUCTS SHALL BEAR THE UL OR CUL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION (SUCH AS CANADA), RESPECTIVELY.

1. FLOOR AND CEILING RUNNERS —(NOT SHOWN) —CHANNEL SHAPED RUNNERS, 3-5/8 IN. DEEP (MIN), 1-1/4 IN. LEGS, FORMED FROM MIN NO. 25 MSG GALV STEEL, ATTACHED TO FLOOR AND CEILING WITH FASTENERS SPACED 24 IN. OC MAX.

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
QUAIL RUN BUILDING MATERIALS INC —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
TELLING INDUSTRIES L L C —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
UNITED METAL PRODUCTS INC —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20

2. STEEL STUDS —CHANNEL SHAPED, 3-5/8 IN. DEEP (MIN), FORMED FROM MIN NO. 25 MSG GALV STEEL SPACED 24 IN. OC MAX. STUDS TO BE CUT 3/4 IN. LESS THAN ASSEMBLY HEIGHT.
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20

QUAIL RUN BUILDING MATERIALS INC —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
SCAFCO STEEL STUD MANUFACTURING CO —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
STEEL CONSTRUCTION SYSTEMS INC —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
TELLING INDUSTRIES L L C —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20
UNITED METAL PRODUCTS INC —TYPE SUPREME D24/30EQD AND TYPE SUPREME D20

3. BATTS AND BLANKETS# —(OPTIONAL) —MINERAL WOOL OR GLASS FIBER BATTS PARTIALLY OR COMPLETELY FILLING STUD CAVITY.
SEE BATTS AND BLANKETS (BZJZ) CATEGORY FOR NAMES OF CLASSIFIED COMPANIES.

ROCKWOOL —TYPE AFB, MIN. DENSITY 1.69 PCF / 27.0 KG/M3
ROCKWOOL MALAYSIA SDN BHD —TYPE ACOUSTICAL FIRE BATTS

4. GYPSUM BOARD# —5/8 IN. THICK, 4 FT WIDE, ATTACHED TO STEEL STUDS AND FLOOR AND CEILING TRACK WITH 1 IN. LONG, TYPE S STEEL SCREWS SPACED 8 IN. OC. ALONG EDGES OF BOARD AND 12 IN. OC IN THE FIELD OF THE BOARD. JOINTS ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF THE ASSEMBLY. WHEN STEEL FRAMING MEMBERS# (ITEM 6 OR ANY ALTERNATE CLIPS) ARE USED, GYPSUM BOARD IS SCREW ATTACHED TO FURRING CHANNELS WITH 1 IN. LONG, TYPE S STEEL SCREWS SPACED 12 IN. OC.

AMERICAN GYPSUM CO —TYPES AG-C, AGX-1, M-GLASS, LIGHTROC
BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO —TYPE DBX-1
CABOT MANUFACTURING ULC —TYPE X, 5/8 TYPE X, TYPE BLUEGLASS EXTERIOR SHEATHING
CGC INC —TYPES AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC OR WRX (JOINT TAPE AND COMPOUND, ITEM 5, OPTIONAL FOR USE WITH TYPE USGX)
CERTAINTEED GYPSUM INC —TYPES EGRG, GLASSROC, TYPE X, TYPE X-1, TYPE C, 5/8" EASI-LITE TYPE X, EASI-LITE TYPE X-2
CERTAINTEED GYPSUM INC —TYPES LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX
GEORGIA-PACIFIC GYPSUM L L C —TYPES 5, 6, 9, C, DAR, DD, DA, DAPC, DGG, DS, GPF56, LS, TYPE X, VENEER PLASTER BASE - TYPE X, WATER RATED - TYPE X, SHEATHING - TYPE X, SOFFIT - TYPE X, TG-C, GREENGLASS TYPE X, TYPE X COMFORTGUARD SOUND DEADENING GYPSUM BOARD, TYPE LWX, VENEER PLASTER BASE-TYPE LWX, WATER RATED-TYPE LWX, SHEATHING TYPE-LWX, SOFFIT-TYPE LWX, TYPE DGLW, WATER RATED-TYPE DGLW, SHEATHING TYPE- DGLW, SOFFIT-TYPE DGLW, TYPE LW2X, VENEER PLASTER BASE - TYPE LW2X, WATER RATED - TYPE LW2X, SHEATHING - TYPE LW2X, SOFFIT - TYPE LW2X, TYPE DGL2W, WATER RATED - TYPE DGL2W, SHEATHING - TYPE DGL2W
NATIONAL GYPSUM CO —TYPES EXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSN-C, FSN-G, FSN, FSW-3, FSW-5, FSW-6, FSW-8, FSL, RSX.
NATIONAL GYPSUM CO —RIYADH, SAUDI ARABIA —TYPE FR, OR WR
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM —TYPES PG-C, PG-9, PG-11, PGS-WRS, PGI
PANEL REY S A —TYPES GREX, GRIX, PRC, PRC2, PRX, RHX, MDX, ETX, PRX2
SAINT-GOBAIN GYPROC MIDDLE EAST FZE —TYPE GYPROC FIRESTOP, GYPROC FIRESTOP MR, GYPROC FIRESTOP M2TECH, GYPROC FIRESTOP ACTIVAIR, GYPROC FIRESTOP MR ACTIVAIR, GYPROC FIRESTOP M2TECH ACTIVAIR, GYPROC DURALINE, GYPROC DURALINE MR, GYPROC DURALINE M2TECH, GYPROC DURALINE ACTIVAIR, GYPROC DURALINE MR ACTIVAIR, GYPROC DURALINE M2TECH ACTIVAIR
SIAM GYPSUM INDUSTRY (SARABURI) CO LTD —TYPE EX-1
THAI GYPSUM PRODUCTS PCL —TYPE X, TYPE C
UNITED STATES GYPSUM CO —TYPE AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX, (JOINT TAPE AND COMPOUND, ITEM 5, OPTIONAL FOR USE WITH TYPE USGX)
USG BORAL DRYWALL SFZ LLC —TYPES C, SCX, USGX (JOINT TAPE AND COMPOUND, ITEM 5, OPTIONAL FOR USE WITH TYPE USGX)
USG MEXICO S A DE C V —TYPE AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC OR WRX (JOINT TAPE AND COMPOUND, ITEM 5, OPTIONAL FOR USE WITH TYPE USGX)
CERTAINTEED GYPSUM INC —TYPE LGFC6A, LGFC-C/A
NATIONAL GYPSUM CO —TYPES FSW
UNITED STATES GYPSUM CO —TYPE SCX, ULIX
USG BORAL DRYWALL SFZ LLC —TYPE SCX

5. JOINT TAPE AND COMPOUND —VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS. PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS AS AN ALTERNATE TO NONE. NOMINAL 3/32 IN. THICK GYPSUM VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD. JOINTS REINFORCED. PAPER TAPE AND JOINT COMPOUND MAY BE OMITTED WHEN GYPSUM BOARDS ARE SUPPLIED WITH SQUARE EDGES.
6. RESILIENT CHANNEL —(OPTIONAL —NOT SHOWN) —25 MSG GALV STEEL RESILIENT CHANNELS SPACED VERTICALLY MAX 24 IN. OC, FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 IN. LONG TYPE S-12 PAN HEAD STEEL SCREWS. MAY NOT BE USED WITH ITEM 4F, 4J OR 4L.

7. WALL AND PARTITION FACINGS AND ACCESSORIES# —(OPTIONAL, NOT SHOWN) —NOMINAL 1/2 IN. THICK, 4 FT WIDE PANELS, FOR OPTIONAL USE AS AN ADDITIONAL LAYER ON ONE OR BOTH SIDES OF THE ASSEMBLY. PANELS ATTACHED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. WHEN THE QR-500 OR QR-510 PANEL IS INSTALLED BETWEEN THE STEEL FRAMING AND THE UL CLASSIFIED GYPSUM BOARD, THE REQUIRED UL CLASSIFIED GYPSUM BOARD LAYER(S) IS/ARE TO BE INSTALLED AS INDICATED AS TO FASTENER TYPE AND SPACING, EXCEPT THAT THE REQUIRED FASTENER LENGTH SHALL BE INCREASED BY A MINIMUM OF 1/2 IN. NOT EVALUATED OR INTENDED AS A SUBSTITUTE FOR THE REQUIRED LAYER(S) OF UL CLASSIFIED GYPSUM BOARD.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM —TYPE QUIETROCK QR-500 AND QR-510

8. MINERAL AND FIBER BOARD# —(OPTIONAL, NOT SHOWN) —FOR OPTIONAL USE AS AN ADDITIONAL LAYER ON ONE SIDE OF WALL. NOM 1/2 IN. THICK, 4 FT WIDE WITH LONG DIMENSION PARALLEL AND CENTERED OVER STUDS. ATTACHED TO STUDS AND FLOOR AND CEILING RUNNERS WITH 1-5/8 IN. LONG TYPE S STEEL SCREWS, SPACED 12 IN. OC AND 24 IN. OC ALONG ALL INTERMEDIATE FRAMING. THE REQUIRED UL CLASSIFIED GYPSUM BOARD LAYER (ITEM 4M) IS TO BE INSTALLED OVER THE MINERAL AND FIBER BOARDS. BATTS AND BLANKETS, ITEM 3D, AND ADHESIVE, ITEM 11, ARE REQUIRED.
HOMASOTE CO —HOMASOTE TYPE 440-32

9. LEAD BATTEN STRIPS —(NOT SHOWN, FOR USE WITH ITEM 4E) —LEAD BATTEN STRIPS, MIN 1-1/2 IN. WIDE, MAX 10 FT LONG WITH A MAX THICKNESS OF 0.125 IN. STRIPS PLACED ON THE INTERIOR FACE OF STUDS AND ATTACHED FROM THE EXTERIOR FACE OF THE STUD WITH TWO 1 IN. LONG TYPE S-12 PAN HEAD STEEL SCREWS, ONE AT THE TOP OF THE STRIP AND ONE AT THE BOTTOM OF THE STRIP. LEAD BATTEN STRIPS TO HAVE A PURITY OF 99.9% MEETING THE FEDERAL SPECIFICATION QQ-L-201F, GRADE 'C'. LEAD BATTEN STRIPS REQUIRED BEHIND VERTICAL JOINTS OF LEAD BACKED GYPSUM BOARD (ITEM 4E) AND OPTIONAL AT REMAINING STUD LOCATIONS. REQUIRED BEHIND VERTICAL JOINTS.
10. LEAD DISCS OR TABS —(NOT SHOWN, FOR USE WITH ITEM 4E) —USED IN LIEU OF OR IN ADDITION TO THE LEAD BATTEN STRIPS (ITEM 9.) OR OPTIONAL AT OTHER LOCATIONS - MAX 3/4 IN. DIAM BY MAX 0.125 IN. THICK LEAD DISCS COMPRESSION FITTED OR ADHERED OVER STEEL SCREW HEADS OR MAX 1/2 IN. BY 1-1/4 IN. BY MAX 0.125 IN. THICK LEAD TABS PLACED ON GYPSUM BOARDS (ITEM 4E) UNDERNEATH SCREW LOCATIONS PRIOR TO THE INSTALLATION OF THE SCREWS. LEAD DISCS OR TABS TO HAVE A PURITY OF 99.9% MEETING THE FEDERAL SPECIFICATION QQ-L-201F, GRADE 'C'.
11. ADHESIVE —NOT SHOWN —(FOR USE WITH ITEM 8.) —CONSTRUCTION GRADE ADHESIVE APPLIED IN VERTICAL, SERPENTINE, NOMINAL 3/8 IN. WIDE BEADS DOWN THE LENGTH OF BOTH VERTICAL EDGES OF MINERAL AND FIBER BOARD (ITEM 8.).
12. WALL AND PARTITION FACINGS AND ACCESSORIES# —(CLBV) (OPTIONAL, NOT SHOWN) —FOR USE WITH ITEMS 1 TO 11, ITEMS 2 TO 2J, ITEM 3, ITEMS 4 TO 4I, ITEM 5 AND ITEM 6. FOR MAXIMUM FIRE RATING OF 1 HOUR. ON ONE SIDE OF THE WALL, OVER THE FIRST LAYER OF GYPSUM BOARD (ITEM 4 TO ITEM 4I), INSTALL REFLEXOR MEMBRANE WITH THE GOLD SIDE FACING OUTWARDS. MEMBRANE INSTALLED WITH T50 STAPLES SPACED 12 INCHES ON CENTER IN BOTH DIRECTIONS AS PER MANUFACTURER'S INSTRUCTIONS; SEAMS IN MEMBRANE TO BE OVERLAPPED BY 2 INCHES. WHEN REFLEXOR MEMBRANE IS USED AN ADDITIONAL LAYER OF GYPSUM BOARD THAT IS IDENTICAL TO THE ONE USED IN THE FIRST LAYER AND AS SPECIFIED IN ITEM 4 TO ITEM 4I SHALL BE INSTALLED OVER THE MEMBRANE. THE ADDITIONAL LAYER OF GYPSUM BOARD TO BE INSTALLED THROUGH THE MEMBRANE TO THE STUD AS SPECIFIED IN ITEM 4 TO ITEM 4I EXCEPT THE FASTENER LENGTH SHALL BE INCREASED BY A MINIMUM OF 5/8 INCH. INSTALL BATTS AND BLANKETS IN THE STUD CAVITY AS PER ITEM 3.
ON THE OTHER SIDE OF THE WALL, PRIOR TO THE INSTALLATION OF THE GYPSUM BOARD, INSTALL RESILIENT CHANNELS AS PER ITEM 6. OVER THE RESILIENT CHANNELS INSTALL 3/4 INCH THICK SONOPAN PANEL SECURED TO THE RESILIENT CHANNELS WITH MIN. 1-1/4 IN. LONG DRYWALL SCREWS AND WASHERS SPACED AT 16 IN. OC ON THE PERIMETER OF THE PANEL AND 8 IN. OC IN THE FIELD OF THE PANEL. OVER THE SONOPAN PANEL INSTALL THE SAME GYPSUM BOARD AS SPECIFIED IN ITEM 4 TO ITEM 4I WITH THE FASTENER LENGTH INCREASED BY MINIMUM 3/4 INCH. NOT EVALUATED OR INTENDED AS A SUBSTITUTE FOR THE REQUIRED LAYER(S) OF UL CLASSIFIED GYPSUM BOARD.

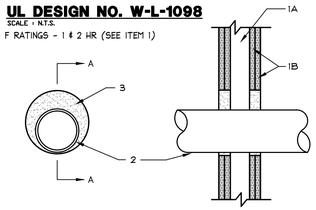
ALTERNATELY, ON THE OTHER SIDE OF THE WALL PRIOR TO THE INSTALLATION OF THE GYPSUM BOARD, INSTALL 3/4 IN. THICK SONOPAN PANELS, SECURED TO ONE SIDE OF STUDS EITHER HORIZONTALLY OR VERTICALLY. PANELS SECURED TO EACH STUD WITH MIN. 1-1/4 IN. LONG DRYWALL SCREWS SPACED 12 IN. OC. OVER THE SONOPAN, INSTALL 25 MSG GALV STEEL, RESILIENT CHANNELS, SPACED VERTICALLY 24 IN. OC. RESILIENT CHANNELS FASTENED THROUGH PANELS TO EACH STUD WITH MIN. 2 IN. LONG DRYWALL SCREWS OR SELF-TAPPING SCREWS. OVER THE RESILIENT CHANNELS INSTALL GYPSUM BOARD AS SPECIFIED IN ITEM 4 TO ITEM 4I WITH THE SPECIFIED DRYWALL SCREWS. PANELS NOT EVALUATED OR INTENDED AS A SUBSTITUTE FOR THE REQUIRED LAYER(S) OF UL CLASSIFIED GYPSUM BOARD.

MSL —REFLEXOR MEMBRANE, SONOPAN PANEL

UL DESIGN NO. W-L-1098

SCALE: N.T.S.

F RATINGS - 1 & 2 HR (SEE ITEM 1)



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 CHANNELS STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. O.C. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE AND SPACED MAX 24 IN. O.C.
   B. WALLBOARD, GYPSUM#- THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 14-1/8 IN.

   THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

2. **THROUGH PENETRANTS**- ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN 3/8 IN. TO MAX 1 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED.
   A. STEEL PIPE
   B. IRON PIPE
   C. CONDUIT-NORM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT) OR STEEL CONDUIT. WHEN EMT OR STEEL CONDUIT IS USED T RATING IS 1/4 HR.
   D. COPPER TUBING
   E. COPPER PIPE

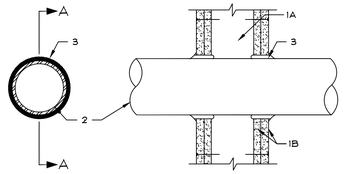
3. **FILL, VOID OR CAVITY MATERIAL#**- SEALANT-MIN 5/8 IN. AND 1-1/4 IN. THICKNESS OF FILL MATERIAL FOR 1 AND 2 HR RATED WALL ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL.

FIRESTOP SYSTEMS, INC- 4800DW
BEARING THE U.L. CLASSIFICATION MARKING.

UL DESIGN NO. W-L-1001

SCALE: N.T.S.

(FORMERLY SYSTEM NO. 147)
F RATINGS -- 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS -- 0, 1, 2, 3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT -- LESS THAN 1 CFM/SQ F
L RATING AT 400 F -- LESS THAN 1 CFM/SQ FT



SECTION A-A

1. **WALL ASSEMBLY** - THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR 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 (MAX 2 H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.

B. **GYPSUM BOARD #** NOM 1/2 OR 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 INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 13-1/2 IN.

2. **PIPE OR CONDUIT** NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 12 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIAM (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING, NOM 6 IN. DIAM (OR SMALLER) TYPE L OR (OR HEAVIER) COPPER TUBING OR NOM 1 IN. DIAM (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE IS USED, MAX F RATING OF FIRESTOP SYSTEM (ITEM 3.) IS 2 H. STEEL PIPES OR CONDUITS LARGER THAN NOM 4 IN. DIAM MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

3. **FILL, VOID OR CAVITY MATERIAL #** -- CAULK. CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4 IN. DIAM BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIAM IN.	ANNULAR SPACE IN.	F RATING HR	T RATING HR
1	0 to 3/16	1 or 2	0+, 1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1-1/2	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 H.
3M CO -- CP 25WB+.
#BEARING THE UL CLASSIFICATION MARK

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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS

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seal

no.	date	revision descriptions

RETAIL BUILDING TWO AT DELAND
2235 S. WOODLAND BLVD
DELAND, FL

06.11.2026
date

26005
comm. no.

U.L. ASSEMBLY DETAILS

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