



## ADDENDUM NO. 1

Issue Date: May 30, 2024

Project Name: Indian River County Fire Station 7

Bid Number: 2024041

Bid Opening Date: June 26, 2024

This addendum is being released to answer questions received to date and to modify bid documents.

The information and documents contained in this addendum are hereby incorporated in the invitation to bid. **This addendum must be acknowledged where indicated on the bid form, or the bid may be declared non-responsive.**

### **Modifications to Bid Documents:**

Final Plans

### **Questions and Answers**

1. How will we obtain the plans?  
**See attached.**
2. What is the estimated budget?  
\$5,079,935

# INDIAN RIVER COUNTY FIRE RESCUE FIRE STATION #7

## CITY OF FELLSMERE FINAL DEVELOPMENT & SITE CONSTRUCTION PLAN

9700 26TH PLACE  
SECTION 34, TOWNSHIP 32S, RANGE 38E  
CITY OF FELLSMERE, FLORIDA 32966

JUNE 2022 - CoF PRE-DEVELOPMENT APPLICATION  
SEPTEMBER 2022 - CITY OF FELLSMERE FINAL DEVELOPMENT & SITE CONSTRUCTION PLAN  
REVISED: MAY 2023  
REVISED: JULY 2023  
REVISED: AUGUST 2023

**OWNER / APPLICANT**  
**EMERGENCY SERVICES DISTRICT**  
**OF INDIAN RIVER COUNTY**

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**ENGINEER**



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**ARCHITECT**

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**ARCHITECTS AND ASSOCIATES, P.A.**

65 ROYAL PALM POINTE, "D"  
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**INDEX OF DRAWINGS**

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**PERMITS REQUIRED**

CITY OF FELLSMERE PD FINAL DEVELOPMENT PLAN  
CITY OF FELLSMERE SITE CONSTRUCTION PLAN  
IRFWCD SITE PLAN REVIEW (98th AVE ONLY)  
IRFWCD UTILITY CONSTRUCTION PERMIT  
SEBASTIAN RIVER DRAINAGE DISTRICT  
INDIAN RIVER COUNTY RIGHT-OF WAY PERMIT  
INDIAN RIVER COUNTY UTILITY PERMIT  
INDIAN RIVER COUNTY FIRE DEPT. APPROVAL  
SJRWMD / ERP PERMIT  
FDEP DOMESTIC WASTEWATER COLLECTION PERMIT  
FDEP POTABLE WATER PERMIT  
FDEP NPDES NOI PERMIT  
FLORIDA GAS TRANSMISSION ENCROACHMENT AGREEMENT

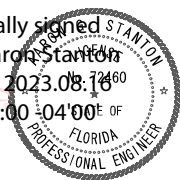
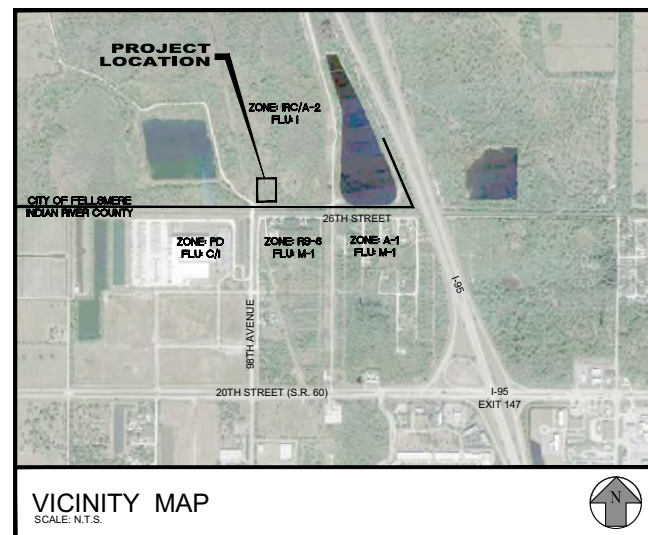
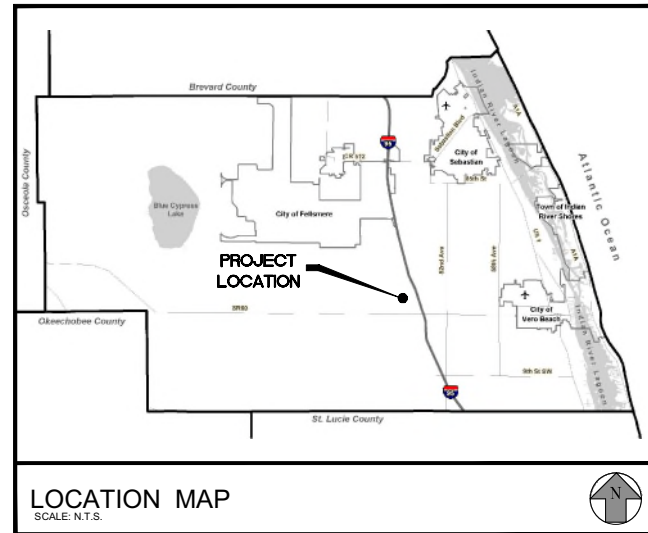
**CONSTRUCTION SCHEDULE**

START CONSTRUCTION : SEPTEMBER 2023  
END CONSTRUCTION : SEPTEMBER 2024

This item has been digitally signed & sealed by Aaron Stanton, P.E. on the date adjacent to the seal.

SHEET

C1



Aaron Stanton  
Digitally signed by Aaron Stanton  
Date: 2023.08.16 12:00:00 -0400  
FLORIDA PROFESSIONAL ENGINEER

AARON G. STANTON  
FL P.E. #72460

DATE: 8/16/23

PROJECT: 21-0492

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**CONSTRUCTION REQUIREMENTS:**

- 1. THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE VARIOUS PERMITS WHICH WILL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.
- 2. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE (SEQUENCE OF OPERATIONS) PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 3. CONTRACTOR WILL ATTEND A PRE-CONSTRUCTION MEETING WITH THE DESIGN ENGINEER, MUNICIPALITY AND/OR OWNER PRIOR TO LAND DISTURBANCE.
- 4. SHOP DRAWINGS SHALL BE SUBMITTED BEFORE ORDERING MATERIAL FOR PLANNED PROJECT. CORRESPONDING SHALL BE BETWEEN THE DESIGN ENGINEER AND THE LOCAL GOVERNING AGENCY AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

**CONSTRUCTION NOTES:**

- 1. THE CONTRACTOR IS ADVISED TO THOROUGHLY REVIEW THIS PLAN PACKAGE SO AS TO BE TOTALLY PREPARED TO PRESENT HIS BID PRICES IN THE CONTRACT DOCUMENTS. THE PLAN PACKAGE SUFFICIENTLY DELINEATES THE SCOPE AND INTENT OF THE WORK TO BE ACCOMPLISHED. IT WILL, THEREFORE, BE INCUMBENT ON THE CONTRACTOR TO ADJUST HIS FEE DOLLARS TO REFLECT ANY AND ALL ITEMS WHICH MAY NOT BE CLEARLY OUTLINED OR THOSE ITEMS WHICH MAY NOT BE INDICATED BUT WHICH ARE NECESSARY FOR THE SUCCESSFUL COMPLETION OF THIS PROJECT WITHOUT ADDITIONAL COSTS TO THE OWNER.
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FELLSMERE, INDIAN RIVER COUNTY AND FDOT STANDARDS AND SPECIFICATIONS.
- 3. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR THE COORDINATION OF UTILITY RELOCATION.
- 4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN THE FIELD WITH UTILITY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION, AS REQUIRED BY THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT. NOTIFY SUNSHINE AT 811.
- 6. CONTRACTOR SHALL TAKE EXTREME CAUTION WHEN EXCAVATING NEARBY EXISTING UTILITIES.
- 7. CONTRACTOR SHALL INFORM ENGINEER OF ANY CONFLICT BEFORE ANY FURTHER WORK IS COMPLETED.
- 8. UTILITIES ARE TO BE ADJUSTED BY UTILITY OWNER OR AS DIRECTED BY THE ENGINEER.
- 9. SURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING DESIGN CRITERIA FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSIDERED AS PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND IS TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
- 10. CONTRACTOR SHALL NOTIFY THE ENGINEER IF SOIL OR SUBSURFACE CONDITIONS UNSUITABLE FOR CONSTRUCTION ARE ENCOUNTERED.
- 11. ALL EXCAVATED SOILS DEEMED SUITABLE AS FILL MATERIAL AS DETERMINED BY THE ENGINEER SHALL BE UTILIZED ON SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. THE EXACT LOCATION OF DELIVERY ON SITE SHALL BE DETERMINED BY THE ENGINEER. ALL EXCAVATED SOILS DEEMED UNSUITABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 12. ITEM IN CONFLICT WITH DESIGN SUCH AS EXISTING CURBS AND GUTTERS, SIDEWALKS, DRAINAGE STRUCTURES, PAVEMENT AND EXCESS EXCAVATIONS ARE TO BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A LEGAL AND PROPER MANNER AWAY FROM THE JOB SITE AT HIS OWN EXPENSE.
- 13. CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR CONSTRUCTION.
- 14. IT SHOULD BE NOTED THAT THE OCCUPATIONAL SAFETY AND HEALTH ACT PROHIBITS THE OPERATING OF EQUIPMENT OR MACHINES CLOSER THAN TEN (10) FEET TO ENERGIZED ELECTRIC LINE RATES AT FIFTY KILOVOLTS OR BELOW. ALSO, NO EXCAVATION IS PERMITTED WITHIN FIVE (5) FEET OF POWER POLE FACILITIES.
- 15. ALL IRONS AND MONUMENTS (P.R.M.'S) SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
- 16. ANY PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR WILL NOTIFY THE ENGINEER.
- 17. ALL EXISTING TREES WITHIN THE RIGHT OF WAY ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE NOTED.
- 18. WHEN REFERENCED TO, FDOT REFERS TO FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, CURRENT EDITION.
- 19. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO A CONDITION EQUAL TO, OR BETTER THAN THAT WHICH IS NOW EXISTING.
- 20. BACKFILL, GRADE AND SOD AS REQUIRED AROUND ALL NEW CONSTRUCTION AND ALL DEVELOPED LOTS TO PREVENT EROSION. SEED AND MULCH WILL ONLY BE ALLOWED TO RESTORE UNDEVELOPED LOTS AFFECTED BY CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
- 21. SODDING TO BE USED AT LOCATIONS AS DIRECTED BY THE ENGINEER. SOD ALL DISTURBED AREAS UPON COMPLETION.
- 22. ALL EXCESS CONSTRUCTION MATERIAL AND WASTE TO BE HAULED OFF-SITE AND DISPOSED OF PROPERLY AT CONTRACTOR'S EXPENSE.
- 23. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH FDOT STANDARDS FOR TRAFFIC CONTROL THROUGH WORK ZONES AND MUTCD (PART VII). CONTRACTOR TO PROVIDE INDIAN RIVER COUNTY AND CITY OF FELLSMERE A COPY OF PROPOSED MOT PLANS FOR APPROVAL.
- 24. PROPERTY OWNERS AND BUSINESSES WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
- 25. ALL MAILBOXES SHALL BE RELOCATED BY THE CONTRACTOR AS DIRECTED BY THE U.S. POSTAL MAIL CARRIER.
- 26. THE CONTRACTOR SHALL REMOVE, COVER OR OBLITERATE EXISTING ROADWAY SIGN AND PAVEMENT MARKINGS THAT CONFLICT WITH THE CONSTRUCTION TRAFFIC CONTROL PLANS.
- 27. CONTRACTOR TO PROTECT ALL SPRINKLER HEADS NOT IN CONFLICT WITH DESIGN AND RELOCATE ALL THOSE WHICH ARE IN CONFLICT TO A LOCATION DETERMINED IN FIELD.
- 28. SOD TWO (2) FEET MINIMUM ALONG SIDE PROPOSED EDGE OF PAVEMENT.
- 29. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY DRAINAGE MEASURES AS REQUIRED TO ADEQUATELY DRAIN THE PROJECT AND ANY TEMPORARILY TRAVELED ROADWAYS. TEMPORARY DRAINAGE DESIGN, CONSTRUCTION AND MAINTENANCE IS THE CONTRACTOR'S RESPONSIBILITY; HOWEVER, ALL SUCH MEASURES MUST BE APPROVED BY THE ENGINEER.
- 30. THE EXISTING SIDEWALK SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED.
- 31. GRADES SHOWN ARE FINISHED GRADES.
- 32. SAWCUT CONCRETE OR ASPHALT DRIVEWAYS AS REQUIRED FOR REPLACEMENT.
- 33. ALL ABANDONED UTILITIES (INCLUDING PIPES, CABLES AND STRUCTURES) FOUND IN THE RIGHT OF WAY AND NOT SHOWN ON THE PLANS, ARE TO BE REMOVED AND PROPERLY DISPOSED OF AT THE EXPENSE OF THE CONTRACTOR. THIS INCLUDES ALL EXOTIC PIPES LIKE ASBESTOS-CEMENT PIPE. COST TO BE INCLUDED IN CLEARING AND GRUBBING ITEM.
- 34. DRIVEWAY LOCATIONS AND WIDTHS ARE APPROXIMATE AND ARE TO BE ADJUSTED AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- 35. BENCHMARK DATUM IN NAVD 88.
- 36. BACKFILL AND SOD AS REQUIRED BEYOND RIGHT OF WAY LINES ON INDIVIDUAL LOTS TO MAINTAIN POSITIVE DRAINAGE FLOW INTO CURB AND GUTTER.
- 37. GRADE AND SOD SWALES TEN (10) FEET FROM PROPOSED DITCH BOTTOM INLETS AND MITERED END SECTIONS ON SIDE STREETS, AS REQUIRED.
- 38. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN  $\bar{0}$  (BASELINE) AND  $\bar{C}$  (CENTERLINE) CONSTRUCTION THROUGHOUT THE PROJECT.
- 39. THE CONTRACTOR SHALL REMOVE DRIVEWAY APRONS AND DRIVEWAY CULVERTS AND SHALL MAINTAIN ROUGH GRADE FOR UTILITY MODIFICATIONS.
- 40. ALL EXISTING SWALES SHALL BE PROTECTED BY THE CONTRACTOR. ANY DAMAGE TO THE SWALE LINE SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 41. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICES FOR BID ITEMS.
- 42. MAINTAIN A MINIMUM OF ONE (1) FOOT CLEARANCE BETWEEN POWER POLE AND EDGE OF SIDEWALK.
- 43. WHEN ALL OTHER PERMANENT CONSTRUCTION IS COMPLETE, THE FINAL SURFACE COURSE SHALL BE PLACED.
- 44. CONSTRUCTION OPERATIONS FOR PLACEMENT OF THE FINAL SURFACE COURSE SHALL BE LIMITED TO A DISTANCE, AS DIRECTED BY THE ENGINEER, THE CONTRACTOR CAN COMPLETE IN ONE (1) DAY.
- 45. THE CONTRACTOR SHALL IMPLEMENT TEMPORARY PAVEMENT MARKINGS UNTIL THE FINAL SURFACE COURSE HAS CURED (MINIMUM THIRTY (30) DAYS AFTER FINAL SURFACE COURSE PLACEMENT). ANY TEMPORARY PAINTED MARKINGS PLACED ON THE FINAL.
- 46. PAVEMENT TRANSITION SHALL BE MADE IN ACCORDANCE WITH PAVEMENT TRANSITION DETAIL.
- 47. ALL APPROVED PERMIT CONDITIONS, INCLUDING BUT NOT LIMITED TO FDOT, FDEP, SJRWMD, IRFWCD, CITY OF FELLSMERE AND INDIAN RIVER COUNTY SHALL BE MET BY CONTRACTOR PRIOR TO CERTIFICATION OF COMPLETION BY ENGINEER.
- 48. HOURS OF CONSTRUCTION ARE LIMITED TO MONDAY - FRIDAY 7AM TO 7PM. ANY WORK OUTSIDE OF THESE LIMITS WILL REQUIRE DIRECT WRITTEN PERMISSION FROM THE CITY MANAGER OR THEIR DESIGNEE.

**ROADWAY SPECIFICATIONS:**

**GENERAL**

IT IS INTENDED THAT THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" MOST CURRENT EDITION BE USED WHERE APPLICABLE FOR VARIOUS WORK, AND THAT WHERE SUCH WORDING THEREIN REFERS TO THE STATE OF FLORIDA AND ITS DEPARTMENT OF TRANSPORTATION AND PERSONNEL, SUCH WORDING IS INTENDED TO BE REPLACED WITH THAT WORDING WHICH WOULD PROVIDE PROPER TERMINOLOGY, THEREBY MAKING SUCH "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS THE "STANDARD SPECIFICATIONS" FOR THIS PROJECT.

IF WITHIN THAT PARTICULAR SECTION ANOTHER SECTION, ARTICLE OR PARAGRAPH IS REFERRED TO, IT SHALL BE A PART OF THE STANDARD SPECIFICATIONS ALSO.

THE CONTRACTOR SHALL GIVE THE ENGINEER 48 HOURS NOTICE PRIOR TO REQUESTING INSPECTIONS AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF TWO YEARS FROM THE DATE OF PROJECT ACCEPTANCE, DURING WHICH ALL FAULTY CONSTRUCTION AND/OR MATERIALS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

**GRADING**

THE CONTRACTOR SHALL PERFORM ALL GRADING NECESSARY TO ACHIEVE THE PROPOSED PLAN GRADES INCLUDING TYPICAL SECTIONS.

ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 120 OF THE STANDARD SPECIFICATIONS.

**STAKING**

CONSTRUCTION STAKING WILL BE PERFORMED BY THE CONTRACTOR.

**STABILIZING**

STABILIZED SUBGRADE SHALL BE CONSTRUCTED TO THE FLORIDA BEARING VALUE AS PER PLAN FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, AND IN ACCORDANCE WITH SECTION 160 OF THE STANDARD SPECIFICATIONS.

(TYPE C STABILIZATION). ALL STABILIZED AREAS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

**BASE COURSE**

THE BASE SHALL BE CONSTRUCTED OF EITHER LIMEROCK MATERIAL IN ACCORDANCE WITH SECTION 911 OR CEMENTED COQUINA SHELL MATERIAL IN ACCORDANCE WITH SECTION 915 OF THE STANDARD SPECIFICATIONS.

LIMEROCK BASE AND CEMENTED COQUINA SHELL BASE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 200 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ROCK PIT CERTIFICATION FOR CEMENTED COQUINA SHELL MATERIAL. BASE SHALL BE COMPACTED BY AT LEAST 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. BASE SHALL BE APPROVED PRIOR TO PRIME COAT.

**PRIME AND TACK COAT**

PRIME AND TACK COAT FOR THE BASE SHALL BE IN ACCORDANCE WITH SECTION 300 OF THE STANDARD SPECIFICATIONS.

**ASPHALTIC CONCRETE SURFACE COURSE (A.C.S.C.)**

TYPE SP-9.5 AND SP-12.5 ACSC SHALL BE CONSTRUCTED FOR THE DEPTH AND LIMITS SHOWN ON THE PLAN, IN ACCORDANCE WITH FDOT SECTIONS 320, 330 AND 334 OF THE STANDARD SPECIFICATIONS.

**TESTING**

THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN APPROVED INDEPENDENT TESTING LABORATORY TO CONDUCT ALL REQUIRED TESTS ON SUBGRADE, BASE AND SURFACE COURSE MATERIALS. TEST RESULTS MUST BE SUBMITTED PRIOR TO ANY REQUEST FOR PAYMENT ON THE ABOVE ITEMS.

THE SCHEDULE FOR TESTING OF THE ROAD CONSTRUCTION SHALL BE AS FOLLOWS:

- A. SUBGRADE:
1. FLORIDA BEARING VALUE TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET, OR CLOSER AS MIGHT BE NECESSARY IN THE EVENT OF VARIATIONS IN SUBSOIL CONDITIONS.
2. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 200 FEET OR CLOSER AS MIGHT BE NECESSARY.
B. BASE:
1. DENSITY TESTS SHALL BE TAKEN AT INTERVALS OF NOT MORE THAN 500 FEET OR CLOSER AS MIGHT BE NECESSARY.

ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 1 1/2 INCHES INSIDE THE LEFT EDGE, TO THE CENTER, TO A POINT 12 INCHES INSIDE THE RIGHT EDGE OF THE ITEM TESTED.

IF ANY TEST INDICATES THAT THE WORK DOES NOT MEET THE SPECIFICATIONS, THE SUBSTANDARD AREA SHALL BE REWORKED OR CORRECTED AND RETESTED, AT THE CONTRACTOR'S EXPENSE, UNTIL THE PROVISIONS OF THESE SPECIFICATIONS ARE MET.

ALL PASSING TESTS SHALL BE PAID FOR BY THE OWNER. ALL FAILING TESTS SHALL BE PAID FOR BY THE CONTRACTOR.

**CLEAN-UP**

THE CONTRACTOR MUST PROVIDE CLEAN-UP OF EXCESS CONSTRUCTION MATERIAL UPON COMPLETION OF THE PROJECT. THE SITE MUST BE LEFT IN A NEAT, CLEAN, GRADED CONDITION.

**CONSTRUCTION IN STREETS AND ROAD RIGHT-OF-WAYS**

- 1. OPEN ROAD CUTS REQUIRES PRIOR APPROVAL OF THE CITY, COUNTY, STATE OR ANY OTHER AGENCY WHICH MAY HAVE JURISDICTION.
2. ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND STANDARDS.
3. ALL AREAS IN EXISTING RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION SHALL RECEIVE SOLID SOD.
4. STREET RESTORATION TO BE DONE AS PER INDIAN RIVER COUNTY AND CITY OF FELLSMERE STANDARDS WHERE APPLICABLE.
5. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF THE STATE, COUNTY AND CITY AUTHORITIES REGARDING CLOSING OR RESTRICTING THE USE OF PUBLIC STREETS OR HIGHWAYS.
6. TRAFFIC CONTROL ON ALL COUNTY AND STATE HIGHWAY RIGHT-OF-WAYS SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION.

**DRAINAGE SPECIFICATIONS:**

STORM INLETS AND MANHOLES SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH SECTION 425 OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.

CONCRETE SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 3000 PSI.

ALL REINFORCING STEEL TO BE ASTM A 615-72 GRADE 40, FYP = 40,000 PSI, AND SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH ACI 318-71.

PRECAST CONCRETE MANHOLES AND STORM INLETS MAY BE USED UPON THE ENGINEER'S APPROVAL OF THE MANUFACTURER'S SHOP DRAWINGS.

STORM SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 430 AND RELATED SECTIONS OF THE STANDARD SPECIFICATIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.

**CONCRETE**

UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI) BUILDING CODE AND THE APPLICABLE BUILDING CODES HAVING JURISDICTION IN THE AREA.

**CULVERT PIPES**

REINFORCED CONCRETE PIPE (R.C.P.) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

**PRECAST CONCRETE DRAINAGE PRODUCTS**

ALL PRECAST CONCRETE DRAINAGE PRODUCTS (INCLUDING BUT NOT LIMITED TO ROUND CONC. PIPE, ELLIPTICAL CONC. PIPE, UNDERDRAINS, MANHOLES, INLETS, ENDWALLS, JUNCTION BOXES, THREE SIDED CONC. CULVERTS, AND CONC. BOX CULVERTS) SHALL BE IN ACCORDANCE WITH SECTION 449 OF THE STANDARD SPECIFICATIONS.

**GROUNDWATER**

GROUNDWATER MAY BE ENCOUNTERED ON THIS SITE. THE CONTRACTOR IS TO PLAN ACCORDINGLY.

**RECORD DRAWINGS**

CONTRACTOR SHALL KEEP AND MAINTAIN RECORD DRAWINGS ON THE PROJECT SITE AT ALL TIMES WHICH SHALL BE ANNOTATED BY THE CONTRACTOR DEPICTING ANY CHANGES MADE IN THE FIELD WHICH DIFFER FROM THE CONTRACT DRAWINGS. RECORD DRAWINGS SHALL INCLUDE, BUT NOT LIMITED TO, INVERT AND TOP ELEVATIONS OF CULVERTS AND INLET STRUCTURES. CONTRACTOR SHALL SUBMIT COMPLETE AND FINAL RECORD DRAWINGS TO ENGINEER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL INSPECTION AND FINAL PAYMENT.

**INSPECTION**

MINIMUM CONSTRUCTION INSPECTION CHECKPOINTS

THE ENGINEER SHALL BE NOTIFIED:

- 1. PRIOR TO ANY MAJOR DEVIATION FROM THE APPROVED PLANS.
2. PRIOR TO BACKFILLING ANY PIPE TRENCHES.
3. UPON COMPLETION OF SUBGRADE GRADING AND COMPACTION.
4. UPON BEGINNING OF SPREADING OF ROCK BASE MATERIAL.
5. UPON COMPLETION OF GRADING AND COMPACTION OF THE BASE MATERIAL AND PRIOR TO PRIMING.
6. IMMEDIATELY PRIOR TO AND UPON APPLICATION OF A.C.S.C.
7. UPON COMPLETION OF CONSTRUCTION.

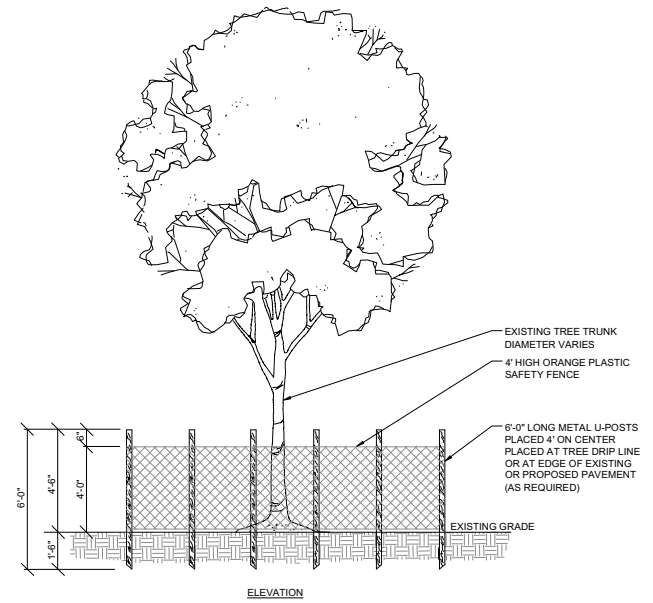
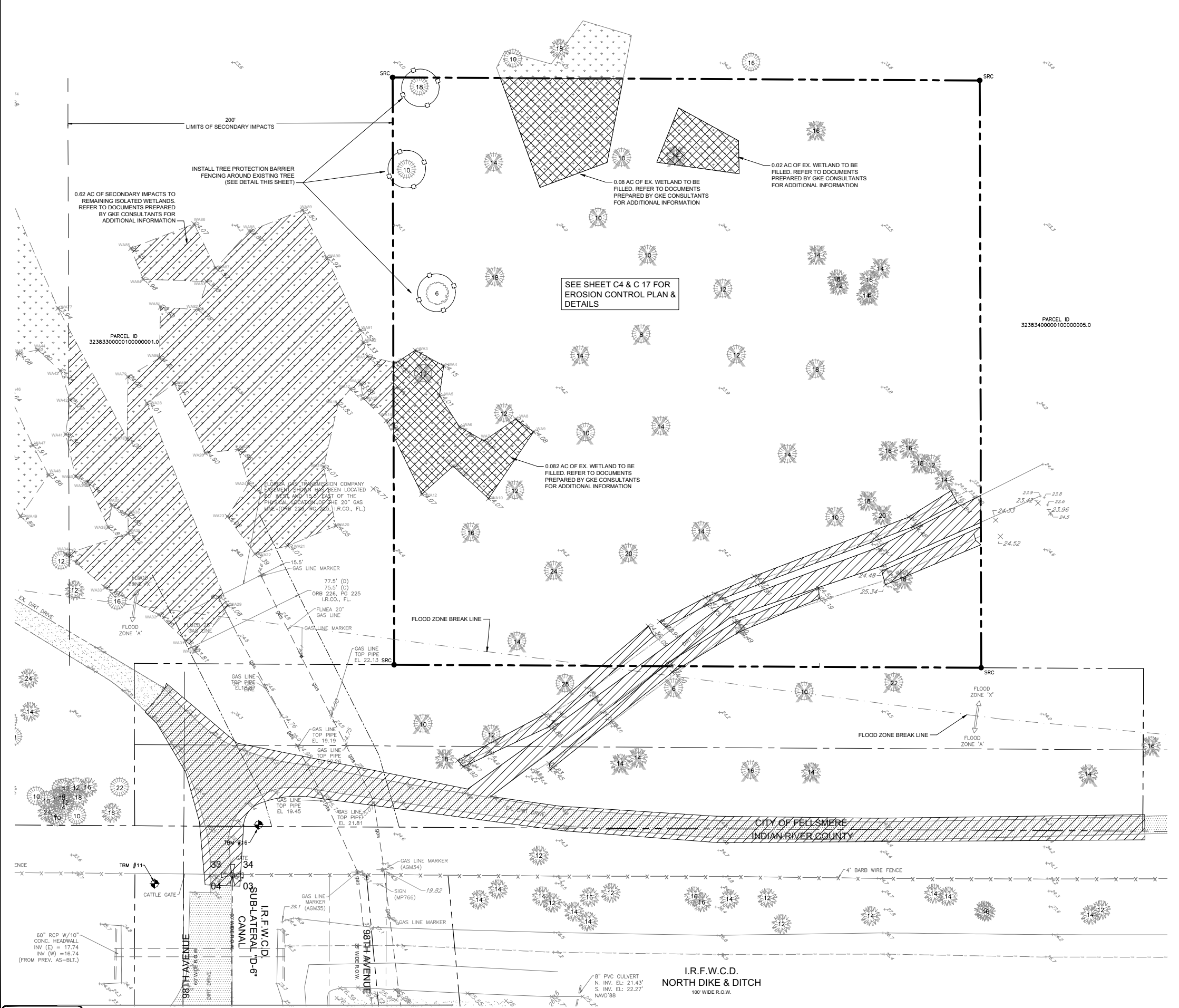
**GENERAL NOTES**

- 1. CONTRACTOR IS RESPONSIBLE FOR CHECKING ACTUAL SITE CONDITIONS BEFORE STARTING CONSTRUCTION.
- 2. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
- 3. ALL WORK SHALL BE IN WORKMANLIKE MANNER AND SHALL CONFORM WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL REGULATIONS AND/OR CODES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND LICENSES REQUIRED TO BEGIN WORK.
- 4. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE CITY OF FELLSMERE, WATER MANAGEMENT DISTRICT, FDEP AND THESE PLANS AND SPECIFICATIONS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST 48 HOURS IN ADVANCE FOR CONSTRUCTION OPERATIONS.
- 6. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- 7. CONTRACTOR SHALL SUPPLY DENSITY TESTS TO ENGINEER ON ALL SUB-GRADE AND BASE. TESTS SHALL BE PREPARED PER AASHTO T-180 METHOD.
- 8. SLOPE GRADES FROM ELEVATIONS SHOWN TO EXISTING GRADE AT PROPERTY LINE. MAXIMUM SLOPE 4:1.
- 9. ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR ANY INSPECTION.
- 10. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH M.U.T.C.D. STANDARDS, CITY OF FELLSMERE, INDIAN RIVER COUNTY AND F.D.O.T. AS APPLICABLE.
- 11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.
- 12. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE. WHEN GROUNDWATER IS ENCOUNTERED THE CONTRACTOR SHALL PLAN ACCORDINGLY.
- 13. EROSION CONTROL FENCING MUST BE IN PLACE PRIOR TO GRADING.
- 14. PIPE LENGTHS AND SLOPES SHOWN ARE APPROXIMATE.
- 15. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- 16. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- 17. CONTRACTOR SHALL ADJUST INLET/STRUCTURE OR CONNECTION LOCATION AS REQUIRED TO ENSURE PROPOSED STRUCTURES AND PIPES ARE IN PROPER ALIGNMENT AND MATCH SLOPE OF EXISTING PIPES OR CONNECTIONS.
- 18. THIS PLAN CONTEMPLATES ACCESS CONNECTIONS TO ADJACENT ROADS AS SHOWN.
- 19. FILL MATERIAL MAY NOT BE STOCKPILED HIGHER THAN TWENTY FIVE (25) VERTICAL FEET ONSITE PER CITY OF FELLSMERE CODE.
- 20. DIMENSIONS SHOWN ARE TO EDGE OF GUTTER OR PAVEMENT. RADII SHOWN ARE TO FACE OF CURB.
- 21. ALL SIGNS SHALL BE PER M.U.T.C.D. STANDARDS.
- 22. ALL PAVEMENT MARKINGS, EXCEPT PARKING STALL STRIPING, SHALL BE THERMOPLASTIC PER INDIAN RIVER COUNTY AND CITY OF FELLSMERE REQUIREMENTS WHERE APPLICABLE.
- 23. THE USES PROPOSED AS PART OF THIS PLAN DO NOT REQUIRE A SUBMITTAL OF A RISK MANAGEMENT PLAN PURSUANT TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REGULATIONS AND SHALL NOT EXCEED THE EPA'S RMP THRESHOLD QUANTITIES OF LISTED SUBSTANCES.
- 24. WATER FOR FIRE FIGHTING PURPOSES SHALL BE INDICATED WITH A BLUE ROADWAY REFLECTOR. PLACE ONE FOOT OFF OF THE CENTERLINE OF THE ROAD FACING THE FIRE HYDRANT. THIS INCLUDES NEW AND EXISTING SOURCES.
- 25. REGARDLESS OF PRIVATE OR PUBLIC DEDICATIONS, THERE SHALL BE NO UTILITY CONNECTIONS, METER BOXES OR VALVE BOXES IN EXISTING OR PROPOSED SIDEWALK OR DRIVEWAY AREAS.
- 26. CONTRACTOR SHALL ADJUST INLET/STRUCTURE OR CONNECTION LOCATION AS REQUIRED TO ENSURE PROPOSED STRUCTURES AND PIPES ARE IN PROPER ALIGNMENT AND MATCH SLOPE OF EXISTING PIPES OR CONNECTIONS.
- 27. ANY STATE AND FEDERAL PERMITS THAT MAY BE REQUIRED AS A RESULT OF LAND CLEARING AND LANDSCAPING ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 28. CONTRACTOR IS RESPONSIBLE TO PROTECT AND/OR REPLACE ALL SURVEY MONUMENTATION BY A LICENSED SURVEYOR IN THE STATE OF FLORIDA.
- 29. ALL PARKING SPACES WITH EXCEPTION OF THE HANDICAPPED PARKING SPACES SHALL BE STRIPED IN WHITE, TRAFFIC PAINT AND BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, SECTION 710, LATEST EDITION.
- 30. ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FDOT STANDARD INDEX 711-001, LATEST EDITION.
- 31. BUILDINGS USING VERTICAL OR HORIZONTAL LIGHT-FRAME CONSTRUCTION IN ANY PORTION OF THE STRUCTURE SHALL BE MARKED WITH A SIGN AS REQUIRED BY FLORIDA STATE STATUTE 633-027 AND THE SIGN SHALL BE REQUIRED TO COMPLY WITH THE FLORIDA ADMINISTRATIVE CODE 69A-3.012 AND/OR 69A-80.0081. REQUIRED SIGN MUST BE 8 INCHES BY 8 INCHES.
- 32. THERMOPLASTIC PAVEMENT MARKINGS SHALL BE REQUIRED ON EXISTING / PROPOSED DRIVEWAYS THAT CONNECT TO THE COUNTY RIGHT-OF-WAY (ROW) AND PROPOSED PAVEMENT MARKINGS WITHIN 25' OF EDGE OF PAVEMENT.
- 33. ALL SUBDIVISION CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE APPLICABLE CITY OF FELLSMERE ORDINANCES.
- 34. ALL NUISANCE EXOTIC VEGETATION EXISTING WITHIN DEVELOPMENT PROJECT SITE PROPERTY MUST BE REMOVED IN CONJUNCTION WITH SITE DEVELOPMENT.

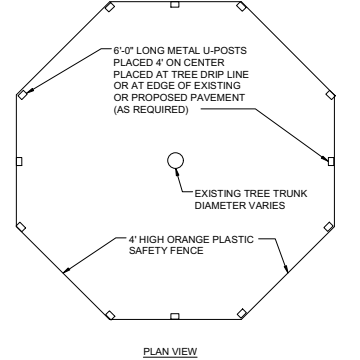
**PRIMARY BENCHMARK:**  
DESIGNATION: T 431  
PID: AE6137  
STATE COUNTY: FL/INDIAN RIVER  
USGS QUAD: SOUTH OF FELLSMERE (2018)  
NAVD 88 ORTHO HEIGHT: 7.141 (METERS)  
23.43 (FEET)  
GEOD HEIGHT: -27.498 (METERS)  
DYNAMIC HEIGHT: 7.131 (METERS) 23.40 (FEET)  
DESCRIPTION: A VERTICAL CONTROL DISK SET IN TOP OF A CONCRETE MONUMENT STAMPED "NGS T-431-1994"  
LOCATION: TO REACH THE MARK FROM THE INTERSECTION OF STATE HIGHWAY 60 (20TH AVENUE) AND INTERSTATE 95 (EXIT 147) SOUTHBOUND LANES ON THE WEST SIDE OF VERO BEACH, GO WEST ON STATE HIGHWAY 60 (20TH AVENUE) FOR 0.65 MILES TO THE INTERSECTION OF 98TH AVENUE AND THE MARK ON THE LEFT. LOCATED 158.5 FEET SOUTH OF THE CENTERLINE OF STATE HIGHWAY 60 EASTBOUND LANES, 32.7 FEET WEST OF THE CENTERLINE OF 98TH AVENUE, 10.5 FEET EAST OF A BARBWIRE FENCE AND 10.0 FEET EAST OF A CARSONITE WITNESS POST.



MBV ENGINEERING, INC. CONSULTING ENGINEERING MOJA BOWLES VILLAMIZAR & ASSOCIATES CA #3728  
21-0492  
JOB NO. 21-0492  
DESIGNED TH  
DRAWN SS  
DATE JUNE 2022  
CHECKED AS  
DATE ISSUED 05/12/2023  
COMMENTS  
REVISIONS  
DATE  
GENERAL NOTES  
IRC FIRE RESCUE FIRE STATION #7  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN  
FLORIDA  
AARON G. STANTON LICENSE No. 72460 STATE OF FLORIDA PROFESSIONAL ENGINEER  
AARON G. STANTON FL P.E. #72460 8/16/23  
SHEET  
C2  
21-0492



- TREE PROTECTION NOTES:**
1. ALL TREES RETAINED ON A SITE SHALL BE PROTECTIVELY BARRICADED BEFORE AND DURING CONSTRUCTION ACTIVITIES.
  2. UNDERGROUND UTILITY LINES SHALL BE ROUTED AROUND EXISTING TREES TO THE OUTSIDE OF THE DRIFLINE WHERE APPLICABLE.
  3. INSTALLATION OF FENCES AND WALLS SHALL TAKE INTO CONSIDERATION THE ROOT SYSTEMS OF EXISTING TREES.
  4. FENCES/ BARRICADE SHALL BE INSTALLED AT PERIMETER OF ALL TREES OR GROUP OF TREES TO BE PRESERVED. FENCE SHALL BE MAINTAINED DURING CONSTRUCTION.



**TREE PROTECTION BARRIER DETAIL**  
NTS

**LEGEND**

- EXISTING PALM TREE TO BE REMOVED
- EXISTING PINE TREE TO BE REMOVED
- EXISTING DIRT DRIVES TO BE REMOVED AND DITCHES TO BE FILLED
- EXISTING WETLANDS TO BE FILLED (TOTAL = 0.182 AC). SEE MITIGATION PLAN PREPARED BY GKE CONSULTANTS
- SECONDARY IMPACTS TO REMAINING ISOLATED WETLANDS (TOTAL 0.62 AC). SEE MITIGATION PLAN PREPARED BY GKE CONSULTANTS

NO.	DATE	REVISIONS
8	08-14-2023	REV. PER S.J.R.W.D. ENV. COMMENTS
7	08-09-2023	REV. PER FDEP WATER COMMENTS
6	08-07-2023	REV. PER I.R.C.O. GAS CO. OF COMMENTS
5	07-27-2023	REV. PER I.R.C.O. I.R.C.O. COMMENTS
4	07-19-2023	REV. PER S.J.R.W.D. COMMENTS
3	06-20-2023	REV. PER COE FINAL SPC COMMENTS
2	06-20-2023	REV. PER COE AND RCDF COMMENTS
1	05-20-2023	COMMENTS

JOB NO.	DATE ISSUED	DATE
21-0492 <td>05/12/2023 <td>05/12/2023 </td></td>	05/12/2023 <td>05/12/2023 </td>	05/12/2023

DESIGNED	DRAWN	DATE	CHECKED	DATE
TH	SS	JUNE 2022	AS	05/12/2023

**MBV ENGINEERING, INC.**  
MOA BOWLES VILLAMIZAR & ASSOCIATES  
CONSULTING ENGINEERING CA #3778

RELDONNE R. PH (971) 333-1519  
11777 SHILOH RD  
PH (772) 584-0013  
11777 SHILOH RD  
PH (772) 784-8117

**EXISTING CONDITIONS & DEMOLITION PLAN**

**IRC FIRE RESCUE FIRE STATION #7**  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN

FLORIDA  
CITY OF FELLSMERE

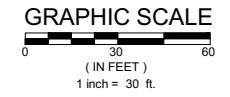
**AARON G. STANTON**  
LICENSE  
No. 72460  
STATE OF  
FLORIDA  
PROFESSIONAL ENGINEER

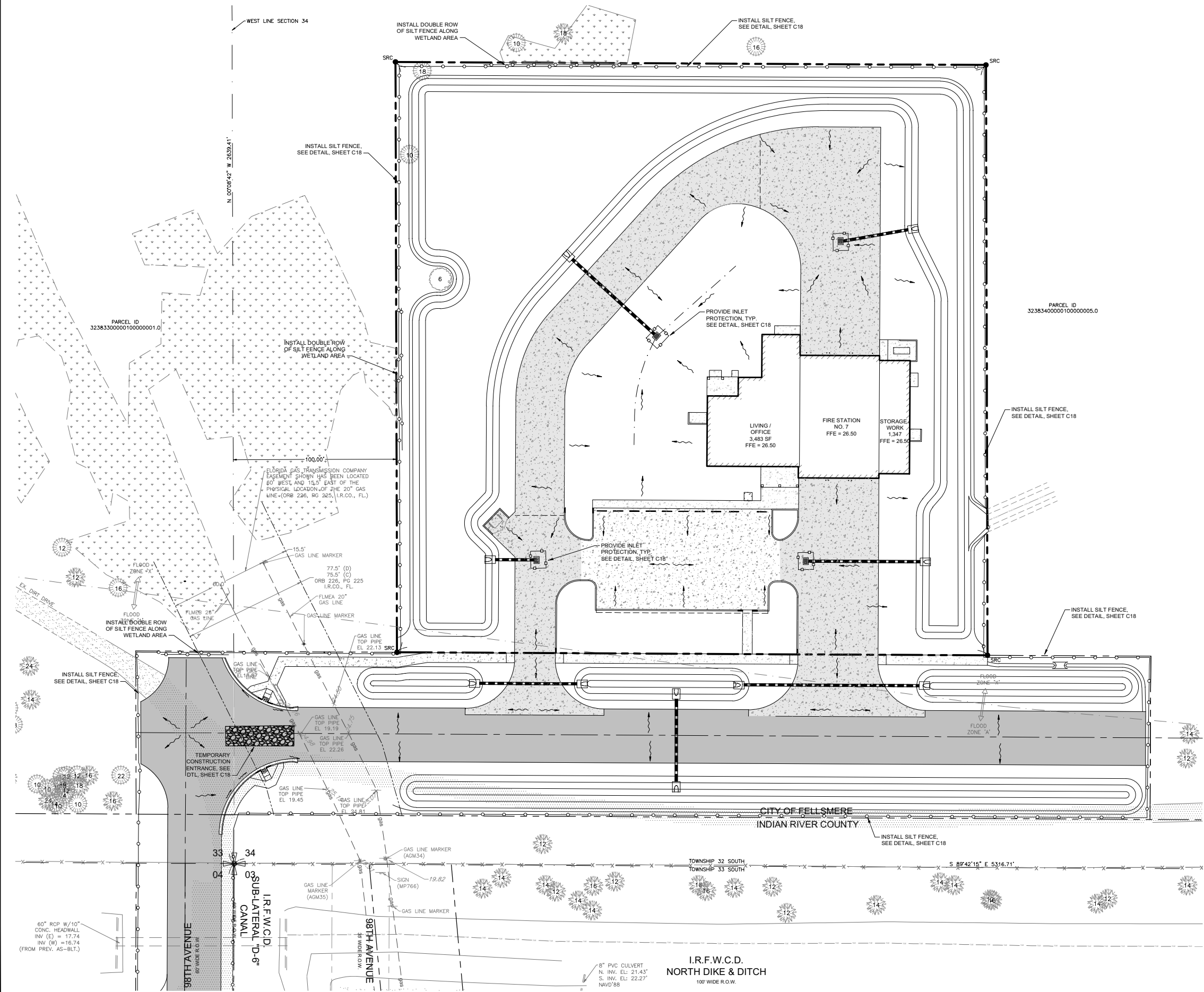
AARON G. STANTON  
FL. P.E. #72460 8/16/23

72 HOURS BEFORE DIGGING  
CALL TOLL FREE  
**811**  
Know what's below.  
Call before you dig.

**EXISTING CONDITIONS & DEMOLITION PLAN**

SCALE: 1" = 30'



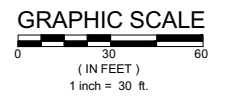


**LEGEND**

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- PROPOSED SURFACE FLOW DIRECTION
- PROPOSED EROSION CONTROL FENCE

**EROSION CONTROL PLAN**

SCALE: 1" = 30'



NO.	DATE	REVISIONS
8	08-14-2023	REV. PER SURVIVOR COMMENTS
7	08-09-2023	REV. PER FEEDBACK COMMENTS
6	07-27-2023	REV. PER IRVCD, IRCD COMMENTS
5	07-19-2023	REV. PER SURVIVOR COMMENTS
4	06-20-2023	REV. PER COE FINAL SPC COMMENTS
3	06-20-2023	REV. PER COE AND IRVCD COMMENTS
2	05-20-2023	COMMENTS
1	05-12-2023	DATE ISSUED

DESIGNED	TH
21-0492	TH
SS	SS
JUNE 2022	DATE
AS	CHECKED
05/12/2023	DATE ISSUED

**MBV ENGINEERING, INC.**  
 MOA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING CA #3728

1885 20TH STREET  
 MOJAVE, CA 93501  
 PH (773) 584-0333  
 FAX (773) 754-8171

**EROSION CONTROL PLAN**

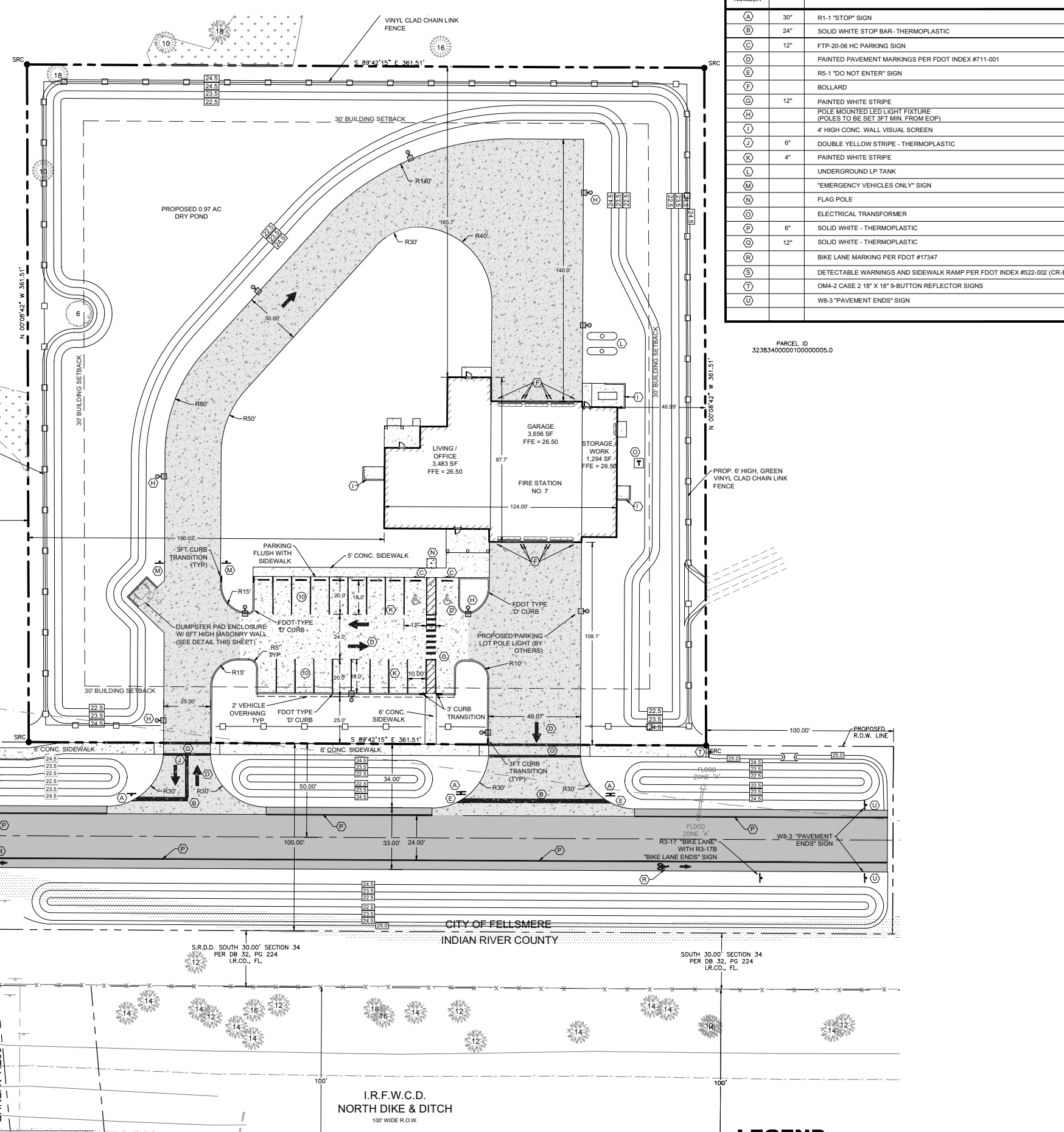
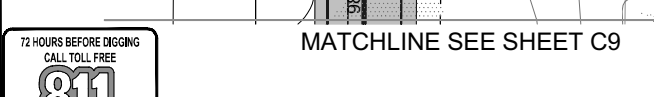
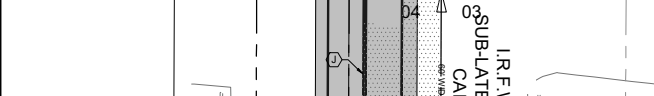
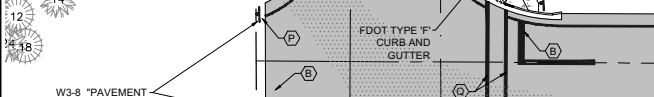
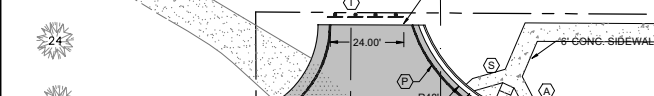
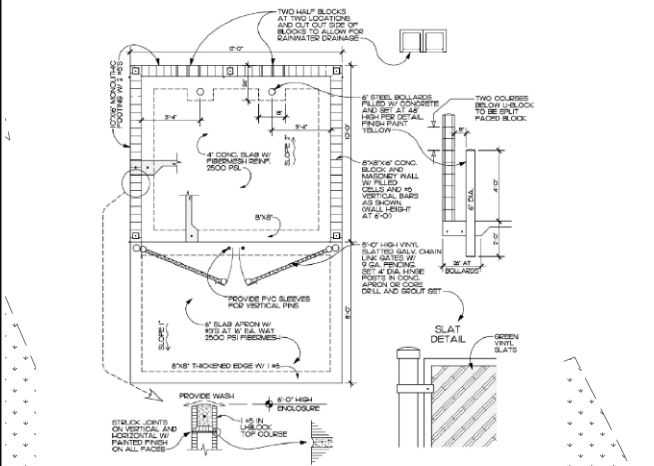
**IRC FIRE RESCUE FIRE STATION #7  
 CITY OF FELLSMERE  
 FINAL DEVELOPMENT PLAN**

FLORIDA  
 CITY OF FELLSMERE

**AARON G. STANTON**  
 LICENSE No. 72460  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

AARON G. STANTON  
 FL. P.E. #72460 8/16/23

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**811**  
 Know what's below.  
 Call before you dig.



SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE		
SIGN ID NUMBER	SIZE	DESIGNATION / NOTES
(A)	30"	R1-1 "STOP" SIGN
(B)	24"	SOLID WHITE STOP BAR - THERMOPLASTIC
(C)	12"	FTP-20-06 HC PARKING SIGN
(D)		PAINTED PAVEMENT MARKINGS PER FDOT INDEX #711-001
(E)		RS-1 "DO NOT ENTER" SIGN
(F)		BOLLARD
(G)	12"	PAINTED WHITE STRIPE
(H)		POLE MOUNTED LED LIGHT FIXTURE (POLES TO BE SET 3FT MIN. FROM EOP)
(I)		4' HIGH CONC. WALL VISUAL SCREEN
(J)	6"	DOUBLE YELLOW STRIPE - THERMOPLASTIC
(K)	4"	PAINTED WHITE STRIPE
(L)		UNDERGROUND LP TANK
(M)		"EMERGENCY VEHICLES ONLY" SIGN
(N)		FLAG POLE
(O)		ELECTRICAL TRANSFORMER
(P)	6"	SOLID WHITE - THERMOPLASTIC
(Q)	12"	SOLID WHITE - THERMOPLASTIC
(R)		BIKE LANE MARKING PER FDOT #17347
(S)		DETECTABLE WARNINGS AND SIDEWALK RAMP PER FDOT INDEX #522-002 (CR-B)
(T)		OM4-2 CASE 2 18" X 18" 9-BUTTON REFLECTOR SIGNS
(U)		WB-3 "PAVEMENT ENDS" SIGN

**PROJECT INFORMATION**

**SITE ADDRESS**  
1801 27TH STREET  
FELLSMERE, FL 32966-3044

**OWNER/APPLICANT**  
EMERGENCY SERVICES DISTRICT OF INDIAN RIVER COUNTY  
1801 27TH STREET  
VERO BEACH, FL 32960  
PH: (772) 226-3953

**ENGINEER**  
MBV ENGINEERING, INC.  
1835 20TH STREET  
VERO BEACH, FL 32960  
PH: (772) 569-0035

**ARCHITECT**  
EDLUND, DRITENBAS, BINKLEY  
ARCHITECTS AND ASSOCIATES, PA  
65 ROYAL PALM POINTE, "D"  
VERO BEACH, FL 32960  
PH: (772) 569-4320

**SURVEYOR**  
CARTER ASSOCIATES, INC.  
1708 21ST STREET  
VERO BEACH, FL 32960  
PH: (772) 562-4191

**TAX PARCEL I.D. NUMBER(S)**  
32-38-34-00000-1000-00005.0

**ZONING** PD  
**LAND USE** REAC

**LATITUDE** 27°38'49.09"  
**LONGITUDE** 80°31'40.77"

**LEGAL DESCRIPTION**  
BEING A PARCEL OF LAND LYING IN THE SOUTHWEST ONE-QUARTER OF SECTION 34, TOWNSHIP 32 SOUTH, RANGE 38 EAST, INDIAN RIVER COUNTY, FLORIDA, SAID PARCEL ALSO BEING A PORTION OF THOSE LANDS AS DESCRIBED IN OFFICIAL RECORD BOOK 1612, PAGE 1824, PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA, SAID PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
THE NORTH 361.50 FEET, OF THE SOUTH 491.50 FEET, OF THE EAST 361.50 FEET, OF THE WEST 461.50 FEET OF THE SOUTHWEST ONE-QUARTER OF SECTION 34, TOWNSHIP 32 SOUTH, RANGE 38 EAST.  
CONTAINING 130,680 SQUARE FEET, (3.00 ACRES) OR MORE LESS.

**PROJECT DESCRIPTION**  
THIS PROJECT IS TO SUPPORT THE INDIAN RIVER COUNTY EMERGENCY SERVICES DEPARTMENT TO CONSTRUCT A NEW FIRE STATION #7, INCLUDING ALL REQUIRED SITE IMPROVEMENTS, DRAINAGE AND UTILITIES, ALONG WITH THE REQUIRED IMPROVEMENTS FOR THE EXTENSION OF 98TH AVENUE AND A PROPOSED EAST-WEST RIGHT OF WAY WITH IMPROVEMENTS.

**SITE DATA**

**EXISTING SITE DATA (ON-SITE)**

SITE AREA	SF	AC	%
SITE AREA	130,686 SF	3.0 AC	100%
IMPERVIOUS AREA	2,453 SF	0.06 AC	1.9%
EXISTING STABILIZED DRIVE	2,453 SF	0.06 AC	1.9%
PERVIOUS AREA	128,233 SF	2.94 AC	98.1%

**PROPOSED SITE DATA (ON-SITE)**

SITE AREA	SF	AC	%
SITE AREA	130,686 SF	3.00 AC	100%
IMPERVIOUS AREA	39,838 SF	0.92 AC	30.48%
PROPOSED BUILDING	8,433 SF	0.20 AC	6.53%
PROPOSED STANDARD DUTY CONCRETE	7,050 SF	0.16 AC	5.39%
PROPOSED HEAVY DUTY CONCRETE	24,258 SF	0.56 AC	18.56%
PERVIOUS AREA	90,848 SF	2.08 AC	69.52%
NET NEW IMPERVIOUS	(+) 39,838 SF	0.92 AC	

**EXISTING SITE DATA (OFF-SITE)**

SITE AREA	SF	AC	%
SITE AREA	62,036 SF	1.42 AC	100%
IMPERVIOUS AREA	8,587 SF	0.20 AC	13.8%
EXISTING STABILIZED DRIVE	8,587 SF	0.20 AC	13.8%
PERVIOUS AREA	53,449 SF	1.22 AC	86.2%

**PROPOSED SITE DATA (OFF-SITE)**

SITE AREA	SF	AC	%
SITE AREA	62,036 SF	1.42 AC	100%
IMPERVIOUS AREA	23,973 SF	0.55 AC	38.6%
PROPOSED PAVEMENT	21,340 SF	0.49 AC	34.4%
PROPOSED CONCRETE SIDEWALK	2,633 SF	0.06 AC	4.2%
PERVIOUS AREA	38,063 SF	0.87 AC	61.4%
NET NEW IMPERVIOUS	(+) 15,386 SF	0.35 AC	

**ZONING DATA**

PD ZONING	EXISTING	PROPOSED
LOT SIZE	130,686 SF	130,686 SF
LOT WIDTH	361.51'	361.51'
BUILDING SETBACKS		
FRONT	0'	108.10'
SIDE (E)	0'	46.99'
SIDE (W)	0'	190.02'
REAR	0'	165.70'
BUILDING COVERAGE	0.0%	6.53%
OPEN SPACE	100%	69.52%
BUILDING HEIGHT	0' MAX.	30'

**PARKING DATA**

PARKING REQUIRED (GEN. INDUST.) = 2 SP / 1,000 SF  
8,530 / 1,000 x 2 = 17.06 SPACES or 18 SPACES

PARKING PROVIDED = 20 SPACES TOTAL  
2 HANDICAPPED SPACES  
18 STANDARD SPACES

**TRAFFIC STATEMENT**

PER ITE, 10TH EDITION:  
(575) FIRE AND RESCUE STATION  
8,530 / 1,000 SF BLDG = 8.53 X 0.48 (KSF) = 4 TRIPS (TOTAL), 1 (ENTRY), 3 (EXIT)

**DRAINAGE STATEMENT**

THE FIRE STATION PARCEL WILL COLLECT THE ONSITE STORMWATER RUNOFF VIA THE PROPOSED CATCH BASIN AND STORM PIPING SYSTEM WHERE IT WILL BE ROUTED TO THE PROPOSED DRY DETENTION POND. THE DRY POND WILL BE DESIGNED TO ACCOUNT FOR THE REQUIRED WATER QUALITY / QUANTITY TREATMENT IN ACCORDANCE WITH THE SJRWMD AND CITY OF FELLSMERE REGULATIONS PRIOR TO OUTFALL.

**FLOOD ZONE**

THE HEREON DESCRIBED PROPERTY APPEARS TO LIE WITHIN FLOOD ZONE 'X'. AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AND FLOOD ZONE 'A', SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED, AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) NUMBER 12061C0220H, COMMUNITY NUMBER 120119, PANEL 0220, SUFFIX 'H' MAP REVISED DATE DECEMBER 4, 2012, MAP INDEX DATE DECEMBER 4, 2012. NO ADDITIONAL SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED. THERE MAY BE ADDITIONAL MAP AMENDMENTS AFFECTING THIS PROPERTY.

**WASTEWATER SOURCE**  
INDIAN RIVER COUNTY UTILITIES

**POTABLE WATER SOURCE**  
INDIAN RIVER COUNTY UTILITIES

**PERMITS REQUIRED**

CITY OF FELLSMERE PD FINAL DEVELOPMENT PLAN  
CITY OF FELLSMERE SITE CONSTRUCTION PLAN  
IRFVCD SITE PLAN REVIEW (98th AVE ONLY)  
IRFVCD UTILITY CONSTRUCTION PERMIT  
SEBASTIAN RIVER DRAINAGE DISTRICT  
INDIAN RIVER COUNTY RIGHT-OF-WAY PERMIT  
INDIAN RIVER COUNTY UTILITY PERMIT  
INDIAN RIVER COUNTY FIRE DEPT. APPROVAL  
SJRWMD / FDEP 10-2 CERTIFICATION  
SJRWMD MODIFICATION - (B3135-1)  
FDEP DOMESTIC WASTEWATER COLLECTION PERMIT  
FDEP POTABLE WATER PERMIT  
FDEP NPDES NOI PERMIT  
FLORIDA GAS TRANSMISSION ENCROACHMENT AGREEMENT

NO.	DATE	REVISIONS
1	08-14-2023	REV. PER SJRWMD ENV. COMMENTS
2	08-09-2023	REV. PER FDEP WATER COMMENTS
3	08-07-2023	REV. PER IRFVCD, GAS CO. CIP COMMENTS
4	07-27-2023	REV. PER IRFVCD, IRFVCD COMMENTS
5	07-19-2023	REV. PER SJRWMD COMMENTS
6	06-20-2023	REV. PER COE FINAL COMMENTS
7	06-20-2023	REV. PER COE AND RCFD COMMENTS
8	05-12-2023	REV. PER COE AND RCFD COMMENTS

JOB NO.	DESIGNED	DRAWN	DATE	CHECKED	DATE ISSUED
21-0492	TH	SS	JUNE 2022	AS	05/12/2023

**MBV ENGINEERING, INC.**  
MOIA BOWLES VILLAMIZAR & ASSOCIATES  
CONSULTING ENGINEERING CA #37278  
1835 20TH STREET  
VERO BEACH, FL 32960  
PH: (772) 758-8171

**SITE PLAN**  
**FINAL DEVELOPMENT PLAN**

**IRC FIRE RESCUE FIRE STATION #7**  
**CITY OF FELLSMERE**  
**FINAL DEVELOPMENT PLAN**

AARON G. STANTON  
LICENSE  
No. 72460  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

SHEET  
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72 HOURS BEFORE DIGGING  
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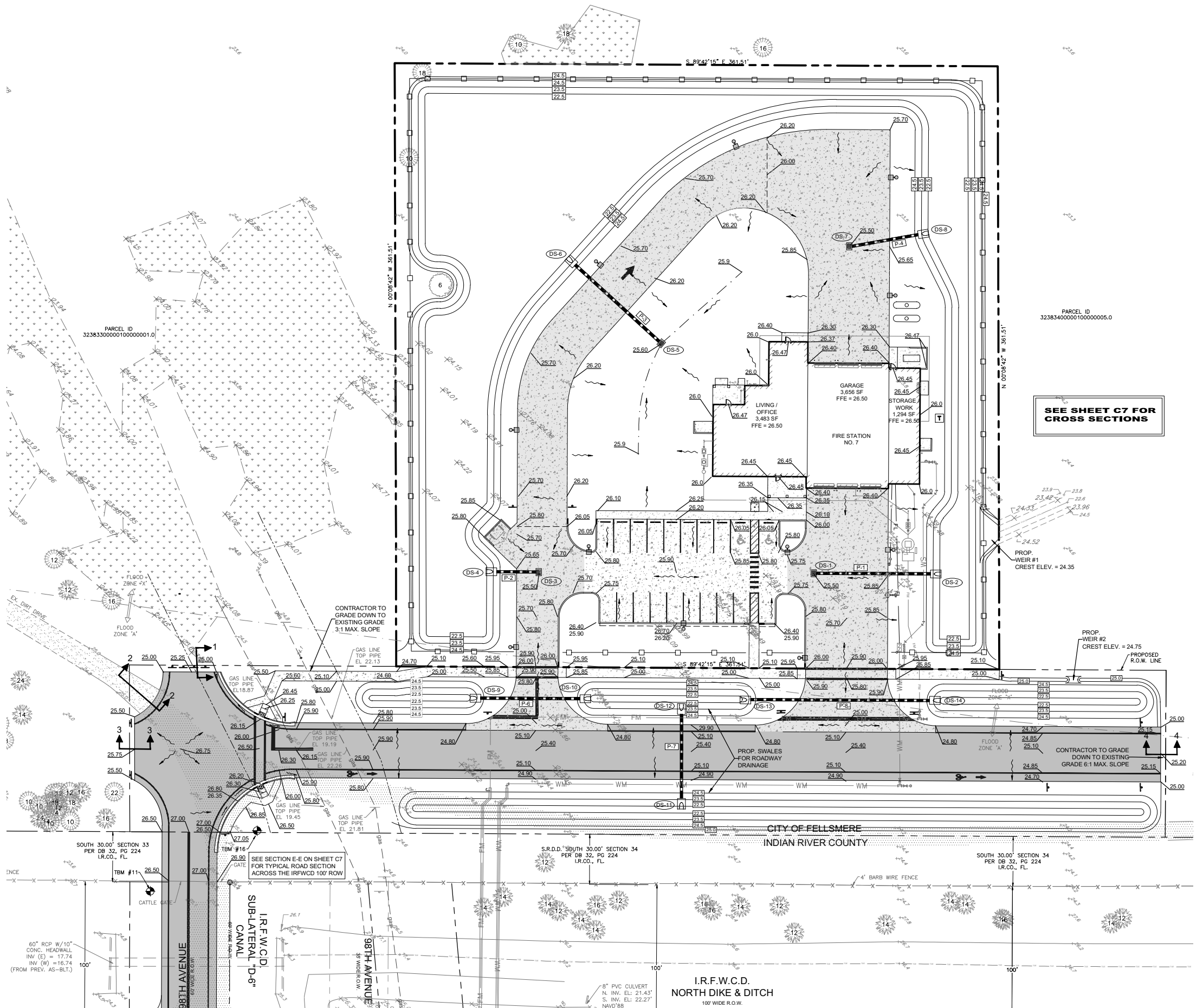
**SITE PLAN - FINAL DEVELOPMENT PLAN**  
SCALE: 1" = 30'

**LEGEND**

- PROPOSED ASPHALT
- PROPOSED HEAVY DUTY CONCRETE
- PROPOSED STANDARD DUTY CONCRETE
- PROPOSED POLE LIGHT

**GRAPHIC SCALE**  
(IN FEET)  
1 inch = 30 ft.





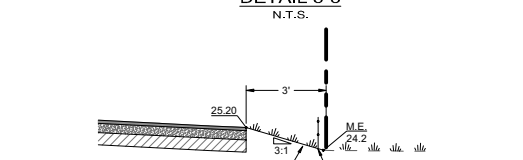
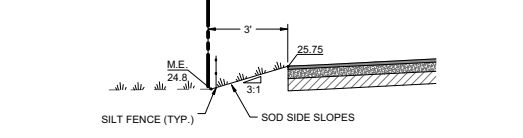
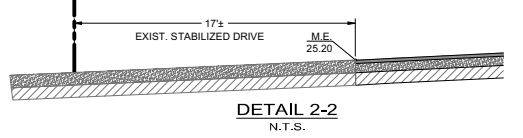
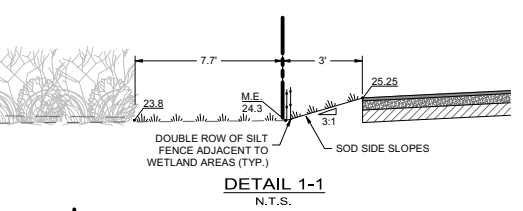
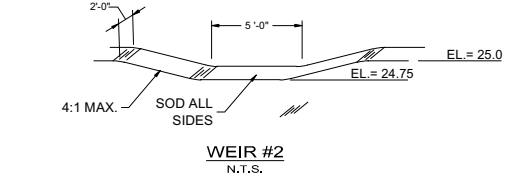
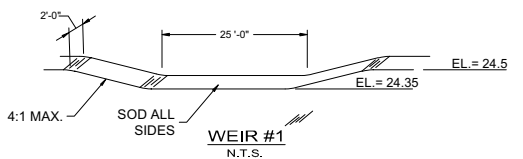
DRAINAGE STRUCTURE SCHEDULE						
STRUCTURE NUMBER	RIM ELEV.	INVERT ELEVATION				DESCRIPTION
		N	S	E	W	
DS-1	25.50			23.10	23.10	TYPE "F" INLET
DS-2	MES				22.50	14" x 23" MES
DS-3	25.50				23.10	TYPE "F" INLET
DS-4	MES			22.50		14" x 23" MES
DS-5	25.60	23.20 NE			22.50	TYPE "C" INLET
DS-6	MES		22.50 SE			14" x 23" MES
DS-7	25.50			23.10		TYPE "F" INLET
DS-8	MES				22.50	14" x 23" MES
DS-9	MES			22.50		14" x 23" MES
DS-10	MES				22.50	14" x 23" MES
DS-11	MES	22.50				14" x 23" MES
DS-12	MES		22.50			14" x 23" MES
DS-13	MES			22.50		14" x 23" MES
DS-14	MES				22.50	14" x 23" MES
DS-15	MES		22.50		22.50	14" x 23" MES
DS-1	24.16			22.66	22.66	MOD. TYPE "C" INLET
DS-2	24.50	22.80			22.66	MOD. TYPE "C" INLET

ALL STRUCTURES PER FDOT STANDARD SPECIFICATIONS AND DETAILS.

DRAINAGE PIPE SCHEDULE			
PIPE NUMBER	SIZE	LENGTH	DESCRIPTION
P-1	14" x 23"	75 LF	ERCP
P-2	14" x 23"	32 LF	ERCP
P-3	14" x 23"	75 LF	ERCP
P-4	14" x 23"	47 LF	ERCP
P-5	14"	29 LF	ABS HW
P-6	14" x 23"	73 LF	ERCP
P-7	14" x 23"	69 LF	ERCP
P-8	14" x 23"	120 LF	ERCP
P-9	14"	88 LF	ABS HW

### LEGEND

- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED HEAVY DUTY CONCRETE
- PROPOSED DRAINAGE PIPE
- PROPOSED DRAINAGE STRUCTURE
- PROPOSED GRADE ELEVATION
- EXISTING GRADE ELEVATION
- PROPOSED SURFACE FLOW DIRECTION

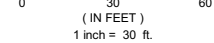


SEE SHEET C7 FOR CROSS SECTIONS

# PAVING, GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

### GRAPHIC SCALE



72 HOURS BEFORE DIGGING  
CALL TOLL FREE  
**811**  
Know what's below.  
Call before you dig.

MATCHLINE SEE SHEET C6

NO.	DATE	REVISIONS
8	08-14-2023	REV. PER SURV. ENCL. COMMENTS
7	08-09-2023	REV. PER FDOT WATER COMMENTS
6	08-07-2023	REV. PER IRCCO. GAS CO. CIP COMMENTS
5	07-27-2023	REV. PER IRCCO. RECID COMMENTS
4	07-19-2023	REV. PER IRCCO. COMMENTS
3	06-20-2023	REV. PER COE FINAL SP COMMENTS
2	06-20-2023	REV. PER COE AND RECD COMMENTS
1	05-20-2023	COMMENTS

JOB NO.	DESIGNED	DRAWN	DATE	CHECKED	DATE ISSUED
21-0492	TH	SS	JUNE 2022	AS	05/12/2023

**MBV ENGINEERING, INC.**  
MOIA BOWLES VILLAMIZAR & ASSOCIATES  
CONSULTING ENGINEERING CA #3728  
1885 20TH STREET  
MELBOURNE, FL 32901  
TEL: (321) 335-1510  
FAX: (321) 335-1511

PAVING, GRADING AND DRAINAGE PLAN

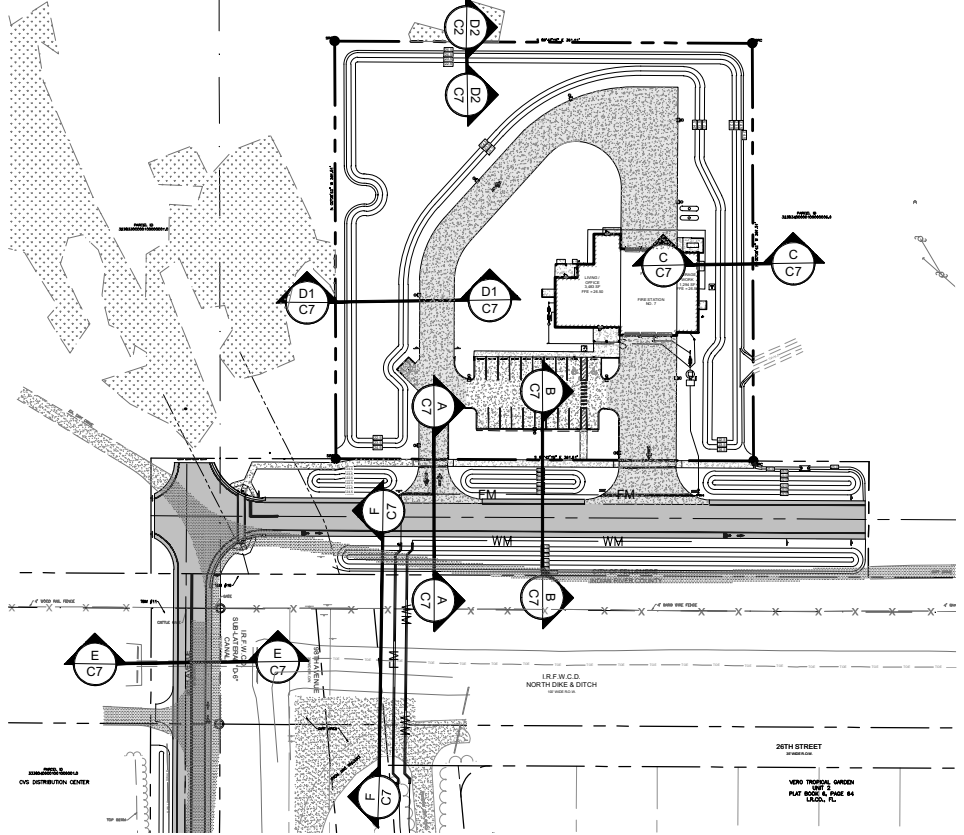
IRC FIRE RESCUE FIRE STATION #7  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN  
FLORIDA  
CITY OF FELLSMERE

AARON G. STANTON  
LICENSE  
No. 72460  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

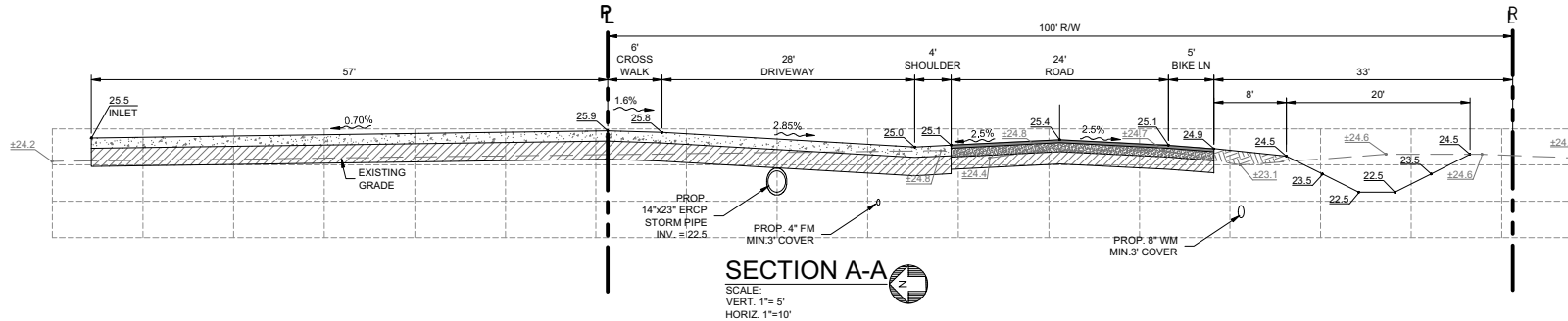
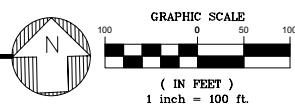
AARON G. STANTON  
FL. P.E. #72460 8/16/23

SHEET  
**C6**

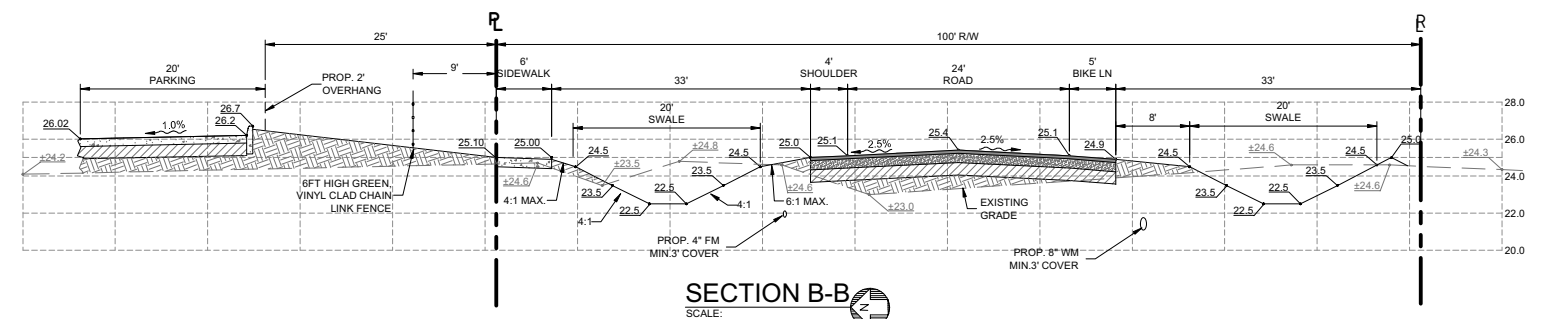
21-0492



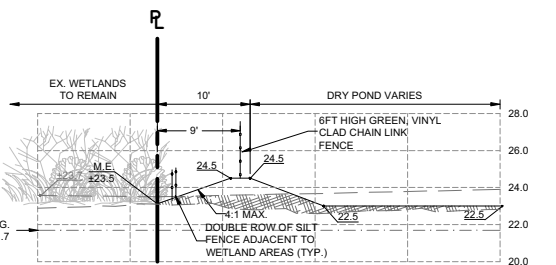
**SECTION KEY MAP**



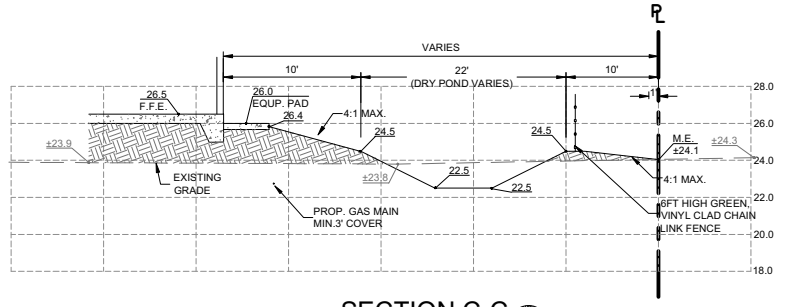
**SECTION A-A**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



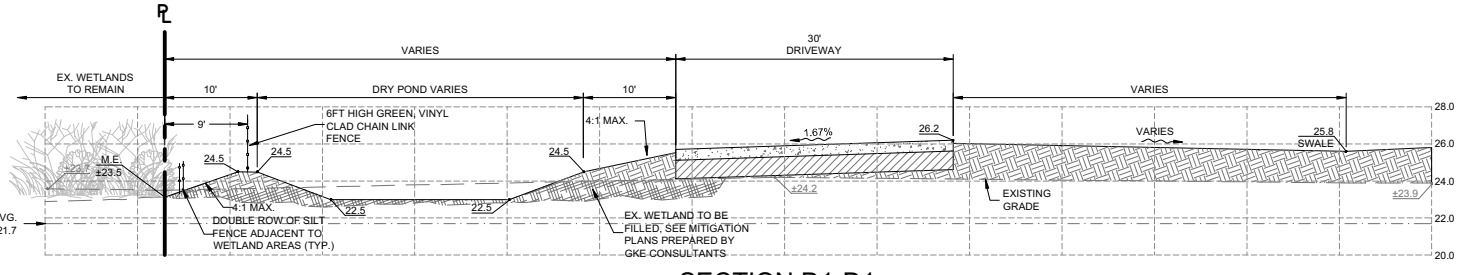
**SECTION B-B**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



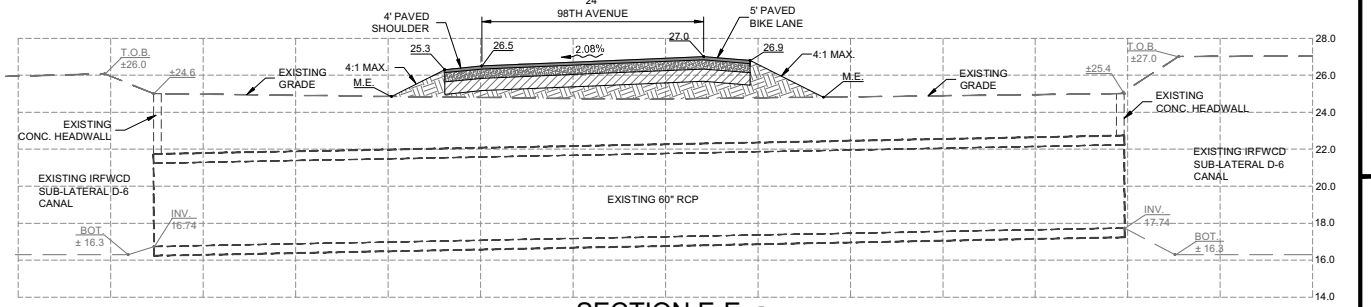
**SECTION D2-D2**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



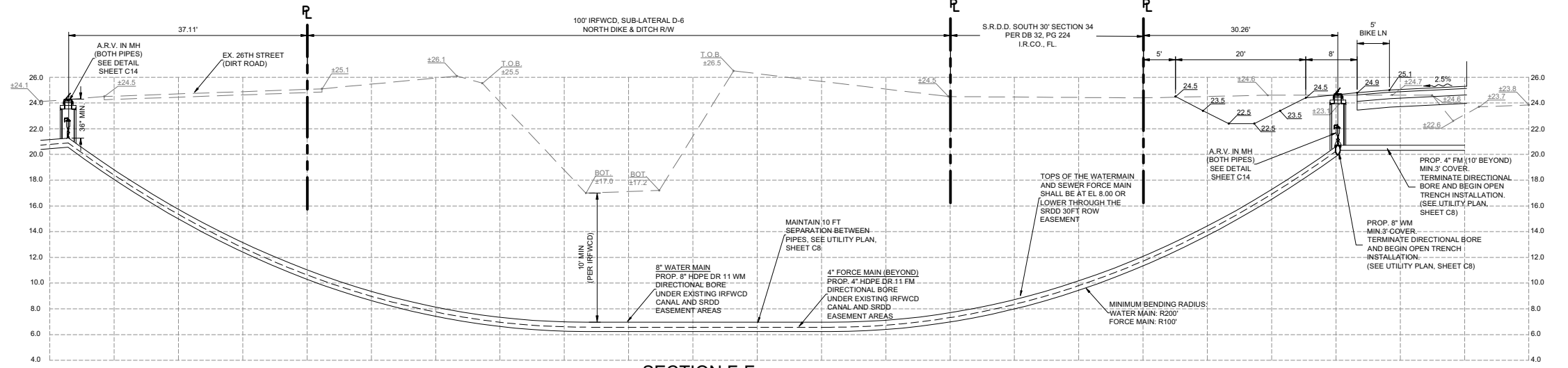
**SECTION C-C**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



**SECTION D1-D1**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



**SECTION E-E**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



**SECTION F-F**  
SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'

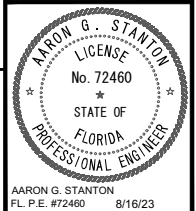
DATE	REVISIONS
08-14-2023	REV. PER S.R.D. ENR. COMMENTS
08-09-2023	REV. PER DEEP WATER COMMENTS
08-07-2023	REV. PER R.C.D. GAS CO. CIP COMMENTS
07-19-2023	REV. PER IRFWCD. IRCID COMMENTS
06-20-2023	REV. PER S.R.D. COMMENTS
06-20-2023	REV. PER COE FINAL SPC COMMENTS
06-20-2023	REV. PER COE AND RCFD COMMENTS
05-20-2023	COMMENTS

JOB NO.	DESIGNED	TH	SS	DATE	CHECKED	AS	DATE ISSUED
21-0492				JUNE 2023			05/12/2023

**CROSS SECTIONS**

IRC FIRE RESCUE FIRE STATION #7  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN

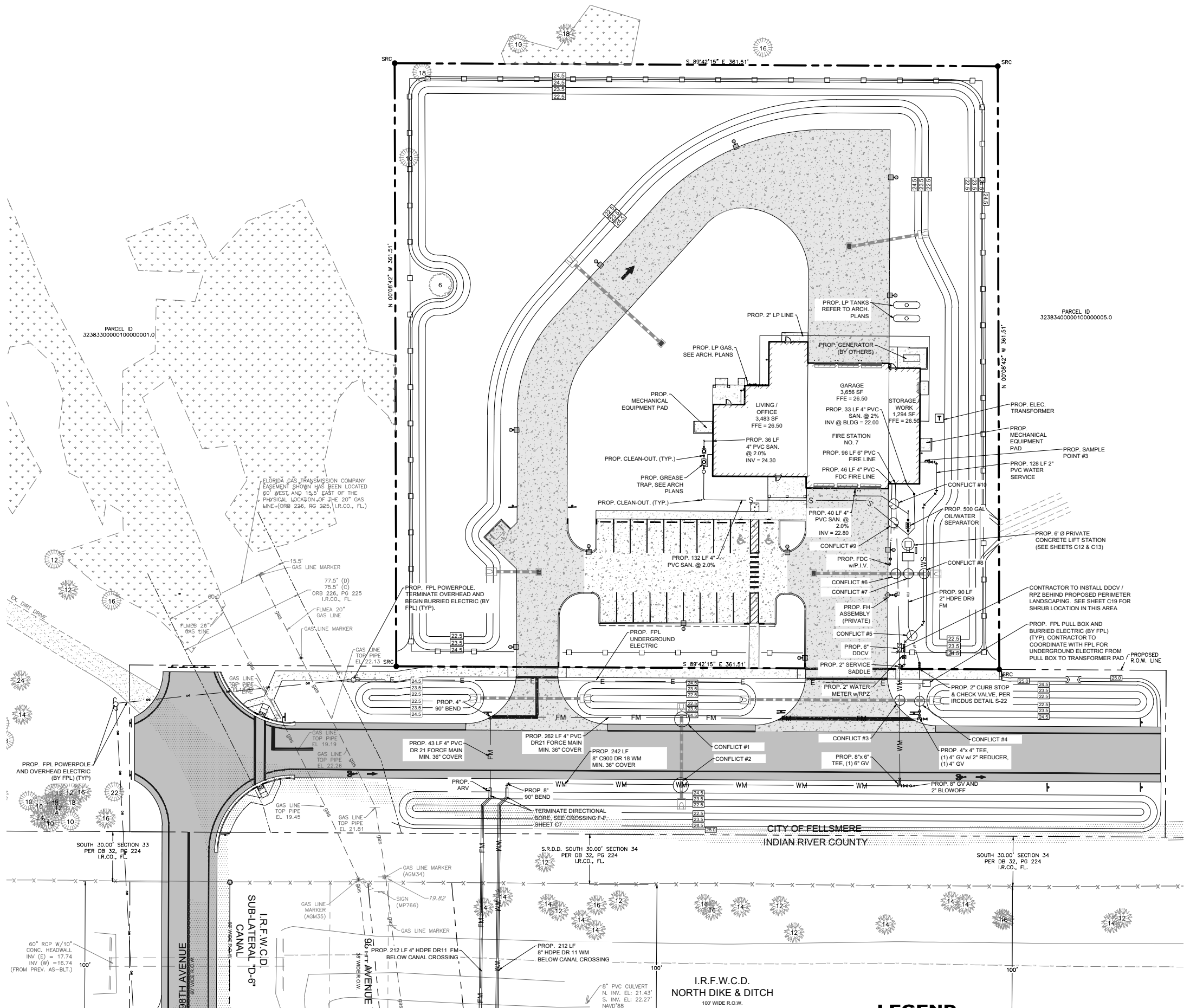
FLORIDA  
CITY OF FELLSMERE



AARON G. STANTON  
FL. P.E. #72460 8/16/23

SHEET  
**C7**  
21-0492





**FDEP SEPARATION CRITERIA:**

(1) **HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.**

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER, FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610 F.A.C.

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610 F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) **VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.**

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(C) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL THE WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(3) **SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.**

(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.

(B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(4) **SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.**

NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND RULE 64E-6.002, F.A.C.

**REVISIONS**

NO.	DATE	BY	REVISIONS
1	08-14-2023	TH	REV. PER FDEP WATER COMMENTS
2	08-09-2023	SS	REV. PER FDEP WATER COMMENTS
3	08-07-2023	SS	REV. PER FDEP WATER COMMENTS
4	07-27-2023	SS	REV. PER FDEP WATER COMMENTS
5	07-19-2023	SS	REV. PER FDEP WATER COMMENTS
6	06-20-2023	SS	REV. PER FDEP WATER COMMENTS
7	06-20-2023	SS	REV. PER FDEP WATER COMMENTS
8	05-20-2023	SS	REV. PER FDEP WATER COMMENTS

**UTILITIES INFRASTRUCTURE NOTE**

ALL UTILITY INFRASTRUCTURE (WATER, SEWER, ELECTRIC, TELECOMMUNICATIONS) WILL BE CONSTRUCTED AS PART OF THE PROJECT AND ROUTED TO THE SITE FROM THE 97TH & 98TH AVENUE CORRIDORS LOCATED TO THE SOUTH. UTILITIES WILL BE LOCATED UNDERGROUND WITH THE EXCEPTION OF A PORTION OF THE ONE AND TELECOMMUNICATIONS AS NOTED ACCORDINGLY ON THE PLANS.

**CONFLICT TABLE**

CONFLICT NUMBER	GROUND ELEV.	UPPER PIPE	UPPER PIPE BOTTOM	LOWER PIPE	LOWER PIPE TOP	SEPARATION (FT)
1	24.80	14"x23" ERCP	22.50	4" HDPE FM	21.50	1.00
2	24.80	14"x23" ERCP	22.50	8" WM	21.50	1.00
3	25.30	14"x23" ERCP	22.27	8" WM	21.27	1.00
4	25.20	14"x23" ERCP	22.27	4" HDPE FM	21.27	1.00
5	25.45	8" WM	21.78	4" HDPE FM	20.78	1.00
6	25.60	14"x23" ERCP	22.95	FIRE LINE	21.95	1.00
7	25.35	14"x23" ERCP	22.99	2" HDPE FM	21.93	1.00
8	25.06	14"x23" ERCP	22.91	6" PVC WS	21.91	1.00
9	26.35	FL	22.48	4" SS	21.48	1.00
10	26.35	FL	23.53	4" SS	22.53	1.00

**LEGEND**

	PROPOSED ASPHALT		PROPOSED FORCE MAIN (DIRECTIONAL BORE)
	PROPOSED HEAVY DUTY CONCRETE		PROPOSED FORCE MAIN (TRENCH)
	PROPOSED STANDARD DUTY CONCRETE		PROPOSED WATER MAIN (DIRECTIONAL BORE)
	PROPOSED POLE LIGHT		PROPOSED WATER MAIN (TRENCH)
			EXISTING 20" & 26" GAS TRANSMISSION LINES
			PROPOSED OVERHEAD ELECTRIC LINES
			PROPOSED UNDERGROUND ELECTRIC LINES

72 HOURS BEFORE DIGGING  
CALL TOLL FREE  
**811**  
Know what's below.  
Call before you dig.

MATCHLINE SEE SHEET C11

**UTILITY PLAN**

SCALE: 1" = 30'

**GRAPHIC SCALE**

(IN FEET)  
1 inch = 30 ft.

**MBV ENGINEERING, INC.**  
MOA BOWLES VILLAMIZAR & ASSOCIATES  
CONSULTING ENGINEERING  
1885 20TH STREET  
SUITE 200  
FELLSMERE, FL 32941  
TEL: (321) 754-8817  
FAX: (321) 754-8817

**UTILITY PLAN**

IRC FIRE RESCUE FIRE STATION #7  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN

FLORIDA  
CITY OF FELLSMERE

AARON G. STANTON  
LICENSE  
No. 72460  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

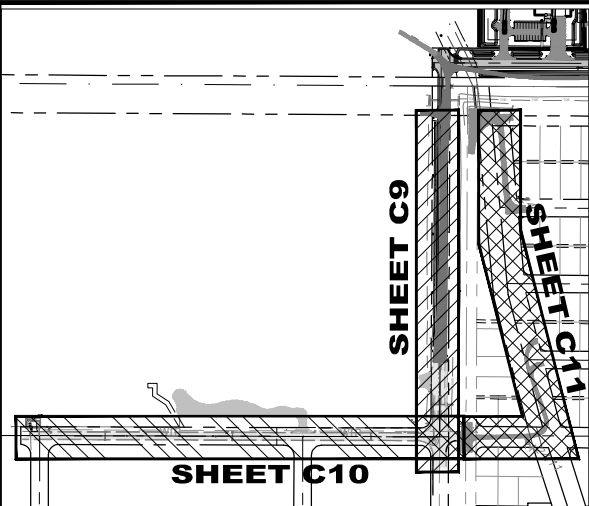
AARON G. STANTON  
FL. P.E. #72460 8/16/23

SHEET  
**C8**

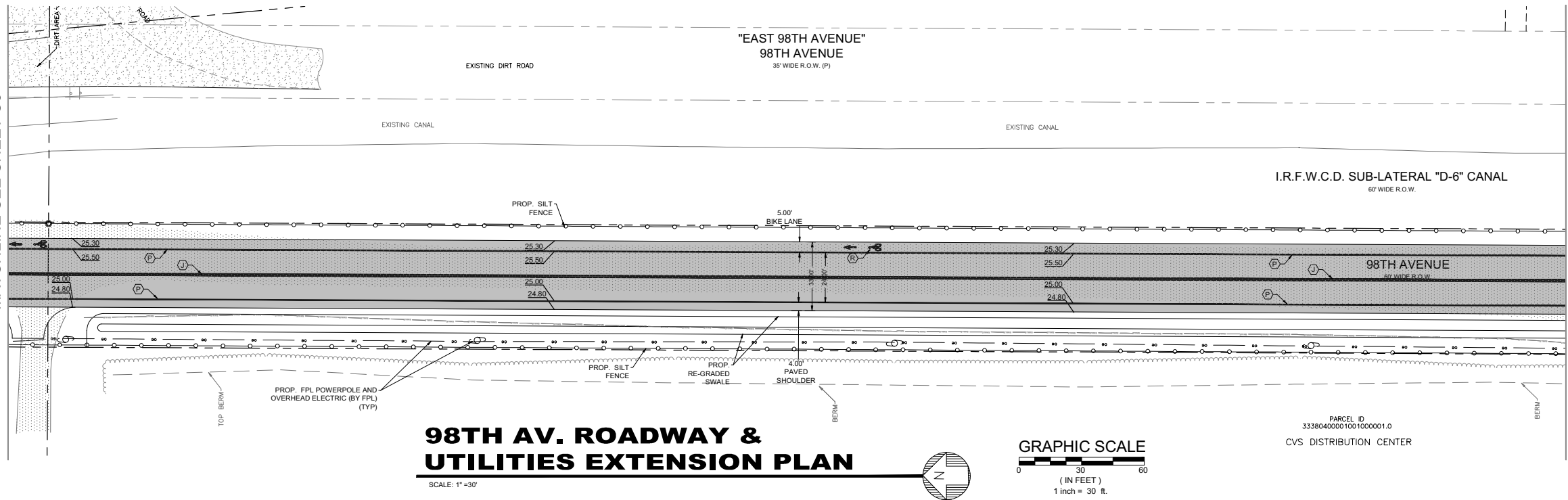
21-0492

# ROADWAY SHEET KEY MAP

SCALE: N.T.S.

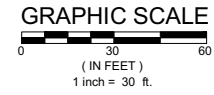



MATCHLINE SEE SHEET C5



## 98TH AV. ROADWAY & UTILITIES EXTENSION PLAN

SCALE: 1" = 30'



MATCHLINE "A" SEE BELOW

NO.	DATE	REVISIONS
8	05/12/2023	AS
7	06/20/2023	AS
6	07-19-2023	AS
5	07-27-2023	AS
4	08-07-2023	AS
3	08-09-2023	AS
2	08-14-2023	AS

DESIGNED	TH	DATE
21-0492	TH	JUNE 2022

DRAWN	SS	DATE
21-0492	SS	JUNE 2022

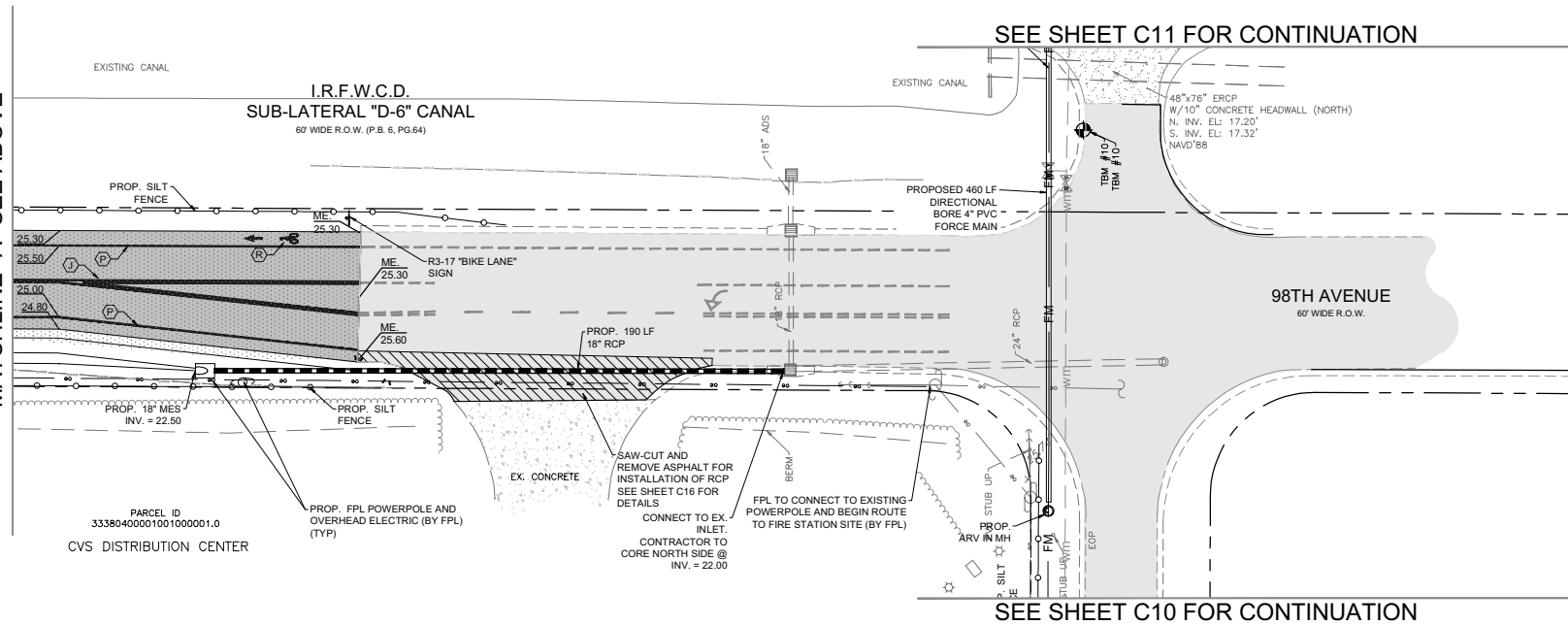
  

CHECKED	AS	DATE
21-0492	AS	05/12/2023

**MBV ENGINEERING, INC.**  
 MOA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING CA #3778

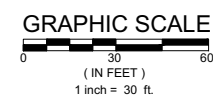
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 CVS DISTRIBUTION CENTER

MATCHLINE "A" SEE ABOVE



## 98TH AV. ROADWAY & UTILITIES EXTENSION PLAN

SCALE: 1" = 30'



SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE		
SIGN ID NUMBER	SIZE	DESIGNATION / NOTES
U	6"	DOUBLE YELLOW STRIPE - THERMOPLASTIC
P	6"	SOLID WHITE - THERMOPLASTIC
R		BIKE LANE MARKING PER FDOT #17347

SEE SHEETS C14 - C16 FOR UTILITY DETAILS

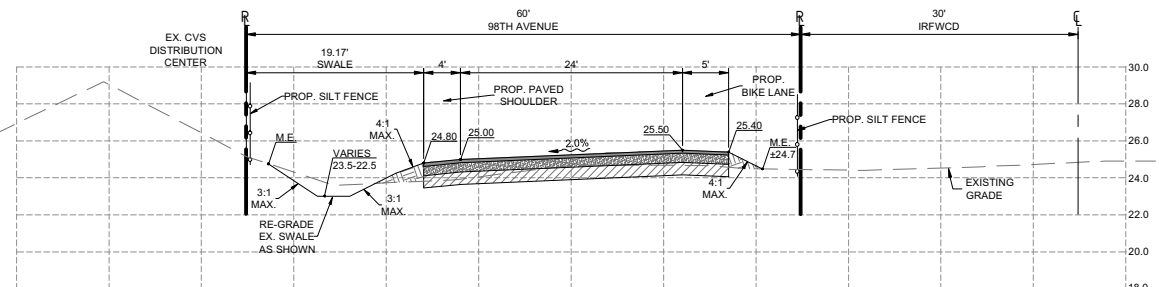
### LEGEND

- EXISTING ASPHALT PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING CONCRETE PAVEMENT TO BE REMOVED
- PROPOSED FORCE MAIN (DIRECTIONAL BORE)
- PROPOSED FORCE MAIN (TRENCH)
- EXISTING WATER MAIN
- PROPOSED OVERHEAD ELECTRIC AND POWER POLES (BY FPL)
- PROPOSED SILT FENCE

MATCHLINE "A" SEE ABOVE

SEE SHEET C10 FOR CONTINUATION

SEE SHEET C11 FOR CONTINUATION



### TYPICAL ROAD SECTION

SCALE: VERT. 1" = 5' HORIZ. 1" = 10'

SEE SHEETS C17 FOR PAVEMENT SECTION

98TH AVE. ROADWAY EXTENSION PLAN

IRC FIRE RESCUE FIRE STATION #7 CITY OF FELLOSMERE FINAL DEVELOPMENT PLAN



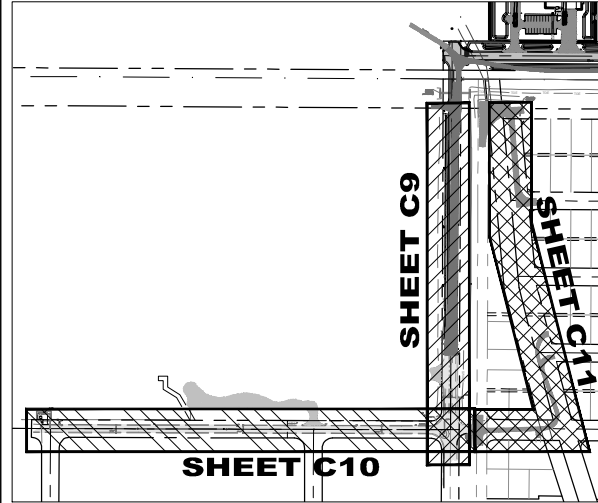
AARON G. STANTON  
 FL. P.E. #72460 8/16/23

SHEET  
**C9**

21-0492

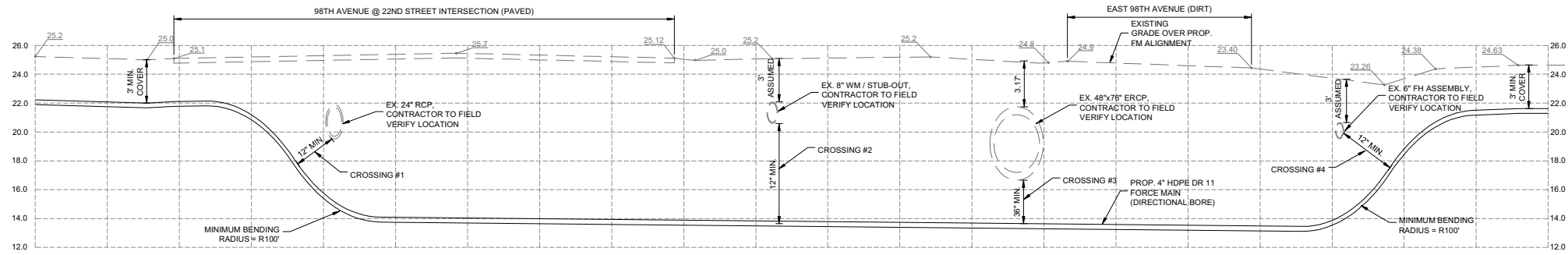
72 HOURS BEFORE DIGGING  
 CALL TOLL FREE  
  
 Know what's below.  
 Call before you dig.





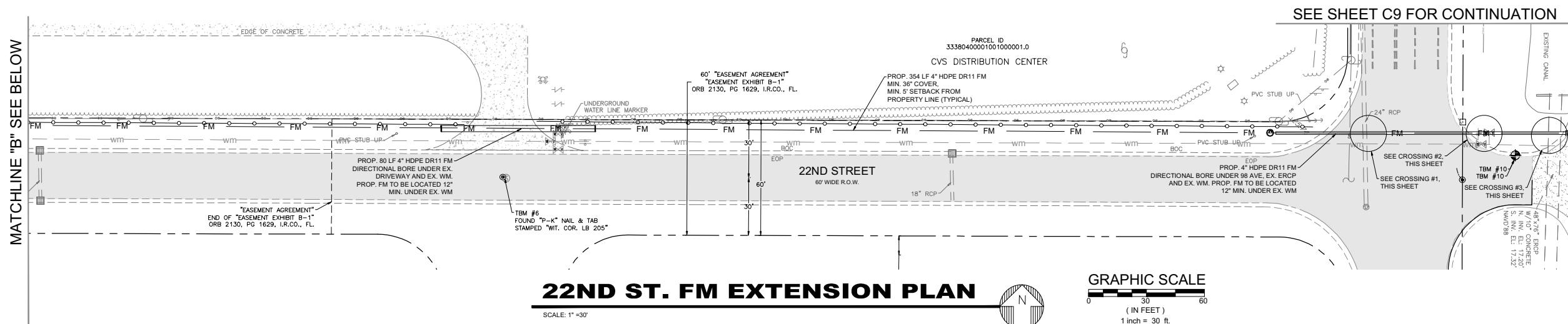
**ROADWAY SHEET KEY MAP**

SCALE: N.T.S.



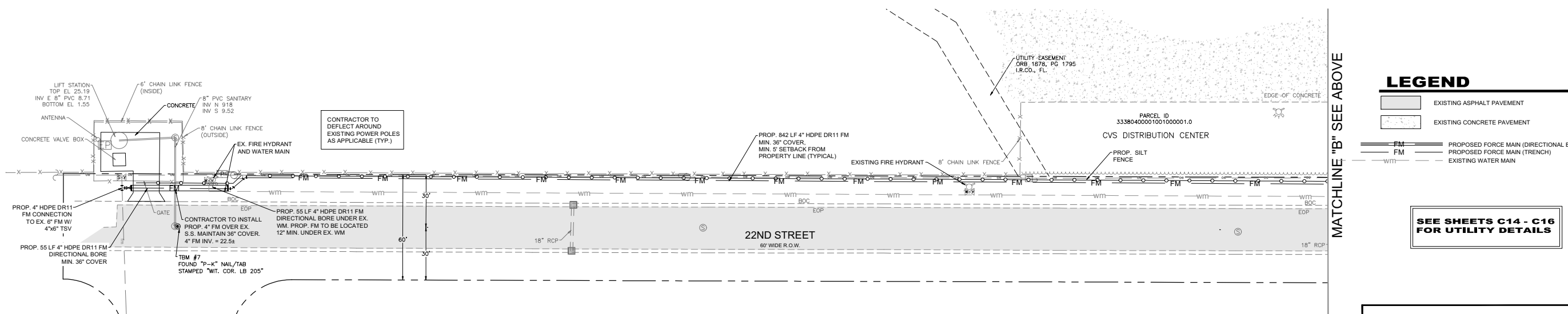
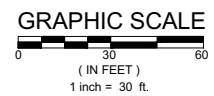
**FM CROSSINGS #1, 2, 3 & 4**

SCALE:  
VERT. 1"=5'  
HORIZ. 1"=10'



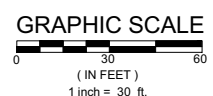
**22ND ST. FM EXTENSION PLAN**

SCALE: 1"=30'



**22ND ST. FM EXTENSION PLAN**

SCALE: 1"=30'



**LEGEND**

	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	PROPOSED FORCE MAIN (DIRECTIONAL BORE)
	PROPOSED FORCE MAIN (TRENCH)
	EXISTING WATER MAIN

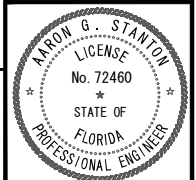
**SEE SHEETS C14 - C16 FOR UTILITY DETAILS**

NO.	DATE	REVISIONS
8	05/12/2023	AS COMMENTS
7	06/20/2023	AS REV. PER COE AND RCFD COMMENTS
6	07-19-2023	AS REV. PER BRAD COMMENTS
5	07-27-2023	AS REV. PER IRVING COMMENTS
4	08-07-2023	AS REV. PER IRVING COMMENTS
3	08-09-2023	AS REV. PER IRVING COMMENTS
2	08-14-2023	AS REV. PER IRVING COMMENTS

**MBV ENGINEERING, INC.**  
 MOJA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING CA #3728  
 1885 20TH STREET  
 SUITE 100  
 FOLSOM, CA 95630  
 PH: (916) 439-0033  
 FX: (916) 439-0033

**22ND STREET FORCE MAIN EXTENSION PLAN**

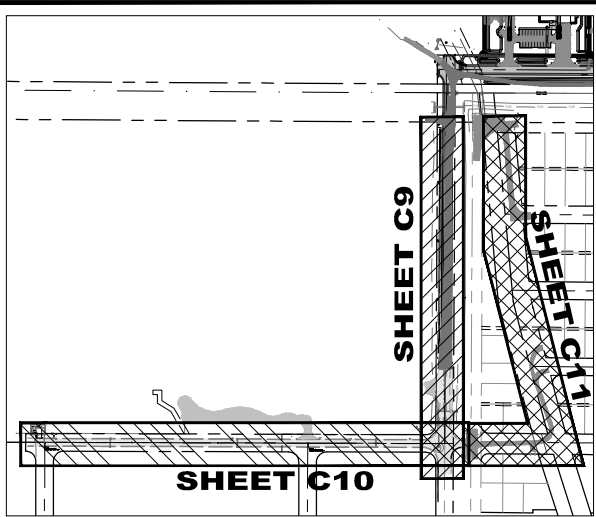
**IRC FIRE RESCUE FIRE STATION #7 CITY OF FELLOSMERE FINAL DEVELOPMENT PLAN**



AARON G. STANTON  
 FL. P.E. #72460 8/16/23

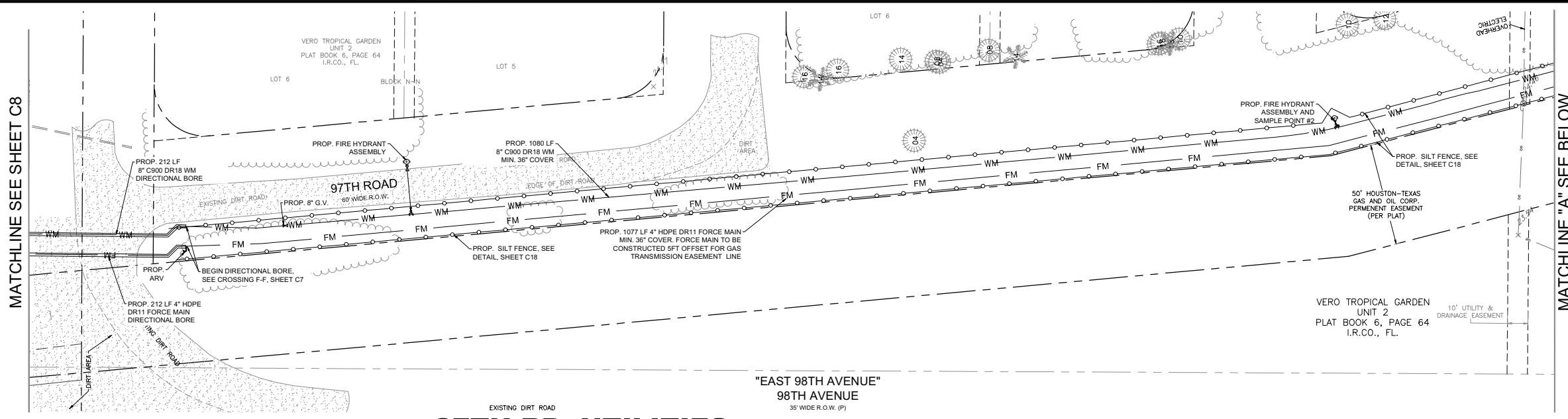
SHEET  
**C10**

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 Know what's below. Call before you dig.



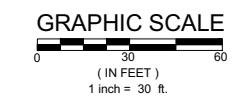
**ROADWAY SHEET KEY MAP**

SCALE: N.T.S.



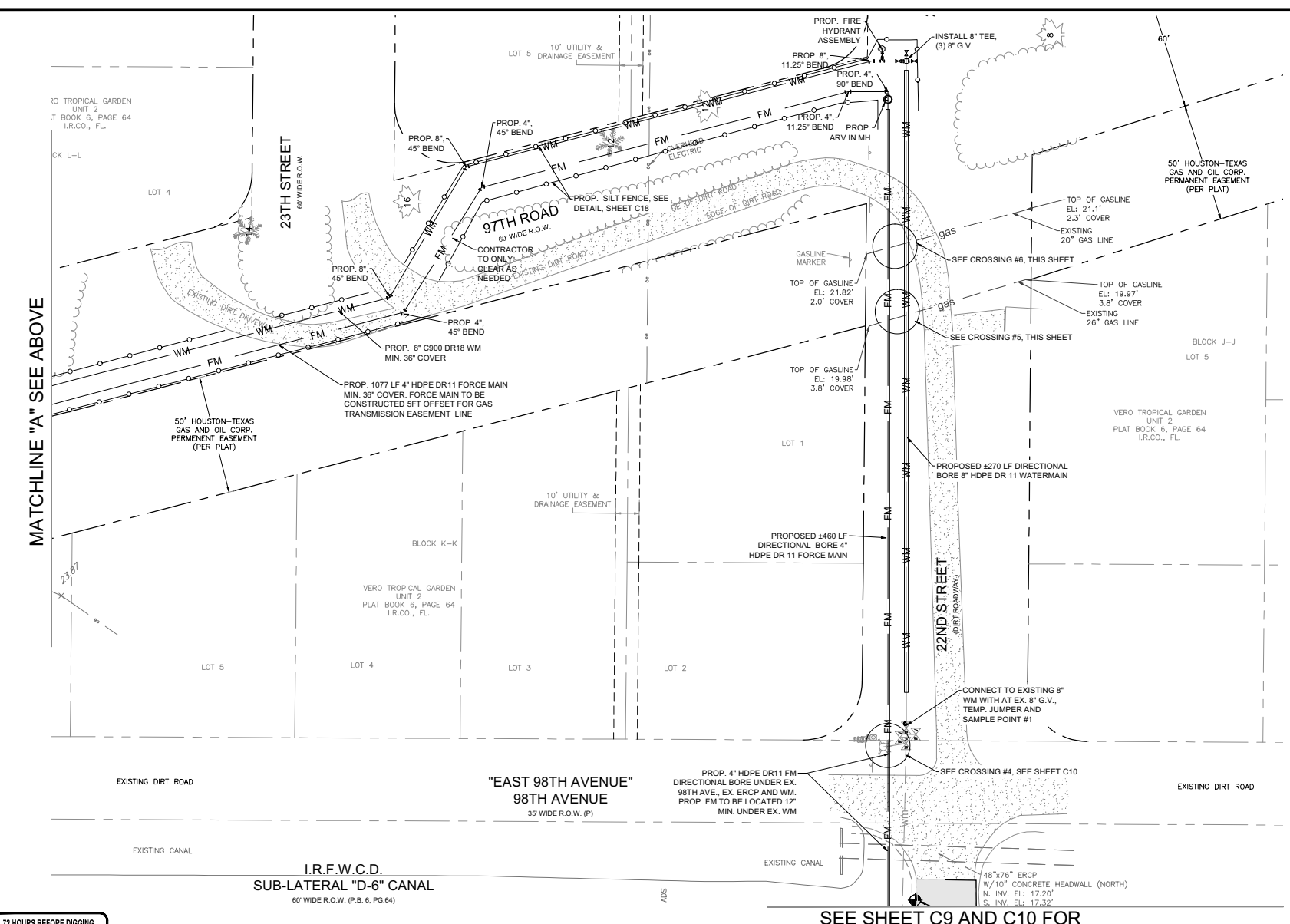
**97TH RD. UTILITIES EXTENSION PLAN**

SCALE: 1"=30'



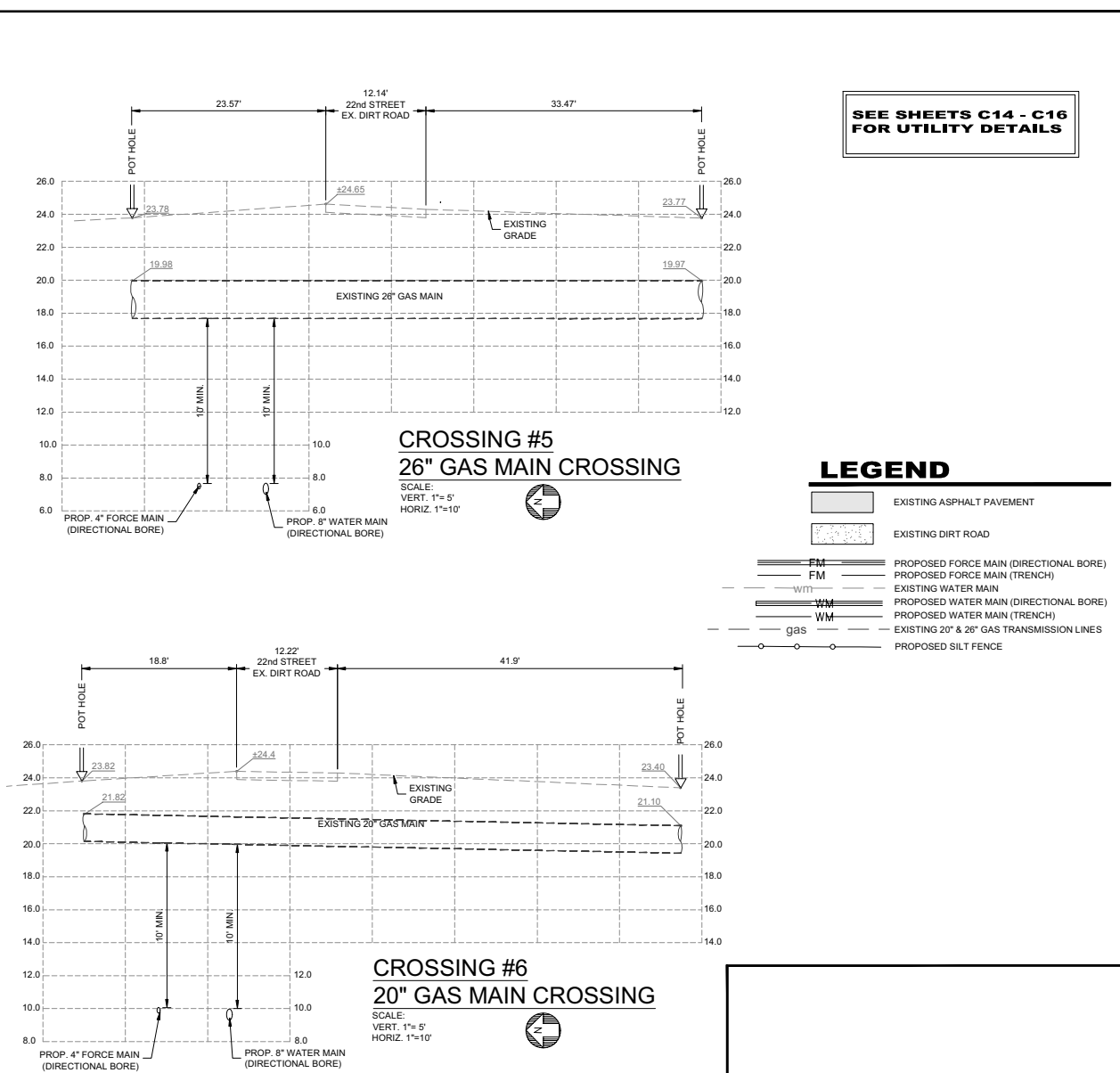
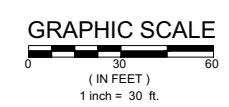
NO.	DATE	REVISIONS
8	05/12/2023	DATE ISSUED
7	05/12/2023	CHECKED
6	JUNE 2022	DATE
5	07-19-2023	DESIGNED
4	08-07-2023	TH
3	08-09-2023	SS
2	08-14-2023	COMMENTS
1	08-14-2023	REV. PER SURVIVOR COMMENTS

**MBV ENGINEERING, INC.**  
 MOA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING CA #3728  
 1000 N. 20TH STREET  
 SUITE 100  
 FT. PIERCE, FL 34947  
 PH: (888) 343-3333  
 FAX: (888) 343-3333



**97TH RD. UTILITIES EXTENSION PLAN**

SCALE: 1"=30'



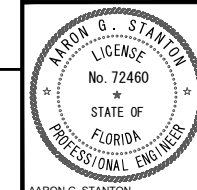
SEE SHEETS C14 - C16 FOR UTILITY DETAILS

**LEGEND**

- EXISTING ASPHALT PAVEMENT
- EXISTING DIRT ROAD
- FM PROPOSED FORCE MAIN (DIRECTIONAL BORE)
- WM PROPOSED WATER MAIN (TRENCH)
- WM PROPOSED WATER MAIN (DIRECTIONAL BORE)
- WM PROPOSED WATER MAIN (TRENCH)
- gas EXISTING 20" & 26" GAS TRANSMISSION LINES
- PROPOSED SILT FENCE

**97TH RD. UTILITIES EXTENSION PLAN**

**IRC FIRE RESCUE FIRE STATION #7 CITY OF FELLOSMERE FINAL DEVELOPMENT PLAN**

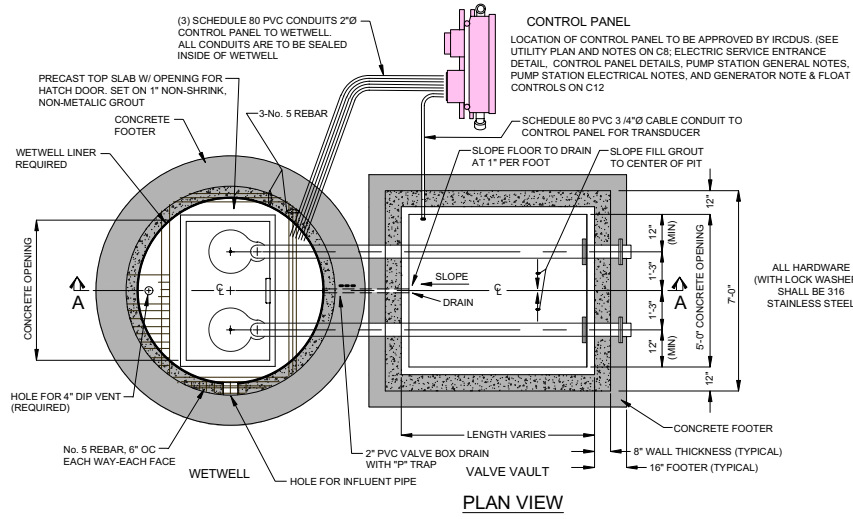


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 FL. P.E. #72460 8/16/23

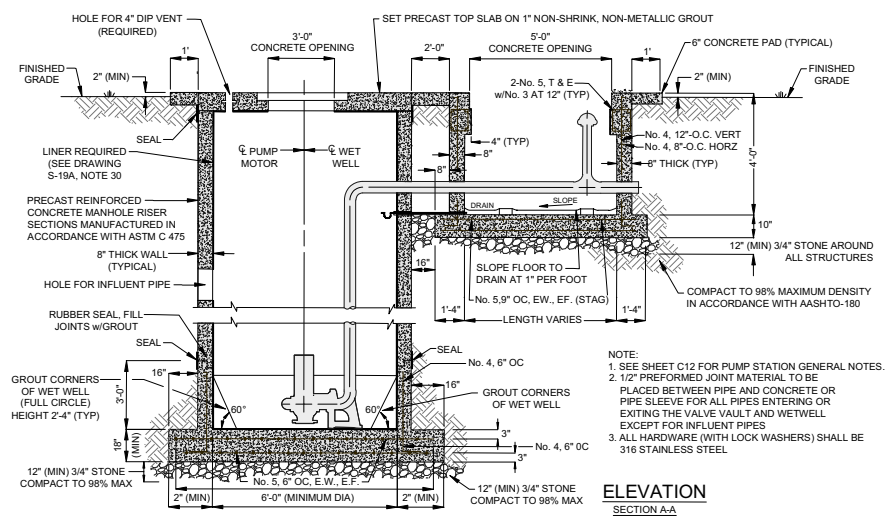
**SHEET C11**

21-0492

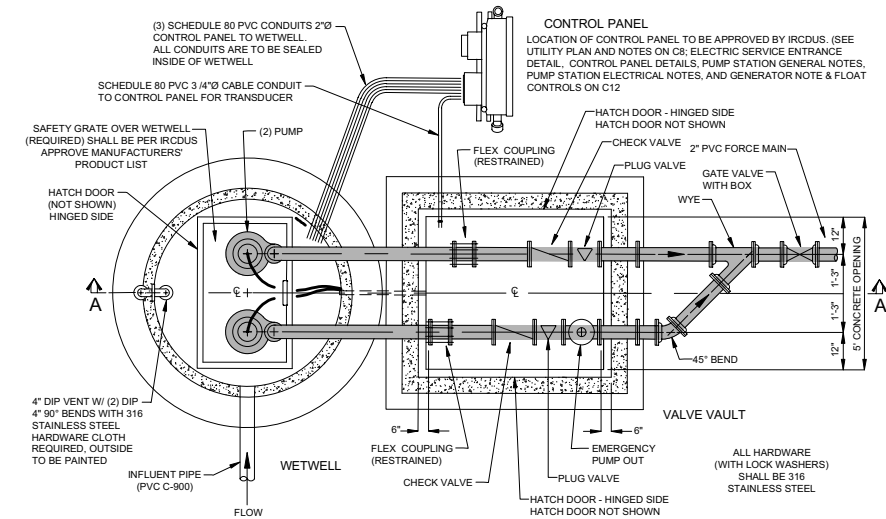




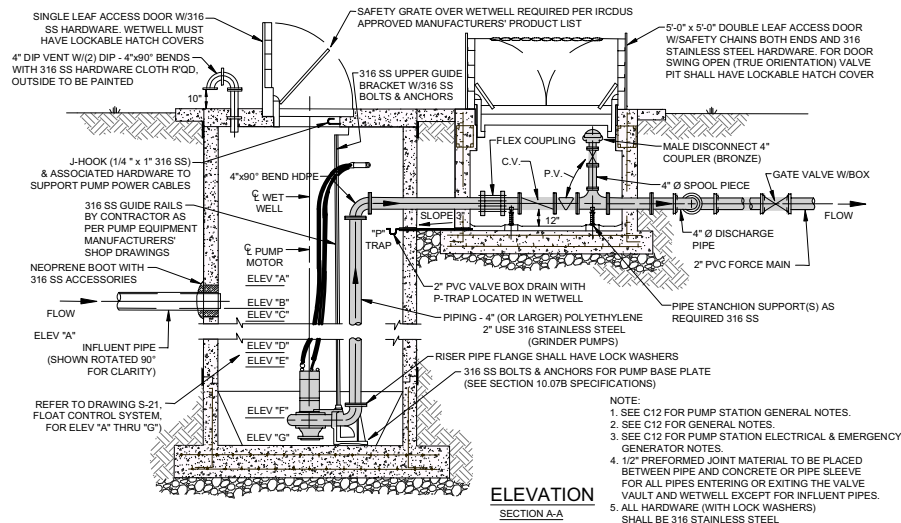
WET WELL/VALVE VAULT  
CONCRETE STRUCTURE  
DETAILS - PLAN VIEW  
TYPICAL WASTEWATER PUMPING STATION



WET WELL/VALVE VAULT CROSS SECTION  
CONCRETE STRUCTURE  
DETAILS - SECTION VIEW  
TYPICAL WASTEWATER PUMPING STATION



WET WELL/VALVE VAULT  
PUMP, PIPING & MECHANICAL  
DETAILS - PLAN VIEW  
TYPICAL WASTEWATER PUMPING STATION



WET WELL/VALVE VAULT CROSS SECTION  
PUMP, PIPING & MECHANICAL  
DETAILS - SECTION VIEW  
TYPICAL WASTEWATER PUMPING STATION

NOTES:

1. REINFORCED CONCRETE SLAB 6" THICK (MINIMUM), SHALL HAVE A FINISHED PAD ELEVATION 4" ABOVE FINISHED GRADE ELEVATION.
2. EXPANSION AND CONTRACTION JOINTS SHALL BE REQUIRED AT WETWELL, VALVE VAULT AND MANHOLE AS APPLICABLE.
3. CONCRETE SLAB CONSTRUCTION TO CONFORM TO ACI 318 STANDARD.
4. NATURAL GAS TO BE USED TO POWER GENERATOR IF AVAILABLE.
5. CONTROL PANEL TO MEET NEC CODE 1.10.26A STANDARD. SEE C12 FOR ELECTRICAL NOTES.
6. THREE SCHEDULE 80 PVC CABLE CONDUITS (2"Ø) REQUIRED FROM WETWELL TO CONTROL PANEL FOR POWER/INSTRUMENTATION. ONE CONDUIT (3/4"Ø) REQUIRED FROM VALVE VAULT TO CONTROL PANEL FOR TRANSDUCER. ONE CONDUIT (1"Ø) FOR TELEMETRY EQUIPMENT. ONE SCHEDULE 80 PVC CABLE CONDUIT (2"Ø) REQUIRED FOR ELECTRICAL SERVICE. TOTAL OF FIVE (5) CONDUITS.

LIFT STATION - NOTES  
TYPICAL WASTEWATER PUMPING STATION

PUMPING STATION DATA TABLE

LIFT STATION NUMBER	
MIN. SOLIDS PASS. IMPELLER	INCHES -
PUMP MODEL NUMBER	NO. PIR PE452-C 60 HD
PUMP IMPELLER	in. 6.3"
PUMP SPEED (DESIGN)	R.P.M. 3525
MOTOR NAMEPLATE H.P.	H.P. 6.7
MAX. MOTOR SPEED	R.P.M. 3525
INITIAL INFLUENT PEAK FLOW RATE	G.P.M. 78.3
MIN. PUMP CYCLE TIME	MINS. 20.06
TOP ELEV.	25.50
ALARM SIGNAL ON ELEV. (HIGH)	ELEV."A" 20.49
INFLUENT PIPE INV. ELEV.	ELEV."B" 20.99
LAG PUMP ON ELEV.	ELEV."C" 19.99
LEAD PUMP ON ELEV. (+)	ELEV."D" 19.49
PUMPS OFF ELEVATION	ELEV."E" 19.35
ALARM SIGNAL ON ELEV. (LOW)	ELEV."F" -
BOTTOM OF WET WELL	ELEV."G" 17.59
PUMP MANUFACTURER	SULZER

(\*) PUMP WILL OPERATE BETWEEN PRIMARY AND SECONDARY POINTS.

NO.	DATE	REVISIONS
8	08-14-2023	REV. PER IAWARD ENV. COMMENTS
7	08-09-2023	REV. PER IAWARD WATER COMMENTS
6	08-07-2023	REV. PER IAWARD GAS CO. CIP COMMENTS
5	07-27-2023	REV. PER IAWARD LIQUID COMMENTS
4	07-19-2023	REV. PER IAWARD COMMENTS
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1	05-20-2023	REV. PER CIP AND RCPD COMMENTS

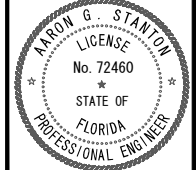
DATE ISSUED	DATE	ISSUED BY	DESIGNED BY	DRAWN BY	CHECKED BY
05/12/2023	JUNE 2022	AS	TH	SS	AS

21-0492  
JOB NO.  
DESIGNED  
DRAWN  
DATE  
CHECKED  
DATE ISSUED

**MBV ENGINEERING, INC.**  
MOA BOWLES VILLAMIZAR & ASSOCIATES  
CONSULTING ENGINEERING CA #3728  
REDDING, R. PM 021 333-1510  
188-20TH STREET  
WILMINGTON, MA 01890  
TEL: (773) 442-9290  
FAX: (773) 775-8417

LIFT STATION PLAN

IRC FIRE RESCUE FIRE STATION #7  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN

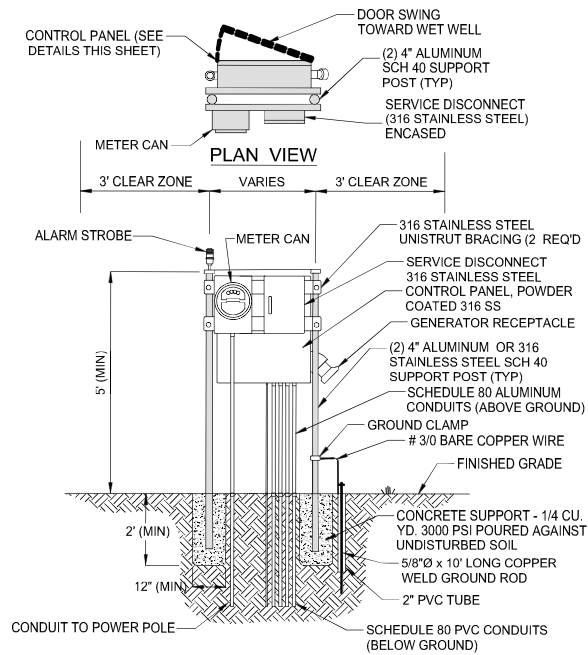


AARON G. STANTON  
FL. P.E. #72460 8/16/23

SHEET  
C12

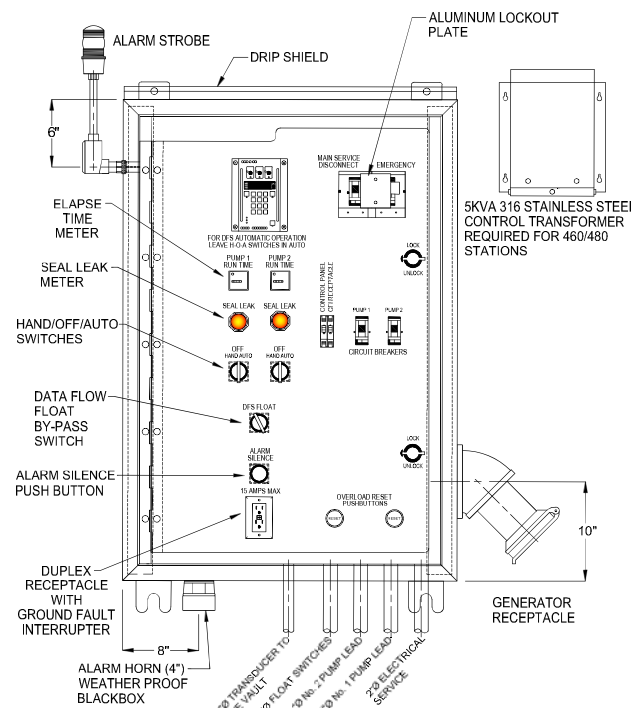
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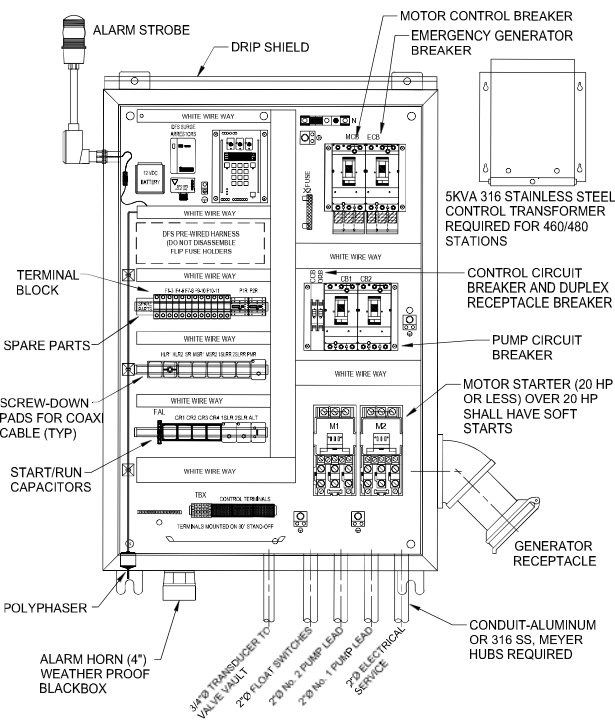
FRONT ELEVATION  
SEE TYPICAL WASTEWATER PUMP STATION ELECTRICAL NOTES THIS SHEET

ELECTRIC SERVICE ENTRANCE  
METER/PANEL BOX  
TYPICAL WASTEWATER PUMPING STATION



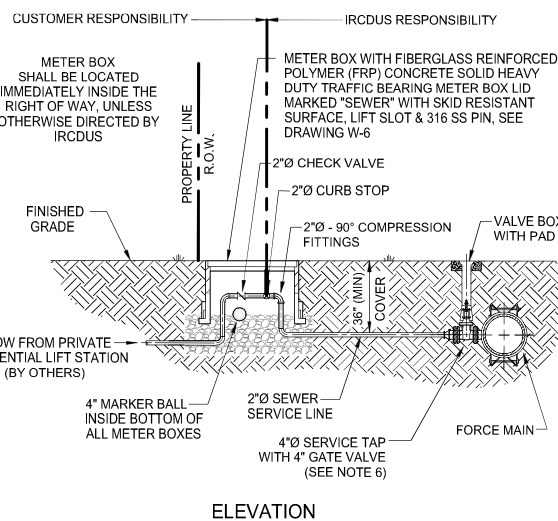
DUPLEX PUMPING STATION  
SEE TYPICAL WASTEWATER PUMP STATION ELECTRICAL NOTES THIS SHEET

CONTROL PANEL  
INNER DOOR LAYOUT  
TYPICAL WASTEWATER PUMPING STATION



DUPLEX PUMPING STATION  
SEE TYPICAL WASTEWATER PUMP STATION ELECTRICAL NOTES THIS SHEET

CONTROL PANEL  
BACK PANEL LAYOUT  
TYPICAL WASTEWATER PUMPING STATION



ELEVATION

- NOTES:
- PRIVATE PUMPING STATIONS SHALL BE APPROVED BY IRCUDS.
  - PRIVATE PUMPING STATION, INCLUDING PUMP, ALL PIPING TO THE SEWER METER BOX, CONTROLS AND ELECTRICAL CONTROL PANEL SHALL BE CONSTRUCTED BY THE OWNER AT NO EXPENSE TO IRCUDS.
  - OWNER SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE OPERATION AND MAINTENANCE OF A PRIVATE PUMPING STATION.
  - OWNER OF PROPOSED PRIVATE PUMPING STATION SHALL SIGN AN AGREEMENT ACKNOWLEDGING PUMPING STATION IS TO REMAIN PRIVATE.
  - ALL PRIVATE PUMPING STATION EQUIPMENT SHALL BE PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
  - COMMERCIAL PRIVATE PUMPING STATIONS SHALL HAVE A 4" SERVICE TAP CONNECTION TO THE FORCE MAIN WITH A 4" GATE VALVE. RESIDENTIAL PRIVATE PUMPING STATIONS SHALL HAVE A 2" SERVICE TAP CONNECTION WITH A 2" CORP STOP.

FORCE MAIN SERVICE  
FOR TYPICAL PRIVATE  
PUMPING STATION

PUMP STATION GENERAL NOTES

- CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS AGAINST FLOATATION OF WET WELL UNTIL ALL BACKFILL IS IN PLACE.
- ALL CONCRETE SHALL BE CLASS A-A (4,000 PSI FOR PRECAST AND 3,000 PSI FOR CAST-IN-PLACE) UNLESS OTHERWISE SPECIFIED.
- REINFORCING STEEL SHALL BE GRADE 60 FABRICATED AND PLACED IN ACCORDANCE WITH ACI CODE SPLICES AND SHALL BE SIX (6) TIMES THE BAR DIAMETER NUMBER SIZE OR 18" MINIMUM UNLESS OTHERWISE NOTED (STAG SPL. TYP).
- ALL BACKFILL AROUND THE PUMP STATION SITE SHALL BE COMPACTED @ 98% OF MAXIMUM DENSITY, PER AASHTO-T-180.
- CHAMFER EXPOSED CONCRETE EDGES 1/4" (TYP).
- WETWELL WALL SHALL CONTAIN A MINIMUM OF .022 SQ IN/LINEAR FOOT REINFORCEMENT, EACH WAY TOP TO BOTTOM.
- ALL PIPING AT THE PUMP STATION SITE SHALL BE RESTRAINED.
- ALL PUMPS AND PUMPING EQUIPMENT - SEE IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
- STAINLESS STEEL (316) CABLE HOLDER SHALL BE LOCATED ON OPPOSITE SIDE OF WETWELL FROM THE INFLUENT PIPE.
- BUOYANCY CALCULATIONS SHALL BE REQUIRED FOR ALL PUMP STATIONS ALONG WITH THE REQUIRED PUMP STATION CALCULATIONS.
- NO UNI-FLANGE PIPE CONNECTIONS ALLOWED.
- MAINTAIN MINIMUM OF 6" BETWEEN ANY PIPING, FITTINGS ETC. AND PRECAST CONCRETE. FIBERGLASS LINERS SHALL BE INSTALLED ON ALL PUMP STATION WETWELLS AND MANHOLES RECEIVING PUMPED SEWAGE, PLUS 5 MANHOLES IN EACH DIRECTION.
- ALL NEW MANHOLES SHALL BE COATED PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
- PUMP STATION CONTROL PANEL SHALL BE PROVIDED WITH APPROPRIATE LIGHTNING ARRESTOR. VERIFY ALL DRIVEN GROUNDING GRIDS PER N.E.C. 250.56 AND SCADA (LATEST STANDARDS).
- AN ACCESS DRIVE SHALL BE PROVIDED TO ALL IRCUDS MAINTAINED LIFT STATIONS. ALL ACCESS DRIVES SHALL BE A MINIMUM OF 12" WIDE, 45" LONG. IF FENCE IS INSTALLED, SWING GATE SHALL HAVE A 12" OPENING.
- ALL PROPOSED PRIVATE STATION OWNERS ARE TO SIGN AN AGREEMENT ACKNOWLEDGING STATION IS TO REMAIN PRIVATE UNLESS SUBJECT STATION IS CONSTRUCTED TO IRCUDS STANDARDS.
- PUMPS SHALL BE DESIGNED TO PROVIDE A MINIMUM PUMP RUN TIME EQUAL TO HALF THE CYCLE TIME.
- PUMPS SHALL BE DESIGNED TO PROVIDE A MAXIMUM CLEARANCE OF TEN FEET OUTSIDE OF LIFT STATION WETWELL FOR FUTURE MAINTENANCE.
- ALL RE-PUMP STATIONS SHALL HAVE BIO-CUBIC ODOR CONTROL SYSTEMS AS REQUIRED BY MANUFACTURER, AND APPROVED BY IRCUDS.
- LIFT STATION IS TO BE LOCATED IN A DEDICATED UTILITY EASEMENT, 50' AWAY FROM HOMES, CUL-DE-SACS AND SURFACE BODY WATER.
- A SAFETY GRATE WITH STAINLESS STEEL (316) HARDWARE IS REQUIRED FOR ALL WETWELLS.
- CONTRACTOR TO INSTALL PERMANENT SIGNAGE WITH CONTACT INFORMATION AND PHONE NUMBER AT ALL IRCUDS AND PRIVATE LIFT STATIONS. CONTRACTOR TO PROVIDE SECURITY FOR PRIVATE LIFT STATIONS PER IRCUDS PLANS REVIEW. SECURITY TO INCLUDE, BUT NOT LIMITED TO, LOCKABLE HATCH COVER LIDS FOR THE WETWELL AND VALVE PIT.
- CONTRACTOR TO CONTACT IRCUDS INSPECTOR PRIOR TO PUMP STATION CONSTRUCTION.
- SEE TYPICAL WASTEWATER PUMPING STATION DRAWINGS, S-14 & S-14A PLAN VIEW AND DRAWINGS, S-15 & S-15A CROSS SECTION FOR GENERAL LAYOUT OF WETWELL AND VALVE VAULT. SEE DRAWING S-16, S-16A AND S16B FOR TYPICAL PUMPING STATION SITE PLAN GENERAL LAYOUT. SEE DRAWINGS S-17, S-18, S-18A, S-19 AND S-19A FOR ELECTRICAL DETAILS.
- STRUCTURE DIMENSIONS MAY VARY UPON APPROVAL BY THE IRCUDS DUE TO BUOYANCY COMPENSATION OR OTHER REQUIREMENTS.
- GATE VALVE TO BE LOCATED AT FORCE MAIN JUNCTION.
- STAINLESS STEEL (316) LIFTING BAILS SHALL BE USED FOR PUMPS IN LIFT STATIONS.
- GRINDER PUMPS SHALL BE A MAXIMUM OF 5.0 HP UNLESS OTHERWISE APPROVED BY IRCUDS.
- ELECTRICAL CONTROL PANEL (NEMA 4X, POWDER COATED 316 STAINLESS STEEL) SHALL CONFORM TO PUMP MANUFACTURERS' & SCADA SYSTEM REQUIREMENTS.
- ALL WET WELLS SHALL BE LINED. SEE SPECIFICATIONS SECTION 10.
- ALL WET WELLS 15' DEEP OR GREATER THAN 10' DIAMETER MUST BE APPROVED BY IRCUDS ENGINEERING.
- OUTSIDE WALLS AND UNDERSIDE OF WETWELL TOP SLAB AND VALVE BOX SHALL BE PAINTED WITH (2) TWO COATS OF WATER BASE EPOXY.
- ALL HARDWARE TO BE 316 STAINLESS STEEL.
- PUMP STATION POWER SUPPLY FROM FLORIDA POWER & LIGHT ELECTRIC POWER POLE OR TRANSFORMER TO THE PUMP STATION ELECTRICAL PANEL SHALL BE INCLUDED ON THE RECORD DRAWING.
- PAINT OUTSIDE OF WALLS, UNDERSIDE OF WETWELL TOP SLAB AND VALVE VAULT WITH TWO COATS OF WATER BASE EPOXY.

PUMPING STATION  
GENERAL NOTES  
TYPICAL WASTEWATER PUMPING STATION

PUMP STATION ELECTRICAL NOTES

- A MINIMUM 3' CLEAR ZONE IS REQUIRED AROUND THE ELECTRICAL AREA. THE MINIMUM WORKSPACE REQUIREMENTS SHALL ADHERE TO THE NATIONAL ELECTRICAL CODE (NEC), SECTION 110.26(A).
- A 3/4" CONDUIT SHALL BE INSTALLED BETWEEN THE CONTROL PANEL AND THE VALVE VAULT FOR THE TRANSDUCER.
- THREE (3) SCHEDULE 80, 2" CONDUITS SHALL BE INSTALLED BETWEEN THE CONTROL PANEL AND THE WET WELL FOR NO. 1 PUMP LEAD, NO. 2 PUMP LEAD AND THE FLOAT SWITCHES.
- ALL BURIED CONDUIT SHALL BE SCHEDULE 80 PVC. ALL EXPOSED CONDUIT SHALL BE STAINLESS STEEL (316) OR ALUMINUM. CONDUIT TO BE SEALED.
- A MASTIC COATING IS REQUIRED WHERE PANEL POST AND ALUMINUM OR STAINLESS STEEL (316) CONDUIT IS IN DIRECT CONTACT WITH CONCRETE.
- THE CONTROL PANEL DOOR MUST OPEN TOWARD THE WET WELL.
- ELECTRIC SERVICE SHALL BE 3 PHASE.
- ALARM HORN SHALL BE SEALED TO PREVENT LEAKAGE.
- CONTROL PANEL SHALL BE APPROVED BY IRCUDS BEFORE INSTALLATION.
- REFER TO SECTION 10 FOR PUMPING STATION SPECIFICATIONS.
- BOTTOM OF CONTROL PANEL TO BE 28" TO 34" ABOVE GROUND.
- ALL HARDWARE AND FASTENERS TO BE STAINLESS STEEL (316).
- TOOLS AND SPARE PARTS ARE REQUIRED (SEE SECTION 10.05).
- CONTROL PANEL SHALL MEET THE REQUIREMENTS OF SERVICE ENTRANCE BY PROPERLY BONDING OR SHALL BE UL SERVICE ENTRANCE RATED.
- CONTROL PANEL SHALL HAVE A DATA FLOW, FLOAT BY-PASS SWITCH.
- THE MAXIMUM HORSEPOWER RATING FOR A 120/240 VOLT WASTEWATER PUMPING STATION PANEL IS 20 HP. ANY PUMP SIZE GREATER THAN 20 HP SHALL HAVE 480 VOLT SERVICE AND BE DESIGNED BY AN ELECTRICAL ENGINEER.
- THE CONTROL PANEL SHALL BE 4X NEMA, WHITE POWDER COATED STAINLESS STEEL.
- A WATER SERVICE LINE (1"Ø) WITH REDUCED PRESSURE BACKFLOW PREVENTER, WATER METER AND HOSE BIBB IS REQUIRED.
- ALL PENETRATIONS INTO ELECTRIC CONTROL PANEL REQUIRE MEYER HUBS. CORROSIVE MATERIALS WILL NOT BE ALLOWED.
- DISCONNECT BETWEEN METER AND PANEL TO BE 316 STAINLESS STEEL, NON-FUSIBLE. STATIONS WITH GENERATORS SHALL BE FUSED.
- PUMP STATION CONTROL PANEL SHALL BE PROVIDED WITH APPROPRIATE LIGHTNING ARRESTOR. VERIFY ALL DRIVEN GROUNDING GRIDS PER N.E.C. 250.56 AND SCADA (LATEST STANDARDS).

PUMPING STATION  
ELECTRICAL NOTES  
TYPICAL WASTEWATER PUMPING STATION

NO.	DATE	REVISIONS
8	08-14-2023	REV PER SURVIVED COMMENTS
7	08-09-2023	REV PER FDEP WATER COMMENTS
6	07-27-2023	REV PER IRCUDS GAS CO. COMMENTS
5	07-19-2023	REV PER IRCUDS COMMENTS
4	06-20-2023	REV PER COE FINAL SP COMMENTS
3	06-20-2023	REV PER COE AND RCPD COMMENTS
2	05-21-2023	COMMENTS
1	05-21-2023	DATE ISSUED

JOB NO.	DESIGNED	DRAWN	DATE	CHECKED	DATE ISSUED
21-0492	TH	SS	JUNE 2022	AS	05/21/2023

**MBV ENGINEERING, INC.**  
MOVA BOWLES VILLAMIZAR & ASSOCIATES  
CONSULTING ENGINEERING CA #3728  
1885-20TH STREET  
MIRAGE, FL 33150  
TEL: (772) 344-0000  
FAX: (772) 775-8117

LIFT STATION DETAILS

FLORIDA

IRC FIRE RESCUE FIRE STATION #7  
CITY OF FELLSMERE  
FINAL DEVELOPMENT PLAN

AARON G. STANTON  
LICENSE  
No. 72460  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

AARON G. STANTON  
FL. P.E. #72460 8/16/23

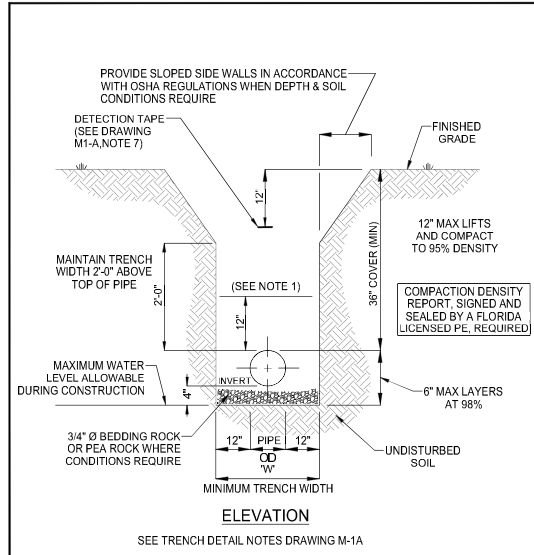
SHEET

C13

21-0492

72 HOURS BEFORE DIGGING  
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Know what's below.  
Call before you dig.



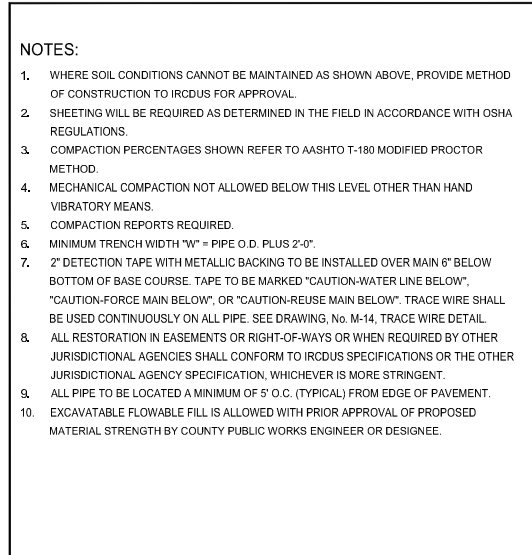


- NOTES:**
- MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
  - ALL RESTORATION IN EASEMENTS OR RIGHT-OF-WAYS OR WHEN REQUIRED BY OTHER JURISDICTIONAL AGENCIES SHALL CONFORM TO IRCUDS SPECIFICATIONS OR THE OTHER JURISDICTIONAL AGENCY SPECIFICATION, WHICHEVER IS MORE STRINGENT.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**TRENCH DETAIL (UNPAVED EASEMENT)**

DRAWING NO. **M-1**

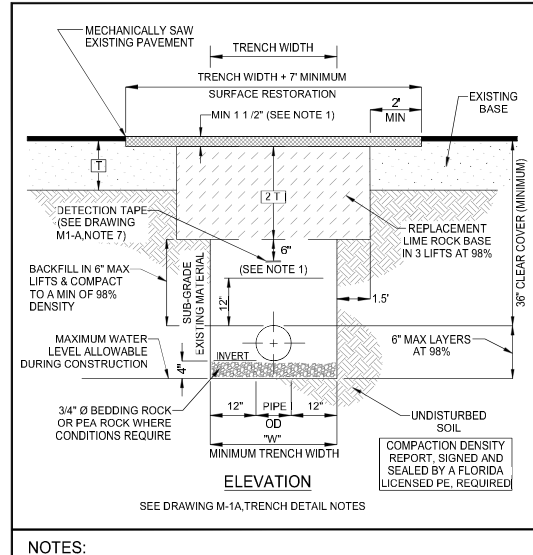


- NOTES:**
- MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
  - NEW SURFACE MATERIALS SHALL BE CONSISTENT IN DEPTH WITH EXISTING MATERIALS AND SHALL HAVE LAPPED JOINTS, (1 1/2" MINIMUM THICKNESS), PAVEMENT MATERIAL TO BE SPECIFIED.
  - MINIMUM TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0".
  - EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY COUNTY PUBLIC WORKS ENGINEER OR DESIGNER.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**TRENCH DETAIL NOTES**

DRAWING NO. **M-1 A**



- NOTES:**
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INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**TRENCH DETAIL (PAVED AREAS & SHOULDERS)**

DRAWING NO. **M-2**

**RESTRAINED LENGTH IN FEET EACH SIDE OF BEND**

PIPE DIAMETER (INCHES)	D.I.P.				P.V.C.			
	90°	45°	22 1/2°	11 1/4°	90°	45°	22 1/2°	11 1/4°
3"	30'	15'	10'	5'	40'	20'	10'	5'
4"	35'	15'	10'	5'	55'	25'	15'	10'
6"	55'	25'	10'	5'	80'	35'	20'	10'
8"	65'	30'	15'	10'	90'	40'	20'	10'
10"	80'	35'	20'	10'	110'	50'	25'	15'
12"	95'	40'	20'	10'	130'	55'	30'	15'
16"	120'	50'	25'	15'	165'	70'	35'	20'
20"	150'	65'	30'	15'	200'	85'	40'	20'
24"	180'	70'	35'	20'	210'	90'	45'	25'
30"	220'	85'	40'	20'	250'	105'	50'	25'
36"	245'	105'	50'	25'	0'	0'	0'	0'
42"	245'	105'	50'	25'	0'	0'	0'	0'
48"	260'	120'	60'	30'	0'	0'	0'	0'

RESTRAINED LENGTHS FOR DEAD ENDS AND BRANCHES FROM TEES SHALL BE THE SAME AS FOR 90° BENDS.

**RESTRAINED LENGTH IN FEET EACH SIDE FOR REDUCER**

PIPE DIAMETER (INCHES)	3"	4"	6"	8"	10"	16"	20"	24"	30"
3"	0	0	0	0	0	0	0	0	0
4"	0	0	0	0	0	0	0	0	0
6"	50'	45'	0	0	0	0	0	0	0
8"	75'	70'	40'	0	0	0	0	0	0
10"	95'	90'	70'	40'	0	0	0	0	0
12"	120'	115'	100'	75'	40'	0	0	0	0
16"	160'	155'	140'	125'	100'	0	0	0	0
20"	200'	195'	185'	170'	150'	130'	75'	0	0
24"	160'	155'	150'	140'	135'	120'	90'	50'	0
30"	195'	190'	185'	180'	170'	160'	120'	105'	70'
36"	225'	220'	215'	210'	205'	195'	160'	150'	125'
42"	245'	240'	235'	230'	225'	220'	205'	180'	155'
48"	255'	250'	245'	240'	235'	230'	215'	195'	175'

RESTRAINED LENGTHS FOR LARGER DIAMETER PIPES

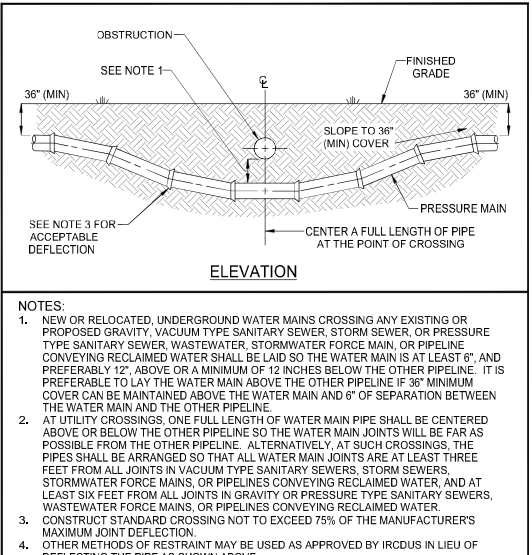
ALL IN-LINE VALVES SHALL BE TREATED AS DEAD END WITH RESTRAINED PIPE JOINTS UP AND DOWN

- NOTES:**
- NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, VACUUM TYPE SANITARY SEWER, STORM SEWER, OR PRESSURE TYPE SANITARY SEWER, WASTEWATER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE WATER MAIN IS AT LEAST 5', AND PREFERABLY 12', ABOVE OR A MINIMUM OF 12 INCHES BELOW THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE IF 36" MINIMUM COVER CAN BE MAINTAINED ABOVE THE WATER MAIN AND 6" OF SEPARATION BETWEEN THE WATER MAIN AND THE OTHER PIPELINE.
  - AT UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
  - CONSTRUCT STANDARD CROSSING NOT TO EXCEED 75% OF THE MANUFACTURER'S MAXIMUM JOINT DEFLECTION.
  - OTHER METHODS OF RESTRAINT MAY BE USED AS APPROVED BY IRCUDS IN LIEU OF DEFLECTING THE PIPE AS SHOWN ABOVE.
  - TRACER WIRE SHALL BE INSTALLED ABOVE THE PIPE. (SEE DRAWING, No. M-14)
  - ALL WATER AND SEWER PIPING SHALL BE LOCATED A MINIMUM HORIZONTAL SEPARATION EQUAL TO THE DEPTH OF THE PIPE PLUS THE DIAMETER OF THE PIPE FROM ANY PERMANENT ABOVE GROUND STRUCTURES (I.E. WALLS, TREES, TRANSFORMER PADS, ETC.) AND A MINIMUM HORIZONTAL SEPARATION EQUAL TO FOUR (4) FEET FROM ANY UNDERGROUND UTILITIES (I.E. GAS MAINS, TELEPHONE LINES, CABLE LINES, IRRIGATION MAINS, ETC.)
  - IRCUDS MAY REQUIRE AIR RELEASE VALVES ON EACH SIDE OF A UTILITY CROSSING.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**RESTRAINED PIPE LENGTHS AND SCHEDULE NOTES**

DRAWING NO. **M-3**

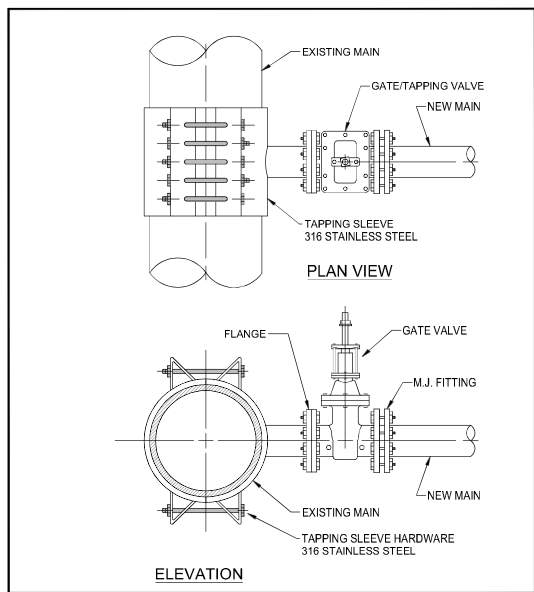


- NOTES:**
- NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, VACUUM TYPE SANITARY SEWER, STORM SEWER, OR PRESSURE TYPE SANITARY SEWER, WASTEWATER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE WATER MAIN IS AT LEAST 5', AND PREFERABLY 12', ABOVE OR A MINIMUM OF 12 INCHES BELOW THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE IF 36" MINIMUM COVER CAN BE MAINTAINED ABOVE THE WATER MAIN AND 6" OF SEPARATION BETWEEN THE WATER MAIN AND THE OTHER PIPELINE.
  - AT UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
  - CONSTRUCT STANDARD CROSSING NOT TO EXCEED 75% OF THE MANUFACTURER'S MAXIMUM JOINT DEFLECTION.
  - OTHER METHODS OF RESTRAINT MAY BE USED AS APPROVED BY IRCUDS IN LIEU OF DEFLECTING THE PIPE AS SHOWN ABOVE.
  - TRACER WIRE SHALL BE INSTALLED ABOVE THE PIPE. (SEE DRAWING, No. M-14)
  - ALL WATER AND SEWER PIPING SHALL BE LOCATED A MINIMUM HORIZONTAL SEPARATION EQUAL TO THE DEPTH OF THE PIPE PLUS THE DIAMETER OF THE PIPE FROM ANY PERMANENT ABOVE GROUND STRUCTURES (I.E. WALLS, TREES, TRANSFORMER PADS, ETC.) AND A MINIMUM HORIZONTAL SEPARATION EQUAL TO FOUR (4) FEET FROM ANY UNDERGROUND UTILITIES (I.E. GAS MAINS, TELEPHONE LINES, CABLE LINES, IRRIGATION MAINS, ETC.)
  - IRCUDS MAY REQUIRE AIR RELEASE VALVES ON EACH SIDE OF A UTILITY CROSSING.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**UTILITY CROSSINGS**

DRAWING NO. **M-4**

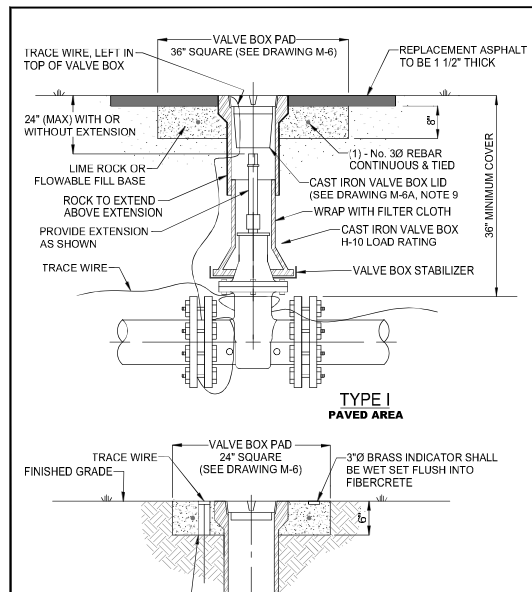


- NOTES:**
- NEW MAIN SHALL BE RESTRAINED PER IRCUDS ENGINEERING. THRUST BLOCK ON EXISTING MAIN AT TAPPING SLEEVE LOCATION MAY BE REQUIRED.
  - ALL MATERIALS SHALL BE PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**TAPPING SLEEVE AND VALVE ASSEMBLY**

DRAWING NO. **M-5**

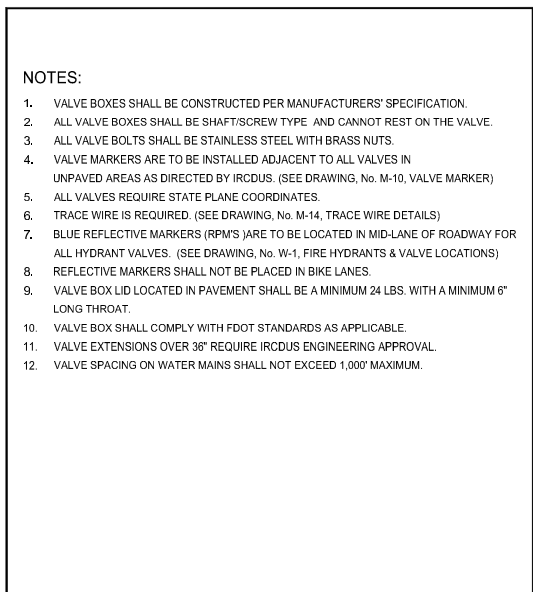


- NOTES:**
- VALVE BOXES SHALL BE CONSTRUCTED PER MANUFACTURERS' SPECIFICATION.
  - ALL VALVE BOXES SHALL BE SHAFT/SCREW TYPE AND CANNOT REST ON THE VALVE.
  - ALL VALVE BOLTS SHALL BE STAINLESS STEEL WITH BRASS NUTS.
  - VALVE MARKERS ARE TO BE INSTALLED ADJACENT TO ALL VALVES IN UNPAVED AREAS AS DIRECTED BY IRCUDS. (SEE DRAWING, No. M-10, VALVE MARKER)
  - ALL VALVES REQUIRE STATE PLANE COORDINATES.
  - TRACE WIRE IS REQUIRED. (SEE DRAWING, No. M-14, TRACE WIRE DETAILS)
  - BLUE REFLECTIVE MARKERS (RPM'S) ARE TO BE LOCATED IN MID-LANE OF ROADWAY FOR ALL HYDRANT VALVES. (SEE DRAWING, No. W-1, FIRE HYDRANTS & VALVE LOCATIONS)
  - REFLECTIVE MARKERS SHALL NOT BE PLACED IN BIKE LANES.
  - VALVE BOX LID LOCATED IN PAVEMENT SHALL BE A MINIMUM 24 LBS. WITH A MINIMUM 6" LONG THROAT.
  - VALVE BOX SHALL COMPLY WITH FDOT STANDARDS AS APPLICABLE.
  - VALVE EXTENSIONS OVER 36" REQUIRE IRCUDS ENGINEERING APPROVAL.
  - VALVE SPACING ON WATER MAINS SHALL NOT EXCEED 1,000' MAXIMUM.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE AND BOX DETAIL**

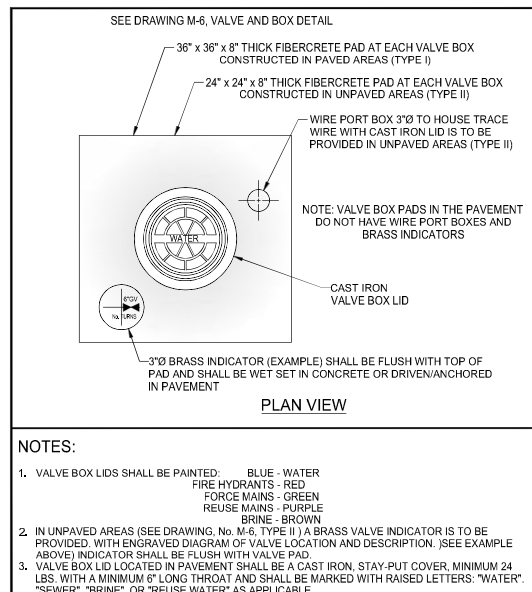
DRAWING NO. **M-6**



INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE AND BOX DETAIL NOTES**

DRAWING NO. **M-6 A**

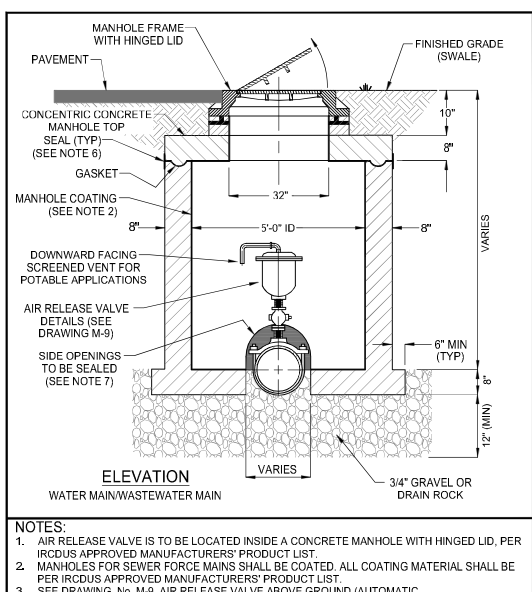


- NOTES:**
- VALVE BOX LIDS SHALL BE PAINTED: BLUE - WATER, FIRE HYDRANTS - RED, FORCE MAINS - GREEN, REUSE MAINS - PURPLE, BRINE - BROWN
  - IN UNPAVED AREAS (SEE DRAWING, No. M-6, TYPE II) A BRASS VALVE INDICATOR IS TO BE PROVIDED. WITH ENGRAVED DIAGRAM OF VALVE LOCATION AND DESCRIPTION. (SEE EXAMPLE ABOVE) INDICATOR SHALL BE FLUSH WITH VALVE PAD.
  - VALVE BOX LID LOCATED IN PAVEMENT SHALL BE A CAST IRON, STAY-PUT COVER, MINIMUM 24 LBS. WITH A MINIMUM 6" LONG THROAT AND SHALL BE MARKED WITH RAISED LETTERS: "WATER", "SEWER", "BRINE", OR "REUSE WATER" AS APPLICABLE.
  - VALVE BOX SHALL COMPLY WITH FDOT STANDARDS AS APPLICABLE.
  - NO VALVE RINGS ARE TO BE USED.
  - IN TYPE I, PAVED AREAS, THE VALVE BOX PAD TOP ELEVATION SHALL BE EVEN WITH THE ROCK GRADE TO ALLOW BOTH LAYERS OF ASPHALT TO COVER THE VALVE BOX PAD WITH THE FINAL ASPHALT LAYER FLUSH WITH THE TOP OF THE VALVE BOX. (SEE DRAWING, No. M-6, VALVE AND BOX DETAIL)

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE BOX PAD**

DRAWING NO. **M-7**



- NOTES:**
- AIR RELEASE VALVE IS TO BE LOCATED INSIDE A CONCRETE MANHOLE WITH HINGED LID, PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
  - MANHOLES FOR SEWER FORCE MAINS SHALL BE COATED. ALL COATING MATERIAL SHALL BE PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.
  - SEE DRAWING, No. M-9, AIR RELEASE VALVE ABOVE GROUND (AUTOMATIC WATER/WASTEWATER).
  - SEE DRAWING, No. M-14, TRACER WIRE DETAILS.
  - WASTEWATER LIDS SHALL BE VENTED.
  - SEAL SHALL BE USED AT ALL JOINTS. SEE DRAWING, No. S-5, MANHOLE NOTES.
  - OPENING AT BOTH SIDES OF THE MANHOLE TO BE SEALED WITH MATERIALS PER IRCUDS APPROVED MANUFACTURERS' PRODUCT LIST.

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**AIR RELEASE VALVE MANHOLE BELOW GROUND (AUTOMATIC WATER/WASTEWATER)**

DRAWING NO. **M-8**

REV.	DATE	COMMENTS
8	05/12/2023	AS
7	06/20/2023	AS
6	07/19/2023	AS
5	07/19/2023	AS
4	07/19/2023	AS
3	07/19/2023	AS
2	07/19/2023	AS
1	08/14/2023	AS

21-0492

TH SS

DESIGNED DRAWN DATE CHECKED DATE ISSUED

JUNE 2022

AS

05/12/2023

21-0492

MBV ENGINEERING, INC.

MOA BOWLES VILLAMIZAR & ASSOCIATES

CONSULTING ENGINEERING CA #3728

1835 20TH STREET

MIAMI BEACH, FL 33139

TEL: (305) 448-8888

FL PERCE. FL. PR. (173) 758-8117

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**UTILITY CROSSINGS**

DRAWING NO. **M-4**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**TAPPING SLEEVE AND VALVE ASSEMBLY**

DRAWING NO. **M-5**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE AND BOX DETAIL**

DRAWING NO. **M-6**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE AND BOX DETAIL NOTES**

DRAWING NO. **M-6 A**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**RESTRAINED PIPE LENGTHS AND SCHEDULE NOTES**

DRAWING NO. **M-3**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**UTILITY CROSSINGS**

DRAWING NO. **M-4**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**TAPPING SLEEVE AND VALVE ASSEMBLY**

DRAWING NO. **M-5**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE AND BOX DETAIL**

DRAWING NO. **M-6**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE AND BOX DETAIL NOTES**

DRAWING NO. **M-6 A**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**VALVE BOX PAD**

DRAWING NO. **M-7**

INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES

**AIR RELEASE VALVE MANHOLE BELOW GROUND (AUTOMATIC WATER/WASTEWATER)**

DRAWING NO. **M-8**

IRC FIRE RESCUE FIRE STATION #7

CITY OF FELLSMERE

FINAL DEVELOPMENT PLAN

FLORIDA

CITY OF FELLSMERE

AARON G. STANTON

LICENSE No. 72460

STATE OF FLORIDA

PROFESSIONAL ENGINEER

AARON G. STANTON

FL P.E. #72460

8/16/23

SHEET

**C14**

21-0492

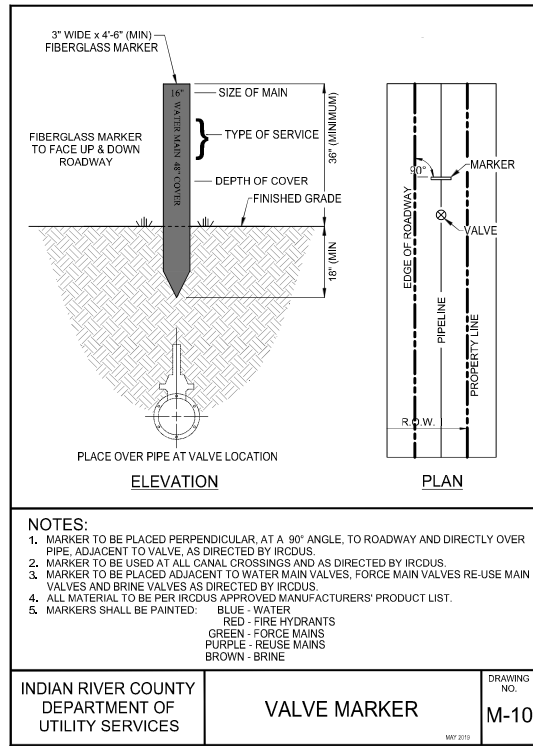
72 HOURS BEFORE DIGGING

CALL TOLL FREE

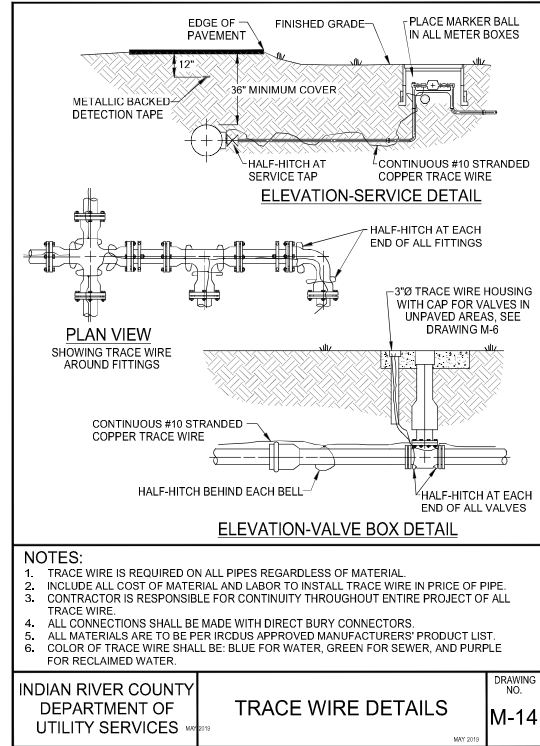
**811**

Know what's below.

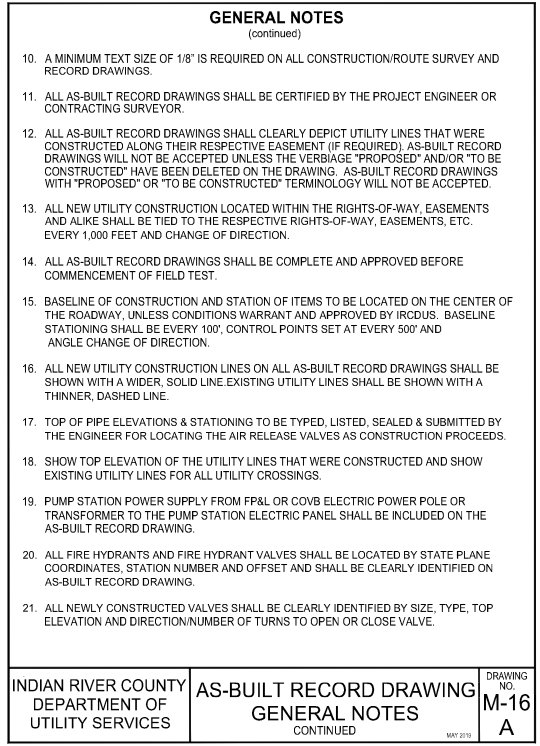
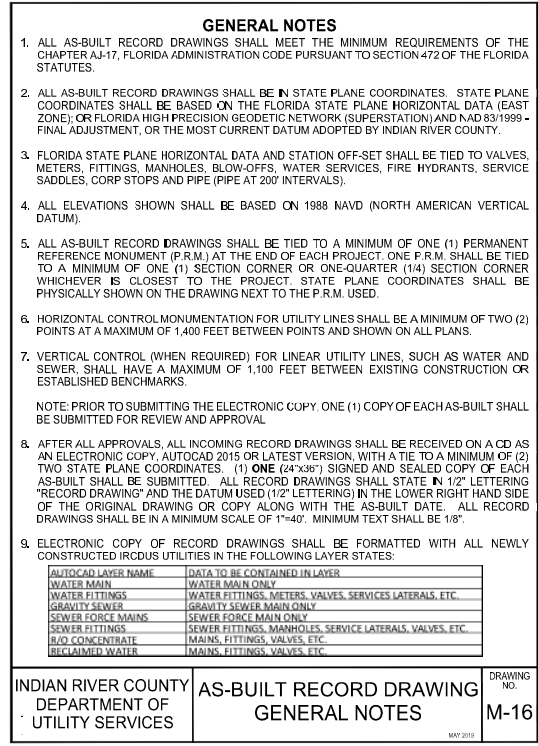
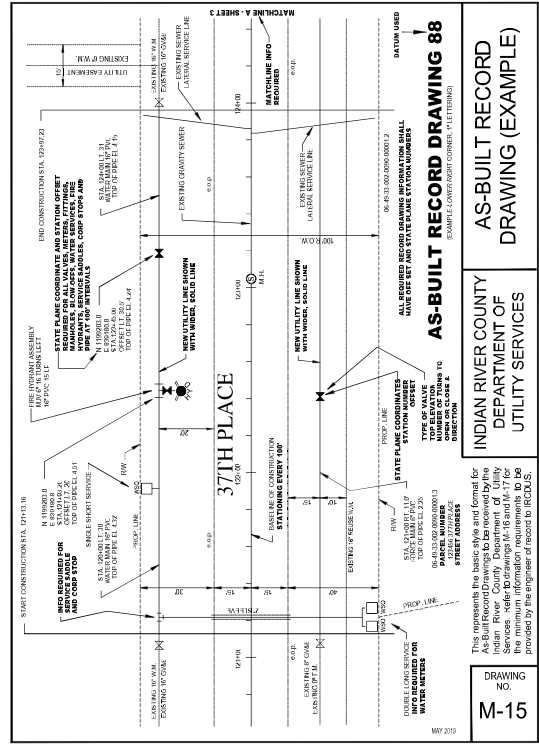
Call before you dig.



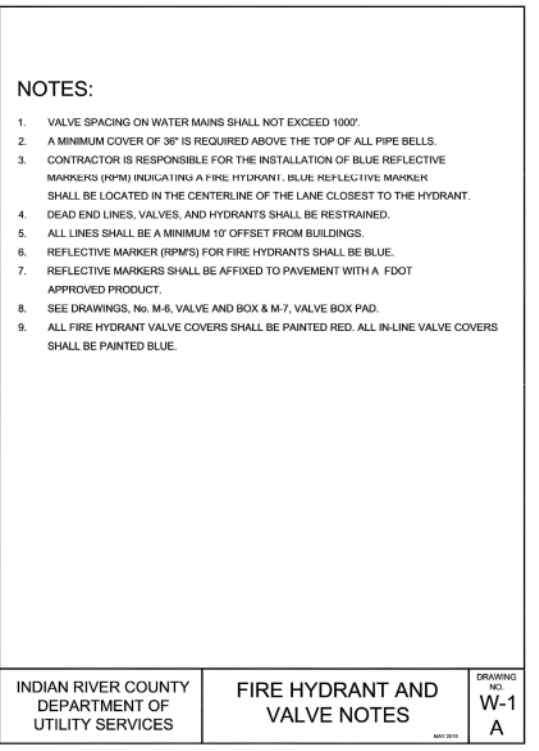
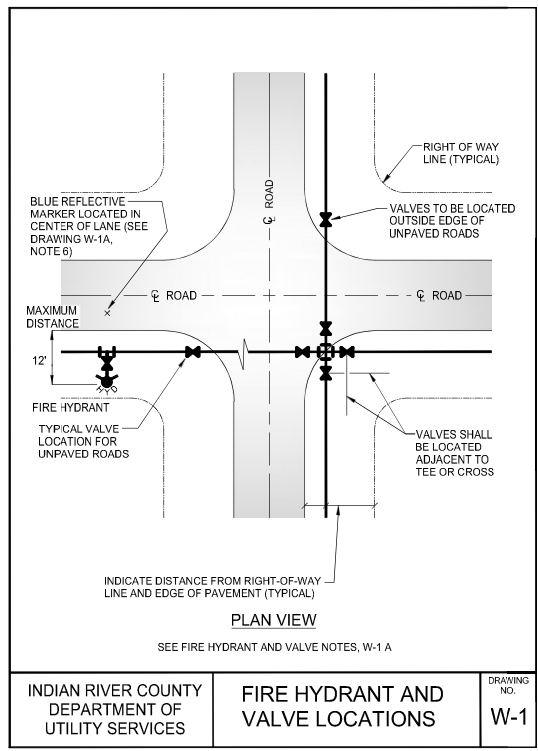
INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES	VALVE MARKER	DRAWING NO. M-10
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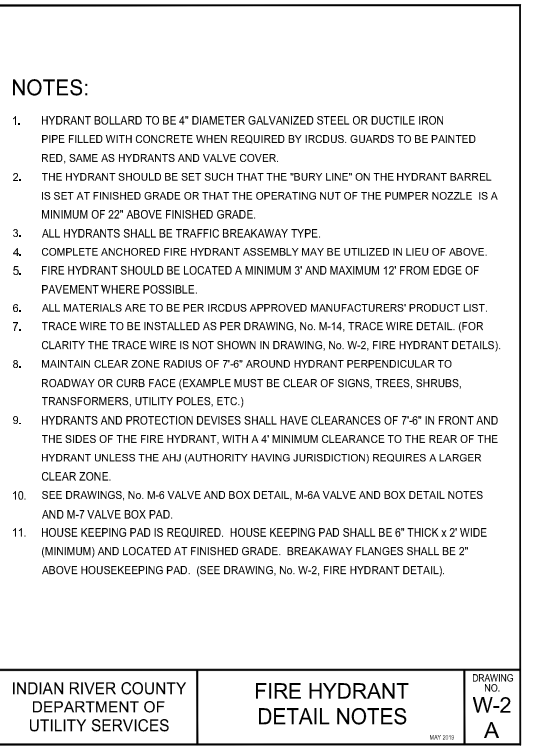
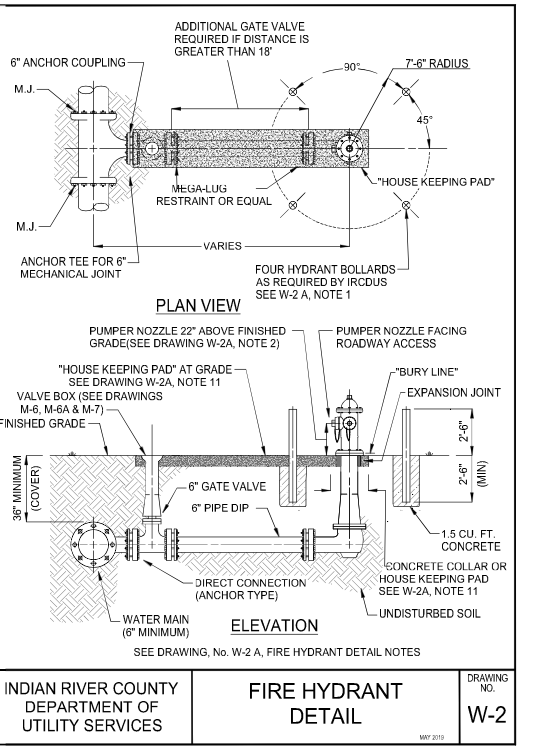
INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES	TRACE WIRE DETAILS	DRAWING NO. M-14
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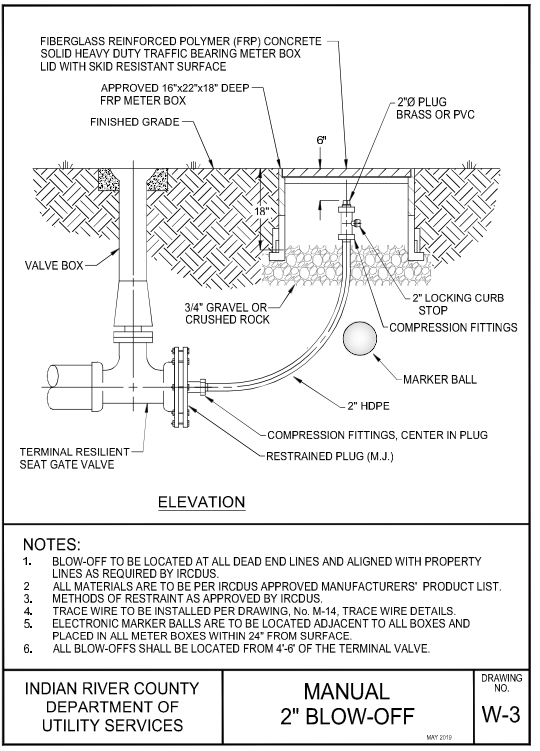
INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES	AS-BUILT RECORD DRAWING GENERAL NOTES	DRAWING NO. M-16
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INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES	FIRE HYDRANT AND VALVE NOTES	DRAWING NO. W-1
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INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES	FIRE HYDRANT DETAIL NOTES	DRAWING NO. W-2
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INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES	MANUAL 2" BLOW-OFF	DRAWING NO. W-3
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DATE	REVISIONS	COMMENTS
08-14-2023	8	REV PER SURVIVOR COMMENTS
08-09-2023	7	REV PER FDEP WATER COMMENTS
07-27-2023	6	REV PER IRCUDS COMMENTS
07-19-2023	5	REV PER SURVIVOR COMMENTS
06-20-2023	4	REV PER COE FINAL SP COMMENTS
06-20-2023	3	REV PER COE AND RCPD COMMENTS

**MBV ENGINEERING, INC.**  
 MOVA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING  
 CA #3728  
 4885 20TH STREET  
 FT. PIERCE, FL. 34981  
 TEL: (888) 775-1400  
 FAX: (888) 775-1401

**UTILITY DETAILS**

IRC FIRE RESCUE FIRE STATION #7  
 CITY OF FELLSMERE  
 FINAL DEVELOPMENT PLAN

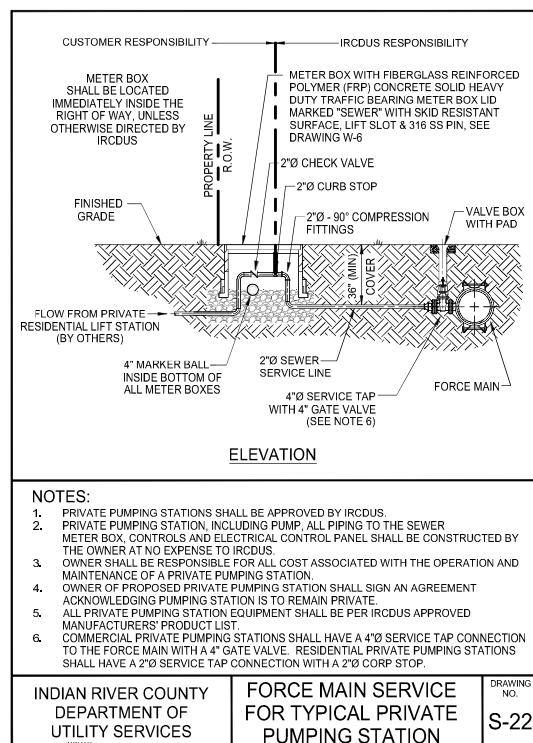
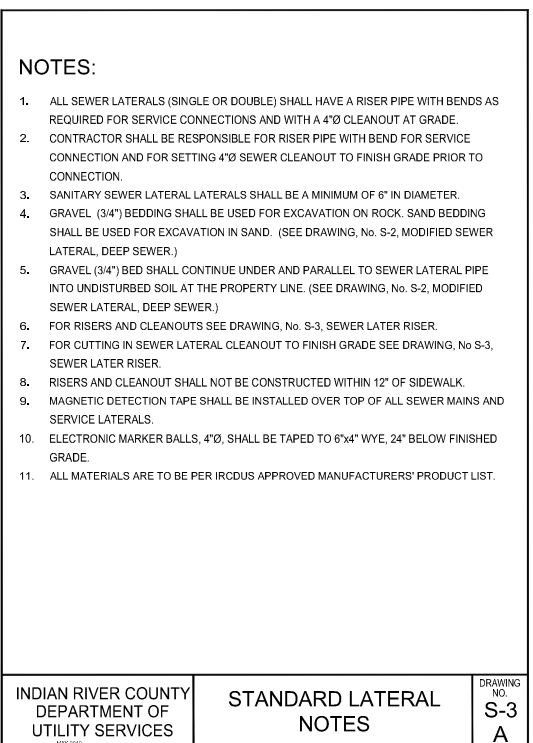
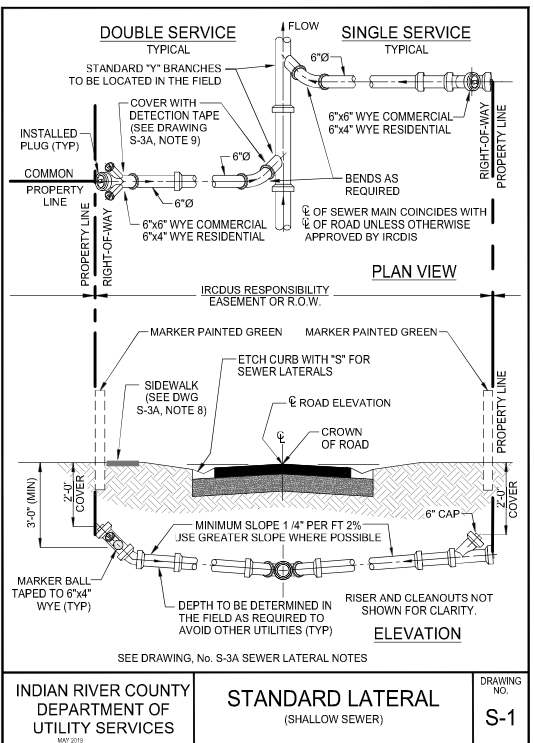
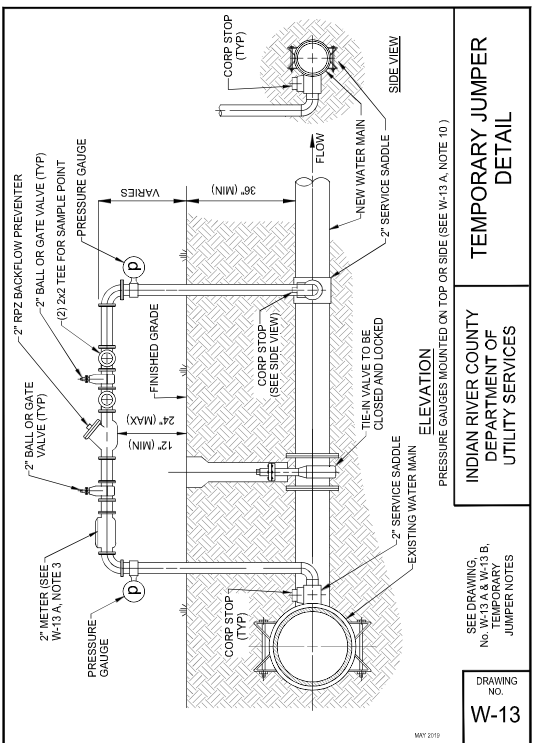
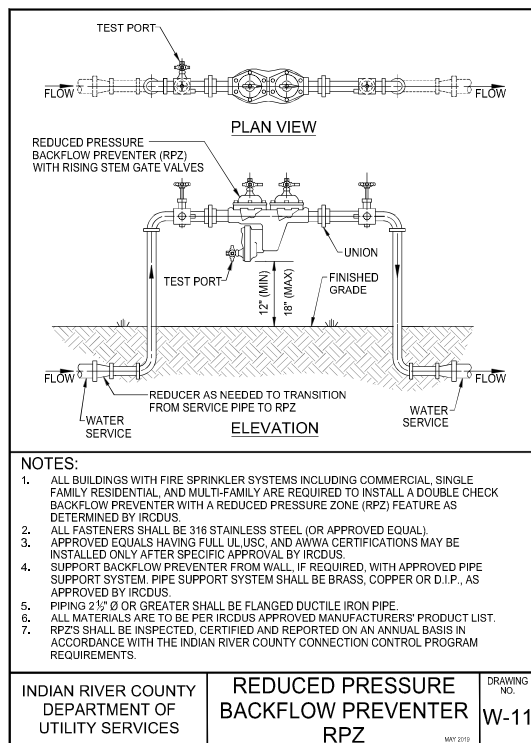
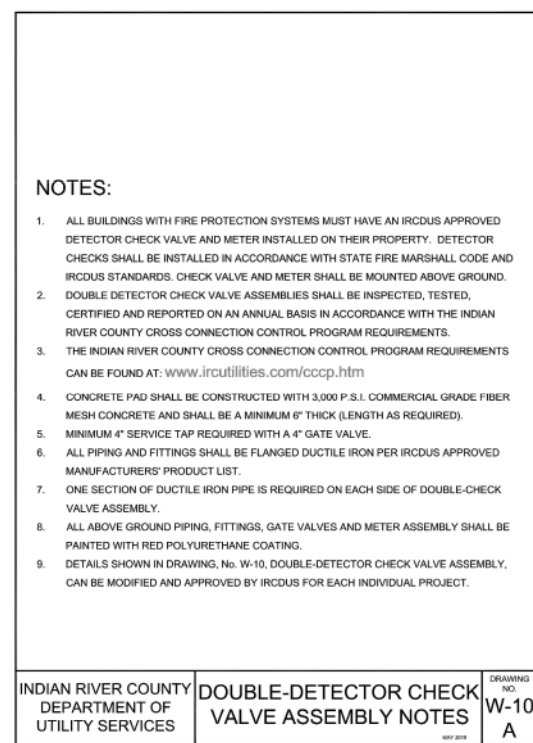
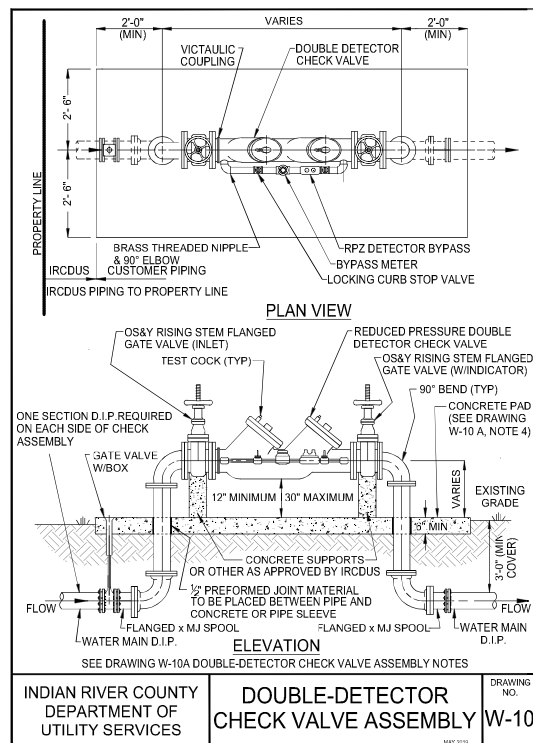
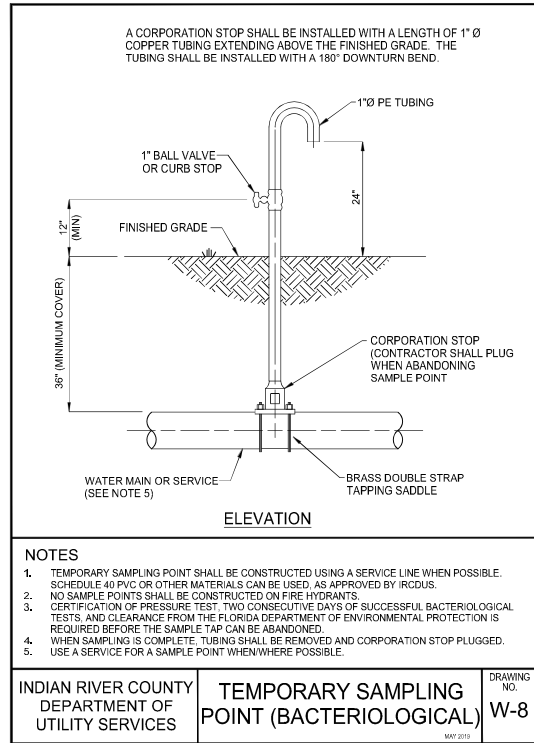
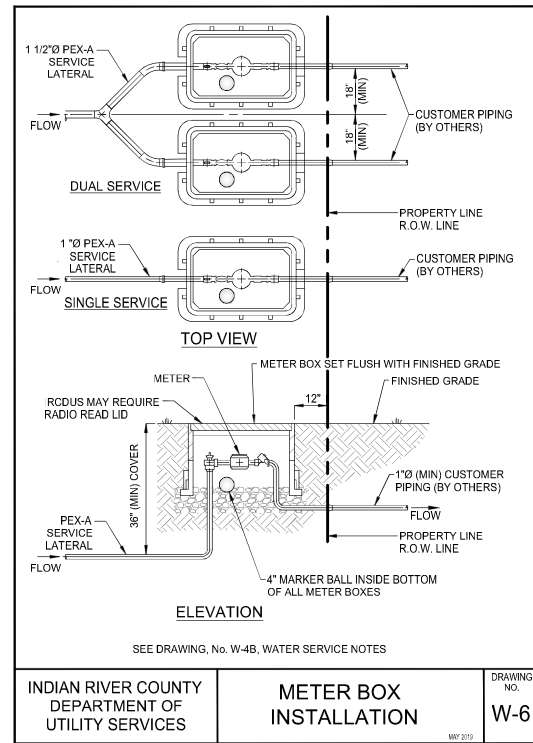
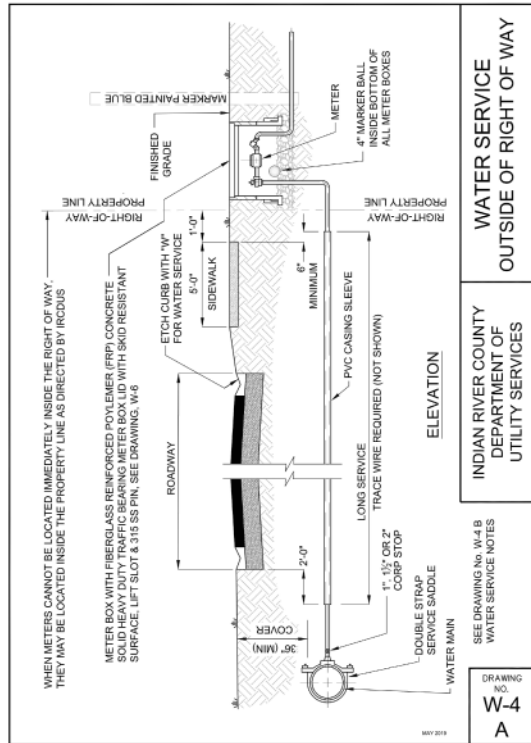
**AARON G. STANTON**  
 LICENSE No. 72460  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

AARON G. STANTON  
 FL. P.E. #72460 8/16/23

SHEET  
**C15**

21-0492

72 HOURS BEFORE DIGGING  
 CALL TOLL FREE  
**811**  
 Know what's below.  
 Call before you dig.



NO.	REV.	DESCRIPTION	DATE
8	REV. PER SURVIVOR COMMENTS	08-14-2023	
7	REV. PER FDEP WATER COMMENTS	08-09-2023	
6	REV. PER FDEP GAS CO. COMMENTS	08-07-2023	
5	REV. PER IRCUDS RECORD COMMENTS	07-27-2023	
4	REV. PER SURVIVOR COMMENTS	07-19-2023	
3	REV. PER COE FINAL SP COMMENTS	06-20-2023	
2	REV. PER COE AND RCPD COMMENTS	06-20-2023	
1	COMMENTS		

21-0492

DESIGNED: TH

DRAWN: SS

DATE: JUNE 2022

CHECKED: AS

DATE ISSUED: 05/12/2023

JOB NO. 21-0492

MBV ENGINEERING, INC. MOA BOWLES VILLAMIZAR & ASSOCIATES CONSULTING ENGINEERING CA #3728

INDIAN RIVER COUNTY, FLORIDA

UTILITY DETAILS

IRC FIRE RESCUE FIRE STATION #7

CITY OF FELLSMERE

FINAL DEVELOPMENT PLAN

FLORIDA

CITY OF FELLSMERE

AARON G. STANTON

FLORIDA PROFESSIONAL ENGINEER

FLORIDA LICENSE No. 72460

AARON G. STANTON FL P.E. #72460 8/16/23

SHEET

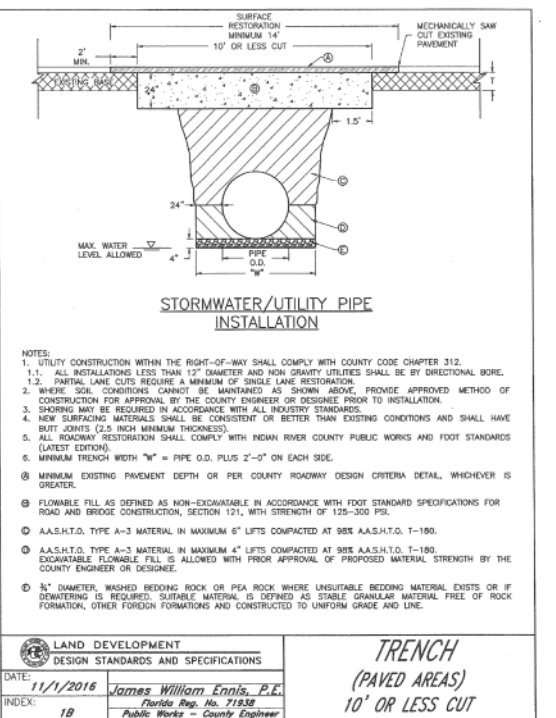
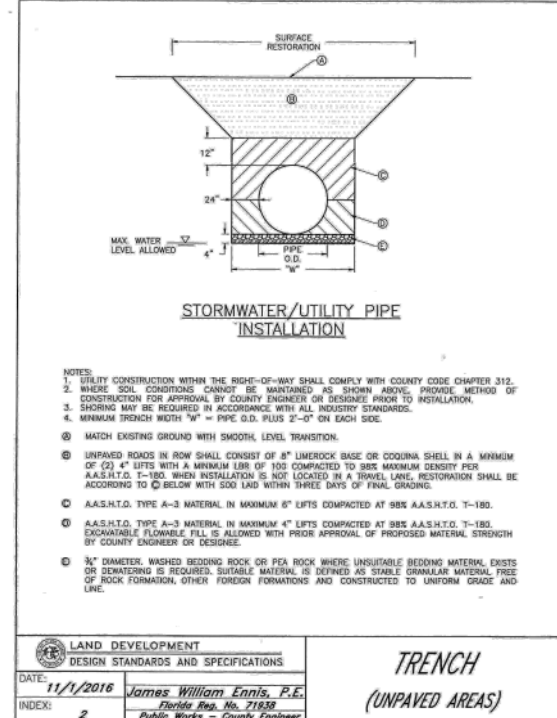
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21-0492

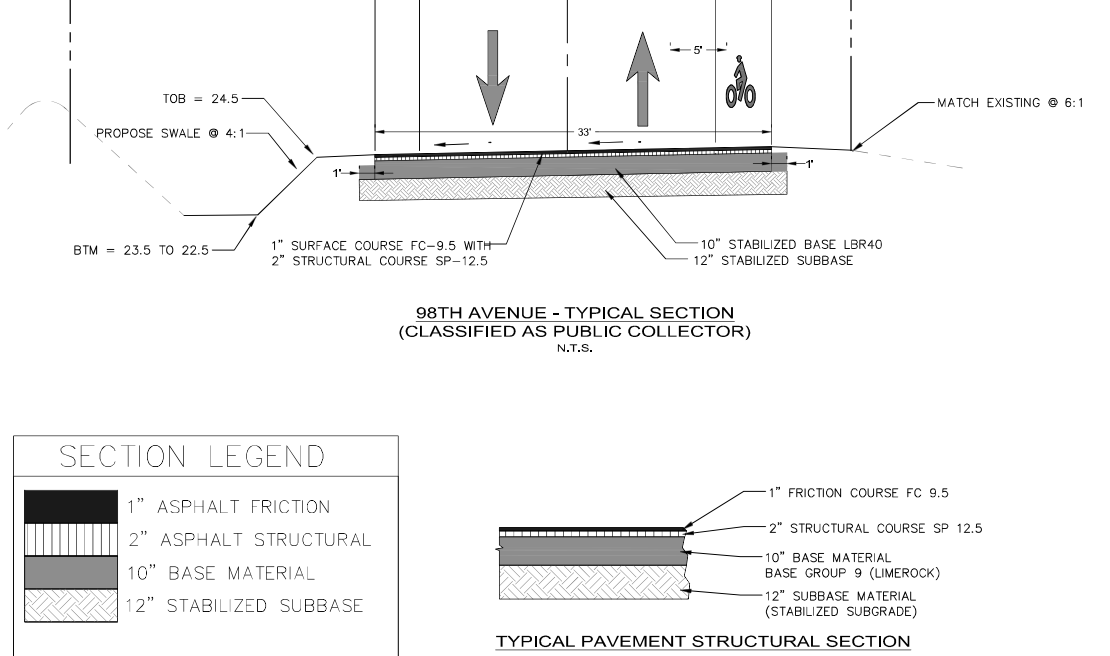
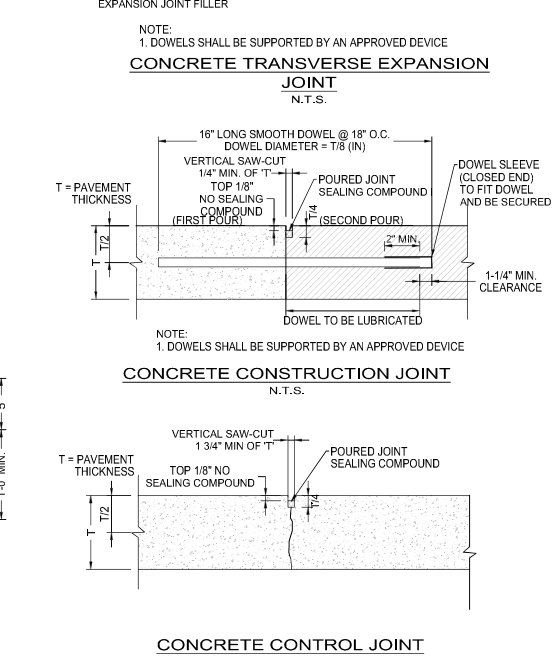
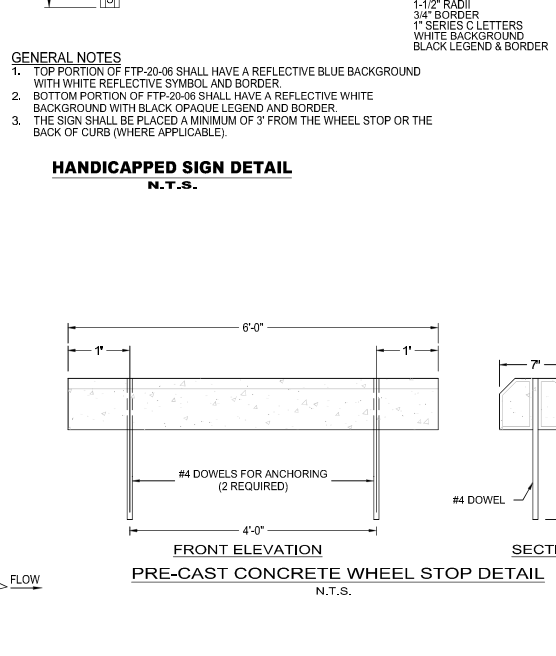
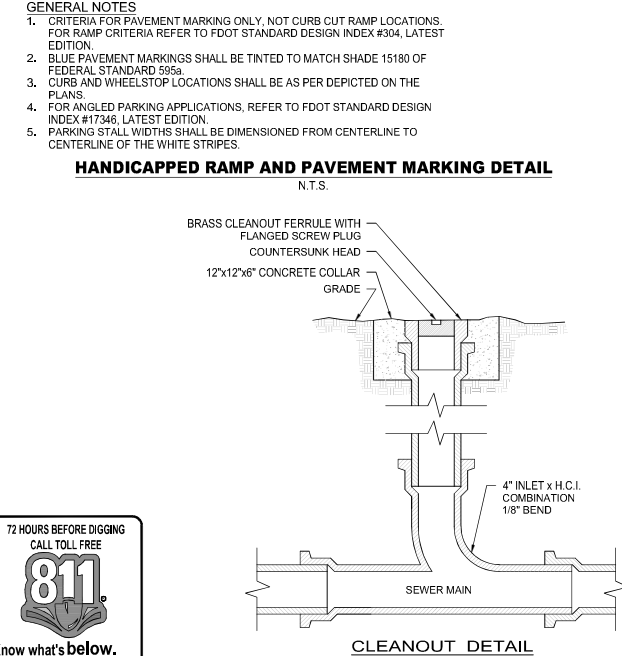
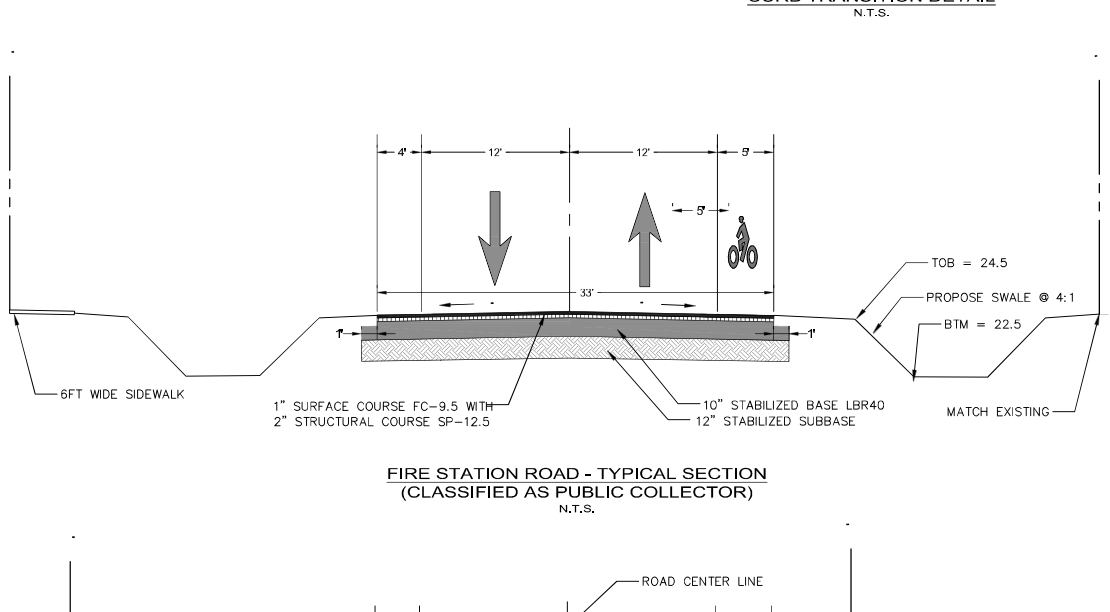
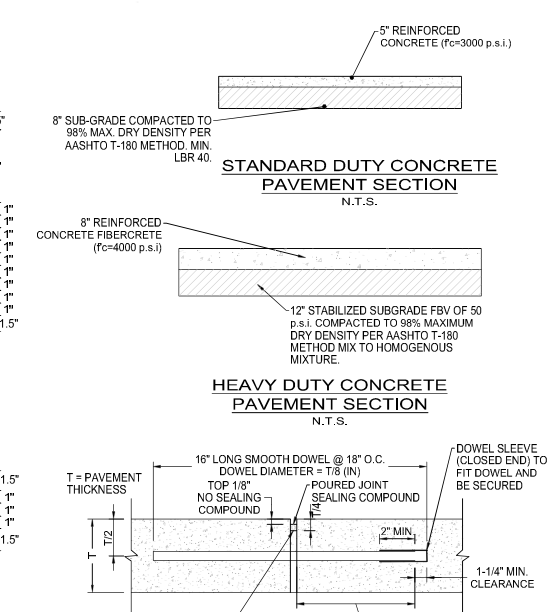
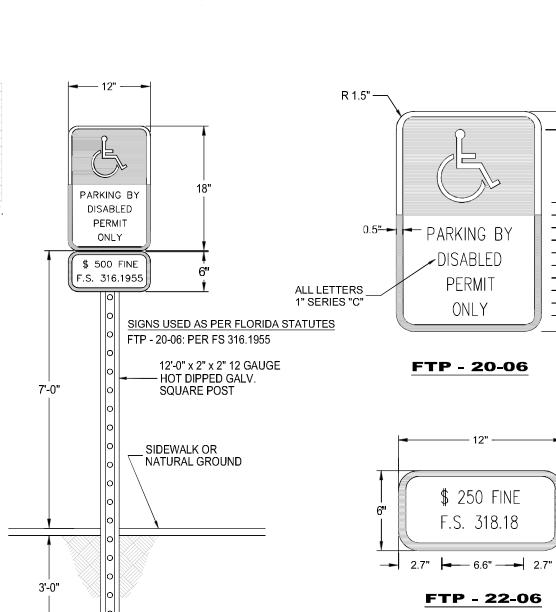
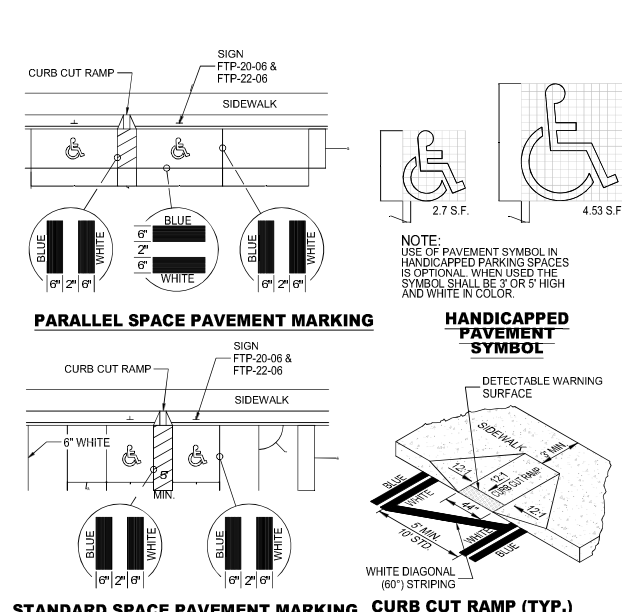
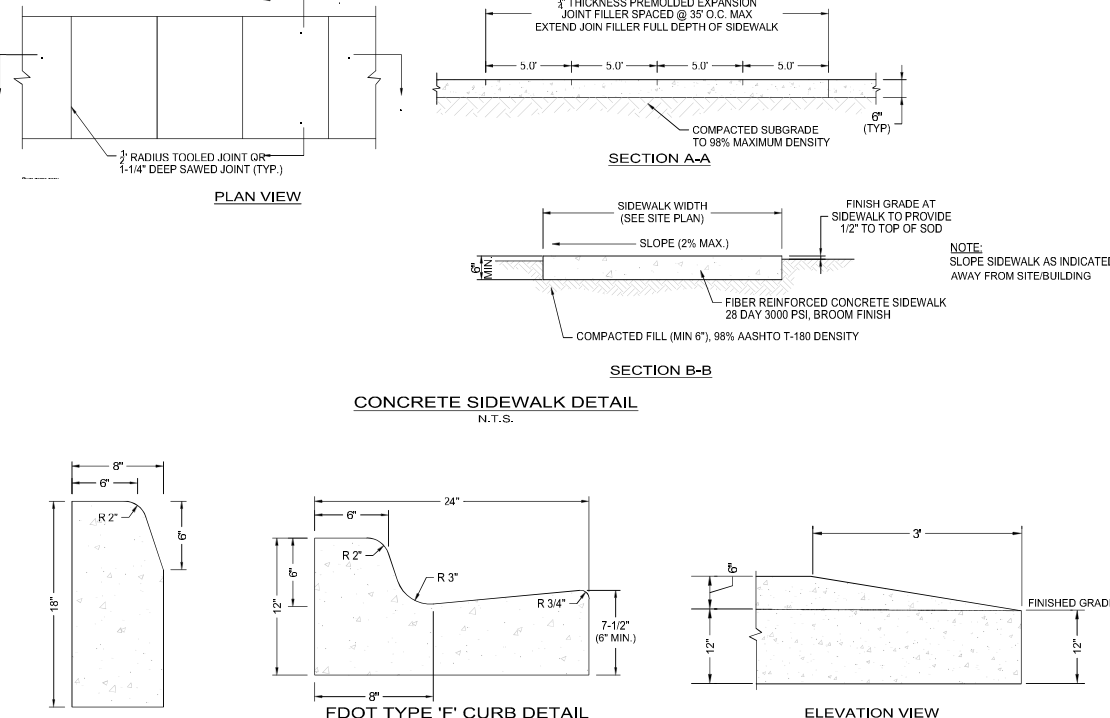
72 HOURS BEFORE DIGGING CALL TOLL FREE

**811**

Know what's below. Call before you dig.



ROAD CLASSIFICATION	ASPHALT TYPE AND THICKNESS	BASE THICKNESS	SUBGRADE/SUBBASE THICKNESS
1. APPROPRIATE LOCAL SUBDIVISION	(1) 1.5" LAYER OF SP-9.5 (2) 1" LAYERS OF SP-9.5 OVER 1.25" OF SP-12.5	6"	8"
2. PUBLIC LOCAL	(1) 1" LAYERS OF SP-9.5 OVER 1.5" OF SP-12.5 (2) 1.5" LAYERS OF SP-9.5 OVER 1.5" OF SP-12.5	8"	12"
3. PUBLIC COLLECTOR OR ARTERIAL RIGHT TURNLANE	(1) 2.5" LAYER OF SP-12.5 (2) 1.5" LAYERS OF SP-9.5 OVER 1.5" OF SP-12.5	10"	12"
4. PUBLIC ARTERIAL	(1) 2.5" LAYER OF SP-12.5 (2) 1.5" LAYER OF SP-12.5	10"	12"



REV	DATE	DESCRIPTION
8	06-14-2023	REV. PER SURVIVOR COMMENTS
7	08-09-2023	REV. PER FDOT WATER COMMENTS
6	08-07-2023	REV. PER FDOT GAS CO. COMMENTS
5	07-27-2023	REV. PER FDOT COMMENTS
4	07-19-2023	REV. PER FDOT COMMENTS
3	06-20-2023	REV. PER FDOT COMMENTS
2	06-20-2023	REV. PER FDOT COMMENTS
1	06-20-2023	REV. PER FDOT COMMENTS

**MBV ENGINEERING, INC.**  
 MOIRA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING CA #3728  
 1881 - 28TH STREET  
 MIAMI, FL 33136  
 TEL: (772) 340-9030  
 FAX: (772) 778-8417

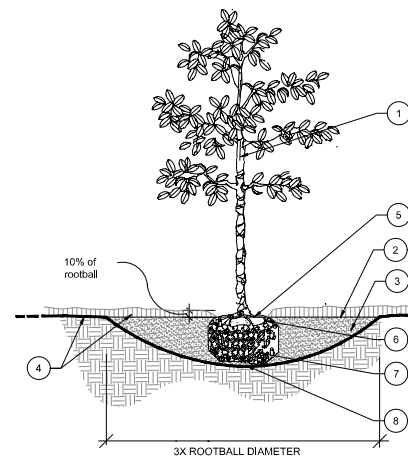
**IRC FIRE RESCUE FIRE STATION #7**  
 CITY OF FELLSMERE  
 FINAL DEVELOPMENT PLAN

AARON G STANTON  
 LICENSE No. 72460  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 AARON G STANTON  
 FL P.E. #72460 8/16/23  
 SHEET  
**C17**  
 21-0492









1. TRUNK
2. 3" MINIMUM OF MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOD, MULCH RING FOR TREES COVER ROOTBALL SIDES AND EXTEND 18" BEYOND ON ALL SIDES. NO MULCH SHALL BE PLACED OVER TRUNK.
3. SHALLOW WIDE PLANT HOLE; TOP SHALL BE 3X THE SIZE OF ROOTBALL.
4. FINISHED GRADE - LANDSCAPE SOIL
5. FIND TOP-MOST ROOT ON ROOTBALL; POSITION ROOTBALL SO THIS TOP ROOT IS 1'-2" ABOVE LANDSCAPE SOIL. (APPROX. 10% OF ROOTBALL SHALL BE ABOVE LANDSCAPE SOIL)
6. B & B OR CONTAINER (SEE SPECIFICATIONS FOR ROOT BALL REQUIREMENTS).
7. REMOVE ALL SYNTHETIC MATERIALS FROM ROOTBALL
8. ROOTBALLS SHALL BE PLACED ON UNDISTURBED SOIL TO PREVENT SETTLING.

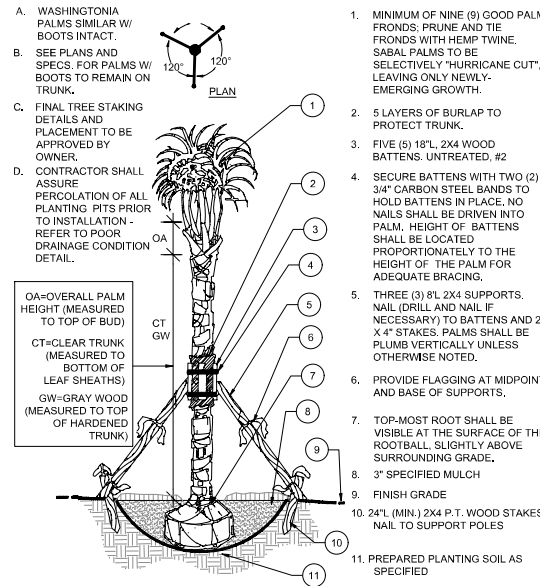
**NOTES:**

- A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
- B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
- C. SEE PRE-APPROVED STAKING METHODS, THIS SHEET

\* ALL TREES SHALL BE PLUMB VERTICALLY WITH A TOLERANCE OF THREE DEGREES, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

**TREE PLANTING**

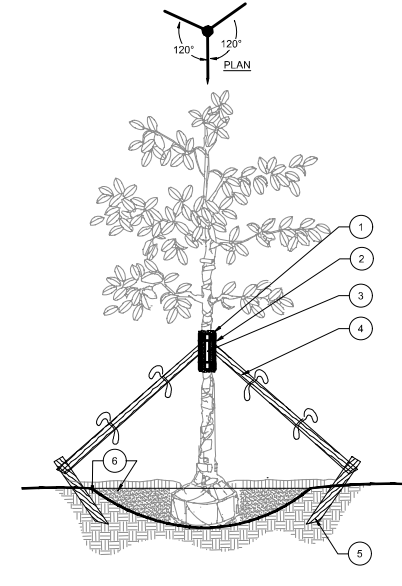
SECTION NTS



1. MINIMUM OF NINE (9) GOOD PALM FRONDS; PRUNE AND TIE FRONDS WITH HEMP TWINE. SABAL PALMS TO BE SELECTIVELY "HURRICANE CUT", LEAVING ONLY NEWLY-EMERGING GROWTH.
2. 5 LAYERS OF BURLAP TO PROTECT TRUNK.
3. FIVE (5) 18"L. 2X4 WOOD BATTENS. UNTREATED, #2
4. SECURE BATTENS WITH TWO (2) 3/4" CARBON STEEL BANDS TO HOLD BATTENS IN PLACE. NO NAILS SHALL BE DRIVEN INTO PALM. HEIGHT OF BATTENS SHALL BE LOCATED PROPORTIONATELY TO THE HEIGHT OF THE PALM FOR ADEQUATE BRACING.
5. THREE (3) 8L 2X4 SUPPORTS. NAIL (DRILL AND NAIL IF NECESSARY) TO BATTENS AND 2" X 4" STAKES. PALMS SHALL BE PLUMB VERTICALLY UNLESS OTHERWISE NOTED.
6. PROVIDE FLAGGING AT MIDPOINT AND BASE OF SUPPORTS.
7. TOP-MOST ROOT SHALL BE VISIBLE AT THE SURFACE OF THE ROOTBALL, SLIGHTLY ABOVE SURROUNDING GRADE.
8. 3" SPECIFIED MULCH
9. FINISH GRADE
10. 24"L (MIN.) 2X4 P.T. WOOD STAKES, NAIL TO SUPPORT POLES
11. PREPARED PLANTING SOIL AS SPECIFIED

**PALM PLANTING AND STAKING**

SECTION NTS



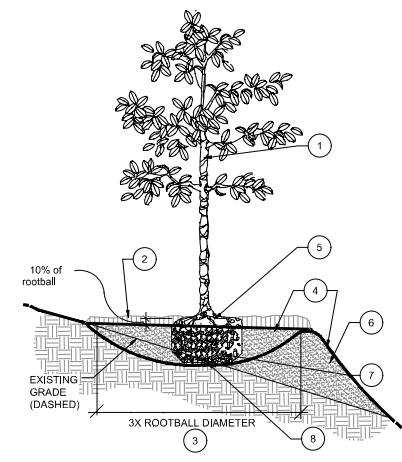
1. FIVE (5) LAYERS OF BURLAP TO PROTECT TRUNK
2. TWO STEEL BANDS TO SECURE BATTENS
3. FIVE 2 X 4 X 18" WOOD BATTENS
4. THREE (3) 2" X 8" LODGE POLES, DRILL, USING GALVANIZED SCREWS, TO BATTENS AND 2" X 4" STAKES. NO SCREWS SHALL PENETRATE TREE FLAG AT MIDPOINT AND AT BASE.
5. 2" X 4" X 3" (MIN.) P.T. WOOD STAKES BURIED 3" BELOW FINISHED GRADE.
6. FINISHED GRADE (SEE GRADING PLAN)

**NOTES:**

- A. ALL TREES SHALL BE PLUMB VERTICALLY WITHIN A TOLERANCE OF THREE DEGREES, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.
- B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
- C. ALTERNATE TREE ANCHORING SYSTEMS MAY BE SUBSTITUTED FOR WOOD STAKING SYSTEM UPON APPROVAL BY OWNER OR OWNER'S REPRESENTATIVE
- D. RUBBER HOSE/WIRE SYSTEMS ARE NOT ALLOWED.

**LARGE TREE STAKING - 100 GAL + OR B&B 4" +**

SECTION NTS



1. TREES, PALMS, AND LARGE SHRUBS (15 GAL OR GREATER) SHALL BE PLANTED IN SIMILAR MANNER
2. 3" MINIMUM OF MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOD, MULCH RING FOR TREES COVER ROOTBALL SIDES AND EXTEND 18" BEYOND ON ALL SIDES. NO MULCH SHALL BE PLACED OVER TRUNK.
3. SHALLOW WIDE PLANT HOLE; TOP SHALL BE 3X THE SIZE OF ROOTBALL.
4. FINISHED GRADE - LANDSCAPE SOIL
5. FIND TOP-MOST ROOT ON ROOTBALL; POSITION ROOTBALL SO THIS TOP ROOT IS 1'-2" ABOVE LANDSCAPE SOIL. (APPROX. 10% OF ROOTBALL SHALL BE ABOVE LANDSCAPE SOIL)
6. BERM SOIL SO THAT TOP OF BERM IS JUST BELOW THE TOP 10% OF THE TOP OF THE ROOTBALL. SLOPE DOWNHILL PORTION OF BERM AS REQUIRED TO MEET EXISTING GRADE.
7. B & B OR CONTAINER REMOVE ALL SYNTHETIC MATERIALS FROM ROOTBALL. (SEE SPECIFICATIONS FOR OTHER ROOT BALL REQUIREMENTS)
8. ROOTBALLS SHALL BE PLACED ON UNDISTURBED SOIL TO PREVENT SETTLING.

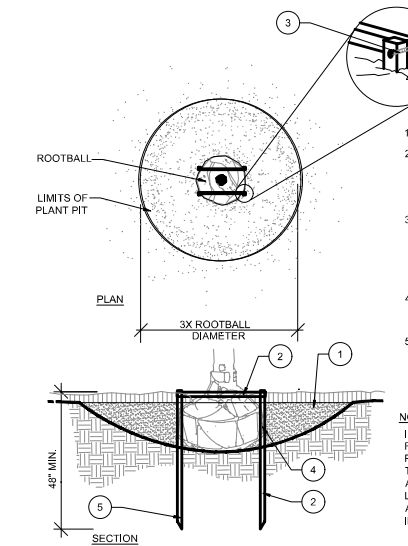
**NOTES:**

- A. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.
- B. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
- C. SEE PRE-APPROVED STAKING METHODS, THIS SHEET

\* ALL TREES SHALL BE PLUMB VERTICALLY WITHIN A TOLERANCE OF THREE DEGREES, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.

**PLANTING ON A SLOPE**

SECTION NTS



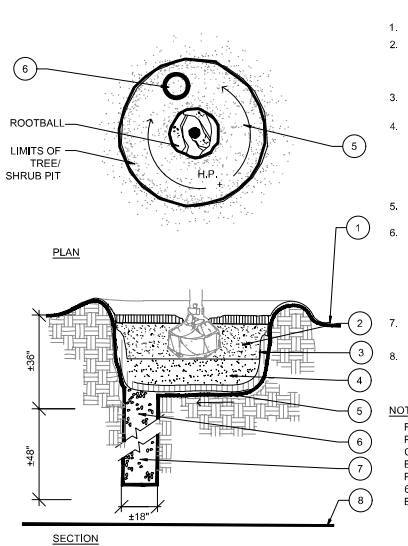
1. FINISH GRADE
2. HORIZONTAL 2X2 SCREWED TO 2X2 STAKE. ALL WOOD SHALL BE #2 UNTREATED.
3. 3-1/2" DRYWALL SCREW, THREAD SIZE 12, SHARP POINT, FULL THREAD, BLACK PHOSPHATE FINISH
4. VERTICAL STAKES SHALL ABUT SIDE OF ROOTBALL
5. STAKES TO EXTEND INTO NATIVE SOIL BY 1-1/2 X THE ROOTBALL DEPTH MIN.

**NOTE:**

- IF SPATIAL REQUIREMENTS PRECLUDE STAKING WITH THIS METHOD, SUBMIT ALTERNATE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO INSTALLING PLANT.

**STAKING - UP TO 65 GAL. OR B&B TO 3-1/2" CAL.**

PLAN/SECTION NTS



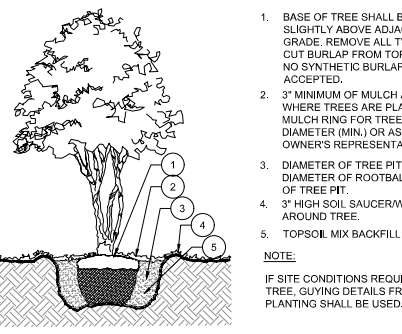
1. FINISH GRADE
2. BACKFILL WITH PREPARED PLANTING SOIL MIX AS SPECIFIED.
3. FILTER CLOTH, MIRAFI 500X OR BETTER
4. 12" CLEAN SAND, COMPACTED. ADJUST LAYER THICKNESS SO TOP OF ROOTBALL IS AT LEAST 1" ABOVE FINISHED GRADE.
5. SLOPE BOTTOM TO DRAIN
6. #18" AUGURED HOLE PENETRATE THROUGH OCCLUDING LAYER TO WATER TABLE OR TO A DEPTH OF 7' TO ASSURE PROPER PERCOLATION.
7. BACKFILL WITH 1/2" - 3/4" GRAVEL.
8. WATER TABLE. (DEPTH VARIES)

**NOTE:**

- FOR A PARKING ISLAND PLANTING SITUATION, CONTRACTOR TO BACKFILL ENTIRE LENGTH OF PLANTING AREA TO WITHIN 8" OF BACK OF CURB OR EDGE OF PAVEMENT.

**POOR DRAINAGE CONDITION**

PLAN/SECTION NTS



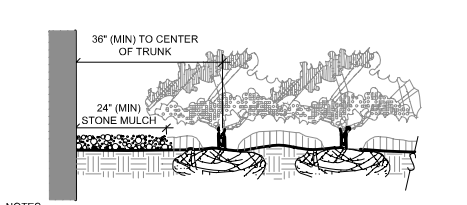
1. BASE OF TREE SHALL BE PLANTED SLIGHTLY ABOVE ADJACENT FINISH GRADE. REMOVE ALL TWINE & STRAPS & CUT BURLAP FROM TOP 1/3 OF ROOTBALL. NO SYNTHETIC BURLAP WILL BE ACCEPTED.
2. 3" MINIMUM OF MULCH AS SPECIFIED. WHERE TREES ARE PLACED IN SOD, MULCH RING FOR TREES SHALL BE 3" DIAMETER (MIN.) OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
3. DIAMETER OF TREE PIT TO BE TWICE THE DIAMETER OF ROOTBALL-ROUGHEN SIDES OF TREE PIT
4. 3" HIGH SOIL SAUCER/WATER RING AROUND TREE.
5. TOPSOIL MIX BACKFILL

**NOTE:**

- IF SITE CONDITIONS REQUIRE GUYING OF THE TREE, GUYING DETAILS FROM SMALL TREE PLANTING SHALL BE USED.

**MULTI-TRUNK TREE PLANTING DETAIL**

SECTION NTS



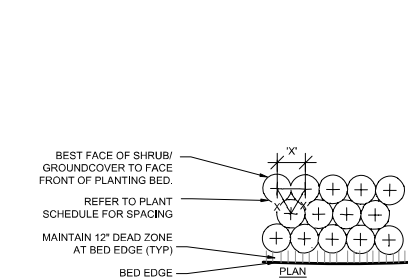
1. CLEAR ZONE: 36" MIN. FROM BUILDING TO CENTER OF NEAREST SHRUB.
2. STONE MULCH: 24" MIN. FROM BUILDING. INSTALL STONE MULCH TYPE TO BE RUSTIC RIVER ROCK OR OWNER'S REPRESENTATIVE APPROVED EQUAL. STONE MULCH TO BE INSTALLED TO A DEPTH OF 4"-6" (MIN.)

**NOTES:**

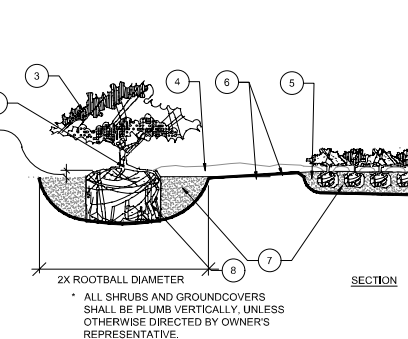
1. CLEAR ZONE: 36" MIN. FROM BUILDING TO CENTER OF NEAREST SHRUB.
2. STONE MULCH: 24" MIN. FROM BUILDING. INSTALL STONE MULCH TYPE TO BE RUSTIC RIVER ROCK OR OWNER'S REPRESENTATIVE APPROVED EQUAL. STONE MULCH TO BE INSTALLED TO A DEPTH OF 4"-6" (MIN.)

**PLANTINGS ADJACENT TO BUILDINGS**

SECTION NTS



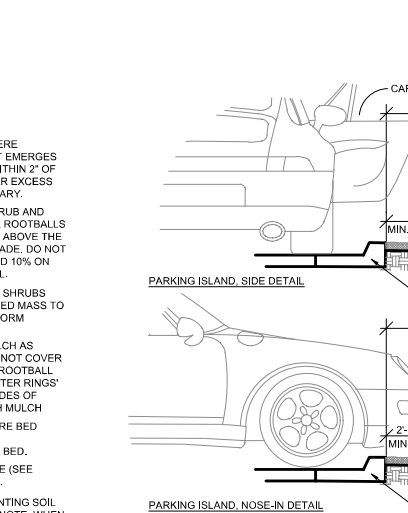
1. FIND POINT WHERE TOPMOST ROOT EMERGES FROM TRUNK WITHIN 2" OF SURFACE. CLEAR EXCESS SOIL IF NECESSARY.
2. TOP 10% OF SHRUB AND GROUNDCOVER ROOTBALLS TO BE PLANTED ABOVE THE LANDSCAPE GRADE. DO NOT COVER EXPOSED 10% ON SIDES WITH SOIL.
3. PRUNE ALL LIKE SHRUBS WITHIN A PLANTED MASS TO ACHIEVE A UNIFORM MASS/HEIGHT.
4. 3" MINIMUM MULCH AS SPECIFIED - DO NOT COVER ENTIRE SHRUB ROOTBALL OR CREATE "WATER RINGS" ONLY COVER SIDES OF ROOTBALL WITH MULCH
5. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
6. FINISHED GRADE (SEE GRADING PLAN).
7. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND, COVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
8. SCARIFY ROOTBALL SIDES AND BOTTOM.



1. BEST FACE OF SHRUB/ GROUNDCOVER TO FACE FRONT OF PLANTING BED. REFER TO PLANT SCHEDULE FOR SPACING
2. MAINTAIN 12" DEAD ZONE AT BED EDGE (TYP)
3. BED EDGE
4. 3" MINIMUM MULCH AS SPECIFIED - DO NOT COVER ENTIRE SHRUB ROOTBALL OR CREATE "WATER RINGS" ONLY COVER SIDES OF ROOTBALL WITH MULCH
5. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
6. FINISHED GRADE (SEE GRADING PLAN).
7. PREPARED PLANTING SOIL AS SPECIFIED. NOTE: WHEN GROUND, COVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.
8. SCARIFY ROOTBALL SIDES AND BOTTOM.

**SHRUB / GROUNDCOVER PLANTING**

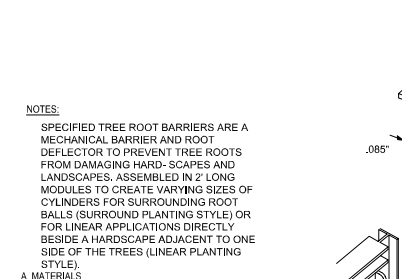
PLAN/SECTION NTS



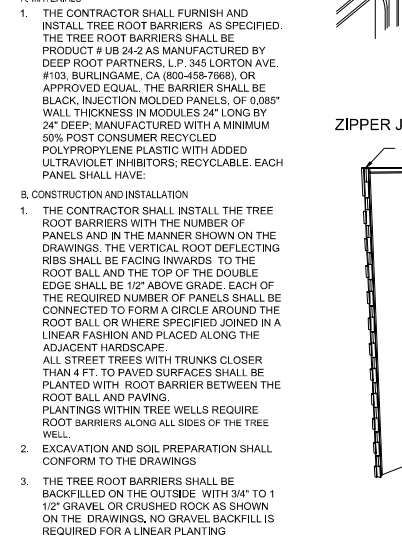
1. INSTALL CONTINUOUS MULCH BED ADJACENT TO PARKING SPACES AS SHOWN. MULCH SHALL BE MIN. 3" DEEP. NO POP-UP IRRIGATION HEADS SHALL BE LOCATED WITHIN 24" OF A PARKING SPACE ON ANY SIDE
2. CURB OR PARKING LOT EDGE, BY OTHERS

**PARKING SPACE/CURB PLANTING**

SECTION NTS



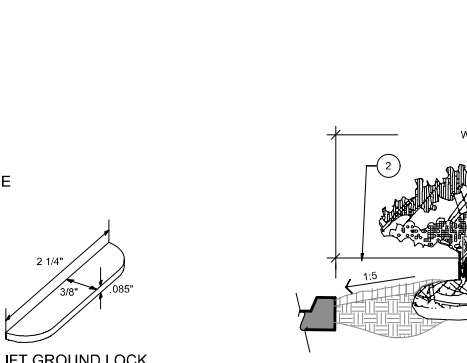
1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P., 345 LORTON AVE. #103, BURLINGAME, CA (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.085" WALL THICKNESS IN MODULES 24" LONG BY 24" DEEP, MANUFACTURED WITH A MINIMUM 50% POST CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS; RECYCLABLE. EACH PANEL SHALL HAVE:
2. CONSTRUCTION AND INSTALLATION
3. THE TREE ROOT BARRIERS SHALL BE BACKFILLED ON THE OUTSIDE WITH 3/4" TO 1 1/2" GRAVEL OR CRUSHED ROCK AS SHOWN ON THE DRAWINGS. NO GRAVEL BACKFILL IS REQUIRED FOR A LINEAR PLANTING



1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P., 345 LORTON AVE. #103, BURLINGAME, CA (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.085" WALL THICKNESS IN MODULES 24" LONG BY 24" DEEP, MANUFACTURED WITH A MINIMUM 50% POST CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS; RECYCLABLE. EACH PANEL SHALL HAVE:
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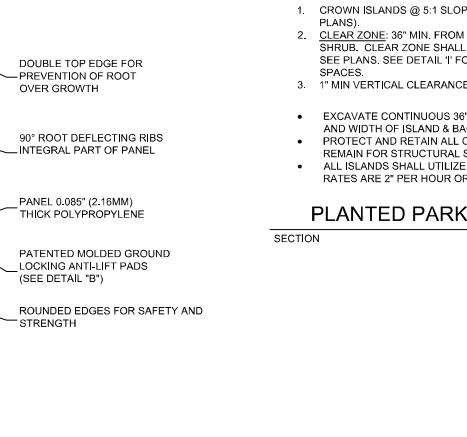
**24" DEEPROOT TREE ROOT BARRIERS**

SECTION NTS



1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P., 345 LORTON AVE. #103, BURLINGAME, CA (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.085" WALL THICKNESS IN MODULES 24" LONG BY 24" DEEP, MANUFACTURED WITH A MINIMUM 50% POST CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS; RECYCLABLE. EACH PANEL SHALL HAVE:
2. CONSTRUCTION AND INSTALLATION
3. THE TREE ROOT BARRIERS SHALL BE BACKFILLED ON THE OUTSIDE WITH 3/4" TO 1 1/2" GRAVEL OR CRUSHED ROCK AS SHOWN ON THE DRAWINGS. NO GRAVEL BACKFILL IS REQUIRED FOR A LINEAR PLANTING

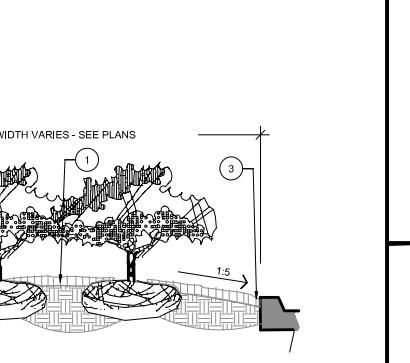
**ZIPPER JOINING SYSTEM**



1. THE CONTRACTOR SHALL FURNISH AND INSTALL TREE ROOT BARRIERS AS SPECIFIED. THE TREE ROOT BARRIERS SHALL BE PRODUCT # UB 24-2 AS MANUFACTURED BY DEEP ROOT PARTNERS, L.P., 345 LORTON AVE. #103, BURLINGAME, CA (800-458-7668), OR APPROVED EQUAL. THE BARRIER SHALL BE BLACK, INJECTION MOLDED PANELS, OF 0.085" WALL THICKNESS IN MODULES 24" LONG BY 24" DEEP, MANUFACTURED WITH A MINIMUM 50% POST CONSUMER RECYCLED POLYPROPYLENE PLASTIC WITH ADDED ULTRAVIOLET INHIBITORS; RECYCLABLE. EACH PANEL SHALL HAVE:
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**ZIPPER JOINING SYSTEM**

SECTION NTS



1. CROWN ISLANDS @ 5:1 SLOPES (OR AS SPECIFIED ON THE LANDSCAPE PLANS).
2. CLEAR ZONE: 36" MIN. FROM BACK OF CURB TO CENTER OF NEAREST SHRUB. CLEAR ZONE SHALL CONTAIN 3" CONTINUOUS MULCH OR TURF. SEE PLANS. SEE DETAIL "1" FOR PLANTER MEDIANS ADJACENT TO PARKING SPACES.
3. 1" MIN VERTICAL CLEARANCE, TOP OF CURB TO TOP OF MULCH.

**PLANTER ISLAND NOTES**

- EXCAVATE CONTINUOUS 36" DEEP (FROM TOP OF CURB) FOR ENTIRE LENGTH AND WIDTH OF ISLAND & BACKFILL WITH APPROVED PLANTING MIX.
- PROTECT AND RETAIN ALL CURBS AND BASE, COMPACTED SUBGRADE TO REMAIN FOR STRUCTURAL SUPPORT OF CURB SYSTEM (TYP).
- ALL ISLANDS SHALL UTILIZE POOR DRAINAGE DETAIL WHEN PERCOLATION RATES ARE 2" PER HOUR OR LESS.

**PLANTED PARKING LOT ISLANDS / MEDIANS**



1. CROWN ISLANDS @ 5:1 SLOPES (OR AS SPECIFIED ON THE LANDSCAPE PLANS).
2. CLEAR ZONE: 36" MIN. FROM BACK OF CURB TO CENTER OF NEAREST SHRUB. CLEAR ZONE SHALL CONTAIN 3" CONTINUOUS MULCH OR TURF. SEE PLANS. SEE DETAIL "1" FOR PLANTER MEDIANS ADJACENT TO PARKING SPACES.
3. 1" MIN VERTICAL CLEARANCE, TOP OF CURB TO TOP OF MULCH.

**PLANTED PARKING LOT ISLANDS / MEDIANS**

SECTION NTS

DATE	REVISIONS
05-20-2023	AS
06-20-2023	AS
07-19-2023	AS
07-27-2023	AS
08-07-2023	AS
08-14-2023	AS

JOB NO.	TH	SS	DATE	CHECKED	DATE ISSUED
21-0492	DESIGNED	SS	JUNE 2022		05/12/2023
	DRAWN				

**MBV ENGINEERING, INC.**  
 MOA BOWLES VILLAMIZAR & ASSOCIATES  
 CONSULTING ENGINEERING CA #3728  
 1885-20TH STREET  
 BELLEVILLE, FL 34115-1510  
 TEL: (772) 343-8299  
 FAX: (772) 343-8297

**LANDSCAPE DETAILS**

**IRC FIRE RESCUE FIRE STATION #7**  
**CITY OF FELLSMERE**  
**FINAL DEVELOPMENT PLAN**

FLORIDA

**AARON G. STANTON**  
 LICENSE No. 72460  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

AARON G. STANTON  
 FL P.E. #72460 8/16/23

SHEET

**C20**

21-0492

72 HOURS BEFORE DIGGING  
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GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

A. SCOPE OF WORK

- 1. THE WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS...

B. PROTECTION OF EXISTING STRUCTURES

ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED...

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE...

D. MATERIALS

- 1. GENERAL MATERIALS SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL. ON THE SITE OR AS OTHERWISE DETERMINED BY THE OWNER, UPON SAMPLES' APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.
2. PLANT MATERIALS
a. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS...

E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)

- 1. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW.
2. TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER...

F. WATER

WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS...

G. FERTILIZER

CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED...

H. MULCH

MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A MINIMUM DEPTH OF 3 INCHES. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE). SEE PLANT LIST FOR TYPE OF MATERIAL...

I. DIGGING AND HANDLING

- 1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT...
2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS...

J. CONTAINER GROWN STOCK

- 1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION...
2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER...

K. COLLECTED STOCK

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

L. NATIVE STOCK

PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

M. MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE ENGINEER OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS...

N. FINE GRADING

- 1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR...
2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE...

O. PLANTING PROCEDURES

- 1. CLEANING UP BEFORE COMMENCING WORK. THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS...
2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE...
3. SUBGRADE EXCAVATION. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36"...

P. LAWN SODDING

- 1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS AND THE GROUND BROUGHT TO AN EVEN GRADE...
3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP, HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED...
4. SODDING
a. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS...
b. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS...

Q. CLEANUP

UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK, ALL PAVED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

R. PLANT MATERIAL MAINTENANCE

ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE...

S. MAINTENANCE (ALTERNATE BID ITEM)

CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST-PER-MONTH BASIS.

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE ENGINEER OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

U. WARRANTY

- 1. THE LIFE AND SATISFACTORY CONDITION OF ALL 7 GALLON AND LARGER PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.
2. THE LIFE AND SATISFACTORY CONDITION OF ALL OTHER PLANT MATERIAL (INCLUDING SOD) INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.
3. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT...

V. SUBMITTALS

- 1. FOR ALL LANDSCAPE INSTALLATIONS, THE CONTRACTOR SHALL SUBMIT PRODUCT DATA IN THE FORM OF MANUFACTURERS' CUT SHEETS AND CATALOG DATA FOR ALL PRODUCTS, MATERIAL AND EQUIPMENT CLEARLY INDICATING THE SPECIFIC PART OR PRODUCT CATALOG NUMBER(S) FOR APPROVAL AND SUBMIT A MATERIALS LIST INDICATING ALL PLANT SPECIES, QUALITY AND SIZE.
2. SUBMIT 6 COPIES OF REQUESTED INFORMATION, NEATLY BOUND AND INDEXED PER CATEGORY.
3. THE CONTRACTOR SHALL SUBMIT A LANDSCAPE COORDINATION DRAWING, INDICATING CONTRACTOR'S PROPOSED LOCATION OF TREES, SHRUBS, GROUND COVERS AND MULCH. THIS DRAWING SHOULD BE PREPARED ON A COPY OF THE LANDSCAPE PLAN PROVIDED IN THESE DRAWINGS AND SHALL CLEARLY DEPICT ADJUSTMENTS OR CHANGES THE CONTRACTOR PROPOSES TO THE PLANT SPECIES, SIZE OR LOCATION...
4. COORDINATION DRAWINGS, ENGINEER WILL NOT BE RESPONSIBLE FOR PROJECT DELAYS RELATED TO DELIVERY AND TRANSMISSION OF THE INFORMATION AND DOCUMENTATION ONCE INFORMATION HAS LEFT ENGINEER'S OFFICE...

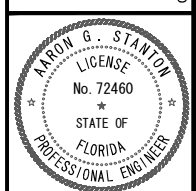
Table with columns: REV. NO., REVISED DATE, COMMENTS. Includes revision 8 on 08-14-2023.

Table with columns: JOB NO., DESIGNED, DRAWN, DATE, CHECKED, DATE ISSUED. Includes job number 21-0492.

MBV ENGINEERING, INC. logo and contact information for Moia Bowles Villamizar & Associates.

LANDSCAPE SPECIFICATIONS

IRC FIRE RESCUE FIRE STATION #7 CITY OF FELLOSMERE FINAL DEVELOPMENT PLAN



AARON G. STANTON FL P.E. #72460 8/16/23

SHEET C21

72 HOURS BEFORE DIGGING CALL TOLL FREE 811 Know what's below. Call before you dig.







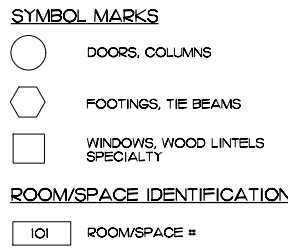
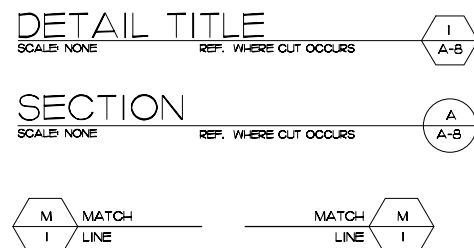
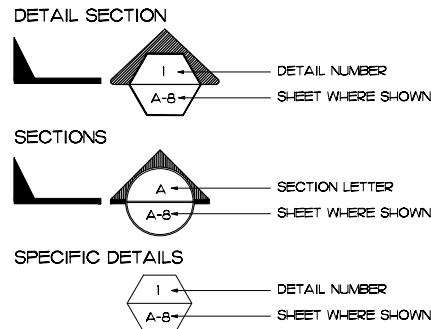
# GENERAL NOTES

(UPDATED 10 APRIL 2014)

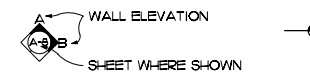
- THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS SHOWN ON THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS IN THE FIELD. ANY DISCREPANCIES IN THE ABOVE WILL CONSTITUTE A "STOP WORK" ORDER FOR THAT PORTION OF THE CONSTRUCTION ONLY. THE ARCHITECT IS TO BE NOTIFIED IMMEDIATELY FOR RESOLUTION.
- EVERY ATTEMPT HAS BEEN MADE TO DELINEATE THE EXISTING CONDITIONS AND DETAILS; THE CONTRACTOR MUST VISIT THE SITE TO VISUALLY ESTABLISH THE COMPLETE SCOPE OF WORK AND CONDITIONS TO BE CONSTRUCTED.
- THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION SHALL BE AIA DOCUMENT A 201, 2007 EDITION, A COPY OF WHICH IS AVAILABLE FOR REVIEW AT THE ARCHITECTS OFFICE.
- THE CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 (ONE) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
- THE CONTRACTOR IS TO SECURE AND PAY FOR ALL PERMITS AND SHALL SECURE THE "CERTIFICATE OF OCCUPANCY".
- THE CONTRACTOR(S) SHALL PROVIDE AND MAINTAIN COMPLETE WORKERS COMPENSATION, GENERAL LIABILITY AND BUILDERS RISK INSURANCE.
- ALL MATERIALS UTILIZED SHALL BE NEW AND OF THE QUALITY SPECIFIED, SUBSTITUTIONS WILL BE ALLOWED ONLY WITH THE ARCHITECT'S PRIOR WRITTEN APPROVAL.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE MANUFACTURER'S INSTRUCTIONS AND CATALOG CUTS.
- PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL ISSUE TO THE OWNER, AN EXECUTED "FINAL RELEASE OF LIEN" FORMS FROM ALL PARTIES HAVING LIEN RIGHTS AGAINST THE OWNER.
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH "BEST TRADE PRACTICES" FOR THE GEOGRAPHIC AREA IN WHICH THE PROJECT IS LOCATED.
- UNLESS WHERE NOTED OTHERWISE, THE CONTRACTOR SHALL PROVIDE ALL THE NECESSARY LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS FOR A COMPLETE AND OPERATING PROJECT.

## LEGEND

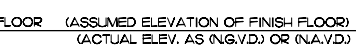
(UPDATED 10 APRIL 2014)



### INTERIOR ELEVATIONS



### FINISH ELEVATIONS



### REVISIONS



## CONSTRUCTION ADMINISTRATION GUIDELINES

(UPDATED 10 APRIL 2014)

- INSPECTION REQUIREMENTS**
  - BY ARCHITECT, PRIOR TO ALL CONCRETE POURS
  - BEFORE COVERING WORK WITH DRYWALL AND PRIOR TO CEILING INSTALLATION WHEN MECHANICAL, ELECTRICAL & PLUMBING ROUGH-INS ARE COMPLETED
  - TO ESTABLISH A PUNCH LIST (WHEN CONTRACTOR HAS TOTALLY COMPLETED HIS OWN ESTABLISHED PUNCH LIST AND AFTER CERTIFICATE OF OCCUPANCY)
  - AT FINAL INSPECTION, FOLLOWING COMPLETION OF PUNCH LIST.
  - AT MONTHLY PAY REQUEST AND WEEKLY PROGRESS INSPECTIONS

NOTE: PROJECT SUPERINTENDENT SHOULD ALWAYS BE PRESENT AT INSPECTIONS
- PAY REQUEST**
  - AS PER OWNER/ CONTRACTOR AGREEMENT UTILIZING AIA DOCUMENTS
  - LIEN RELEASES REQUIRED (PARTIALS AND FINALS)
  - FOR STORED MATERIALS - (CERTIFICATE OF INSURANCE REQUIRED)
- OTHER REQUIREMENTS OF THE CONTRACTOR**
  - BAR GRAPH SCHEDULE OF PROGRESS TIME SCHEDULE AND PERIODICALLY UPDATE, AS REQUESTED
  - A SCHEDULE OF VALUES (A.I.A. FORM #G-703)
- CONSTRUCTION PRIORITIES**
  - ESTABLISH DATE FOR THE PRECONSTRUCTION MEETING
  - CHECK OUT LONG LEAD ITEMS -- ALLOW ORDERING TIME
  - MAINTAIN CONSTRUCTION LOG DOCUMENTING RAIN DAYS WHEN SCHEDULED WORK COULD NOT BE PERFORMED.
  - MAINTAIN A MARKED UP SET OF CONSTRUCTION PLANS W/ RED BALLPOINT PEN TO BE SUPPLIED TO ARCHITECT FOR USE IN ESTABLISHING AS BUILT DRAWINGS.
- CHANGES / CORRESPONDENCE**
  - ALL CORRESPONDENCE OR DIRECTIVES THRU ARCHITECT AND COPIED TO OWNER
  - NO DIRECTIVES FROM EMPLOYEES. ALL REQUESTS FOR INFORMATION OR CHANGES THRU ARCHITECT AND OWNER
- CHANGE ORDERS**
  - PROPER PROTOCOL MUST BE FOLLOWED IN REGARDS TO ANY CHANGE ORDERS. OWNER, ARCHITECT AND CONTRACTOR MUST SIGN OFF PRIOR TO ANY WORK BEING PERFORMED BY CONTRACTOR OR SUBS.
  - GROUP ITEMS INTO ONE (1) CHANGE ORDER, RATHER THAN SEVERAL SINGLE ITEM CHANGE ORDERS.
  - ANY WORK COMPLETED PRIOR TO A CHANGE ORDER BEING SIGNED BY ALL PARTIES IS AT CONTRACTOR'S RISK. CHANGE ORDERS SHALL BE SIGNED BEFORE WORK IS COMMENCED.
- SHOP DRAWING SUBMITTALS**
  - FOUR (4) COPIES (NOTE IN RED ANY CHANGES)  
 ONE FOR OWNER  
 ONE FOR ARCHITECT  
 ONE FOR CONTRACTOR  
 ONE FOR SUPPLIER
  - CONTRACTOR TO REVIEW AND MARK-UP ANY CHANGES ON ALL COPIES BEFORE SUBMITTING TO ARCHITECT. CONTRACTOR SHOULD PROVIDE HIS OR HER REVIEWER'S SIGNATURE WITH DATE ON EACH SUBMITTAL.
  - SUBMIT TO ARCHITECT AS SOON AS POSSIBLE
  - NO SUBSTITUTES WITHOUT PRIOR APPROVAL BY ARCHITECT & OWNER.
- CHANGES IN THE WORK**
  - DO NOT DEViate FROM PLANS WITHOUT ARCHITECTS APPROVAL.
- PROPER CONDUCT AT JOBSITES**
  - NO SWEARING
  - NO LOUD RADIOS
  - PROPERLY DRESSED FOR WORK
  - KEEPING JOBSITE CLEAN AND SAFE EACH DAY IS SOLE RESPONSIBILITY OF THE CONTRACTOR.
  - HARD-HATS ARE REQUIRED PER OSHA REGULATIONS
- RAIN DAY DOCUMENTATION**
  - SUBMIT RECORDED RAIN DAYS WITH EACH MONTHLY PAY REQUEST
  - WHEN MORE THAN FOUR (4) DAYS ARE ACCUMULATED, A REQUEST FOR CHANGE ORDER SHOULD BE ISSUED. REQUEST ADDITIONAL DAYS TO BE ADDED TO ESTABLISHED CONTRACTUAL COMPLETION DATE.

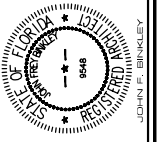
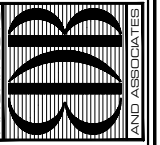
## ABBREVIATIONS

(REVISED 10 APRIL 2014)

<p>ε AND ANGLE</p> <p>∠ AT DIAMETER OR ROUND WELD</p> <p><b>A</b></p> <p>ACOUS. ACOUSTICAL</p> <p>AD. AREA DRAIN</p> <p>ADA. AMERICANS WITH DISABILITIES ACT</p> <p>ADJ. ADJUSTABLE</p> <p>A.F.F. ABOVE FINISH FLOOR</p> <p>AGGR. AGGREGATE</p> <p>AH.U. AIR HANDLING UNIT</p> <p>ALUM. ALUMINUM</p> <p>A.C.I. AMERICAN CONCRETE INSTITUTE</p> <p>A.S.T.M. AMERICAN SOCIETY OF TESTING AND MEASURES</p> <p>A.W.P.A. AMERICAN WOOD &amp; PLYWOOD ASSOCIATION</p> <p>AN. ANCHOR BOLTS</p> <p>APPROX. APPROXIMATE</p> <p>APPROX. APPROXIMATE</p> <p>ARCH. ARCHITECTURAL</p> <p>A.C.C.M.P. ASPHALT COATED CORRUGATED METAL PIPE</p> <p>ASB. ASBESTOS</p> <p>ASPH. ASPHALT</p> <p>ASSY. ASSEMBLY</p> <p><b>B</b></p> <p>BRG(BRNG) BEARING</p> <p>BD. BOARD</p> <p>BITUM. BITUMINOUS</p> <p>B.L.D.G. BUILDING</p> <p>B.K. BLOCK</p> <p>B.L.K.G. BLOCKING</p> <p>B.M. BEAM</p> <p>BOT. BOTTOM</p> <p>B.C. BOTTOM CHORD</p> <p>B.T. BOLT</p> <p><b>C</b></p> <p>CAB. CABINET</p> <p>CANT. CANTILEVER</p> <p>C.B. CATCH BASIN</p> <p>CEM. CEMENT</p> <p>CER. CERAMIC</p> <p>C.I. CAST IRON</p> <p>C.G. CORNER GUARD</p> <p>C.L. CEILING</p> <p>C.L. CLOSET</p> <p>C.L.R. CLEAR</p> <p>C.O. CASED OPENING</p> <p>COL. COLUMN</p> <p>CONC. CONCRETE</p> <p>CONN. CONNECTION</p> <p>CONSTR. CONSTRUCTION</p> <p>CONT. CONTINUOUS</p> <p>CORR. CORRIDOR</p> <p>CPT. CABRET</p> <p>CTSK. COUNTERSINK</p> <p>C.NTR. COUNTER</p> <p>CTR. CENTER</p> <p>ε CENTERLINE</p> <p>C/C. CENTER TO CENTER</p> <p>C.T. CERAMIC TILE</p> <p>CKT. CIRCUIT</p> <p>C.O. CLEAN OUT</p> <p>C.C.C.L. COASTAL CONSTRUCTION CONTROL LINE</p> <p>C. COLD</p> <p>C.W. COLD WATER</p> <p>C.B.S. CONCRETE BLOCK CONSTRUCTION</p> <p>CALL. CONCRETE MASONRY UNIT</p> <p>CM. CONCRETE MOUNT</p> <p>CJ. CONTROL JOINT</p> <p>COND. CONDENSATE OR CONDUIT</p> <p>CU. COPPER</p> <p>C.J.K. CORNER JACK</p> <p>C.M.P. CORRUGATED METAL PIPE</p> <p>C.F.M. CUBIC FEET PER MINUTE</p> <p>C.Y. CUBIC YARD</p> <p>C.U.V. CULVERT</p> <p><b>D</b></p> <p>DL. DEAD LOAD</p> <p>DBL. DOUBLE</p> <p>D.C.G. DIRT CONTROL GRATING</p> <p>DEPT. DEPARTMENT</p> <p>DF. DRINKING FOUNTAIN</p> <p>DEL. DELAYED</p> <p>DET. DETAIL</p> <p>DIA. DIAMETER</p> <p>DN. DIMENSION</p> <p>DISP. DISPENSER</p> <p>DN. DOWN</p> <p>D.O. DOOR OPENING</p> <p>DWR. DRAWER</p> <p>DS. DOWNSPOUT</p> <p>D.S.P. DRY STANDPIPE</p> <p>DWG. DRAWING</p> <p>D.J. DECK-A-JOINT</p> <p>DR. DEEP</p> <p>D.O.E. DEPARTMENT OF EDUCATION</p> <p>DEP. DEPARTMENT OF ENVIRONMENTAL REGULATION</p> <p>D.E.P. DEPARTMENT OF ENVIRONMENTAL PROTECTION</p> <p>DW. DISHWASHER</p> <p>DBL. DOUBLE</p> <p>D.H. DOUBLE HUNG</p> <p>DN. DOWN</p> <p>D. DRYER</p> <p><b>E</b></p> <p>EA. EACH</p> <p>EB. EXPANSION BOLT</p> <p>EFF. ENERGY EFFICIENCY RATIO</p> <p>EF. EXHAUST FAN</p> <p>E.G. EMERGENCY GENERATOR</p> <p>E.J. EXPANSION JOINT</p> <p>EL. ELEVATION</p> <p>EL. EMERGENCY LIGHT</p> <p>ELEC. ELECTRICAL</p> <p>ELEV. ELEVATOR</p> <p>EMER. EMERGENCY</p> <p>ENCL. ENCLOSURE</p> <p>EP. ELECTRICAL PANELBOARD</p> <p>EQ. EQUAL</p> <p>EQPT. EQUIPMENT</p> <p>ESP. ELECTRO STATIC PAINT</p> <p>EW. EACH WAY</p> <p>E.W.C. ELECTRIC WATER COOLER</p> <p>E.W.H. ELECTRIC WATER HEATER</p> <p>EXP. EXPANSION</p> <p>EXP.B.LTS. EXPANSION BOLTS</p> <p>EXT. EXISTING</p> <p>EXT. EXTERIOR OR EXTENSION</p> <p><b>F</b></p> <p>F.A. FIRE ALARM</p> <p>F.A.C. FLORIDA ACCESSIBILITY CODE</p> <p>F.B. FLAT BAR</p> <p>F.B.C. FLORIDA BUILDING CODE</p> <p>F.P.C. FLORIDA PLUMBING CODE</p> <p>F.D. FLOOR DRAIN</p> <p>FDN. FOUNDATION</p> <p>F.E. FIRE EXTINGUISHER</p> <p>F.E.C. FIRE EXTINGUISHER CAB.</p> <p>F.H.C. FIRE HOSE CABINET</p> <p>FN. FINISH</p> <p>FL. FLOOR</p> <p>FLASH. FLASHING</p> <p>FLOR. FLUORESCENT</p> <p>F.O.C. FACE OF CONCRETE</p> <p>F.O.F. FACE OF FINISH</p> <p>F.O.S. FACE OF STUDS</p> <p>FRF. FIREPROOF</p> <p>FG. FIBERGLASS</p> <p>FN. FL. FINISHED FLOOR</p> <p>FXD. FIXED</p> <p>FG. FLOOR GIRDER</p> <p>F.S. FULL SIZE</p> <p>FT. FOOT OR FEET</p> <p>F.T.A. FEDERAL TRANSIT AUTHORITY</p> <p>FTG. FOOTING</p> <p>FLRR. FLURRING</p> <p>FLUT. FLUTURE</p> <p>F.D.O.T. FLORIDA DEPARTMENT OF TRANSPORTATION</p> <p>F.D.E.P. FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION</p> <p><b>G</b></p> <p>GA. GAUGE</p> <p>GALV. GALVANIZED</p> <p>GB. GRAB BAR</p> <p>GL. GLASS</p> <p>GRD. GROUND</p> <p>GR. GRADE</p> <p>GYP. GYPSUM</p> <p>GAL. GALLON</p> <p>G.F.I. GROUND FAULT INTERRUPT</p> <p><b>H</b></p> <p>HCP. HANDICAPPED</p> <p>HDR. HEADER</p> <p>H.R.U. HEAT RECOVERY UNIT</p> <p>HD. HEAVY DUTY</p> <p>H.P.S. HIGH PRESSURE SODIUM</p> <p>H.J. HP JACK</p> <p>H.C. HOLLOW CORE</p> <p>H.B. HOSE BIBB</p> <p>H.C. HOLLOW CORE</p> <p>H.W.D. HARDWOOD</p> <p>H.W.R. HARDWARE</p> <p>H.H. HAPPY HOUR</p> <p>H.M. HOLLOW METAL</p> <p>HORIZ. HORIZONTAL</p> <p>HR. HOUR</p> <p>H.C. HOLLOW CORE</p> <p>H.M. HOLLOW METAL</p> <p>H.M.P. HOLLOW METAL FRAME</p> <p>HOOK. HOOK</p> <p>H.P. HORSE POWER &amp; HIGH POINT</p> <p>H. HOT</p> <p>H.D.G. HOT DIPPED GALVANIZED</p> <p><b>I</b></p> <p>IDA. INSIDE DIAMETER (DIM)</p> <p>INSUL. INSULATION</p> <p>INT. INTERIOR</p> <p>INV. INVERT</p> <p>IP. IRON PIPE</p> <p><b>J</b></p> <p>JAN. JANITOR</p> <p>JT. JOINT</p> <p><b>K</b></p> <p>KIT. KITCHEN</p> <p>KWH. KILOWATT</p> <p>K.T. KEYBOARD TRAY</p> <p><b>L</b></p> <p>LAB. LABORATORY</p> <p>LAM. LAMINATE</p> <p>LAV. LAVATORY</p> <p>LB. POUND</p> <p>LEED. LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN LINEAL FEET</p> <p><b>L</b></p> <p>LG. LONG</p> <p>LGT. LIGHT</p> <p>LP. LIQUID PROPANE</p> <p>LKR. LOCKER</p> <p>LL. LIVE LOAD</p> <p>LL.V. LONG LEG VERTICAL</p> <p>L.S.C. LATISSIUM CLEARANCE</p> <p>LT. LAUNDRY TUB</p> <p><b>M</b></p> <p>MAX. MAXIMUM</p> <p>M.C. MECHANICAL</p> <p>MECH. MECHANICAL</p> <p>MEMB. MEMBRANE</p> <p>MTL. METAL</p> <p>MFR. MANUFACTURER</p> <p>M. MANHOLE</p> <p>MIN. MINIMUM</p> <p>MIRR. MIRROR</p> <p>MISC. MISCELLANEOUS</p> <p>MTD. MOUNTED</p> <p>M.B. MACHINE BOLT</p> <p>M.D. MAIN DISCONNECT</p> <p>M.D.F. MEDIUM DENSITY FIBERBOARD</p> <p>M.D.P. MAIN DISTRIBUTION PANEL</p> <p>MD. MAIN DRAIN</p> <p>M.O. MASONRY OPENING</p> <p>MSL. MEAN SEA LEVEL</p> <p>M.C. MEDICINE CABINET</p> <p>M.V. MERCURY VAPOR</p> <p>MS. METAL SADDLE</p> <p>N.T. METAL THRESHOLD</p> <p>M.P.H. MILES PER HOUR</p> <p>MR. MOISTURE RESISTANT</p> <p>M.D.G. MOULDING</p> <p><b>N</b></p> <p>N/A. NOT APPLICABLE</p> <p>N. NORTH</p> <p>N.A.V.D. NORTH AMERICAN VERTICAL DATUM</p> <p>N.C. NOT IN CONTRACT</p> <p>N.O. OR # NUMBER</p> <p>NOM. NOMINAL</p> <p>N.T.S. NOT TO SCALE</p> <p>NEC. NATIONAL ELECTRIC CODE</p> <p>N.G.V.D. NATIONAL GEODETIC VERTICAL DATUM</p> <p>NL. NIGHT LIGHT</p> <p><b>O</b></p> <p>O.A. OVERALL</p> <p>OBS. OBSCURE</p> <p>O.C. ON CENTER</p> <p>O.D. OUTSIDE DIAMETER (DIM)</p> <p>OFF. OFFICE</p> <p>OPNG. OPENING</p> <p>OPP. OPPOSITE</p> <p>O.B.D. OPPOSED BLADE DAMPER</p> <p>O.A. OUTSIDE AIR</p> <p>O.H. OVER HANG</p> <p>O.H.D. OVER-HEAD DOOR</p> <p>O.E. OVER-HEAD ELECTRIC</p> <p><b>P</b></p> <p>P.V.C. POLY VINYL CHLORIDE</p> <p>P.E.B. PAINTED EXPOSED BLOCK</p> <p>P.S.I. POUNDS PER SQUARE INCH</p> <p>P.S.F. POUNDS PER SQUARE FOOT</p> <p>P. PLATE</p> <p>PLA. PLASTIC LAMINATE</p> <p>PLAS. PLASTER</p> <p>P.L.Y. PLYWOOD</p> <p>PR. PAIR</p> <p>PT. POINT</p> <p>P.T.D. PAPER TOWEL DISPENSER</p> <p>P.T.D/R COMBINATION PAPER TOWEL DISPENSER &amp; RECEPTACLE</p> <p>PTN. PARTITION</p> <p>P.T. PRESSURE TREATED</p> <p>P.T.R. PAPER TOWEL RECEPTACLE</p> <p>P.T.H. PAPER TOWEL HOLDER</p> <p>PERF. PERFORATED</p> <p>P. PROPERTY LINE</p> <p>P.C. FULL CHAIN</p> <p>P.B. PUSH BUTTON</p> <p>P.P. POWER POLE</p> <p>P.H.W. PARTIAL HEIGHT WALL</p> <p>PORC. PORCELAIN TILE</p> <p><b>Q</b></p> <p>Q.T. QUARRY TILE</p> <p><b>R</b></p> <p>R. RISER</p> <p>RAD. RADIOS</p> <p>R.D. ROOF DRAIN</p> <p>REF. REFERENCE</p> <p>REFR. REFRIGERATOR</p> <p>REG. REGISTER</p> <p>REINF. REINFORCED</p> <p>REQ. REQUIRED</p> <p>RESIL. RESILIENT</p> <p>RM. ROOM</p> <p>R.O. ROUGH OPENING</p> <p>RWD. REDWOOD</p> <p>R.W.L. RAIN WATER LEADER</p> <p>R.C.P. REINFORCED CONCRETE PIPE</p> <p>REQD. REQUIRED</p> <p>R/A. RETURN AIR</p> <p>RES. RESERVE</p> <p>R.O.W. RIGHT OF WAY</p> <p>R. AND S. ROD &amp; SHELF</p> <p>R.O. ROUGH OPENING</p> <p>R.S. ROUGH SAW</p> <p><b>S</b></p> <p>S. SOUTH</p> <p>S.A. SUPPLY AIR</p> <p>S.A.T. SUSPENDED ACOUSTICAL TILE</p> <p>S.C. SOLID CORE</p> <p>S.C.D. SEAT COVER DISPENSER</p> <p>SC-ED. SC-EDELE</p> <p>SD. SOAP DISPENSER</p> <p>SECT. SECTION</p> <p>SH. SHELF</p> <p>SH-R. SHOWER</p> <p>SH-T. SHEET</p> <p>SH. SINGLE HUNG</p> <p>SIM. SIMILAR</p> <p>S.D. CONC. SEALED CONCRETE</p> <p>S.L.V. SHORT LEG VERTICAL</p> <p>SND. SANITARY NAPKIN DISPENSER</p> <p>SNR. SANITARY NAPKIN RECEPTACLE</p> <p>SPEC. SPECIFICATION</p> <p>SQ. SQUARE</p> <p>S.S. STAINLESS STEEL</p> <p>S.S.K. SERVICE SINK</p> <p>STA. STATION</p> <p>STD. STANDARD</p> <p>STL. STEEL</p> <p>STOR. STORAGE</p> <p>STR. STRUCTURAL</p> <p>SUSP. SUSPENDED</p> <p>SYM. SYMMETRICAL</p> <p>S4S. SANDED 4 SIDES</p> <p>SISZE. SANDED ONE SIDE AND TWO EDGES</p> <p>S.S. SANITARY SEWER</p> <p>SEBR. SEASONAL ENERGY EFFICIENCY RATED</p> <p>SH. SINGLE HUNG</p> <p>S.D.G. SLIDING GLASS</p> <p>S/D. SMOKE DETECTOR</p> <p>S.Y.P. SOUTHERN YELLOW PINE</p> <p>SQ. SQUARE FOOT DIMENSION</p> <p>S.F. SQUARE FOOT</p> <p>S.J.I. STEEL JOIST INSTITUTE</p> <p>SYS. SYSTEM</p> <p>S.V. SHEET VINYL</p> <p><b>T</b></p> <p>TRO. TREAD</p> <p>T.B. TOWEL BAR</p> <p>T.O.C. TOP OF CURB</p> <p>TEL. TELEPHONE</p> <p>TERR. TERRAZZO</p> <p>T&amp;G. TONGUE AND GROOVE</p> <p>T-K. THICK</p> <p>T.O.P. TOP OF PAVEMENT</p> <p>T.P.D. TOILET PAPER DISPENSER</p> <p>T.V. TELEVISION</p> <p>T.O.W. TOP OF WALL</p> <p>T.B. TACKBOARD</p> <p>T.C.L. TIME CLOCK</p> <p>TYP. TYPICAL</p> <p>T.C. TOP CHORD</p> <p>T.O.B. TOP OF BEAM</p> <p>T.L. TOTAL LOAD</p> <p>TRANSV. TRANSVERSE</p> <p>T. TREAD</p> <p>T.S. TUBE SECTION</p> <p><b>U</b></p> <p>UNF. UNFINISHED</p> <p>UNO. UNLESS NOTED OTHERWISE</p> <p>U.C. UNDER COUNTER</p> <p>UL. UNDERWRITERS LAB</p> <p>U.S.G. UNITED STATES GYPSUM</p> <p>U.S.G.C. UNITED STATES GREEN BUILDING COUNCIL</p> <p><b>V</b></p> <p>VAC. VACUUM</p> <p>V.B. VAPOR BARRIER</p> <p>V.C.T. VINYL COMPOSITION TILE</p> <p>VERT. VERTICAL</p> <p>V.P. VAPOR PROOF</p> <p>V.R. VAPOR RETARDER</p> <p>V.T.R. VENT THRU ROOF</p> <p><b>W</b></p> <p>W. WEST</p> <p>W. WASHER</p> <p>W. WITH</p> <p>W.C. WATER CLOSET</p> <p>WD. WOOD</p> <p>W/O. WITH-OUT</p> <p>WP. WATERPROOF</p> <p>W.S.C.T. WAINSCOT</p> <p>WT. WEIGHT</p> <p>WIS-R. WASHER</p> <p>W.I.C. WALK IN CLOSET</p> <p>W.G. WALL GROUPE</p> <p>W.H.F. WELDED WIRE FABRIC</p> <p>W.H.M. WELDED WIRE MESH</p> <p>W.P. WOKING POINT</p> <p>W.D.W. WINDOW</p>
---

SOME TERMS AND SYMBOLS MAY NOT APPLY TO THIS PROJECT.

EDLUND · DRITENBAS · BINKLEY  
 ARCHITECTS AND ASSOCIATES, P.A.  
 AIR-14 000886  
 65 ROYAL PALM POINTE, SUITE "D"  
 VERO BEACH, FLORIDA 32960  
 PHONE: (772) 569-4320



John Binkley  
 Digitally signed by John Binkley  
 Date: 2023.10.19  
 16:17:51 -0400'

PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

NO.	DATE	REVISIONS

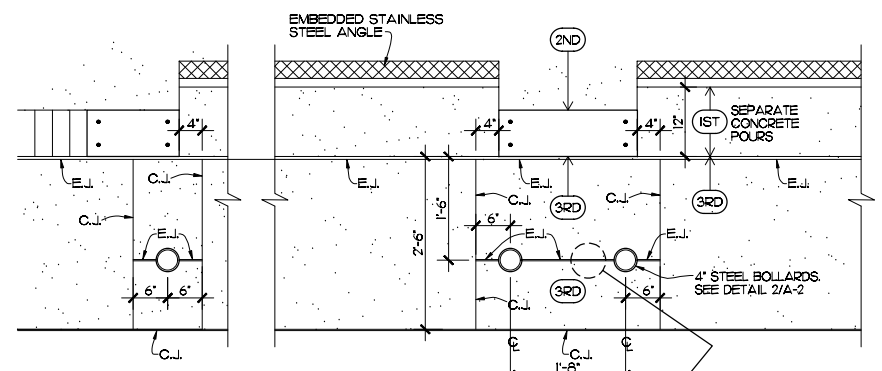
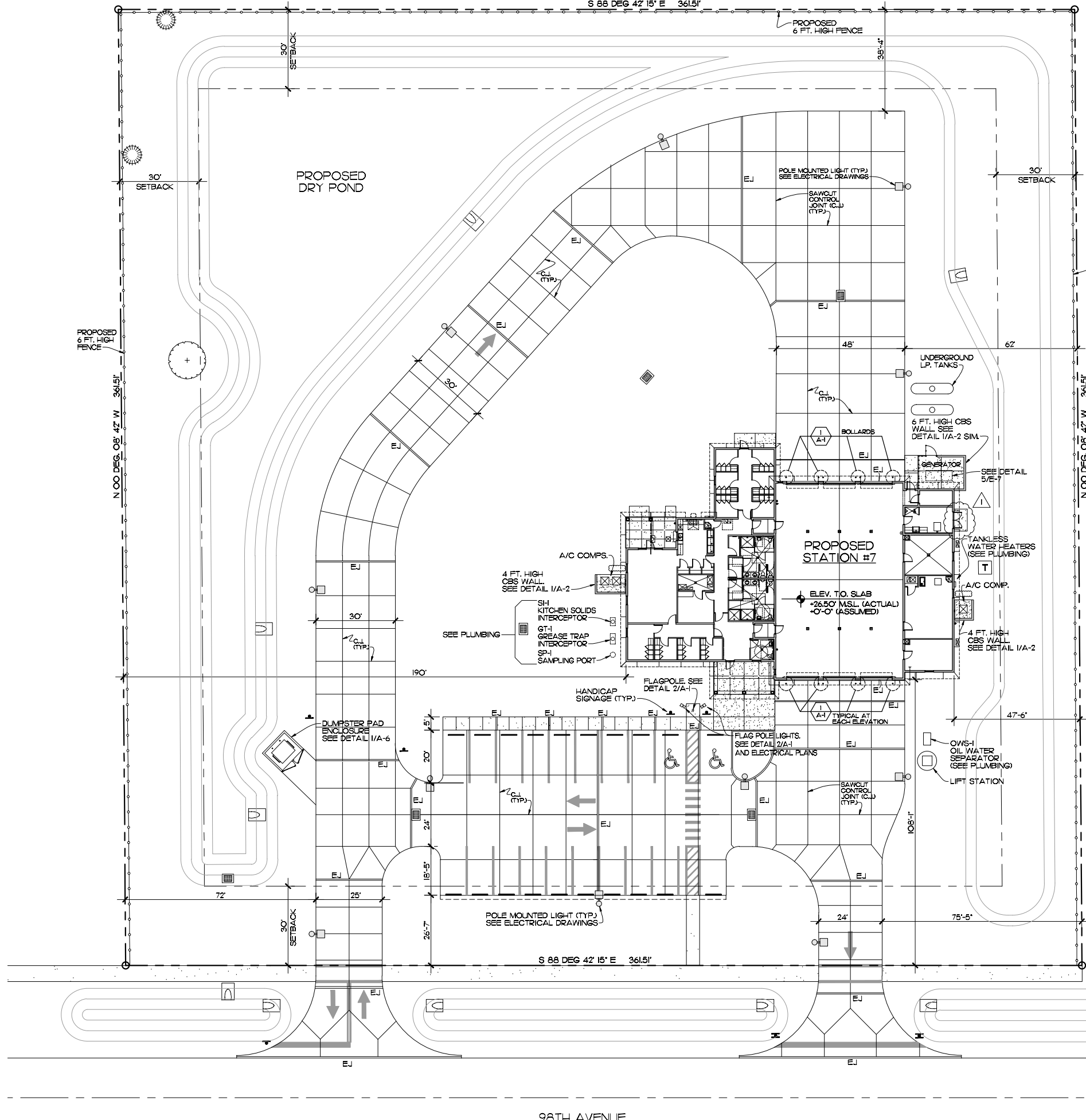
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COMM. NO: 050219VB  
 DATE: 1 AUG. 2023  
 BY: JNR  
 CHK'D: JFB

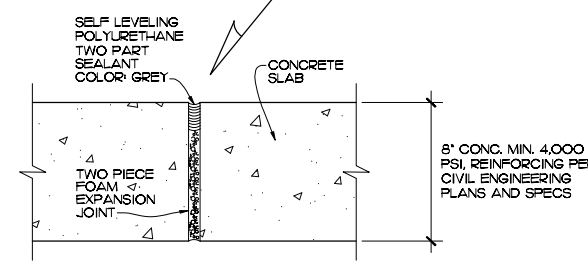
SHEET NO.  
**ABB**  
 OF ONE





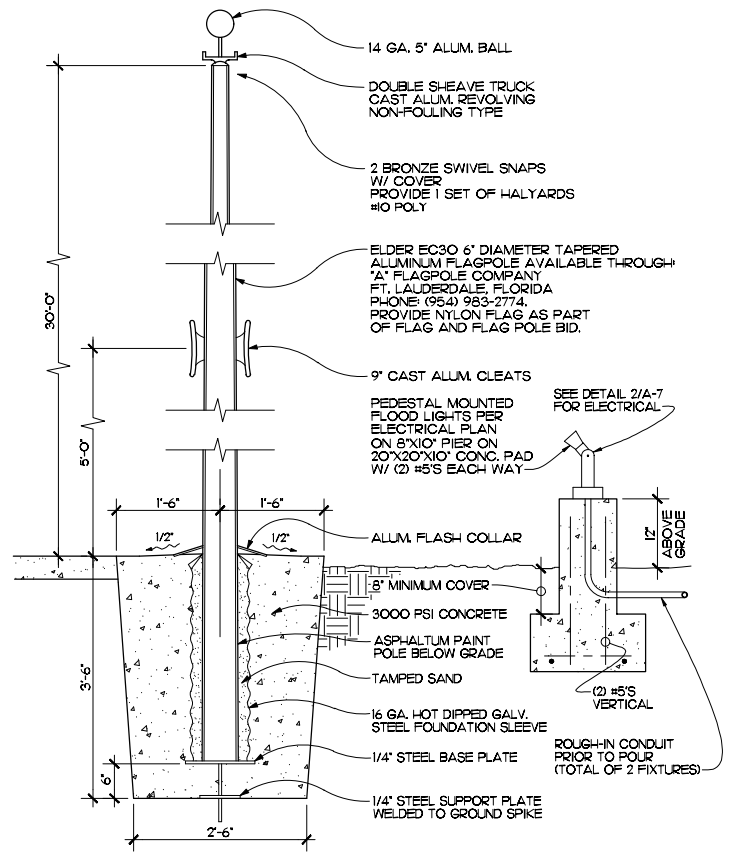


**DETAIL**  
SCALE: 3/4" = 1'-0" REF. THIS SHEET



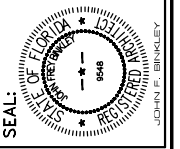
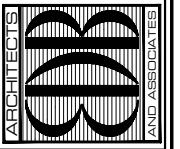
**EXPANSION JOINT DETAIL**  
SCALE: 3" = 1'-0"

- SITE PLAN NOTES:**
- 1) SEE CIVIL DRAWINGS FOR ADDITIONAL DIMENSIONS, PAVING AND DRAINAGE PLANS, HARDSCAPE / IRRIGATION PLANS AND SITE DETAILS.
  - 2) PROVIDE 1/8" WIDE X 1" DEEP SAW CUT CONTROL JOINTS (C.J.) WHERE INDICATED WITHIN 24 HOURS OF SLAB POURS.
  - 3) PROVIDE THRU THE SLAB EXPANSION JOINT (E.J.) WHERE INDICATED. SEE DETAIL THIS SHEET.



**FLAGPOLE DETAIL**  
SCALE: 3/4" = 1'-0" REF. THIS SHEET

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ARCHITECTS AND ASSOCIATES, P.A.  
AIR-VA C000886  
65 ROYAL PALM POINTE, SUITE "D"  
VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



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PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE  
VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	22AUG23	FIRE PREVENTION COMMENTS
2	15AUG23	OWNER DIRECTED REVISIONS

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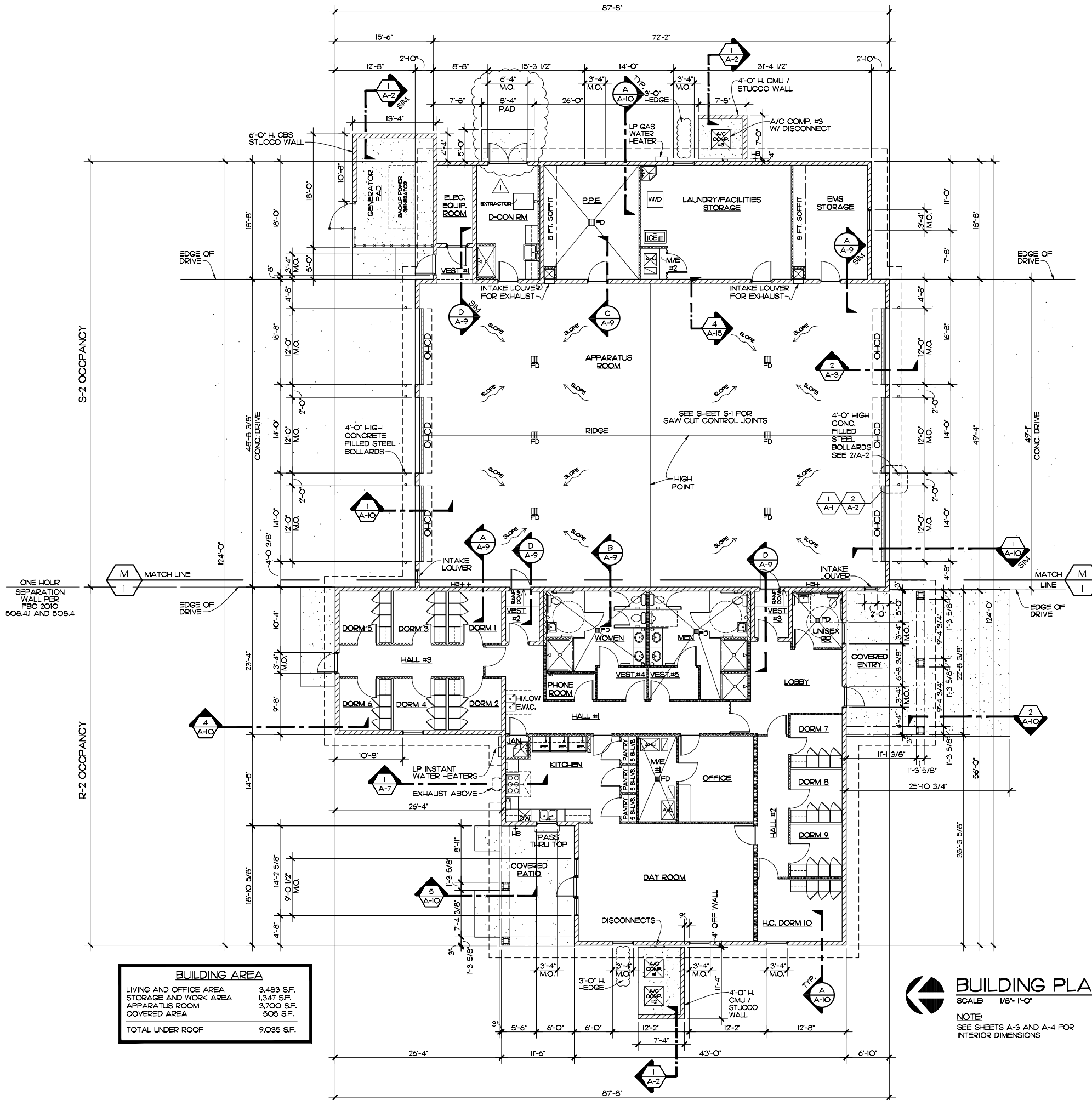
COMM. NO: 050219VB  
DATE: 1 AUG. 2023  
BY: JNR, JRB  
CHK'D: JFB, JFB

SHEET NO.  
**A-1**  
OF FOURTEEN

**SITE PLAN**  
SCALE: 1" = 20'-0"

SITE ADDRESS: 9700 26TH PL  
FELLSMERE, FL

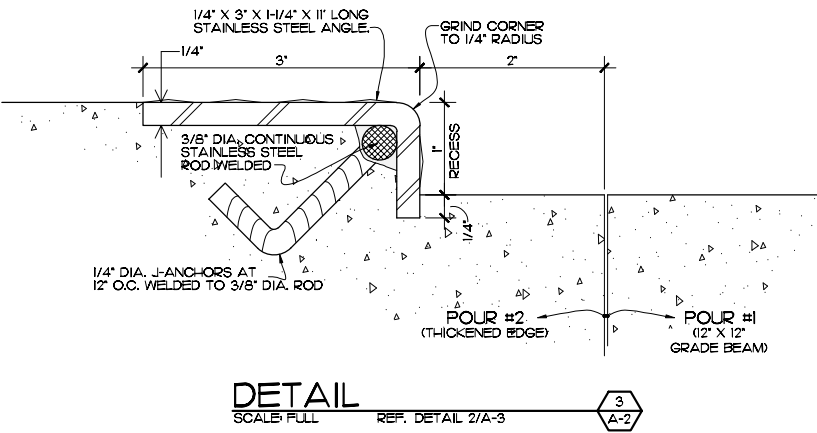
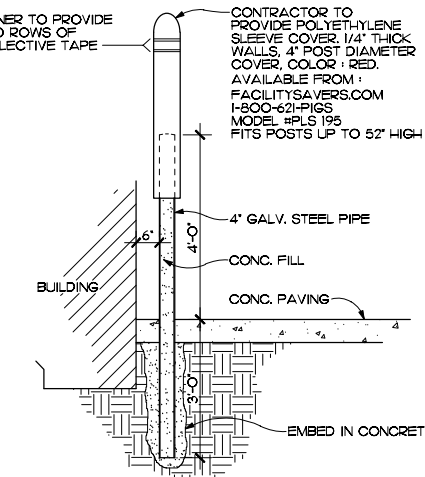
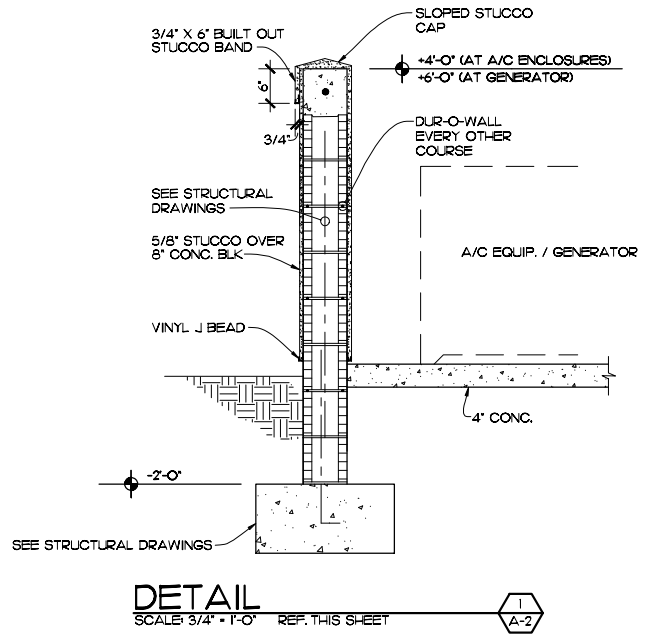
98TH AVENUE



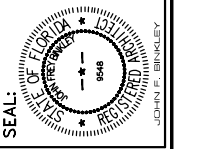
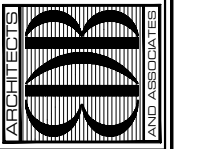
BUILDING AREA	
LIVING AND OFFICE AREA	3,483 S.F.
STORAGE AND WORK AREA	1,347 S.F.
APPARATUS ROOM	3,700 S.F.
COVERED AREA	505 S.F.
<b>TOTAL UNDER ROOF</b>	<b>9,035 S.F.</b>

**BUILDING PLAN**  
 SCALE: 1/8" = 1'-0"  
 NOTE:  
 SEE SHEETS A-3 AND A-4 FOR  
 INTERIOR DIMENSIONS

LEGEND	
	NEW CONCRETE BLOCK WALL
	NEW STEEL STUD FRAME WALL, 3-5/8" STL. STUD AT 16" O.C. W/ 3 1/2" SOUND BATT INSULATION
	NEW STEEL STUD FRAME WALL, 3-5/8" STL. STUD AT 16" O.C. W/ 1/2" GYP. BD. PAINT FINISH



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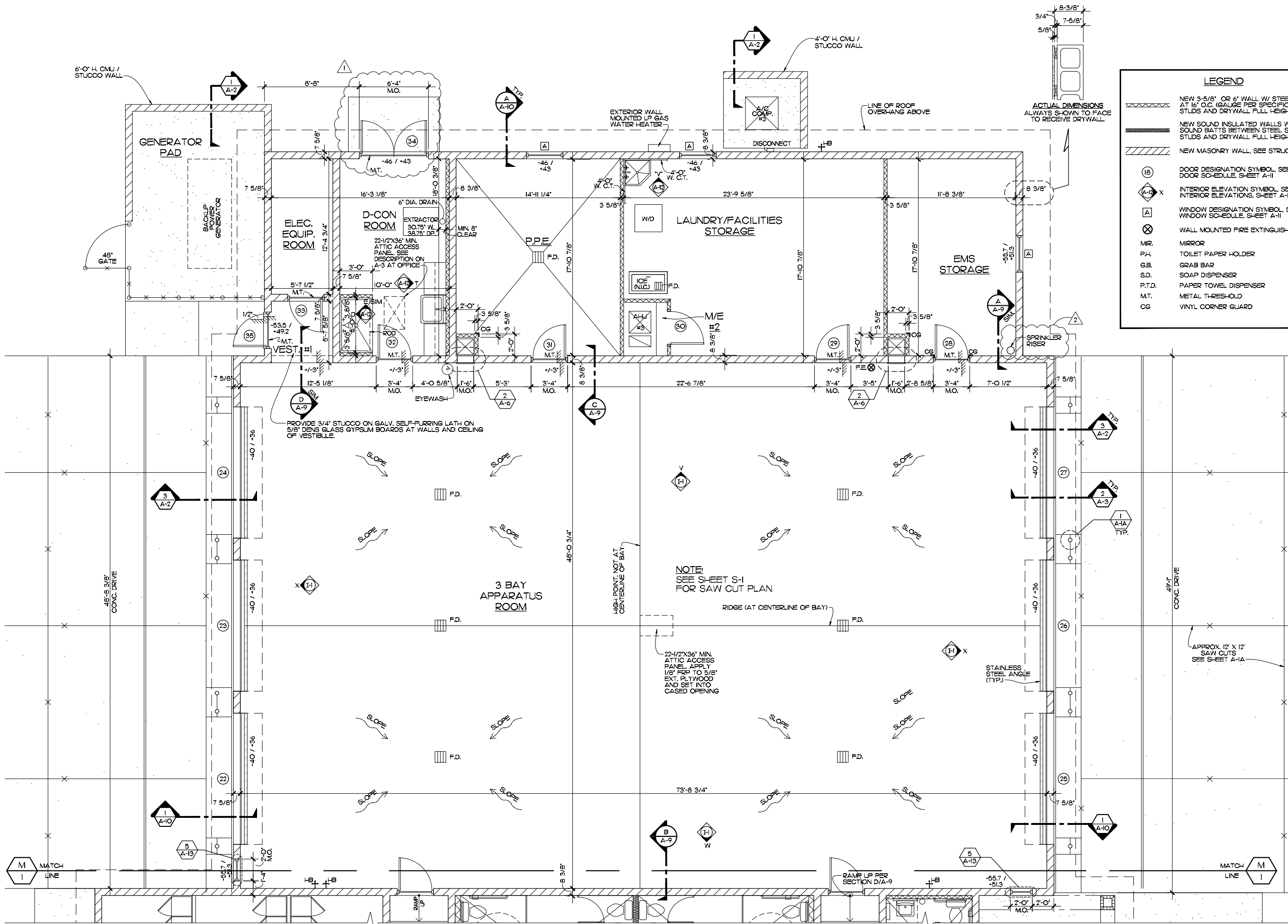
PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	15AUG23	OWNER DIRECTED REVISIONS

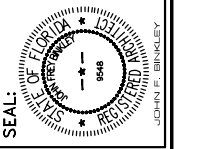
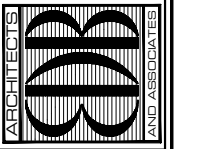
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 COMM. NO: 050219/VB  
 DATE: 1 AUG. 2023  
 BY: JNR  
 CH'KD: JFB  
 SHEET NO.  
**A-2**  
 OF FOURTEEN







EDLUND - DRITENBAS - BINKLEY  
 ARCHITECTS AND ASSOCIATES, P.A.  
 AIR-VA C000886  
 65 ROYAL PALM POINTE, SUITE "D"  
 VERO BEACH, FLORIDA 32960  
 PHONE: (772) 569-4320



John Binkley  
 Digitally signed by John Binkley  
 Date: 2023.10.19 16:19:52 -0400

PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

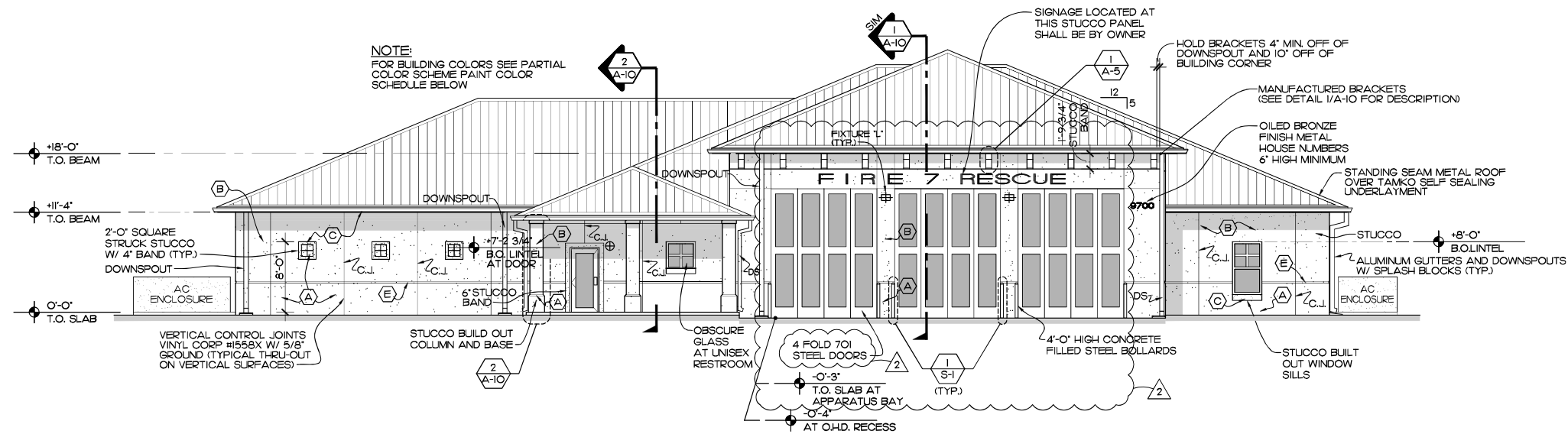
NO.	DATE	REVISIONS
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2	15AUG23	OWNER DIRECTED REVISIONS

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COMM. NO: 050219VB  
 DATE: 1 AUG. 2023  
 BY: LID  
 CH'KD: JFB

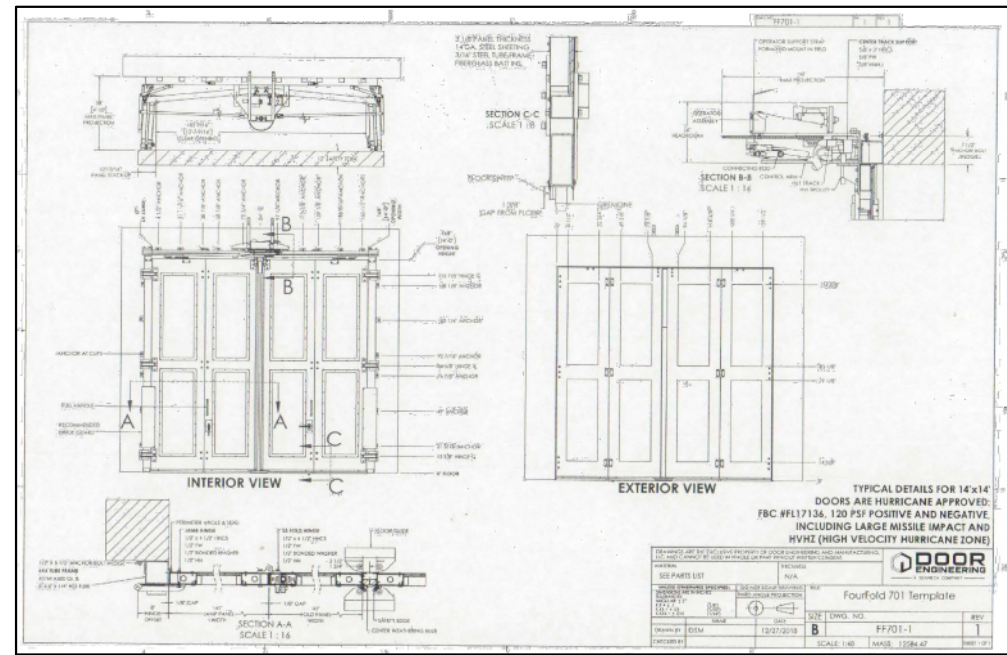
**PARTIAL FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"





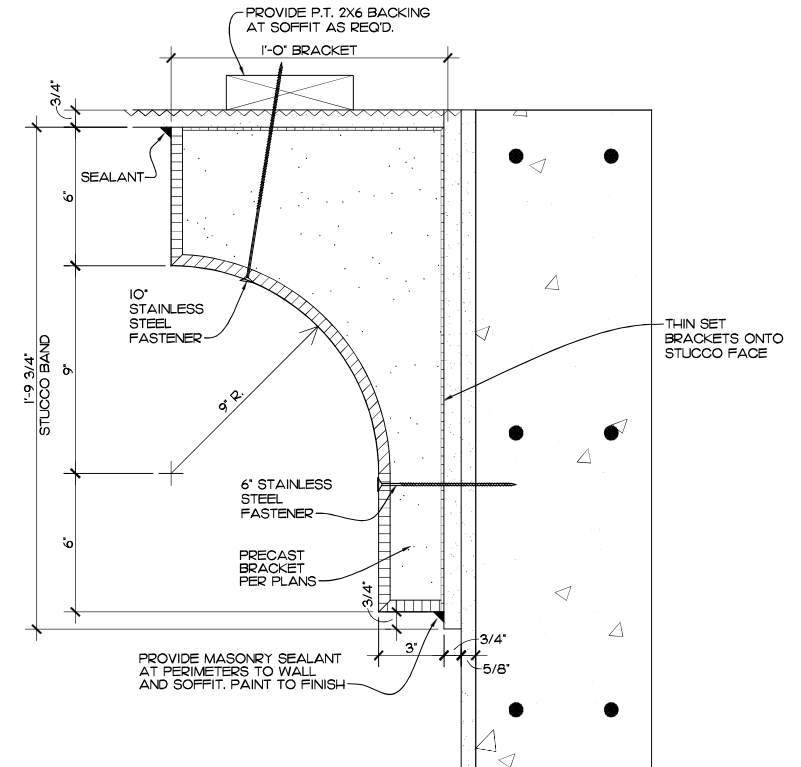
**SOUTH ELEVATION**

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



**DETAIL**

SCALE: NTS REF. THIS SHEET



**DETAIL**

SCALE: 3" = 1'-0" REF. THIS SHEET

**GENERAL NOTE:**  
WHEN UTILIZING LIGHTWEIGHT FOAM BRACKETS, SECURE WITH STAINLESS STEEL FACE FASTENERS, GROUT HOLES AND PAINT.

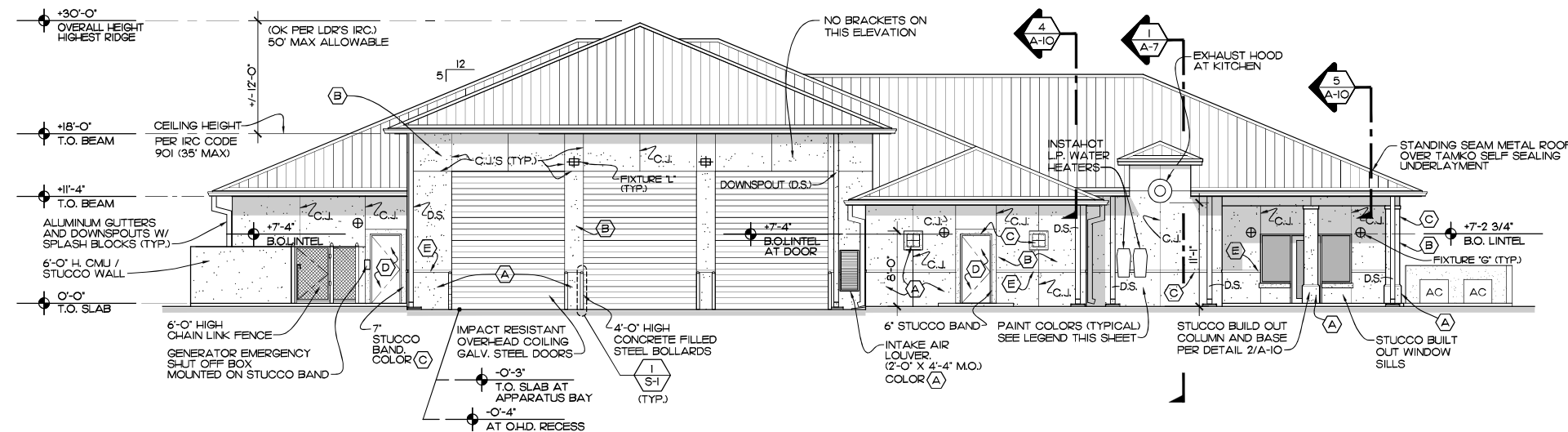
**LIGHT FIXTURE MOUNTING HEIGHTS**

1" WALL PACKS AT APPARATUS BAY +15'-0" A.F.F. ON REAR ELEVATION AND 13'-6" ON FRONT ELEVATION.  
6" WALL FIXTURES AT ENTRY/EXITS +7'-0" AND 9'-2" A.F.F.\*

**NOTE:**  
HEIGHTS SHOWN ARE TO BOTTOM OF J-BOX ROUGH-IN.  
\*9'-2" AT DOOR TO ELECTRICAL EQUIPMENT ROOM.

**PAINT COLOR SCHEDULE**

- (A) BM-1077 BASE STUCCO COLOR
  - (B) BM-1095 STUCCO FIELD COLOR
  - (C) BM-906 STUCCO TRIMS / BUILD OUTS / BRACKETS / FASCIA /
  - (D) BM-1574 RAILINGS / SHUTTERS / STEEL DOORS / FRAMES
  - (E) PAINT STUCCO RECESS RED
- BM - BENJAMIN MOORE #5

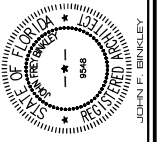
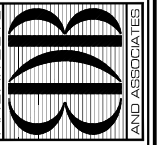


**NORTH ELEVATION**

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

**NOTE:**  
ALL CONTROL JOINT INTERSECTIONS SHALL BE SET INTO SEALANT BED. SEALANT SHALL BE EXTERIOR RATED, PAINTABLE, DO NOT FILL THROATS OF CONTROL JOINTS WITH SEALANT WHEN PAINTING STUCCOED WALLS.

EDLUND - DRITENBAS - BINKLEY  
ARCHITECTS AND ASSOCIATES, P.A.  
AIR-VA 000886  
65 ROYAL PALM POINTE, SUITE "D"  
VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



John Binkley  
Digitally signed by John Binkley  
Date: 2023.10.19 16:20:22 -0400

PROJECT: STATION #7

FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE  
VERO BEACH, FL 32967

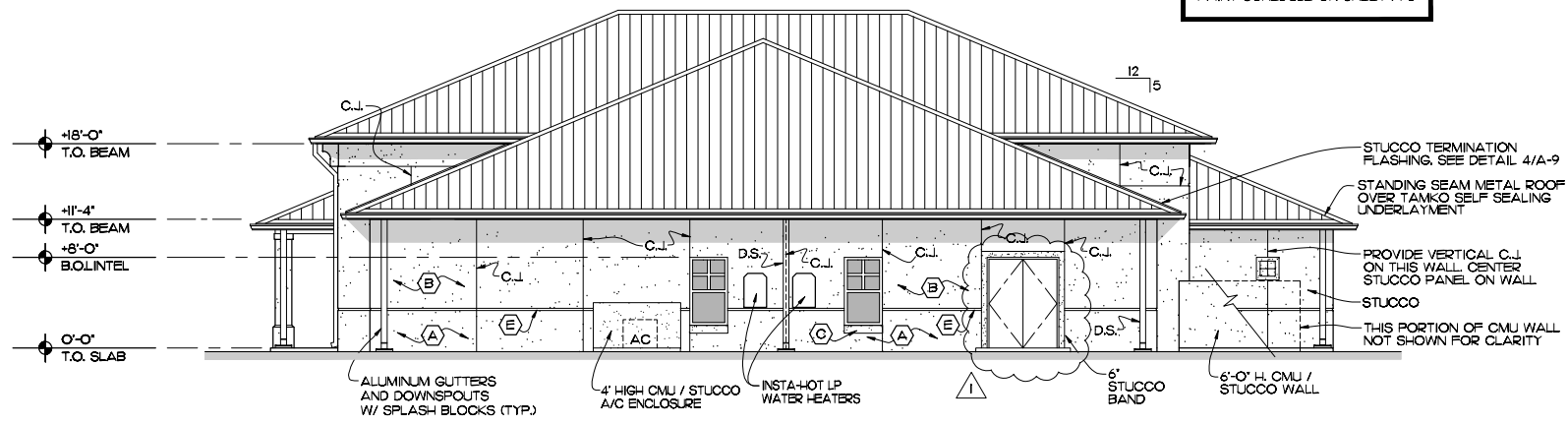
NO.	DATE	REVISIONS
1	2/24/23	FIRE PREVENTION COMMENTS

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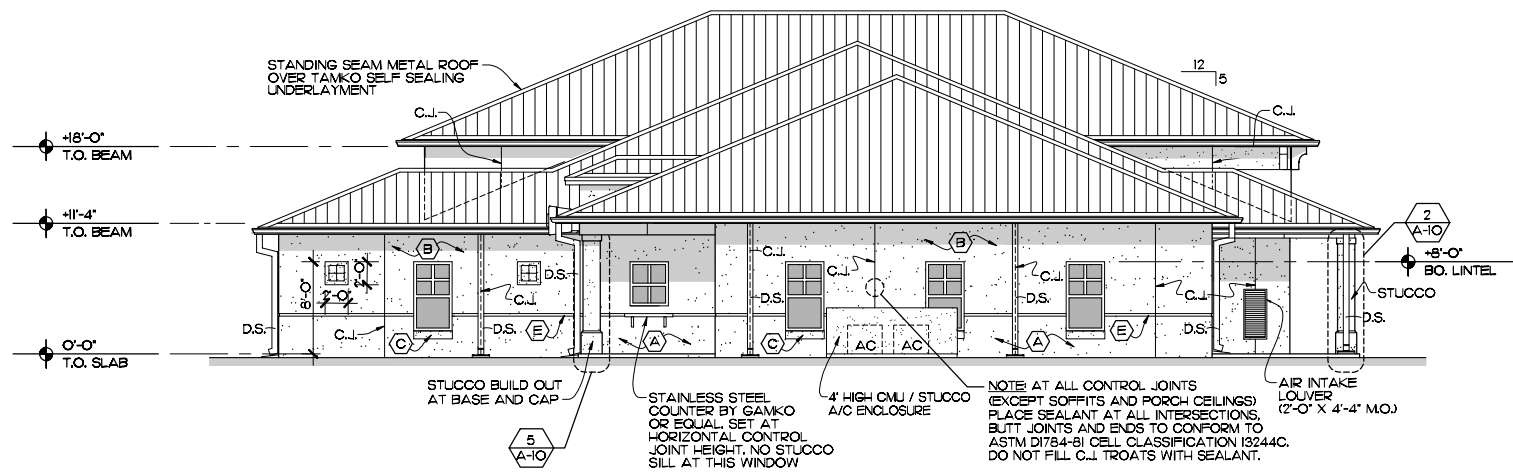
COMM. NO: 050219VB  
DATE: 1 AUG. 2023  
BY: JNR  
CHKD: JFB

SHEET NO.  
**A-5**  
OF FOURTEEN

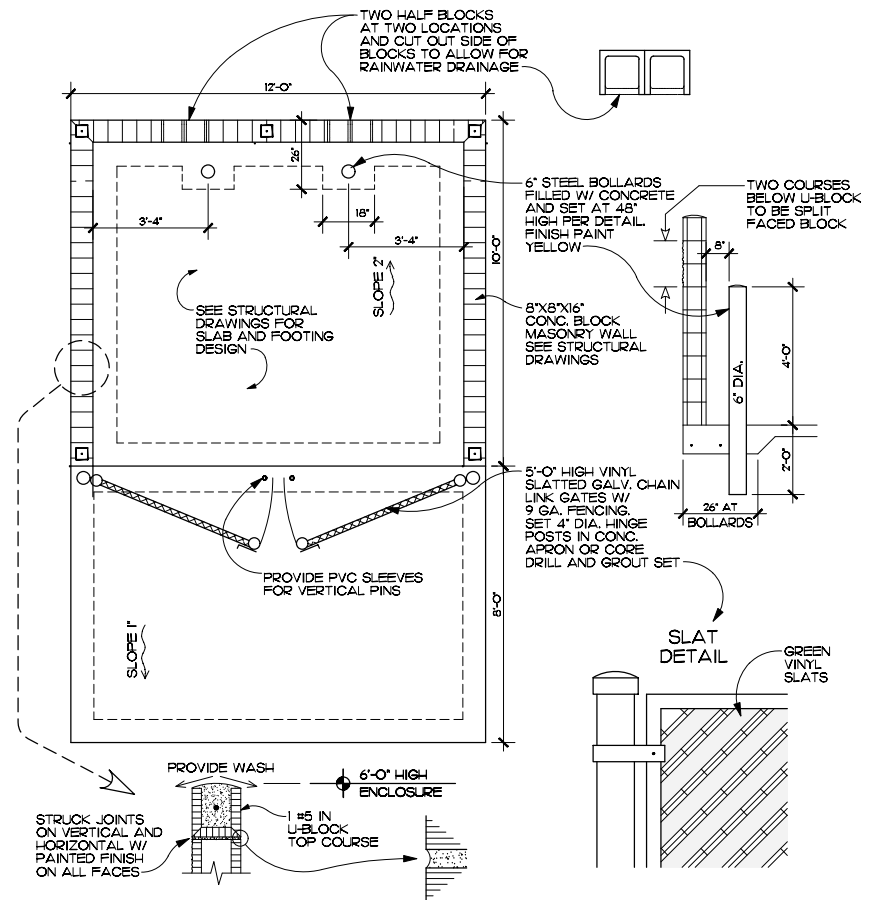
**NOTE:**  
FOR BUILDING PAINT COLORS  
SEE REAR ELEVATION AND  
PAINT SCHEDULE ON SHEET A-5



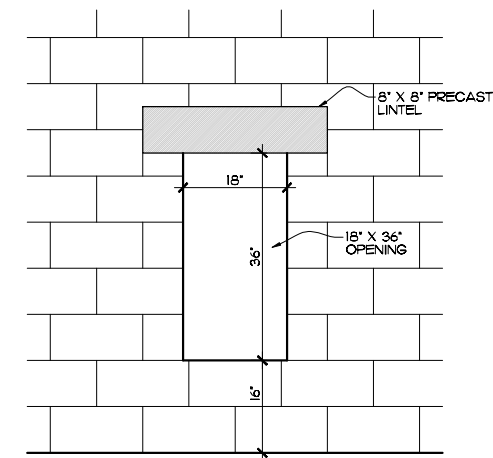
**EAST ELEVATION**  
SCALE: 1/8" = 1'-0"



**WEST ELEVATION**  
SCALE: 1/8" = 1'-0"

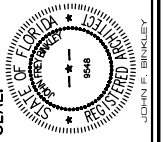
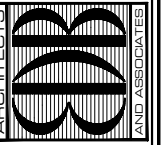


**DETAIL DUMPSTER ENCLOSURE**  
SCALE: 3/8" = 1'-0" REF. SHEET A-1



**DETAIL**  
SCALE: 3/4" = 1'-0" REF. SHEET A-4

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AIR-VA 000886  
65 ROYAL PALM POINTE, SUITE "D"  
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PHONE: (772) 569-4320



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Date: 2023.10.19 16:20:56 -0400

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE  
VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	15AUG23	OWNER DIRECTED REVISIONS

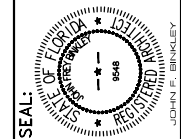
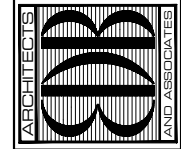
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COMM. NO: 050219/B  
DATE: 1 AUG. 2023  
BY: JNR  
CHK'D: JFB

SHEET NO.  
**A-6**  
OF FOURTEEN







John Binkley  
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 Date: 2023.10.19 16:22:12 -0400

PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1		FIRE PREVENTION COMMENTS
2		FIRE PREVENTION COMMENTS
3		OWNER DIRECTED REVISIONS

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COMM. NO: 050219VB  
 DATE: 1 AUG. 2023  
 BY: N.J.R.  
 CH: J.F.B.

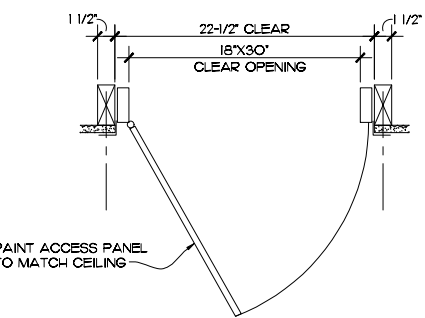
SHEET NO.  
**A-8**  
 OF FOURTEEN

**CEILING TILE SCHEDULE**

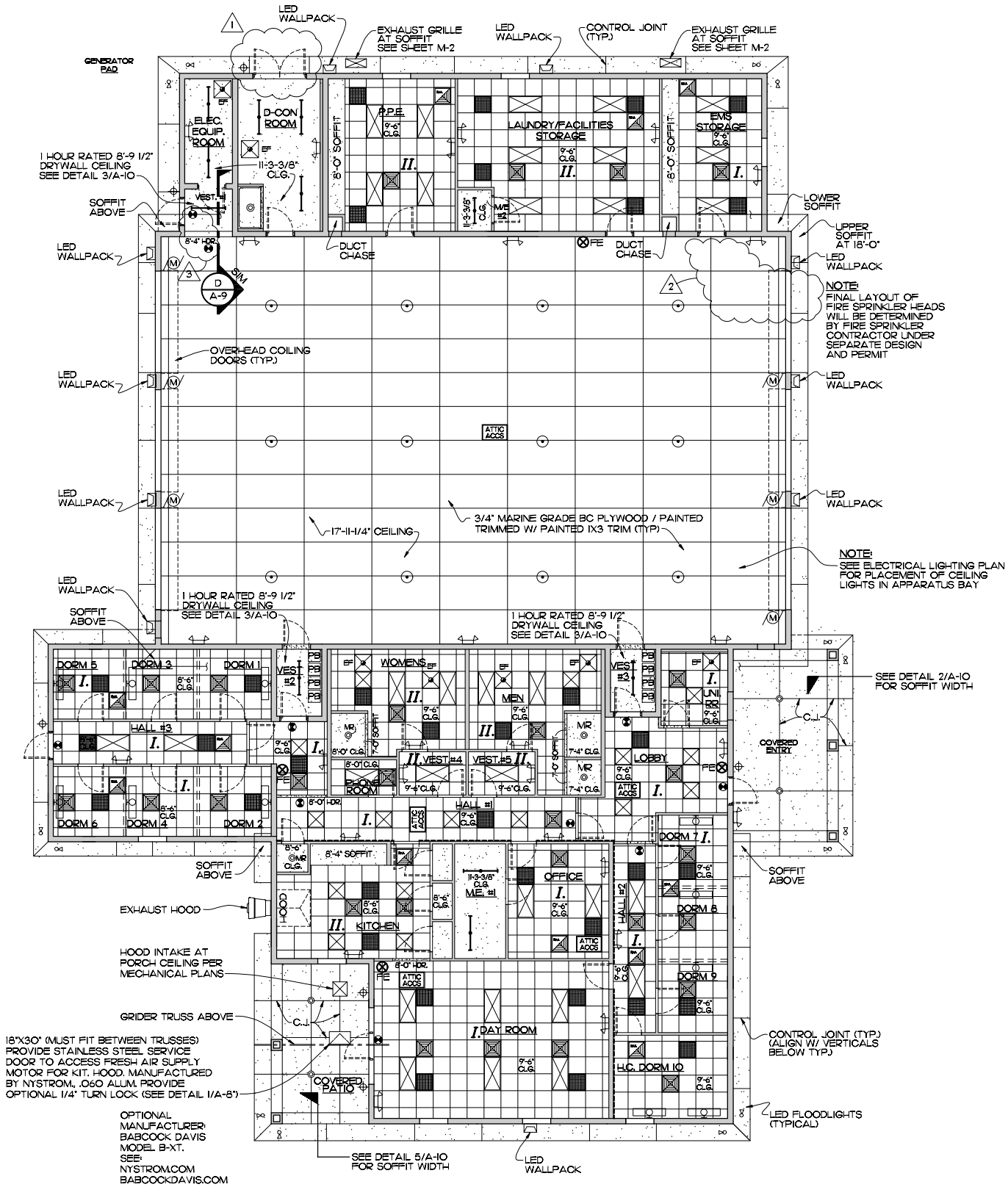
- I. TYPE I. ARMSTRONG 24"X24"X7/8" CIRRUS OPEN PLAN 556, CLASS A WITH 15/16" ANGLED TESULAR EDGE PROFILE GRID - 15/16" PRELUDE COLOR - WHITE.
- II. TYPE II. ARMSTRONG 24"X24"X5/8" 607 CERAMIGUARD FINE FISSURED PERFORMED WITH WITH 15/16" SQUARE LAY-IN EDGE PROFILE GRID - 15/16" AL PRELUDE PLUS XL. COLOR - WHITE.

**LEGEND**

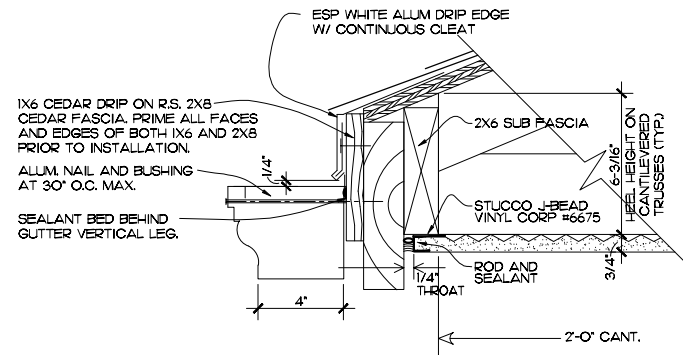
RECESSED CAN LIGHT	⊙
MOISTURE RESISTANT RECESSED CAN LIGHT	MR ⊙
PENDANT LIGHT	⊙
SPRINKLER HEAD	•
EMERGENCY EXIT LIGHT WITH BATTERY BACKUP	⊙
2X4 LAY-IN LED LIGHT	⊗
SURFACE MOUNTED LED LIGHT	⊗
WALL MOUNTED LED LIGHT	⊗
WALLPACK LIGHT FIXTURE	⊗
SURFACE MOUNTED FLUORESCENT FIXTURE	⊗
A/C REGISTER	⊗
RETURN AIR REGISTER	⊗
EXHAUST FAN	⊗
WALL MOUNTED FIXTURE	⊗
EXTERIOR SPOTLIGHT	⊗
PUSH BUTTON SWITCH FOR OVERHEAD DOOR	⊗
OVER-HEAD DOOR MOTOR	⊗
MILK-WHITE EGG CRATE LAY-IN 24"X24" PANEL (FIELD LOCATED)	⊗
EMERGENCY LIGHT W/BATTERY BACKUP	⊗
WALL MOUNTED FIRE EXTINGUISHER	⊗



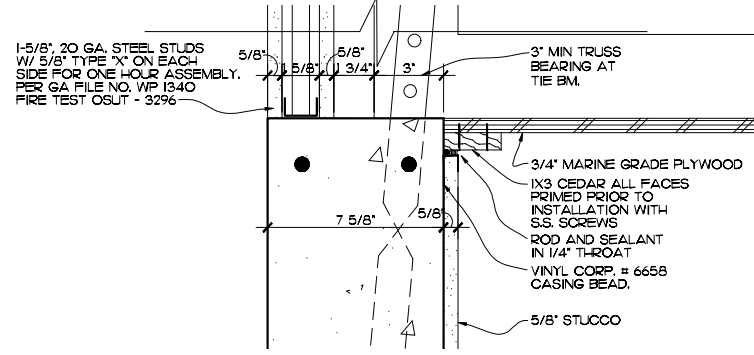
**DETAIL** (AT CEILING ACCESS) 1 A-B  
 SCALE: 1/2" = 1'-0" REF. THIS SHEET



**REFLECTED CEILING PLAN**  
 SCALE: 1/8" = 1'-0"

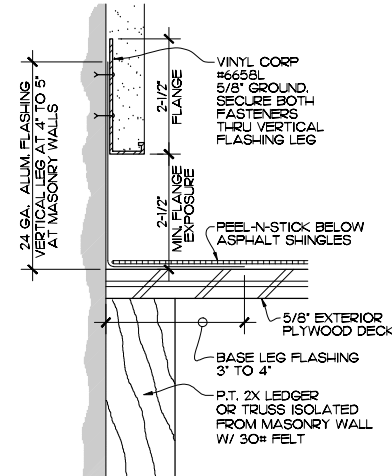


**DETAIL 1**  
SCALE: 3" = 1'-0" REF. SECT. A/A-10

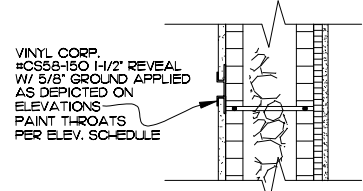


**DETAIL 3**  
SCALE: 3" = 1'-0" REF. THIS SHEET

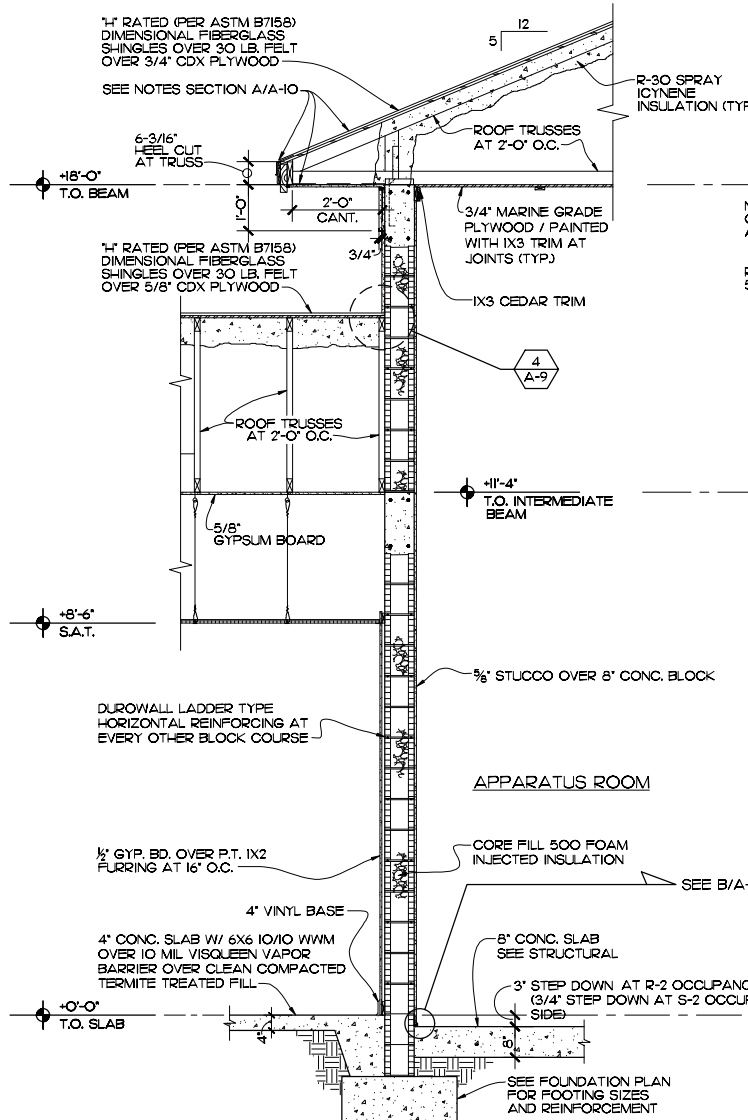
**NOTE**  
INFORM TRUSS FABRICATOR OF THIS CONDITION.



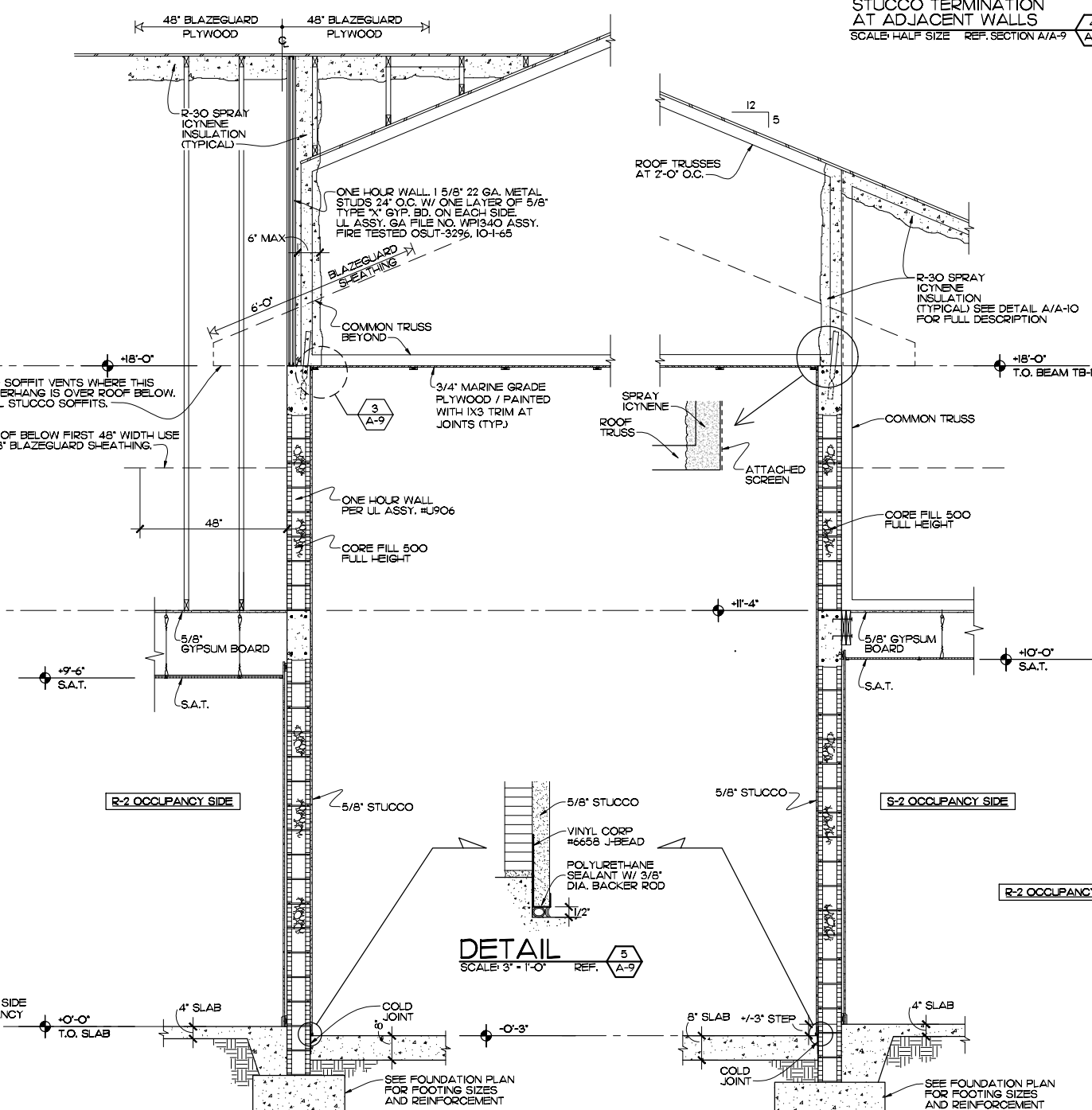
**STUCCO TERMINATION AT ADJACENT WALLS**  
SCALE: HALF SIZE REF. SECTION A/A-9



**DETAIL 2**  
SCALE: 1/2" = 1'-0" REF. SECT. A/A-10

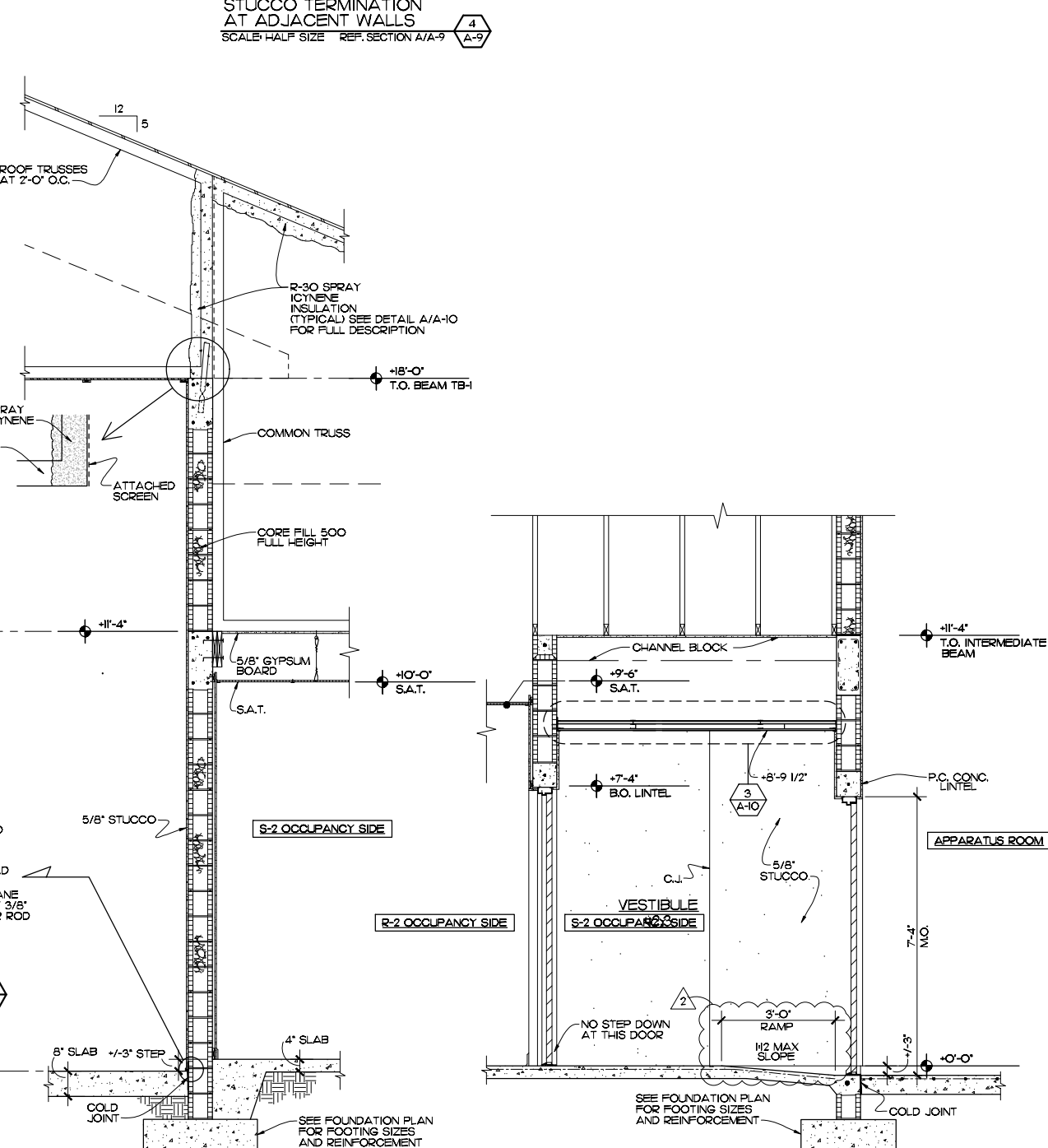


**SECTION A**  
SCALE: 1/2" = 1'-0" REF. A-2



**DETAIL 5**  
SCALE: 3" = 1'-0" REF. A-9

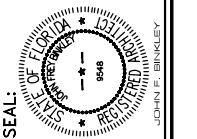
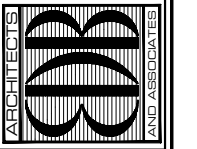
**SECTION B**  
SCALE: 1/2" = 1'-0" REF. A-4



**SECTION C**  
SCALE: 1/2" = 1'-0" REF. A-4

**SECTION D**  
SCALE: 1/2" = 1'-0" REF. A-3

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65 ROYAL PALM POINTE, SUITE "D" VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



John Binkley  
Digitally signed by John Binkley  
Date: 2023.10.19 16:22:53 -0400

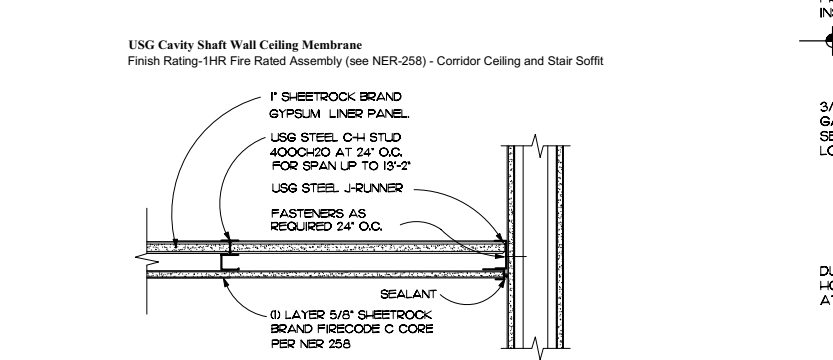
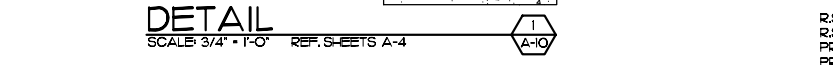
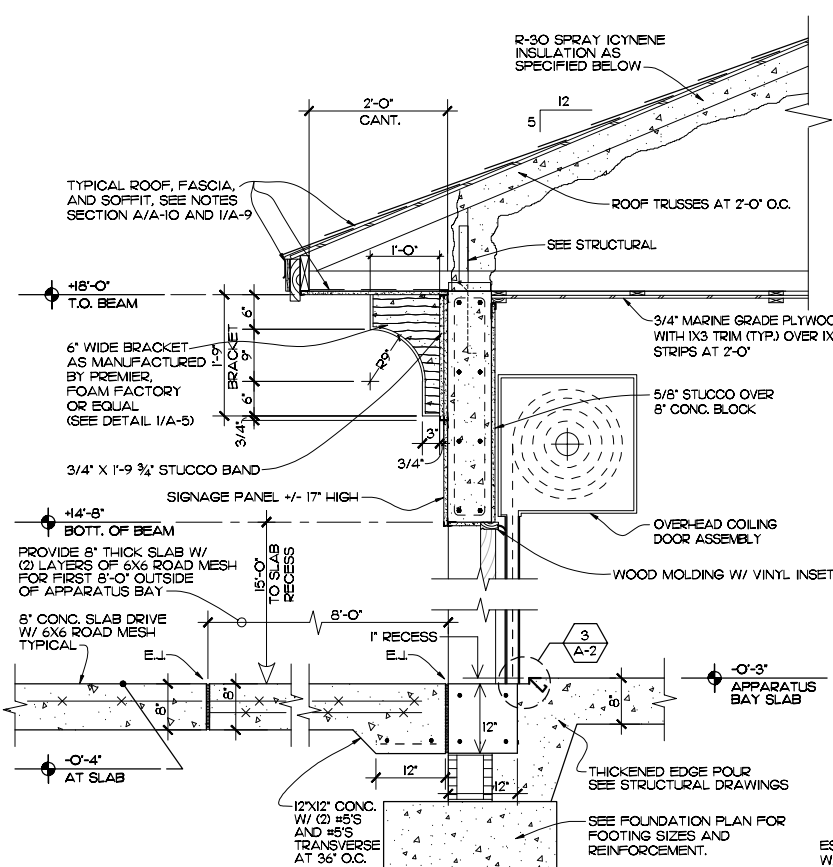
PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	22AUG23	FIRE PREVENTION COMMENTS

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COMM. NO: 050219VB  
DATE: 1 AUG. 2023  
BY: JNR  
CHKD: JFB

SHEET NO. A-9 OF FOURTEEN





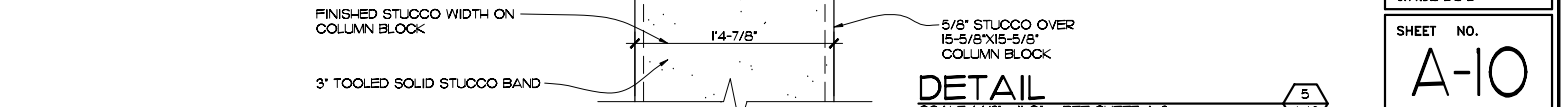
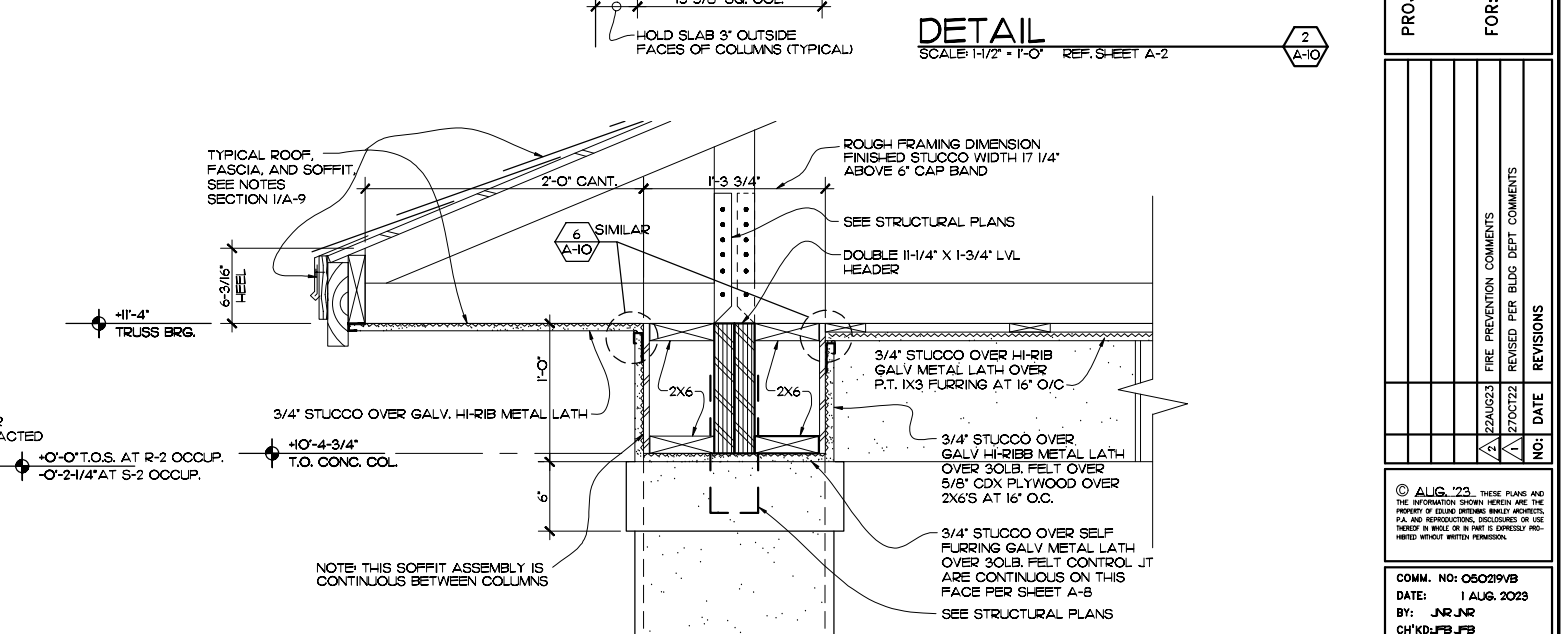
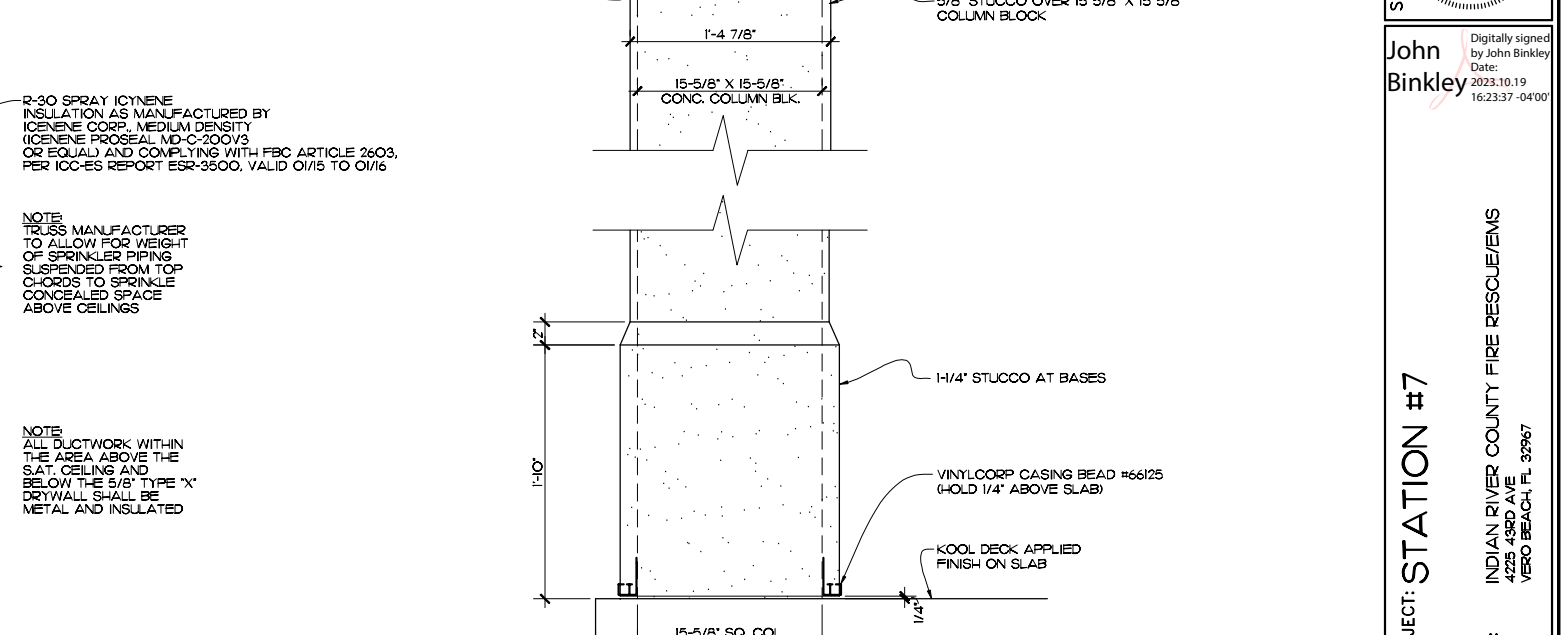
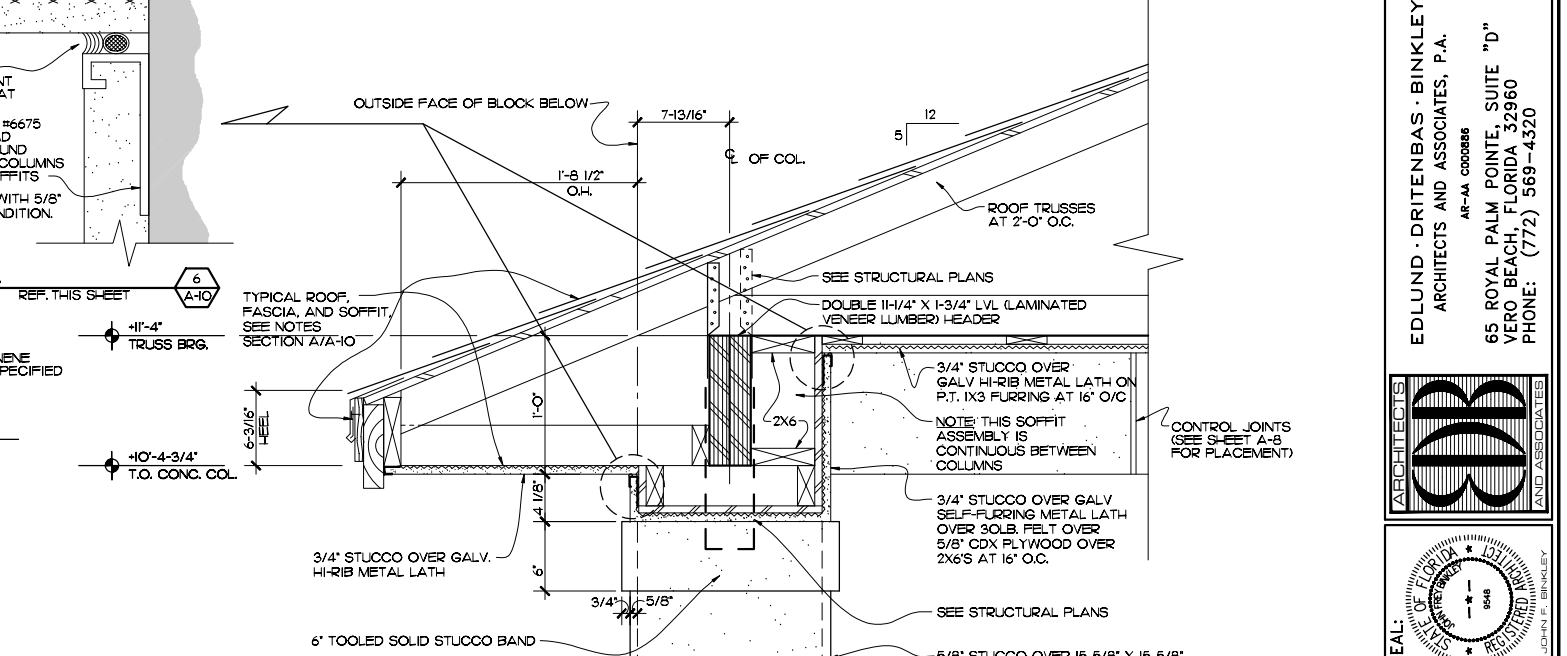
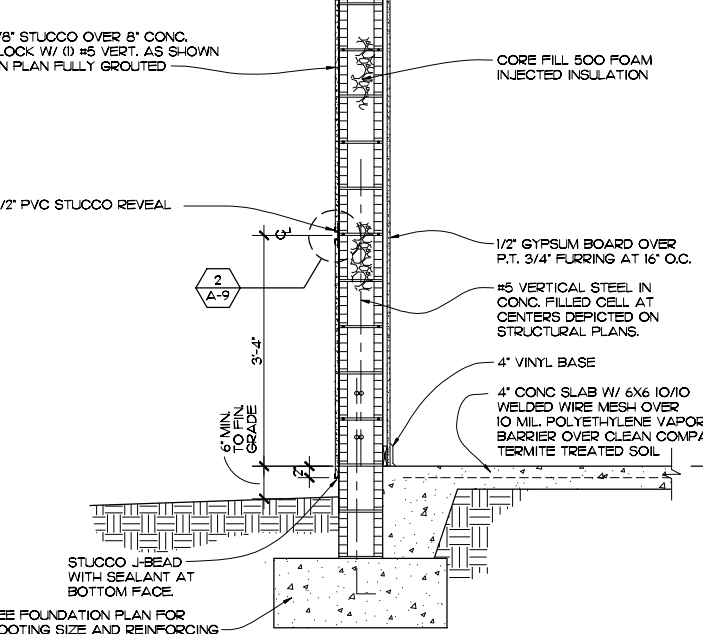
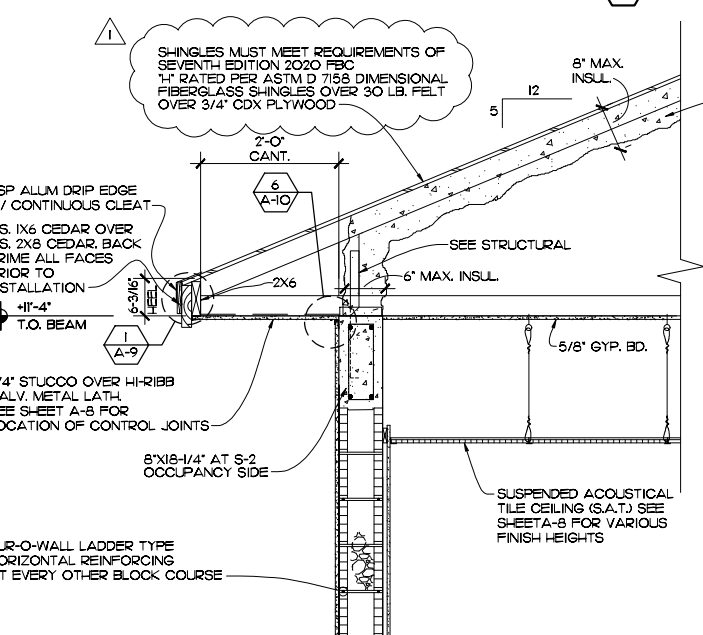
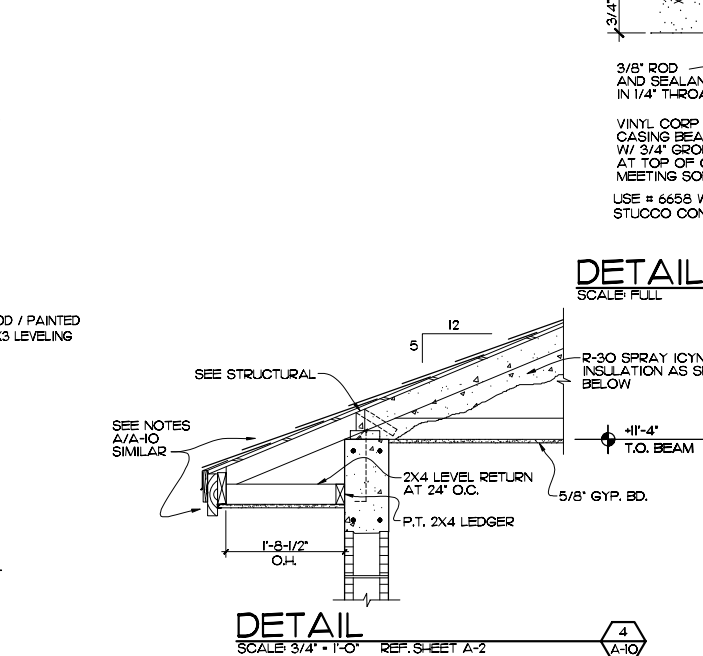
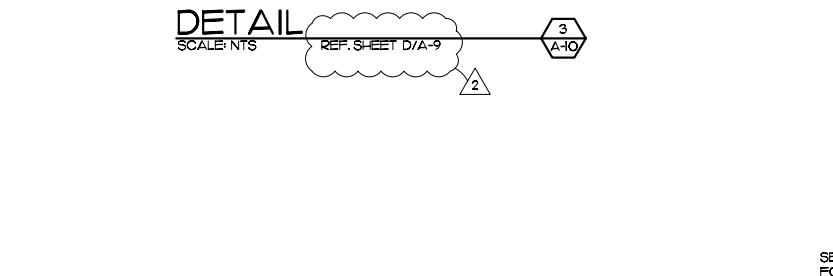
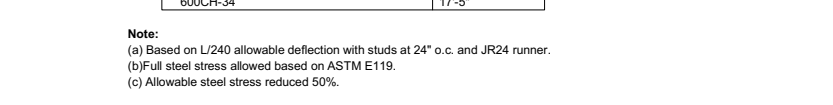
**1. Horizontal Assemblies** — SHEETROCK Brand Shaft Wall Systems installed horizontally provide economical construction for fire-resistive duct enclosures, corridor ceilings and stairways.

**Limiting Spans:**

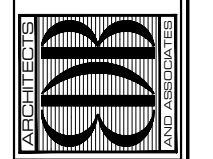
**1-Hr. Corridor Ceilings and Stair Soffit.**

1-Hr. Single-layer 5/8" gypsum panels	Maximum Span
212CH-18	6'-7"
212CH-34	10'-3"
400CH-18	8'-5"
400CH-34	14'-6"
600CH-34	17'-5"

**Note:**  
 (a) Based on L/240 allowable deflection with studs at 24" o.c. and JR24 runner.  
 (b) Full steel stress allowed based on ASTM E119.  
 (c) Allowable steel stress reduced 50%.



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ARCHITECTS AND ASSOCIATES, P.A.  
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John Binkley  
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Date: 2023.10.19 16:23:37 -0400

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE  
VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	22AUG23	FIRE PREVENTION COMMENTS
2	27OCT23	REVISED PER BLDG DEPT COMMENTS

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 COMM. NO: 050219VB  
 DATE: 1 AUG. 2023  
 BY: JNR, JNR, CH'KD, JFB, JFB  
 SHEET NO. **A-10**  
 OF FOURTEEN



# WINDOW SCHEDULE

MARK	SIZE (W X H)	MANUFACTURER	TYPE	DETAILS	SILL	REMARKS
A	3'-4" X 6'-0" M.O.	PGT ALUMINUM WIN GUARD S-7700 SERIES	SINGLE HUNG CLEAR GLASS	7, 8 /A-14	MARBLE	ESP WHITE FRAME IMPACT RATED WITH DOUBLE APPLIED MUNTINS AT TOP PANEL ONLY
B	3'-4" X 3'-6" M.O.	PGT ALUMINUM WIN GUARD S-7700 SERIES	SINGLE HUNG CLEAR GLASS	7, 8 /A-14	MARBLE	ESP WHITE FRAME IMPACT RATED WITH DOUBLE APPLIED MUNTINS
C	3'-0" X 5'-0" FRAME DIVISION SEE SHT. S-1 FOR M.O.	KAWNEER 500 IR SERIES ALUM. FRAME	FIXED STOREFRONT SIDELITES, CLEAR GLASS	5, 6 /A-14	MARBLE	ESP WHITE FRAME, IMPACT RATED, DOUBLE APPLIED VERTICAL MUNTINS
* E	3'-4" X 3'-6" M.O.	PGT ALUMINUM WIN GUARD S-7700 SERIES	SINGLE HUNG OBSCURED GLASS	7, 8/A-14	MARBLE	ESP WHITE FRAME, IMPACT RATED, DOUBLE APPLIED VERTICAL MUNTINS

\* PROVIDE OBSCURE GLASS AT UNISEX RESTROOM  
 NOTE: ALL WINDOWS AND STOREFRONT DOORS ARE IMPACT RATED TO MEET 2020 FBC SEVENTH EDITION REQUIREMENTS.  
 NOTE: ALL WINDOWS CLEAR GLASS WITH SHGC (SLAR HEAT GAIN COEFFICIENT) OF .60 OR BETTER

# ROOM FINISH SCHEDULE

ROOM/SPACE	FLOOR	BASE	SILLS	WALLS	CEILING	CLG. HGT.	REMARKS
LOBBY	POURED EPOXY	POURED EPOXY TURNED UP 4"	—	5/8" GYP. BD. PAINT	S.A.T. W/ ALUMINUM GRID	9'-6"	PROVIDE ALUMINUM TRANSITION SADDLE PER DETAIL 7/A-13
UNISEX RESTROOM			MARBLE	60" HIGH CERAMIC TILE WAINSCOT			PROVIDE 5/8" CEMENT BACKER BOARD BEHIND ALL CER. TILE
DORM AREAS 1 THRU 10				5/8" GYP. BD. PAINT		*	* DORM AREAS 1 THRU 6 CEILING HEIGHT AT 8'-6"
DAY ROOM							
OFFICE							
VESTIBULE #1					5/8" GYP. BD. PAINT	8'-9 1/2"	1 HOUR RATED SEE DETAIL 3/A-10 AND DETAIL D/A-9
VESTIBULE #2/#3							
VESTIBULE #4/#5					S.A.T. W/ ALUMINUM GRID	9'-6"	
WOMENS RESTROOM				60" HIGH CERAMIC TILE WAINSCOT			FULL HEIGHT CULTURED MARBLE WALL PANELS AT SHOWERS OVER 5/8" CEMENT BACKER BD. OR DENS SHIELD W/ MR. DRYWALL CLGS. AT 7'-4"
MENS RESTROOM							
JANITOR CLOSET				5/8" GYP. BD. / PAINT ABOVE 48" HIGH CER. TILE ALL WALLS	5/8" GYP. BD. PAINT	8'-6"	PROVIDE 5/8" CEMENT BACKER BOARD BEHIND ALL CER. TILE
MECH. EQUIP. #1				5/8" GYP. BD. PAINT		11'-3 3/8"	PROVIDE ALUMINUM SADDLE AT DOOR FOR 1/8" VCT TO CONCRETE TRANSITION
PANTRY						8'-6"	
KITCHEN			MARBLE	1/8" FRP OVER 1/2" PLYWOOD	S.A.T. W/ ALUMINUM GRID		PROVIDE FULL HEIGHT STAINLESS STEEL BACKSPLASH SEE INTERIOR ELEV. SHEET A-12
HALLS #1, #2, #3				5/8" GYP. BD. PAINT	S.A.T. W/ ALUMINUM GRID	9'-6"	
APPARATUS ROOM	(2) COATS CLEAR EPOXY OVER EPOXY PAINT W/ GRIT FLECKS	NO BASE AT STUCCO WALLS		5/8" STUCCO, PAINT	* PRIMED AND PAINTED 1/2" BC PLYWOOD W/ IX3 TRIM	17'-11 1/4"	* TROWEL FINISH CONCRETE FLOORS, PROVIDE IX3 LEVELING STRIPS AT 2'-0" O.C. AT CEILING
EMS STORAGE	STAINED CONCRETE	4" VINYL	MARBLE	5/8" GYP. BD. PAINT	S.A.T. W/ ALUMINUM GRID	9'-6"	
P.P.E.	(2) COATS CLEAR EPOXY OVER EPOXY PAINT W/ GRIT FLECKS		MARBLE				
LAUNDRY/FACILITIES STORAGE	RUBBER FLOORING		MARBLE		S.A.T. W/ ALUMINUM GRID		
D-CON ROOM	STAINED CONCRETE	PAINTED BLOCK		PAINTED BLOCK	5/8" TYPE 'X' GYP. BD. / PAINT	11'-3 3/8"	STRUCK JOINTS ON INTERIOR WALLS OF THIS ROOM APPLY BLOCK FILLER PRIOR TO FINISH PAINT
ELEC. EQUIP. ROOM	CONCRETE W/ CLEAR SEALER						
MECH. EQUIP. #2	STAINED CONCRETE	4" VINYL		5/8" GYP. BD. PAINT	5/8" GYP. BD. PAINT		
PHONE ROOM					S.A.T. W/ ALUMINUM GRID	8'-0"	PROVIDE 4" H. X 8" LG. X 3/4" PLYWOOD ON BACK WALL, PRIME AND PAINT W/ FIRE RETARDANT PAINT
COVERED PATIO	CONCRETE W/ KOOL DECK TOPPING			5/8" STUCCO, PAINT	3/4" STUCCO ON P.T. IX3 STRIPPING / PAINT	11'-2 1/2"	PROVIDE KOOL DECK VINYL ACRYLIC TOPPING IN KEYSTONE PATTERN
COVERED ENTRY							

NOTE:  
 5/8" GYPSUM BOARD IS TO BE APPLIED TO THE BOTTOM CHORD OF THE TRUSSES THROUGHOUT THE R-2 OCCUPANCY SIDE OF THE BUILDING. 5/8" TYPE 'X' GYPSUM IS TO BE APPLIED TO THE BOTTOM CHORD OF THE TRUSSES OVER THE ELECTRICAL ROOM AND PIPE STORAGE, LAUNDRY, BUNKER ROOM AND EMS STORAGE ROOMS TO RECEIVE 5/8" GYPSUM BOARD TO THE BOTTOM CHORD OF THE TRUSSES.

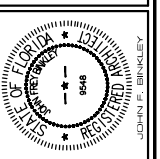
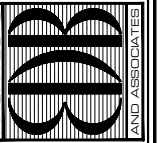
# DOOR SCHEDULE

MARK	SIZE	DESCRIPTION	JAMB / FRAME	DETAILS	REMARKS
①	3'-0" W. X 7'-0" H. X 1-3/4"	KAWNEER 350 IR IMPACT RATED MEDIUM STYLE DOOR	ALUMINUM	1, 2 /A-14 9/A-14	CLOSER, PROVIDE WHITE ESP FINISH, ADA BUMPER THRESHOLD.
②	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	ST. STEEL KICK PANEL ON EXTERIOR, WHITE MARBLE THRESHOLD, CLOSER AND WALL STOP
③	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	7 /A-13 3, 4 /A-14 11/A-14	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP, 6X24 WIRE GLASS VISION PANEL
④	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	WALL STOP
④A	2'-8" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	WALL STOP
⑤	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	WALL STOP
⑥	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	2 /A-13	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP
⑦	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	WALL STOP
⑧	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME	2 /A-13	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP
⑨	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	—
⑩	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	PUSH PLATE, PULL HANDLE, CLOSER, ST. STEEL KICK PLATE ON PUSH SIDE, WALL STOP
⑪	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	PUSH PLATE, PULL HANDLE, CLOSER, ST. STEEL KICK PLATE ON PUSH SIDE, WHITE MARBLE THRESHOLD
⑫	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME	2 /A-13	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP
⑬	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	PUSH PLATE, PULL HANDLE, CLOSER, ST. STEEL KICK PLATE ON PUSH SIDE, WALL STOP
⑭	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	PUSH PLATE, PULL HANDLE, CLOSER, ST. STEEL KICK PLATE ON PUSH SIDE, WHITE MARBLE THRESHOLD
⑮	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD W/ FULL LOUVER	16 GA. GALV. STEEL FRAME	2 / A-13 SIM.	ALL 3 PANTRY DOORS SHALL HAVE LOCKSETS WITH NO LEVER HANDLES ON INTERIOR SIDE OF DOOR.
⑯	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD W/ FULL LOUVER	16 GA. GALV. STEEL FRAME	2 / A-13 SIM.	
⑰	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD W/ FULL LOUVER	16 GA. GALV. STEEL FRAME	2 / A-13 SIM.	
⑱	3'-0" W. X 7'-0" H. X 1-3/4"	KAWNEER 350 IR / 500 IR MEDIUM STYLE DOOR W/ SIDELITES PER WINDOW SCHEDULE	ALUMINUM	1, 2 /A-14 9/A-14	CLOSER, PROVIDE WHITE ESP FINISH ADA BUMPER THRESHOLD
⑲	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	3, 4 /A-14 11/A-14 7/A-13	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP, 6X24 FIRELITE RATED GLASS VISION PANEL.
⑳	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	WALL STOP
㉑	3'-0" W. X 7'-0" H. X 1-3/4"	16 GA. GALV. STEEL INSULATED	16 GA. GALV. STEEL FRAME W/ 4" HEAD	3, 4 /A-14 11/A-14	PROVIDE A VISION HOLE IN DOOR AT 60" A.F.F. BOTTOM OF LINTEL AT 7'-4" M.O.
㉒	12'-0" W X 15'-0" H.	OVER-HEAD COILING STEEL DOOR	STEEL	1/A-10	PROVIDE STANDARD POWDER COAT FINISH COLOR AS SELECTED BY OWNER. DOOR IS OPERATED BY ELECTRIC MOTOR
㉓	12'-0" W X 15'-0" H.	OVER-HEAD COILING STEEL DOOR	STEEL	1/A-10	
㉔	12'-0" W. X 15'-0" H.	OVER-HEAD COILING STEEL DOOR	STEEL	1/A-10	
㉕	12'-0" W. X 15'-0" H.	DOOR ENGINEERING FOUR FOLD 70 LBS. IMPACT RATED W/ (4) IMPACT RATED GLASSLITES	STEEL	2/A-5	ON NORTH ELEVATION ONLY PROVIDE MOTORIZED OPERATION
㉖	12'-0" W. X 15'-0" H.		STEEL	2/A-5	
㉗	12'-0" W. X 15'-0" H.		STEEL	2/A-5	
㉘	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	3/A-14 11/A-14 4/A-14	LATCH AND CLOSER, THRESHOLD, 6X24 FIRELITE RATED GLASS VISION PANEL, ST. STL. KICK PLATE ON PUSH SIDE
㉙	3'-0" W. X 6'-8" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME	3/A-14 11/A-14 4/A-14	LATCH AND CLOSER, THRESHOLD, 6X24 WIRE GLASS VISION PANEL, ST. STL. KICK PLATE ON PUSH SIDE, WALL STOP
㉚	3'-0" W. X 6'-8" H. X 1-3/4"	16 GA. STEEL INSULATED	16 GA. GALV. STEEL FRAME	6 /A-13 10/A-14	LATCH AND CLOSER, THRESHOLD, 6X24 WIRE GLASS VISION PANEL, ST. STL. KICK PLATE ON PUSH SIDE
㉛	3'-0" W. X 6'-8" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME	3/A-14 11/A-14 4/A-14	LATCH AND CLOSER, TRANSITION SADDLE, 6X24 FIRELITE RATED GLASS VISION PANEL, ST. STL. KICK PLATE ON PUSH SIDE, WALL STOP
㉜	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	3/A-14 11/A-14 4/A-14	LATCH AND CLOSER, THRESHOLD, 6X24 FIRELITE RATED GLASS VISION PANEL, ST. STL. KICK PLATE ON PUSH SIDE
㉝	3'-0" W. X 6'-8" H. X 1-3/4"	16 GA. STEEL	16 GA. GALV. STEEL FRAME	3, 4 /A-14 3/A-13	CLOSER, UL ADA SADDLE
㉞	(2)3'-0" W. X 6'-8" H. X 1-3/4"	16 GA. STEEL	16 GA. GALV. STEEL FRAME	1 /A-13 6 /A-13 3/A-13	
㉟	3'-0" W. X 7'-0" H. X 1-3/4"	16 GA. STEEL INSULATED	16 GA. GALV. STEEL FRAME W/ 4" HEAD	1 /A-13 6 /A-13 3/A-13	CLOSER, METAL THRESHOLD
㊱	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	2 /A-13	CLOSER, UL ADA SADDLE W/ SWEEP
㊲	3'-0" W. X 6'-8" H. X 1-3/4"	SOLID CORE WOOD WITH BIRCH VENEER	16 GA. GALV. STEEL FRAME	2 /A-13	WALL STOP / STOREROOM SET
㊳	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	3, 4 /A-14 11/A-14	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP
㊴	3'-0" W. X 7'-0" H. X 1-3/4"	45 MIN. B-LABEL, INSUL 16 GA. STEEL	16 GA. GALV. STEEL FRAME W/ 4" HEAD	3, 4 /A-14 11/A-14	CLOSER, ST. STEEL KICK PLATE, LATCH, UL ADA SADDLE W/ SWEEP

THESE THREE DOORS HAVE SPECIALTY FRAMES PER DETAIL 10/A-14

NOTES:  
 1) FOR FINISH HARDWARE SPECIFICATIONS SEE SECTION 08700.  
 2) DOOR HARDWARE SUBMITTALS REQUIRED FROM CONTRACTOR FOR ARCHITECTS REVIEW.

EDLUND - DRITENBAS - BINKLEY ARCHITECTS AND ASSOCIATES, P.A.  
 65 ROYAL PALM POINTE, SUITE "D" VERO BEACH, FLORIDA 32960  
 PHONE: (772) 569-4320



John Binkley  
 Digitally signed by John Binkley  
 Date: 2023.10.19 16:24:23 -0400

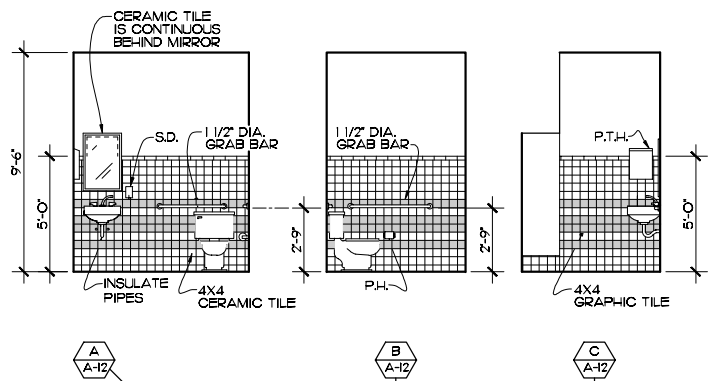
PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	22AUG23	FIRE PREVENTION COMMENTS
2	15AUG23	OWNER DIRECTED REVISIONS

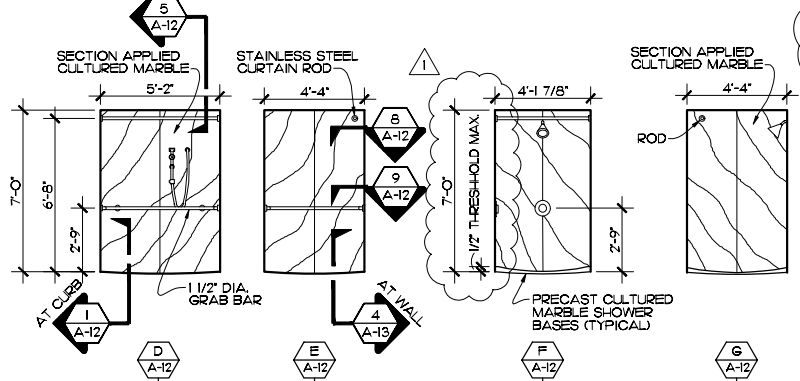
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 DATE: 1 AUG. 2023  
 BY: JNR, JNR  
 CHK'D: JFB, JFB

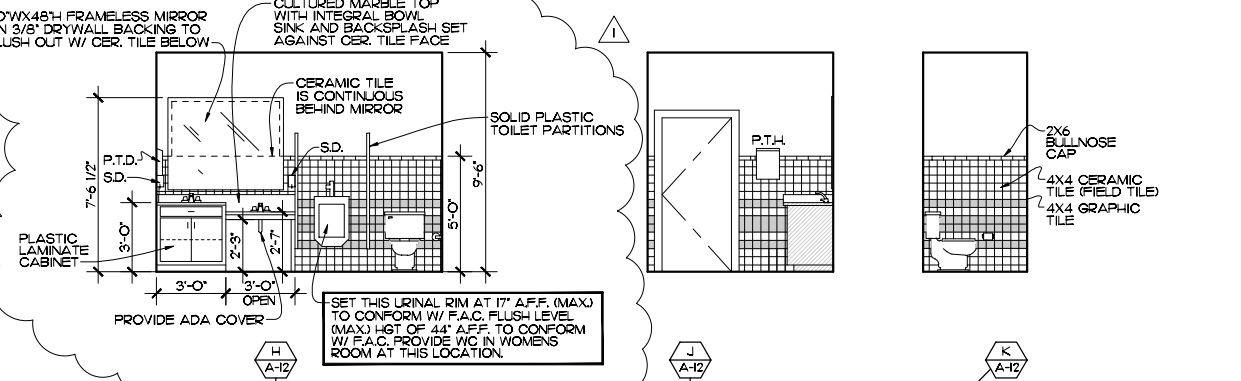
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**A-11**  
 OF FOURTEEN



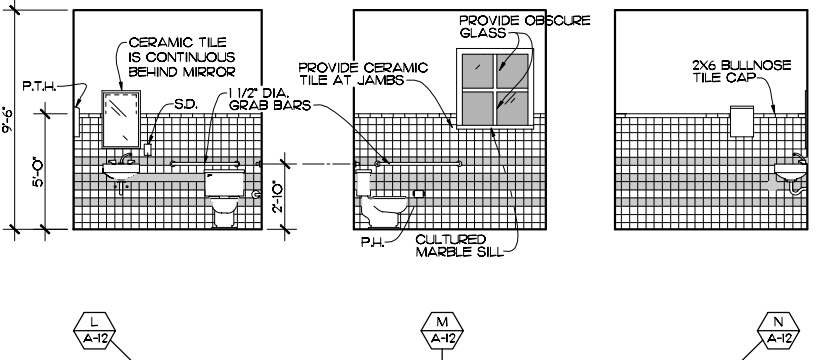
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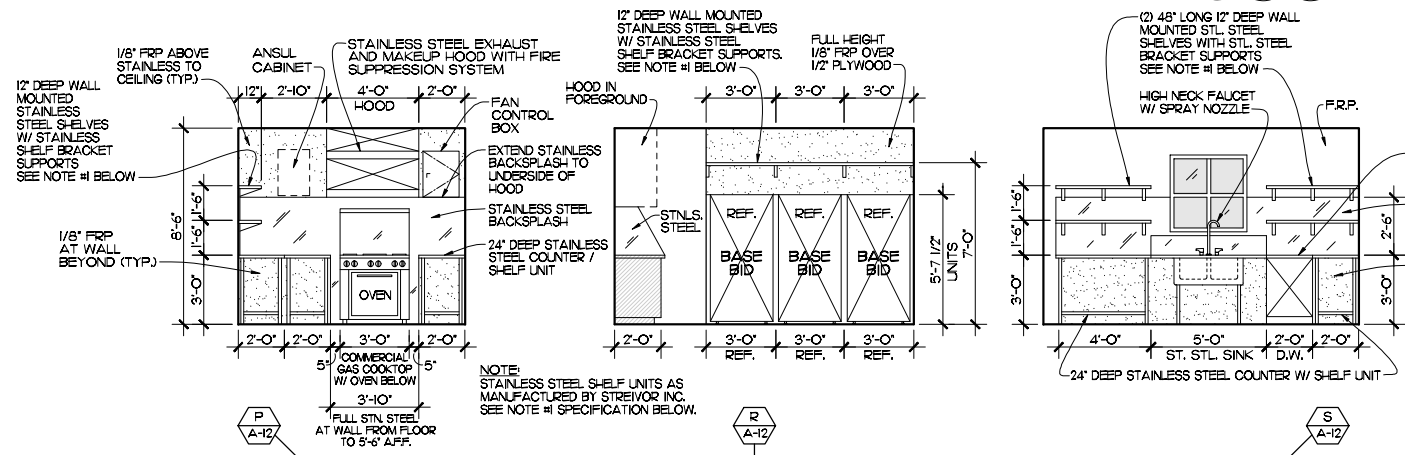
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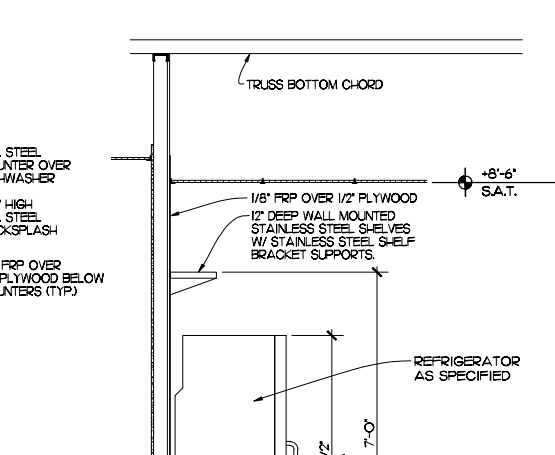
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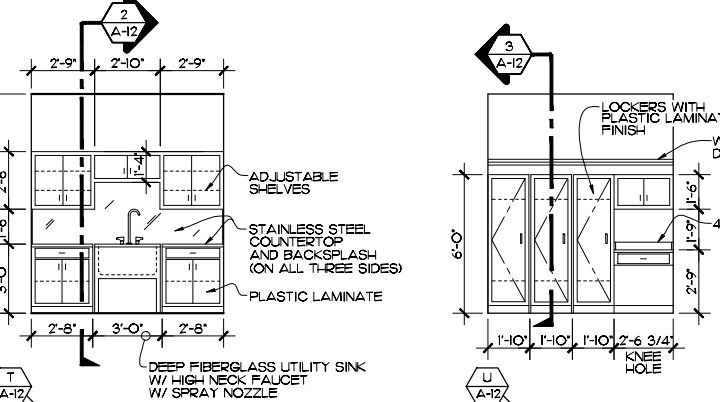
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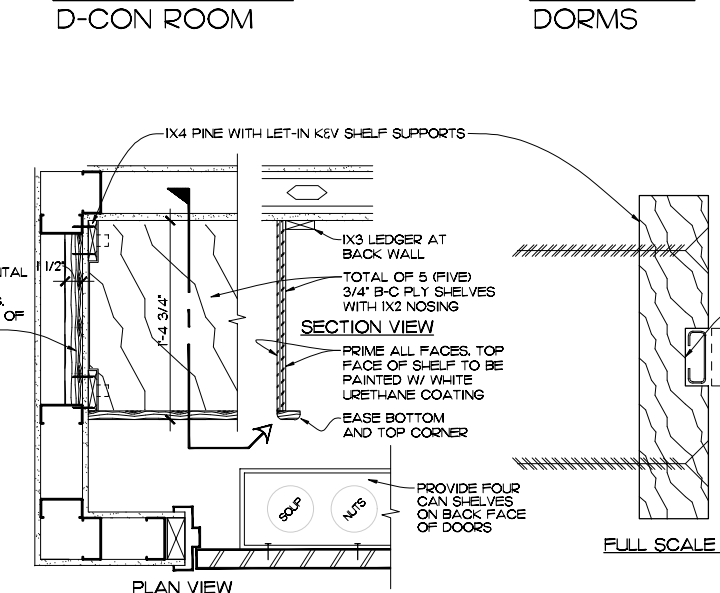
JAN. CLOSET



OFFICE



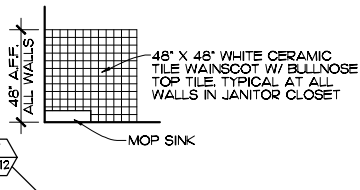
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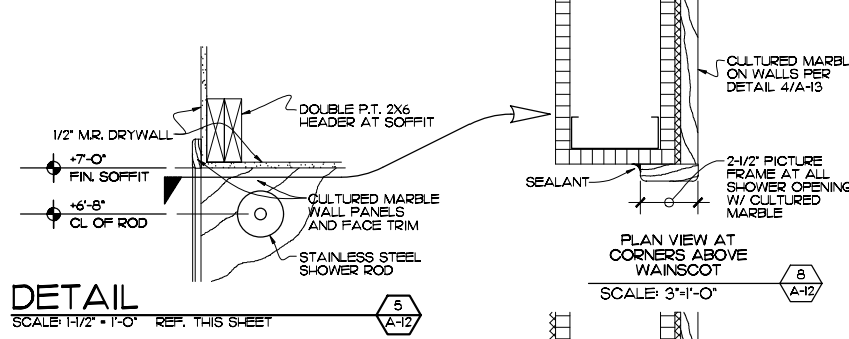
DETAIL AT PANTRY SHELVES

**NOTE #1**  
 STREIVOR'S STAINLESS STEEL WALL SHELF WITH SIDES TURNED UP IS CONSTRUCTED OF 16 GA. TYPE 304 SERIES STAINLESS STEEL. BACK AND SIDE EDGES ARE TURNED UP 2" AND WELDED AND POLISHED TO A #3 OR #4 FINISH. FRONT EDGE IS TURNED DOWN 2". SUPPORT BRACKETS ARE ON 6 FT. MAXIMUM CENTERS.

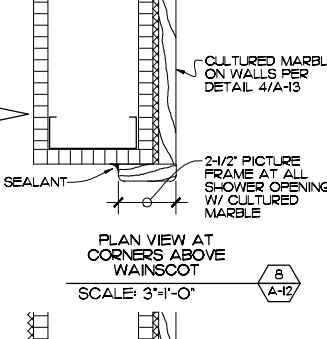
**STANDARD FEATURES:**  
 - 16 GAUGE TOP  
 - 16 GAUGE SUPPORT BRACKET  
 - BACK TURNED UP 2"  
 - FRONT TURNED DOWN 2"  
 - LEFT AND RIGHT TURNED DOWN 2"



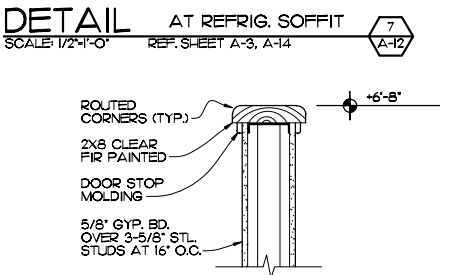
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DETAIL



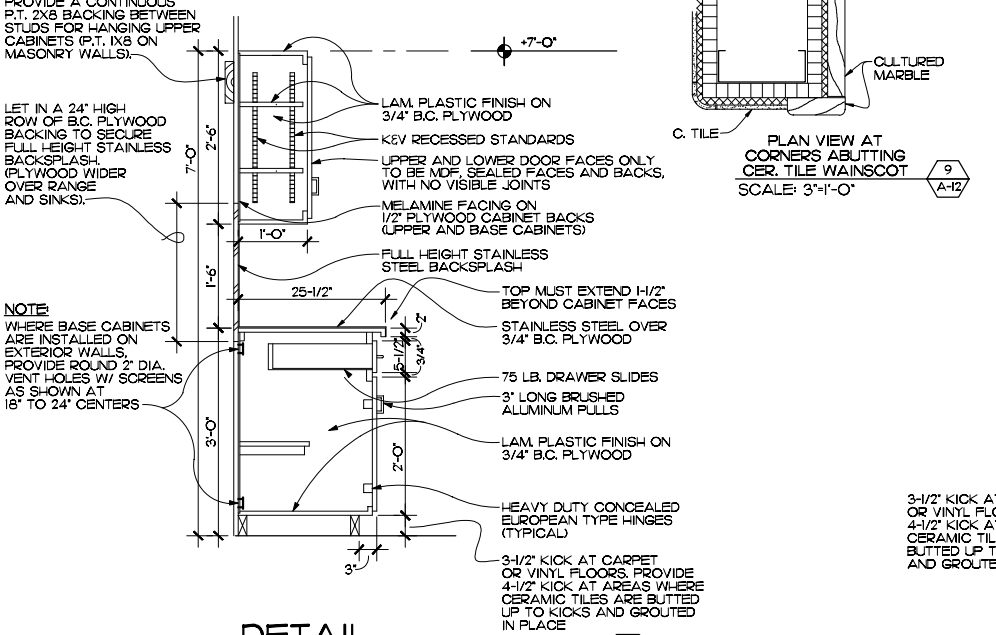
DETAIL



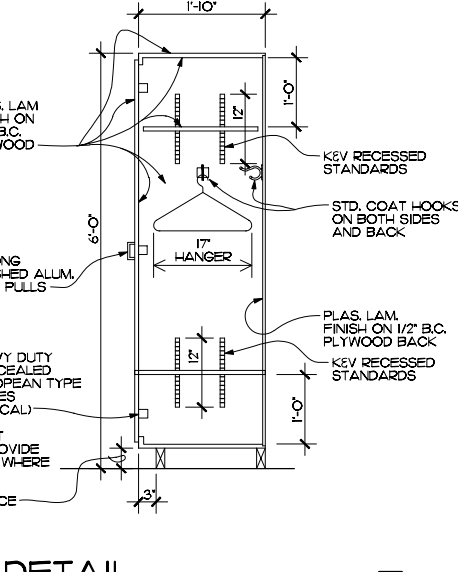
DETAIL AT REFRIG. SOFFIT



DETAIL WOOD CAP AT CUBICLE

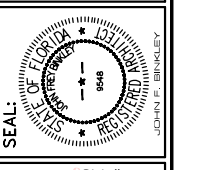
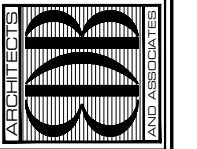


DETAIL



DETAIL

EDLUND - DRITENBAS - BINKLEY  
 ARCHITECTS AND ASSOCIATES, P.A.  
 65 ROYAL PALM POINTE, SUITE "D"  
 VERO BEACH, FLORIDA 32960  
 PHONE: (772) 569-4320



John Binkley  
 Digitally signed by John Binkley  
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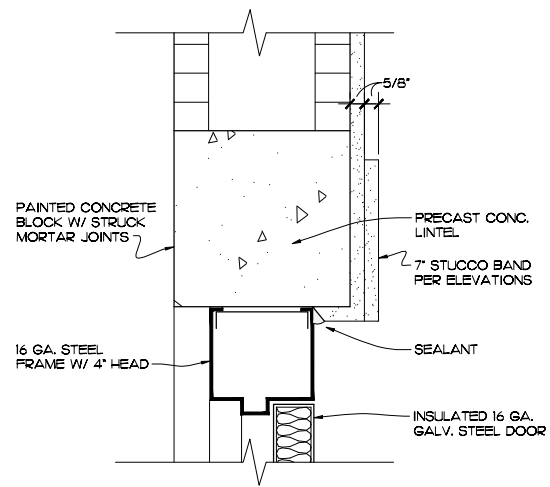
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 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

NO.	DATE	REVISIONS

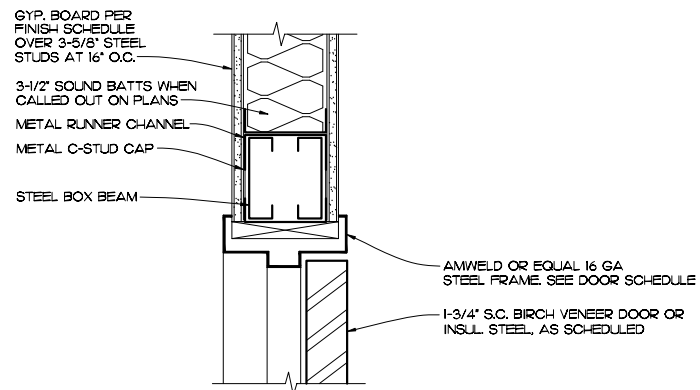
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 DATE: 1 AUG. 2023  
 BY: JNR  
 CH'KD: JFB

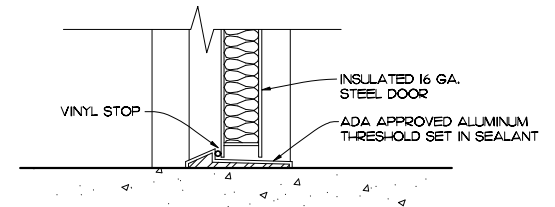
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 OF FOURTEEN



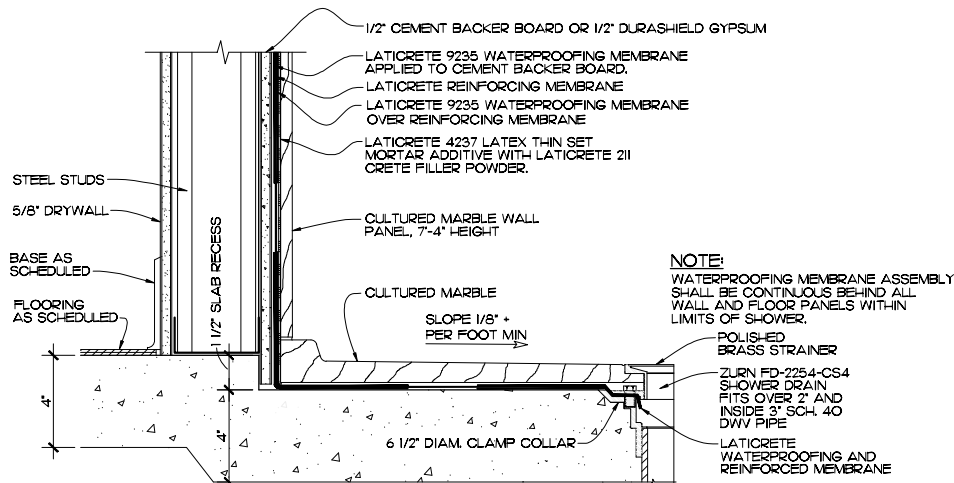
**HEAD**  
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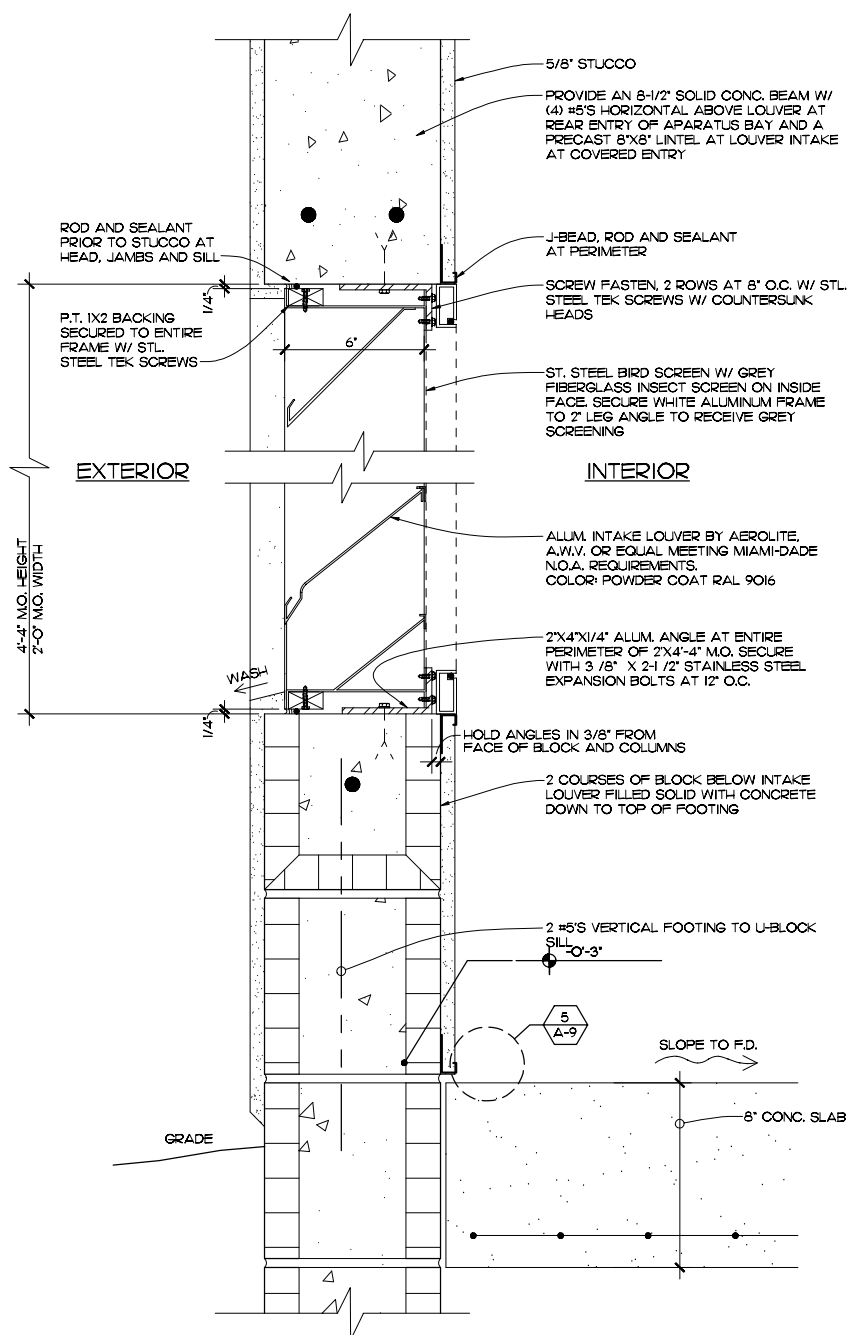
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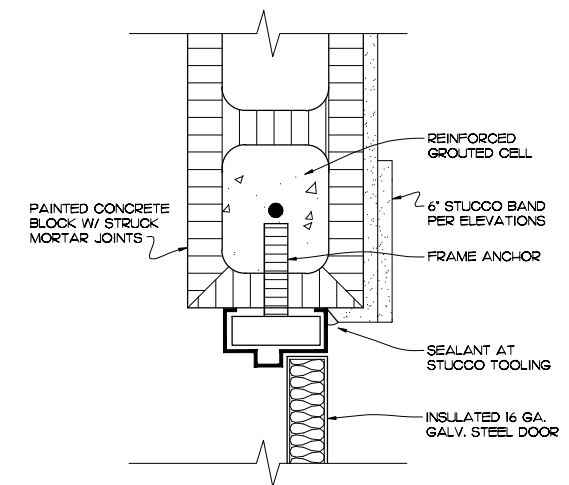
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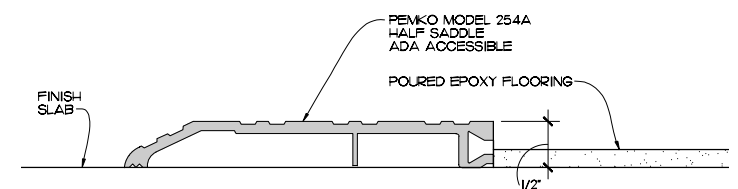
**DETAIL**  
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**DETAIL AT INTAKE LOUVERS**  
SCALE: 3" = 1'-0" REF. SHEETS A-3, A-4

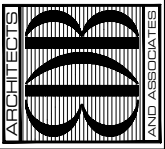


**JAMB**  
SCALE: 3" = 1'-0" REF. SHEET A-11



**DETAIL**  
SCALE: 3" = 1'-0" REF. SHEET A-11

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ARCHITECTS AND ASSOCIATES, P.A.  
AIR-VA C000886  
65 ROYAL PALM POINTE, SUITE "D"  
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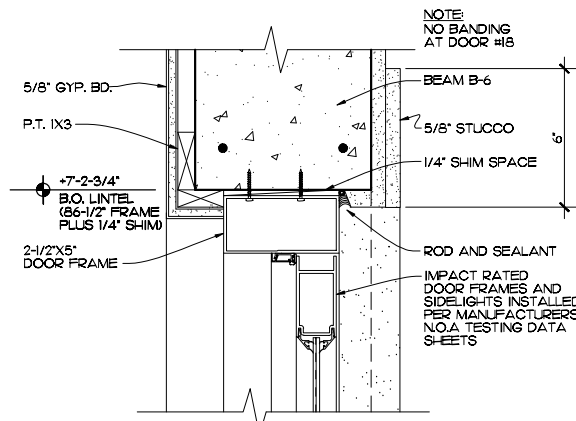
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NO.	DATE	REVISIONS

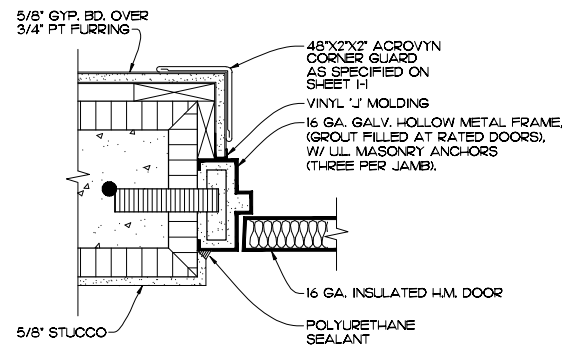
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SHEET NO.  
**A-13**  
OF FOURTEEN

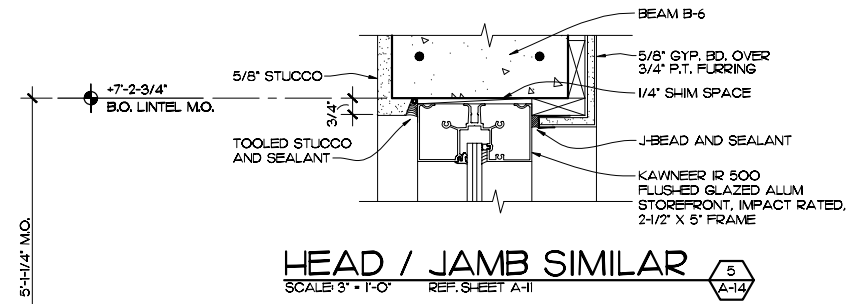




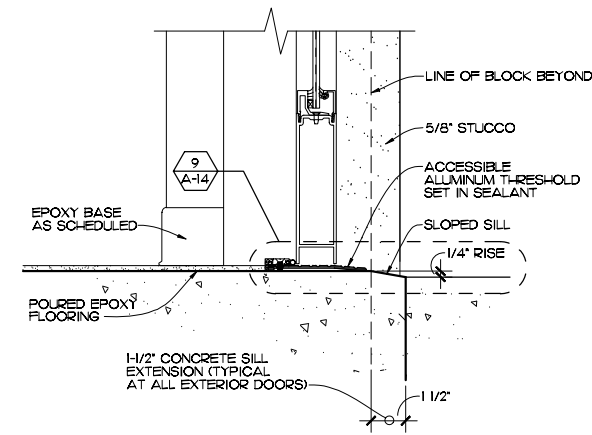
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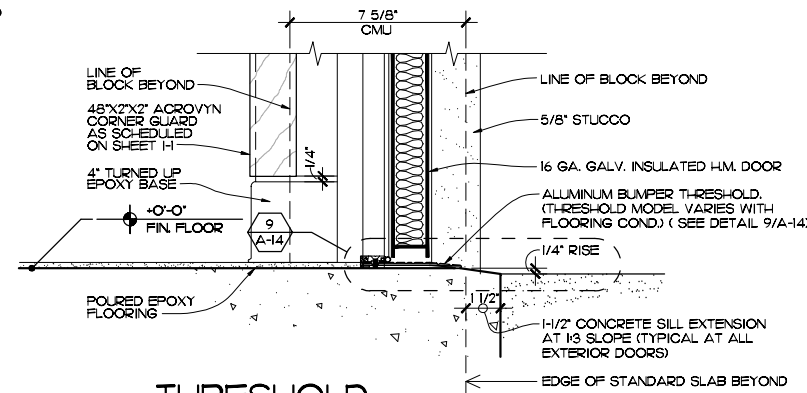
**JAMB / HEAD SIMILAR**  
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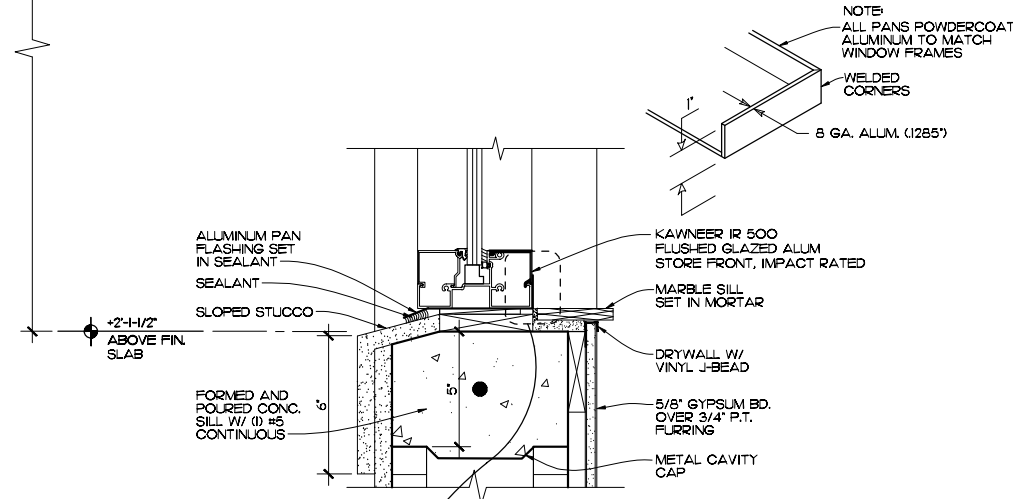
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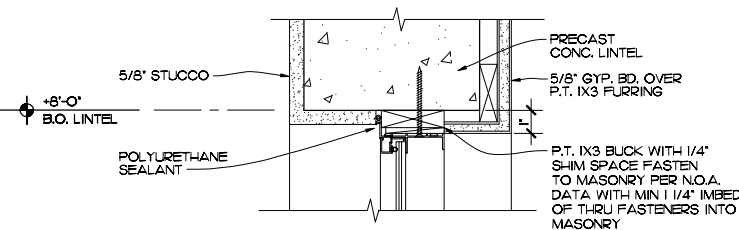
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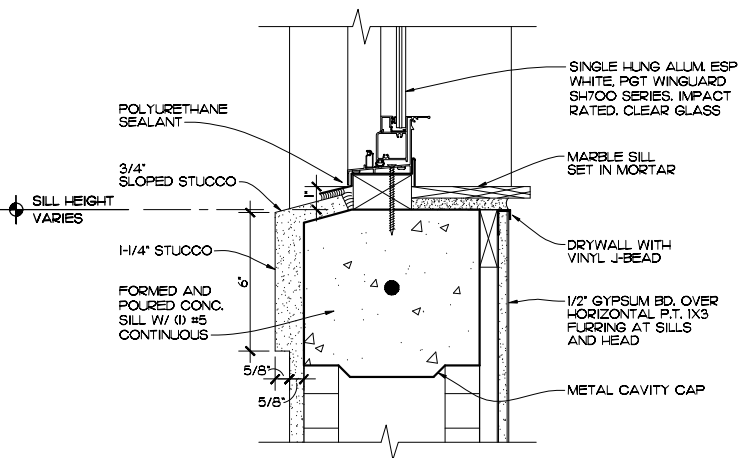
**THRESHOLD**  
SCALE: 3" = 1'-0" REF. SHEET A-11



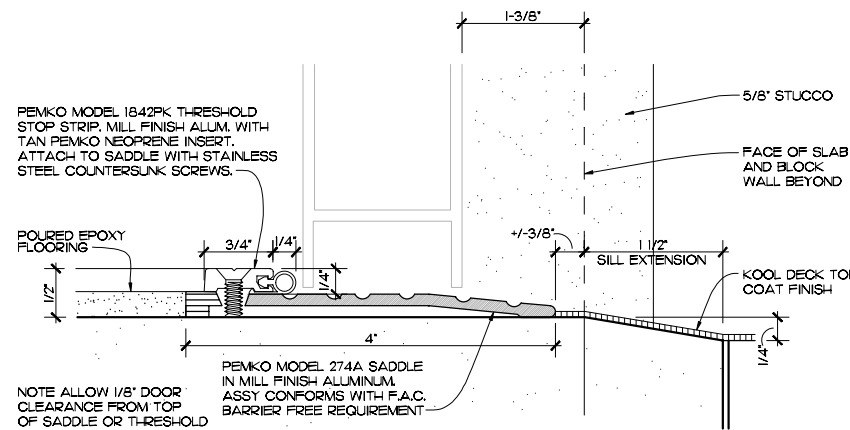
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SCALE: 3" = 1'-0" REF. SHEET A-11



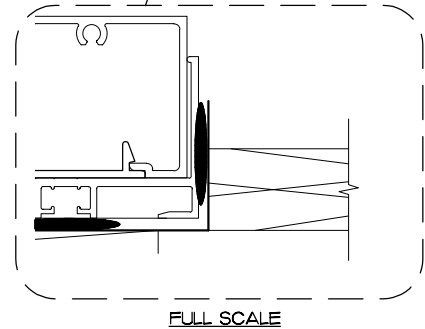
**HEAD / JAMB SIMILAR**  
SCALE: 3" = 1'-0" REF. SHEET A-11



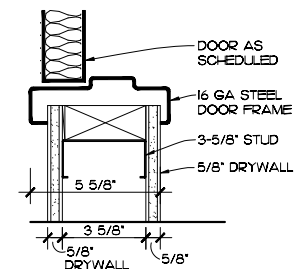
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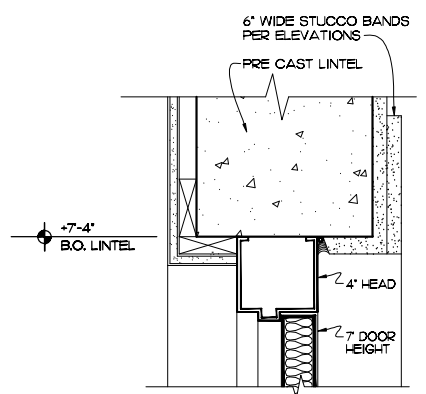
**DETAIL**  
SCALE: FULL REF. THIS SHEET



**FULL SCALE**

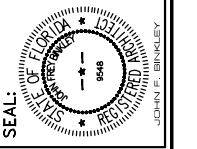
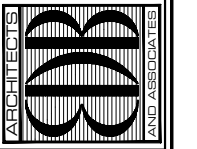


**JAMB DETAIL**  
SCALE: 3" = 1'-0" REF. SHEET A-4



**HEAD CONDITION**  
SCALE: 3" = 1'-0" REF. SHEET A-11

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ARCHITECTS AND ASSOCIATES, P.A.  
AIR-14 C00888  
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PHONE: (772) 569-4320



John Binkley  
Digitally signed by John Binkley  
Date: 2023.10.19 16:27:01 -0400

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE  
VERO BEACH, FL 32967

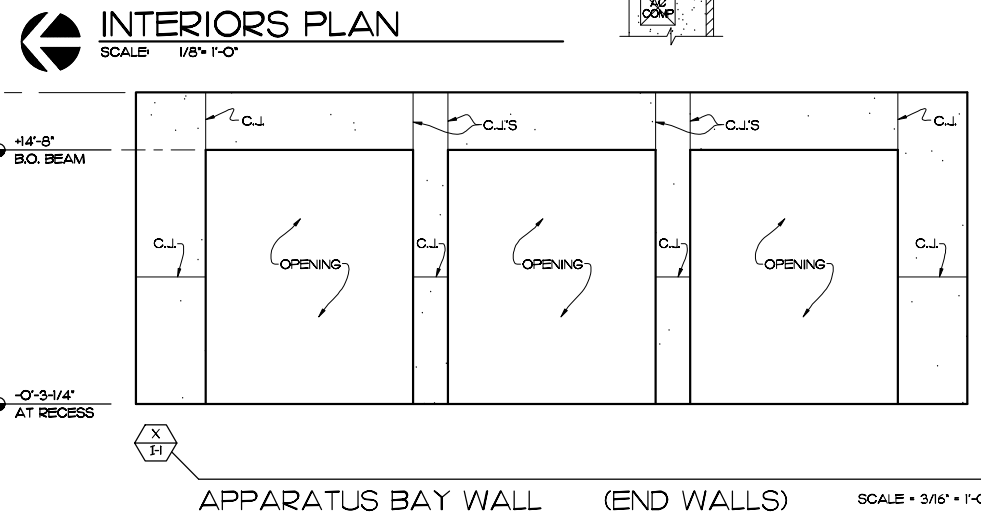
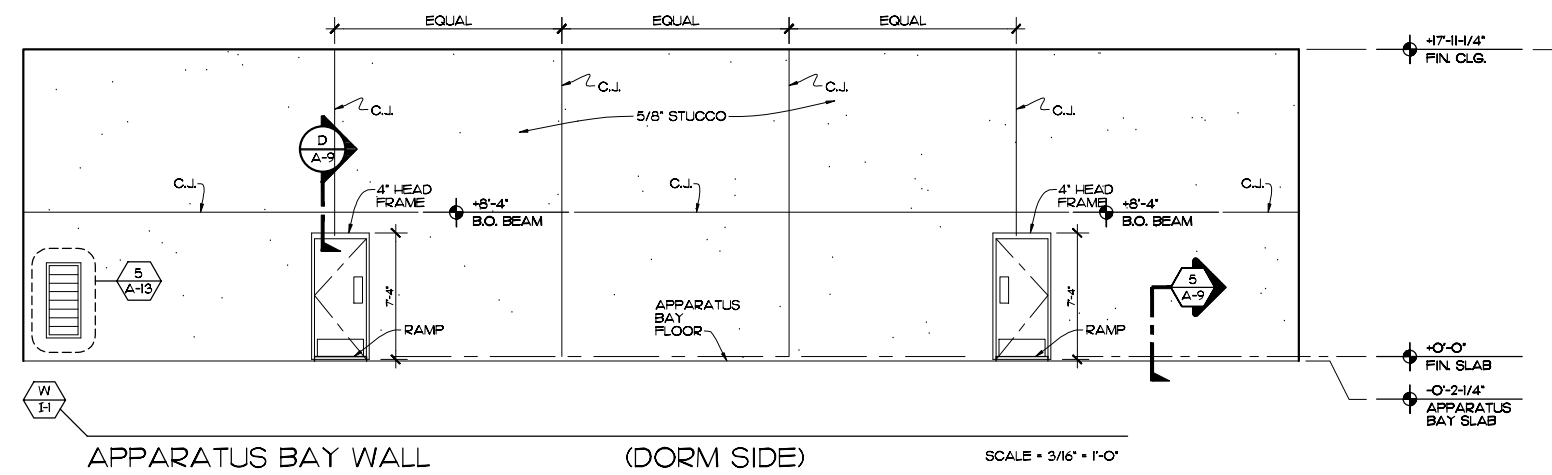
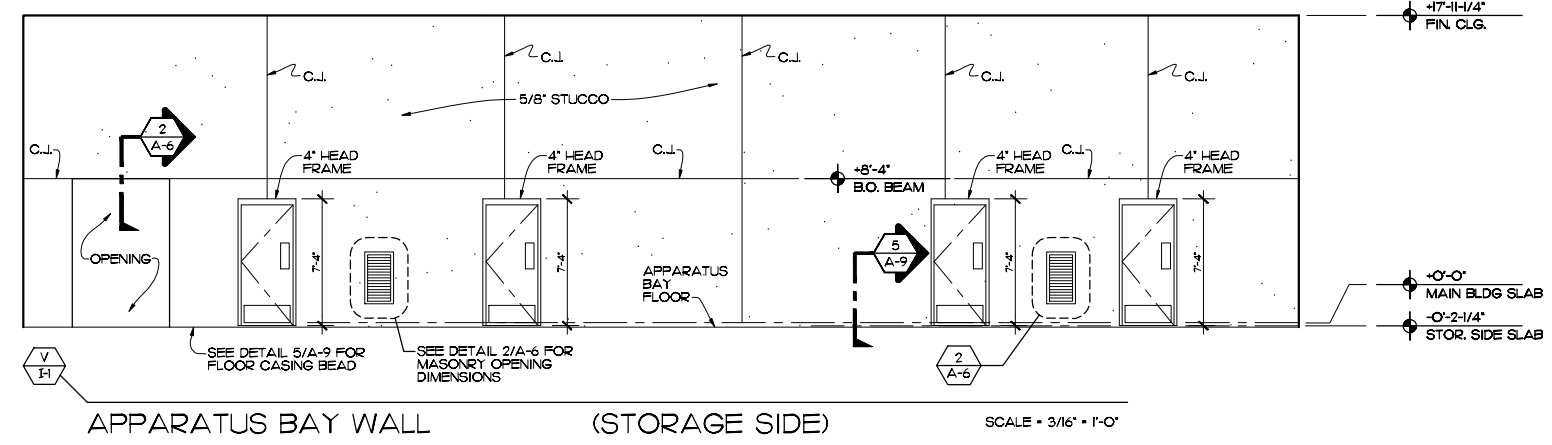
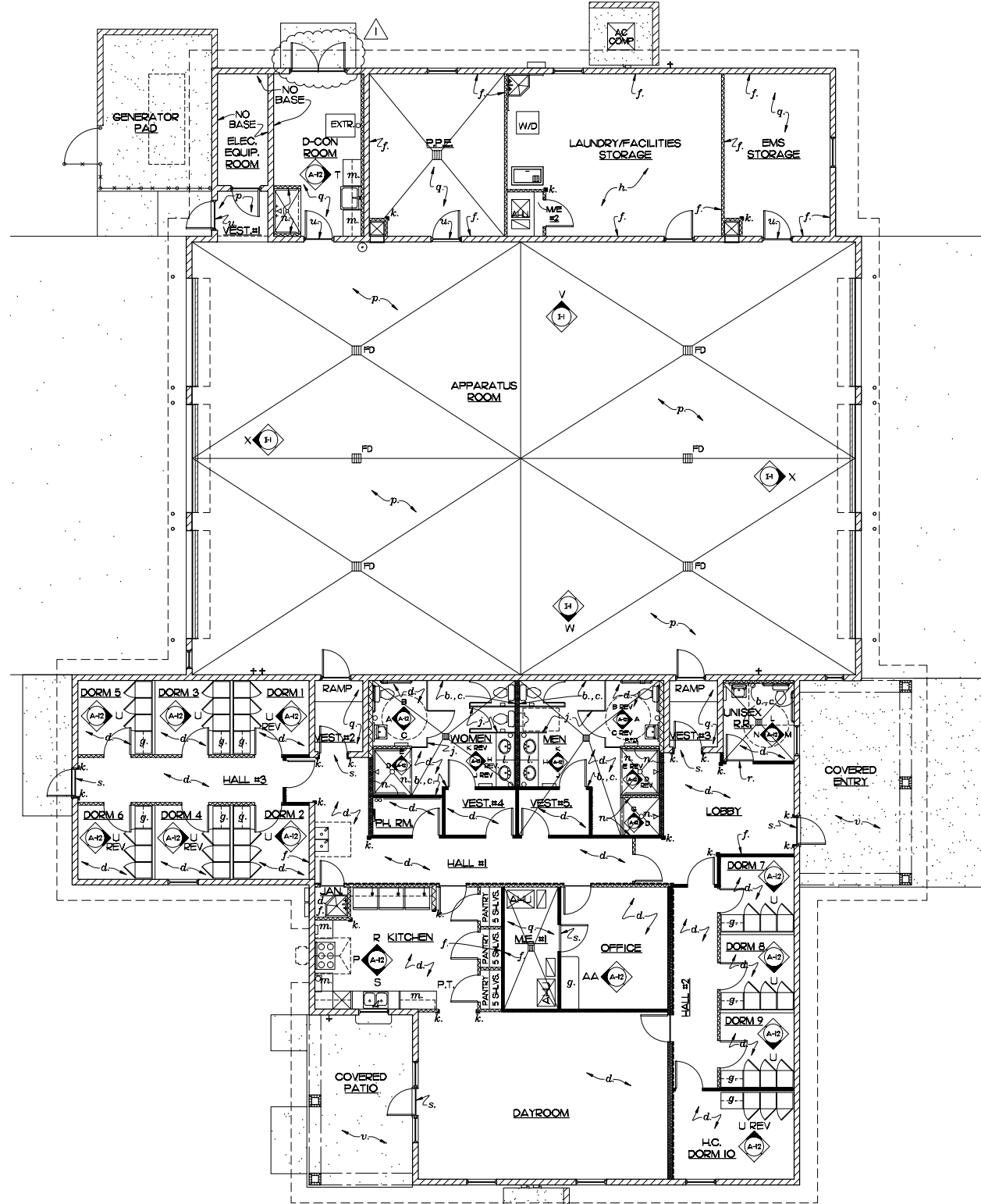
NO.	DATE	REVISIONS

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COMM. NO: 050219VB  
DATE: 1 AUG. 2023  
BY: JNR  
CHKD: JFB

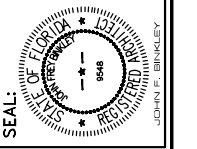
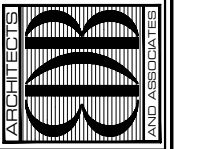
SHEET NO.  
**A-14**  
OF FOURTEEN



INTERIOR SCHEDULE	
I. (DELETED)	a. (DELETED)
II. CERAMIC TILE SEE ELEVATIONS SHEET A-12	b. (AT RESTROOM WALLS) FIELD TILE: DAL TILE 4X4 ICE GREY 1276 GRAPHIC TILE: DAL TILE 4X4 BIMINI BLUE 1223 GROUT COLOR TO BE WHITE
III. POURED EPOXY	d. POURED EPOXY W/4" TURNED UP EPOXY BASE e. DELETED
IV. VINYL BASE	f. MERCER 663 SKY GREY (ROLL STOCK ONLY)
V. PLASTIC LAMINATE	g. PIONITE FOLKSTONE GREY S624I SUEDE (DESK W/ LOCKERS, VANITY FRONTS, BASE CABINETS, OFFICE DESK.
VI. RUBBER FLOORING (RUB.)	h. TUFLEX SPARTUS #913 (TUB)
VII. BATH-ROOM PARTITIONS	j. SANTANA SOLID PLASTIC: CANYON GRANITE.
VIII. CEILING TILE SEE REFLECTED CEILING PLAN SHEET A-9 FOR LOCATIONS	TYPE I. ARMSTRONG 24"X24"X7/8" CIRRLUS OPEN PLAN 556, CLASS A WITH 15/16" ANGLED TEGULAR EDGE PROFILE. GRID - 15/16" PRELUDE. COLOR - WHITE. TYPE II. ARMSTRONG 24"X24"X5/8" 607 CERAMIGUARD FINE FIGURED PERFORATED WITH WITH 15/16" SQUARE LAY-IN EDGE PROFILE. GRID - 15/16" AL PRELUDE PLUS XL. COLOR - WHITE.
IX. CORNER GUARDS	k. 90 DEGREE CORNER GUARDS - ACROVYN SSM - IO/20, 2"X2"X48" L'NG IN ALMOND COLOR. INSTALL FROM 1/4" ABOVE VINYL BASE TO 52-1/4" AFF.
X. BATHROOM VANITY TOPS	l. WHITE CULTURED MARBLE WITH INTEGRAL BOWL SINK.
XI. KITCHEN / WORKROOM TOPS	m. STAINLESS STEEL WITH STAINLESS STEEL BACK SPLASH.
XII. WOOD DOORS	n. SOLID CORE WOOD WITH BIRCH VENEER WITH CLEAR SATIN POLYURETHANE FINISH.
XIII. SHOWER WALLS	o. SINGLE PIECE WHITE CULTURED MARBLE OVER 1/2" CEMENT BACKER BOARD ON WALLS, AND FULL CAST CULTURED MARBLE PAN ASSEMBLY.
XIV. CONCRETE FLOORS	p. TROWEL FINISH CONCRETE WITH TWO COATS OF CLEAR EPOXY OVER EPOXY PAINT WITH GRIT FLECKS ADDED. q. CONCRETE STAIN COLOR TO BE SELECTED BY OWNER AND ARCHITECT.
XV. TRANSITION CONDITIONS AT DOOR OPENINGS	r. (DELETED) s. METAL TRANSITION SADDLE THRESHOLD BY PENKO. t. (DELETED) u. METAL ADATH-RESHOLD BY PENKO.
XVI. APPLIED FLOOR FINISHES	v. KOOL DECK OR EQUAL VINYL ACRYLIC TOP COAT ON FINISH CONCRETE SLAB. COLOR SELECTED BY OWNER.



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Date: 2023.10.19 16:28:03 -0400

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
4225 43RD AVE  
VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	15AUG23	REVISED PER BLDG DEPT COMMENTS

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COMM. NO: 050219VB  
DATE: 1 AUG. 2023  
BY: JNR  
CHK'D: JFB  
SHEET NO. I-1  
OF ONE

**LIFE SAFETY DATA:**

SITE LOCATED IN THE CITY OF FELLSMERE, FLORIDA  
 PROJECT: CONSTRUCTION OF FIRE STATION #7 REPLACEMENT  
 REVIEW AGENCY: CITY OF FELLSMERE BUILDING DEPARTMENT  
 FIRE CODE REVIEW: INDIAN RIVER COUNTY FIRE PREVENTION BUREAU

**APPLICABLE CODES:**

- A. FLORIDA BUILDING CODE 2020 SEVENTH EDITION
- B. ACCESSIBILITY CODE FBC 2020 SEVENTH EDITION
- C. NFPA 101, 2018 6TH EDITION LIFE SAFETY CODE
- D. FLORIDA MECHANICAL CODE, FBC 2020 SEVENTH EDITION
- E. FLORIDA PLUMBING CODE, FBC 2020 SEVENTH EDITION
- F. NATIONAL ELECTRICAL CODE 2017 EDITION
- G. ENERGY CONSERVATION CODE FBC 2020 SEVENTH EDITION

**BUILDING DATA:**

PROJECT CONSISTS OF (1) ONE SINGLE STORY BUILDING (FOR THE PURPOSES OF A FIRE STATION) - 9540 S.F. UNDER ROOF MASONRY BUILDING WITH WOOD TRUSSES

**LIFE SAFETY REVIEW:**

**BUILDING OCCUPANCY CLASSIFICATION:**

OCCUPANCY TYPE - SEPARATED OCCUPANCIES FBC TABLE 508.4 (1 HR. SEPARATION REQUIRED)  
 R-2-NEW DORMITORIES, NFPA 10128, AREA= 2,355 S.F.  
 B-NEW BUSINESS, NFPA 101 CHAPTER 38, AREA= 1,130 S.F.  
 S-1-NEW STORAGE, NFPA 101 CHAPTER 42 ORDINARY HAZARD, AREA= 4,995 S.F.  
 FULLY SPRINKLERED IN ACCORDANCE WITH FBC 903 AND NFPA 1, 13.3.2.3.

**CONSTRUCTION TYPE:**

TYPE III B (PROTECTED, SPRINKLERED) FBC TABLE 602.3

**ALLOWABLE HEIGHT:** FBC TABLE 504.3A

TYPE III, B, R, ALLOWABLE HEIGHT 75 FT. ACTUAL HEIGHT 30 FT. (OK)

**ALLOWABLE AREA:** FBC TABLE 506.2

R-2, S-1, B ALLOWABLE AREA 64,000 SQ. FT. ACTUAL AREA 9,035 SQ. FT. (OK)

**OCCUPANCY SEPARATION:**

R-2, S-1, AND B PER TABLE 508.4 FBC IS 1 HOUR SEPARATION (SEE SECTION 406J) FOR GARAGES  
 COMMENT: THE MASONRY WALLS SEPARATING THE R-2 OCCUPANCY FROM THE S-1 OCCUPANCY IS A ONE HOUR ASSEMBLY WITH 45 MINUTE DOORS AND FRAMES, LATCHES AND CLOSERS.  
 ALL PENETRATIONS THROUGH THIS ASSEMBLY ARE PER FBC SECTION 714.

**TOTAL OCCUPANTS AND MINIMUM NUMBER OF EXITS:**

FBC TABLE 1004.5 AND FBC TABLE 1006.2.3  
 R-2-NEW DORMITORY, 1/50 S.F. PER OCCUPANT (1,132 SF 'DORM AREAS'/50 = 23 PEOPLE)  
 S-1-NEW STORAGE, 300 GROSS S.F. PER OCCUPANT (4,995 SF/300 = 17 PEOPLE)  
 B-NEW BUSINESS, 1 PER 150 GROSS S.F. PER OCCUPANT (1,130 SF/150 = 8 PEOPLE)  
**48 TOTAL OCCUPANTS**  
 FBC TABLE 1006.3.2 MINIMUM NUMBER OF EXITS 1-500 OCCUPANTS 2 EXITS MINIMUM REQUIRED  
 EGRESS WIDTH PROVIDED 36" DOORS/2' ALLOWS 180 PEOPLE, FBC 1006.1  
 TOTAL EXIT DOORS PROVIDED (4) FOUR (W/ APPARATUS BAY DOORS OPEN) AND THREE (3) WITH O.H. DOORS CLOSED, OK FOR S-1 AND R-2 OCCUPANCIES.

**EXIT ACCESS TRAVEL DISTANCE:**

R-2, 250 FEET WITH SPRINKLERED BUILDING, FBC TABLE 1017.2  
 S-1, 400 FEET WITH SPRINKLERED BUILDING, FBC TABLE 1017.2  
 B, 250 FEET WITH SPRINKLERED BUILDING, FBC TABLE 1017.2  
 MAXIMUM TRAVEL DISTANCE PROPOSED EATD IS 114 FEET (OK).

**ROOF ASSEMBLY:**

TYPE III, B, FBC TABLE 1505J ALLOWS TYPE 'C' MINIMUM ROOF COVERING CLASSIFICATION.

**FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:**

TYPE III, B, ALL COMPONENTS (0) ZERO HOURS, FBC TABLE 601, EXCEPT EXTERIOR BEARING WALLS MUST HAVE A TWO HOUR RATING.

**FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE:**

TYPE III, B, GREATER THAN OR EQUAL TO 30 FEET, THEREFORE (0) ZERO HOURS, FBC 2020 SEVENTH EDITION TABLE 602.

**DRAFTSTOPPING IN ATTICS:**

FBC 718.4.3 (EXCEPTION) - DRAFTSTOPPING IS NOT REQUIRED IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1.

**KITCHEN HOOD:**

FBC 2020 MECHANICAL SEVENTH EDITION SECTION 507.2. TYPE I HOOD SHALL BE INSTALLED WHERE COOKING APPLIANCES PRODUCE GREASE OR SMOKE AS A RESULT OF THE COOKING PROCESS.

FBC 1007.1  
 NFPA 75.1.3.3

EXIT AND EXIT ACCESS DOORWAY CONFIGURATION WHERE A BUILDING IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 1007.1 THE SEPARATION DISTANCE SHALL BE NOT LESS THAN ONE THIRD OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE AREA SERVED  
 DIAGONAL DISTANCE 139 FT. / 3 = 46 FT. MAXIMUM EXIT SEPARATION - 60 FT. PROVIDED - COMPLIES

**FIRE CODE ANALYSIS:**

FLORIDA FIRE PREVENTION CODE 7TH EDITION (2018)  
 TYPE OF CONSTRUCTION TYPE III B / III (200)  
 TOTAL SQUARE FEET: 2,355 SF  
 NUMBER OF STORIES: 1  
 FIRE RATING SEPARATION OF OCCUPANCIES: FIRE RATING 1 HRS BETWEEN OCCUPANCY TYPES (SPRINKLER), SEE SHEET LS-1  
 OCCUPANCY TYPE: NEW DORMITORY NFPA 10128  
 MEANS OF EGRESS COMPONENTS: (DOOR SCHEDULE INCLUDE RATED DOORS) (SEE SHT A-1)  
 STAIRS, ENCLOSURE AND PROTECTION STAIRS, HANDRAILS, GUARDRAILS, AND RAMPS: N/A  
 OCCUPANT LOAD: N/A  
 CAPACITY OF MEANS OF EGRESS: 180 OCC.  
 NUMBER OF EGRESS: 2  
 ARRANGEMENT OF MEANS OF EGRESS: N/A  
 TRAVEL DISTANCE TO EXIT: 125FT TO THE CORRIDOR AND 200FT FROM CORRIDOR TO EXIT/ 108FT  
 COMMON PATH: 50 FT / 20FT  
 DEAD-END CORRIDOR: N/A  
 INTERIOR FINISHES: EXIT ENCLOSURES-CLASS A, LOBBIES AND CORRIDORS-CLASS A OR CLASS B, OTHER CLASS B, OTHER  
 ILLUMINATION OF MEANS OF EGRESS: SEE SHEET E-2  
 EMERGENCY LIGHTING: SEE SHEET E-2  
 MARKING OF MEANS OF EGRESS: SEE SHEET E-2  
 DETECTION, ALARM, AND COMMUNICATION SYSTEM: SEPARATE PERMIT REQUIRED  
 EXTINGUISHMENT REQUIREMENTS: PORTABLE FIRE EXTINGUISHERS AND SEPARATE PERMIT, SEE SHT A-3  
 SMOKE DUCTS DETECTORS: PROVIDED  
 FIRE DAMPERS: PROVIDED

**FIRE CODE ANALYSIS:**

FLORIDA FIRE PREVENTION CODE 7TH EDITION (2018)  
 TYPE OF CONSTRUCTION TYPE III B  
 TOTAL SQUARE FEET: 1,130 SF  
 NUMBER OF STORIES: 1  
 FIRE RATING SEPARATION OF OCCUPANCIES: FIRE RATING 1 HRS BETWEEN OCCUPANCY TYPES (SPRINKLER), SEE SHEET LS-1  
 OCCUPANCY TYPE: NEW BUSINESS NFPA 101 CHAPTER 38  
 MEANS OF EGRESS COMPONENTS: (DOOR SCHEDULE INCLUDE RATED DOORS) (SEE SHT A-1)  
 STAIRS, ENCLOSURE AND PROTECTION STAIRS, HANDRAILS, GUARDRAILS, AND RAMPS: N/A  
 OCCUPANT LOAD: NFPA 1017.3.1.2 CHART (1 PERSON / 150 SF. 1,130 SF. / 150 = 8 OCCUPANTS)  
 CAPACITY OF MEANS OF EGRESS: 180 OCC.  
 NUMBER OF EGRESS: 1 PER NFPA 10138.2.4.3  
 ARRANGEMENT OF MEANS OF EGRESS: N/A  
 TRAVEL DISTANCE TO EXIT: 300FT / 25FT  
 COMMON PATH: N/A  
 DEAD-END CORRIDOR: N/A  
 INTERIOR FINISHES: CLASS A, OR CLASS B IN EXITS AND EXIT ACCESS CORRIDOR, CLASS C IN OTHER AREAS  
 ILLUMINATION OF MEANS OF EGRESS: SEE SHEET E-2  
 EMERGENCY LIGHTING: SEE SHEET E-2  
 MARKING OF MEANS OF EGRESS: SEE SHEET E-2  
 DETECTION, ALARM, AND COMMUNICATION SYSTEM: SEPARATE PERMIT REQUIRED  
 EXTINGUISHMENT REQUIREMENTS: PORTABLE FIRE EXTINGUISHERS AND SEPARATE PERMIT, SEE SHT A-3  
 SMOKE DUCTS DETECTORS: PROVIDED  
 FIRE DAMPERS: PROVIDED

**FIRE CODE ANALYSIS:**

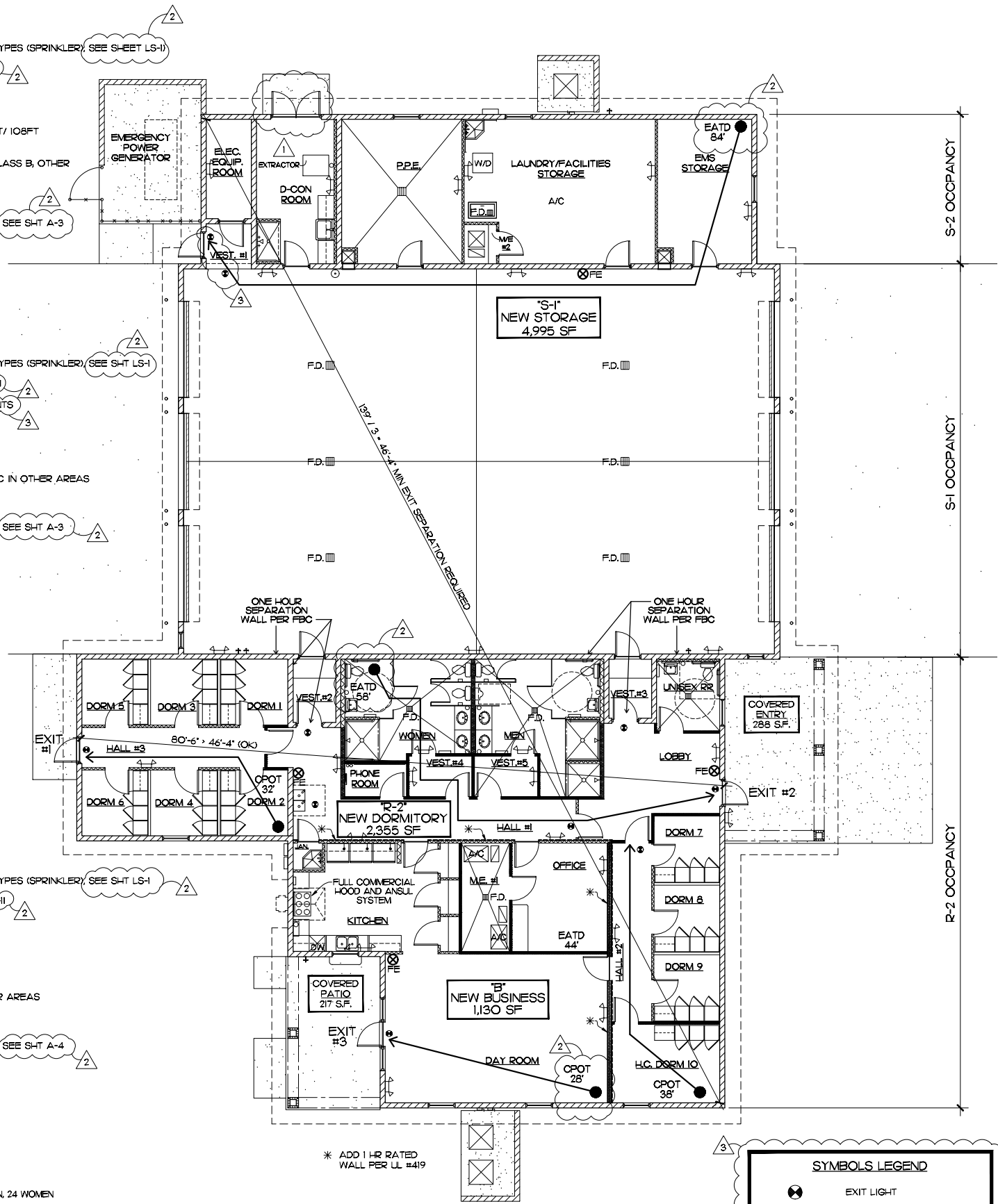
FLORIDA FIRE PREVENTION CODE 7TH EDITION (2018)  
 TYPE OF CONSTRUCTION TYPE III B  
 TOTAL SQUARE FEET: 4,995 SF  
 NUMBER OF STORIES: 1  
 FIRE RATING SEPARATION OF OCCUPANCIES: FIRE RATING 1 HRS BETWEEN OCCUPANCY TYPES (SPRINKLER), SEE SHEET LS-1  
 OCCUPANCY TYPE: NEW STORAGE NFPA 101 CHAPTER 42 ORDINARY HAZARD  
 MEANS OF EGRESS COMPONENTS: (DOOR SCHEDULE INCLUDE RATED DOORS) (SEE SHT A-1)  
 STAIRS, ENCLOSURE AND PROTECTION STAIRS, HANDRAILS, GUARDRAILS, AND RAMPS: N/A  
 OCCUPANT LOAD: N/A  
 CAPACITY OF MEANS OF EGRESS: 180 OCC. (3) MUST BE A MAN DOOR  
 NUMBER OF EGRESS: (1 PER NFPA 10142.2.4) (3) MUST BE A MAN DOOR  
 ARRANGEMENT OF MEANS OF EGRESS: N/A  
 TRAVEL DISTANCE TO EXIT: 400FT/82FT  
 COMMON PATH: N/A  
 DEAD-END CORRIDOR: N/A  
 INTERIOR FINISHES: CLASS A, OR CLASS B IN EXIT ENCLOSURE; CLASS A, B, OR C IN OTHER AREAS  
 ILLUMINATION OF MEANS OF EGRESS: SEE SHEET E-2  
 EMERGENCY LIGHTING: SEE SHEET E-2  
 MARKING OF MEANS OF EGRESS: SEE SHEET E-2  
 DETECTION, ALARM, AND COMMUNICATION SYSTEM: SEPARATE PERMIT REQUIRED  
 EXTINGUISHMENT REQUIREMENTS: PORTABLE FIRE EXTINGUISHERS AND SEPARATE PERMIT, SEE SHT A-4  
 SMOKE DUCTS DETECTORS: PROVIDED  
 FIRE DAMPERS: PROVIDED

**FBC PLUMBING TABLE 403.1**

**PLUMBING FIXTURE CALCULATIONS**

BASED ON 48 OCCUPANTS - 24 MEN, 24 WOMEN

	WATER CLOSETS 1 PER IO		LAVATORIES 1 PER IO		SHOWERS (BASED UPON 7 OCCUPANTS PER SHIFT)		DRINKING FOUNTAIN 1 PER 1000	SERVICE SINK 1 REQUIRED
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN		
REQUIRED	24 ÷ 10 + 24 3	24 ÷ 10 + 24 3	24 ÷ 10 + 24 3	24 ÷ 10 + 24 3	4 ÷ 8 + 0.5 1	4 ÷ 8 + 0.5 1	1	1
PROVIDED	2 + 1 WC URINAL	3	3	3	2	1	1	2



**SYMBOLS LEGEND**

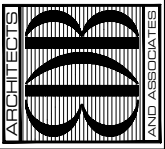
- ⊙ EXIT LIGHT
- ⊕ EMERGENCY LIGHT W/BATTERY BACKUP
- ⊗ FE WALL MOUNTED FIRE EXTINGUISHER

**BUILDING AREA**

LIVING AND OFFICE AREA	3,483 S.F.
STORAGE AND WORK AREA	1,347 S.F.
APPARATUS ROOM	3,700 S.F.
COVERED AREA	505 S.F.
<b>TOTAL UNDER ROOF</b>	<b>9,035 S.F.</b>

**LIFE SAFETY PLAN** (FULLY SPRINKLERED)  
 SCALE: 1/8" = 1'-0"

EDLUND · DRITENBAS · BINKLEY  
 ARCHITECTS AND ASSOCIATES, P.A.  
 AIR-VA 000886  
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 PHONE: (772) 569-4320



John Binkley  
 Digitally signed by John Binkley  
 Date: 2023.10.19 16:29:04 -04'00'

PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE RESCUE/EMS  
 4225 43RD AVE  
 VERO BEACH, FL 32967

NO.	DATE	REVISIONS
1	08/23/23	FIRE PREVENTION COMMENTS
2	08/24/23	FIRE PREVENTION COMMENTS
3	08/24/23	REVISED PER BLDG DEPT COMMENTS

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COMM. NO: 050219VB  
 DATE: 1 AUG. 2023  
 BY: JNR, JRB  
 CHM: JFB, JFB

SHEET NO.  
**LS-1**  
 OF ONE



# GENERAL STRUCTURAL NOTES

## GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND ENGINEERS.
  - DETAILS SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS AND CONDITIONS UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL THE BUILDING IS COMPLETED.
  - ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:
    - THE FLORIDA BUILDING CODE, (SEVENTH EDITION) 2020.
    - ACI STANDARD 318-14 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
    - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 402-16).
    - ASCC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS\* 360-16.
    - NDS FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT.
    - ASCE 7-16 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".
  - THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND THE ARCHITECTURAL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT PRIOR TO PERFORMING WORK. IN CASE OF CONFLICT THE MOST STRINGENT CONDITION SHALL APPLY.
  - ALL DIMENSIONS MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND WITH EQUIPMENT MANUFACTURER (I.E. WINDOW, DOOR, AIR HANDLER, ETC.). CONTRACTOR MUST OBTAIN AN ARCHITECTURAL DIRECTIVE IN CASE OF ANY CONFLICT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN IN STRUCTURAL DRAWINGS.
  - ROOFTOP EQUIPMENT ANCHORAGE & OUTDOOR RACK MOUNTED EQUIPMENT ANCHORAGE, ALL ROOF TOP EQUIPMENT CURBS, ROOF TOP MECHANICAL EQUIPMENT, EQUIPMENT TIE DOWNS, AND CONNECTIONS OF ALL EQUIPMENT TO OUTDOOR RACKS OR BUILDING STRUCTURE FOR WIND LOADING ARE TO BE DESIGNED AND ENGINEERED BY A REGISTERED SPECIALTY ENGINEER RETAINED BY THE MECHANICAL EQUIPMENT SUPPLIER. SIGNED AND SEALED DRAWINGS AND CALCULATIONS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. THE EQUIPMENT MANUFACTURER SHALL PROVIDE THE ATTACHMENT OF THE UNIT TO THE STRUCTURE AND SUBMIT TO THE ENGINEER LOADS, LOCATIONS, AND METHODS OF ATTACHMENT. THE STRUCTURAL ENGINEER WILL MAKE PROVISIONS IN THE DESIGN OF THE PRIMARY STRUCTURAL FRAME TO ACCOMMODATE THE LOADS AND ATTACHMENTS SUBMITTED BY THE MANUFACTURER.
  - ALLOWANCES FOR THIS PROJECT:
    - 50 CUBIC YARDS OF 4,000 PSI STRUCTURAL CONCRETE.
    - 5 TONS REINFORCED STEEL
    - 5 TONS STRUCTURAL STEEL FRAMING.
    - \$50,000 ALLOWANCE FOR ADDITIONAL WOOD FRAMING AND CONNECTIONS.
- CONTRACTOR SHALL GIVE CREDIT TO OWNER FOR ANY UNUSED PORTION OF THIS ALLOWANCE AT THE END OF THE PROJECT.

## CONCRETE AND REINFORCING:

- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI-318".
- ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTHS AS INDICATED BELOW:
 

CONCRETE STRENGTH	MAX WATER CEMENT RATIO	TYPE AGGREGATE	LOCATION USED
4000 PSI	0.45	STONE	CONCRETE U.N.O
3000 PSI	0.52	STONE	SLAB ON GRADE AND FOUNDATIONS
- ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A-615, GRADE 60. ALL BARS SHALL BE SECURELY SUPPORTED AND WIRED IN PLACE. PRIOR TO POURING CONCRETE. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A-706.
- ALL WELDED WIRE FABRIC (W.W.F.) IN FLAT SHEETS ONLY AND SHALL CONFORM TO ASTM A-185.
- UNLESS NOTED, ALL BARS MARKED CONTINUOUS SHALL BE SPLICED AT ALL LAP POINTS AND CORNERS AND DEVELOPED AT NON-CONTINUOUS ENDS AS PER TYPICAL DETAILS. SPLICE CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND SPLICE CONTINUOUS BOTTOM BARS AT SUPPORTS.
- CONCRETE COVER FOR REINFORCING BARS SHOWN IN TYPICAL DETAILS.
- UNLESS NOTED, TEMPERATURE REINFORCING (ASTM A-615-60) TO BE 0.0018 X CONCRETE AREA.
- PROVIDE #4 @ 12" O.C. WITH STANDARD HOOK, TOP BARS IN ALL SLABS AT DISCONTINUOUS ENDS UNLESS OTHERWISE NOTED ON PLANS. LENGTH OF BARS 1/4 OF SPAN, MINIMUM 3'-0". UNLESS OTHERWISE NOTED PROVIDE #4 @ 12" O.C. IN ALL CANTILEVERS. BAR LENGTH SHALL BE CANTILEVER SPAN PLUS 10'-0" PLUS STANDARD HOOK AT CANTILEVER ENDS.
- WHERE PIPE SLEEVES (UP TO 2" IN DIAMETER) PASS THROUGH CONCRETE BEAMS, PROVIDE ADDITIONAL STIRRUP EACH SIDE OF SLEEVE. SLEEVES FOR PIPES 2" IN DIAMETER OR LARGER MUST BE STEEL OR CAST IRON, AND THE LOCATION MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
- ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED JUST BEFORE PLACING NEW CONCRETE IN ACCORDANCE WITH THE BUILDING CODE.
- FOR CHAMFER OF EXPOSED CORNERS OF BEAMS AND/OR COLUMNS, SEE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL COORDINATE PLACEMENT OF, OR BOX OUT FOR, ALL PIPE SLEEVES, OPENINGS, ETC. REQUIRED FOR VARIOUS TRADES.
- CONTRACTOR SHALL COORDINATE AND NOTIFY OTHER TRADES IN SUFFICIENT TIME TO ALLOW THEM TO SET ANCHORS, INSERTS, BOLTS, HANGERS, ETC., AS REQUIRED FOR THEIR USE.
- SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF FLASHING REGLETS, FASCIA DETAILS, ETC.
- UNDER NO CIRCUMSTANCES SHALL CONCRETE BE PUMPED THROUGH ALUMINUM PIPES. CONCRETE SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM, ALUMINUM MIXING DRUMS, TRUCK MIXERS, BUGGIES, CHUTES, CONVEYORS, TREMIE PIPES, AND OTHER EQUIPMENT MADE OF ALUMINUM SHALL NOT BE USED ON THIS PROJECT.
- SLUMPS OF OVER 4 INCHES WILL NOT BE PERMITTED UNLESS THE HRWR ADMIXTURE (SUPER PLASTICIZER) IS USED. MAXIMUM SLUMP IS THEN 8 INCHES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- NO ADMIXTURE SHALL BE USED IN CONCRETE EXCEPT WITH THE PERMISSION OF THE ENGINEERS AND AFTER LABORATORY DESIGN MIX APPROVAL. ALL ADMIXTURES SHALL CONTAIN NO MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER.
- WATER REDUCING ADMIXTURE SHALL CONFORM TO THE ASTM C-494, TYPE A, AND SHALL BE USED IN ALL CONCRETE.
- AIR ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260. AIR CONTENT OF CONCRETE SHALL BE USED AS FOLLOWS:
  - FOR CONCRETE EXPOSED TO SOIL AND/OR WEATHER, 5%.
  - FOR INTERIOR WALLS, COLUMNS, AND SLABS, 3%.
- FLY ASH - ASTM C618, TYPE C OR TYPE F SHOULD BE USED BUT NOT TO EXCEED 20% CEMENTITIOUS CONTENT.

## CONCRETE AND REINFORCING:

- ALL EXPOSED CONCRETE SHALL RECEIVE A CURING COMPOUND. THE CURING COMPOUND SHALL CONFORM TO ASTM C309 AND SHALL HAVE 30% SOLIDS MINIMUM. WATERBLANKET CURING AS PER ACI RECOMMENDATION MAY BE USED AS ALTERNATE.
- UNLESS NOTED IN PROJECT SPECIFICATIONS, A TESTING LAB SHOULD PERFORM THE FOLLOWING TESTS AND THE LOCATION OF PLACEMENT:
  - ATTENDANCE AT THE PROJECT SITE DURING ALL CONCRETE PLACING OPERATIONS
  - CONTROL THE ADDITION OF MIXING WATER TO MAINTAIN THE REQUIRED WATER/CEMENT RATIO AND INDICATED IN THE REPORT ANY ADDED WATER TO THE MIX AND THE LOCATION OF PLACEMENT.
  - ENSURE THAT THE CONCRETE IS OF THE PROPER TEMPERATURE WHEN PLACED.
  - AIR CONTENT TESTS - AT LEAST TWO TESTS SHALL BE MADE FOR EACH DAY'S PLACING OR FROM EACH BATCH OF CONCRETE FROM WHICH CYLINDERS ARE CAST
  - SLUMP TESTS - AT FREQUENT INTERVALS TO PROPERLY CONTROL THE CONSISTENCY AND AT LEAST ONE AT THE TIME OF CASTING EACH GROUP OF CYLINDERS AND AT LEAST ONE TEST FOR EVERY 25 CUBIC YARDS.
  - CONCRETE COMPRESSION CYLINDERS SHALL BE TAKEN FROM THE CONCRETE OF EACH STRENGTH PLACED ON ANY ONE DAY AT LEAST ONE SET OF FIVE REPRESENTATIVE 6" X 12" TEST CYLINDERS. FOR LARGE PLACEMENTS ON ANY ONE DAY, THERE SHALL BE TAKEN NOT LESS THAN ONE SET OF FIVE REPRESENTATIVE TYPE CYLINDERS FOR EACH 100 CUBIC YARDS OF CONCRETE OF EACH STRENGTH PLACED. TWO CYLINDERS ARE TO BE TESTED AT 7 DAYS, TWO AT THE AGE OF 28 DAYS, AND THE FIFTH CYLINDER IN RESERVE FOR FURTHER TESTING. ASCERTAIN THAT THE TEST SPECIMENS ARE PROPERLY PROTECTED UNTIL SHIPPED TO THE TESTING LABORATORY. RECORD AND IDENTIFY EACH CYLINDER WITH THE LOCATION OF THE CONCRETE FROM WHICH THE SPECIMEN WAS TAKEN. KEEP MARKING IN SEQUENCE.

## FOUNDATION NOTES:

- SITE SOIL FOR THIS PROJECT HAS BEEN INVESTIGATED BY THE FIRM OF ANDERSEN ANDRE CONSULTING ENGINEERS, INC. AND FOUND, AS PRESENTED IN THEIR REPORT DATED APRIL 07, 2022, SUITABLE TO SUPPORT 2 & 6 SF SPREAD FOOTINGS. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE ABOVE STATED CRITERIA.
- FILL AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATION AS CONTAINED IN THEIR REPORT STATED IN ITEM 1.
- ALL COLUMN FOOTINGS SHALL BE CENTERED UNDER COLUMN CENTERLINES UNLESS OTHERWISE NOTED.
- BACKFILLING AGAINST FOUNDATION WALLS SHALL BE DONE CAREFULLY WITH SMALL COMPACTION EQUIPMENT. AFTER SLABS ON GROUND ARE IN PLACE AND CONCRETE HAS SET, NO TRUCKS, BULLDOZERS, ETC. SHALL BE ALLOWED CLOSER THAN 6'-0" TO ANY FOUNDATION WALL. ANY WALL 3'-0" OR HIGHER MUST BE BRACED DURING THE CONSTRUCTION PROCESS.
- NO FOUNDATIONS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPES EXTENDED FROM THE CLOSEST EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE. BOTTOM OF FOOTINGS SHALL NOT BE LESS THAN 1'-0" BELOW EXISTING GRADE (U.N.O.).
- FOR FOUNDATIONS SIZE AND REINFORCING SEE SCHEDULE.
- CONTRACTOR SHALL TREAT SOIL BENEATH BUILDING FOR TERMITES.
- TERMITE PROTECTION INCLUDING PIPING SLEEVES MUST FOLLOW THE REQUIREMENTS OF SECTIONS 1816-1 AND 1816-2 OF THE FLORIDA BUILDING CODE, 7TH EDITION, 2020

## MASONRY:

- DESIGN AND CONSTRUCTION SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ASCE 7-16) / TMS 402-16.
- MINIMUM NET COMPRESSIVE STRENGTH OF BLOCK ASSEMBLY SHALL BE 2000 P.S.I. (FM) MORTAR FOR MASONRY SHALL BE TYPE "S" OR "M".
- FOR ALL EXTERIOR AND INTERIOR BEARING, BED JOINTS ARE TO COVER 100% OF THE MASONRY SURFACES AND ALL HEAD JOINTS ARE TO COVER 100% OF THE PROJECTED AREA OF THE FACE SHELLS.
- FILL ALL CELLS AS REQUIRED WITH 3000 P.S.I. GROUT. SLUMP SHALL BE 8 TO 11 INCHES. SUBMIT DESIGN MIX FOR APPROVAL.
- MINIMUM HORIZONTAL JOINT REINFORCING SHALL BE 9 GAUGE HOT DIP GALVANIZED TRUSS OR LADDER TYPE JOINT REINFORCING AT 16" O.C., PROVIDE MANUFACTURE "T" AND "L" SHAPES FOR INTERSECTIONS AND CORNERS, (MINIMUM LAP 6").
- MINIMUM VERTICAL REINFORCING SHALL BE (1)#5 @ 48" OR (1)#4 @ 32" O.C. (U.N.O.).
- PROVIDE ADDITIONAL VERTICAL REINFORCING BAR AT EVERY CORNER, INTERSECTION, CONTROL JOINT, AND OPENING EDGES (U.N.O.).
- MINIMUM SPLICE FOR VERTICAL REINFORCING IS SHOWN IN DETAIL 4-023. SPLICE FOR HORIZONTAL JOINT REINFORCING - 6".
- WALLS ARE DESIGNED TO BE BRACED BY FLOOR OR ROOF MEMBERS. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING DURING CONSTRUCTION.
- ALL CELLS BELOW FIRST FLOOR FINISHED ELEVATION MUST BE FULLY GROUT FILLED.
- ALL KNOCK OUT BLOCK HORIZONTAL BARS SHALL HAVE CORNER BARS AT ALL CORNERS AND WALL INTERSECTIONS. SIZE AND NUMBER OF CORNER BARS SHALL BE SAME AS HORIZONTAL BARS.
- ALL INTERSECTING WALLS AND CORNER WALLS SHALL BE LAID IN AN OVERLAPPING MASONRY BONDING PATTERN, WITH ALTERNATE UNITS HAVING A BEARING OF NOT LESS THAN 3 INCHES ON UNIT BELOW.

## SHOP DRAWINGS:

- NO STRUCTURAL DRAWINGS SHALL BE REPRODUCED FOR USE AS SHOP DRAWINGS.
- ALL DIMENSIONAL COORDINATION SHALL BE DONE BY THE CONTRACTOR AND/OR HIS DETAILER.
- DETAILER SHALL CHECK ALL ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL ATTACHMENTS, CLIPS, OPENINGS, OR DUCT WORK AFFECTING STRUCTURAL MEMBERS. ALL ITEMS SHALL BE SHOWN ON SHOP DRAWINGS.
- ALL SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT. DISTRIBUTION AS PER ARCHITECT INSTRUCTIONS.
- PROVIDE SUFFICIENT SPACE ON SHOP DRAWINGS NEAR TITLE BOX (ABOUT 40 SQUARE INCHES) FOR STAMPS AND ENGINEERS COMMENTS.
- THE SHOP DRAWINGS SHALL BEAR INITIALS OF DETAILER'S CHECKER AND CONTRACTOR PRIOR TO SUBMISSION.
- COMPLETED ERECTION PLANS SHALL BE SUBMITTED PRIOR TO OR IN CONJUNCTION WITH DETAIL DRAWINGS. BUT IN NO CASE SHALL DETAIL DRAWINGS BE SUBMITTED PRIOR TO ERECTION PLANS.
- DETAILER SHALL SUBMIT AN INDEX OF THE DETAIL DRAWINGS WITH EACH SHOP DRAWING SUBMITTAL.
- SHOP DRAWINGS NOT COMPLYING WITH ALL THE ABOVE ITEMS SHALL BE RETURNED FOR CORRECTIONS WITHOUT PROCESSING.
- RESUBMITTED SHOP DRAWINGS SHALL HAVE THE FOLLOWING CHANGES INCORPORATED: FIRST RESUBMISSION TO HAVE LETTER "A" ADDED TO DRAWING

- NUMBER AND ANY CHANGES MARKED ON THE DRAWING MARKED 1 AT EACH ITEM CHANGED. ALL ITEMS TO BE NOTED IN REVISION BOX.
- UNLESS OTHERWISE NOTED, ALL ITEMS TO BE NOTED IN REVISION BOX.

- CONTRACTOR SHALL HAVE SHOP DRAWINGS WHICH HAVE BEEN SATISFACTORILY REVIEWED BY THE ARCHITECT AND/OR ENGINEER AND CONFIRMED BY THE CONTRACTOR BEFORE PROCEEDING WITH ANY WORK.
- DETAILER SHALL USE THE SAME STRUCTURAL ELEMENTS NUMBERS IN HIS SHOP DRAWINGS AS SHOWN ON CONTRACT DRAWINGS.
- SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOULD BE SUBMITTED TO MCE WITH A MINIMUM TIME TO BE REVIEWED OF 10 WORKING DAYS IN CASE OF A LARGE SUBMITTAL OR MORE THAN ONE SUBMITTAL FOR THE SAME PROJECT. AN ADDITIONAL WORKING DAY IS REQUIRED FOR EVERY 5 DRAWINGS/SHEETS OVER 30 DRAWINGS/SHEETS. THE TIME INDICATED ABOVE IS FOR MCE REVIEW ONLY. CONTRACTOR MUST INCLUDE ENOUGH TIME FOR DELIVERY, ARCHITECTURAL REVIEW, AND OWNERS REVIEW AND WORK THIS TIME IN THE PROJECT SCHEDULE AS NEEDED.
- THERE SHALL BE NO DEVIATION FROM THESE CONSTRUCTION DOCUMENTS. IF ANY CHANGES ARE PROPOSED BY THE CONTRACTOR OR THE PROVIDER OF THE SHOP DRAWINGS, THEY SHOULD BE CLEARLY INDICATED, SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A REGISTERED PROFESSIONAL ENGINEER. ANY CHANGES WITHOUT PROPER DOCUMENTATION INDICATED ABOVE WILL RESULT IN SOME REVISIONS BY THE ENGINEER OF RECORD AND/OR ARCHITECT. THE COST FOR THESE REVISIONS INCLUDING ENGINEER AND ARCHITECTURAL FEES SHALL BE PAID BY THE CONTRACTOR.

## DELEGATED DESIGN

- SELECT SCOPE ITEMS IN THE PROJECT ARE CUSTOM DESIGNED AND ENGINEERED. THE ENGINEERING RESPONSIBILITY IS DELEGATED TO THE CONTRACTOR AND RELATED SUBCONTRACTORS.
- CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS FOR SUCH ELEMENTS DESIGNATED TO BE DESIGNED BY A DELEGATED ENGINEER.
- DELEGATED ENGINEERING WILL ADDRESS ALL LOADING REQUIREMENTS INCLUDING WIND PRESSURES IN ACCORDANCE WITH THE LATEST FLORIDA BUILDING CODE. REFER TO THE COMPONENTS AND CLADDING PRESSURES PROVIDED FOR DESIGN PRESSURES ELEMENTS SHALL BE IN CONFORMANCE WITH:
- DELEGATED ENGINEERED DRAWINGS SHALL DEFINE MATERIAL THICKNESS, SIZING, CONNECTIONS, ETC. OF THE SUBMITTED SYSTEM.
- DELEGATED ENGINEERED DRAWINGS AND CALCULATIONS WILL BE REVIEWED AS PART OF THE SUBMITTAL PROCESS.
- BUILDING COMPONENTS THAT ARE NOT SPECIFIED AS DELEGATED TO OTHER ENGINEERS SHALL BE SUBMITTED WITH APPROPRIATE FLORIDA PRODUCT APPROVAL INFORMATION IN THE SUBMITTAL. WHERE A FLORIDA PRODUCT APPROVAL DOES NOT EXIST FOR A COMPONENT REQUIRING APPROVAL, THE DESIGN SHALL BE DELEGATED TO AN ENGINEER ON THE CONTRACTOR'S TEAM.
- DELEGATED ENGINEERING AND DEFERRED SUBMITTALS:
  - DEFERRED SUBMITTALS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
  - DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL FOR REVIEW AND SHALL BE FORWARDED TO THE BUILDING OFFICIAL.
  - DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.
  - THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL:
    - EXTERIOR CURTAIN WALL SYSTEM
    - EXTERIOR AWNINGS, SUNSHADES, EYEBROWS AND CANOPIES
    - METAL FABRICATIONS, RAILINGS, LADDERS AND GRATINGS
    - PRE-FABRICATED / PRE-ENGINEERED WOOD TRUSSES
    - STRUCTURAL STEEL CONNECTIONS
    - ROOF TOP EQUIPMENT AND ANCHORAGES
    - STRUCTURAL PRECAST CONCRETE

## WOOD FRAMING NOTES:

- ALL WOOD FRAMING SHALL BE IN COMPLIANCE WITH THE LATEST NDS EDITION FOR WOOD CONSTRUCTION. DIMENSIONED LUMBER SHALL BE DRESSED S4S, AND SHALL BEAR THE GRADE STAMP OF THE MANUFACTURER'S ASSOCIATION.
- ALL LUMBER SHALL BE SOUND, SEASONED, AND FREE FROM WARP.
- ALL DIMENSIONED LUMBER SHALL BE SOUTHERN YELLOW PINE #2 OR BETTER.
- INTERIOR NON-LOAD BEARING WALLS SHALL BE UTILITY GRADE OR BETTER.
- MINIMUM OF 3-PLY STUD COLUMNS TO BE INSTALLED AT BEAM OR OTHER TRUSS BEARING LOCATIONS UNLESS NOTED OTHERWISE.
- INSTALL BRUCKING IN ALL WALL STUDS OVER 8'-0" AT MID-HEIGHT, AND SHEATHING JOINT. BRACE GABLE END AT 4'-0" O.C. AS SHOWN IN THE DRAWINGS.
- ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED OR OF NATURAL DURABLE WOOD.
- PRESSURE TREATED LUMBER SHALL BE IMPREGNATED WITH AN APPROVED TREATMENT IN ACCORDANCE WITH F.S. 11-W-571 AND BARE THE AMERICAN WOOD PRESERVES INSTITUTE EQUALITY MARK LP-2.
- SHEATHING SHALL BE APA EXTERIOR GRADE RATED, AND INSTALLED WITH PLY-CLIPS AT 24" O.C. SEE NAILING SCHEDULE FOR SHEATHING CONNECTION.
- FLOOR SHEATHING SHALL BE A MINIMUM OF 5/8" TONGUE AND GROOVE TYPE SUPPORTED AT 24" O.C. MAX. UNLESS NOTED OTHERWISE IN PLAN.
- ALL NAILING APPLICATIONS SHALL COMPLY WITH AMERICAN INSTITUTE OF TIMBER CONSTRUCTION REQUIREMENTS. ALL NAILS EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED.
- ALL CONNECTION HARDWARE SHALL BE GALVANIZED AND SUPPLIED BY SIMPSON STRONG TIE OR APPROVED EQUAL. SUBMIT CUT SHEETS FOR ALL CONNECTION HARDWARE TO ENGINEER FOR APPROVAL. ALL NAIL HOLES SHALL BE FILLED OR AS REQUIRED BY THE MANUFACTURER TO ACHIEVE LOAD CAPACITY.
- BRACING: TEMPORARY BRACING OF THE ROOF SYSTEM SHALL BE INSTALLED PER BCSI-13 RECOMMENDATIONS AND SHALL BE UTILIZED AS PERMANENT BRACING FOR THE ROOF SYSTEM, UNLESS NOTED OTHERWISE.
- ALL WOOD FRAMING SHALL BE IN COMPLIANCE WITH THE LATEST NDS EDITION FOR WOOD CONSTRUCTION.

## PRE-ENGINEERED WOOD PRODUCTS:

- ALL PRE-ENGINEERED WOOD PRODUCTS SHALL BE VERIFIED BY TRUSS MANUFACTURER. TRUSS MANUFACTURER SHALL HAVE THE AUTHORITY TO MAKE SUBSTITUTIONS FOR PRODUCTS SPECIFIED ON THE PLANS DUE TO AVAILABILITY OR ECONOMICS. CHANGES SPECIFIED BY THE TRUSS MANUFACTURER SHALL CONTROL. CHANGES MADE AFTER TRUSS ENGINEERING HAS BEEN PROVIDED TO ENGINEER OF RECORD, MUST BE APPROVED BY THE ENGINEER OF RECORD.
- FRAMING PLAN IS DIAGRAMMATIC IN NATURE AND IS PROVIDED FOR ILLUSTRATION PURPOSES ONLY. TRUSS MANUFACTURER TO PROVIDE SEPARATE LAYOUT AND TRUSS COMPONENT DESIGN SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER.
- ALL PRE-ENGINEERED WOOD PRODUCTS ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER. THE TRUSS ENGINEER IS A DELEGATED ENGINEER FOR THIS PROJECT, AND AS SUCH, IS RESPONSIBLE FOR THE VALIDITY OF THE COMPONENTS PROVIDED. FRAMING LAYOUTS SHOWN MAY BE CHANGED BY THE TRUSS MANUFACTURER. THE DELEGATED ENGINEER IS RESPONSIBLE FOR PROVIDING A FINAL SEALED SET OF ALL CALCULATIONS AND LAYOUTS FOR THIS PROJECT TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO MANUFACTURE OF SAID COMPONENTS. ENGINEER OF RECORD HAS NOT REVIEWED THE PRE-ENGINEERED TRUSS MANUFACTURER'S COMPONENTS AT THIS TIME AND RESERVES THE RIGHT TO MAKE ANY CHANGES AFTER SUCH INFORMATION HAS BEEN PROVIDED FOR REVIEW. CONTRACTOR, AS PROJECT COORDINATOR, SHALL BE RESPONSIBLE FOR INSURING INFORMATION REQUESTED ABOVE HAS BEEN SUBMITTED TO ENGINEER OF RECORD IN A TIMELY MANNER. WHEN INFORMATION IS PROVIDED, ALL PRE-ENGINEERED TRUSSES TO BE DESIGNED USING THE MOST RECENT TPI CRITERIA. TRUSSES TO BE HANDLED AND INSTALLED USING MOST RECENT HIB RECOMMENDATIONS. TEMPORARY AND PERMANENT BRACING SHALL BE IN ACCORDANCE WITH BCSI-13 RECOMMENDATIONS UNLESS NOTED OTHERWISE. MORE STRINGENT CODE REQUIREMENTS APPLY. TRUSS ENGINEER IS RESPONSIBLE FOR INDICATING ALL TRUSS TO TRUSS CONNECTORS, ALL COMPONENTS TO BE DESIGNED FOR BOTH GRAVITY AND UPLIFT LOAD CASES, INCLUDING BEAM COMPONENTS.
- UPON REVIEW, ENGINEER OF RECORD WILL PROVIDE A REVIEW LETTER INDICATING ANY CHANGE IN STRAPPING OR SUPPORT BASED ON THAT REVIEW. CONSTRUCTION COMMENCING PRIOR TO ENGINEER'S REVIEW IS SUBJECT TO MODIFICATION BASED ON REVIEW LETTER.

## POST-INSTALLED ANCHORS

- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. SPECIAL INSPECTIONS ARE REQUIRED PER THE PROVISIONS SET FORTH BELOW. CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE FOR PROPER PRODUCT INSTALLATION TRAINING ON INITIAL ANCHORS.
- SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.
- EXPANSION ANCHORS SHALL BE STUD TYPE WITH A SINGLE PIECE OF THREE SECTION WEDGE AND ZINC PLATED IN ACCORDANCE WITH ASTM B633. THE ANCHORS SHALL MEET FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS 1 FOR CONCRETE EXPANSION ANCHORS. ANCHORS SHALL BE HILTI KWIK BOLT 3 AS SUPPLIED BY HILTI INC. TULSA OKLAHOMA. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH HILTI CARBIDE TIPPED DRILL BITS OR MATCHED TOLERANCE DIAMOND CORE BITS. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
- INJECTED ADHESIVE ANCHORS SHALL BE USED FOR INSTALLATION OF THREADED RODS. ADHESIVE SHALL BE FURNISHED IN A SIDE BY SIDE REFILL PACK WHICH KEEP COMPONENT A AND B SEPARATE. INJECTION ADHESIVE SHALL BE HILTI HIT HY 200 AS SUPPLIED BY HILTI INC. TULSA OKLAHOMA. ANCHOR RODS MEET ASTM F1554 (36 KSI). NUTS AND WASHERS SHALL BE FURNISHED TO MEET THE REQUIREMENTS OF AN ASTM F1554 (36 KSI) STEEL ROD.

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Armando A Castellon  
2023.10.18 14:29:32-0400'

# GENERAL STRUCTURAL NOTES

PROJECT: STATION #7

FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
VERO BEACH FIRE DEPT  
VERO BEACH, FL 32906

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

DATE: 15 AUG, 2023  
BY: AN  
CHK'D: JBCV

COMM. NO: 050219VB  
DATE: 15 AUG, 2023  
BY: AN  
CHK'D: JBCV

SHEET NO. S-1.1 OF TWENTY EIGHT



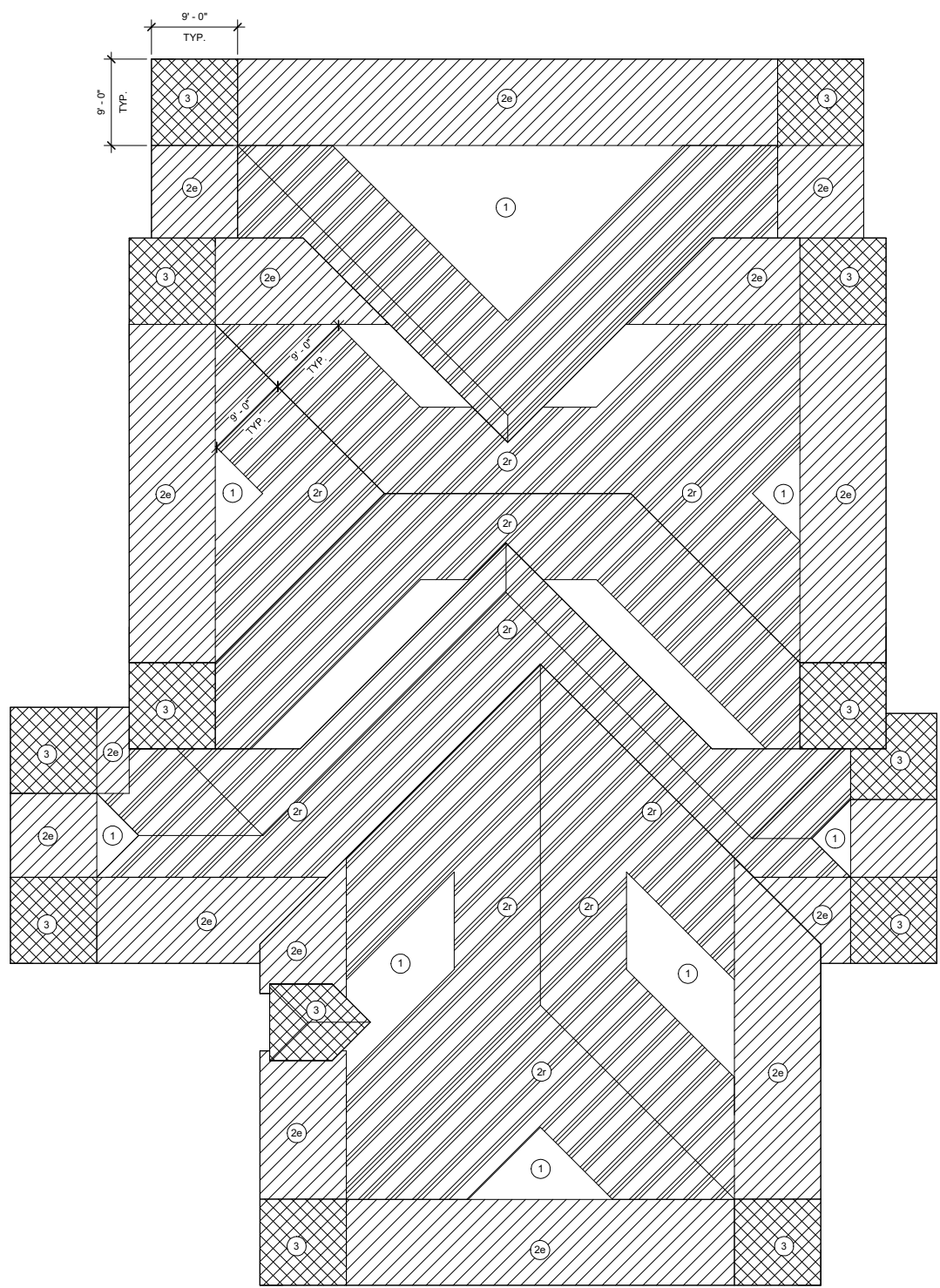
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TO THE BEST OF OUR KNOWLEDGE INFORMATION AND BELIEF, THESE STRUCTURAL PLANS CONFORM TO AND SATISFY, THE FLORIDA BUILDING CODE, SEVENTH EDITION 2020, ACI 318-14 AND LOCAL CODES AS APPLICABLE

22/09/2023 3:35:32 PM



**WIND DESIGN - ROOF PLAN**  
SCALE: 1/8" = 1'-0"

Component	Zone	Pres (+ve) (psf)
10 sf	1	+59 PSF/106 PSF
10 sf	2e	+59 PSF/146 PSF
10 sf	2r	+59 PSF/146 PSF
10 sf	3	+59 PSF/146 PSF
10 sf	1oh	-138 PSF
10 sf	2eoh	-176 PSF
10 sf	2roh	-176 PSF
10 sf	3oh	-208 PSF
20 sf	1	+51 PSF/94 PSF
20 sf	2e	+51 PSF/130 PSF
20 sf	2r	+51 PSF/130 PSF
20 sf	3	+51 PSF/130 PSF
20 sf	1oh	-137 PSF
20 sf	2eoh	-169 PSF
20 sf	2roh	-169 PSF
20 sf	3oh	-186 PSF
50 sf	1	+40 PSF/78 PSF
50 sf	2e	+40 PSF/110 PSF
50 sf	2r	+40 PSF/110 PSF
50 sf	3	+40 PSF/110 PSF
50 sf	1oh	-135 PSF
50 sf	2eoh	-160 PSF
50 sf	2roh	-160 PSF
50 sf	3oh	-157 PSF
100 sf	1	+32 PSF/66 PSF
100 sf	2e	+32 PSF/95 PSF
100 sf	2r	+32 PSF/95 PSF
100 sf	3	+32 PSF/95 PSF
100 sf	1oh	-134 PSF
100 sf	2eoh	-153 PSF
100 sf	2roh	-153 PSF
100 sf	3oh	-135 PSF
200 sf	1	+32 PSF/66 PSF
200 sf	2e	+32 PSF/79 PSF
200 sf	2r	+32 PSF/79 PSF
200 sf	3	+32 PSF/79 PSF
200 sf	1oh	-133 PSF
200 sf	2eoh	-146 PSF
200 sf	2roh	-146 PSF
200 sf	3oh	-112 PSF
500 sf	1	+32 PSF/66 PSF
500 sf	2e	+32 PSF/79 PSF
500 sf	2r	+32 PSF/79 PSF
500 sf	3	+32 PSF/79 PSF
500 sf	1oh	-133 PSF
500 sf	2eoh	-146 PSF
500 sf	2roh	-146 PSF
500 sf	3oh	-112 PSF

**LOAD SCHEDULE:**

**ROOF:**

**TOP CHORD DEAD LOADS**

ROOFING & INSULATION	=	12 PSF
PLYWOOD SHEATHING	=	3 PSF
ROOF TRUSSES	=	8 PSF
		21 PSF

**BOTTOM CHORD DEAD LOADS**

MECH / ELECT / PLUMB	=	5 PSF
CEILING & MISC.	=	5 PSF
		10 PSF

DEAD LOAD (AVAILABLE TO RESIST UPLIFT) = 8 PSF

LIVE LOAD = 20 PSF

**WIND DESIGN DATA:**

**CODE:**  
FLORIDA BUILDING CODE, 2020 (7th Ed.) ASCE/SEI 7-16

BASIC WIND SPEED	179 mph (Vult)
EXPOSURE	139 mph (Vasd)
CATEGORY (RISK)	IV
BUILDING HEIGHT	30 ft.
ENCLOSURE CLASSIFICATION	ENCLOSED
INTERNAL PRESSURE COEFFICIENT	± 0.18

\* GLAZED OPENINGS IN RISK CATEGORY II, III, IV LOCATED IN HURRICANE PRONE REGIONS SHALL BE PROTECTED IN ACCORDANCE WITH FBC 2020 SEC. 1609.1.2

**COMPONENTS AND CLADDING (ULTIMATE) UPLIFT PRESSURE SCHEDULE**

PATTERN	ZONE
[Hatched Pattern]	1
[Hatched Pattern]	2r
[Hatched Pattern]	3
[Hatched Pattern]	2e
[Hatched Pattern]	2'ov
[Hatched Pattern]	3'ov

**COMPONENTS AND CLADDING DESIGN WIND PRESSURE (ULTIMATE) FOR WALLS, DOORS & WINDOWS**

PATTERN	ZONE
[Hatched Pattern]	4
[Hatched Pattern]	5

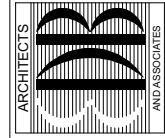
- NOTE:**
- ALL EXTERIOR DOORS & WINDOW ASSEMBLIES SHALL SATISFY THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (SEVENTH EDITION 2020, SECTION 1709.5). ALL CONNECTIONS TO BUILDING STRUCTURE SHALL HAVE THE CAPACITY TO WITHSTAND THE PRESSURES INDICATED IN THIS SCHEDULE.
  - PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
  - ALL WIND PRESSURE VALUES INDICATED ARE IN POUNDS PER SQUARE FOOT (PSF). MULTIPLY ULTIMATE WIND PRESSURE BY 0.60 FOR ASD PRESSURE.
  - FOR NET UPLIFT CALCULATION THE WEIGHT OF THE STRUCTURAL MEMBER AND THE STRUCTURAL DECK SUPPORTED ARE THE ONLY TWO LOADS THAT CAN BE DEDUCTED FROM THE UPLIFT PRESSURES INDICATED ABOVE.

Component	Zone	Pres (+ve) (psf)
10 sf	4	+79 PSF/86 PSF
10 sf	5	+79 PSF/106 PSF
20 sf	4	+76 PSF/82 PSF
20 sf	5	+76 PSF/99 PSF
50 sf	4	+71 PSF/78 PSF
50 sf	5	+71 PSF/89 PSF
100 sf	4	+67 PSF/74 PSF
100 sf	5	+67 PSF/82 PSF
200 sf	4	+64 PSF/70 PSF
200 sf	5	+64 PSF/75 PSF
500 sf	4	+59 PSF/66 PSF
500 sf	5	+59 PSF/66 PSF

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AF-AA 000886  
65 ROYAL PALM POINTE, SUITE "D"  
VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



**WIND DESIGN DATA AND LOAD SCHEDULE**

PROJECT: **STATION #7**  
INDIAN RIVER COUNTY FIRE DISTRICT  
1860 25TH STREET  
VERO BEACH, FL 32960

FOR:

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

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BY: AN  
CHK'D: JB/CV

SHEET NO.  
**S-1.2**  
OF TWENTY EIGHT

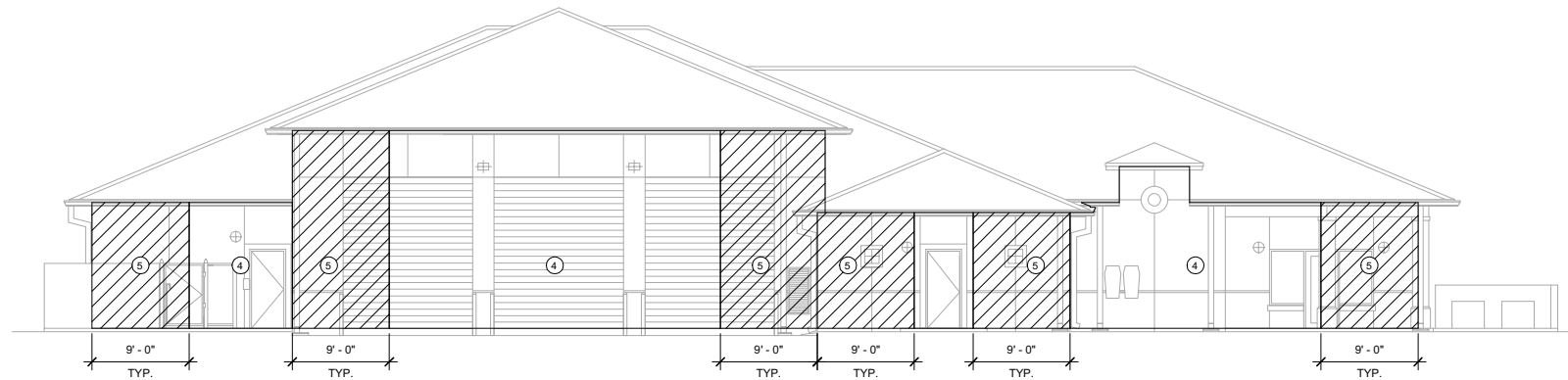


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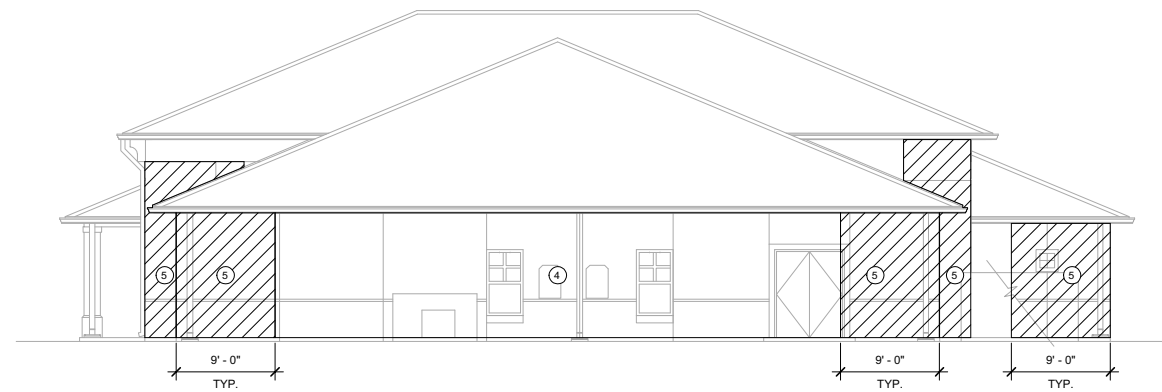
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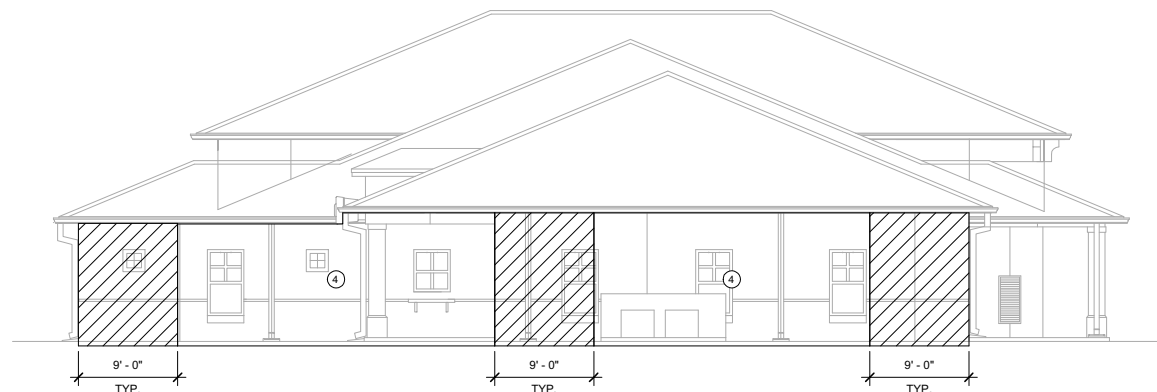




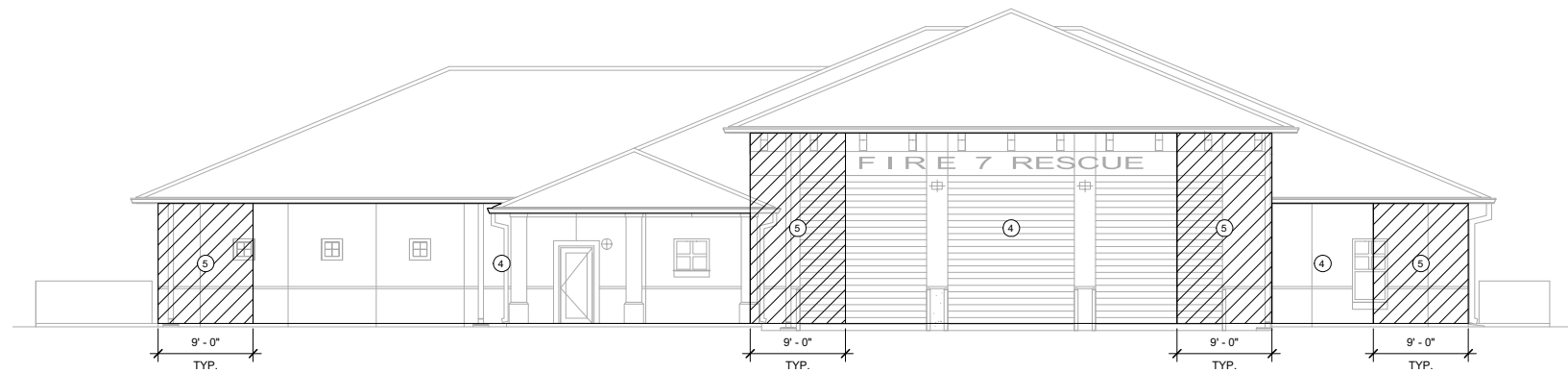
**N** WIND ELEVATION - NORTH  
1/8" = 1'-0"



**E** WIND ELEVATION - EAST  
1/8" = 1'-0"



**W** WIND ELEVATION - WEST  
1/8" = 1'-0"



**S** WIND ELEVATION - SOUTH  
1/8" = 1'-0"

Component	Zone	Pres (+ve) (psf)
10 sf	4	+79 PSF/-86 PSF
10 sf	5	+79 PSF/-106 PSF
20 sf	4	+76 PSF/-82 PSF
20 sf	5	+76 PSF/-99 PSF
50 sf	4	+71 PSF/-78 PSF
50 sf	5	+71 PSF/-89 PSF
100 sf	4	+67 PSF/-74 PSF
100 sf	5	+67 PSF/-82 PSF
200 sf	4	+64 PSF/-70 PSF
200 sf	5	+64 PSF/-75 PSF
500 sf	4	+59 PSF/-66 PSF
500 sf	5	+59 PSF/-66 PSF

**COMPONENTS AND CLADDING  
DESIGN WIND PRESSURE  
(ULTIMATE) FOR WALLS,  
DOORS & WINDOWS**

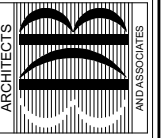
PATTERN	ZONE
	4
	5

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VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



**WIND DESIGN DATA AND LOAD SCHEDULE**

PROJECT: **STATION #7**  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
15TH STREET  
VERO BEACH, FL 32960

NO.	DATE	REVISIONS
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BY: AN  
CHK'D: JB/CV

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**S-1.3**  
OF TWENTY EIGHT

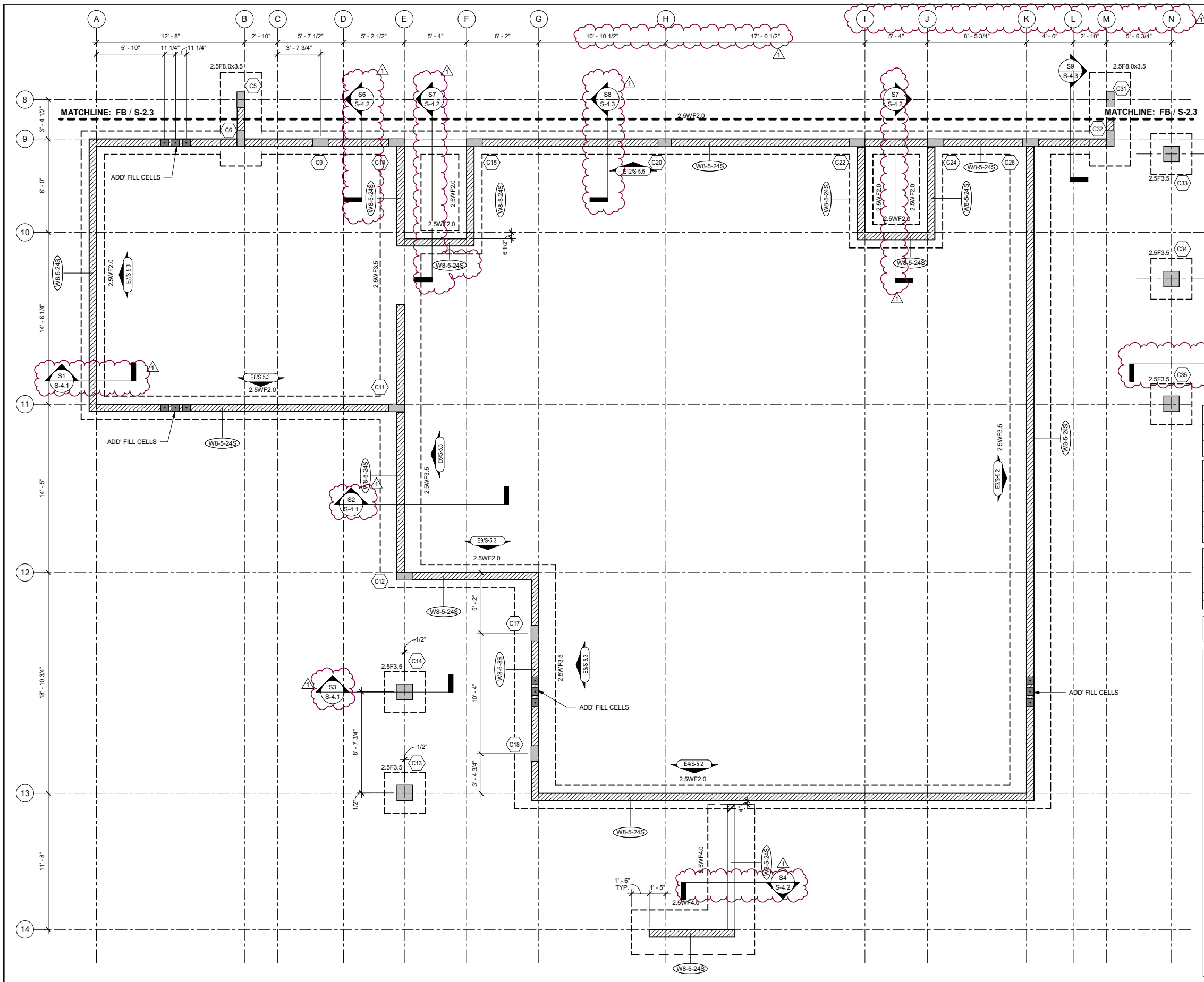


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**WALL SCHEDULE**

TYPE	WALL THICKNESS	TYPE OF WALL	WALL REINF.	REMARKS
W8-5-24S	7.58"	CMU	#5 AT 24" O.C.	SEE ELEVATION FOR ADD. REINFORCEMENT

**COLUMN FOOTING SCHEDULE**

MARK*	LENGTH	WIDTH	THICKNESS	TOP & BOTT. REINF. EA. WAY U.N.O.	REMARKS
2.5F3.5	3'-6"	3'-6"	1'-6"	(4)#5	STD ACI HOOK
2.5F5.0x3.5	5'-0"	3'-6"	1'-6"	(4)#5 SHORT SIDE (6)#5 LONG SIDE	STD ACI HOOK
2.5F8.0x3.5	8'-0"	3'-6"	1'-6"	(4)#5 SHORT SIDE (12)#5 LONG SIDE	STD ACI HOOK

**WALL FOOTING SCHEDULE**

MARK*	WIDTH	THICKNESS	TOP & BOTT. REINF. CONT.	TOP & BOTT. REINF. TRANSV.	REMARKS
2.5WF2.0	2'-0"	1'-4"	(3)#5	#4 @ 24"	
2.5WF3.5	3'-6"	1'-4"	(5)#5	#4 @ 12"	
2.5WF4.0	4'-0"	1'-4"	(5)#5	#5 @ 8"	

\* WHERE FOOTING MARK NUMBER HAS A SUFFIX B, I.E., WF5.0B, THE REINFORCING INDICATED SHALL BE APPLIED TO BOTTOM OF FOOTING ONLY.

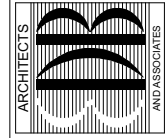
- FOUNDATION PLAN NOTES:**
- FOR TYPICAL FOUNDATION DETAILS, SEE DRAWINGS S-3.1.
  - FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S-1.1.
  - FOR FOOTING SIZE AND REINFORCING, SEE SCHEDULE ON THIS DRAWING.
  - ( ) DENOTES TOP OF FOOTING ELEVATION.
  - TOP OF FOOTING: ELEVATION @ INTERIOR = (-1'-4") TYPICAL U.N.O. ELEVATION @ EXTERIOR = (-1'-4") TYPICAL U.N.O.
  - FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.
  - TYPICAL WALL REINFORCING SCHEDULE:
    - A. FOR CMU WALL REINFORCING, SEE SCHEDULE THIS SHEET. REINFORCING SHOWN ON SCHEDULE IS MINIMUM. SEE NOTES BELOW AND WALL ELEVATIONS FOR ADDITIONAL REINFORCING.
    - B. ( ) INDICATES ADDITIONAL (1) VERTICAL IN GROUT FILLED CELL. PROVIDE ADDITIONAL (1) VERTICAL IN FIRST (2) CELLS EACH SIDE OF ALL WALL OPENINGS, CORNERS AND INTERSECTIONS.
  - COLUMN DESIGNATION SHOWN THUS (C1) ON PLAN. FOR SIZE AND REINFORCING SEE SCHEDULE ON DRAWING S-6.1.
    - (C1) COLUMN ELEVATION
    - (C1) COLUMN TYPE
    - (C1) CARRIED COLUMN
  - ALL CMU WALLS SHALL BE REINFORCED AS SHOWN ON PLAN WITH DOWELS TO MATCH U.N.O. ALL CELLS AT REINFORCING LOCATION SHALL BE FILLED WITH GROUT. PROVIDE INSPECTION CLEANOUT HOLE AT BASE WHEN FOUR HEIGHT IS GREATER THAN 4'-0".
  - WHERE FOOTING MARK NUMBER HAS A SUFFIX B, I.E., WF5.0B, THE REINFORCING INDICATED SHALL BE APPLIED TO BOTTOM OF FOOTING ONLY.

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AF-AA 000886  
65 ROYAL PALM POINTE, SUITE "D"  
VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4520



PROJECT: STATION #7  
INDIAN RIVER COUNTY FIRE DISTRICT  
VERO BEACH, FL 32960

**REVISIONS**

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

COMM. NO: 050219VB  
DATE: 15 AUG, 2023  
BY: AN  
CHK'D: JB/CV

SHEET NO. S-2.2  
OF TWENTY EIGHT

FOUNDATION - AREA A  
1/4" = 1'-0"

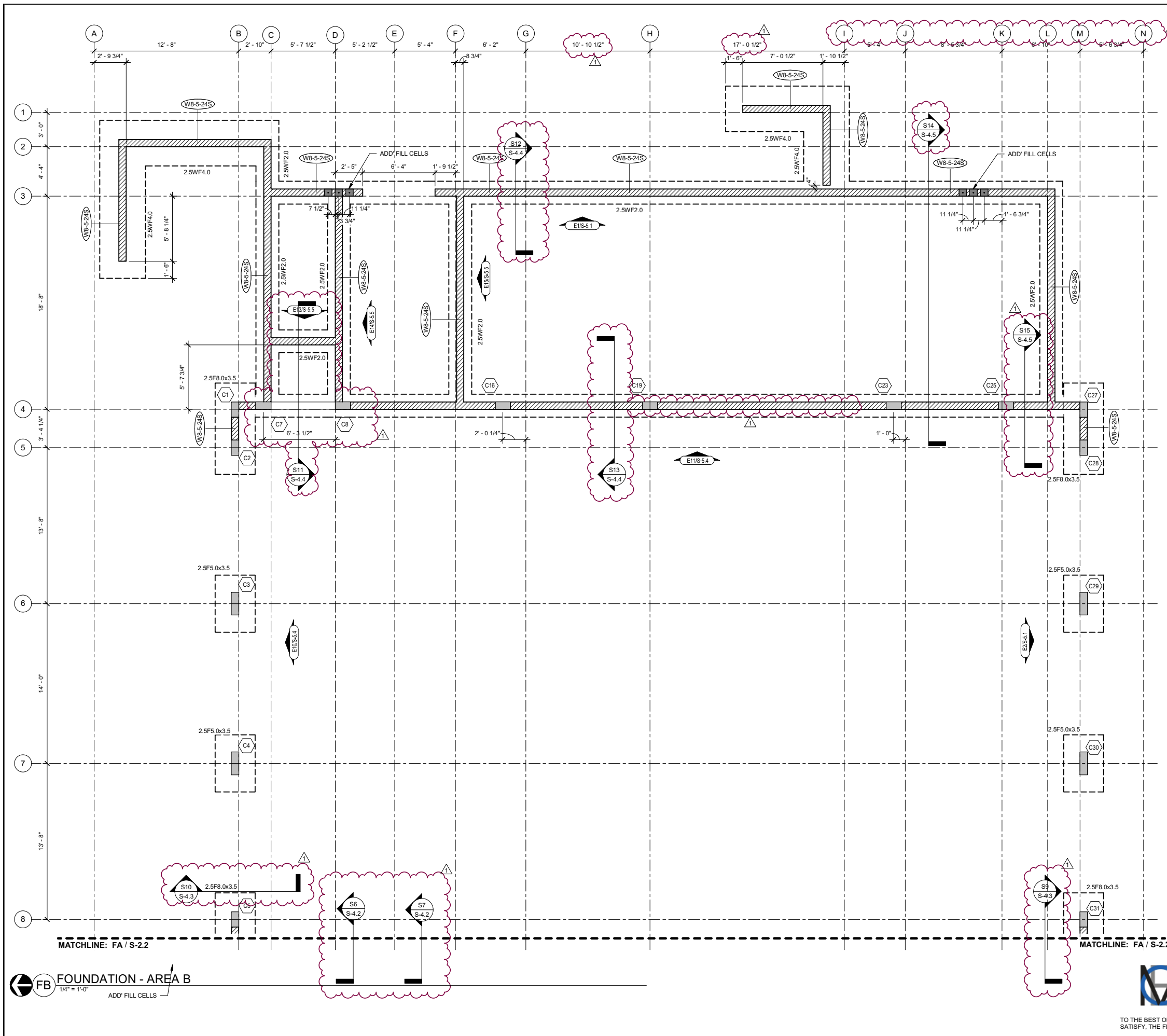
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**WALL SCHEDULE**

TYPE	WALL THICKNESS	TYPE OF WALL	WALL REINF.	REMARKS
W8-5-24S	7 5/8"	CMU	#5 AT 24" O.C.	SEE ELEVATION FOR ADD. REINFORCEMENT

**COLUMN FOOTING SCHEDULE**

MARK*	LENGTH	WIDTH	THICKNESS	TOP & BOT. REINF. EA. WAY U.N.O.	REMARKS
2.5F3.5	3'-6"	3'-6"	1'-6"	(4)-#5	STD ACI HOOK
2.5F5.0x3.5	5'-0"	3'-6"	1'-6"	(4)-#5 SHORT SIDE (6)-#5 LONG SIDE	STD ACI HOOK
2.5F8.0x3.5	8'-0"	3'-6"	1'-6"	(4)-#5 SHORT SIDE (12)-#5 LONG SIDE	STD ACI HOOK

**WALL FOOTING SCHEDULE**

MARK*	WIDTH	THICKNESS	TOP & BOT. REINF. CONT.	TOP & BOT. REINF. TRANSV.	REMARKS
2.5WF2.0	2'-0"	1'-4"	(3)-#5	#4 @ 24"	
2.5WF3.5	3'-6"	1'-4"	(5)-#5	#4 @ 12"	
2.5WF4.0	4'-0"	1'-4"	(5)-#5	#5 @ 8"	

\* WHERE FOOTING MARK NUMBER HAS A SUFFIX B, I.E., W5F5.0B, THE REINFORCING INDICATED SHALL BE APPLIED TO BOTTOM OF FOOTING ONLY.

- FOUNDATION PLAN NOTES:**
- FOR TYPICAL FOUNDATION DETAILS, SEE DRAWINGS S-3.1.
  - FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S-1.1.
  - FOR FOOTING SIZE AND REINFORCING, SEE SCHEDULE ON THIS DRAWING.
  - ( ) DENOTES TOP OF FOOTING ELEVATION.
  - TOP OF FOOTING:
    - ELEVATION @ INTERIOR = (-1' - 4')
    - TYPICAL U.N.O.
    - ELEVATION @ EXTERIOR = (-1' - 4')
    - TYPICAL U.N.O.
  - FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.
  - TYPICAL WALL REINFORCING SCHEDULE:
    - A. FOR CMU WALL REINFORCING, SEE SCHEDULE THIS SHEET. REINFORCING SHOWN ON SCHEDULE IS MINIMUM. SEE NOTES BELOW AND WALL ELEVATIONS FOR ADDITIONAL REINFORCING.
    - B. [Symbol] INDICATES ADDITIONAL (1) VERTICAL IN GROUT FILLED CELL. PROVIDE ADDITIONAL (1) VERTICAL IN FIRST (2) CELLS EACH SIDE OF ALL WALL OPENINGS, CORNERS AND INTERSECTIONS.
  - COLUMN DESIGNATION SHOWN THUS [Symbol] ON PLAN. FOR SIZE AND REINFORCING SEE SCHEDULE ON DRAWING S-6.1.
    - [Symbol] T/COLUMN ELEVATION
    - [Symbol] COLUMN TYPE
    - [Symbol] CARRIED COLUMN
  - ALL CMU WALLS SHALL BE REINFORCED AS SHOWN ON PLAN WITH DOWELS TO MATCH, U.N.O. ALL CELLS AT REINFORCING LOCATION SHALL BE FILLED WITH GROUT. PROVIDE INSPECTION HOLE AT BASE WHEN FOUR HEIGHT IS GREATER THAN 4'-0".
  - WHERE FOOTING MARK NUMBER HAS A SUFFIX B, I.E., W5F5.0B, THE REINFORCING INDICATED SHALL BE APPLIED TO BOTTOM OF FOOTING ONLY.

**FOUNDATION PLAN - AREA B**

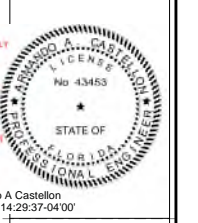
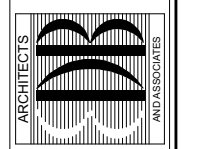
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1 08/15/23 REVISION 1  
 NO: DATE REVISIONS

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 AF-AA 000886  
 65 ROYAL PALM POINTE, SUITE "D"  
 VERO BEACH, FLORIDA 32960  
 PHONE: (772) 569-4520



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PROJECT: STATION #7  
 INDIAN RIVER COUNTY FIRE DISTRICT  
 6505 25TH STREET  
 VERO BEACH, FL 32960

**FOUNDATION PLAN - AREA B**

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

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SHEET NO. S-2.3  
 OF TWENTY EIGHT

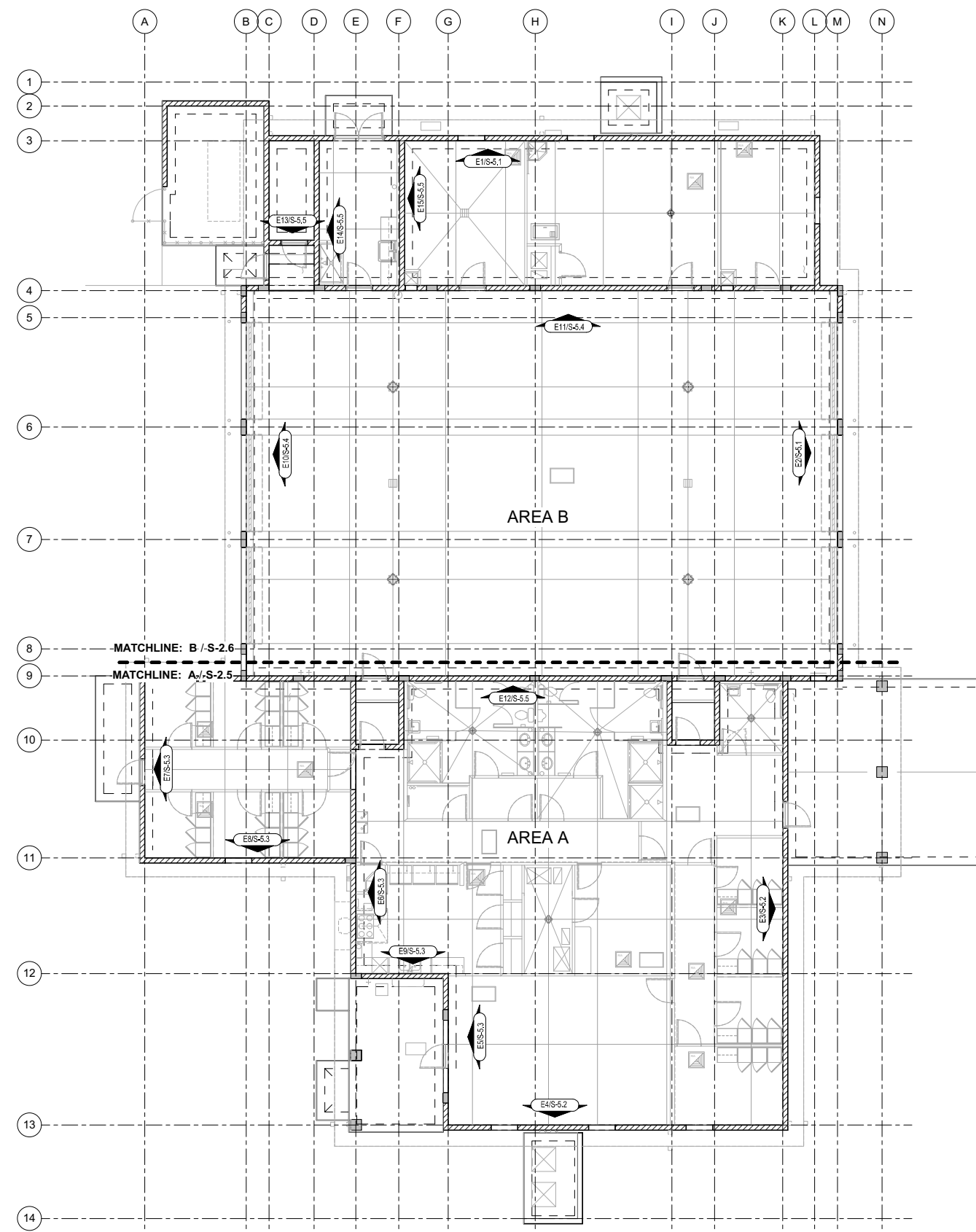
**FOUNDATION - AREA B**  
 1/4" = 1'-0"  
 ADD FILL CELLS

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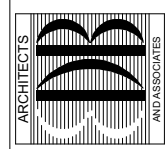
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1 SLAB ON GRADE - OVERALL PLAN  
1/8" = 1'-0"

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SLAB ON GRADE - OVERALL PLAN

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
10555 5TH STREET  
VERO BEACH, FL 32960

NO.	DATE	REVISIONS
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**S-2.4**  
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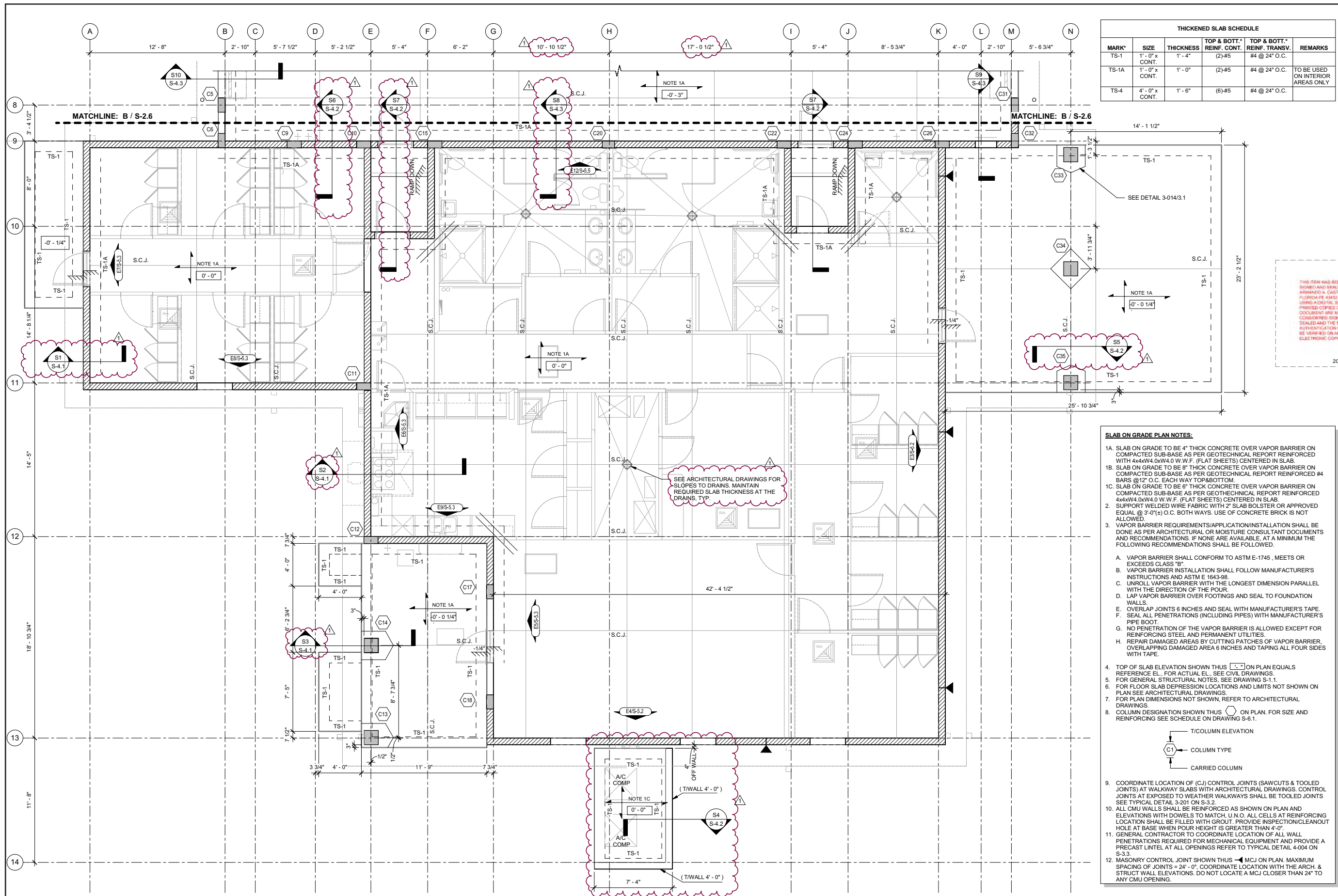


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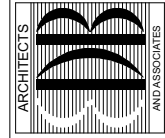
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THICKENED SLAB SCHEDULE					
MARK*	SIZE	THICKNESS	TOP & BOTTM. REINF. CONT.	TOP & BOTTM. REINF. TRANSV.	REMARKS
TS-1	1'-0" x CONT.	1'-4"	(2)#5	#4 @ 24" O.C.	
TS-1A	1'-0" x CONT.	1'-0"	(2)#5	#4 @ 24" O.C.	TO BE USED ON INTERIOR AREAS ONLY
TS-4	4'-0" x CONT.	1'-6"	(6)#5	#4 @ 24" O.C.	

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Armando A. Castillon  
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**SLAB ON GRADE PLAN NOTES:**

- SLAB ON GRADE TO BE 4" THICK CONCRETE OVER VAPOR BARRIER ON COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT REINFORCED WITH 4x4xW4.0xW4.0 W.W.F. (FLAT SHEETS) CENTERED IN SLAB.
- SLAB ON GRADE TO BE 8" THICK CONCRETE OVER VAPOR BARRIER ON COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT REINFORCED #4 BARS @12" O.C. EACH WAY TOP&BOTTOM.
- SLAB ON GRADE TO BE 6" THICK CONCRETE OVER VAPOR BARRIER ON COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT REINFORCED 4x4xW4.0xW4.0 W.W.F. (FLAT SHEETS) CENTERED IN SLAB.
- SUPPORT WELDED WIRE FABRIC WITH 2" SLAB BOLSTER OR APPROVED EQUAL @ 3'-0"(±) O.C. BOTH WAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
- VAPOR BARRIER REQUIREMENTS/INSTALLATION SHALL BE DONE AS PER ARCHITECTURAL OR MOISTURE CONSULTANT DOCUMENTS AND RECOMMENDATIONS. IF NONE ARE AVAILABLE, AT A MINIMUM THE FOLLOWING RECOMMENDATIONS SHALL BE FOLLOWED.
  - VAPOR BARRIER SHALL CONFORM TO ASTM E-1745, MEETS OR EXCEEDS CLASS "B".
  - VAPOR BARRIER INSTALLATION SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS AND ASTM E 1643-98.
  - UNROLL VAPOR BARRIER WITH THE LONGEST DIMENSION PARALLEL WITH THE DIRECTION OF THE POUR.
  - LAP VAPOR BARRIER OVER FOOTINGS AND SEAL TO FOUNDATION WALLS.
  - OVERLAP JOINTS 6 INCHES AND SEAL WITH MANUFACTURER'S TAPE.
  - SEAL ALL PENETRATIONS (INCLUDING PIPES) WITH MANUFACTURER'S PIPE BOOT.
  - NO PENETRATION OF THE VAPOR BARRIER IS ALLOWED EXCEPT FOR REINFORCING STEEL AND PERMANENT UTILITIES.
  - REPAIR DAMAGED AREAS BY CUTTING PATCHES OF VAPOR BARRIER, OVERLAPPING DAMAGED AREA 6 INCHES AND TAPING ALL FOUR SIDES WITH TAPE.
- TOP OF SLAB ELEVATION SHOWN THUS [ ] ON PLAN EQUALS REFERENCE EL. FOR ACTUAL ELEVATION. SEE CIVIL DRAWINGS.
- FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S-1.1.
- FOR FLOOR SLAB DEPRESSION LOCATIONS AND LIMITS NOT SHOWN ON PLAN SEE ARCHITECTURAL DRAWINGS.
- FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.
- COLUMN DESIGNATION SHOWN THUS [ ] ON PLAN. FOR SIZE AND REINFORCING SEE SCHEDULE ON DRAWING S-6.1.
  - T/COLUMN ELEVATION
  - COLUMN TYPE
  - CARRIED COLUMN
- COORDINATE LOCATION OF (CJ) CONTROL JOINTS (SAWCUTS & TOOLED JOINTS) AT WALKWAY SLABS WITH ARCHITECTURAL DRAWINGS. CONTROL JOINTS AT EXPOSED TO WEATHER WALKWAYS SHALL BE TOOLED JOINTS SEE TYPICAL DETAIL 3-201 ON S-3.2.
- ALL CMU WALLS SHALL BE REINFORCED AS SHOWN ON PLAN AND ELEVATIONS WITH DOWELS TO MATCH, U.N.O. ALL CELLS AT REINFORCING HOLE AT BASE WHEN POUR HEIGHT IS GREATER THAN 4'-0".
- GENERAL CONTRACTOR TO COORDINATE LOCATION OF ALL WALL PENETRATIONS REQUIRED FOR MECHANICAL EQUIPMENT AND PROVIDE A PRECAST LINTEL AT ALL OPENINGS REFER TO TYPICAL DETAIL 4-004 ON S-3.3.
- MASONRY CONTROL JOINT SHOWN THUS [ ] MCJ ON PLAN. MAXIMUM SPACING OF JOINTS = 24'-0". COORDINATE LOCATION WITH THE ARCH. & STRUCT WALL ELEVATIONS. DO NOT LOCATE A MCJ CLOSER THAN 24" TO ANY CMU OPENING.

PROJECT: STATION #7  
 INDIAN RIVER COUNTY FIRE DISTRICT  
 1050 5TH STREET  
 VERO BEACH, FL 32960

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

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 DATE: 15 AUG, 2023  
 BY: AN  
 CH'K'D: JB/CV

SHEET NO.  
**S-2.5**  
 OF TWENTY EIGHT

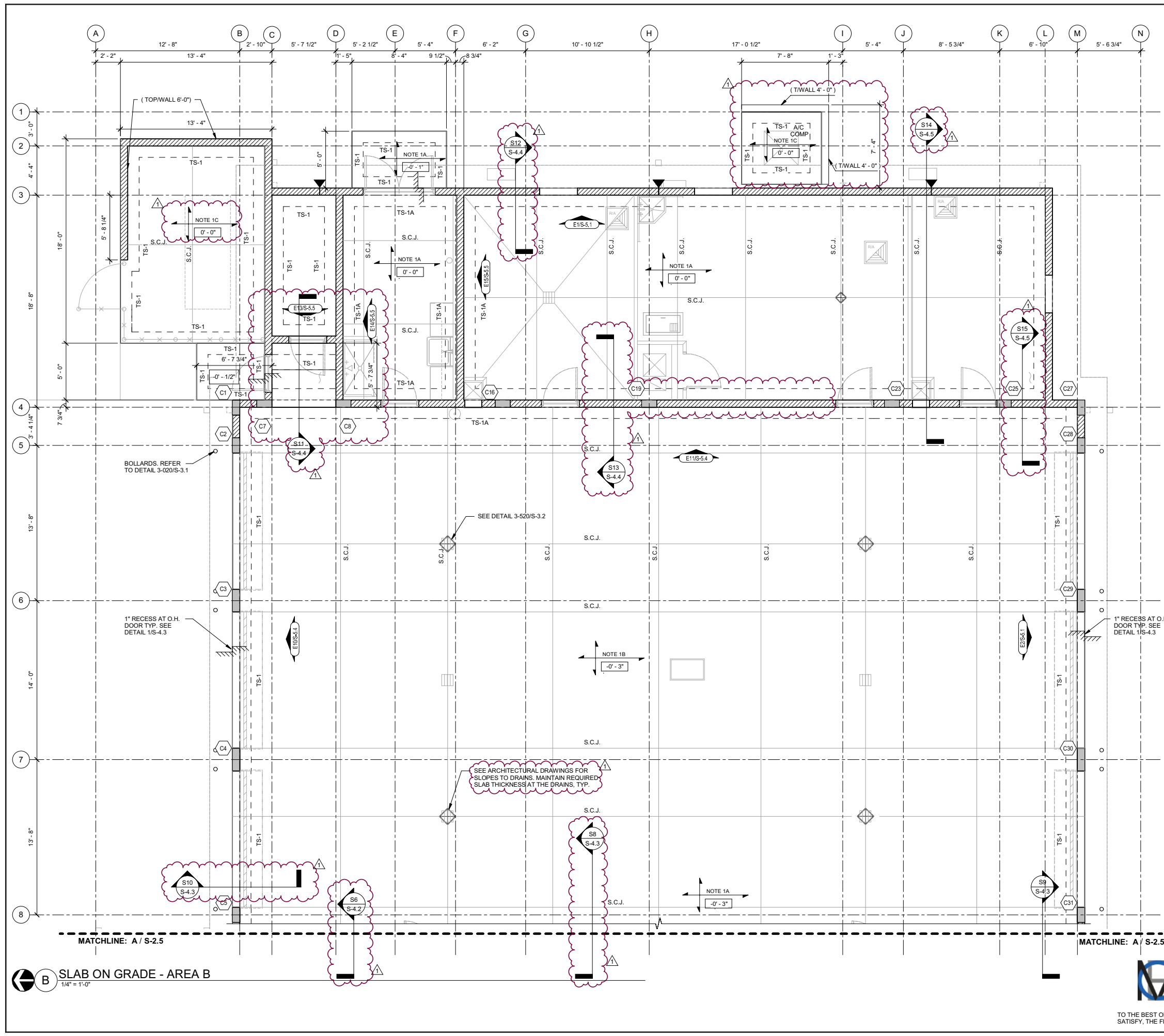
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**SLAB ON GRADE - AREA A**  
 1/4" = 1'-0"

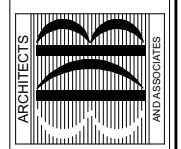
SLAB ON GRADE - AREA A

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THICKENED SLAB SCHEDULE					
MARK*	SIZE	THICKNESS	TOP & BOTTM. REINF. CONT.	TOP & BOTTM. REINF. TRANSV.	REMARKS
TS-1	1'-0" x CONT.	1'-4"	(2)#5	#4 @ 24" O.C.	
TS-1A	1'-0" x CONT.	1'-0"	(2)#5	#4 @ 24" O.C.	TO BE USED ON INTERIOR AREAS ONLY
TS-4	4'-0" x CONT.	1'-6"	(6)#5	#4 @ 24" O.C.	

EDLUND, DRITENBAS, BINKLEY ARCHITECTS AND ASSOCIATES, P.A.  
 ARCHITECTS  
 65 ROYAL PALM POINTE, SUITE "D"  
 VERO BEACH, FLORIDA 32906  
 PHONE: (772) 569-4320



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Armando A. Castillon  
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  - SUPPORT WELDED WIRE FABRIC WITH 2" SLAB BOLSTER OR APPROVED EQUAL @ 3'-0" (±) O.C. BOTH WAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
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    - SEAL ALL PENETRATIONS (INCLUDING PIPES) WITH MANUFACTURER'S PIPE BOOT.
    - NO PENETRATION OF THE VAPOR BARRIER IS ALLOWED EXCEPT FOR REINFORCING STEEL AND PERMANENT UTILITIES.
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  - FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S-1.1.
  - FOR FLOOR SLAB DEPRESSION LOCATIONS AND LIMITS NOT SHOWN ON PLAN SEE ARCHITECTURAL DRAWINGS.
  - FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.
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    - [ ] T/COLUMN ELEVATION
    - [ ] COLUMN TYPE
    - [ ] CARRIED COLUMN
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  - ALL CMU WALLS SHALL BE REINFORCED AS SHOWN ON PLAN AND ELEVATIONS WITH DOWELS TO MATCH, U.N.O. ALL CELLS AT REINFORCING LOCATION SHALL BE FILLED WITH GROUT. PROVIDE INSPECTION/CLEANOUT HOLE AT BASE WHEN POUR HEIGHT IS GREATER THAN 4'-0".
  - GENERAL CONTRACTOR TO COORDINATE LOCATION OF ALL WALL PENETRATIONS REQUIRED FOR MECHANICAL EQUIPMENT AND PROVIDE A PRECAST LINTEL AT ALL OPENINGS REFER TO TYPICAL DETAIL 4-004 ON S-3.3.
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PROJECT: STATION #7  
 INDIAN RIVER COUNTY FIRE DISTRICT  
 1505 5TH STREET  
 VERO BEACH, FL 32960

FOR:

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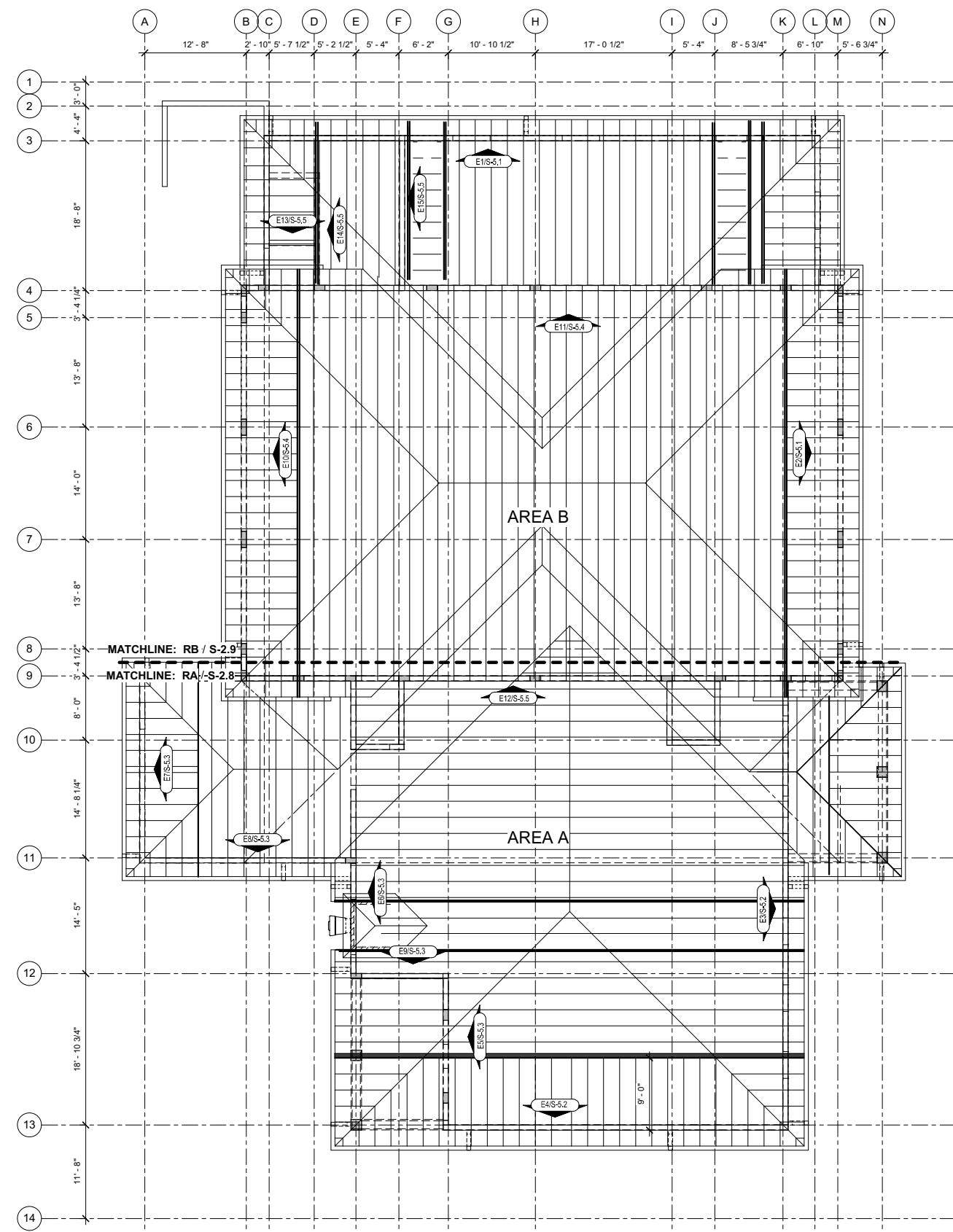
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**S-2.6**  
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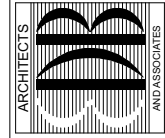
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1 ROOF PLAN - OVERALL  
1/8" = 1'-0"

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ARCHITECTS AND ASSOCIATES, P.A.  
AF-AA 000886  
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PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
10575 STREET  
VERO BEACH, FL 32960

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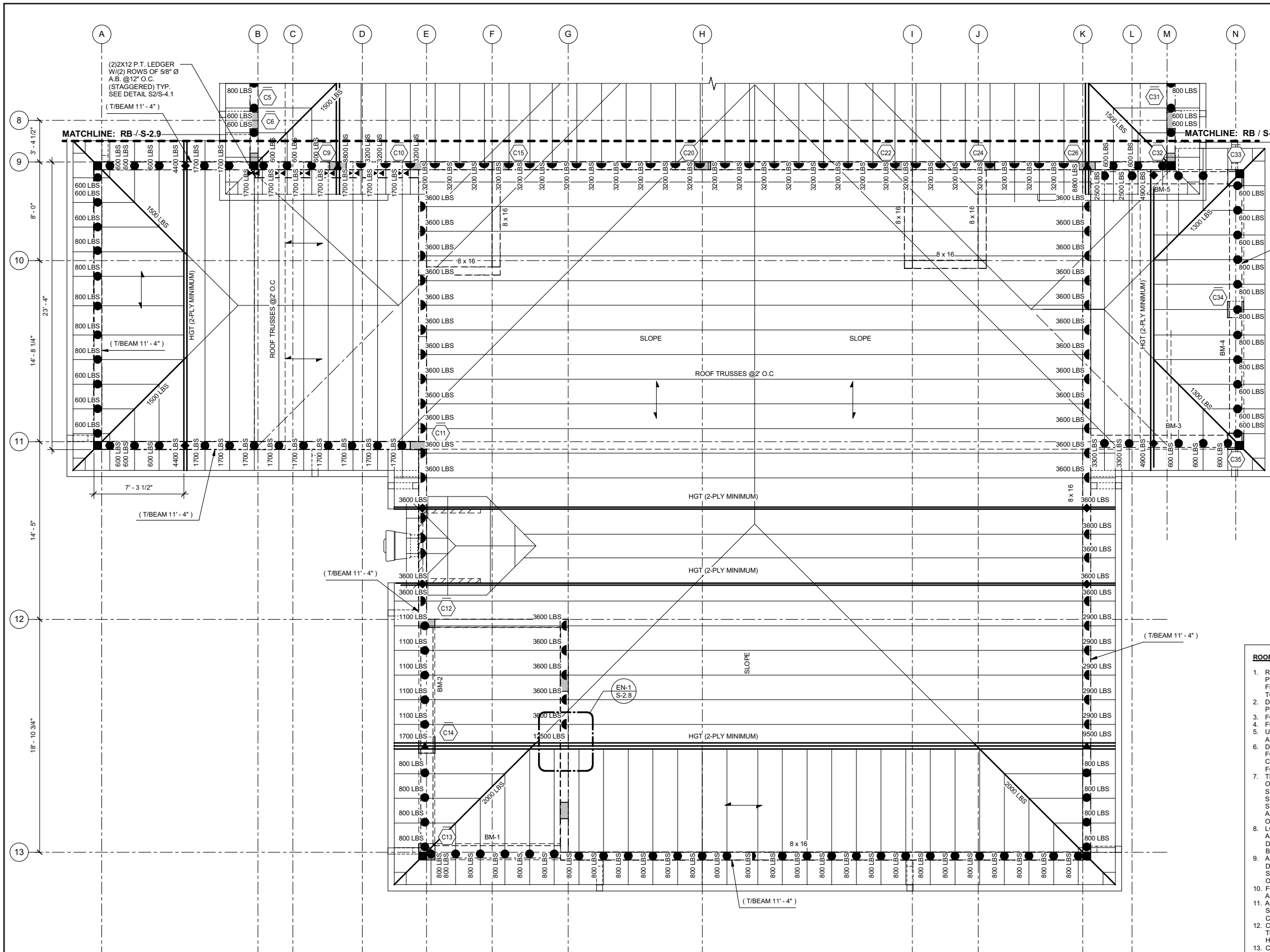


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EDLUND, DRITENBAS, BINKLEY ARCHITECTS AND ASSOCIATES, P.A.  
 ARCHITECTS

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 PHONE: (772) 569-4320

ARMANDO A CASTELLON  
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ARMANDO A. CASTELLON  
 LICENSE #43453  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

PROJECT: STATION #7  
 INDIAN RIVER COUNTY FIRE DISTRICT  
 1605 5TH STREET  
 VERO BEACH, FL 32960

FOR:

REVISIONS

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

- ROOF FRAMING NOTES:**
- ROOF FRAMING SHALL BE 5/8" (CDX) EXTERIOR GRADE STRUCTURAL PLYWOOD SHEATHING SPANNING OVER PRE-ENGINEERED/ PRE-FABRICATED WOOD TRUSSES SPACED AT 2'-0" ON CENTER (MAX.). REFER TO ARCHITECTURAL DRAWINGS FOR ROOF SLOPES AND FINISH. DIRECTION OF PLYWOOD SHEATHING SPAN SHOWN THIS ON PLAN.
  - FOR WIND DESIGN DATA AND ROOF LOAD SCHEDULE SEE DRAWING S102.
  - FOR TYPICAL DETAILS SEE DRAWINGS S-3.1 THRU S-3.3.
  - UNLESS OTHERWISE NOTED, FASTEN ALL STRUCTURAL ELEMENTS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2015.
  - DELEGATED TRUSS DESIGNER TO DESIGN TRUSSES FOR THE UPLIFT FORCES SHOWN ON THE LOADING SCHEDULE AND PROVIDE CERTIFICATION THAT CHORD AND WEB MEMBERS HAVE BEEN DESIGNED FOR LOAD REVERSAL STRESSES DUE TO UPLIFT FORCES.
  - TRUSS MANUFACTURER SHALL HAVE THE OPTION TO CHANGE LOCATION OF TYPICAL ROOF TRUSSES. GIRDER TRUSS LOCATION SHALL REMAIN AS SHOWN ON PLAN. IF TRUSS DESIGNER CHANGES LOCATION OF GIRDERS, SUPPORT SECTIONS AND CONNECTIONS ARE SUBJECT TO CHANGE. SUBMIT TRUSS SHOP DRAWINGS AND CALCULATIONS WHICH ARE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA FOR REVIEW AND APPROVAL.
  - LOCATION OF PERMANENT AND TEMPORARY TRUSS BRACING NOT SHOWN AND SHALL BE DETERMINED AND DETAILED BY DELEGATED TRUSS DESIGNER WHO SIGNS AND SEALS THE ROOF TRUSS DRAWINGS. ALL BRACING SHALL BE SHOWN ON THE TRUSS DRAWINGS.
  - ALL TRUSS TO TRUSS CONNECTIONS SHALL BE DESIGNED BY THE DELEGATED REGISTERED PROFESSIONAL ENGINEER WHO SIGNS AND SEALS THE ROOF TRUSS DRAWINGS AND SHALL BE NOTED AND LOCATED ON THE TRUSS DRAWINGS.
  - FOR PLAN AND OVERHANG DIMENSIONS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
  - ALL PRE-ENGINEERED TRUSS CONNECTIONS TO STRUCTURE SHOWN ARE SUBJECT TO CHANGE UPON RECEIPT OF TRUSS SHOP DRAWINGS AND CALCULATIONS.
  - COORDINATE ALL HORIZONTAL AND VERTICAL OPENING LOCATIONS IN TRUSSES WITH MECHANICAL AND ARCHITECTURAL DRAWINGS FOR HORIZONTAL PENETRATIONS.
  - COORDINATE ROOF SHAPE, DIMENSIONS, AND SLOPE WITH ARCH, ROOF DRAWINGS.
  - MECHANICAL UNITS SHOWN ARE GENERAL LAYOUT. G.C. TO COORDINATE WITH TRUSS MANUFACTURE AND MECHANICAL DWGS FOR EXACT PLACEMENT AND ROOF PENETRATION REQUIREMENT FOR ROOF FRAMING.

**WOOD TRUSS CONNECTOR SCHEDULE**

MARK	LOCATION	QUANTITY	NO. OF PLYS	MANUF.	CONNECTOR MODEL NO.	MAX. UPLIFT LOAD	FASTENERS TO TRUSS	FASTENERS TO TIE BEAM
●	RT	1	1	SIMPSON	HETA16	1810 LBS	(9) 0.148" X 1-1/2"	EMBEDMENT 8" MIN. ATR
▲	RT	1	1	SIMPSON	FGTR	4725 LBS	(18) 1/4" X 3" SDS	(2) 1/2" X 5" TITEN HD
▶	RT	2	1	SIMPSON	MTS 20	1980 LBS	2 (14) 0.148" X 3" NAILS	-
◆	HGT	1	2	SIMPSON	VGTR	4940 LBS	(16) 1/4" X 3" SDS	(1) 5/8" ATR. EMBEDMENT 8" MIN.
▲	HGT	1	2	SIMPSON	HGT - 2	10690 LBS	(16) 0.148" X 3"	(2) 5/8" ATR. EMBEDMENT 8" MIN.
■	HJT	2	1	SIMPSON	HTS16	1445 LBS	2 (8) 0.148" X 1-1/2"	2 (8) 0.148" X 1-1/2"

**CONCRETE BEAM SCHEDULE**

MARK	BEAM WIDTH	BEAM DEPTH	CONT. REINFORCING	TIE REINFORCING	REMARKS
BM-1	12"	12"	(4) #6 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-2	12"	12"	(4) #6 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-3	12"	12"	(4) #6 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-4	12"	12"	(4) #6 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-5	12"	12"	(4) #6 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM

RA ROOF PLAN - AREA A  
 1/4" = 1'-0"

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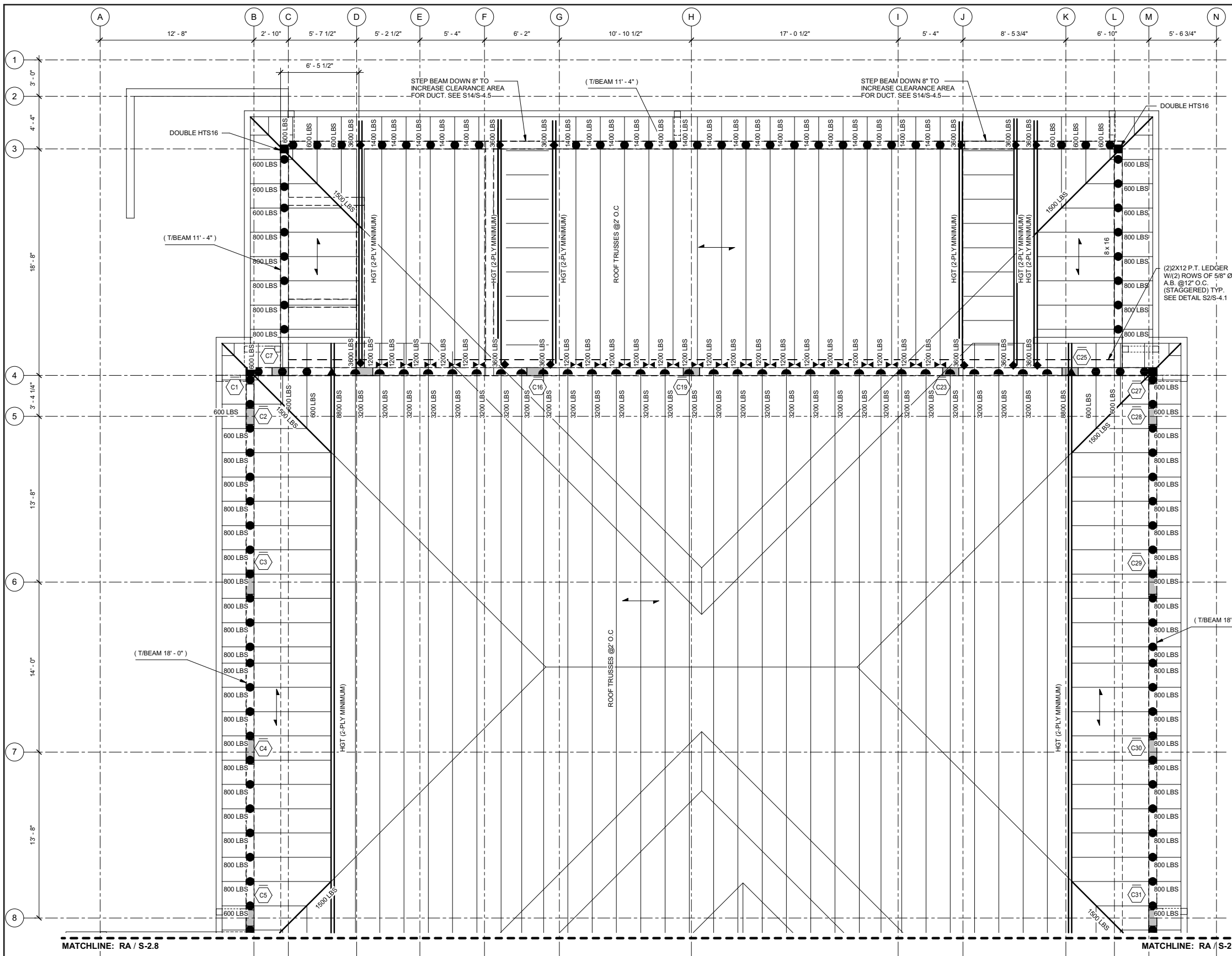
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COMM. NO: 050219VB  
 DATE: 15 AUG. 2023  
 BY: AN  
 CH'KD: JB/CV

SHEET NO. S-2.8  
 OF TWENTY EIGHT

22/09/2023 3:35:39 PM

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  - DELEGATED TRUSS DESIGNER TO DESIGN TRUSSES FOR THE UPLIFT FORCES SHOWN ON THE LOADING SCHEDULE AND PROVIDE CERTIFICATION THAT CHORD AND WEB MEMBERS HAVE BEEN DESIGNED FOR LOAD REVERSAL STRESSES DUE TO UPLIFT FORCES.
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  - ALL PRE-ENGINEERED TRUSS CONNECTIONS TO STRUCTURE SHOWN ARE SUBJECT TO CHANGE UPON RECEIPT OF TRUSS SHOP DRAWINGS AND CALCULATIONS.
  - COORDINATE ALL HORIZONTAL AND VERTICAL OPENING LOCATIONS IN TRUSSES WITH MECHANICAL AND ARCHITECTURAL DRAWINGS FOR HORIZONTAL PENETRATIONS.
  - COORDINATE ROOF SHAPE, DIMENSIONS, AND SLOPE WITH ARCH. ROOF DRAWINGS.
  - MECHANICAL UNITS SHOWN ARE GENERAL LAYOUT. G.C. TO COORDINATE WITH TRUSS MANUFACTURE AND MECHANICAL DWGS FOR EXACT PLACEMENT AND ROOF PENETRATION REQUIREMENT FOR ROOF FRAMING.

CONCRETE BEAM SCHEDULE					
MARK	BEAM WIDTH	BEAM DEPTH	CONT. REINFORCING	TIE REINFORCING	REMARKS
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BM-2	12"	12"	(4) #5 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-3	12"	12"	(4) #5 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-4	12"	12"	(4) #5 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM
BM-5	12"	12"	(4) #5 T&B CONT.	#3 @4" O.C.	(2) #6 AT THE TOP AND (2) #6 AT THE BOTTOM

WOOD TRUSS CONNECTOR SCHEDULE								
MARK	LOCATION	QUANTITY	NO. OF PILES	MANUF.	CONNECTOR MODEL NO.	MAX. UPLIFT LOAD	FASTENERS TO TRUSS	FASTENERS TO TIE BEAM
●	RT	1	1	SIMPSON	HETA16	1810 LBS	(9) 0.148" X 1-1/2"	EMBEDMENT 8" MIN. ATR
▲	RT	1	1	SIMPSON	FGTR	4725 LBS	(18) 1/4" X 3" SDS	(2) 1/2" X 5" TITEN HD
▶	RT	2	1	SIMPSON	MTS 20	1980 LBS	2 (14) 0.148" X 3" NAILS	-
◆	HGT	1	2	SIMPSON	VTG	4940 LBS	(16) 1/4" X 3" SDS	(1) 5/8" ATR. EMBEDMENT 8" MIN.
▲	HGT	1	2	SIMPSON	HGT - 2	10690 LBS	(16) 0.148" X 3"	(2) 5/8" ATR. EMBEDMENT 8" MIN.
■	HJT	2	1	SIMPSON	HTS16	1445 LBS	2 (8) 0.148" X 1-1/2"	2 (8) 0.148" X 1-1/2"

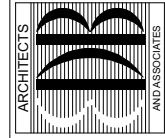
**ROOF PLAN - AREA B**  
1/4" = 1'-0"

**MASTER CONSULTING ENGINEERS, INC.**  
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Armanda A Castello  
2023.10.18 14:29:44-04'00"

PROJECT: **STATION #7**  
INDIAN RIVER COUNTY FIRE DISTRICT  
VERO BEACH, FL 32960

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

DATE: 15 AUG. 2023  
BY: AN  
CHK'D: JB/CV

COMM. NO: 050219VB

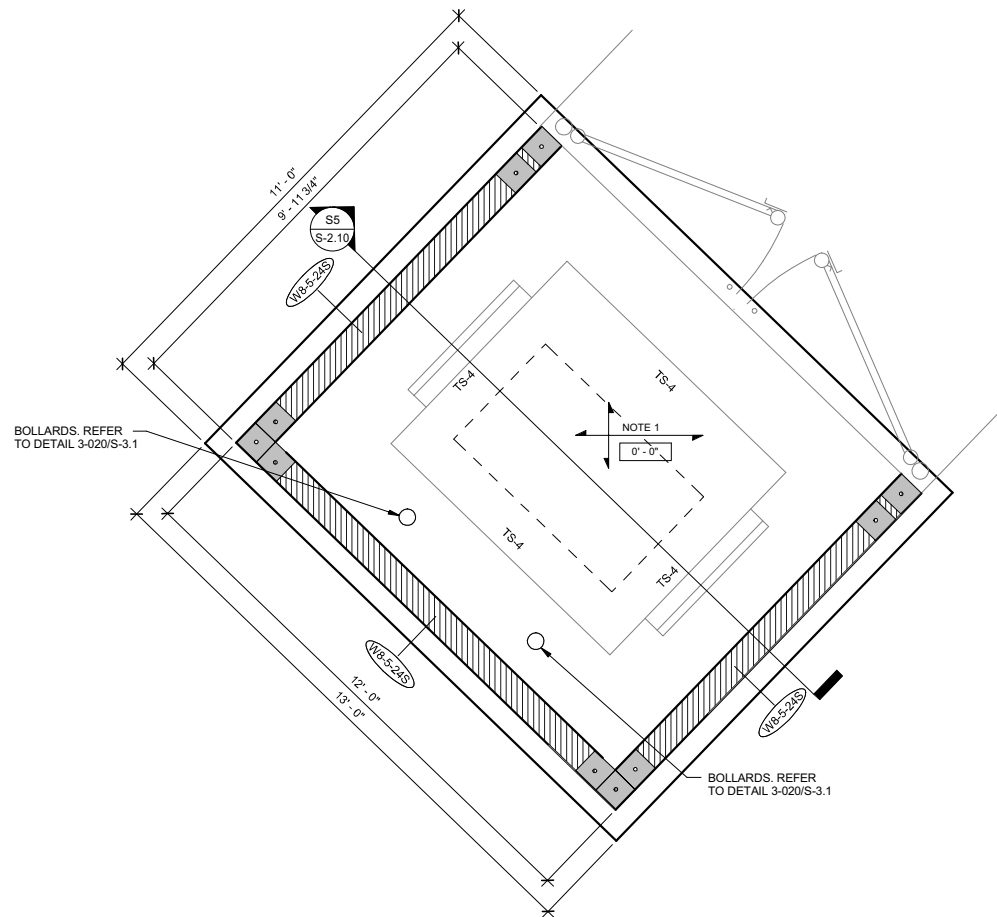
SHEET NO. **S-2.9**

OF TWENTY EIGHT

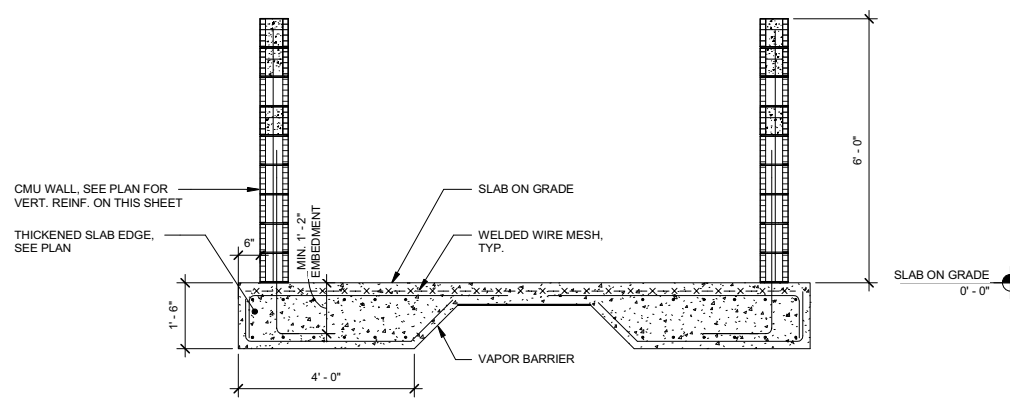
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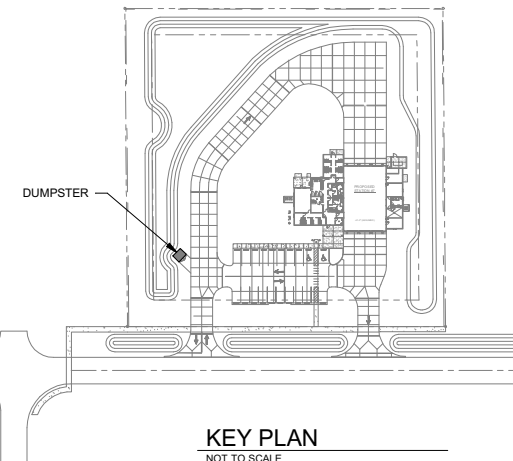




**1 DUMPSTER PLAN**  
1/2" = 1'-0"



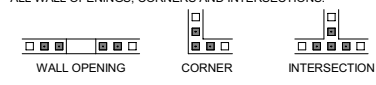
**SS DUMPSTER SECTION**  
S-2.10 SCALE: 1/2" = 1'-0"



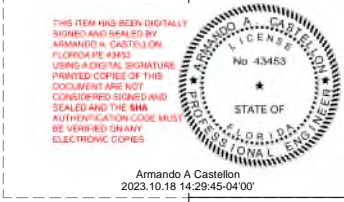
**KEY PLAN**  
NOT TO SCALE

**FOUNDATION/SLAB ON GRADE PLAN NOTES:**

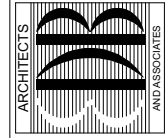
- SLAB ON GRADE TO BE 6" THICK CONCRETE OVER VAPOR BARRIER ON COMPACTED SUB-BASE AS PER GEOTECHNICAL REPORT REINFORCED 4x4 W4.0xW4.0 W.W.F. (FLAT SHEETS) CENTERED IN SLAB. SUPPORT WELDED WIRE FABRIC WITH 2" SLAB BOLSTER OR APPROVED EQUAL @ 3'-0" (s) O.C. BOTH WAYS. USE OF CONCRETE BRICK IS NOT ALLOWED.
- VAPOR BARRIER REQUIREMENTS/APPLICATION/INSTALLATION SHALL BE DONE AS PER ARCHITECTURAL OR MOISTURE CONSULTANT DOCUMENTS AND RECOMMENDATIONS. IF NONE ARE AVAILABLE, AT A MINIMUM THE FOLLOWING RECOMMENDATIONS SHALL BE FOLLOWED.
  - VAPOR BARRIER SHALL CONFORM TO ASTM E-1745, MEETS OR EXCEEDS CLASS "B".
  - VAPOR BARRIER INSTALLATION SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS AND ASTM E 1643/98.
  - UNROLL VAPOR BARRIER WITH THE LONGEST DIMENSION PARALLEL WITH THE DIRECTION OF THE POUR.
  - LAP VAPOR BARRIER OVER FOOTINGS AND SEAL TO FOUNDATION WALLS.
  - OVERLAP JOINTS 6 INCHES AND SEAL WITH MANUFACTURER'S TAPE.
  - SEAL ALL PENETRATIONS (INCLUDING PIPES) WITH MANUFACTURER'S PIPE BOOT.
  - NO PENETRATION OF THE VAPOR BARRIER IS ALLOWED EXCEPT FOR REINFORCING STEEL AND PERMANENT UTILITIES.
  - REPAIR DAMAGED AREAS BY CUTTING PATCHES OF VAPOR BARRIER, OVERLAPPING DAMAGED AREA 6 INCHES AND TAPING ALL FOUR SIDES WITH TAPE.
- TOP OF SLAB ELEVATION SHOWN THUS [ ] ON PLAN EQUALS REFERENCE EL. FOR ACTUAL EL., SEE CIVIL DRAWINGS.
- FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S-1.1.
- FOR FLOOR SLAB DEPRESSION LOCATIONS AND LIMITS NOT SHOWN ON PLAN SEE ARCHITECTURAL DRAWINGS.
- FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.
- TYPICAL WALL REINFORCING SCHEDULE.
  - FOR CMU EXTERIOR WALL REINFORCING SEE SCHEDULE THIS SHEET.
  - [ ] INDICATES ADDITIONAL (1) VERTICAL IN GROUT FILLED CELL.
  - PROVIDE ADDITIONAL (1) VERTICAL IN FIRST (2) CELLS EACH SIDE OF ALL WALL OPENINGS, CORNERS AND INTERSECTIONS.
- COORDINATE LOCATION OF (CJ) CONTROL JOINTS (SAWCUTS & TOOLED JOINTS) AT WALKWAY SLABS WITH ARCHITECTURAL DRAWINGS. CONTROL JOINTS AT EXPOSED TO WEATHER WALKWAYS SHALL BE TOOLED JOINTS SEE TYPICAL DETAIL 3-201 ON S-3.2.
- ALL CMU WALLS SHALL BE REINFORCED AS SHOWN ON PLAN WITH DOWELS TO MATCH, U.N.O. ALL CELLS AT REINFORCING LOCATION SHALL BE FILLED WITH GROUT. PROVIDE INSPECTION/CLEANOUT HOLE AT BASE WHEN POUR HEIGHT IS GREATER THAN 4'-0".
- LOCATION OF MASONRY CONTROL JOINT NOT SHOWN. COORDINATE WITH ARCHITECTURAL ELEVATIONS. SEE TYPICAL DETAIL 4-002 ON S-3.3.
- GENERAL CONTRACTOR TO COORDINATE LOCATION OF ALL WALL PENETRATIONS REQUIRED FOR MECHANICAL EQUIPMENT AND PROVIDE A PRECAST LINTEL AT ALL OPENINGS REFER TO TYPICAL DETAIL 4-004 ON S-3.3.
- MASONRY CONTROL JOINT SHOWN THUS [ ] MCJ ON PLAN. MAXIMUM SPACING OF JOINTS = 24'-0", COORDINATE LOCATION WITH THE ARCH. BUILDING ELEVATIONS.



THICKENED SLAB SCHEDULE					
MARK*	SIZE	THICKNESS	TOP & BOTTM. REINF. CONT.	TOP & BOTTM. REINF. TRANSV.	REMARKS
TS-1	1'-0" x CONT.	1'-4"	(2)-#5	#4 @ 24" O.C.	
TS-1A	1'-0" x CONT.	1'-0"	(2)-#5	#4 @ 24" O.C.	TO BE USED ON INTERIOR AREAS ONLY
TS-4	4'-0" x CONT.	1'-6"	(6)-#5	#4 @ 24" O.C.	



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PROJECT: STATION #7  
INDIAN RIVER COUNTY FIRE DISTRICT  
FOR: 10051TH STREET, VERO BEACH, FL 32960

NO.	DATE	REVISIONS
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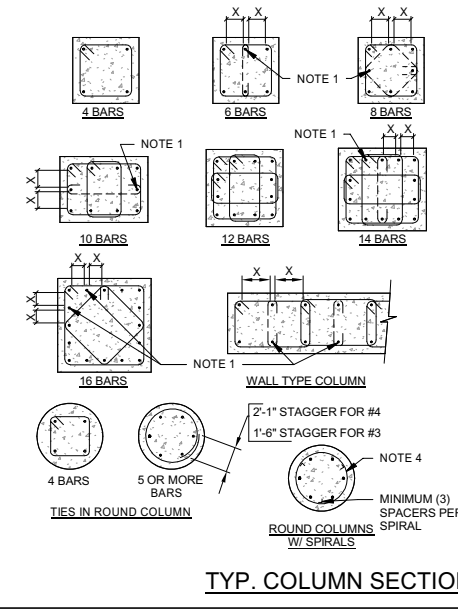
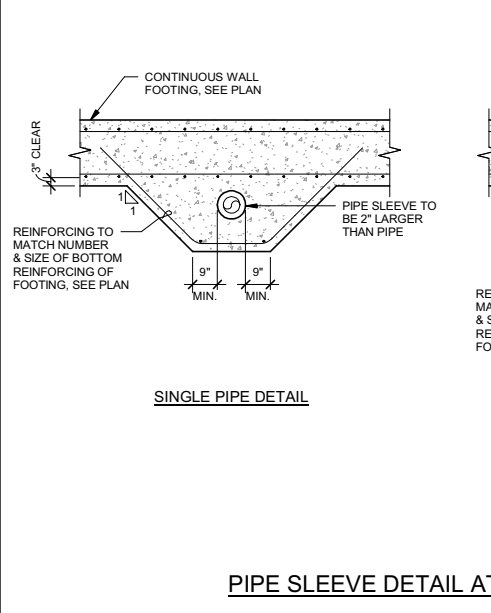
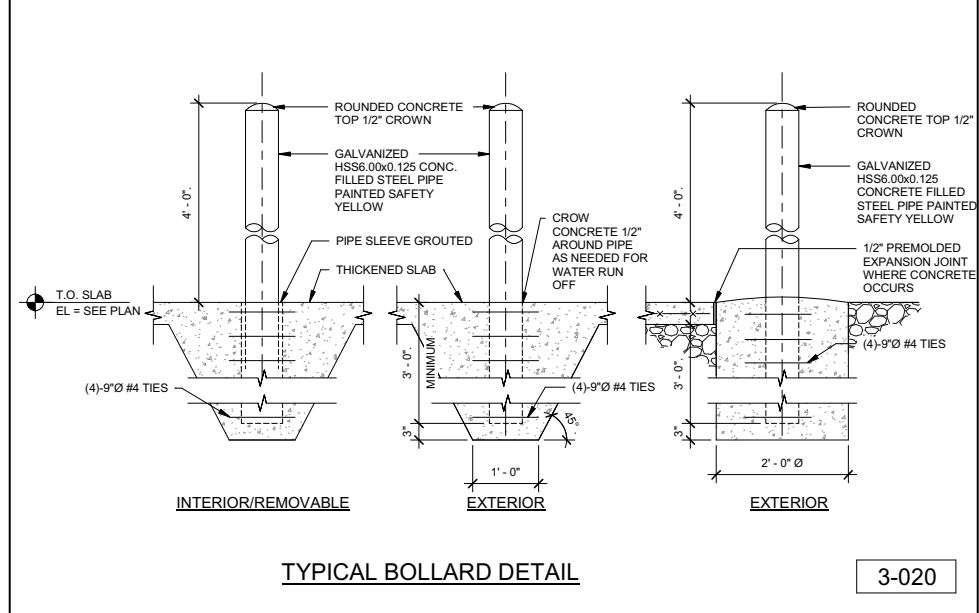
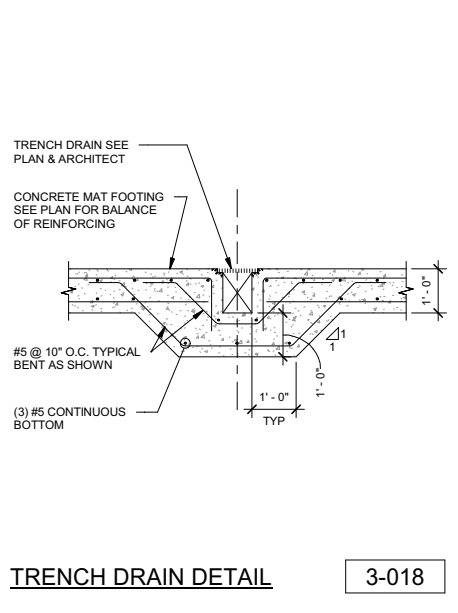
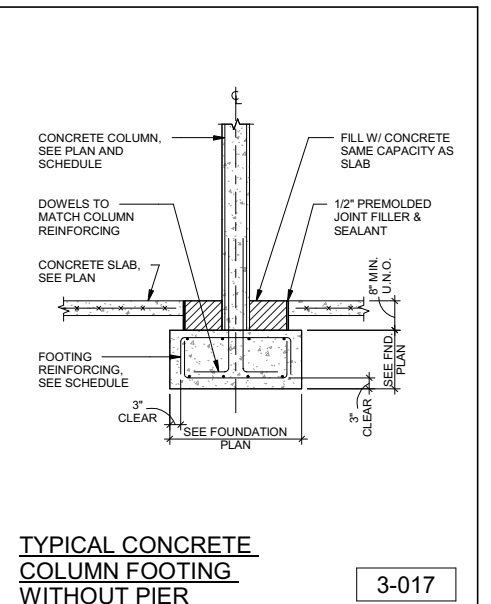
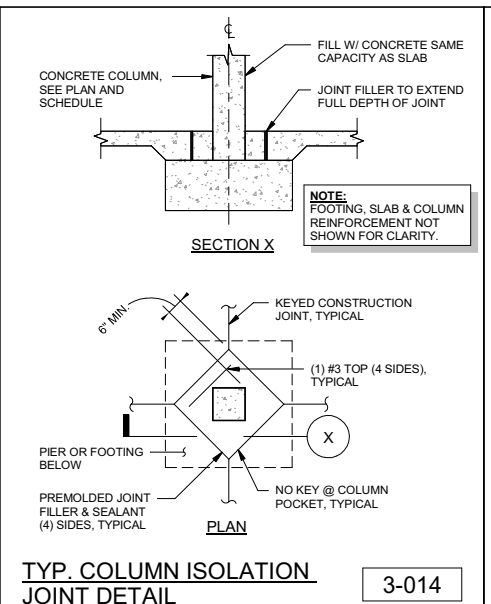
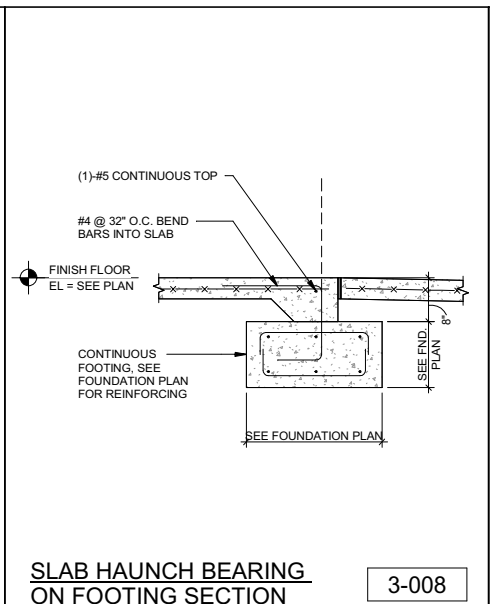
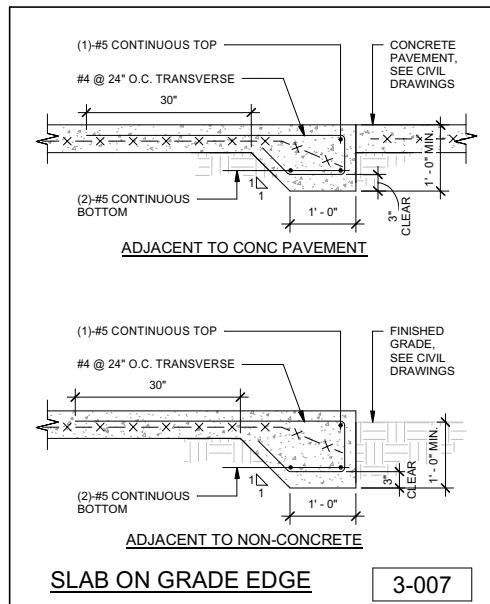
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SHEET NO.  
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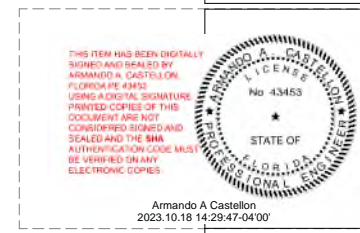
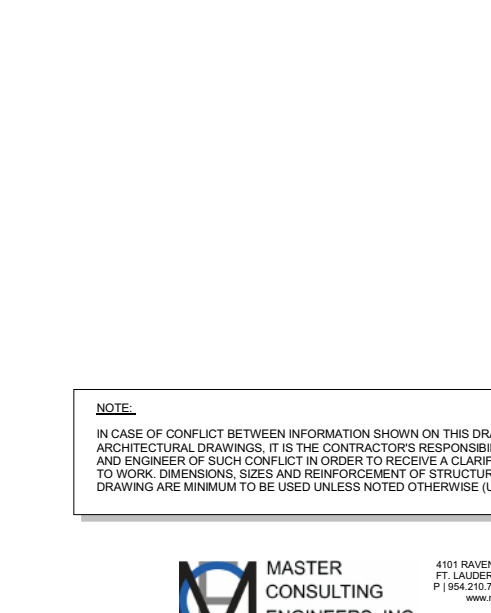
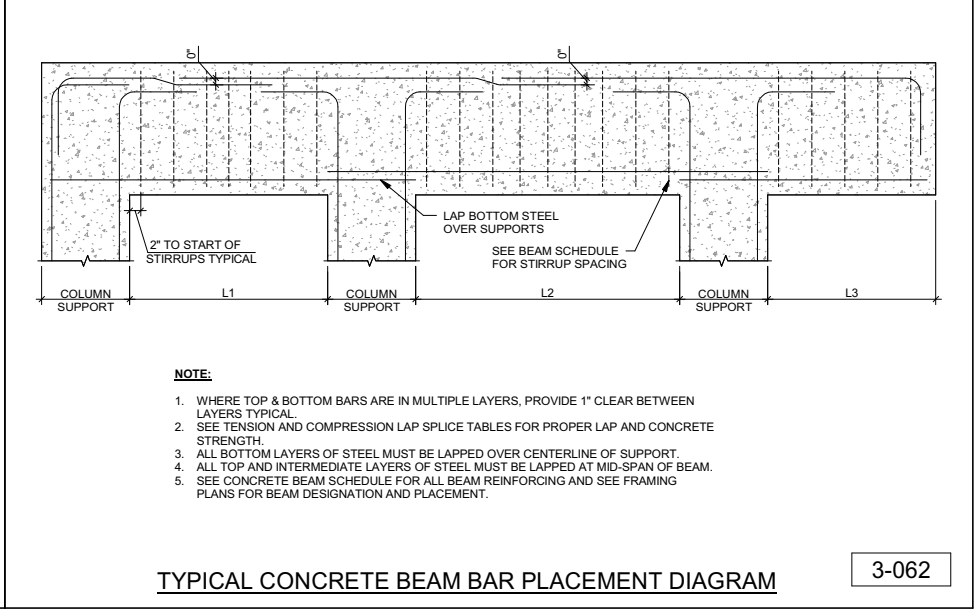


		SIZE AND SPACING OF COL. TIES									
A	B	8"	10"	12"	14"	16"	18"	20"	22"	24" OR MORE	
#5	#3@8	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10	#3@10	
#6	#3@8	#3@10	#3@12	#3@12	#3@12	#3@12	#3@12	#3@12	#3@12	#3@12	
#7	#3@8	#3@10	#3@12	#3@14	#3@14	#3@14	#3@14	#3@14	#3@14	#3@14	
#8	#3@8	#3@10	#3@12	#3@14	#3@16	#3@16	#3@16	#3@16	#3@16	#3@16	
#9, #10	#3@8	#3@10	#3@12	#3@14	#3@16	#3@18	#3@18	#3@18	#3@18	#3@18	
#11 #14 & #18	#4@8	#4@10	#4@12	#4@14	#4@16	#4@18	#4@20	#4@22	#4@22	#4@22	

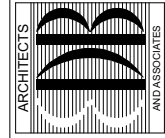
A = SIZE OF VERTICAL REINFORCING  
B = LEAST DIMENSION OF COLUMN

**NOTES:**

- THESE BARS MUST BE TIED AS SHOWN BY DASHED LINES WHEN "X" DISTANCE IS OVER 6 INCHES AND NEED NOT BE TIED WHEN "X" IS 6" OR LESS.
- MINIMUM CLEAR COVER 1 1/2" TO TIES (2" FOR EXPOSED CONDITION).
- FOR VERTICAL COLUMN REINFORCING, SEE PLAN AND COLUMN SCHEDULE.
- FOR SPIRAL SEE COLUMN SCHEDULE.



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PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
10515TH STREET  
VERO BEACH, FL 32960

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

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TYPE OF SURFACE	MINIMUM CLEAR COVER
SLABS (LT. WT. CONC. OR STONE CONC.)	1"
GIRDERS AND BEAMS (TO STIRRUPS)	1 1/2"
JOISTS (STONE OR LT. WT.) BOTTOM BARS	1 1/4"
<b>TIED COLUMNS AND PIERS</b>	
SURFACE EXPOSED TO EARTH AND WEATHER (TO TIES)	2"
OTHER SURFACES (TO TIES)	1 1/2"
<b>FOUNDATION ELEMENTS</b>	
FORMED SURFACES	2"
SURFACES PLACED AGAINST EARTH	3"
<b>WALLS</b>	
SURFACES EXPOSED TO EARTH	2"
SURFACES EXPOSED TO WEATHER	1 1/2"
OTHER SURFACES	1"

**TYPICAL CONCRETE COVER FOR REINFORCING BARS**

3-064

F<sub>c</sub> = 3000 PSI, NORMAL WEIGHT

BAR SIZE	LAP CLASS	TENSION LAP SPLICES				COMPRESSION LAP SPLICES
		CASE 1		CASE 2		
		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	
#3	A	22	17	32	25	12
	B	28	22	42	32	
#4	A	29	22	43	33	15
	B	37	29	56	43	
#5	A	36	28	54	41	19
	B	47	36	70	54	
#6	A	43	33	64	50	23
	B	56	43	84	64	
#7	A	63	48	94	72	26
	B	81	63	122	94	
#8	A	72	55	107	82	30
	B	93	72	139	107	
#9	A	81	62	121	93	34
	B	105	81	157	121	
#10	A	91	70	136	105	38
	B	118	91	177	136	
#11	A	101	78	151	116	42
	B	131	101	196	151	

**NOTES:**

**CASE 1**

**BEAMS AND COLUMNS:**  
CONCRETE COVER ≥ 3/8" TO BAR DIAMETER, C-C BAR SPACING ≥ 1/2" TO 2X BAR DIAMETER AND WITH STIRRUPS OR TIES THROUGHOUT TENSION LAP SPlice LENGTH NOT LESS THAN THE CODE MINIMUM.

**OTHER MEMBERS:**  
CONCRETE COVER ≥ 1/2" TO THE BAR DIAMETER AND C-C BAR SPACING ≥ 1/2" TO 3X BAR DIAMETER.

**CASE 2**

**BEAMS AND COLUMNS:**  
CONCRETE COVER < BAR DIAMETER AND C-C BAR SPACING < 2X BAR DIAMETER.

**OTHER MEMBERS:**  
CONCRETE COVER < BAR DIAMETER OR C-C BAR SPACING < 3X BAR DIAMETER.

\* LAP CLASS "B" IS TO BE USED UNLESS OTHERWISE SPECIFIED IN THESE CONTRACT DOCUMENTS.

**TENSION AND COMPRESSION LAP SPLICES WITH F<sub>c</sub> = 3000 PSI**

3-065

F<sub>c</sub> = 4000 PSI, NORMAL WEIGHT

BAR SIZE	LAP CLASS	TENSION LAP SPLICES				COMPRESSION LAP SPLICES
		CASE 1		CASE 2		
		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	
#3	A	19	15	28	22	12
	B	24	19	36	28	
#4	A	25	19	37	29	15
	B	32	25	48	37	
#5	A	31	24	47	36	19
	B	40	31	60	47	
#6	A	37	29	56	43	23
	B	48	37	72	56	
#7	A	54	42	81	63	26
	B	70	54	106	81	
#8	A	62	48	93	71	30
	B	80	62	121	93	
#9	A	70	54	105	81	34
	B	91	70	136	105	
#10	A	79	61	118	91	38
	B	102	79	153	118	
#11	A	87	67	131	101	42
	B	113	87	170	131	

**NOTES:**

**CASE 1**

**BEAMS AND COLUMNS:**  
CONCRETE COVER ≥ 3/8" TO BAR DIAMETER, C-C BAR SPACING ≥ 1/2" TO 2X BAR DIAMETER AND WITH STIRRUPS OR TIES THROUGHOUT TENSION LAP SPlice LENGTH NOT LESS THAN THE CODE MINIMUM.

**OTHER MEMBERS:**  
CONCRETE COVER ≥ 1/2" TO THE BAR DIAMETER AND C-C BAR SPACING ≥ 1/2" TO 3X BAR DIAMETER.

**CASE 2**

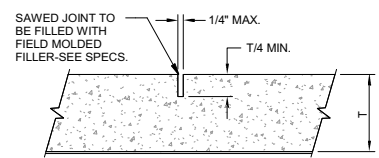
**BEAMS AND COLUMNS:**  
CONCRETE COVER < BAR DIAMETER AND C-C BAR SPACING < 2X BAR DIAMETER.

**OTHER MEMBERS:**  
CONCRETE COVER < BAR DIAMETER OR C-C BAR SPACING < 3X BAR DIAMETER.

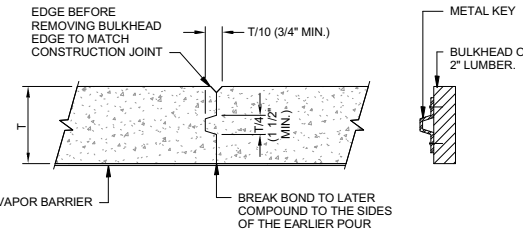
\* LAP CLASS "B" IS TO BE USED UNLESS OTHERWISE SPECIFIED IN THESE CONTRACT DOCUMENTS.

**TENSION AND COMPRESSION LAP SPLICES WITH F<sub>c</sub> = 4000 PSI**

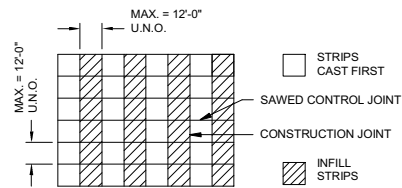
3-066



SAWED CONTROL JOINT DETAIL



BULKHEAD DETAILS FOR CONSTRUCTION JOINT



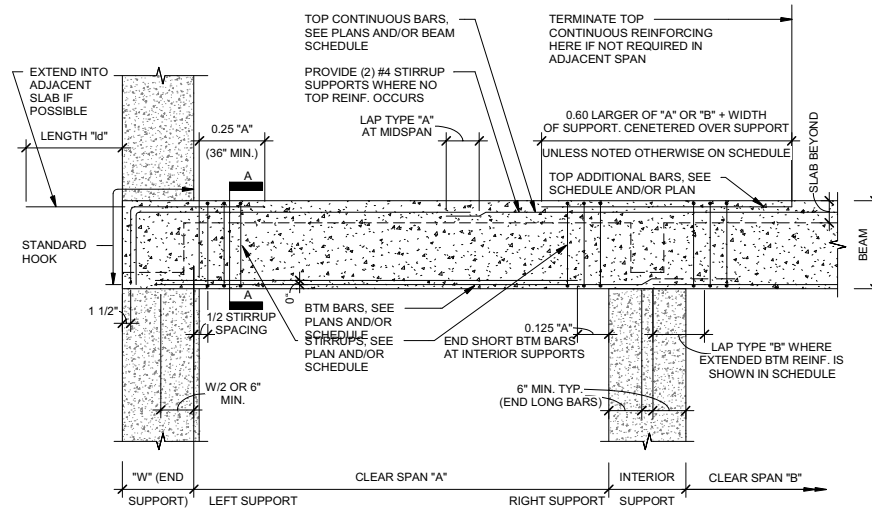
SLAB PLACEMENT SEQUENCE

**NOTES:**

1. CONCRETE FOR SLAB ON GRADE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AS INDICATED ON THE "CONCRETE AND REINFORCING" NOTES.
2. SUPERPLASTICIZER SHALL BE USED IN SLAB ON GRADE CONCRETE - SEE SPECIFICATIONS.
3. SLAB ON GRADE CONCRETE MIX SHALL HAVE A WATER-CEMENT RATIO AS INDICATED IN SPECS AND/OR NOTES.
4. CONSTRUCTION JOINTS SHALL BE LOCATED A MINIMUM OF 5'-0" AWAY FROM ANY OTHER JOINTS TO WHICH THEY ARE PARALLEL.
5. SAW CUTTING SHALL BE DONE WITH A POWER SAW WITH A MASONRY CUTTING BLADE. CUTTING SHALL BE DONE AS SOON AS CONCRETE HARDENS ENOUGH SO THAT THE BLADE DOES NOT DISLODGE THE AGGREGATES.
6. WHERE SAWCUT IS DISCONTINUED AT A TRANSVERSE JOINT, STOP CUT 2" SHORT.
7. SLAB REINFORCING NOT SHOWN FOR CLARITY.

**TYPICAL SLAB ON GRADE JOINT DETAILS**

3-201

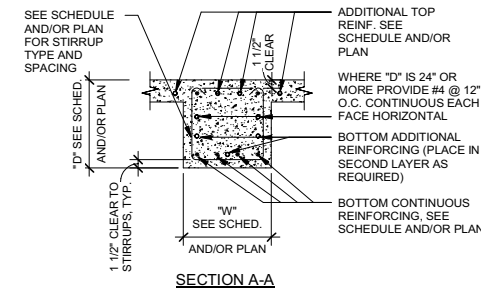


**TYPICAL CONCRETE BEAM REINFORCING DETAIL**

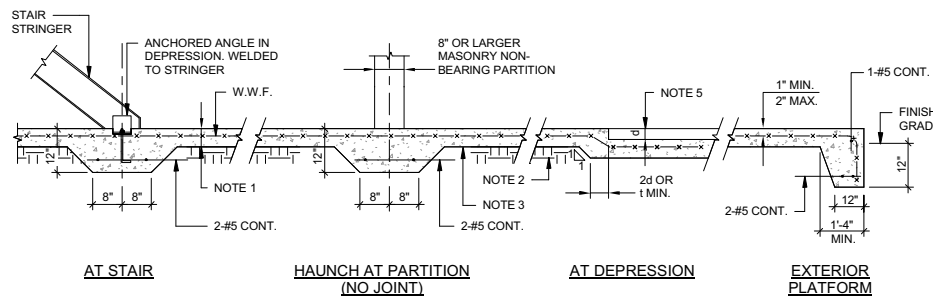
3-250

**NOTES:**

1. LEFT AND RIGHT ENDS OF BEAMS FOR LOCATING TOP BARS ARE FIXED BY THE POSITION OF THE BEAM MARK ON THE FRAMING PLAN.
2. TOP BARS AT THE RIGHT ENDS OF BEAMS ARE SCHEDULED FOR ALL SPANS. TOP BARS AT LEFT ENDS ARE SCHEDULED FOR SINGLE SPANS AND FOR THE END SPAN AT THE LEFT OF A SERIES OF CONTINUOUS BEAMS.
3. WHERE CONTINUOUS BARS ARE SCHEDULED, THEY ARE IN ADDITION TO REINFORCING CALLED FOR UNDER TOP BARS LEFT OR RIGHT.
4. PROVIDE #3 @ 12" O.C. STIRRUPS WHERE NO STIRRUPS ARE SCHEDULED.
5. TOP CONTINUOUS REINFORCING TO EXTEND ACROSS TOP OF BEAM. PROVIDE LAP TYPE "A" AT CENTER OF SPAN UNLESS OTHERWISE NOTED WHERE DIFFERENT "TOP CONTINUOUS" REINFORCING IS SCHEDULED FOR ADJACENT SPANS. USE LARGER AMOUNT OVER COLUMNS OR GIRDERS.
6. MINIMUM (2) BOTTOM BARS TO BE FULL LENGTH UNLESS OTHERWISE NOTED.
7. FOR "L" DISTANCE SEE DETAIL 1



SECTION A-A



AT STAIR

HAUNCH AT PARTITION (NO JOINT)

AT DEPRESSION

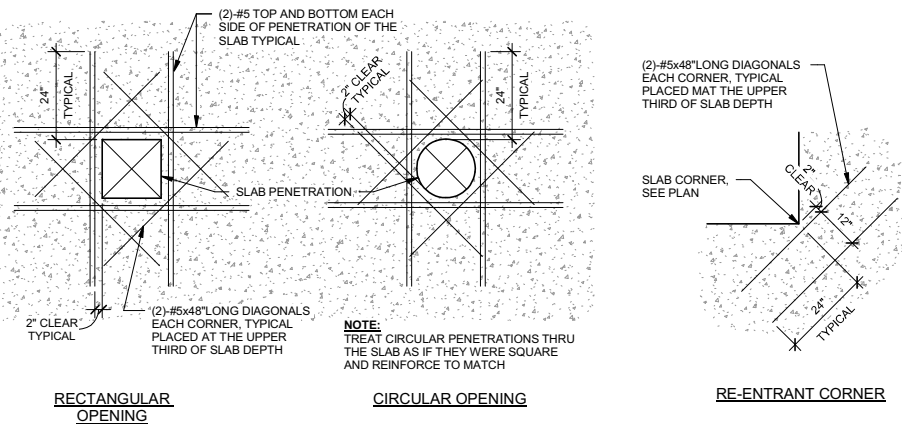
EXTERIOR PLATFORM

**UNLESS NOTED ON PLANS:**

1. SEE FOUNDATION NOTES FOR SLAB THICKNESS AND REINFORCING.
2. SLABS SHALL BEAR ON COMPACTED FILL.
3. COMPACTED FILL SHALL BE COVERED WITH VAPOR BARRIER AT HAUNCHES. SEE SPECS.
4. UNDER MACHINE EQUIPMENT DEEPEN SLAB TO 8" AND ADD TWO LAYERS OF WELDED WIRE FABRIC BOTTOM. U.N.O. FOR DEPRESSIONS - SEE ARCHITECTURAL DRAWINGS.
5. AT CONSTRUCTION JOINTS USE WOOD FORMS WITH SHEAR KEYS.
6. STOP WIRE MESH AT CONSTRUCTION JOINTS. CUT EVERY OTHER WIRE AT SAWCUT JOINT.
7. WHERE SLAB IS DOWELED INTO WALL, FIRST SLAB CONSTRUCTION JOINT TO BE NOT MORE THAN 15 FEET FROM WALL.
8. FOR EXPANSION JOINT LOCATION SEE PLAN. FOR DETAILS SEE ARCHITECTURAL DRAWINGS.

**TYPICAL SLAB ON GRADE DETAILS**

3-202



RECTANGULAR OPENING

CIRCULAR OPENING

RE-ENTRANT CORNER

**TYPICAL SLAB REINFORCING AT PENETRATIONS & CORNERS**

3-520

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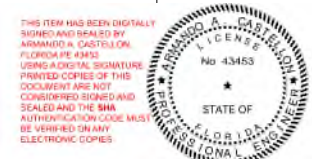
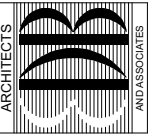


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TYPICAL DETAILS

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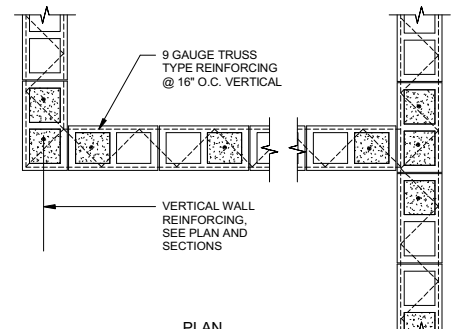
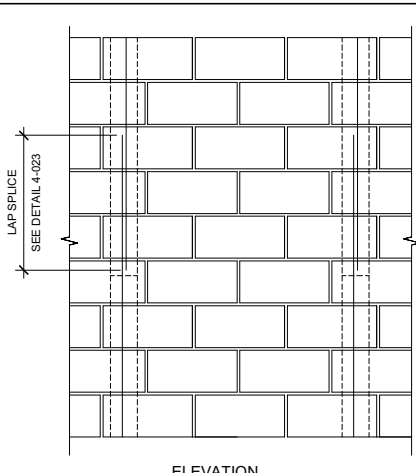
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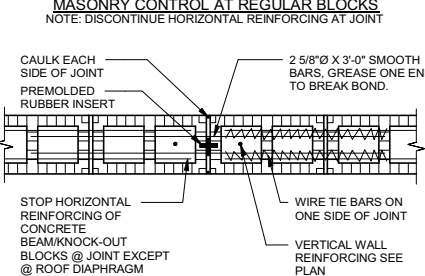
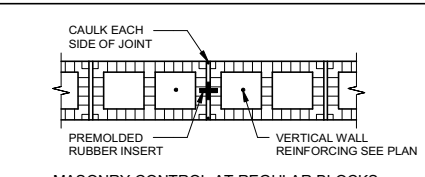




**NOTE:**  
PROVIDE INSPECTION PORT AT BOTTOM OF LIFT  
GREATER THAN 4'-0" IN HEIGHT.

**TYP MASONRY WALL DETAIL**

4-001

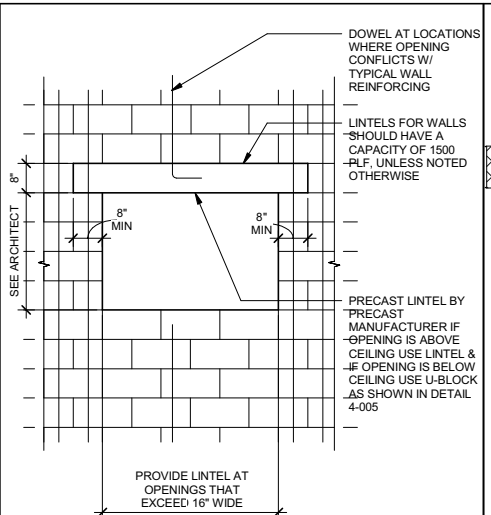


**MASONRY CONTROL AT CONC. BEAM/KNOCK-OUT BLOCKS**

**NOTE:**  
1. MAXIMUM SPACING OF CONTROL JOINT EQUALS 24'-0" OR THREE  
TIMES WALL HEIGHT (WHICH EVER IS SMALLER)

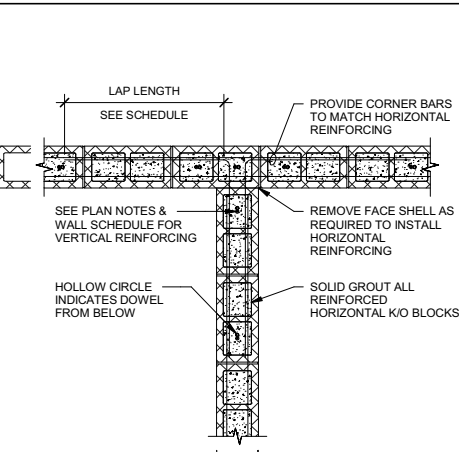
**MASONRY CONTROL JOINT**

4-002



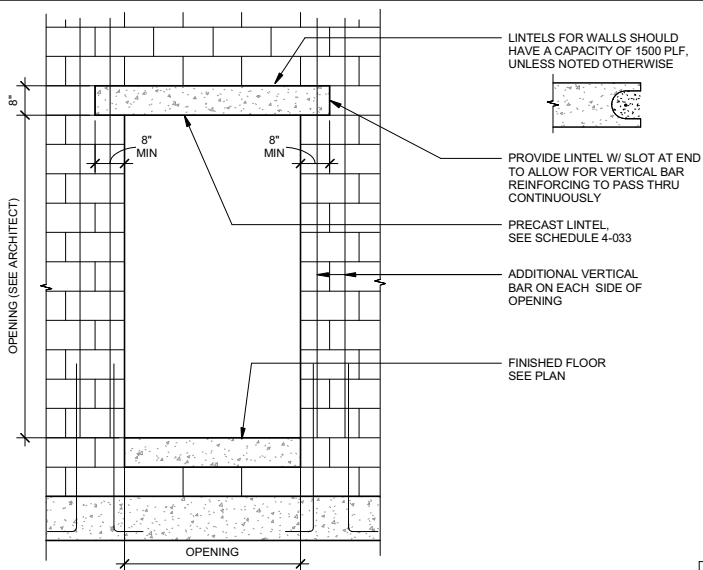
**TYPICAL LINTEL OVER DUCT  
OPENING**

4-004



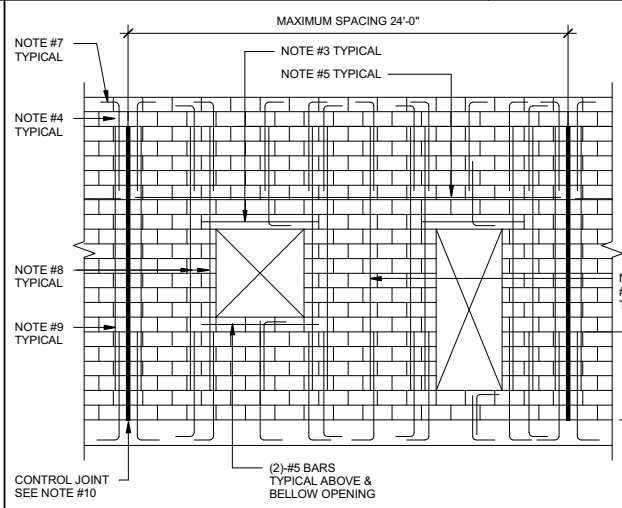
**TYPICAL CMU K/O BLOCK  
REINFORCING LAYOUT**

4-008



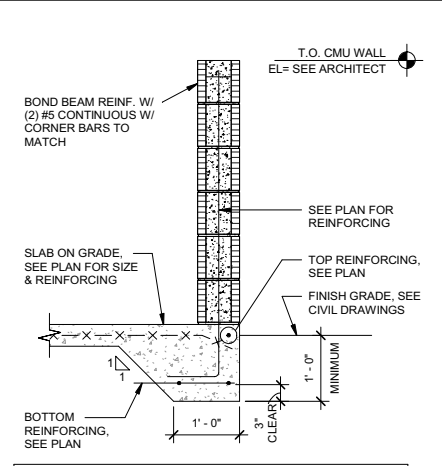
**TYPICAL LINTEL OVER OPENING**

4-005



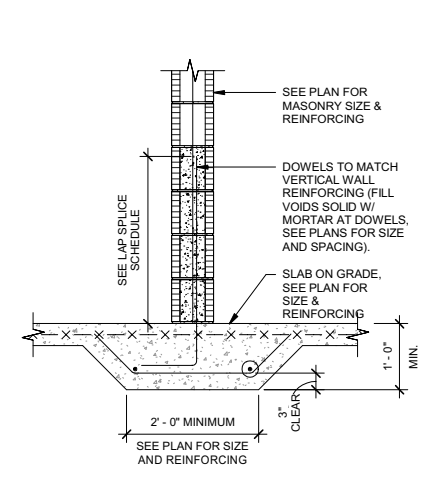
**CMU WALL REINFORCING LAYOUT**

4-009



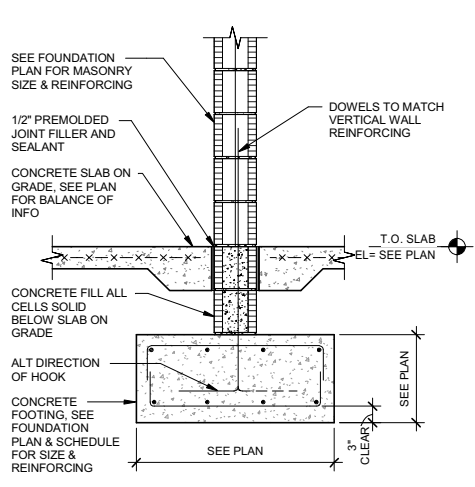
**TYPICAL HAUNCH AT  
MASONRY WALLS**

4-010



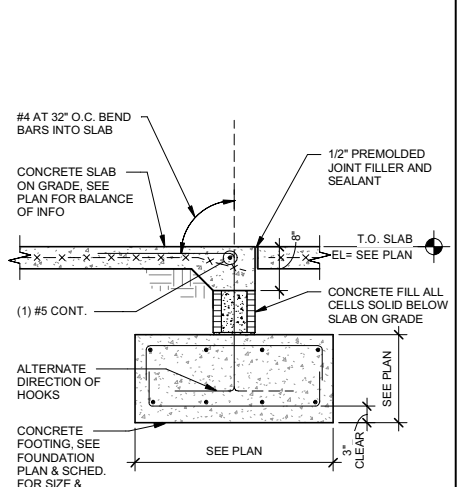
**TYPICAL HAUNCH AT  
MASONRY WALLS**

4-011



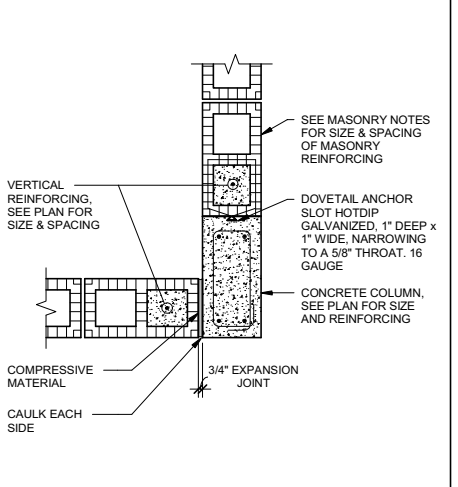
**PARTIAL CMU  
WALL SECTION**

4-015



**SLAB HAUNCH BEARING  
ON CMU WALL SECTION**

4-017



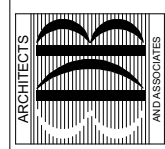
**CONCRETE COLUMN TO  
MASONRY CORNER  
CONNECTION**

4-021

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CHK'D: JB/CV

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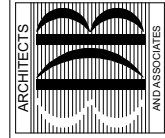
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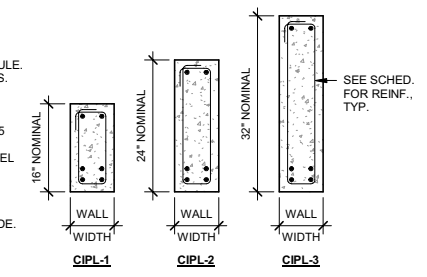
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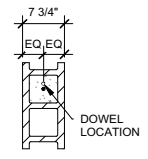
WALL THICKNESS	LINTEL DEPTH	BOTTOM REINFORCING	TOP REINFORCING	STIRRUPS & SPACING	NOTES
PCL-1	8"	(2)#5	-	-	-
PCL-2	16"	-	-	-	-
PCL-3	24"	-	-	-	-
CIPL-2	24"	-	-	-	-
CIPL-3	32"	-	-	-	-



- NOTES:**
- PRECAST CONCRETE LINTELS CAN BE INSTALLED AT ALL OPENINGS PER SCHEDULE. CAST IN PLACE CONCRETE LINTELS SHALL BE PLACED WHERE SHOWN ON PLANS. SUBSTITUTED UPON APPROVAL BY ENGINEER.
  - GROUTED LINTEL (THROUGH) BLOCKS SHALL EXTEND A MINIMUM OF 8" BEYOND FACE OF OPENING EACH SIDE UNLESS NOTED OTHERWISE. THE FIRST TWO VERTICAL CELLS EACH OF THE OPENING SHALL BE GROUTED AND CONTAIN (2) #5 VERTICAL EACH FACE. NOTE: THE FIRST CELL EACH SIDE OF THE OPENING SHALL BE GROUTED TO LINTEL LEVEL. SECOND CELL SHALL BE GROUTED TO ROOF LEVEL.
  - SEE SPECIFIC DETAIL FOR BRICK LEDGE SUPPORT ANGLE OF LOOSE LINTEL SCHEDULE.
  - CONSTRUCTION/CONTROL JOINT SHALL NOT BE LOCATED WITHIN WIDTH OF OPENING, NOR SHALL IT BE LOCATED WITHIN 24" OF THE OPENING ON EITHER SIDE.
  - CONCRETE LINTEL BEARING EACH SIDE OF LINTEL TO BE EQUAL TO DEPTH OF LINTEL, TYPICAL UNLESS NOTED OTHERWISE.

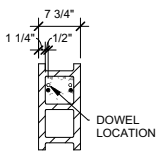
TYP. PRECAST/C.I.P. LINTEL DETAIL 4-033

BAR SIZE	LAP SPLICE	REMARKS
#3	18"	
#4	24"	
#5	30"	
#6	36"	



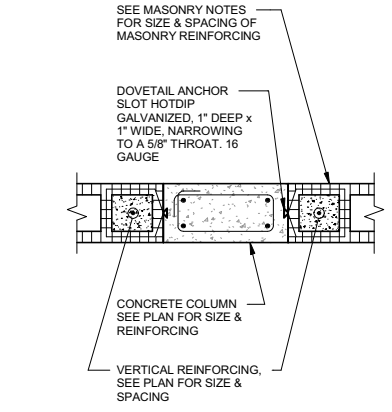
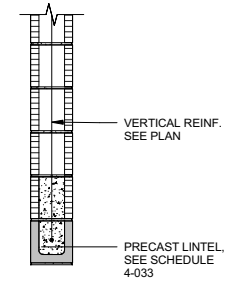
LAP SPLICE SCHEDULE SINGLE REINFORCED 8" CMU WALL 4-022

BAR SIZE	LAP SPLICE	REMARKS
#3	18"	
#4	24"	
#5	30"	
#6	36"	

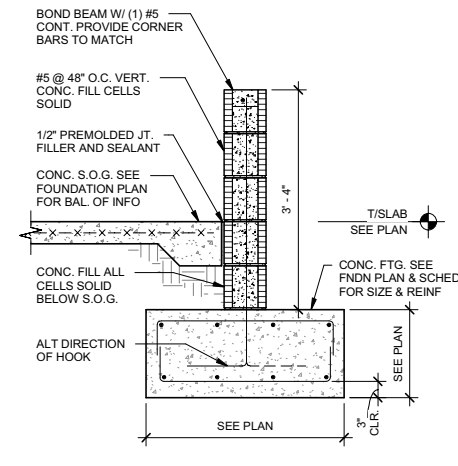


LAP SPLICE SCHEDULE DOUBLE REINFORCED 8" CMU WALL 4-023

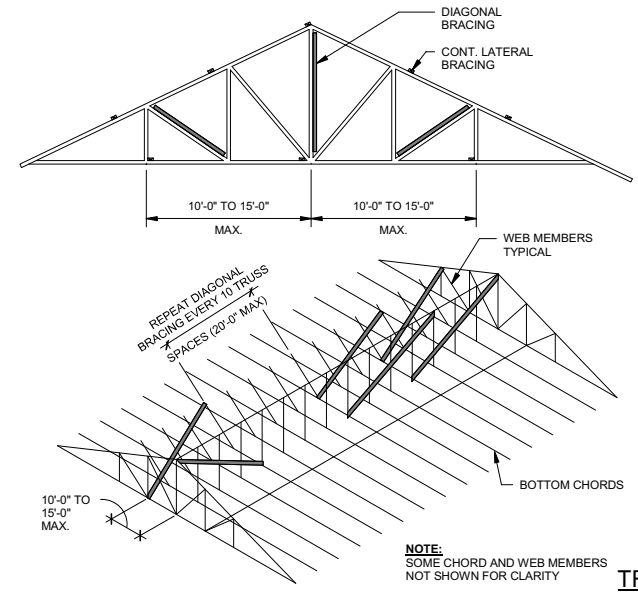
TYPICAL PRECAST LINTEL SECTION 4-005



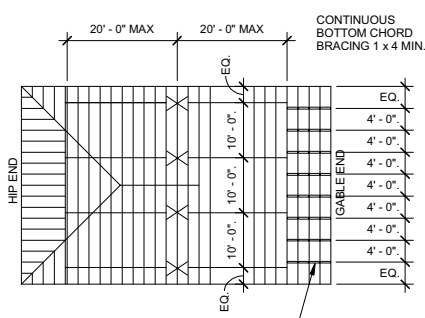
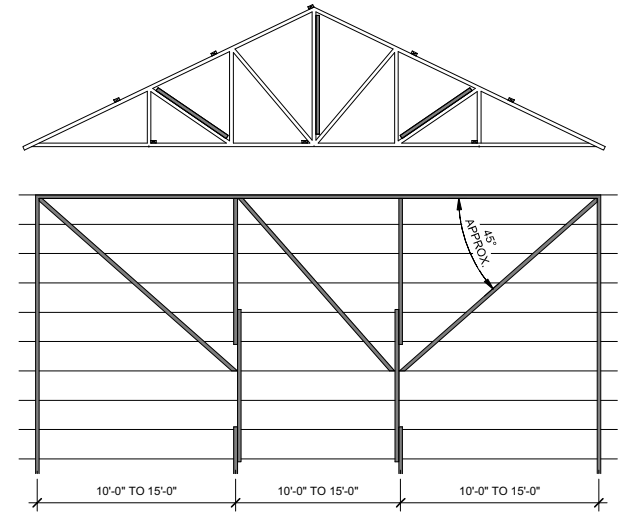
CONCRETE COLUMN TO MASONRY CONNECTION 4-022



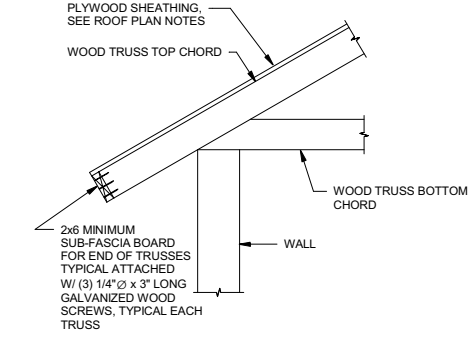
LOW HEIGHT CMU RETAINING WALL 4-041



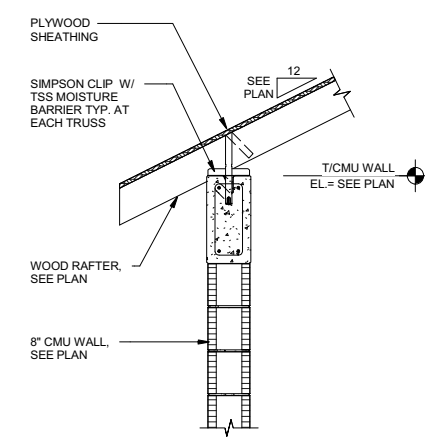
TRUSS BRACING DETAIL-HIP ROOF 6-004



REQUIRED MINIMUM PERMANENT TRUSS BRACING PLAN 6-005

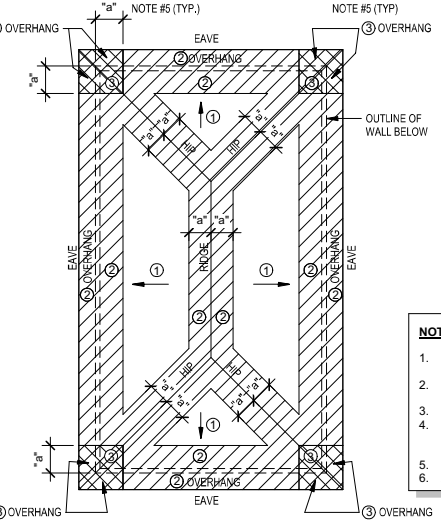


ROOF TRUSS SUB-FASCIA BOARD 6-031



RAFTER/CMU WALL DETAIL 6-016

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- AREA #1 SEE NOTE #3 AND MAIN ROOF TYPE 1 NAILING PATTERN.
- AREA #2 SEE NOTE #3 AND MAIN ROOF AND OVERHANGS TYPE 2 NAILING PATTERN.
- AREA #3 SEE NOTE #3 AND MAIN ROOF AND OVERHANGS TYPE 3 NAILING PATTERN.

WIND VELOCITY (3-SECOND GUST)	PANEL LOCATION	ROOF FASTENING ZONE				
		MAIN ROOF		OVERHANG (EAVES)		
		1	2	3	2	3
120 mph/g	SUPPORTED PANEL END AND EDGES	6	6	6	6	6
	PANEL FIELD	12	6	4	6	4

- NOTES:**
- SEE STRUCTURAL NOTES FOR SHEATHING SPECIFICATIONS AND DRAWING S000 FOR WIND DESIGN DATA.
  - END JOINTS OF THE ROOF SHEATHING SHALL BE STAGGERED AND OCCUR OVER FRAMING MEMBER.
  - USE MINIMUM OF 10d COMMON OR 9d RING SHANK NAILS.
  - IF A PNEUMATIC NAILER WITH FASTENER SIZE LESS THAN 131° x 2 1/2" IS USED, THE CONTRACTOR MUST CONTACT THE ENGINEER OF RECORD FOR AN EQUIVALENT NAIL SPACING.
  - FOR DIMENSION "a" MINIMUM EDGE DISTANCE REFER TO WIND DESIGN DATA.
  - AT UNSUPPORTED PANEL EDGES PROVIDE ADDITIONAL 2X BLOCKING AS REQUIRED.

HIP ROOF SHEATHING - FASTENING SCHEDULE 6-002

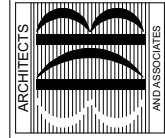


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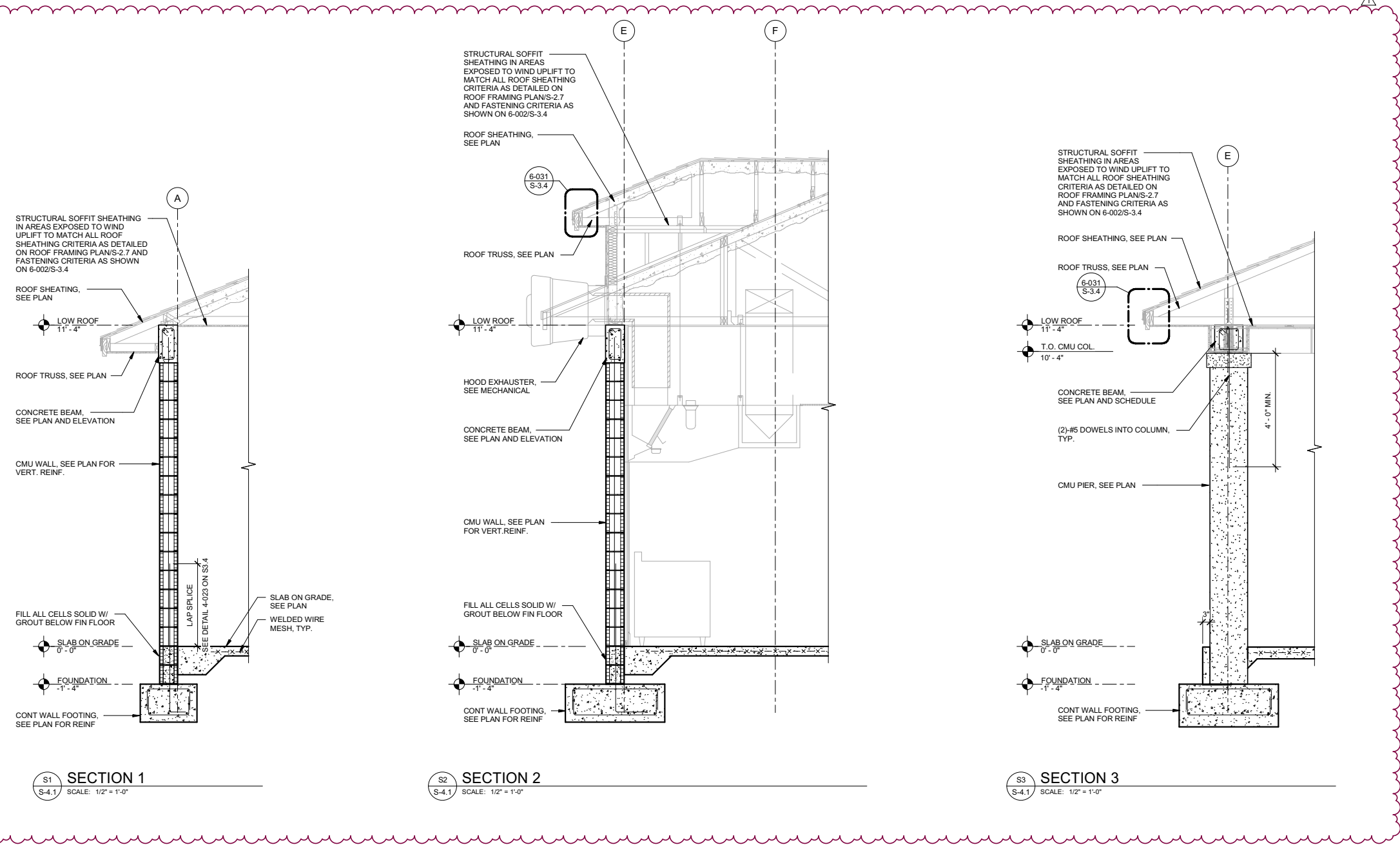
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S1 SECTION 1  
S-4.1 SCALE: 1/2" = 1'-0"

S2 SECTION 2  
S-4.1 SCALE: 1/2" = 1'-0"

S3 SECTION 3  
S-4.1 SCALE: 1/2" = 1'-0"

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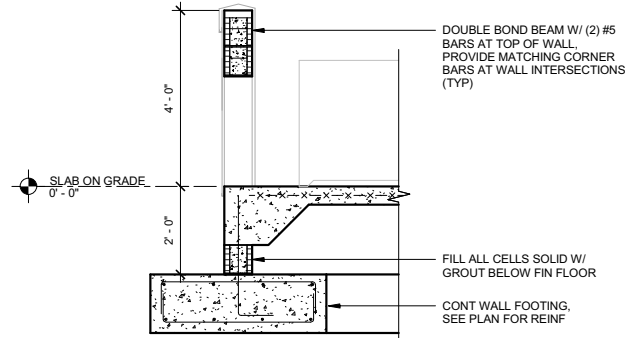


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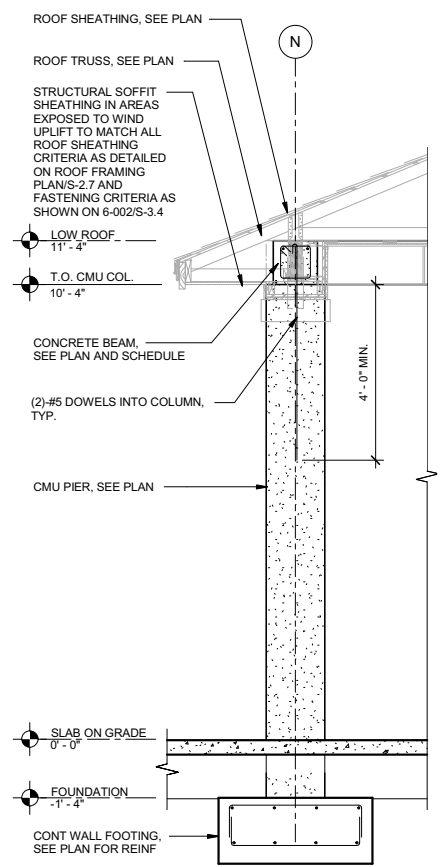
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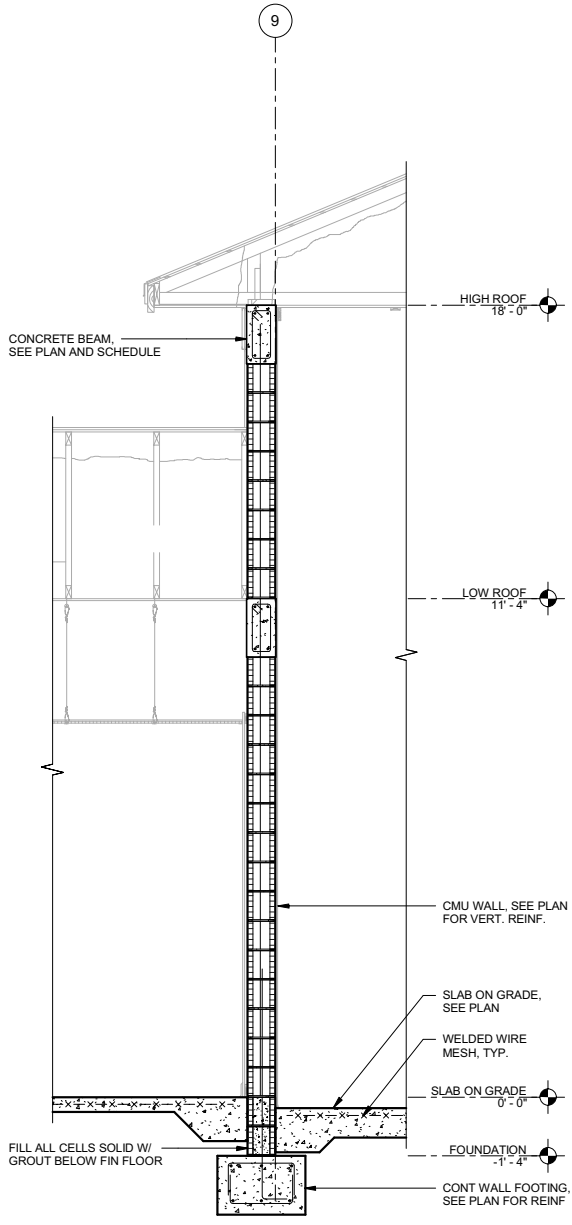




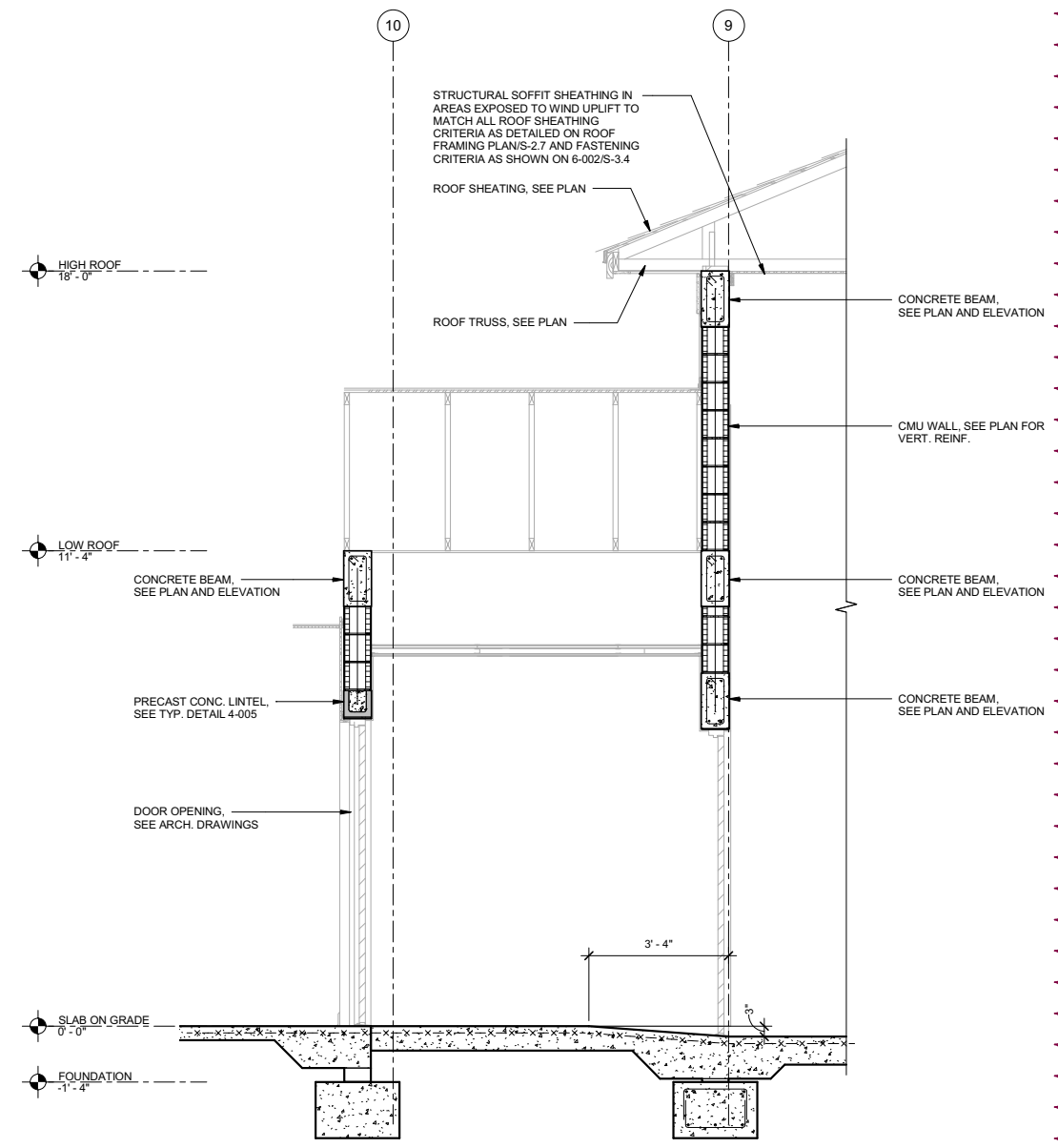
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S-4.2 SCALE: 1/2" = 1'-0"



S5 SECTION 5  
S-4.2 SCALE: 1/2" = 1'-0"

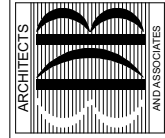


S6 SECTION 6  
S-4.2 SCALE: 1/2" = 1'-0"



S7 SECTION 7  
S-4.2 SCALE: 1/2" = 1'-0"

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S-4.2

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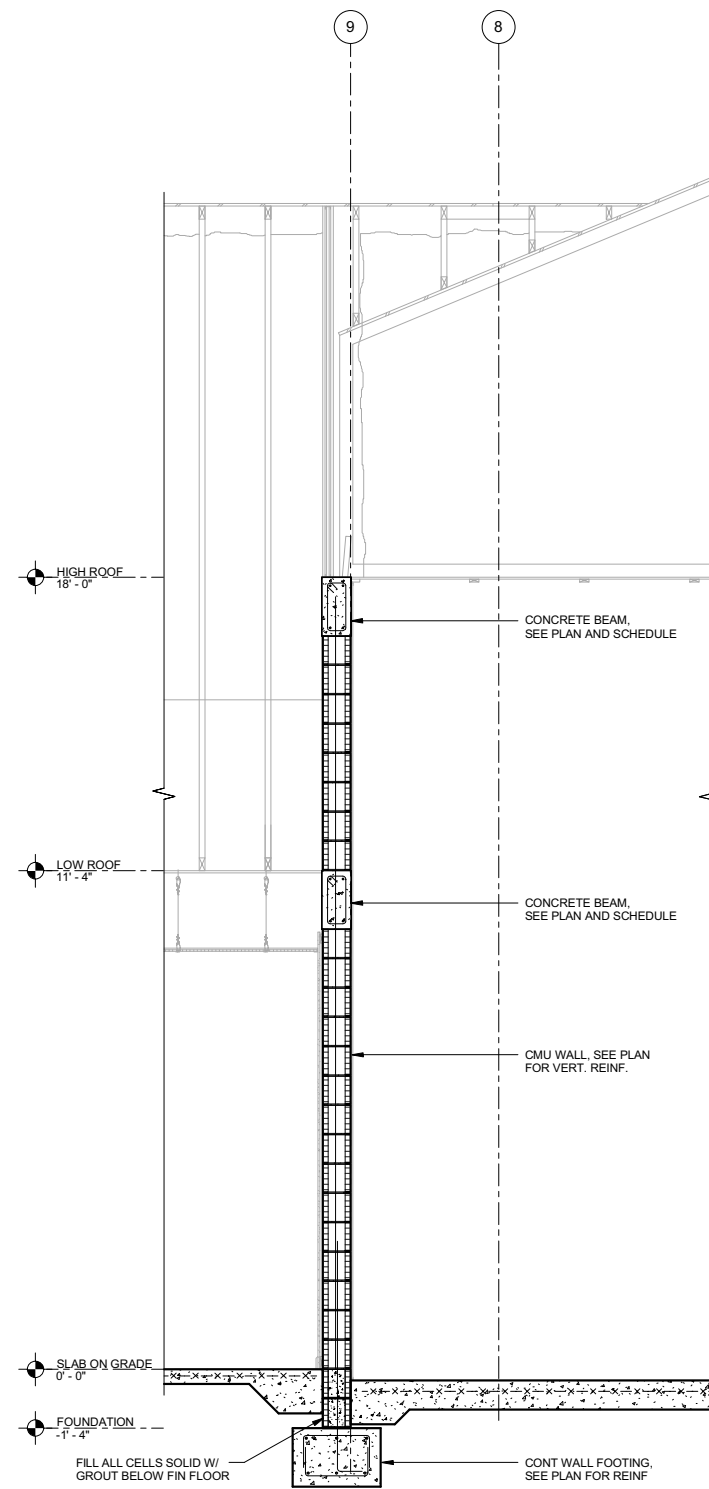


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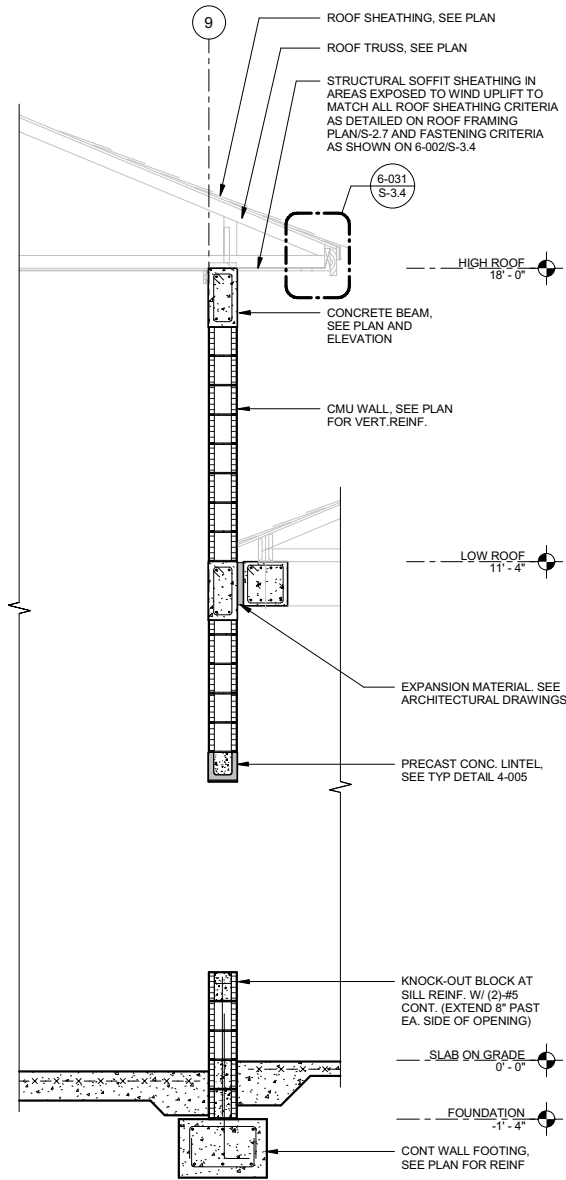
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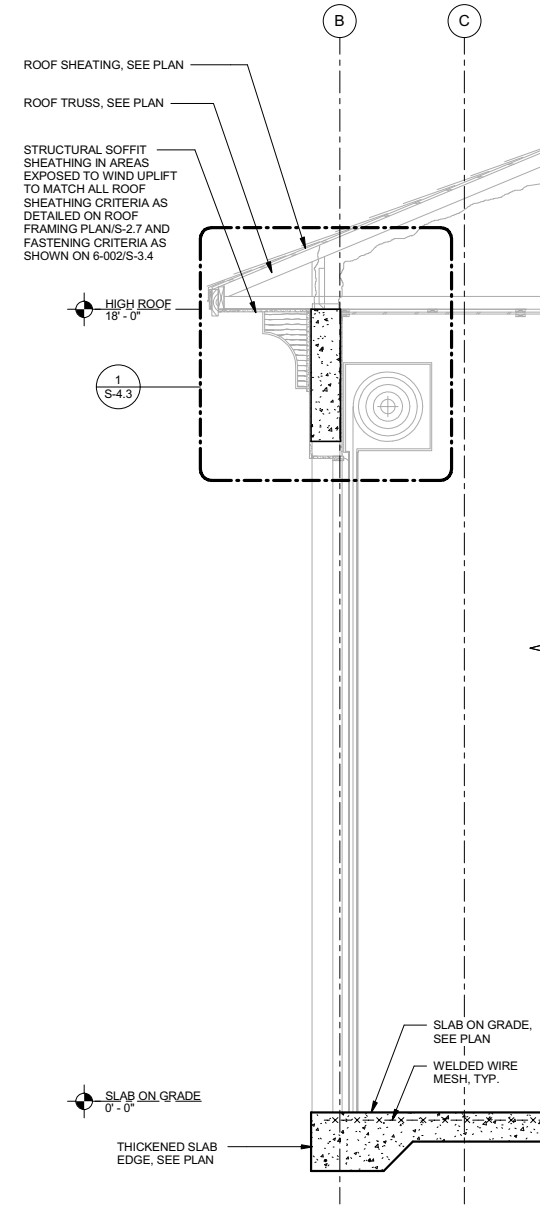
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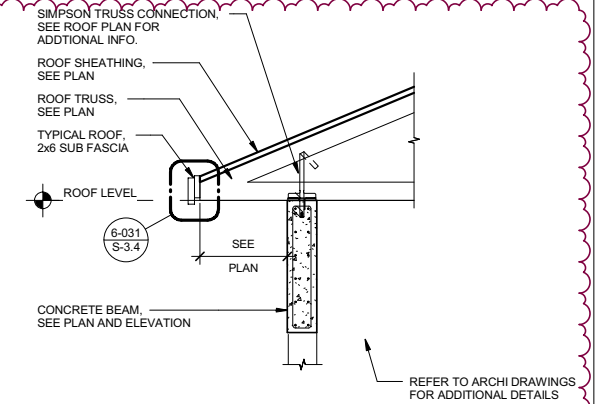
S8 SECTION 8  
S-4.3 SCALE: 1/2" = 1'-0"



S9 SECTION 9  
S-4.3 SCALE: 1/2" = 1'-0"

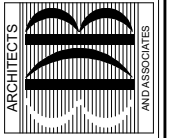


S10 SECTION 10  
S-4.3 SCALE: 1/2" = 1'-0"



1 DETAIL 1  
S-4.3 NOT TO SCALE

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PROJECT: STATION #7  
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VERO BEACH, FL 32960

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SHEET NO.  
S-4.3  
OF TWENTY EIGHT



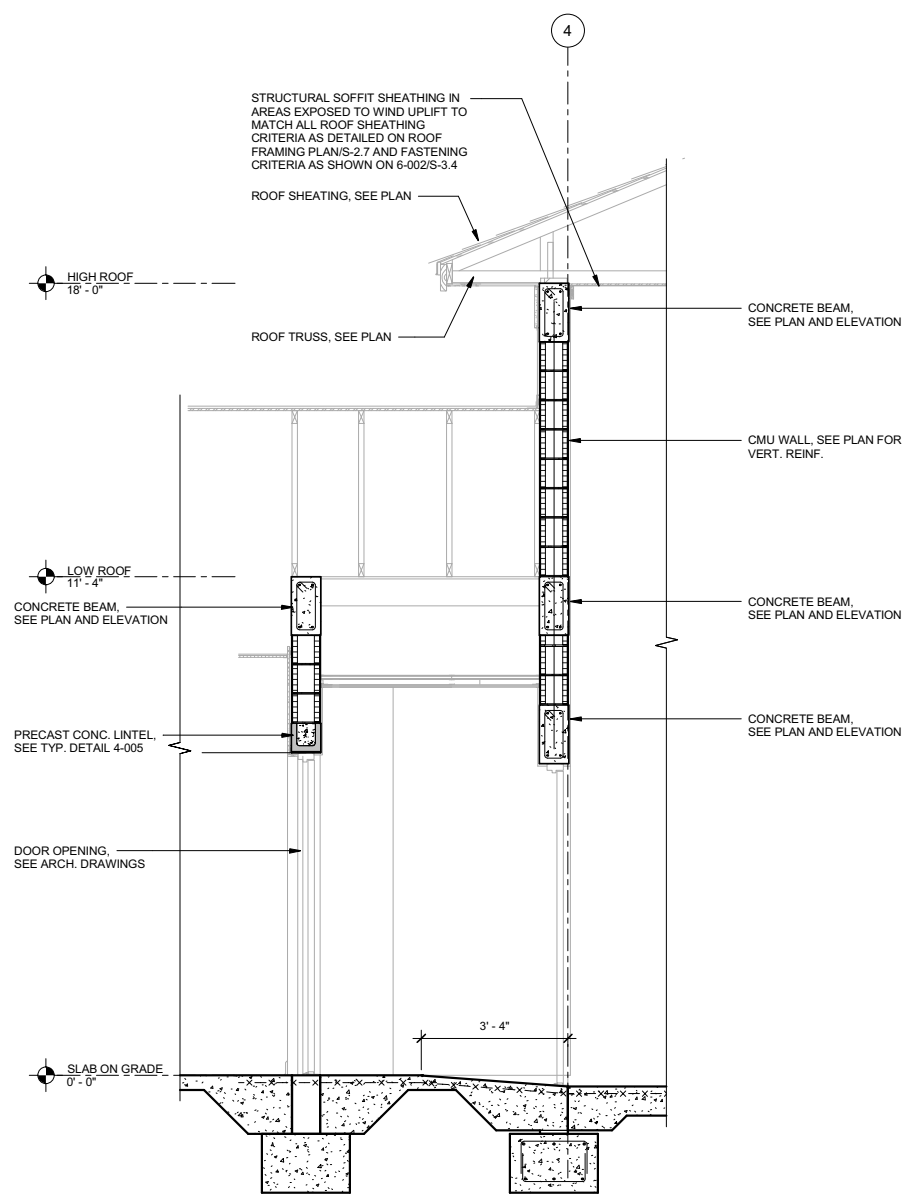
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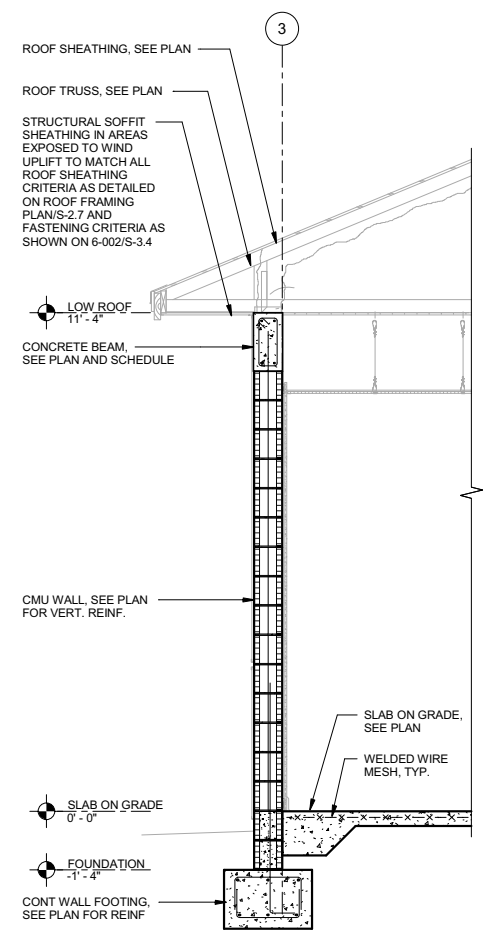
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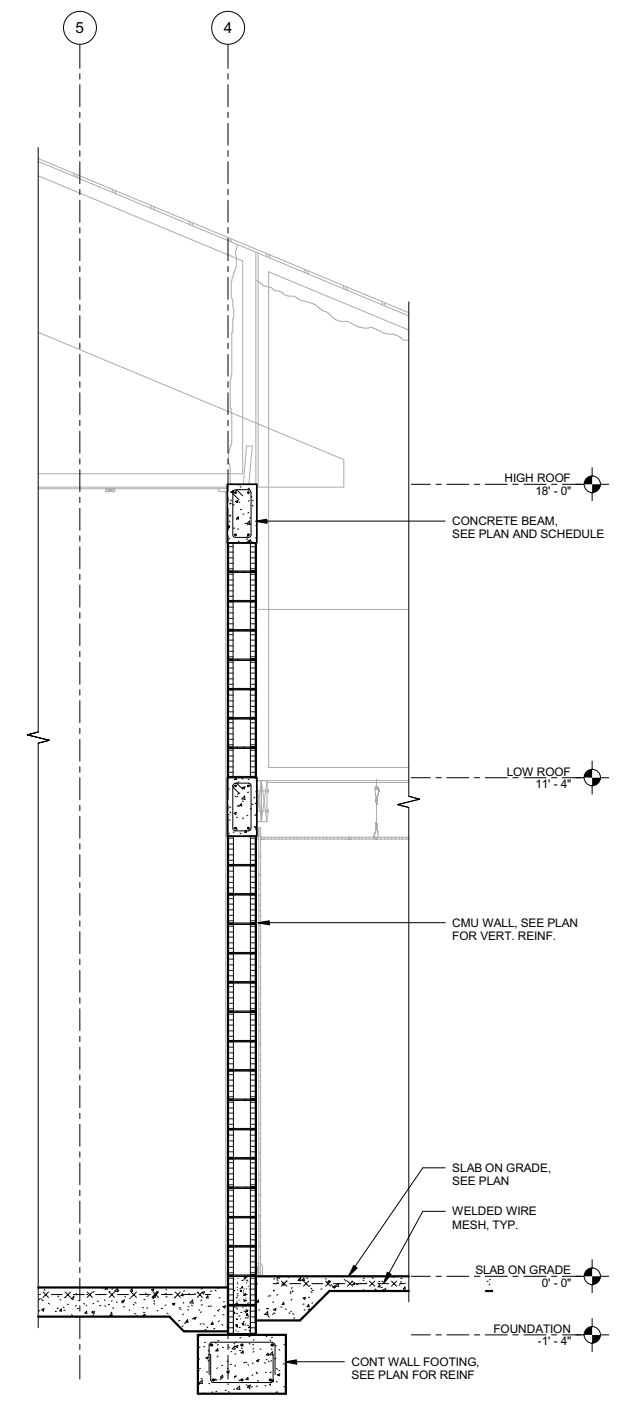
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S11 SECTION 11  
S-4.4 SCALE: 1/2" = 1'-0"



S12 SECTION 12  
S-4.4 SCALE: 1/2" = 1'-0"

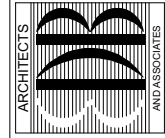


S13 SECTION 13  
S-4.4 SCALE: 1/2" = 1'-0"

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FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
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VERO BEACH, FL 32980

SECTIONS AND DETAILS

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SHEET NO. S-4.4 OF TWENTY EIGHT



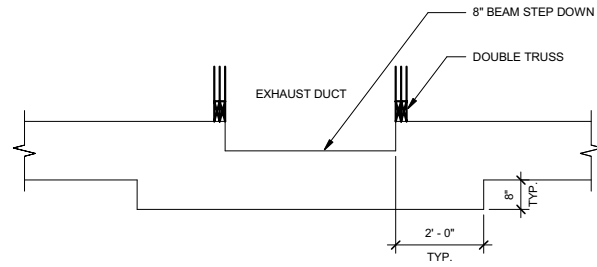
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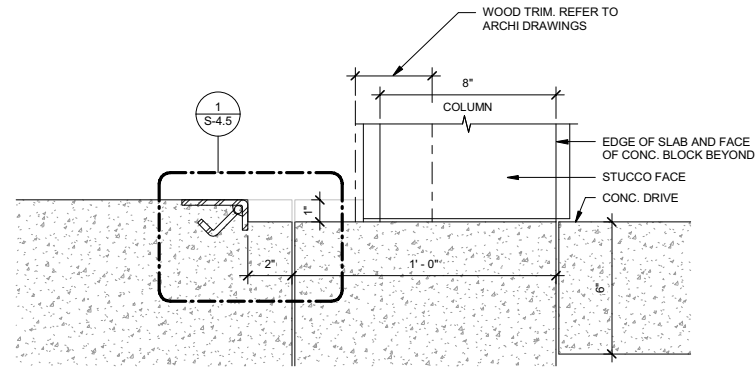
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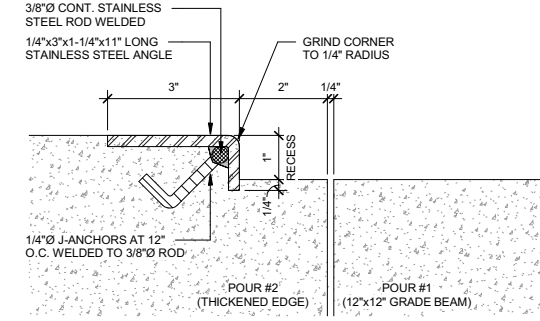




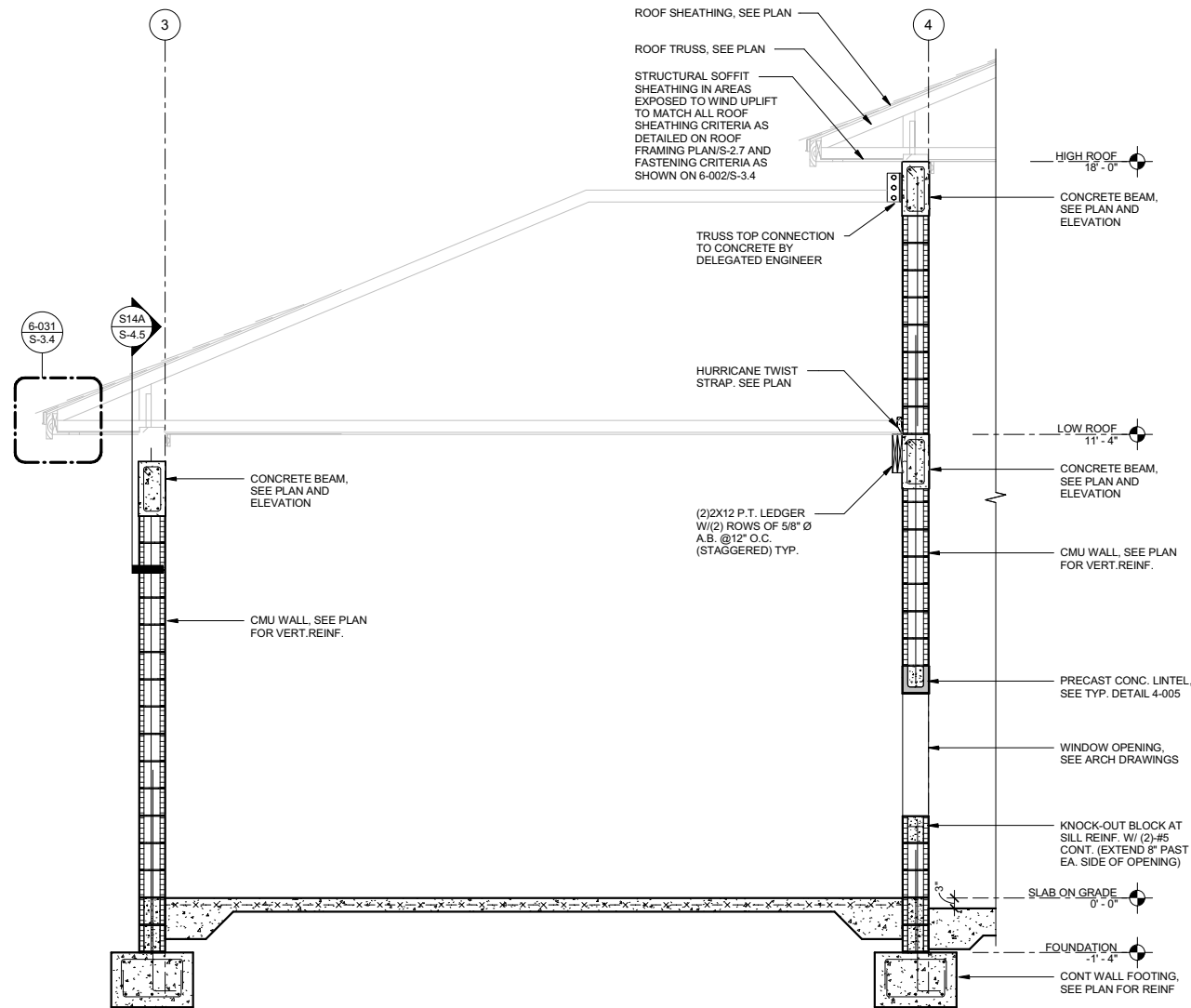
S14A  
S-4.5  
SECTION 14A  
SCALE: 1/2" = 1'-0"



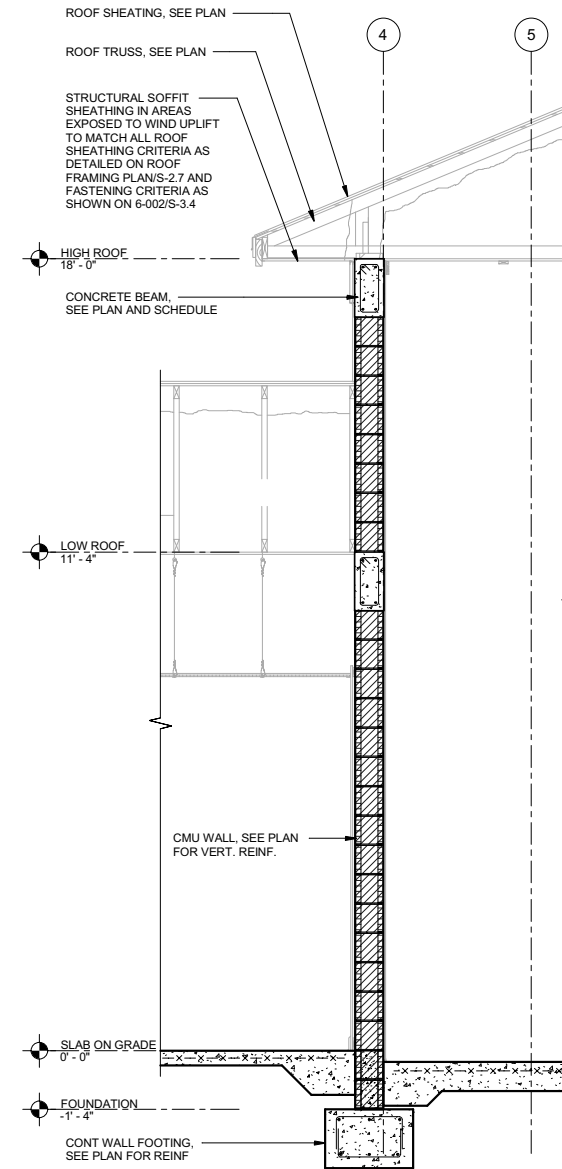
TYPICAL DETAIL AT APPARATUS BAY OVERHEAD DOORS  
SCALE: 3" = 1'-0"



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

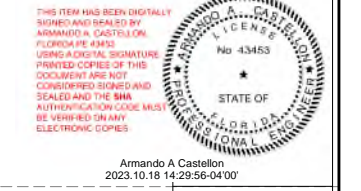
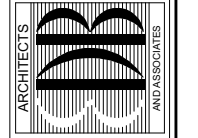


S14  
S-4.5  
SECTION 14  
SCALE: 1/2" = 1'-0"



S15  
S-4.5  
SECTION 15  
SCALE: 1/2" = 1'-0"

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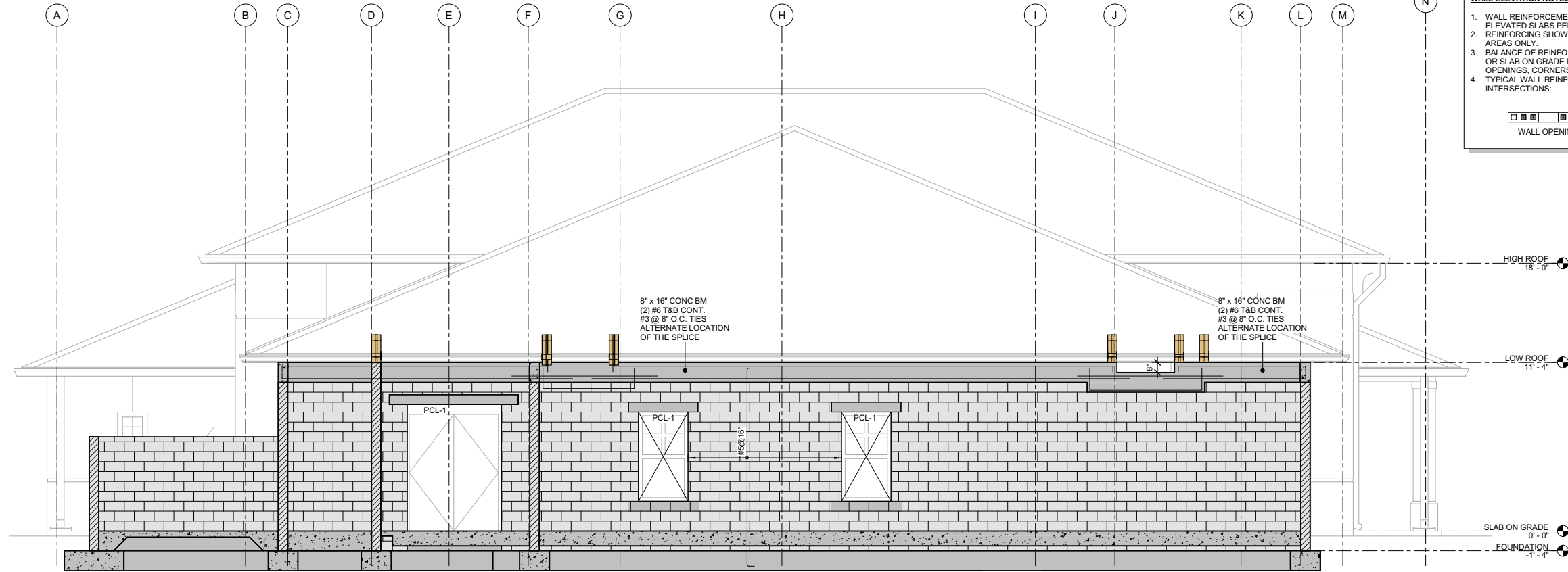


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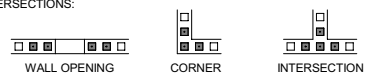
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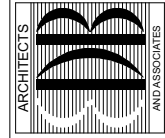


**WALL ELEVATION NOTES:**

1. WALL REINFORCING TO BE SPICED ABOVE SLAB ON GRADE AND ELEVATED SLABS PER TYPICAL DETAILS.
2. REINFORCING SHOWN ON WALL ELEVATIONS APPLY TO THE SPECIFIED AREAS ONLY.
3. BALANCE OF REINFORCING PER THE SCHEDULE SHOWN ON FOUNDATION OR SLAB ON GRADE PLANS INCLUDING TYPICAL REINFORCING AT WALL OPENINGS, CORNERS, AND INTERSECTIONS.
4. TYPICAL WALL REINFORCING AT OPENINGS, CORNERS, AND INTERSECTIONS:



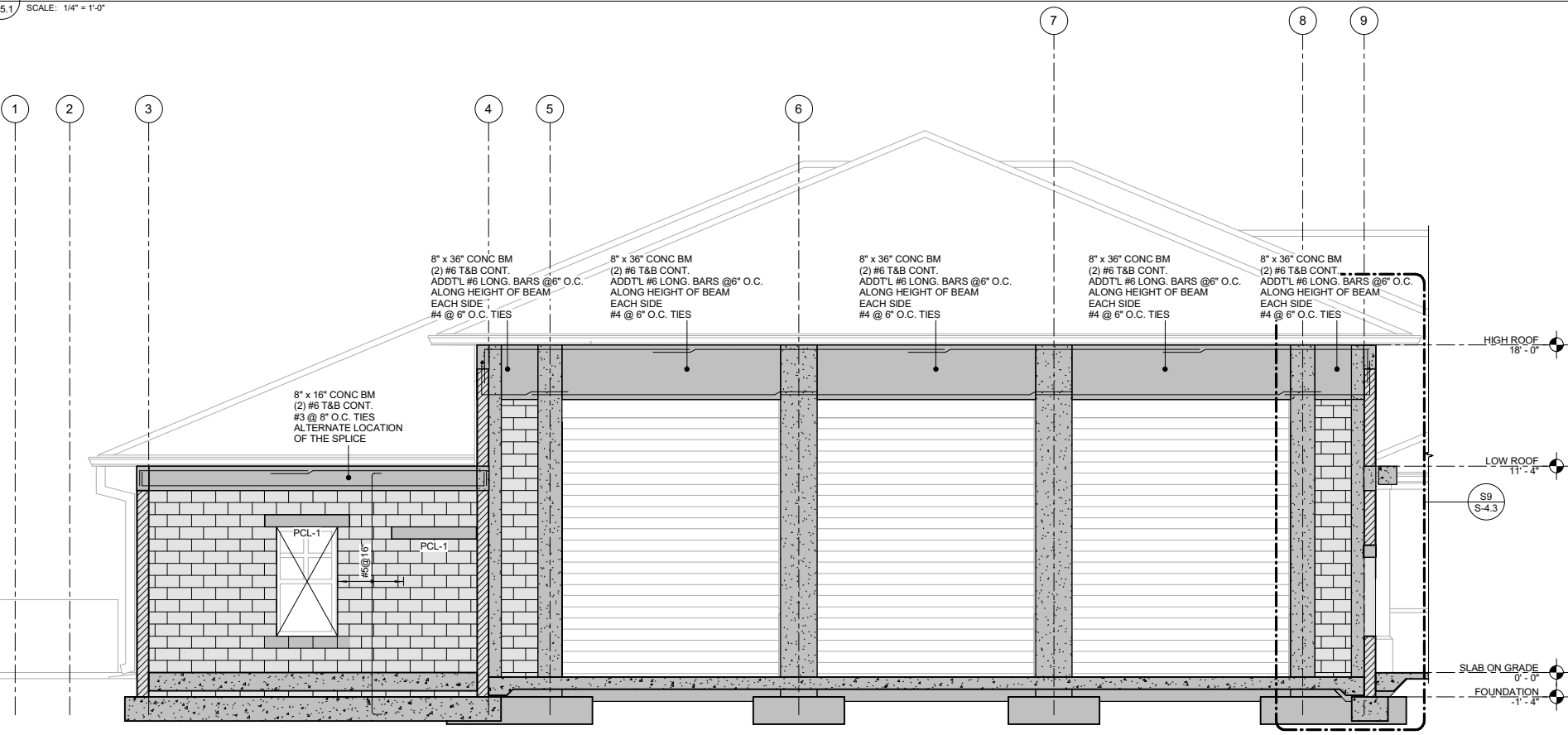
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E1  
S-5.1  
SCALE: 1/4" = 1'-0"



E2  
S-5.1  
SCALE: 1/4" = 1'-0"

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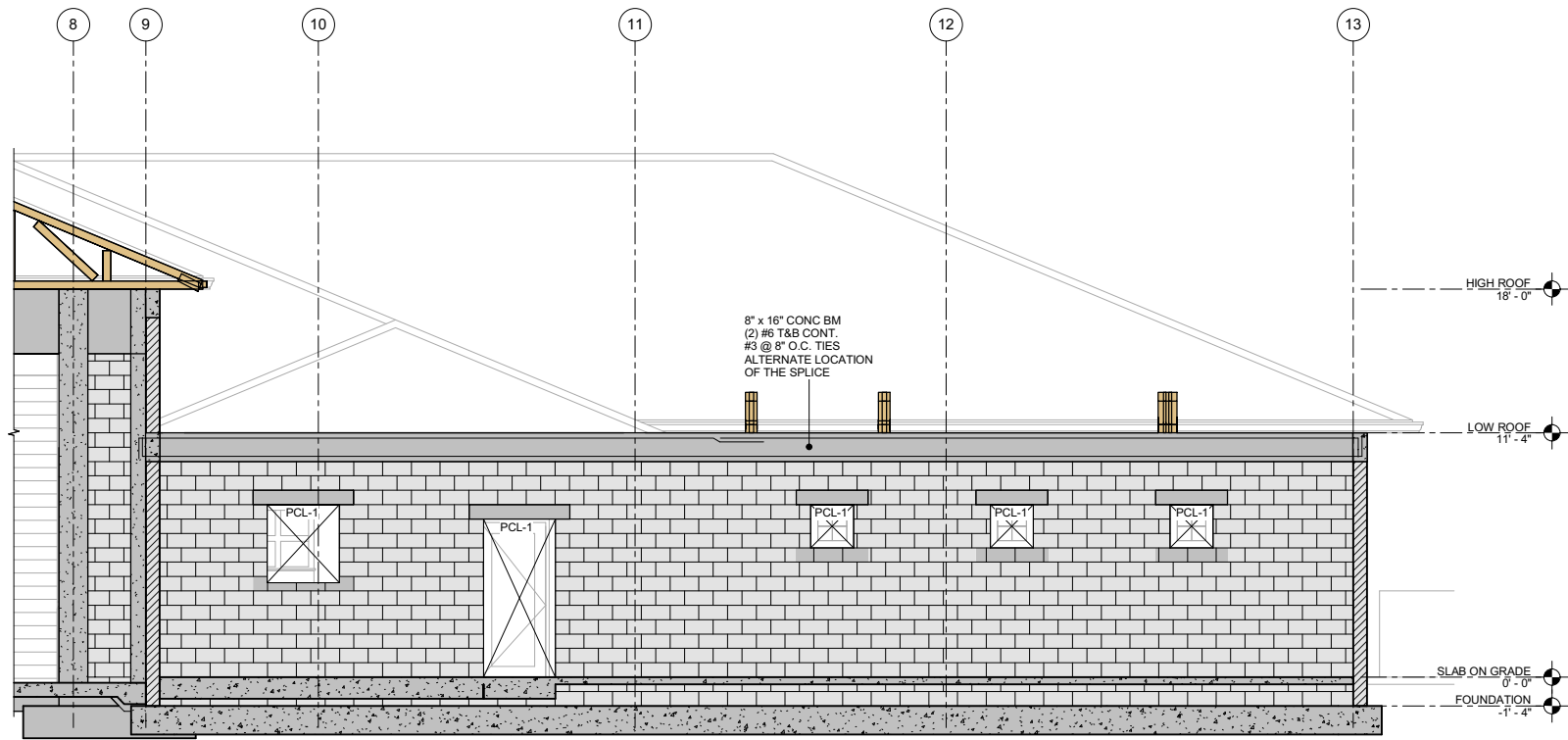


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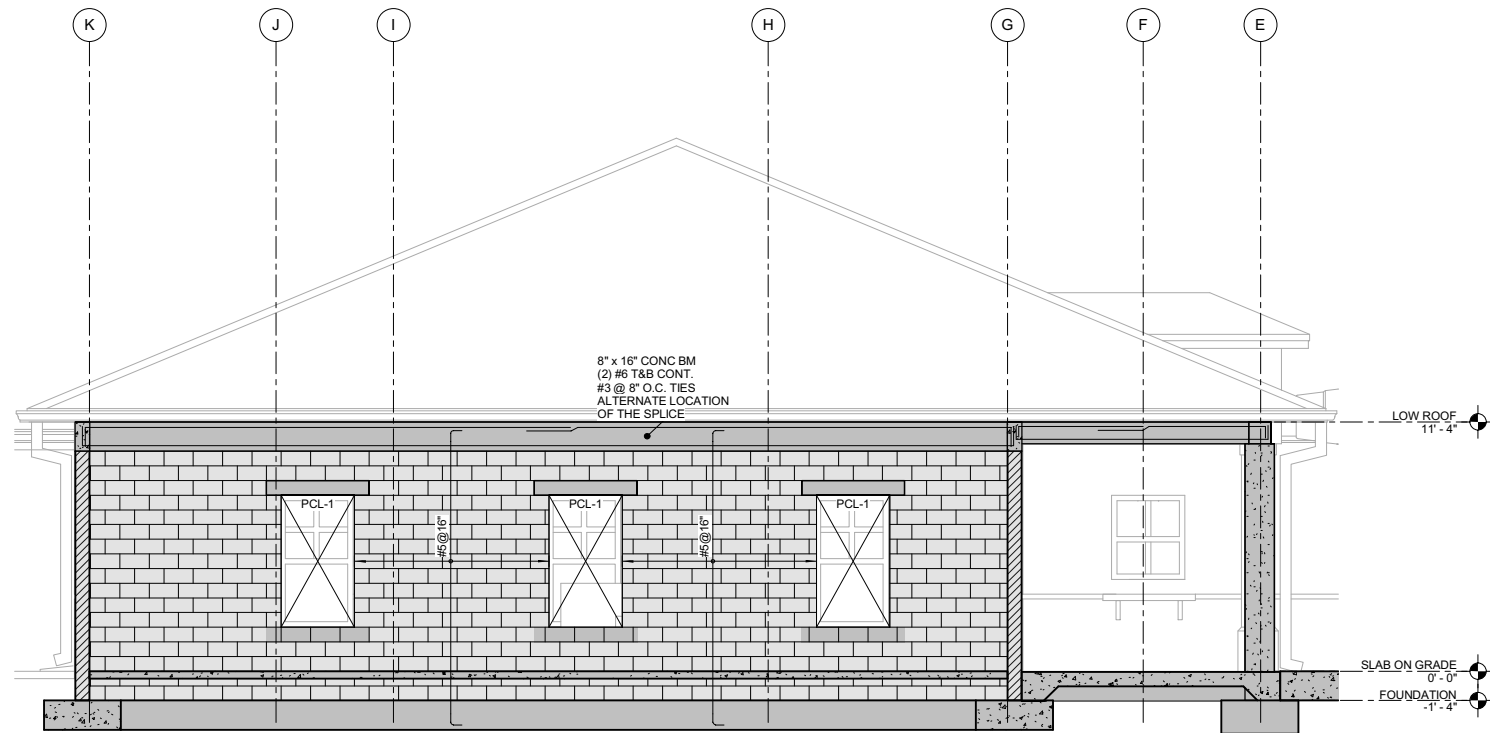
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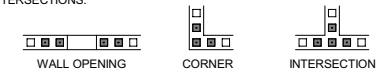
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S-5.2 SCALE: 1/4" = 1'-0"



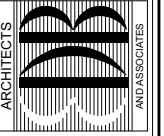
E4 ELEVATION 4  
S-5.2 SCALE: 1/4" = 1'-0"

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2. REINFORCING SHOWN ON WALL ELEVATIONS APPLY TO THE SPECIFIED AREAS ONLY.
3. BALANCE OF REINFORCING PER THE SCHEDULE SHOWN ON FOUNDATION OR SLAB ON GRADE PLANS INCLUDING TYPICAL REINFORCING AT WALL OPENINGS, CORNERS, AND INTERSECTIONS.
4. TYPICAL WALL REINFORCING AT OPENINGS, CORNERS, AND INTERSECTIONS:



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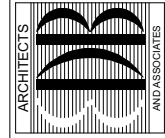
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**WALL ELEVATION NOTES:**

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FOR:

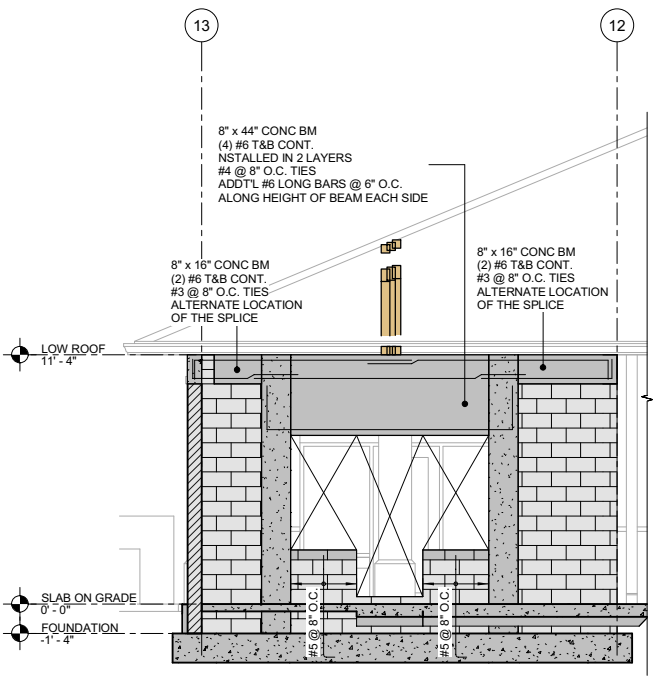
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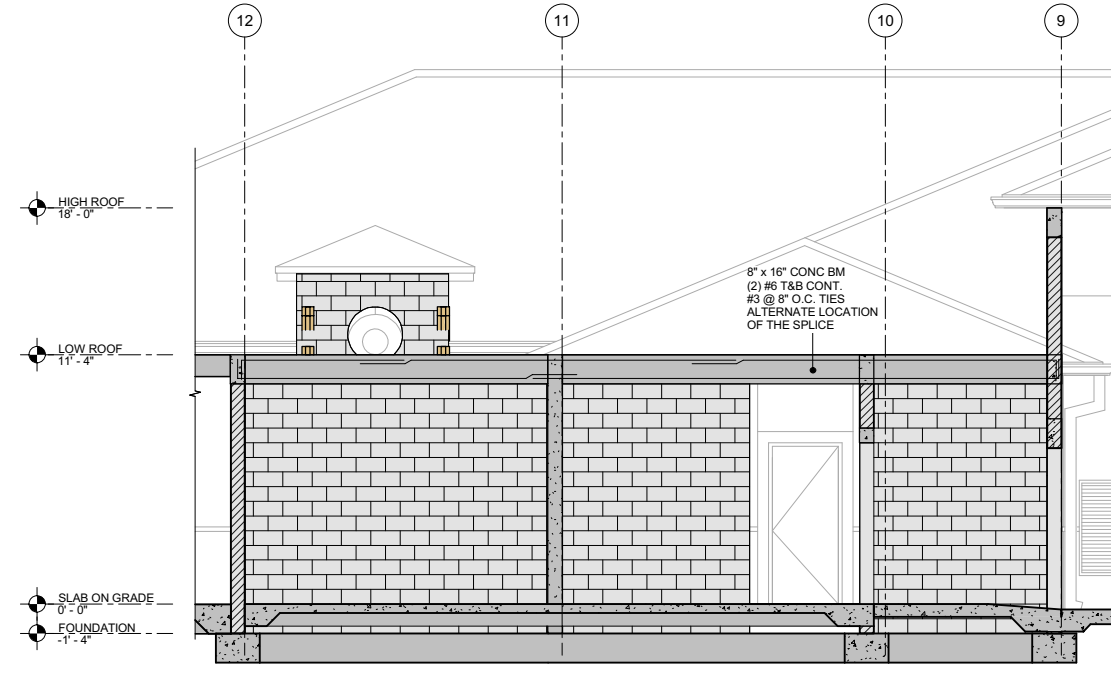
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**S-5.3**  
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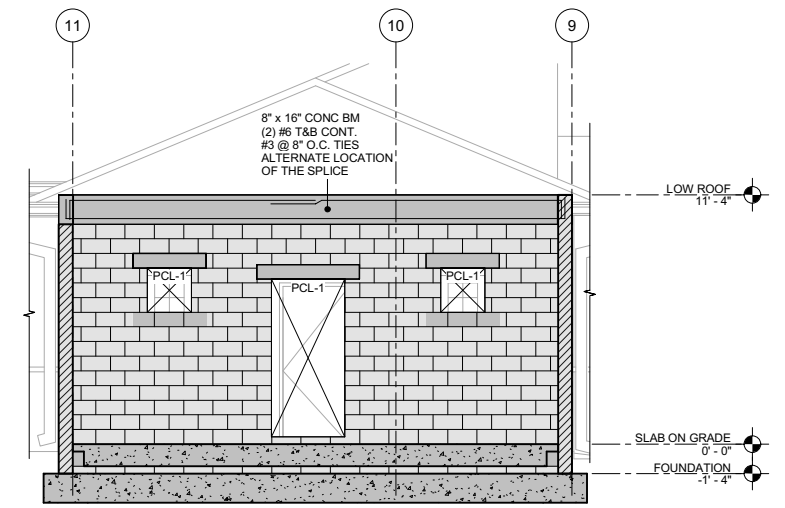
ELEVATIONS



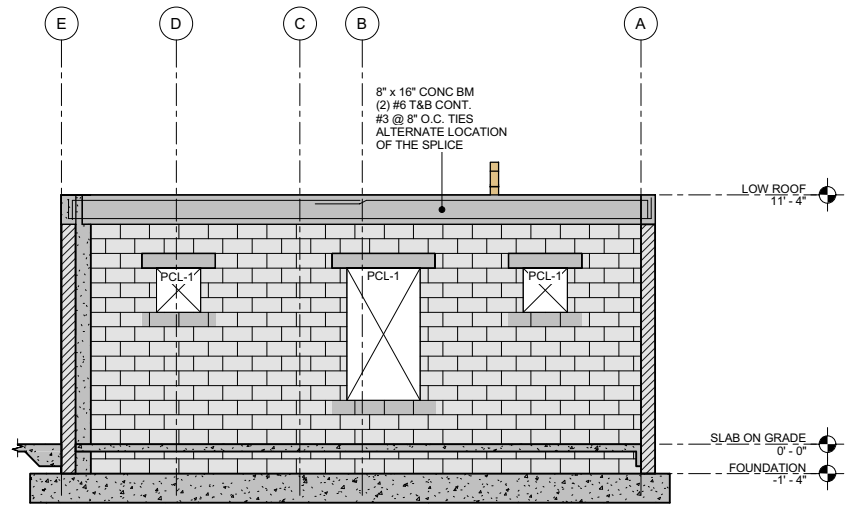
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 S-5.3 SCALE: 1/4" = 1'-0"



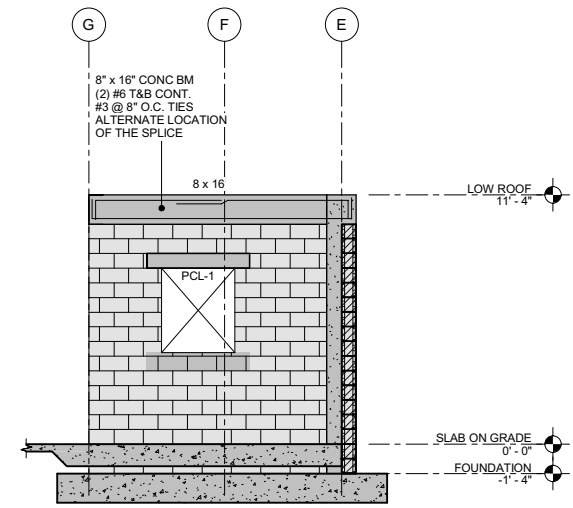
E6 ELEVATION 6  
 S-5.3 SCALE: 1/4" = 1'-0"



E7 ELEVATION 7  
 S-5.3 SCALE: 1/4" = 1'-0"



E8 ELEVATION 8  
 S-5.3 SCALE: 1/4" = 1'-0"



E9 ELEVATION 9  
 S-5.3 SCALE: 1/4" = 1'-0"

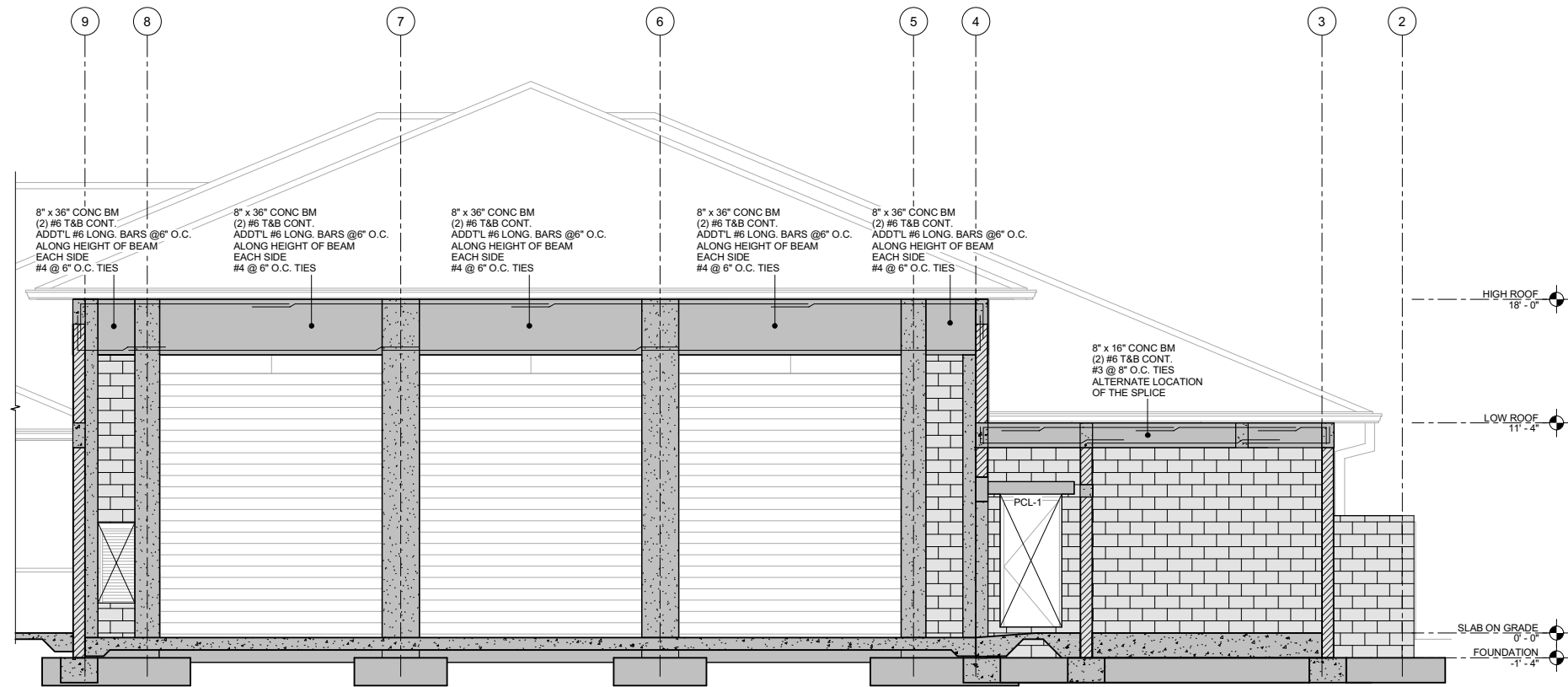


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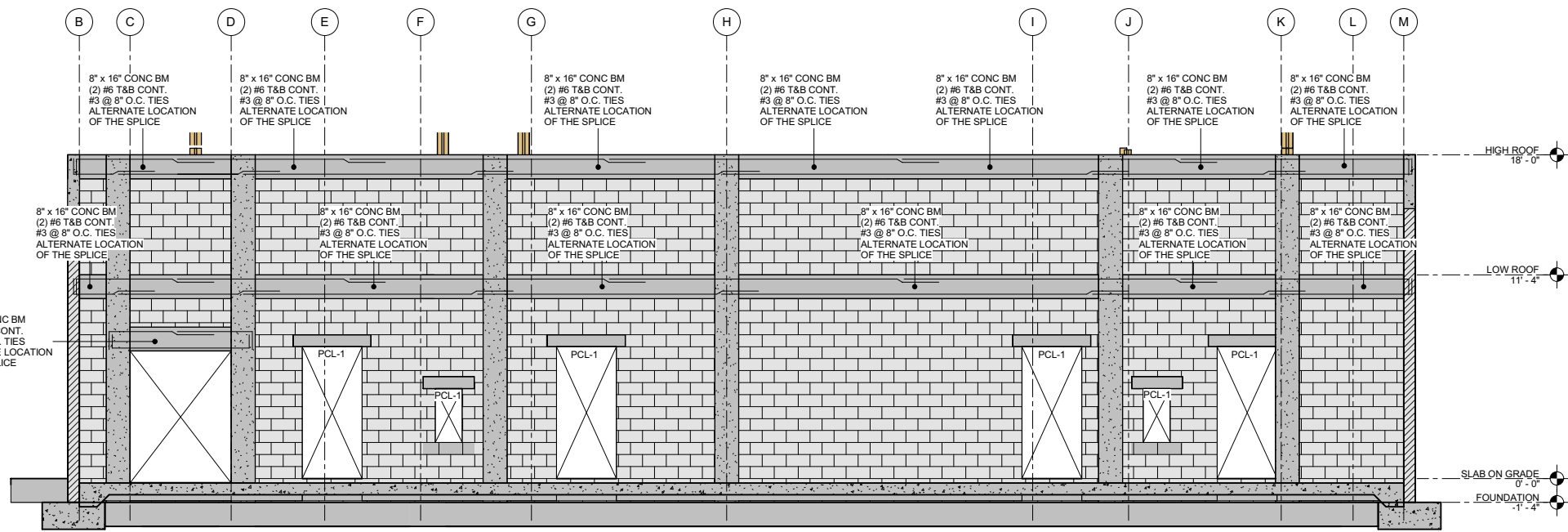
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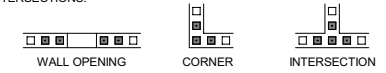
E10  
S-5.4  
ELEVATION 10  
SCALE: 1/4" = 1'-0"



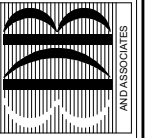
E11  
S-5.4  
ELEVATION 11  
SCALE: 1/4" = 1'-0"

**WALL ELEVATION NOTES:**

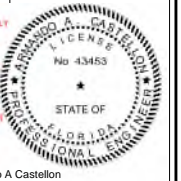
1. WALL REINFORCEMENT TO BE SPLICED ABOVE SLAB ON GRADE AND ELEVATED SLABS PER TYPICAL DETAILS.
2. REINFORCING SHOWN ON WALL ELEVATIONS APPLY TO THE SPECIFIED AREAS ONLY.
3. BALANCE OF REINFORCING PER THE SCHEDULE SHOWN ON FOUNDATION OR SLAB ON GRADE PLANS INCLUDING TYPICAL REINFORCING AT WALL OPENINGS, CORNERS, AND INTERSECTIONS.
4. TYPICAL WALL REINFORCING AT OPENINGS, CORNERS, AND INTERSECTIONS:



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ARCHITECTS AND ASSOCIATES, P.A.  
AF-AA 000886  
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PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
VERO BEACH STREET  
VERO BEACH, FL 32960

ELEVATIONS

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

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BY: AN  
CHK'D: JB/CV

SHEET NO.

S-5.4  
OF TWENTY EIGHT

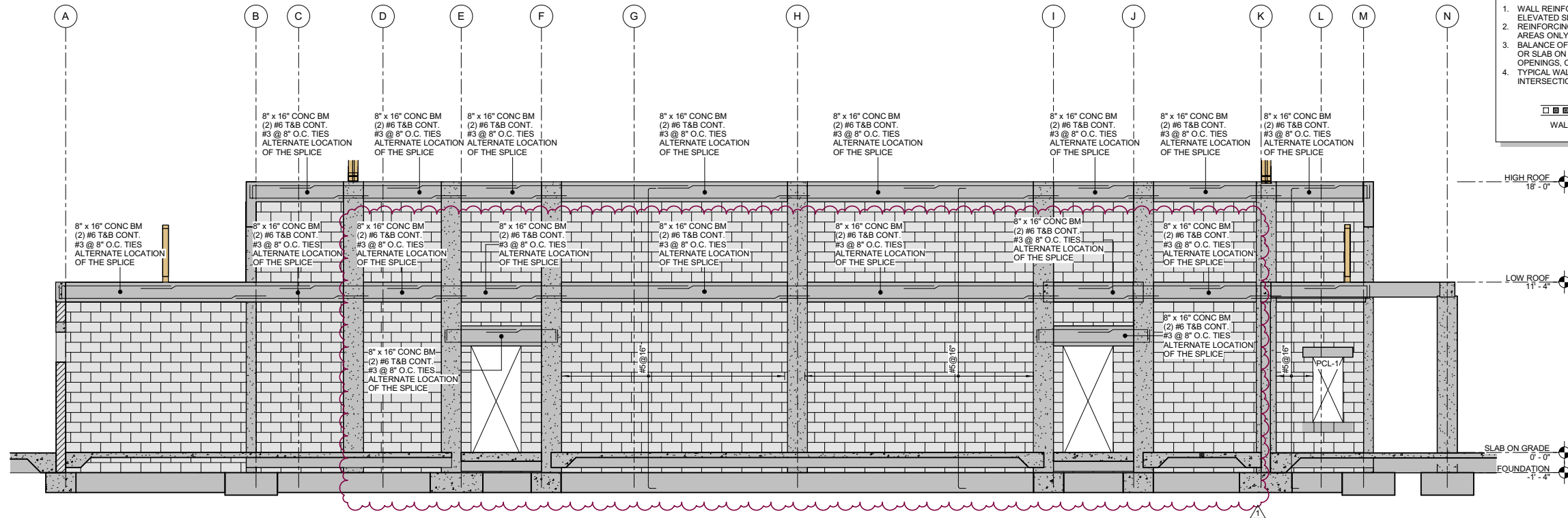


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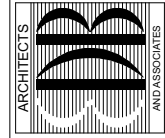


E12 ELEVATION 12  
S-5.5 SCALE: 1/4" = 1'-0"

**WALL ELEVATION NOTES:**

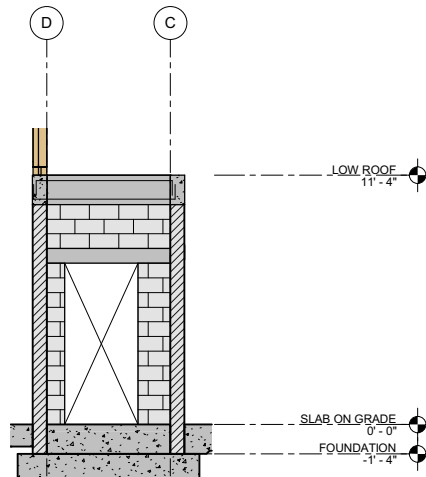
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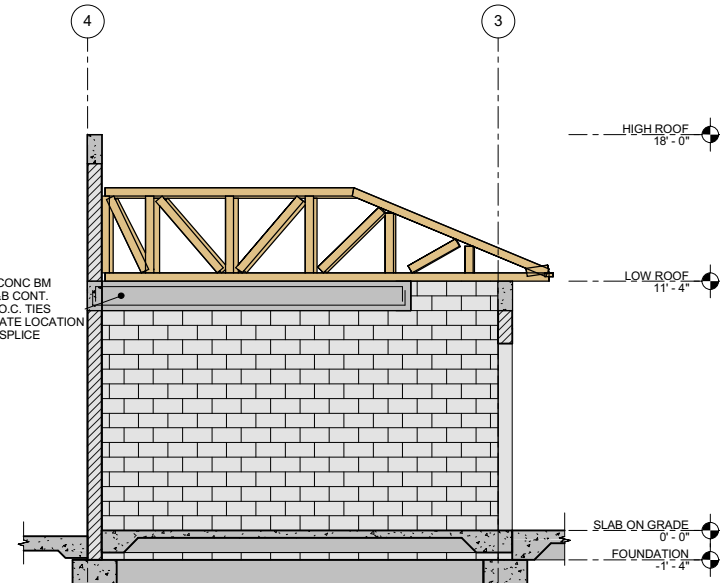


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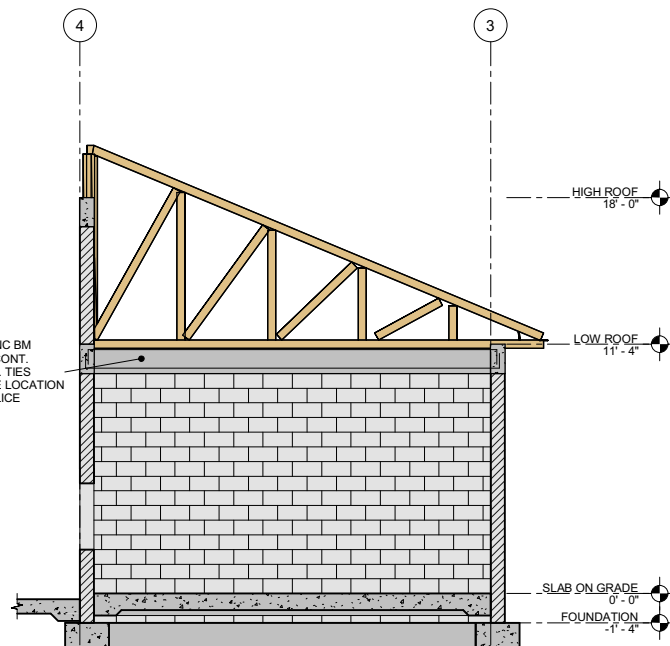
ARMANDO A. CASTELLON  
2023.10.18 14:30:03-04'00"



E13 ELEVATION 13  
S-5.5 SCALE: 1/4" = 1'-0"



E14 ELEVATION 14  
S-5.5 SCALE: 1/4" = 1'-0"



E15 ELEVATION 15  
S-5.5 SCALE: 1/4" = 1'-0"

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
1505TH STREET  
VERO BEACH, FL 32960

NO.	DATE	REVISIONS
1	08/15/23	REVISION 1

COMM. NO: 050219VB  
DATE: 15 AUG, 2023  
BY: AN  
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SHEET NO.  
**S-5.5**  
OF TWENTY EIGHT

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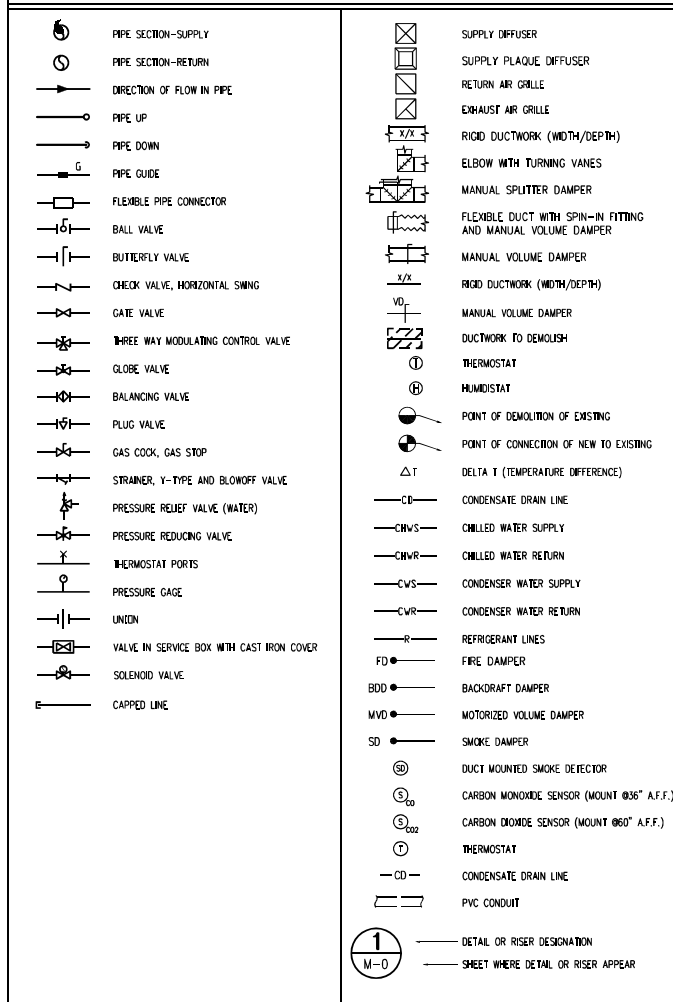
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**GENERAL LEGEND AND SYMBOLS**



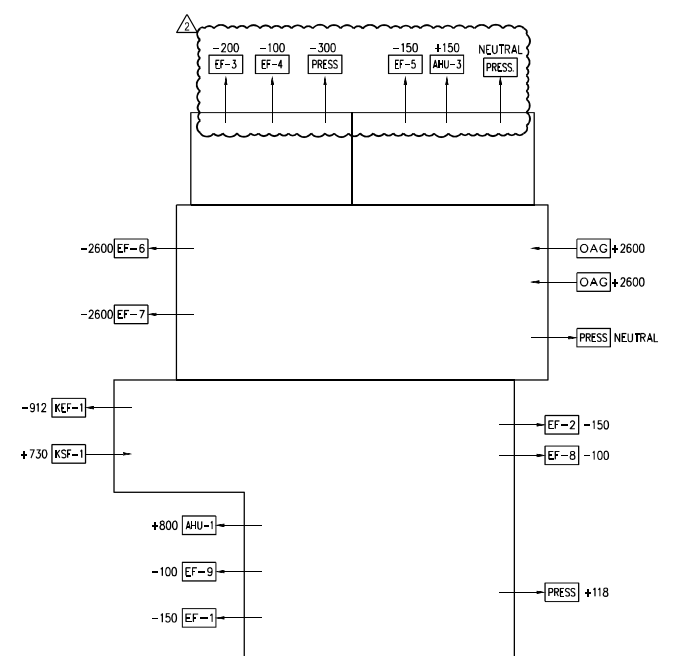
**ABBREVIATIONS**

AMP	AMPERES	EXP	EXPANSION	NC	NORMALLY CLOSED
AC	AIR CONDITIONING	EEW	EYE WASH/SHOWER	NIC	NOT IN CONTRACT
ACS	AUTOMATIC CONTROL SYSTEM	F	FIRE SPRINKLER PIPING	NO	NORMALLY OPEN
ACU	AIR CONDITIONING UNIT	°F	DEGREES FAHRENHEIT	NL	NUMBER
AD	ACCESS DOOR	AD	ACCESS DOOR	DA	OUTSIDE AIR
AFF	ABOVE FINISHED FLOOR	FA	FREE AREA (SQ. FT.) OR FACE AREA	DD	OUTSIDE DIAMETER
AHU	AIR HANDLING UNIT	FC	FLEXIBLE CONNECTION	DV	OUTLET VELOCITY
APPROX	APPROXIMATELY	FCD	FLOOR CLEANOUT	P	PRESSURE
AP	ACCESS PANEL	FCU	FAN COIL UNIT	PC	PLUMBING CONTRACTOR
ARCH	ARCHITECTURAL	FD	FLOOR DRAIN	PD	PRESSURE DROP
AUTO	AUTOMATIC	FDRP	FIRE DAMPER	PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	FG	FINISHED GRADE	PSIA	PSI ABSOLUTE
BHP	BRAKE HORSEPOWER	FHC	FIRE HOSE CABINET	PSIG	PSI GAUGE
BLDG	BUILDING	FIN FL	FINISHED FLOOR	PRESS	PRESSURE
BDD	BOTTOM OF DUCT	FLA	FULL LOAD AMPERES	PVC	POLYVINYL CHLORIDE
BTU	BRITISH THERMAL UNIT	FDB	FLAT ON BOTTOM	R	RISE
BTUH	BRITISH THERMAL UNITS PER HOUR	FDT	FLAT ON TOP	RA	RETURN AIR
BVV	BACK WATER VALVE	FPI	FINS PER INCH	RAF	RETURN AIR FAN
CAM	COMMON AREA MAINTENANCE	FPM	FEET PER MINUTE	REQ'D	REQUIRED
CC	COOLING COIL	FPS	FEET PER SECOND	REHEAT	REHEAT COIL
CCP	CENTRAL CONTROL PANEL	FTB	FAN POWERED TERMINAL BOX	RHC	REFRIGERANT HOT GAS DISCHARGE
CD	CONDENSATE DRAIN	FV	FACE VELOCITY	R L	REFRIGERANT LIQUID
CFM	CUBIC FEET PER MINUTE	GA	GAUGE	RM	ROOM
CH	CHILLER	GAL	GALLONS	RPM	REVOLUTIONS PER MINUTE
CHR	CHILLED WATER RETURN	GCHS	GLYCOL CHILLED WATER SUPPLY	R S	FLAT ON TOP
CHS	CHILLED WATER SUPPLY	GCHR	GLYCOL CHILLED WATER RETURN	RV	RELIEF VALVE
CHWP	CHILLED WATER PUMP	GPH	GALLONS PER HOUR	S/FDPR	COMBINED SMOKE AND FIRE DAMPER
CLG	CEILING	GPM	GALLONS PER MINUTE	SAN	SANITARY
CO	CLEAN-OUT	GD	GAS OUTLET	SAU	SOUND ATTENUATION UNIT
COMB	COMBINATION	HGT	HEIGHT	SGCHS	SECONDARY GLYCOL CHILLED WATER SUPPLY
CMPR	COMPRESSOR	HB	HOSE BIBB	SGCHR	SECONDARY GLYCOL CHILLED WATER RETURN
COND	CONDENSATE OR CONDENSER	H2O	WATER	SPDR	SMOKE DAMPER
CONT	CONTINUATION	HC	HEATING COIL	SMH	STORM MANHOLE
CMU	CONCRETE MASONRY UNIT	HD	HEAD	SP	STATIC PRESSURE
CU FT	CUBIC FEET	HORIZ	HORIZONTAL	SPEC	SPECIFICATION
CUH	CABINET UNIT HEATER	HP	HORSEPOWER	SCW	SOFT COLD WATER
CU IN	CUBIC INCHES	HW	DOMESTIC HOT WATER	ST	STORM
CV	DOMESTIC COLD WATER	HR	HOUR	TB	TERMINAL BOX
D	DRAIN LINE	HRR	HEAT RECOVERY RETURN	TD	TRENCH DRAIN
DB	DRY BULB	HRS	HEAT RECOVERY SUPPLY	TDH	TOTAL DYNAMIC HEAD
DG	DOOR GRILLE	HZ	FREQUENCY	TEMP	TEMPERATURE
DHC	DUCT HEATING COIL	IN	INCH OR INCHES	TES	THERMAL ENERGY STORAGE
DIA	DIAMETER	INSUL	INSULATION	TS	TIPSPEED
DN	DOWN	IPS	IRON PIPE SIZE	TYP	TYPICAL
DWG	DRAWING	IST	ICE STORAGE TANKS	TX	TOILET EXHAUST
DX	DIRECT EXPANSION	KW	KILOWATT	UH	UNIT HEATER
EAT	ENTERING AIR TEMPERATURE	L	LENGTH	V	VENT LINE
EC	ELECTRIC CONVECTOR	LAT	LEAVING AIR TEMPERATURE	VAV	VARIABLE AIR VOLUME UNIT
ECD	EXTERIOR CLEANOUT	LBS/HR	POUNDS PER HOUR	VLV	VALVE
EDB	ENTERING DRY BULB TEMPERATURE	LBS	POUNDS	VTR	VENT THRU ROOF
EF	EXHAUST FAN	LCP	LOCAL CONTROL PANEL	W	WIDTH
EWB	ELECTRIC WATER HEATER	LDB	LEAVING DRY BULB TEMPERATURE	W/	WITH
EL	ELEVATION	LN FT	LINEAR FEET	W/O	WITHOUT
ELEC	ELECTRIC	LWB	LEAVING WET BULB	WB	WET BULB
EO	EQUAL	LWT	LEAVING WATER TEMPERATURE	WC	WATER COLUMN
EVAP	EVAPORATOR	MAX	MAXIMUM	WCD	WALL CLEANOUT
EWB	ENTERING WET BULB	MB	MIXING BOX	WG	WATER GAUGE
EWT	ENTERING WATER TEMPERATURE	MBH	THOUSANDS, BTUH	WP	WORKING PRESSURE
EXH	EXHAUST AIR	MC	MECHANICAL CONTRACTOR	WMS	WIRE MESH SCREEN
EXIST	EXISTING	MIN	MINIMUM	RD	ROOF DRAIN

NOTE: ALL STANDARD SYMBOLS AND ABBREVIATIONS MAY NOT APPEAR ON THE PROJECT DRAWINGS.

**MECHANICAL GENERAL NOTES**

- ALL MECHANICAL WORK SHALL BE GOVERNED AND INSTALLED IN COMPLIANCE WITH THE LATEST EDITION AND APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
  - STATE REQUIREMENTS FOR LOCAL FACILITIES - SEC 453 OF FBC 2020
  - FLORIDA BUILDING CODE - 2020
  - FLORIDA MECHANICAL CODE - 2020
  - FLORIDA PLUMBING CODE - 2020
  - FLORIDA ENERGY EFFICIENCY CODE - 2020
  - FLORIDA FIRE PREVENTION CODE - 2020
  - FLORIDA EXISTING BUILDING CODE - 2020
  - NATIONAL ELECTRICAL CODE (NEC) - 2014
  - IFPA 90A - INSTALLATION OF AIR CONDITIONING & VENTILATING SYSTEMS -
  - IFPA 101 - LIFE SAFETY CODE
  - ASHRAE STANDARDS (INCLUDING 15, 55, 62.1, 90.1 & 129)
  - ANSI
  - SMACNA DUCTWORK STANDARDS
  - AMERICANS WITH DISABILITIES ACT (ADA)
  - ALL OTHER APPLICABLE FEDERAL, COUNTY AND CITY CODES REQUIRED BY LOCAL JURISDICTIONS.
- COORDINATE LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN AND WORK OF ALL OTHER TRADES.
- ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. VERIFY ALL REQUIREMENTS WITH EQUIPMENT SUPPLIER.
- ALL EXTERIOR MECHANICAL EQUIPMENT AND THEIR FRAMES, APPURTENANCES, COMPONENTS, SUPPORTS AND ANCHORING DEVICES SHALL BE ANCHORED TO RESIST THE FORCES DUE TO WIND PRESSURE AS NOTED IN FLORIDA BUILDING CODE. COORDINATE WIND LOAD CRITERIA WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- FLEXIBLE DUCT CONNECTORS AND RIGID DUCT RUNOUTS SERVING SINGLE DIFFUSER SHALL BE THE SAME SIZE AS DIFFUSER NECK.
- ALL EQUIPMENT HOUSINGS AND COMPONENTS INSTALLED OUTDOORS OR WITHIN UNCONDITIONED VENTILATED SPACES THAT ARE EXPOSED TO THE ELEMENTS SHALL BE SUITABLE FOR SEACOAST APPLICATION. ANY APPLIED CORROSION RESISTANT MATERIALS SHALL BE FACTORY APPLIED.
- PAINT INTERNAL DUCTWORK VISIBLE THROUGH DIFFUSERS, GRILLE OR LOUVER FACE FLAT BLACK.
- DUCTWORK LAYOUTS INDICATED ON PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO BE USED AS DUCT FABRICATION DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION EFFORTS BETWEEN TRADES AS OUTLINED IN THE SPECIFICATIONS.
- EVERY PIECE OF MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH AN ENGRAVED NAMEPLATE WITH 1" LETTERS INDICATING EQUIPMENT DESIGNATION. ANY EQUIPMENT INSTALLED WHERE CONCEALED ABOVE CEILING SHALL BE NOTED WITH CLEAR ADHESIVE LABEL AT NEAREST T-GRID OR ON ACCESS PANEL.
- EVERY THERMOSTAT SHALL BE PROVIDED WITH AN ENGRAVED NAMEPLATE WITH 1/4" LETTERS INDICATING EQUIPMENT ASSOCIATION.
- ALL DOORS TO INDIVIDUAL TOILETS AND JANITOR CLOSETS ARE TO BE UNDERCUT MINIMUM 1/2". REFER TO ARCHITECTURAL DOOR SCHEDULE.
- ALL MANUAL DAMPERS SHALL BE TAGGED WITH A MINIMUM 12" LONG PIECE OF FLUORESCENT TAPE TO AID IN VISIBILITY IN NON-EXPOSED LOCATIONS ONLY.
- SPACE TEMPERATURE OR OTHER SENSORS AT 60" A.F.F. TO THE CENTER IN PUBLIC AREAS. MOUNT SPACE TEMPERATURE OR OTHER SENSORS AT 48" A.F.F. TO THE CENTER FOR ALL OTHER AREAS. COORDINATE STYLE AND LOCATION WITH A/E/O PRIOR TO PURCHASE.
- ALL WALL MOUNTED SENSORS LOCATED IN PUBLIC SPACES SHALL BE PROVIDED WITH A LOCKABLE COVER. COVER SHALL BE TAMPER RESISTANT AND VENTED TO ALLOW FOR PROPER OPERATION. COORDINATE STYLE WITH A/E/O PRIOR TO PURCHASE.
- THE FINISH OF ALL MECHANICAL EQUIPMENT, DUCTWORK, FABRIC DUCT SYSTEMS, GRILLES, LOUVERS, CABLING, CONDUIT, ETC. EXPOSED IN OCCUPIED SPACES OR ON THE EXTERIOR OF THE BUILDINGS SHALL BE PRIMED AND PAINTED TO MATCH ADJACENT SURFACES. CONFIRM FINAL COLORS WITH THE A/E/O.
- ALL PIECES OF MECHANICAL EQUIPMENT REQUIRING ACCESS LOCATED ABOVE HARD CEILING SHALL BE PROVIDED WITH ACCESS PANELS SIZED PER DRAWINGS AND/OR MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS LARGER. COORDINATE STYLE/COLOR/LOCATIONS OF PANEL WITH A/E/O.
- OA INTAKES SHALL BE A MINIMUM OF 10 FEET HORIZONTAL DISTANCE FROM ANY VENTS.
- ATTC VENTS MUST BE COVERED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL, OR SIMILAR MATERIAL. OPENING MUST BE A MINIMUM OF 1/8" AND A MAXIMUM OF 1/4".
- PROVIDE WITH 1/4" - 1/2" CORROSION-RESISTANT SCREENS ON ALL OUTDOOR AIR EXHAUST & INTAKE OPENINGS. EXCEPTION: CLOTHES DRYER EXHAUST.
- ALL HVAC ASSOCIATED WIRING SHALL BE ROUTED IN CONDUIT. ANY EXPOSED CONDUIT SHALL BE ROUTED IN A CLEAN INCONSPICUOUS MANNER. CONDUIT SHALL BE PRIMED AND PAINTED TO MATCH ADJACENT SURFACE.
- ANY MANUAL VOLUME DAMPERS CONCEALED ABOVE PLASTER CEILING OR BEHIND DRY WALL CONSTRUCTION SHALL BE PROVIDED WITH ELECTRO-BALANCE BATTERY POWERED DAMPERS (OUT OF ARMSTREAM) EQUAL TO METROPOLITAN AIR TECHNOLOGY. ROUTE CONTROL POINT TO CLOSEST NON-PUBLIC ACOUSTICAL TILE CEILING LOCATION. PROVIDE ALL REQUIRED ACCESSORIES AND EXTENSION TO FACILITATE CONNECTIONS. NEAREST T-GRID SHALL BE PROVIDED WITH ENGRAVED LABEL INDICATING "D.B.C.P." - DIFFUSER BALANCING CONTROL POINT.
- COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
- THE CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
- INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
- ALL MATERIAL EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
- ALL RECTANGULAR SUPPLY AND RETURN AIR METAL DUCTWORK SHALL BE GALVANIZED SHEET METAL, EXTERNALLY INSULATED WITH 2" THICK, 0.75 LB. DENSITY DUCT WRAP. SEAL ALL DUCTWORK JOINTS AND SEAMS WITH MEDIUM VELOCITY DUCT SEALANT AND SEAL ALL INSULATION JOINTS AND SEAMS WITH FAB AND MASTIC. FOIL TAPE IS NOT ACCEPTABLE.
- ALL ROUND NON-EXPOSED SUPPLY AIR DUCTWORK SHALL BE GALVANIZED SPIRAL SHEET METAL, EXTERNALLY INSULATED WITH 2" THICK, 0.75 LB. DENSITY DUCT WRAP. SEAL ALL DUCTWORK JOINTS AND SEAMS WITH MEDIUM VELOCITY DUCT SEALANT AND SEAL ALL INSULATION JOINTS AND SEAMS WITH FAB AND MASTIC. FOIL TAPE IS NOT ACCEPTABLE.
- ALL DUCTWORK WITHIN MECHANICAL ROOM SHALL BE EXTERNALLY INSULATED WITH 1-1/2" RIGID BOARD INSULATION. SEAL ALL JOINTS AND SEAMS WITH FAB AND MASTIC.
- EXHAUST DUCTWORK SHALL BE UN-INSULATED RIGID GALVANIZED SHEET METAL DUCT. SEAL ALL JOINTS AND SEAMS WITH MEDIUM VELOCITY DUCT SEALANT.
- OUTSIDE AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL, EXTERNALLY INSULATED WITH 2" THICK, 0.75 LB. DENSITY DUCT WRAP. SEAL ALL DUCTWORK JOINTS AND SEAMS WITH MEDIUM VELOCITY DUCT SEALANT AND SEAL ALL INSULATION JOINTS AND SEAMS WITH FAB AND MASTIC. FOIL TAPE IS NOT ACCEPTABLE.
- ALL DUCTWORK SHALL BE FABRICATED, CONSTRUCTED, SUPPORTED AND INSULATED IN STRICT COMPLIANCE WITH SMACNA STANDARDS AND THE FLORIDA ENERGY EFFICIENCY CODE.
- ALL DUCT BENDS FROM THE VERTICAL TO THE HORIZONTAL AND ANGLED TURNS OF DUCTWORK SHALL HAVE TURNING VANES INSTALLED.
- CONTRACTOR SHALL INCLUDE IN THE BID THE NECESSARY PROGRAMMING, WIRING AND PROCEDURES FOR THE GRAPHICS AND COMMUNICATIONS AND ALL WORK AND MATERIALS REQUIRED TO INTERFACE ALL MECHANICAL EQUIPMENT FOR A COMPLETE AND FULLY OPERATIONAL TEMPERATURE AND BUILDING AUTOMATED CONTROL SYSTEM WHICH SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 15 - MECHANICAL. THESE CONTRACT DOCUMENTS PROVIDE A COMPLETE CONTROL SYSTEM WIRING SCHEMATIC, POINT TO POINT DIAGRAM AND SEQUENCE OF OPERATIONS. ALL CONTROL VOLTAGE WIRING IN EXPOSED AREAS SHALL BE IN CONDUIT.
- REVIEW DRAWINGS AND PROVIDE ALL WORK FOR A COMPLETE AND OPERABLE SYSTEM, INCLUDING ALL INCIDENTALS REQUIRED BY CODE AGENCIES AND LOCAL GOVERNING BODIES. ANY DISCREPANCY NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO THE BID SHALL BE CONSIDERED CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT AND AS THE ARCHITECT DIRECTS.
- LOCATE AND ARRANGE EQUIPMENT INTO THE AVAILABLE SPACE IN A MANNER TO ALLOW FOR ALL WORKING PARTS TO BE ACCESSIBLE FOR MAINTENANCE AND SERVICE.
- FURNISH TO THE OWNER, TWO COPIES OF OPERATING INSTRUCTIONS, MANUFACTURER'S PARTS DATA AND SERVICE INSTRUCTIONS.
- PROVIDE THE NECESSARY REQUIRED NUMBER OF SUBMITTALS FOR ALL MECHANICAL EQUIPMENT, DUCTWORK, AIR DISTRIBUTION AND MATERIALS REQUIRED PER THESE PLANS AND SPECIFICATIONS.
- ALL EQUIPMENT AND MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. MANUFACTURER'S SERVICE CLEARANCE FOR ALL EQUIPMENT SHALL BE MAINTAINED.
- ALL EQUIPMENT, DUCTWORK, ETC. SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS AS REQUIRED TO PROVIDE A VIBRATION-FREE INSTALLATION.
- COORDINATE ALL WALL, ROOF AND SLAB PENETRATIONS WITH GENERAL CONTRACTOR AND AS REQUIRED PER STRUCTURAL AND ARCHITECTURAL PLANS AND SPECIFICATIONS.
- STARTERS REQUIRED FOR THE MECHANICAL EQUIPMENT SHALL BE FURNISHED BY DIVISION 15 - MECHANICAL AND INSTALLED BY DIVISION 16 - ELECTRICAL. STARTERS SHALL BE COMBINATION DISCONNECT HAND-OFF AUTO TYPE WITH CONTROL TRANSFORMER AND AUXILIARY CONTACTS.
- DISCONNECT SWITCHES REQUIRED FOR THE MECHANICAL EQUIPMENT SHALL BE PROVIDED BY DIVISION 16 - ELECTRICAL UNLESS NOTED OTHERWISE.
- ALL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE PROPERLY PROTECTED WITH A UL RATED FIRE-STOPPING SYSTEM.
- COORDINATE ALL DUCT MOUNTED SMOKE DETECTORS WITH DIVISION - 16 FIRE ALARM AND ELECTRICAL CONTRACTORS.



**GENERAL NOTES - H.V.A.C.**  
SCALE: NTS

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 ARCHITECTS  
 65 ROYAL PALM POINTE, SUITE "D"  
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 PHONE: (772) 569-4320

**PROJECT: STATION #7**

**FOR:** INDIAN RIVER COUNTY FIRE DISTRICT  
 1840 25TH STREET  
 VERO BEACH FL 32906

**DATE:** 5/15/23  
**OWNER CHANGES:**  
**REVISIONS:**

**COMM. NO: 050299B**  
**DATE:** 16 MAY 2022  
**BY:** MS  
**CHK'D:** JLS

**SHEET NO. M-O**

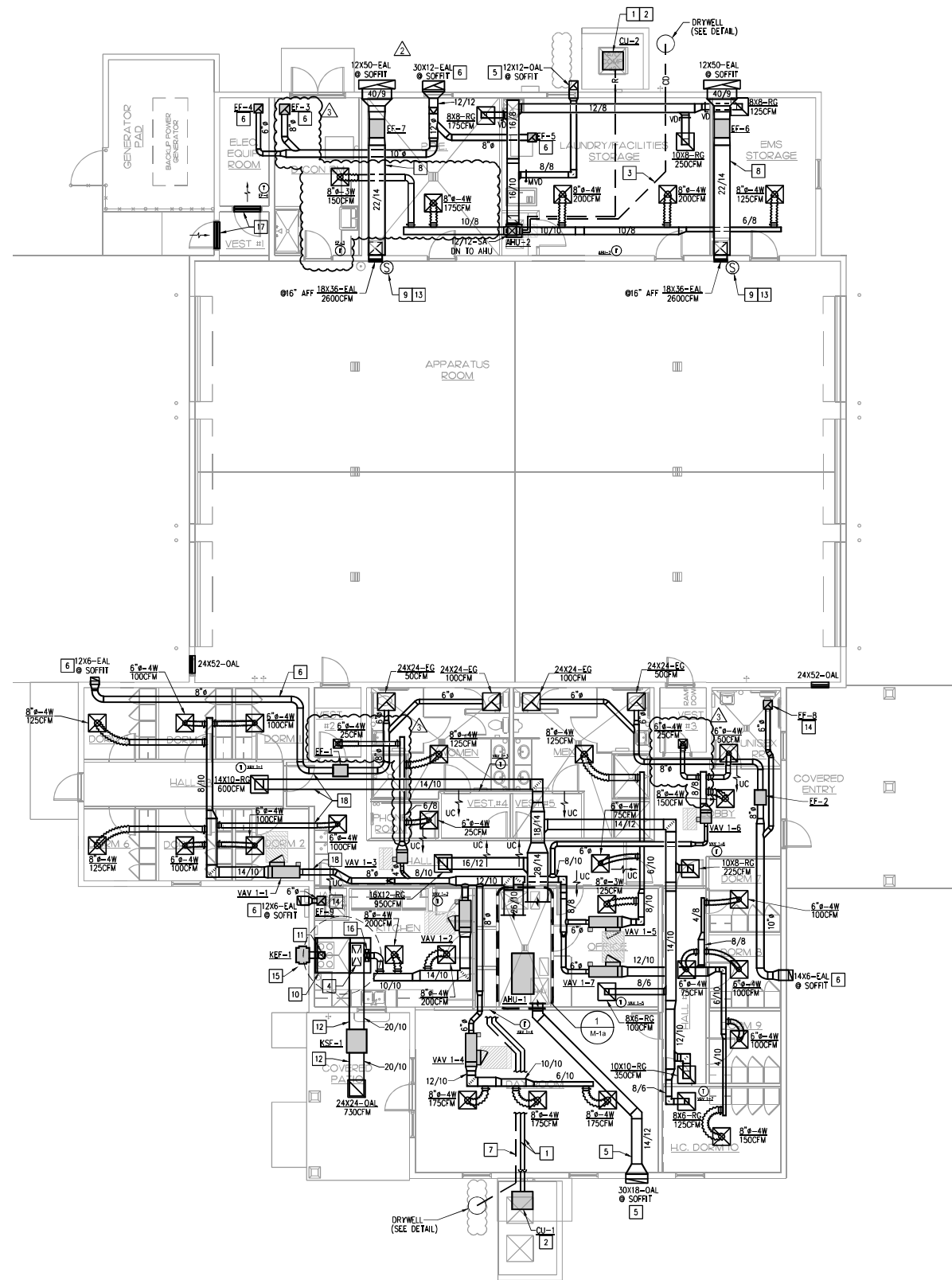
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**GENERAL NOTES:**

- LOUVER SIZES INDICATED ARE FOR MINIMUM FREE AREA REQUIRED. ACTUAL LOUVER SIZES SHALL BE AS INDICATED ON ARCHITECTURAL PLANS AND ELEVATIONS.
- COORDINATE LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN AND WORK OF ALL OTHER TRADES.
- ALL EXTERIOR MECHANICAL EQUIPMENT AND THEIR FRAMES, APPURTENANCES, COMPONENTS, SUPPORTS AND ANCHORING DEVICES SHALL BE ANCHORED TO RESIST THE FORCES DUE TO WIND PRESSURE AS REQUIRED BY THE STANDARD BUILDING CODE.
- COORDINATE THE ELEVATION AND LOCATION OF ALL EXTERIOR WALL MOUNTED LOUVERS WITH ARCHITECTURAL DRAWINGS. ALL EXTERIOR LOUVERS SHALL BE PRIMED AND PREPARED FOR FINAL FINISH.
- COORDINATE DUCT ROUTING WITH LOCATION OF ELECTRICAL PANELS, LIGHT FIXTURES, PLUMBING PIPING, AND ALL OTHER TRADES.
- ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN ALL CLEARANCES REQUIREMENTS FOR SERVICE AND MAINTENANCE. COORDINATE WITH EQUIPMENT MANUFACTURER.
- ALL CONTROL WIRING AND CONDUIT SHALL COMPLY WITH NEC AND DIVISION 16 SPECIFICATIONS.
- DUCTWORK IS TO BE INSTALLED AND SUPPORTED PER SMACNA LOW PRESSURE DUCTWORK REQUIREMENTS.
- ALL DUCTWORK SHALL BE SHEET METAL EXTERNALLY INSULATED (SEE SPECIFICATIONS). ALL DUCTWORK SHALL MEET MINIMUM REQUIREMENTS OF THE FLORIDA ENERGY EFFICIENCY CODE. SEE SPECIFICATIONS.
- ALL DUCTWORK AND INSULATION SHALL BE SEALED WITH GLASS FAB AND MASTIC.
- CONTRACTOR SHALL NOT REDUCE DUCT SIZES.
- PAINT INSIDE OF DUCTS AND PORTIONS OF CEILING ASSEMBLY VISIBLE THROUGH GRILLES OR REGISTERS WITH FLAT BLACK PAINT.
- COORDINATE FINISH OF ALL EXTERIOR DISCHARGE CAPS/ LOUVERS WITH ARCHITECT. PRIME AND PAINT TO MATCH ADJACENT SURFACES. SEE ARCHITECTS PLANS FOR COLOR TYPE.
- TEST AND BALANCE ALL AIR SYSTEMS IN ACCORDANCE WITH AABC AND/OR NEBB REQUIREMENTS. TEST AND BALANCE CONTRACTOR SHALL BE AABC, NEBB OR TABB CERTIFIED. ALL EQUIPMENT USED FOR TESTING SHALL BE UP TO DATE WITH CALIBRATION CERTIFICATIONS. THE CONTRACTOR SHALL REGULATE AND ADJUST ALL SPLITTERS, DEFLECTORS AND DAMPERS SO THAT THE INLET OR OUTLET SHALL DELIVER OR REMOVE THE REQUIRED NUMBER OF CUBIC FEET OF AIR PER MINUTE (CFM) AT THE RESPECTIVE OPENINGS. BALANCE BUILD TO MAINTAIN A POSITIVE PRESSURE WHILE IN OCCUPIED MODE. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE CONSTRUCTION SUPERINTENDENT, OR HIS REPRESENTATIVE.

**H.V.A.C. KEYNOTES [X]:**

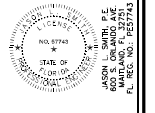
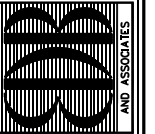
- ROUTE REFRIGERANT LINES FROM AHU, UP INTO CEILING SPACE AND TERMINATE AT ASSOCIATED CU. CONTRACTOR TO COORDINATE EXACT ROUTING FOR PIPING SIZE AND INSULATE PER MANUFACTURER'S RECOMMENDATIONS.
- CONCRETE HOUSEKEEPING PAD. PLACE CU AWAY FROM ROOF DRIP LINE. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES. COORDINATE LOCATION WITH ARCHITECTURAL AND LANDSCAPE ARCHITECTURAL DRAWINGS. MAXIMUM LENGTH OF REFRIGERANT PIPING SHALL NOT EXCEED 75 FEET OR MANUFACTURER'S RECOMMENDATIONS. SECURE CONDENSING UNIT TO PAD WITH #14 SCREWS WITH GASKETED WASHERS LOCATED 12 INCHES ON CENTER MAXIMUM AROUND CONDENSING UNIT. CONDENSING UNIT TO BE BED DOWN AS REQUIRED FOR WIND LOAD.
- ROUTE FULL SIZE CONDENSATE DRAIN FROM AHU WITH P-TRAP AND TERMINATE IN DRYWELL BELOW FINISHED GRADE.
- TRANSITION AND CONNECT MAKE-UP AIR DUCT TO EXHAUST HOOD SUPPLY PLENUM PER THE MANUFACTURERS. SEE SHEET MS.1 FOR CONNECTION SIZE AND SUPPLY CFM.
- ROUTE OUTSIDE AIR DUCT WITH WIND TO LOUVER AT EXTERIOR WALL. PRIME AND PAINT LOUVER TO MATCH ADJACENT SURFACES. SEE ARCHITECTS PLANS FOR COLOR TYPE. MAINTAIN 10' FROM EXHAUST AIR OUTLETS. LOUVER TO BE A RATED WIND DRIVEN LOUVER PROVIDED BY GREENHECK MODEL EVH-501 OR OTHER MANUFACTURER EQUIVALENT.
- ROUTE EXHAUST DUCT FROM EXHAUST FAN TO LOUVER AT EXTERIOR SOFFIT. PRIME AND PAINT LOUVER TO MATCH ADJACENT SURFACES. SEE ARCHITECTS PLANS FOR COLOR TYPE. MAINTAIN 10' FROM OUTDOOR AIR INTAKES. LOUVER TO BE A RATED WIND DRIVEN LOUVER PROVIDED BY GREENHECK MODEL EVH-501 OR OTHER MANUFACTURER EQUIVALENT.
- ROUTE FULL SIZE CONDENSATE DRAIN FROM AHU TO CU UNDERGROUND IN PVC CHASE TO EXTERIOR OF THE BUILDING. SEAL ENDS OF CHASE WITH FOAM AND TERMINATE IN DRYWELL BELOW GRADE. (SEE DETAIL).
- ROUTE EXHAUST DUCT FROM GRILLE IN APPARATUS BAY TO LOUVER AT EXTERIOR SOFFIT. PRIME AND PAINT LOUVER TO MATCH ADJACENT SURFACES. SEE ARCHITECTS PLANS FOR COLOR TYPE. MAINTAIN 10' FROM OUTDOOR AIR INTAKES.
- PROVIDE WITH MANUAL OVERRIDE SWITCH.
- REFER TO MS.1 AND MS.2 FOR KITCHEN HOOD DETAILS AND SPECIFICATIONS.
- ROUTE 3X6 WELDED STAINLESS STEEL EXHAUST DUCT TO FAN AT EXTERIOR WALL. WRAP DUCT WITH FIRE WRAP EQUAL TO 3M FIREMASTER. INSTALL IN ACCORDANCE WITH MFG. REQUIREMENTS TO ACHIEVE 1 HR RATING. BOTTOM OF FAN MOUNTED A MINIMUM OF 10' ABOVE GRADE. MAINTAIN MINIMUM 10 FT HORIZONTALLY FROM ADJACENT STRUCTURE.
- ROUTE SUPPLY DUCT TO IN-LINE SUPPLY FAN. SEE ARCHITECTURAL DRAWINGS FOR CEILING ACCESS PANEL AND LOCATION.
- PROVIDE DIESEL EXHAUST AND CO DETECTION SYSTEM FOR APPARATUS BAY. FUEL DETECTION SYSTEM SHALL HAVE OVERRIDE CONTROL ON APPARATUS BAY EXHAUST FANS EF-6&7. SENSOR SHALL BE COMPLETELY WATER RESISTANT. MOUNT SENSOR 48" A.F.F.
- PROVIDE WITH OCCUPANCY SENSOR AND TIME DELAY SWITCH.
- SEE DETAIL OF HORIZONTAL FAN KEF-1 INSTALLATION.
- TRANSITION AND CONNECT SUPPLY AIR DUCT TO EXHAUST HOOD SUPPLY AIR SUPPLY PLENUM PER THE MANUFACTURERS REQUIREMENTS. SEE SHEET MS.1 FOR DETAILS AND CONNECTION SIZE AND TOTAL SUPPLY AIR 240 CFM.
- DOOR LOUVER TO BE PROVIDED.
- CONTRACTOR TO FIELD COORDINATE DUCTWORK ROUTING WITH STRUCTURAL BEAMS & DUCT PENETRATIONS AT FULL HEIGHT WALLS.



**BUILDING PLAN - H.V.A.C.**  
SCALE: 1/8" = 1'-0"

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PROJECT: STATION #7

FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
1840 25TH STREET  
VERO BEACH FL 32906

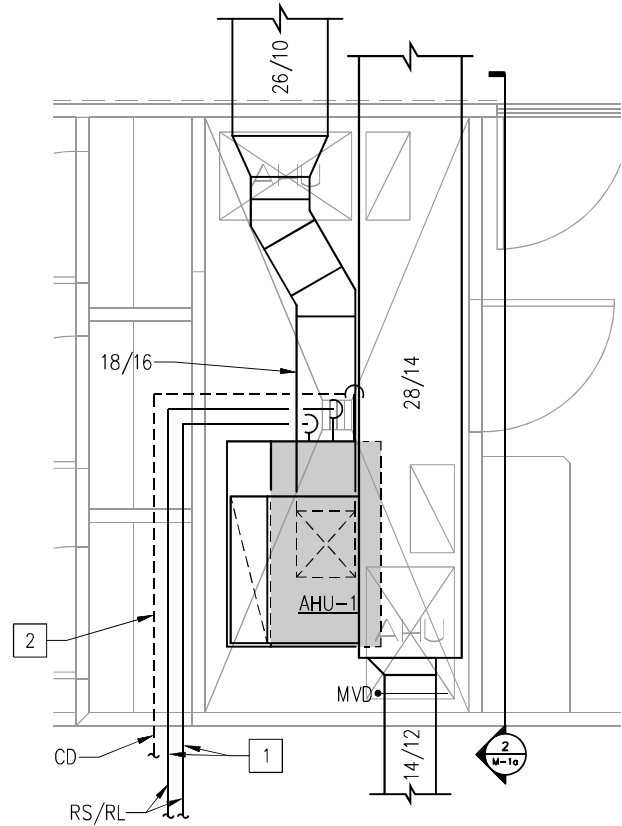
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2	9/15/23	OWNER CHANGES

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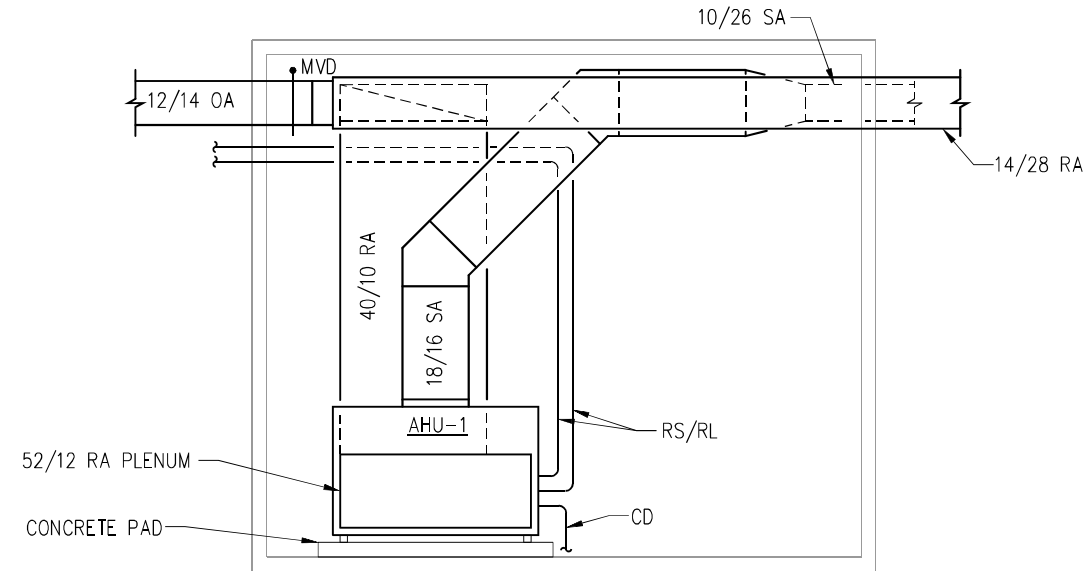
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CHKD: JLS

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OF

PRINT DATE: 10/18/2023 3:06 PM SAVE DATE: 4/20/2022 2:16 PM FILE LOCATION: J:\2022\05\2022 - RC FS NO 7\DWG\2022M-1A.DWG



1 ENLARGED MECH ROOM PLAN  
M-1a SCALE: 1/2" = 1'-0"



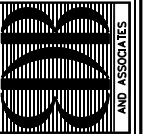
1 ENLARGED MECH ROOM PLAN  
M-1a SCALE: 1/2" = 1'-0"

ENLARGED MECH ROOM PLANS - H.V.A.C.  
SCALE: 1/2" = 1'-0"

H.V.A.C. KEYNOTES X :

1. ROUTE REFRIGERANT LINES FROM AHU, UP INTO CEILING SPACE AND TERMINATE AT ASSOCIATED CU. CONTRACTOR TO COORDINATE EXACT ROUTING FOR PIPING. SIZE AND INSULATE PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE FULL SIZE CONDENSATE DRAIN PIPING FROM AHU TO CU UNDERGROUND IN PVC CHASE WITH FOAM AND TERMINATE IN DRYWELL BELOW GRADE. (SEE DETAIL).

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NO. DATE REVISIONS

NO.	DATE	REVISIONS

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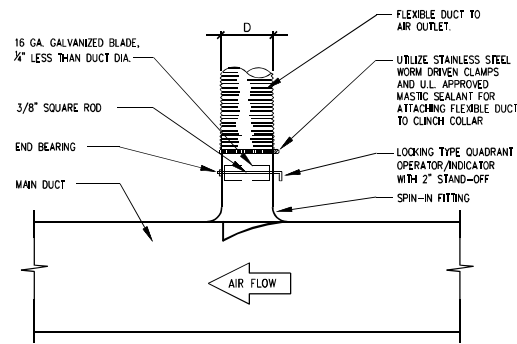
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CHKD: JLS



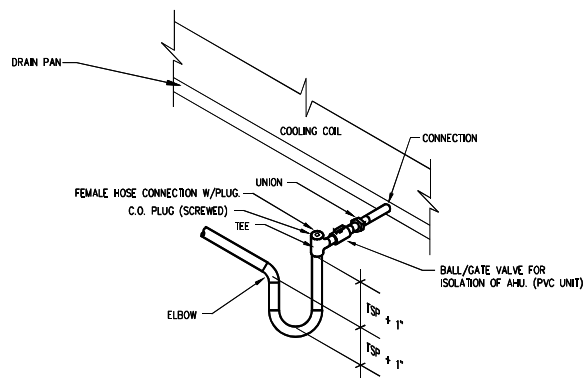
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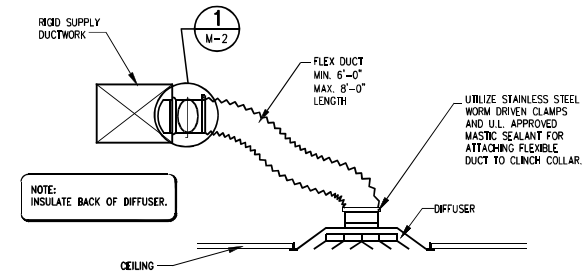




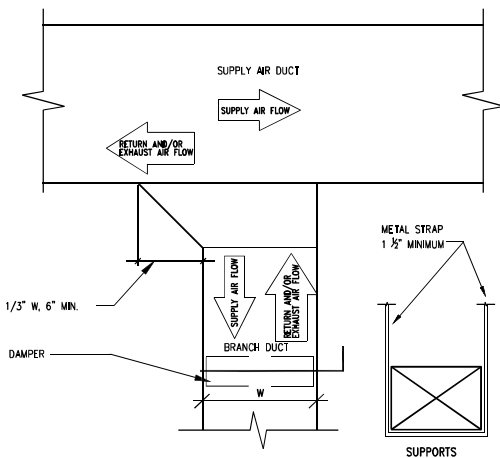
**1** SPIN-IN BRANCH CONNECTION TO SINGLE AIR OUTLET  
M-2.1 NTS



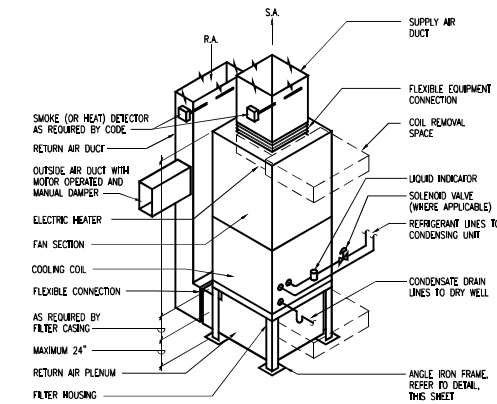
**2** CONDENSATE DRAIN DETAIL  
M-2.1 NTS



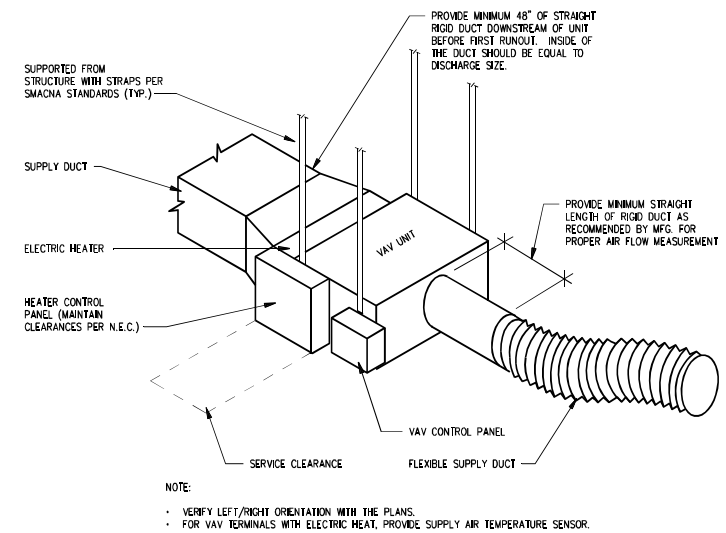
**3** DIFFUSER AND FLEX DUCT DETAIL  
M-2.1 NTS



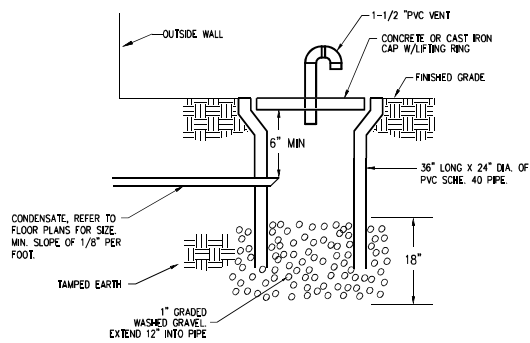
**4** DUCT WITH SPLITTER DAMPER AT SINGLE BRANCH  
M-2.1 NTS



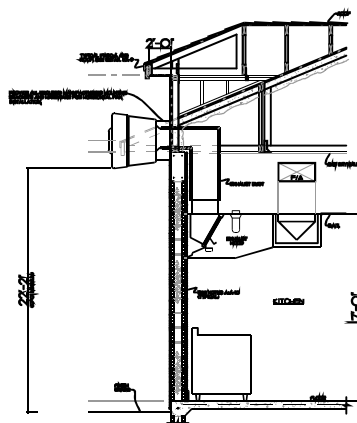
**5** TYPICAL VERTICAL AHU DETAIL  
M-2.1 NTS



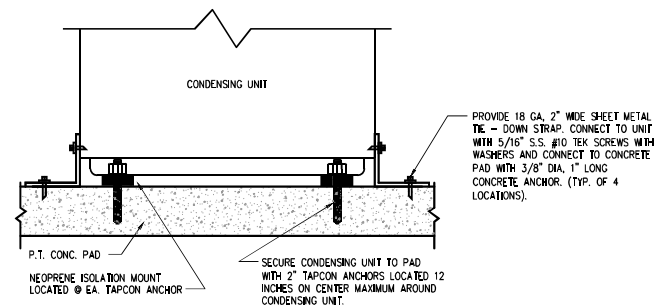
**6** VAV TERMINAL UNIT DETAIL  
M-2.1 NTS



**7** DRYWELL DRAIN DETAIL  
M-2.1 NTS



**8** KITCHEN HOOD FAN KEF-1 DETAIL  
M-2.1 NTS

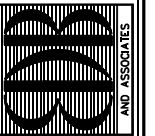


**9** CONDENSING UNIT AT PAD DETAIL  
M-2.1 NTS

DETAILS - H.V.A.C.  
SCALE: NTS

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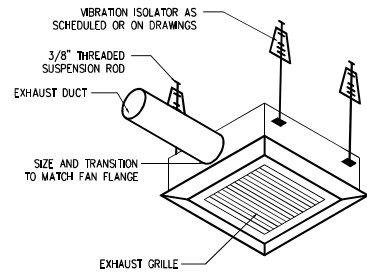
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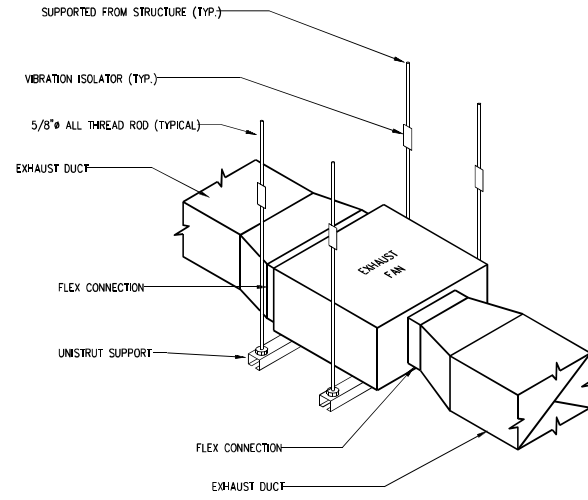
MAY 22, 2022  
DATE: 16 MAY 2022  
BY: MS  
CHKD: JLS

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**M-2.1**  
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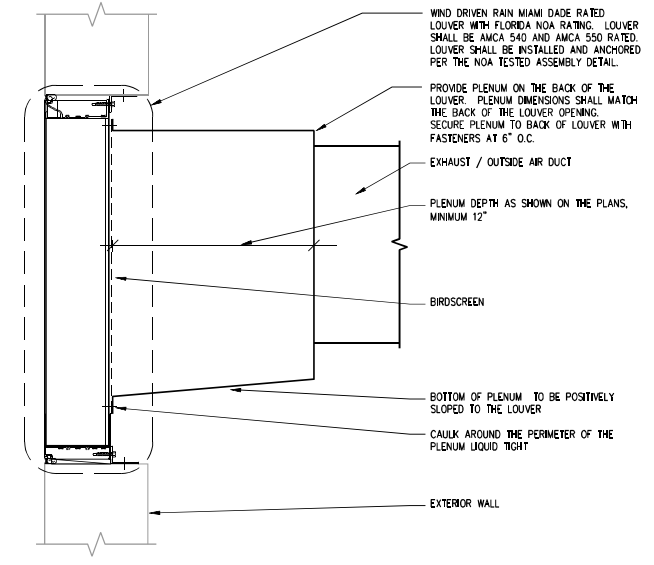


NOTE: CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ANY CEILING ACCESS OPENINGS, WITH MANUFACTURER.

1 CEILING EXHAUST FAN DETAIL  
M-2.2 NTS



2 IN-LINE EXHAUST FAN DETAIL  
M-2.2 NTS

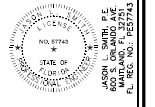
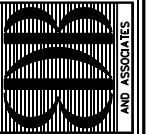


3 TYPICAL LOUVER DETAIL  
M-2.2 NTS

DETAILS - H.V.A.C.  
SCALE: NTS

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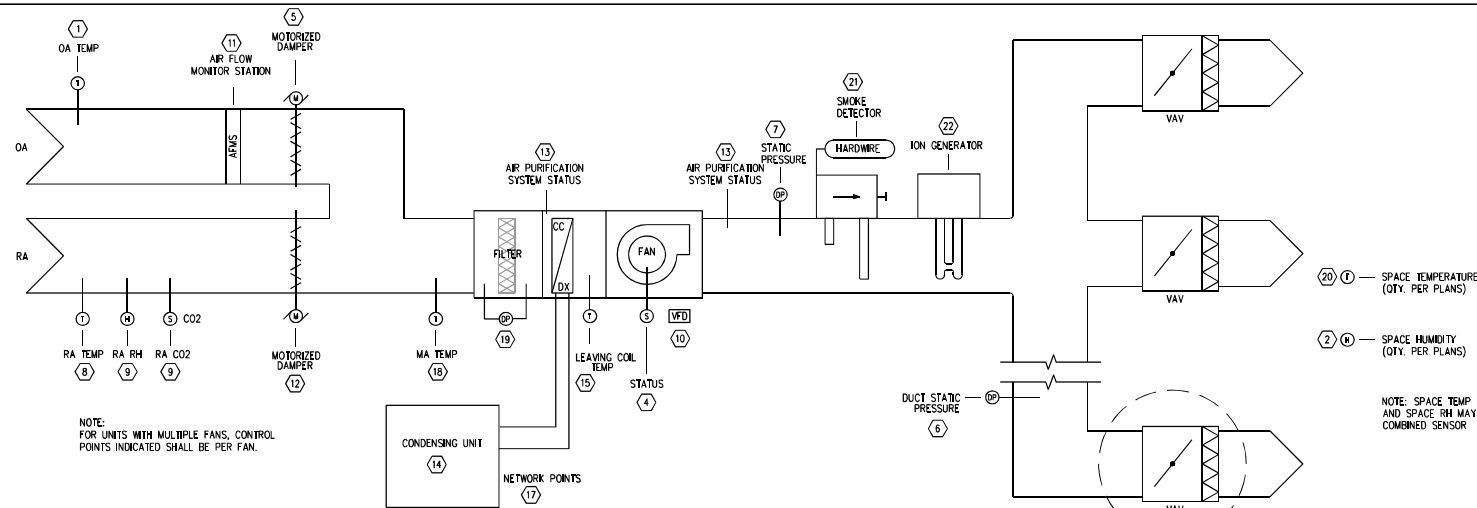
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SHEET NO.  
M-2.2  
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- CONTROL POINTS (X)**
- OA TEMP
  - SPACE RH
  - TOTAL SYSTEM SUPPLY AIR FLOW
  - FAN STATUS
  - OA DAMPER POSITION
  - SA STATIC PRESSURE
  - HIGH STATIC LIMIT
  - RA TEMP
  - RA RH
  - VFD DATA
  - OA ARMS POSITION
  - RA DAMPER POSITION
  - AIR PURIFICATION SYSTEM STATUS
  - CONDENSING UNIT STATUS
  - COIL LAT
  - VFD
  - COMPRESSOR STAGES
  - MIXED AIR TEMP
  - FINAL FILTER DP
  - SPACE TEMP
  - SMOKE DETECTOR
  - ION GENERATOR
- ALARMS**
- SA HIGH STATIC
  - SA HIGH TEMP
  - FAN FAILURE
  - SPACE RH ABOVE SETPOINT
  - DAMPER FAILURE
  - COMPRESSOR FAILURE
  - IONIZATION SYSTEM FAILURE
  - OA MINIMUM AIRFLOW
  - FREEZE PROTECTION



**1 TYPICAL VAV DX AHU CONTROL SCHEMATIC**  
M-4 AHU-1 NTS

**SEQUENCE OF OPERATIONS:**

THE SYSTEM OCCUPANCY MODE WILL BE DETERMINED BY A TIME OF DAY SCHEDULE WHICH WILL BE ADJUSTABLE VIA BAS USER INTERFACE.

**OCCUPIED MODE:**

DURING OCCUPIED PERIODS, THE SUPPLY FAN WILL RUN CONTINUOUSLY. THE SYSTEM WILL OPERATE IN HEATING MODE OR COOLING MODE IN ACCORDANCE WITH CALLS FOR HEATING OR COOLING FROM THE ASSOCIATED VAV TERMINAL UNITS.

**UNOCCUPIED MODE:**

DURING UNOCCUPIED PERIODS, THE SUPPLY FAN AND COOLING WILL BE DISABLED. IF AN OCCUPIED OVERRIDE IS INITIATED, THE SYSTEM WILL OPERATE IN THE OCCUPIED MODE UNTIL THE OVERRIDE EXPIRES OR IS CANCELLED.

**TEMPERATURE CONTROL:**

THE BAS WILL SCAN THE UNIT CONTROLLERS OF THE ASSOCIATED TERMINAL UNITS TO DETERMINE THE DEVIATIONS FROM THE TEMPERATURE SET POINT, TIME OF DEVIATION, TIME FROM LAST CHANGEOVER, AND NUMBER OF ZONES REQUIRING HEATING OR COOLING. BASED UPON THIS INFORMATION, THE SYSTEM HEAT/COOL MODE AND SUPPLY AIR TEMPERATURE SET POINT WILL BE SELECTED. THE BAS WILL ALSO MONITOR THE SYSTEM SUPPLY AIR TEMPERATURE TO DETERMINE CAPACITY STAGING REQUIREMENTS AND TO ENSURE THAT HIGH AND LOW TEMPERATURE LIMITS ARE NOT VIOLATED.

**FAN CONTROL:**

WHEN THE FAN IS INDEXED TO START VIA THE OPERATIONAL MODE SELECTION, THE VARIABLE FREQUENCY DRIVE SHALL INCREASE THE SUPPLY FAN(S) SPEED SLOWLY OVER A PERIOD OF 1 MINUTE (ADJ.) TO ACHIEVE THE DUCT STATIC PRESSURE SETPOINT. THE VARIABLE FREQUENCY DRIVE SHALL CONTINUE TO MODULATE THE FAN SPEED AS REQUIRED TO MAINTAIN THE CURRENT STATIC PRESSURE SETPOINT.

**FAN STATIC PRESSURE SETPOINT RESET:**

THE BAS SYSTEM SHALL CONTINUOUSLY MONITOR THE DAMPER POSITION AND AIRFLOWS OF ALL VAV TERMINALS SERVED BY THE AIR HANDLING UNIT. THE SYSTEM SHALL EVALUATE THE DUCT STATIC PRESSURE CONDITIONS EVERY 10 MINUTES (ADJ.)

THE SYSTEM SHALL HAVE A MINIMUM AND MAXIMUM SETTING FOR THE SUPPLY AIR STATIC SETPOINT TO BE ADJUSTABLE AND DETERMINED DURING TEST AND BALANCE. UPON FAN INITIAL STARTUP THE MINIMUM SETPOINT SHALL BE THE STARTING POINT FOR FAN CONTROL.

IN THE EVENT THAT ALL VAV TERMINALS ARE SATISFIED (I.E. ALL VAV

TERMINALS ARE AT LESS THAN 100% MAXIMUM OPEN POSITION AND ANY THAT ARE AT 100% MAXIMUM POSITION ARE DELIVERING AT LEAST 95% (ADJ.) OF THE SUPPLY AIR FLOW MAXIMUM SETPOINT) THE DUCT STATIC PRESSURE SETPOINT SHALL DECREASE BY 0.1" W.C.

IN THE EVENT THAT ANY VAV TERMINAL IS NOT SATISFIED WITH VALVE AT THE 100% MAXIMUM OPEN POSITION AND IS DELIVERING LESS THAN 95% (ADJ.) OF THE SUPPLY AIR FLOW MAXIMUM SETPOINT, THE DUCT STATIC PRESSURE SETPOINT SHALL INCREASE BY 0.1" W.C.

THE AHU GRAPHICS SCREEN SHALL INCLUDE THE CURRENT STATIC PRESSURE SETPOINT AND CURRENT STATIC PRESSURE READING AS WELL AS IDENTIFY ANY ZONES THAT ARE NOT SATISFIED IN TERMS OF AIRFLOW.

EACH SYSTEM SHALL HAVE A MINIMUM TOTAL SYSTEM SUPPLY AIRFLOW SETPOINT TO AVOID SURGE AS RECOMMENDED BY THE MANUFACTURER. IN THE EVENT THAT THE SYSTEM TOTAL FLOW DROPS TO WITHIN 10% (ADJ.) OF THE MINIMUM AIRFLOW SETPOINT, THE SYSTEM SHALL RESET THE STATIC PRESSURE SETPOINT TO THE MINIMUM SETTING. UPON A CONTINUED DROP IN TOTAL SYSTEM FLOW BELOW THE MINIMUM SETPOINT, THE VAV TERMINAL MINIMUM FLOW OVERRIDE SAFETY SHALL ENABLE.

**COOLING COIL CONTROL:**

WHEN SYSTEM IS ENABLED, THE COMPRESSOR(S) SHALL STAGE TO MAINTAIN THE LEAVING AIR TEMPERATURE SETPOINT.

**SUPPLY AIR TEMPERATURE RESET:**

THE BAS SHALL CONTINUOUSLY MONITOR THE ZONE SPACE TEMPERATURES, RETURN AIR TEMPERATURE, RETURN AIR HUMIDITY AND ZONE SPACE HUMIDITY (WHERE APPLICABLE). THE SYSTEM SHALL EVALUATE THE SUPPLY AIR LEAVING CONDITIONS EVERY 5 MINUTES (ADJ.)

THE SYSTEM SHALL HAVE A MINIMUM AND MAXIMUM SETTINGS FOR THE SUPPLY AIR LEAVING TEMPERATURE SETPOINT. THE MINIMUM SETTING SHALL BE AS SCHEDULED (ADJ.) AND THE MAXIMUM SHALL BE 65F (ADJ.). UPON INITIAL STARTUP THE MINIMUM SETPOINT SHALL BE THE STARTING POINT FOR THE LEAVING AIR TEMPERATURE SETPOINT.

IF THERE ARE NO RELATIVE HUMIDITY ALARMS IN EXCESS OF 65% (ADJ.) AND ALL ZONE SPACE TEMPERATURES ARE WITHIN 1/2F (ADJ.) ABOVE THE SPACE TEMPERATURE SETPOINT, THE SUPPLY AIR LEAVING TEMPERATURE SETPOINT SHALL INCREASE BY 1F.

IF THERE ARE ANY RELATIVE HUMIDITY ALARMS IN EXCESS OF 65% (ADJ.) OR ANY ZONE SPACE TEMPERATURES THAT ARE MORE THAN 1/2F (ADJ.) ABOVE THE SPACE TEMPERATURE SETPOINT, THE SUPPLY AIR LEAVING AIR TEMPERATURE SETPOINT SHALL BE DECREASED BY 1F.

THE ABILITY SHALL BE PROVIDED TO BLACKLIST ANY PROBLEM ZONE THAT WILL NOT BE CONSIDERED IN THE LEAVING AIR TEMPERATURE

**SETPPOINT ADJUSTMENT:**

THE AHU GRAPHICS SCREEN SHALL INCLUDE THE CURRENT SUPPLY AIR TEMPERATURE SETPOINT AND CURRENT SUPPLY AIR TEMPERATURE READING AS WELL AS IDENTIFY ANY ZONES THAT ARE NOT SATISFIED IN TERMS OF SPACE TEMPERATURE.

**OUTSIDE AIR FLOW CONTROL:**

WHEN ENABLED, THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TO MAINTAIN THE OUTDOOR AIR FLOW SETPOINT PER THE FOLLOWING: THE RETURN DAMPER SHALL REMAIN FULLY OPEN WHILE THE OUTSIDE AIR DAMPER IS MODULATED TO MAINTAIN THE SETPOINT. IN THE EVENT THAT THE OUTSIDE AIR DAMPER IS FULLY OPEN AND THE OUTSIDE AIR IS BELOW THE SETPOINT, THEN THE RETURN AIR DAMPER SHALL MODULATE CLOSED AS REQUIRED TO MAINTAIN THE OUTSIDE AIR FLOW SETPOINT. THE SEQUENCE WILL OCCUR IN REVERSE ORDER AS THE RETURN AIR MODULATES OPEN. AT NO TIME ARE THE OUTSIDE AIR DAMPER AND RETURN DAMPER TO MODULATE AT THE SAME TIME. A RETURN AIR MINIMUM DAMPER POSITION OF 30% (ADJ.) SHALL BE MAINTAINED AND THE RETURN AIR DAMPER SHALL NEVER BE ABLE TO GO FULLY CLOSED.

**AIR PURIFICATION SYSTEM CONTROL:**

THE AIR PURIFICATION SYSTEM SHALL BE ENABLED WHEN THE SUPPLY FAN IS ENERGIZED.

**SAFETIES / ALARMS:**

**MINIMUM SYSTEM FLOW VAV OVERRIDE:**

THE BAS SHALL MONITOR TOTAL SYSTEM AIRFLOW CONTINUOUSLY VIA AIRFLOW MONITORING STATION. UPON A DROP IN TOTAL SYSTEM AIRFLOW BELOW THE MANUFACTURER RECOMMENDED MINIMUM, THE VAV TERMINALS FED FROM THE AHU SHALL OVERRIDE THE VAV MINIMUM SETPOINTS TO THE PERCENT OF MINIMUM AIRFLOW TO TOTAL AIRFLOW ONCE THE TOTAL AIRFLOW EXCEEDS THE MINIMUM AIRFLOW REQUIREMENT BY 10% (ADJ.), THE OVERRIDE SHALL BE RELEASED.

**FIRE PROTECTION:**

DUCT SMOKE DETECTORS SHALL BE LOCATED IN THE SUPPLY AND RETURN DUCTS IN ACCORDANCE WITH NFPA 72. UPON SENSING SMOKE A DETECTOR SHALL SHUT OFF THE UNIT FAN AND THE ASSOCIATED EXHAUST FAN(S), IF ANY. THE SMOKE DETECTORS SHALL BE MANUALLY RESET FROM THE FIRE ALARM PANEL.

**FAN FAILURE:**

ANYTIME A UNIT FAN OR EXHAUST FAN FAILS TO RUN AFTER 5 MINUTES OF BEING COMMANDED ON BY THE BAS AN ALARM SHALL BE GENERATED AT THE BCS FRONT END COMPUTER. LIKEWISE, ANYTIME A

UNIT FAN OR EXHAUST FAN CONTINUES TO RUN AFTER BEING COMMANDED OFF BY THE BAS AN ALARM SHALL BE GENERATED AT THE BCS FRONT END COMPUTER.

**HUMIDITY ALARM:**

AN ALARM SHALL BE GENERATED AT THE BAS FRONT END COMPUTER ANYTIME THE ZONE RETURN AIR RELATIVE HUMIDITY EXCEEDS THE HUMIDITY PROTECTION LIMIT OF 60% RH DURING OCCUPIED TIMES.

**FREEZE PROTECTION:**

IF THE OUTDOOR AIR TEMP AFTER THE PREHEATING COIL DROPS BELOW 35 DEG F, THEN THE OUTSIDE AIR DAMPER SHALL CLOSE. IF THIS OCCURS, AND ALARM WILL BE GENERATED AT THE BCS FRONT END COMPUTER AND THE DAMPER SHALL REMAIN CLOSED UNTIL THE NEXT TIME OF DAY PROGRAM OR MANUAL RESET.

**HIGH STATIC ALARM:**

AN ALARM SHALL BE GENERATED IN THE EVENT THE HIGH DUCT STATIC PRESSURE SWITCH IS TRIPPED (WITH MANUAL RESET).

**AIR PURIFICATION SYSTEM FAILURE:**

ALARM SHALL BE GENERATED IF THE AIR PURIFICATION SYSTEM IS NOT FUNCTIONING.

**DAMPER FAILURE:**

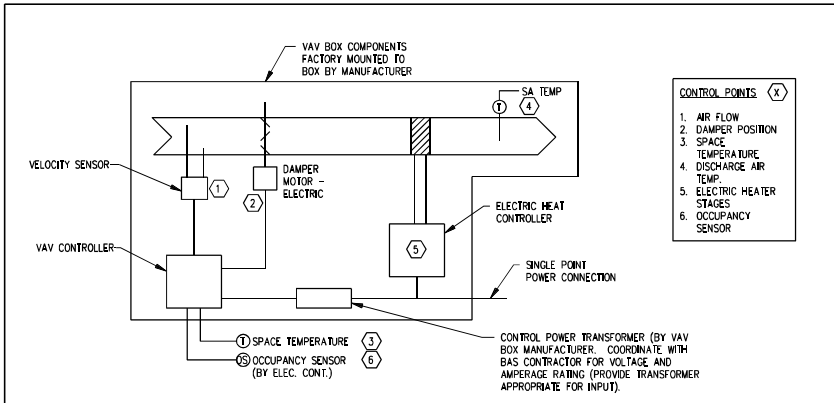
AN ALARM SHALL BE GENERATED IF ANY CONTROL DAMPER POSITION FEEDBACK IS NOT WITHIN 5% (ADJ.) OF THE DAMPER POSITION SIGNAL FOR A PERIOD OF 5 MINUTES (ADJ.)

**OUTSIDE AIR MINIMUM FLOW:**

IF OUTSIDE AIR IS NOT MAINTAINED WITHIN 10% OF THE MINIMUM SETPOINT FOR A PERIOD OF 10 MINUTES (ADJ.) AN ALARM SHALL BE GENERATED.

**INDOOR AIR QUALITY AIR CLEANING:**

AHU SHALL BE ADAPTED WITH NEEDLE POINT BI-POLAR IONIZATION GENERATOR AND SHALL BE INSTALLED IN THE MAIN SUPPLY AIR STREAM OF THE AHU. IONIZATION GENERATOR TO BE INTERLOCKED WITH THE AHU AND SHALL ONLY OPERATE WHILE THE UNIT IS RUNNING.



**VAV SEQUENCE:**

EACH VAV SHALL BE PROVIDED WITH INDEPENDENT SETPOINTS FOR THE FOLLOWING CONDITIONS:

SYSTEM MODE	ZONE MODE	COOLING TEMP	HEATING TEMP	MINIMUM AIRFLOW
UNOCCUPIED	UNOCCUPIED	80	64	TERMINAL RECOMMENDED MINIMUM FLOW
	OCCUPIED	75	69	TERMINAL RECOMMENDED MINIMUM FLOW
OCCUPIED & COOL DOWN/WARMUP	UNOCCUPIED	77	68	TERMINAL RECOMMENDED MINIMUM FLOW
	OCCUPIED	75	69	AS SCHEDULED

WHEN THE ASSOCIATED AIR HANDLING UNIT IS ENABLED THE VAV TERMINAL SHALL OPERATE PER THE FOLLOWING:

UPON RISE IN SPACE TEMPERATURE ABOVE THE SPACE COOLING SETPOINT, AIR VALVE SHALL OPEN TO INCREASE SUPPLY AIR FLOW. UPON FALL IN SPACE TEMPERATURE THE REVERSE SHALL OCCUR UNTIL THE AIR VALVE REACHES THE MINIMUM AIRFLOW SETPOINT. IF SPACE TEMPERATURE CONTINUES TO FALL BELOW THE SPACE HEATING SETPOINT THE ELECTRIC HEAT SHALL STAGE ON TO RAISE SUPPLY AIR TEMPERATURE AS REQUIRED TO MAINTAIN THE SPACE HEATING SETPOINT.

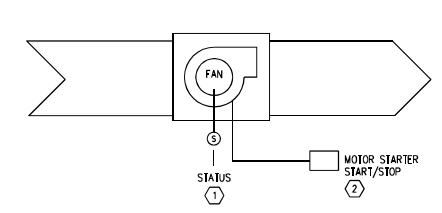
THE SYSTEM OCCUPIED / UNOCCUPIED MODE SHALL BE DETERMINED BY THE MODE IN WHICH THE ASSOCIATED AHU IS OPERATING IN.

FOR VAV'S SERVING LARGE ZONES WITH OCCUPANCY SENSORS SUCH AS CLASSROOMS AND CONFERENCE ROOMS, THE ZONE OCCUPIED / UNOCCUPIED MODE SHALL BE DETERMINED BY THE SPACE MOUNTED OCCUPANCY SENSOR. FOR ALL OTHER SPACES THE ZONE SETTINGS WOULD MATCH THE SYSTEM SETTINGS.

THE ZONE OCCUPIED / UNOCCUPIED MINIMUM AIRFLOW SETPOINTS SHALL BE DETERMINED BY SIGNAL FROM OCCUPANCY SENSOR (BY ELECTRICAL CONTRACTOR). COORDINATE AND PROVIDE ALL REQUIRED CONTROL INTERFACE, RELAYS, WIRING FOR INTERCONNECTION OF OCCUPANCY SENSOR WITH LIGHTING CONTROL. / OCCUPANCY SENSOR MANUFACTURER.

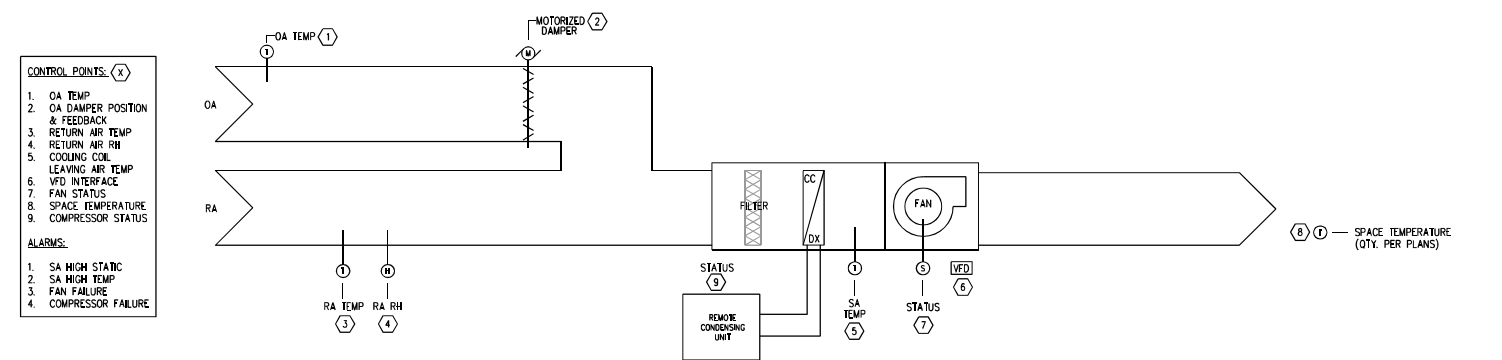
SYSTEM MINIMUM FLOW VAV OVERRIDE: WHEN COMMANDED FROM THE AHU CONTROLLER, THE VAV MINIMUM SETPOINTS SHALL BE OVERRIDDEN AS OUTLINED IN THE VAV AIR HANDLING UNIT CONTROL SEQUENCE.

**2 TYPICAL VAV WITH HEAT CONTROL SCHEMATIC**  
M-4 NTS



WHEN IN OCCUPIED MODE, THE FAN SHALL BE ENERGIZED. WHEN IN UNOCCUPIED MODE THE FAN SHALL BE DE-ENERGIZED. THE FAN SHALL BE INTERLOCKED WITH THE RESTROOM LIGHTS.

**4 TYPICAL EXHAUST FAN CONTROL SCHEMATIC**  
M-4 NTS



**3 CONSTANT VOLUME AHU CONTROL SCHEMATIC**  
M-4 AHU-2 NTS

**SEQUENCE OF OPERATIONS:**

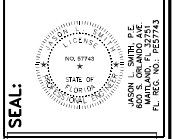
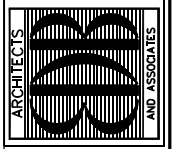
THE SYSTEM OCCUPANCY MODE WILL BE DETERMINED BY A TIME OF DAY SCHEDULE WHICH WILL BE ADJUSTABLE VIA BAS USER INTERFACE.

**OCCUPIED MODE:**

DURING OCCUPIED PERIODS, THE SUPPLY FAN WILL RUN CONTINUOUSLY. THE COMPRESSOR SHALL LOAD/UNLOAD IN ACCORDANCE WITH CALLS FOR COOLING FROM THE ASSOCIATED THERMOSTAT. THE HEATING COIL SHALL ENERGIZE/DE-ENERGIZE IN ACCORDANCE WITH CALLS FOR HEATING FROM THE ASSOCIATED THERMOSTAT. SYSTEM WILL OPERATE IN HEATING OR COOLING MODE IN ACCORDANCE WITH CALLS FOR HEATING OR COOLING FROM THE ASSOCIATED THERMOSTAT.

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EDLUND DRITENBAS BINKLEY ARCHITECTS AND ASSOCIATES, P.A.  
65 ROYAL PALM POINTE, SUITE "D"  
VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
1840 25TH STREET  
VERO BEACH FL 32906

NO.	DATE	REVISIONS

COM. NO: 05029VB  
DATE: 16 MAY 2022  
BY: MS  
CHKD: JLS  
SHEET NO. M-4

CONTROLS - H.V.A.C.  
SCALE: NTS

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**EXHAUST FAN INFORMATION - JOB#5411363**

FAN UNIT NO.	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SCHEM.
1		1	EA1050	ECOH-AR	912	1000	1478	TEAD-ECH	0.53040	1	115	6-3	347 FPM	79	25.5	

**MUA FAN INFORMATION - JOB#5411363**

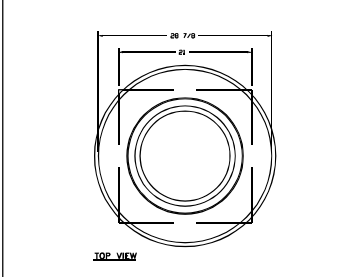
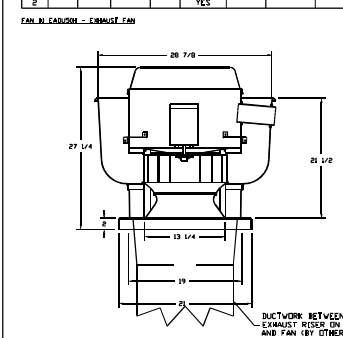
FAN UNIT NO.	TAG	QTY	FAN UNIT MODEL #	BLOWER HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL.	HP	BHP	PHASE	VOLT	FLA	HCA	MDP	WEIGHT (LBS)	SCHEM.
2		1	ETA1-010	G100	ENCL. 1	730	0.500	811	TEAD-ECH	1.000	0.40800	1	115	11.6	25.6A	25A	171	7.8

**FAN OPTIONS**

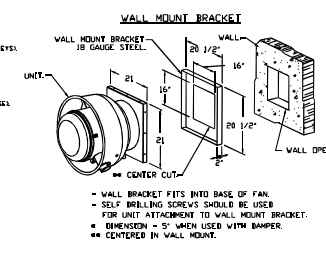
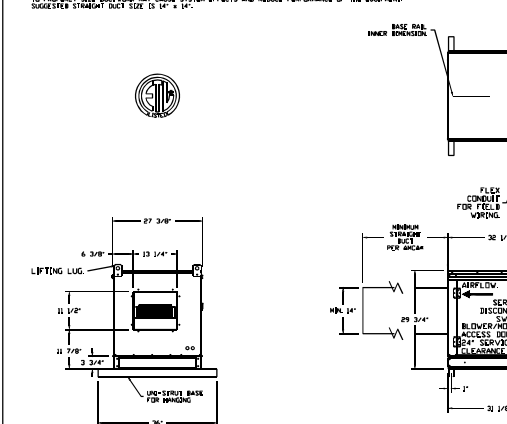
FAN UNIT NO.	TAG	QTY	DESCRIPTION
1		1	ECM WIRING PACKAGE - PUMP SIGNAL FROM ECMFD PREVIEW (TELED MOTOR), CCW ROTATION
		1	MIAMI BASE CERTIFICATION - NON-1 ALUMINUM UPBLAST
		1	WALLMOUNT BRKT 30 X 3 2"
		1	WALL MOUNT CONSTRUCTION FOR FAN
2		1	2 YEAR PARTS WARRANTY
		1	ECM WIRING PACKAGE-SUPPLY - PUMP SIGNAL FROM ECMFD PREVIEW (TELED MOTOR), CCW ROTATION
		1	UNIQUE DOOR HANGING OPTION - INCLUDES 2 HSIZES HANGING SPRING ISOLATORS PER UNIT-TRIT
		1	2 YEAR PARTS WARRANTY

**FAN ACCESSORIES**

FAN UNIT NO.	TAG	EXHAUST	SUPPLY
1		GREASE CUP	GRAVITY DAMPER
		WALL MOUNT DISCHARGE	MOTORIZED DAMPER
2		WALL MOUNT DISCHARGE	MOTORIZED DAMPER
		WALL MOUNT DISCHARGE	MOTORIZED DAMPER

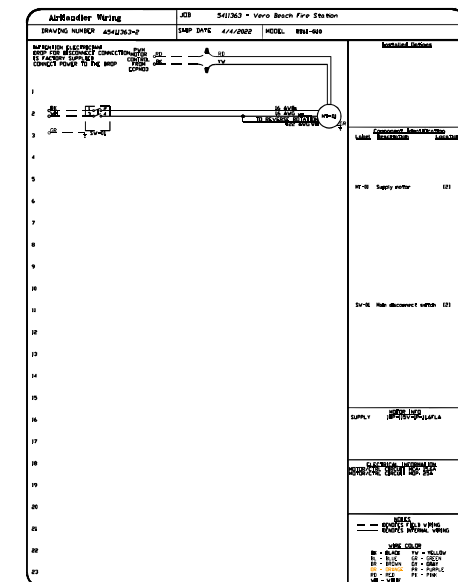
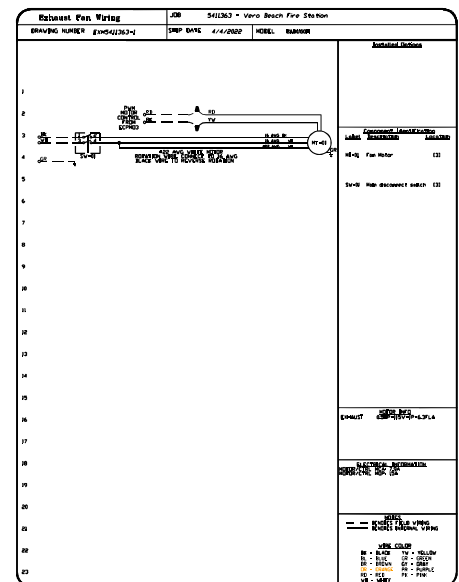
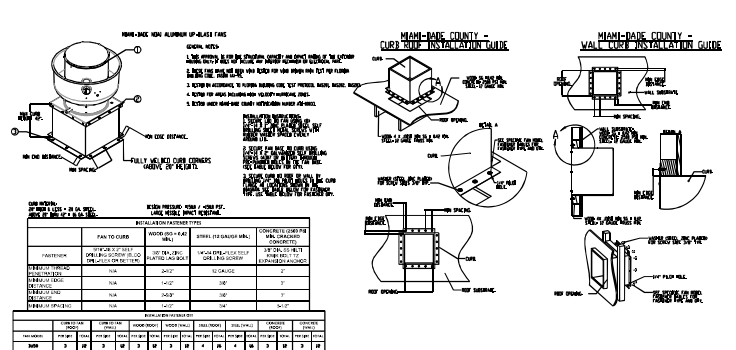


**FAN #2 ETA1-010 - SUPPLY FAN**  
 1. BINKLEY DRIVE BLADE SUPPLY UNIT 1/2" BLOWER IN SIDE #1 HOUSING WITH SPEED CONTROL, DISCONNECT SWITCH  
 2. 2 YEAR PARTS WARRANTY  
 3. ECM WIRING PACKAGE FOR SUPPLY MOTOR WITH PUMP SIGNAL FROM ECMFD PREVIEW  
 4. BRIDGE BRACKET WALL MOUNTED BODY ASSEMBLY (GRIND/BLOWER SECTION)  
 5. 2 YEAR PARTS WARRANTY



**FEATURES:**  
 - DIRECT DRIVE CONSTRUCTION AND BELTS/PULLEYS  
 - HOOP REINFORCED FAN  
 - RESTAURANT MODEL  
 - VARIABLE SPEED CONTROL  
 - UL LISTED  
 - INTERNAL WIRING  
 - THERMAL OVERLOAD PROTECTION (TEMPERATURE)  
 - HIGH HEAT OPERATION (300°F CLASS)  
 - NEMA 3B SAFETY DISCONNECT SWITCH

**NOTES:**  
 1. ECM WIRING PACKAGE - PUMP SIGNAL FROM ECMFD PREVIEW (TELED MOTOR), CCW ROTATION  
 2. MIAMI BASE CERTIFICATION - NON-1 ALUMINUM UPBLAST  
 3. WALLMOUNT BRKT 30 X 3 2"  
 4. BRIDGE BRACKET WALL MOUNTED BODY ASSEMBLY (GRIND/BLOWER SECTION)  
 5. 2 YEAR PARTS WARRANTY



**REVISIONS**

NO.	DATE	DESCRIPTION
1	4/4/2022	ISSUED FOR PERMIT

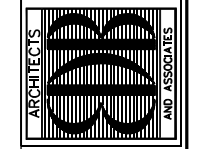
**CAPTIVE**  
 Broward-Palm Beach Mechanical

Vero Beach Fire Station  
 VERO BEACH, FL, 32960

DATE: 4/4/2022  
 DWG.#: 5411363  
 DRAWN BY: RDC-17  
 SCALE: 3/4" = 1'-0"  
 MASTER DRAWING

SHEET NO. 3

EDLUND DRITENBAS BINKLEY ARCHITECTS AND ASSOCIATES, P.A.  
 65 ROYAL PALM POINTE, SUITE "D" VERO BEACH, FLORIDA 32960  
 PHONE: (772) 569-4320



PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
 1840 25TH STREET  
 VERO BEACH FL, 32960

NO. DATE REVISIONS

NO. DATE REVISIONS

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COMM. NO: 050299VB  
 DATE: 16 MAY 2022  
 BY: MS  
 CHK'D: JLS

SHEET NO. M-5.2

KITCHEN EQUIPMENT PLANS - H.V.A.C.  
 SCALE: NTS

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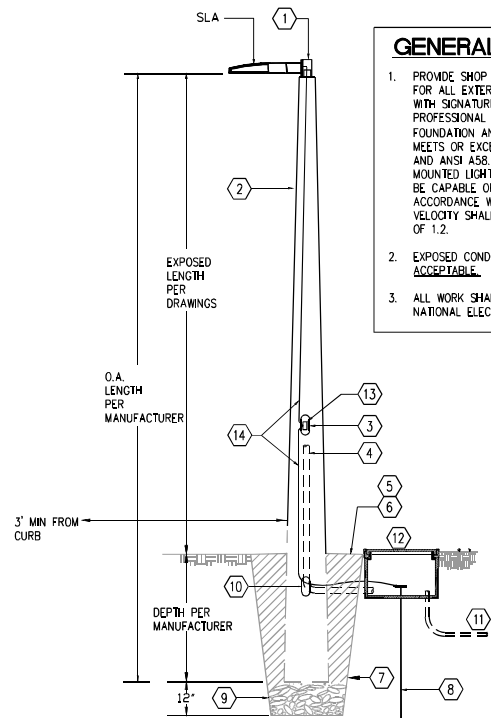


**CONCRETE POLE NOTES: #**

- 1 2-3/8" TENON (VERIFY) WITH PROVISION FOR WIRING, COORDINATE WITH POLE AND LUMINAIRE MANUFACTURER.
- 2 SQUARE TAPERED CONCRETE POLE; RISK CATEGORY II.
- 3 WIRING HANDHOLE - MINIMUM 3" x 5" WITH ALUMINUM COVER AND STAINLESS STEEL SCREWS.
- 4 TERMINATE CONDUIT INTERNALLY ADJACENT TO HANDHOLE.
- 5 SLOPE TO SURROUNDING FINISHED GRADE.
- 6 COMPACTED BACKFIELD EQUAL TO EXISTING SURROUNDING AREA.
- 7 CONTRACTOR SHALL AUGER HOLE AT POLE LOCATION AS NOT TO DISTURB THE SURROUNDING EARTH. AUGER HOLE TO POLE MANUFACTURER RECOMMENDED DEPTH. FILL IN HOLE WITH EARTH AND COMPACT.
- 8 5/8" x 10' COPPERWELD GROUND ROD AND #6 BARE CU. TO FIXTURE AND SURGE SUPPRESSER.
- 9 12" COARSE GRAVEL SETTING BED AT BOTTOM OF AUGERED HOLE.
- 10 MINIMUM 3" x 5" CONDUIT ENTRANCE.
- 11 CONDUIT AND WIRE FROM/TO NEXT FIXTURE OR HOMERUN TO PANELBOARD.
- 12 CONCRETE(QUARTZITE) HANDHOLE/PULLBOX, REQUIRED AT EACH POLE WITH GROUND ROD WITHIN.
- 13 PROVIDE SURGE SUPPRESSER IN EACH POLE HANDHOLE; PHASE TO GRD.; JOSLYN "SHA" SERIES WITH INDICATOR. COORDINATE VOLTAGE. ALSO PROVIDE FUSING.
- 14 #6 BARE CU. TO FIXTURE AND SURGE SUPPRESSER.

**GENERAL POLE NOTES:**

- 1. PROVIDE SHOP DRAWINGS AND CALCULATIONS FOR ALL EXTERIOR POLE MOUNTED FIXTURES WITH SIGNATURE AND SEAL OF A REGISTERED PROFESSIONAL ENGINEER VERIFYING THAT THE FOUNDATION AND POLE/FIXTURE ASSEMBLY MEETS OR EXCEEDS FLORIDA BUILDING CODE AND ANSI A58.1. THE EXTERIOR POLE MOUNTED LIGHT FIXTURE ASSEMBLIES SHALL BE CAPABLE OF WITHSTANDING WINDLOADS IN ACCORDANCE WITH ASCE 7-10. DESIGN WIND VELOCITY SHALL BE 150 MPH. GUST FACTOR OF 1.2.
- 2. EXPOSED CONDUIT AND J-BOXES ARE NOT ACCEPTABLE.
- 3. ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.



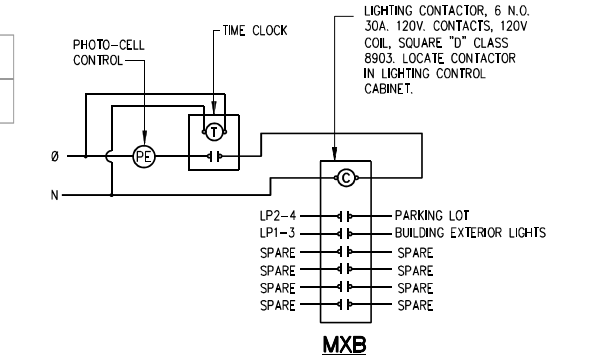
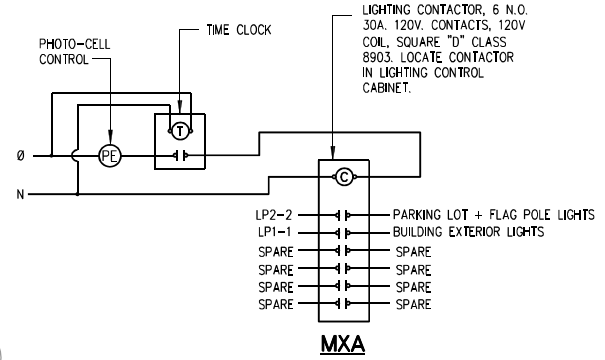
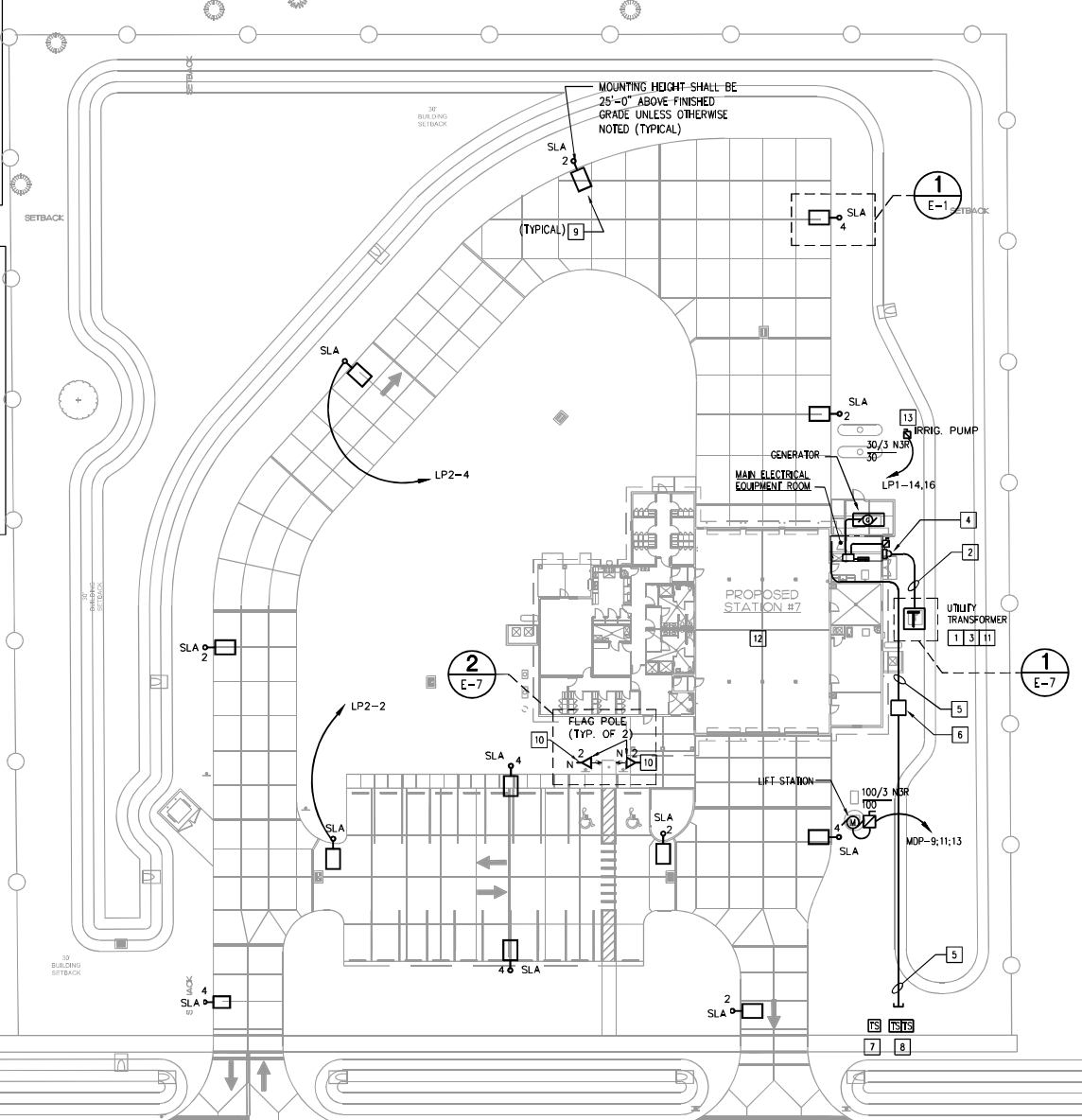
**1 DIRECT BURIAL CONCRETE POLE INSTALLATION**  
N.T.S.

**SITE GENERAL NOTES:**

- 1. FIELD VERIFY EXISTING SITE CONDITIONS. EXISTING UNDERGROUND UTILITIES MUST BE LOCATED AND MARKED USING ALL AVAILABLE RESOURCES PRIOR TO COMMENCEMENT OF ANY UNDERGROUND SITE WORK.
- 2. COORDINATE ALL UNDERGROUND WORK WITH ALL OTHER TRADES AND ACTUAL FIELD CONDITIONS FOR PROPER CLEARANCES.
- 3. CONTRACTOR SHALL VERIFY EXACT LOCATION OF EACH PANELBOARD WITHIN BUILDING ON POWER FLOOR PLANS. FIELD ADJUST ANY CONDUITS IN FIELD TO ACCOMMODATE LOCATION OF PANELBOARD.
- 4. EXTERIOR LIGHT FIXTURES ARE CONTROLLED BY A PHOTOCELL CONNECTED TO THE LOW VOLTAGE LIGHTING CONTROL PANEL. MOUNT PHOTOCELL ON EXTERIOR WALL 8' AFG WITH UNOBSTRUCTED VIEW FACING NORTH.
- 5. COORDINATE EXTERIOR FIRE ALARM CONNECTIONS TO FLOW/TAMPER SWITCHES, POST INDICATOR VALVES, AND BACKFLOW PREVENTORS WITH FIRE PROTECTION AND CIVIL DRAWINGS.

**SITE KEYNOTES #:**

- 1 UNDERGROUND PRIMARY SERVICE PROVIDED BY THIS CONTRACTOR AS COORDINATED WITH UTILITY COMPANY PRIOR TO BID.
- 2 UNDERGROUND SERVICE ENTRANCE LATERAL REFER TO ONE-LINE DIAGRAM ON SHEET E5 FOR CONDUIT AND WIRE SIZES.
- 3 APPROXIMATE LOCATION OF NEW 120/208V, 3Ø PAD MOUNTED UTILITY COMPANY TRANSFORMER. THIS CONTRACTOR SHALL COORDINATE EXACT LOCATION AND CONNECTION DETAILS WITH UTILITY COMPANY FIELD ENGINEER PRIOR TO ROUGH-IN OF SERVICE ENTRANCE CONDUITS. THIS CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR TRANSFORMER TO SIT ON. COORDINATE EXACT CONCRETE PAD REQUIREMENTS WITH UTILITY COMPANY FIELD ENGINEER.
- 4 UTILITY METER ENCLOSURE PER UTILITY COMPANY REQUIREMENTS. FURNISH AND INSTALL WALL MOUNTED UTILITY METER AS PER UTILITY COMPANY REQUIREMENTS.
- 5 PROVIDE (2) 3" SCHEDULE 40 PVC CONDUITS WITH PULLSTRINGS FOR DATA/COMM SERVICE TO TELEPHONE/CATV COMPANY DEMARK POINT AS COORDINATED PRIOR TO BID.
- 6 PROVIDE 24" x 36" HANDHOLE WITH LABELED COVER FOR COMM CONDUITS.
- 7 PROVIDE FIRE ALARM CONNECTION TO TAMPER SWITCHES AND FLOW SWITCHES. VERIFY EXACT LOCATIONS AND QUANTITIES WITH CIVIL DRAWINGS PRIOR TO BID.
- 8 PROVIDE FIRE ALARM CONNECTION AT THE POST INDICATOR VALVE AND BACKFLOW PREVENTOR. VERIFY EXACT LOCATION WITH CIVIL DRAWINGS PRIOR TO BID.
- 9 LIGHT POLE TO BE WIRED VIA LIGHTING CONTRACTOR CONTROL. REFER TO DETAIL THIS DRAWING.
- 10 COORDINATE WITH ARCHITECTURAL SITE PLAN FOR EXACT LOCATION OF FLAG POLE.
- 11 REFER TO ELECTRICAL ONE LINE DIAGRAM, DWG. E5
- 12 SEE SHEET E-3 FOR CIRCUITING INFORMATION.
- 13 PROVIDE UNISTRUT RACK WITH STAINLESS STEEL HARDWARE AT IRRIGATION PUMP. MOUNT 30 AMP, 208 VOLT SINGLE PHASE FUSED DISC. AND CONNECT PUMP COMPLETE. VERIFY EXACT REQUIREMENTS WITH LANDSCAPE CONTRACTOR UPON AWARD OF CONTRACT.



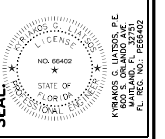
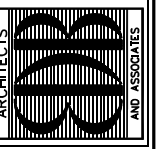
**2 EXTERIOR LIGHTING CONTROL DIAGRAM**  
N.T.S.

**SITE PLAN - ELECTRICAL**  
SCALE 1" = 30'-0"

This item has been electronically signed and sealed by Kyriacos Loukos, P.E. on 10/16/2022 using a Digital Signature.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



**PROJECT: STATION #7**  
**FOR: INDIAN RIVER COUNTY FIRE DISTRICT**  
1840 25TH STREET  
VERO BEACH FL 32960

NO.	DATE	REVISIONS

**COMM. NO: C5029VB**  
**DATE: 16 MAY 2022**  
**BY: XXX**  
**CHKD: KGL**

**SHEET NO.**  
**E-1**



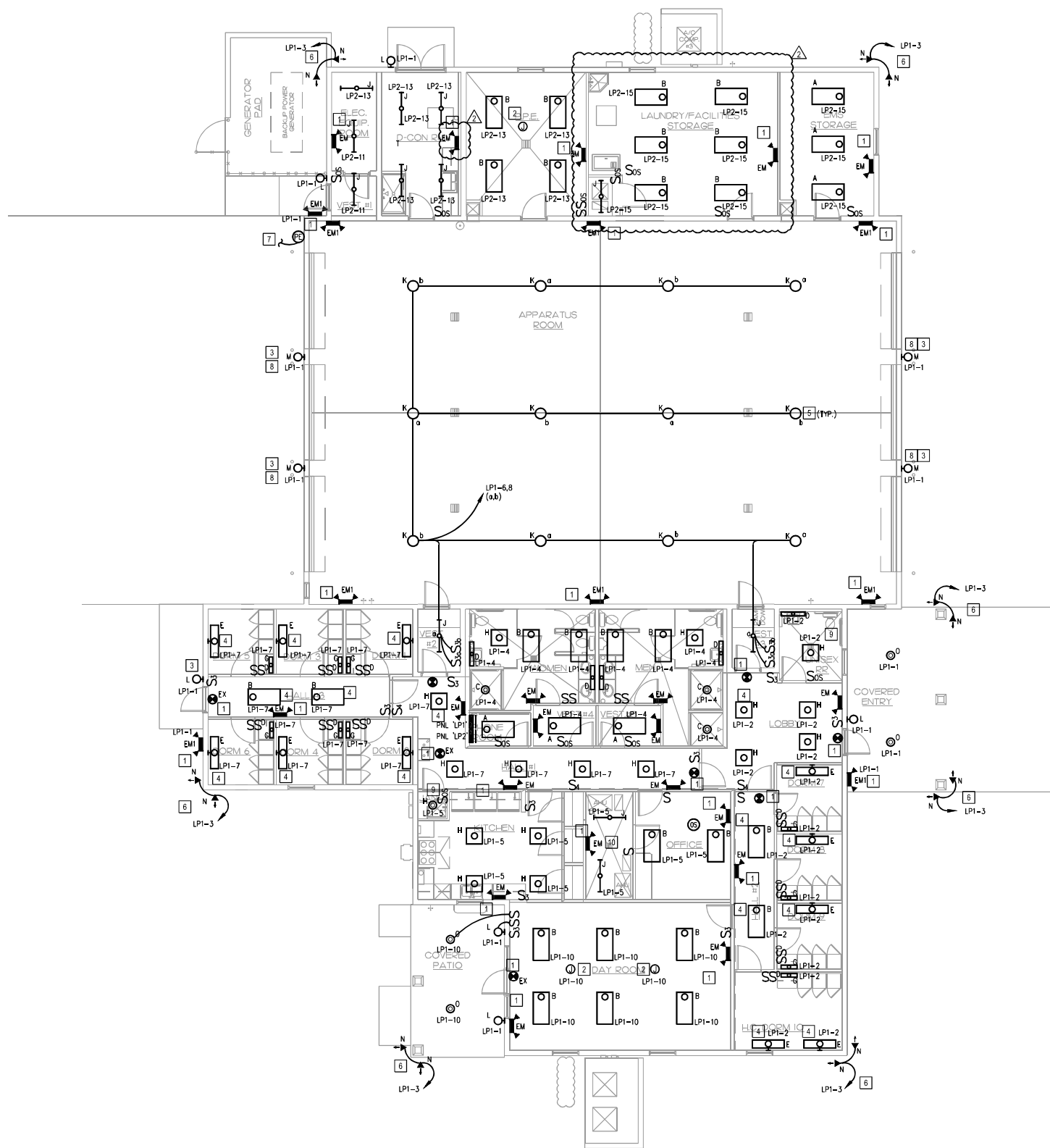


**LIGHTING GENERAL NOTES :**

1. ALL LIGHT SWITCHES SHALL BE 120V RATED UNLESS OTHERWISE NOTED.
2. COORDINATE EXACT LOCATION OF EACH LIGHT FIXTURE WITH MECHANICAL PIPING, CONDUIT, HVAC GRILES, ETC. FIELD ADJUST ANY LIGHT TO AVOID CONFLICT.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT TYPE AND HEIGHT OF CEILING IN EACH ROOM. COORDINATE WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN OF ANY FIXTURES. COORDINATE ALL CONTROL JOINT LOCATIONS WITH LIGHT FIXTURES PRIOR TO ANY ROUGH-IN OF FIXTURES.
4. EMERGENCY EGRESS LIGHTS AND EXIT SIGNS SHALL BE CONNECTED TO THE LOCAL LIGHTING CIRCUIT SERVING THE SPACE AND WIRED AHEAD OF ANY LOCAL SWITCHES OR EMS SYSTEM.
5. EXIT LIGHTS SHALL BE MOUNTED WITH BOTTOM OF FIXTURE AT 6" ABOVE DOOR HEADER IN ALL AREAS THAT PERMIT THIS PLACEMENT. ALL OTHERS MAY BE CEILING MOUNTED.
6. MULTIPLE LIGHT SWITCHES, AT THE SAME LOCATION, SHALL BE GANGED TOGETHER UNDER ONE COVER PLATE. DIMMER SWITCHES SHALL BE INSTALLED IMMEDIATELY BELOW SWITCH LOCATIONS.
7. COORDINATE LOCATION OF ALL LIGHT FIXTURES WITH ARCHITECTURAL INTERIOR AND EXTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
8. POWER PACK FOR OCCUPANCY SENSORS ARE NOT INDICATED ON PLANS. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER PACKS PER OCCUPANCY SENSOR MANUFACTURER'S RECOMMENDATIONS.

**LIGHTING KEYNOTES [X]**

1. EXTEND BRANCH CIRCUIT WIRING FOR EXIT LUMINAIRE AND EMERGENCY LIGHTS AHEAD OF ALL SWITCHING.
2. PROVIDE JUNCTION BOX FOR CEILING FAN. SUPPORT FROM STRUCTURE ABOVE.
3. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED BY PHOTO-ELECTRIC CELL VIA CONTACTOR.
4. THESE LIGHTING FIXTURES IN HALLWAYS AND DORM ROOMS SHALL COME ON WHEN ALARM CALL GOES OFF. WIRE RELAY TO BYPASS LOCAL SWITCHING.
5. INSTALL LED LIGHTS IN APPARATUS BAY TO SURFACE OF CEILING.
6. EACH FLOODLIGHT FIXTURE IS MOUNTED TO AN INDIVIDUAL JUNCTION BOX. PROVIDE BACKING FOR BOXES TO SUPPORT WEIGHT. COORDINATE LOCATIONS AT APPROX. 12 FEET AFG WITH DOWNSPOUTS PRIOR TO ROUGH-IN. TYPICAL FOR ALL "N" FIXTURES.
7. PHOTO-ELECTRIC CELL FOR LIGHTING CONTROL MOUNT 1" DOWN FROM ROOF OVER HANG.
8. FIXTURE TO BE MOUNTED JUST ABOVE THE DOOR HEIGHTS. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION.
9. OCCUPANCY SENSOR SHALL BE CONNECTED TO EXHAUST FAN CONTROL. COORDINATE WITH POWER AND MECHANICAL SHEETS. VERIFY WITH MECHANICAL CONTRACTOR AS REQUIRED.
10. FIXTURE LOCATION IN THIS ROOM SHALL BE COORDINATED WITH FINAL HVAC AIR HANDLER LOCATIONS, DIMENSIONS, DUCTWORK, ETC. VERIFY EXACT LOCATIONS WITH MECHANICAL SHEETS AND HVAC CONTRACTOR PRIOR TO START OF WORK.

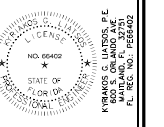
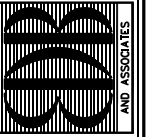


**BUILDING PLAN - LIGHTING**  
SCALE: 1/8" = 1'-0"

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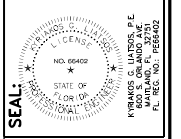
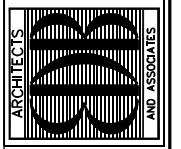
**PROJECT: STATION #7**  
**FOR: INDIAN RIVER COUNTY FIRE DISTRICT**  
1840 25TH STREET  
VERO BEACH FL 32960

NO.	DATE	OWNER CHANGES	REVISIONS
1	9/15/23		

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DATE: 16 MAY 2022  
BY: XXX  
CHKD: KGL

SHEET NO.  
**E-2**  
OF



PROJECT: STATION #7  
 FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
 1840 25TH STREET  
 VERO BEACH, FL. 32960

NO.	DATE	OWNER CHANGES	REVISIONS

COMM. NO: C5029VB  
 DATE: 16 MAY 2022  
 BY: XXX  
 CHK'D: KGL  
 SHEET NO.  
**E-3**  
 OF

**POWER GENERAL NOTES:**

- COORDINATE EXACT INSTALLATION REQUIREMENTS OF OUTLETS IN MILLWORK WITH ARCHITECTURAL DRAWINGS AND ACCEPTED MILLWORK SHOP DRAWINGS.
- LOCATION OF ALL DEVICES ON DRAWINGS ARE APPROXIMATE ONLY. VERIFY EXACT LOCATION WITH OWNERS REPRESENTATIVE, ARCHITECT, AND/OR ENGINEER PRIOR TO ROUGH-IN.
- COORDINATE THE LOCATION OF VOICE/DATA OUTLETS WITH POWER RECEPTACLES ESPECIALLY WHERE COMPUTERS ARE TO BE LOCATED. COORDINATE WITH TECHNOLOGY DRAWINGS.
- ALL RACEWAYS AND CABLE SHALL BE CONCEALED UNLESS NOTED OR APPROVED IN WRITING BY OWNER AND/OR ENGINEER.
- MOUNT ALL DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT WITHIN 6 FT. OF EQUIPMENT CONNECTION POINT. VERIFY LOCATION OF POINT OF CONNECTION WITH EQUIPMENT INSTALLER PRIOR TO ELECTRICAL ROUGH-IN. (DRAWINGS ONLY SHOW DIAGRAMMATIC LOCATION OF CONNECTION).
- VFD/STARTERS ON MECHANICAL EQUIPMENT ARE SHOWN FOR WIRING PURPOSES ONLY. VFD/STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- ALL CONTROL WIRING FOR MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.

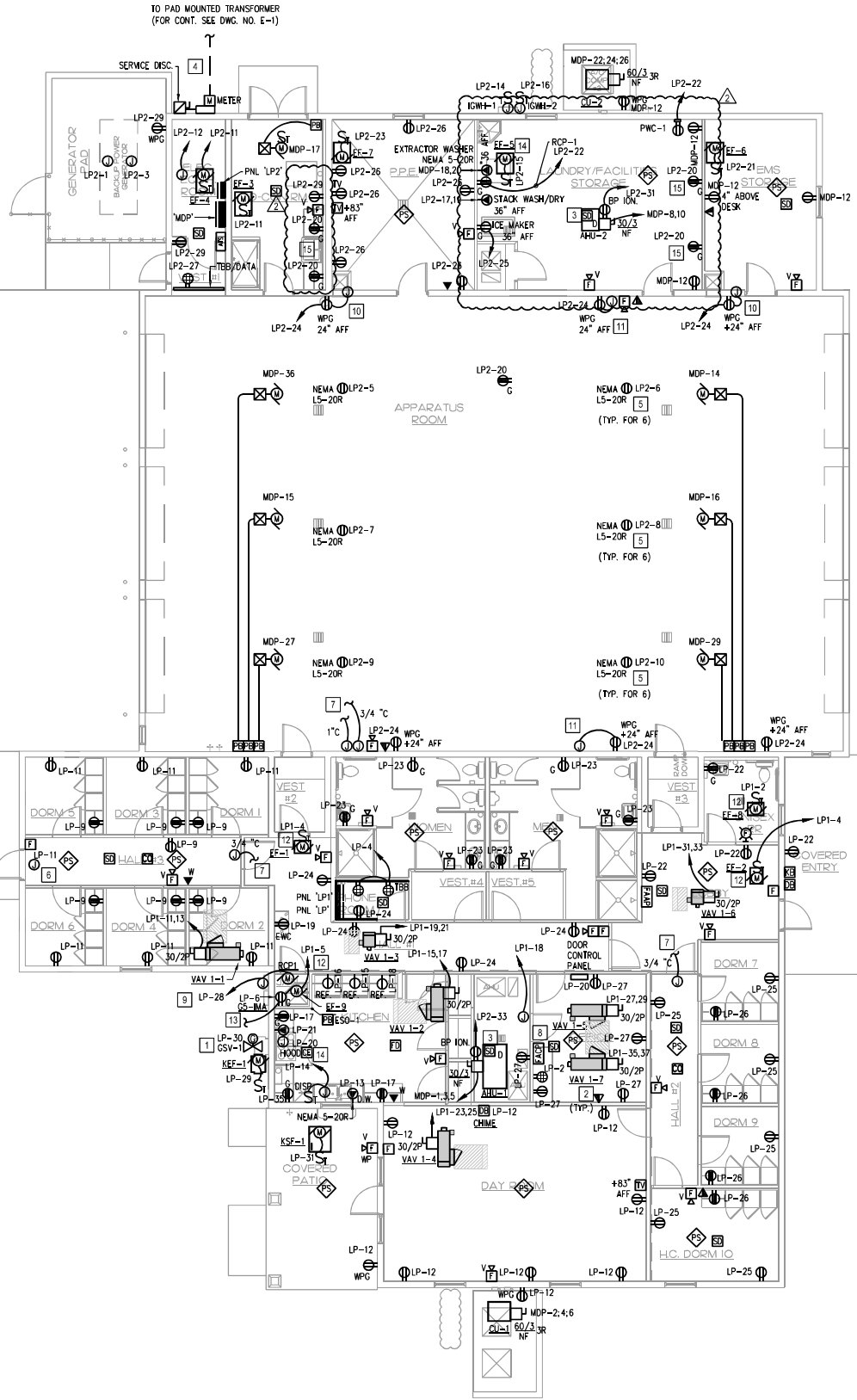
**FIRE ALARM GENERAL NOTES:**

- DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEAN-UP OF ALL TRADES IS COMPLETE AND FINAL. DETECTORS THAT HAVE BEEN INSTALLED PRIOR TO FINAL CLEAN-UP BY ALL TRADES SHALL BE CLEANED OR REPLACED. CLEANING OR REPLACEMENT OF DEVICES THAT WERE MOUNTED AT THE REQUEST OF THE CONTRACTOR WILL NOT BE PERFORMED WITHOUT WRITTEN AUTHORIZATION THAT ASSUMES FINANCIAL RESPONSIBILITY FOR COSTS INCURRED.
- ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- ALL EQUIPMENT SHALL BE U.L. LISTED.
- ALL JUNCTION BOXES SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. AND SHALL HAVE THEIR COVERS PAINTED RED WHERE BOX IS INSTALLED BEHIND BUILDING FINISHES OR IN UNFINISHED SPACES.
- ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO AREAS AND DEVICES THAT REQUIRE SERVICING, TROUBLE SHOOTING, ETC.
- DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON SHOP DRAWINGS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC., THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- AREA DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIR-FLOW, NOT CLOSER THAN 5 FEET FROM AN AIR SUPPLY DIFFUSER.
- ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM INTERFACE SHALL BE BY MECHANICAL CONTRACTOR. FIRE ALARM CONTRACTOR WILL PROVIDE OPEN CONTACT ON ALARM WITHIN THREE FEET OF THE STARTER.
- ALL CONDUITS ARE 3/4" UNLESS OTHERWISE NOTED.
- THE ALARM SYSTEM SHALL HAVE AN AUDIBILITY OF NOT LESS THAN 15dB ABOVE AMBIENT NOISE LEVELS, BUT NOT LESS THAN 75dBA THROUGHOUT AREA OF ALARM. TESTING SHALL BE ACCOMPLISHED WITH A dB METER, WHERE APPLICABLE.
- PROVIDE 3/4" CONDUIT FROM FIRE ALARM CONTROL PANEL TO TELEPHONE BACKBOARD FOR OWNER PROVIDED CENTRAL STATION MONITORING.
- FIRE ALARM SIGNAL SHALL MEET ANS 3.41, AUDIBILITY EMERGENCY EVACUATION SIGNAL (TEMPORAL PATTERN).
- COORDINATE EXACT LOCATION AND QUANTITY OF FLOW AND DAMPER SWITCHES WITH FIRE PROTECTION SHOP DRAWINGS PRIOR TO ROUGH-IN.
- FA NOTIFICATION DEVICE SPACING IS SHOWN ONLY FOR DESIGN PURPOSES. FIRE ALARM CONTRACTOR SHALL LOCATE DEVICES BASED ON THE LISTED COVERAGE OF THE SELECTED DEVICE AND FIRE ALARM SHOP DRAWINGS AND ADJUST QUANTITY AS NEEDED.

**POWER KEYNOTES:**

- GAS SHUT OFF VALVE POWER FROM FIRE ALARM SYSTEM. FIRE ALARM CONTRACTOR TO COORDINATE FIRE ALARM CONNECTIONS WITH PLUMBING CONTRACTOR. REFER TO PLUMBING DRAWINGS SHEET FOR EXACT LOCATION.
- INSTALL (1) CAT5 CABLE AND (1) PULL STRING IN CONDUIT FOR ALL TELE/DATA OUTLETS.
- REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION.
- REFER TO ELECTRICAL ONE LINE DIAGRAM.
- CORD REEL RECEPTACLE: PROVIDE COMPATIBLE PLUG IF REQUIRED. FURNISH AND INSTALL CEILING MOUNTED CORD REEL COMPLETE WITH ROBUST MOUNTING RAIL AND ALL STIFFENING HARDWARE TO SECURE REEL TO BUILDING STRUCTURE WITH REEL MOUNTING AT CEILING LEVEL. MODIFY CABLE LENGTH FOR MAXIMUM EXTENSION TO BE 18" AFF PER NEC. USE HUBBELL HBL45123C WITH 12/3 CORD, 15A, 125V RECEPTACLE OR APPROVED EQUIVALENT.
- PROVIDE CONDUIT AND JUNCTION BOX ABOVE CEILING FOR FUTURE CARD READER.
- PROVIDE JUNCTION BOX AND CONDUIT STUBBED ABOVE CEILING UP TO THE DOOR CONTROL PANEL.
- FIRE ALARM CONTROL PANEL TO BE FED FROM PANEL #112.
- PROVIDE 120V POWER CONNECTIONS TO GAS WATER HEATERS LOCATED OUTSIDE BUILDING. COORDINATE EXACT LOCATION AND NUMBER OF CONNECTIONS WITH PLUMBING PLANS AND PLUMBING CONTRACT.
- PROVIDE 120V CONNECTION TO CARBON MONOXIDE DETECTION SYSTEM TO BE INSTALLED BY MECHANICAL CONTRACTOR. COORDINATE WITH MECHANICAL SHEETS PRIOR TO ROUGH-IN.
- MAKE CONNECTION TO TRAP PRIMER SYSTEM, COORDINATE WITH PLUMBING SHEETS AND PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
- EXHAUST FAN SHALL BE CONTROLLED VIA OCCUPANCY SENSOR AND TIME DELAY SWITCH. COORDINATE EXACT FAN REQUIREMENTS WITH HVAC CONTRACTOR AND FAN MECHANICAL SCHEDULE.
- CONNECT GS IMA ALARM PANEL PROVIDE 120V CONNECTION AND CONNECT TO EXISTING ALARM/SPEAKER SYSTEMS AS REQUIRED BY OWNER.
- MAKE FIRE ALARM CONNECTION TO HOOD SYSTEM.
- VERIFY COUNTER RECEPTACLE HEIGHT AND LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN)

ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE AS PER NEC 406-12



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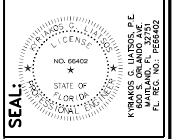
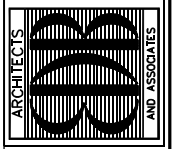
Panel MDP schedule table with columns for Equipment Served, KVA, CT, BKR, TRIP, and Branch Circuit. Includes a connected load summary and a detailed equipment load table with columns for Code, Equipment Served, Conn. Load, DF, Design Load, and Remarks.

Panel LP2 schedule table with columns for Equipment Served, KVA, CT, BKR, TRIP, and Branch Circuit. Includes a connected load summary and a detailed equipment load table with columns for Code, Equipment Served, Conn. Load, DF, Design Load, and Remarks.

Panel LP schedule table with columns for Equipment Served, KVA, CT, BKR, TRIP, and Branch Circuit. Includes a connected load summary and a detailed equipment load table with columns for Code, Equipment Served, Conn. Load, DF, Design Load, and Remarks.

Panel LP1 schedule table with columns for Equipment Served, KVA, CT, BKR, TRIP, and Branch Circuit. Includes a connected load summary and a detailed equipment load table with columns for Code, Equipment Served, Conn. Load, DF, Design Load, and Remarks.

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PROJECT: STATION #7 INDIAN RIVER COUNTY FIRE DISTRICT 1840 25TH STREET VERO BEACH FL 32960

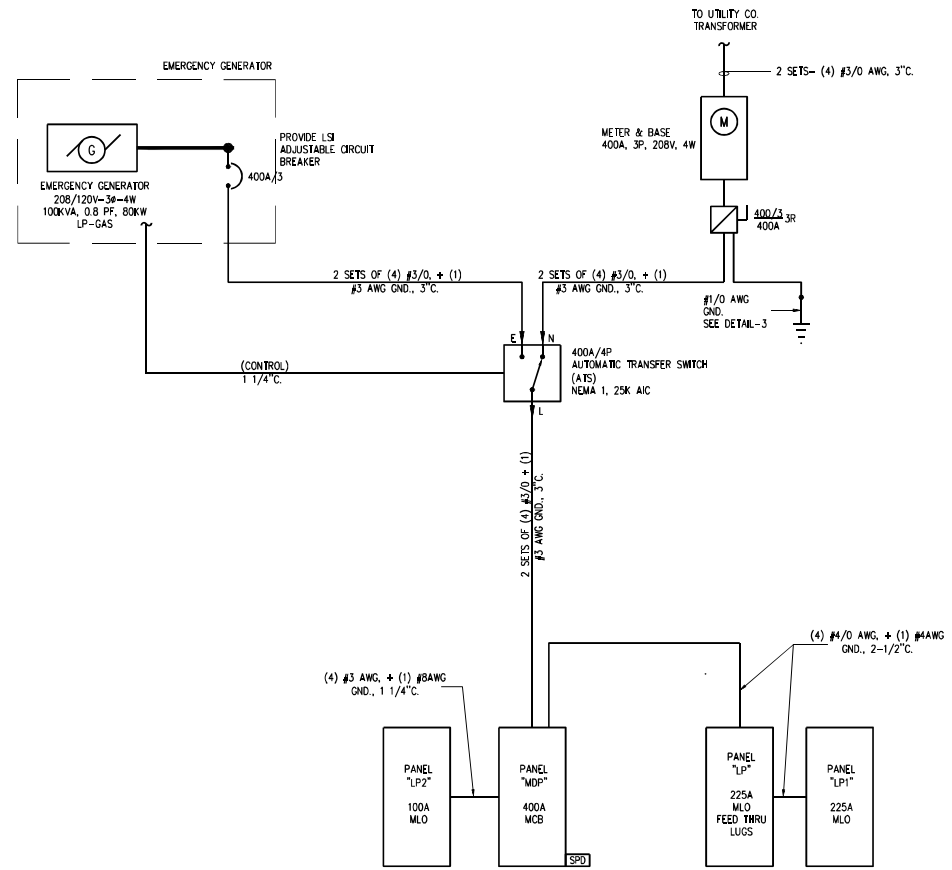
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COMM. NO: 05029VB DATE: 16 MAY 2022 BY: XXX CH KD: KGL SHEET NO: E-4 OF

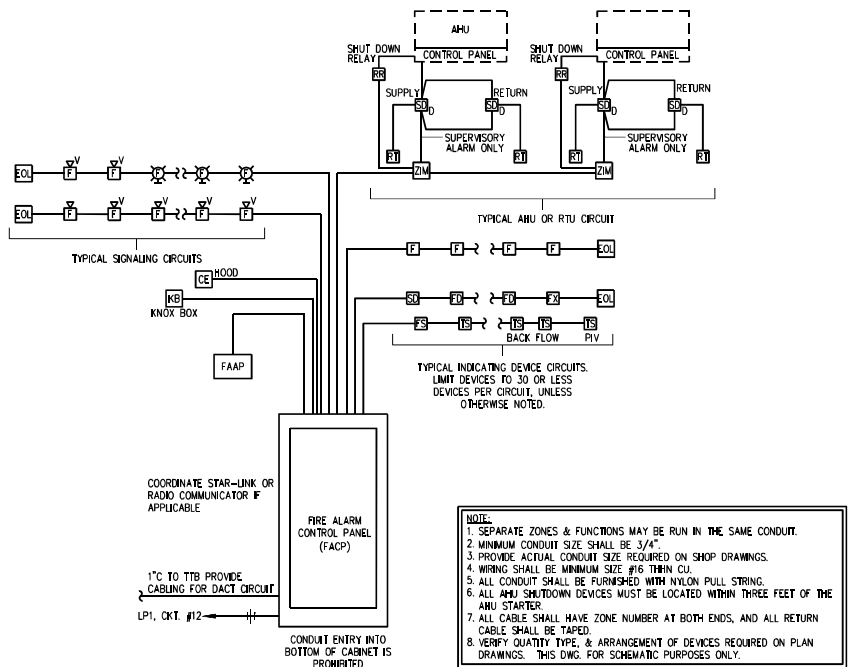


PANEL SCHEDULES - ELECTRICAL SCALE 1/8" = 1'-0"

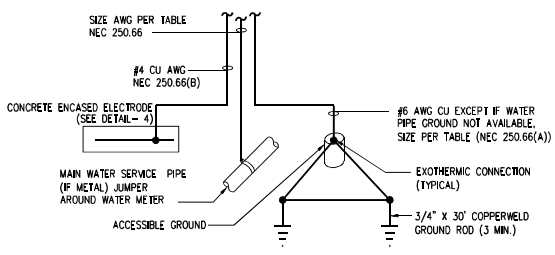




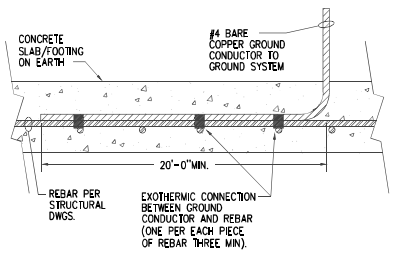
**1 ELECTRICAL ONE-LINE DIAGRAM**  
SCALE: N.T.S.



**2 FIRE ALARM RISER DIAGRAM**  
N.T.S.



**3 SERVICE GROUNDING DETAIL**  
N.T.S.

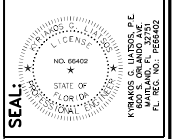
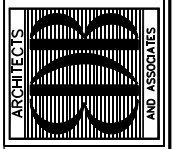


**4 TYPICAL CONCRETE ENCASED ELECTRODE**  
N.T.S.

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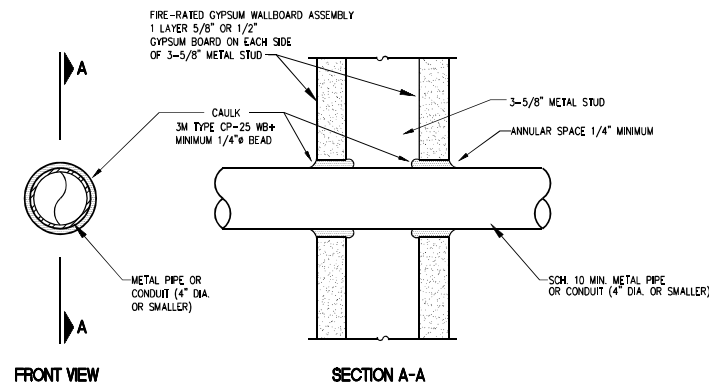
PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
1840 25TH STREET  
VERO BEACH FL 32960

NO.	DATE	REVISIONS

DATE: 16 MAY 2022  
BY: ADM  
CHKD: KGL

SHEET NO. **E-5**

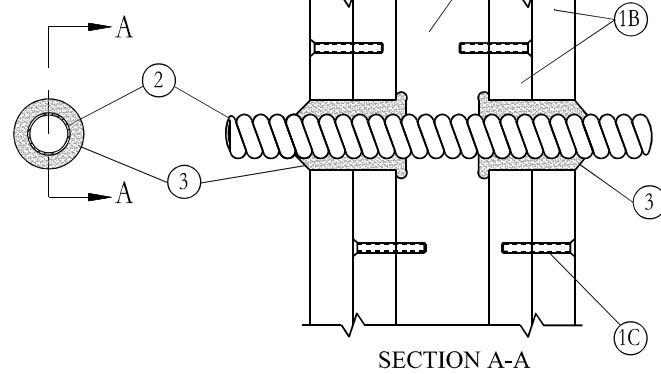
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ALL SURFACES SHOULD BE CLEAN, SOUND AND DRY PRIOR TO APPLICATION OF FIRESTOPPING MATERIALS. IF THE OPENING IS NOT SLEEVED, INSTALL A GALVANIZED STEEL SLEEVE AROUND THE PIPE AND ANCHOR IT IN PLACE.

UL SYSTEM NO. WL1001

**1**  
E-6  
**EMT THRU GYP BOARD PENETRATION DETAIL**  
N.T.S.



**2**  
E-6  
**MC THRU GYP BOARD PENETRATION DETAIL**  
N.T.S.

1. FLOOR OR WALL ASSEMBLY - LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M<sup>3</sup>) CONCRETE EXCEPT AS NOTED IN TABLE UNDER ITEM 4. MIN THICKNESS OF SOLID CONCRETE FLOOR OR WALL ASSEMBLY IS 4-1/2 IN. (114 MM). FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN 6 IN. (152 MM) THICK UL CLASSIFIED HOLLOW CORE PRECAST CONCRETE UNITS\*. WHEN FLOOR IS CONSTRUCTED OF HOLLOW CORE PRECAST CONCRETE UNITS, PACKING MATERIAL (ITEM 3) AND CAULK/FILL MATERIAL (ITEM 4) TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF FLOOR, FLUSH WITH FLOOR SURFACE. WALL ASSEMBLY MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS\*. MAX DIAM OF OPENING IS IN SOLID LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR IS 32 IN. (813 MM). MAX DIAM OF OPENING IN FLOOR CONSTRUCTED OF HOLLOW-CORE PRECAST CONCRETE UNITS IS 7 IN. (178 MM).

SEE CONCRETE BLOCKS (CAZT) AND PRECAST CONCRETE UNITS (CFTV) CATEGORIES IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

1A. STEEL SLEEVE (OPTIONAL, NOT SHOWN) - MAX 15 IN. (381 MM) ID (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 2 IN. (51 MM) ABOVE TOP OF FLOOR OR BEYOND EITHER SURFACE OF WALL. MAX 16 IN. (406 MM) ID (OR SMALLER) MIN 0.028 (0.71 MM) WALL THICKNESS (OR HEAVIER) GALVANIZED STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 1/2 IN. (13 MM) BEYOND EITHER SURFACE OF FLOOR OR WALL.

2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. MAX ANNUAL SPACE BETWEEN PIPE, CONDUIT OR TUBING AND EDGE OF THROUGH OPENING OR SLEEVE IS DEPENDENT ON THE PARAMETERS SHOWN IN ITEM 4. MIN ANNUAL SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS 0 IN. (0 MM) (POINT CONTACT). PIPE OR CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

- A. STEEL PIPE - NOM 30 IN. (762 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
- B. IRON PIPE - NOM 30 IN. (762 MM) DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
- C. CONDUIT - NOM 6 IN. (152 MM) DIAM (OR SMALLER) RIGID STEEL CONDUIT.
- D. CONDUIT - NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
- E. COPPER - TUBING NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE.
- F. COPPER PIPE - NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR NOM 1 IN. (25 MM) THICKNESS OF TIGHTLY-PACKED MINERAL WOOL BATT OR GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK/FILL MATERIAL (ITEM 4).

4. FILL, VOID OR CAVITY MATERIAL\* - CAULK OR SEALANT - APPLIED TO FILL THE ANNUAL SPACE FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL, FLUSH WITH WALL SURFACE. AT POINT CONTACT LOCATION BETWEEN PENETRANT AND SLEEVE OR BETWEEN PENETRANT AND CONCRETE, A MIN 1/4 IN. (6 MM) DIAM BEAD OF CAULK SHALL BE APPLIED AT TOP SURFACE OF FLOOR AND AT BOTH SURFACES OF WALL. THE HOURLY F RATINGS AND THE MIN REQUIRED CAULK THICKNESSES ARE DEPENDENT UPON A NUMBER OF PARAMETERS, AS SHOWN IN THE FOLLOWING TABLE:

Min Floor or Wall Thkns In. (mm)	Nom Pipe Tube or Conduit Diam in. (mm)	Max Annular Space in. (mm)	Min Caulk Thkns in. (mm)	F Rating Hr
2-1/2 (64)	1/2-12 (13-305)	1-3/8 (35)	1/2 (13)	2
2-1/2 (64)	1/2-12 (13-305)	3-1/4 (83)	1 (25)	2
4-1/2 (114)	1/2-6 (13-152)	1-3/8 (35)	1/4 (6)	3
4-1/2 (114)	1/2-12 (13-305)	1-1/4 (32)	1/2 (13)	3
4-1/2 (114)	1/2-20 (13-508)	2 (51)	1 (25)	3
4-1/2 (114)	1/2-20 (13-508)	2 (51)	1 (25)	3
4-1/2 (114)	1/2-12 (13-305)	3-1/4 (83)	1 (25)	3
4-1/2 (114)	22-30 (58-762)	2 (51)	2 (51)	3
5-1/2 (140)	1/2-6 (13-152)	1-3/8 (35)	1 (25) (b)	4

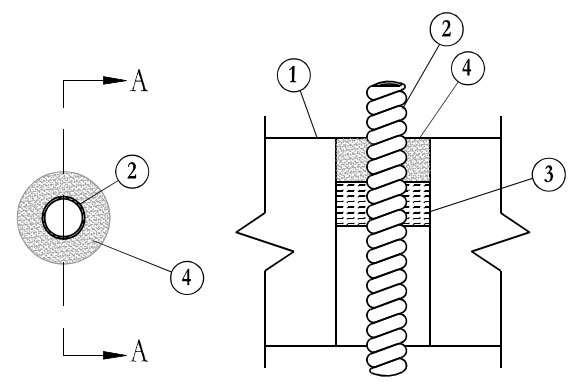
(A) MIN 2 IN. (51 MM) THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNUAL SPACE.  
(B) MIN 1 IN. (25 MM) THICKNESS OF MINERAL WOOL BATT INSULATION REQUIRED IN ANNUAL SPACE ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. MIN 1 IN. (25 MM) THICKNESS OF CAULK TO BE INSTALLED FLUSH WITH EACH SURFACE OF FLOOR OR WALL ASSEMBLY.

3M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT. (NOTE: W RATING APPLIES ONLY WHEN FB-3000 WT SEALANT IS USED.)

\*BEARING THE UL CLASSIFICATION MARKING

**3**  
E-6  
**EMT THRU CONCRETE PENETRATION DETAIL**  
N.T.S.

SYSTEM NO C-AJ-1052  
(FORMERLY SYSTEM NO. 337)  
F RATING-2 HR  
T RATING-0 HR



SECTION A-A

**4**  
E-6  
**MC THRU CONCRETE PENETRATION DETAIL**  
N.T.S.

1. FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS\* DIAM OF CIRCULAR THROUGH OPENING IN FLOOR OR WALL ASSEMBLY TO BE 3/4 IN. TO 1-1/2 IN. LARGER THAN DIAM OF FLEXIBLE METAL CONDUIT (ITEM 2) INSTALLED IN THROUGH OPENING. MAX DIAM OF OPENING IS 6 IN.  
SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

2. THROUGH PENETRATING PRODUCT\* - NOM 4 IN. DIAM (OR SMALLER) ALUMINUM OR STEEL FLEXIBLE METAL CONDUIT - MAX ONE FLEXIBLE METAL CONDUIT TO BE INSTALLED NEAR CENTER OF CIRCULAR THROUGH OPENING IN FLOOR OR WALL ASSEMBLY. FLEXIBLE METAL CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.  
AFC CABLE SYSTEMS INC

3. PACKING MATERIAL - NOM 1 IN. THICKNESS OF CERAMIC (ALUMINA SILICA) FIBER BLANKET OR MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED MIN 1 IN. FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL.

4. FILL, VOID OR CAVITY MATERIAL\* - CAULK - APPLIED TO FILL THE ANNUAL SPACE AROUND THE FLEXIBLE METAL CONDUIT. IN FLOORS, A MIN 1 IN. DEPTH OF FILL MATERIAL TO BE INSTALLED FLUSH WITH TOP SURFACE OF FLOOR IN WALLS, A MIN 1 IN. DEPTH OF FILL MATERIAL TO BE INSTALLED FLUSH WITH WALL SURFACE ON BOTH SIDES OF WALL ASSEMBLY.

MINNESOTA MINING & MFG CO - CP 25WB+  
\*BEARING THE UL CLASSIFICATION MARKING  
\*PLEASE REFER TO THE LETTER FROM UL ON PAGE 11.

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 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 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 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, NUMBER OF LAYERS AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. DIAM OF CIRCULAR THROUGH OPENING CUT THROUGH GYPSUM WALLBOARD ON EACH SIDE OF WALL ASSEMBLY TO BE MIN 0 IN. (POINT CONTACT) TO MAX 1 IN. LARGER THAN OUTSIDE DIAM OF FLEXIBLE METAL CONDUIT (ITEM 2) INSTALLED IN THROUGH OPENING. SIDE EDGE OF CIRCULAR OPENING TO BE MIN 3 IN. FROM NEAREST STUD IN WALL CAVITY.

C. FASTENERS - WHEN WOOD STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALLBOARD ATTACHED TO STUDS WITH TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN.

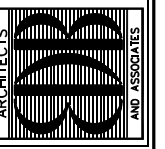
2. THROUGH PENETRATING PRODUCT\* - FLEXIBLE METAL CONDUIT - NOM 4 IN. DIAM (OR SMALLER) ALUMINUM OR STEEL FLEXIBLE METAL CONDUIT - MAX ONE FLEXIBLE METAL CONDUIT TO BE INSTALLED NEAR CENTER OF CIRCULAR OPENING IN GYPSUM WALLBOARD. FLEXIBLE METAL CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.  
AFC CABLE SYSTEMS INC

3. FILL, VOID OR CAVITY MATERIAL\* - CAULK - CAULK/FILL MATERIAL FORCED INTO ANNUAL SPACE AROUND ENTIRE CIRCUMFERENCE OF THROUGH PENETRATING PRODUCT TO COMPLETELY FILL OPENING IN GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE WALL ASSEMBLY. A MIN 5/8 IN. THICKNESS OF CAULK IS REQUIRED FOR THE 1 HR F RATING. A MIN 1-1/4 IN. THICKNESS OF CAULK IS REQUIRED FOR THE 2 HR F RATING.  
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\*BEARING THE UL CLASSIFICATION MARKING

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STATE OF FLORIDA  
LICENSE NO. 12345  
EXPIRES 12/31/2024

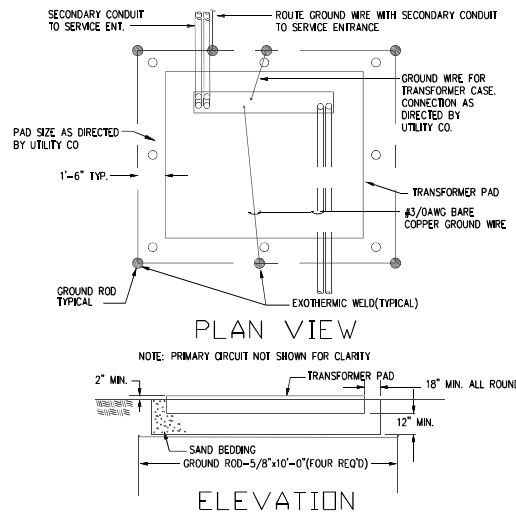
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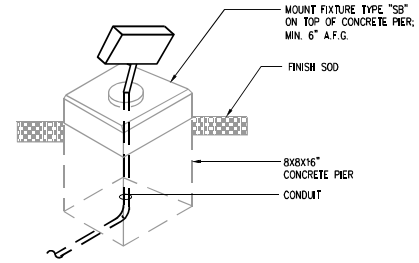
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CHKD: KGL

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**E-6**  
OF



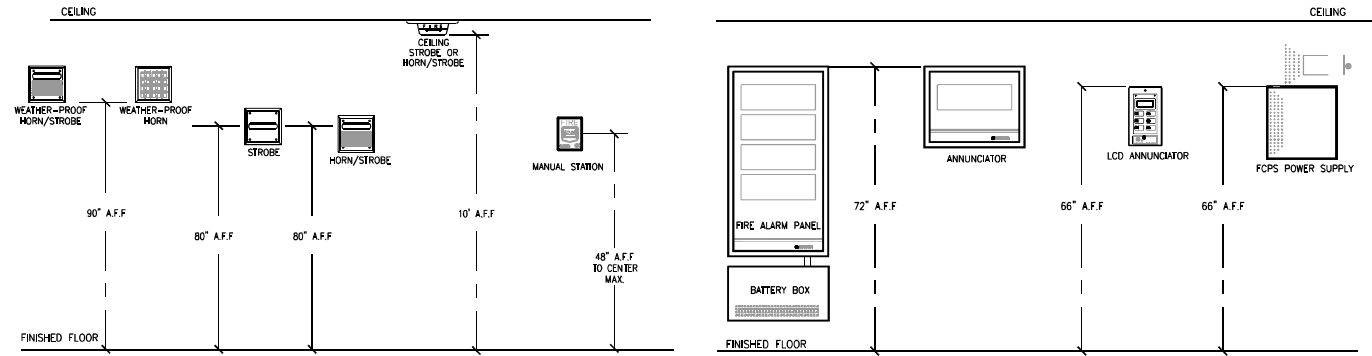
**1**  
E-7  
**ENLARGED PLAN AT UTILITY CO TRANSFORMER**  
N.T.S.



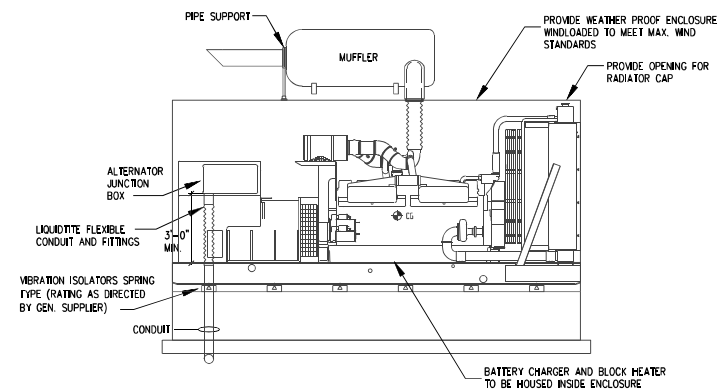
**2**  
E-7  
**FLAG POLE LIGHTING FIXTURE MOUNTING DETAIL**  
N.T.S.

**NOTES:**

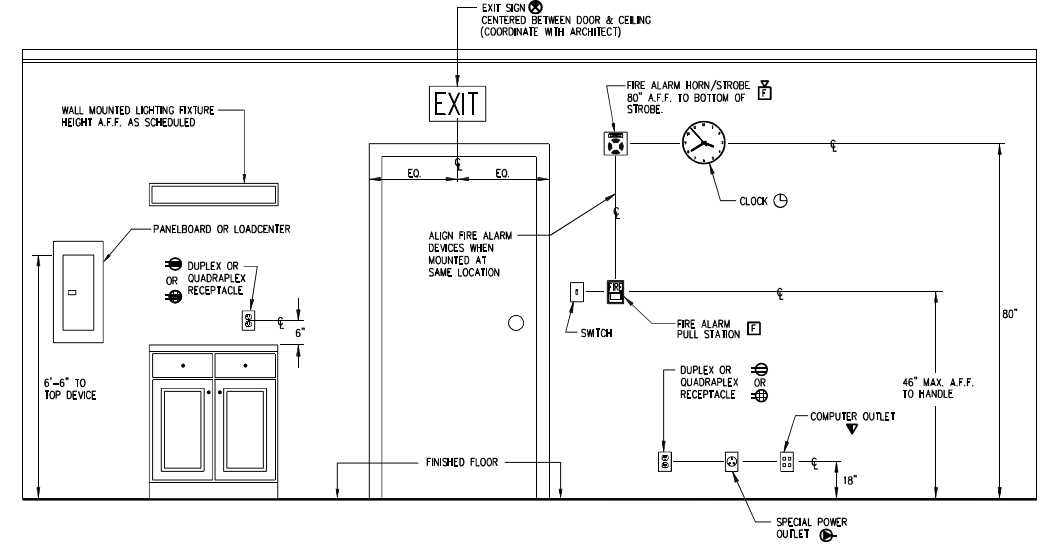
1. STROBES AND HORN/STROBES SHALL BE WALL MOUNTED A MINIMUM OF 80" ABOVE THE FLOOR OR 6" MINIMUM BELOW THE CEILING, WHICHEVER IS LOWER. MEASUREMENTS ARE TO BE TAKEN FROM THE LOWEST PORTION OF THE STROBE.
2. MANUAL STATION SHALL BE INSTALLED AT 48" CENTER OR THE BOX ABOVE FINISHED FLOOR.
3. WEATHER-PROOF HORN/STROBE SHALL BE WALL MOUNTED A MINIMUM OF 90" ABOVE FLOOR OR 6" MINIMUM BELOW THE CEILING, WHICHEVER IS LOWER. MEASUREMENTS ARE TO BE TAKEN FROM THE HIGHEST PORTION OF THE HORN.



**3**  
E-7  
**FIRE ALARM DEVICE AND PANEL MOUNTING ELEVATIONS**  
N.T.S.

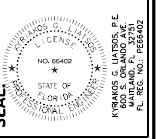
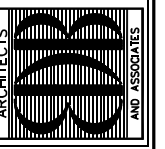


**5**  
E-7  
**GENERATOR ELEVATION**  
N.T.S.



**6**  
E-7  
**TYPICAL SYSTEMS OUTLET MOUNTING HEIGHTS DETAIL**  
N.T.S.

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**CHKD: KGL**

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**OF**

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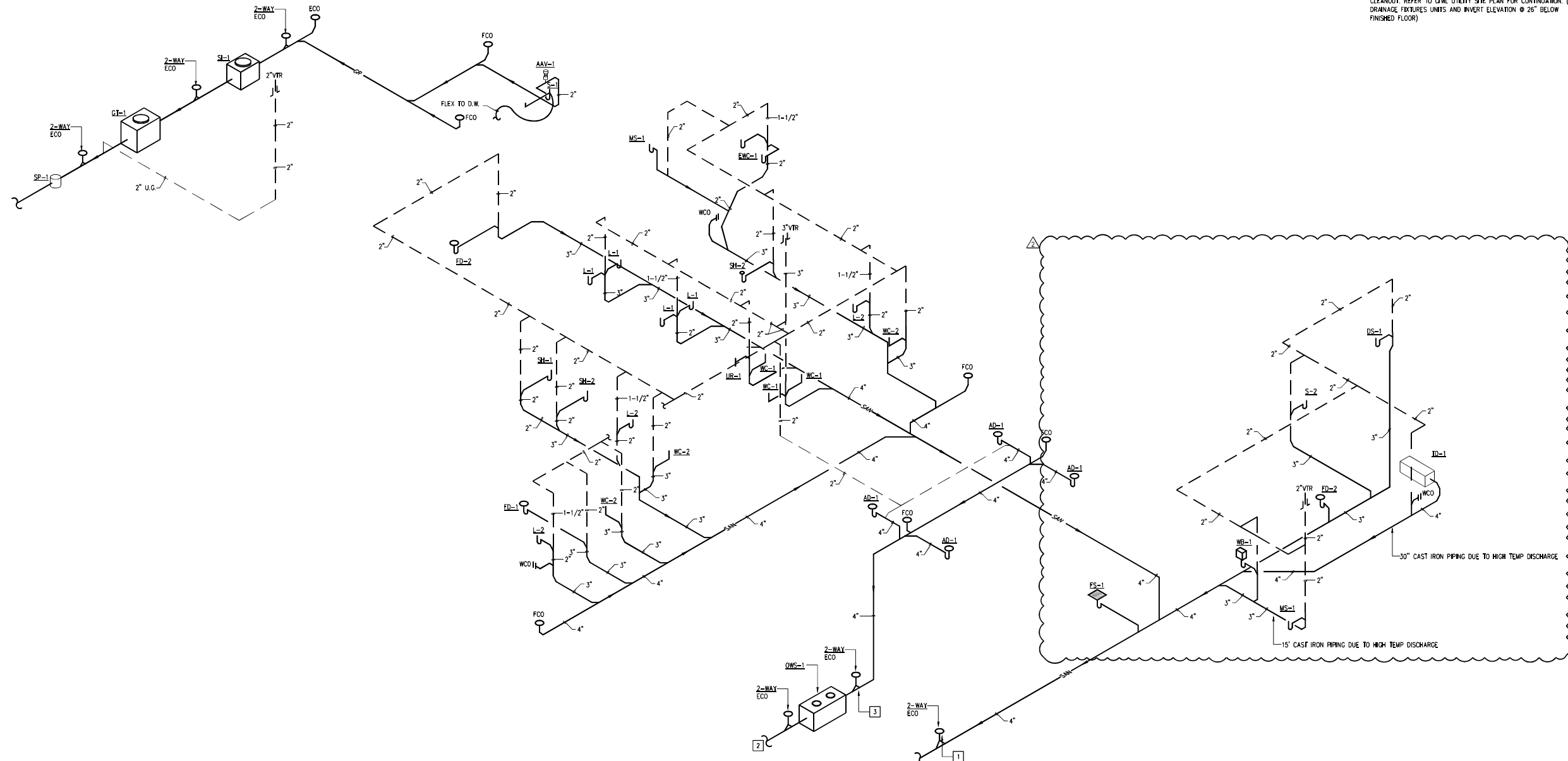
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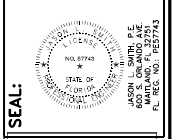
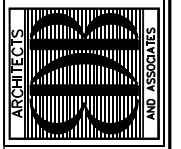
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**PLUMBING KEY NOTES:**

- 1 4" SANITARY/SEWER PIPING BELOW GRADE WITH 2-WAY EXTERNAL CLEANOUT. REFER TO CIVIL UTILITY SITE PLAN FOR CONTINUATION (74 DRAINAGE FIXTURES UNITS AND INVERT ELEVATION @ 53" BELOW FINISHED FLOOR)
- 2 4" AREA DRAIN DISCHARGE ROUTE AND TIE INTO SANITARY PIPING. SEE CIVIL DWGS. FOR CONTINUATION
- 3 4" SANITARY/SEWER PIPING BELOW GRADE WITH 2-WAY EXTERNAL CLEANOUT. REFER TO CIVIL UTILITY SITE PLAN FOR CONTINUATION (24 DRAINAGE FIXTURES UNITS AND INVERT ELEVATION @ 32" BELOW FINISHED FLOOR)
- 4 3" SANITARY/SEWER PIPING BELOW GRADE WITH 2-WAY EXTERNAL CLEANOUT. REFER TO CIVIL UTILITY SITE PLAN FOR CONTINUATION (4 DRAINAGE FIXTURES UNITS AND INVERT ELEVATION @ 26" BELOW FINISHED FLOOR)

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SEAL: Edmund J. Dritenbas, No. 8742, State of Florida

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1	8/15/23	OWNER CHANGES
2		
3		
4		

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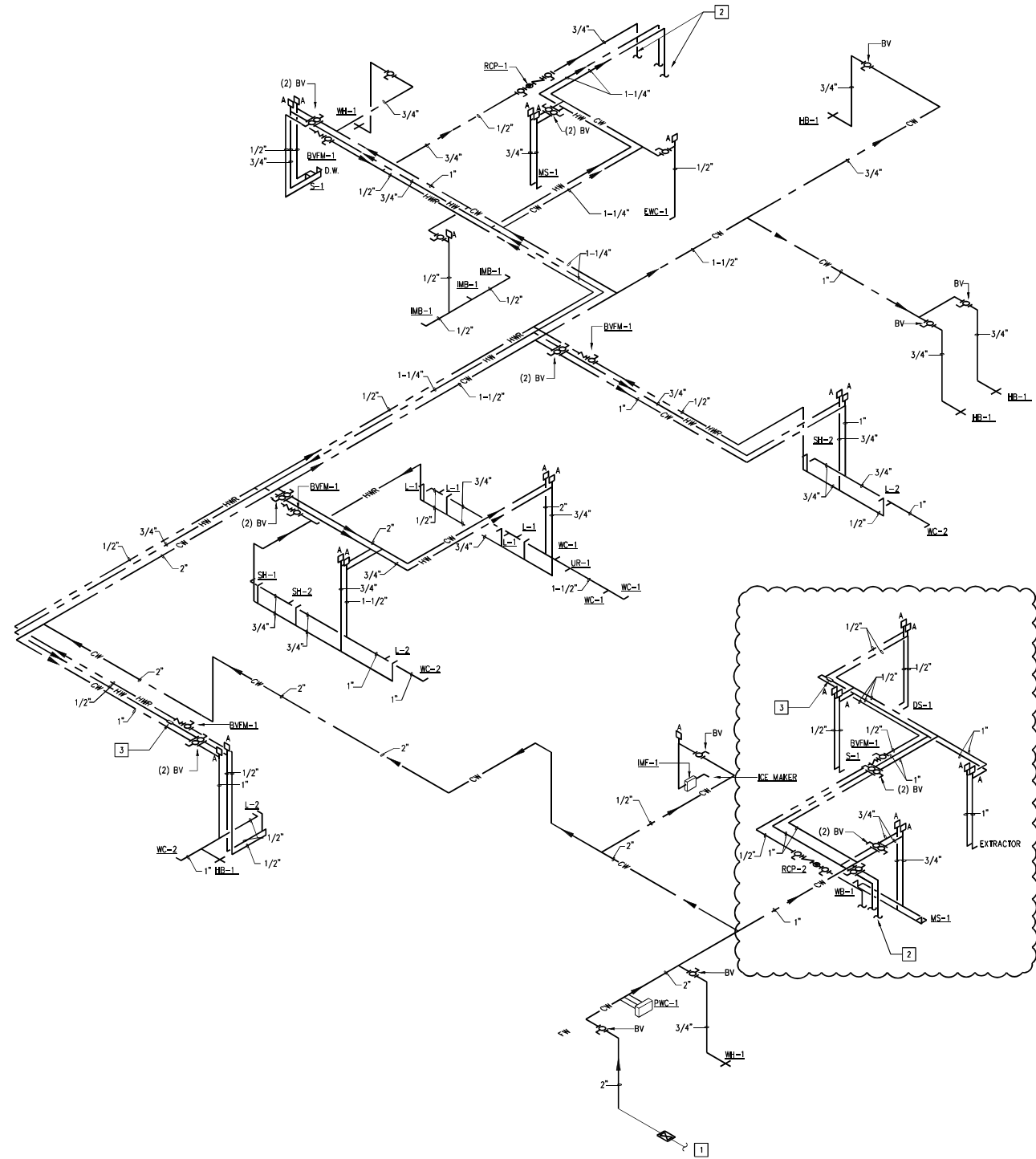
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 DATE: 16 MAY 2022  
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SHEET NO.  
**P-2**  
 OF

**SANITARY RISER DIAGRAM- PLUMBING**  
 SCALE: NTS



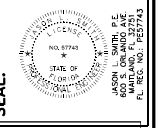
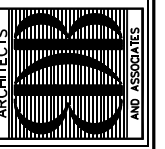
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**PLUMBING KEY NOTES:**

- 1 2" DOMESTIC WATER PIPING BELOW GRADE WITH SHUT-OFF VALVE IN SERVICE BOX WITH CAST IRON COVER. REFER TO CIVIL UTILITY SITE PLAN FOR CONTINUATION. (143 WATER FIXTURES UNITS @ 78 GPM)
- 2 REFER TO SHEET P-5 FOR TANKLESS WATER HEATER DETAIL.
- 3 TACO SMARTPLUS TEMPERATURE SENSOR.

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1	8/15/23		

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**P-3**  
 OF

**DOMESTIC RISER DIAGRAM - PLUMBING**

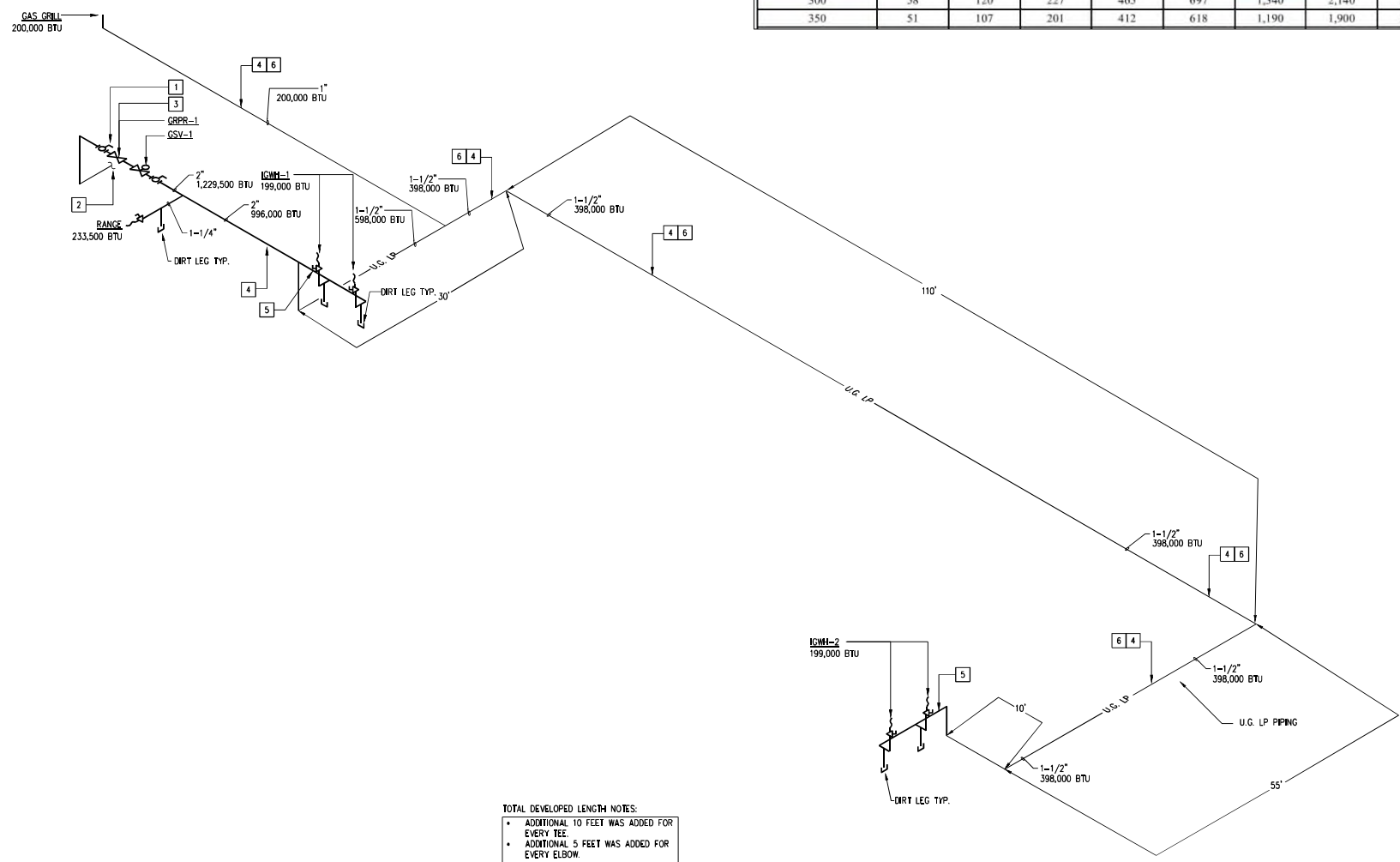
SCALE: NTS



TABLE 402.4(28) SCHEDULE 40 METALLIC PIPE		Gas: Undiluted Propane							
		Inlet Pressure: 11.0 in. w.c.	Pressure Drop: 0.5 in. w.c.						
		Specific Gravity: 1.50							
INTENDED USE	Pipe sizing between single- or second-stage (low pressure) regulator and appliance.								
	PIPE SIZE (inch)								
Nominal	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
Actual ID	0.622	0.824	1.049	1.380	1.610	2.067	2.469	3.068	4.026
Length (ft)	Capacity in Thousands of Btu per Hour								
10	291	608	1,150	2,350	3,520	6,790	10,800	19,100	39,000
20	200	418	787	1,620	2,420	4,660	7,430	13,100	26,800
30	160	336	632	1,300	1,940	3,750	5,970	10,600	21,500
40	137	287	541	1,110	1,660	3,210	5,110	9,030	18,400
50	122	255	480	985	1,480	2,840	4,530	8,000	16,300
60	110	231	434	892	1,340	2,570	4,100	7,250	14,800
80	101	212	400	821	1,230	2,370	3,770	6,670	13,600
100	94	197	372	763	1,140	2,200	3,510	6,210	12,700
125	89	185	349	716	1,070	2,070	3,290	5,820	11,900
150	84	175	330	677	1,010	1,950	3,110	5,500	11,200
175	74	155	292	600	899	1,730	2,760	4,880	9,950
200	67	140	265	543	814	1,570	2,500	4,420	9,010
250	62	129	243	500	749	1,440	2,300	4,060	8,290
300	58	120	227	465	697	1,340	2,140	3,780	7,710
350	51	107	201	412	618	1,190	1,900	3,350	6,840

**PLUMBING KEY NOTES:**

- 1 GAS MANUAL SHUT-OFF VALVE.
- 2 LP GAS SERVICE BELOW GRADE. REFER TO UTILITY SITE PLAN FOR LOCATION OF PROPANE TANK AND ASSOCIATED MATERIALS. CONTRACTOR SHALL COORDINATE WITH PROPANE PROVIDER TO ENSURE REGULATOR AT PROPANE TANK OUTGOING PRESSURE IS SET TO 5 PSI DEVELOPED LENGTH = 250'-0".
- 3 2" LP GAS PIPING @ 11" W.C., GAS LINE TOTAL LOAD = 1,230 CFH DEVELOPED LENGTH = 250'-0".
- 4 1 1/2" W.C. REFER TO TABLE 402.4(4).
- 5 REFER TO TANKLESS GAS WATER HEATER DETAIL ON PLUMBING SHEET P-5 FOR SIZING AND ROUTING.
- 6 ALL U.G. LP PIPING SHALL BE SLEEVED & VENTED TO OUTSIDE. COORDINATE FINAL PLACEMENT OF GOOSENECK WITH ARCHITECT.

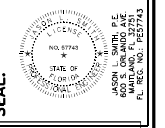
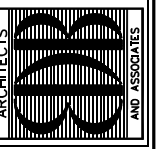


TOTAL DEVELOPED LENGTH NOTES:  
 • ADDITIONAL 10 FEET WAS ADDED FOR EVERY TEE.  
 • ADDITIONAL 5 FEET WAS ADDED FOR EVERY ELBOW.

**GAS RISER DIAGRAM- PLUMBING**  
 SCALE: 1/8" = 1'-0"

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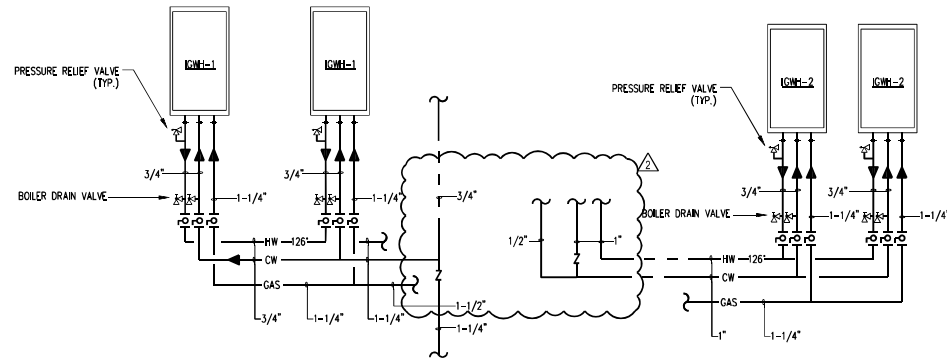


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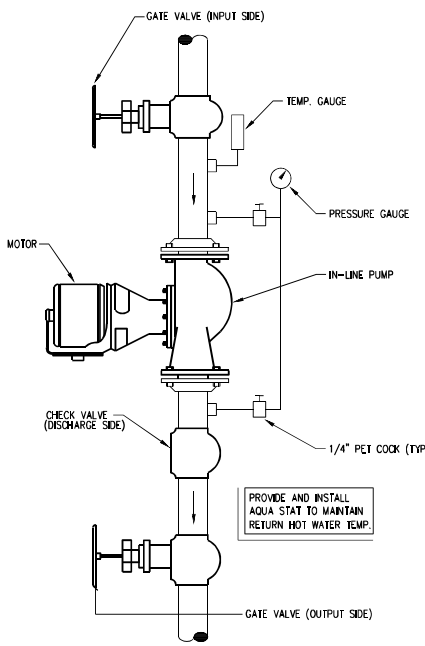
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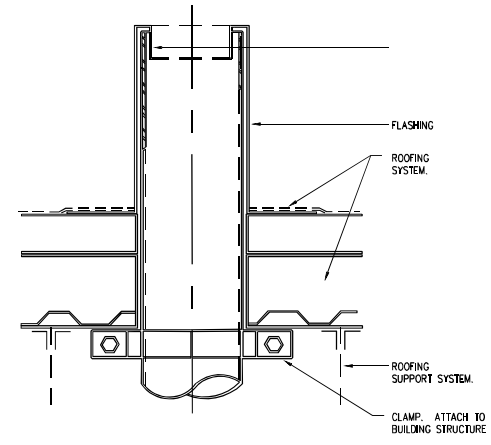




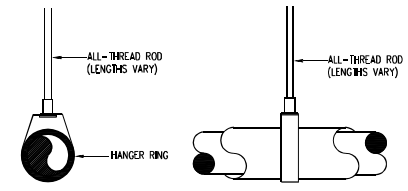
**TANKLESS GAS WATER HEATER DETAIL**  
NTS



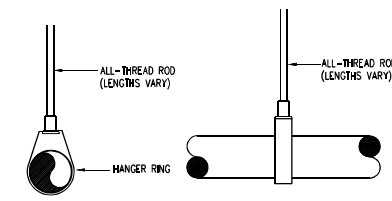
**TYPICAL IN-LINE PUMP DETAIL**  
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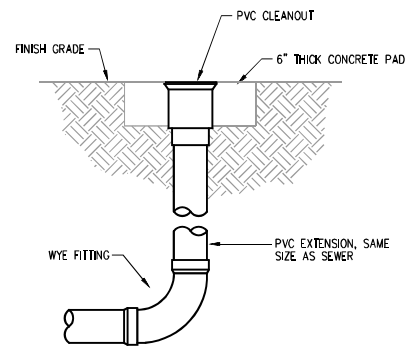
**VENT THRU ROOF DETAIL**  
NTS



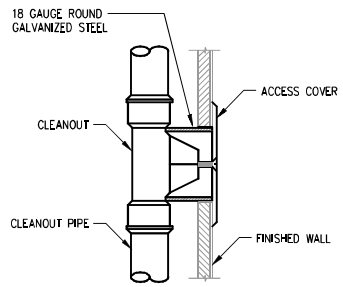
**INSULATED HANGER DETAIL**  
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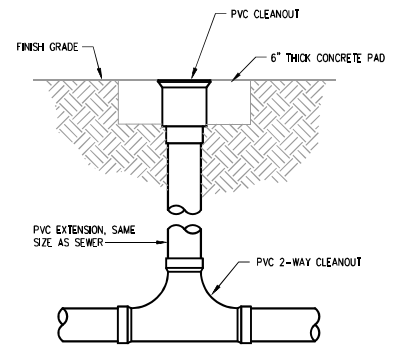
**NON-INSULATED HANGER DETAIL**  
NTS



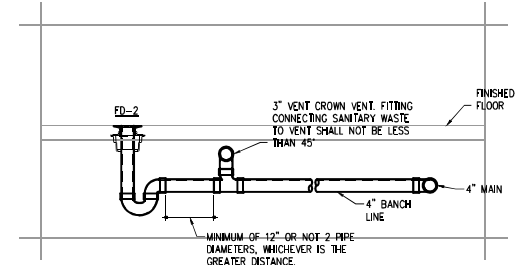
**EXTERIOR 1-WAY CLEANOUT DETAIL**  
NTS



**2-WAY WALL CLEANOUT DETAIL**  
NTS

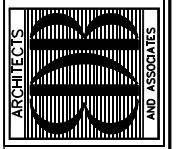


**2-WAY EXTERIOR CLEAN OUT DETAIL**  
NTS



**DETAIL OF CROWN VENT AT FLOOR DRAIN**  
NTS

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Professional Engineer  
No. 5742  
State of Florida  
Date of Issue: 12/15/11  
Date of Renewal: 12/15/13  
AL. REG. NO. 1-127713

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NO.	DATE	REVISIONS
1	8/15/23	OWNER CHANGES

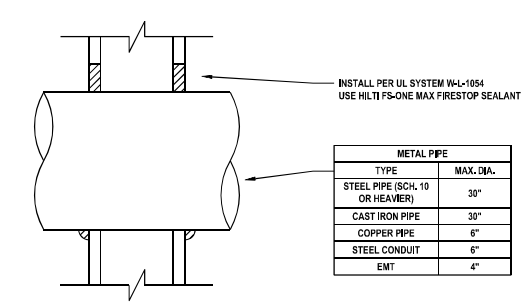
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COMM. NO: OSO219VB  
DATE: 16 MAY 2022  
BY: DZ  
CHKD: JLS

SHEET NO.  
**P-5**  
OF

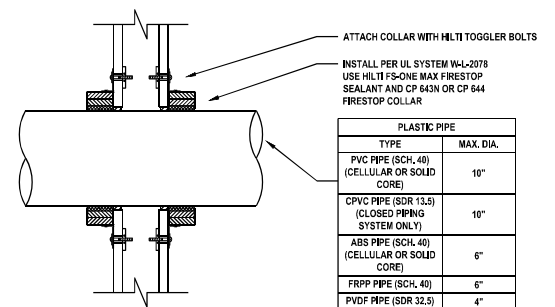
**DETAILS - PLUMBING**  
SCALE: N.T.S.

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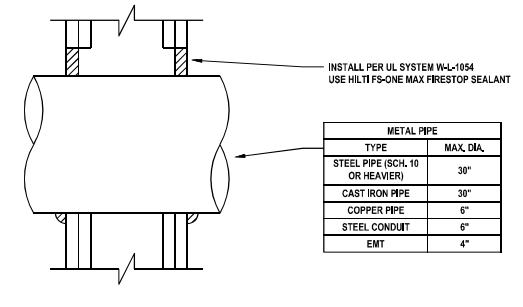
METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 10 OR HEAVIER)	30"
CAST IRON PIPE	30"
COPPER PIPE	6"
STEEL CONDUIT	6"
EMT	4"

METAL PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)  
NTS



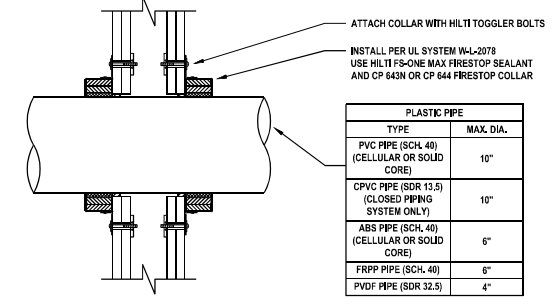
PLASTIC PIPE	
TYPE	MAX. DIA.
PVC PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	10"
CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY)	10"
ABS PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	6"
FRPP PIPE (SCH. 40)	6"
PVDF PIPE (SDR 32.5)	4"

PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)  
NTS



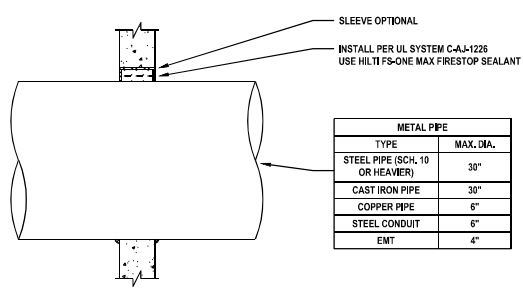
METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 10 OR HEAVIER)	30"
CAST IRON PIPE	30"
COPPER PIPE	6"
STEEL CONDUIT	6"
EMT	4"

METAL PIPE THROUGH GYPSUM WALL ASSEMBLY (2-HR.)  
NTS



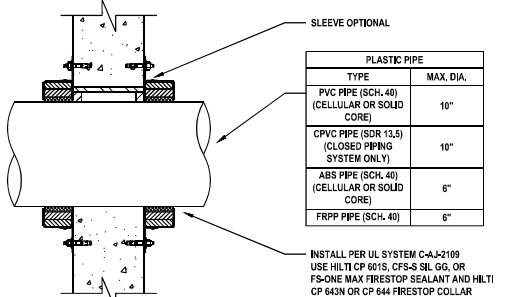
PLASTIC PIPE	
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PVC PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	10"
CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY)	10"
ABS PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	6"
FRPP PIPE (SCH. 40)	6"
PVDF PIPE (SDR 32.5)	4"

PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY (2-HR.)  
NTS



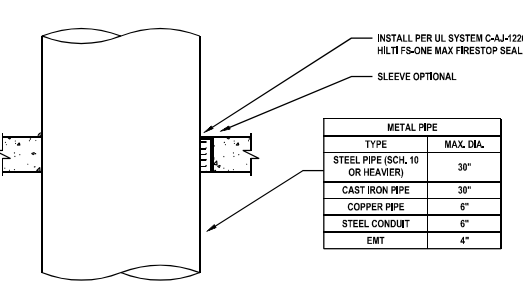
METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 10 OR HEAVIER)	30"
CAST IRON PIPE	30"
COPPER PIPE	6"
STEEL CONDUIT	6"
EMT	4"

METAL PIPE THROUGH CONCRETE WALL (2-HR.)  
NTS



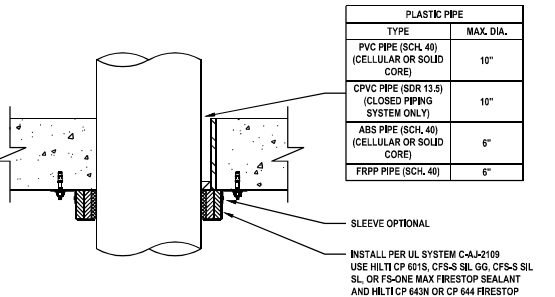
PLASTIC PIPE	
TYPE	MAX. DIA.
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CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY)	10"
ABS PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	6"
FRPP PIPE (SCH. 40)	6"

PLASTIC PIPE THROUGH CONCRETE WALL (2-HR.)  
NTS



METAL PIPE	
TYPE	MAX. DIA.
STEEL PIPE (SCH. 10 OR HEAVIER)	30"
CAST IRON PIPE	30"
COPPER PIPE	6"
STEEL CONDUIT	6"
EMT	4"

METAL PIPE THROUGH CONCRETE FLOOR (2-HR.)  
NTS



PLASTIC PIPE	
TYPE	MAX. DIA.
PVC PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	10"
CPVC PIPE (SDR 13.5) (CLOSED PIPING SYSTEM ONLY)	10"
ABS PIPE (SCH. 40) (CELLULAR OR SOLID CORE)	6"
FRPP PIPE (SCH. 40)	6"

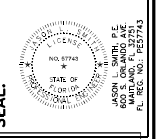
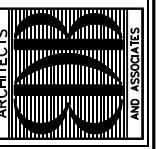
PLASTIC PIPE THROUGH CONCRETE FLOOR (2-HR.)  
NTS

**PENETRATION DETAILS**  
NTS

**DETAILS - PLUMBING**  
SCALE: N.T.S.

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AR-AA 000888  
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VERO BEACH, FLORIDA 32960  
PHONE: (772) 569-4320



SEAL: [Professional Engineer Seal]

PROJECT: STATION #7  
FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
1840 25TH STREET  
VERO BEACH FL 32960

NO.	DATE	REVISIONS

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COMM. NO: 050299VB  
DATE: 16 MAY 2022  
BY: DZ  
CHKD: JLS

SHEET NO.  
**P-6**  
OF

## PLUMBING FIXTURE SCHEDULE

MARK	WC-1	WC-2	L-1	L-2	UR-1	SH-1	SH-2	S-1	S-2	FWC-1	MS-1	FD-1	FD-2	FS-1	WB-1	MB-1	HR-1	WH-1	AD-1	GT-1	ESQ-1	S-1	SP-1	GRPR-1	GSV-1	PWC-1	MF-1	BVFM-1	TD-1	AAV-1	DWS-1	
DESCRIPTION	WATER CLOSET FLOOR MTD. (1)	WATER CLOSET FLOOR MTD. (1) (3)	LAVATORY COUNTERTOP (15)	LAVATORY WALL HUNG (3)(15)	URNAL (3)	SHOWER (16)	SHOWER (3)(16)	SINK (2 COMP.) (1)(15)	SINK (1 COMP.) (15)	ELECTRIC WATER COOLER (3)	MOP SINK (4) (5)	FLOOR DRAIN (6)	FLOOR DRAIN (6)	FLOOR SINK (6)	WASH MACHINE BOX	ICE MACHINE BOX	HOSE BBB (9)	HOSE BBB (9)	AREA DRAIN (10)	GREASE TRAP INTERCEPTOR	EMERGENCY SHUT-OFF BUTTON (13)	KITCHEN SOLIDS INTERCEPTOR	WASTEWATER SAMPLING PORT	GOVERNOR REDUCED PRESSURE REGULATOR	GAS SOLENOID VALVE (12)	PHYSICAL WATER CONDITIONER	ICE MAKER FILTER	BALANCING VALVE (8)	TRENCH DRAIN	AIR ADMITTANCE VALVE	OIL WATER SEPARATOR	
MANUFACTURER	AMER. STD.	AMER. STD.	AMER. STD.	AMER. STD.	AMER. STD.	SPEAKMAN	SPEAKMAN	JUST SINKS	ELKAY	ELKAY	PROFLO	WATTS	WATTS	WATTS	OATEY	OATEY	WATTS	WATTS	WATTS	SCHIER	AMERICAN GAS SAFETY	SCHIER	SCHIER	FRETTO FIORENTINI	HONEYWELL MAXON	AQUA-REX	WATTS	CALEFFI	H-M COMPANY	STUDOR	HIGHLAND TANK	
MODEL NO.	2234.001	3043.001	0476228.020	9141.011	6590.001	SM-3010-IS	SM-3040-IS	DLN-ADA-2261-A-GR	LK50-11603	LZ001L8WSSK	PFMB2424	FD-100-A-6	FD-100-B-6	FS-730	38540	39152	HY-430	HY-420	FD-320-Y-6	GB-75	AGS-EPOTW	SI-50	SV10	(11)	500 SERIES 200-C-MM-1-2-B-A-1-1-F-E-1 MANUAL -B-0	WK-3	PWCE-1	132 QUICKSETTER +	(7)	MINI-VENT	HTC-550	
CARRIER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER	-	-	-	(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MODEL NO.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FLUSH VALVE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER	SLOAN	SLOAN	-	-	SLOAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MODEL NO.	111XL	111XL	-	-	186XL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUPPLY FITTING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	-	-	-	(2)	(2)	(2)	(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MODEL NO.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QUANTITY	1	1	2	2	1	2	2	2	2	1	2	-	-	-	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FAUCET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER	-	-	MOEN	MOEN	-	-	-	-	ELKAY	ELKAY	-	MOEN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MODEL NO.	-	-	8413	8413	-	-	-	-	LKAV2061 1.8 GPM	LKAV2061 1.8 GPM	-	8124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DRAIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	JUST	(2)	(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MODEL NO.	-	-	-	-	-	-	-	-	J-35-BLA-2"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TRAP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MANUFACTURER	-	-	(2)	(2)	-	(2)	(2)	(2)	JUST	(2)	(2)	(2)	(2)	(2)	(2)	(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MODEL NO.	-	-	-	-	-	-	-	-	JT-200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**SPECIAL ITEMS**

(1) WITH ELONGATED OPEN FRONT SEAT BY OLSONITE LESS COVER.  
 (2) PROVIDED BY PLUMBING CONTRACTOR.  
 (3) MOUNTING HEIGHT PER LOCAL, STATE HANDICAP CODES.  
 (4) 812-AA HOSE AND BRACKET.  
 (5) 8899-CC MOP HANGER, 1239-BB BUMPER GUARD AND WALL GUARD.  
 (6) PROVIDE WITH WEAR H-GUARD WITH DRAIN COORDINATE SIZE WITH PLANS WITH MODEL TO BE USED.  
 (7) PROVIDE WITH H-M COMPANY DRAIN THROUGH LINT INTERCEPTOR. CONTRACTOR SHALL COORDINATE SIZING OF DRAIN WITH FINAL SELECTION OF EXTRACTORS.  
 (8) PROVIDE WITH QUICKSETTER + WITH FLOW SCALE 0.5-1.75 GPM.

(9) PROVIDE WITH VACUUM BREAKER.  
 (10) COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR LOCATION.  
 (11) GOVERNOR REDUCED PRESSURE REGULATOR WITH OVER PRESSURE DEVICE SET AT 11-14" W.C.  
 (12) PROVIDE AND INSTALL 24 VOLT DC TO SOLENOID VALVE EQUAL TO HONEYWELL MAXON 5000 SERIES. CONNECT TO FIRE ALARM BY FIRE ALARM CONTRACTOR.  
 (13) CONNECT TO GSV-1. REFER TO PLUMBING SHEET P-1 FOR LOCATION.  
 (14) PROVIDE WITH BADGER 5 FOOD WASTE DISPOSAL.  
 (15) PROVIDE WITH WATTS HYDROGUARD SERIES LFLM495 POINT OF USE MIXING VALVE. SET TO 105".  
 (16) SET SHOWER THERMOSTATIC MIXING VALVE TO 110".

### PLUMBING FIXTURE SCHEDULE

MARK	DS-1
DESCRIPTION	DECON SHOWER (1)(3)
MANUFACTURER	SPEAKMAN
MODEL NO.	SM-3040-IS
CARRIER	-
MANUFACTURER	-
MODEL NO.	-
FLUSH VALVE	-
MANUFACTURER	-
MODEL NO.	-
SUPPLY FITTING	-
MANUFACTURER	(2)
MODEL NO.	-
QUANTITY	2
FAUCET	-
MANUFACTURER	(1)
MODEL NO.	(1)
DRAIN	-
MANUFACTURER	(2)
MODEL NO.	-
TRAP	-
MANUFACTURER	-
MODEL NO.	-
SPECIAL ITEMS	(1) SET SHOWER THERMOSTATIC MIXING VALVE TO 110" (2) PROVIDED BY PLUMBING CONTRACTOR (3) MOUNTING HEIGHT PER LOCAL, STATE HANDICAP CODES.

### WATER HEATER SCHEDULE

MARK	WH-1 (1)(2)(3)(4)(5)(6)(7)(8)	WH-2 (1)(2)(3)(5)(6)(7)(8)
MANUFACTURER	A.O. SMITH GAS INSTANT WATER HEATER OUTDOOR MODEL	A.O. SMITH GAS INSTANT WATER HEATER OUTDOOR MODEL
MODEL NO.	ATO-540H-P	ATO-540H-P
TYPE	LP	LP
INPUT	199,000 BTU/HR	199,000 BTU/HR
WATTS	-	-
VOLTAGE/PHASE	120/1/60	120/1/60
NOTES:	1. PROVIDE ALL GAUGES, HEAT TRAPS, THERMOSTATS, TEMPERATURE AND PRESSURE RELIEF VALVE AND SHUT-OFF VALVES AS REQUIRED BY LOCAL CODES AND MANUFACTURER'S RECOMMENDATIONS. 2. PROVIDE WITH REMOTE TEMPERATURE CONTROLLER MODEL# 9008172005. 3. PROVIDE WITH PIPE COVER MODEL# 9008331005. 4. MULTIPLE UNIT CONTROLLER MODEL# 9008300005. 5. PROVIDE WITH NEUTRALIZER MODEL# 9007607005. 6. PROVIDE WITH ISOLATION VALVE & A PRESSURE RELIEF VALVE MODEL# 9007605005. 7. PROVIDE PRODUCT PRESERVERS LG15L ANTI-SCALE SYSTEM MODEL# 323631-000. 8. SET TANKLESS AND TANK TYPE WATER HEATERS TO 120".	

### RECIRCULATION PUMP SCHEDULE

MARK	RCP-1	RCP-2
MANUFACTURER	TACO	TACO
MODEL NO.	006-10BC7-1FC	006-10BC7-1FC
GPM	1.25 GPM	0.76 GPM
TOTAL HEAD-FEET	3.66	2.24
VOLTAGE/PHASE/Hz	115/1/60	115/1/60
AMPS	.43	.43
RPM	3250	3250
HP	1/40	1/40
NOTES:	1. PROVIDE ALL GAUGES, UNIONS, VALVES, ETC. AS REQUIRED BY LOCAL CODES AND MANUFACTURER'S RECOMMENDATIONS. 2. COORDINATE WITH DIVISION 16 CONTRACTOR. 3. PROVIDE WITH TACO SMARTPLUS TEMPERATURE SENSOR. REFER TO PLUMBING SHEET FOR P-1 FOR LOCATION OF TEMPERATURE SENSOR.	

### CLEANOUT SCHEDULE

DESIGNATION	MANUFACTURER	SERIES
FCO	WATTS	C0200-R
WCO	WATTS	C0500-RD
ECC	WATTS	C0200-RX-4

### SHOCK ARRESTOR SCHEDULE

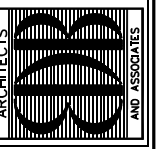
DESIGNATION	MANUF.	SERIES	FIXTURE UNITS
A	WATTS	SS-A	1-11
B	WATTS	SS-B	12-32
C	WATTS	SS-C	33-60
D	WATTS	SS-D	61-113
E	WATTS	SS-E	114-154
F	WATTS	SS-F	155-330

SCHEDULES - PLUMBING  
SCALE: N.T.S.



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 PHONE: (772) 569-4320



**PROJECT: STATION #7**  
 FOR: INDIAN RIVER COUNTY FIRE DISTRICT  
 1840 25TH STREET  
 VERO BEACH FL 32960

SEAL:

NO. DATE  
 1 1/15/23 OWNER CHANGES  
 2 1/15/23 DATE REVISIONS

COMM. NO: C50299VB  
 DATE: 16 MAY 2022  
 BY: DZ  
 CHKD: JLS

SHEET NO.  
**P-7**  
 OF

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