LONGBOAT KEY
FIRE RESCUE STATION 92

2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228



SWEET | SPARKMAN ARCHITECTS

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OWNER

TOWN OF LONGBOAT KEY PUBLIC WORKS
600 GENERAL HARRIS STREET
LONGBOAT KEY, FLORIDA 34228

CONTACT: CHARLES MOPPS
PROJECT MANAGER

941.316.1988 EXT. 2226 PHONE

ARCHITECT

SWEET SPARKMAN ARCHITECTS
2168 MAIN STREET
SARASOTA, FLORIDA 34237

CONTACT: JENNA KISER, AIA
PROJECT MANAGER

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GEORGE F. YOUNG, INC.
10540 PORTAL CROSSING, SUITE 105
SARASOTA, FL 34211

CONTACT: MICHAEL E. RISSMANM JR., P.E. PSM
SENIOR PROJECT MANAGER

941.747.2981 PHONE

STRUCTURAL ENGINEER

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1517 STATE STREET, SUITE 202
SARASOTA, FL 34236

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DIRECTOR OF ENGINEERING

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QUEST DESIGN GROUP, INC.
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SARASOTA, FLORIDA 34234

CONTACT: CHRISTOPEHER BAKER, P.E.
VICE PRESIDENT OF ENGINEERING

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CONSTRUCTION MANAGER

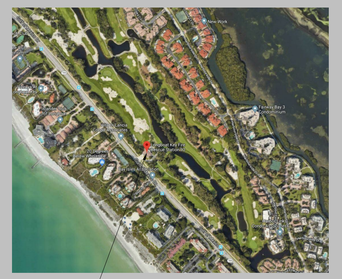
JON F. SWIFT CONSTRUCTION
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SARASOTA, FLORIDA 34237

ROSS RUSSO
VICE PRESIDENT

941.951.6100 PHONE
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SITE LOCATION MAP

2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228



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

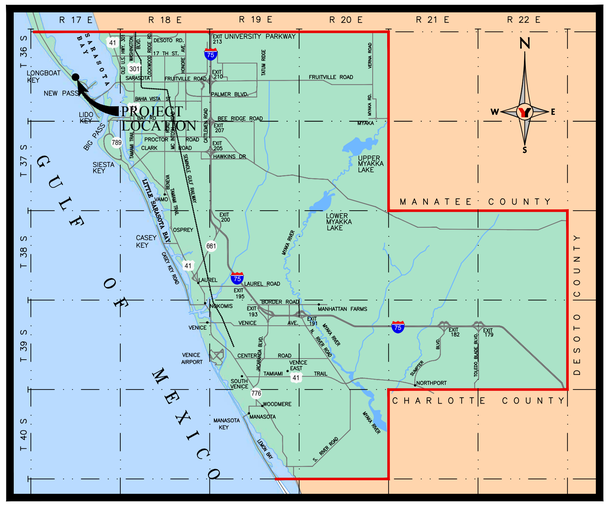
LONGBOAT KEY - FIRE RESCUE STATION 92
18533 - CONFORMED SET - 05.22.20

LONGBOAT KEY FIRE-RESCUE STATION #92

TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228

CONSTRUCTION PLAN

SECTION 17, TOWNSHIP 36 SOUTH, RANGE 17 EAST



SARASOTA COUNTY LOCATION MAP

George F. Young, Inc.
Since 1919
10540 PORTAL CROSSING, SUITE 105 LAKEWOOD RANCH, FLORIDA 34211-4913
PHONE (941) 747-2981 FAX (941) 747-7234 WWW.GEORGEFYOUNG.COM
ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING | ECOLOGY | GIS | LANDSCAPE ARCHITECTURE
PLANNING | SURVEYING | SUBSURFACE UTILITY ENGINEERING
GAINESVILLE ▪ LAKEWOOD RANCH ▪ ORLANDO ▪ ST. PETERSBURG ▪ TAMPA

PROJECT NO. 19001300LC

PROJECT CONTACT LIST:

SITE OWNER/DEVELOPER:	TOWN OF LONGBOAT KEY 501 BAY ISLES ROAD LONGBOAT KEY, FLORIDA 34228 PHONE: (941)316-1988 EXT. 2226	CHARLES MOPPS, PMP EMAIL:cmopps@longboatkey.org
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GENERAL CONTRACTOR:	JON F. SWIFT, INC. 2221 8TH STREET SARASOTA, FLORIDA 34237 PHONE: (941) 951-6100	ROSS RUSSO EMAIL: ross@jonfswift.com

F.D.O.T. NOTES

AT LEAST 72 HOURS IN ADVANCE OF BEGINNING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL CONTACT THE LOCAL MAINTENANCE FDOT ENGINEER'S OFFICE TO SECURE GENERAL USE PERMITS AND/OR OTHER PERMITS AS REQUIRED FOR WORKING WITHIN THE DEPARTMENTS RIGHT-OF-WAY.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (DATED 2013) AND DESIGN STANDARDS BOOKLET (DATED 2013). FOR DESIGN STANDARDS REVISIONS, CLICK ON "DESIGN STANDARDS" AT THE FOLLOWING WEBSITE: http://www.dot.state.fl.us/rddesign/

GENERAL NOTES

RESPONSIBILITY REGARDING EXISTING UTILITIES & STRUCTURES

THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT GUARANTEED AND SHALL BE INVESTIGATED AND VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE STARTING WORK. EXCAVATION IN THE VICINITY OF EXISTING STRUCTURES AND UTILITIES SHALL BE CAREFULLY DONE, BY HAND IF NECESSARY. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE POINT OF CONNECTION OF ALL BUILDING SERVICE LINES AT THE BUILDING PRIOR TO INSTALLATION.

EROSION CONTROL DURING CONSTRUCTION

THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT THE RUNOFF OF ERODED SOIL MATERIAL FROM LEAVING THE CONSTRUCTION SITE AND BEING DEPOSITED ON THE PROPERTY OF OTHERS OR ON PORTIONS OF THE SITE OUTSIDE THE CONSTRUCTION LIMITS

THE CONTRACTOR SHALL INSURE THAT ALL NECESSARY PERMITS ARE OBTAINED PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY.

LAWS TO BE OBSERVED

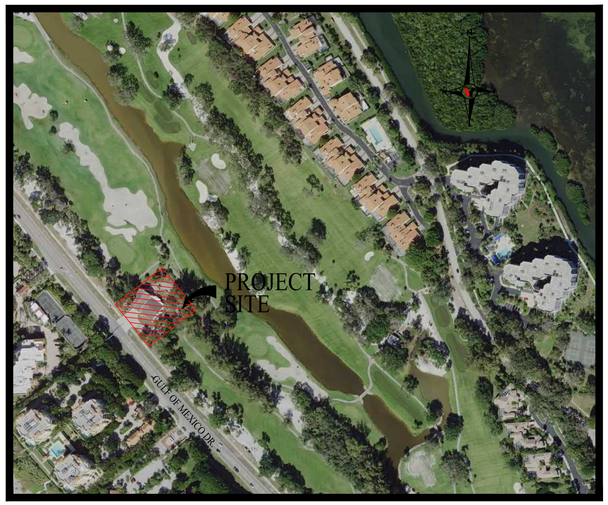
THE CONTRACTOR IS ASSUMED TO BE FAMILIAR WITH AND AT ALL TIMES SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS, BYLAWS, SAFETY LAWS, BUILDING AND CONSTRUCTION CODES, AND ORDINANCES AND REGULATIONS IN ANY MANNER AFFECTING THE CONDUCT OF THE WORK.

ELEVATION MEASUREMENTS

ALL ELEVATIONS ARE BASED ON NGVD29.

FDOT PLANS	FDEP PLANS	SWFWMD PLANS	DESIGN DEVELOPMENT PLANS	SHEET	DESCRIPTION
		X	X	--	COVER
		X	X	C1	AERIAL SITE PLAN
		X	X	C2	GENERAL NOTES
		X	X	C3	EXISTING CONDITION DEMOLITION PLAN
		X	X	C4	CIVIL SITE PLAN
		X	X	C5	PAVING, GRADING, AND DRAINAGE PLAN
			X	C6	UTILITY PLAN
		X	X	C7	TYPICAL SECTIONS
		X	X	C8	PAVING, GRADING, AND DRAINAGE DETAIL
			X	C9	UTILITY DETAIL
		X	X	C10	BEST MANAGEMENT PRACTICES DETAILS
		X	X	C11	VEHICLE TURNING TEMPLATE PLAN

SHEET INDEX



VICINITY MAP

CONFORMED SET 05/22/2020

LONGBOAT KEY FIRE-RESCUE STATION #92
TOWN OF LONGBOAT KEY
DESIGN DEVELOPMENT PLAN

PROJECT NO. 19001300LC

FOR AGENCY USE

Know what's **below.**
Call before you dig.
callsunshine.com

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION, TYPE, MATERIAL AND DEPTH OF ALL UTILITIES IN THE AREA OF THIS PROJECT (ABOVE AND BELOW GROUND). CONTRACTOR SHALL NOTIFY UTILITY OWNER(S) 48 HOURS PRIOR TO BEGINNING WORK. CONTRACTOR TO NOTIFY ENGINEER OF RECORD OF ANY POTENTIAL UTILITY CONFLICTS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THE DESIGN OF THIS PROJECT, AS PREPARED UNDER MY PERSONAL DIRECTION AND CONTROL, COMPLIES WITH ALL APPLICABLE STANDARDS.

THESE PLANS ARE IN COMPLIANCE WITH THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION PURSUANT TO SUBSECTIONS 335.075(1) AND (4), FLORIDA STATUTES AND THE COUNTY LAND DEVELOPMENT REGULATIONS.

THESE PLANS ARE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (A.D.A.) MANUAL, AT CURBS, GUTTERS, SIDEWALKS, INTERSECTIONS, ETC.

THESE PLANS ARE IN COMPLIANCE WITH THE FLORIDA ACCESSIBILITY CODE AT CURBS, GUTTERS, SIDEWALKS, INTERSECTIONS, ETC.

WATER MAINS AND HYDRANTS SHALL BE COMPLETED AND SERVICE PRIOR TO COMMENCING VERTICAL CONSTRUCTION ON ANY BUILDING OR BRINGING COMBUSTIBLE STOCK ON SITE.

This item has been electronically signed and sealed by MICHAEL E. RISSMAN JR, PE, on 6/22/20, using a SHA authentication code; Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

MICHAEL E. RISSMAN JR., PE — No. 40218
State of Florida Professional Engineer, — License #
DATE: June 22, 2020

PLOTTED: 6/22/2020 1:40 PM LOGIN: TIMEL Anthony
FILE: L:\PROJECTS\DWG\2019\19001300\Dwg\Cvr\L19001300LC-COV.dwg



CONFORMED SET 05/22/2020

REVISED	NO.	BY	DATE	DESCRIPTION
	1	PN & AT	06/09/20	REVISED PER ASI #2 DATED 06/02/2020

REVISED	NO.	BY	DATE	DESCRIPTION

	INITIALS	DATE
DESIGN	TILLETT	09/18/19
DRAWN	TILLETT	09/18/19
CHECKED	RISSMAN	
QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

Since 1919
George F. Young, Inc.
10540 PORTAL CROSSING, SUITE 105 LAKEWOOD RANCH, FLORIDA 34211-4913
PHONE (941) 747-2981 FAX (941) 747-7234 WWW.GEORGEFYOUNG.COM
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CIVIL & TRANSPORTATION ENGINEERING ECOLOGY GIS LANDSCAPE ARCHITECTURE
PLANNING SURVEYING SUBSURFACE UTILITY ENGINEERING
GAINESVILLE • LAKEWOOD RANCH • ORLANDO • ST. PETERSBURG • TAMPA

This item has been electronically signed and sealed by MICHAEL E RISMAN JR, PE, on 7/6/20, using a SHA authentication code; Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

MICHAEL E. RISMAN JR, PE No. 40218
State of Florida Professional Engineer. License #

DATE July 6, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92

AERIAL SITE PLAN

SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC

SHEET NO. C1

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LOGIN: Tillett, Anthony
FILE: S:\PROJECTS\2019\19001300LC\Dwg\CD\19001300LC-ASP.dwg

GENERAL NOTES:

1. SEE LANDSCAPE PLANS FOR LIMITS OF SODDING AND SEEDING TURFED AREAS AND LANDSCAPING REQUIREMENTS.

2. CONSTRUCTION EQUIPMENT IS TO BE PLACED ON THE CONSTRUCTION SITE (PRIVATE PROPERTY) ONLY. NO STREET IS TO BE UTILIZED DURING CONSTRUCTION BY STORING MATERIAL OR EQUIPMENT.

3. ALL SURVEY MARKERS (BOTH VERTICAL AND HORIZONTAL) WITHIN THE GENERAL VICINITY, SHALL BE CONTINUOUSLY PROTECTED. ANY MARKERS DISTURBED OR DAMAGED SHALL BE REPLACED BY A PROFESSIONAL SURVEYOR MAPPER.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL CONSTRUCTION RELATED SILTATION AND EROSION WHICH MAY OCCUR. THE FOLLOWING PERTAINS TO SEDIMENT AND EROSION CONTROL/BEST MANAGEMENT PRACTICES (BMP'S) AND SHALL BE ADHERED TO ACCORDINGLY. SAID MEASURES AND PRACTICES SHALL BE IMPLEMENTED DURING CONSTRUCTION BY THE CONTRACTOR. SITE SPECIFIC MEASURES SHALL PREVENT SEDIMENT AND OTHER DELETERIOUS SUBSTANCES FROM ENTERING UTILITY AND STORMWATER DRAINAGE SYSTEMS INCLUDING BUT NOT LIMITED TO DITCHES, WATER BODIES, WETLANDS, AND ADJACENT PROPERTIES. THE EFFECTIVENESS OF THE BMP'S SHALL BE CHECKED DAILY DURING CONSTRUCTION BY THE CONTRACTOR. METHODS USED SHALL INCLUDE BUT NOT BE LIMITED TO SODDING OF DETENTION AREAS AND SWALES IMMEDIATELY UPON THEIR COMPLETION, SILT FENCE, AND HAY BALES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SILTATION ENTERING THE STORM WATER MANAGEMENT SYSTEM AND/OR ANY ON-SITE OR OFF-SITE DRAINAGE AREAS.

5. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

6. THE CONTRACTOR SHALL COORDINATE UTILITY CONNECTIONS WITH THE APPROPRIATE AUTHORITIES PRIOR TO MAKING CONNECTIONS. PROVISION SHALL BE MADE FOR CONTINUATION OF SERVICE TO ALL PARTIES WITHOUT INTERRUPTION.

7. ALL PROPOSED ELEVATIONS AT GRASS AREAS ARE FINISHED ELEVATIONS AFTER SOD IS PLACED.

8. ALL CONSTRUCTION ONSITE & WITHIN THE RIGHT-OF-WAY AND EASEMENTS SHALL CONFORM TO THE METHODS, STANDARDS AND SPECIFICATIONS OF TOWN OF LONGBOAT KEY, FDOT AND ALL APPLICABLE AGENCIES.

9. CONTRACTOR TO OBTAIN CONSTRUCTION PERMITS FROM THE TOWN OF LONGBOAT KEY PLANNING, ZONING & BUILDING DEPARTMENT AS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION.

10. CONTRACTOR TO NOTIFY ALL UTILITIES FORTY-EIGHT (48) HOURS PRIOR TO DEMOLITION AND/OR EXCAVATION, IN ACCORDANCE WITH F.S. 553.851 CALL SUNSHINE STATE ONE CALL SYSTEM" 1-800-432-4770.

11. CONTRACTOR TO VERIFY AND COORDINATE WITH ALL UTILITIES FOR THE REMOVAL OR RELOCATION OF ANY OF THESE FACILITIES.

12. CONNECTIONS TO EXISTING UTILITIES ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE TOWN OF LONGBOAT KEY STAFF AND ARE TO OCCUR MONDAY THRU FRIDAY BETWEEN THE HOURS OF 8 am AND 4 pm. CONTRACTOR SHALL PROVIDE A COPY OF PERMITTING AGENCY LETTER OF CLEARANCE TO ALLOW NEW PIPES TO BE PLACED INTO SERVICE PRIOR TO CONNECTIONS TO THE TOWN'S EXISTING UTILITIES.

13. ALL DISTURBED AREAS WITHIN PROJECT LIMITS TO BE RESTORED TO ORIGINAL STATE OR BETTER UNLESS OTHERWISE NOTED.

14. CONTRACTOR TO CLEAR, GRUB AND REMOVE ALL DEBRIS ON SITE AND ALL AREAS OF THE RIGHT-OF-WAY AS NECESSARY TO COMPLETE WORK.

15. ALL CONSTRUCTION MUST CONFORM TO THE MINIMUM STANDARDS SET FORTH IN THE TOWN OF LONGBOAT KEY REGULATIONS AND / OR CODES.

16. CONTRACTOR TO VERIFY ALL PLAN DIMENSIONS AND SITE CONDITIONS, AND NOTIFY ENGINEER OF RECORD REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN DRAWINGS PRIOR TO COMMENCING WORK.

17. CONTRACTOR TO DISPOSE OF ALL UNSUITABLE MATERIALS OFF-SITE.

18. ALL MATERIAL EXCAVATED THAT IS SUITABLE FOR FILL UNDER PAVING, OR LANDSCAPING AREA, IS TO BE SPREAD AND COMPACTED IN LOCATIONS DESIGNATED BY THE ENGINEER OR OTHER AUTHORIZED REPRESENTATIVE OF THE OWNER.

19. WHEN ALL EXCAVATION AND DEMOLITION IS COMPLETE, CLEAN FILL SHALL BE SPREAD AND COMPACTED IN LIFTS PER SPECIFICATIONS.

20. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH ALL LAWS, ORDINANCES, AND CODES BY GOVERNMENTAL AUTHORITIES AND SHALL UTILIZE GOOD CONSTRUCTION PRACTICE.

21. SITE LIGHTING IS PROPOSED. SITE LIGHTING PLANS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

22. ALL TACTILE SURFACES ON CURB CUT RAMPS SHALL CONFORM TO FDOT INDEX NO. 304.

23. ALL TRAFFIC SIGN POSTS SHALL BE 2" X 2" SQUARE BREAK-AWAY 14 GAUGE GALVANIZED STEEL WITH PUNCHED HOLES IN ACCORDANCE WITH FDOT SPECIFICATIONS. (THE TAPCO V-LOC VS1P-350 SYSTEM SHALL BE EMPLOYED WHERE SIGN POSTS ARE INSTALLED IN PAVED AREAS).

24. ALL TRAFFIC CONTROL SIGNS WITHIN THE RIGHT-OF-WAY SHALL BE PER SECTION 700 OF THE FDOT SPECIFICATIONS . ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD CRITERIA FOR SIGN SIZE, SHAPE AND LETTERING DIMENSIONS AND PLACEMENT.

25. ALL DRAINAGE CULVERT JOINTS SHALL BE WRAPPED PER FDOT INDEX NO 280.

26. ALL DRAINAGE RELATED STRUCTURES SHALL BE MINIMUM 3,000 PSI CONCRETE.

27. A MINIMUM OF 32" OF SOD SHALL BE PLACED AT THE BACK OF ALL CURBS AND PAVEMENT EDGES, SWALES, AND DETENTION AREAS EXCEPT LANDSCAPE AREAS. SEE LANDSCAPE ARCHITECT PLANS FOR DETAILED INFORMATION.

28. ALL USE OF PAVER BLOCKS EITHER IN TRAVEL WAYS OR WALKWAYS SHALL CONFORM TO FDOT SPECIFICATION SECTION 526.

29. ALL PAVEMENT MARKINGS, EXCEPT PARKING STALLS SHALL BE "ALKYD THERMOPLASTIC" 90 MILS IN THICKNESS, AND CONFORM TO FDOT AND MUTCD STANDARDS INCLUDING HANDICAP ACCESS ISLES AND CROSSWALKS.

30. STORMWATER MANAGEMENT SWALES AND APPURTENANCES THERETO SHALL BE OWNED AND MAINTAINED BY THE OWNER OF THE CONTRIBUTING DRAINAGE SYSTEM.

31. PLANT NO TREES AND/OR HEDGES IN DRAINAGE SWALES OR IN THE FILTRATION AREAS OF

GENERAL NOTES CONTINUED:

ATTENUATION BASINS THAT MAY CREATE A NEGATIVE EFFECT ON THE ATTENUATION FACILITY, (I.E. BLOCKING FLOW OR CLOGGING INFILTRATION SYSTEMS).

32. ANY UNUSED WATER AND SEWER SERVICES SERVING THE SITE WILL BE CAPPED AT THE MAIN BY THE OWNER.

33. EXISTING CONDITIONS AND PROPERTY BOUNDARY SHOWN IS TAKEN FROM BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY GEORGE F. YOUNG, INC., DATED JUNE 17 2017.

34. THE PROPOSED IRRIGATION WATER DEMAND WILL BE DETERMINED AT THE TIME OF IRRIGATION DESIGN. SEE LANDSCAPE ARCHITECT PLANS.

35. ALL NEW PAVEMENT TO MATCH ALL REMAINING UNDISTURBED PAVEMENT AND WALKWAYS. MATCH EXISTING PAVEMENT BY SAW CUTTING AND APPLICATION OF PRIME AND TACK COATS.

36. ANY UNUSED WELLS DISCOVERED ON SITE MUST BE PLUGGED BY A FLORIDA LICENSED WELL DRILLING CONTRACTOR IN AN APPROVED MANNER PRIOR TO EARTHMOVING AND CONSTRUCTION. ONE KNOWN WELL EXISTS ON SITE AS SHOWN ON THE ATTACHED GEORGE F. YOUNG, INC. SURVEY AND IS IN USE.

37. ALL STREET STOP SIGNS WILL BE MANUFACTURED USING DIAMOND GRADE REFLECTIVE SHEETING (OR EQUIVALENT). ALL OTHER TRAFFIC/STREET SIGNS SHALL BE MANUFACTURED USING (MINIMUM) HIGH INTENSITY REFLECTIVE SHEETING. TRAFFIC SIGN POSTS AND STREET NAME SIGNS SHALL BE INSTALLED CONSISTENT WITH APPENDIX C3 OF LDR. THE POLETEC 4 SYSTEM (OR AN EQUIVALENT) SHALL BE EMPLOYED WHERE SIGN POSTS ARE INSTALLED IN PAVED AREAS.

38. ALL FACILITIES CONTAINED HEREIN HAVE BEEN DESIGNED FOR HANDICAP ACCESSIBILITY IN ACCORDANCE WITH BOTH THE FLORIDA ACCESSIBILITY CODE 1997 EDITION AND THE AMERICAN WITH DISABILITY ACT STANDARDS.

39. IN THE EVENT CONSTRUCTION IS HALTED FOR ANY REASON AND CONTRACTOR IS TO ABANDON SITE PRIOR TO COMPLETION OF CONSTRUCTION. ALL CONSTRUCTION AND STOCKPILED VEGETATIVE DEBRIS AND FILL WILL BE REMOVED BY THE CONTRACTOR FROM THE SITE PRIOR TO SITE ABANDONMENT.

40. A SEPARATE BUILDING PERMIT MUST BE APPLIED FOR AND ISSUED FOR EVERY SIGN, WALL, RETAINING WALL SYSTEM, MASONRY OR ENGINEERED STYROFOAM PRIVACY WALLS, OUTDOOR LIGHTING AND STRUCTURE ON THE SITE. THE APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT EXEMPT THE CONTRACTOR FROM OBTAINING THE NECESSARY BUILDING PERMITS.

41. A SEPARATE TOWN OF LONGBOAT KEY TREE REMOVAL PERMIT FOR ANY TREE REMOVAL (IF ANY) DURING CONSTRUCTION MUST BE APPLIED FOR AND ISSUED PRIOR TO CONSTRUCTION. THE APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT EXEMPT THE CONTRACTOR FROM OBTAINING THE NECESSARY BUILDING PERMITS.

42. MAINTENANCE OF TRAFFIC:
IMPLEMENTATION OF TRAFFIC CONTROL PROCEDURES SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION). SPECIFIC STANDARDS ARE OUTLINED IN INDEX 600 SERIES. PROCEDURES SHALL ALSO BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ("MUTCD" LATEST EDITION). THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (LATEST EDITION), APPLICABLE F.D.O.T. SUPPLEMENTAL SPECIFICATIONS. MAINTENANCE OF TRAFFIC SIGNS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR DURING CONSTRUCTION AS REQUIRED BY THE F.D.O.T./S.D.O.T. ALL OPEN ROAD CUTS SHALL BE FILLED, COMPACTED AND COVERED WITH A TEMPORARY ASPHALT PATCH BEFORE DARK ON A DAILY BASIS DURING CONSTRUCTION. ALL OPEN CUTS SHALL BE RESTORED BY THE CONTRACTOR AS REQUIRED BY F.D.O.T., S.D.O.T. AND S.U.D.

CONSTRUCTION NOTES:

1. THE ELEVATIONS SHOWN ON THE MAP OF SURVEY ARE BASED ON THE NATIONAL GEODETIC SURVEY (NGS) DESIGNATION X 689 (NGS PID #DL1841), HAVING PUBLISHED ELEVATION OF 8.07 FEET (NAVD88).

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY DAMAGED ITEMS INCLUDING, BUT NOT LIMITED TO, DRIVEWAYS, IRRIGATION SYSTEMS, MAILBOXES, SIDEWALKS, STREET SIGNS, AND PRIVATE FENCES AS REQUIRED BY E.O.R./OTHER GOVERNING ENTITIES.

3. TIE RODS AND RESTRAINING GLANDS SHALL BE PROVIDED AS REQUIRED.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS.

5. THE CONTRACTOR SHALL PROVIDE ACCESS FOR TRAFFIC AT ALL TIMES DURING CONSTRUCTION. CONSTRUCTION SHALL BE CONDUCTED IN SUCH A MANNER THAT RESIDENTS RETAIN ACCESS TO THEIR DRIVEWAYS AT ALL TIMES.

6. THE INFORMATION PROVIDED IN THESE PLANS IS TO SOLELY ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS SHALL BE BASED.

7. THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THERE MAY BE SOME CONFLICTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, PROTECT, AND REPLACE (IF DAMAGED) ANY AND ALL EXISTING UTILITIES ON THIS PROJECT AT THEIR OWN EXPENSE.

8. DISRUPTIONS TO EXISTING RESIDENTIAL/COMMERCIAL WATER AND SEWER SERVICE SHALL BE KEPT TO A MINIMUM. ALL WATER SERVICE INTERRUPTIONS SHALL BE COORDINATED WITH THE TOWN OF LONGBOAT KEY UTILITIES. 72 HOURS NOTIFICATION IS REQUIRED BY THE TOWN OF LONGBOAT KEY PRIOR TO ANY POTENTIAL SERVICE DISRUPTIONS.

9. THE CONTRACTOR IS RESPONSIBLE FOR REPLANTING VEGETATION IN AREAS INDICATED AS LIMITS OF CLEARING AND GRUBBING.

10. THE CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF ALL CLEARED VEGETATION WITHIN FIVE (5) DAYS OF CLEARING AND GRUBBING WORK.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER MAIN AND VALVE INDICATOR SIGNS AS REQUIRED IN LOCATIONS DESIGNATED BY TOWN OF LONGBOAT KEY UTILITIES.

12. WHEN THE WORD "ENGINEER" IS USED IN THE CONTRACT DOCUMENTS IT SHALL INDICATE THE PROFESSIONAL ENGINEER OF RECORD.

13. CONTRACTOR TO HAND COMPACT BASE AND SUB BASE MATERIALS TO THE REQUIRED DENSITIES IN THE VICINITY OF ALL DRAINAGE STRUCTURES.

SITE DATA NOTES:

1. THE PROPERTY IS ZONED PD (PLANNED DEVELOPMENT DISTRICT)

2. BOUNDARY, TOPO AND TREE INFORMATION PROVIDED BY GEORGE F. YOUNG, INC, DATED 05/16/19.

3. DOMESTIC WATER WILL BE PROVIDED BY TOWN OF LONGBOAT KEY.

4. SANITARY SEWER SERVICE WILL BE PROVIDED BY TOWN OF LONGBOAT KEY.

5. WATER FOR IRRIGATION WILL BE PROVIDED BY ON SITE WELL.

6. THE DEMOLITION / REMOVAL OF EXISTING STRUCTURES AND AMENITIES REQUIRES A PERMIT WHICH IS TO BE ISSUED BY THE TOWN OF LONGBOAT KEY AND APPLIED FOR BY THE GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

7. THE PROPERTIES ARE SITUATED IN FLOOD ZONES "AE"(EI. 10), "AE"(EI. 11) and "AE"(EI. 12), AS SCALED FROM THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF LONGBOAT KEY, SARASOTA COUNTY, FLORIDA, COMMUNITY No. 125126, MAP No. 12115C0129F, WITH AN EFFECTIVE DATE OF NOVEMBER 04, 2016. ALL ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988(NAVD 88), THE BASE FLOOD ELEVATION SHOULD BE VERIFIED BY THE LOCAL BUILDING DEPARTMENT BEFORE ANY DESIGN OR CONSTRUCTION BEGINS.

8. ALL MANGROVE AREAS WILL BE MAINTAINED ACCORDING TO THE APPLICABLE LAW.

SITE DATA

SITE AREA: 1.16 AC

EXISTING ZONING: PD	PROPOSED ZONING: PD
(PLANNED DEVELOPMENT DISTRICT)	(PLANNED DEVELOPMENT DISTRICT)
EXISTING USE: MUNICIPAL GOVERNMENT - FIRE PROTECTION	PROPOSED USE: MUNICIPAL GOVERNMENT - FIRE PROTECTION
ALLOWABLE BUILDING COVERAGE = 40%	BUILDING COVERAGE = 19%
ALLOWABLE BUILDING HEIGHT = 35'	BUILDING HEIGHT = 25'

THE BFE IS 11 FT, THEREFOR THE HIGHEST ELEVATION OF THE BUILDING SHALL BE 36'

REQUIRED YARDS:
STREET: 50'
SIDE: 30'
REAR: 30'

SITE PERVIOUS / IMPERVIOUS AREAS

PAVEMENT AND CURB	=	17,782.52 SF =	0.41 AC =	35.3 %
CONCRETE SIDEWALK	=	263.79 SF =	0.01 AC =	0.5 %
CONCRETE PADS	=	490.67 SF =	0.01 AC =	0.9 %
BUILDING PAD	=	9,807.73 SF =	0.23 AC =	19.8 %
PERVIOUS AREA	=	20,194.78 SF =	0.49 AC =	42.6 %
	TOTAL SITE AREA =	50,529.60 SF =	1.16 AC =	100.0 %

CONFORMED SET 05/22/2020

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REVISED	NO.	BY	DATE	DESCRIPTION

	INITIALS	DATE
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DRAWN	TILLETT	09/18/19
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QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

Since 1919
George F. Young, Inc.
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ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING ECOLOGY GIS LANDSCAPE ARCHITECTURE
PLANNING SURVEYING SUBSURFACE UTILITY ENGINEERING
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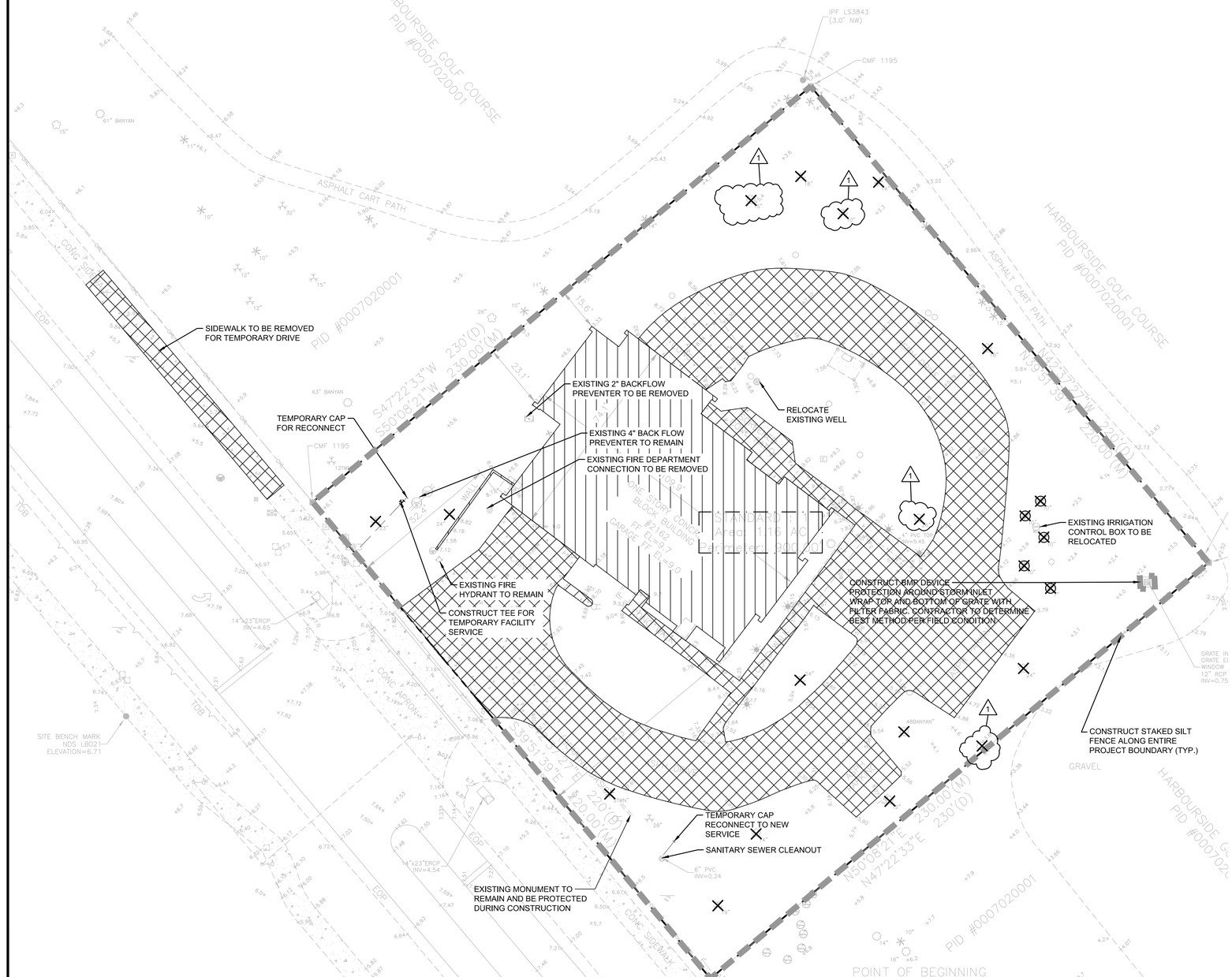
MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer, License #

DATE June 22, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92
GENERAL NOTES
SECTION 17, TOWNSHIP 36 S., RANGE 17 E.

JOB NO. 19001300LC
SHEET NO. C2

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LEGEND:

SEE TOPOGRAPHIC SURVEY BY GEORGE F. YOUNG, INC. DATED 05/16/2019 FOR ADDITIONAL DELINEATION OF EXISTING FEATURES SYMBOLS AND ABBREVIATIONS

- BUILDINGS TO BE REMOVED
- ASPHALT PAVEMENT, CURB, CONCRETE, AND SIDEWALK TO BE REMOVED
- EXISTING TREE OR PALM TO BE REMOVED / RELOCATED. REFER TO LANDSCAPE PLANS FOR DETAILS
- PROPOSED SILTATION DEVICE
- EXISTING SANITARY SEWER, DRAINAGE, WATER, GAS, BURIED ELECTRIC OR SERVICE UTILITY LINE TO BE REMOVED

N
W E
S

20 10 0 20
SCALE: 1" = 20'

DEMOLITION NOTES:

1. CONTRACTOR SHALL BE FAMILIARIZED WITH OVERALL PLANS PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES, SPECIFICALLY, BEST MANAGEMENT PRACTICES REQUIREMENTS, UTILITY COORDINATION AND EXISTING FACILITY LOCATES.
2. ALL DEMOLITION SHALL BE CONDUCTED IN ACCORDANCE WITH TOWN OF LONGBOAT KEY AND APPLICABLE REGULATORY AGENCY REQUIREMENTS.
3. REFER TO THE PAVING, GRADING AND DRAINAGE PLAN AND UTILITY PLAN FOR THE ASSOCIATED FACILITY DESIGN AND ANY SPECIFIC MODIFICATIONS TO, OR REMOVAL OF, EXISTING UTILITY AND DRAINAGE FACILITIES.
4. TREE REMOVAL INFORMATION IS SHOWN FOR REFERENCE ONLY, REFER TO THE LANDSCAPE PLANS FOR DETAILED TREE REMOVAL REQUIREMENTS.
5. DRAINAGE STRUCTURE REMOVAL SHALL BE CONDUCTED IN COOPERATION WITH INSTALLATION OF PROPOSED STORM WATER MANAGEMENT SYSTEM.
6. ALL SURVEY MARKERS (BOTH VERTICAL AND HORIZONTAL) WITHIN THE GENERAL VICINITY, SHALL BE CONTINUOUSLY PROTECTED. ANY MARKERS DISTURBED OR DAMAGED SHALL BE REPLACED BY A PROFESSIONAL SURVEYOR AND MAPPER AND CERTIFIED TO THE CITY ENGINEER PRIOR TO RELEASE OF PROJECT CERTIFICATE OF OCCUPANCY.
7. CONTRACTOR TO NOTIFY ALL UTILITIES FORTY-EIGHT (48) HOURS PRIOR TO DEMOLITION AND/OR EXCAVATION, INCLUDING THE LOCAL GAS COMPANY IN ACCORDANCE WITH F.S. 553.851 CALL SUNSHINE STATE ONE CALL SYSTEM" 1-800-432-4770 SO THAT UNDERGROUND UTILITIES MAY BE FIELD LOCATED.
8. THE DEVELOPER WILL CAP UNUSED WATER AND WASTEWATER SERVICES SERVING THIS SITE AT THE MAIN CONNECTION POINT. THEY SHALL BE ABANDONED AND GROUT FILLED OR REMOVED.
9. UTILITIES ON SITE INCLUDING BUT NOT LIMITED TO ELECTRIC, GAS, TELEPHONE, CABLE TV AND IRRIGATION MAINS TO BE REMOVED, AND CAPPED AS NECESSARY AND AS REQUIRED BY THE TOWN OF LONGBOAT KEY UTILITIES AND THE PRIVATE UTILITY COMPANIES.

SURVEY NOTES

1. THIS SURVEY IS A GRAPHIC DEPICTION OF THE CURRENT BOUNDARY AND VISIBLE IMPROVEMENTS IN ACCORDANCE WITH THE LEGAL DESCRIPTION SHOWN HEREON AND MAY NOT REFLECT OWNERSHIP.
2. THERE MAY BE ADDITIONAL EASEMENTS, RESERVATIONS, RESTRICTIONS AND/OR OTHER MATTERS OF RECORD AFFECTING THIS PROPERTY THAT ARE NOT SHOWN HEREON THAT MAY (OR MAY NOT) BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. THE UNDERSIGNED HAS NOT PERFORMED AN INDEPENDENT SEARCH FOR ADDITIONAL RECORDS.
3. THE PRINTED DIMENSIONS SHOWN ON THIS SURVEY SUPERSEDE ANY SCALED DIMENSIONS; THERE MAY BE ITEMS DRAWN OUT OF SCALE TO GRAPHICALLY SHOW THEIR LOCATION.
4. "CERTIFICATION" IS UNDERSTOOD TO BE AN EXPRESSION OF PROFESSIONAL OPINION BY THE SURVEYOR AND MAPPER BASED ON THE SURVEYOR AND MAPPER'S KNOWLEDGE AND INFORMATION, AND THAT IT IS NOT A GUARANTEE OR WARRANTY, EXPRESSED OR IMPLIED.
5. UNAUTHORIZED COPIES AND/OR REPRODUCTIONS VIA ANY MEDIUM OF THIS SURVEY OR ANY PORTIONS THEREOF ARE EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF GEORGE F. YOUNG, INC. AND THE UNDERSIGNED PROFESSIONAL SURVEYOR AND MAPPER.
6. BEARINGS SHOWN ARE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE).
7. THIS SURVEY PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH. NO INSTRUMENTS OF RECORD REFLECTING OWNERSHIP, EASEMENTS OR RIGHTS OF WAY WERE FURNISHED TO THE UNDERSIGNED, UNLESS OTHERWISE SHOWN HEREON.
8. NO INFORMATION ON ADJOINING PROPERTY OWNERS OR ADJOINING PROPERTY RECORDING INFORMATION WAS PROVIDED TO THE SURVEYOR.
9. THIS SURVEY SHOWS VISIBLE, ABOVE GROUND FEATURES, NO UNDERGROUND FEATURES, INCLUDING BUT NOT LIMITED TO FOUNDATIONS, STRUCTURES, INSTALLATIONS, OR IMPROVEMENTS HAVE BEEN LOCATED, EXCEPT AS SHOWN HEREON.
10. UNDERGROUND UTILITIES SHOWN ARE BASED ON ABOVE-GROUND EVIDENCE AND SURFACE MARKING FOUND DURING THIS SURVEY. THERE MAY BE OTHER UNDERGROUND INSTALLATIONS WITHIN OR NEAR THE SUBJECT PROPERTY WHICH WERE NOT LOCATED AND ARE NOT SHOWN, UTILITIES SHOWN HEREON ARE NOT TO BE USED FOR CONSTRUCTION AND DO NOT NECESSARILY INDICATE AVAILABILITY.
17. AS PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 12115C126F, EFFECTIVE DATE OF NOVEMBER 04, 2016, THE ABOVE DESCRIBED PROPERTY APPEARS TO BE IN ZONE "AE" (EL 10 FEET). THE BASE FLOOD ELEVATION SHOULD BE VERIFIED BY THE LOCAL BUILDING DEPARTMENT BEFORE ANY DESIGN OR CONSTRUCTION BEGINS.
18. GEORGE F. YOUNG, INC. AND THE UNDERSIGNED MAKE NO REPRESENTATIONS OR GUARANTEES PERTAINING TO EASEMENTS, RIGHTS-OF-WAY, SET BACK LINES, RESERVATIONS AND/OR AGREEMENTS.
19. ELEVATIONS SHOWN ON THIS SURVEY ARE BASED ON THE NATIONAL GEODETIC SURVEY (NGS) DESIGNATION X 689 (NGS PID #DL1841), HAVING A PUBLISHED ELEVATION OF 8.07 FEET (NAVD88),
20. SEE TOPOGRAPHIC SURVEY BY GEORGE F. YOUNG, INC. DATED 02/19/2019 FOR ADDITIONAL DELINEATION OF EXISTING FEATURES SYMBOLS AND ABBREVIATIONS

BEST MANAGEMENT PRACTICES (BMP) GUIDELINES:

1. BEST MANAGEMENT PRACTICES DEVICES SHALL BE USED TO ADDRESS EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL AGENCY EROSION AND SILTATION CONTROL REQUIREMENTS.
2. THE PLAN INDICATES TYPICAL BEST MANAGEMENT PRACTICES DEVICE LOCATIONS. REFER TO BMP DETAILS FOR CORRECT PLACEMENT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BMP DEVICES THROUGHOUT THE DURATION OF CONSTRUCTION INCLUDING DURING ALL DEMOLITION OR AS INSTRUCTED BY THE ENGINEER.
4. ALL GRASSING BY EITHER SEED OR SOD SHALL BE INSTALLED AS SOON AS PRACTICAL UPON THE COMPLETION OF FINAL GRADING OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL GRASSING IN A HEALTHY GROWING ENVIRONMENT UNTIL FINAL ACCEPTANCE AND CERTIFICATION.
5. THE CONTRACTOR, SHALL BE RESPONSIBLE TO SAFELY STORE EQUIPMENT, FUEL, OIL AND OTHER HAZARDOUS SUBSTANCES FROM CONTAMINATING THE STORM WATER MANAGEMENT AND COLLECTION SYSTEMS AND PRESERVATION AREAS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WIND AND DUST DURING ALL PHASES OF CONSTRUCTION BY USE OF WATER TRUCKS, WIND FENCING OR OTHER APPROVED DEVICES.
7. ALL WELLS FOUND ON SITE DURING CONSTRUCTION ACTIVITIES SHALL BE ABANDONED IN ACCORDANCE WITH SWFWMD RULE CHAPTER 40D-3.531.

SYMBOL LEGEND

- GRATE INLET
- DRAINAGE MANHOLE
- STREET SIGN
- WIRE PULL BOX
- TREE
- PALM TREE
- BACK FLOW PREVENTER
- CLEANOUT
- CONCRETE LIGHT POLE
- FIRE HYDRANT
- GUY WIRE
- SANITARY SEWER MH
- METAL LIGHT POLE
- WATER METER
- WATER VALVE
- SIGNAL CONTROL PANEL
- GAS WITNESS POST
- WOOD POWER POLE
- SIGNAL PEDESTRIAN
- PEDESTRIAN SIGNAL
- FLOOD LIGHT
- ELECTRIC METER
- POST
- ELECTRIC OUTLET
- YARD DRAIN
- OAK TREE SIZE NOTED
- TELEPHONE PEDESTAL
- SANITARY SEWER LINE
- STORM SEWER LINE
- OVER HEAD LINE

ABBREVIATIONS LEGEND

ALUM = ALUMINUM
CONC = CONCRETE
ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE
FFE = FINISHED FLOOR ELEVATION
FL = FLOW LINE
INV = INVERT OF PIPE
NAVD = NATIONAL GEODETIC VERTICAL DATUM OF 1929
OHL = OVER HEAD LINE

CONFORMED SET 05/22/2020

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PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

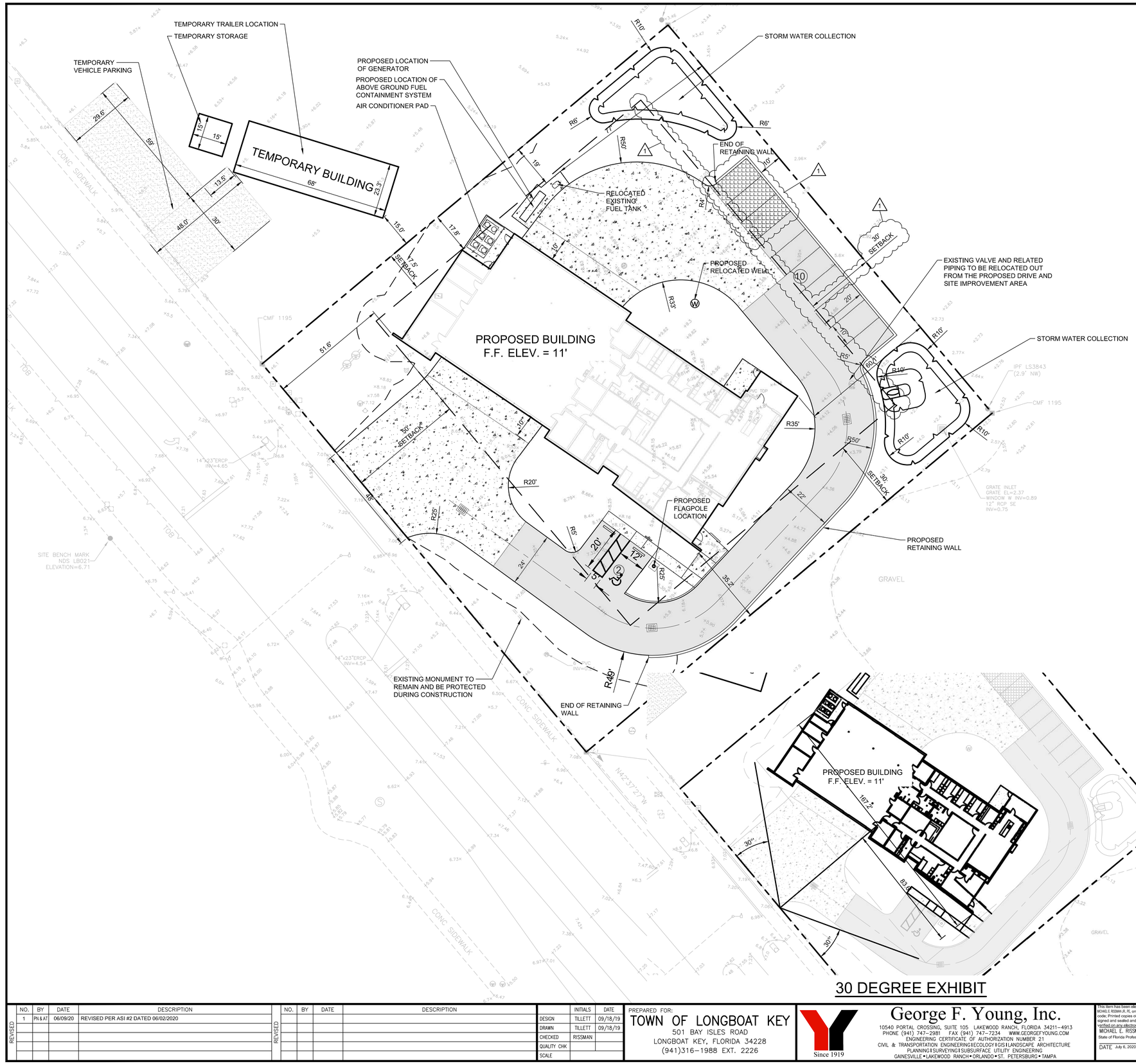
George F. Young, Inc.
10540 PORTAL CROSSING, SUITE 105 LAKEWOOD RANCH, FLORIDA 34211-4913
PHONE (941) 747-2981 FAX (941) 747-7234 WWW.GEORGEFYOUNG.COM
ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING I ECOLOGY I GIS I LANDSCAPE ARCHITECTURE
PLANNING I SURVEYING I SUBSURFACE UTILITY ENGINEERING
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MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer, License #
DATE July 6, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92
EXISTING CONDITION DEMOLITION PLAN
SECTION 17, TOWNSHIP 36 S., RANGE 17 E.

JOB NO. 19001300LC
SHEET NO. C3

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LOGIN: TillettL Anthony
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30 DEGREE EXHIBIT

LEGEND

- PROJECT LIMITS
- BE — PROPOSED BURIED ELECTRICAL
- BTV — PROPOSED BURIED CATV
- BT — PROPOSED BURIED TELEPHONE
- PROPOSED EASEMENT
- S — PROPOSED SANITARY SEWER
- S — PROPOSED SANITARY MANHOLE
- F — PROPOSED FIRE SYSTEM
- W — PROPOSED WATER SYSTEM
- D — PROPOSED STORM DRAINAGE
- D — PROPOSED STORM JUNCTION BOX
- S — PROPOSED SANITARY SEWER
- F — PROPOSED FIRE LINE
- W — PROPOSED DOMESTIC WATER
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- M — PROPOSED METER
- PROPOSED SIDEWALKS, DRIVES, ETC.
- PROPOSED PAVEMENT

N / W / E / S

20 10 0 10 20
SCALE: 1" = 20'

SEE TOPOGRAPHIC SURVEY BY GEORGE F. YOUNG, INC. DATED 05/16/2019 FOR ADDITIONAL DELINEATION OF EXISTING FEATURES SYMBOLS AND ABBREVIATIONS

- E — EXIST. ELECTRIC METER
- EXIST. CONCRETE POWER POLE
- P — EXIST. POWER SUPPLY BOX
- M — EXIST. WATER METER
- EXIST. WATER VALVE
- G — EXIST. GAS LINE MARKER
- OHE — EXIST. OVERHEAD ELECTRIC
- E.C.L. — EXIST. EROSION CONTROL LINE
- EXIST. TELEPHONE RISER
- EXIST. SIGN
- S — EXIST. SANITARY MANHOLE
- D — EXIST. STORMWATER MANHOLE
- EXIST. FIRE HYDRANT
- R/W — RIGHT OF WAY LINE
- EXIST. SEAGRAPE TREE
- EXIST. PALM TREE
- EXI9ST. ORNAMENTAL TREE UNKNOWN
- .0.0 — EXISTING SPOT ELEVATION (SOFT SURFACE)
- .0.00 — EXISTING SPOT ELEVATION (HARD SURFACE)
- NGVD29 — NATIONAL GEODETIC VERTICAL DATUM OF 1929
- NAVD88 — NORTH AMERICAN VERTICAL DATUM OF 1988

UTILITY SERVICE ASSUMPTIONS:

1. POTABLE WATER DEMAND AND METER SIZE WILL BE BASED ON ESTIMATED PLUMBING FIXTURES FOR COMMERCIAL UNITS USING THE MANATEE COUNTY UTILITY WATER METER SIZE DETERMINATION CHART.
2. FIRE LINE WILL BE EQUIPPED WITH AN RPZ BFP AND WILL BE LOCATED ONSITE (NOT IN RIGHT-OF-WAY).
3. THE BFP'S WILL BE LOCATED AS NEAR AS POSSIBLE TO THE MAINLINE TAP.

STORM WATER MANAGEMENT SYSTEM NOTE:

STORM WATER COLLECTION SYSTEM WILL COLLECT STORM WATER AND CONVEY TO FINAL LOCATION AND DESIGNED TO COMPLY WITH THE TOWN OF LONGBOAT KEY, AND S.W.F.W.M.D. CRITERIA.

NOTES:

1. EXISTING CONDITIONS (BOUNDARY AND TOPOGRAPHIC SURVEY) SHOWN PROVIDED BY GEORGE F. YOUNG, INC. LAST UPDATED 07/05/2017. ADDITIONAL EXISTING UTILITY INFORMATION TAKEN FROM TOWN OF LONGBOAT KEY RECORD DRAWINGS. HAS BEEN ADDED.
2. ALL EXISTING ON-SITE UTILITIES AND SERVICES SHALL BE REMOVED TO THE POINT OF CONNECTION ON THE ADJACENT RIGHT-OF-WAY AS REQUIRED.
3. ALL EXISTING LIGHT POLES, UTILITY POLES, STREET SIGNS AND OTHER EXISTING FEATURES THAT ARE TO BE RELOCATED SHALL BE DETAILED AND COORDINATED DURING THE CONSTRUCTION PLAN REVIEW AND APPROVAL PROCESS.
4. ANY DAMAGE TO THE RIGHT-OF-WAY CAUSED BY CONSTRUCTION ACTIVITIES DURING THE COURSE OF THE PROJECT SHALL BE REPLACED AND/OR REPAIRED PRIOR THE FINAL CERTIFICATION .
5. NO PORTION OF ANY INDIVIDUAL BUILDING SHALL EXTEND BEYOND A LINE DRAWN FROM THE FRONT LOT LINE 30 DEGREES EITHER SIDE OF A LINE THROUGH THE MIDPOINT OF THE FRONT FACE OF THE BUILDING PERPENDICULAR TO THE FRONT LOT LINE.

CONFORMED SET 05/22/2020

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State of Florida Professional Engineer, License #
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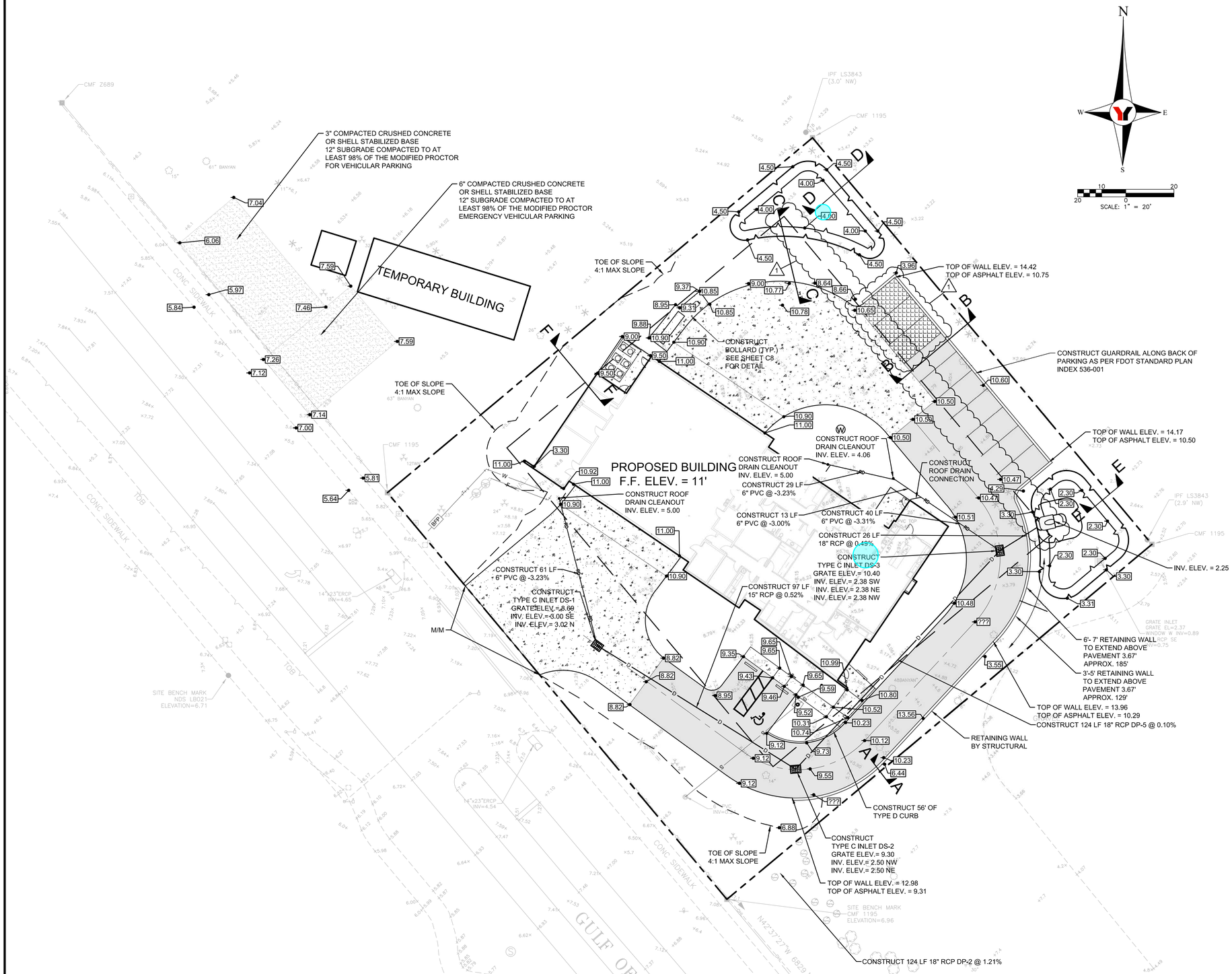
LONGBOAT KEY FIRE-RESCUE STATION #92

CIVIL SITE PLAN

SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC
SHEET NO. C4

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LOGIN: Tillett, Anthony
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LEGEND

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- PROPOSED SIDEWALKS, DRIVES, ETC.
- PROPOSED PAVEMENT

SEE TOPOGRAPHIC SURVEY BY GEORGE F. YOUNG, INC. DATED 05/16/2019 FOR ADDITIONAL DELINEATION OF EXISTING FEATURES SYMBOLS AND ABBREVIATIONS

- E — EXIST. ELECTRIC METER
- EXIST. CONCRETE POWER POLE
- P — EXIST. POWER SUPPLY BOX
- M — EXIST. WATER METER
- EXIST. WATER VALVE
- G — EXIST. GAS LINE MARKER
- OHE — EXIST. OVERHEAD ELECTRIC
- E.C.L. — EXIST. EROSION CONTROL LINE
- EXIST. TELEPHONE RISER
- EXIST. SIGN
- S — EXIST. SANITARY MANHOLE
- D — EXIST. STORMWATER MANHOLE
- EXIST. FIRE HYDRANT
- R/W — RIGHT OF WAY LINE
- EXIST. SEAGRAPE TREE
- EXIST. PALM TREE
- EXI9ST. ORNAMENTAL TREE UNKNOWN
- .0.0 — EXISTING SPOT ELEVATION (SOFT SURFACE)
- .0.00 — EXISTING SPOT ELEVATION (HARD SURFACE)

NGVD29 — NATIONAL GEODETIC VERTICAL DATUM OF 1929
NAVD88 — NORTH AMERICAN VERTICAL DATUM OF 1988

CONFORMED SET 05/22/2020

REVISED	NO.	BY	DATE	DESCRIPTION
	1	PN & AT	06/09/20	REVISED PER ASI #2 DATED 06/02/2020

	INITIALS	DATE
DESIGN	TILLETT	09/18/19
DRAWN	TILLETT	09/18/19
CHECKED	RISSMAN	
QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

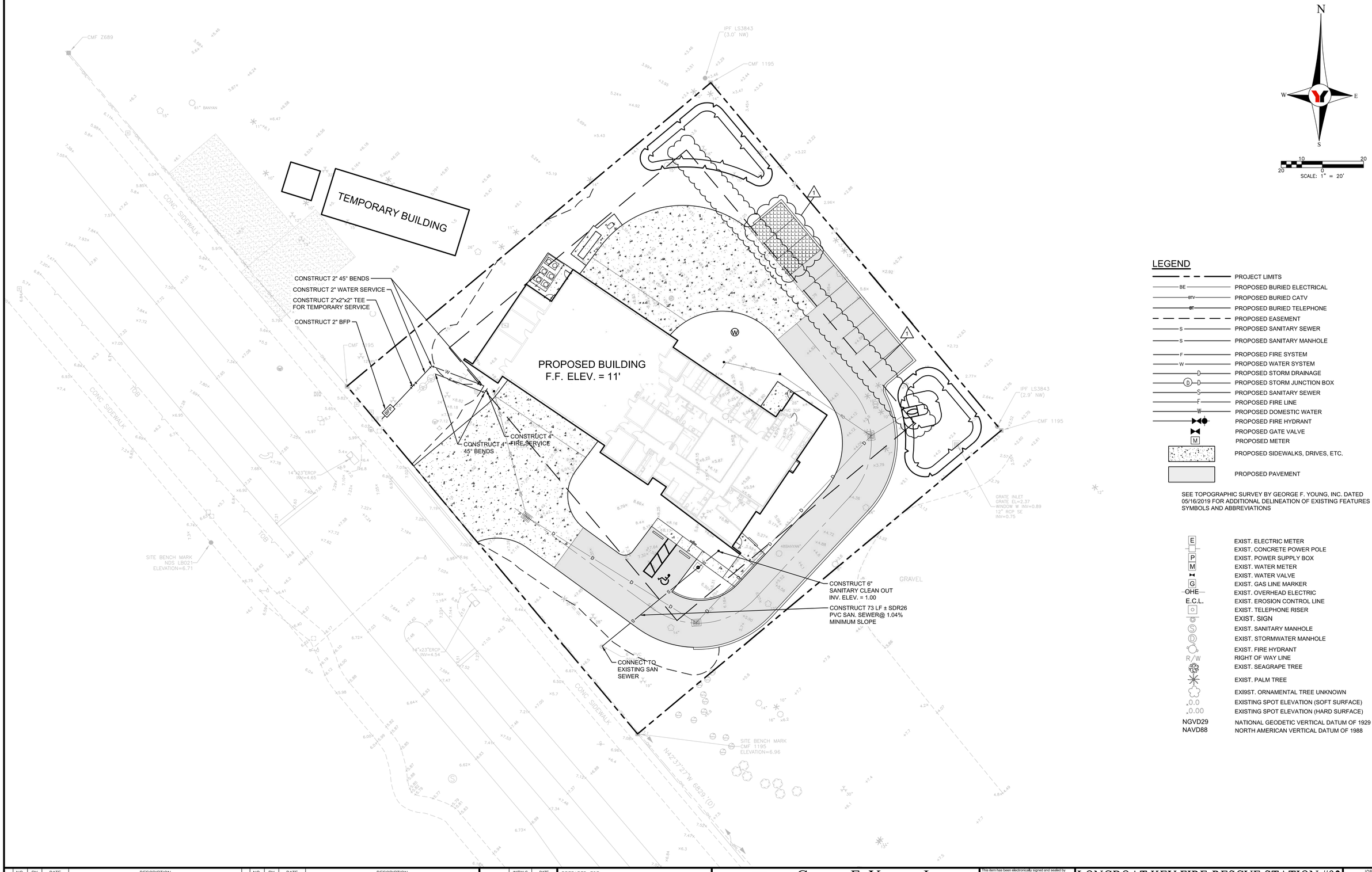
George F. Young, Inc.
10540 PORTAL CROSSING, SUITE 105 LAKEWOOD RANCH, FLORIDA 34211-4913
PHONE (941) 747-2981 FAX (941) 747-7234 WWW.GEORGEFYOUNG.COM
ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING | ECOLOGY | GIS | LANDSCAPE ARCHITECTURE
PLANNING | SURVEYING | SUBSURFACE UTILITY ENGINEERING
GAINESVILLE • LAKEWOOD RANCH • ORLANDO • ST. PETERSBURG • TAMPA
Since 1919

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MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer, License #
DATE July 6, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92
PAVING, GRADING, AND DRAINAGE PLAN
SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC
SHEET NO. C5

PLOTTED: 7/6/2020 3:55 PM
LOGIN: Tillett, Anthony
FILE: S:\PROJECTS\2019\19001300LC\dwg\Civil\19001300LC-PGD.dwg



N

W E

S

20 10 0 20

SCALE: 1" = 20'

LEGEND

- PROJECT LIMITS
- BE — PROPOSED BURIED ELECTRICAL
- BTV — PROPOSED BURIED CATV
- BT — PROPOSED BURIED TELEPHONE
- PROPOSED EASEMENT
- S — PROPOSED SANITARY SEWER
- S — PROPOSED SANITARY MANHOLE
- F — PROPOSED FIRE SYSTEM
- W — PROPOSED WATER SYSTEM
- D — PROPOSED STORM DRAINAGE
- D — PROPOSED STORM JUNCTION BOX
- S — PROPOSED SANITARY SEWER
- F — PROPOSED FIRE LINE
- W — PROPOSED DOMESTIC WATER
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- M — PROPOSED METER
- PROPOSED SIDEWALKS, DRIVES, ETC.
- PROPOSED PAVEMENT

SEE TOPOGRAPHIC SURVEY BY GEORGE F. YOUNG, INC. DATED 05/16/2019 FOR ADDITIONAL DELINEATION OF EXISTING FEATURES SYMBOLS AND ABBREVIATIONS

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QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
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State of Florida Professional Engineer, License #

DATE July 6, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92

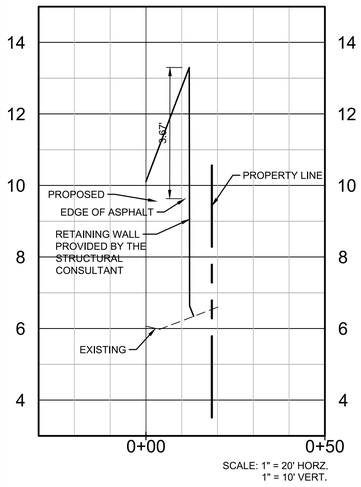
UTILITY PLAN

SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC

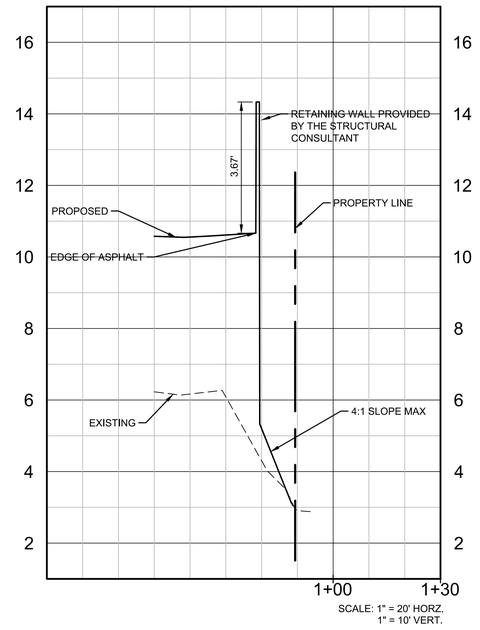
SHEET NO. C6

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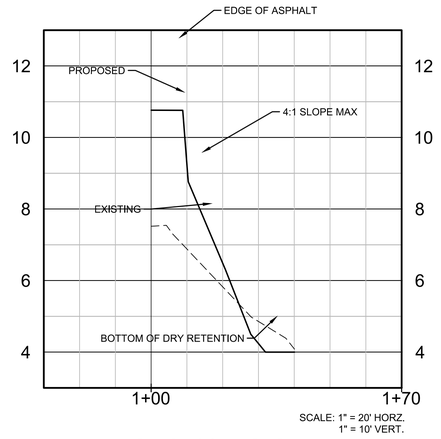
SCALE: 1" = 20' HORZ.
1" = 10' VERT.

SECTION A-A



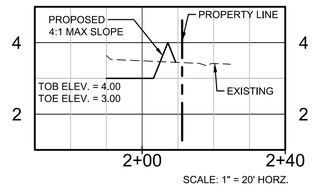
SCALE: 1" = 20' HORZ.
1" = 10' VERT.

SECTION B-B



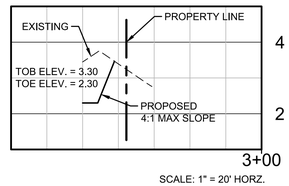
SCALE: 1" = 20' HORZ.
1" = 10' VERT.

SECTION C-C



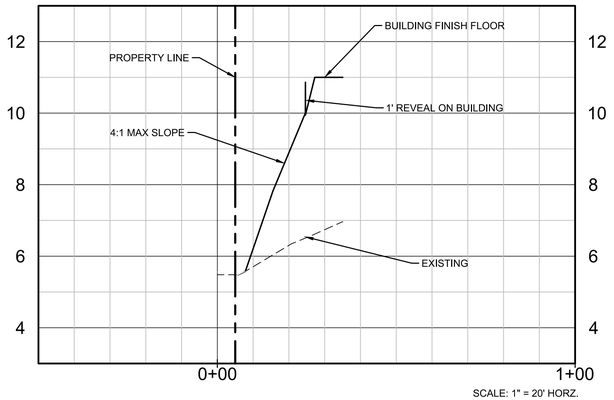
SCALE: 1" = 20' HORZ.
1" = 10' VERT.

SECTION D-D



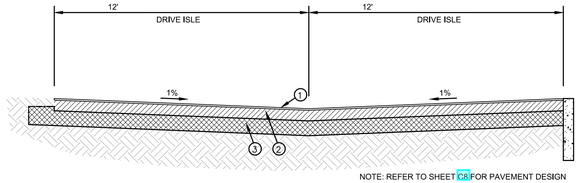
SCALE: 1" = 20' HORZ.
1" = 10' VERT.

SECTION E-E



SCALE: 1" = 20' HORZ.
1" = 10' VERT.

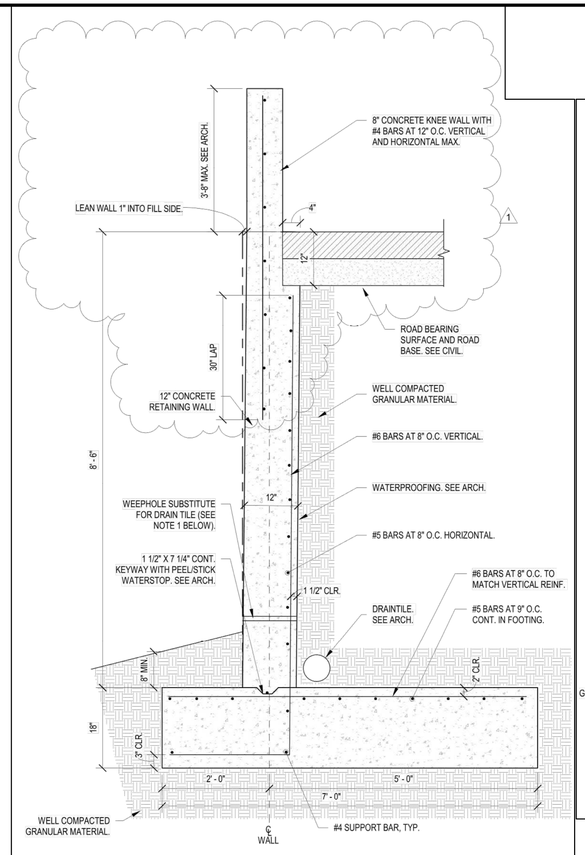
SECTION F-F



NOTE: REFER TO SHEET C8 FOR PAVEMENT DESIGN

TYPICAL INVERTED ROAD SECTION

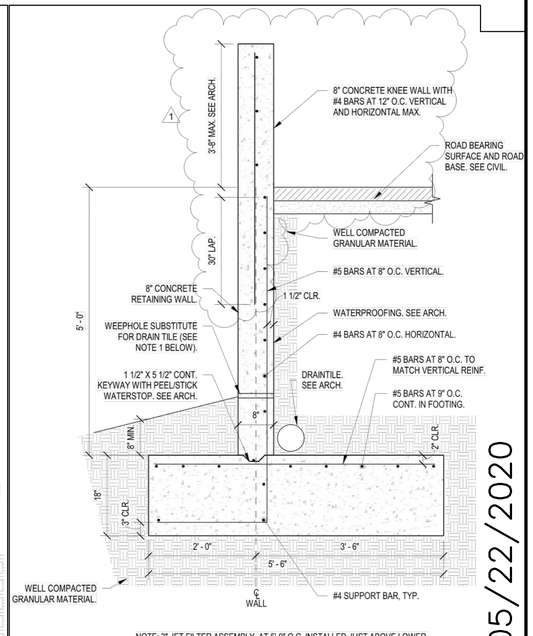
N.T.S.



NOTE: 3" JET FILTER ASSEMBLY, AT 5'-0" O.C. INSTALLED JUST ABOVE LOWER GRADE, ARE ACCEPTABLE SUBSTITUTE FOR THE DRAINTILE IF IT IS ACCEPTABLE TO THE ARCHITECT . PROVIDE FILTER FABRIC.

TYPICAL 5'-0" < 8'-6" RETAINING WALL

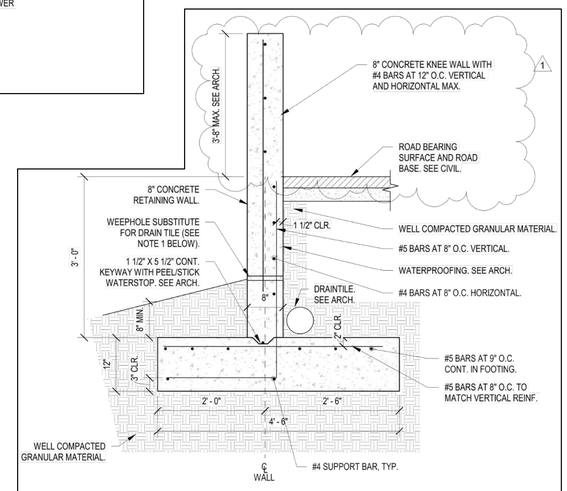
3/4" = 1'-0"



NOTE: 3" JET FILTER ASSEMBLY, AT 5'-0" O.C. INSTALLED JUST ABOVE LOWER GRADE, ARE ACCEPTABLE SUBSTITUTE FOR THE DRAINTILE IF IT IS ACCEPTABLE TO THE ARCHITECT . PROVIDE FILTER FABRIC.

TYPICAL RETAINING WALL 3'-0" < H < 5'-0"

3/4" = 1'-0"



NOTE: 3" JET FILTER ASSEMBLY, AT 5'-0" O.C. INSTALLED JUST ABOVE LOWER GRADE, ARE ACCEPTABLE SUBSTITUTE FOR THE DRAINTILE IF IT IS ACCEPTABLE TO THE ARCHITECT . PROVIDE FILTER FABRIC.

TYPICAL RETAINING WALL H < 3'-0"

3/4" = 1'-0"

CONFORMED SET 05/22/2020

REVISED	NO.	BY	DATE	DESCRIPTION

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MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer, License #
DATE June 22, 2020

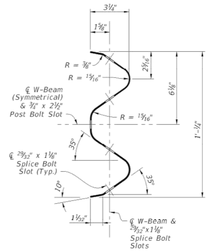
LONGBOAT KEY FIRE-RESCUE STATION #92

TYPICAL SECTIONS

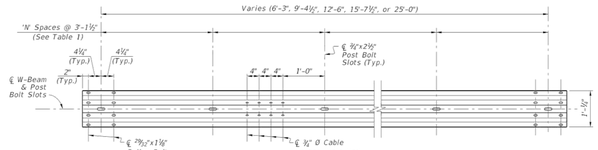
SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC
SHEET NO. C7

PLOTTED: 6/22/2020 1:51 PM
LOGIN: tillett, Anthony
FILE: L:\PROJECTS\2019\19001300LC\Dwg\C00\19001300LC-TS.dwg



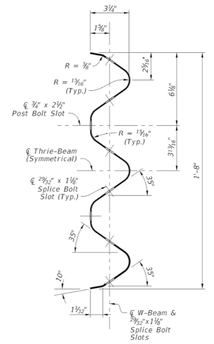
W-BEAM PANEL SECTION



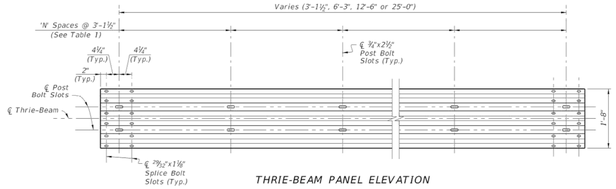
W-BEAM PANEL ELEVATION

PANEL SUMMARY TABLE:

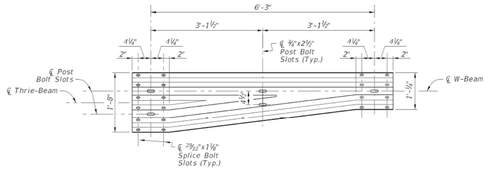
Panel Type	Number of Spaces 'N'	Gauge
6'-3" W-Beam	2	12
9'-4½" W-Beam	3	12
12'-6" W-Beam	4	12
15'-7½" W-Beam	5	12
25'-0" W-Beam	8	12
3'-1½" Thrie-Beam	1	10
6'-3" Thrie-Beam	2	12
12'-6" Thrie-Beam	4	12
25'-0" Thrie-Beam	8	12
Thrie-Beam Trans.	2	10



THRIE-BEAM PANEL SECTION



THRIE-BEAM PANEL ELEVATION



THRIE-BEAM TRANSITION PANEL ELEVATION
(Reverse Direction Similar by Opposite Hand)

NOTES:

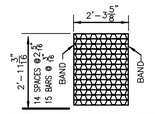
1. MATERIALS:
   Use corrugated steel panels in accordance with Specification 967 and made from either Class A, 12 gauge steel or Class B, 10 gauge steel as specified in the 'Panel Summary Table' above.
2. CABLE ANCHOR PLATE BOLT HOLES:
   Include ¾" Ø Cable Anchor Plate Bolt Holes only where required for installation of the Cable Anchor Plate shown on Sheet 9, 10, & 11.

   29/32" x 1⅛" slots may substitute for the ⅞" Ø holes shown.

W-BEAM AND THRIE-BEAM PANEL DETAILS

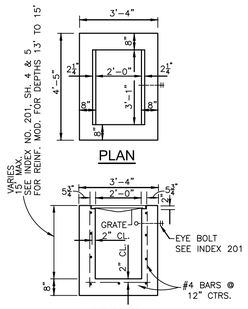
LAST REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19	REVISION				536-001	4 of 24

10/29/2019 8:20:28 AM



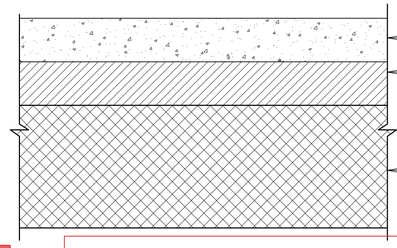
TYPE "C" GRATE

STRAIGHT BARS 2"x ⅞"
RETICULINE BARS 1¼" x ⅜"
BANDS 1½" x ¼"
APPROX. WEIGHT 100 LBS.



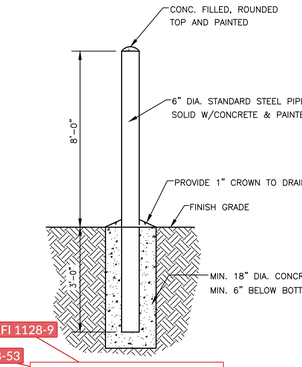
RECOMMENDED MAXIMUM PIPE SIZE:
2'-0" WALL-18" PIPE
3'-1" WALL-24" PIPE

TYPE "C" INLET DETAIL
N.T.S.



RFI 1128-61

TYPICAL HEAVY DUTY CONCRETE PAVEMENT DETAIL
N.T.S.

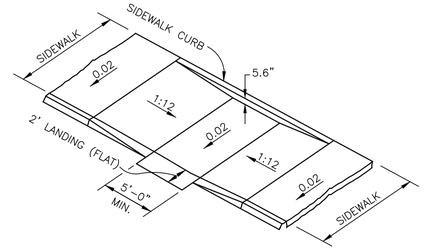


RFI 1128-9

RFI 1128-53

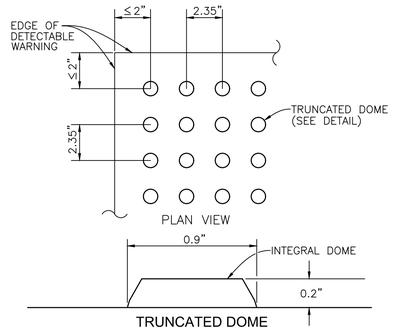
BOLLARD DETAIL
N.T.S.

THESE RAMPS SHOWN FOR TYPICAL REFERENCE FOR ADDITIONAL INFORMATION AND DETAILS REFER TO FDOT INDEX 304



F.D.O.T. INDEX NO. 304 (CR-3)

ADA RAMP IN SIDEWALK
N.T.S.



CURB RAMP DETECTABLE WARNING DETAIL

NOTES:

DETECTABLE WARNINGS ON WALKING SURFACES

THE DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH AND DEPTH OF THE CURB RAMP.

DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCH, A HEIGHT OF NOMINAL 0.2 INCH AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCH AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.

THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.

THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70%. CONTRAST IN PERCENT IS DETERMINED BY:

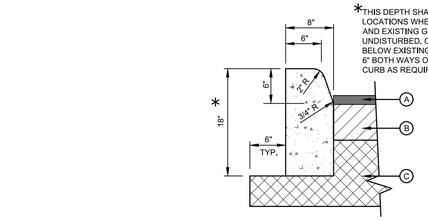
CONTRAST = [(B1-B2)/B1] x 100

WHERE B1 = LIGHT REFLECTANCE VALUE (LRV) OF THE LIGHTER AREA AND B2 = LIGHT REFLECTANCE VALUE (LRV) OF THE DARKER AREA.

NOTE THAT IN ANY APPLICATION BOTH WHITE AND BLACK ARE NEVER ABSOLUTE; THUS, B1 NEVER EQUALS 100 AND B2 IS ALWAYS GREATER THAN 0.

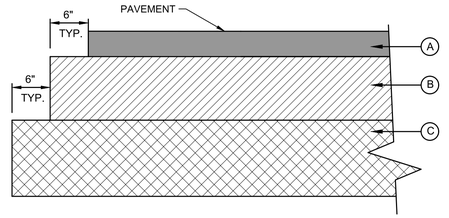
MANATEE COUNTY TRANSPORTATION DEPARTMENT DETAIL 302.3

CURB RAMP DETECTABLE WARNINGS
N.T.S.



*THIS DEPTH SHALL BE INCREASED AT TREE WELL LOCATIONS WHERE EXISTING TREES ARE SAVED AND EXISTING GRADING AT TREE TRUNK IS UNDISTURBED, CURB SHALL EXTEND MIN. 12" BELOW EXISTING GRADE AND PROVIDE #3 BARS @ 6" BOTH WAYS ON THE DEEPENED PART OF THE CURB AS REQUIRED

TYPE "D" CURB
N.T.S.

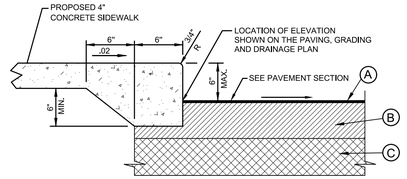


(A) 2.0" THICK OF S-1 ASPALT

(B) 8" THICK CRUSHED CONCRETE BASE COURSE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR (ASTM D-1557) TO A MIN. LNR = 100

(C) 12" SUBGRADE COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR (ASTM D-1557) TO YIELD A MIN. LBR = 40

TYPICAL HEAVY DUTY ASPHALT PAVEMENT SECTION
N.T.S.



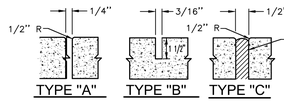
SIDEWALK / CURB DETAIL
N.T.S.

SIDEWALK CONSTRUCTION NOTES

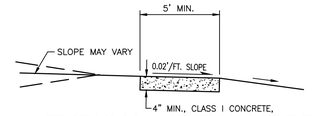
1. ALL ORGANIC MATERIAL & DEBRIS SHALL BE REMOVED & THE AREA SHALL BE GRADED & COMPACTED PRIOR TO CONCRETE PLACEMENT.
2. THE MINIMUM COMPRESSION STRENGTH OF THE CONCRETE SHALL BE OF CLASS I 3000 p.s.i. @ 28 DAYS.
3. TYPE "A" JOINTS MAY BE SAW CUT, WITHOUT THE RADIUS.
4. TYPE "B" JOINTS, SHALL BE SAW CUT.

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
"A"	P.C & P.T. OF CURVES, JUNCTION OF EXISTING & NEW SIDEWALKS.
"B"	5'-0" CENTER TO CENTER ON SIDEWALKS.
"C"	WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVE-WAYS & SIMILAR STRUC-TURES AT INTERVALS NOT TO EXCEED 80 FEET.

TABLES OF SIDEWALK THICKNESS-T
LOCATION
RESIDENTIAL AREAS
DRIVEWAYS & OTHER AREAS



SIDEWALK JOINTS
N.T.S.



TYPICAL SIDEWALK DETAILS
N.T.S.

SIDEWALK NOTES

1. ALL SIDEWALKS TO BE FOUR INCHES (4"), 3,000 PSI CONCRETE, EXCEPT WHERE SIDEWALK BISECTS DRIVEWAY, 6" MINIMUM THICKNESS, CLASS I CONCRETE.
2. THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL NOT BE MORE THAN 1/4" INCH UNDER A 10 FOOT STRAIGHTEDGE, NOR MORE THAN 1/8 INCH ON A 5 FOOT TRANSVERSE SECTION. THE EDGE OF THE SIDEWALK SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2".
3. EXPANSION JOINTS BETWEEN SIDEWALK AND THE CURB OR DRIVEWAY OR AT FIXED OBJECTS AND SIDEWALK INTERSECTIONS SHALL BE 1/2" JOINTS.
4. CONTRACTION JOINTS/OPEN TYPE JOINTS SHALL BE FORMED BY STAKING A METAL BULKHEAD IN PLACE AND DEPOSITING THE CONCRETE ON BOTH SIDES. AFTER THE CONCRETE HAS SET UP SUFFICIENTLY TO PRESERVE THE WIDTH AND SHAPE OF THE JOINT, THE BULKHEAD SHALL BE REMOVED. AFTER THE SIDEWALK HAS BEEN FINISHED OVER THE JOINT, THE SLOT SHALL BE EDGED WITH A TOOL HAVING A 1/2" RADIUS. SAWED JOINTS SHALL CONSIST OF A SLOT APPROXIMATELY 3/16 INCH WIDE AND NOT LESS THAN 1 1/2 INCHES DEEP CUT WITH A CONCRETE SAW AFTER THE CONCRETE HAS SET.

PAVEMENT NOTES:

GENERAL

1. ASPHALTIC CONCRETE TYPE SI: FDOT STANDARD SPECIFICATIONS, SECTION 331
2. SURFACE MATERIAL WILL BE CONSISTENT WITH EXISTING SURFACE OR BETTER
3. CRUSHED CONCRETE: FDOT 2000 STANDARD SPECIFICATIONS, SECTION 204 (OPTIONAL)
4. STABILIZED SUBGRADE: FDOT 2000 STANDARD SPECIFICATIONS, SECTION 160 AND 914
5. DRAINAGE (CONCRETE PIPE): FDOT 2000 STANDARD SPECIFICATIONS, SECTION 941
6. SOFT, YIELDING, OR SUPER-SATURATED MATERIAL THAT WILL NOT READILY BE COMPACTED, SHALL BE CONSIDERED UNACCEPTABLE FOR BACKFILL. THIS IS AT THE DISCRETION OF THE FIELD ENGINEER.
7. SODDING: FDOT 2000 STANDARD SPECIFICATIONS, SECTION 575
8. GRASSING: FDOT 2000 STANDARD SPECIFICATIONS, SECTION 570
9. PAVEMENT MARKINGS AND SIGNS SHALL BE IN ACCORDANCE WITH FDOT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX NO. 17346.
10. HANDICAP RAMPS IF REQUIRED SHALL MEET FLORIDA ACCESSIBILITY CODE STANDARDS.

GENERAL NOTES:

1. ALL STORM INLETS SHALL HAVE TRAFFIC BEARING (HEAVY DUTY) STEEL GRATES.
2. ALL STORM SEWER MANHOLES AND JUNCTION BOXES SHALL HAVE HEAVY DUTY TYPE RING AND COVER.
3. ALL TRAFFIC CONTROL PAVEMENT MARKINGS SHALL BE ALKYD THERMOPLASTIC 90 MILS IN THICKNESS.
4. A TWO FOOT WIDE STRIP OF SOD (UNLESS SPECIFIED OTHERWISE) IS TO BE PROVIDED BEHIND ALL PAVEMENT EDGES. SOD OR GRASSING/MULCHING SHALL BE PROVIDED FOR ALL OTHER OPEN AREAS UNLESS NOTED OTHERWISE ON LANDSCAPE PLANS.
5. ALL CONCRETE TO BE A MINIMUM 3,000 P.S.I., UNLESS NOTED OTHERWISE ON THE PLANS.
6. ALL DRAINAGE CULVERT JOINTS SHALL BE WRAPPED PER FDOT INDEX 280.
7. ALL DRAINAGE STRUCTURE INVERTS TO BE PAVED TO PREVENT IMPOUNDED WATER.

CONFORMED SET 05/22/2020

REVISED	NO.	BY	DATE	DESCRIPTION

REVISED	NO.	BY	DATE	DESCRIPTION

	INITIALS	DATE
DESIGN	TILLETT	09/18/19
DRAWN	TILLETT	09/18/19
CHECKED	RISSMAN	
QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

Since 1919

George F. Young, Inc.
10540 PORTAL CROSSING, SUITE 105 LAKEWOOD RANCH, FLORIDA 34211-4913
PHONE (941) 747-2981 FAX (941) 747-7234 WWW.GEORGEFYOUNG.COM
ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING | ECOLOGY | GIS | LANDSCAPE ARCHITECTURE
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MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer. License #

DATE June 22, 2020

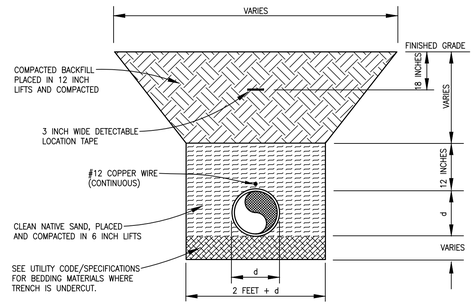
LONGBOAT KEY FIRE-RESCUE STATION #92
PAVING, GRADING, AND DRAINAGE DETAIL
SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC
SHEET NO. C8

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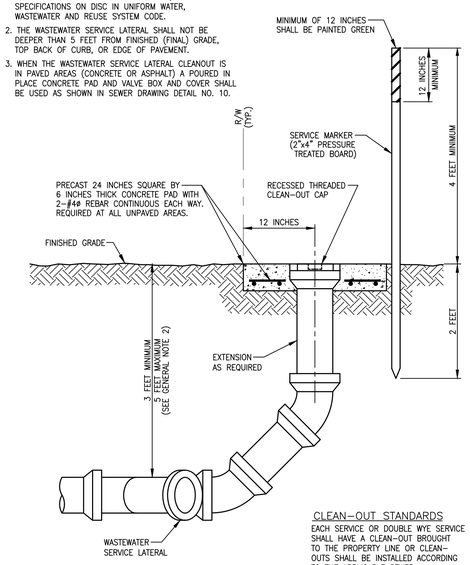
1. TRENCH WIDTH SHALL BE APPROX. EQUAL TO THE PIPE DIA. + 2 FEET OR AS PER AWWA AND THE MANUFACTURERS RECOMMENDATIONS.
2. PROVIDE SHEETING AND SHORING AS NECESSARY IN ACCORDANCE WITH OSHA STANDARDS.
3. BACKFILL MATERIALS SHALL BE APPROVED BY THE ENGINEER WHERE THE PIPE IS UNDERCUT.
4. WATER, SEWER, AND REUSE MAINS TO BE INSTALLED WITH A MINIMUM 36 INCHES OF COVER.
5. FOR COUNTY R/W, REFER TO LAND DEVELOPMENT REGULATIONS FOR ROADWAY REPLACEMENT, PAVEMENT OVERLAY AND DENSITY REQUIREMENTS.
6. FOR STATE R/W, REFER TO F.D.O.T. REGULATIONS FOR ROADWAY REPLACEMENT, PAVEMENT OVERLAY AND DENSITY REQUIREMENTS.



TRENCH DETAIL
N.T.S.

GENERAL NOTES:

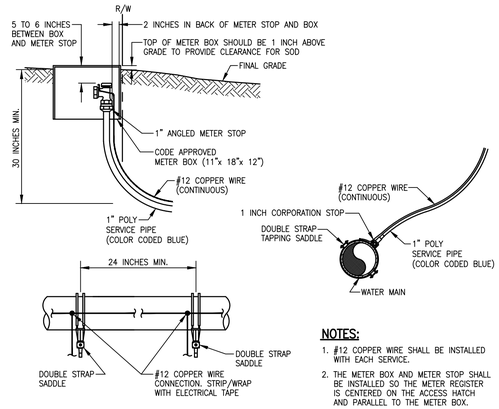
1. LOCATION OF CLEAN-OUT TO BE MARKED AT CURB OR EDGE OF ASPHALT WITH BRASS DISC WITH NUMBER OF FEET. REFER TO THE GENERAL SECTION, 6.15.1 FOR SPECIFICATIONS ON DISC IN UNIFORM WATER, WASTEWATER AND REUSE SYSTEM CODE.
2. THE WASTEWATER SERVICE LATERAL SHALL NOT BE DEEPER THAN 5 FEET FROM FINISHED (FINAL) GRADE, TOP BACK OF CURB, OR EDGE OF PAVEMENT.
3. WHEN THE WASTEWATER SERVICE LATERAL CLEANOUT IS IN PAVED AREAS (CONCRETE OR ASPHALT) A POURED IN PLACE CONCRETE PAD AND VALVE BOX AND COVER SHALL BE USED AS SHOWN IN SEWER DRAWING DETAIL NO. 10.



CLEAN-OUT STANDARDS

EACH SERVICE OR DOUBLE WYE SERVICE SHALL HAVE A CLEAN-OUT BROUGHT TO THE PROPERTY LINE OR CLEAN-OUTS SHALL BE INSTALLED ACCORDING TO THE APPLICABLE SEWER FRANCHISE SPECIFICATIONS.

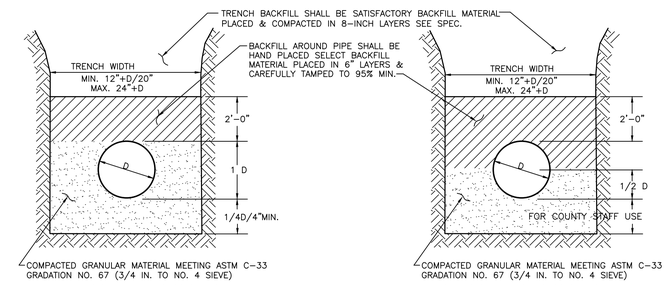
SERVICE CLEAN-OUT
N.T.S.



NOTES:

1. #12 COPPER WIRE SHALL BE INSTALLED WITH EACH SERVICE.
2. THE METER BOX AND METER STOP SHALL BE INSTALLED SO THE METER REGISTER IS CENTERED ON THE ACCESS HATCH AND PARALLEL TO THE METER BOX.

TYPICAL SERVICE CONNECTION
(5/8"x 3/4" METER or 1" METER)
N.T.S.



CLASS 1-A BEDDING FOR AREAS BELOW GROUNDWATER TABLE

CLASS 1-B BEDDING FOR AREAS ABOVE GROUNDWATER TABLE

PIPE BEDDING DETAILS FOR PVC GRAVITY SEWERS
N.T.S.

CONFORMED SET 05/22/2020

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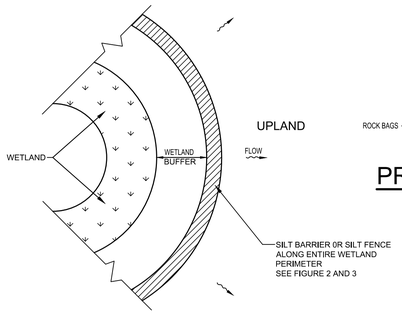
MICHAEL E. RISMAN JR., PE No. 40218
State of Florida Professional Engineer, License #

DATE June 22, 2020

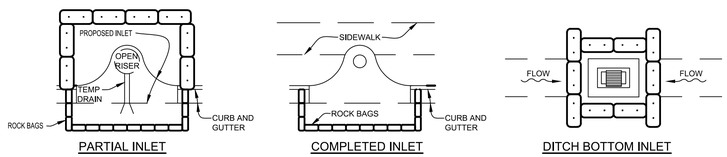
LONGBOAT KEY FIRE-RESCUE STATION #92
UTILITY DETAIL
SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC
SHEET NO. C9

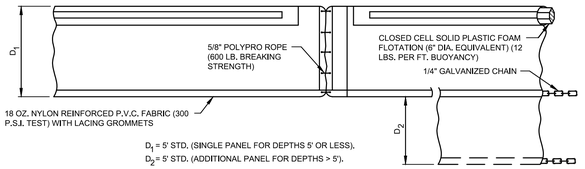
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WETLAND BUFFER
N.T.S.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES
N.T.S.

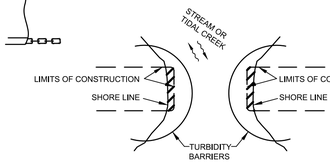


D_1 = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS),

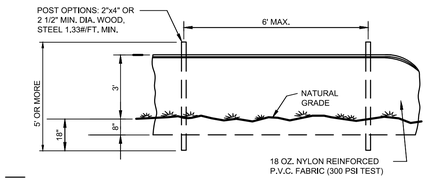
D_2 = 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5'),

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET, TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE PROJECT ENGINEER.

TYPE I FLOATING TURBIDITY BARRIER
N.T.S.

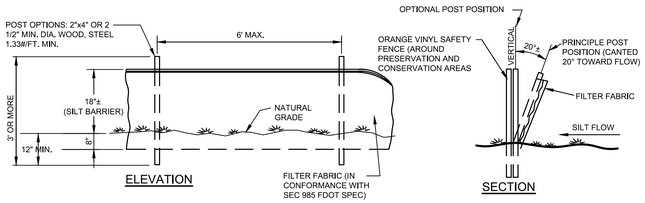


TURBIDITY BARRIER APPLICATIONS
N.T.S.

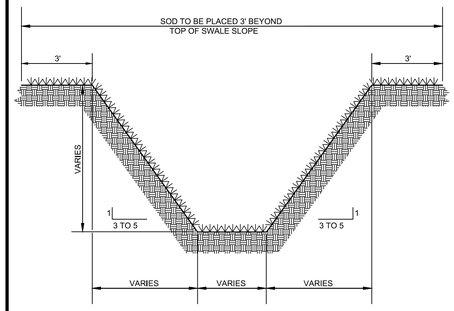


STAKED TURBIDITY BARRIER
N.T.S.

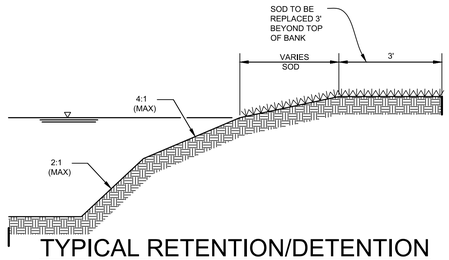
NOTES:
1). TURBIDITY OF TYPE I MAY BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2). NUMBER AND SPACING OF ANCHORS DEPENDENT ON WATER VELOCITIES.
3). DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
4). NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
5). TURBIDITY BARRIERS FOR FLOWING STREAMS, AND TIDAL CREEKS MAY BE EITHER FLOATING OR STAKED TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS.
6). THE BARRIER TYPE(S) WILL BE AT THE CONTRACTOR'S OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIERS AND/OR STAKED TURBIDITY BARRIERS.
7). POSTS IN STAKED TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
8). SUBSTITUTIONS FOR TYPE I SHALL BE AS APPROVED BY ENGINEER.
9). COMPONENTS OF TYPE I MAT BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER.



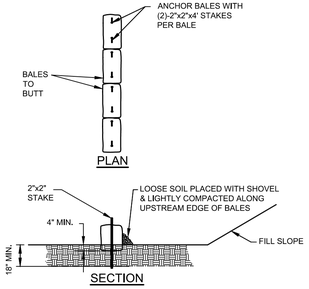
TYPICAL SILT FENCE
N.T.S.



TYPICAL SWALE SECTION
N.T.S.

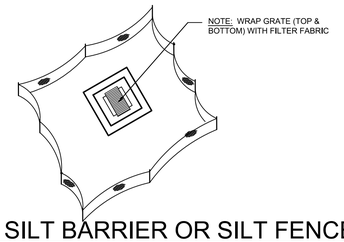


TYPICAL RETENTION/DETENTION POND SECTION
N.T.S.



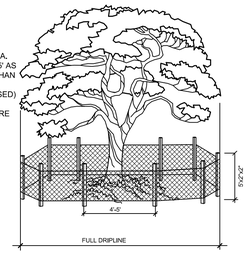
TYPICAL BALE SILT BARRIER
N.T.S.

TURBIDITY BARRIERS
N.T.S.



STAKED SILT BARRIER OR SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS
N.T.S.

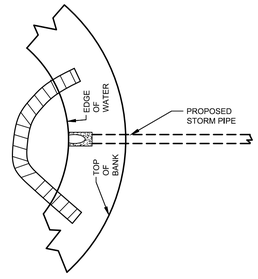
INSTALLATION SPECIFICATIONS:
CHAIN LINK FENCING (NEW OR USED) WITH WOOD SUPPORTS.
1. MINIMUM RADIUS TO BE PROTECTED:
ALL TREES; DRIP LINE - SEE NOTES #1.
2. METHOD OF ERECTION: (SEE DIAGRAM) A. MINIMUM HEIGHT OF UPRIGHTS SHALL BE 5' AS MEASURED ABOVE GRADE AND NO LESS THAN 2"x 2" LUMBER.
B. CHAIN LINK FENCING (5' HT.) (NEW OR USED) SHALL BE USED TO PROTECT THE TREE.
C. UPRIGHTS SHALL BE SPACED AT NO MORE THAN 4'-5' INTERVALS.



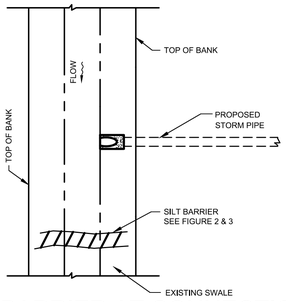
ESTIMATED TREE DRIP LINE ILLUSTRATES PLACEMENT OF BARRICADES ON INDIVIDUAL TREES WITHIN 50' OF LIMITS OF CONSTRUCTION

TREE BARRICADE DETAIL
N.T.S.

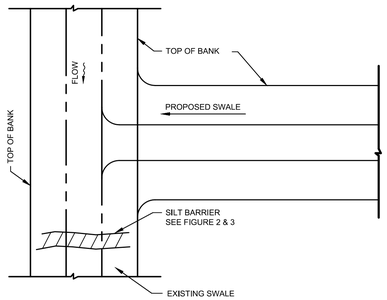
NOTES:
1. DRIP LINE OF TREES TO BE PROTECTED SHALL BE ESTIMATED BASED ON 1' OF RADIUS (OUT FROM TRUNK IN ALL DIRECTIONS) FOR 1" DBH.
2. NO TREE SHALL BE REMOVED UNLESS SPECIFICALLY TAGGED FOR REMOVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE ANY TREES THAT ARE TO REMAIN.
4. ROOTS GREATER THAN 1" DIAM. SHALL NOT BE CUT UNLESS OTHERWISE APPROVED BY THE ENGINEER. 5. ROOTS OF 1" DIAM. OR LARGER THAT NEED TO BE CUT SHALL BE CUT NEATLY.



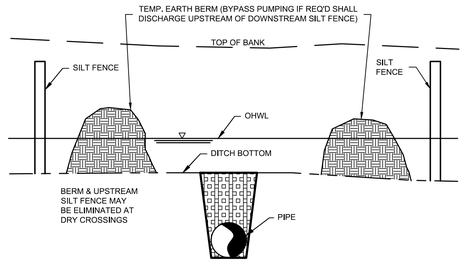
TURBIDITY BARRIER AT CONNECTION OF STORM PIPE TO EXISTING LAKE
N.T.S.



SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
N.T.S.



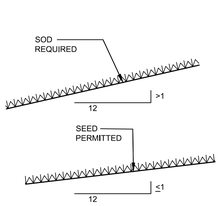
SILT BARRIER AT CONNECTION OF SWALE TO EXISTING SWALE
N.T.S.



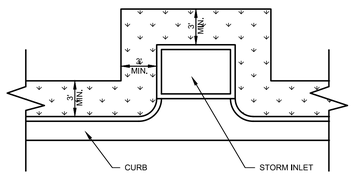
UNDERGROUND PIPE CROSSING
N.T.S.

EROSION AND SEDIMENT CONTROL PLAN (ESCP)

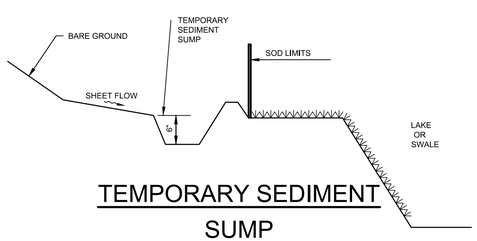
1. EROSION AND SEDIMENT CONTROL BMPS IN ADDITION TO THOSE PRESENTED ON THE PLANS AND OUTLINED IN THE EROSION AND SEDIMENT CONTROL PLAN (ECP), BEST MANAGEMENT PRACTICES (BMP) PLAN, OR STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT TURBID DISCHARGES FROM FLOWING ONTO ADJACENT PROPERTIES OR ROADWAYS, OFF SITE STORMWATER CONVEYANCES OR RECEIVING WATERS, OR ON SITE WETLANDS AND SURFACE WATERS. BMPS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED BY THE SITE OPERATOR TO ENSURE THAT OFF SITE SURFACE WATER QUALITY REMAINS CONSISTENT WITH STATE AND LOCAL REGULATIONS. [THE OPERATOR IS THE ENTITY THAT OWNS OR OPERATES THE CONSTRUCTION ACTIVITY AND HAS AUTHORITY TO CONTROL THOSE ACTIVITIES AT THE PROJECT NECESSARY TO ENSURE COMPLIANCE.]
2. OFF SITE SURFACE WATER DISCHARGES, DISCHARGES TO THE MS4, OR DISCHARGES TO ONSITE WETLANDS OR SURFACE WATERS WITH TURBIDITY IN EXCESS OF 29 NEPHELOMETRIC TURBIDITY UNITS (NTUS) ABOVE BACKGROUND LEVEL SHALL BE IMMEDIATELY CORRECTED, SUCH INCIDENTS SHALL BE REPORTED TO AIR AND WATER QUALITY WITHIN 24 HOURS OF THE OCCURRENCE (PH: 941.861.5000; FAX: 941.861.0986), THE REPORT SHALL INCLUDE THE CAUSE OF THE DISCHARGE AND CORRECTIVE ACTIONS TAKEN.
3. THE OPERATOR SHALL ENSURE THAT ADJACENT PROPERTIES ARE NOT IMPACTED BY WIND EROSION, OR EMISSIONS OF UNCONFINED PARTICULATE MATTER IN ACCORDANCE WITH RULE 62-296.320(4)(C)1, F.A.C., BY TAKING APPROPRIATE MEASURES TO STABILIZE AFFECTED AREAS.
4. FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ENTER STORMWATER DRAINS OR WATERBODIES, OR FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ARE IN EXCESS OF 25 GALLONS SHALL BE CONTAINED, CLEANED UP, AND IMMEDIATELY REPORTED TO AIR AND WATER QUALITY (PH: 941.861.5000; FAX: 941.861.0986), SMALLER GROUND SURFACE SPILLS SHALL BE CLEANED UP AS SOON AS PRACTICAL.
5. CONSTRUCTION IS ANTICIPATED TO BEGIN IN JUNE 2017, AND END IN JUNE 2019.
6. EXCAVATED MATERIAL WILL BE PLACED ON SITE, UNSUITABLE MATERIAL WILL BE TRUCKED AWAY.
7. STOCKPILE AREAS WILL BE ON THE BUILDING LOTS.
8. EROSION AND SEDIMENT CONTROL DEVICES WILL BE INSTALLED PRIOR TO CONSTRUCTION AND WILL BE INSPECTED WEEKLY AND REPAIRED AS NECESSARY BY THE GENERAL CONTRACTOR.
9. WATERCOURSE BUFFERS WILL BE STAKED PRIOR TO CONSTRUCTION.
10. IT IS ANTICIPATED THAT THE CONSTRUCTION WILL BE ONGOING EXCEPT FOR WEATHER DELAYS. ONCE GRADING IS COMPLETED AREAS WILL BE STABILIZED BY SEEDING.



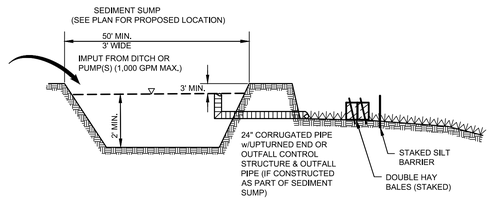
GRASS SLOPES
N.T.S.



SOD AROUND CURB AND AROUND INLET
N.T.S.



TEMPORARY SEDIMENT SUMP
N.T.S.



SEDIMENT SUMP SECTION
N.T.S.

CONFORMED SET 05/22/2020

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LOGIN: Tillett, Anthony
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	INITIALS	DATE
DESIGN	TILLETT	09/18/19
DRAWN	TILLETT	09/18/19
CHECKED	RISSMAN	
QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

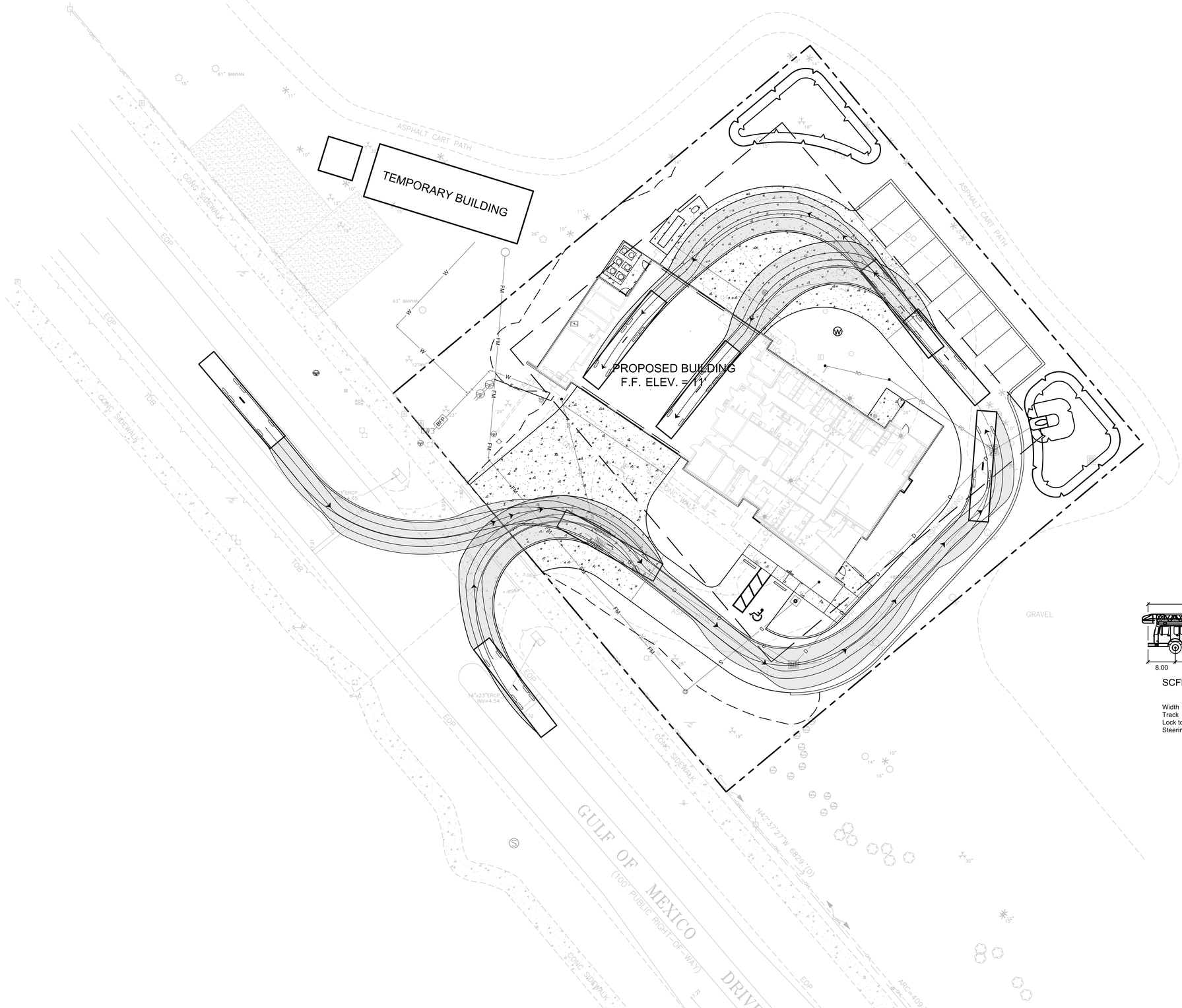
Since 1919

George F. Young, Inc.
10540 PORTAL CROSSING, SUITE 105 LAKEWOOD RANCH, FLORIDA 34211-4913
PHONE (941) 747-2981 FAX (941) 747-7234 WWW.GEORGEFYOUNG.COM
ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING | ECOLOGY | GIS | LANDSCAPE ARCHITECTURE
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MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer, License #
DATE June 22, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92
BEST MANAGEMENT PRACTICES DETAILS
SECTION 17, TOWNSHIP 36 S., RANGE 17 E.

JOB NO. 19001300LC
SHEET NO. C10



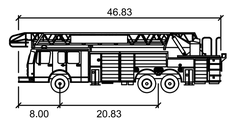
N

W E

S

20 10 0 20

SCALE: 1" = 20'



SCFD-LADDER

	feet
Width	: 8.33
Track	: 7.03
Lock to Lock Time	: 6.0
Steering Angle	: 32.6

CONFORMED SET 05/22/2020

REVISED	NO.	BY	DATE	DESCRIPTION

REVISED	NO.	BY	DATE	DESCRIPTION

	INITIALS	DATE
DESIGN	TILLETT	09/18/19
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MICHAEL E. RISSMAN JR., PE No. 40218
State of Florida Professional Engineer. License #

DATE June 22, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92

VEHICLE TURNING TEMPLATE PLAN

SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC

SHEET NO. C11

PLOTTED: 6/22/2020 1:42 PM LOGIN: Tillett, Anthony FILE: S:\PROJECTS\DWG\2019\19001300lc\Dwg\SDK\19001300LC-VTT.dwg

APPLICABLE CODES

BUILDING CODE:	FLORIDA BUILDING CODE FBC 2017 WITH APPLICABLE AMENDMENTS
MECHANICAL CODE:	FBC, MECHANICAL 2017 WITH APPLICABLE AMENDMENTS
ENERGY CONSERVATION:	FBC, ENERGY CONSERVATION 2017 WITH APPLICABLE AMENDMENTS
ELECTRICAL CODE:	FBC - CHAPTER 27; NFPA 70 (N.E.C.) WITH APPLICABLE AMENDMENTS
PLUMBING CODE:	FBC, PLUMBING 2017 WITH APPLICABLE AMENDMENTS
FUEL GAS CODE:	FBC, FUEL GAS 2017 WITH APPLICABLE AMENDMENTS
ACCESSIBILITY CODE:	2017 FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION
FIRE SAFETY CODE:	FLORIDA FIRE PREVENTION CODE, 6TH EDITION WITH APPLICABLE AMENDMENTS

OTHER:

BUILDING CATEGORIZATION & PHYSICAL PROPERTIES

	FLORIDA BUILDING CODE		FLORIDA FIRE PREVENTION CODE	
OCCUPANCY CLASSIFICATION	CHAPTER 3, SECTION 302		CHAPTER 6	
	BUSINESS GROUP B & STORAGE GROUP S-2		--	
CONSTRUCTION TYPE	CHAPTER 6		TABLE A8.2.1.2	
	TYPE IIB		N/A	
WIND LOADS (FBC CHAPTER 16) * SEE STRUCTURAL DRAWINGS.	FBC CHAPTER 16	RISK CATEGORY TABLE 1604.5	N/A	
	165 MPH *	IV *		
BUILDING PHYSICAL PROPERTIES	CHAPTER 5 - TABLES: 504.3, 504.4, 506.2		NFPA 101, PER OCCUPANCY TYPE (CHAPTERS 12-43)	**PROVIDED**
MAXIMUM HEIGHT IN FEET	55' FEET		--	25 FEET ±
MAXIMUM NUMBER OF STORIES	B: 3 S-2: 3		--	1 STORIES
ALLOWABLE BUILDING AREA	23,000 SQ FT PER FLOOR @ B 26,000 SQ FT PER FLOOR @ S-2		N/A	9,594 SF
SPRINKLER SYSTEM	YES		YES	YES

FIRE RATING REQUIREMENTS

BUILDING COMPONENTS	FLORIDA BUILDING CODE	FLORIDA FIRE PREVENTION CODE	PROVIDED
	TABLES 601, 508.4 & 1020.1	NFPA 101 7.1.3 & TABLES 6.1.14.4.1 AND ANNEX TABLE A8.2.1.2	
STRUCTURAL FRAME	0	N/A	0
BEARING WALLS - EXTERIOR	0	0	0
BEARING WALLS - INTERIOR	0	0	0
NON-BEARING WALLS - EXTERIOR	0	0	0
NON-BEARING WALLS - INTERIOR	0	N/A	0
FLOOR CONSTRUCTION	0	0	0
ROOF CONSTRUCTION	0	--	0
OCCUPANCY SEPARATION	B/S-2 = 0 HOUR	B/S-2 = 2 HOUR	2 HOURS
CORRIDORS	--	--	X

EXITING REQUIREMENTS

EXITING COMPONENT	FLORIDA BUILDING CODE	FLORIDA FIRE PREVENTION CODE NFPA 101 - LIFE SAFETY CODE	PROVIDED
COMMON PATH OF TRAVEL TO AN EXIT	100 FEET [1006.2.1]	100 FEET [ANNEX A A.7.6]	< 100 FEET
MAXIMUM DEAD END CORRIDOR	50 FEET [1020.4]	50 FEET [ANNEX A A.7.6]	< 50 FEET
MAXIMUM TRAVEL DISTANCE TO EXIT	250 FEET [1017.2]	300 FEET [ANNEX A A.7.6]	< 250 FEET
MINIMUM CORRIDOR WIDTH	44 INCHES [1020.2]	36 INCHES [7.3.4]	> 44"
MINIMUM CLEAR OPNG OF EXIT DOORS	32 INCHES [1010]	32 INCHES [7.2.1.2.3.2]	> 32"
MINIMUM STAIR WIDTH	44 INCHES [1011]	>36 INCHES	48"

REMARKS:
1. [AS NEEDED]
2. [AS NEEDED]

OCCUPANCY LOAD AND EGRESS WIDTH CALCULATIONS

(MOST STRINGENT CODE CRITERIA LISTED AND CALCULATED BELOW)

OCCUPANCY	AREA (SF)	FBC CHP 10 - TABLE 1004.1.1 NFPA101 CHP 7 - TABLE 7.3.1.2 AREA PER OCCUPANT (SF)	NON-STAIR EGRESS OCC. LOAD	EGRESS WIDTH PER PERSON	REQ'D EGRESS WIDTH	EGRESS WIDTH PROVIDED
BUSINESS (B)	4,432	100 GROSS	45	.2"	9"	68"
STORAGE (S-2)	5,162	200 GROSS	26	.2"	5.2"	68"
			71			

REMARKS:
1. [AS NEEDED]
2. [AS NEEDED]

PLUMBING FIXTURE CALCULATION

FIXTURE COUNT	OCC. LOAD	RATIO PER TABLE 403.1	WC REQUIRED	WC PROVIDED	LAV REQUIRED	LAV PROVIDED	UNISEX TOILET RM	SHOWERS	DRINKING FOUNTAIN	REMARKS
OCCUPANCY GROUP [B]	45	1/25 FIRST 50	2	3	2	3	---	4	1	
OCCUPANCY GROUP [S-2]	26	1/100	1	1	1	1	---			
TOTAL BUILDING COMBINED	**71**		**3**	**4**	**3**	**4**	---	4	1	

REMARKS:
1. [AS NEEDED]
2. [AS NEEDED]

CODE ANALYSIS
N.T.S

ZONING DATA

- ZONING DISTRICT: [INDICATE ZONE AND JURISDICTION
- SEE CIVIL DRAWING FULL ZONING DATA BLOCK

- MAXIMUM LOT OR BUILDING COVERAGE: [40 %]
- MAXIMUM HEIGHT: [25' FT]
- FRONT SETBACK: [50' FT]
- SIDE SETBACK: [17'-6" FT]
- REAR SETBACK: [20' FT]

FEMA / FLOOR ELEVATION COORD.

FLOOD ZONE: AE (EL 11).

ON ARCHITECTURAL DRAWINGS, LEVEL 1 TOS ELEVATION OF 0' - 0" CORRESPONDS TO ELEVATION 11' - 0".

GROSS BUILDING AREA

AREA NAME	GROSS SF
BUSINESS B	4,432 SF
STORAGE S-2	5,162 SF
TOTAL GROSS SF	9,594 SF

FIRE EXTINGUISHER REQUIREMENTS

FIRE EXTINGUISHER COMPONENT	FLORIDA BUILDING CODE	NFPA 10, TABLE 5.2.1 PER HAZARD OCCUPANCY	PROVIDED
MAXIMUM FLOOR AREA PER UNIT OF A	3,000 SQ FT	3,000 SQ FT	REMARK 1
MAXIMUM FLOOR AREA PER EXTINGUISHER	11,250 SQ FT	11,250 SQ FT	--
MAXIMUM TRAVEL DISTANCE	75 FEET	75 FEET	<75 FEET

REMARKS:
1. PROVIDE 6 UNITS OF A PER FLOOR (3 EXTINGUISHERS WITH 2A MINIMUM RATING)

MAXIMUM LOADING: FBC 106.1

THE OWNER SHALL PROVIDE LIVE LOAD DURABLE NON-REMOVABLE SIGNAGE AT EACH AREA OR STORY DESIGNED TO EXCEED 50 PSF. SUCH SIGNAGE SHALL INDICATE THE ACTUAL LIVE LOAD DESIGN. REFER TO STRUCTURAL FOR APPLICABLE LIMITS.

GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE FOR A WATERTIGHT & WEATHERTIGHT BUILDING. THE CONTRACTOR SHALL REVIEW ALL DETAILS RELATING TO THIS INTENT AND BY BIDDING OR ENTERING INTO THIS CONSTRUCTION CONTRACT WARRANTS FOR ONE FULL YEAR THE ADEQUACY OF THESE DETAILS. SHOULD THE CONTRACTOR TAKE EXCEPTION TO THESE DETAILS, HE SHALL NOTIFY THE ARCHITECT PRIOR TO BIDDING. ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO PROVIDE FOR A PLUMB, LEVEL, AND SQUARE STRUCTURE UNLESS OTHERWISE NOTED. ANY DEVIATION FROM THIS GENERAL INTENT SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
3. THE BUILDING SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS AS WELL AS THE DRAWINGS AND SPECIFICATIONS. ANY CODE DEFICIENCIES IN THE DRAWINGS RECOGNIZED BY THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE PLACEMENT OF THE BUILDING ON THE SITE AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE BIDDING THE PROJECT OR THE COMMENCEMENT OF WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR CHANGES TO THE WORK DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS.
5. THE CONTRACTOR SHALL PROVIDE ALL PERMITS AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION OF THE WORK IN ACCORDANCE WITH APPLICABLE CODES AND GOVERNING REGULATIONS.
6. CONTRACTOR TO FURNISH AND INSTALL CONCEALED SUPPORT FRAMING (WITHIN WALLS) AS REQUIRED TO FIRMLY SECURE WALL-MOUNTED EQUIPMENT AND/OR ACCESSORIES. WOOD BLOCKING SHALL COMPLY WITH THE REQUIREMENTS OF FBC BUILDING SECTION 603 FOR COMBUSTIBLE MATERIAL IN TYPE II CONSTRUCTION.
7. WHERE AS-BUILT DRAWINGS ARE REQUIRED AND SLEEVES OR SYSTEM RACEWAYS/ PIPING PENETRATE MASONRY OR RATED WALLS, CONTRACTOR SHALL INDICATE FINAL LOCATIONS OF SLEEVES AND PENETRATIONS AS-BUILT FOR THE PROJECT RECORD.
8. CONTRACTOR SHALL PROTECT PIPES WITHIN CONCEALED WALL CAVITIES WITH NAIL/FASTENER PROTECTION (FROM POTENTIAL PUNCTURE) FROM FINISHED SIDES OF WALL.
9. THE CONTRACTOR SHALL VERIFY THE SIZES AND LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT PADS AND BASES, AS WELL AS POWER, WATER AND DRAIN REQUIREMENTS FOR SUCH EQUIPMENT WITH EQUIPMENT MANUFACTURER. DEVIATION OF THE AFOREMENTIONED REQUIREMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
10. MINIMUM THICKNESS OF WEATHER COATINGS SHALL BE PROVIDED UNLESS SPECIFIED THICKER PER FBC TABLE 1405.2.

DIMENSION NOTES

1. DO NOT SCALE DRAWINGS: ALL WRITTEN DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE AND BE FIELD VERIFIED AND COORDINATED WITH WORK OF ALL TRADES. IF NO DIMENSIONS ARE GIVEN OR DISCREPANCIES FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION BEFORE BIDDING OR COMMENCING THE WORK.
2. DIMENSIONS TO EXTERIOR MASONRY WALLS ARE TO EXTERIOR FACE OF MASONRY, TYPICAL.
3. DIMENSIONS LOCATING NEW INTERIOR MASONRY WALLS ARE TO FACE OF MASONRY, TYPICAL.
4. DIMENSIONS LOCATING NEW INTERIOR STUD WALLS ARE TO FACE OF STUD, TYPICAL. WHEN A DIMENSION IS INDICATED AS "CLEAR" OR "CLR", THIS INDICATES THE CLEAR DIMENSION THAT IS TO BE PROVIDED AFTER INSTALLATION OF ALL WALL FINISH MATERIALS.
5. OPENINGS NOT LOCATED BY DIMENSION IN INTERIOR WALLS, AND NOT ABUTTING ADJACENT WALLS ARE TO BE CENTERED ON THE WALL.
6. CENTER ANY INTERIOR OPENINGS (NOT LOCATED BY DIMENSION), THAT APPEAR TO BE CENTERED IN A WALL.
7. IF THE LOCATION OF ANY BUILDING ELEMENT IS NOT OBVIOUS OR CANNOT BE DETERMINED BY DIMENSION, MATHEMATICS, OR AS NOTED ABOVE, CONTACT THE ARCHITECT PRIOR TO LOCATING THE ELEMENT.

ABBREVIATIONS

ABV	ABOVE
AC, A/C	AIR CONDITIONING
ACT	ACOUSTIC CEILING TILE
AF	ACCESS FLOORING
AFF	ABOVE FINISHED FLOOR
BCE	BOTTOM CHORD EXTENSION
BD	BOARD
BIT	BITUMINOUS
BOD	BOTTOM OF DECK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STEEL
BS	BOTH SIDES
BSE	BRICK SHELF ELEVATION
CB	COVE BASE
CEM BD	CEMENTITIOUS BACKER BOARD
C-FCI	CONTRACTOR FURNISH, CONTRACTOR INSTALL
CFM	CUBIC FEET PER MINUTE
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT; CONSTRUCTION JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
CU	AIR CONDITIONING CONDENSER UNIT
CUH	CABINET UNIT HEATER
D	DRYER; DEEP (DEPTH)
DF	DRINKING FOUNTAIN
DW	DISHWASHER
EF	EXHAUST FAN; EACH FACE
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EOD	EMERGENCY OVERFLOW DRAIN
EP	EPOXY PAINT
ESS	EXTERIOR SOFFIT SYSTEM
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPOSED
FAAP	FIRE ALARM ANNUCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN-OUT
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR; FAR FACE
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FAR SIDE
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GDT	GYPSUM DROP-IN TILE
GV	GRAVITY VENT
GWB	GYPSUM WALL BOARD
H	HORIZONTAL; HIGH
HC	HANDICAPPED
HOR	HORIZONTAL
HM	HOLLOW METAL
HR	HOUR
HRU	HEAT RECOVERY UNIT
HT	HEIGHT
H&V	HEATING AND VENTILATING
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IB	INTEGRAL BASE
IF	INSIDE FACE
IJ	ISOLATION JOINT
IMP	IMPACT RESISTANT
INV	INVERT
L	LONG
LAM	LAMINATED
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LIGHTING PANEL; LIQUEFIED PROPANE
MDO	MEDIUM DENSITY OVERLAY
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANICAL
MO	MASONRY OPENING
MR	MOISTURE-RESISTANT
MUA	MAKE-UP AIR
NIC	NOT IN CONTRACT
NR	NONE REQUIRED
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE
O-FCI	OWNER FURNISH, CONTRACTOR INSTALL
O-FOI	OWNER FURNISH, OWNER INSTALL
OH	OVERHEAD
OPP	OPPOSITE
PC	POLISHED CONCRETE
PCP	PORTLAND CEMENT PLASTER
PLAM	PLASTIC LAMINATE
PLF	POUND PER LINEAR FOOT
PNT	PAINT/PAINTED
PP	POWER PANEL
PROT	PROTECT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE-TREATED; PORCELAIN TILE
PTD	PAPER TOWEL DISPENSER
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RISER; RADIUS
RB	RUBBER BASE
RBF	RUBBER FLOORING
RD	ROOF DRAIN
RES	RESILIENT
RO	ROUGH OPENING
RTU	ROOF TOP UNIT (HVAC)
SC	SEALED CONCRETE
SF	SQUARE FOOT; SUPPLY FAN
SN	SANITARY NAPKIN (DISPENSER)
SS	STAINLESS STEEL
STR	STRUCTURAL
T	TREAD
TB	TACKBOARD
T&B	TOP AND BOTTOM
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOM	TOP OF MASONRY
TOP	TOP OF PIER
TOS	TOP OF STEEL; TOP OF SLAB
TOW	TOP OF WALL
TP	TOILET PAPER (DISPENSER)
UH	UNIT HEATER
ULPP	UNDER LAVATORY PIPE PROTECTION
UNO	UNLESS NOTED OTHERWISE
VB	CONT. AIR/VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VTR	VENT THROUGH THE ROOF
VWC	VINYL WALL COVERING
W	WIDE; WASHER
W/	WITH
WC	WATER CLOSET
WF	WIDE FLANGE
WH	WATER HEATER
W/O	WITHOUT
WOM	WALK OFF MAT
WWF	WELDED WIRE FABRIC

STANDARD ABBREVIATIONS
N.T.S

SYMBOLS

BUILDING SECTION

WALL SECTION

DETAIL

EXTERIOR ELEVATION

INTERIOR ELEVATION

LEVEL LINE

DRAWING NOTE

WINDOW/LOUVER TAG

WALL TAG

SIGN TAG

DOOR TAG

ROOM NAME
ROOM NUMBER

COLUMN BUBBLE AND CENTER LINE

OPENING INDICATOR 'X': EXTERIOR NUMBERED EXTERIOR AND INTERIOR SEPARATELY IN SEQUENCE PER FLOOR

TOILET ACCESSORY TAG

DIRECTION OF SLOPED SURFACE

STANDARD SYMBOLS
N.T.S

FLORIDA PRODUCT APPROVAL / NOA

CATEGORY	SUBCATEGORY	MANUFACTURER / PRODUCT NUMBER	DOCUMENTATION TYPE: FLORIDA APPROVAL (FL#)	DOCUMENTATION TYPE: MIAMI-DADE NOA	REMARKS
WINDOWS	STOREFRONT	MANUF: YKK AP AMERICA SERIES: YHS 50 FI	14218.5		
	CURTAIN WALL	MANUF: YKK AP AMERICA SERIES: YHC 300 OG	13433.2		
EXTERIOR DOORS	STOREFRONT OUTSWING	MANUF: YKK AP AMERICA SERIES: 35 H	16554		
	HOLLOW METAL OUTSWING	MANUF: ALLEGION SERIES: H SERIES	14022		
OVERHEAD DOORS	OVERHEAD SECTIONAL	MANUF: CLOPAY SERIES: MODEL 3718	17671		
LOUVERS	WIND-DRIVEN RAIN LOUVER	MANUF: GREENHECK SERIES: EVH-660D	16785.1		
WALL CLADDING	METAL WALL PANELS	MANUF: 3A COMPOSITES USA INC SERIES: ALUCOBOND PLUS		18-0725.15	
ROOFING	SINGLE PLY ROOF SYSTEM	MANUF: SEAMAN CORP. SERIES: FIBERTITE	4930		
		MANUF: SERIES:			

REMARKS:
1. [AS NEEDED]

PRODUCT APPROVAL NOTES
A. INCLUSION OF A PRODUCT IN THIS SCHEDULE DOES NOT IMPLY OR PRESUME THAT THE PRODUCT LISTED WILL BE INSTALLED IN THIS PROJECT. ALTERNATE PRODUCTS COMPLYING WITH CODE REQUIREMENTS MAY BE UTILIZED UPON EVALUATION, ACCEPTANCE, AND APPROVAL BY THE BUILDING DEPARTMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT INFORMATION AND DOCUMENTATION THAT MAY BE REQUIRED BY THE BUILDING DEPARTMENT FOR THE ALTERNATE PRODUCT'S EVALUATION AND APPROVAL.

2168 MAIN STREET
SARASOTA, FL 34237
T 941.952.0084
F 941.952.0201
FL AA26000857

SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0015532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
CODE ANALYSIS, NOTES & LEGENDS, PRODUCT APPROVAL

SHEET No.:
A0.1

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TYPE 10 - CMU - INTERIOR

TYPE	DESCRIPTION	HEIGHT	FIRE RATING
10A	8" CMU. REFER TO STRUCTURAL FOR REINFORCEMENT, FILL CELL AND TIE BEAM LOCATIONS.	FULL HEIGHT TO DECK	N/A
10C	8" CMU. 2-HR RATED. REFER TO STRUCTURAL FOR REINFORCEMENT, FILL CELL AND TIE BEAM LOCATIONS.	FULL HEIGHT TO DECK	2-HR

TYPE 4 - FURRING WALL - NON-INSULATED

TYPE	DESCRIPTION	HEIGHT	FIRE RATING
4A	7/8" METAL HAT CHANNEL	6" ABV CEILING	N/A
4B	1-5/8" METAL STUD	6" ABV CEILING	N/A
4C	3-5/8" METAL STUD	6" ABV CEILING	N/A

TYPE 3 - FURRING WALL - INSULATED

TYPE	DESCRIPTION	HEIGHT	FIRE RATING
3A	1-5/8" METAL STUD	FULL HT TO DECK	N/A
3B	3-5/8" METAL STUD	FULL HT TO DECK	N/A
3C	7/8" METAL HAT CHANNEL	FULL HT TO DECK	N/A

TYPE 2 - STUD PARTITION WALL - PARTIAL HEIGHT

TYPE	DESCRIPTION	HEIGHT	FIRE RATING
2A	3-5/8" METAL STUD	6" ABV CEILING	N/A
2B	6" METAL STUD	6" ABV CEILING	N/A

TYPE 1 - STUD PARTITION WALL

TYPE	DESCRIPTION	HEIGHT	FIRE RATING
1A	3-5/8" METAL STUD	FULL HT TO DECK	N/A

PARTITION TYPES
1 1/2" = 1'-0"

PARTITION TYPE NOTES

1. PARTITION TYPES ARE TAGGED ON THE FLOOR PLANS.
2. REFER TO WALL SECTIONS FOR EXTERIOR WALL ASSEMBLIES.
3. REFER TO "GYPSUM BOARD ASSEMBLIES" SPECIFICATION FOR FULL REQUIREMENTS FOR GYPSUM BOARD ASSEMBLIES AND NON-LOAD-BEARING STEEL FRAMING MEMBERS FOR GYPSUM BOARD ASSEMBLIES.
4. ALL STUDS AND FURRING CHANNELS ARE TO BE SPACED 16" O.C., UNLESS NOTED OTHERWISE.
5. ALL PARTITIONS SHALL EXTEND FROM FLOOR SLAB OR DECK TO THE UNDERSIDE OF THE STRUCTURAL DECK TO ACHIEVE COMPLETE CLOSURE, UNLESS NOTED OTHERWISE.
6. PARTITION TYPES DESCRIBE THE PRIMARY WALL MEMBER AND SHEATHING. REFER TO FINISH SCHEDULE FOR ALL PARTITION FINISH DESIGNATIONS.
7. PROVIDE TYPE "M-R" MOISTURE RESISTANT GYPSUM BACKING BOARD IN ALL WET AREAS, INCLUDING TOILET, LOCKER AND SHOWER ROOMS.
8. PROVIDE 1/2" CEMENT BOARD WITH WATER-RESISTANT COATING AS A SUBSTRATE FOR WALL AREAS SCHEDULED TO RECEIVE TILE.
9. CONSTRUCTION OF FIRE RATED PARTITIONS, INCLUDING TAPING AND FINISHING OF GYPSUM BOARD, SHALL BE IN ACCORDANCE WITH U.L. SYSTEM ASSEMBLY OR OTHER APPROVED ASSEMBLY TO ACHIEVE THE RATING INDICATED. PROVIDE FIRESTOPPING PER FIRESTOPPING MANUFACTURER'S RECOMMENDATIONS FOR PENETRATIONS THROUGH RATED WALLS.
10.
11. PROVIDE GYPSUM BOARD CONTROL JOINTS WHERE DESIGNATED ON THE INTERIOR ELEVATIONS, AND ANYWHERE THERE IS A CONTINUOUS RUN OF GYPSUM BOARD THAT IS GREATER THAN 30 FEET IN LENGTH. CONFIRM THE LOCATION OF ADDITIONAL CONTROL JOINTS WITH THE ARCHITECTURE PRIOR TO INSTALLATION.
12. IN PARTITIONS WHERE BATT INSULATION FOR SOUNDPROOFING IS INDICATED, SEAL CONSTRUCTION AT PERIMETERS, BEHIND CONTROL AND EXPANSION JOINTS, OPENINGS, AND PENETRATIONS WITH A CONTINUOUS BEAD OF ACOUSTICAL SEALANT, INCLUDING A BEAD AT BOTH FACES OF THE PARTITIONS.
13. AT METAL STUD WALLS, BLOCKING IS REQUIRED AT ALL WALL MOUNTED ITEMS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING LOCATIONS:
    - A. WALL MOUNTED COUNTERS AND COUNTERTOP SUPPORTS
    - B. WALL MOUNTED ACCESSORIES AND EQUIPMENT
    - C. WALL MOUNTED DOORSTOPS
    - D. WALL MOUNTED DOOR HOLD OPEN DEVICES AND/OR CLOSURES
    - E. TOILET ROOM PARTITIONS AND ACCESSORIES
    - F. WALL MOUNTED TV / MONITORS AND BRACKETS

FIRE RESISTANCE RATING OF CONCRETE MASONRY WALLS

PER FBC BUILDING TABLE 722.3.2, THE FIRE RESISTANCE RATING OF WALLS AND PARTITIONS CONSTRUCTION OF CONCRETE MASONRY UNITS SHALL BE BASED ON THE EQUIVALENT THICKNESS OF THE MASONRY AND TYPE USED.

CALCAREOUS OR SILICEOUS GRAVEL AGGREGATE
1 HOUR RATING = 2.8" MINIMUM EQUIVALENT THICKNESS
2 HOUR RATING = 4.2" MINIMUM EQUIVALENT THICKNESS

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SWEET SPARKMAN ARCHITECTS

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FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

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REV	DESCRIPTION	DATE

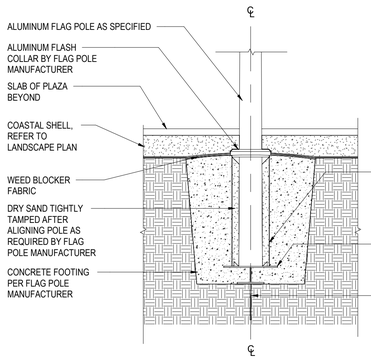
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0" 1"

SCALE:	1 1/2" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

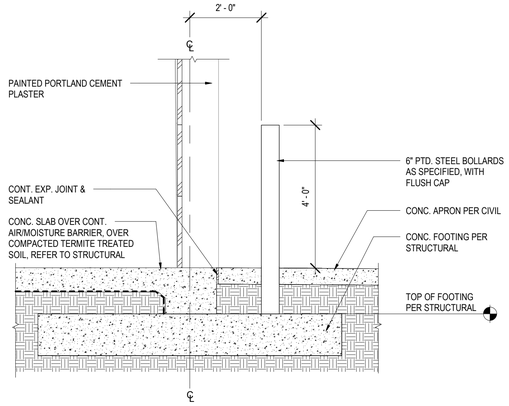
SHEET TITLE:
PARTITON TYPES & UL DETAILS

SHEET No.:
A0.2

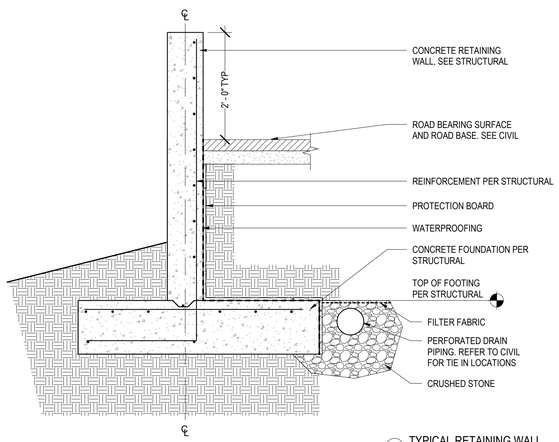
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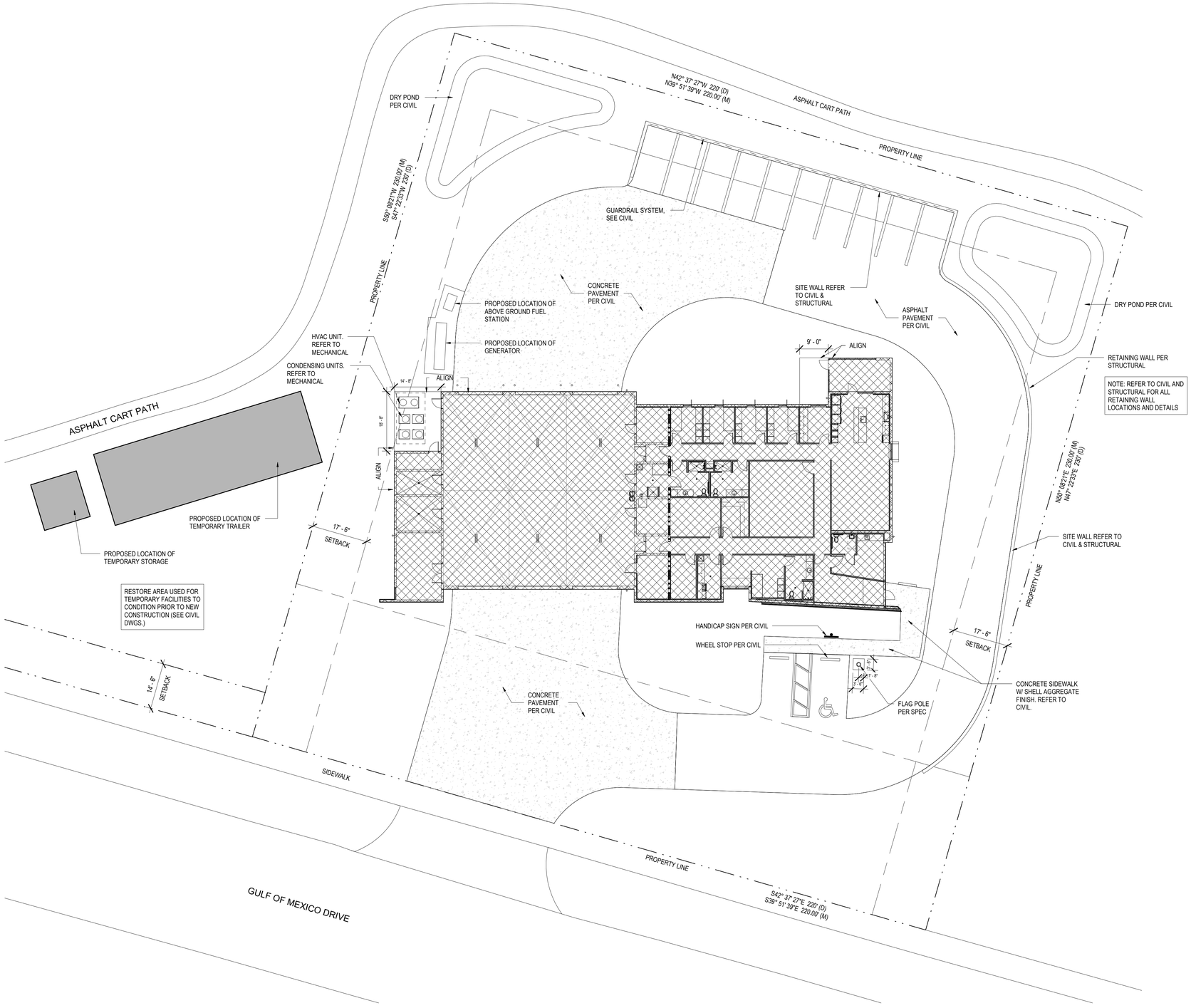
4 FLAGPOLE DETAIL
1/2" = 1'-0"



3 BOLLARD DETAIL
1/2" = 1'-0"



2 TYPICAL RETAINING WALL
3/4" = 1'-0"



1 SITE PLAN - PROPOSED
1/16" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

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PROJECT TITLE:
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ISSUED FOR:
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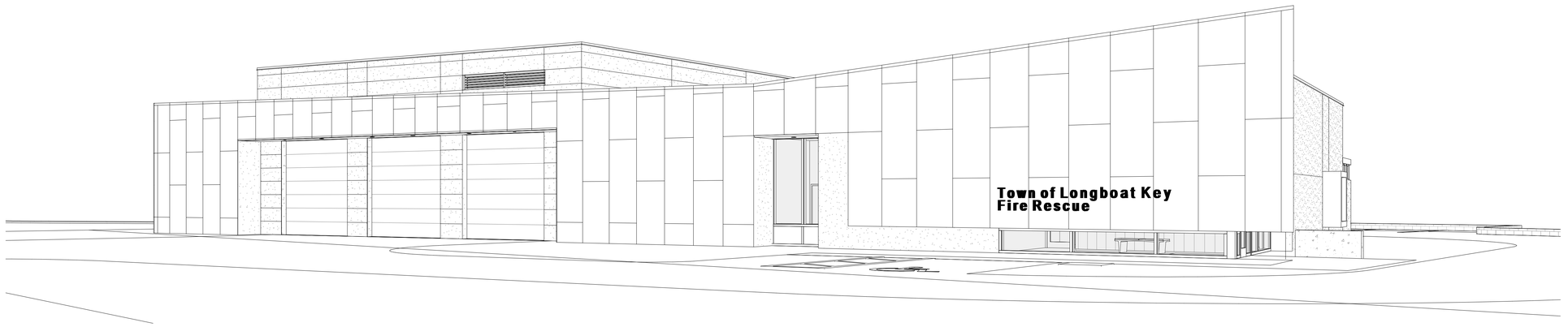
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0" 1"

SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
ARCHITECTURAL SITE PLAN

SHEET No.:
A0.3

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1 FRONT ELEVATION



2 VIEW FROM NORTH WEST

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SWEET SPARKMAN ARCHITECTS

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ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

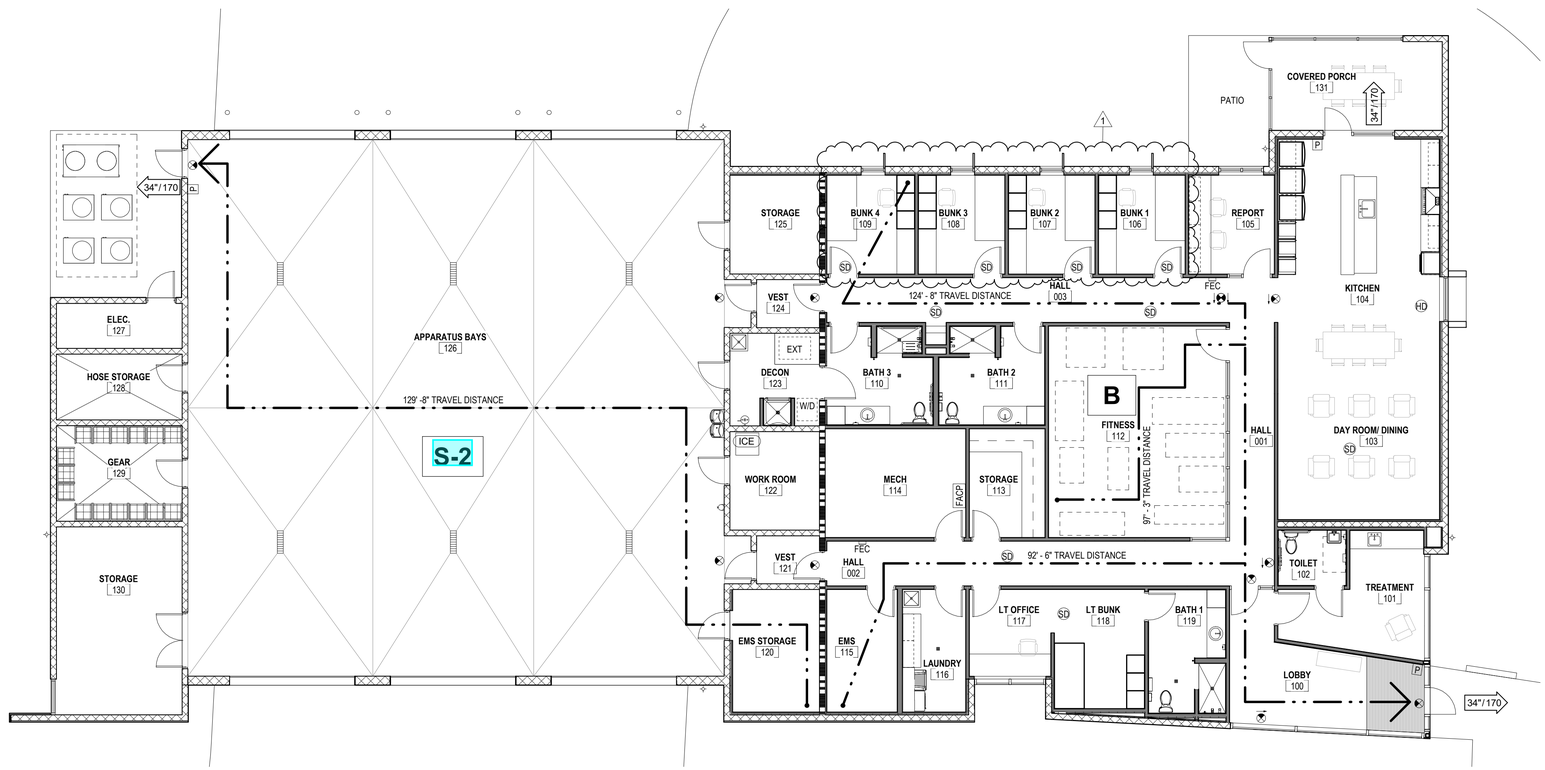
GRAPHIC SCALE:
0" 1"

SCALE:	
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
AXONS

SHEET No.:
A0.4

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1 FIRST FLOOR LIFE SAFETY PLAN
1/8" = 1'-0"

ROOM NUMBER	ROOM NAME	
SIZE	USAGE	NUMBER OF OCCUPANTS

X-X DESIGNATION OF OCCUPANCY GROUP PER FBC SECTION 3

XX' GRAPHIC ILLUSTRATION OF TRAVEL DISTANCE TO EXIT FROM REMOTE POINT

EXIT SIGN

CLR WIDTH OF DOOR — 34"/170 — EXIT EGRESS CAPACITY (# OF OCCUPANTS)

FACP FIRE ALARM CONTROL PANEL

FIRE EXTINGUISHER

FEC FIRE EXTINGUISHER CABINET

2-HR WALL

P PULL STATION

LIFE SAFETY LEGEND
N.T.S

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STATE OF FLORIDA
TODD M. SWEET
AR0015832
REGISTERED ARCHITECT

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
1	ASI 04	08.26.20

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
LIFE SAFETY PLANS & LEGENDS

SHEET No.:
A1.0

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SHEET NOTES

X — NUMBERED NOTES SHOWN IN DRAWINGS ON THIS SHEET APPLY ONLY TO THE NUMBERED NOTES IN THE TABLE BELOW.

1	MECHANICAL EQUIPMENT (SEE MEP DWGS).
2	6" PTD BOLLARD, TYP.
3	EXTRACTOR UNIT. PROVIDE 6" THICK CONC. SLAB, SEE STRUCTURAL.
5	RIGID INSULATION TO BE CONTINUOUS AT EXTERIOR WALL.
6	CIP CONCRETE WALL, SEE STRUCTURAL.
7	TENCH DRAIN, SEE PLUMBING.
8	HIGH LOW DRINKING FOUNTAIN, SEE PLUMBING.
9	GENERATOR & FUEL TANK ON CONCRETE HOUSEKEEPING PAD. COORDINATE & INSTALL PER MANUFACTURERS REQIREMENTS. PAD TO EXTEND 4" MIN BEYOND ALL SIDES OF EQUIPMENT.
10	CONDENSING UNITS ON CONCRETE HOUSEKEEPING PAD, SEE MECHANICAL.
11	HOSE RACK, COORDINATE WITH OWNER.
12	GEAR STORAGE LOCKERS, PROVIDED BY OTHERS.
13	FIRE RISER, SEE PLUMBING & FIRE PROTECTION PLAN.
14	MOP HOLDER.
15	EYE WASH, SEE PLUMBING DRAWINGS.
16	FLOOR SINK, SEE PLUMBING DRAWINGS.
17	SHOWER, SEE FINISH PLAN.
18	HOSE BIB, SEE PLUMBING.
19	HOT WATER HEATER, SEE PLUMBING DRAWINGS.
20	ALUMINUM FIN SHADE. SEE STOREFRONT DETAILS.
21	WALK OFF MAT, SEE FINISH SCHEDULE.
22	SIDEWALK, SEE CIVIL.
23	DOWNSPOUT TO BE LOCATED INSIDE CORNER COLUMN.

WALL LEGEND

X-X — REFER TO A0.2 FOR INTERIOR PARTITION TYPES. REFER TO WALL SECTIONS FOR EXTERIOR WALL ASSEMBLIES.

EXISTING WALLS.

CONC WALLS

NEW CMU WALLS. FURRING/FACING CONDITIONS MAY VARY BY TYPE

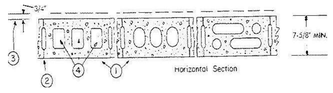
NEW STUD WALLS. FACING CONDITIONS MAY VARY BY TYPE

FIRE RATED AND SMOKE PARTITION WALLS DESIGNATED GRAPHICALLY AS FOLLOWS. SEE LIFE SAFETY PLAN AND PARTITION TYPES FOR ADDITIONAL REQUIREMENTS:

2 HR CMU WALL

CORE-FILL INSULATION. CONTINUOUS ABOVE DOORS AND OPENINGS.

Design No. U905
June 10, 2019



Bearing Wall Rating — 2 HR.
Nonbearing Wall Rating — 2 HR

1. **Concrete Blocks* —** Various designs. Classification D-2 (2 hr).
See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill —** If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

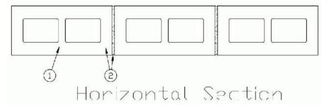
5. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE
FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"
RMAX OPERATING L L C — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".
THE DOW CHEMICAL CO — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP) and TUFF-R™ ci Insulation
5A. **Building Units —** As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — "Xci NB", "Xci Ply"
RMAX OPERATING L L C — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

*** Bearing the UL Classification Mark**

UL DETAIL U 905 - 2 HR RATED WALL
N.T.S

FIRE RESISTANCE RATINGS - ANSI/UL 263
Design No. U937
August 24, 2012



Bearing Wall Rating — 2 or 4 Hr. (See Item #1)
Nonbearing Wall Rating — 2 or 4 Hr. (See Item #1)

1. **Concrete Blocks*** — Nominal 8 by 8 by 16 in. or 12 by 8 by 16 in. concrete blocks. Classification 2 hr. and 4 hr.
CAROLINA PRESTRESS CORPORATION OF LAKE CITY INC — 8x8x16 Bottom Ash Fire Block, 12x8x16 Bottom Ash Fire Block

2. **Mortar** — Blocks laid in full bed of Type S mortar, nom. 3/8 in. thick. Vertical joints staggered.

*** Bearing the UL Classification Mark**

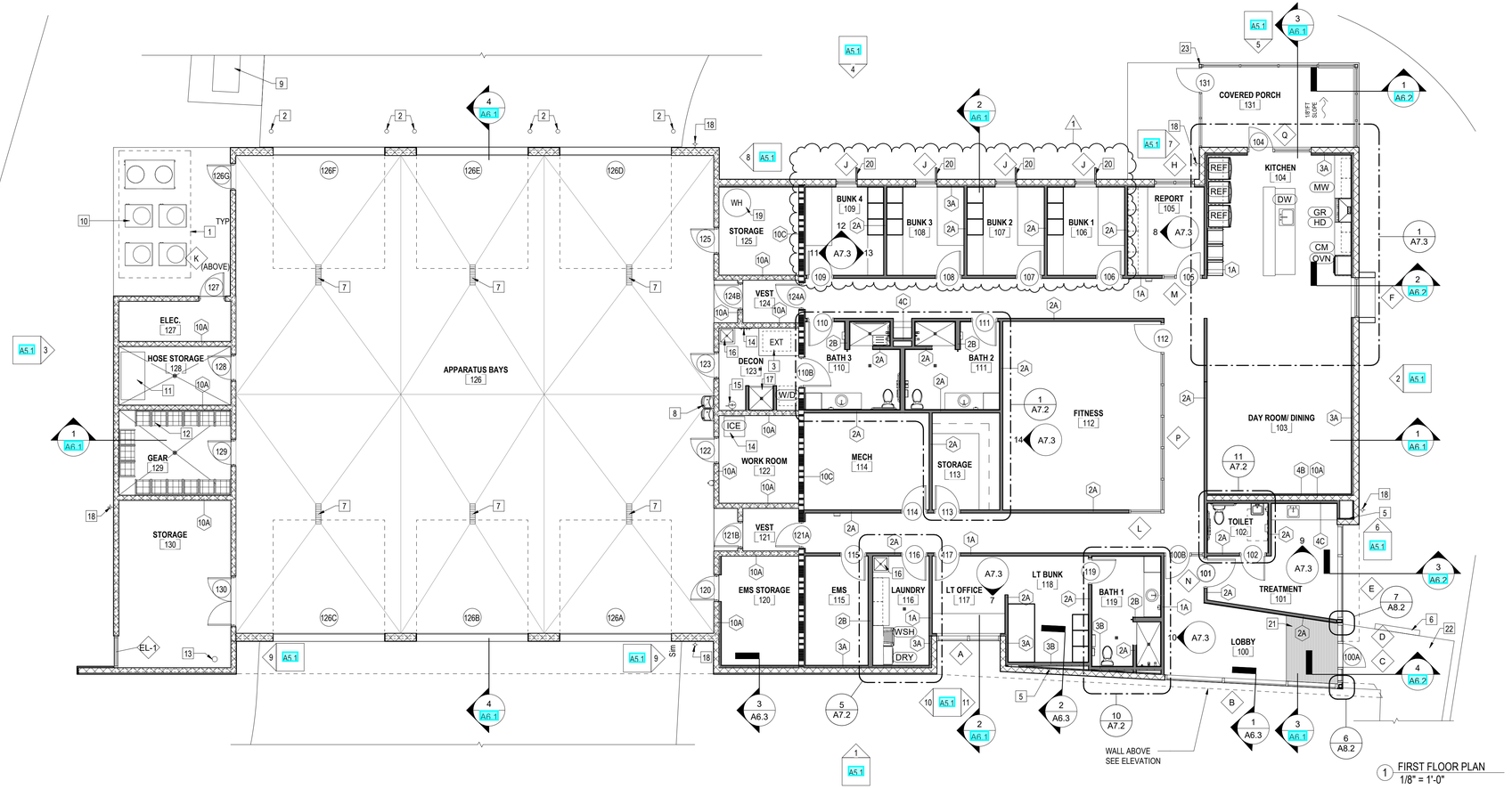
UL DETAIL U937 - 2HR AND 4 HR WALLS
N.T.S

ITEM	DESCRIPTION	BY
REF	REFRIGERATOR : 26 CU.FT. FRENCH DOORS FREEZER DRAWER	CFCI
ICE	ICE MACHINE : HOSHIZAKI AMERICA, INC. CUBER: KML-351-MAH (AIR COOLED) BIN: B-250	CFCI
DW	DISHWASHER : TOP CONTROL BUILT-IN TALL TUB DISHWASHER W/ FAN DRY, 51 DBA	CFCI
MW	MICROWAVE : 1.6 CU. FT. COUNTERTOP MICROWAVE W/ 1,200 - WATT COOKING POWER	CFCI
OVN	DOUBLE OVEN : 30" DOUBLE ELECTRIC WALL OVEN, SELF-CLEANING WITH CONVECTION AND EASY CLEAN	CFCI
GR	GAS RANGE : 36" ALL GAS PROFESSIONAL RANGE, FRONT CONTROLS	CFCI
HD	HOOD : SEE INTERIOR ELEVATION AND MECHANICAL ENGINEERS SPECIFICATIONS FOR HOOD REQUIREMENTS	CFCI
CM	COFFEE MAKER : CUISINART 12-CUP PROGRAMMABLE BLACK DRIP COFFEE MAKER W/ AUTOMATIC SHUT-OFF AND HOT WATER SIDE FEATURE	CFCI
W/D	WASHER /DRYER: COMMERCIAL STACKED WASHER/DRYER GAS OR ELECTRIC	CFCI
WSH	WASHER: COMMERCIAL ELECTRIC WASHER	CFCI
DRY	DRYER: COMMERCIAL DRYER GAS OR ELECTRIC	CFCI

OFOI: OWNER FURNISH, OWNER INSTALL
OFCI: OWNER FURNISH, CONTRACTOR INSTALL
CFCI: CONTRACTOR FURNISH, CONTRACTOR INSTALL

ALL FIXTURES ABOVE ARE BASIS OF DESIGN. ALL MAJOR KITCHEN APPLIANCES TO BE FROM THE SAME PRODUCT LINE. FIXTURES TO BE STAINLESS STEEL FINGERPROOF RESISTANT.

2 EQUIPMENT SCHEDULE
3/16" = 1'-0"



1 FIRST FLOOR PLAN
1/8" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

STATE OF FLORIDA — TODD M. SWEET — AR0015832 — REGISTERED ARCHITECT

N

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
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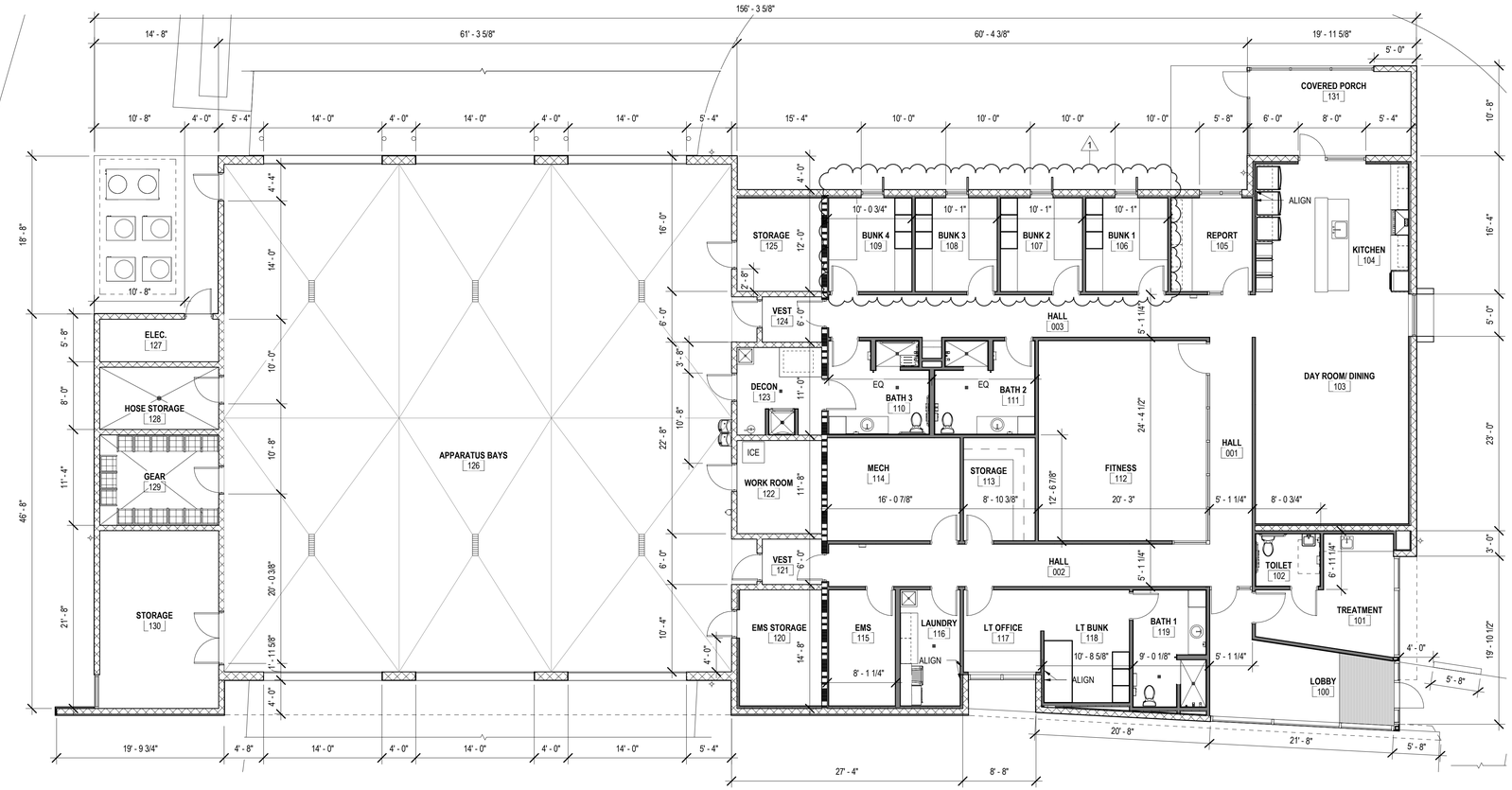
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SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
FIRST FLOOR PLANS, LEGENDS, & UL DETAILS

SHEET No.:
A2.1

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1 FIRST FLOOR DIMENSION PLAN
1/8" = 1'-0"

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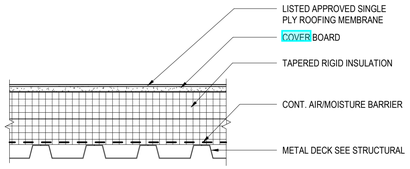
GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	JLK
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A/E OF RECORD:	TMS
PROJECT NO:	18533

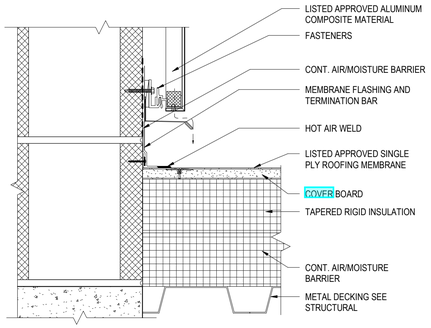
SHEET TITLE:
DIMENSION PLANS

SHEET No.:
A2.2

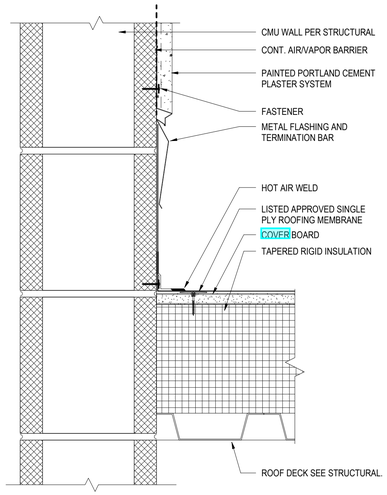
(C) COPYRIGHT 2018 SWEET SPARKMAN ARCHITECTS, INC.



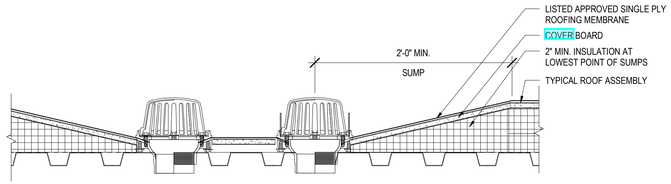
9 TYPICAL ROOF ASSEMBLY
1 1/2" = 1'-0"



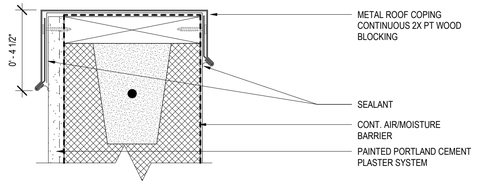
6 ROOF - SIDEWALL DETAIL @ RAINSCREEN
3" = 1'-0"



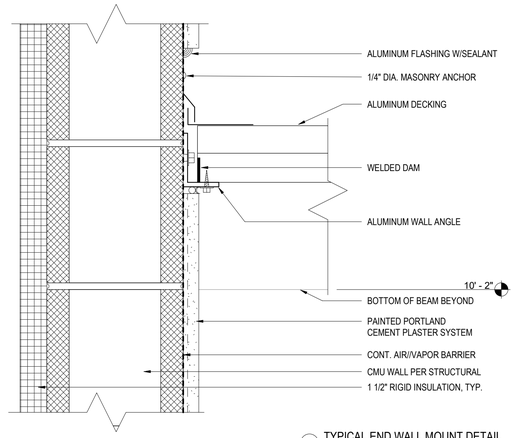
5 ROOF - SIDEWALL DETAIL @STUCCO
3" = 1'-0"



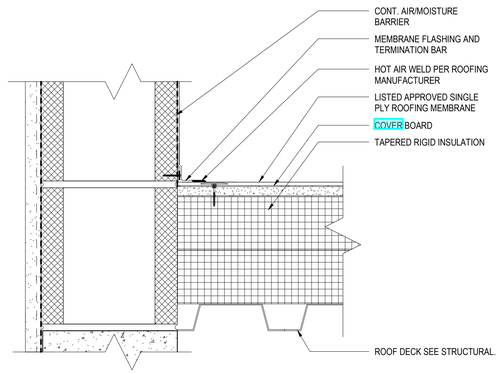
8 TYPICAL ROOF DRAIN DETAIL
1 1/2" = 1'-0"



7 PARAPET CAP DETAIL TYP
3" = 1'-0"



4 TYPICAL END WALL MOUNT DETAIL
3" = 1'-0"



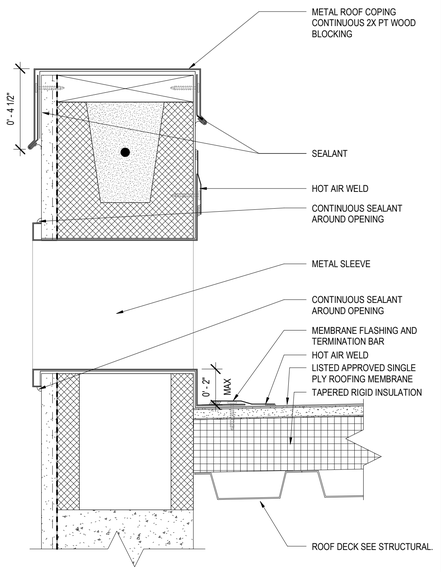
3 ROOF - SIDEWALL DETAIL
3" = 1'-0"

SHEET NOTES

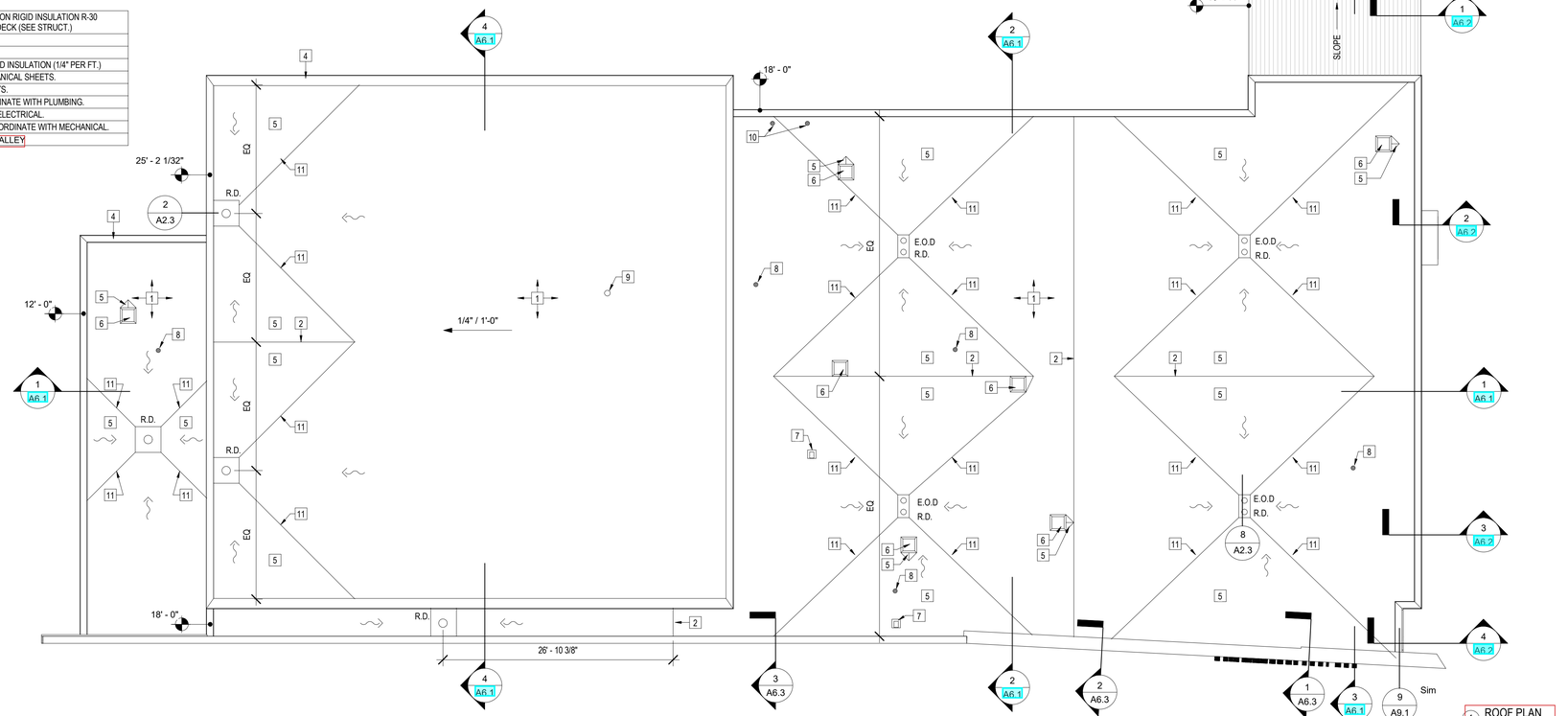
X — NUMBERED NOTES SHOWN IN DRAWINGS ON THIS SHEET APPLY ONLY TO THE NUMBERED NOTES IN THE TABLE BELOW.

1	SINGLE-PLY ROOFING SYSTEM ON RIGID INSULATION R-30 AVERAGE OVER METAL ROOF DECK (SEE STRUCT.)
2	RIDGE
4	ALUMINUM COPING
5	ROOF CRICKET - TAPERED RIGID INSULATION (1/4" PER FT.)
6	MECHANICAL UNIT, SEE MECHANICAL SHEETS.
7	VENT, SEE MECHANICAL SHEETS.
8	VENT THROUGH ROOF, COORDINATE WITH PLUMBING.
9	ANTENNA, COORDINATE WITH ELECTRICAL.
10	EXHAUST THROUGH ROOF, COORDINATE WITH MECHANICAL.
11	~~GUTTER AND DOWNSPOUT~~ VALLEY

RFI 1128-11



2 SCUPPER DETAIL
3" = 1'-0"



1 ROOF PLAN
1/8" = 1'-0"

RFI 1128-1

2168 MAIN STREET
SARASOTA, FL 34237
T 941.952.0084
F 941.952.0201
FL AA26000857

SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0013532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
ROOF PLANS & DETAILS

SHEET No.:
A2.3

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CEILING FAN

ACOUSTICAL PANEL CEILING

GYPSUM BOARD CEILING

ACRYLIC PLASTER SOFFIT CEILING SYSTEM

PLASTER CEILING

2' X 2' FLUORESCENT LIGHT FIXTURE

2' X 4' FLUORESCENT LIGHT FIXTURE

SUSPENDED LIGHT FIXTURE

MECHANICAL LINEAR DIFFUSER

EXHAUST FAN

MECHANICAL SUPPLY DIFFUSER

MECHANICAL RETURN DIFFUSER

EXIT SIGN

S SPEAKER

SD SMOKE DETECTOR

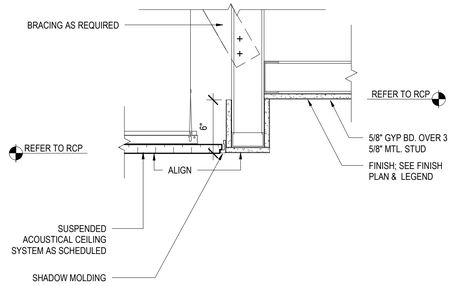
HD HEAT DETECTOR

SPRINKLER

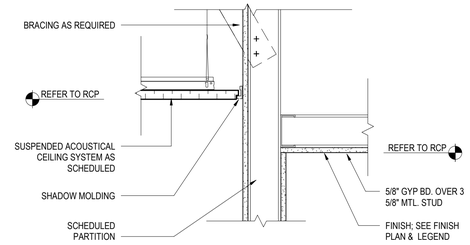
ALERTING SYSTEM - REDLIGHT SEE ELECTRICAL

RECESSED LIGHT

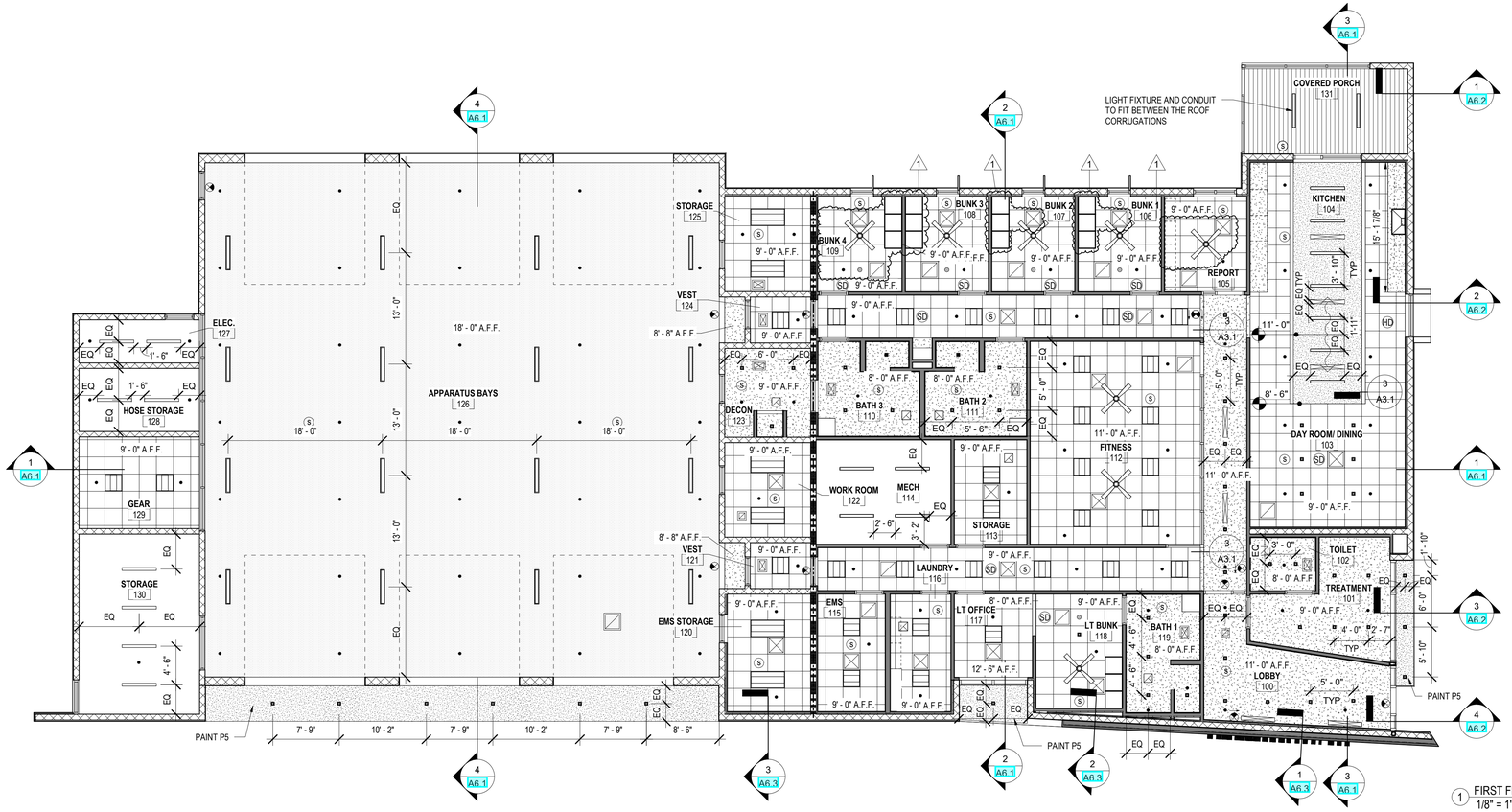
REFLECTED CEILING LEGEND
N.T.S



3 CEILING HEIGHT TRANSITION GWB TO ACT
1 1/2" = 1'-0"



2 TYP ACT & GWB CLG
1 1/2" = 1'-0"



1 FIRST FLOOR RCP
1/8" = 1'-0"

2168 MAIN STREET
SARASOTA, FL 34237
T 941.952.0084
F 941.952.0201
FL AA26000857

SWEET SPARKMAN ARCHITECTS

STATE OF FLORIDA
TODD M. SWEET
AR0015832
REGISTERED ARCHITECT

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
1	ASI 04	08.26.20

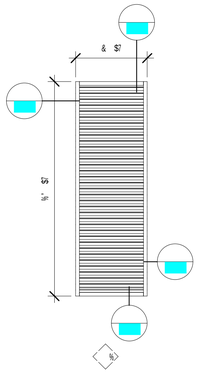
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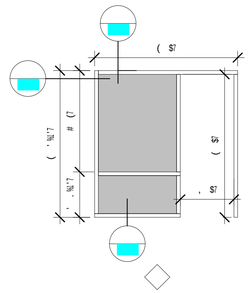
SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

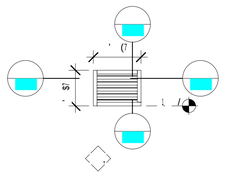
SHEET TITLE:
REFLECTED CEILING PLAN & DETAILS

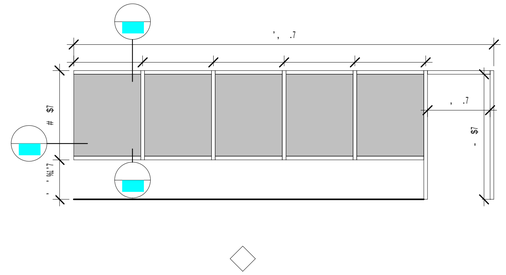
SHEET No.:
A3.1

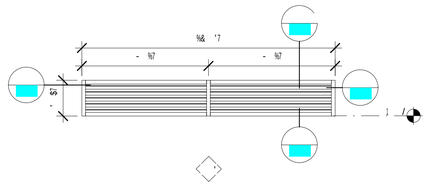
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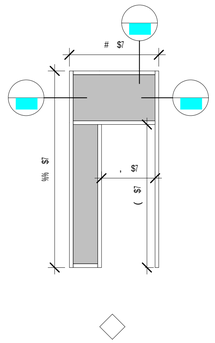


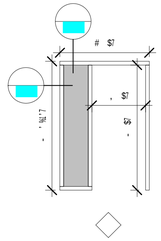


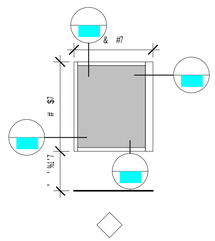


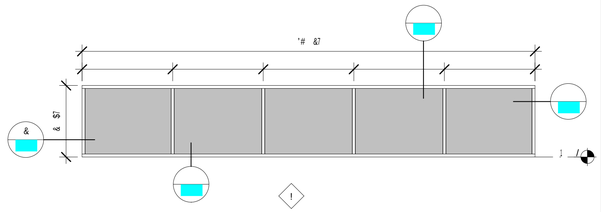


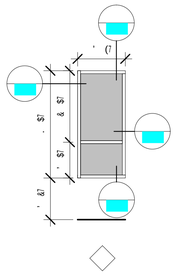


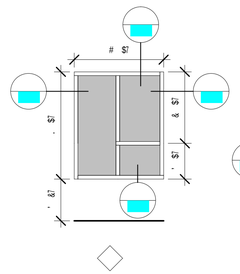


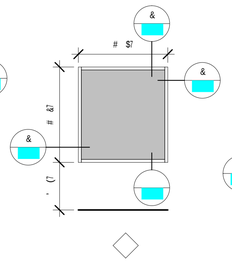


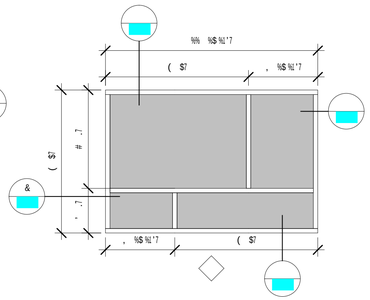


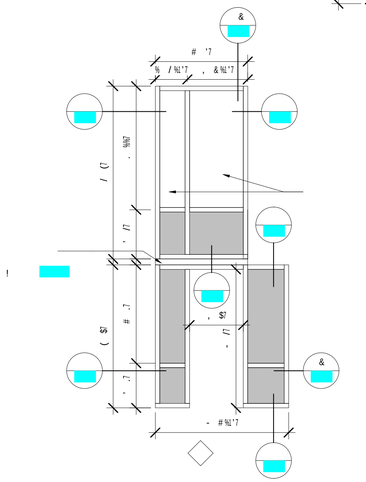


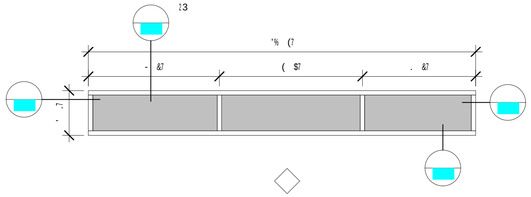


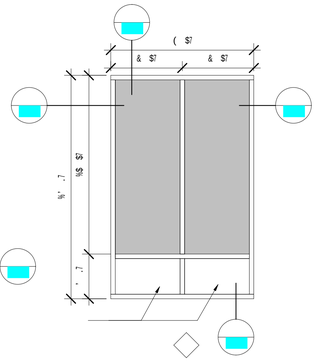










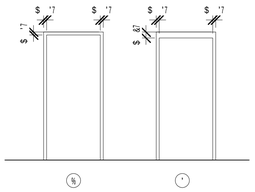


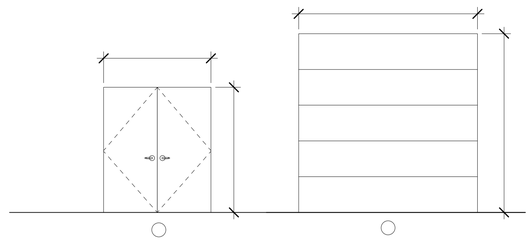
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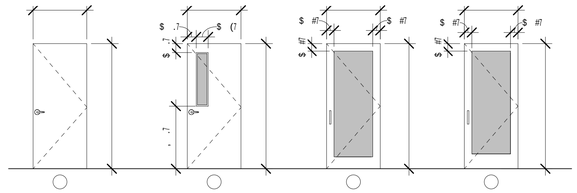
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SWEET SPARKMAN ARCHITECTS

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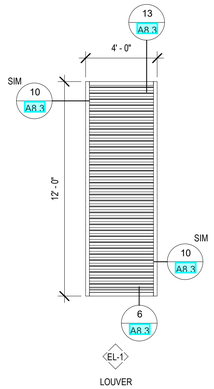
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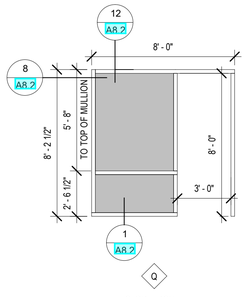
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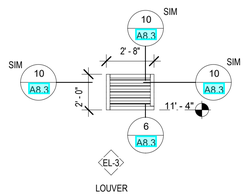
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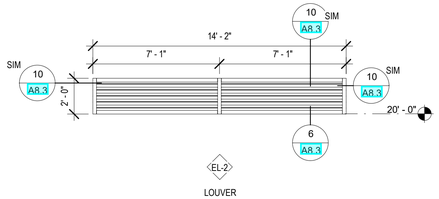
LOUVER



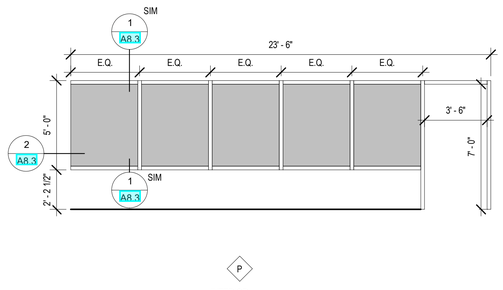
STOREFRONT



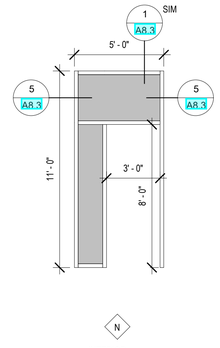
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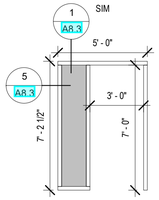
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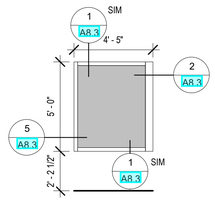
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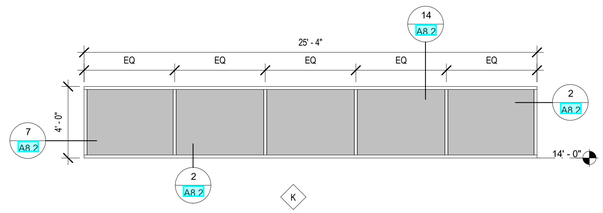
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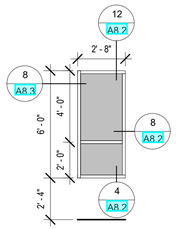
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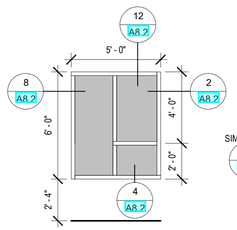
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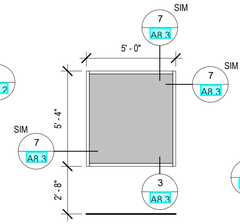
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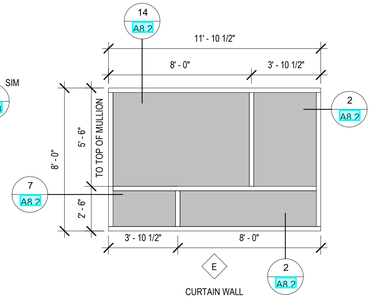
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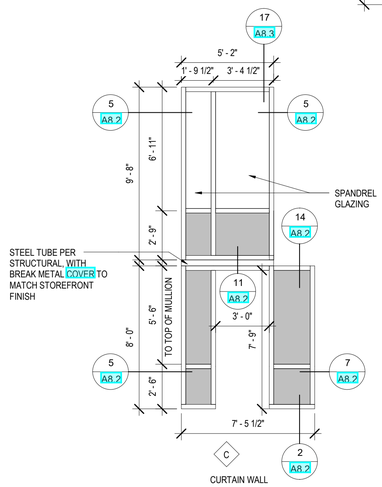
STOREFRONT



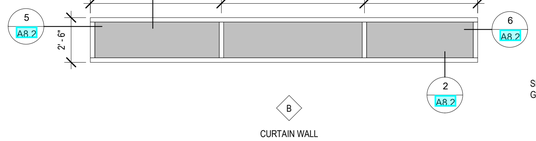
STOREFRONT



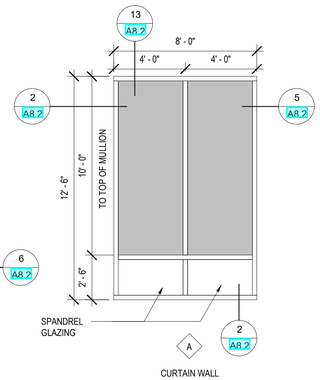
CURTAIN WALL



CURTAIN WALL



CURTAIN WALL



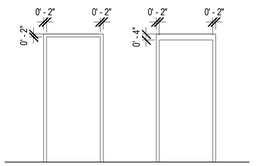
CURTAIN WALL

DOOR SCHEDULE

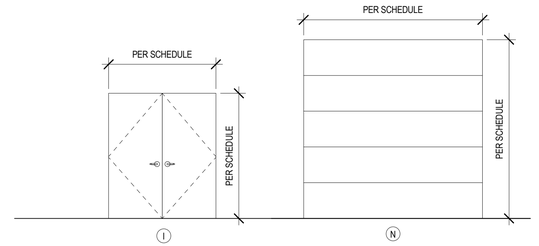
DOOR NUMBER	INT/EXT	TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR MATERIAL	DOOR FINISH	FIRE RATING	HARDWARE	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	REMARKS
100A	EXT	G	3' - 0"	7' - 9"	ALUM	PRE-FIN.		01	C	ALUM	PRE-FIN.	
100B	INT	E	3' - 0"	8' - 0"	ALUM	PRE-FIN.		06	N	ALUM	PRE-FIN.	ACCESS CONTROL
101	INT	A	3' - 6"	7' - 0"	WD	STN		13	1	ALUM	PRE-FIN.	
102	INT	A	3' - 0"	7' - 0"	WD	STN		12	1	ALUM	PRE-FIN.	
104	EXT	G	3' - 0"	8' - 0"	ALUM	PRE-FIN.		01	Q	ALUM	PRE-FIN.	
105	INT	E	3' - 0"	7' - 0"	ALUM	PRE-FIN.		07	M	ALUM	PRE-FIN.	
106	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
107	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
108	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
109	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
110	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
110B	INT	A	3' - 6"	7' - 0"	HM	PNT	90 MIN.	12	2	HM	PNT	
111	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
112	INT	E	3' - 6"	7' - 0"	ALUM	PRE-FIN.		07	P	ALUM	PRE-FIN.	
113	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		10	1	ALUM	PRE-FIN.	
114	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		08	1	ALUM	PRE-FIN.	
115	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		08	1	ALUM	PRE-FIN.	
116	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		13	1	ALUM	PRE-FIN.	
117	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		11	1	ALUM	PRE-FIN.	
119	INT	A	3' - 0"	7' - 0"	WD	PRE-FIN.		12	1	ALUM	PRE-FIN.	
120	INT	A	3' - 0"	7' - 0"	HM	PNT		08	2	HM	PNT	
121A	INT	A	3' - 0"	7' - 0"	HM	PNT	90 MIN.	05	2	HM	PNT	
121B	INT	C	3' - 0"	7' - 0"	HM	PNT		04	2	HM	PNT	
122	INT	C	3' - 0"	7' - 0"	HM	PNT		10	2	HM	PNT	
123	INT	A	3' - 0"	7' - 0"	HM	PNT		12	2	HM	PNT	
124A	INT	A	3' - 0"	7' - 0"	HM	PNT	90 MIN.	05	2	HM	PNT	
124B	INT	C	3' - 0"	7' - 0"	HM	PNT		03	2	HM	PNT	ACCESS CONTROL
125	INT	A	3' - 0"	7' - 0"	HM	PNT		10	2	HM	PNT	
126A	EXT	L	14' - 0"	14' - 0"	ALUM	PRE-FIN.		14				OVERHEAD DOOR
126B	EXT	L	14' - 0"	14' - 0"	ALUM	PRE-FIN.		14				OVERHEAD DOOR
126C	EXT	L	14' - 0"	14' - 0"	ALUM	PRE-FIN.		14				OVERHEAD DOOR
126D	EXT	L	14' - 0"	14' - 0"	ALUM	PRE-FIN.		14				OVERHEAD DOOR
126E	EXT	L	14' - 0"	14' - 0"	ALUM	PRE-FIN.		14				OVERHEAD DOOR
126F	EXT	L	14' - 0"	14' - 0"	ALUM	PRE-FIN.		14				OVERHEAD DOOR
126G	EXT	A	3' - 0"	7' - 0"	HM	PNT		02	2	HM	PNT	ACCESS CONTROL
127	EXT	A	3' - 0"	7' - 0"	HM	PNT		08	2	HM	PNT	
128	INT	A	3' - 0"	7' - 0"	HM	PNT		10	2	HM	PNT	
129	INT	A	3' - 0"	7' - 0"	HM	PNT		10	2	HM	PNT	
130	INT	I	6' - 0"	7' - 0"	HM	PNT		09	2	HM	PNT	
131	EXT	NA	3' - 0"	8' - 0"				15				SCREEN DOOR

GENERAL DOOR NOTES:

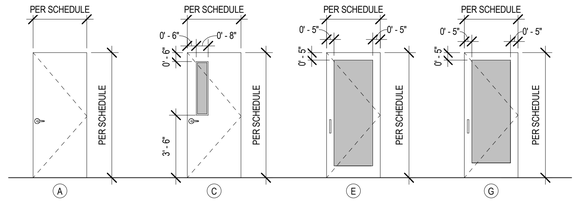
A. GLAZING FOR ALL INTERIOR DOORS & SIDELIGHTS TO BE 1/4" CLEAR TEMPERED, PER SPECIFICATION.
B. GLAZING FOR ALL EXTERIOR DOOR & SIDELIGHTS - REFER TO PRODUCT APPROVAL
C. ALL HM AND WOOD DOORS ARE 1-3/4" THICKNESS UNLESS NOTED OTHERWISE.



FRAME TYPES
N.T.S



FLUSH (DOUBLE) OH SECTIONAL DOOR



DOOR TYPES
N.T.S

2168 MAIN STREET
SARASOTA, FL 34237
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F 941.952.0201
FL AA26000857

SWEET | SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0015532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	1/4" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
SCHEDULES, LEGENDS & DETAILS

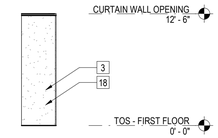
SHEET No.:
A4.1

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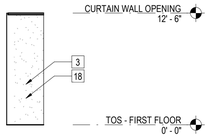
SHEET NOTES

X → NUMBERED NOTES SHOWN IN DRAWINGS ON THIS SHEET APPLY ONLY TO THE NUMBERED NOTES IN THE TABLE BELOW.

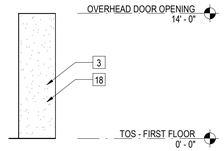
1	LISTED APPROVED ALUMINUM COMPOSITE RAINSCREEN PANELS AS SPECIFIED. THE CLASSIC COLLECTION, BONE WHITE.
2	LISTED APPROVED OVERHEAD SECTIONAL DOOR AS SPECIFIED.
3	PAINTED PORTLAND CEMENT PLASTER SYSTEM.
4	PRE-FINISHED ALUMINUM COPING CAP CONTINUOUS.
5	LISTED APPROVED PREFINISHED ALUMINUM LOUVER AS SPECIFIED.
6	LISTED APPROVED IMPACT RESISTANT CURTAIN WALL WINDOW SYSTEM AS SPECIFIED.
7	CAST IN PLACE CONCRETE WALL.
8	12" HIGH 1" DEPTH BLACK POWDER COATED ALUMINUM LETTERING, FONT FUTURA LIGHT.
9	ALUMINUM SCREEN ENCLOSURE.
10	ALUMINUM ROOF DECK SYSTEM.
11	WINDOW SURROUND.
12	LISTED APPROVED IMPACT RESISTANT STOREFRONT WINDOW SYSTEM AS SPECIFIED.
13	OVERFLOOW DRAIN AS SPECIFIED.
14	BOLLARD AS SPECIFIED, TYP.
15	FLAG POLE AS SPECIFIED. REFER TO DETAIL.
16	ALIGN CONTROL JOINTS WITH OVERHEAD DOOR PANELS, TYP.
17	.063 ALUMINUM BREAKMETAL TO MATCH ALUMINUM CURTAIN WALL FINISH.
18	ACCENT PAINT COLOR, P5.
19	ACCENT PAINT COLOR, P2.
20	ALUMINUM FIN.



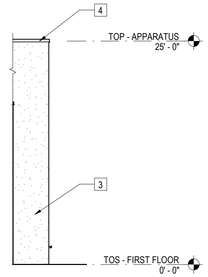
11 PARTIAL EAST ELEVATION 2
1/8" = 1'-0"



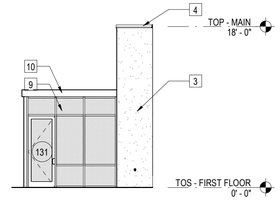
10 PARTIAL WEST ELEVATION 2
1/8" = 1'-0"



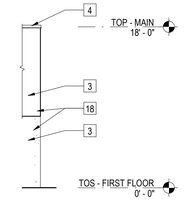
9 PARTIAL WEST ELEVATION 2 - APPARATUS BAY
1/8" = 1'-0"



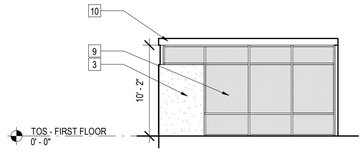
8 PARTIAL WEST ELEVATION - APPARATUS BAY
1/8" = 1'-0"



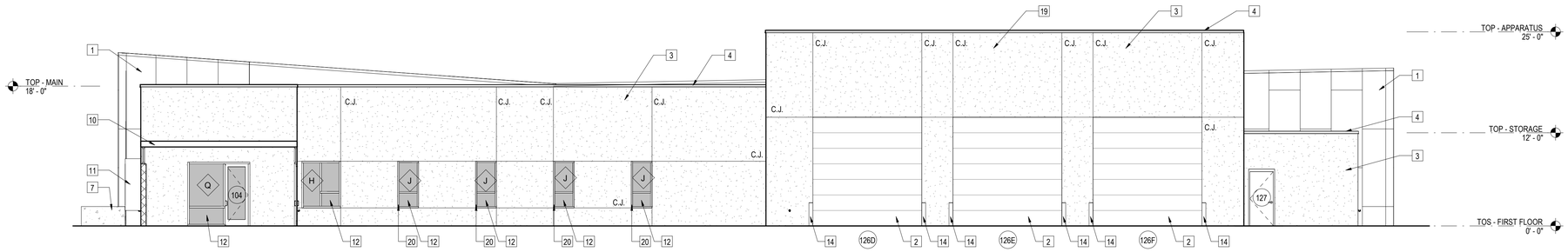
7 PARTIAL EAST ELEVATION - PORCH
1/8" = 1'-0"



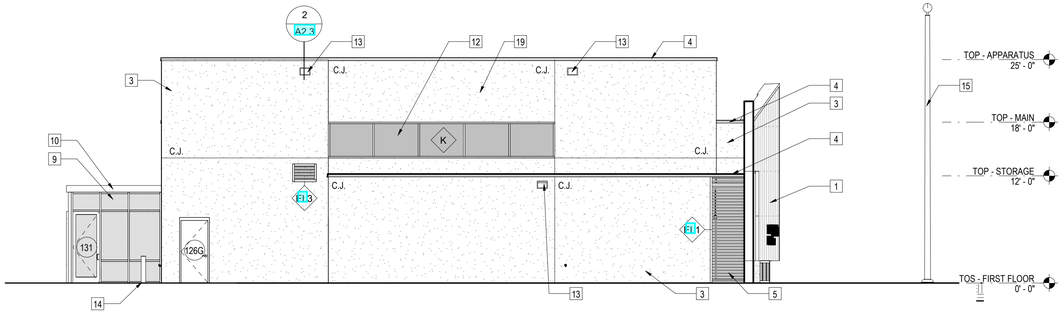
6 PARTIAL SOUTH ELEVATION
1/8" = 1'-0"



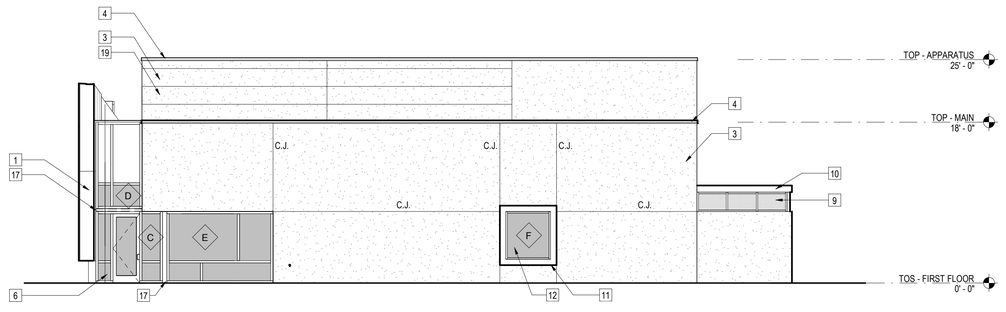
5 NORTH ELEVATION PARTIAL
1/8" = 1'-0"



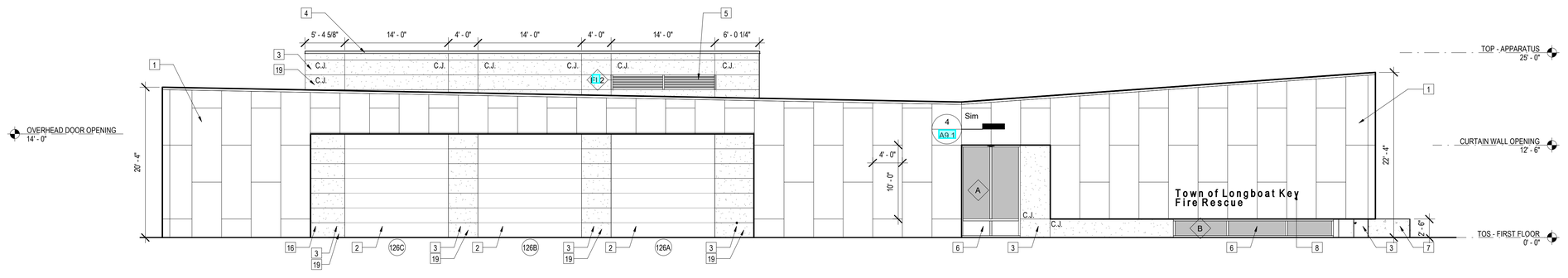
4 NORTH ELEVATION
1/8" = 1'-0"



3 WEST ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"

2168 MAIN STREET
SARASOTA, FL 34237
T 941.952.0084
F 941.952.0201
FL AA26000857

SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0013532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

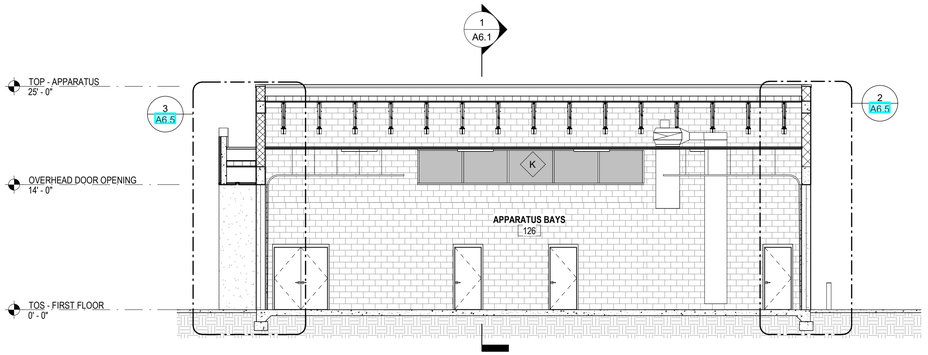
GRAPHIC SCALE:
0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

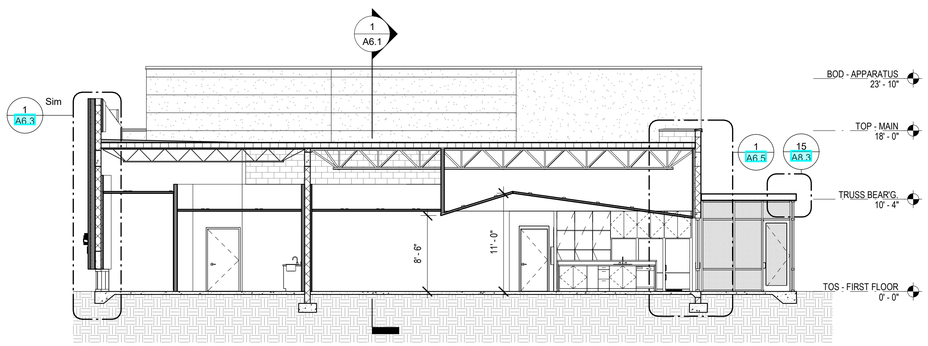
SHEET TITLE:
EXTERIOR ELEVATIONS

SHEET No.:
A5.1

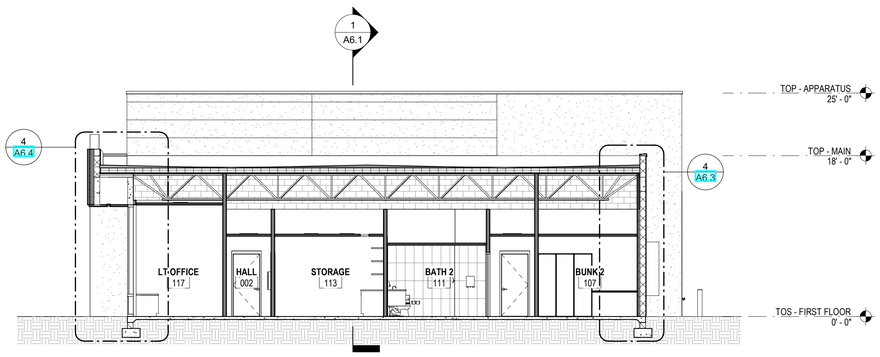
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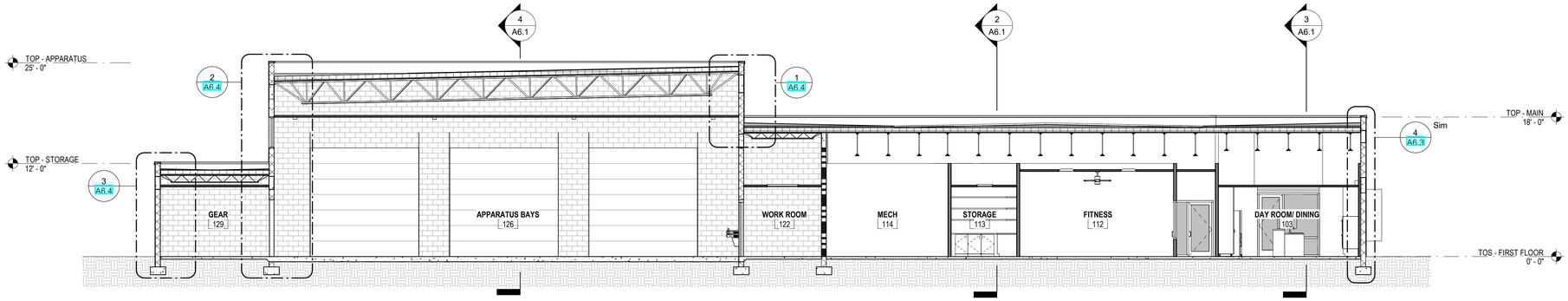
4 BUILDING SECTION
1/8" = 1'-0"



3 SECTION 3
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



1 BUILDING SECTION
1/8" = 1'-0"

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2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
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REV	DESCRIPTION	DATE

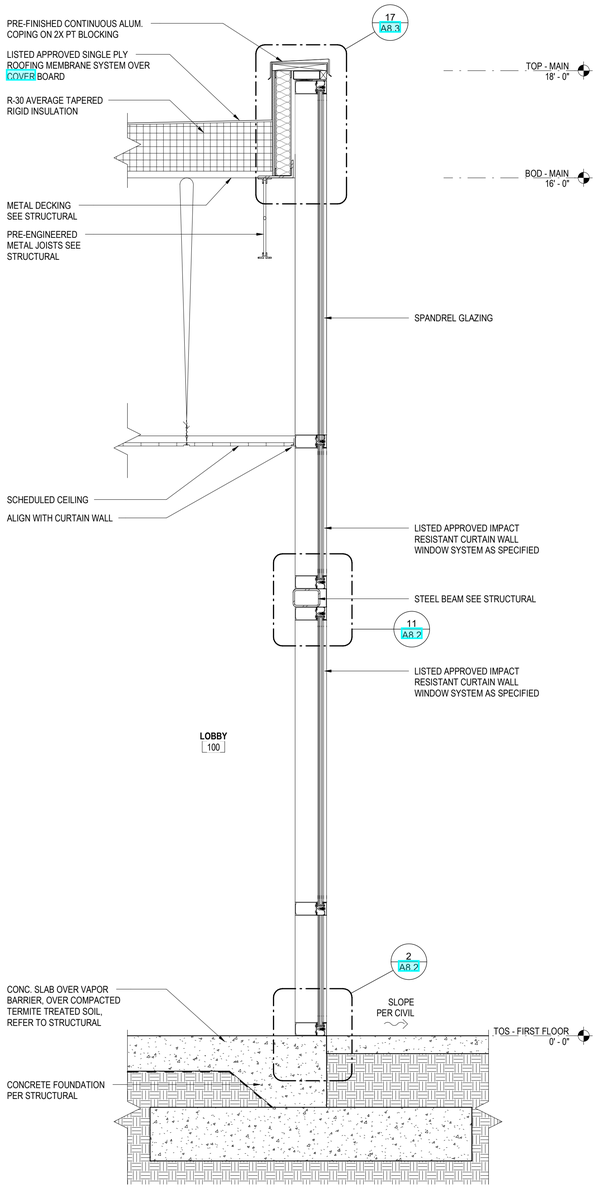
GRAPHIC SCALE:
0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

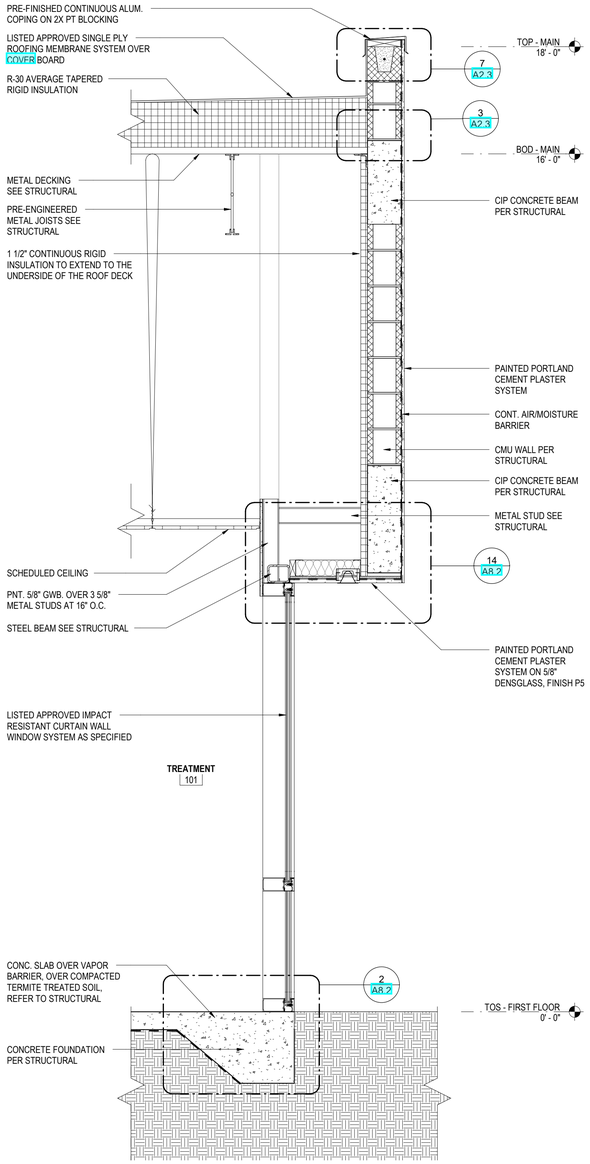
SHEET TITLE:
BUILDING SECTIONS

SHEET No.:
A6.1

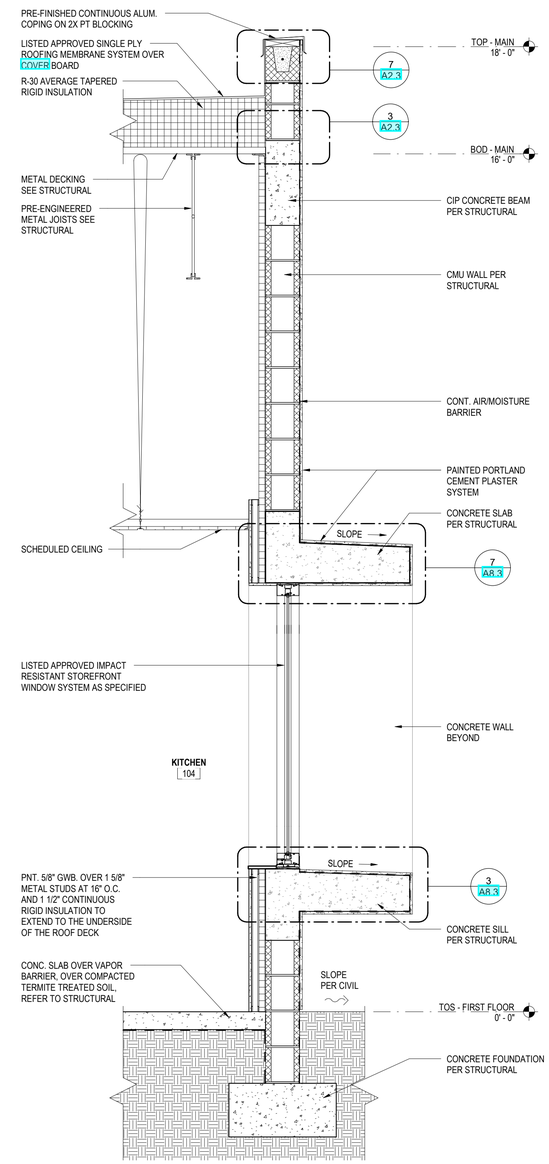
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4 WALL SECTION - LOBBY ENTRY
3/4" = 1'-0"



3 WALL SECTION -TREATMENT
3/4" = 1'-0"



2 WALL SECTION - KITCHEN EAST WALL
3/4" = 1'-0"

1 WALL SECTION - SCREEN PORCH
3/4" = 1'-0"

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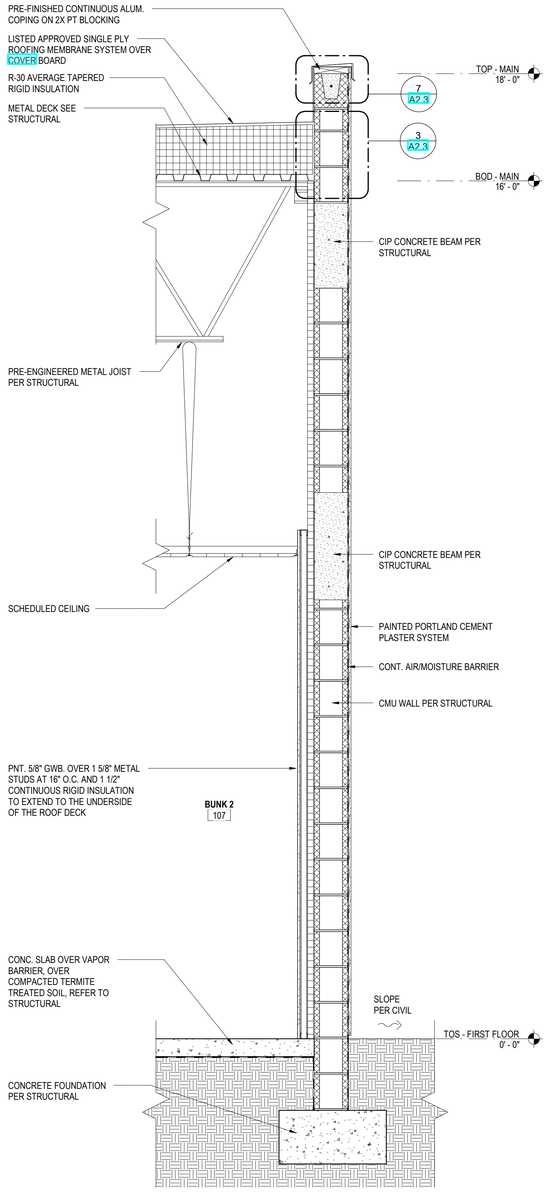
GRAPHIC SCALE:
0" 1"

SCALE:	3/4" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

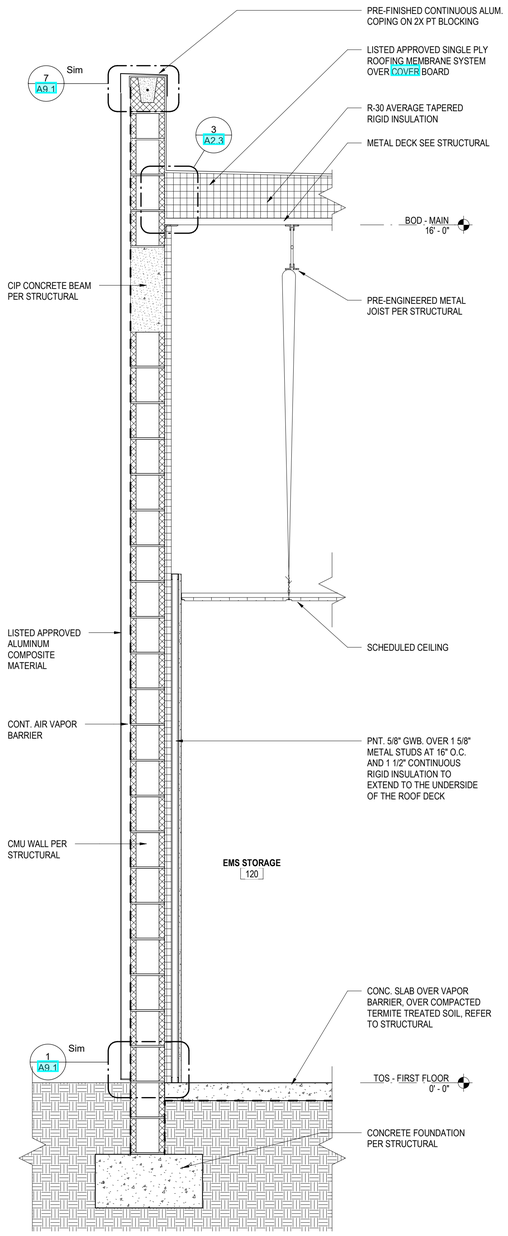
SHEET TITLE:
WALL SECTIONS

SHEET No.:
A6.2

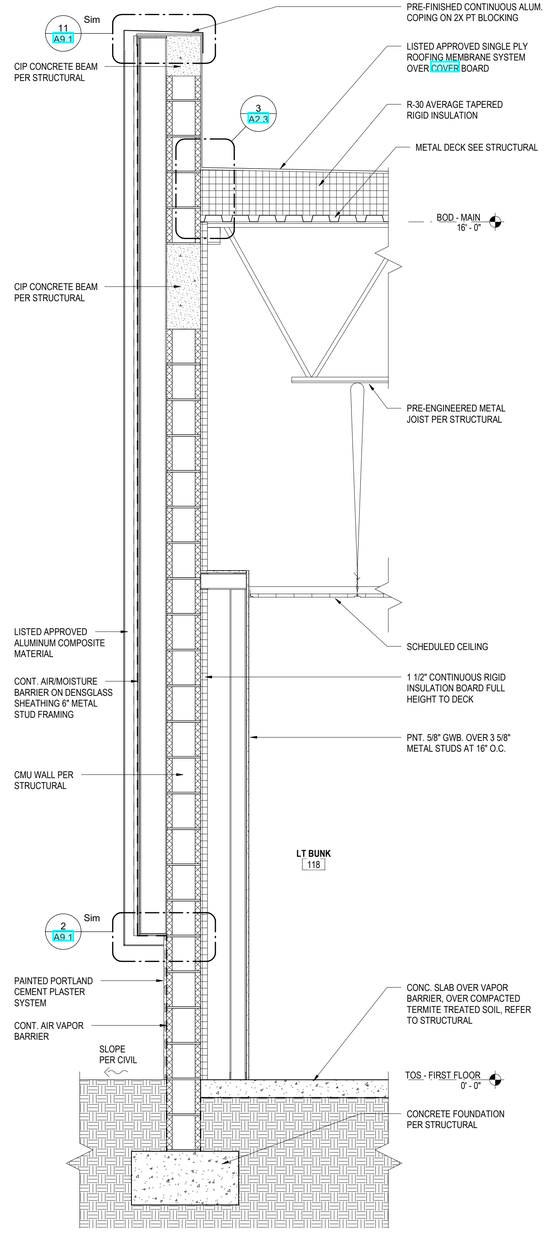
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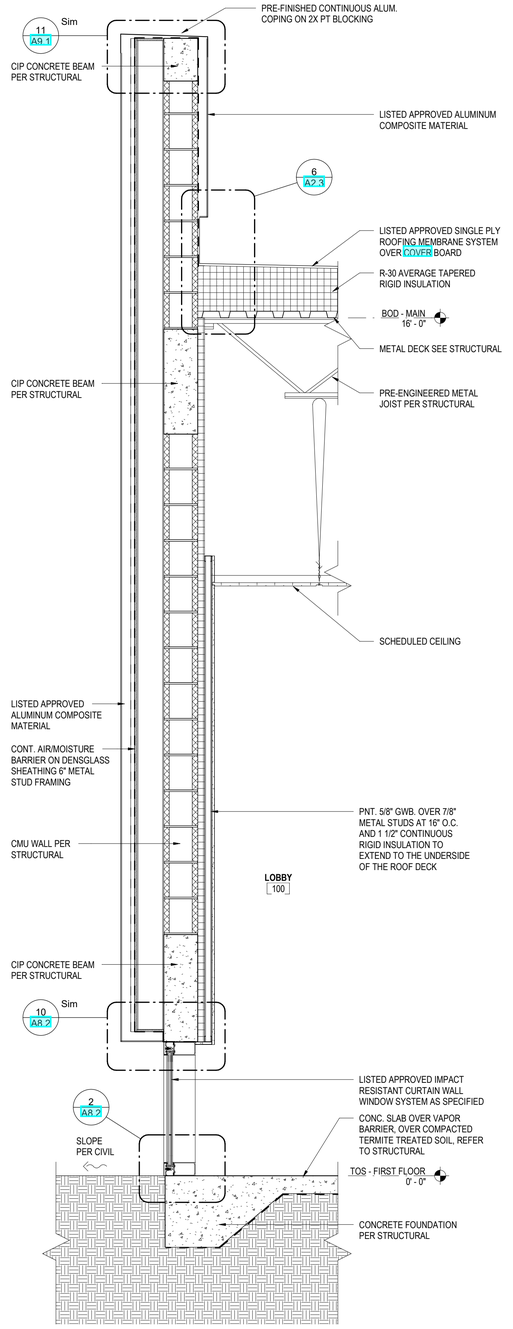
4 WALL SECTION - BUNK 2
3/4" = 1'-0"



3 WALL SECTION - EMS STORAGE
3/4" = 1'-0"



2 WALL SECTION - LT BUNK
3/4" = 1'-0"



1 WALL SECTION -LOBBY SOUTH WALL
3/4" = 1'-0"

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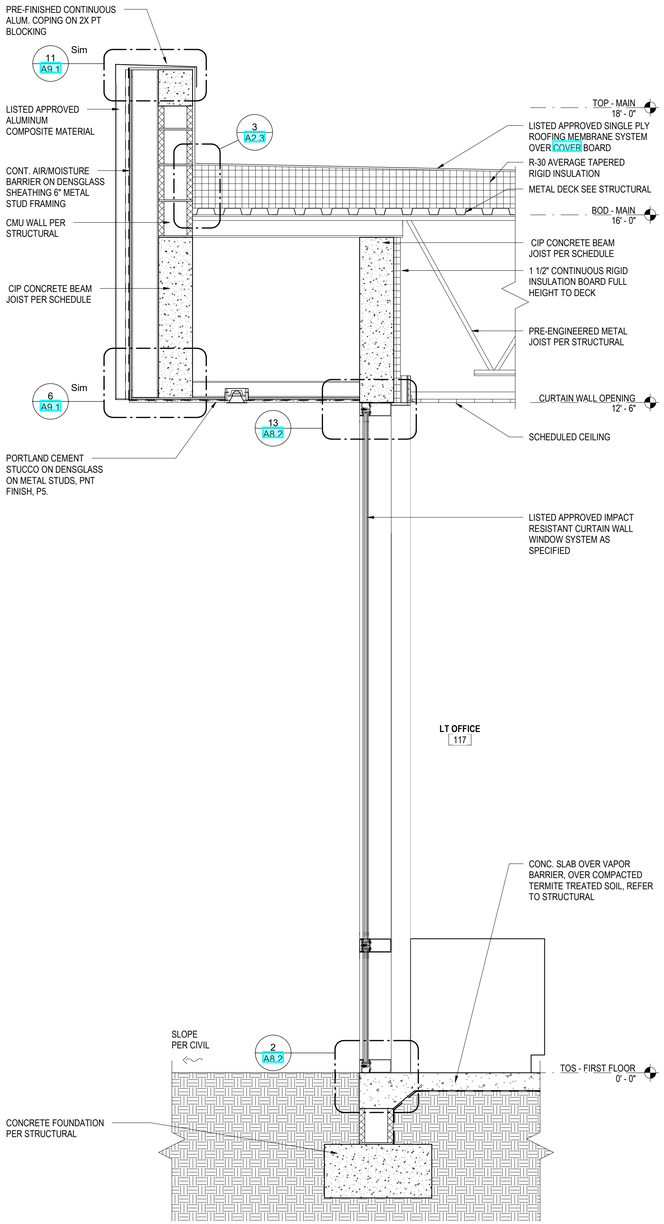
GRAPHIC SCALE: 0" 1"

SCALE:	3/4" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

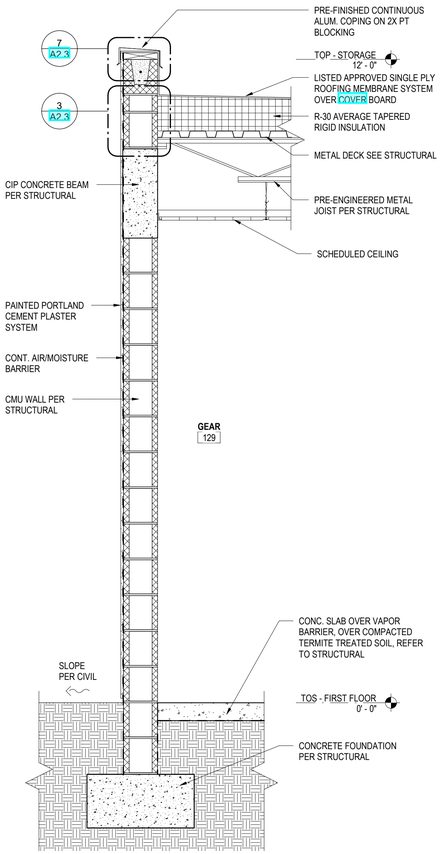
SHEET TITLE:
WALL SECTIONS

SHEET No.:
A6.3

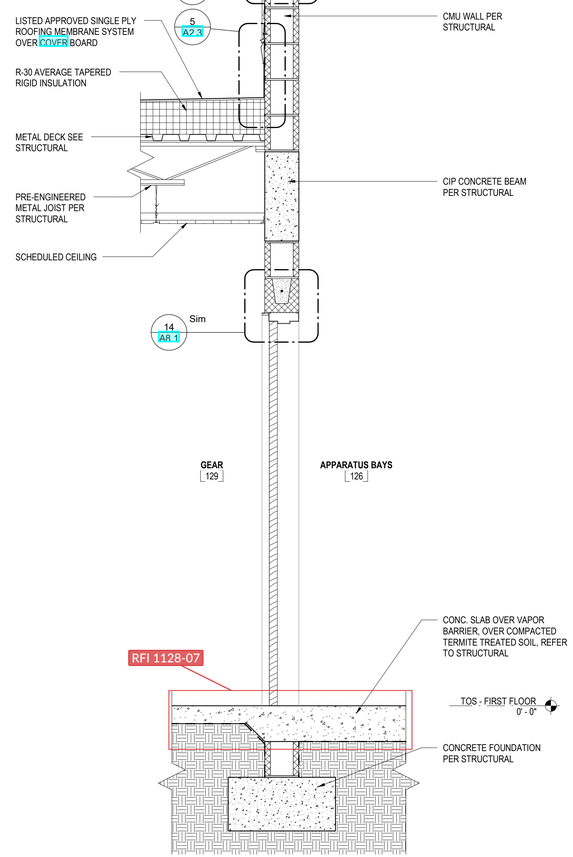
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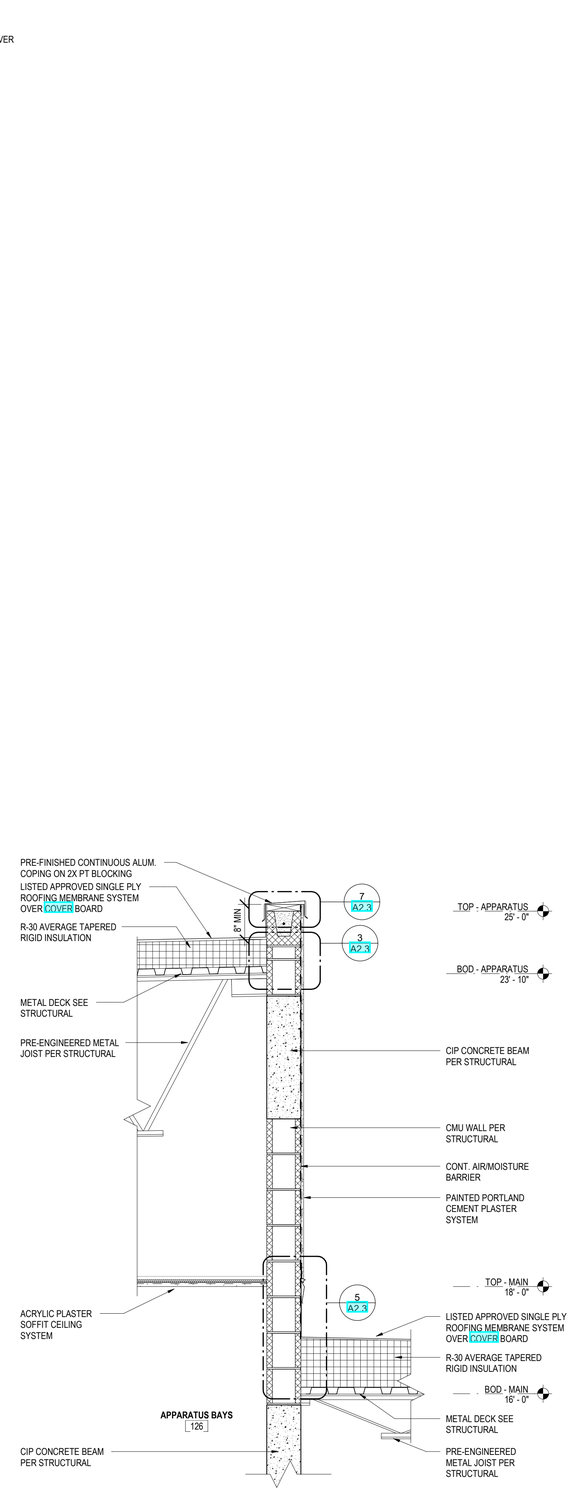
4 WALL SECTION - LT OFFICE
3/4" = 1'-0"



3 WALL SECTION - GEAR ROOM
3/4" = 1'-0"



2 WALL SECTION - APPARATUS BAY
3/4" = 1'-0"



1 WALL SECTION - LOW TO HIGH ROOF
3/4" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0015532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

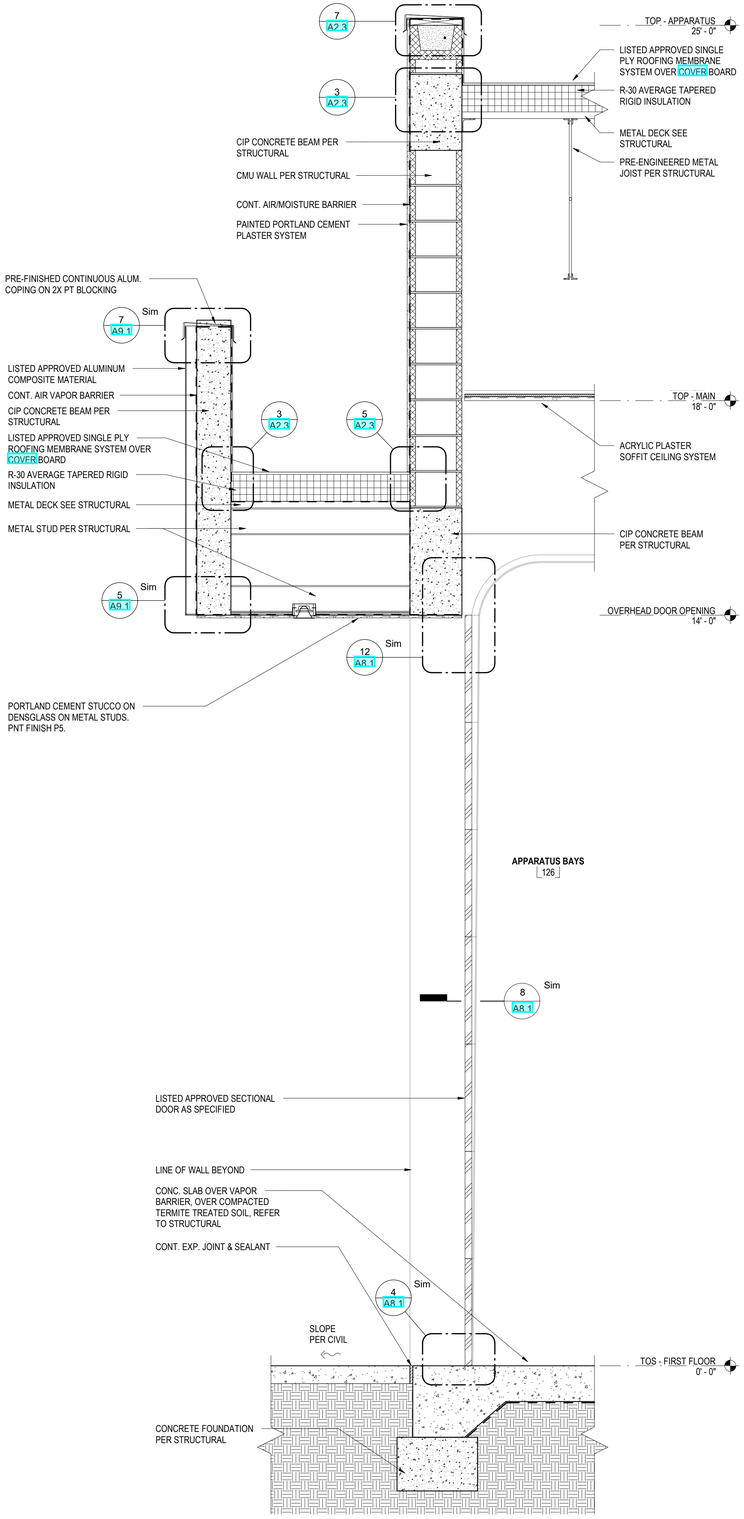
GRAPHIC SCALE: 0" 1"

SCALE:	3/4" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

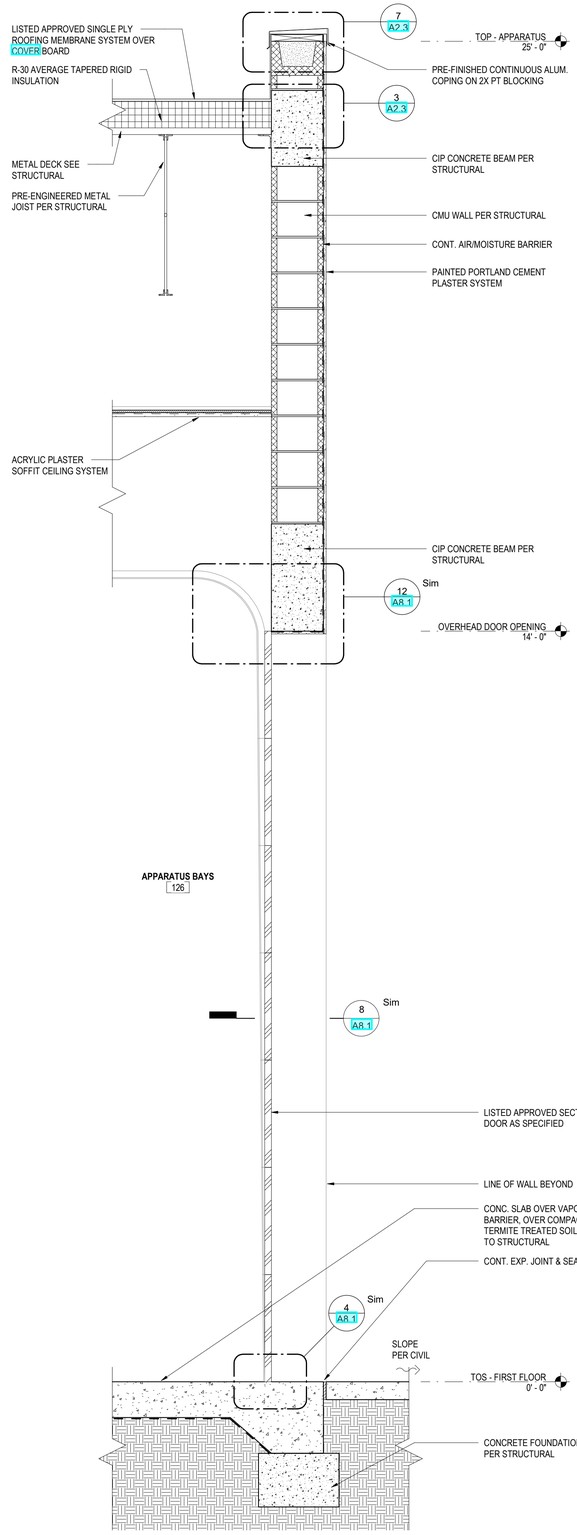
SHEET TITLE:
WALL SECTIONS

SHEET No.:
A6.4

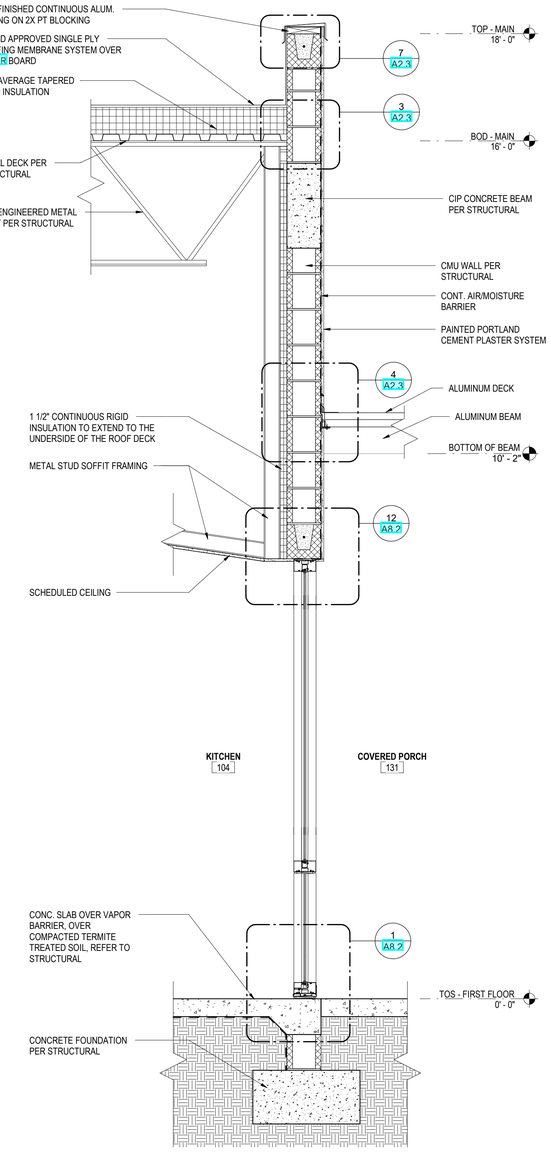
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3 WALL SECTION - APPARATUS BAY SOFFIT
3/4" = 1'-0"



2 WALL SECTION - APPARATUS BAY
3/4" = 1'-0"



1 WALL SECTION - KITCHEN/PORCH
3/4" = 1'-0"

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ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	3/4" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
WALL SECTIONS

SHEET No.:
A6.5

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GENERAL FINISH NOTES:

A. SAMPLES OF FINISHES SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL IN DUPLICATE PRIOR TO COMMENCEMENT OF WORK. PAINT SAMPLES FOR GYPSUM BOARD SURFACES TO BE PROVIDED ON AN A4 GYPSUM BOARD. WALLCOVERING SAMPLES TO BE A4 SIZED.
B. REFER TO WALL LEGEND, PLANS &/OR SECTIONS FOR FINISH SUBSTRATE.
C. WHERE 2 OR MORE FINISHES ARE SCHEDULED, SEE FLOOR PLAN, REFLECTED CEILING PLAN, OR INTERIOR ELEVATIONS FOR EXTENTS.
D. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
E. ONLY FINISH NON PRE-FINISHED ITEMS.
F. ALL GYPSUM BOARD WALL SURFACES TO BE P1, UNO.
G. ALL GYPSUM BOARD VERTICAL SOFFITS, CEILINGS AND HORIZONTAL SOFFITS TO BE P3, UNO.
H. ALL INTERNAL CLOSETS TO BE P1, UNO.
I. ALL DOOR TRIM TO BE P2, UNO.
J. DOORS + TRIM ARE TO BE SEMIGLOSS; WALLS ARE TO BE EGGSHELL; CEILINGS ARE TO BE FLAT.
K. DRYWALL FINISH TO BE LEVEL 5, SMOOTH, UNO.
L. COVE RUBBER BASE AT HARD FLOOR (CONCRETE, RESILIENT FLOOR), STRAIGHT BASE AT CARPET. STRAIGHT BASE TO BE INSTALLED PRIOR TO CARPET.
M. NO APPLIED BASE AT PTD. CMU WALLS.
N. ALIGN FACES OF JOINT TILES.
O. TILES SHOULD BE SAME DYE LOT/CALIBER.
P. ALL EXPOSED CMU WALLS TO TO RECEIVE STRIKED JOINTS.
Q. EXTERIOR PAINT TO BE P6, UNO.
R. ALL OUTSIDE CORNERS ON TILED WALLS TO RECEIVE SCHLUTER QUADEC; UNO. PROVIDE ARCHITECT WITH FULL RANGE OF FINISH OPTIONS FOR APPROVAL.
S. DECON SHOWER FLOOR TILE TO RECEIVE SCHLUTER SCHIENE AS TRANSITION TO GENERAL FLOORING.
T. FINISH FLOOR BELOW WALK OFF MAT.

FINISH SCHEDULE REMARKS:

1. NA

FINISH SCHEDULE

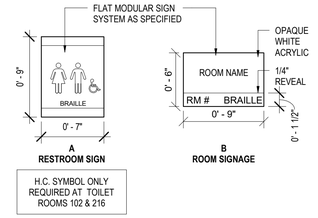
ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	REMARKS
001	HALL	CC1	RB1	P1	P3	
002	HALL	CC1	RB1	P1	ACT1	
003	HALL	CC1	RB1	P1	ACT1	
100	LOBBY	CC1	MT1	P1/P5/T4	P3	
101	TREATMENT	CC1	RB1	P1	P3	
102	TOILET	T1	NA	T1/T3	P3	
103	DAY ROOM/ DINING	CC1	RB1	P1/T3	ACT1/P2	
104	KITCHEN	CC1	RB1	P1	ACT1/P1/P3	
105	REPORT	CC1	RB1	P1	ACT1	
106	BUNK 1	CC1	RB1	P1	ACT1	
107	BUNK 2	CC1	RB1	P1	ACT1	
108	BUNK 3	CC1	RB1	P1	ACT1	
109	BUNK 4	CC1	RB1	P1	ACT1	
110	BATH 3	T1/T2	NA	T1/T3	P3	
111	BATH 2	T1/T2	NA	T1/T3	P3	
112	FITNESS	RF1	RB2	GL1/P1	ACT1	
113	STORAGE	CC1	RB1	P1	ACT1	
114	MECH	CC1	RB1	P1	EXP	
115	EMS	CC1	RB1	P1	ACT1	
116	LAUNDRY	CC1	RB1	P1	ACT1	
117	LT OFFICE	CC1	RB1	P1	ACT1	
118	LT BUNK	CC1	RB1	P1	ACT1	
119	BATH 1	T1/T2	NA	T1/T3	P3	
120	EMS STORAGE	CC2	RB1	P1	ACT1	
121	VEST	CC2	RB1	P1	ACT1	
122	WORK ROOM	CC2	RB1	P1	ACT1	
123	DECON	CC2	RB1	P1	P3	
124	VEST	CC2	RB1	P1	ACT1	
125	STORAGE	CC2	RB1	P1	ACT1	
126	APPARATUS BAYS	CC2	NA	P1	P4	
127	ELEC.	CC2	RB1	P1	EXP	
128	HOSE STORAGE	CC2	RB1	P1	EXP	
129	GEAR	CC2	RB1	P1	ACT1	
130	STORAGE	CC2	RB1	P1	EXP	
131	COVERED PORCH	CC2				

FINISH LEGEND

ITEM	MATERIAL	MANUFACTURER	ITEM DESCRIPTION	COLOR	REMARKS
ACT1	ACOUSTIC CEILING TILE	USG	2'X2' MARS W/ FLB EDGE; IDENTITEE DXI GRID SYTEM; SHADOW MOLDING AT PERIMETER	WHITE	
AP1	ACRYLIC PLASTER	STO	80131-500 STOLIT 1.5	MATCH BEHR PPF-27 PORCH CEILING	
CC1	CONCRETE	TBD	POLISHED + SEALED CONCRETE	NA	
CC2	CONCRETE	TBD	SEALED CONCRETE	NA	
CP1	CARPET	SHAW	STEPPIN COLLECTION WELCOME II 60745 W/ RUBBER EDGE BANDING IN MATCHING COLOR	31557 STERLING	
GL1	GLASS	-	1/4" THICK EDGED LOW-IRON MIRRORED GLASS		
MT1	METAL	-	BREAKMETAL TRIM; HEIGHT OF TRIM TO ALIGN W/ HEIGHT OF CURTIAN WALL FRAME	MATCH CURTAIN WALL FRAME	
P1	PAINT	SHERWIN WILLIAMS	GENERAL PAINT	SW7064 PASSIVE	
P2	PAINT	SHERWIN WILLIAMS	GENERAL PAINT	MATCH EXTERIOR OVERHEAD DOORS	
P3	PAINT	SHERWIN WILLIAMS	CEILING PAINT	SW7007 CEILING BRIGHT WHITE	
P4	PAINT	SHERWIN WILLIAMS	CEILING PAINT	MATCH BEHR PPF-27 PORCH CEILING	
P5	PAINT	SHERWIN WILLIAMS	ACCENT PAINT	SW6608 RAVE RED	
P6	PAINT	SHERWIN WILLIAMS	EXTERIOR PAINT	MATCH RAIN SCREEN	
PL1	PLASTIC LAMINATE	ARBORITE	PLASTIC LAMINATE	W-458 SR BEACH COMBED	
PL2	PLASTIC LAMINATE	WILSONART	PREMIUM LAMINATE; LINEARITY FINISH; AEON SCRATCH RESISTANT	4941K-18 COSMIC STRANDZ	
PL3	PLASTIC LAMINATE	WILSONART	STANDARD LAMINATE; MATTE FINISH	D92-60 DOVE GREY	
PL4	PLASTIC LAMINATE	FORMICA	STANDARD LAMINATE; MATTE FINISH	845-58 SPECTRUM RED	
PL5	PLASTIC LAMINATE	WILSONART	TRACELESS; TRACELESS FINISH	15507-31 SLATE VELVET	
PL6	PLASTIC LAMINATE	FORMICA	STANDARD LAMINATE; MATTE FINISH	918-58 NEUTRAL WHITE	
RB1	RESILIENT BASE	JOHNSONITE	TRADITIONAL 4"H	TBD	
RB2	RESILIENT BASE	JOHNSONITE	TRADITIONAL 4"H	TBD	
RF1	RESILIENT FLOORING	ECORE	8MM EVERLAST ROLL	EL104 CARDINALS	
SP1	SPECIAL FINISH	CITYWOOD	LASERCUT LBK MAP	2-TONE	
SP2	SPECIAL FINISH	INTERLAM	FORESCOLOR	RED	
SS1	SOLID SURFACE	WILSONART	QUARTZ	Q1009 GREY LAKE	
SS2	SOLID SURFACE	WILSONART	QUARTZ	Q6016 CALM WHITE	
T1	TILE	EMSER TILE	12"X24" BLUE EMOTION GLAZED BODY MATCH PORCELAIN; MINIMAL GROUT JOINTS; GROUT COLOR TBD	LIGHT MATTE	
T2	TILE	EMSER TILE	2"X2" MOSAIC BLUE EMOTION GLAZED BODY MATCH PORCELAIN; MINIMAL GROUT JOINTS; GROUT COLOR TBD	LIGHT MATTE	
T3	TILE	UNITED STATE CERAMIC TILE	3"x6" COLOR COLLECTION CERAMIC WALL TILE; MINIMAL GROUT JOINTS; GROUT COLOR TBD	RED PEPPER	
T4	TILE	MOSA	12X24 MURALS CHANGE PORCELAIN TILE; VERTICAL STACKED INSTALLATION; MINIMAL GROUT JOINTS; GROUT COLOR TBD	35070 BRIGHT WHITE/LIGHT COOL GREY #2	
WT1	WINDOW TREATMENT	MECHO	ECOVEIL SCREENS 1550 SERIES 3% OPEN; MANUAL	TBD	
WT2	WINDOW TREATMENT	MECHO	EQUINOX SERIES BLACKOUT 0102; MANUAL	TBD	

SIGNAGE SCHEDULE

NUM.	TYPE	QTY	DESCRIPTION	REMARKS
01	B	1	TREATMENT	
02	A	1	TOILET	
03	B	1	FITNESS	
04	B	1	DAYROOM/DINING	
05	B	1	REPORT	
06	B	4	BUNK ROOM	
07	A	3	UNISEX BATHROOM	
08	B	2	APPARATUS BAY	
09	B	3	STORAGE	
10	B	1	DECON	
11	B	1	WORKROOM	
12	B	1	EMS STORAGE	
13	B	1	ELECTRICAL	
14	B	1	HOSE STORAGE	
15	B	1	GEAR	
16	B	1	EMS	
17	B	1	LAUNDRY	
18	B	1	MECHANICAL	
19	B	1	LT BUNKROOM	





1 FIRST FLOOR PLAN
1/8" = 1'-0"

FINISH SYMBOLS

- FLOOR FINISH
- UPPER CASEWORK FINISH
- COUNTERTOP FINISH
- LOWER CASEWORK FINISH
- WALL FINISH
- BASE FINISH
- WINDOW TREATMENT
- CEILING FINISH
- FLOORING TRANSITION

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SWEET SPARKMAN ARCHITECTS

STATE OF FLORIDA
TODD M. SWEET
AR0015832
REGISTERED ARCHITECT

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
1	ASI 04	08.26.20

GRAPHIC SCALE: 0" 1"

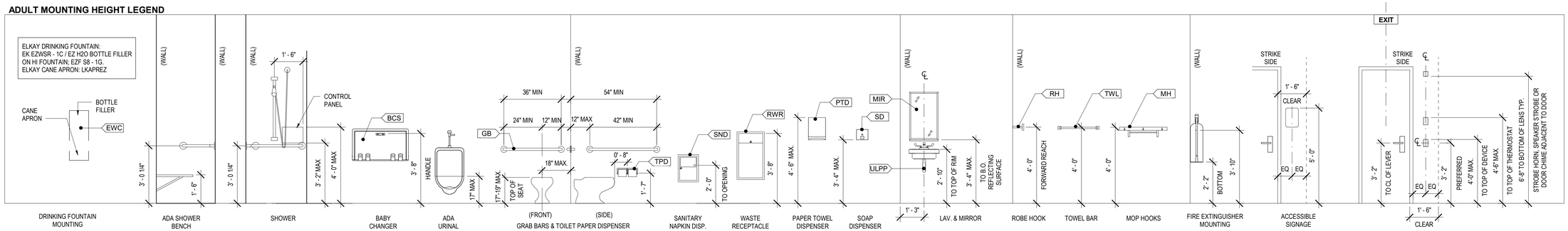
SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

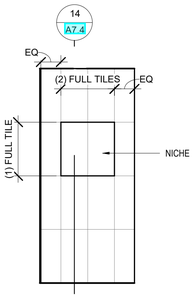
SHEET TITLE:
FURNITURE + FINISH + SIGNAGE PLAN

SHEET No.:
A7.1

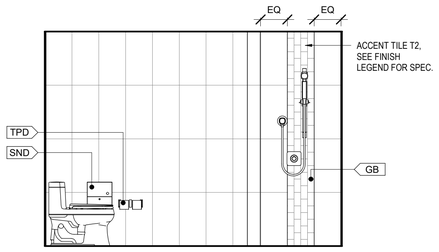
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ADULT MOUNTING HEIGHT LEGEND

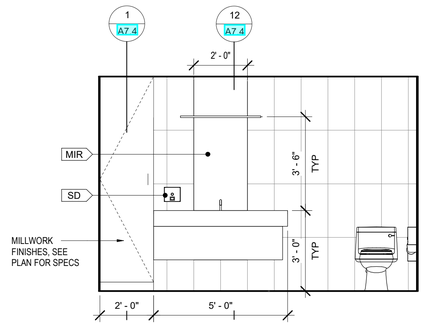




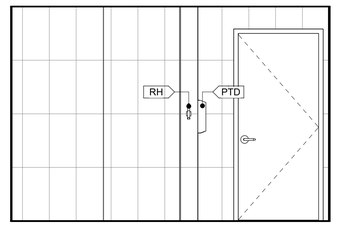
15 TYP SHOWER NICHE
3/8" = 1'-0"



14 TYP BATH ELEVATION - WEST
3/8" = 1'-0"



13 TYP BATH ELEVATION - SOUTH
3/8" = 1'-0"



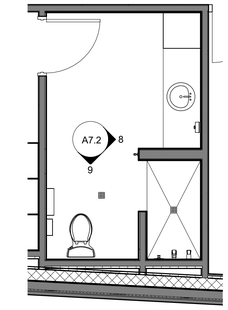
12 TYP BATH ELEVATION - NORTH
3/8" = 1'-0"

ITEM	DESCRIPTION	MOUNTING HEIGHT	BY
GB	GRAB BAR	SEE ACC. MOUNTING HEIGHT LEGEND	C-FCI
RWR	RECESSED WASTE RECEPTACLE	SEE ACC. MOUNTING HEIGHT LEGEND	C-FCI
MIR	MIRROR	SEE ACC. MOUNTING HEIGHT LEGEND	C-FCI
PTD	PAPER TOWEL DISPENSER	SEE ACC. MOUNTING HEIGHT LEGEND	O-FCI
SD	SOAP DISPENSER	SEE ACC. MOUNTING HEIGHT LEGEND	O-FCI
SND	SANITARY NAPKIN DISPOSAL	SEE ACC. MOUNTING HEIGHT LEGEND	C-FCI
TPD	TOILET PAPER DISPENSER	SEE ACC. MOUNTING HEIGHT LEGEND	O-FCI
ULPP	ROBE HOOK	SEE ACC. MOUNTING HEIGHT LEGEND	C-FCI

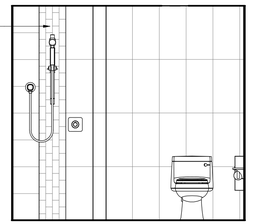
NOTES:
1. CONTRACTOR TO FURNISH AND INSTALL CONCEALED WOOD BLOCKING (WITHIN WALLS) AS REQUIRED TO FIRMLY SECURE WALL-MOUNTED EQUIPMENT AND/OR ACCESSORIES. ALL WOOD BLOCKING IN CONTACT WITH MASONRY IS TO BE PRESSURE TREATED.

C-FCI: CONTRACTOR FURNISH, CONTRACTOR INSTALL
O-FCI: OWNER FURNISH, CONTRACTOR INSTALL
O-FOI: OWNER FURNISH, OWNER INSTALL

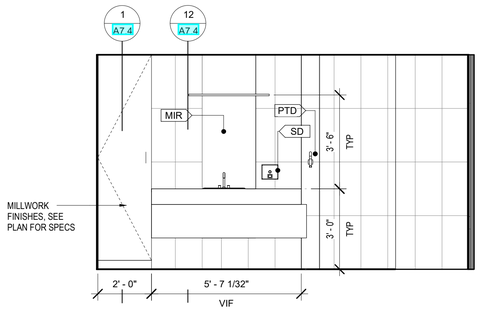
TABLE - ACCESSORIES SCHEDULE
N.T.S



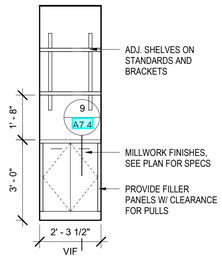
10 01 - FIRST FLOOR - ENLARGED LT BATH PLAN
1/4" = 1'-0"



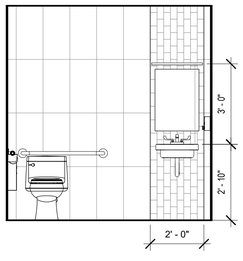
9 LT BATH ELEVATION - SOUTH
3/8" = 1'-0"



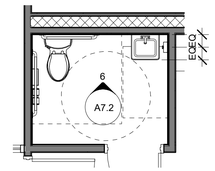
8 LT BATH ELEVATION - EAST
3/8" = 1'-0"



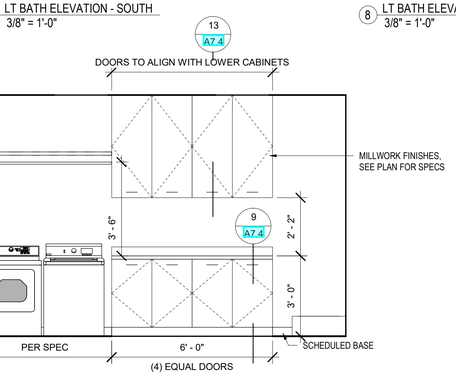
7 PRINTER STATION - SOUTH
3/8" = 1'-0"



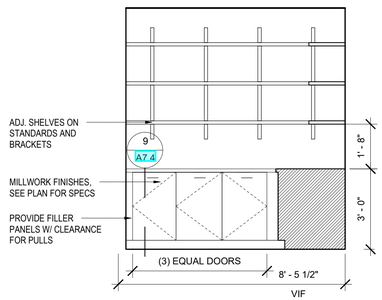
6 ADA RESTROOM - NORTH
3/8" = 1'-0"



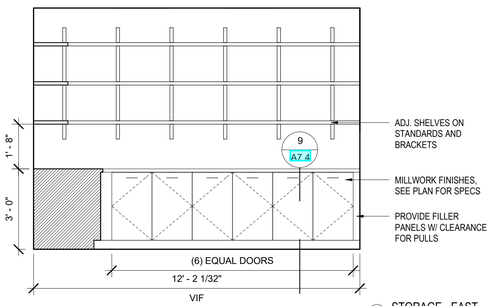
11 01 - FIRST FLOOR - ENLARGED TOILET ROOM
1/4" = 1'-0"



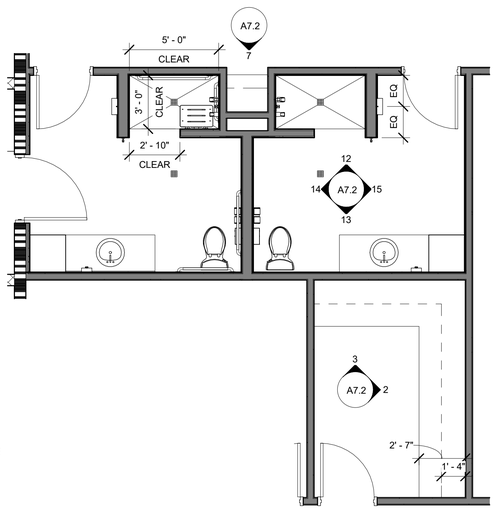
4 LAUNDRY ROOM ELEVATION - WEST
3/8" = 1'-0"



3 STORAGE - NORTH
3/8" = 1'-0"



2 STORAGE - EAST
3/8" = 1'-0"



1 FIRST FLOOR - ENLARGED BATH PLAN
1/4" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

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AR 0015532

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LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

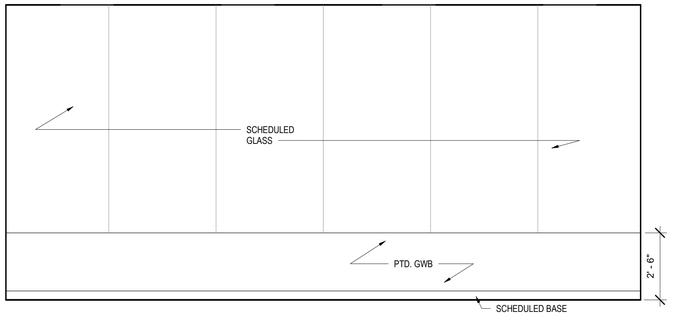
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SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

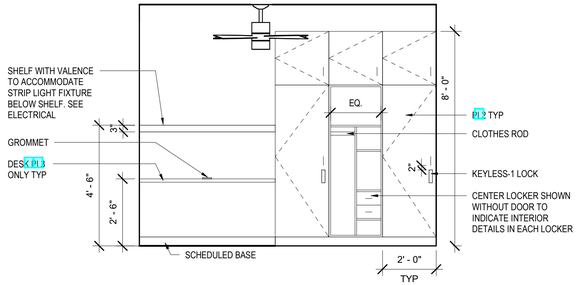
SHEET TITLE:
ENLARGED PLANS & INTERIOR ELEVATIONS

SHEET No.:
A7.2

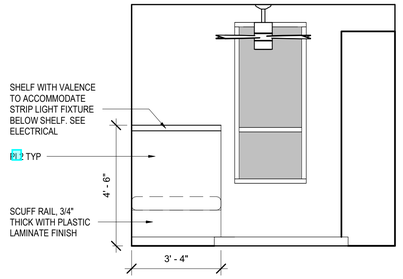
(C) COPYRIGHT 2018 SWEET SPARKMAN ARCHITECTS, INC.



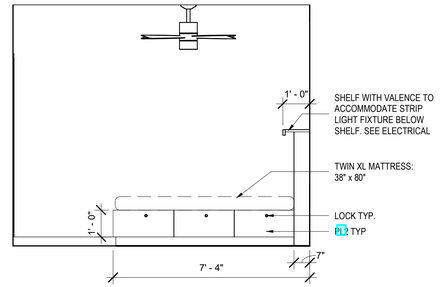
14 FITNESS - WEST
3/8" = 1'-0"



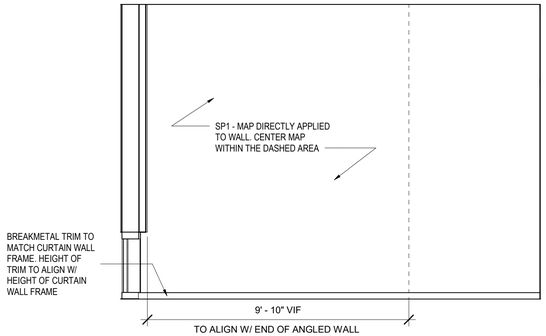
13 TYP BUNK RM LOCKERS ELEVATION
3/8" = 1'-0"



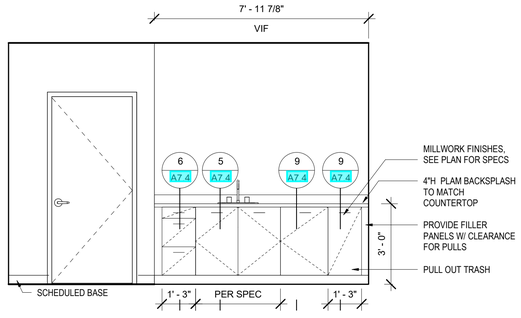
12 TYP BUNK RM HEADBOARD ELEVATION
3/8" = 1'-0"



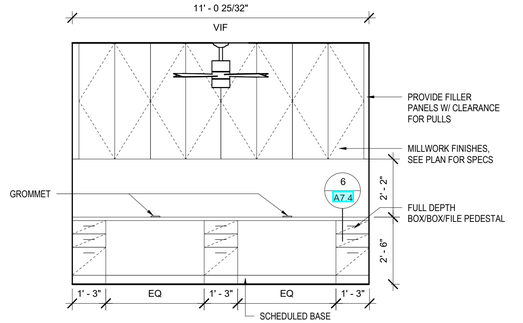
11 TYP BUNK RM BED ELEVATION
3/8" = 1'-0"



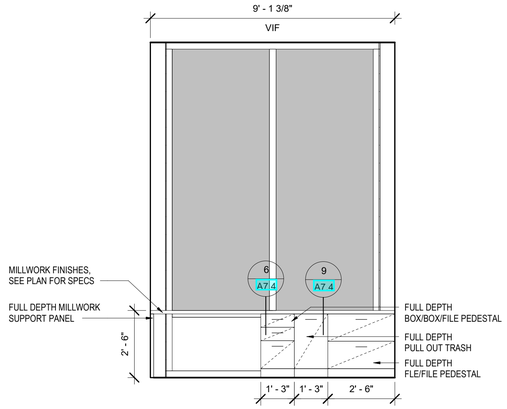
10 LOBBY ELEVATION - WEST
3/8" = 1'-0"



9 TREATMENT RM ELEVATION - NORTH
3/8" = 1'-0"

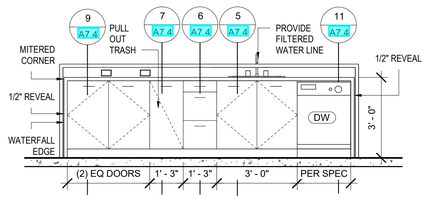


8 REPORT RM ELEVATION - WEST
3/8" = 1'-0"



7 LT BUNK RM ELEVATION
3/8" = 1'-0"

6 KITCHEN ISLAND ELEVATION - WEST
3/8" = 1'-0"



5 KITCHEN ISLAND ELEVATION - EAST
3/8" = 1'-0"

4 KITCHEN ELEVATION - EAST
3/8" = 1'-0"

2 KITCHEN ELEVATION - WEST
3/8" = 1'-0"

3 KITCHEN ELEVATION - NORTH
3/8" = 1'-0"

1 01 - FIRST FLOOR - ENLARGED KITCHEN PLAN
1/4" = 1'-0"

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SARASOTA, FL 34237
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SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0015632

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

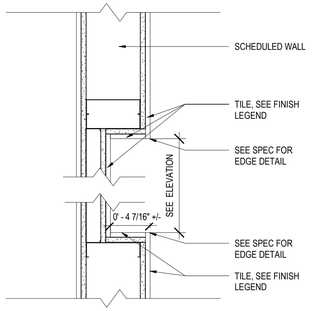
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SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

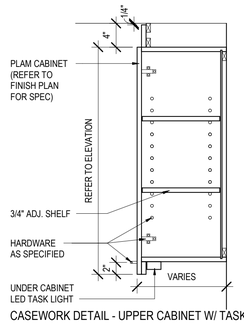
SHEET TITLE:
ENLARGED KITCHEN PLAN AND INTERIOR ELEVATIONS

SHEET No.:
A7.3

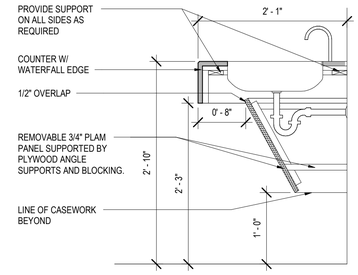
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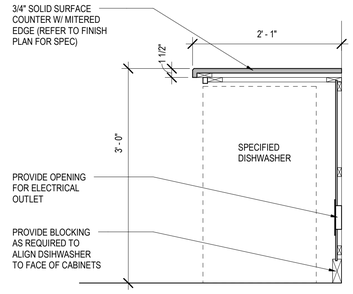
14 TYP SHOWER NICHE DETAIL
1 1/2" = 1'-0"



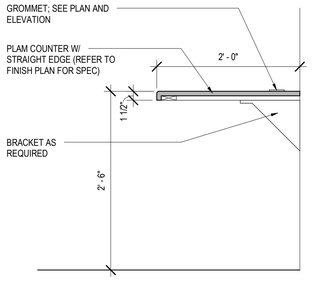
13 CASEWORK DETAIL - UPPER CABINET W/ TASK LIGHT
1" = 1'-0"



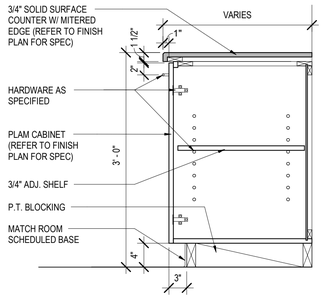
12 CASEWORK DETAIL - ADA SINK
1" = 1'-0"



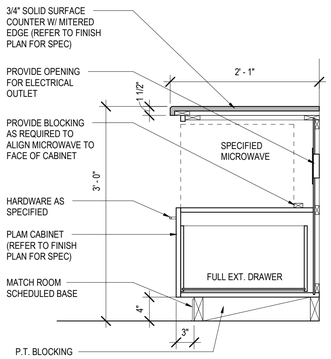
11 CASEWORK DETAIL - DISHWASHER
1" = 1'-0"



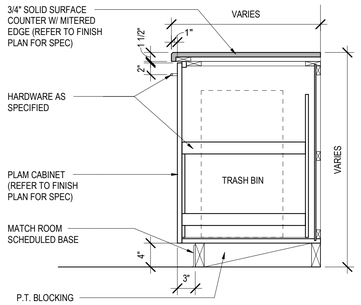
10 CASEWORK DETAIL - DESK
1" = 1'-0"



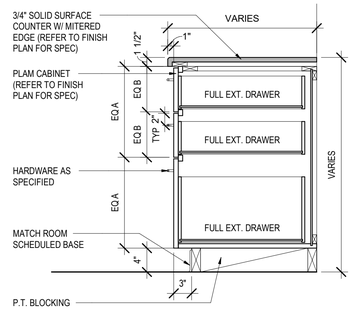
9 CASEWORK DETAIL - LOWER CABINET
1" = 1'-0"



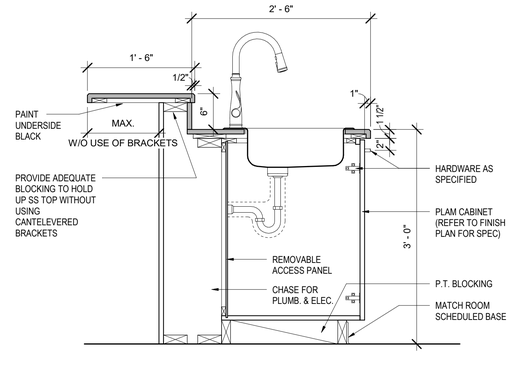
8 CASEWORK DETAIL - MICROWAVE CABINET
1" = 1'-0"



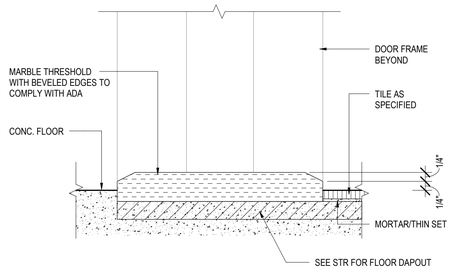
7 CASEWORK DETAIL - PULL OUT TRASH
1" = 1'-0"



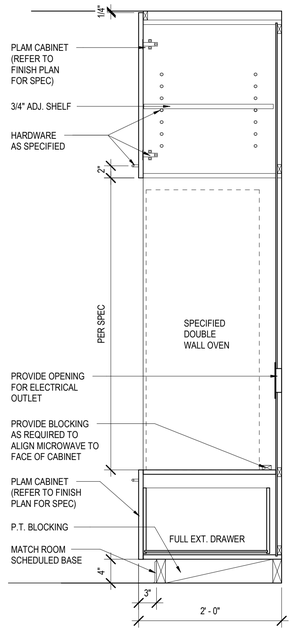
6 CASEWORK DETAIL - DRAWER CABINET
1" = 1'-0"



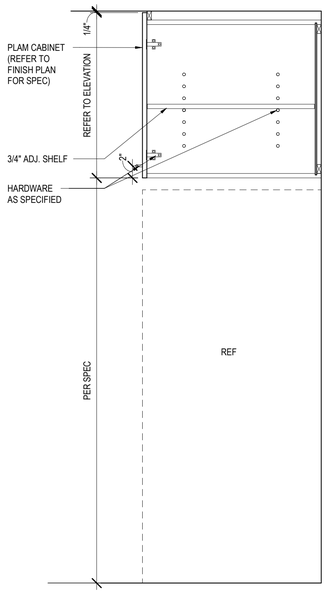
5 CASEWORK DETAIL - STEPPED ISLAND W/ SINK
1" = 1'-0"



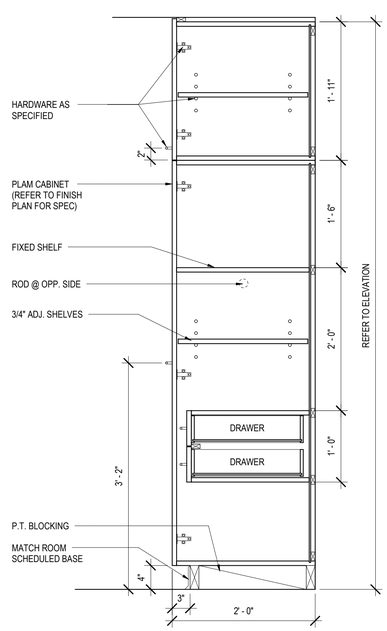
15 FLOOR TRANSITION-MARBLE SILL
6" = 1'-0"



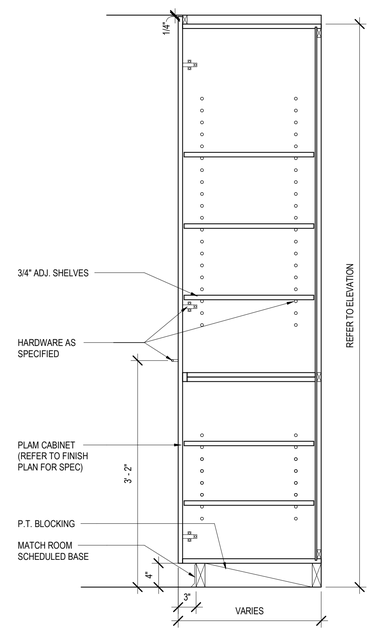
4 CASEWORK DETAIL - DOUBLE WALL OVEN
1" = 1'-0"



3 CASEWORK DETAIL - REFRIGERATOR
1" = 1'-0"



2 CASEWORK DETAIL - BUNK RM STORAGE
1" = 1'-0"



1 CASEWORK DETAIL - TALL CABINET
1" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

TODD W. SWEET
AR 0013532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

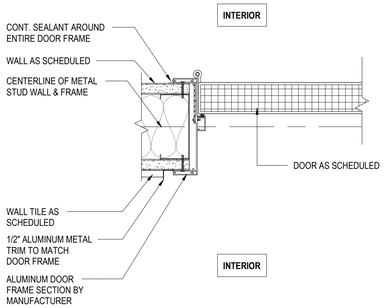
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SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

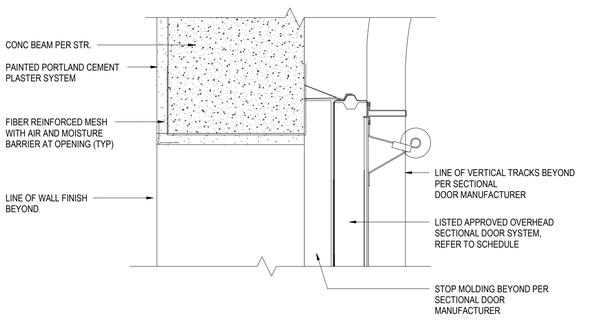
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CASEWORK DETAILS

SHEET No.:
A7.4

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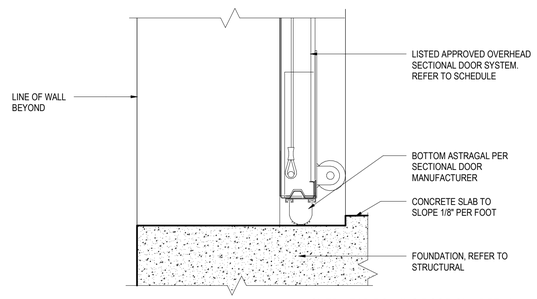


16 INTERIOR ALUM DOOR JAMB DETAIL @ RESTROOM
3" = 1'-0"

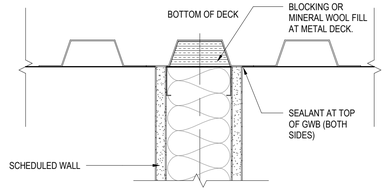


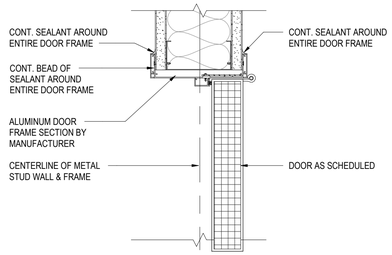
12 OVER HEAD ROLLING DOOR HEAD DETAIL
3" = 1'-0"

8 OVER HEAD ROLLING DOOR JAMB DETAIL
3" = 1'-0"

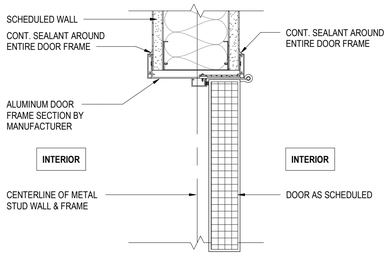


4 OVER HEAD ROLLING DOOR SILL DETAIL
3" = 1'-0"

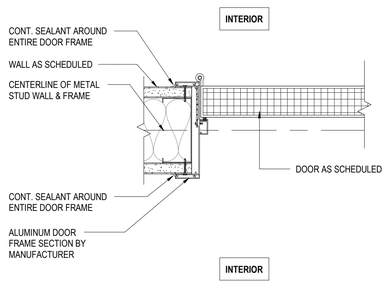




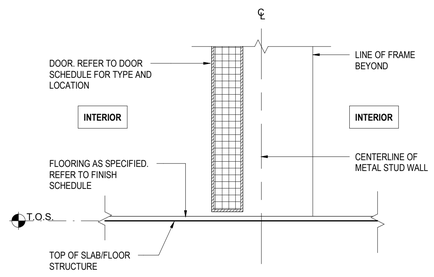
15 ALUM INTERIOR DOOR HEAD
3" = 1'-0"



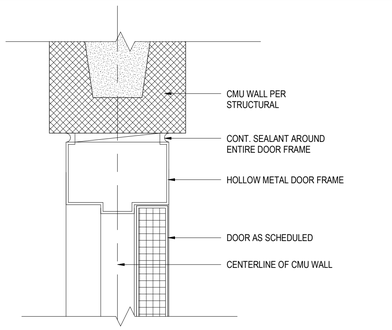
11 INTERIOR ALUM DOOR HEAD DETAIL
3" = 1'-0"



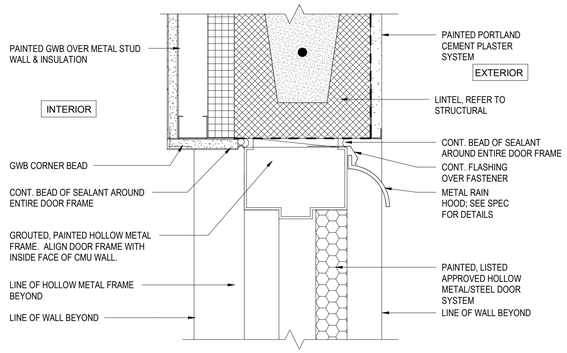
7 INTERIOR ALUM DOOR JAMB DETAIL
3" = 1'-0"



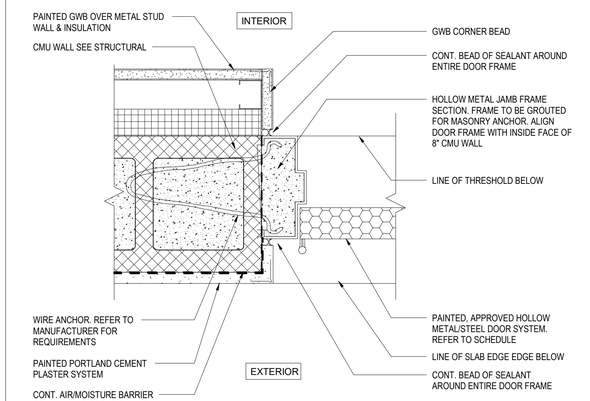
3 INTERIOR DOOR SILL DETAIL
3" = 1'-0"



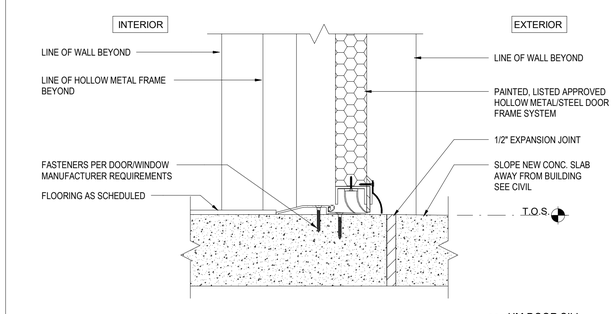
14 HM INTERIOR DOOR HEAD
3" = 1'-0"



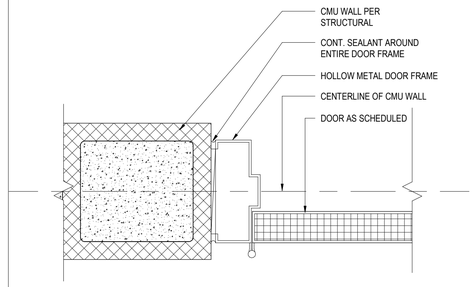
10 HM DOOR HEAD
3" = 1'-0"



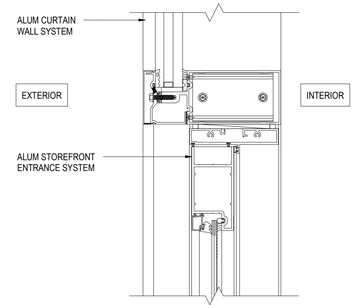
6 HM DOOR JAMB
3" = 1'-0"



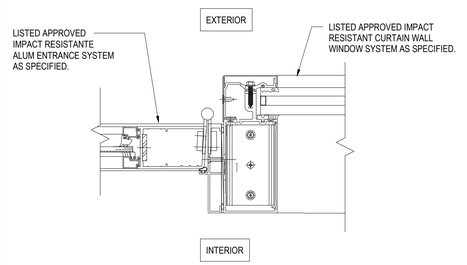
2 HM DOOR SILL
3" = 1'-0"



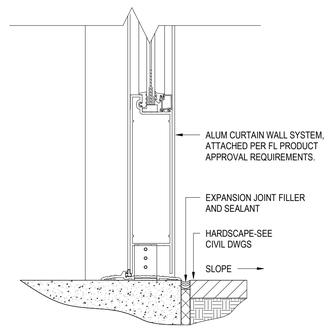
13 HM INTERIOR DOOR JAMB
3" = 1'-0"



9 CURTAIN WALL DOOR HEAD TRANSOM
3" = 1'-0"



5 CURTAIN WALL DOOR JAMB
3" = 1'-0"



1 STOREFRONT EXT DOOR SILL
3" = 1'-0"

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SARASOTA, FL 34237
T 941.952.0084
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SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0013532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

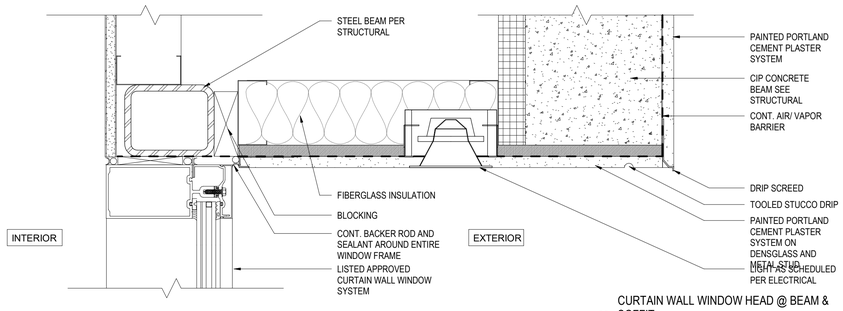
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0" 1"

SCALE:	3" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

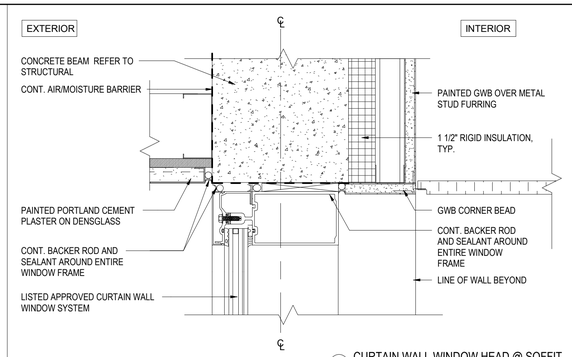
SHEET TITLE:
OPENING DETAILS

SHEET No.:
A8.1

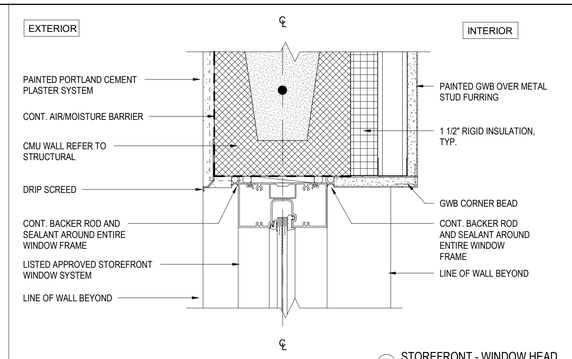
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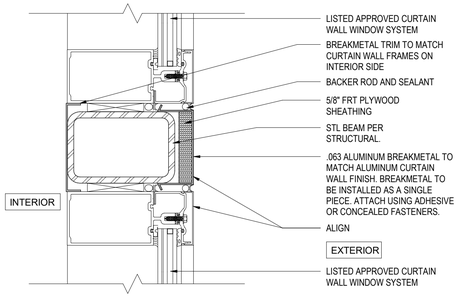
14 CURTAIN WALL WINDOW HEAD @ BEAM & SOFFIT
3" = 1'-0"



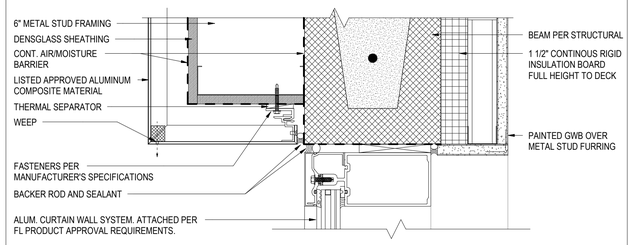
13 CURTAIN WALL WINDOW HEAD @ SOFFIT
3" = 1'-0"



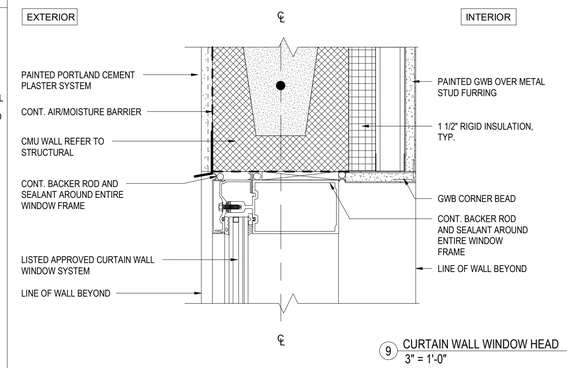
12 STOREFRONT - WINDOW HEAD
3" = 1'-0"



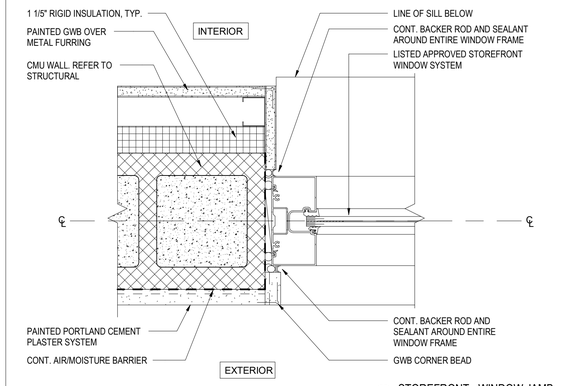
11 CURTAIN WALL WINDOW HEAD @ BEAM
3" = 1'-0"



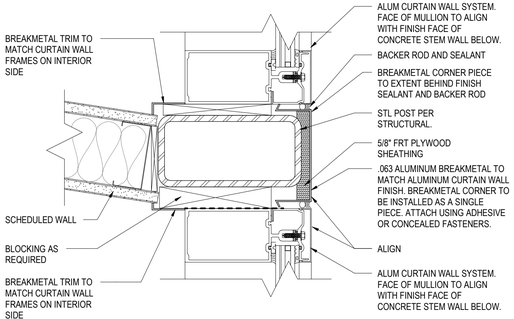
10 WINDOW HEAD DETAIL
3" = 1'-0"



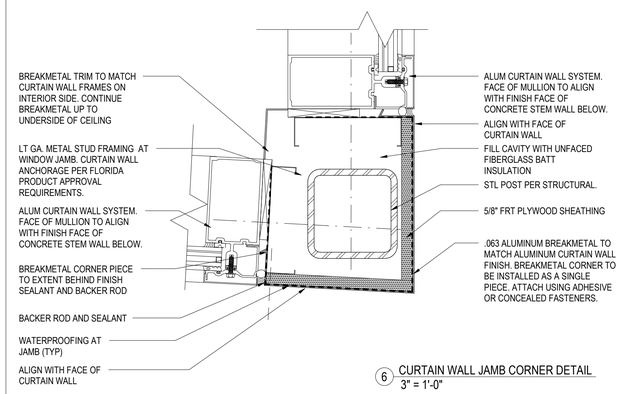
9 CURTAIN WALL WINDOW HEAD
3" = 1'-0"



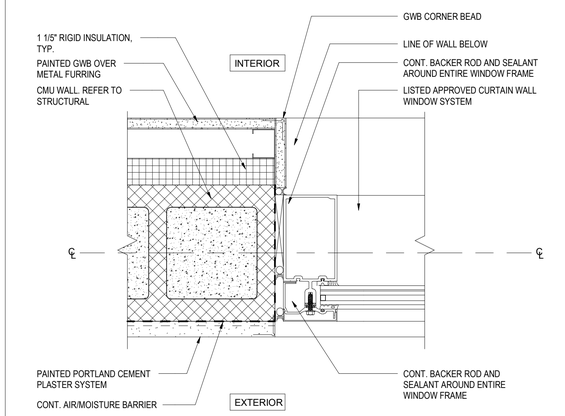
8 STOREFRONT - WINDOW JAMB
3" = 1'-0"



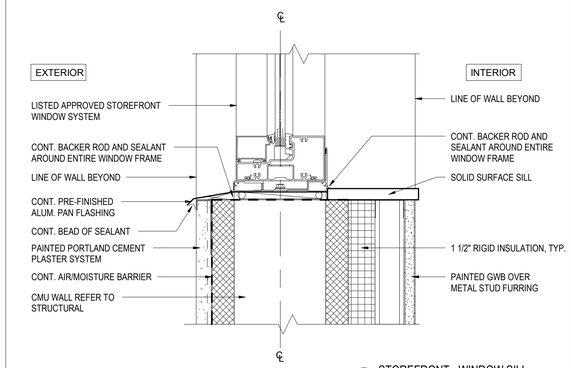
7 CURTAIN WALL JAMB COLUMN DETAIL
3" = 1'-0"



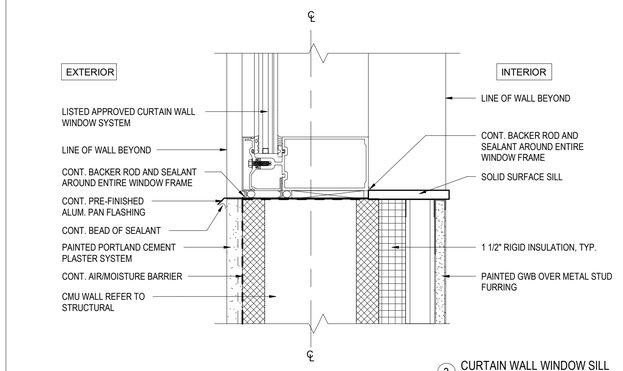
6 CURTAIN WALL JAMB CORNER DETAIL
3" = 1'-0"



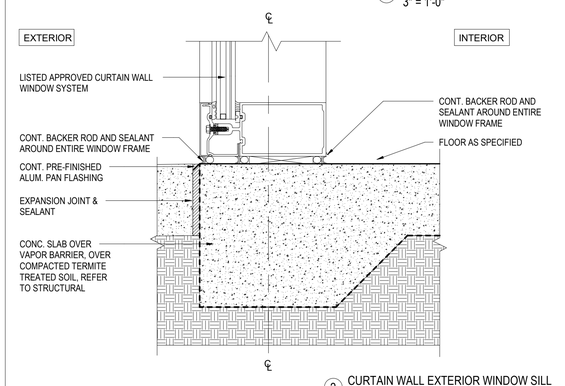
5 CURTAIN WALL WINDOW JAMB
3" = 1'-0"



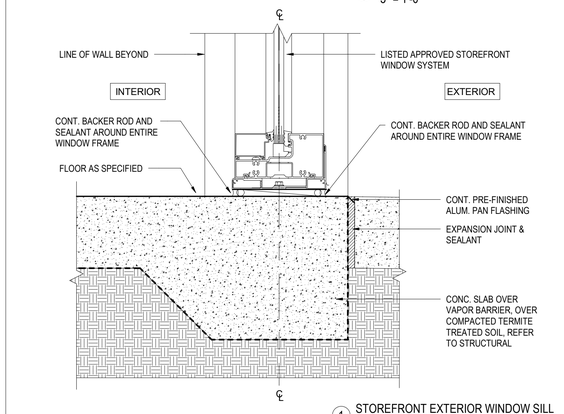
4 STOREFRONT - WINDOW SILL
3" = 1'-0"



3 CURTAIN WALL WINDOW SILL
3" = 1'-0"



2 CURTAIN WALL EXTERIOR WINDOW SILL
3" = 1'-0"



1 STOREFRONT EXTERIOR WINDOW SILL
3" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0013532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

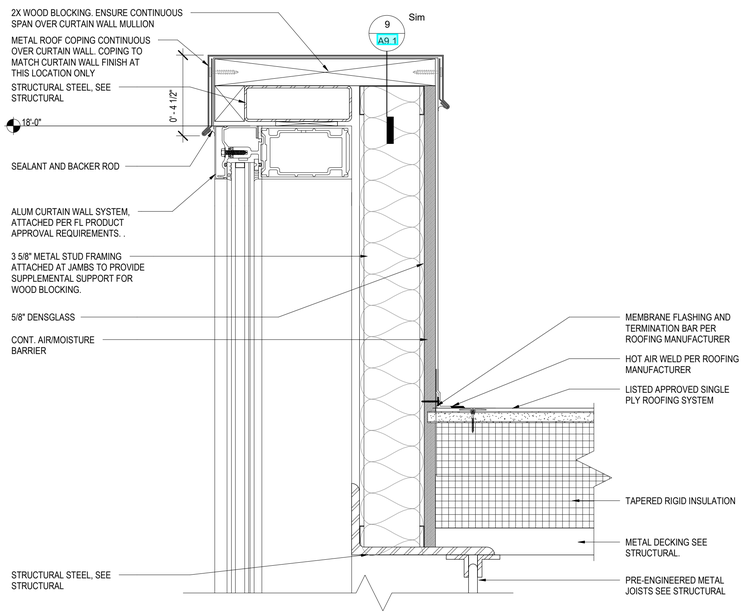
GRAPHIC SCALE: 0" 1"

SCALE:	3" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

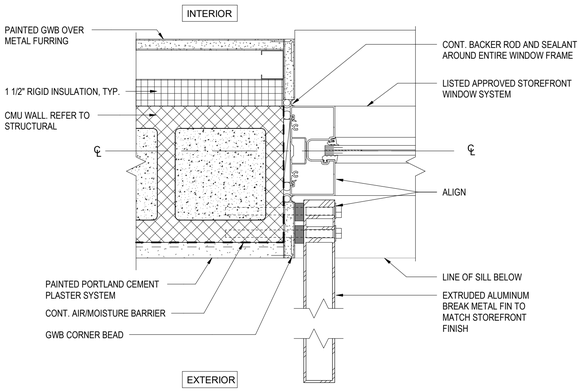
SHEET TITLE:
OPENING DETAILS

SHEET No.:
A8.2

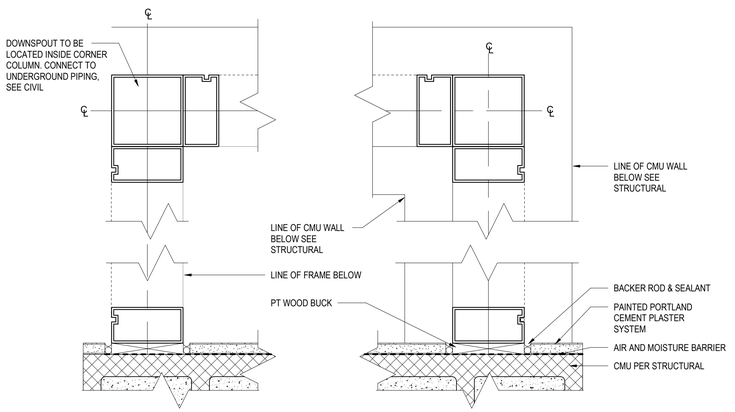
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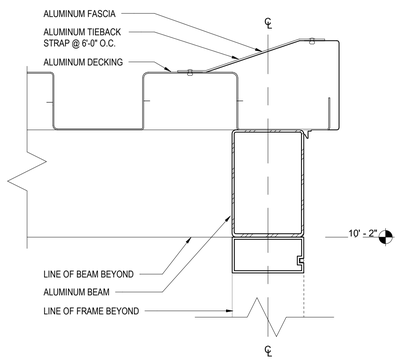
17 ROOF DETAIL @ CURTAIN WALL
3" = 1'-0"



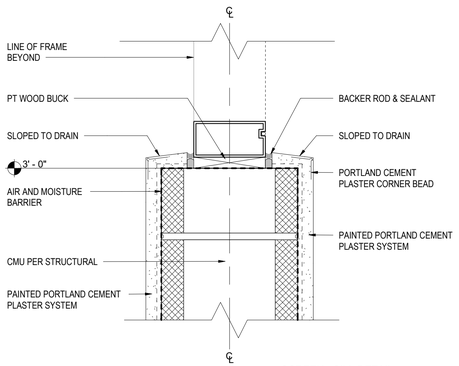
8 STOREFRONT - WINDOW JAMB @ ALUMINUM FIN
3" = 1'-0"



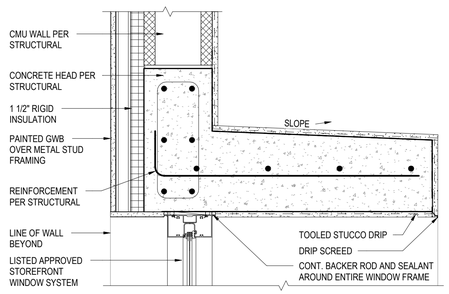
4 SCREEN CORNERS AT PORCH
3" = 1'-0"



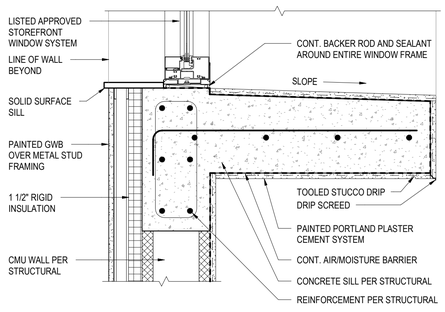
16 SCREEN - FASCIA DETAIL
3" = 1'-0"



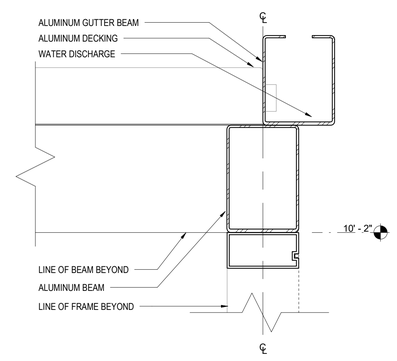
11 SCREEN - SILL DETAIL
3" = 1'-0"



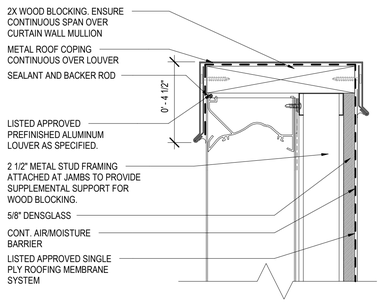
7 WINDOW EXTRUSION HEAD
1 1/2" = 1'-0"



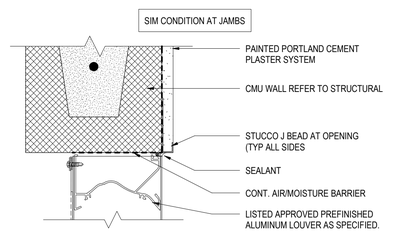
3 WINDOW EXTRUSION SILL
1 1/2" = 1'-0"



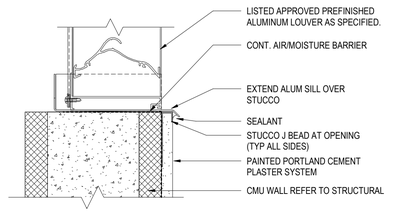
15 SCREEN - GUTTER DETAIL
3" = 1'-0"



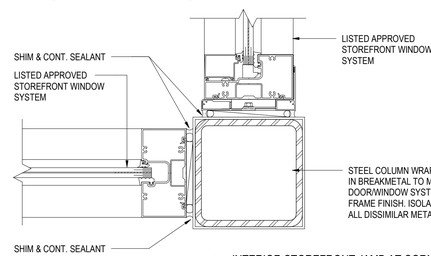
13 ROOF DETAIL @ LOUVER
3" = 1'-0"



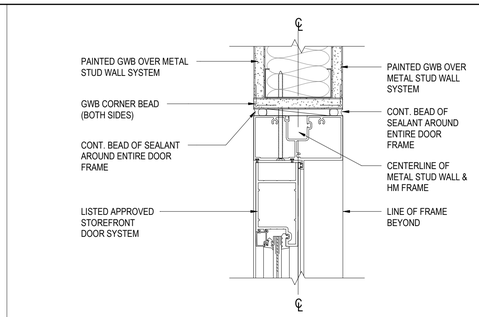
10 LOUVER HEAD
3" = 1'-0"



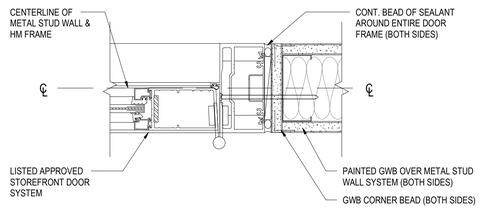
6 LOUVER SILL
3" = 1'-0"



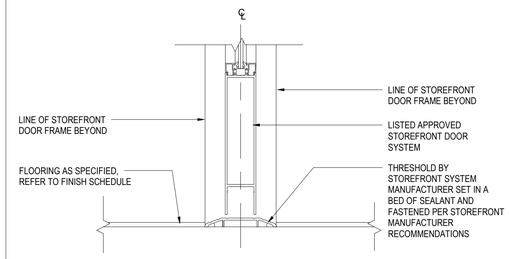
2 INTERIOR STOREFRONT JAMB AT CORNER
3" = 1'-0"



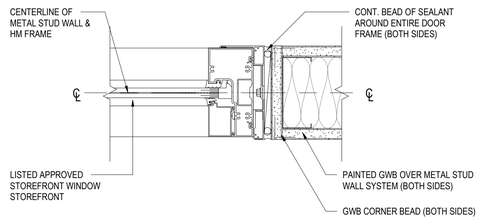
14 INTERIOR STOREFRONT DOOR FRAME HEAD
3" = 1'-0"



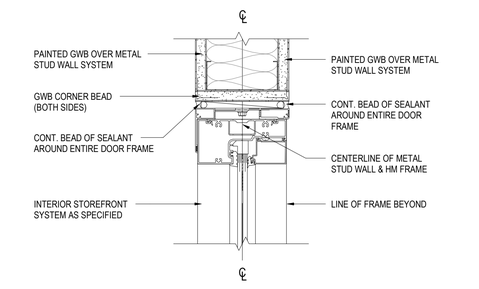
12 INTERIOR STOREFRONT DOOR FRAME JAMB
3" = 1'-0"



9 INTERIOR DOOR STOREFRONT SILL
3" = 1'-0"



5 INTERIOR STOREFRONT WINDOW JAMB
3" = 1'-0"



1 INTERIOR STOREFRONT WINDOW HEAD
3" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0015632

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE:
0" 1"

SCALE:	As indicated
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

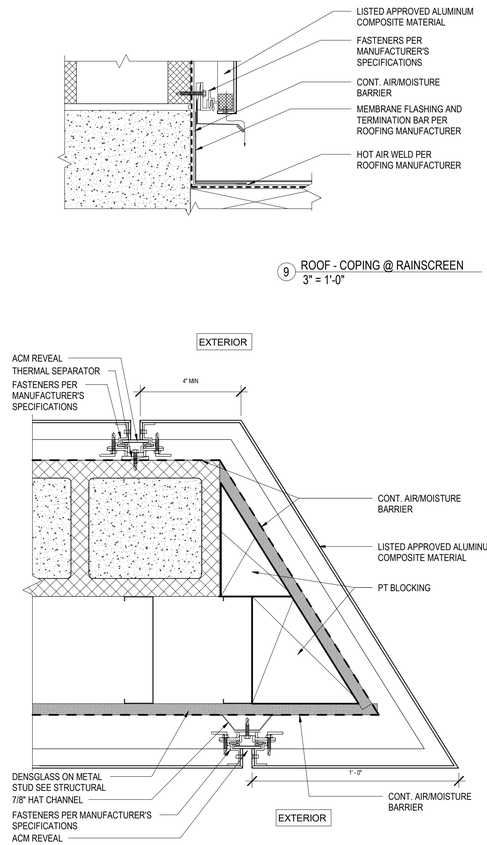
SHEET TITLE:
OPENING DETAILS

SHEET No.:
A8.3

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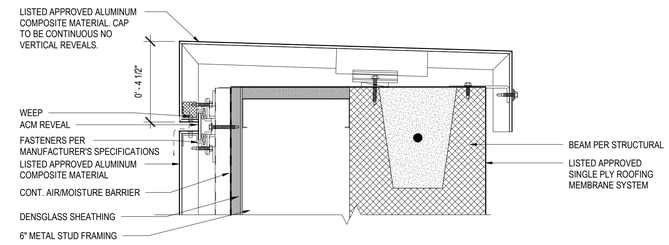


4 ANGLE WALL PLAN DETAIL
3" = 1'-0"

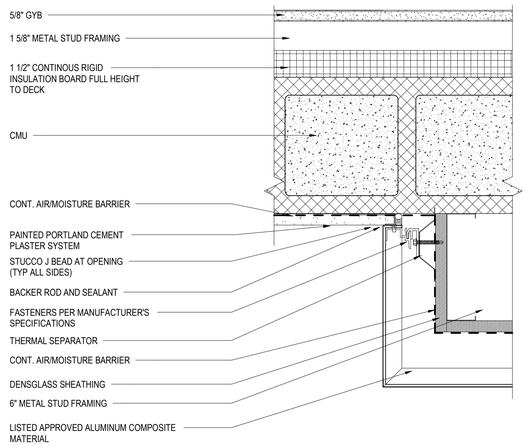


3 OUTSIDE CORNER KNIFE EDGE DETAIL - PLAN
3" = 1'-0"

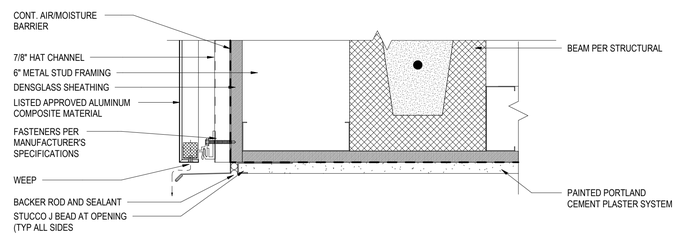
9 ROOF - COPING @ RAINSCREEN
3" = 1'-0"



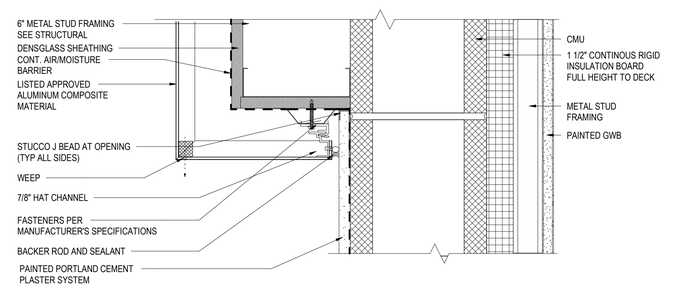
11 PARAPET CONDITION DETAIL - ANGLED WALL
3" = 1'-0"



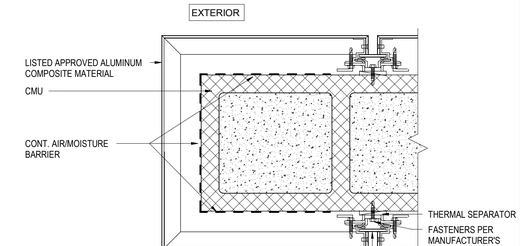
8 END CONDITION - PLAN VIEW
3" = 1'-0"



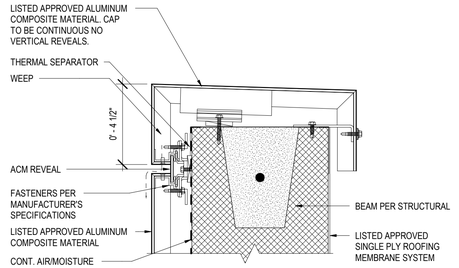
6 SOFFIT DETAIL - ANGLED WALL
3" = 1'-0"



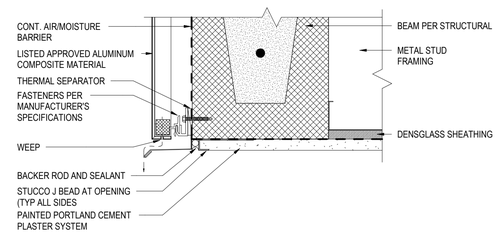
2 OVERHANG DETAIL
3" = 1'-0"



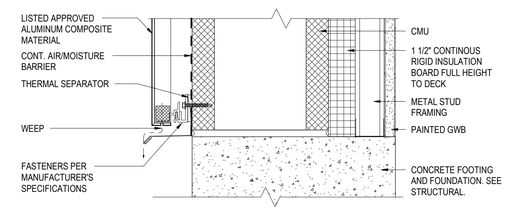
10 OUTSIDE CORNER DETAIL - PLAN VIEW
3" = 1'-0"



7 PARAPET CONDITION DETAIL
3" = 1'-0"



5 SOFFIT DETAIL
3" = 1'-0"



1 BASE CONDITION DETAIL
3" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0013532

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

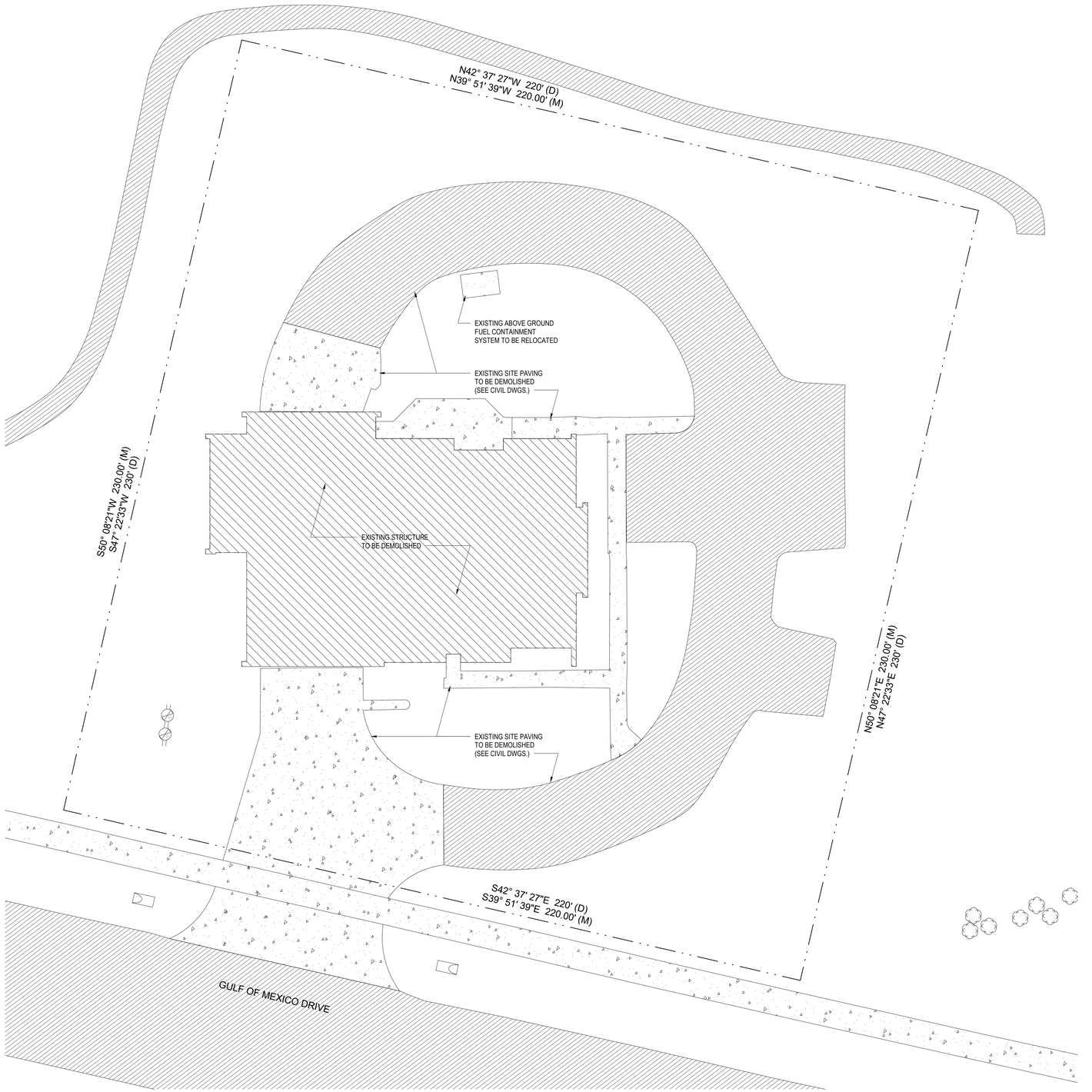
GRAPHIC SCALE:
0" 1"

SCALE:	3" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
RAINSCREEN DETAILS

SHEET No.:
A9.1

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1 SITE PLAN - DEMOLITION
1/16" = 1'-0"

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F 941.952.0201
FL AA26000857

SWEET | SPARKMAN ARCHITECTS

TODD M. SWEET
AR 0013532

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE:
0" 1"

SCALE:	1/16" = 1'-0"
PROJECT MANAGER:	JLK
DRAWN BY:	EL
A/E OF RECORD:	TMS
PROJECT NO:	18533

SHEET TITLE:
SITE DEMO PLAN

SHEET No.:
AD0.1

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STRUCTURAL NOTES

GENERAL NOTES:

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. DO NOT SCALE DRAWINGS.

THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.

ELECTRONIC VERSIONS OF THE STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF SNELL ENGINEERING AND ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF SNELL ENGINEERING.

DESIGN LOADS:

THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 6TH EDITION (2017). THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:

ROOF:
- LIVE LOAD - 20 PSF.
- DEAD LOAD - 20 PSF.
- DEAD LOAD - 10 PSF. (AVAILABLE TO RESIST UPLIFT)

WIND:
- ASCE 7-16
- ULTIMATE WIND SPEED - 166 MPH
- ALLOWABLE WIND SPEED - 129 MPH
- EXPOSURE D
- ENCLOSED STRUCTURE
- RISK FACTOR IV

SHOP DRAWING REVIEW:

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. DRAWINGS SUBMITTED WITHOUT REVIEW NOTATION WILL BE RETURNED UNCHECKED. EVERY EFFORT WILL BE MADE TO RETURN THE SHOP DRAWINGS WITHIN TEN BUSINESS DAYS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT THE SHOP DRAWINGS ALLOWING FOR AN ADEQUATE REVIEW PERIOD.

ONE SET OF PRINTS WILL BE RETAINED BY THE ENGINEER AND ONE BY THE ARCHITECT, THE CONTRACTOR SHALL RECEIVE THE REMAINING PRINTS FOR SUBMITTAL TO THE BUILDING DEPARTMENT AND AS REQUIRED FOR DISTRIBUTION.

IN ALL INSTANCES THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN A REQUEST FOR INFORMATION (RFI) OR SIMILAR DOCUMENTATION BY THE ENGINEER. EVERY EFFORT WILL BE MADE TO RETURN THE RFIS WITHIN TWO BUSINESS DAYS. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT, APPLICABLE CODES AND DESIGN CRITERIA, AND DETAILING OF ALL COMPONENTS NECESSARY TO ENSURE PROPER INSTALLATION OF THE COMPONENTS AND SYSTEM.

SHOP DRAWINGS SHOULD BE SUBMITTED FOR ALL COMPONENTS OF THE STRUCTURAL FRAMING SYSTEM, AS REQUIRED BY THE ARCHITECT, AND AS NOTED ELSEWHERE IN THESE NOTES, INCLUDING, BUT NOT LIMITED TO:
CONCRETE MIX DESIGNS
MASONRY BLOCK
MASONRY BLOCK ACCESSORIES
MASONRY REINFORCING
CONCRETE REINFORCEMENT
STRUCTURAL STEEL (INCLUDING ANCHOR BOLTS)
PRE-ENGINEERED ALUMINUM FRAMING
PRE-ENGINEERED SCREEN ROOM WITH ROOF
PRECAST CONCRETE COMPONENTS
STEEL BAR JOISTS
METAL ROOF DECK
ANY ALTERNATE MATERIAL/PRODUCT SUBSTITUTIONS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL TRADES AND CONSULTANTS, CROSS REFERENCE THEIR DRAWINGS WITH THE OVERALL DESIGN, AND PROVIDE TO EACH A COMPLETE SET OF DRAWINGS AND SUBMITTALS TO INSURE COMPATIBILITY OF CONSTRUCTION PER DESIGN INTENT.

FOUNDATIONS:

ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF ON COMPACTED FILL OR NATIVE SOIL. **BEFORE CONSTRUCTION COMMENCES**, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, AS WELL AS FIELD AND LABORATORY TESTS PERFORMED BY A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

FORMWORK AND SHORING:

NO STRUCTURAL CONCRETE SHALL BE STRIPPED UNTIL IT HAS REACHED AT LEAST TWO-THIRDS OF THE 28 DAY DESIGN STRENGTH. DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET THE REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301.

PENETRATIONS:

NO PENETRATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBERS WITHOUT PREVIOUS APPROVAL OF THE EOR, EXCEPT THOSE PENETRATIONS SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHOULD SUBMIT DRAWINGS SHOWING: ANY LOCATION WHERE OPENINGS, PENETRATIONS, OR ANY PLACE MORE THAN 3 PIPES OR CONDUITS ARE LOCATED IN A SLAB SYSTEM; ANY LOCATION IN A BEAM OR COLUMN WHERE MORE THAN 4% OF THE MEMBER SECTION IS REMOVED IN ANY ORIENTATION.

PLUMBING SLEEVES:

MINIMUM SLEEVE SPACING SHALL BE THREE DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE OR 6" CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. PRIOR TO CONSTRUCTION SLEEVE LOCATIONS AND SIZES SHALL BE APPROVED BY THE ENGINEER. CONDUITS, PIPES AND SLEEVES SHALL BE PLACED AND SPACED IN ACCORDANCE WITH ACI 318 6.3.

REINFORCING STEEL:

SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.

WELDED WIRE FABRIC:

TO CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.

CONCRETE:

SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

3000 PSI FOR BUILDING FOUNDATIONS AND SLABS ON GRADE.
4000 PSI FOR ALL RETAINING WALLS.
4000 PSI FOR ALL OTHER STRUCTURAL CONCRETE.

CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ALL STANDARDS AND SPECIFICATIONS.

NOTIFY ENGINEER OF RECORD WITHIN 48 HOURS OF ALL CONCRETE POURS VIA EMAIL OR WRITTEN CORRESPONDENCE.

SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE. FOR ALL FLATWORK, AT LEAST 75% OF LARGE AGGREGATE SHALL CONSIST OF #57 STONE. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED.

THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE. ALL SLABS SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. ALL SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.

ALL CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.

GENERAL CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD A MINIMUM OF 48 HOURS PRIOR PLACEMENT OF ANY STRUCTURAL CONCRETE.

ALL CONCRETE DESIGN MIX SUBMITTALS SHALL INCLUDE TESTED, STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318-14.

UNLESS NOTED OTHERWISE ON PLANS, THE FOLLOWING CONCRETE CLEAR COVER SHALL BE PROVIDED FOR ALL NON-PRESTRESSED CONCRETE REINFORCEMENT PER ACI 318:

CONCRETE CAST AGAINST EARTH:	ALL BARS	-	3"
CONCRETE EXPOSED TO EARTH (FORMED FACE):	ALL BARS	-	2"
CONCRETE EXPOSED TO WEATHER:	#6 BARS AND GREATER	-	2"
	#5 BARS AND SMALLER	-	1 1/2"
WHERE NOT EXPOSED TO EARTH OR WEATHER:			
SLABS, WALLS, AND JOISTS:	#14 & #18 BARS	-	1 1/2"
	#11 BARS AND SMALLER	-	3/4"
BEAMS AND COLUMNS:	ALL BARS	-	1 1/2"

SEE ACI 318 FOR ADDITIONAL REQUIREMENTS AND MORE INFORMATION.

CONCRETE TESTING: AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

A) ASTM C143 - "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE." MAXIMUM SLUMP SHALL BE 4-6 INCHES, PRIOR TO ADDING A SUPER PLASTICIZER.
B) ASTM C39 - "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S) QUANTITIES AND TEST AGE AS FOLLOWS:
1 AT 7 DAYS
2 AT 28 DAYS

ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28 DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

POUR STRUCTURAL CONCRETE WITHIN THE FOLLOWING TOLERANCES:

VARIATION FROM PLUMB:	1/4" IN 10'-0"
VARIATION FROM LEVEL IN TOPS OF PILASTERS:	1/8" IN 10'-0"
VARIATION FOOTINGS:	
PLAN DIMENSIONS:	+2", - 1/2"
THICKNESS:	- 0"

NON-SHRINK GROUT:

NON-SHRINK GROUT SHALL BE A HIGH-STRENGTH MORTAR OR GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS. THE GROUT IS TO BE NON-METALLIC, NON-CORROSIVE, CEMENT-BASED AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1107. IT SHALL BOND PERMANENTLY TO A CLEAN METAL BASEPLATE AND CONCRETE SUBSTRATE AND WILL NOT SHRINK IN ITS PLASTIC STATE, AS TESTED IN ACCORDANCE WITH ASTM C827.

CHEMICAL ANCHORS:

SHALL BE AN EQUAL TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS SIMPSON SET-XP "STRUCTURAL ANCHORING ADHESIVE", HILTI HIT-HY 150 MAX-SD OR ENGINEER APPROVED SUBSTITUTION, INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED BY THE MANUFACTURER'S REPRESENTATIVE. BRUSH AND BLOW OUT ALL HOLES.

MASONRY WALLS:

MASONRY UNITS SHALL MEET ASTM C-90 FOR HOLLOW LOAD BEARING TYPE MASONRY WITH UNIT STRENGTH OF 2000 PSI ON THE NET AREA (F'M = 2000 PSI). MORTAR SHALL BE TYPE "M" OR "S" AND MEET ASTM C-270. GROUT SHALL BE 3000 PSI MINIMUM COMPRESSIVE STRENGTH AND MEET ASTM C-476. PROVIDE HOOKED DOWELS IN FOOTINGS FOR ALL VERTICAL REINFORCING ABOVE. LAP SPLICES 48 BAR DIAMETERS.

BLOCK CELLS AS SHOWN ON PLANS SHALL BE GROUT FILLED WITH VERTICAL REINFORCING BARS. SEE PLAN NOTES FOR BAR SIZE AND SPACING. DOWELS SHALL BE USED TO PROVIDE CONTINUITY INTO THE STRUCTURE ABOVE AND/OR BELOW, UNLESS NOTED OTHERWISE. USE METAL LATH, MORTAR, OR SPECIAL UNITS TO CONFINE CONCRETE AND GROUT TO AREA REQUIRED. CELLS TO BE GROUT FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL GROUT SPACE.

PROVIDE 9 GAUGE GALVANIZED HORIZONTAL JOINT REINFORCING (DUR-O-WALL OR ENGINEER APPROVED SUBSTITUTION) AT ALTERNATE BLOCK COURSES, BEGINNING 8" ABOVE FOOTINGS AND FLOOR LEVELS. MASONRY WALLS ABOVE OPENINGS SHALL BE REINFORCED AT THE SAME SPACING AS THE WALL WITH DOWELS HOOKED INTO THE BEAM OR LINTEL ABOVE THE OPENING.

GROUT LIFT: AN INCREMENT OF GROUT HEIGHT WITHIN A TOTAL GROUT POUR.
GROUT POUR: THE TOTAL HEIGHT OF MASONRY TO BE GROUTED PRIOR TO ERECTION OF ADDITIONAL MASONRY. A GROUT POUR CONSISTS OF ONE OR MORE GROUT LIFTS. GROUT POURS SHALL SET FOR A MINIMUM OF 4 HOURS BEFORE ANY ADDITIONAL GROUT PLACEMENT.

GROUT SHALL HAVE A SLUMP BETWEEN 8 AND 11 INCHES, EXCEPT SELF-CONSOLIDATING GROUT. JOB-SITE PROPORTIONING OF SELF-CONSOLIDATING GROUT IS NOT PERMITTED.

MASONRY GROUTING REQUIREMENTS:
1. FIELD-MIXED GROUT SHALL BE PLACED WITHIN 1-1/2 HOURS FROM INTRODUCING WATER INTO THE MIXTURE AND BEFORE INITIAL SET.
2. GROUT SLUMP REQUIREMENTS:
   A. FOR GROUT SLUMP BETWEEN 8 AND 10 INCHES, THE MAXIMUM GROUT LIFT HEIGHT IS 5 FEET.
   B. FOR GROUT SLUMP BETWEEN 10 AND 11 INCHES, THE MAXIMUM GROUT LIFT HEIGHT IS 12.67 FEET.
   C. FOR SELF-CONSOLIDATING GROUT, THE GROUT LIFT HEIGHT SHALL NOT EXCEED THE GROUT POUR HEIGHT (24 FEET MAX.).
3. GROUT LIFT HEIGHTS EXCEEDING 5 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
   A. MASONRY MORTAR HAS CURED FOR AT LEAST 4 HOURS.
   B. GROUT SLUMP IS BETWEEN 10 AND 11 INCHES.
   C. NO INTERMEDIATE BOND BEAMS ARE PLACED BETWEEN THE TOP AND BOTTOM OF THE GROUT LIFT HEIGHT.
4. EACH GROUT LIFT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION AT THE TIME OF PLACEMENT. CONSOLIDATION IS NOT REQUIRED FOR SELF-CONSOLIDATING GROUT.
5. EACH GROUT LIFT SHALL BE RECONSOLIDATED BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURRED, AND BEFORE ADDING THE SUBSEQUENT GROUT LIFT. RECONSOLIDATION IS NOT REQUIRED FOR SELF-CONSOLIDATING GROUT.
6. THE TIME BETWEEN PLACING GROUT LIFTS SHALL NOT EXCEED 1 HOUR.
7. THE MAXIMUM POUR HEIGHT IS 24 FEET.
8. A GROUT KEY SHALL BE PROVIDED AT THE TOP OF EACH GROUT LIFT AND GROUT POUR. GROUT KEYS SHOULD BE FORMED BY TERMINATING THE GROUT 1-1/2 INCHES BELOW A MORTAR JOINT.

MASONRY WALLS MARKED AS "LOAD-BEARING" ARE DESIGNED TO CARRY GRAVITY FLOOR LOADS AND MUST BE CONSTRUCTED TO SUPPORT THE FLOOR SYSTEM, CONCURRENTLY WITH ALL OTHER LOAD-BEARING CONCRETE AND STEEL COLUMNS.

MASONRY WALLS MARKED AS "INFILL" ARE NOT DESIGNED TO CARRY GRAVITY FLOOR LOADS AND MUST BE CONSTRUCTED AFTER THE FLOOR SYSTEM, WITH ALL LOAD-BEARING COMPONENTS, HAVE BEEN INSTALLED AND THE FLOOR SYSTEM UNSHORED.

AT SILLS OF MASONRY OPENINGS IN LOAD-BEARING MASONRY WALLS, PROVIDE AN 8" KNOCKOUT COURSE, GROUTED SOLID AND REINFORCED WITH 1 #5 CONTINUOUS HORIZONTAL BAR, TYPICAL UNLESS NOTED OTHERWISE ON PLAN OR DETAILS.

ALL WALLS EXCEEDING 16 FEET TALL SHALL HAVE A MID-HEIGHT DOUBLE-KNOCK OUT BLOCK, GROUTED SOLID WITH (2)#5 BARS CONT. IN EACH COURSE, UNLESS A CONCRETE TIE-BEAM OR BEAM IS NOTED.

TIE BEAMS:

BEAMS WITH THE PREFIX "TB" SHALL BE OF CONCRETE POURED AFTER THE BLOCK WALLS BELOW ARE IN PLACE. REINFORCING SHALL BE CONTINUOUS THROUGH TIE BEAMS WITH MINIMUM LAP SPLICES OF 48 BAR DIAMETERS AND BENT BARS AT CORNERS. USE METAL LATH, MORTAR, OR SPECIAL UNITS TO CONFINE CONCRETE TO AREA REQUIRED, IN ACCORDANCE WITH ACI 530.1, SECTION 4.3.3.3 (SOLID METAL OR FELT CAVITY CAPS ARE PROHIBITED).

TIE COLUMNS:

CONCRETE TIE COLUMNS SHALL BE PLACED AFTER THE MASONRY CMU WALLS. THE MASONRY UNIT FACE SHELL FACING THE TIE COLUMN SHALL BE REMOVED SO THAT WHEN THE CONCRETE TIE COLUMN IS PLACED, THE CONCRETE WILL FLOW INTO THE BLOCK CELL INTERLOCKING THE TIE COLUMN WITH THE BLOCK. THIS SHALL OCCUR AT THE TOP AND BOTTOM OF THE WALL AND AT 24" ON CENTER FOR THE FULL HEIGHT OF THE INTERFACE BETWEEN THE BLOCK AND THE TIE COLUMN.

LINTELS:

MASONRY OPENINGS LESS THAN 4 FEET SHALL BE SPANNED WITH AN 8" SPAN RATED PRECAST/PRESTRESSED CONCRETE LINTEL. ALL PRECAST LINTELS SHALL BEAR A MINIMUM OF 8" AT EACH END ON A GROUT FILLED CELL.

MASONRY OPENINGS BETWEEN 4 AND 8 FEET SHALL BE SPANNED WITH AN 8" SPAN RATED PRECAST/PRESTRESSED CONCRETE LINTEL WITH 185 BAR CONTINUOUS. PRECAST LINTEL AND ALL CELLS ABOVE, TO THE BOTTOM OF THE TIE BEAM OR BOND BEAM, SHALL BE GROUTED SOLID. ALL PRECAST LINTELS SHALL BEAR A MINIMUM OF 8" AT EACH END ON A GROUT FILLED CELL.

WHERE A CONCRETE COLUMN OR CONCRETE TIE COLUMN IS WITHIN 8" OF A MASONRY OPENING, THE LINTEL SHALL BE AN 8"X16" CONCRETE CAST-IN-PLACE BEAM WITH (2) #5 BARS TOP AND BOTTOM, AND #3 STIRRUPS AT 6" ON CENTER, UNLESS NOTED OTHERWISE ON THE PLAN.

STRUCTURAL STEEL:

WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A-992 WITH A MINIMUM YIELD STRENGTH OF 50 KSI. STEEL SECTIONS EXCEPT WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A-36 WITH A 36 KSI YIELD STRENGTH. ALL STEEL SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS. STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZING IS INDICATED ON THE DRAWINGS.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A-500, GRADE B, FY = 46 KSI. STRUCTURAL PIPE SHALL CONFORM TO ASTM A-53 GRADE B, TYPE E OR S, FY = 35 KSI. WHERE CONCRETE-FILLED COLUMNS ARE SPECIFIED, TUBE & PIPE COLUMNS SHALL BE CONCRETE FILLED IN THE SHOP OR, WHEN THEY SUPPORT CONCRETE BEAMS OR FORMED CONCRETE SLABS, A HOLE PROVIDED IN THE CAP PLATE FOR FIELD FILLING.

ALL BOLTED CONNECTIONS SHALL CONSIST OF MINIMUM 3/4 INCH DIAMETER ASTM A-325 HIGH STRENGTH BOLTS. ALL BOLTS SHALL BE PROVIDED WITH A THREAD CONDITION 'X', SUCH THAT THREADS ARE EXCLUDED FROM THE SHEAR PLANE. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR FOR THE REACTIONS SHOWN ON THE PLANS. IF NOT SHOWN, THE FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS TO SUPPORT AN END REACTION OF W/2 KIPS FROM TABLE 3-6 "MAXIMUM TOTAL UNIFORM LOAD" OF STEEL CONSTRUCTION MANUAL (15TH EDITION), BUT CONNECTIONS SHALL NOT HAVE LESS THAN 2 ROWS OF BOLTS. ALL CONTINUOUS BEAMS SHALL HAVE A 1/4" FULL HEIGHT STIFFENER ON EACH SIDE OF THE BEAM CENTERED ON ALL INTERIOR SUPPORTS.

MINIMUM CONNECTIONS: AT A MINIMUM THE BOLT ROWS (AT 3" CENTERS) SHALL EXTEND FOR 2/3 OF THE BEAM DEPTH AND AS REQUIRED ABOVE.

SLOTTED HOLES: WHEREVER LONG SLOTTED HOLES ARE USED 5/16" THICK WASHERS SHALL BE PROVIDED PER AISC REQUIREMENTS.

ANCHOR BOLTS:

SHALL CONFORM TO ASTM A-307 OR A-36 (THREADED ROD).

HEADED STUD SHEAR CONNECTOR:

HEADED STUD SHEAR CONNECTORS (HEADED STUDS) SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE", SECTION 7 - STUD WELDING. STUDS SHALL BE ASTM A108, TYPE 'B', HEADED STUDS HAVING A MINIMUM TENSILE STRENGTH OF 65,000 PSI., AND SHALL BE OF LENGTH AND DIAMETER SHOWN ON STRUCTURAL DRAWINGS. HEADED STUDS SHALL MEET THE REQUIREMENTS OF STEEL CONSTRUCTION MANUAL (15TH EDITION).

STEEL JOISTS:

SHALL BE THE SIZE AND SPACING AS SHOWN ON THE STRUCTURAL DRAWINGS AND SHALL BE DESIGNED, FABRICATED, INSTALLED AND BRIDGED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE SPECIFICATIONS. ENDS OF ALL BRIDGING LINES TERMINATING AT WALLS OR BEAMS SHALL BE ANCHORED THERETO AT TOP AND BOTTOM CHORDS. MINIMUM JOIST BRIDGING TERMINATION CONNECTIONS TO MASONRY SHALL BE L3 X 3 X 1/4 X 3" LONG WITH (1) 1/2" DIAMETER ANCHOR BOLT OR 1/4 X 4 X 4 WITH (1) 1/2" X 5" HEADED STUD TO CONCRETE. BRIDGING SHALL BE WELDED OR BOLTED AT ALL POINTS OF CONTACT. WELD SHALL NOT DAMAGE THE JOIST. CROSS BRIDGING SHALL BE WELDED OR BOLTED AT ITS CENTER POINT.

K-SERIES JOISTS SHALL BEAR A MINIMUM OF 2-1/2" ON STEEL BEAMS AND 4" ON CONCRETE BEAMS. JOIST BEARING PLATES TO BE MINIMUM 3/8" X 4" X 7-1/2" WITH (2) 1/2" DIAMETER X 5" HEADED STUD ANCHORS. BEARING PLATES FOR BACK TO BACK SINGLE JOISTS SHALL BE MINIMUM 3/8" X 7-1/2" X 7-1/2" WITH (2) 1/2" DIAMETER X 5" HEADED STUD ANCHORS. BEARING PLATES SHALL BE CAST INTEGRALLY WITH THE CONCRETE BEAM. WELD JOISTS TO BEARING PLATES WITH A MINIMUM OF (2) 1/8 X 1" FILLET WELDS, UNLESS NOTED OTHERWISE.

LH-SERIES JOISTS SHALL BEAR A MINIMUM OF 4" ON STEEL BEAMS AND 6" ON CONCRETE BEAMS. JOIST BEARING PLATES TO BE MINIMUM 3/8" X 6" X 9" WITH (2) 1/2" DIAMETER X 5" HEADED STUD ANCHORS. BEARING PLATES FOR BACK TO BACK SINGLE JOISTS SHALL BE MINIMUM 3/8" X 9" X 11-5/8" WITH (4) 1/2" DIAMETER X 5" HEADED STUD ANCHORS. BEARING PLATES SHALL BE CAST INTEGRALLY WITH THE CONCRETE BEAM. WELD JOISTS TO BEARING PLATE WITH A MINIMUM OF (2) 1/4 X 2" FILLET WELDS, UNLESS NOTED OTHERWISE. BACK TO BACK JOISTS SHALL BE OFFSET IF CONCRETE BEAM IS LESS THAN 12" NOMINAL WIDTH OR STEEL BEAM IS LESS THAN 8" WIDE.

SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWING SUBMITTAL SHALL INCLUDE LAYOUT, COMPONENT DESIGNATION, BRIDGING, AND PERTINENT SECTIONS AND DETAILS. PLUMBING, ELECTRICAL, AND MECHANICAL DRAWINGS SHALL BE COORDINATED WITH THE BAR JOIST LAYOUT TO
ENSURE THAT THERE ARE NO CONFLICTS WITH DUCTS, RECESSED FIXTURES, PLUMBING PIPES, TRAPS, HOODS, CEILING STEPS/SLOPES, ETC. BAR JOIST LAYOUT SHALL BE MODIFIED AND/OR BAR JOIST CHASES SHALL BE ADDED TO AVOID CONFLICTS. BAR JOIST SPACING SHALL NOT EXCEED MAXIMUM NOTED IN PLAN NOTES, U.N.O.
SUBMITTALS FOR JOISTS, OTHER THAN STANDARD SJI CATALOG SELECTIONS WHICH HAVE BEEN CHECKED BY SJI, SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

JOIST BEARING: WHERE STEEL BEAMS SUPPORT JOISTS FRAMING FROM ONE SIDE ONLY, OR WHERE JOISTS FROM ONE SIDE ARE 30% LONGER THAN THE JOISTS ON THE OPPOSITE OF THE BEAM, JOISTS SHALL BEAR FULL WIDTH OF THE STEEL BEAM OR 5-1/2", WHICH EVER IS LESS.

NET UPLIFT DESIGN: STEEL ROOF JOISTS SHALL BE DESIGNED TO WITHSTAND THE NET UPLIFT DUE TO WIND AS REQUIRED ASCE 7, NOT LESS THAN ZONE 2 WIND PRESSURES. IN ADDITION TO THE STANDARD SJI BOTTOM CHORD BRIDGING, WHICH INCLUDES THE FIRST END PANELS, THE JOIST MANUFACTURER SHALL PROVIDE DESIGN CALCULATIONS FOR UPLIFT, EITHER CONFIRMING THE SJI BRIDGING REQUIREMENT OR PROVIDING A DESIGN ADEQUATE FOR THE UPLIFT. THIS SUBMITTAL SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

CONCRETE SUPPORTS: UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS, JOIST GIRDERS SHALL BEAR ON 5/8" X 7" X 1'-0" STEEL BEARING PLATES WITH A MINIMUM OF FOUR 1/2" DIAMETER X 6" LONG HEADED STUD ANCHORS (CONFORMING TO AWS D1.1). THE CONNECTION TO THE BEARING PLATE SHALL BE DESIGNED TO RESIST ALL UPLIFT AND SHEAR LOADS; HOWEVER, A MINIMUM OF TWO 1/4" FILLET WELDS 2 INCHES LONG SHALL BE UTILIZED. MINIMUM JOIST GIRDER BEARING SHALL BE 6".

STEEL SUPPORTS: UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS, JOIST GIRDERS MAY BE DIRECTLY CONNECTED TO STEEL GIRDERS HAVING A FLANGE THICKNESS GREATER THAN 3/8". THE CONNECTION SHALL BE DESIGNED TO RESIST ALL UPLIFT AND SHEAR LOADS; HOWEVER, A MINIMUM OF TWO 1/4" FILLET WELDS 2 INCHES LONG OR TWO 3/4" DIAMETER HIGH STRENGTH BOLTS SHALL BE UTILIZED. MINIMUM JOIST GIRDER BEARING SHALL BE 4 INCHES.

SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO FABRICATION. SUBMITTALS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

STEEL ROOF DECK:

SHALL BE 1 1/2" DEEP, GALVANIZED (G60) CORRUGATED STEEL DECK, AND SHALL CONFORM TO PROVISIONS OF THE STEEL DECK INSTITUTE (SDI). FASTEN DECK TO STRUCTURAL STEEL SUPPORTS BY PUDDLE WELDS IN A 36/4 PATTERN. USE WELDING WASHERS FOR DECK THINNER THAN 22 GAUGE. FASTEN SIDE LAPS AT MID-SPAN WITH (1) #10 SCREW. (UNLESS OTHERWISE INDICATED ON THE PLANS)

LIGHT GAUGE STRUCTURAL STEEL:

METAL STUDS: ALL STEEL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" 1996 EDITION. ALL STUDS AND JOISTS SHALL BE GALVANIZED AND FORMED FROM STEEL THAT CORRESPONDS TO THE MINIMUM REQUIREMENTS OF THE 1996 AISI STANDARDS. STEEL STUDS, LINTELS, AND RUNNER TRACK MEMBERS SHALL BE OF TYPE SHOWN ON THE DRAWINGS AND SPECIFICATIONS CONFORMING TO ASTM A1008 SS (STRUCTURAL STEEL) GRADE 33 (MINIMUM YIELD POINT 33,000 PSI) WITH HOT DIPPED GALVANIZED COATING CONFORMING TO ASTM A653 (CLASS G90). GALVANIZED STEEL RUNNER TRACK SHALL BE FORMED WITH MATERIA

WALL LEGEND

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 48" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#6 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID. WHERE WALL ON PLAN IS NOTED IN A 'ZONE 5' LOCATION, REDUCE FILLED CELL SPACING TO 24" O.C. (USE #6 BARS).

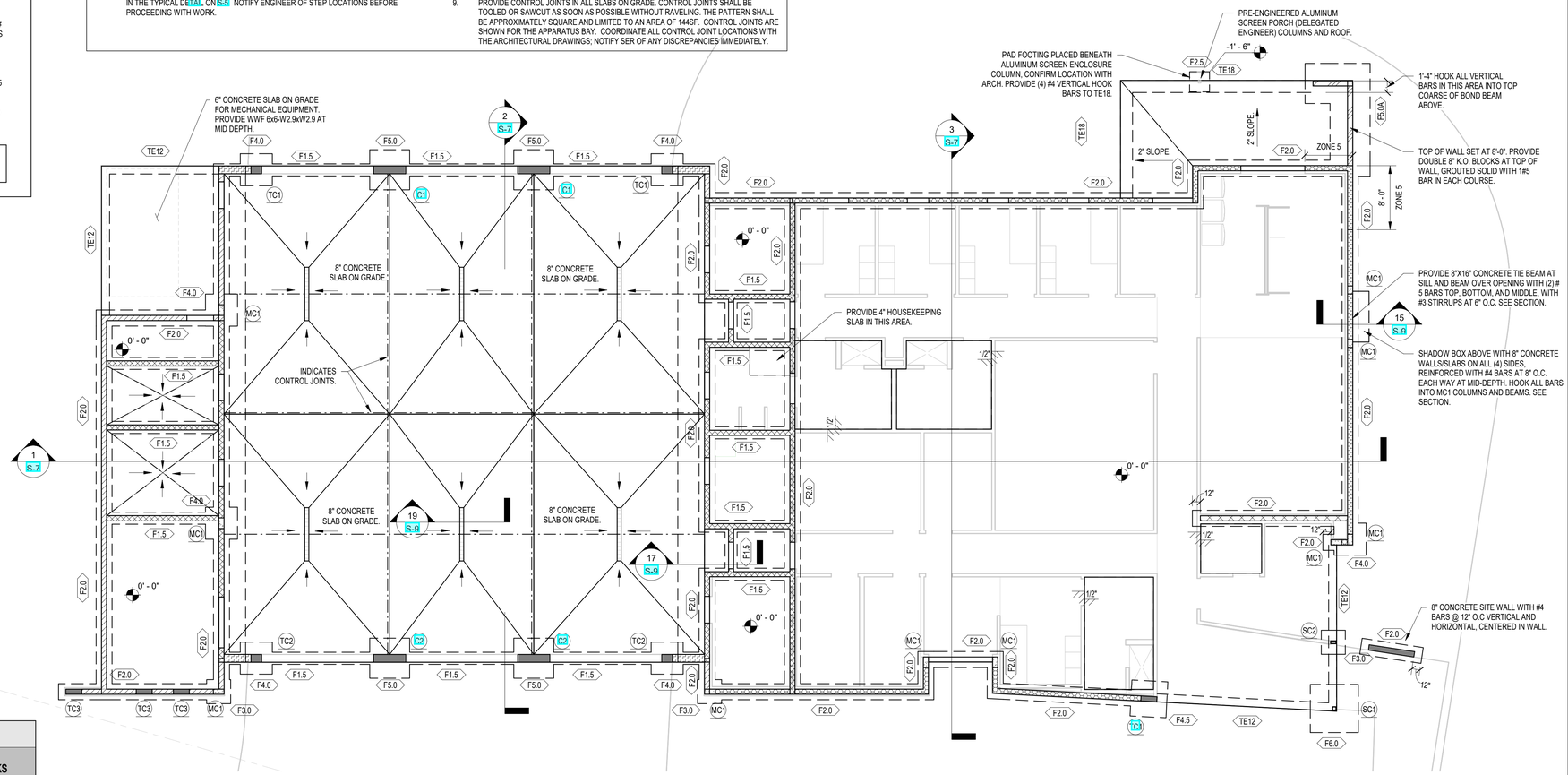
INDICATES AN 12" LOAD BEARING MASONRY WALL. PROVIDE 1# 5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 2#5 OFFSET BARS (1 BAR EACH FACE) IN EACH CELL (AT 8" O.C.), USE BAR POSITIONERS. ALL CELLS ARE GROUTED SOLID. PROVIDE (2) 8" K.O. BLOCKS AT TOP OF WALL, GROUTED SOLID WITH 1#5 BAR IN EACH COURSE. HOOK ALL VERTICAL BARS INTO TOP COURSE OF BOND BEAM.

NOTE: WHERE NOTED ON THE ARCHITECTURAL DRAWINGS, SOME INTERIOR MASONRY WALLS AND THE INTERIOR FACE OF SOME OF THE MASONRY WALLS SHALL BE EXPOSED WITH STRIKED JOINTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS.

GROUND FLOOR/FOUNDATION PLAN NOTES:

1. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL AND MEP FOR ADDITIONAL INFORMATION.
2. SEE ARCHITECTURAL DRAWINGS FOR ALL SLOPES, DROPS AND DRAIN LOCATIONS IN FLOOR SLAB. FOR 4" SLABS ON GRADE, THICKEN SLAB TO 8" WITHIN 4" OF ALL SLAB STEPS; MAINTAIN 4" MINIMUM SLAB DEPTH ELSEWHERE.
3. ELEVATIONS SHOWN ARE RELATIVE TO THE INTERIOR GROUND FLOOR SLAB SURFACE SET AT 0'-0" (REF.).
4. SEE S-2 FOR FOOTING SCHEDULE. CENTERLINES OF WALLS AND COLUMNS SHALL COINCIDE WITH CENTERLINES OF FOOTINGS AT ALL INTERIOR LOCATIONS.
5. TOF INDICATES TOP OF FOOTING ELEVATION. TOP OF FOOTING ELEVATION SET AT (-)1'-4" UNLESS NOTED OTHERWISE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED PLUMBING PENETRATIONS THROUGH STEM-WALLS AND ELEVATIONS. NO PENETRATIONS ARE PERMITTED THROUGH FOOTINGS. FOOTINGS MAY STEP AS SHOWN IN THE TYPICAL DETAIL ON S-5. NOTIFY ENGINEER OF STEP LOCATIONS BEFORE PROCEEDING WITH WORK.
6. INTERIOR GROUND FLOOR SHALL BE 4" CONCRETE SLAB-ON-GRADE, U.N.O. REINFORCE W/ 6X6 W1.4XW1.4 W.W.F. AT MID-DEPTH. SLAB SHALL HAVE AN EXPOSED CONCRETE FINISH. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS AND REQUIREMENTS.
7. GROUND FLOOR AT THE APPARATUS BAY SHALL BE AN 8" SLAB ON GRADE WITH #4 BARS AT 12" O.C. E.W. TOP AND BOTTOM. PROVIDE 2" CLEAR COVER FOR ALL TOP BARS AND 1½" CLEAR COVER FOR ALL BOTTOM BARS. SEE PLAN FOR SLOPES.
8. GROUND FLOOR OF THE GENERATOR AND FUEL TANK SHALL BE A 6" SLAB ON GRADE WITH #4 BARS AT 12" O.C. EACH WAY AT MID-DEPTH. HOOK ALL BARS AT EACH END. SLAB SHOULD BE CROWNED TO SHED WATER. SEE MANUFACTURER'S REQUIREMENTS FOR THE MINIMUM CLEARANCE AT BOTTOM OF UNIT. SLAB SHALL HAVE A CONTINUOUS 2'-0" WIDE X 18" DEEP CONCRETE THICKENED EDGE. BOTTOM OF THICKENED EDGE SHALL BE A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE. PROVIDE (3)#5 BOTTOM BARS CONT.
9. PROVIDE CONTROL JOINTS IN ALL SLABS ON GRADE. CONTROL JOINTS SHALL BE TOOLED OR SAWCUT AS SOON AS POSSIBLE WITHOUT RAVELING. THE PATTERN SHALL BE APPROXIMATELY SQUARE AND LIMITED TO AN AREA OF 144SF. CONTROL JOINTS ARE SHOWN FOR THE APPARATUS BAY. COORDINATE ALL CONTROL JOINT LOCATIONS WITH THE ARCHITECTURAL DRAWINGS; NOTIFY SER OF ANY DISCREPANCIES IMMEDIATELY.



GROUND FLOOR PLAN
1/8" = 1'-0"

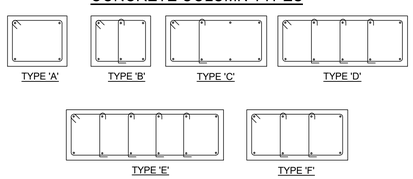
CONCRETE COLUMN SCHEDULE

MARK	SIZE	TIE CONFIG.	TIE SIZE/ SPACING	VERT. REINF.	REMARKS
C1	11 5/8" X 48"	TYPE D	#3 @ 12" O.C.	10#7	TIE COLUMN ABOVE APPARATUS BAY OPENINGS
C2	11 5/8" X 48"	TYPE E	#3 @ 12" O.C.	12#8	TIE COLUMN ABOVE APPARATUS BAY OPENINGS
C3	7 5/8" x 32"	TYPE F	#3 @ 8" O.C.	8#5	
TC1	11 5/8" X 16"	TYPE B	#3 @ 12" O.C.	6#7	
TC2	11 5/8" X 16"	TYPE C	#3 @ 12" O.C.	8#7	
TC3	7 5/8" x 24"	TYPE C	#3 @ 8" O.C.	8#7	TIE COLUMN EXTENDS TO TOP OF PARAPET WALL
TC4	7 5/8" x 24"	TYPE B	#3 @ 8" O.C.	6#6	

CONCRETE COLUMN SCHEDULE NOTES:

1. PROVIDE CLASS 'B' LAP SPLICES FOR ALL BARS.

CONCRETE COLUMN TYPES



FOUNDATION SCHEDULE

MARK	WIDTH	LENGTH	DEPTH	REINFORCING	REMARKS
F1.5	1' - 6"	CONT.	1' - 0"	2#5 BOT CONT.	
F2.0	2' - 0"	CONT.	1' - 0"	2#5 BOT CONT.	
F2.5	2' - 6"	2' - 6"	1' - 0"	3#5 B.E.W.	
F3.0	3' - 0"	3' - 0"	1' - 0"	3#5 B.E.W.	
F4.0	4' - 0"	4' - 0"	1' - 0"	4#5 B.E.W.	
F4.5	4' - 6"	4' - 6"	1' - 0"	5#5 B.E.W.	
F5.0	5' - 0"	5' - 0"	1' - 0"	5#5 B.E.W.	
F5.0A	5' - 0"	CONT.	1' - 0"	6#5 BOT CONT. #5@16" TRANSVERSE BOT.	
F6.0	6' - 0"	6' - 0"	1' - 4"	6#5 B.E.W.	
TE12	1' - 0"	CONT.	1' - 4"	2#5 BOT CONT.	ENSURE BOTTOM OF FOOTING IS A MINIMUM OF 12" BELOW ADJACENT GRADE.
TE18	1' - 6"	CONT.	1' - 4"	2#5 BOT CONT.	ENSURE BOTTOM OF FOOTING IS A MINIMUM OF 12" BELOW ADJACENT GRADE.

FOUNDATION SCHEDULE NOTES:

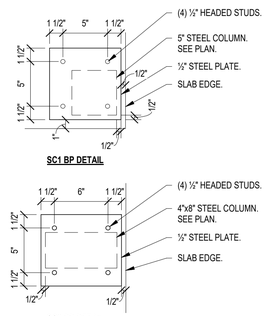
1. TOP OF FOOTING IS -1'-4" UNLESS NOTED OTHERWISE
2. PROVIDE CORNER BARS WHERE NECESSARY.

STEEL COLUMN SCHEDULE

MARK	TYPE	BOTTOM PLATE	TOP CAP	REMARKS
SC1	HSS5X5X1/4	8"x8"x1/2" EMBED. PLATE W/ (4) 1/2"x6" HEADED STUDS	7-5/8"x12" x1/2" EMBED. PLATE WITH (3) 1/2"x4" HEADED STUDS.	FIELD WELD COLUMN TO EMBED PLATE
SC2	HSS4X8X3/8	7"x9"x1/2" EMBED. PLATE W/ (3) 1/2"x6" HEADED STUDS	WELD TO ANGLE ABOVE	FIELD WELD COLUMN TO EMBED PLATE
SC3	HSS5X5X1/4	WELD TO ANGLE BELOW	WELD TO BEAM ABOVE	
SC4	HSS4X4X1/4	WELD TO ANGLE BELOW	WELD TO BEAM ABOVE	

MASONRY COLUMN SCHEDULE

MARK	COLUMN SIZE	VERT. REINF.	REMARKS
MC1	7 5/8" x 16"	2#5	1 #5 IN EACH CELL



COLUMN BASEPLATE DETAILS
1 1/2" = 1'-0"

COLUMN LEGEND

- INDICATES COLUMN BELOW
- INDICATES COLUMN THRU
- INDICATES COLUMNS ABOVE

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
1	AS1 01	05.22.20

GRAPHIC SCALE: 0" 1"

SCALE:	As indicated
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
GROUND FLOOR PLAN

SHEET No.:
S-2

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WALL LEGEND

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 48" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#6 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID. WHERE WALL ON PLAN IS NOTED IN A 'ZONE 5' LOCATION, REDUCE FILLED CELL SPACING TO 24" O.C. (USE #6 BARS).

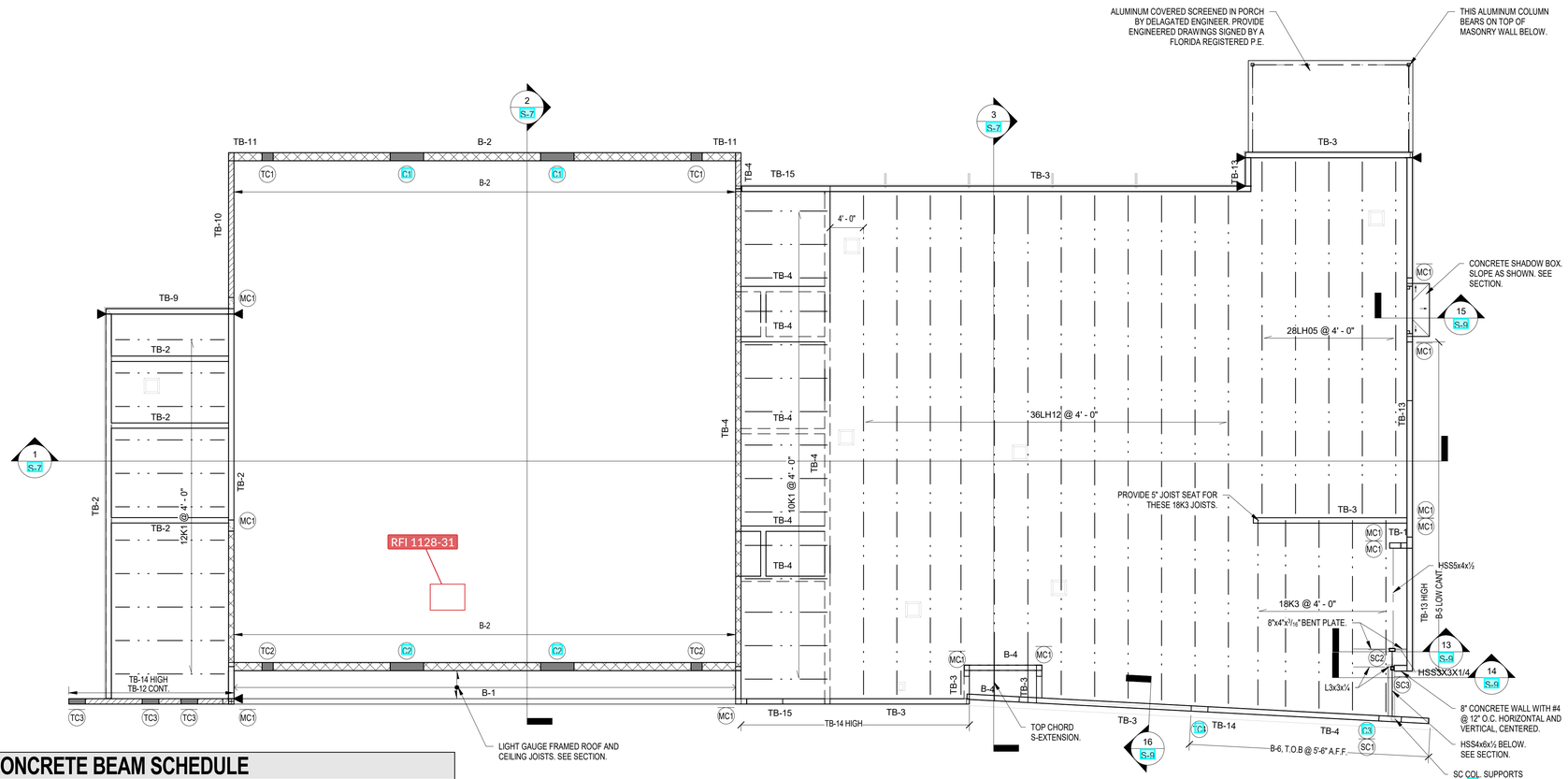
INDICATES AN 12" LOAD BEARING MASONRY WALL. PROVIDE 1# 5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 2#5 OFFSET BARS (1 BAR EACH FACE) IN EACH CELL (AT 8" O.C.); USE BAR POSTIONERS. ALL CELLS ARE GROUTED SOLID. PROVIDE (2) 8" K.O. BLOCKS AT TOP OF WALL, GROUTED SOLID WITH 1#5 BAR IN EACH COURSE. HOOK ALL VERTICAL BARS INTO TOP COURSE OF BOND BEAM.

NOTE: WHERE NOTED ON THE ARCHITECTURAL DRAWINGS, SOME INTERIOR MASONRY WALLS AND THE INTERIOR FACE OF SOME OF THE MASONRY WALLS SHALL BE EXPOSED WITH STRIKED JOINTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS.

LOW ROOF FRAMING PLAN NOTES:

1. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS AND THE MEP PLANS. SEE MEP PLANS FOR ANY ROOF-TOP UNIT LOCATIONS AND WEIGHTS.
2. ELEVATIONS SHOWN ARE RELATIVE TO THE INTERIOR GROUND FLOOR SLAB SURFACE SET AT 0'-0" (REF.).
3. SEE S-3 FOR BEAM SCHEDULES.
4. ROOF FRAMING SHALL BE PRE-ENGINEERED STEEL BAR JOISTS, SIZE AND SPACING AS INDICATED ON PLAN. PROVIDE 1.5B20 GALVANIZED METAL DECK. DECK SHALL BE CONNECTED WITH 3/4" PUDDLE WELDS AT 36/5 SPACING WITH (1)#10 TEK SCREW SIDELAPS. ATTACH DECK TO EDGE ANGLE WITH 3/4" PUDDLE WELDS AT 12" O.C. MAX.



CONCRETE BEAM SCHEDULE

MARK	ELEV.	SIZE	REINF. BOT.	REINF. TOP.	TIE SIZE/ SPACING	REMARKS
B-1	Varies	8X 57 (MIN.)	4#7	2#6	#3 @ 12" O.C.	TOP SLOPED, BOTTOM OF BEAM @ 14'-0", BOTTOM BARS IN 2 LAYERS.
B-2	16' - 0"	12 x 24	2#6	2#6	#3 @ 10" O.C.	
B-4	15' - 7"	8X37	2#7	2#7	#3 @ 12" O.C.	
B-5	10' - 2 1/4"	8X24	2#6	4#6	#3 @ 10" O.C.	PROVIDE 2#5 BARS AT MID-DEPTH, TOP BARS IN (2) LAYERS
B-6	4' - 6"	8X24	4#7	2#7	#3 @ 8" O.C.	2#6 BARS EACH FACE EQUALLY SPACED. BOTTOM BARS IN (2) LAYERS
B-7	20' - 0"	8X24	4#6	4#6	#3 @ 6" O.C.	TOP AND BOTTOM BARS IN (2) LAYERS
TB-1	9' - 4"	8X16	2#5	2#5	#3 @ 24" O.C.	
TB-2	10' - 4"	8X20	2#5	2#5	#3 @ 24" O.C.	
TB-3	15' - 7"	8X19	2#5	2#5	#3 @ 24" O.C.	
TB-4	15' - 9 1/2"	8X21 1/2	2#5	2#5	#3 @ 24" O.C.	
TB-5	22' - 2"	8X26	2#5	2#5	#3 @ 12" O.C.	
TB-6	23' - 4"	12 x 16	2#5	2#5	#3 @ 24" O.C.	
TB-7	24' - 1"	12X17	2#5	2#5	#3 @ 24" O.C.	
TB-8	23' - 5"	8X27-1/2	2#5	2#5	#3 @ 24" O.C.	
TB-9	11' - 0"	8X16	2#5	2#5	#3 @ 24" O.C.	
TB-10	11' - 0"	8X24	2#7	2#7	#3 @ 24" O.C.	PROVIDE 2#7 BARS ON EACH FACE, EQUALLY SPACED. PROVIDE CLASS 'B' LAP SPLICES FOR ALL BARS. HOOK ALL BARS INTO TB-9 AND TB-11.
TB-11	10' - 8"	12 x 24	2#5	2#5	#3 @ 24" O.C.	
TB-12	10' - 8"	8X24	2#7	2#7	#3 @ 24" O.C.	PROVIDE 2#7 BARS ON EACH FACE, EQUALLY SPACED. PROVIDE CLASS 'B' LAP SPLICES FOR ALL BARS.
TB-13	16' - 3"	8X19	2#5	2#5	#3 @ 24" O.C.	
TB-14	Varies	8X9 (MIN.)	2#5	2#5	#3 @ 24" O.C.	TOP SLOPED, RAKED TIE BEAM
TB-15	16' - 8"	8X32	2#5	2#5	#3 @ 24" O.C.	

BEAM SCHEDULE NOTES:

1. TOP STEEL CONTINUOUS UNLESS OTHERWISE NOTED.
2. TOP OF BEAM ELEVATION IS IN REFERENCE TO DEEPEST PORTION OF BEAM.
3. TOP STEEL IN CONTINUOUS BEAMS SHALL TAKE PRECEDENT OVER INTERSECTING SINGLE-SPAN BEAMS AT INTERSECTIONS.
4. PROVIDE CORNER BARS FOR ALL TIE BEAMS AND BOND BEAMS.
5. FOR BEAMS OVER 36" DEEP, PROVIDE #4 BARS AT 6" O.C. ON EACH FACE OF BEAM U.N.O. PROVIDE CLASS 'B' LAP SPLICES FOR ALL BARS.
6. FOR ALL TIE BEAMS AND CONCRETE BEAMS SUPPORTED BY MASONRY WALLS, THE BEAM WIDTH SHOWN IN THE SCHEDULE IS THE NOMINAL WIDTH. ACTUAL WIDTH SHALL MATCH MASONRY WALL WIDTH. (LE. 7-5/8, 11-5/8", ETC.)

LOW ROOF FRAMING PLAN
1/8" = 1'-0"

COLUMN LEGEND

INDICATES COLUMN BELOW
INDICATES COLUMN THRU
INDICATES COLUMNS ABOVE

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	As indicated
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
LOW ROOF FRAMING PLAN

SHEET No.:
S-3

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WALL LEGEND

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INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#5 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 48" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID.

INDICATES AN 8" LOAD BEARING MASONRY WALL. PROVIDE 1#6 BAR IN GROUTED CELLS AT CORNERS, ENDS, INTERSECTIONS OF WALLS, UNDER POINT LOADS AND AT 32" O.C. MAX. ALL CELLS BELOW GRADE, OR IN CONTACT WITH SOIL, SHALL BE GROUTED SOLID. WHERE WALL ON PLAN IS NOTED IN A 'ZONE 5' LOCATION, REDUCE FILLED CELL SPACING TO 24" O.C. (USE #6 BARS).

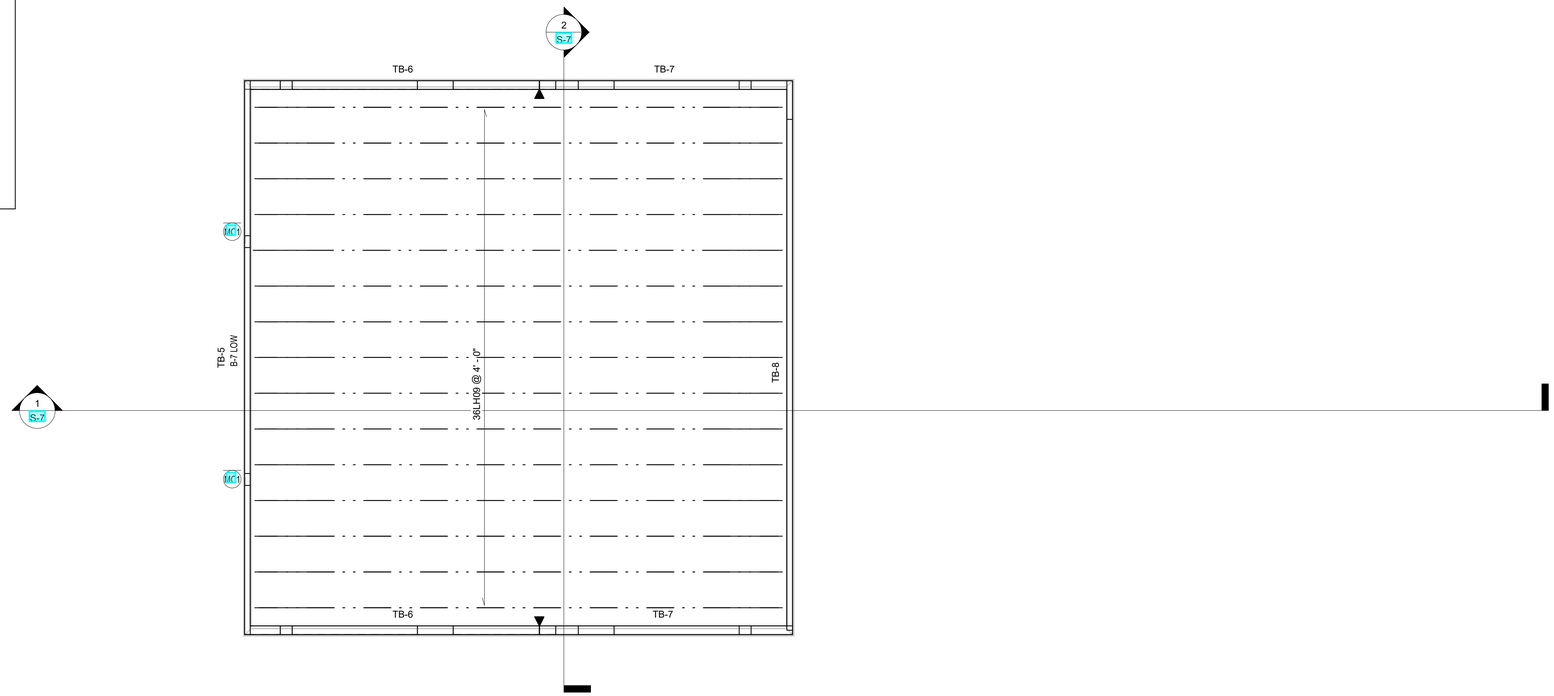
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NOTE: WHERE NOTED ON THE ARCHITECTURAL DRAWINGS, SOME INTERIOR MASONRY WALLS AND THE INTERIOR FACE OF SOME OF THE MASONRY WALLS SHALL BE EXPOSED WITH STRIKED JOINTS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS.

HIGH ROOF FRAMING PLAN NOTES:

1. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS AND THE MEP PLANS.
2. ELEVATIONS SHOWN ARE RELATIVE TO THE INTERIOR GROUND FLOOR SLAB SURFACE SET AT 0'-0" (REF.).
3. SEE S-4 FOR BEAM SCHEDULES.
4. ROOF FRAMING SHALL BE PRE-ENGINEERED STEEL BAR JOISTS, SIZE AND SPACING AS INDICATED ON PLAN. PROVIDE 1.5B20 GALVANIZED METAL DECK. DECK SHALL BE CONNECTED WITH 3/4" PUDDLE WELDS AT 36/5 SPACING WITH (1)#10 TEK SCREW SIDELAPS. ATTACH DECK TO EDGE ANGLE WITH 3/4" PUDDLE WELDS AT 12" O.C. MAX.



HIGH ROOF FRAMING PLAN
1/8" = 1'-0"

CONCRETE ROOF TIE-BEAM SCHEDULE

MARK	ELEV.	SIZE	REINF. BOT.	REINF. TOP.	TIE SIZE/ SPACING	REMARKS
B-7	20' - 0"	8X24	4#6	4#6	#3 @ 6" O.C.	TOP AND BOTTOM BARS IN (2) LAYERS
TB-5	22' - 2"	8X26	2#5	2#5	#3 @ 12" O.C.	
TB-6	23' - 4"	12 x 16	2#5	2#5	#3 @ 24" O.C.	
TB-7	24' - 1"	12X17	2#5	2#5	#3 @ 24" O.C.	
TB-8	23' - 5"	8X27-1/2	2#5	2#5	#3 @ 24" O.C.	

COLUMN LEGEND

- INDICATES COLUMN BELOW
- INDICATES COLUMN THRU
- INDICATES COLUMNS ABOVE

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
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REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

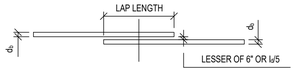
SCALE:	As indicated
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
HIGH ROOF FRAMING PLAN

SHEET No.:
S-4

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BAR SIZE	TENSION (CLASS 'B') LAP SPLICE LENGTH				COMPRESSION LAP / SPLICE LENGTH
	TOP BARS		OTHER BARS		ALL BARS
	3000 PSI	4000 PSI	3000 PSI	4000 PSI	ALL CONCRETE WITH f'_c 3000 psi
#3	28	24	22	19	12
#4	37	32	29	25	15
#5	47	40	36	31	19
#6	56	48	43	37	23
#7	81	70	63	54	27
#8	93	80	72	62	30
#9	105	91	81	70	34
#10	118	102	91	79	38
#11	131	113	101	87	43
#14	121	105	93	81	-
#18	161	139	124	107	-

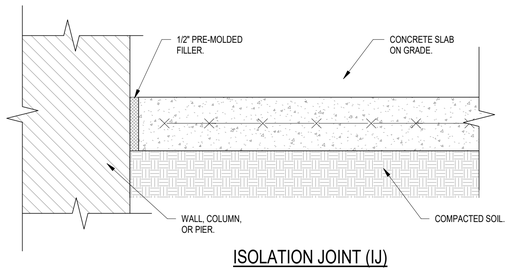


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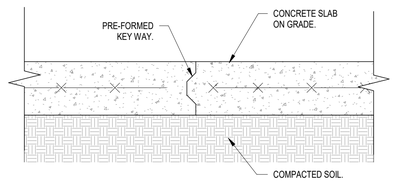
1. REFER TO "HOOKED REINFORCEMENT TENSION DEVELOPMENT LENGTH SCHEDULE" WHEN THE STRAIGHT DEVELOPMENT LENGTH IN TENSION CANNOT BE ACCOMMODATED IN THE CONCRETE SECTION.
2. ALWAYS USE TENSION LAP SPLICE LENGTH VALUES, UNLESS THE PLANS OR DETAILS NOTE OTHERWISE.
3. TABULATED DEVELOPMENT AND LAP SPLICE LENGTHS ARE BASED ON REINFORCING STEEL YIELD STRENGTH Fy=60 KSI, NORMAL WEIGHT CONCRETE, AND CLASS B LAPS.
4. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE. TOP BAR FACTOR DOES NOT APPLY TO BARS IN WALLS.
5. WHEN DIFFERENT BAR DIAMETERS ARE SPLICED, USE SMALLER BAR LAP SPLICE LENGTH.
6. ALL TABULATED VALUES ARE MINIMUM LENGTH, IN CASE OF CONFLICT WITH PLANS, SECTIONS, OR DETAILS USE LONGER LENGTH.
7. d/b = BAR DIAMETER
8. l/d = DEVELOPMENT, LAP OR SPLICE LENGTH.
9. ADJUST TABULATED LENGTH BY THE FOLLOWING FACTORS WHERE APPLICABLE. NOTE THAT FACTORS ARE CUMULATIVE (E.G. 1.30x1.50 = 1.95)
   - A. LIGHT WEIGHT CONCRETE: 1.30
   - B. 3 OR LESS BUNDLED BARS: 1.20
   - C. 4 OR MORE BUNDLED BARS: 1.33
   - D. CLEAR SPACING LESS THAN 2d/b AND CLEAR COVER LESS THAN d/b 1.50
   - E. CLASS A LAP SPLICE 0.77
   - F. EPOXY COATED BARS 1.50
10. WELDED AND/OR MECHANICAL SPLICES MAY BE USED AT THE GENERAL CONTRACTOR'S OPTION PROVIDED THAT THE SPLICE IS CAPABLE OF DEVELOPING AT LEAST 125% OF THE YIELD STRENGTH OF THE LARGER BAR IN TENSION. WHERE WELDED AND/OR MECHANICAL SPLICES ARE TO BE USED, THE GENERAL CONTRACTOR SHALL SUBMIT FULL DATA OF THE PROPOSED MATERIAL, PROCEDURES, AND INSTALLATION INSTRUCTIONS TO THE ENGINEER FOR REVIEW AS A SHOP DRAWING SUBMISSION.
11. USE MECHANICAL COUPLERS FOR #14 AND LARGER BARS.
12. LAP SPLICES IN CONCRETE MASONRY SHALL BE AS SPECIFIED IN STRUCTURAL NOTES.

TYP. STRAIGHT REINFORCEMENT DEVELOPMENT AND SPLICE LENGTH SCHEDULE

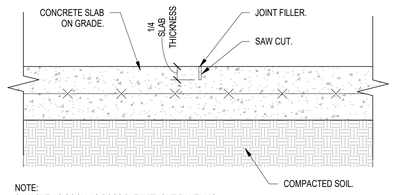
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ISOLATION JOINT (IJ)



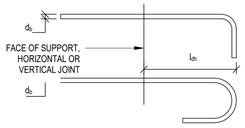
CONSTRUCTION JOINT (KJ)



NOTE:
SAW CUT AS SOON AS POSSIBLE WITHOUT RAVELING CONCRETE (4 TO 16 HOURS AFTER POURING CONCRETE).

CONTROL JOINT (CJ)

BAR SIZE	HOOKED TENSION DEVELOPMENT LENGTH (l_{dh}) INCHES	
	3000 PSI	4000 PSI
#3	9	7
#4	11	10
#5	14	12
#6	17	15
#7	19	17
#8	22	19
#9	25	22
#10	28	24
#11	31	27
#14	37	32
#18	50	43



NOTES:

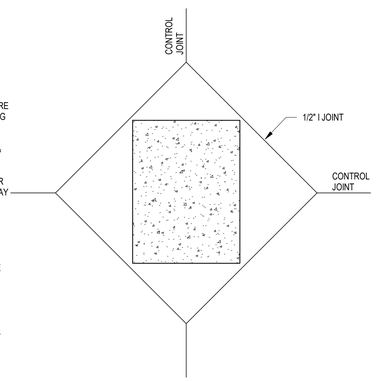
1. SEE TYPICAL TIE AND STIRRUP HOOKS DETAIL FOR ADDITIONAL INFORMATION.
2. TABULATED DEVELOPMENT LENGTH ARE BASED ON REINFORCING STEEL YIELD STRENGTH Fy = 60 KSI AND NORMAL WEIGHT CONCRETE.
3. ALL TABULATED VALUES ARE MINIMUM LENGTHS. IN CASE OF CONFLICT WITH THE PLANS, SECTIONS, OR DETAILS, USE THE LONGER LENGTH.
4. d_b = BAR DIAMETER
5. l_{dh} = DEVELOPMENT LENGTH
6. ADJUST TABULATED LENGTHS BY THE FOLLOWING FACTORS WHERE APPLICABLE. NOTE THAT THE FACTORS ARE CUMULATIVE.
   - A. REINFORCING BAR STRENGTH OTHER THAN 60 KSI: (F_y/60 KSI)
   - B. LIGHT WEIGHT CONCRETE: 1.30
   - C. EPOXY COATED BARS 1.20

TYP. HOOKED REINFORCEMENT TENSION DEVELOPMENT LENGTH SCHEDULE

SCALE: NTS

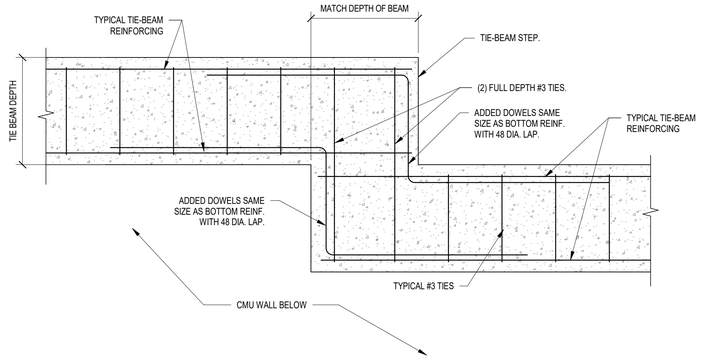
NOTES:

1. COORDINATE LOCATION OF CMU CONTROL JOINTS WITH CONCRETE WALL AND STUCCO CONTROL JOINTS WHERE POSSIBLE.
2. BLOCK CONTROL JOINTS SHALL BE LOCATED AT A SPACING OF NO MORE THAN 25 FEET BETWEEN JOINTS AND NO MORE THAN 12 FEET FROM A BUILDING CORNER.
3. CONTROL JOINTS SHALL BE LOCATED AT CHANGES IN WALL HEIGHTS & CHANGES IN WALL THICKNESS.
4. CONTROL JOINTS ADJACENT TO WALL OPENINGS SHALL BE NO CLOSER THAN 8" TO THE OPENING. DEPENDING ON THE OPENING WIDTH, THE JOINT MAY NEED TO BE FURTHER AWAY SO THAT MULTIPLE REINFORCED CELLS CAN BE LOCATED BETWEEN THE CONTROL JOINT AND THE WALL OPENING. FOR OPENINGS OVER 4 FEET IN WIDTH, CONSULT WITH THE ENGINEER FOR JOINT LOCATIONS NEXT TO WALL OPENINGS
5. SEE THE ARCHITECTURAL DRAWINGS FOR JOINT LOCATIONS. IF THE ARCHITECTURAL DRAWINGS CONFLICT WITH THE ABOVE REQUIREMENTS, THE ARCHITECT AND STRUCTURAL ENGINEER SHALL BE CONSULTED BY THE CONTRACTOR.
6. BLOCK WALL JOINTS THAT LINE UP WITH FLOOR & ROOF EXPANSION JOINTS SHALL BE DETAILED ESPECIALLY TO ALLOW A HIGHER MAGNITUDE OF MOVEMENT THAN THIS CONTROL JOINT DETAIL WILL ALLOW. DO NOT USE THIS DETAIL AT THESE EXPANSION JOINTS.



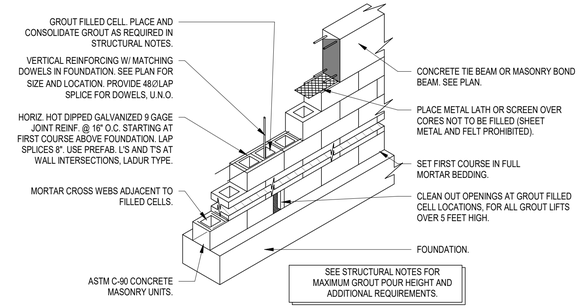
COLUMN ISOLATION DETAIL

SCALE: N.T.S.



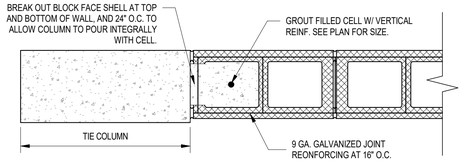
TYPICAL STEPPED TIE-BEAM REINFORCING

SCALE: N.T.S.



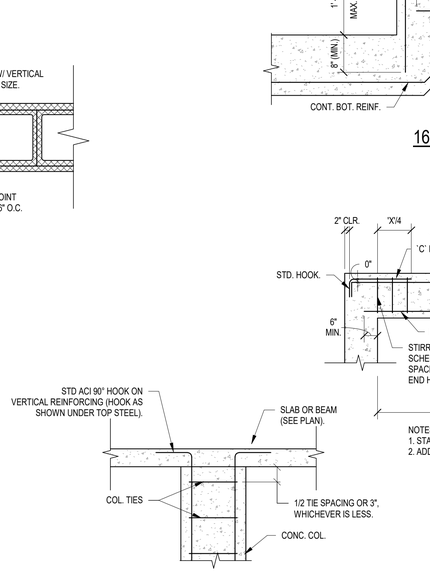
TYPICAL MASONRY WALL CONSTRUCTION

SCALE: NTS

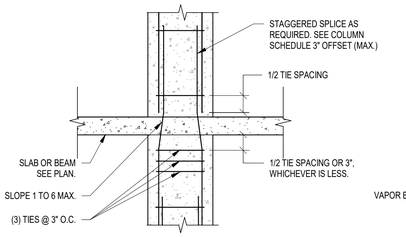


TIE COLUMN REINFORCING

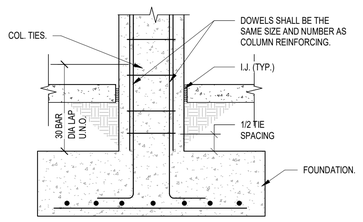
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CONCRETE COL TERMINATION AT SLAB OR BEAM



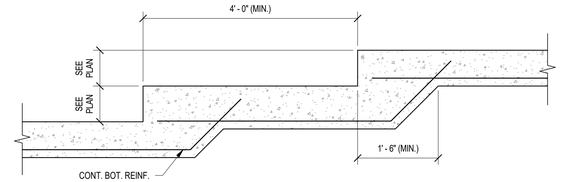
CONCRETE COL SPLICE AT SLAB OR BEAM



CONCRETE COLUMN BASE

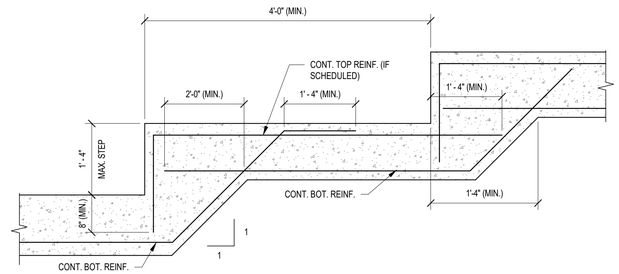
TYPICAL COLUMN REINFORCEMENT DETAIL

SCALE: NTS



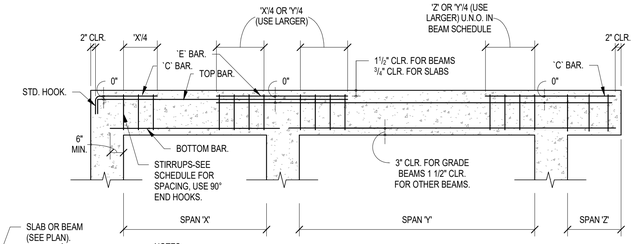
8" STEP FOOTING DETAIL

SCALE: NTS



16" STEP FOOTING DETAIL

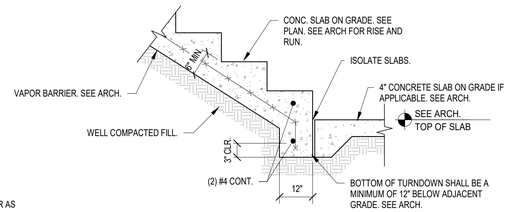
SCALE: NTS



NOTES:
1. START STIRRUP SPACING AT FACE OF SUPPORT.
2. ADD 1#4 LONGITUDINAL WHERE CORNER OF STIRRUP IS VACANT.

TYPICAL BENDING DIAGRAM FOR BEAMS AND ONE WAY SLABS

SCALE: NTS



TYPICAL SLAB ON GRADE DETAIL

SCALE: N.T.S.

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

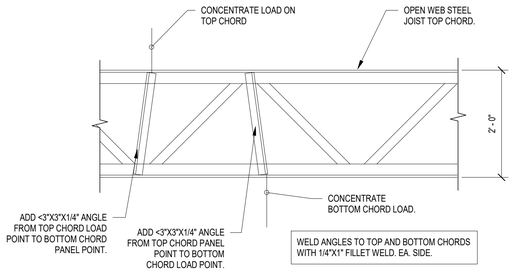
SCALE:	As indicated
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
TYPICAL DETAILS

SHEET No.:
S-5

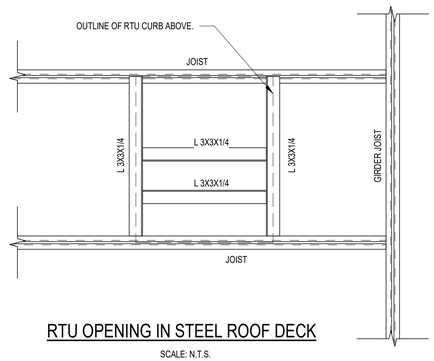
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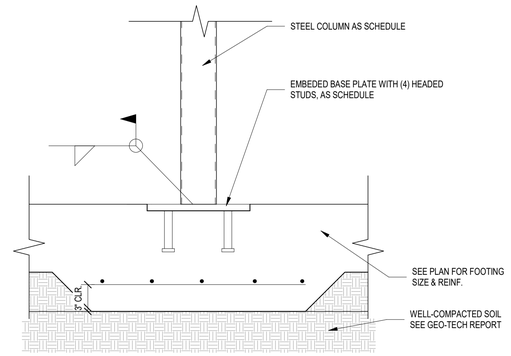
TYPICAL JOIST REINFORCEMNET DETAIL AT CONCENTRATED LOADS

SCALE: N.T.S.



RTU OPENING IN STEEL ROOF DECK

SCALE: N.T.S.



STEEL COLUMN BASE

SCALE: N.T.S.

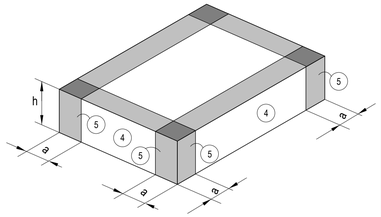
WIND LOAD SCHEDULE

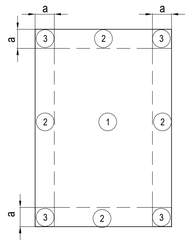
SCHEDULE OF COMPONENTS AND CLADDING LOADS

ZONE	ZONE DESCRIPTION	TRIBUTARY AREA (SF)	(+ PSF)	(- PSF)
1	ROOF INTERIOR ZONE	LESS THAN 20	19.3	75.8
		20 - 100	18.1	71.7
		MORE THAN 100	15.3	59.6
2	ROOF, EDGE ZONE	LESS THAN 20	19.3	99.9
		20 - 100	18.1	93.9
		MORE THAN 100	15.3	79.8
3	ROOF, CORNER ZONE	LESS THAN 20	19.3	136.2
		20 - 100	18.1	124.1
		MORE THAN 100	15.3	93.9
4	WALL, INTERIOR ZONE	LESS THAN 20	43.5	47.1
		20 - 50	41.7	45.3
		50 - 100	39.2	42.8
		MORE THAN 100	37.0	41.7
5	WALL, EDGE ZONE	LESS THAN 20	43.5	58.0
		20 - 50	41.7	54.4
		50 - 100	39.2	49.0
		MORE THAN 100	37.0	45.3

NOTE: WIND PRESSURES SHOWN ARE BASED ON Vasd

CODE =	ASCE 7-16
ULTIMATE WIND SPEED Vult =	166 MPH
ALLOWABLE WIND SPEED Vasd =	129 MPH
RISK CATEGORY =	IV
EXPOSURE =	D
ENCLOSURE CLASSIFICATION =	ENCLOSED
INTERNAL PRESSURE COEFFICIENT (GCpi) =	±0.18
a =	8 FT
2a =	16 FT





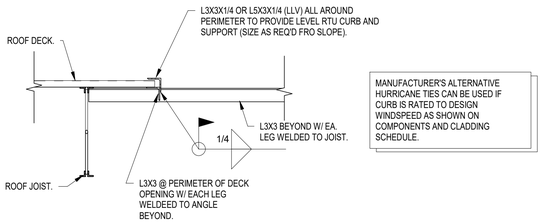
FLAT ROOF (Θ = 0 °)

SCALE: N.T.S.

Interior Zones — ZONE 1 - ROOF, ZONE 4 - WALL

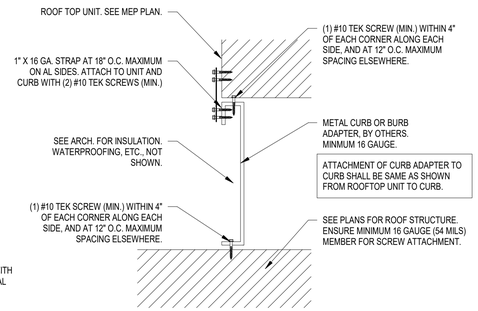
End Zones — ZONE 2 - ROOF, ZONE 5 - WALL

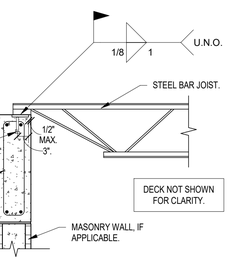
Corner Zones — ZONE 3 - ROOF



DECK OPENING & RTU LEVELING/ SUPPORT DETAIL

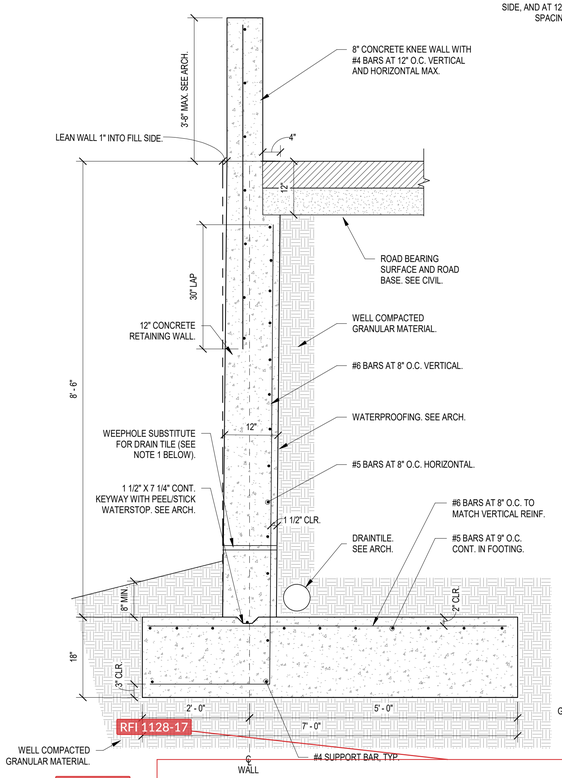
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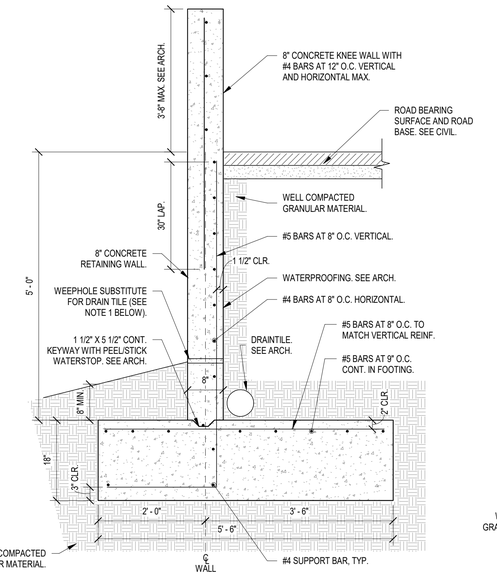
TYPICAL BAR JOIST BEARING DETAIL

SCALE: N.T.S.



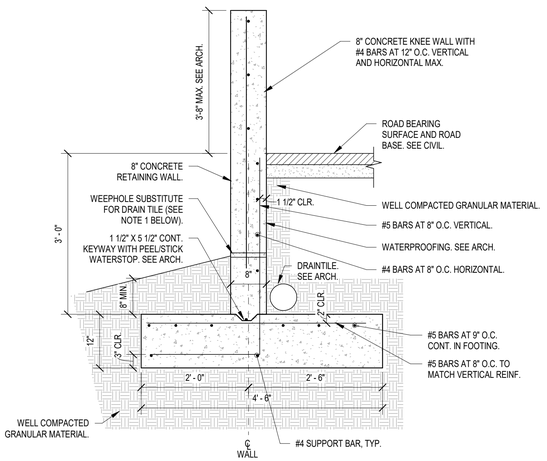
TYPICAL 5'-0" < 8'-6" RETAINING WALL

3/4" = 1'-0"



TYPICAL RETAINING WALL 3'-0" < H < 5'-0"

3/4" = 1'-0"



TYPICAL RETAINING WALL H < 3'-0"

3/4" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

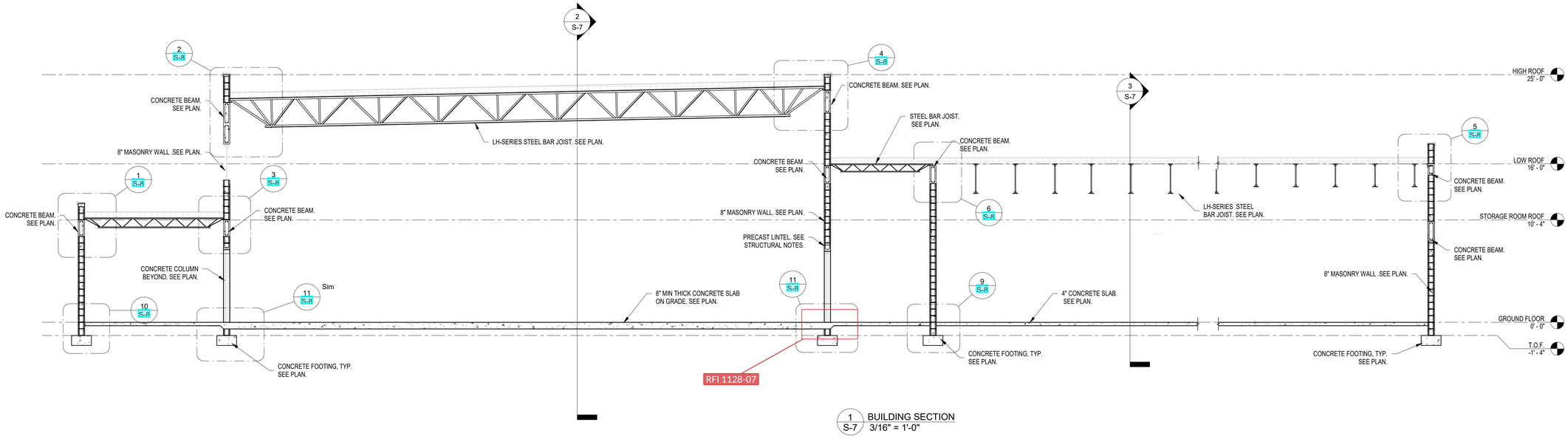
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SCALE:	As indicated
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

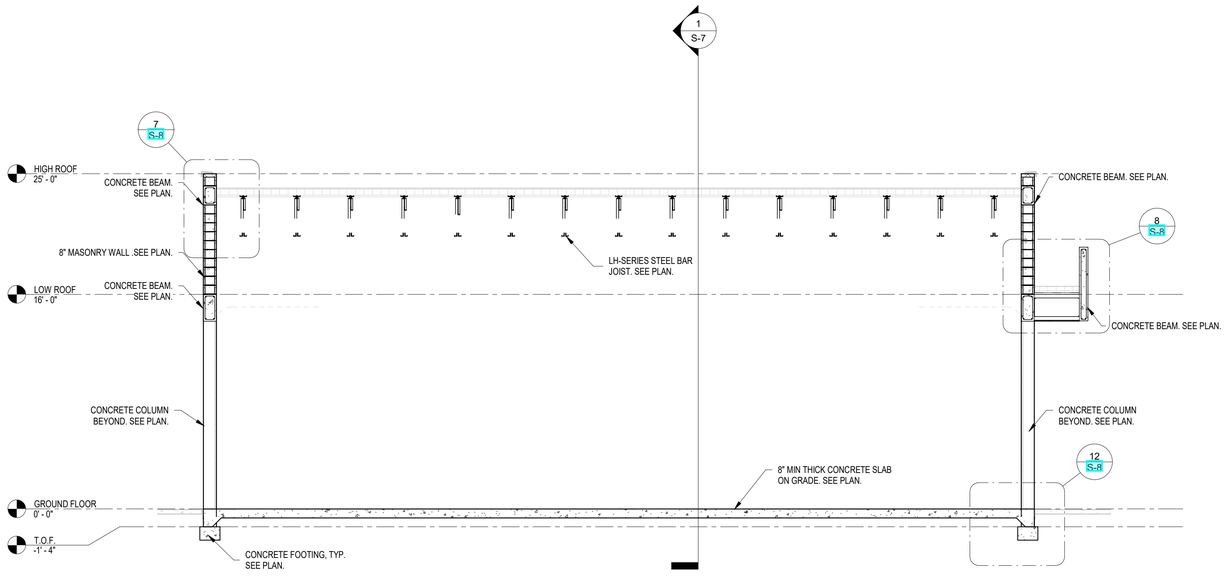
SHEET TITLE:
WIND LOAD SCHEDULE & TYPICAL DETAILS

SHEET No.:
S-6

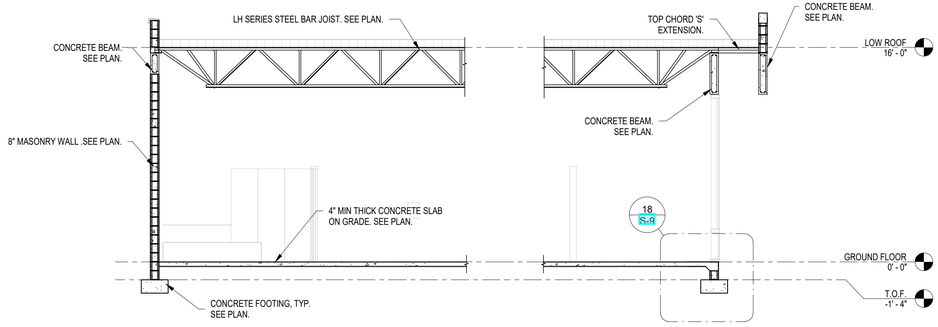
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1 S-7 BUILDING SECTION
3/16" = 1'-0"



2 S-7 BUILDING SECTION
3/16" = 1'-0"



3 S-7 BUILDING SECTION
3/16" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
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LONGBOAT KEY, FL 34228

ISSUE STATUS:
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05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

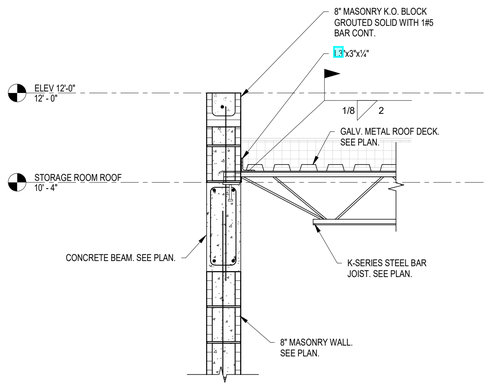
SCALE:	3/16" = 1'-0"
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
BUILDING SECTIONS

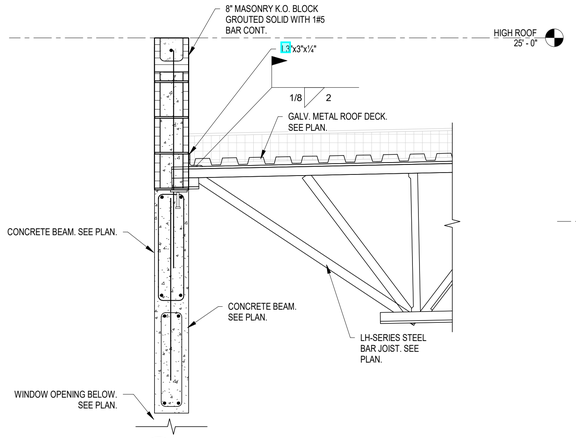
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S-7

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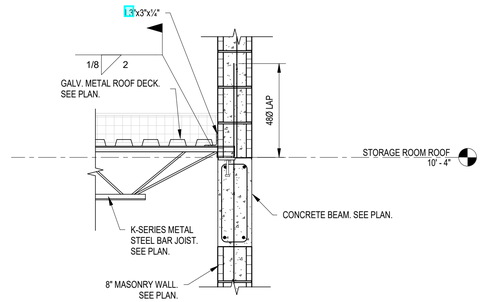
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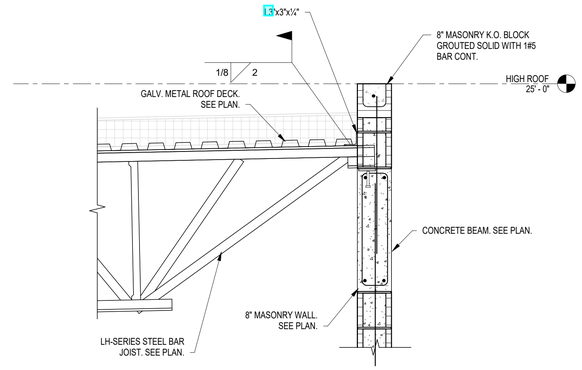
1 SECTION S-8 3/4" = 1'-0"



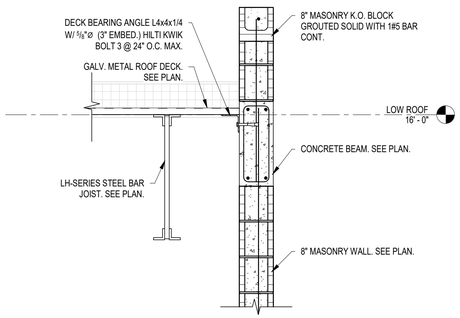
2 SECTION S-8 3/4" = 1'-0"



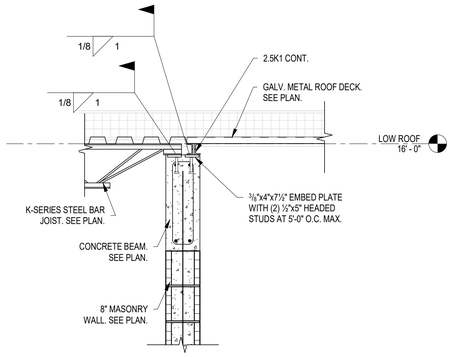
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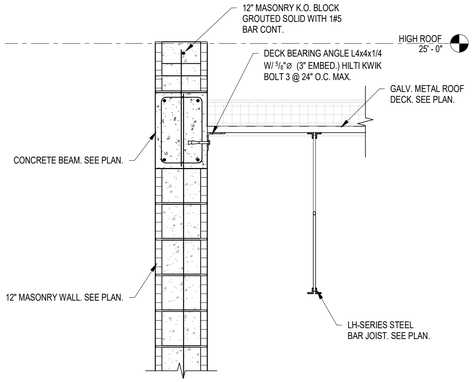
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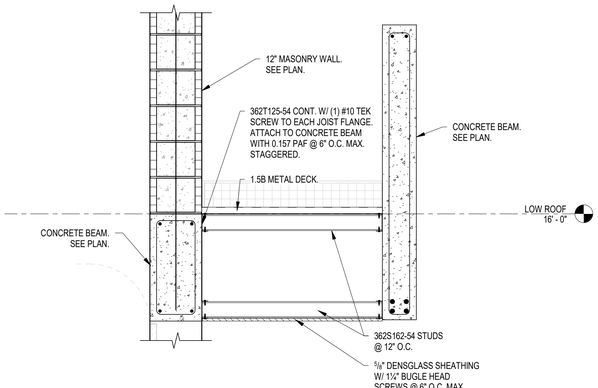
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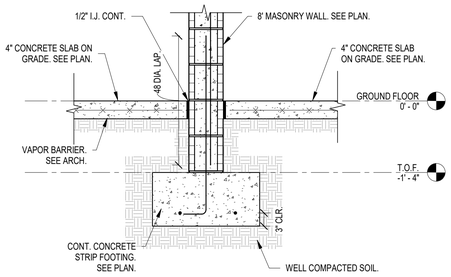
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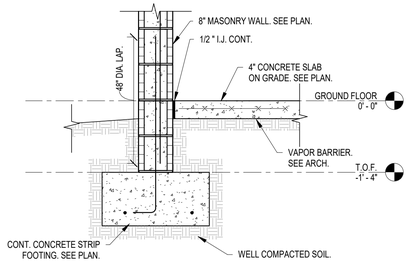
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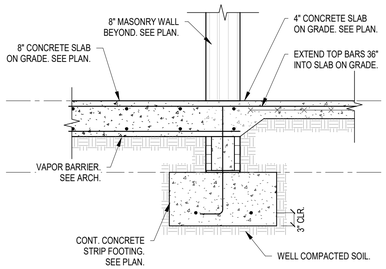
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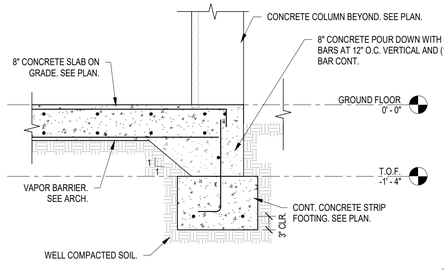
9 SECTION S-8 3/4" = 1'-0"



10 SECTION S-8 3/4" = 1'-0"



11 SECTION S-8 3/4" = 1'-0"



12 SECTION S-8 3/4" = 1'-0"

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SARASOTA, FL 34237
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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

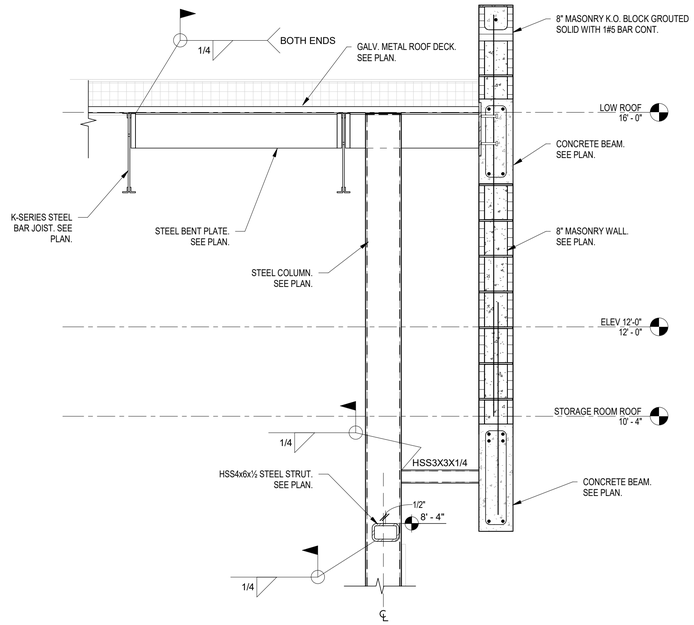
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DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
SECTIONS

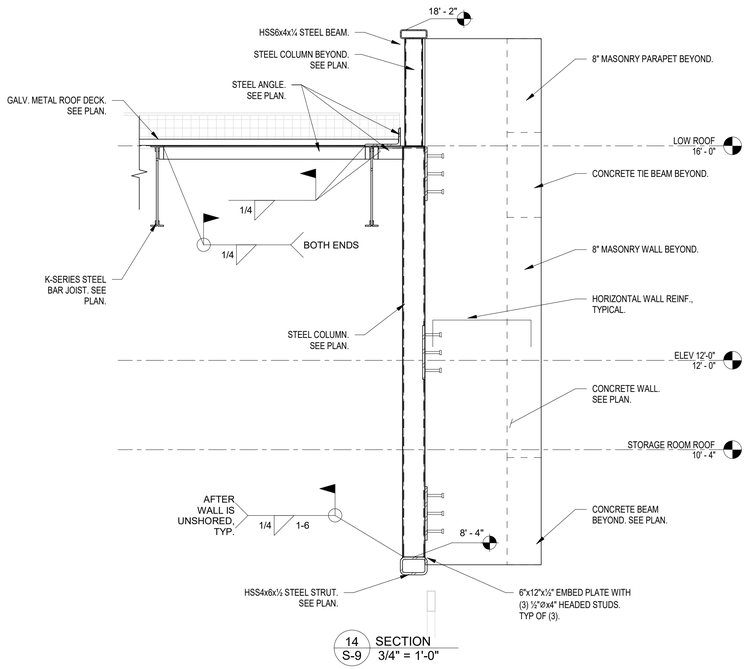
SHEET No.:
S-8

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1517 State Street, Suite 202, Sarasota, FL 34236
P. 941.954.0681 F. 206.339.2777
snellengineering.com

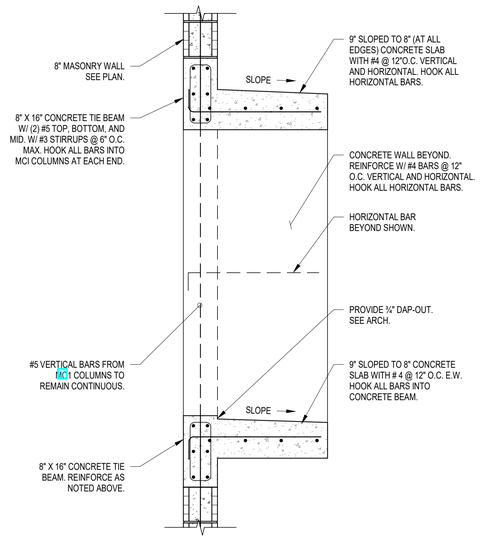
(C) COPYRIGHT 2017 SWEET SPARKMAN ARCHITECTS, INC.



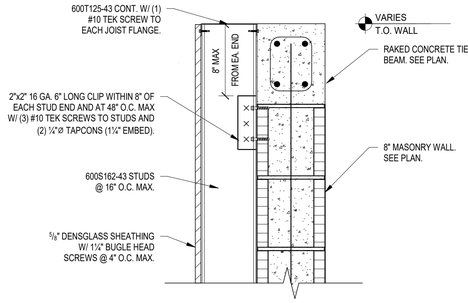
13 SECTION S-9 3/4" = 1'-0"



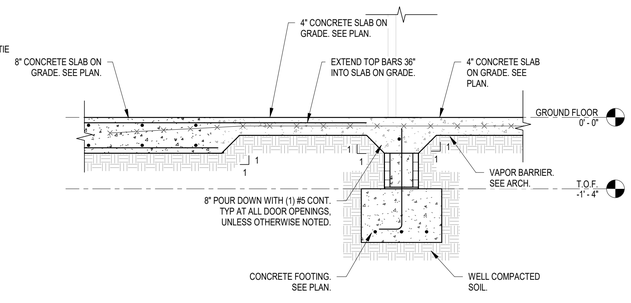
14 SECTION S-9 3/4" = 1'-0"



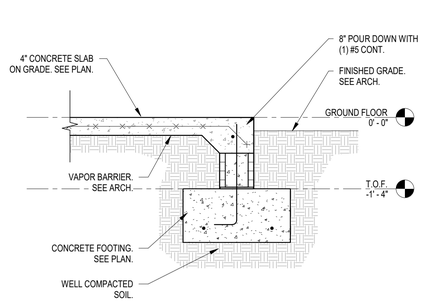
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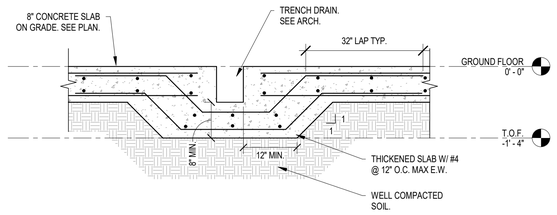
16 SECTION S-9 1 1/2" = 1'-0"



17 SECTION S-9 3/4" = 1'-0"



18 SECTION S-9 3/4" = 1'-0"



19 SECTION S-9 3/4" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

5/19/2020
ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
C.A. # 31580

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

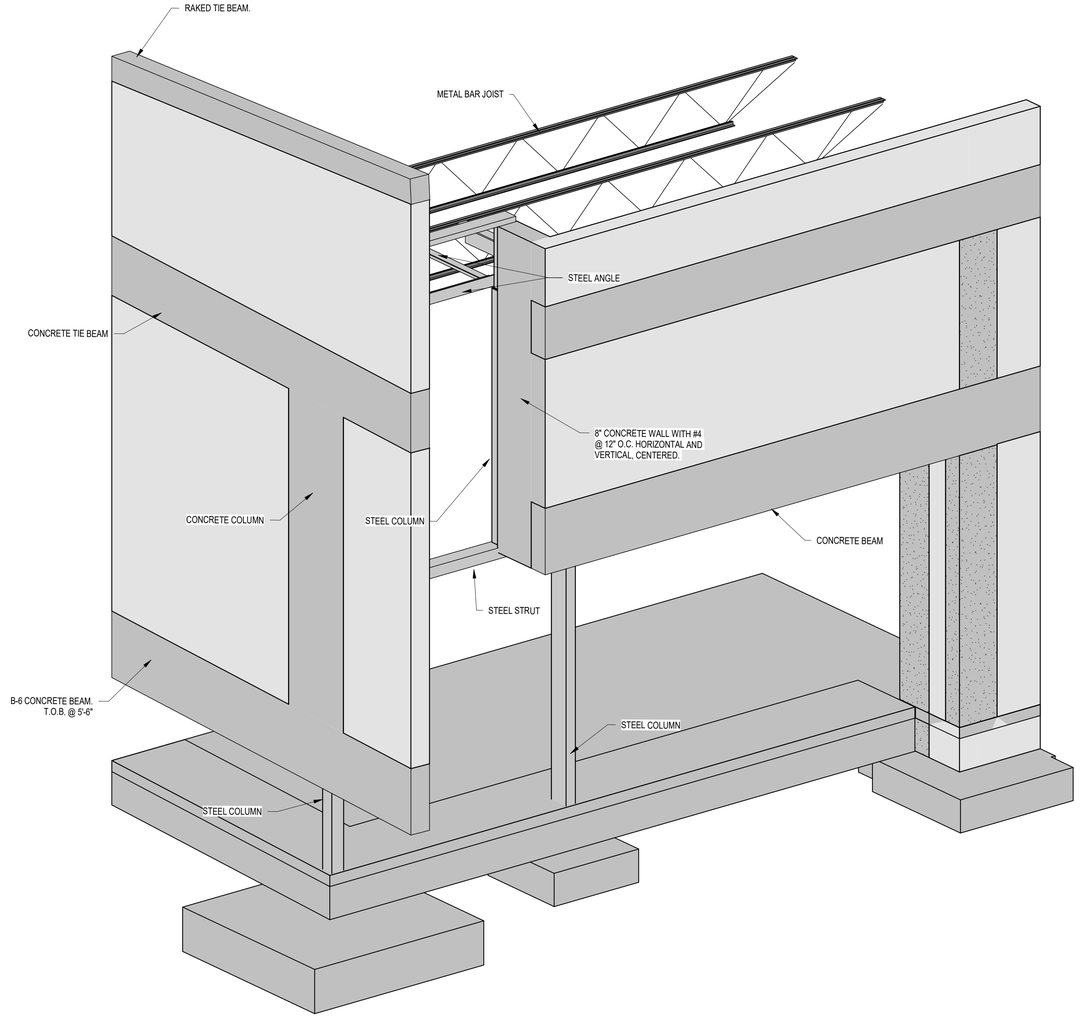
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PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

SHEET TITLE:
SECTIONS

SHEET No.:
S-9

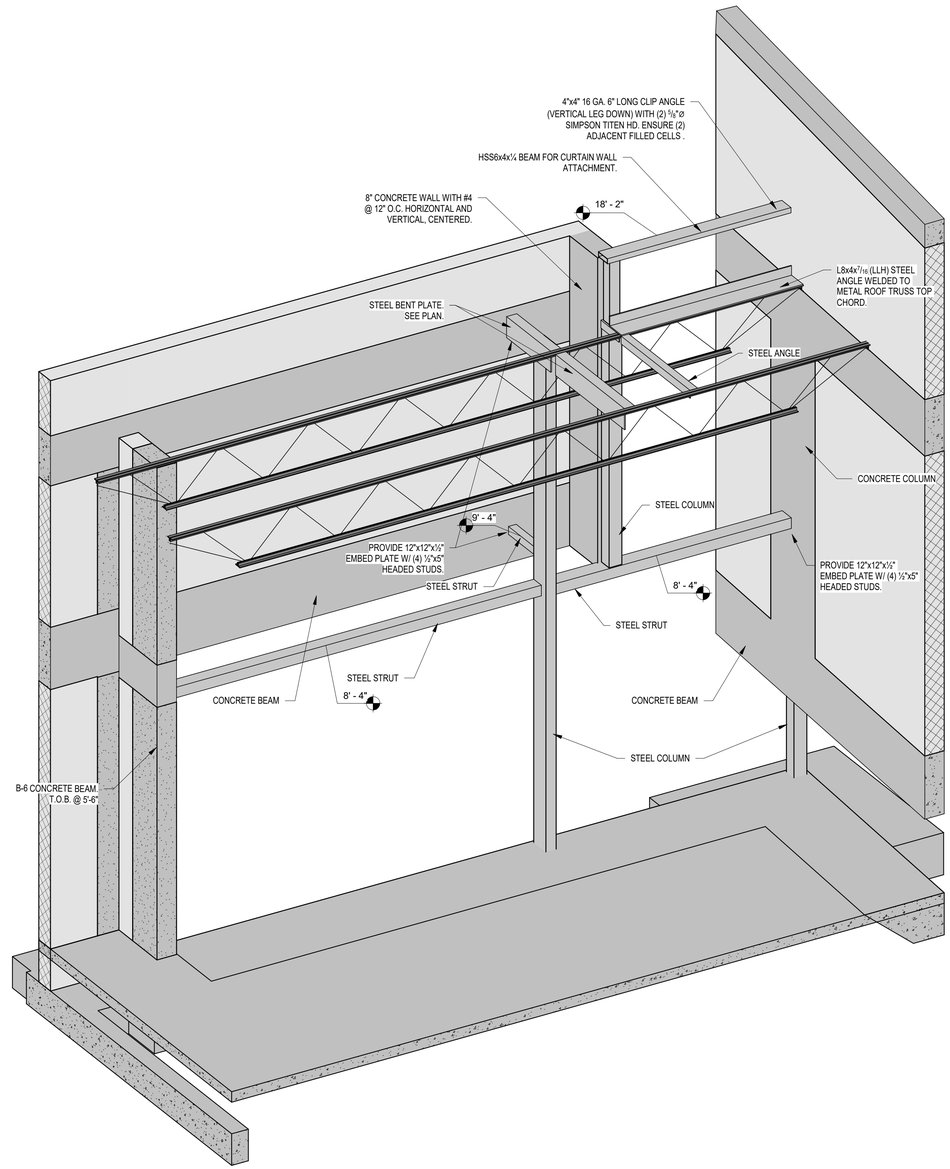
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FRONT ENTRY PERSPECTIVE - EXTERIOR

1/2"=1'-0"



FRONT ENTRY PERSPECTIVE INTERIOR

1/2"=1'-0"

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SWEET SPARKMAN ARCHITECTS

5/19/2020

ENGINEER OF RECORD
Cordell S. Van Nostrand
FL P.E. # 67580
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PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUE STATUS:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	
PROJECT MANAGER:	BR
DRAWN BY:	BGN
A/E OF RECORD:	CV
PROJECT NO:	19097

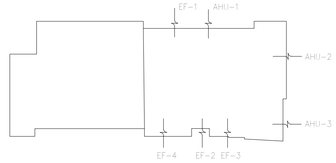
SHEET TITLE:
ISOMETRIC VIEWS

SHEET No.:
S-10

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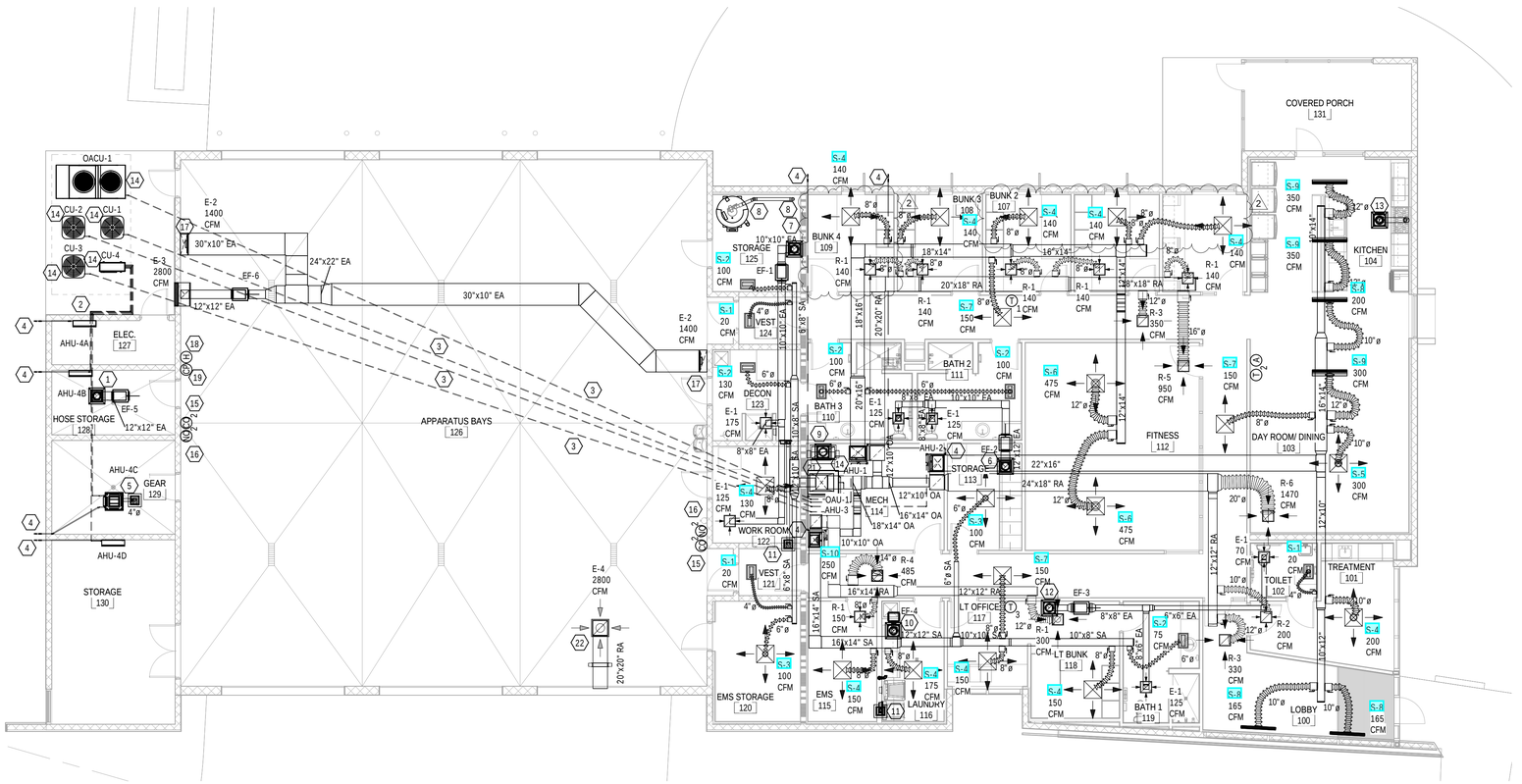
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AIR BALANCE DIAGRAM

AHU-1	400 CFM	EF-1	300 CFM
AHU-2	400 CFM	EF-2	250 CFM
AHU-3	265 CFM	EF-3	195 CFM
		EF-4	110 CFM
SUPPLY	1065 CFM	EXHAUST	855 CFM

BUILDING PRESSURIZATION 210 CFM



1 MECHANICAL PLAN
1/8" = 1'-0"

KEYNOTES

1 12" EXHAUST DUCT UP TO STANDARD ROOF JACK WITH BIRDSCREEN.
2 REFRIGERANT LINES ROUTED THROUGH BREAK METAL CHASE.
3 REFRIGERANT LINES ROUTED BELOW SLAB THROUGH MINIMUM 6" PVC. REFER TO DETAIL ON SHEET M1.1.
4 3/4" PVC CONDENSATE LINE ROUTED BELOW SLAB AND ROUTED TO SERVICES ON SITE IN ACCORDANCE WITH NOTE #18 ON SHEET M1.4.
5 4" OUTSIDE AIR DUCT DOWN FROM STANDARD ROOF JACK WITH BIRDSCREEN.
6 12 X 12 EXHAUST DUCT UP TO STANDARD ROOF JACK WITH BIRDSCREEN.
7 10 X 10 EXHAUST DUCT UP TO STANDARD ROOF JACK WITH BIRDSCREEN.
8 4" PVC WATER HEATER EXHAUST AND INTAKE FLUE VENTS UP TO ROOF. REFER TO VERTICAL VENT THROUGH ROOF DETAIL ON SHEET M1.1 FOR TERMINATION.
9 32 X 16 OUTSIDE AIR DUCT DOWN FROM ROOF MOUNTED INTAKE GRAVITY VENTILATOR GREENHECK MODEL FGI-16 X 36 WITH BIRDSCREEN.
10 6 X 6 EXHAUST DUCT UP TO STANDARD ROOF JACK WITH BIRDSCREEN.
11 4" DRYER DUCT UP TO STANDARD ROOF JACK WITH BACKDRAFT DAMPER.
12 8 X 8 EXHAUST DUCT UP TO STANDARD ROOF JACK WITH BIRDSCREEN.
13 7" KITCHEN HOOD EXHAUST DUCT UP TO STANDARD ROOF JACK WITH BACKDRAFT DAMPER.
14 4" THICK REINFORCED CONCRETE MAINTENANCE PAD EXTENDING 4" BEYOND ALL SIDES OF EQUIPMENT. SECURE UNITS TO PAD.
15 CARBON MONIXIDE GAS SENSORS. ROUTE WIRING BACK TO SYSTEM CONTROL PANEL. MOUNT AT 60" BELOW FINISHED CEILING. TYPICAL OF TWO(2).
16 NO2 GAS SENSORS. ROUTE WIRING BACK TO SYSTEM CONTROL PANEL. MOUNT AT 48" ABOVE FINISHED FLOOR. TYPICAL OF TWO(2).
17 24 X 24 HEAVY DUTY WALL MOUNTED EXHAUST GRILLE. INSTALL 1'-0" ABOVE FINISHED FLOOR TO BOTTOM OF GRILLE. SEE AIR DEVICE SCHEDULE ON SHEET M1.3 FOR SPECIFICATION.
18 HOA SWITCH FOR COMBUSTIBLE FUME SYSTEM CONTROL PANEL OVERRIDE.
19 COMBUSTIBLE FUMES SYSTEM CONTROL PANEL. REFER TO APPARATUS BAY TOXIC/COMBUSTIBLE GAS DETECTION PURGE SYSTEM SEQUENCE ON SHEET M1.2 FOR OPERATION DETAILS.
20 NOT USED.
21 PROVIDE FIRE DAMPER WHERE DUCT PENETRATES FIRE RATED ASSEMBLY.
22 48 X 24 INTAKE LOUVER WITH MOTORIZED DAMPER. REFER TO APPARATUS BAY TOXIC/COMBUSTIBLE GAS DETECTION PURGE SYSTEM FOR DAMPER CONTROL SEQUENCE.

This set has been digitally signed and sealed by Christopher R. Baker, PE on August 25, 2020 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

Quest Design Group, Inc.
1859 Northgate Blvd.
Sarasota, Fl 34234
941.351.9996
www.questdg.com

QDG ENGINEERING CONNECTIONS
Cert. of Authorization# CA31201

Mechanical Electrical Plumbing Fire Protection

CONTRACTOR TO VERIFY ALL DETAILS, DIMENSIONS, AND FIELD CONDITIONS BEFORE PROCEEDING WITH ANY CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING. DRAWINGS, SPECIFICATIONS AND DESIGNS ARE THE PROPERTY OF QUEST DESIGN GROUP AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE EXPRESSED WRITTEN PERMISSION FROM QUEST DESIGN GROUP. © COPYRIGHT 2020.

TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE FLORIDA BUILDING CODE AND THE APPLICABLE NFPA LIFE SAFETY CODE AS ADOPTED IN ACCORDANCE WITH CHAPTERS 553, AND 633, FLORIDA STATUTES AND LOCAL ORDINANCES.

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SWEET SPARKMAN ARCHITECTS

DocuSigned by:
Christopher Baker
E8A253F3459D4C3...
8/25/2020

STATE OF FLORIDA
CHRISTOPHER R. BAKER
LICENSE NO. 0082444
PROFESSIONAL ENGINEER

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
2	ASI 04	08.26.20
1	ASI 02	06.09.20

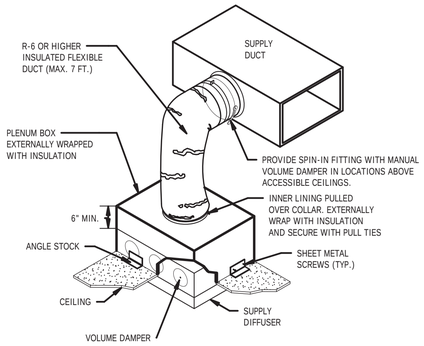
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DRAWN BY:	MJE
A/E OF RECORD:	CRB
PROJECT NO:	19-523

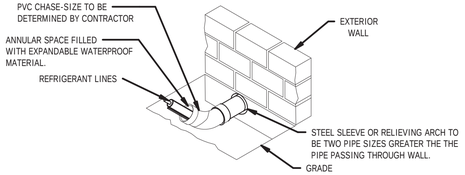
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MECHANICAL PLAN

SHEET No.:
M1.0

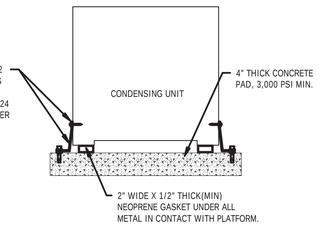
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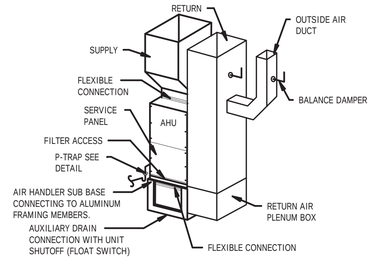
DUCTWORK CONNECTION TO SUPPLY DIFFUSER
SCALE: NONE



REFRIGERANT LINE DETAIL
SCALE: NONE

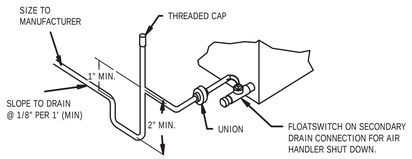


CONDENSING UNIT MOUNTING DETAIL
SCALE: NONE

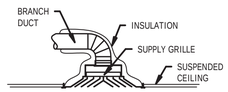


NOTE:
CONTRACTOR SHALL INSTALL EQUIPMENT WITH ADEQUATE SPACE FOR SERVICE AND INSPECTION PER MANUFACTURER RECOMMENDATIONS.

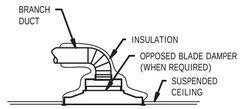
AIR HANDLING UNIT DETAIL
SCALE: NONE



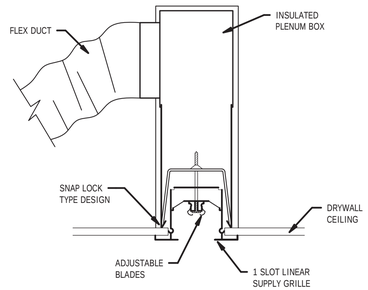
P-TRAP DETAIL
SCALE: NONE



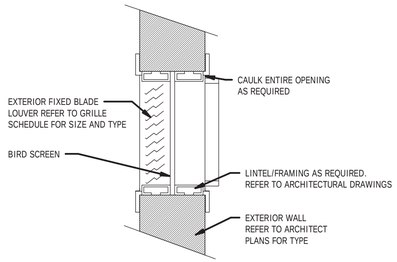
SUPPLY GRILLE DETAIL
SCALE: NONE



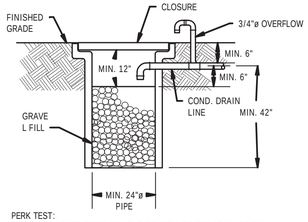
RETURN GRILLE DETAIL
SCALE: NONE



LINEAR SLOT DIFFUSER DETAIL
SCALE: NONE



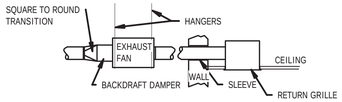
LOUVER DETAIL
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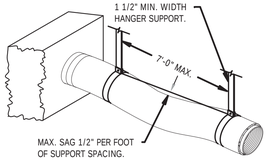
PERK TEST:
THE CONTRACTOR SHALL FILL THE DRYWELL TO THE LEVEL OF THE ROCKS. ADD TWO GALLONS TO THAT LEVEL. WATER SHOULD PERK FROM DRAIN WITHIN 15 MINUTES TO LEVEL OF ROCKS.
THE ENGINEER MUST BE NOTIFIED IF THE DRYWELL FAILS THIS TEST

NOTE:
CONTRACTOR MAY SUBMIT ALTERNATE FOR CONSIDERATION BY THE ENGINEER.

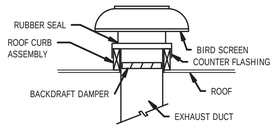
DRYWELL DETAIL
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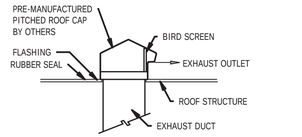
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FLEXIBLE DUCT HANGER DETAIL
SCALE: NONE

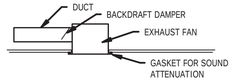


GRAVITY VENTILATOR DETAIL
SCALE: NONE



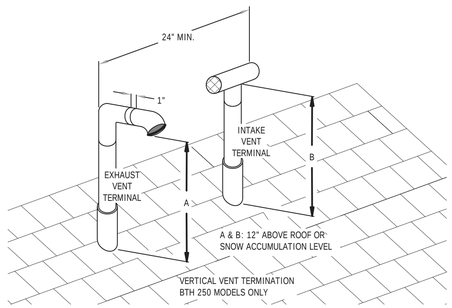
NOTES:
1. THE CONTRACTOR MAY SUBMIT AN ALTERNATE DETAIL FOR REVIEW BY ENGINEER.
2. STANDS SHALL BE INSTALLED WITH A MINIMUM HEIGHT IN ACCORDANCE WITH LOCAL CODES. PROVIDE ANCHORS TO WITHSTAND 130MPH.

ROOF VENT DETAIL
SCALE: NONE



EXHAUST FAN DETAIL
SCALE: NONE

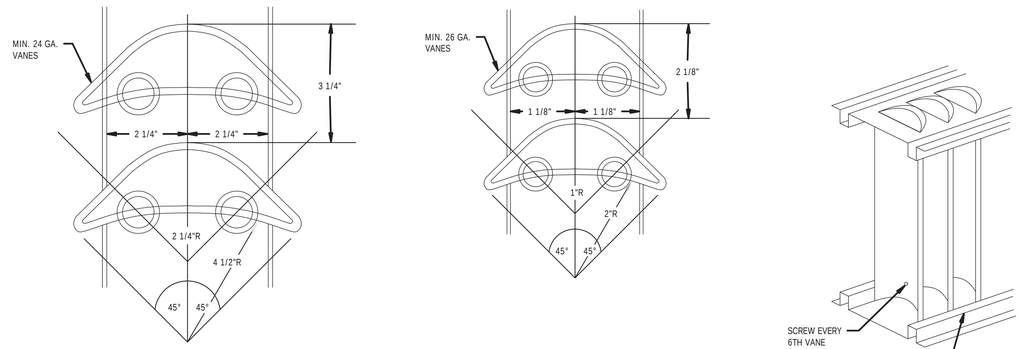
PLUMBING VENT ROOF BOOT (TYPICAL BOTH PIPES)

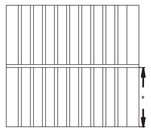


VERTICAL VENT THRU ROOF DETAIL
SCALE: NONE

ALL VANES SHALL BE SECURE AND STABLE IN INSTALLED OPERATING POSITION

VANES SHALL BE SECURELY FASTENED TO RUNNERS.





* MAXIMUM UNSUPPORTED VANE LENGTH

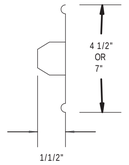
SMALL DOUBLE VANE 60"

LARGE DOUBLE VANE 72"

INSTALL VANES IN SECTIONS OR USE TIE RODS TO LIMIT THE UNBACKED VANE LENGTH.



RUNNER TYPES



TYPICAL TURNING VANES
SCALE: NONE

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Mechanical | Electrical | Plumbing | Fire Protection

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SWEET SPARKMAN ARCHITECTS

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

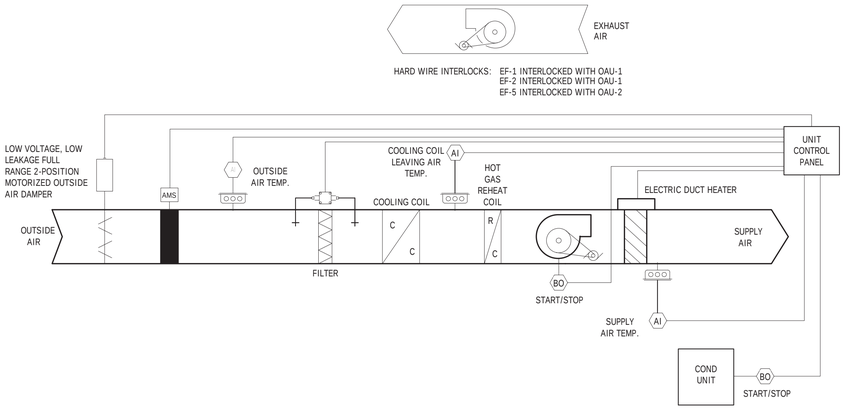
GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	MJE
A/E OF RECORD:	CRB
PROJECT NO:	19-523

SHEET TITLE:
MECHANICAL NOTES AND DETAILS

SHEET No.:
M1.1

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CONTROL DIAGRAM FOR CONSTANT VOLUME SPLIT DX 100% OUTDOOR AIR HANDLING UNIT

SCALE: NONE

SEQUENCE OF OPERATIONS

START-UP OPERATION
THE SUPPLY FAN SHALL BE STARTED/STOPPED DURING OCCUPIED/UNOCCUPIED PERIODS BY THE UNIT CONTROLLER ACCORDING TO THE MENU DRIVEN, ADJUSTABLE WEEKLY SCHEDULING PROGRAM. UNIT SHALL NOT OPERATE DURING UNOCCUPIED HOURS.

UPON SYSTEM START-UP. THE OUTDOOR AIR DAMPER SHALL OPEN. THE SUPPLY FAN SHALL ENERGIZE. AND INTERLOCKED EXHAUST FANS SHALL START. OUTDOOR AIR DAMPER SHALL REMAIN FULLY OPEN TO MAINTAIN THE OUTDOOR AIR SETPOINT (REFER TO OAU SCHEDULE).

COOLING MODE
THE CORRESPONDING CONDENSING UNIT SHALL MODULATE TO MAINTAIN A COOLING COIL LEAVING AIR TEMPERATURE OF 54°F (ADJUSTABLE). THE COOLING COIL LEAVING AIR TEMPERATURE SHALL BE LIMITED TO A MINIMUM OF 52°F.

THE HOT-GAS REHEAT COIL SHALL MODULATE AS REQUIRED TO MAINTAIN A CONSTANT SUPPLY AIR TEMPERATURE OF 72°F (ADJUSTABLE). THE SUPPLY AIR TEMPERATURE SHALL BE LIMITED TO A MINIMUM OF 70°F.

HEATING MODE
CORRESPONDING ELECTRIC RESISTANCE DUCT MOUNTED HEATING COIL SHALL CYCLE/STAGE ON/OFF BASED ON A SUPPLY AIR TEMPERATURE SET-POINT OF 70 DEG. F DURING HOURS OF NORMAL OCCUPANCY.

FILTER DIFFERENTIAL PRESSURE CONTROL:
FILTER DIFFERENTIAL PRESSURE CONTROLLER SHALL SIGNAL THE FAN VARIABLE FREQUENCY DRIVE (VFD) TO INCREASE FAN SPEED IN RESPONSE TO FILTER LOADING. INITIAL PRESSURE SETTING - 0.15" ESP; FINAL FILTER SETPOINT - 0.80" ESP. FILTER SHALL PROVIDE VISUAL ALARM TO INDICATE TIME FOR FILTER REPLACEMENT.

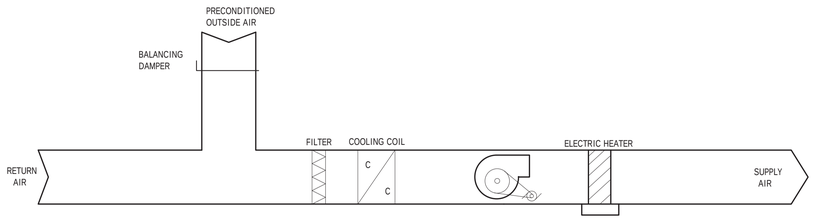
OUTDOOR AIR DELIVERY MONITORING
THE UNIT CONTROL PANEL SHALL MONITOR THE FLOW THROUGH THE AIRFLOW MEASURING STATION (AMS). WHEN THE FLOW SENSED IS 15% BELOW THE DESIGN OUTSIDE AIR SETPOINT, THE CONTROLLER WILL SEND A VISUAL ALARM.

SAFETIES
THE SUPPLY FAN, OUTSIDE AIR DAMPER. AND INTERLOCKED EXHAUST FANS SHALL SHUT DOWN WHEN ANY AUTOMATIC OR MANUAL FIRE ALARM DEVICE IS PLACED INTO ALARM BY THE BUILDING FIRE ALARM CONTROL PANEL. UPON FIRE ALARM PANEL BEING RESET TO NORMAL OPERATION. THE UNIT CONTROL SYSTEM SHALL AUTOMATICALLY RESUME SCHEDULED OPERATION OF THE AIR HANDLING UNIT, EXHAUST FANS AND DAMPERS.

MOTORIZED OUTSIDE AIR DAMPER SHALL FAIL SHUT. PROVIDE VISUAL NOTIFICATION UPON FAILURE.

PROVIDE PANEL DISPLAY AND ALARMS FOR:

- SUPPLY FAN STATUS (START/STOP/RUN)
- CONDENSING UNIT STATUS (START/STOP)
- SUPPLY AIR TEMP (°F) AND SETPOINT
- COOLING COIL LEAVING AIR TEMP (°F) AND SETPOINT
- OUTSIDE AIR TEMPERATURE (°F)
- OUTSIDE AIR DAMPER POSITION (OPEN/CLOSED)
- FILTER STATUS (DP, IN. WG) - ALARM
- OUTSIDE AIRFLOW (CFM) - ALARM



T — SPACE THERMOSTAT/HUMIDISTAT MOUNT AT 48" AFF (REFER TO PLANS FOR LOCATION)

TS — SPACE TEMPERATURE SENSOR/HUMIDISTAT MOUNT AT 48" AFF (REFER TO PLANS FOR LOCATION)

C — SPACE CARBON DIOXIDE SENSOR MOUNT AT 48" AFF (REFER TO PLANS FOR LOCATION)

CONTROL DIAGRAM FOR CONSTANT VOLUME SPLIT DX FAN COIL UNITS

SCALE: NONE

SEQUENCE OF OPERATION

CONTROL MODULE:
SYSTEM PERFORMANCE SHALL BE CONTROLLED BY AN AUTOMATIC CHANGEOVER PROGRAMMABLE THERMOSTAT WITH INTEGRAL HUMIDITY SENSOR. BASIS OF DESIGN TRANE OR JOHNSON CONTROLS EQUIVALENT. THE CONTROLLER SHALL START THE SUPPLY FAN IN ACCORDANCE WITH THE OWNER'S TIME SCHEDULE AND OCCUPIED/UNOCCUPIED SETPOINTS.

COOLING MODE:
AIR HANDLING UNIT FANS SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. CORRESPONDING CONDENSING UNITS SHALL CYCLE ON/OFF TO MAINTAIN AVERAGED SPACE TEMPERATURE SET-POINT OF 74 DEG. F DURING HOURS OF NORMAL OCCUPANCY AND 80 DEG F. DURING UNOCCUPIED HOURS. AVERAGE SPACE TEMPERATURE MEASURED BY RETURN DUCT MOUNTED REMOTE TEMPERATURE SENSORS.

DEHUMIDIFICATION MODE:
AIR HANDLING UNITS SHALL BE PROVIDED WITH SPACE HUMIDISTAT. WHEN SPACE HUMIDITY EXCEEDS 65%. HUMIDISTAT SHALL ENERGIZE CORRESPONDING CONDENSING UNIT AND UNIT SHALL OPERATE AT FULL CAPACITY UNTIL SPACE HUMIDITY IS SATISFIED.

HEATING MODE:
AIR HANDLING UNITS SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. OCCUPANCY SHALL BE PRESCRIBED BY AN AUTOMATIC CHANGEOVER PROGRAMMABLE THERMOSTAT. THERMOSTAT SHALL INITIATE HEAT PUMP CYCLE. CORRESPONDING CONDENSING UNIT SHALL CYCLE ON/OFF BASED ON A SPACE TEMPERATURE SET-POINT OF 70 DEG. F DURING HOURS OF NORMAL OCCUPANCY AND 62 DEG F. DURING UNOCCUPIED HOURS. AVERAGE SPACE TEMPERATURE MEASURED BY RETURN DUCT MOUNTED REMOTE TEMPERATURE SENSORS.

SAFETIES:
THE AIR HANDLING UNIT SUPPLY FANS SHALL SHUT DOWN WHEN ANY AUTOMATIC OR MANUAL FIRE ALARM DEVICE IS PLACED INTO ALARM BY THE BUILDING FIRE ALARM CONTROL PANEL. UPON FIRE ALARM PANEL BEING RESET TO NORMAL OPERATION, THE SCHEDULED OPERATION OF THE AIR HANDLING UNITS SHALL AUTOMATICALLY RESUME.

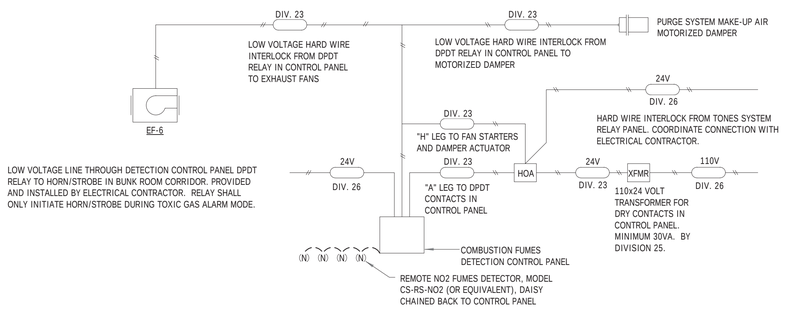
ALARM LIGHT FOR OAU-1

VISUAL NOTIFICATION - LOCATE ALARM LIGHT ADJACENT TO THERMOSTAT IN DAY ROOM 105.

PROVIDE AND INSTALL A PLACARD BELOW THE ALARM LIGHT THAT READS, "IF ALARM LIGHT IS ON CONTACT SARASOTA COUNTY FACILITIES MANAGMENT TO INSPECT THE OUTSIDE AIR DELIVERY UNIT."

OUTDOOR AIR DELIVERY MONITOR ALARM

SCALE: NONE



COMBUSITBLE GAS DETECTION/PURGE SYSTEM

CONTROL MODULE AND SENSORS:
PROVIDE MONOXIVENT DETECTION CONTROL PANEL WITH REMOTE SENSORS, SERIES FDS-CS, MODBUS CONTROLLER FOR CENTRALIZED GAS DETECTION MONITORING, OR EQUIVALENT. COORDINATE ELECTRICAL REQUIREMENTS WITH DIVISION 26. PANEL SHALL INCLUDE STANDARD-32 CHANNEL CAPACITY. PROVIDE COMPATIBLE SENSORS MONOXIVENT CS-RS-NO2 OR EQUIVALENT.

EMERGENCY PURGE OPERATION:
WHEN REMOTE DETECTOR(S) SENSES NO2 LEVELS IN EXCESS OF 2 PPM. CONTROL PANEL "LOW ALARM" LIGHT IS ENERGIZED. WHEN REMOTE DETECTOR(S) SENSES NO2 LEVELS IN EXCESS OF 5 PPM. CONTROL PANEL SHALL OPEN MOTORIZED MAKE-UP AIR DAMPER. UPON SUCCESSFUL OPENING OF DAMPER. CONTROL PANEL SHALL ENERGIZE EXHAUST FAN EF-6. PANEL SHALL DE-ENERGIZE EXHAUST FANS AND SHALL CLOSE MAKE-UP AIR DAMPER WHEN SENSOR(S) READINGS RETURN TO NORMAL.

TONES SYSTEM INTERLOCK OPERATION:
WHEN TONES SYSTEM EMERGENCY CALL ALARMS. HARD WIRED INTERLOCK SHALL SIGNAL CONTROL PANEL TO OPEN MOTORIZED MAKE-UP AIR DAMPER. UPON SUCCESSFUL OPENING OF DAMPER. CONTROL PANEL SHALL ENERGIZE EXHAUST FAN EF-6. AN INTERNAL TIMER SHALL OPERATE PURGE SYSTEM FOR A MINIMUM OF 15 MINUTES AFTER INITIATION. AT THE END OF THE TIMER CYCLE. PANEL SHALL DE-ENERGIZE EXHAUST FANS AND SHALL CLOSE MAKE-UP AIR DAMPER WHEN SENSOR(S) READINGS RETURN TO NORMAL.

MANUAL OVERRIDE
AN INTERLOCKED H-O-A SWITCH SHALL BE PROVIDED FOR MANUAL OVERRIDE OF SYSTEM OERATION.

APPARATUS BAY TOXIC/COMBUSTIBLE GAS DETECTION PURGE SYSTEM

SCALE: NONE

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FL AA26000857
SWEET SPARKMAN ARCHITECTS

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	
PROJECT MANAGER:	CRB
DRAWN BY:	MJE
A/E OF RECORD:	CRB
PROJECT NO:	19-523

SHEET TITLE:
MECHANICAL NOTES AND DETAILS

SHEET No.:
M1.2

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ZONE IDENTIFICATION		FLORIDA BUILDING CODE - 2017 VENTILATION RATE PROCEDURE								DESIGN CASE				
						BREATHING	TABLE 6-2	ZONE	TABLE 6-3	OUTDOOR	OUTDOOR	ZONE	PRIMARY	
	OCCUPANCY		OUTDOOR	OUTDOOR	OCCUPANT	ZONE	ZONE AIR	OUTDOOR	SYSTEM	AIR	AIR	PRIMARY	OUTDOOR	MEETS
ZONES: SPACES	CATEGORY	AREA	AIR RATE	AIR RATE	DENSITY	OUTDOOR	DISTRIBUTION	AIR FLOW	VENTILATION	INTAKE	INTAKE	AIR FLOW	AIR	STANDARD?
					/1000 sq ft	AIR FLOW	EFFECTIVENESS		EFFICIENCY	FLOW	FLOW	FRACTION	FRACTION	
		(Sq Ft)	(cfm/ person)	(cfm/ sf)	# of People	Vbz/ (cfm)	Ez	Voz/ (cfm)	Ev	Vot/ (cfm)	(Cfm)	Vpz/ (cfm)	(Zp=Voz/Vpz)	
						AHU-1								
Bath 110	Restroom	128	0	0.00	0	0.0	0.8	0.0	0.9	0	20	100	0.00	Yes
Bath 111	Restroom	128	0	0.00	0	0.0	0.8	0.0	0.9	0	20	100	0.00	Yes
Hall 001	Corridors	223	0	0.06	0	13.4	0.8	16.7	0.9	19	30	150	0.11	Yes
Bunk 109	Dormitory sleeping areas	109	5	0.06	1	7.1	0.8	8.9	0.9	10	28	140	0.06	Yes
Bunk 108	Dormitory sleeping areas	107	5	0.06	1	7.0	0.8	8.7	0.9	10	28	140	0.06	Yes
Bunk 107	Dormitory sleeping areas	107	5	0.06	1	7.0	0.8	8.7	0.9	10	28	140	0.06	Yes
Bunk 106	Dormitory sleeping areas	107	5	0.06	1	7.0	0.8	8.7	0.9	10	28	140	0.06	Yes
Report 105	Office space	105	5	0.06	2	7.4	0.8	9.2	0.9	10	28	140	0.07	Yes
Fitness 112	Health club/ aerobics room	470	20	0.06	10	122.2	0.8	152.8	0.9	170	190	950	0.16	Yes
	Totals:	**1,484**				**170.9**		213.6	**0.9**	**239**	**400**	**2,000**	**0.16**	**Yes**
Notes:	*For all spaces above above, air distribution is overhead, hence Ez=.80 in heating mode. Outdoor air fraction 0.25 <Zp< 0.35, hence System Ventilation Efficiency is 0.8.*													
						AHU-2								
Dayroon/ Dining 103	Day Room	478	5	0.06	14	62.1	0.8	77.7	1.0	78	120	600	0.13	Yes
Kitchen 104	Kitchens (cooking)	291	0	0.00	0	0.0	0.8	0.0	1.0	0	140	700	0.00	Yes
Hall 01	Corridors	172	0	0.06	0	10.3	0.8	12.9	1.0	13	30	150	0.09	Yes
Toilet 102	Restroom	45	0	0.00	0	0.0	0.8	0.0	1.0	0	4	20	0.00	Yes
Treatment 101	Office space	167	5	0.06	2	11.7	0.8	14.6	1.0	15	40	200	0.07	Yes
Lobby 100	Main entry lobbies(office)	218	5	0.06	5	18.5	0.8	23.2	1.0	23	66	330	0.07	Yes
	Totals:	**1,371**				**102.7**		128.4	**1.0**	**129**	**400**	**2,000**	**0.09**	**Yes**
Notes:	*For all spaces above above, air distribution is overhead, hence Ez=.80 in heating mode. Outdoor air fraction 0.15 <Zp< 0.25, hence System Ventilation Efficiency is 0.9.*													
						AHU-3								
EMS 115	Office space	110	5	0.06	5	9.4	0.8	11.7	0.9	13	33	150	0.08	Yes
Laundry 116	Commercial laundry	95	25	0.00	10	23.8	0.8	29.7	0.9	33	39	175	0.17	Yes
LT Office 117	Office space	95	5	0.06	9	10.0	0.8	12.5	0.9	14	33	150	0.08	Yes
LT Bunk 118	Dormitory sleeping areas	94	5	0.06	9	9.9	0.8	12.3	0.9	14	33	150	0.08	Yes
Bath 119	Restroom	106	0	0.00	9	0.0	0.8	0.0	0.9	0	17	75	0.00	Yes
Hall	Corridors	99	0	0.06	9	5.9	0.8	7.4	0.9	8	33	150	0.05	Yes
Mech 114	Mechanical Room	196	0	0.06	9	11.8	0.8	14.7	0.9	16	55	250	0.06	Yes
Storage 113	Storage rooms	97	0	0.12	9	11.6	0.8	14.6	0.9	16	22	100	0.15	Yes
	Totals:	**892**				**82.3**		102.9	**0.9**	**114**	**265**	**1,200**	**0.17**	**Yes**
Notes:	*For all spaces above above, air distribution is overhead, hence Ez=.80 in heating mode. Outdoor air fraction 0.15 <Zp< 0.25, hence System Ventilation Efficiency is 0.9.*													
						OAU-1								
EMS Storage 120	Storage rooms	141	0	0.12	0	16.9	0.8	21.2	0.9	24	100	100	0.21	Yes
Work Room 122	Commercial laundry	111	25	0.00	1	2.8	0.8	3.5	0.9	4	130	130	0.03	Yes
Decon 123	Office space	104	5	0.06	0	6.2	0.8	7.8	0.9	9	130	130	0.06	Yes
Storage 125	Storage rooms	114	0	0.12	0	13.7	0.8	17.1	0.9	19	100	100	0.17	Yes
Vestibule 124	Corridors	38	0	0.06	0	2.3	0.8	2.9	0.9	3	20	20	0.14	Yes
Vestibule 121	Corridors	38	0	0.06	0	2.3	0.8	2.9	0.9	3	20	20	0.14	Yes
	Totals:	**546**				**44.2**		55.2	**0.9**	**62**	**500**	**500**	**0.21**	**Yes**
Notes:	*For all spaces above above, air distribution is overhead, hence Ez=.80 in heating mode. Outdoor air fraction 0.15 <Zp< 0.25, hence System Ventilation Efficiency is 0.9.*													

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FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:
PROJECT MANAGER: CRB
DRAWN BY: Author
A/E OF RECORD: Checker
PROJECT NO: 19-523

SHEET TITLE:
MECHANICAL
VENTILATION TABLE

SHEET No.:
M1.3

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RECTANGULAR DUCT HANGERS

MAX. HALF OF DUCT PERIMETER	PAIR AT 10' SPACING		PAIR AT 8' SPACING	
	STRAP	ROD	STRAP	ROD
P/2=30"	1" X 22 ga	10ga	1" X 22 ga	10ga
P/2=72"	1" X 18 ga	3/8"	1" X 20 ga	1/4"
P/2=96"	1" X 16 ga	3/8"	1" X 18 ga	3/8"

FLEXIBLE DUCT HANGERS

MINIMUM HANGER WIDTH 1 1/2"

ROUND DUCT HANGERS

DUCT DIAMETER	MAX 12' SPACING		
	STRAP	ROD	WIRE
10" DOWN	1" X 22 ga	1/4"	(1)12 ga.
11-18"	1" X 22 ga	1/4"	(2)12 ga. or (1)8 ga.
19-24"	1" X 22 ga	1/4"	(2)10 ga.
25-36"	1" X 20 ga	3/8"	(2)8 ga.

RECTANGULAR DUCT SCHEDULE

RECTANGULAR DUCT DIMENSION	NO REINFORCEMENT DUCT GAGE	REINFORCEMENT TYPE AND SPACING*		
		10'	8'	6'
18"-DN	26 GA.	NOT REQ.	—	—
19"-20"	24 GA.	B-26	—	—
21"-22"	22 GA.	B-26	—	—
23"-24"	22 GA.	C-26	—	—
25"-26"	20 GA.	C-26	—	—
27"-28"	18 GA.	C-24	C-26	—
29"-30"	18 GA.	C-24	C-26	—
31"-36"	18 GA.	D-22	D-24	C-26
37"-42"	16 GA.	E-20	E-24	D-24

* CONSULT SMACNA DESIGN CATALOG FOR REINFORCEMENT DETAILS
* TABLE TAKEN AT 1/2" STATIC WATER PER SMACNA RECOMMENDATIONS
* STRAPS ARE GALVANIZED STEEL; RODS ARE UNCOATED OR GALVANIZED STEEL; WIRE IS BLACK ANNEALED, BRIGHT BASIC OR GALVANIZED STEEL
* TABLE HANGERS ARE BASED ON CONVENTIONAL WALL THICKNESS AND JOINT SYSTEMS WITH ONE LB/SQ.FT OF INSULATION WEIGHT. ADJUST HANGER SIZED TO WITHIN LOAD LIMITS FOR INSTALLATION OF HEAVIER DUCT.

100% OUTDOOR AIR SPLIT SYSTEM SCHEDULE

UNIT	MAN'R	MODEL	MBTUH TOT/SEN.	CFM	SEER	VOLT/PH	HEAT(kw)	AHU FAN HP	MCA / C/B	ENTERING AIR TEMP.	LEAVING AIR TEMP.	EXT. STATIC	O. A. CFM	REMARKS
OAU-1	AAON	V3-CRB-9-0-162C	---	1565	---	208/3	15 KW	1.5	56/60	92/77	54/53	1.0"	1565	---
OACU-1	AAON	CFA-011-B-A-8-DC0EK	117.3/61.8	---	12 EER	208/3	---	---	42/50	92	---	---	---	---

ACCESSORIES:
1. MODULATING HOT GAS REHEAT
2. MOTORIZED OUTSIDE AIR DAMPER
3. DIGITAL SCROLL COMPRESSOR

A/C SCHEDULE

UNIT	MAN'R	MODEL	MBTUH TOT/SEN.	CFM	SEER	VOLT/PH	HEAT(kw)	AHU FAN HP	MCA / C/B	ENTERING AIR TEMP.	LEAVING AIR TEMP.	EXT. STATIC	O. A. CFM	REMARKS
AHU-1	TRANE	TEM6A0C60	---	2000	---	208/1	5.77 KW	.75	43/45	75/61	53/52	.75	400	1,3,5,7,8
AHU-2	TRANE	TEM6A0C60	---	2000	---	208/1	5.77 KW	.75	43/45	75/61	53/52	.75	400	1,3,5,7,8
AHU-3	TRANE	TEM6A0C36	---	1200	---	208/1	5.77 KW	.5	40/40	75/64	55/54	.75	265	1,3,5,7,8
AHU-4A	TRANE	NTXWST09A	8,100	406	---	208/1	8,200	---	1/15	78/63	55	---	---	4,7
AHU-4B	TRANE	NTXWST09A	8,100	406	---	208/1	8,200	---	1/15	78/63	55	---	---	4,7
AHU-4C	TRANE	NTXCKS12A	10,900	335	---	208/1	10,800	---	1/15	78/63	55	---	---	4,7
AHU-4D	TRANE	NTXWST12A	10,900	406	---	208/1	10,800	---	1/15	78/63	55	---	---	4,7
CU-1	TRANE	4TWR7060	53.5/39.7	---	15	208/1	51,500	---	37/60	92/77	---	---	---	2,7
CU-2	TRANE	4TWR7060	53.5/39.7	---	15	208/1	51,500	---	37/60	92/77	---	---	---	2,7
CU-3	TRANE	4TWR7036	34.2/26.4	---	17	208/1	32,000	---	21/35	92/77	---	---	---	2,7
CU-4	TRANE	NTXMMX42	40,500	---	17.5	208/1	45,000	---	32.5/40	92/77	---	---	---	6,7

ACCESSORIES:
1. PROVIDE AHU WITH SINGLE POINT ELECTRICAL CONNECTION. STARTER RELAY, HEATING ELEMENT, AND CONTROLS AS PART OF EQUIPMENT PACKAGE.
2. VARIABLE SPEED R-410A COMPRESSOR AND CONDENSING FAN.
3. PROVIDE ELECTRIC HEATER WITH INTERNAL CIRCUIT PROTECTION.
4. POWER PROVIDED BY OUTSIDE UNIT.
5. PROVIDE WITH MINIMUM MERV 13 FILTERS.
6. INVERTER COMPRESSOR.
7. REFRIGERANT LINE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
8. OUTSIDE AIR SUPPLIED BY OAU-1.

EXHAUST FAN SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	CATALOG #	CFM	EX.S.P.	VOLT/Ø/HZ	AMP/WATTS	FAN SPEED / SONES	NOTES
EF-1	IN-LINE	GREENHECK	BSQ-80	300	0.25	115/1	1/4 HP	1054/7.5	1,2,3,7
EF-2	IN-LINE	GREENHECK	BSQ-80	250	0.25	115/1	1/4 HP	974/7.0	1,2,3,6
EF-3	IN-LINE	GREENHECK	BSQ-80	195	0.25	115/1	1/4 HP	897/6.5	1,2,3,6
EF-4	CEILING	GREENHECK	SP-B110	110	0.25	115/1	80 W	950/1.5	2,4,5
EF-5	IN-LINE	GREENHECK	BSQ-80	125	0.25	115/1	1/4 HP	837/6.1	1,2,3,5
EF-6	IN-LINE	GREENHECK	BSQ-140	2800	0.35	208/1	1.0 HP	2154/16.5	1,2,3,8

NOTES:
1. SPRING HANGING ISOLATORS
2. BACKDRAFT DAMPER
3. 2 EXTRA BELTS
4. SPEED CONTROLLER
5. SHALL BE CONTROLLED BY AN INDEPENDENT WALL SWITCH
6. SHALL BE INTERCONNECTED WITH ASSOCIATED LIGHT SWITCHES.
7. SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.
8. SHALL BE CONTROLLED BY COMBUSTIBLE FUMES CONTROL PANEL.

AIR DEVICE SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	CATALOG #	C.F.M.	NECK SIZE	NOTES
S-1	1-WAY	PRICE	ACVD	20	8 X 4	1
S-2	1-WAY	PRICE	ACVD	75-130	10 X 6	1
S-3	4-WAY	PRICE	AMD	75-130	6 X 6	1
S-4	4-WAY	PRICE	AMD	125-200	9 X 9	1
S-5	4-WAY	PRICE	AMD	300	12 X 12	1
S-6	4-WAY	PRICE	AMD	475	15 X 15	1
S-7	2-WAY	PRICE	AMD	125-150	9 X 9	1
S-8	LINEAR	PRICE	JS-10	165-200	10"	1,3
S-9	LINEAR	PRICE	JS-15	300-350	10"	1,4
S-10	SIDEWALL	PRICE	620	250	10 X 6	1
R-1	RECTANGULAR	PRICE	630	125-140	10 X 10	5
R-2	RECTANGULAR	PRICE	630	200	12 X 12	5
R-3	RECTANGULAR	PRICE	630	330-350	14 X 14	5
R-4	RECTANGULAR	PRICE	630	485	16 X 16	5
R-5	RECTANGULAR	PRICE	630	950	18 X 18	5
R-6	RECTANGULAR	PRICE	630	1470	22 X 22	5
E-1	RECTANGULAR	PRICE	610Z	125-175	10 X 10	5
E-2	RECTANGULAR	PRICE	510Z	1400	24 X 24	2
E-3	LOUVERED	GREENHECK	EVH-501D	2800	36 X 30	2
E-4	RECTANGULAR	PRICE	610Z	2800	48 X 26	2

NOTES:
1. OPPOSED BLADE DAMPER
2. BIRDSCREEN
3. 4' LONG 1.0" SLOT - 1 SLOT DIFFUSER WITH HIGH THROW PATTERN AND FIELD FABRICATED PLENUM. REFER TO MECHANICAL PLAN FOR CONNECTION SIZE.
4. 4' LONG 1.5" SLOT - 1 SLOT DIFFUSER WITH HIGH THROW PATTERN AND FIELD FABRICATED PLENUM. REFER TO MECHANICAL PLAN FOR CONNECTION SIZE.
5. T-BAR BORDER PANEL.

HVAC - NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. DRAWINGS ARE NOT TO BE SCALED. THE DRAWINGS AND DETAILS SHALL BE EXAMINED FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. ANYTHING MENTIONED IN THE SPECIFICATION WILL BE INTERPRETED AS BEING IN BOTH. ANY CONFLICT SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER OR ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. THE HVAC CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIAL, LABOR, ETC. NECESSARY TO PROVIDE A COMPLETE, WORKABLE AND CODE APPROVED AIR CONDITIONING SYSTEM. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, LOCAL, STATE AND NATIONAL CODES.
3. THE HVAC CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL GOVERNMENT FEES, SALES TAXES AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK; AND DELIVER TO THE OWNER THE SAME CERTIFICATES BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
4. THE HVAC CONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES AND SHALL FURNISH IN WRITING TO THE ARCHITECT, ANY INFORMATION NECESSARY TO PERMIT THE WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY AND WITH THE LEAST POSSIBLE INTERFERENCE OR DELAY.
5. THE CONTRACTOR SHALL EXAMINE THE DUCTWORK ROUTING ON THESE PLANS WITH RESPECT TO THE FINAL STRUCTURAL TRUSS ARRANGEMENT. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS INDICATING THE FINAL DUCT ROUTING FOR REVIEW BY THE ARCHITECT AND ENGINEER PRIOR TO INSTALLING ANY MATERIAL ON THIS PROJECT. THIS MAY REQUIRE DUCTWORK ROUTING WITHIN STRUCTURAL TRUSS SPACE AND SHALL BE COORDINATED WITH FINAL STRUCTURAL ARRANGEMENT. THE SHOP DRAWING SHALL BE OF THE SAME SCALE AS THE ORIGINAL CONTRACT DOCUMENT. FINAL DUCT ROUTING SHALL BE PROVIDED WITHOUT ADDITIONAL COST TO THE PROJECT.
6. CLEARANCES AROUND APPLIANCES TO ELEMENTS OF PERMANENT CONSTRUCTION, INCLUDING OTHER INSTALLED EQUIPMENT AND APPLIANCES, SHALL BE SUFFICIENT TO ALLOW INSPECTION, SERVICE, REPAIR OR REPLACEMENT WITHOUT REMOVING SUCH ELEMENTS OF PERMANENT CONSTRUCTION.
7. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER OPERATION AND CONSISTENT WITH GOOD WORKMANSHIP, SHALL BE INCLUDED IN THE ESTIMATE, THE SAME AS IF SHOWN ON DRAWINGS.
8. ALL DUCTWORK IS TO BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SMACNA MANUALS AND THE FOLLOWING SCHEDULE:
   A. RECTANGULAR DUCTS - GALVANIZED SHEET METAL WITH EXTERNAL DUCT WRAP. SEE RECTANGULAR DUCT SCHEDULE FOR DUCT GAGE. ALL DUCTS WITH 24 INCH WIDTH OR GREATER SHALL HAVE MECHANICAL FASTENERS AT A MAXIMUM OF 18 INCH CENTERS. DUCTBOARD SUCH AS 'SUPERDUCT' AS MANUFACTURED BY JOHNS MANVILLE, INTERNALLY LINED FIBERBOARD MAY BE SUBMITTED AS AN ALTERNATE. THE DUCTBOARD JOINTS SHALL BE TAPED AND MASTICED.
   B. RIGID ROUND DUCTS - GALVANIZED SHEET METAL WITH EXTERNAL INSULATION.
   C. FLEXIBLE ROUND DUCTS - FLEXIBLE, WIRE REINFORCED DUCT WITH EXTERNAL INSULATION WITH VAPOR BARRIER AND FOIL FACED. FLEX MUST BE STRETCHED TO REMOVE ACCORDION EFFECT. FLEX DUCT LENGTH SHALL NOT EXCEED 7' LENGTH.
   D. EXHAUST AIR DUCT - INSULATED IN UNCONDITIONED SPACES WITH EXTERNAL DUCT WRAP. UP TO 7", FLEXIBLE ALUMINUM, ALL LARGER SHALL BE GALVANIZED SHEET METAL.
   E. FRESH AIR DUCT - GALVANIZED SHEET METAL WITH EXTERNAL DUCT WRAP IN CONDITIONED SPACES.
9. MINIMUM INSULATION RESISTANCE FOR DUCTWORK SHALL BE AS FOLLOWS:
   A. CONDITIONED SPACES - R-4.2
   B. UNCONDITIONED SPACES - R-6.0
10. ALL DUCT SIZES INDICATE "FREE AREA" DIMENSIONS, ALL TAKE-OFFS AND DIVIDED FLOWS SHALL HAVE VOLUME DAMPERS. PROVIDE SPIN-IN COLLARS WITH INTEGRAL SCOOPS AND DAMPERS FOR ALL BRANCH TAKE- OFFS. PROVIDE TURNING VANES FOR ALL ELBOWS AND SPLITTERS.
11. FURNISH AND INSTALL ALL GRILLES, DIFFUSERS AND REGISTERS OF THE TYPE AND AT THE LOCATIONS SHOWN ON THE PLANS. ALL GRILLES, DIFFUSERS, LOUVERS, ETC. SHALL BE EXTRUDED ALUMINUM WITH BAKED WHITE ENAMEL FINISH. SPONGE RUBBER GASKETS SHALL BE INSTALLED BEHIND FLANGES OF ALL GRILLES, DIFFUSERS AND REGISTERS TO PREVENT LEAKAGE AND STREAKING. ALL GRILLES, DIFFUSERS, REGISTERS, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH FACTORY DETAILS.
12. FACTORY MADE OPPOSED BLADE DAMPERS WITH FRONT ACCESSIBLE OPERATOR AND DUCT RING SHALL BE FURNISHED FOR EACH NEW DIFFUSER.
13. PROVIDE FLEXIBLE CONNECTORS WHERE METAL DUCTWORK CONNECTS TO FANS OR AIR HANDLERS.
14. WHERE IT IS POSSIBLE TO SEE THROUGH DIFFUSERS, GRILLES OR REGISTERS TO DUCTWORK, LIGHT COLORED INSULATION OR PLENUMS, THE INTERIOR DUCTWORK OR PLENUM SHALL BE PAINTED FLAT BLACK.
15. THE REFRIGERANT LINES SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFRIGERANT LINE INSULATION SHALL BE 1" MINIMUM IN UNCONDITIONED ATTIC AREAS. COVER INSULATION AT BUILDING EXTERIOR WITH UV RESISTANT COATING. INSTALL INSULATION SECTIONS WITH COMPRESSION GLUE AT BUTT JOINTS.
16. THE HVAC CONTRACTOR IS RESPONSIBLE FOR ALL CONTROLS AND CONTROL WIRING. SEE SEQUENCE OF OPERATION.
17. ALL AIR HANDLERS TO HAVE SLOPED DRAIN PANS.
18. THE HVAC CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL CONDENSATE PIPING. CONDENSATE PIPING SHALL BE CONSTRUCTED OF PVC PIPING. EXTERIOR PVC PIPING SHALL BE COATED WITH UV PROTECTIVE PAINT. CONDENSATE PIPING LOCATED WITHIN RETURN AIR PLENUM SHALL BE CONSTRUCTED OF COPPER PIPING. ALL PIPING SHALL BE RUN TO THE BUILDING EXTERIOR TO A DRYWELL (MAXIMUM 10 TONS EACH), STORM DRAIN OR RETAINAGE AREA UNLESS OTHERWISE SHOWN ON THE PLAN. PROVIDE FULL LINE SIZE GOOSENECK MAX 5' FROM BUILDING. CONDENSATE LINES LOCATED IN UNCONDITIONED SPACES SHALL BE INSULATED.
19. WORK SHALL INCLUDE TESTING AND BALANCING OF THE HVAC SYSTEM. THE CONTRACTOR SHALL SUBMIT COPIES OF TEST AND BALANCE REPORTS SHOWING RESULTS OF BALANCING OF AIR QUANTITIES TO PLAN REQUIREMENTS. MAKE ALL ADJUSTMENTS REQUIRED TO PROVIDE ±10% DESIGN AIR FLOW.
20. WORK SHALL INCLUDE STARTUP OF ALL SYSTEMS, FURNISHING OF OPERATING AND MAINTENANCE INSTRUCTIONS, WALK THROUGH WITH MAINTENANCE CREW, AND ONE YEAR GUARANTEE, COMMENCING ON DATE OF ACCEPTANCE BY OWNER.
21. THE VENTILATION RATE PROCEDURE OF ASHRAE STANDARD 62.1 2004 HAS BEEN USED TO DETERMINE THE AMOUNT OF OUTSIDE AIR FOR THIS SPACE. ANY CHANGE IN SPACE USE, CONTAMINANTS, OR OPERATION MAY REQUIRE A REEVALUATION OF THE DESIGN AND IMPLEMENTATION OF NEEDED CHANGES.
22. THERMOSTATS, HUMIDISTATS AND CO2 SENSORS SHALL BE MOUNTED AT 50" ABOVE THE FLOOR.
23. EACH CONDITIONED SPACE SHALL BE PROVIDED WITH A MEANS OF RETURNING AIR TO THE AHU AS INDICATED ON THIS PLAN. WHERE NOT SHOWN, ACCEPTABLE METHODS INCLUDE:
   A. RETURN TRANSFER DUCT SHALL BE 1 1/2 TIMES THE CROSS SECTIONAL AREA OF THE SUPPLY DUCT ENTERING THE ROOM.
   B. TRANSFER GRILLES SHALL USE 50 SQUARE INCHES (OF GRILLE AREA) TO 100 CFM (OF SUPPLY AIR) FOR SIZING THROUGH THE WALL TRANSFER GRILLES.
   C. BOTH A. AND B. SHALL USE UNDERCUT ENTRY DOORS (MIN 1")
24. ALL EQUIPMENT EXTERIOR TO THE BUILDING SHALL BE SECURED TO WITHSTAND 160MPH WINDS.
25. MECHANICAL EQUIPMENT IDENTIFICATION: PROVIDE ENGRAVED PLASTIC LAMINATE SIGN, PLASTIC EQUIPMENT MARKER, OR STENCILED SIGNS FOR THE FOLLOWING EQUIPMENT AND OPERATIONAL DEVICES, FREE HAND LETTERING SHALL NOT BE ACCEPTED.
   A. AIR HANDLERS, CONDENSERS AND SIMILAR MOTOR DRIVEN UNITS

   LETTERING SIZE SHALL BE 1" HEIGHT (MINIMUM) AS NEEDED FOR PROPER IDENTIFICATION TEXT FOR EQUIPMENT IDENTIFICATION SIGNS SHALL INCLUDE, UNIT NAME AND NUMBER AS PROVIDED ON THE CONTRACT DRAWINGS (IE: AHU-1, CU-1, HEX-1 ETC.). IF NOT IDENTIFIED BY THE MANUFACTURER, THE CONTRACTOR SHALL PROVIDE A SIGN TO INDICATE THE LOCATION OF FILTER ACCESS ON AHU'S.

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Mechanical Electrical Plumbing Fire Protection

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SWEET SPARKMAN ARCHITECTS

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	MJE
A/E OF RECORD:	CRB
PROJECT NO:	19-523

SHEET TITLE:
MECHANICAL NOTES AND SCHEDULES

SHEET No.:
M1.4

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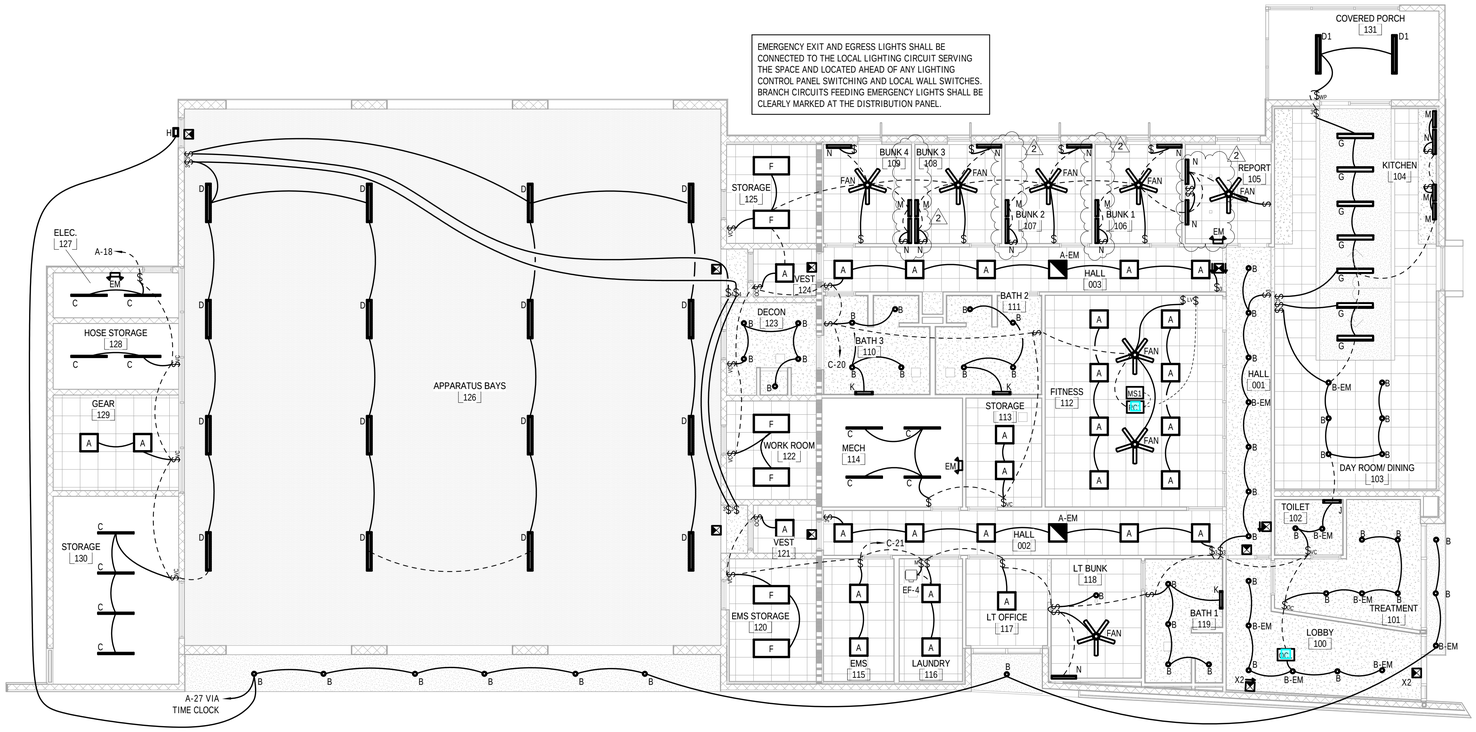
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AB0666A0B101435F...
8/26/2020

EMERGENCY EXIT AND EGRESS LIGHTS SHALL BE CONNECTED TO THE LOCAL LIGHTING CIRCUIT SERVING THE SPACE AND LOCATED AHEAD OF ANY LIGHTING CONTROL PANEL SWITCHING AND LOCAL WALL SWITCHES. BRANCH CIRCUITS FEEDING EMERGENCY LIGHTS SHALL BE CLEARLY MARKED AT THE DISTRIBUTION PANEL.



1 ELECTRICAL LIGHTING PLAN
1/8" = 1'-0"

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N

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET 05.22.20

REV	DESCRIPTION	DATE
2	ASI 04	08.26.20
1	ASI 03	08.20.20

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE: ELECTRICAL LIGHTING PLAN

SHEET No.: **E1.0**

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8/26/2020

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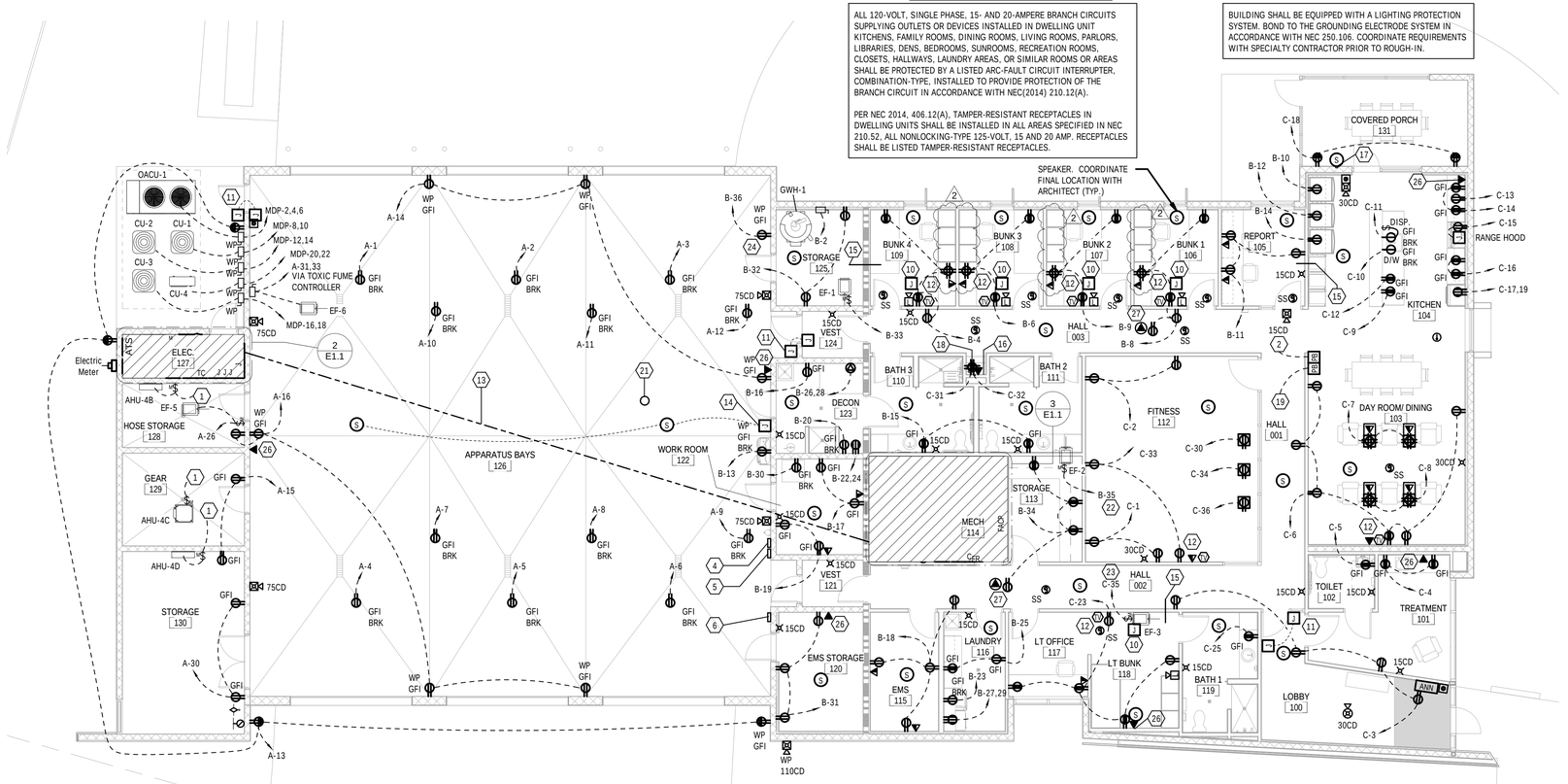
TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE FLORIDA BUILDING CODE AND THE APPLICABLE NFPA LIFE SAFETY CODE AS DETERMINED AND INTERPRETED IN ACCORDANCE WITH CHAPTERS 553, AND 633, FLORIDA STATUTES AND LOCAL ORDINANCES.

GFCI PROTECTION MAY BE PROVIDED VIA GFCI RECEPTACLES OR GFCI CIRCUIT BREAKERS WHERE RECEPTACLES ARE NOT READILY ACCESSIBLE.

ALL 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT IN ACCORDANCE WITH NEC(2014) 210.12(A).

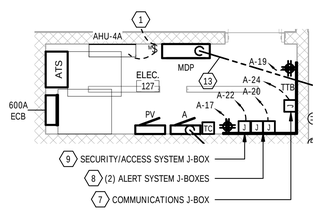
PER NEC 2014, 406.12(A), TAMPER-RESISTANT RECEPTACLES IN DWELLING UNITS SHALL BE INSTALLED IN ALL AREAS SPECIFIED IN NEC 210.52, ALL NONLOCKING-TYPE 125-VOLT, 15 AND 20 AMP. RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.

BUILDING SHALL BE EQUIPPED WITH A LIGHTING PROTECTION SYSTEM. BOND TO THE GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH NEC 250.106. COORDINATE REQUIREMENTS WITH SPECIALTY CONTRACTOR PRIOR TO ROUGH-IN.

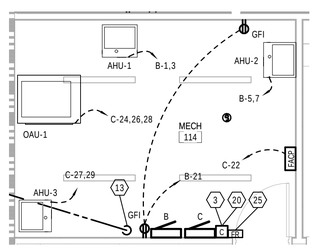


KEYNOTES

1. CONNECT TO UNIT CU-4 FOR POWER.
2. CONNECT TO CONTACTOR LOCATED IN THE ELECTRICAL ROOM SO PUSH BUTTON SHUTS OFF RANGE AND OVENS.
3. CONNECT TO PUSH BUTTON IN KITCHEN AREA.
4. DOOR OPENER MAIN CONTROL STATION. 12"X12"X4" SURFACE MOUNTED ENCLOSURE WITH HINGED COVER AND SCREW LATCH FOR DOOR OPENER CONTROL STATIONS. INSTALL CONTROL STATIONS TO EXTERIOR OF COVER AND LABEL ACCORDINGLY (COORDINATE WITH OWNER). INSTALL PHENOLIC LABELS WITH 1/8" BLACK LETTERS ENGRAVED ON WHITE BASE. ARRANGE CONTROL STATIONS SUCH THAT ALL EXIT DOOR CONTROLLERS ARE ALIGNED ABOVE THE CORRESPONDING ENTRY DOOR CONTROLLERS AND NUMBERED IN ASCENDING ORDER FROM LEFT TO RIGHT.
5. TRAFFIC SIGNAL CONTROL STATION. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
6. GENERATOR ANNUNCIATOR PANEL. COORDINATE LOCATION, MOUNTING HEIGHT, AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.
7. 8" X 8" JUNCTION BOX FOR COMMUNICATIONS CABLING. ROUTE (2) 2" C. INTO ACCESSIBLE CEILING SPACE. PROVIDE PULL-STRINGS. COORDINATE DEVICE LOCATION AND REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.
8. JUNCTION BOX IN WALL FOR FIREMAN ALERTING SYSTEM MASTER CONTROL UNIT. PROVIDE 2"C IN WALL UP INTO ACCESSIBLE CEILING SPACE. COORDINATE LOCATION, CONDUIT SIZES, AND REQUIREMENTS WITH SHOP DRAWINGS PRIOR TO ROUGH-IN.
9. POWER CONNECTIONS FOR SECURITY/ACCESS CONTROL SYSTEMS. COORDINATE FINAL EQUIPMENT LOCATIONS AND POWER REQUIREMENTS WITH LOW-VOLTAGE CONTRACTOR PRIOR TO ROUGH-IN.
10. JUNCTION BOX IN CEILING FOR FIREMAN ALERTING SYSTEM RED LIGHT. (SYSTEM AND DEVICES BY OTHERS.) ALL EXPOSED WIRING TO BE ROUTED IN CONDUIT. COORDINATE CONDUIT SIZES, DEVICE LOCATIONS, AND REQUIREMENTS WITH SHOP DRAWINGS PRIOR TO ROUGH-IN.
11. PROVIDE FLUSH MOUNTED SINGLE GANG JUNCTION BOX AT DOOR EXTERIOR (CARD READER) AND 4" X 4" JUNCTION BOX ABOVE ACCESS CONTROLLED DOOR (ELECTRIC STRIKE/SECURITY CONTACT). INSTALL (1) 1" C. FROM JUNCTION BOX ABOVE DOOR TO TELECOM. ROOM. PROVIDE CONDUIT BUSHINGS AND PULL-STRINGS. COORDINATE DOOR JAMB DEVICE JUNCTION BOXES, PASS-THROUGH CABLING, AND FINAL ROUGH-IN REQUIREMENTS WITH SECURITY, DOOR CONTRACTOR, AND OWNER PRIOR TO ROUGH-IN.
12. VERIFY MOUNTING HEIGHT AND LOCATION WITH OWNER PRIOR TO ROUGH-IN.
13. ROUTE 3" CONDUIT WITH PULL STRING UNDERGROUND FROM MDP AND STUB UP IN MECHANICAL ROOM. CAP FOR FUTURE USE.
14. WALL MOUNTED VOLUME CONTROL FOR ROOM SPEAKER. PROVIDE 3/4" CONDUIT UP TO CEILING SPACE.
15. PROVIDE 3" RIGID CONDUIT CHASE FOR ALERT SYSTEM.
16. PROVIDE 3" RIGID CONDUIT TO CEILING FOR SPEAKER/ALERT SYSTEM.
17. PROVIDE 3/4" CONDUIT ABOVE KITCHEN CEILING SPACE FOR SPEAKER/ALERT WIRING.
18. PROVIDE 4 QUAD RECEPTACLES AND 8 DATA OUTLETS. VERIFY LOCATIONS AND MOUNTING HEIGHTS WITH OWNER PRIOR TO ROUGH-IN.
19. CONNECT MOMENTARY CONTACT PUSH BUTTON TO CONTACTOR LOCATED IN THE ELECTRICAL ROOM THAT SHUTS OFF THE RANGE AND OVENS SO IT RESETS THE CONTACTOR TURNING ON THE POWER BACK ON TO RANGE AND OVENS.
20. CONNECT TO NORMALLY CLOSED CONTACT ON THE HEAD END ALERT SYSTEM UNIT SO IT WILL ALSO SHUT OFF RANGE AND OVENS WHEN SYSTEM IS IN ALERT MODE.
21. PROVIDE 3" RIGID CONDUIT THOUGH ROOF WITH FLASHING AND WEATHERHEAD INCLUDE GROUND CONNECTION FOR (2) ANTENNA AND (1) WEATHER STATION THAT WILL BE MOUNTED ON THE 3" RIGID CONDUIT MAST. VERIFY WITH EQUIPMENT SUPPLIER THE HEIGHT ABOVE ROOF FOR THE 3" RIGID CONDUIT AND WEATHERHEAD.
22. INTERCONNECT TO RR 110 AND 111 LIGHT SWITCH VIA RELAY.
23. INTERCONNECT TO RR 102 AND 119 LIGHT SWITCH VIA RELAY.
24. COORDINATE FINAL LOCATION OF IRRIGATION CONTROLLER WITH OWNER.
25. PROVIDE FIRE ALARM RELAY TO SHUT OFF RANGE AND OVENS WHEN FIRE ALARM SYSTEM IS IN ALARM.
26. DUAL DATA PORTS MOUNTED AT 36". VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.
27. POWER AND DATA ABOVE CEILING FOR WAP. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.



2 ENLARGED ELECTRICAL ROOM PLAN
1/4" = 1'-0"



3 ENLARGED MECHANICAL ROOM PLAN
1/4" = 1'-0"

1 ELECTRICAL POWER PLAN
1/8" = 1'-0"

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SWEET SPARKMAN ARCHITECTS

DANIEL SHEPARD ENGINEER No.71536 STATE OF FLORIDA PROFESSIONAL ENGINEER

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
2	ASI 04	08.26.20
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

SCALE: As indicated
PROJECT MANAGER: CRB
DRAWN BY: RLS
A/E OF RECORD: JDS
PROJECT NO: 19-523

SHEET TITLE:
ELECTRICAL POWER PLAN

SHEET No.:
E1.1

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ELECTRICAL IDENTIFICATION NOTES

PRODUCTS AND MATERIALS
ALL LABELS SHALL BE PERMANENT AND MACHINE-PRODUCED. HANDWRITTEN LABELS SHALL NOT BE ACCEPTABLE, UNLESS OTHERWISE INDICATED.

CONDUCTOR/CABLING LABELS: ALL CONDUCTOR/CABLING LABELS SHALL BE CONSTRUCTED OF TRANSPARENT VINYL OR VINYL CLOTH, SELF-LAMINATING TAPE. FLAG-TYPE LABELS SHALL NOT BE ACCEPTABLE. LABELS SHALL BE SIZED TO ACCOMMODATE THAT CIRCUMFERENCE OF THE CONDUCTOR/CABLE.

CONDUCTOR/CABLING IDENTIFICATION TAPE: CONDUCTOR/CABLING IDENTIFICATION TAPE SHALL BE SCOTCH #35 VINYL ELECTRICAL TAPE, COLORED IN ACCORDANCE WITH THE SYSTEM VOLTAGE AND TYPE OF CONDUCTOR.

NAMEPLATES: NAMEPLATES SHALL BE PHENOLIC, ENGRAVED TYPE. EMBOSSED TAPE SHALL NOT BE ACCEPTABLE. NORMAL SYSTEMS SHALL UTILIZE WHITE LETTERS ON A BLACK BACKGROUND. EMERGENCY SYSTEMS SHALL UTILIZE WHITE LETTERS ON A RED BACKGROUND. LEGALLY-REQUIRED STANDBY SYSTEMS SHALL UTILIZE WHITE LETTERS ON A BLUE BACKGROUND. OPTIONAL STANDBY SYSTEMS SHALL UTILIZE WHITE LETTERS ON A YELLOW BACKGROUND.

ADHESIVE LABELS: ADHESIVE LABELS SHALL NOT BE ACCEPTABLE, EXCEPT FOR THE IDENTIFICATION OF CONDUCTORS/CABLING, DEVICE FACEPLATES, AND JUNCTION BOXES SIZED 8" SQ. OR SMALLER.

GENERAL
WHERE MULTIPLE SYSTEM VOLTAGES (E.G. 480/277V, 208/120V, ETC.) ARE UTILIZED IN THE SAME BUILDING, ALL DISCONNECT SWITCHES, JUNCTION BOXES, PANELBOARDS, SWITCHBOARDS, TRANSFORMERS, AND MISCELLANEOUS EQUIPMENT SHALL BE LABELED TO INDICATE THE SYSTEM VOLTAGE, IN ADDITION TO THE REQUIREMENTS LISTED BELOW.

CLEAN ALL MOUNTING SURFACES PRIOR TO AFFIXING LABELS. UTILIZE THE LABEL MANUFACTURER'S RECOMMENDED CLEANING AGENT. INSTALL LABELS NEATLY AND FIRMLY AND IN ACCORDANCE WITH THE LABEL MANUFACTURER'S RECOMMENDATIONS.

AFFIX NAMEPLATES TO EQUIPMENT UTILIZING SCREWS, RIVETS, OR OTHER MATERIALS APPROVED BY THE MANUFACTURER.

PROVIDE A PLACARD AT EACH SERVICE DISCONNECT WITH THE WORDS "SERVICE DISCONNECT." LOCATE ABOVE THE MAIN DISCONNECT SWITCH OR CIRCUIT BREAKER.

JUNCTION BOX AND PULL BOX IDENTIFICATION
JUNCTION BOXES AND PULL BOXES SHALL BE IDENTIFIED UTILIZING SPRAY-PAINTED COVERS AS FOLLOWS:

SECONDARY POWER - 480Y/277V	BROWN
SECONDARY POWER - 208Y/120V, 240/120V	WHITE
EMERGENCY SYSTEM - LIFE SAFETY BRANCH (NEC 700) - 480Y/277V	BROWN/RED
EMERGENCY SYSTEM - LIFE SAFETY BRANCH (NEC 700) - 208Y/120V	WHITE/RED
LEGALLY REQUIRED STANDBY SYSTEM (NEC 701) - 480Y/277V	BROWN/BLUE
LEGALLY REQUIRED STANDBY SYSTEM (NEC 701) - 208Y/120V	WHITE/BLUE
OPTIONAL STANDBY SYSTEM (NEC 702) - 480Y/277V	BROWN/YELLOW
OPTIONAL STANDBY SYSTEM (NEC 702) - 208Y/120V	WHITE/YELLOW
FIRE ALARM	RED
TEMPERATURE CONTROL	GREEN
DOOR CONTROL AND DOOR MONITORING SYSTEM	ORANGE
SOUND AND INTERCOM SYSTEMS	GRAY
VIDEO SURVEILLANCE SYSTEM/MATV	YELLOW
DATA	BLUE JUNCTION

BOXES AND PULL BOXES FOR POWER CONDUCTORS SHALL BE LABELED WITH CIRCUIT NUMBERS AND SOURCE PANELBOARD DESIGNATIONS. JUNCTION BOXES AND PULL BOXES FOR OTHER SYSTEMS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE SHOP DRAWINGS FOR THEIR RESPECTIVE SYSTEMS.

EXPOSED JUNCTION BOXES EXCEEDING A SIZE OF 8" SQ. SHALL BE IDENTIFIED WITH PHENOLIC, ENGRAVED PLACARDS. LETTERING HEIGHT SHALL BE A MINIMUM OF 1/2". IDENTIFY THE SYSTEM SOURCE(S) AND LOAD(S) SERVED.

EXPOSED JUNCTION BOXES 8" SQ. AND SMALLER SHALL BE IDENTIFIED WITH ADHESIVE LABELS.

JUNCTION BOXES INSTALLED ABOVE AN ACCESSIBLE CEILING SHALL BE PERMITTED TO BE IDENTIFIED VIA PERMANENT MARKER. LETTERING SHALL BE NEAT AND LEGIBLE.

COMMUNICATIONS CONDUIT LABELING
ALL CONDUITS INSTALLED BETWEEN ELECTRICAL AND/OR INFORMATION TECHNOLOGY (I.T.) ROOMS SHALL BE LABELED IN ACCORDANCE WITH ANSI/TIA/EIA-606. BOTH TERMINATION POINTS OF THE CONDUITS SHALL BE IDENTIFIED.

ALL LABELS SHALL BE MACHINE-PRODUCED. HANDWRITTEN LABELS SHALL NOT BE ACCEPTABLE.

THE LABEL SHALL INDICATE THE LOCATION OF THE TERMINATION POINT OF THE CONDUIT AND A UNIQUE IDENTIFICATION NUMBER.

POWER AND LOW-VOLTAGE CONDUCTOR/CABLE IDENTIFICATION
PROVIDE CONDUCTOR/CABLE LABELS ON EACH CONDUCTOR IN PANELBOARD GUTTERS, JUNCTION BOXES, PULL BOXES, AND OUTLET BOXES AT LOAD CONNECTIONS. IDENTIFY THE BRANCH CIRCUIT OR FEEDER NUMBER FOR ALL POWER AND LIGHTING BRANCH CIRCUITS. FOR LOW-VOLTAGE SYSTEMS, INDICATE THE WIRE NUMBER IN ACCORDANCE WITH SHOP DRAWINGS.

ALL CONDUCTORS/CABLING SHALL BE LABELED WITHIN 2 TO 4 INCHES OF TERMINATION. EACH END OF A CONDUCTOR/CABLE SHALL BE LABELED IMMEDIATELY UPON TERMINATION.

WIRING DEVICE IDENTIFICATION
WALL SWITCHES, RECEPTACLES, OCCUPANCY SENSORS, DEVICE PLATES, BOX COVERS, POKE-THROUGH FITTINGS, ACCESS FLOOR BOXES, PHOTOCELLS, AND TIME CLOCKS SHALL BE IDENTIFIED WITH CIRCUIT NUMBERS AND SOURCE. IN EXPOSED SPACES, IDENTIFICATION SHALL BE MADE INSIDE OF DEVICE COVERS. USE MACHINE-PRODUCED ADHESIVE LABELS OR PERMANENT MARKER. HANDWRITTEN LABELS SHALL BE NEAT AND LEGIBLE.

NAMEPLATES FOR ELECTRICAL EQUIPMENT
PROVIDE NAMEPLATES OF THE MINIMUM LETTER HEIGHT AS LISTED BELOW.

DISTRIBUTION PANELBOARDS, SUBPANELS, AND SWITCHBOARDS: 1 INCH NAME PLATE MIN. IDENTIFY THE SYSTEM VOLTAGE, SOURCE, AND LOCATION OF THE SOURCE. FOR 240V/3PH SYSTEMS: PROVIDE PANELBOARD IDENTIFICATION AS REQUIRED BY 2014 NEC SECTION 408.3; PANELS SHALL BE MARKED "CAUTION B PHASE HAS 208 VOLTS TO GROUND" WITH PHENOLIC ENGRAVED LABEL.

ENCLOSED CIRCUIT BREAKERS AND DISCONNECT SWITCHES: 1/2 INCH NAME PLATE MIN. IDENTIFY THE SOURCE CIRCUIT, LOAD SERVED, AND LOCATION.

TRANSFORMERS: 1 INCH NAME PLATE MIN. IDENTIFY PRIMARY AND SECONDARY VOLTAGES, PRIMARY SOURCE AND LOCATION, SECONDARY LOAD AND LOCATION.

PANELBOARD/SWITCHBOARD DIRECTORIES
SHALL BE TYPEWRITTEN AND COVERED WITH CLEAR PLASTIC WITH METAL FRAMING.

ELECTRICAL COMMISIONING

BUILDING COMMISSIONING
GENERAL REQUIREMENTS:

THE 2017 FLORIDA BUILDING CODE - "ENERGY CONSERVATION" PROVIDES THE REQUIREMENTS FOR COMMERCIAL BUILDING EFFICIENCY. THE CODE DEFINES THE ENERGY EFFICIENCY REQUIREMENTS FOR THE ELECTRICAL POWER AND LIGHTING SYSTEM, TOTAL BUILDING PERFORMANCE, AND COMMISSIONING. THIS CODE CHAPTER REQUIRES A CERTAIN SET OF ACTIVITIES AND PROCESSES TO BE ADMINISTERED AND DOCUMENTED IN ACCORDANCE WITH DEFINED STANDARDS. THIS SPECIFICATION IS THE OWNER'S MEANS OF VERIFYING THAT THE PLANNING, DESIGN, CONSTRUCTION AND OPERATION OF ELECTRICAL SYSTEMS ACHIEVE THEIR GOALS AND DELIVER A HIGH QUALITY BUILDING WITH MAXIMUM ASSET VALUES.

COMMISSIONING OF THE BUILDING ELECTRICAL POWER AND LIGHTING SYSTEMS AS PER SECTION 408 SHALL BE AS DEFINED HEREIN, PRIOR TO PASSING THE FINAL ELECTRICAL INSPECTION, THE CONTRACTOR SHALL PROVIDE EVIDENCE OF SYSTEM COMMISSIONING AND COMPLETION IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE DOCUMENTED PERFORMANCE CRITERIA OF SECTION C405 AND SUBMIT TO THE REGISTERED DESIGN PROFESSIONAL (ENGINEER OF RECORD) FOR APPROVAL, AND TO THE BUILDING OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATION OF OCCUPANCY.

ELECTRICAL SYSTEMS TO BE COMMISSIONED INCLUDE:
ALL AUTOMATIC CONTROLS FOR INTERIOR AND EXTERIOR LIGHTING/ELECTRICAL SYSTEMS SHALL BE SUBJECT TO THESE REQUIREMENTS.

SCOPE:
FUNCTIONAL TESTING PRIOR TO PASSING FINAL INSPECTION, THE REGISTERED DESIGN PROFESSIONAL SHALL PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE THAT CONTROL AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURE'S INSTRUCTIONS. FUNCTIONAL TESTING SHALL BE IN ACCORDANCE WITH SECTIONS C408.3.1.1 THRU C408.3.1.3 FOR THE APPLICABLE CONTROL TYPE.

THE PROJECT GENERAL CONTRACTOR SHALL HIRE A FIRM QUALIFIED IN THE TESTING OF LIGHTING AND ELECTRICAL SYSTEM PERFORMANCE FUNCTIONALITY OF THE SYSTEMS LISTED IN THIS SPECIFICATION. THE TESTING FIRM SHALL DETERMINE THE EXTENT AND SCOPE OF THE SYSTEMS REQUIRING COMMISSIONING NEEDED ON A PROJECT BASIS.

ALL TEST DATA SHALL BE PROVIDED TO THE REGISTERED DESIGN PROFESSIONAL FOR FINAL REVIEW AND APPROVAL PRIOR TO THE FINAL INSPECTION AND WALK THROUGH OF THE ARCHITECTURAL AND/OR ENGINEERING TEAM.

A FUNCTIONAL PERFORMANCE TEST SHALL BE CONDUCTED TO DEMONSTRATE THE INSTALLATION AND OPERATION OF COMPONENTS, SYSTEMS, AND SYSTEM-TO-SYSTEM INTERFACING RELATIONSHIPS IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS SUCH THAT OPERATION, FUNCTION, AND MAINTENANCE SERVICEABILITY FOR EACH OF THE COMMISSIONED SYSTEMS IS CONFIRMED. TESTING SHALL INCLUDE ALL MODES AND SEQUENCE OF OPERATION, INCLUDING UNDER FULL-LOAD, PART-LOAD AND THE FOLLOWING EMERGENCY CONDITIONS:
1. ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION OR MANUFACTURES OPERATING INSTRUCTIONS
2. REDUNDANT OR AUTOMATIC BACK-UP MODE
3. PERFORMANCE OF LIGHTING OVERRIDE
4. MODE OF OPERATION UPON A LOSS OF POWER AND RESTORATION OF POWER.

THE GENERAL CONTRACTOR SHALL:
1. INCORPORATE COMMISSIONING ACTIVITIES INTO THE CONSTRUCTION SCHEDULE.
2. FACILITATE COOPERATION OF SUB-CONTRACTORS IN COMMISSIONING WORK.
3. PROVIDE SUB-CONTRACTOR ASSISTANCE IN OPERATING EQUIPMENT TO BE COMMISSIONED.
4. INSURE EQUIPMENT START-UP IS COMPLETE PRIOR TO BEGINNING THE COMMISSIONING PROCESS.
5. WORK WITH SUB-CONTRACTORS IN DEVELOPING A TRAINING SCHEDULE AND PLAN FOR APPROVAL BY THE OWNER.
6. VERIFY THE PRE-FUNCTIONAL CHECKLISTS ARE COMPLETED PRIOR TO SYSTEM TESTING.
7. VERIFY THE EQUIPMENT START-UP AND CONTROLS VERIFICATIONS ARE COMPLETE.
8. INSURE RESOLUTION OF NON-COMPLIANT AND DEFICIENT CONSTRUCTION RELATED ITEMS IDENTIFIED BY THE COMMISSIONING TEAM.
9. ASSIST IN WARRANTY REVIEW OF SYSTEM AND EQUIPMENT PERFORMANCE.

THE SUB-CONTRACTORS SHALL:
1. PREPARE OWNER TRAINING PLAN FOR INSTALLED EQUIPMENT AND CONTROLS.
2. PROVIDE NECESSARY PERSONNEL TO ASSIST THE ELECTRICAL TESTING AGENT IN HIS RESPONSIBILITIES AS DESCRIBED LATER IN THIS SPECIFICATION.
3. PREPARE AND SCHEDULE EQUIPMENT START-UP WITH THE GENERAL CONTRACTOR AND ELECTRICAL TESTING AGENT.
4. EXECUTE ALL REQUIRED EQUIPMENT AND SYSTEM TESTING AS MANDATED BY 2017 FLORIDA BUILDING CODE, PROJECT PLANS AND SPECIFICATIONS.
5. ENSURE INSTALLATION WORK IS COMPLETE AND IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND READY FOR FUNCTION PERFORMANCE TESTING.
6. PROVIDE CERTIFIED AND CALIBRATED INSTRUMENTATION REQUIRED TO TAKE MEASUREMENTS OF SYSTEM AND EQUIPMENT PERFORMANCE DURING THE FUNCTIONAL PERFORMANCE TESTING.
7. PREPARE CLOSEOUT DOCUMENTS INCLUDING BUT NOT LIMITED TO:
   a. AS-BUILT DRAWINGS
   b. WARRANTIES.
   c. OPERATIONAL AND MAINTENANCE MANUALS FOR INSTALLED EQUIPMENT.
   d. DELIVERY OF ANY SPARE PARTS REQUIRED BY THE PROJECT SPECIFICATION.

THE CODE OFFICIAL SHALL BE PERMITTED TO REQUIRE THAT A COPY OF THE FINAL COMMISSIONING REPORT BE MADE AVAILABLE FOR HIS/HER REVIEW.

CONSTRUCTION DOCUMENTS SHALL INCLUDE THE LOCATION ON EACH PIECE OF EQUIPMENT.

AN OPERATION AND MAINTENANCE MANUAL SHALL BE PROVIDED AND INCLUDE ALL OF THE FOLLOWING:
1. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
2. MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.

A REPORT OF TEST PROCEDURES AND RESULTS IDENTIFIED AS "FINAL COMMISSIONING REPORT" SHALL BE DELIVERED TO THE BUILDING OWNER AND SHALL INCLUDE:
1. RESULTS OF FUNCTIONAL PERFORMANCE TESTS.
2. DISPOSITION OF DEFICIENCIES FOUND DURING TESTING, INCLUDING DETAILS OF CORRECTIVE MEASURES USED OR PROPOSED.
3. FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING THE COMMISSIONING PROCESS INCLUDING MEASURABLE CRITERIA FOR TEST ACCEPTANCE, PROVIDED HEREIN FOR REPEATABILITY.

CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS SHALL COMPLY AS FOLLOWS:
1. TESTING SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. AN APPROVED THIRD PARTY INDEPENDENT FROM THE DESIGN OR CONSTRUCTION OF THE PROJECT SHALL BE RESPONSIBLE FOR THE FUNCTIONAL TESTING AND SHALL PROVIDE DOCUMENTATION TO THE OWNER, REGISTERED DESIGN PROFESSIONAL AND CODE OFFICIAL CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE PROVISIONS OF SECTION C405. WHERE OCCUPANT SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, PHOTOSENSORS OR DAYLIGHTING CONTROLS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:
   a. CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE AS PER FBC-C408.3.
   b. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF AS PER THE OWNER SCHEDULE AND FBC-C408.3.1.2.
   c. CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR PHOTOSENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE AS SPECIFIED AND PER C408.3.

LOW VOLTAGE LIGHTING CONTROL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
$V	WALL SWITCH nLIGHT: nPODM XX, MOUNT 48" AFF U.O.N.	MS1	DUAL TECHNOLOGY CEILING MOUNTED MOTION SENSOR. nLIGHT: nCM PDT 10 (360° ≈ 24FT AT 9'AFF)
$V2	WALL SWITCH 2 BUTTON nLIGHT: nPODM 2P XX, MOUNT 48" AFF	MS2	WALL/CEILING MOUNTED MOTION SENSOR. nLIGHT: nCM PDT 16 KIT (120° ≈ 40FT AT 9'AFF)
$V3	WALL SWITCH 2 BUTTON nLIGHT: nPODM XX + nPODM 2P XX, MOUNT 48" AFF	MS3	WALL/CEILING MOUNTED MOTION SENSOR. nLIGHT: nHW 13 (LONG-RANGE NARROW BEAM 90' AT 9' AFF)
$V4	WALL SWITCH 2 BUTTON nLIGHT: nPODM 4P XX, MOUNT 48" AFF	DS	CEILING MOUNTED DAYLIGHT SENSOR. nLIGHT: nCM ADCX
$V3	WALL SWITCH 2 BUTTON nLIGHT: nPODM 4P XX (2X), MOUNT 48" AFF	RC1	0-10V ROOM DIMMING CONTROLLER (1 SWITCHLEG). nLIGHT: nPP16D
$DIM	WALL SWITCH 2 BUTTON nLIGHT: nPODM DX XX, MOUNT 48" AFF	RC2	0-10V ROOM DIMMING CONTROLLER (2 SWITCHLEGS). nLIGHT: nPP16D (2X)
$P	WALL SWITCH OCCUPANCY SENSOR, nLIGHT: nWSX LV XX, MOUNT 48" AFF U.O.N.	RC1	ON/OFF ROOM CONTROLLER (1 SWITCHLEG). nLIGHT: nPP16
$D	WALL SWITCH DUAL TECH. OCCUPANCY SENSOR, nLIGHT: nWSX PDT LV XX, MOUNT 48" AFF U.O.N.	RC2	ON/OFF ROOM CONTROLLER (2 SWITCHLEGS). nLIGHT: nPP16 (2X)
$DC	LOW VOLTAGE DIMMING CONTROL STATION, TACTOUCH TT-L6 SERIES, MANUAL ON/AUTO OFF. PROVIDE WITH COMPATIBLE POWERPACK	RD1	FORWARD PHASE DIMMING CONTROLLER (1 SWITCHLEG). nLIGHT: nSP5 PCD XX (DIMMING TYPE TO BE SPECIFIED)
		RD2	FORWARD PHASE DIMMING CONTROLLER (2 SWITCHLEGS). nLIGHT: nSP5 PCD XX (2X) (DIMMING TYPE TO BE SPECIFIED)
		RC1	ON/OFF LOAD CONTROLLER (1 SWITCHED) nLIGHT: nPP20 PL

NOTES:
1. CONTROLS ARE INDICATED SCHEMATICALLY AND DIAGRAMMATICALLY. ELECTRICAL CONTRACTOR SHALL VERIFY REQUIRED LOCATIONS & MOUNTING HEIGHTS OF ALL LIGHTING CONTROLS PRIOR TO ROUGH-IN WITH MANUFACTURERS WRITTEN INSTALLATION MANUALS AND INSTRUCTIONS.
2. COORDINATE AND PROVIDE MOTION SENSOR MINIMUM DISTANCE FROM HVAC REGISTERS WITH MANUFACTURERS LITERATURE.
3. ALL ROOM CONTROLLERS SHALL BE MOUNTED IN AN ACCESSIBLE CEILING SPACE AS REQUIRED, UNLESS OTHERWISE NOTED.
4. MANUFACTURERS SHOWN IN THIS LEGEND ARE "BASIS OF DESIGN" AND "OR EQUAL" DEVICES MAY BE SUBMITTED FOR APPROVAL.

CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTROLS VENDOR THE TYPE, NUMBER, AND PLACEMENT OF SENSORS TO PROVIDE A SATISFACTORY OPERATIONAL SYSTEM AT NO ADDITIONAL COST TO THE OWNER. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAKE ALL PROPER ADJUSTMENTS TO ASSURE OWNER'S SATISFACTION WITH THE OCCUPANCY SENSOR SYSTEM. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS AS REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE AREA.

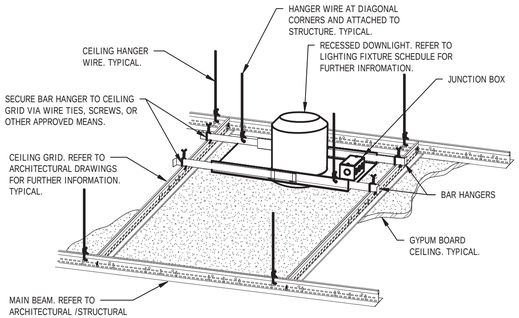
ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
$	SINGLE POLE SWITCH, MOUNT 48" AFF U.O.N.
$3, $4	THREE-WAY/FOUR-WAY SWITCH RESPECTIVELY, MOUNT 48" AFF U.O.N.
$M	MOTOR-RATED SWITCH, SINGLE/DOUBLE POLE AS INDICATED ON PLANS
$D	SLIDE DIMMER W/PRESET ON/OFF SWITCH, MATCH DIMMER RATING WITH ASSOCIATED LOAD, MOUNT 48" AFF U.O.N.
$T	SPRINGWOUND TIMER SWITCH, INTERMATIC "F"-SERIES, MOUNT 48" AFF U.O.N.
$OC	WALL SWITCH OCCUPANCY SENSOR (DUAL), LEGRAND "RW3U600" (24'W X 25'L), MOUNT 48" AFF U.O.N.
$OC3	WALL SWITCH OCCUPANCY SENSOR 3-WAY (DUAL), LEGRAND "RW3U600" (24'W X 25'L), MOUNT 48" AFF U.O.N.
$OC4	WALL SWITCH OCCUPANCY SENSOR 4-WAY (DUAL), LEGRAND "RW3U600" (24'W X 25'L), MOUNT 48" AFF U.O.N.
$VC	WALL SWITCH VACANCY SENSOR (DUAL), LEGRAND "RW3U600" (24'W X 25'L), MOUNT 48" AFF U.O.N.
$VC3	WALL SWITCH VACANCY SENSOR 3-WAY (DUAL), LEGRAND "RW3U600" (24'W X 25'L), MOUNT 48" AFF U.O.N.
$VC4	WALL SWITCH VACANCY SENSOR 4-WAY (DUAL), LEGRAND "RW3U600" (24'W X 25'L), MOUNT 48" AFF U.O.N.
$DV	WALL SWITCH DIMMING VACANCY SENSOR (DUAL), LEGRAND "DW-311", MOUNT 48" AFF U.O.N.
RCM	CEILING MOUNT OCCUPANCY SENSOR (120-277V), LEGRAND "DT-355" (360 DEG 25'W), MOUNT 8' AFF U.O.N.
$K	KEY SWITCH, MOUNT 48" AFF U.O.N.
$C	COMBINATION FAN SPEED CONTROL & FAN LIGHT SWITCH, MOUNT 48" U.O.N.
	SIMPLEX RECEPTACLE, MOUNT 18" AFF U.O.N.
	DUPLEX RECEPTACLE, MOUNT 18" AFF U.O.N.
	DUPLEX RECEPTACLE, MOUNT 42" AFF (48" AFF IN TOILETS/UTILITY CLOSETS) U.O.N.
	SWITCHED SPLIT-WIRE DUPLEX RECEPTACLE, MOUNT 18" AFF U.O.N.
	FLOOR MOUNTED DUPLEX RECEPTACLE. REFER TO PLANS FOR SIZE & CONFIGURATION.
	FLOOR MOUNTED SWITCHED SPLIT-WIRE DUPLEX RECEPTACLE. REFER TO PLANS FOR SIZE & CONFIGURATION.
	QUADRAPLEX RECEPTACLE, MOUNT 18" AFF U.O.N.
	QUADRAPLEX RECEPTACLE, MOUNT 42" AFF U.O.N.
	SWITCHED SPLIT-WIRE QUADRAPLEX RECEPTACLE, MOUNT 18" AFF U.O.N.
	FLOOR MOUNTED QUADRAPLEX RECEPTACLE. REFER TO PLANS FOR SIZE & CONFIGURATION.
	FLOOR MOUNTED SWITCHED SPLIT-WIRE QUADRAPLEX RECEPTACLE. REFER TO PLANS FOR SIZE & CONFIGURATION.
	1Ø, 208/240-VOLT RECEPTACLE, MOUNT 18" AFF U.O.N.
	SPECIAL PURPOSE RECEPTACLE, MOUNT 18" AFF U.O.N.
	BUILDING EXTERIOR/ROOF-MOUNTED WEATHER-RESISTANT DUPLEX RECEPTACLE, MOUNT 18" AFF U.O.N. DEVICE SHALL INCLUDE WEATHERPROOF BACK-BOX WITH DIE-CAST, WEATHERPROOF IN-USE LOCKING COVER - INTERMATIC WP3110MXD. RECEPTACLE SHALL BE G.F.I. PROTECTED EITHER AT THE RECEPTACLE OR FROM THE CIRCUIT BREAKER IN THE PANELBOARD SERVING CKT. IF TOTAL BRANCH CIRCUIT ONE-WAY LENGTH IS GREATER THAN 200', UTILIZE GFCI RECEPTACLES IN PLACE OF GFCI BREAKER (PER MANUFACTURER RECOMMENDATIONS).
RCR	RECEPTACLE CONTROL RELAY
▽	TELEPHONE OUTLET - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESSIBLE CEILING. PROVIDE PULLSTRING.
▼	DATA OUTLET - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESSIBLE CEILING. PROVIDE PULLSTRING.
▽	TELECOM OUTLET(DATA/TELEPHONE) - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESSIBLE CEILING. PROVIDE PULLSTRING.
	FLOOR/CEILING-MOUNTED TELECOM OUTLET. REFER TO PLANS FOR BOX TYPE, CONDUIT SIZE/QUANTITY & CONFIGURATION.
TV	CABLE TELEVISION OUTLET - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESS. CLG. PROVIDE PULLSTRING.
TTB	TTB (TELEPHONE TERMINAL BOARD) MARINE PLYWOOD BACKBOARD 3/4"x4'x4' PAINTED W/FIRE RETARDANT GRAY PAINT. PROVIDE (2) 4" CONDUITS TO PROPERTY LINE. COORDINATE FINAL CONDUIT SIZES AND LOCATIONS W/UTILITY. PROVIDE SOLID COPPER GROUND BAR WITH INSULATED STAND-OFFS.
J	JUNCTION BOX(4"X4"X2"). MOUNT 18" AFF U.O.N.
LC	LIGHTING CONTROLLER
TC	TIMECLOCK WITH INTEGRAL MANUAL OVERRIDE USE INTERMATIC ET90000 SERIES OR EQUAL.
PTD	POWER TRANSFER DEVICE/RELAY.
PC	STEM AND SWIVEL MOUNT PHOTOCELL USE INTERMATIC SERIES K4221C FOR 120V AND K4223C FOR 277V OR EQUAL.
	ELECTRICAL PANELBOARD (SURFACE OR FLUSH-MOUNTED AS SHOWN). REFER TO SCHEDULES/RISER FOR INFO.
	ENCLOSED CIRCUIT BREAKER. PROVIDE WEATHERPROOF ENCLOSURE FOR EXTERIOR APPLICATIONS. VERIFY SIZE W/EQUIP. NAMEPLATE RATING.
	HP RATED SWITCH AS DISC. PROVIDE WEATHERPROOF ENCLOSURE FOR EXTERIOR APPLICATIONS. VERIFY SIZE W/EQUIP. NAMEPLATE RATING.
	HP RATED COMBINATION MOTOR STARTER DISC. PROVIDE WP ENCLOSURE FOR EXT. APPS. VERIFY SIZE W/EQUIP. NAMEPLATE RATING.
	HP RATED MOTOR STARTER. PROVIDE WP ENCLOSURE FOR EXT. APPS. VERIFY SIZE W/EQUIP. NAMEPLATE RATING.
T	TRANSFORMER
	HOMERUN TO PANEL NOTED (DASHED LINE INDICATES CIRCUIT)
	SWITCHLEG (SOLID LINE) INDICATING A GROUP OF LIGHTS OPERATED BY A COMMON SWITCH
	LOW-VOLTAGE (DOUBLE-DASHED LINE)
AFF/AFG	ABOVE FINISHED FLOOR / ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
CU	CONDENSING UNIT
EF	EXHAUST FAN
GFI	GROUND FAULT INTERRUPTER
ETR	EXISTING TO REMAIN.
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
LC	LOCKING COVER
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
TR	TAMPER RESISTANT
UON	UNLESS OTHERWISE NOTED
WP	WEATHER PROOF
SS	SINGLE/MULTI-STATION, NON-SYSTEM TYPE, RESIDENTIAL STYLE, LINE-POWERED, COMBINATION CARBON MONOXIDE/SMOKE DETECTOR WITH BATTERY BACKUP. ACTIVATION SHALL SOUND ALL DEVICES WITHIN EACH UNIT. CONNECT TO NEAREST ARC-FAULT PROTECTED CIRCUIT WITHIN UNIT. MAINTAIN A MINIMUM DISTANCE OF 3'-0" FROM ALL CEILING-MOUNTED HVAC SUPPLY/RETURN REGISTERS, 3'-0" FROM THE OUTER EDGE OF PADDLE FAN BLADES, AND 10'-0" FROM ALL WALL-MOUNTED HVAC SUPPLY/RETURN REGISTERS.
	EMERGENCY GENERATOR SHUTOFF PUSH-BUTTON
	EXIT SIGN - FACES AS REQUIRED - WITH BATTERY BACKUP
	EXIT SIGN W/DIRECTION ARROW - FACES AS REQUIRED - WITH BATTERY BACKUP
EM	EMERGENCY LIGHT FIXTURE WITH BATTERY BACKUP (CONNECT TO LINE SIDE OF NEAREST SWITCH SERVING THAT AREA OR ON THE LINE SIDE OF LIGHTING CONTROL PANEL THAT CONTROLS THE LIGHTING CIRCUIT IN THAT AREA).
	EMERGENCY LIGHT REMOTE HEAD.
X Y	"X"= HP" Y"= PHASE

NOTES:
1. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS & MOUNTING HEIGHTS OF ALL ELECTRICAL DEVICES WITH OWNER/ARCHITECT BEFORE ROUGH-IN. MOUNTING HEIGHTS ARE MEASURED TO CENTER OF BOX.
2. ALL RECEPTACLES & SWITCHES SHALL BE ARCH/DECORA TYPE WITH MATCHING FACE PLATES. COOR. FINAL COLOR WITH ARCH. PRIOR TO ORDERING
3. ALL SYMBOLS AND ABBREVIATIONS DO NOT NECESSARILY APPEAR ON THIS PROJECT.
4. MANUFACTURERS SHOWN IN THIS LEGEND ARE "BASIS OF DESIGN" AND "OR EQUAL" DEVICES MAY BE SUBMITTED FOR APPROVAL.

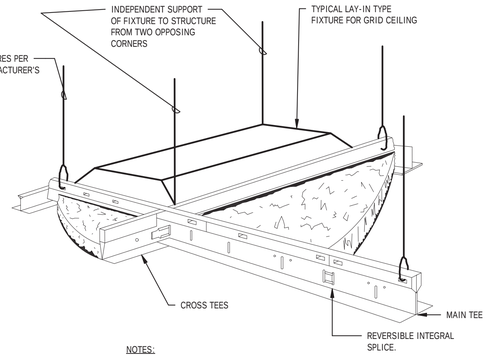
ELECTRICAL NOTES AND SPECIFICATIONS:

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. DRAWINGS ARE NOT TO BE SCALED. THE DRAWINGS AND DETAILS WILL BE EXAMINED FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. ANYTHING MENTIONED IN THE SPECIFICATION AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS BUT NOT IN THE SPECIFICATIONS WILL BE INTERPRETED AS BEING IN BOTH. CONFLICTS WILL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER OR ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. THE ELECTRICAL CONTRACTOR TO FURNISH ALL EQUIPMENT, MATERIAL, LABOR, ETC. NECESSARY T



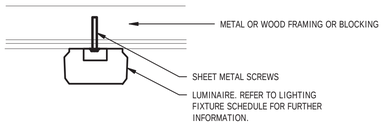
NOTES:
1. FIXTURE SUPPORTS SHALL BE IN ACCORDANCE WITH N.E.C.
2. PROVIDE INDEPENDENT SUPPORTS TO THE STRUCTURE AS REQUIRED BY LOCAL ORDINANCES.
3. FIXTURES RECESSED IN FIRE-RATED ASSESMBLIES SHALL BE PROVIDED WITH LISTED, PREFABRICATED, FIRE-RATED ENCLOSURES. SITE-FABRICATED ENCLOSURES SHALL NOT BE AN ACCEPTABLE METHOD OF MAINTAINING THE RATING OF THE CEILING ASSEMBLY.

DOWNLIGHT IN GYPSUM BOARD CEILING
SCALE: NONE

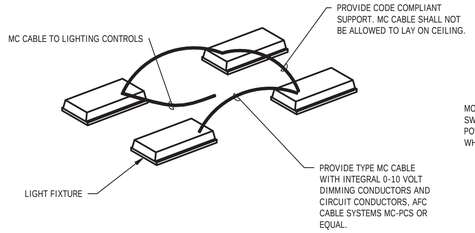


NOTES:
1. FIXTURE SUPPORTS SHALL BE IN ACCORDANCE WITH N.E.C.
2. INDEPENDENT SUPPORT TO THE STRUCTURE

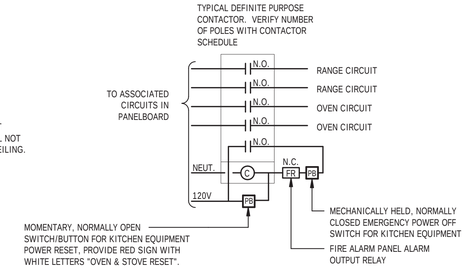
LUMINAIRE MOUNTING - ACOUSTICAL TILE CEILING
SCALE: NONE



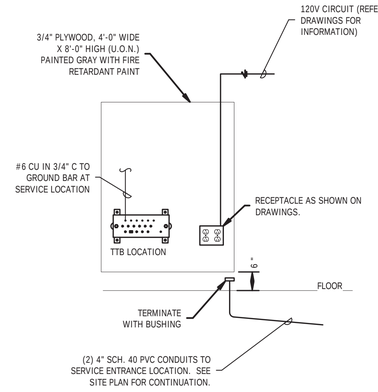
SURFACE-MOUNTED STRIP DETAIL
SCALE: NONE



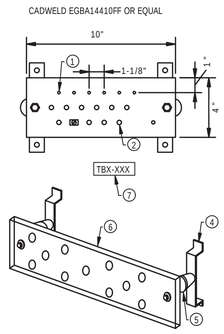
TYPICAL RECESSED LIGHTING FIXTURE WIRING TAP DETAIL
SCALE: NONE



CONTACTOR CONTROL DETAIL
SCALE: NONE



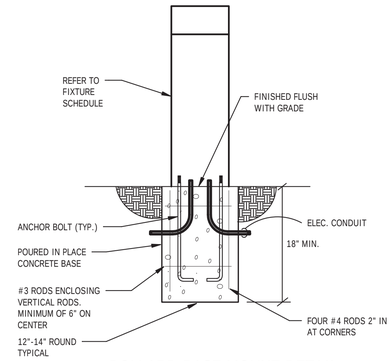
TELEPHONE EQUIPMENT BACKBOARD DETAIL
SCALE: NONE



GENERAL
1. ALL HARDWARE (BOLTS, NUTS, WASHERS, ETC.) SHALL BE SOLID COPPER OR BRONZE OR STAINLESS STEEL. COPPER PLATING SHALL NOT BE ACCEPTABLE.
2. BUSBAR SHALL BE 1/4" THICK (MINIMUM).
3. INCREASE LENGTH OF BUSBAR, FOR NUMBER OF CONNECTIONS, AS REQUIRED TO MAINTAIN CORRECT SPACING BETWEEN LUGS.

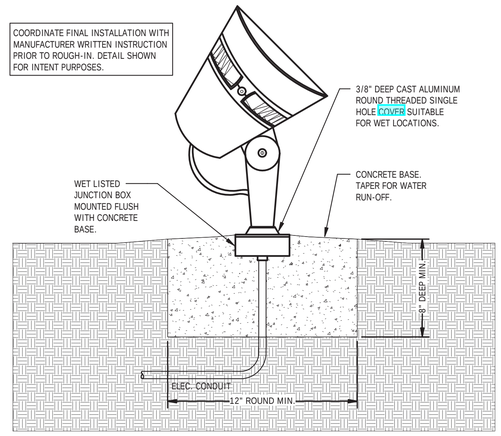
NOTE
1. #6/32 (TYPICAL)
2. #9/32 (TYPICAL)
3. PROVIDE COPPER CABLE CLAMPS FOR CABLE CONNECTIONS (BY DIV.16)
4. STANDOFF BRACKET
5. INSULATOR
6. COPPER BUSBAR
7. PROVIDE WHITE CORE BAKELITE NAMEPLATE FASTENED TO A WALL/SURFACE BELOW BUSBAR AT EACH FLOOR, WITH DESIGNATION ENGRAVED THEREON IN 1/2" HIGH LETTERS.

TYPICAL GROUND BUS BAR DETAIL
SCALE: NONE

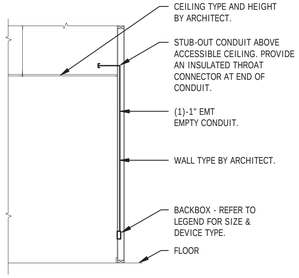


BOLLARD BASE MOUNT DETAIL
SCALE: NONE

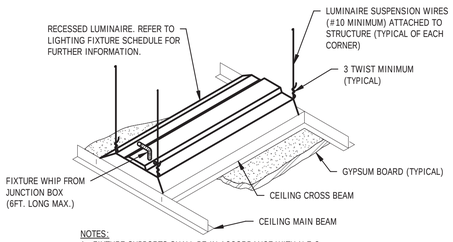
COORDINATE FINAL INSTALLATION WITH MANUFACTURER WRITTEN INSTRUCTION PRIOR TO ROUGH-IN. DETAIL SHOWN FOR INTENT PURPOSES.



TYPICAL GROUND MOUNTED UP-LIGHT DETAIL
SCALE: NONE

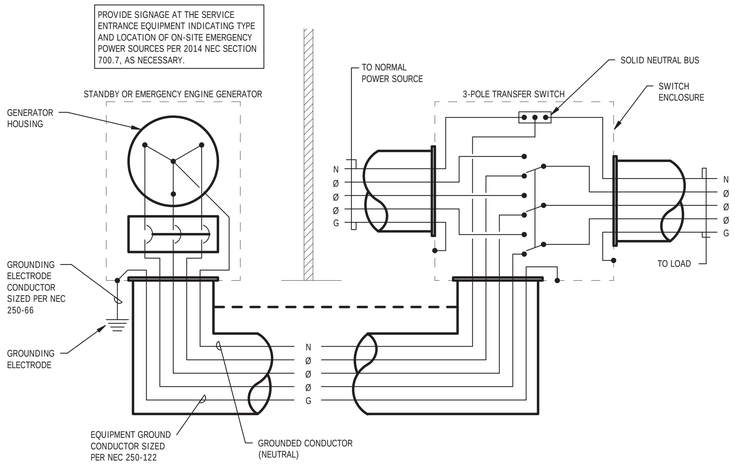


TYPICAL TELEPHONE/DATA OUTLET DETAIL
SCALE: NONE

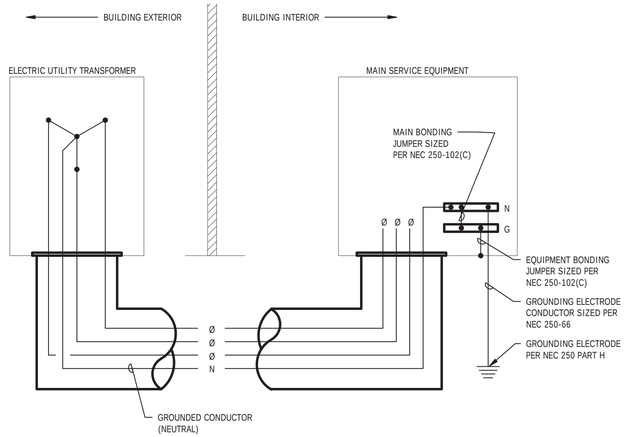


NOTES:
1. FIXTURE SUPPORTS SHALL BE IN ACCORDANCE WITH N.E.C.
2. PROVIDE INDEPENDENT SUPPORTS TO THE STRUCTURE AS REQUIRED BY LOCAL ORDINANCES.
3. FIXTURES RECESSED IN FIRE-RATED ASSEMBLIES SHALL BE PROVIDED WITH LISTED, PREFABRICATED, FIRE-RATED ENCLOSURES. SITE-FABRICATED ENCLOSURES SHALL NOT BE AN ACCEPTABLE METHOD OF MAINTAINING THE RATING OF THE CEILING ASSEMBLY.

LUMINAIRE MOUNTING - GYPSUM BOARD CEILING
SCALE: NONE



GENERATOR W/3-POLE TRANSFER SWITCH GROUNDING DETAIL
SCALE: NONE



SERVICE ENTRANCE (MAIN SWITCHBOARD) GROUNDING DETAIL
SCALE: NONE

QDG ENGINEERING CONNECTIONS
Quest Design Group, Inc.
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Sarasota, Fl 34234
941.351.9996
www.questdg.com
Cert. of Authorization# CA31201
Mechanical Electrical Plumbing Fire Protection

CONTRACTOR TO VERIFY ALL DETAILS, DIMENSIONS, AND FIELD CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING. DO NOT SCALE DRAWINGS. USE ONLY MOST RECENTLY DATED DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION NOT CARRIED OUT IN ACCORDANCE WITH CONTRACT DOCUMENTS. DRAWINGS AND SPECIFICATIONS ARE NOT TO BE USED FOR ANY OTHER PROJECT. ALL RIGHTS RESERVED. THESE PLANS AND SPECIFICATIONS ARE COPYRIGHTED AND ONLY FOR USE BY THE OWNER AND ENGINEER. THEY ARE NOT TO BE USED BY ANY OTHER PERSON AND ARE NOT TO BE REPRODUCED, COPIED OR ASSIGNED TO ANY OTHER PERSON OR ENTITY WITHOUT EXPRESSED WRITTEN PERMISSION FROM QUEST DESIGN GROUP. © COPYRIGHT 2020.

TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE FLORIDA BUILDING CODE AND THE FLORIDA FIRE PREVENTION CODE AS AMENDED IN ACCORDANCE WITH CHAPTER 553, AND 633, FLORIDA STATUTES AND LOCAL ORDINANCES.

SWEET SPARKMAN ARCHITECTS
2168 MAIN STREET
SARASOTA, FL 34237
T 941.952.0084
F 941.952.0201
FL AA26000857

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE: ELECTRICAL DETAILS

SHEET No.: **E2.1**

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BRANCH CIRCUIT WIRING SCHEDULE

C/B SIZE	WIRE	CONDUIT	REMARKS
SINGLE POLE (1P)			
20a.	2-#12, 1-#12G.	3/4"	1 • ,2W
25a.	2-#10, 1-#10G.	3/4"	1 • ,2W
30a.	2-#10, 1-#10G.	3/4"	1 • ,2W
35a.	2-#8, 1-#10G.	3/4"	1 • ,2W
40a.	2-#8, 1-#10G.	3/4"	1 • ,2W
45a.	2-#8, 1-#10G.	3/4"	1 • ,2W
50a.	2-#8, 1-#10G.	3/4"	1 • ,2W
60a.	2-#6, 1-#10G.	3/4"	1 • ,2W
TWO POLE (2P)			
20a.	2-#12, 1-#12G.	3/4"	1 • ,2W
25a.	2-#10, 1-#10G.	3/4"	1 • ,2W
30a.	2-#10, 1-#10G.	3/4"	1 • ,2W
40a.	2-#8, 1-#10G.	1"	1 • ,2W
45a.	2-#8, 1-#10G.	1"	1 • ,2W
50a.	2-#8, 1-#10G.	1"	1 • ,2W
60a.	2-#6, 1-#10G.	1"	1 • ,2W
70a.	2-#4, 1-#8G.	1 1/4"	1 • ,2W
80a.	2-#4, 1-#8G.	1 1/4"	1 • ,2W
90a.	2-#3, 1-#8G.	1 1/4"	1 • ,2W
100a.	2-#3, 1-#8G.	1 1/4"	1 • ,2W
THREE POLE (3P)			
20a.	3-#12, 1-#12G.	3/4"	3 • , 3W
25a.	3-#10, 1-#10G.	3/4"	3 • , 3W
30a.	3-#10, 1-#10G.	3/4"	3 • , 3W
30a.	3-#10, 1-#10N, 1-#10G.	3/4"	3 • , 4W
35a.	3-#8, 1-#10G.	1"	3 • , 3W
35a.	3-#8, 1-#8, 1-#10G.	1"	3 • , 4W
40a.	3-#8, 1-#10G.	1"	3 • , 3W
40a.	3-#8, 1-#8N, 1-#10G.	1"	3 • , 4W
45a.	3-#8, 1-#10G.	1"	3 • , 3W
45a.	3-#8, 1-#8N, 1-10G.	1"	3 • , 4W
50a.	3-#8, 1-#10G.	1"	3 • , 3W
50a.	3-#8, 1-#8N, 1-10G.	1"	3 • , 4W
60a.	3-#6, 1-#10G.	1"	3 • , 3W
60a.	3-#6, 1-#6N, 1-#10G.	1 1/4"	3 • , 4W
60a.	3-#6, 1-#6N, 1-#10G.	1 1/4"	3 • , 4W
100a.	3-#3, 1-#3N, 1-#8G.	1 1/2"	3 • , 4W
125a.	3-#1, 1-#1N, 1-#6G.	2"	3 • , 4W
150a.	3-#1/0, 1-#1/0N, 1-#6G.	2"	3 • , 4W
175a.	3-#2/0, 1-#2/0N, 1-#6G.	2'	3 • , 4W
200a.	3-#3/0, 1-#3/0N, 1-#6G. 2 1/2"		3 • , 4W

NOTE: VOLTAGE DROP: THE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5 PERCENT VOLTAGE DROP TOTAL, IN ACCORDANCE WITH THE FBC, SECTION C405.6.3. CALCULATIONS SHALL BE COMPLETED BY THE ELECTRICAL CONTRACTOR BASED ON ACTUAL FIELD INSTALLATIONS AND DISTANCES PRIOR TO ROUGH-IN.

COPPER CONDUCTOR AND CONDUIT SCHEDULE

O.C.P.D.** AMPERE RATING	SYMBOL*	4 WIRE WITH GROUND (3P W/ NEUTRAL)	O.C.P.D.** AMPERE RATING	SYMBOL*	4 WIRE WITH GROUND (3P W/ NEUTRAL)
20A	B20	4-#12, #12G. IN 3/4"C.	225A	B225	4-#4/0, #4G. IN 3"C.
25A	B25	4-#10, #10G. IN 3/4"C.	250A	B250	4-#250MCM, #4G. IN 3"C.
30A	B30	4-#10, #10G. IN 3/4"C.	300A	B300	4-#350MCM, #4G. IN 3 1/2"C.
35A	B35	4-#8, #10G. IN 1"C.	350A	B350	4-#400MCM, #3G. IN 3 1/2"C.
40A	B40	4-#8, #10G. IN 1"C.	400A	B400	4-#500MCM, #3G IN 4"C.
45A	B45	4-#8, #10G. IN 1"C.	450A	B450	2 SETS: 4-#4/0, #2G. EACH IN 2 1/2"C.
50A	B50	4-#8, #10G. IN 1"C.	500A	B500	2 SETS: 4-#250MCM, #2G. EACH IN 3"C.
60A	B60	4-#6, #10G. IN 1 1/4"C.	600A	B600	2 SETS: 4-#350MCM, #1G. EACH IN 3"C.
70A	B70	4-#4, #8G. IN 1 1/4"C.	700A	B700	2 SETS: 4-#400MCM, #1/0G. EACH IN 3 1/2"C.
80A	B80	4-#4, #8G. IN 1 1/4"C.	800A	B800	2 SETS: 4-#500MCM, #1/0G. EACH IN 4"C.
90A	B90	4-#3, #8G. IN 1 1/2"C.	1000A	B1000	3 SETS: 4-#400MCM, #2/0G. EACH IN 3 1/2"C.
100A	B100	4-#3, #8G. IN 1 1/2"C.	1200A	B1200	4 SETS: 4-#350MCM, #3/0G. EACH IN 3 1/2"C.
110A	B110	4-#2, #6G. IN 1 1/2"C.	1600A	B1600	5 SETS: 4-#400MCM, #4/0G. EACH IN 3 1/2"C.
125A	B125	4-#1, #6G. IN 2"C.	2000A	B2000	6 SETS: 4-#400MCM, #250MCM G. EACH IN 3 1/2"C.
150A	B150	4-#1/0, #6G. IN 2"C.	2200A	B2200	6 SETS: 4-#500MCM, #350MCM G. EACH IN 4"C.
175A	B175	4-#2/0, #6G. IN 2 1/2"C.	2500A	B2500	7 SETS: 4-#500MCM, #350MCM G. EACH IN 4"C.
200A	B200	4-#3/0, #6G. IN 2 1/2"C.	3000A	B3000	8 SETS: 4-#500MCM, #400MCM G. EACH IN 4"C.

G1/0	1-#1/0 G IN 1"C.	G2/0	1-#2/0 G IN 1"C.	G3/0	1-#3/0 G IN 1"C.

* UNDERLINED TEXT WITHIN A SYMBOL INDICATES NO GROUND WIRE FOR SVC. FEEDER OR NO NEUTRAL FOR MOTOR LOAD.

** OVER CURRENT PROTECTIVE DEVICE

NOTES:

1. FOR SINGLE PHASE CIRCUITS, INCREASE WIRE ONE SIZE FOR EACH 100' OF CIRCUIT LENGTH. FOR THREE PHASE CIRCUITS, INCREASE WIRE ONE SIZE FOR EACH 200' OF CIRCUIT LENGTH. (ADJUST CONDUIT AS REQ'D).
2. VOLTAGE DROP: THE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5 PERCENT VOLTAGE DROP TOTAL, IN ACCORDANCE WITH THE FLORIDA BUILDING CODE - ENERGY CONSERVATION, SECTION C405.6.3. CALCULATIONS SHALL BE COMPLETED BY THE ELECTRICAL CONTRACTOR BASED ON ACTUAL FIELD INSTALLATIONS AND DISTANCES PRIOR TO ROUGH-IN.
3. ALL UNDERGROUND AND ROOFTOP CONDUCTORS TO BE 90° C CONDUCTORS, TYPE XHHW-2 OR THWN-2. ALLOWABLE AMPACITY PER 75°C COLUMN, NE C 70 (2014) TABLE 310.15(B)(16).
4. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN INSULATION UNLESS OTHERWISE NOTED.

①② LIGHTING FIXTURE SCHEDULE

LTR	MANUFACTURER	CATALOG NUMBER	LAMP	MOUNTING	DESCRIPTION	WATTAGE
A	LITHONIA	2GTL 2 33L GZ10 LP840	LED	GRID	2' X 2' TROFFER	29W
B	LITHONIA	LDN4SQ-40/15-LS4WR-LD-MVOLT-GZ10	LED	CEILING	4" SQUARE RECESSED CAN	17.5W
B-EM	LITHONIA	LDN4SQ-40/15-LS4WR-LD-MVOLT-GZ10-EL	LED	CEILING	4 SQUARE" RECESSED CAN W/ BATTERY BACKUP	17.5W
C	LITHONIA	ZL1N L48 5000LM FST MVOLT 40K 80CRI WH	LED	CEILING	4' LED LENSED STRIP LIGHT	34W
D	LITHONIA	FEM L48 10000LM LPAFL MD MVOLT GZ10 40K 80CRI	LED	CEILING	4' LED ENCLOSED AND GASKETED FIXTURE	62W
D1	PINNACLE LIGHTING	EX3-WET-N-84 0HO-4-IND-S-U-ND-1-0	LED	CEILING	WET LISTED 4' LED LINEAR	35W
EM	LITHONIA	ELM6L-UVOLT-LTP	LED	WALL	EMERGENCY LIGHT W/ BATTERY BACKUP	---
FAN	MONTE CARLO FANS	3CLYR42RZWD-V1	---	CEILING	CEILING FAN	37W
F	LITHONIA	2GTL4 4400LM LP840	LED	GRID	2' X 4' TROFFER	34.1W
G	FOCAL POINT	FSM4L FL 375LF 40K 1C UNV LD1 TF WH 4FT	LED	RECESSED	RECESSED LINEAR FIXTURE	16W
H	LITHONIA	WDGE2 LED-P2-40K-80CRI-VF-MVOLT-E10WH	LED	SURFACE	EXTERIOR SURFACE MOUNTED FIXTURE	15W
J	LIGHTOLOGY	EDG406050 24" LONG	LED	WALL	2' OVER VANITY FIXTURE	9.1W
K	SONNEMAN	SNNP202253 W/ 3 OPTION BACKPLATE, SHADE	LED	WALL	3' OVER VANITY FIXTURE	11W
M	FEELUX LIGHTING	NDP7 40K-24	LED	CANINET/SHELF	2' UNDER CABINET FIXTURE PROVIDE COMPATIBLE HARDWIRED DRIVER	7W
N	FEELUX LIGHTING	NDP11 40K-24	LED	CANINET/SHELF	3' UNDER CABINET FIXTURE PROVIDE COMPATIBLE HARDWIRED DRIVER	11W
X	LITHONIA	LQM-S-W-3-R-120/277-ELN	LED	WALL	STANDARD EXIT SIGN W/ BATTERY BACKUP	---
X2	LITHONIA	EDGR-W-1-R-EL	LED	RECESSED	EDGE LIT EXIT SIGN W/ BATTERY BACKUP	---

①②③ SITE LIGHTING FIXTURE SCHEDULE

LTR	MANUFACTURER	CATALOG NUMBER	LAMP	MOUNTING	DESCRIPTION	WATTAGE
AA	LITHONIA	DSX0 LED-P2-40K-T3S-MVOLT	LED	POLE	LED POLE MOUNTED FIXTURE	49W
BB	LITHONIA	OFL1 LED P1 40K MVOLT YK DDBXD	LED	GROUND	FLAG POLE UP LIGHT	21W
CC	LITHONIA	KBC8 LED 12C 350 40K ASY MVOLT	LED	BOLLARD	42" LED BOLLARD	16W
---	---	---	---	---	---	---
FF	LUMENPULSE	LQL 120 35K NF LSLH RPM	LED	POLE	BUILDING SIGN LIGHT. MOUNT TO FLAG POLE. VERIFY SIZE WITH GENERAL CONTRACTOR	90W
GG	LITHONIA	WST LED P1 40K VF MVOLT PE ETWH	LED	CEILING	LED WALLPACK W/ EM BATTERY AND PHOTOCELL	11W
	POLE	DIRECT BURIAL SQUARE TAPERED, WIND LOAD RATED CONCRETE. POLE HEIGHT MAY VARY DEPENDING ON ELEVATION OF FINISHED GRADE RELATIVE TO LIGHTED AREA. VERIFY GRADE HEIGHT WITH CIVIL PLANS.				

① SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT APPROVAL FROM THE ENGINEER, FOURTEEN (14) DAYS PRIOR TO BID DATE.

② VERIFY LIGHTING FIXTURE COLOR/FINISH WITH ARCHITECT PRIOR TO ORDERING.

③ SITE LIGHTING SUBSTITUTIONS SHALL BE PROVIDED WITH A PHOTOMETRIC MEETING THE REQUIREMENTS OF THE LOCAL AHJ.

CONTACTOR CONTROL SCHEDULE

POLE DESIGNATION	AREAS CONTROLLED	CONTROL TYPE	CIRCUIT BREAKERS
#1	RANGE POWER AND GAS SOLENOID VALVE	F/A RELAY/POWER OFF SWITCH	C-15
#2	DOUBLE OVEN	F/A RELAY/POWER OFF SWITCH	C-17,19
#3	MIRCOWAVE	F/A RELAY/POWER OFF SWITCH	C-13
#4	KITCHEN COUNTER RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-14
#5	KITCHEN COUNTER RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-16
#6	DISPOSAL	F/A RELAY/POWER OFF SWITCH	C-11
#7	KITCHEN ISLAND RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-9
#8	KITCHEN ISLAND RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-12

TIME CLOCK LIGHTING CONTROL SCHEDULE

TIME CLOCK CIRCUITS	AREAS CONTROLLED	CHANNEL DESIGNATION	CIRCUIT BREAKERS
#1	FLAG POLE LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-32
#2	BUILDING LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-27
#3	SITE LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-29
#4	SPARE	-	-
#5	BUILDING SIGN LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-35

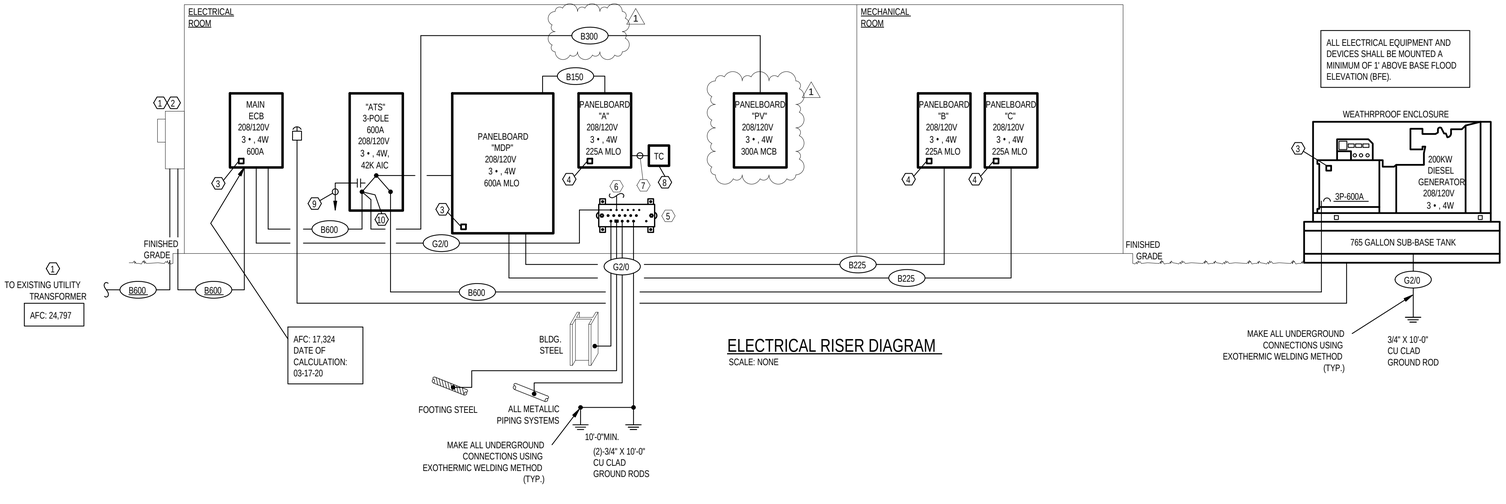
TIME CLOCK NOTES:

TIMECLOCK WITH INTEGRAL MANUAL OVERRIDE USE INTERMATIC ET SERIES OR EQUAL.

ELECTRICAL CONTRACTOR SHALL COORDINATE LIGHTING CONTROL SCHEDULE WITH OWNER: "NORMAL/AFTER BUSINESS HOURS" PROGRAMMING.

THE ELECTRICAL ROOM AND ELECTRICAL EQUIPMENT HAVE BEEN LOCATED AND DIMENSIONED BASED UPON "SQUARE D" EQUIPMENT. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CLEARANCE AND COORDINATION OF ELECTRICAL EQUIPMENT HAVING DIFFERING DIMENSIONS FROM OTHER MANUFACTURERS.

SERVICE EQUIPMENT SHALL BE MARKED TO INDICATED THE MAXIMUM AVAILABLE FAULT CURRENT AS REQUIRED BY 2014 NEC SECTION 110.24. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. ELECTRICAL CONTRA CTOR SHALL REQUEST A DATED LETTER WITH FAULT CURRENT INFORMATION FROM THE LOCAL UTILITY AND NOTIFY THE ENGINEER OF RECORD IF THE RESULTING AFC IS GREATER THAN INDICATED ON RISER DIAGRAM.



ELECTRICAL RISER DIAGRAM

SCALE: NONE

(#) KEYED NOTES - ELECTRICAL RISER DIAGRAM:

1. COORDINATE LOCATION AND REQUIREMENTS WITH LOCAL UTILITY PRIOR TO ROUGH-IN.
2. UTILITY METER MOUNTED TO BUILDING EXTERIOR, COORDINATE LOCATION AND REQUIREMENTS WITH LOCAL UTILITY PRIOR TO ROUGH-IN.
3. SURGE PROTECTIVE DEVICE: PQ PROTECTION "PQM200" (OR APPROVED EQUAL)
4. SURGE PROTECTIVE DEVICE: PQ PROTECTION "PQC100" (OR APPROVED EQUAL)
5. PROVIDE SOLID COPPER GROUND BUS BAR SIZED AS REQUIRED FOR THE SERVICE AND TTB LOCATIONS.
6. (1) #6 CU. TO TTB GROUND BUS BAR.
7. UNSWITCHED BRANCH CIRCUIT CONDUCTORS.
8. TIMECLOCK EQUAL TO INTERMATIC ET SERIES, ELECTRONIC/ASTRONOMIC. REFER TO SCHEDULE, ON THIS SHEET FOR NUMBER OF CIRCUITS.
9. CONDUIT & WIRE TO ENGINE-GENERATOR SET ENGINE START CONTROL CIRCUIT.
10. PROVIDE INSULATED LINE SIDE TAP FOR CONNECTION TO PV PANELBOARD.

QDG ENGINEERING CONNECTIONS

Jon D. Shepard PE 0071536

DocuSign Envelope ID: BD1651BA-CC9A-4A92-BAD1-16FD50CE4A4E

BRANCH CIRCUIT WIRING SCHEDULE

C/B SIZE	WIRE	CONDUIT	REMARKS
SINGLE POLE (1P)			
20a.	2-#12, 1-#12G.	3/4"	1Ø,2W
25a.	2-#10, 1-#10G.	3/4"	1Ø,2W
30a.	2-#10, 1-#10G.	3/4"	1Ø,2W
35a.	2-#8, 1-#10G.	3/4"	1Ø,2W
40a.	2-#8, 1-#10G.	3/4"	1Ø,2W
45a.	2-#8, 1-#10G.	3/4"	1Ø,2W
50a.	2-#8, 1-#10G.	3/4"	1Ø,2W
60a.	2-#6, 1-#10G.	3/4"	1Ø,2W
TWO POLE (2P)			
20a.	2-#12, 1-#12G.	3/4"	1Ø,2W
25a.	2-#10, 1-#10G.	3/4"	1Ø,2W
30a.	2-#10, 1-#10G.	3/4"	1Ø,2W
40a.	2-#8, 1-#10G.	1"	1Ø,2W
45a.	2-#8, 1-#10G.	1"	1Ø,2W
50a.	2-#8, 1-#10G.	1"	1Ø,2W
60a.	2-#6, 1-#10G.	1"	1Ø,2W
70a.	2-#4, 1-#8G.	1 1/4"	1Ø,2W
80a.	2-#4, 1-#8G.	1 1/4"	1Ø,2W
90a.	2-#3, 1-#8G.	1 1/4"	1Ø,2W
100a.	2-#3, 1-#8G.	1 1/4"	1Ø,2W
THREE POLE (3P)			
20a.	3-#12, 1-#12G.	3/4"	3Ø, 3W
25a.	3-#10, 1-#10G.	3/4"	3Ø, 3W
30a.	3-#10, 1-#10G.	3/4"	3Ø, 3W
30a.	3-#10, 1-#10N, 1-#10G.	3/4"	3Ø, 4W
35a.	3-#8, 1-#10G.	1"	3Ø, 3W
35a.	3-#8, 1-#8, 1-#10G.	1"	3Ø, 4W
40a.	3-#8, 1-#10G.	1"	3Ø, 3W
40a.	3-#8, 1-#8N, 1-#10G.	1"	3Ø, 4W
45a.	3-#8, 1-#10G.	1"	3Ø, 3W
45a.	3-#8, 1-#8N, 1-10G.	1"	3Ø, 4W
50a.	3-#8, 1-#10G.	1"	3Ø, 3W
50a.	3-#8, 1-#8N, 1-10G.	1"	3Ø, 4W
60a.	3-#6, 1-#10G.	1"	3Ø, 3W
60a.	3-#6, 1-#6N, 1-#10G.	1 1/4"	3Ø, 4W
100a.	3-#3, 1-#3N, 1-#8G.	1 1/2"	3Ø, 4W
125a.	3-#1, 1-#1N, 1-#6G.	2"	3Ø, 4W
150a.	3-#1/0, 1-#1/0N, 1-#6G.	2"	3Ø, 4W
175a.	3-#2/0, 1-#2/0N, 1-#6G.	2'	3Ø, 4W
200a.	3-#3/0, 1-#3/0N, 1-#6G.	2 1/2"	3Ø, 4W

NOTE: VOLTAGE DROP: THE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5 PERCENT VOLTAGE DROP TOTAL, IN ACCORDANCE WITH THE FBC, SECTION C405.6.3. CALCULATIONS SHALL BE COMPLETED BY THE ELECTRICAL CONTRACTOR BASED ON ACTUAL FIELD INSTALLATIONS AND DISTANCES PRIOR TO ROUGH-IN.

COPPER CONDUCTOR AND CONDUIT SCHEDULE

O.C.P.D.** AMPERE RATING	SYMBOL*	4 WIRE WITH GROUND (3P W/ NEUTRAL)	O.C.P.D.** AMPERE RATING	SYMBOL*	4 WIRE WITH GROUND (3P W/ NEUTRAL)
20A	B20	4-#12, #12G. IN 3/4"C.	225A	B225	4-#4/0, #4G. IN 3"C.
25A	B25	4-#10, #10G. IN 3/4"C.	250A	B250	4-#250MCM, #4G. IN 3"C.
30A	B30	4-#10, #10G. IN 3/4"C.	300A	B300	4-#350MCM, #4G. IN 3 1/2"C.
35A	B35	4-#8, #10G. IN 1"C.	350A	B350	4-#400MCM, #3G. IN 3 1/2"C.
40A	B40	4-#8, #10G. IN 1"C.	400A	B400	4-#500MCM, #3G IN 4"C.
45A	B45	4-#8, #10G. IN 1"C.	450A	B450	2 SETS: 4-#4/0, #2G. EACH IN 2 1/2"C.
50A	B50	4-#8, #10G. IN 1"C.	500A	B500	2 SETS: 4-#250MCM, #2G. EACH IN 3"C.
60A	B60	4-#6, #10G. IN 1 1/4"C.	600A	B600	2 SETS: 4-#350MCM, #1G. EACH IN 3"C.
70A	B70	4-#4, #8G. IN 1 1/4"C.	700A	B700	2 SETS: 4-#400MCM, #1/0G. EACH IN 3 1/2"C.
80A	B80	4-#4, #8G. IN 1 1/4"C.	800A	B800	2 SETS: 4-#500MCM, #1/0G. EACH IN 4"C.
90A	B90	4-#3, #8G. IN 1 1/2"C.	1000A	B1000	3 SETS: 4-#400MCM, #2/0G. EACH IN 3 1/2"C.
100A	B100	4-#3, #8G. IN 1 1/2"C.	1200A	B1200	4 SETS: 4-#350MCM, #3/0G. EACH IN 3 1/2"C.
110A	B110	4-#2, #6G. IN 1 1/2"C.	1600A	B1600	5 SETS: 4-#400MCM, #4/0G. EACH IN 3 1/2"C.
125A	B125	4-#1, #6G. IN 2"C.	2000A	B2000	6 SETS: 4-#400MCM, #250MCM G. EACH IN 3 1/2"C.
150A	B150	4-#1/0, #6G. IN 2"C.	2200A	B2200	6 SETS: 4-#500MCM, #350MCM G. EACH IN 4"C.
175A	B175	4-#2/0, #6G. IN 2 1/2"C.	2500A	B2500	7 SETS: 4-#500MCM, #350MCM G. EACH IN 4"C.
200A	B200	4-#3/0, #6G. IN 2 1/2"C.	3000A	B3000	8 SETS: 4-#500MCM, #400MCM G. EACH IN 4"C.

G1/0	1-#1/0 G IN 1"C.	G2/0	1-#2/0 G IN 1"C.	G3/0	1-#3/0 G IN 1"C.

* UNDERLINED TEXT WITHIN A SYMBOL INDICATES NO GROUND WIRE FOR SVC. FEEDER OR NO NEUTRAL FOR MOTOR LOAD.
** OVER CURRENT PROTECTIVE DEVICE

NOTES:

1. FOR SINGLE PHASE CIRCUITS, INCREASE WIRE ONE SIZE FOR EACH 100' OF CIRCUIT LENGTH. FOR THREE PHASE CIRCUITS, INCREASE WIRE ONE SIZE FOR EACH 200' OF CIRCUIT LENGTH. (ADJUST CONDUIT AS REQ'D).
2. VOLTAGE DROP: THE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5 PERCENT VOLTAGE DROP TOTAL, IN ACCORDANCE WITH THE FLORIDA BUILDING CODE - ENERGY CONSERVATION, SECTION C405.6.3. CALCULATIONS SHALL BE COMPLETED BY THE ELECTRICAL CONTRACTOR BASED ON ACTUAL FIELD INSTALLATIONS AND DISTANCES PRIOR TO ROUGH-IN.
3. ALL UNDERGROUND AND ROOFTOP CONDUCTORS TO BE 90° C CONDUCTORS, TYPE XHHW-2 OR THWN-2. ALLOWABLE AMPACITY PER 75°C COLUMN, NEC 70 (2014) TABLE 310.15(B)(16).
4. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN INSULATION UNLESS OTHERWISE NOTED.

①② LIGHTING FIXTURE SCHEDULE

LTR	MANUFACTURER	CATALOG NUMBER	LAMP	MOUNTING	DESCRIPTION	WATTAGE
A	LITHONIA	2GTL 2 33L GZ10 LP840	LED	GRID	2' X 2' TROFFER	29W
B	LITHONIA	LDN4SQ-40/15-LS4WR-LD-MVOLT-GZ10	LED	CEILING	4" SQUARE RECESSED CAN	17.5W
B-EM	LITHONIA	LDN4SQ-40/15-LS4WR-LD-MVOLT-GZ10-EL	LED	CEILING	4 SQUARE" RECESSED CAN W/ BATTERY BACKUP	17.5W
C	LITHONIA	ZL1N L48 5000LM FST MVOLT 40K 80CRI WH	LED	CEILING	4' LED LENSED STRIP LIGHT	34W
D	LITHONIA	FEM L48 10000LM LPAFL MD MVOLT GZ10 40K 80CRI	LED	CEILING	4' LED ENCLOSED AND GASKETED FIXTURE	62W
D1	PINNACLE LIGHTING	EX3-WET-N-840HO-4-IND-S-U-ND-1-0	LED	CEILING	WET LISTED 4' LED LINEAR	35W
EM	LITHONIA	ELM6L-UVOLT-LTP	LED	WALL	EMERGENCY LIGHT W/ BATTERY BACKUP	---
FAN	MONTE CARLO FANS	3CLYR42RZWD-V1	---	CEILING	CEILING FAN	37W
F	LITHONIA	2GTL4 4400LM LP840	LED	GRID	2' X 4' TROFFER	34.1W
G	FOCAL POINT	FSM4L FL 375LF 40K 1C UNV LD1 TF WH 4FT	LED	RECESSED	RECESSED LINEAR FIXTURE	16W
H	LITHONIA	WDGE2 LED-P2-40K-80CRI-VF-MVOLT-E10WH	LED	SURFACE	EXTERIOR SURFACE MOUNTED FIXTURE	15W
J	LIGHTOLOGY	EDG406050 24" LONG	LED	WALL	2' OVER VANITY FIXTURE	9.1W
K	SONNEMAN	SNNP202253 W/ 3 OPTION BACKPLATE, SHADE	LED	WALL	3' OVER VANITY FIXTURE	11W
M	FEELUX LIGHTING	NDP7 40K-24	LED	CANINET/SHELF	2' UNDER CABINET FIXTURE PROVIDE COMPATIBLE HARDWIRED DRIVER	7W
N	FEELUX LIGHTING	NDP11 40K-24	LED	CANINET/SHELF	3' UNDER CABINET FIXTURE PROVIDE COMPATIBLE HARDWIRED DRIVER	11W
X	LITHONIA	LQM-S-W-3-R-120/277-ELN	LED	WALL	STANDARD EXIT SIGN W/ BATTERY BACKUP	---
X2	LITHONIA	EDGR-W-1-R-EL	LED	RECESSED	EDGE LIT EXIT SIGN W/ BATTERY BACKUP	---

①②③ SITE LIGHTING FIXTURE SCHEDULE

LTR	MANUFACTURER	CATALOG NUMBER	LAMP	MOUNTING	DESCRIPTION	WATTAGE
AA	LITHONIA	DSX0 LED-P2-40K-T3S-MVOLT	LED	POLE	LED POLE MOUNTED FIXTURE	49W
BB	LITHONIA [A]	CPL1 LED P1 40K MVOLT YK DDBXD	LED	GROUND	FLAG POLE UP LIGHT	21W
CC	LITHONIA [A]	KAD 8 LED 12C 350 40K ASY MVOLT	LED	BOLLARD	42" LED BOLLARD	16W
---	---	---	---	---	---	---
FF	LUMENPULSE	LQL 120 35K NP LSLH RPM	LED	POLE	BUILDING SIGN LIGHT. MOUNT TO FLAG POLE VERIFY SIZE WITH GENERAL CONTRACTOR	50W
GG	LITHONIA	WST LED P1 40K VF MVOLT PE E7WH	LED	CEILING	LED WALLPACK W/ EM BATTERY AND PHOTOCELL	11W
	POLE	DIRECT BURIAL SQUARE TAPERED, WIND LOAD RATED CONCRETE. POLE HEIGHT MAY VARY DEPENDING ON ELEVATION OF FINISHED GRADE RELATIVE TO LIGHTED AREA. VERIFY GRADE HEIGHT WITH CIVIL PLANS.				

① SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT APPROVAL FROM THE ENGINEER, FOURTEEN (14) DAYS PRIOR TO BID DATE.
② VERIFY LIGHTING FIXTURE COLOR/FINISH WITH ARCHITECT PRIOR TO ORDERING.
③ SITE LIGHTING SUBSTITUTIONS SHALL BE PROVIDED WITH A PHOTOMETRIC MEETING THE REQUIREMENTS OF THE LOCAL AHJ.

CONTACTOR CONTROL SCHEDULE

POLE DESIGNATION	AREAS CONTROLLED	CONTROL TYPE	CIRCUIT BREAKERS
#1	RANGE POWER AND GAS SOLENOID VALVE	F/A RELAY/POWER OFF SWITCH	C-15
#2	DOUBLE OVEN	F/A RELAY/POWER OFF SWITCH	C-17,19
#3	MIRCOWAVE	F/A RELAY/POWER OFF SWITCH	C-13
#4	KITCHEN COUNTER RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-14
#5	KITCHEN COUNTER RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-16
#6	DISPOSAL	F/A RELAY/POWER OFF SWITCH	C-11
#7	KITCHEN ISLAND RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-9
#8	KITCHEN ISLAND RECEPTACLE	F/A RELAY/POWER OFF SWITCH	C-12

TIME CLOCK LIGHTING CONTROL SCHEDULE

TIME CLOCK CIRCUITS	AREAS CONTROLLED	CHANNEL DESIGNATION	CIRCUIT BREAKERS
#1	FLAG POLE LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-32
#2	BUILDING LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-27
#3	SITE LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-29
#4	SPARE	-	-
#5	BUILDING SIGN LIGHTING	TIME OF DAY "ON/OFF" ONLY.	A-35

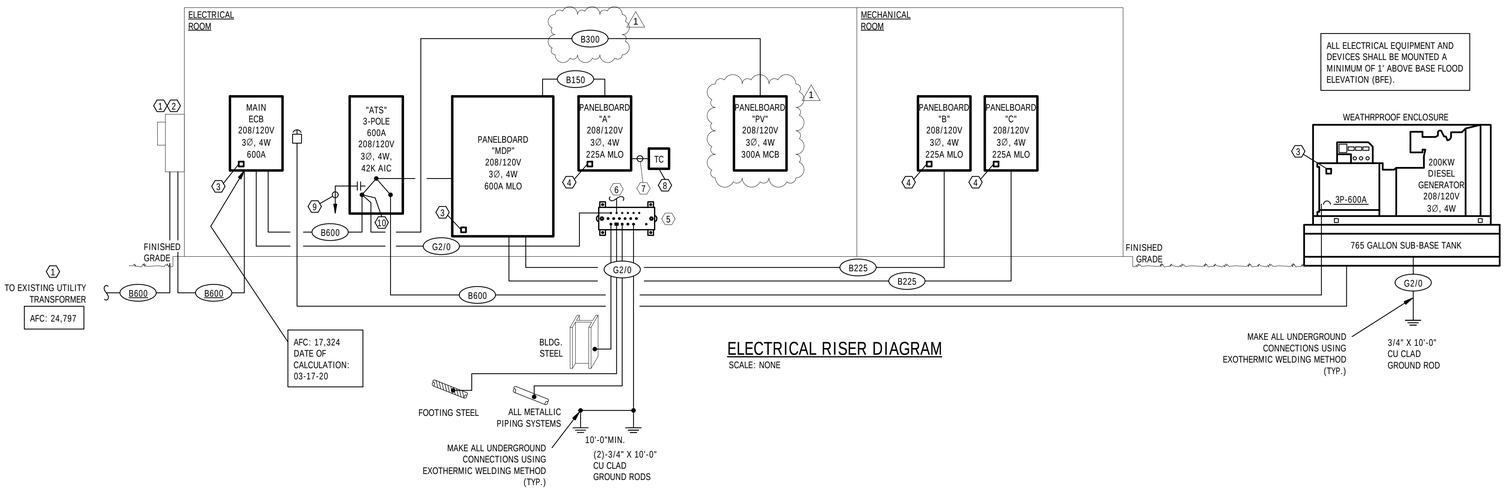
TIME CLOCK NOTES:

TIMECLOCK WITH INTEGRAL MANUAL OVERRIDE USE INTERMATIC ET SERIES OR EQUAL.

ELECTRICAL CONTRACTOR SHALL COORDINATE LIGHTING CONTROL SCHEDULE WITH OWNER: "NORMAL/AFTER BUSINESS HOURS" PROGRAMMING.

THE ELECTRICAL ROOM AND ELECTRICAL EQUIPMENT HAVE BEEN LOCATED AND DIMENSIONED BASED UPON "SQUARE D" EQUIPMENT. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CLEARANCE AND COORDINATION OF ELECTRICAL EQUIPMENT HAVING DIFFERING DIMENSIONS FROM OTHER MANUFACTURERS.

SERVICE EQUIPMENT SHALL BE MARKED TO INDICATED THE MAXIMUM AVAILABLE FAULT CURRENT AS REQUIRED BY 2014 NEC SECTION 110.24. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. ELECTRICAL CONTRACTOR SHALL REQUEST A DATED LETTER WITH FAULT CURRENT INFORMATION FROM THE LOCAL UTILITY AND NOTIFY THE ENGINEER OF RECORD IF THE RESULTING AFC IS GREATER THAN INDICATED ON RISER DIAGRAM.



ELECTRICAL RISER DIAGRAM

SCALE: NONE

(#) KEYED NOTES - ELECTRICAL RISER DIAGRAM:

1. COORDINATE LOCATION AND REQUIREMENTS WITH LOCAL UTILITY PRIOR TO ROUGH-IN.
2. UTILITY METER MOUNTED TO BUILDING EXTERIOR. COORDINATE LOCATION AND REQUIREMENTS WITH LOCAL UTILITY PRIOR TO ROUGH-IN.
3. SURGE PROTECTIVE DEVICE: PQ PROTECTION "PQM200" (OR APPROVED EQUAL)
4. SURGE PROTECTIVE DEVICE: PQ PROTECTION "PQC100" (OR APPROVED EQUAL)
5. PROVIDE SOLID COPPER GROUND BUS BAR SIZED AS REQUIRED FOR THE SERVICE AND TTB LOCATIONS.
6. (1) #6 CU. TO TTB GROUND BUS BAR.
7. UNSWITCHED BRANCH CIRCUIT CONDUCTORS.
8. TIMECLOCK EQUAL TO INTERMATIC ET SERIES, ELECTRONIC/ASTRONOMIC. REFER TO SCHEDULE, ON THIS SHEET FOR NUMBER OF CIRCUITS.
9. CONDUIT & WIRE TO ENGINE-GENERATOR SET ENGINE START CONTROL CIRCUIT.
10. PROVIDE INSULATED LINE SIDE TAP FOR CONNECTION TO PV PANELBOARD.

Quest Design Group, Inc.
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Cert. of Authorization# CA31201
Mechanical Electrical Plumbing Fire Protection
QDG ENGINEERING CONNECTIONS

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SWEET SPARKMAN ARCHITECTS

JONATHAN D. SHEPARD ★ LICENSED ENGINEER ★ No. 71536 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET 05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE: ELECTRICAL RISER AND SCHEDULES

SHEET No.: **E2.2**

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Jon Shepard
A86666A0810145F...
7/2/2020

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Cert. of Authorization# CA31201

Mechanical Electrical Plumbing Fire Protection

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Panelboard: MDP

Location: ELEC. 127
Supply From:
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42000
Mains Type: MLO
Mains Rating: 600 A
MCB Rating: N/A

Notes:

CKT	Load Name	Trip	Pole	A		B		C		Pole	Trip	Load Name	CKT
1	PANEL A	150 A	3	13.04	4.04					3	50 A	OACU-1	2
3	--	--	--			11.70	4.04			--	--	--	4
5	--	--	--					12.05	4.04	--	--	--	6
7	PANEL B	225 A	3	14.01	3.08					3	60 A	CU-1	8
9	--	--	--			13.96	3.08			--	--	--	10
11	--	--	--					14.28	3.08	2	60 A	CU-2	12
13	PANEL C	225 A	3	15.79	3.08					--	--	--	14
15	--	--	--			15.51	1.75			2	35 A	CU-3	16
17	--	--	--					17.54	1.75	--	--	--	18
19	SPACE	--	--	0.00	2.70					2	40 A	CU-4	20
21	"	--	--			0.00	2.70			--	--	--	22
23	"	--	--					0.00	0.00	--	--	SPACE	24
25	"	--	--	0.00	0.00					--	--	"	26
27	"	--	--			0.00	0.00			--	--	"	28
29	"	--	--					0.00	0.00	--	--	"	30
31	"...	--	--	0.00	0.00					--	--	"	32
33	"	--	--			0.00	0.00			--	--	"	34
35	"	--	--					0.00	0.00	--	--	"	36
37	"	--	--	0.00	0.00					3	30 A	SURGE PROTECTIVE DEVICE	38
39	"	--	--			0.00	0.00			--	--	"	40
41	"	--	--					0.00	0.00	--	--	--	42
		Total Load:		55.73		52.73		52.72		kVA			
		Total Amps:		464.47		439.43		439.34		AMPS			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Electric Clothes Dryer	10000 VA	100.00%	10000 VA		
HVAC	58322 VA	100.00%	58322 VA	**Total Conn. Load:**	161.55 kVA
Lighting	4735 VA	125.00%	5918 VA	**Total Est. Demand:**	143.47 kVA
Motor	16544 VA	102.72%	16994 VA	**Total Conn.:**	448.41 A
Other	0 VA	0.00%	0 VA	**Total Est. Demand:**	398.23 A
Power	34130 VA	100.00%	34130 VA		
Receptacle	25210 VA	69.83%	17605 VA		
Computer	500 VA	100.00%	500 VA		
HVAC - non-concurrent	12105 VA	0.01%	1 VA		

Notes:

Panelboard: A

Location: ELEC. 127
Supply From: MDP
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating: N/A

Notes:

CKT	Load Name	Trip	Pole	A		B		C		Pole	Trip	Load Name	CKT
1	APPARATUS BAY DOOR OPENER*	20 A	1	1.80	1.80					1	20 A	APPARATUS BAY DOOR OPENER*	2
3	APPARATUS BAY DOOR OPENER*	20 A	1			1.80	1.80			1	20 A	APPARATUS BAY DOOR OPENER*	4
5	APPARATUS BAY DOOR OPENER*	20 A	1					1.80	1.80	1	20 A	APPARATUS BAY DOOR OPENER*	6
7	BATTERY CHARGER*	20 A	1	1.50	1.50					1	20 A	BATTERY CHARGER*	8
9	BATTERY CHARGER*	20 A	1			1.50	1.50			1	20 A	BATTERY CHARGER*	10
11	BATTERY CHARGER*	20 A	1					1.50	1.50	1	20 A	BATTERY CHARGER*	12
13	EXTERIOR RECEPTACLES	20 A	1	0.72	0.54					1	20 A	APPARATUS BAY RECEP.	14
15	GEAR AND STORAGE ROOM RECEP.	20 A	1			0.36	0.72			1	20 A	APPARATUS BAY RECEP.	16
17	RADIO AND COMMUNICATION RECEP.	20 A	1					0.36	1.32	1	20 A	ELECT/GEAR/STORAGE AREA LIGHTS	18
19	TTB	20 A	1	0.36	0.50					1	20 A	ALERT SYSTEM	20
21	GENERATOR BATTERY CHARGER	20 A	1			1.50	0.50			1	20 A	SECURITY/ACCESS SYSTEM	22
23	GENERATOR BLOCK HEATER	20 A	1					1.50	0.50	1	20 A	COMMUNICATIONS	24
25	TRAFFIC CONTROLLER	20 A	1	0.75	0.70					1	15 A	EF-5	26
27	LIGHTING	20 A	1			0.19	0.00			--	--	SPACE	28
29	SITE LIGHTING	20 A	1					0.40	0.36	1	20 A	STORAGE AREA RECEPTACLES	30
31	EF-6	15 A	2	0.83	0.04					1	20 A	FLAG POLE LIGHTS	32
33	--	--	--			0.83	0.00			--	--	SPACE	34
35	BUILDING SIGN LIGHTING	20 A	1					0.00	0.00	--	--	"	36
37	SPACE	--	--	0.00	0.00					--	--	"	38
39	"	--	--			0.00	0.00			--	--	"	40
41	"	--	--					0.00	0.00	--	--	"	42
43	FUELMASTER	20 A	3	1.00	0.00					--	--	"	44
45	--	--	--			1.00	0.00			--	--	"	46
47	--	--	--					1.00	0.00	--	--	"	48
49	FUELMASTER	20 A	1	1.00	0.00					3	30 A	SURGE PROTECTIVE DEVICE	50
51	SPACE	--	--			0.00	0.00			--	--	--	52
53	"	--	--					0.00	0.00	--	--	--	54
		Total Load:		13.04		11.70		12.05		kVA			
		Total Amps:		109.14		97.52		100.81		AMPS			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	1957 VA	125.00%	2446 VA		
Motor	13164 VA	103.42%	13614 VA	**Total Conn. Load:**	36.79 kVA
Other	0 VA	0.00%	0 VA	**Total Est. Demand:**	37.73 kVA
Power	18250 VA	100.00%	18250 VA	**Total Conn.:**	102.12 A
Receptacle	3420 VA	100.00%	3420 VA	**Total Est. Demand:**	104.73 A

Notes:
* PROVIDE GFI CIRCUIT BREAKER

Panelboard: PV

Location: ELEC. 127
Supply From:
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Mains Type: MLO
Mains Rating: 400 A (1)
MCB Rating: 300 A

Notes:

CKT	Load Name	Trip	Pole	A		B		C		Pole	Trip	Load Name	CKT
1	FUTURE PV INVERTER #1	50 A	3	4.80	4.80					3	50 A	FUTURE PV INVERTER #4	2
3	--	--	--			4.80	4.80			--	--	--	4
5	--	--	--					4.80	4.80	--	--	--	6
7	FUTURE PV INVERTER #2	50 A	3	4.80	4.80					3	50 A	FUTURE PV INVERTER #5	8
9	--	--	--			4.80	4.80			--	--	--	10
11	--	--	--					4.80	4.80	--	--	--	12
13	FUTURE PV INVERTER #3	50 A	3	4.80	4.80					3	50 A	FUTURE PV INVERTER #6	14
15	--	--	--			4.80	4.80			--	--	--	16
17	--	--	--					4.80	4.80	--	--	--	18
19	SPACE	--	--	0.00	0.00					--	--	SPACE	20
21	"	--	--			0.00	0.00			--	--	"	22
23	"	--	--					0.00	0.00	--	--	"	24
25	"	--	--	0.00	0.00					--	--	"	26
27	"	--	--			0.00	0.00			--	--	"	28
29	"...	--	--					0.00	0.00	--	--	"	30
31	"	--	--	0.00	0.00					--	--	"	32
33	"	--	--			0.00	0.00			--	--	"	34
35	"	--	--					0.00	0.00	--	--	"	36
37	"	--	--	0.00	0.00					--	--	"	38
39	"	--	--			0.00	0.00			--	--	"	40
41	"	--	--					0.00	0.00	--	--	"	42
		Total Load:		28.80		28.80		28.80		kVA			
		Total Amps:		240.00		240.00		240.00		AMPS			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	86400 VA	100.00%	86400 VA		
				Total Conn. Load:	86.40 kVA
				Total Est. Demand:	86.40 kVA
				Total Conn.:	239.82 A
				Total Est. Demand:	239.82 A

Notes:

Panelboard: B

Location: MECH 114
Supply From: MDP
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating: N/A

Notes:

CKT	Load Name	Trip	Pole	A		B		C		Pole	Trip	Load Name	CKT
1	AHU-1	45 A	2	3.58	0.48					1	20 A	GWH-1	2
3	--	--	--			3.58	0.72			1	20 A	RECEP. BUNK RM. #4	4
5	AHU-2	45 A	2	(1)				3.58	0.72	1	20 A	RECEP. BUNK RM. #3	6
7	--	--	--	3.58	1.08					1	20 A	RECEP. BUNK RM. #1	8
9	RECEP. BUNK RM #2	20 A	1			0.72	0.80			1	20 A	REFRIGERATOR RECEP.	10
11	RECEP. REPORT ROOM	20 A	1					0.54	0.80	1	20 A	REFRIGERATOR RECEP.	12
13	EWC*	20 A	1	0.37	0.80					1	20 A	REFRIGERATOR RECEP.	14
15	RECEP. BATH ROOMS 2 & 3	20 A	1			0.36	0.18			1	20 A	DECON RECEP.	16
17	WORK ROOM RECEP.	20 A	1					0.36	0.72	1	20 A	EMS STORAGE/EMS RECEP.	18
19	WORK ROOM RECEP.	20 A	1	0.36	1.50					1	20 A	DECON WASHER RECEP.*	20
21	MECH ROOM RECEP.	20 A	1			0.36	2.50			2	30 A	DECON DRYER RECEP.	22
23	LAUNDRY RM WASHER RECEP.*	20 A	1					1.50	2.50	--	--	--	24
25	LAUNDRY AREA RECEP.	20 A	1	0.36	1.00					2	15 A	DECON EXT SPECIAL RECEP.	26
27	LAUNDRY DRYER RECEP.	30 A	2			2.50	1.00			--	--	--	28
29	--	--	--					2.50	0.18	1	20 A	ICE MACHINE*	30
31	EMS STORAGE RECEPTACLES	20 A	1	0.72	0.36					1	20 A	STORAGE ROOM RECEPTACLES	32
33	EF-1	15 A	1			0.70	0.72	(1)		1	20 A	RECEPTACLES	34
35	EF-2	15 A	1					0.70	0.18	1	20 A	IRRIGATION CONTROLLER	36
37	SPACE	--	--	0.00	0.00					--	--	SPACE	38
39	"	--	--			0.00	0.00			--	--	"	40
41	"	--	--					0.00	0.00	--	--	"	42
43	"	--	--	0.00	0.00					--	--	"	44
45	"	--	--			0.00	0.00			--	--	"	46
47	"	--	--					0.00	0.00	--	--	"	48
49	"	--	--	0.00	0.00					3	30 A	SURGE PROTECTIVE DEVICE	50
51	"	--	--			0.00	0.00			--	--	--	52
53	"	--	--					0.00	0.00	--	--	--	54
		Total Load:		14.19		14.14		14.28		kVA			
		Total Amps:		118.27		117.81		119.04		AMPS			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Electric Clothes Dryer	10000 VA	100.00%	10000 VA		
HVAC	14310 VA	100.00%	14310 VA	**Total Conn. Load:**	42.24 kVA
Motor	1400 VA	112.50%	1575 VA	**Total Est. Demand:**	42.09 kVA
Other	0 VA	0.00%	0 VA	**Total Conn.:**	117.25 A
Power	5880 VA	100.00%	5880 VA	**Total Est. Demand:**	116.83 A
Receptacle	10650 VA	96.95%	10325 VA		

Notes:
* PROVIDE GFI CIRCUIT BREAKER

Panelboard: C

Location: MECH 114
Supply From: MDP
Mounting: SURFACE
Enclosure: NEMA 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Mains Type: MLO
Mains Rating: 225 A
MCB Rating: N/A

Notes:

CKT	Load Name	Trip	Pole	A		B		C		Pole	Trip	Load Name	CKT
1	FITNESS ROOM RECEP.	20 A	1	0.36	0.36					1	20 A	FITNESS ROOM RECEP.	2
3	LOBBY/TREATMENT ROOM	20 A	1			0.72	0.36			1	20 A	TREATMENT ROOM RECEP.	4
5	TREATMENT TOILET RECEP.	20 A	1					0.18	1.08	1	20 A	DINING/DAY ROOM RECEP.	6
7	DAY ROOM FLOOR RECEP.	20 A	1	0.72	0.72					1	20 A	DAY ROOM FLOOR RECEP.	8
9	KITCHEN ISLAND RECEP.	20 A	1			0.18	1.50			1	20 A	DISHWASHER*	10
11	DISPOSAL*	20 A	1					1.20	0.18	1	20 A	KITCHEN ISLAND RECEP.	12
13	KITCHEN MICROWAVE RECEP	20 A	1	1.50	0.36					1	20 A	KITCHEN COUNTER RECEP.	14
15	GAS COOKTOP/HOOD	20 A	1			0.68	0.36			1	20 A	KITCHEN COUNTER RECEP.	16
17	DOUBLE OVEN	50 A	2					3.25	0.36	1	20 A	COVERED PORCH RECEP.	18
19	--	--	--	3.25	1.52					1	20 A	LIGHTING	20
21	LIGHTING	20 A	1			1.34	0.50			1	20 A	FACP**	22
23	LT OFFICE/BUNK RECEP.	20 A	1					0.90	5.38	3	60 A	OAU-1	24
25	BATH 119 RECEPTACLE	20 A	1	0.18	5.38					--	--	--	26
27	AHU-3	40 A	2			3.33	5.38			--	--	--	28
29	--	--	--					3.33	0.18	1	20 A	FITNESS EQUIPMENT	30
31	SPEAKER SYSTEM, RIP AND RUN QUADS	20 A	1	0.72	0.72					1	20 A	RIP AND RUN PRINTER QUADS	32
33	FITNESS ROOM RECEP.	20 A	1			0.36	0.80			1	20 A	FITNESS EQUIPMENT	34
35	EF-3	15 A	1					0.70	0.80	1	20 A	FITNESS EQUIPMENT	36
37	SPACE	--	--	0.00	0.00					--	--	SPACE	38
39	"	--	--			0.00	0.00			--	--	"	40
41	"	--	--					0.00	0.00	--	--	"	42
43	"	--	--	0.00	0.00					--	--	"	44
45	"	--	--			0.00	0.00			--	--	"	46
47	"	--	--					0.00	0.00	--	--	"	48
49	"	--	--	0.00	0.00					3	30 A	SURGE PROTECTIVE DEVICE	50
51	"	--	--			0.00	0.00			--	--	--	52
53	"	--	--					0.00	0.00	--	--	--	54
		Total Load:		15.79		15.51		17.54		kVA			
		Total Amps:		131.94		129.22		146.51		AMPS			

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	22796 VA	100.00%	22796 VA		
Lighting	2778 VA	125.00%	3472 VA	**Total Conn. Load:**	48.83 kVA
Motor	1980 VA	115.15%	2280 VA	**Total Est. Demand:**	49.44 kVA
Other	0 VA	0.00%	0 VA	**Total Conn.:**	135.55 A
Power	10000 VA	100.00%	10000 VA	**Total Est. Demand:**	137.23 A
Receptacle	10780 VA	96.38%	10390 VA		
Computer	500 VA	100.00%	500 VA		

Notes:
* PROVIDE GFI CIRCUIT BREAKER
** PROVIDE RED CIRCUIT BREAKER WITH LOCK ON HANDLE.

MDP	A	PV
B	C	

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SWEET SPARKMAN ARCHITECTS

DANIEL SHEPARD * LICENSE * 71536 * STATE OF FLORIDA * REGISTERED PROFESSIONAL ENGINEER * NOT VALID WITHOUT SIGNATURE AND ORIGINAL SEAL

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

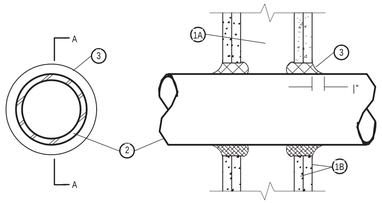
SCALE: 1/8" = 1'-0"
PROJECT MANAGER: CRB
DRAWN BY: RLS
A/E OF RECORD: JDS
PROJECT NO: 19-523

SHEET TITLE:
ELECTRICAL PANELBOARD SCHEDULES

SHEET No.:
E2.3

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SYSTEM NO. WL1001
F RATINGS-1, 2, 3, AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS-0, 1, 2, 3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT-LESS THAN 1 CFM/SQ FT (SEE ITEM 3)
L RATING AT 400 F-LESS THAN 1 CFM/SQ FT (SEE ITEM 3)



SECTION A-A

STEEL PIPE THRU GYPSUM BOARD

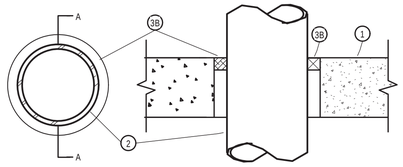
1. WALL ASSEMBLY - - THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 X 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER AND 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. WALLBOARD, GYPSUM* - - - NOM 1/2 OR 5/8 IN. THICK, 4 FT WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 FOR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 13-1/2 IN.

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

SYSTEM NO. CAJ1016
F RATING-3
T RATINGS-0 AND 1 HR (SEE ITEM 4)



SECTION A-A

METAL PIPE THRU CONCRETE

1. FLOOR OR WALL ASSEMBLY - - MIN 4 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL AMY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAM OF OPENING IS 8IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

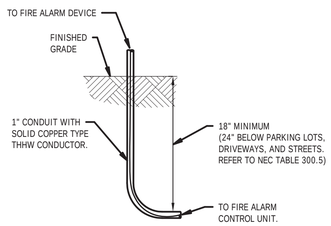
2. METALLIC PIPE - - NOM 8 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE OR RIGID GALV STEEL CONDUIT, OR MAX 1/2 IN. DIAM (OR SMALLER) STEEL EMT CONDUIT CENTERED IN THE OPENING. THE ANNULAR SPACE SHALL BE AS TABULATED IN ITEM 4.2 IN. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

3. FORMING MATERIAL - - (NOT SHOWN, OPTIONAL)- NOM 1 IN. THICK POLYURETHANE BAKER ROD FRICTION FITTED INTO THE OPENING TO PREVENT THE LEAKAGE OF FILL MATERIAL WHILE IN ITS LIQUID STATE. FORMING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WELL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

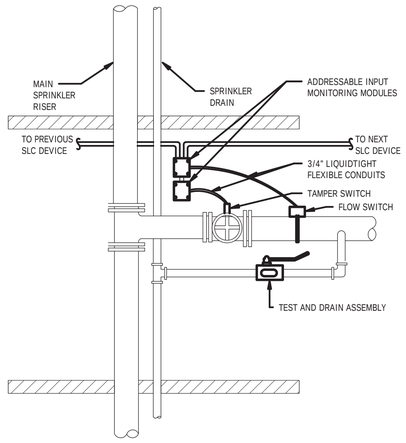
4. FILL, VOID OR CAVITY MATERIAL* - CAULK - - MIN 1/2 IN. THICKNESS OF FILL THE MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. THE T RATING OF THE SYSTEM IS DEPENDENT ON THE PENETRATING ITEM AND ANNULAR SPACES AS SHOWN IN THE TABLE BELOW:

MAX SIZE OF PENETRATING ITEM	NORMINAL ANNULAR ANNULAR SPACE, IN	T RATING, HR
6 IN DIAM STEAL PIPE OR CONDUIT	3/4	0
1/2IN. DIAM STEEL EMT	11/16	1

THE CARBORUNDUM COMPANY--FRYRE PUTTY
* BEARING THE UL CLASSIFICATION MARKING

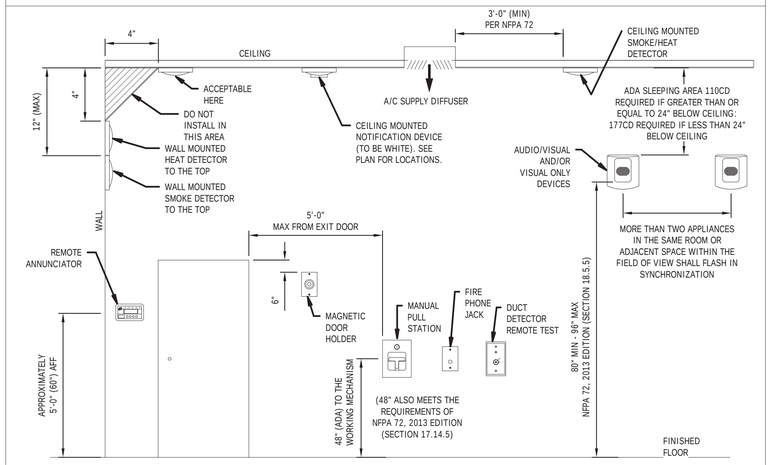


FIRE ALARM WIRE BURIAL DETAIL
SCALE: NONE

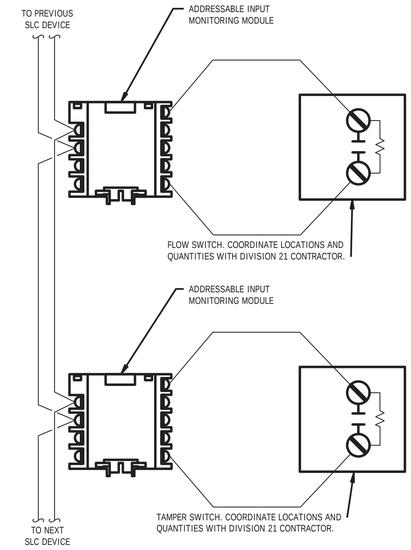


FIRE SPRINKLER CONTROL VALVE AND DRAIN ASSEMBLY DETAIL
SCALE: NONE

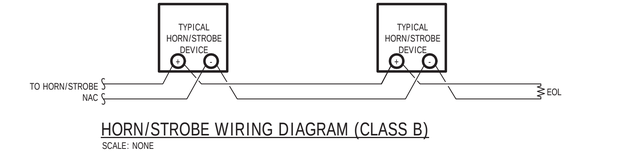
FIRE ALARM DEVICE MOUNTING GUIDE



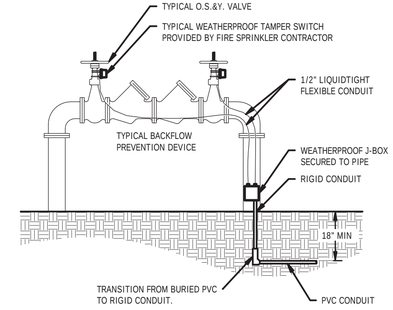
NOTE	IMPORTANT NOTE
CHECK WITH MANUFACTURER'S INSTALLATION SHEET FOR THE EXACT ROUGH-IN HEIGHTS, LOCATION OF BACK BOXES, AND WIRING REQUIREMENTS.	NOT ALL DEVICES SHOWN ON THIS DETAIL APPLY TO THIS PROJECT. SEE THE PLAN VIEW LAYOUT OF THE FIRE ALARM SYSTEM TO VERIFY WHICH DEVICES APPLY, AND WHICH DO NOT.



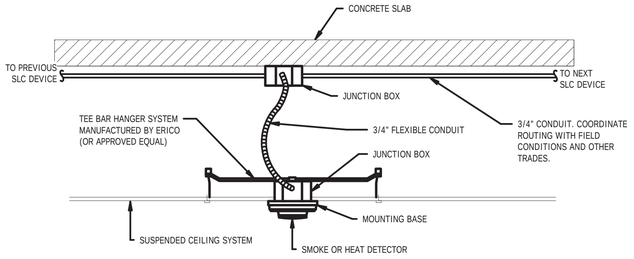
FLOW AND TAMPER SWITCH CONNECTIONS
SCALE: NONE



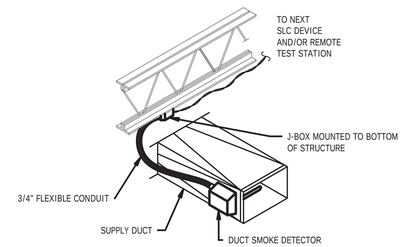
HORN/STROBE WIRING DIAGRAM (CLASS B)
SCALE: NONE



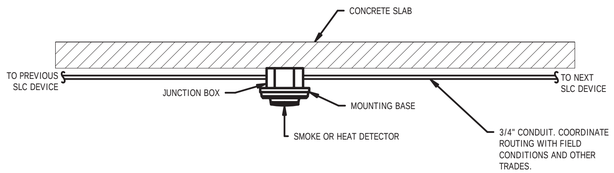
BACKFLOW PREVENTION DEVICE SUPERVISION DETAIL
SCALE: NONE



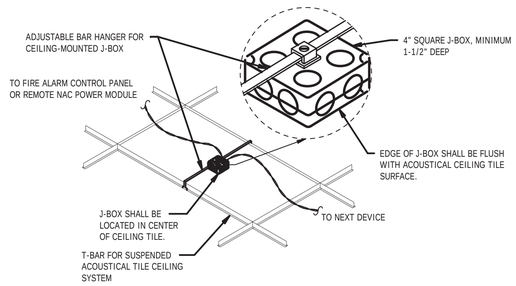
SMOKE/HEAT DETECTOR MOUNTED ON SUSPENDED CEILING SYSTEM
SCALE: NONE



DUCT SMOKE DETECTOR DETAIL
SCALE: NONE



SMOKE/HEAT DETECTOR MOUNTED ON CONCRETE SLAB OR HARD CEILING
SCALE: NONE



CEILING-MOUNTED NOTIFICATION APPLIANCE BACKBOX DETAIL
SCALE: NONE

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QDG ENGINEERING CONNECTIONS
Cert. of Authorization# CA31201
Mechanical Electrical Plumbing Fire Protection

CONTRACTOR TO VERIFY ALL DETAILS, DIMENSIONS, AND FIELD CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION. DO NOT SCALE DRAWINGS. REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING. DRAWINGS, SDS, ONLY MOST RECENTLY DATED DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL TRADES. CONTRACTOR TO VERIFY ALL CONDITIONS. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION NOT CARRIED OUT IN ACCORDANCE WITH THESE DRAWINGS. CONTRACTOR TO COORDINATE ALL WORK WITH OTHER TRADES. CONTRACTOR TO PROVIDE ALL ITEMS NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM.
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SWEET SPARKMAN ARCHITECTS

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE: FIRE ALARM DETAILS

SHEET No.: **E3.0**

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LOW VOLTAGE LEGEND

SYMBOL	DESCRIPTION
AFF/AFG	ABOVE FINISHED FLOOR / ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ETR	EXISTING TO REMAIN.
NIC	NOT IN CONTRACT
TR	TAMPER RESISTANT
UON	UNLESS OTHERWISE NOTED
WP	WEATHER PROOF
NAC	NOTIFICATION APPLIANCE CIRCUIT
SLC	SIGNALING LINE CIRCUIT CLASS B (ADDRESSABLE LOOP)
SLC (A)	SIGNALING LINE CIRCUIT CLASS A (ADDRESSABLE LOOP)
IDC	INITIATING DEVICE CIRCUIT (CONVENTIONAL LOOP)
CD	CANDELA RATING
W	WALL MOUNTED DEVICE
C	CEILING MOUNTED DEVICE
	CCTV CAMERA, CEILING-MOUNTED "C" OR WALL-MOUNTED "W" AS INDICATED
SC	SECURITY CONTACT DOOR/WINDOW ECT.
ML	MAGNETIC LOCK
DSL	DOOR STRIKE LOCK
PR	PROX READER
PDR	PROX READER LIGHTED EXIT PUSH BUTTON FOR DOOR RELEASE.
PB	PANIC BUTTON
R	SECURITY SYSTEM RELAY
KP	SECURITY SYSTEM KEYPAD
DR	EXIT PUSH BUTTON FOR DOOR RELEASE.
	HANDICAP EXIT PUSH PLATE DOOR OPENER.
S	SIREN
M	SECURITY SYSTEM MOTION DETECTOR
D	MOTION DETECTOR FOR DOOR RELEASE
SEC	SECURITY CONTROL PANEL.
	TELEPHONE OUTLET - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESSIBLE CEILING. PROVIDE PULLSTRING.
	DATA OUTLET - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESSIBLE CEILING. PROVIDE PULLSTRING.
	TELECOM OUTLET(DATA/TELEPHONE) - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESSIBLE CEILING. PROVIDE PULLSTRING.
	FLOOR/CEILING-MOUNTED TELECOM OUTLET. REFER TO PLANS FOR BOX TYPE, CONDUIT SIZE/QUANTITY & CONFIGURATION.
H	HDMI CABLE OUTLET, PROVIDE 4" SQ. J-BOX w/1-GANG PLASTER RING AND COVER PLATE.
TV	CABLE TELEVISION OUTLET - MOUNT 18" AFF U.O.N., 4" SQ. J-BOX w/1-GANG PLASTER RING, 1"C TO ACCESS. CLG. PROVIDE PULLSTRING.
TTB	TTB (TELEPHONE TERMINAL BOARD) MARINE PLYWOOD BACKBOARD 3/4"x4'x4' PAINTED W/FIRE RETARDANT GRAY PAINT. PROVIDE (2)4" CONDUITS TO PROPERTY LINE. COORDINATE FINAL CONDUIT SIZES AND LOCATIONS W/UTILITY. PROVIDE SOLID COPPER GROUND BAR WITH INSULATED STAND-OFFS.
J	JUNCTION BOX
	FIRE ALARM PULL STATION, MOUNT 48" AFF U.O.N.
	HEAT DETECTOR (THERMAL DETECTOR)
	SYSTEM TYPE, ADDRESSABLE SMOKE DETECTOR FOR FIRE ALARM &/OR SMOKE CONTROL. MAINTAIN A MINIMUM DISTANCE OF 3'-0" FROM ALL CEILING-MOUNTED HVAC SUPPLY/RETURN REGISTERS.
	PHOTOELECTRIC TYPE SMOKE DETECTOR MOUNTED IN HVAC DUCT FOR MECHANICAL UNIT SHUT DOWN AND/OR SMOKE DAMPER OPERATION, COORDINATE FINAL LOCATION AND QUANTITY WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR.
RTS	DUCT DETECTOR REMOTE TEST SWITCH.
	ELECTRIC HORN, MOUNT 90" A.F.F. OR 6" BELOW THE CEILING, WHICHEVER IS LOWER.
	LOW FREQUENCY ALARM APPLIANCE, 520 HZ MOUNT BETWEEN 80" AND 96" AFF.
V	COMBINATION LOW FREQUENCY/STROBE ALARM APPLIANCE, 520 HZ MOUNT AS PER ADA REQUIREMENTS.
	STROBE LIGHT, MOUNT BETWEEN 80" AND 96" AFF. FINAL MOUNTING HEIGHT W/ARCH.
	COMBINATION FIRE ALARM HORN/STROBE, MOUNT BETWEEN 80" AND 96" AFF. COORDINATE FINAL MOUNTING HEIGHT WITH ARCHITECT.
	STROBE LIGHT, CEILING MOUNT.
	COMBINATION FIRE ALARM HORN/STROBE, CEILING MOUNT.
	VOICE EVACUATION SPEAKER, MOUNT 90" A.F.F. OR 6" BELOW THE CEILING, WHICHEVER IS LOWER. CONTRACTOR SHALL ADJUST TAPS IN FIELD FOR AUDIBILITY/INTELLIGIBILITY.
V	VOICE EVACUATION SPEAKER/STROBE MOUNT 90" A.F.F. OR 6" BELOW THE CEILING, WHICHEVER IS LOWER. CONTRACTOR SHALL ADJUST TAPS IN THE FIELD FOR AUDIBILITY/INTELLIGIBILITY.
	VOICE EVACUATION SPEAKER, CEILING MOUNT, CONTRACTOR SHALL ADJUST TAPS IN FIELD FOR AUDIBILITY/INTELLIGIBILITY.
V	VOICE EVACUATION SPEAKER/STROBE CEILING MOUNT, CONTRACTOR SHALL ADJUST TAPS IN THE FIELD FOR AUDIBILITY/INTELLIGIBILITY.
	DOOR HOLDER
	FLOW SWITCH
	TAMPER SWITCH
	FIRE ALARM MONITORING MODULE.
FRC	FIRE ALARM CONTROL RELAY. LOCATE WITHIN 3'-0" OF CONTROLLED EQUIPMENT.
LIM	FIRE ALARM LINE ISOLATION MODULE, USED IN CLASS A CIRCUITS ONLY.
SPD	SURGE PROTECTION DEVICE, INCLUDE GROUNDING AS PER MANUFACTURERS INSTRUCTIONS.
TLS	FIRE ALARM TELEPHONE STATION.
FACP	FIRE ALARM CONTROL PANEL.
BPS	FIRE ALARM BOOSTER POWER SUPPLY.
FACS	FIRE ALARM COMMAND SYSTEM.
AMP	VOICE EVAC AMPLIFIER PANEL.
ANN	FIRE ALARM ANNUNCIATOR. PROVIDE FLUSH MOUNTING TRIM FOR DEVICE RECESS MOUNTING.
DACT	DIGITAL ALARM COMMUNICATION TRANSMITTER
FATC	FIRE ALARM TERMINAL CABINET.
KNOX	KNOX BOX
E.O.L.	END-OF-LINE RESISTOR.
ARP	AREA OF RESCUE POWER SUPPLY.
ARB	AREA OF RESCUE PHONE BASE.
RCB	AREA OF RESCUE CALL BOX.
AOR	AREA OF RESCUE DIRECTIONAL SIGNAGE.

NOTES:
1. LOW VOLTAGE/ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS & MOUNTING HEIGHTS OF ALL LOW VOLTAGE DEVICES WITH OWNER/ARCHITECT BEFORE ROUGH-IN.
2. ALL SYMBOLS AND ABBREVIATIONS DO NOT NECESSARILY APPEAR ON THIS PROJECT.

SEQUENCE OF OPERATION MATRIX:

SYSTEM OPERATION NARRATIVE:
1. SEQUENCE OF OPERATION:
A. ACTIVATION OF BUILDING MANUAL OR AUTOMATIC ALARM INITIATING DEVICES SHALL PERFORM THE FOLLOWING OPERATION:
1) GENERAL ALARM STATUS SIGNALS SHALL BE TRANSMITTED TO AN U.L. LISTED 24HR/7 DAY REMOTE STATION.
2) THE CORRESPONDING ALARM DEVICE SHALL SHOW THE EXACT DESCRIPTION, POINT, TIME AND DATE OF ALARM AND DEFINED MESSAGES ON THE FIRE ALARM CONTROL PANEL DISPLAY (FACP). THE LOBBY ANNUNCIATOR PANEL IF INSTALLED SHALL ALSO SHOW THE EXACT DESCRIPTION, POINT, TIME AND DATE OF THE ALARM AND DEFINED MESSAGES ON THE DISPLAY.
3) SOUND AN AUDIBLE ALARM SIGNAL AT THE FACP.
4) ALL HORNS SHALL SOUND AND ALL STROBES SHALL FLASH.
B. FIRE ALARM SYSTEM FUNCTIONS WHEN A SUPERVISORY CONDITION(S) DEVELOPS:
1) SUPERVISORY CONDITION'S SHALL BE TRANSMITTED TO AN U.L. LISTED 24HR/7 DAY REMOTE STATION.
2) AN ALARM CONDITION SHALL OVERRIDE THE SUPERVISORY CONDITION BY EXTINGUISHING ALL SUPERVISORY CONDITIONS. WHEN THE ALARM CONDITION HAS BEEN ENDED BY RESETTING THE CONTROL PANEL, SUPERVISORY INDICATIONS SHALL REAPPEAR.
3) IF THE SUPERVISORY CONDITION HAS BEEN SILENCED AND NOT CORRECTED WITH IN 24 HRS AN AUDIBLE NOTIFICATION AT THE FIRE ALARM PANEL AND REMOTE ANNUNCIATOR SHALL BE REACTIVATED.
C. FIRE ALARM SYSTEM FUNCTIONS WHEN A TROUBLE CONDITION(S) DEVELOPS:
1) TROUBLE STATUS SIGNALS ARE TRANSMITTED TO AN U.L. LISTED 24HR/7 DAY REMOTE STATION.
2) AN ALARM CONDITION SHALL OVERRIDE THE TROUBLE CONDITION BY EXTINGUISHING ALL TROUBLE CONDITIONS. WHEN THE ALARM CONDITION HAS BEEN ENDED BY RESETTING THE CONTROL PANEL, TROUBLE INDICATIONS SHALL REAPPEAR.
3) IF A GROUND FAULT DEVELOPS ON EITHER THE POSITIVE (+) OR NEGATIVE (-) OF ANY ADDRESSABLE OR NOTIFICATION APPLIANCE CIRCUIT, AN AUDIBLE AND VISUAL, TROUBLE SIGNAL WILL BE INDICATED AT THE FIRE ALARM CONTROL PANEL AND REMOTE ANNUNCIATOR PANEL.
4) IF THE TROUBLE CONDITION HAS BEEN SILENCED AND NOT CORRECTED WITH IN 24 HRS AN AUDIBLE NOTIFICATION AT THE FIRE ALARM PANEL AND REMOTE ANNUNCIATOR SHALL BE REACTIVATED.

FIRE ALARM DEVICE	GENERAL ALARM	ANNUNCIATE & AT FACP	RELEASE SMOKE/FIRE DAMPERS	ANNUNCIATE @ 24 HR U.L. REMOTE STATION	SHUTDOWN AIR HANDLER
DEDICATED DUCT DETECTORS	N/A	N/A	N/A	N/A	N/A
SMOKE DETECTORS	YES	YES	N/A	YES	YES
PULL STATIONS	YES	YES	N/A	YES	YES
POWER FAILURE	NO	YES	N/A	YES	N/A
WATERFLOW SW	YES	YES	N/A	YES	N/A
TAMPER SW	NO	YES	N/A	YES	N/A
ANSUL SYSTEM	N/A	N/A	N/A	N/A	N/A

FIRE ALARM AND DETECTION SYSTEM NOTES:

1. PROVIDE AN ADDRESSABLE FIRE ALARM SYSTEM IN ACCORDANCE WITH THE FIRE ALARM RISER DIAGRAM.

2. UNDERGROUND FIRE ALARM CONDUCTORS SHALL BE TYPE FPL AND LISTED FOR DIRECT BURIAL AND WET LOCATIONS. FIRE ALARM CONDUCTORS IN SPACES UTILIZED AS RETURN AIR PLENUMS SHALL BE TYPE FPLP. FIRE ALARM RISER CONDUCTORS SHALL BE TYPE FPLR. ALL OTHER FIRE ALARM CONDUCTORS SHALL BE TYPE FPL.

3. ALL CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS BUT IN NO CASE SMALLER THAN 14 AWG FOR NOTIFICATION APPLIANCE CIRCUITS AND 18 AWG FOR SIGNALING LINE CIRCUITS.

4. ALL UNDERGROUND FIRE ALARM CONDUCTORS SHALL BE INSTALLED IN MINIMUM 3/4" CONDUIT. ALL FIRE CONDUCTORS CONCEALED IN WALLS SHALL BE IN MINIMUM 1/2" CONDUIT STUBBED 6" ABOVE CEILING W/90° BEND. (CONDUITS SHALL NOT EXCEED 30% FILL) TIE WRAP ALL EXPOSED FIRE ALARM WIRES TIGHT TO CEILING.

5. ALL VISUAL ALARMS SHALL BE RATED PER NFPA 72, 101, AND ANSI A117.1.4.26 AND ADA REQUIREMENTS. AUDIBLE AND VISUAL DEVICES FOR FIRE ALARM SHALL COMPLY WITH THE FLORIDA ACCESSIBILITY CODE. FIRE ALARM SYSTEM SHALL BE AS REQUIRED PER FLORIDA BUILDING CODE 2017, NFPA 101-2015, NFPA 72-2013, AND LOCAL CODES.

6. ALL NOTIFICATION APPLIANCE CIRCUITS SHALL BE CLASS B AND ALL SIGNALING LINE CIRCUITS SHALL BE CLASS B STYLE 4, UNLESS OTHERWISE INDICATED.

7. ALL FIRE ALARM WIRING TO BE SOLID COPPER CONDUCTOR OF THE MINIMUM SIZE RECOMMENDED BY THE FIRE ALARM SYSTEM MANUFACTURER AND INSTALLED IN CONDUIT WHERE CONCEALED OR ABOVE STORAGE SPACES. ALL WIRING TO BE COLOR COORDINATED AND PROPERLY IDENTIFIED. INSTALLATION WILL BE BY A STATE LICENSED AND APPROVED INSTALLER AND COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

8. ALL FIRE ALARM COMPONENTS SHALL BE COMPATIBLE AND SHALL BE UL LISTED FOR FIRE ALARM SERVICE.

9. VERIFY ALL REQUIREMENTS WITH LOCAL AUTHORITY HAVING JURISDICTION (AHJ).

10. FIRE ALARM AND FIRE SPRINKLER CONTRACTORS SHALL OBTAIN SEPARATE PERMITS.

11. BATTERY CALCULATIONS SHALL BE PROVIDED WITH EQUIPMENT SUBMITTALS AND PERMIT DOCUMENTS AS REQUIRED.

12. FIRE ALARM PLANS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF THE FIRE ALARM SYSTEM AND MEETS REQUIREMENTS IN ACCORDANCE WITH FLORIDA ADMINISTRATIVE CODE 61G15-32.008 AND 33.005. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS IN ACCORDANCE WITH ALL APPLICABLE CODES THAT SHALL INCLUDE, BUT NOT BE LIMITED TO, POINT TO POINT WIRING DIAGRAM, WIRE SIZES, BATTERY CALCULATIONS, EQUIPMENT SUBMITTALS AND INSTALLATION DETAILS. IT SHALL ALSO BE THE RESPONSIBILITY OF SAID CONTRACTOR TO PROVIDE DOCUMENTS AS REQUIRED FOR THE FIRE ALARM PERMIT. CONTRACTOR SHALL PROVIDE ADDITIONAL ITEMS AS REQUIRED FOR A COMPLETE AND CODE COMPLYING INSTALLATION BASED ON THE LOCAL REQUIREMENTS AND THE AHJ.

13. FIRE ALARM CONTRACTOR SHALL SUPPLY TO THE OWNER AND OWNERS OPERATING PERSONNEL TRAINING AS REQUIRED FOR THE PROPER OPERATION AND MAINTENANCE OF THEIR FIRE ALARM SYSTEM. PROVIDE MANUALS, SYSTEM DOCUMENTATION AND A COPY OF THE PROGRAMMING WITHIN 30 DAYS OF ACCEPTANCE OF THE FIRE ALARM SYSTEM TO THE OWNER.

14. FIRE ALARM CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS & QUANTITY OF ALL SMOKE & SMOKE/FIRE DAMPERS WITH THE MECHANICAL PLANS AND THE MECHANICAL CONTRACTOR PRIOR TO BID & ROUGH-IN. PROVIDE A CONTROL RELAY & CONTROL WIRE FROM THE FACP. ELECTRICAL CONTRACTOR SHALL PROVIDE 120V CIRCUIT TO DAMPERS & 120V/24V STEP-DOWN TRANSFORMER FOR DAMPER OPERATION AS REQUIRED PER THE MECHANICAL CONTRACTOR'S SUBMITTALS AND INSTALLATION DETAILS. IT SHALL ALSO BE THE EQUIPMENT SHOP DRAWINGS.

15. PROVIDE FIRE ALARM PANEL WITH ADEQUATE SPARE CAPACITY FOR FUTURE DEVICE CONNECTIONS IN FINAL BUILD-OUT BASED UPON LISTED OCCUPANCY AND SQUARE FOOTAGE.

16. A VOICE EVAC. SYSTEM WITH THE APPROVAL OF THE AHJ MAY BE USED AS A MASS NOTIFICATION SYSTEM AS PER NFPA 72 2013.

17. COORDINATE THE EXACT LOCATIONS AND QUANTITY OF THE FIRE ALARM DEVICES WITH THE FLOOR PLANS.

18. VERIFY THE EXACT LOCATIONS AND QUANTITIES OF FLOW AND TAMPER SWITCHES WITH THE FIRE SPRINKLER RISER PRIOR TO BID.

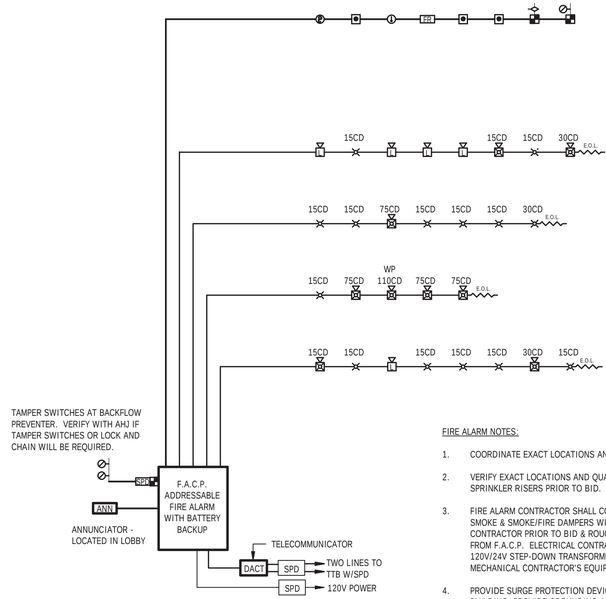
19. FIRE ALARM SYSTEM TESTING SHALL BE AS PER NFPA 72 CHAPTER 14 REQUIREMENTS.

20. FIRE ALARM SYSTEM TO PROVIDE A GENERAL EVACUATION SIGNAL.

21. FIRE ALARM SYSTEM IS TO BE REMOTE MONITORED.

22. BUILDING OCCUPANCY TYPE IS "S-1".

FIRE ALARM SYSTEM TYPE/WIRE SIZES PER CIRCUIT				
CIRCUIT		CLASS TYPE	MINIMUM WIRE SIZE	WIRE TYPE
SLC1	PANEL SLC LOOP	CLASS B	#16-2 AWG	AS REQUIRED
ANN	REMOTE ANNUNCIATOR	CLASS B	#16-4 AWG	AS REQUIRED
PNI1-1	PANEL NAC CIR. #1	CLASS B	#14-2 AWG	AS REQUIRED
PNI1-2	PANEL NAC CIR #2	CLASS B	#14-2 AWG	AS REQUIRED
PNI1-3	PANEL NAC CIR #3	CLASS B	#14-2 AWG	AS REQUIRED
PNI1-4	PANEL NAC CIR #4	CLASS B	#14-2 AWG	AS REQUIRED
FIRE ALARM BOOSTER POWER SUPPLY #1 (BSP1)				
BPS1-1	BOOSTER NAC CIR #1	CLASS B	#14-2 AWG	AS REQUIRED
BPS1-2	BOOSTER NAC CIR #2	CLASS B	#14-2 AWG	AS REQUIRED
BPS1-3	BOOSTER NAC CIR #3	CLASS B	#14-2 AWG	AS REQUIRED
BPS1-4	BOOSTER NAC CIR #4	CLASS B	#14-2 AWG	AS REQUIRED



FIRE ALARM RISER DIAGRAM

SCALE: NONE

FIRE ALARM NOTES:

1. COORDINATE EXACT LOCATIONS AND QUANTITY OF FIRE ALARM DEVICES WITH FLOOR PLANS.
2. VERIFY EXACT LOCATIONS AND QUANTITIES OF FLOW AND TAMPER SWITCHES WITH FIRE SPRINKLER RISERS PRIOR TO BID.
3. FIRE ALARM CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS & QUANTITY OF ALL SMOKE & SMOKE/FIRE DAMPERS WITH THE MECHANICAL PLANS AND THE MECHANICAL CONTRACTOR PRIOR TO BID & ROUGH-IN. PROVIDE A CONTROL RELAY & CONTROL WIRE FROM F.A.C.P. ELECTRICAL CONTRACTOR SHALL PROVIDE 120V CIRCUIT TO DAMPER & 120V/24V STEP-DOWN TRANSFORMER FOR DAMPER OPERATION AS REQUIRED PER THE MECHANICAL CONTRACTOR'S EQUIPMENT SHOP DRAWINGS.
4. PROVIDE SURGE PROTECTION DEVICES ON ALL FIRE ALARM WIRING ENTERING OR LEAVING A BUILDING. PROVIDE GROUNDING AS PER THE MANUFACTURES INSTRUCTIONS.
5. PROVIDE BOOSTER POWER SUPPLIES AS NEEDED FOR AUDIBLE/VISUAL DEVICES.
6. REFER TO ELECTRICAL DRAWINGS FOR DEVICE LOCATIONS.

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QDG ENGINEERING CONNECTIONS

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Mechanical Electrical Plumbing Fire Protection

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SWEET SPARKMAN ARCHITECTS

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE:
FIRE ALARM RISER, NOTES, AND LEGEND

SHEET No.:
E3.1

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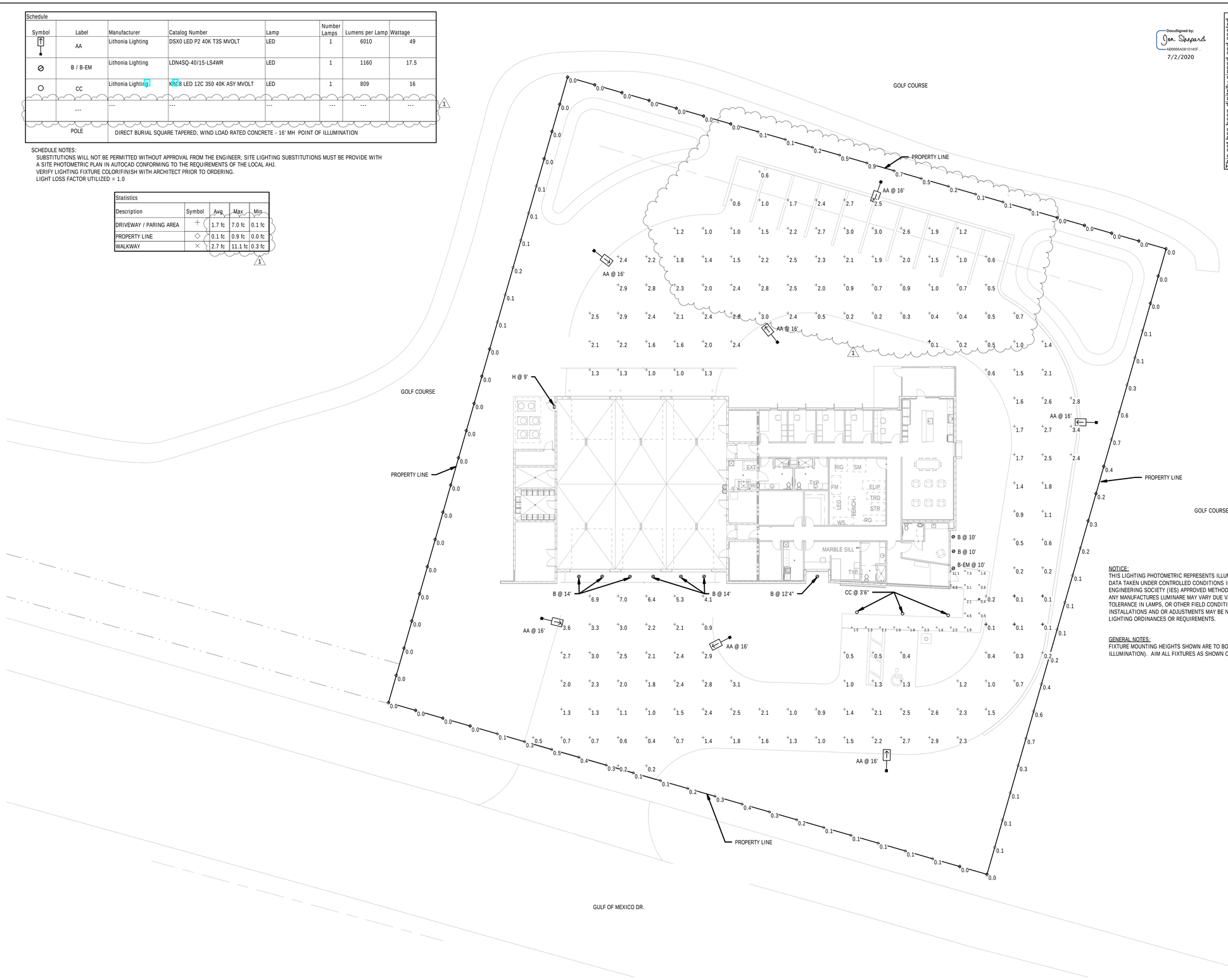
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Schedule							
Symbol	Label	Manufacturer	Catalog Number	Lamp	Number Lamps	Lumens per Lamp	Wattage
	AA	Lithonia Lighting	DSX0 LED P2 40K T3S MVOLT	LED	1	6010	49
	B / B-EM	Lithonia Lighting	LDN4SQ-40/15-LS4WR	LED	1	1160	17.5
	CC	Lithonia Lighting	KBG 8 LED 12C 350 40K ASY MVOLT	LED	1	809	16
	...	...	...	...	...	...	...
	POLE	DIRECT BURIAL SQUARE TAPERED, WIND LOAD RATED CONCRETE - 16' MH POINT OF ILLUMINATION					

SCHEDULE NOTES:
SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT APPROVAL FROM THE ENGINEER, SITE LIGHTING SUBSTITUTIONS MUST BE PROVIDE WITH A SITE PHOTOMETRIC PLAN IN AUTOCAD CONFORMING TO THE REQUIREMENTS OF THE LOCAL AHJ.
VERIFY LIGHTING FIXTURE COLOR/FINISH WITH ARCHITECT PRIOR TO ORDERING.
LIGHT LOSS FACTOR UTILIZED = 1.0

Statistics				
Description	Symbol	Avg	Max	Min
DRIVEWAY / PARING AREA	+	1.7 fc	7.0 fc	0.1 fc
PROPERTY LINE	◇	0.1 fc	0.9 fc	0.0 fc
WALKWAY	×	2.7 fc	11.1 fc	0.3 fc

1



1 PHOTOMETRIC SITE PLAN
1/16" = 1'-0"

NOTICE:
THIS LIGHTING PHOTOMETRIC REPRESENTS ILLUMINATION LEVELS FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATION ENGINEERING SOCIETY (IES) APPROVED METHODS. ACTUAL FIELD PERFORMANCE OF ANY MANUFACTURES LUMINARE MAY VARY DUE VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, OR OTHER FIELD CONDITIONS. FURTHER SHIELD INSTALLATIONS AND OR ADJUSTMENTS MAY BE NEEDED TO COMPLY WITH LOCAL LIGHTING ORDINANCES OR REQUIREMENTS.

GENERAL NOTES:
FIXTURE MOUNTING HEIGHTS SHOWN ARE TO BOTTOM OF FIXTURE (POINT OF ILLUMINATION). AIM ALL FIXTURES AS SHOWN ON THIS DRAWING.

DocuSigned by:
Jon Shepard
AB6666A0810145F...
7/2/2020

This set has been digitally signed and sealed by Jon D. Shepard, PE on July 2, 2020 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

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THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE CODES, LAWS, AND REGULATIONS. IN THE EVENT OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND APPLICABLE CODES, LAWS, OR REGULATIONS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
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SWEET SPARKMAN ARCHITECTS

DANIEL SHEPARD JON
LICENSED PROFESSIONAL ENGINEER
No. 71556
STATE OF FLORIDA
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED ARCHITECT OR ENGINEER

N

1	ASI 02	06.09.20
REV	DESCRIPTION	DATE

GRAPHIC SCALE: 0" 1"

SCALE:	1/16" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

SHEET TITLE:
PHOTOMETRIC SITE PLAN

SHEET No.:
EP1.0

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D-Series Size 0
LED Area Luminaire

Catalog Number

Notes

Type AA

Hit the Tab key or mouse over the page to see all interactive elements.

d-series

Specifications

EPA: 0.95 ft² (.09 m²)
Length: 26" (66.0 cm)
Width: 13" (33.0 cm)
Height,1: 3" (7.62 cm)
Height,2: 7" (17.8 cm)
Weight (max): 16 lbs (7.25 kg)

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series	LEDs	Color temperature	Distribution		Voltage	Mounting
DSX0 LED	**Forward optics** P1 P4 P7 P2 P5 P3 P6 **Rotated optics** P10[1] P12[1] P11[1] P13[1]	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short[2] T5S Type V short[2] T5M Type V medium[2] T5W Type V wide[2] BLC Backlight control[3] LCCO Left corner cutoff[4] RCCO Right corner cutoff[4]		MVOLT[5,6] 120[5] 208[5] 240[5] 277[5] 347[5,6] 480[5,6]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket[7] SPUMBA Square pole universal mounting adaptor[7] RPUMBA Round pole universal mounting adaptor[7] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[8]

Control options		Other options	Finish (required)	
Shipped installed NLTAIR2 nLight AIR generation 2 enabled[9,10] PIRHN Network, high/low motion/ambient sensor[11] PER NEMA twist-lock receptacle only (control ordered separately)[12] PER5 Five-pin receptacle only (control ordered separately)[12,13] PER7 Seven-pin receptacle only (leads exit fixture) (control ordered separately)[12,13] DMG 0–10V dimming extend out back of housing for external control (control ordered separately)[14]	PIR High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 5fc[10,14] PIRH High/low, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 5fc[10,14] PIR1FC3V High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 1fc[10,14] PIRH1FC3V High/low, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 1fc[10,14] FAO Field adjustable output[15]	**Shipped installed** HS House-side shield[16] SF Single fuse (120, 277, 347V)[5] DF Double fuse (208, 240, 480V)[5] L90 Left rotated optics[7] R90 Right rotated optics[7] DDL Diffused drop lens[16] **Shipped separately** BS Bird spikes[17] EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white	

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COMMERCIAL OUTDOOR

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DSX0-LED
Rev. 02/05/20
Page 1 of 8

KBC8 LED
LED Specification Bollard

Catalog Number

Notes

Type CC

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Diameter: 8" Round (20.3 cm)
Height: 42" (106.7 cm)
Weight (max): 27lbs (12.25 kg)

Introduction

The KBC8 Bollard is a stylish, fully integrated LED solution for walkways. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 70% in energy savings over comparable 100W metal halide luminaires, the KBC8 Bollard is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: KBC8 LED 16C 700 40K SYM MVOLT DDBXD

KBC8 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options	Other options	Finish (required)	
KBC8 LED	Asymmetric 12C 12 LEDs[1] 16C 16 LEDs[2] Symmetric 16C 16 LEDs[2]	250 350 mA 450 450 mA[3,4] 530 530 mA 700 700 mA	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted AMBLW Amber limited wavelength[3,4]	ASYM Asymmetric[1] SYM Symmetric[2]	MVOLT[5,6] 120[5] 208[5] 240[5] 277[5] 347[5,6]	**Shipped installed** PE Photoelectric cell, button type DMG 0–10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ELCW Emergency battery backup[4]	**Shipped installed** SF Single fuse (120, 277, 347V)[5,6] DF Double fuse (208, 240V)[5] H24 24" overall height H30 30" overall height H36 36" overall height FG Ground-fault festoon outlet LIAB Without anchor bolts (3 bolt base) LIABA 4 bolt retrofit base without anchor bolts[7]	DWHXD White DNAXD Natural aluminum DDBXD Dark bronze DBLXD Black DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white	**Striping**[9] SDDB Dark bronze SDWH White SDBL Black SDNA Natural aluminum SDTG Tennis green SDBR Bright red SDBLU Dark blue SDYLB Yellow

Accessories

Ordered and shipped separately.
MKA8 U Anchor bolts for KBC8 LED[8]

NOTES
1 Only available in the 12C, ASY version.
2 Only available in the 16C, SYM version.
3 Only available with 450 AMBLW version.
4 Not available with ELCW.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120,208, 240 or 277 options only when ordering with fuse (SF option), or photocontrol (PE option).
6 Not available with 347V. Not available with fusing. Not available with 450 AMBLW.
7 Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
8 MKA8 U not available with LIABA option.
9 Striping is available only in the colors listed.

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LITHONIA LIGHTING®

Catalog Number

Notes

Type B / B-EM

LDN4SQ

4" Square Open Non-IC New Construction Downlight

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.
CONSTRUCTION — Durable square metal reflectors retained by torsion springs.
Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches.
Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/4" total adjustment.
Two combination 1/2"-3/4" and four 1/2" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.
Accommodates 12"-24" joist spacing.
Passive cooling thermal management for 25°C standard, high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.
Max ceiling thickness 1-1/2".
OPTICS — LEDs are binned to a 3-step SDCM; 80 CRI minimum. 90 CRI optional.
LED light source concealed with diffusing optical lens.
General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.
Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.
Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes.
ELECTRICAL — Multi-volt (120-277V, 50/60Hz) 0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available.
0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled.
70% lumen maintenance at 60,000 hours.
LISTINGS — Certified to US and Canadian safety standards. Wet location standard (covered ceiling). IP55 rated. ENERGY STAR® certified product.
WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx
Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN4SQ 35/15 LS4AR LSS MVOLT EZ1

LDN4SQ

Series	Color temperature	Lumens[1]	Aperture/Trim Color		Finish	Voltage
LDN4SQ 4" square	27/ 2700K 30/ 3000K 35/ 3500K 40/ 4000K 50/ 5000K	05 500 lumens 07 750 lumens 10 1000 lumens 15 1500 lumens 20 2000 lumens 25 2500 lumens 30 3000 lumens 40 4000 lumens	4A Downlight LS4W Wallwash	AR Clear WH White BK Black	LSS Semi-specular LD Matte diffuse LS Specular	MVOLT Multi-volt[2] 120 120V 277 277V 347 347V[3]

Driver	Options		
GZ10 0-10V driver dims to 10% GZ1 0-10V driver dims to 1% EZ10 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 10% EZ1 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1%	SF[1] Single fuse TRW[2] White painted flange TRBL[2] Black painted flange EL[4] Emergency battery pack with integral test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS ELR[4] Emergency battery pack with remote test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS ELSD[4] Emergency battery pack with self-diagnostics, 10W Constant Power, integral test switch. Not Certified in CA Title 20 MAEDBS ELRSD[4] Emergency battery pack with self-diagnostics, 10W Constant Power, remote test switch. Not Certified in CA Title 20 MAEDBS EHWCP[4] Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDBS EHWCPR[4] Emergency battery pack, 10W Constant Power with remote test switch. Certified in CA Title 20 MAEDBS NPP16D[5] nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). NPP16DER[5] nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.	NPS80EZ[5] nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). NPS80EZER[5] nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency circuit. NLTAIR2[6,10] nLight® Air enabled NLTAIRER2[6,10] nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit, not available with battery pack options N80[7] nLight™ Lumen Compensation HAO[7] High ambient option (40°C) CP[7] Chicago Plenum RRL__ RELOC™-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature. Available only in RRL6, RRL8, RRL4E, and RRL12S. USPOM US point of manufacture 90CRI High CRI (90+)	

Notes
1 Overall height varies based on lumen package; refer to dimensional chart on page 3.
2 Not available with finishes.
3 Not available with emergency options.
4 Must specify voltage 120V or 277V.
5 Available with clear (AR) reflector only.
6 12.5" of plenum depth or top access required for battery pack maintenance.
7 Specify voltage. ER for use with generator supply ER power. Will require an emergency hot feed and normal hot feed.
8 NLTAIR2 and NLTAIRER2 not recommended for metal ceiling installations.
9 Fixture begins at 85% light level. Must be specified with NPS80EZ or NPS80EZER. Only available with EZ10 and EZ1 drivers.
10 Not available with CP, NPS80EZ, NPS80EZER, NPP16DER, NPP16DER or N80 options.
11 Fixture height is 5-7/16" for all lumen packages with HAO.
12 Must specify voltage for 3000lm. Not available with emergency battery pack option.

1

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STATE OF FLORIDA JON DANIEL SHEPARD LICENSE NO. 71538 PROFESSIONAL ENGINEER

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SWEET SPARKMAN ARCHITECTS

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
CONFORMED SET
05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

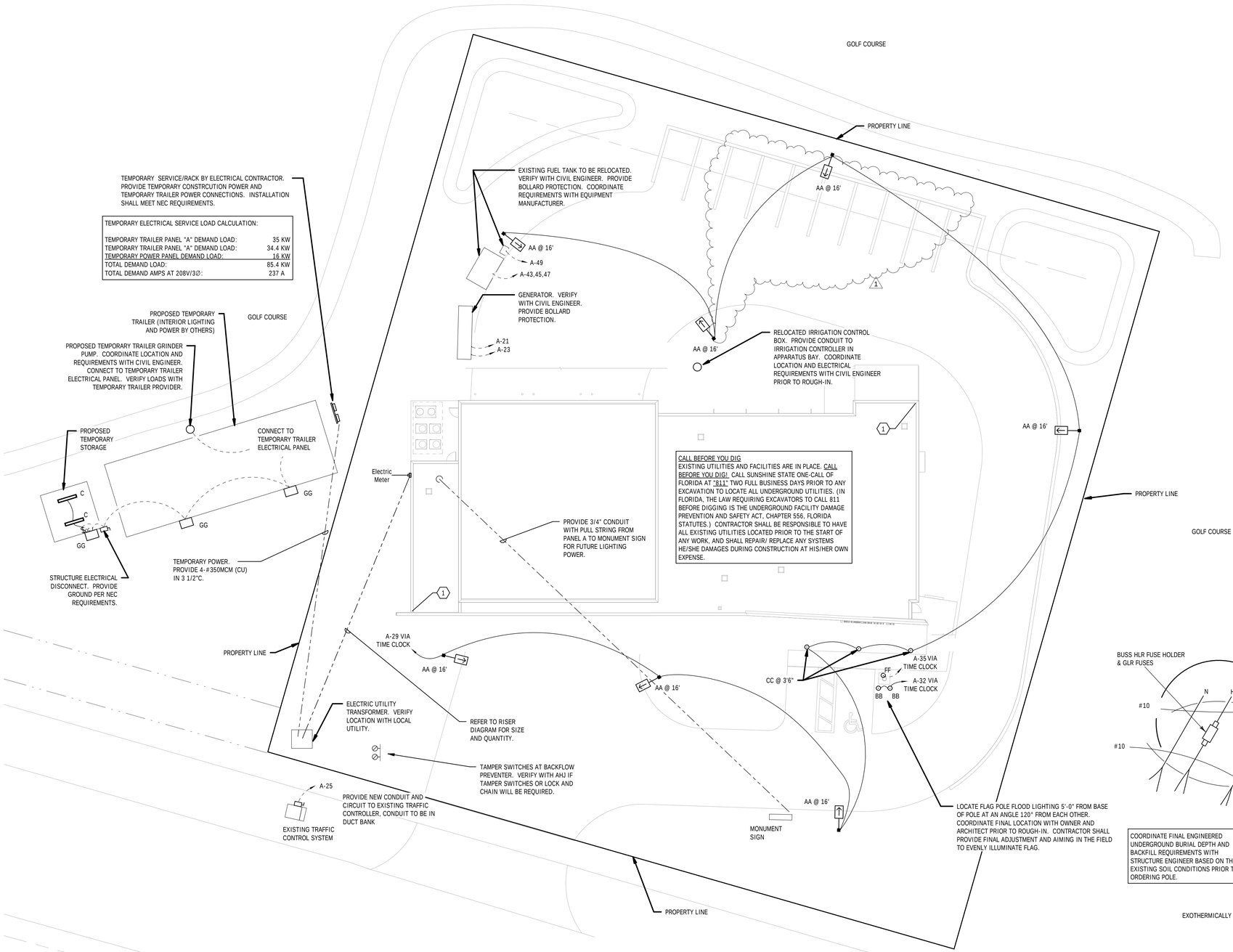
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PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE:
SITE LIGHTING CUT SHEETS

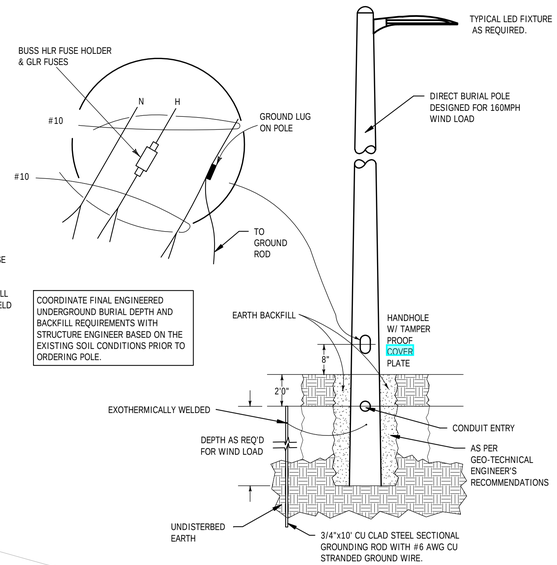
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1 ELECTRICAL SITE PLAN
1/16" = 1'-0"



POLE MOUNTING DETAIL
SCALE: NONE

KEYNOTES

1 PROVIDE CONCEALED CONDUITS FOR LPS DOWN CONDUCTORS DOWN TO GRADE LEVEL. VERIFY LOCATIONS REQUIRED AND SIZE OF CONDUIT TO BE INSTALLED WITH EQUIPMENT INSTALLER.

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SWEET SPARKMAN ARCHITECTS

JON D. SHEPARD * LICENSED PROFESSIONAL ENGINEER * No. 71536 * STATE OF FLORIDA

N

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET 05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

SCALE:	As indicated
PROJECT MANAGER:	CRB
DRAWN BY:	RLS
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE: ELECTRICAL SITE PLAN

SHEET No.: ES1.0

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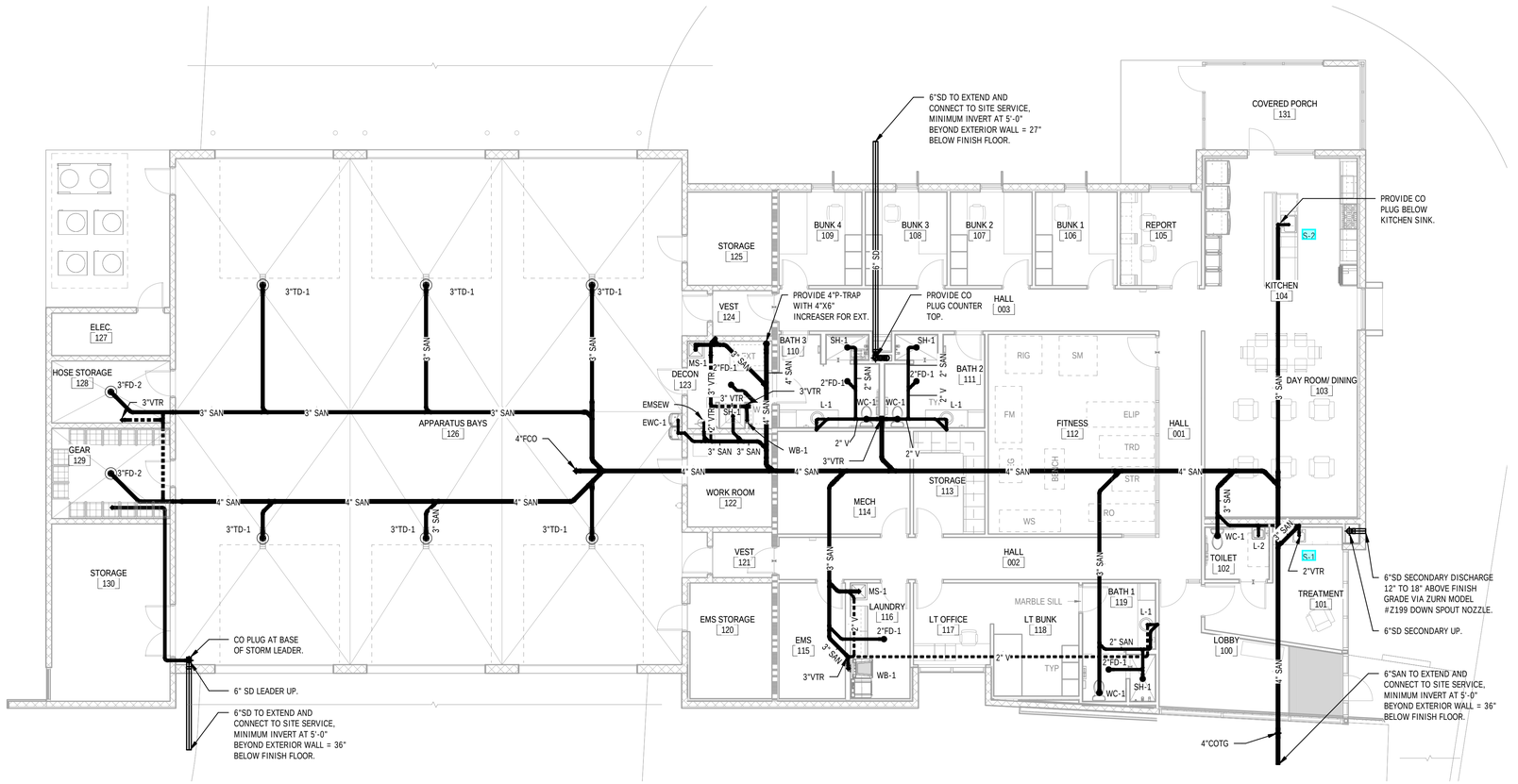
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1 SANITARY WASTE AND VENT PLAN
1/8" = 1'-0"

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DANIEL SHEPARD ENGINEER No.71536 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET 05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

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SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	AJR
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE:
SANITARY WASTE, STORM DRAIN, AND VENT PLAN

SHEET No.:
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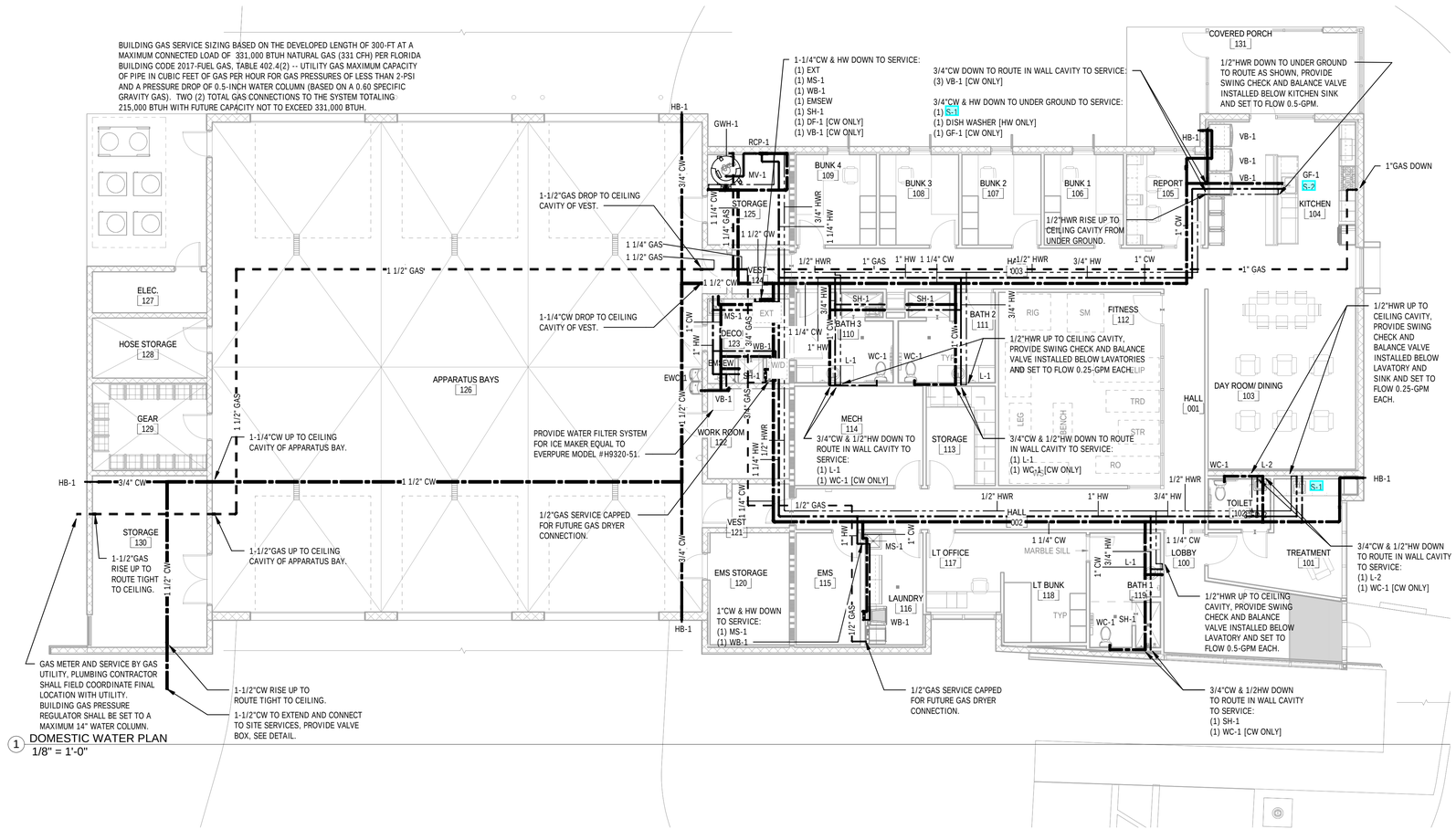
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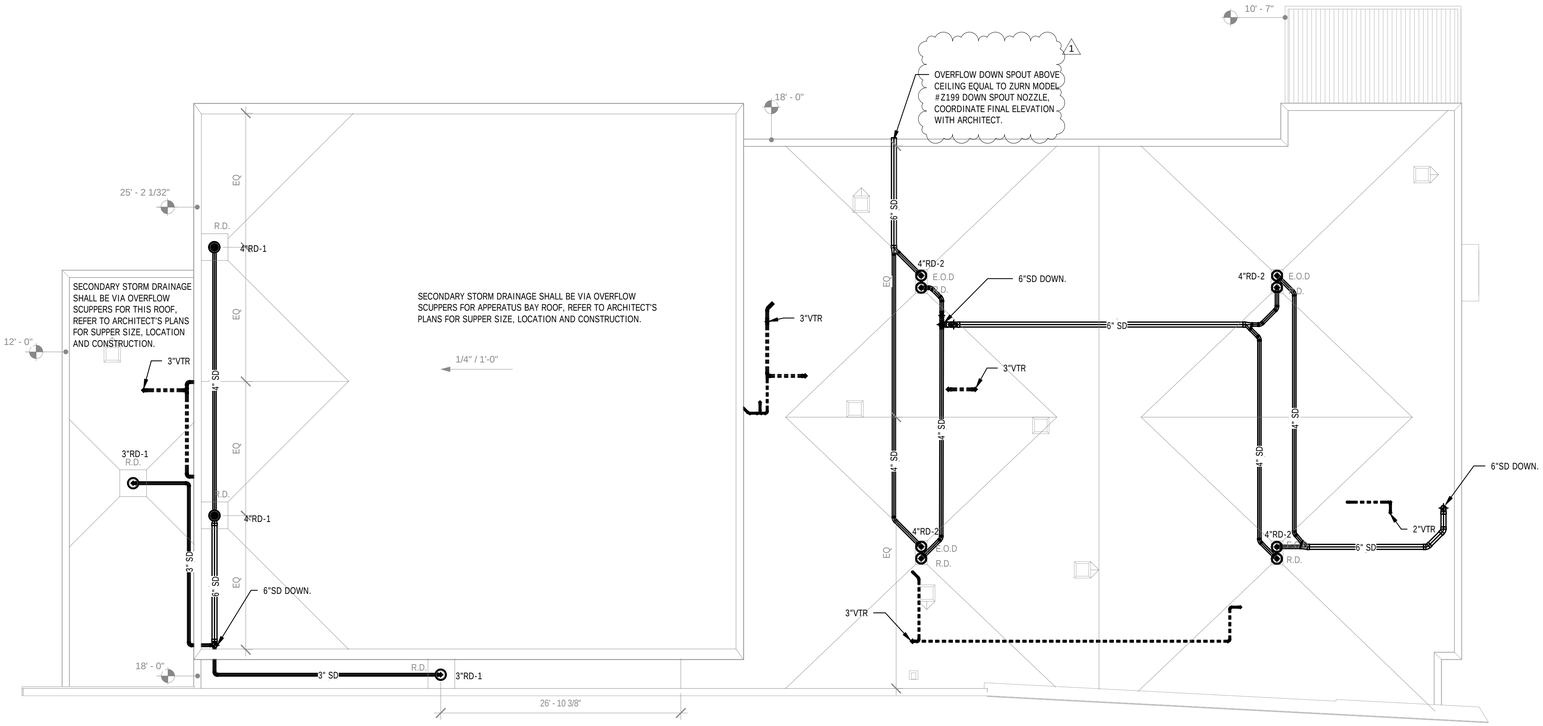
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SWEET | SPARKMAN ARCHITECTS


BUILDING GAS SERVICE SIZING BASED ON THE DEVELOPED LENGTH OF 300-FT AT A MAXIMUM CONNECTED LOAD OF 331,000 BTUH NATURAL GAS (331 CFH) PER FLORIDA BUILDING CODE 2017-FUEL GAS, TABLE 402.4(2) -- UTILITY GAS MAXIMUM CAPACITY OF PIPE IN CUBIC FEET OF GAS PER HOUR FOR GAS PRESSURES OF LESS THAN 2-PSI AND A PRESSURE DROP OF 0.5-INCH WATER COLUMN (BASED ON A 0.60 SPECIFIC GRAVITY GAS). TWO (2) TOTAL GAS CONNECTIONS TO THE SYSTEM TOTALING 215,000 BTUH WITH FUTURE CAPACITY NOT TO EXCEED 331,000 BTUH.
1-1/4"CW & HW DOWN TO SERVICE:
(1) EXT
(1) MS-1
(1) WB-1
(1) EMSEW
(1) SH-1
(1) DF-1 [CW ONLY]
(1) VB-1 [CW ONLY]
3/4"CW DOWN TO ROUTE IN WALL CAVITY TO SERVICE:
(3) VB-1 [CW ONLY]
3/4"CW & HW DOWN TO UNDER GROUND TO SERVICE:
(1) S-1
(1) DISH WASHER [HW ONLY]
(1) GF-1 [CW ONLY]
1/2"HWR DOWN TO UNDER GROUND TO ROUTE AS SHOWN, PROVIDE SWING CHECK AND BALANCE VALVE INSTALLED BELOW KITCHEN SINK AND SET TO FLOW 0.5-GPM.
1"GAS DOWN
1/2"HWR UP TO CEILING CAVITY, PROVIDE SWING CHECK AND BALANCE VALVE INSTALLED BELOW LAVATORIES AND SET TO FLOW 0.25-GPM EACH.
1/2"HWR UP TO CEILING CAVITY, PROVIDE SWING CHECK AND BALANCE VALVE INSTALLED BELOW LAVATORY AND SINK AND SET TO FLOW 0.25-GPM EACH.
3/4"CW & 1/2"HW DOWN TO ROUTE IN WALL CAVITY TO SERVICE:
(1) L-2
(1) WC-1 [CW ONLY]
1/2"HWR UP TO CEILING CAVITY, PROVIDE SWING CHECK AND BALANCE VALVE INSTALLED BELOW LAVATORY AND SET TO FLOW 0.5-GPM EACH.
3/4"CW & 1/2"HW DOWN TO ROUTE IN WALL CAVITY TO SERVICE:
(1) L-1
(1) WC-1 [CW ONLY]
3/4"CW & 1/2"HW DOWN TO ROUTE IN WALL CAVITY TO SERVICE:
(1) L-1
(1) WC-1 [CW ONLY]
3/4"CW & 1/2"HW DOWN TO ROUTE IN WALL CAVITY TO SERVICE:
(1) SH-1
(1) WC-1 [CW ONLY]
1-1/2"GAS DROP TO CEILING CAVITY OF VEST.
1-1/4"CW DROP TO CEILING CAVITY OF VEST.
1-1/4"CW UP TO CEILING CAVITY OF APPARATUS BAY.
1-1/2"GAS UP TO CEILING CAVITY OF APPARATUS BAY.
1-1/2"GAS RISE UP TO ROUTE TIGHT TO CEILING.
1-1/2"CW RISE UP TO ROUTE TIGHT TO CEILING.
1-1/2"CW TO EXTEND AND CONNECT TO SITE SERVICES, PROVIDE VALVE BOX, SEE DETAIL.
PROVIDE WATER FILTER SYSTEM FOR ICE MAKER EQUAL TO EVERPURE MODEL #H9320-51.
1/2"GAS SERVICE CAPPED FOR FUTURE GAS DRYER CONNECTION.
1/2"GAS SERVICE CAPPED FOR FUTURE GAS DRYER CONNECTION.
1"CW & HW DOWN TO SERVICE:
(1) MS-1
(1) WB-1
1/2"HWR RISE UP TO CEILING CAVITY FROM UNDER GROUND.
GAS METER AND SERVICE BY GAS UTILITY, PLUMBING CONTRACTOR SHALL FIELD COORDINATE FINAL LOCATION WITH UTILITY. BUILDING GAS PRESSURE REGULATOR SHALL BE SET TO A MAXIMUM 14" WATER COLUMN.
ELEC. 127
HOSE STORAGE 128
GEAR 129
APPARATUS BAYS 126
STORAGE 130
STORAGE 125
BUNK 4 109
BUNK 3 108
BUNK 2 107
BUNK 1 106
REPORT 105
COVERED PORCH 131
KITCHEN 104
DAY ROOM/ DINING 103
HALL 001
FITNESS 112
BATH 2 111
BATH 3 110
BATH 1 119
LOBBY 100
TREATMENT 101
LT OFFICE 117
LT BUNK 118
LAUNDRY 116
EMS 115
EMS STORAGE 120
MECH 114
STORAGE 113
WORK ROOM 122
VEST 121
HALL 002
TOILET 102
VEST 123
VEST 124
HB-1
GWH-1
RCP-1
MV-1
MS-1
DECO
WB-1
EMSEW
SH-1
EWC-1
VB-1
DF-1
WC-1
L-1
L-2
GF-1
S-1
S-2
1 1/2" GAS
1 1/2" CW
3/4" CW
1 1/4" CW
1 1/4" GAS
1 1/2" HWR
1 1/4" HW
3/4" HW
1" HW
1" CW
1/2" GAS
1/2" HWR
1" GAS
1 1/4" GAS
1 1/2" GAS
1/2" HW
1" HW 1 1/4" CW
1 1/4" CW MARBLE SILL
1" CW
3/4" HW
1/2" HWR
1" HW
3/4" HW
1/2" GAS
1 1/4" CW
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1 1/2" GAS
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3/4" CW
1 1/2" CW
1 1/2" CW
3/4" CW
1 1/2

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1 PLUMBING PLAN - ROOF
1/8" = 1'-0"

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DANIEL SHEPARD ★ NOT FOR CONSTRUCTION ★ PROFESSIONAL ENGINEER
No. 71556
STATE OF FLORIDA

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR:
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DRAWN BY:	AJR
A/E OF RECORD:	JDS
PROJECT NO:	19-523

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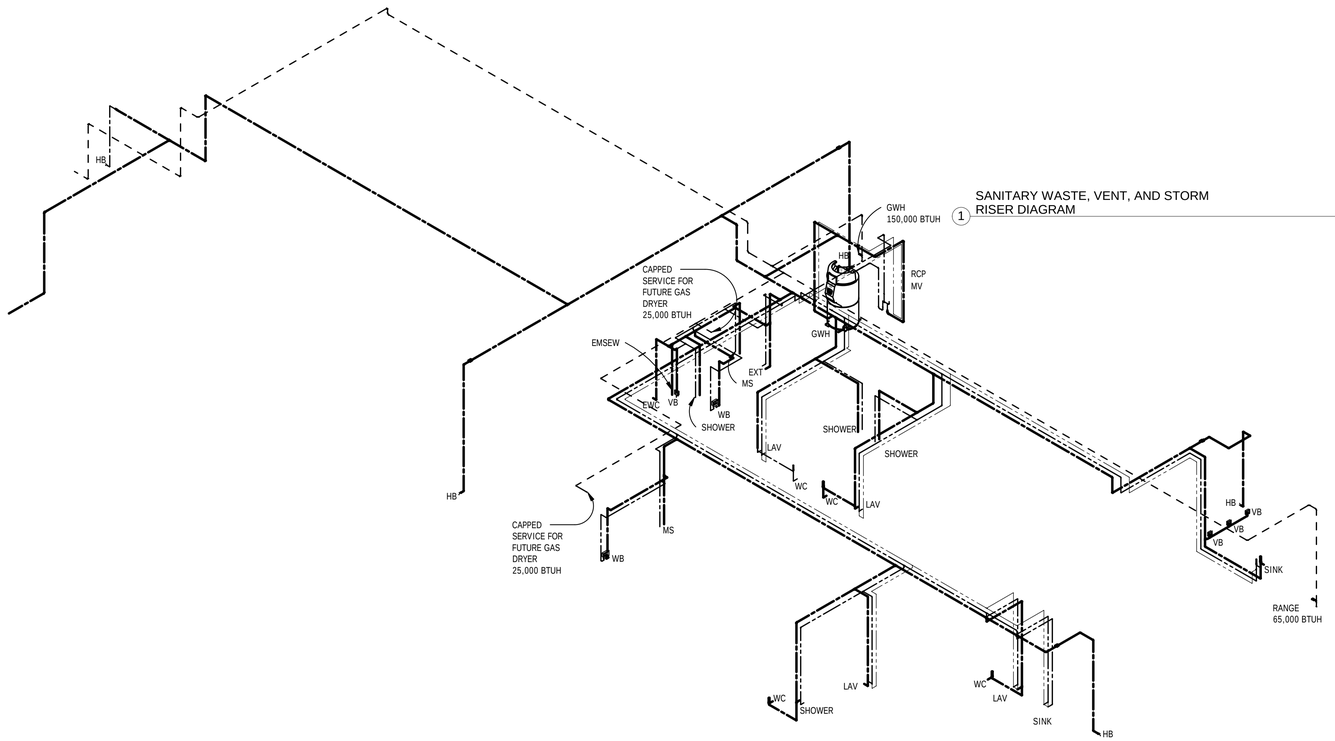
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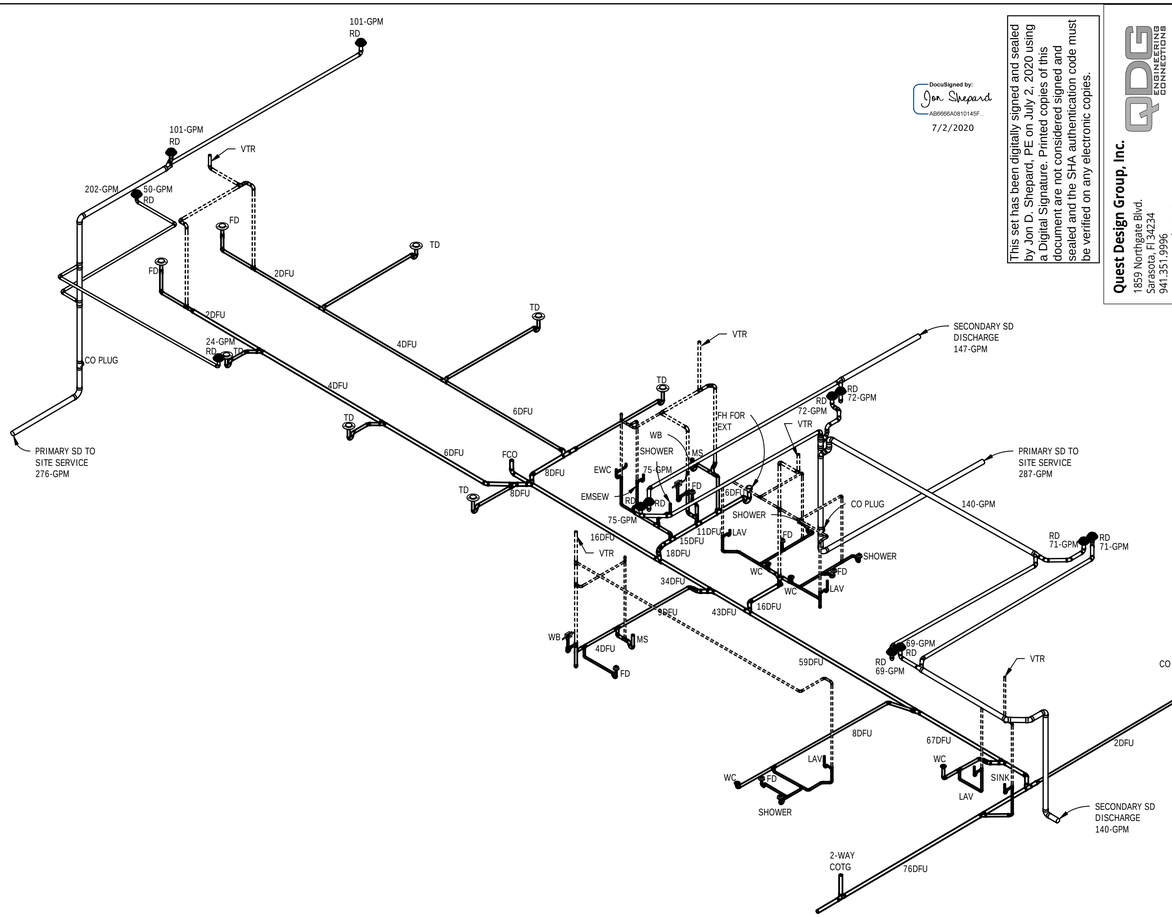
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WATER FIXTURE UNITS SCHEDULE

QUANTITY	FIXTURE	OCCUPANCY	SUPPLY CONTROL	COLD	COLD TOTAL	HOT	HOT TOTAL	TOTAL	COMBINED
3	FULL-BATH GROUP WITH BATHTUB (WITH/WITHOUT SHOWER HEAD) OR SHOWER STALL	PRIVATE / RESIDENTIAL	FLUSH TANK	2.7	8.1	1.5	4.5	3.6	10.8
4	VALVE BOX (I.E. ICE MAKER, COFFEE, AND ETC.)	PRIVATE / RESIDENTIAL	FAUCET	0.25	1	0.0	0	0.25	1
1	KITCHEN GROUP (DISHWASHER AND SINK WITH/WITHOUT GARBAGE GRINDER)	PRIVATE / RESIDENTIAL	FAUCET	1.0	1	1.9	1.9	2.5	2.5
2	DRINKING FOUNTAIN	OFFICES, ETC.	3/8" VALVE	0.25	0.5	0.0	0	0.25	0.5
1	SINK	PRIVATE	FAUCET	1.0	1	1.0	1	1.4	1.4
1	LAVATORY	PUBLIC	FAUCET	1.5	1.5	1.5	1.5	2.0	2
2	SERVICE SINK	OFFICES, ETC.	FAUCET	2.25	4.5	2.25	4.5	3.0	6
1	SHOWER HEAD	PRIVATE / RESIDENTIAL	MIXING VALVE	1.0	1	1.0	1	1.4	1.4
2	WASHING MACHINE (8 LBS.)	PRIVATE	AUTOMATIC	1.0	2	1.0	2	1.4	2.8
1	WASHING MACHINE (40 LBS.)	PUBLIC	AUTOMATIC	3.0	3	3.0	3	4.0	4
1	WATER CLOSET	PUBLIC OR PRIVATE	FLUSHOMETER TANK	2.0	2	0.0	0	2.0	2
5	HOSE BIB OR WALL FAUCET	PUBLIC OR PRIVATE	3/4" VALVE	2.5	12.5	0	0	2.5	12.5
				CW TOTAL	38.1	HW TOTAL	19.4	WATER TOTAL	46.9
	FLUSH TANK WATER SUPPLY DEMAND:	29.1	GALLONS PER MINUTE						
	MINIMUM WATER SERVICE SIZE:	1"	DIAMETER PIPING		VELOCITY=		10.68	F.P.S.	
	RECOMMENDED SERVICE SIZE	1-1/2"							



1 SANITARY WASTE, VENT, AND STORM RISER DIAGRAM



2 DOMESTIC WATER AND GAS RISER DIAGRAM

DRAINAGE FIXTURE UNIT SCHEDULE

QUANTITY	FIXTURE TYPE	D.F.U.	MIN. TRAP SIZE (IN.)	TOTAL DFU.
2	AUTO. CLOTHES WASHER, RESIDENTIAL	2	2"	4
3	BATHROOM GROUP W/ WC, LAV, BIDET & SHOWTUB	6	3"	18
2	DRINKING FOUNTAIN	0.5	1 1/4"	1
13	FLOOR DRAINS	2	2"	26
1	KITCHEN GROUP (DISHWASHER AND SINK WITH OR WITHOUT GARBAGE GRINDER)	2	2"	2
1	LAVATORY	1	1 1/4"	1
2	MOP SINK	5	3"	10
1	SHOWER	2	2"	2
1	SINK	2	2"	2
1	WATER CLOSET, PUBLIC INSTALLATION (LESS THAN 1.6GPF)	4	3"	4
1	EXTRACTOR DRAIN	6	4"	6
	TOTAL DRAINAGE FIXTURE UNITS FOR BUILDING	=		76
	MIN DRAIN SIZE BEYOND FOOTER	=	**4 INCH**	
	MAIN DRAIN SLOPE	=	1/8	INFT
	BUILDING DRAIN SIZE :	=	**4 INCH**	
	MIN DRAIN SIZE BY TRAP CONNECTION	=	**4 INCH**	
	MULTIPLE BUILDING DRAIN SERVICES MAY BE REQUIRED.			

DocuSigned by:
Jon Shepard
A86666A0810145F...
7/2/2020

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Quest Design Group, Inc.
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Sarasota, Fl 34234
941.351.9996
www.questdg.com

QDG ENGINEERING CONNECTIONS
Cert. of Authorization# CA31201

Mechanical **Electrical** **Plumbing** **Fire Protection**

CONTRACTOR TO VERIFY ALL DETAILS, DIMENSIONS, AND FIELD CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING. SEE ONLY ABOUT RECENT STATED DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION NOT CARRIED OUT IN ACCORDANCE WITH CONTRACT DOCUMENTS. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, OR SEQUENCES.

TO THE BEST OF THE ARCHITECT'S OR ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE FLORIDA BUILDING CODE AND THE APPLICABLE NFPA STANDARDS CURRENTLY ADOPTED IN ACCORDANCE WITH CHAPTER 553, FAS 633, FLORIDA STATUTES AND LOCAL ORDINANCES.

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SWEET SPARKMAN ARCHITECTS

DANIEL SHEPARD * LICENSED PROFESSIONAL ENGINEER * No. 71656 * STATE OF FLORIDA

N

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

SCALE:
PROJECT MANAGER: CRB
DRAWN BY: AJR
A/E OF RECORD: JDS
PROJECT NO: 19-523

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

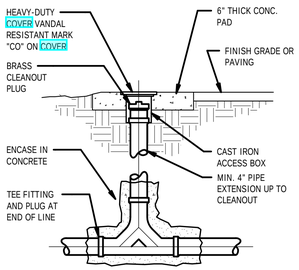
ISSUED FOR: CONFORMED SET
05.22.20

SHEET TITLE: PLUMBING ISOMETRIC VIEWS

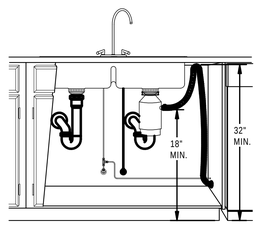
SHEET No.: **P3.0**

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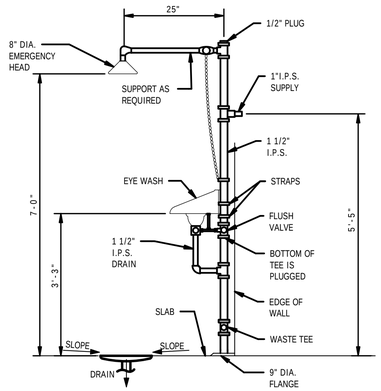


TWO WAY CLEAN OUT DETAIL
SCALE: NONE

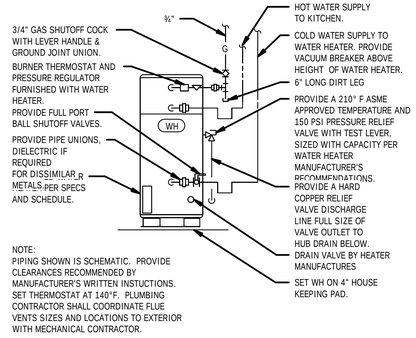


PIPING ARRANGEMENT SHOWN IS DIAGRAMMATIC AND PLUMBER SHALL ADJUST TO SUIT FIELD CONDITIONS. DISHWASHER, DISPOSAL, SINK, AND AIR HAMMER ARRESTERS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS INCLUDING LOCAL, STATE, AND NATIONAL CODES WHICH ARE APPLICABLE.

DISHWASHER CONNECTION DETAIL
SCALE: NONE



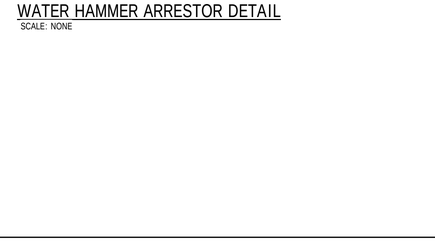
EMERGENCY EYEWASH & SHOWER DETAIL
SCALE: NONE



NOTE:
PIPING SHOWN IS SCHEMATIC. PROVIDE CLEARANCES RECOMMENDED BY MANUFACTURER'S WRITTEN INSTUCTIONS. SET THERMOSTAT AT 140°F. PLUMBING CONTRACTOR SHALL COORDINATE FLUE VENTS SIZES AND LOCATIONS TO EXTERIOR WITH MECHANICAL CONTRACTOR.

DIRECT DRAFT GAS WATER HEATER DETAIL
SCALE: NONE

FLOOR HUB DRAIN DETAIL
SCALE: NONE



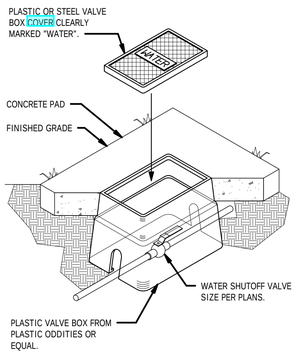
NOTES
1. ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL STRUCTURE TO THE TOP CORD OF JOISTS OR BEAMS.
2. PROVIDE COPPER OR PLASTIC COATED HANGERS FOR NON-INSULATED COPPER PIPE.

PIPE HANGER DETAIL
SCALE: NONE

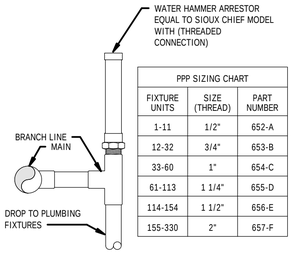
LAVATORY CARRIER DETAIL
SCALE: NONE

FLOOR DRAIN DETAIL
SCALE: NONE

PLUMBING SYMBOL LEGEND				
ABV.	DESCRIPTION	SYMBOL	ABV.	DESCRIPTION
AAV	AIR ADMITTANCE VALVE	SAN	SAN	SANITARY WASTE LINE
AFF	ABOVE FINISH FLOOR	EX-SAN	EX-SAN	EXISTING SANITARY WASTE LINE
AP	ACCESS PANEL		V	VENT LINE
BFF	BELOW FINISH FLOOR		EX-V	EXISTING VENT LINE
CB	CATCH BASIN	AW	AW	ACID WASTE LINE
CONT	CONTINUATION	AV	AV	ACID VENT LINE
CPVC	CHLORINATED POLYVINYL CHLORIDE	GT	GT	WASTE TO GREASE TRAP LINE
DN	DOWN	EX-GT	EX-GT	EXISTING WASTE TO GREASE TRAP LINE
DS	DOWNSPOUT		CW	DOMESTIC COLD WATER LINE
DWG	DRAWING		EX-CW	EXISTING DOMESTIC COLD WATER LINE
EX	EXISTING		HW	DOMESTIC HOT WATER LINE
°F	DEGREE FAHRENHEIT		EX-HW	EXISTING DOMESTIC HOT WATER LINE
FD	FLOOR DRAIN		HWR	DOMESTIC HOT WATER RECIRCULATING LINE
F.A.	FROM ABOVE		EX-HWR	EXISTING DOMESTIC HOT WATER RETURN LINE
F.B.	FROM BELOW	GAS	GAS	NATURAL GAS LINE
GPH	GALLONS PER HOUR	EX-GAS	EX-GAS	EXISTING NATURAL GAS LINE
GPM	GALLONS PER MINUTE	LP	LP	LIQUID PETROLEUM GAS LINE
MAX I.E.	MAXIMUM INVERT ELEVATION	EX-LP	EX-LP	EXISTING LIQUID PETROLEUM GAS LINE
MIN I.E.	MINIMUM INVERT ELEVATION	CD	CD	CONDENSATION DRAIN LINE
IW	INDIRECT WASTE	SD	SD	STORM DRAIN LINE
KW	KILOWATT	EX-SD	EX-SD	EXISTING STORM DRAIN LINE
LBS	POUNDS			SLEEVE THROUGH EXTERIOR WALL
MH	MANHOLE		2-WAY CO	2 WAY CLEAN OUT
NC	NORMALLY CLOSED		CO	CLEAN OUT
NIC	NOT IN CONTRACT		2-WAY COTG	2 WAY CLEAN OUT TO GRADE
NO	NORMALLY OPEN		COTG	CLEAN OUT TO GRADE
NTS	NOT TO SCALE		WCO	WALL CLEAN OUT
OD	OUTSIDE DIAMETER		HB	HOSE BIBB
OFST	OVERFLOW STORM DRAIN			PIPE RISE OR DROP
PRV	PRESSURE REDUCING VALVE			PIPE DROP (ELBOW)
PSI	POUNDS PER SQUARE INCH			PIPE RISE (ELBOW)
PVC	POLYVINYL CHLORIDE PIPE			BRANCH - BOTTOM CONNECTION
RD	ROOF DRAIN			BRANCH - TOP CONNECTION
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER			CAP ON END OF PIPE
SF	SQUARE FEET		FD	FLOOR DRAIN
SH	SHEET		FS/CWD	FLOOR SINK / CAN WASH DRAIN
U.G.	UNDER GROUND		FH	FLOOR HUB
VEL	VELOCITY		---	GATE VALVE
VTR	VENT THRU ROOF		---	CHECK VALVE
WTR	WATER		---	PLUG VALVE (GAS)
	CONNECT TO EXISTING		---	BUTTERFLY VALVE
1	REVISION CLOUD		---	UNION
			---	BALANCING VALVE
NOTE:	ALL SYMBOLS AND ABBREVIATIONS DO NOT NECESSARILY APPLY TO THIS PROJECT		TPV	TEMPERATURE / PRESSURE RELIEF VALVE
			---	BALL VALVE
			RPBP	REDUCED PRESSURE BACKFLOW PREVENTER



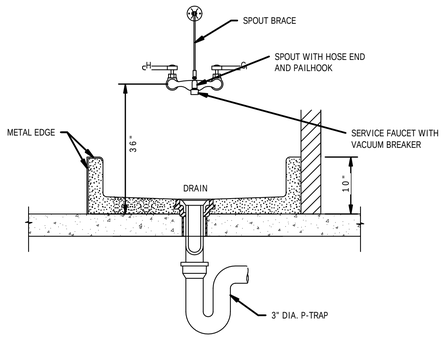
DOMESTIC WATER SHUTOFF VALVE IN VALVE BOX
SCALE: NONE



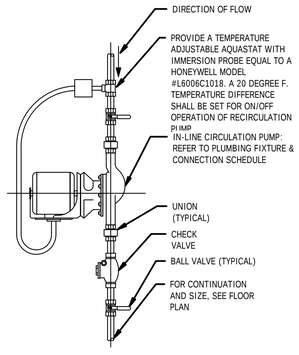
PPP SIZING CHART		
FIXTURE UNITS	SIZE (THREAD)	PART NUMBER
1-11	1/2"	652-A
12-32	3/4"	653-B
33-60	1"	654-C
61-113	1 1/4"	655-D
114-154	1 1/2"	656-E
155-330	2"	657-F

NOTES:
1. PROVIDE A WATER HAMMER ARRESTOR ON EACH HOT WATER AND COLD WATER DROP.
2. ARRESTORS SHOULD ALWAYS BE INSTALLED SO THAT THERE IS AN UNOBSTRUCTED SHOCK PATH TO THE ARRESTOR.
3. ARRESTORS SHOULD ALWAYS BE PLACED AS NEAR TO THE SOURCE OF SHOCK AS POSSIBLE.

WATER HAMMER ARRESTOR DETAIL
SCALE: NONE



MOP SINK DETAIL
SCALE: NONE



HOT WATER CIRCULATION PUMP DETAIL
SCALE: NONE

DocuSigned by:
Jon Shepard
AB6666CA0810145F...
7/2/2020

This set has been digitally signed and sealed by Jon D. Shepard, PE on July 2, 2020 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

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Cert. of Authorization# CA31201
Mechanical Electrical Plumbing Fire Protection

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SWEET SPARKMAN ARCHITECTS

DANIEL SHEPARD ★ NOT VALID WITHOUT SIGNATURE AND ORIGINAL RAISED SEAL ★ LICENSED PROFESSIONAL ENGINEER
No. 71556 STATE OF FLORIDA

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET 05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

SCALE:	1/8" = 1'-0"
PROJECT MANAGER:	CRB
DRAWN BY:	AJR
A/E OF RECORD:	JDS
PROJECT NO:	19-523

SHEET TITLE: PLUMBING DETAILS

SHEET No.: P3.1

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PLUMBING FIXTURE AND CONNECTION SCHEDULE

7/2/2020

TAG	DESCRIPTION	TYPE	VALVE	FAUCET	MATERIAL	REMARKS	FIXTURE CONNECTION					
							WASTE			VENT	DOMESTIC SUPPLY	
							TRAP	DIRECT	INDIRECT	(INCHES)	COLD	HOT
EMSEW	EMERGENCY DRENCH SHOWER/EYEWASH	SPEAKMAN MODEL #SE-622-SPV	FULL FLOW STAY-OPEN BALL VALVES	-	300 SERIES STAINLESS STEEL	3.2-GPM AT 30-PSI EYEWASH STATION FLOW, STAINLESS STELL PUSH HANDLE ACTIVATOR AND UNIVERSAL EMERGENCY SIGN INCLUDED. 8-INCH DIAMETER STAINLESS STEEL SHOWERHEAD, 20-GPM AT 30-PSI REGULATOR FLOW CONTROL. STAINLESS STEEL TRIANGULAR PULL ROD ACTIVATION. ANSI/ISEA Z358.1 CERTIFIED WITH 3-YEAR LIMITED WARRANTY. PROVIDE MIXING VALVE AND SET TEMPERTURE NOT TO EXCEED 90° F.	2"	2"	-	1-1/2"	1-1/4"	1/2"
EWC-1	ELECTRIC WATER COOLER & BOTTLE FILLING STATION	ELKAY WALL MOUNTED MODEL #LZSTL8WSLK	-	-	STAINLESS STEEL	BI-LEVEL FILTERED WATER COOLER WITH BOTTLE FILLING STATION FOR INDOOR USE ONLY. STANDARD COLOR. PROVIDE P-TRAP, STOP AND SUPPLY. MOUNT LOWER BOWL NOZZLE AT 30" A.F.F. FOR ADA.	1-1/2"	1-1/2"	-	1-1/2"	1/2"	-
FD-1	FLOOR DRAIN (ROUND)	ZURN MODEL #Z-415-6B	-	-	CAST IRON BODY	ROUND STRAINER WITH SECURED HEEL PROOF MEDIUM DUTY GRATE. ARCHITECT TO SELECT STRAINER FINISH. PROVIDE TRAP SEAL DVICE EQUAL TO ZURN MODEL #Z1072..	SEE PLAN	SEE PLAN	-	1-1/2"	-	-
FD-2	FLOOR DRAIN (SQUARE)	ZURN MODEL #Z-415-S	-	-	CAST IRON BODY	6"X6" SQUARE STRAINER WITH SECURED HEEL PROOF MEDIUM DUTY GRATE. ARCHITECT TO SELECT STRAINER FINISH. PROVIDE TRAP SEAL DVICE EQUAL TO ZURN MODEL #Z1072.	SEE PLAN	SEE PLAN	-	1-1/2"	-	-
FH-1	FLOOR HUB	ZURN MODEL #Z-415-5I-P	-	-	CAST IRON BODY, BRONZE STRAINER	5" ROUND TYPE "I" STRAINER WITH RAISED FLANGE. ARCHITECT TO SELECT STRAINER FINISH. PROVIDE TRAP SEAL DVICE EQUAL TO ZURN MODEL #Z1072.	SEE PLAN	SEE PLAN	-	1-1/2"	-	-
GF-1	GLASS FILLER	-	-	MOEN MODEL #S5530SRS SPOT RESIST STAINLESS	-	HIGH ARC FAUCET, LEVER STYLE HANDLE, 1.5 GPM FLOWRATE. PROVIDE POINT OF USE FILTRATION SYSTEM WITH QUICK CHANGE CARTRIDGE FILTER, MODEL #S5500 OR EQUAL.	-	-	-	-	1/2"	-
GWH-1	GAS WATER HEATER	A.O. SMITH CYCLONE SERIES MODEL #BTH-150	-	-	-	NATURAL GAS. 95% THERMAL EFFICIENCY PER U.S. DEPARTMENT OF ENERGY AND CURRENT EDITION OF ASHRAE/IES 90.1. 100-GALLON STORAGE CAPACITY OF GLASS LINED TANK. THREE (3) YEAR LIMITED WARRANTY WATER HEATER. 76-1/2" HIGH X 27-3/4" DIAMETER. CSA CERTIFIED AND ASME T&P RELIEF VALVE. INTEGRATED SOLID-STATE TEMPERATURE AND IGNITION CONTROL DEVICE WITH INTEGRAL DIAGNOSTICS. SEE DETAIL. PROVIDE MIXING VALVE MV-1 AND SET TEMPERATURE NOT TO EXCEED 120 °F MAXIMUM.	-	-	-	-	1-1/2"	1-1/2"
HB-1	HOSE BIB	WOODFORD MODEL #B24	-	-	LEAD FREE BRASS	HOSE BIB ENCLOSED IN A CHROME FLUSH MOUNTED WALL BOX WITH LOCKING COVER, AND ANTI-SIPHON VACUUM BREAKER MODEL #34HF. MOUNTED AT 18" ABOVE FINISH GRADE, COORDINATE WITH ARCHITECT.	-	-	-	-	3/4"	-
L-1	LAVATORY, UNDERCOUNTER MOUNTED	AMERICAN STANDARD OVALYN MODEL #9482.000	-	KRAUS MODEL #KBF-1401 SPOT FREE STAINLES STEEL FINISH	VITREOUS CHINA	19-1/4" X 15-3/4" BARRIER FREE UNDERCOUNTER SINK, MOUNTING KIT, TEMPLATE, REAR OVERFLOW, AND SINGLE CENTER FAUCET HOLE. LAVATORY COMPLIANT WITH ASME A112.19.2/CSA B45.1, ADA, ICC/ANSI A117.1, CSA B651, AND OBC CODES AND STANDARDS. FAUCET WITH METAL CONSTRUCTION, FLEXIBLE SUPPLIES WITH 3/8" COMPRESSION FITTINGS, SINGLE LEVER HANDLE, AND 1.5-GPM FLOW RESTRICTOR. PROVIDE P-TRAP AND STOPS.	1-1/2"	1-1/2"	-	1-1/2"	1/2"	1/2"
L-2	LAVATORY, WALL-HUNG	AMERICAN STANDARD DECORUM WALL-HUNG MODEL #9024.001EC	-	KRAUS MODEL #KBF-1401 SPOT FREE STAINLES STEEL FINISH	VITREOUS CHINA	20"X18" WALL HUNG LAVATORY. PROVIDE TRU-BRO LAVGUARD INSULATION, SINGLE CENTER FAUCET HOLE, AND DRILLED FOR CONCEALED ARM CARRIER, COMPLIANT WITH ASME A112.19.2/CSA B45.1, ADA, ICC/ANSI A117.1, CSA B651, AND OBC CODES AND STANDARDS. FAUCET WITH METAL CONSTRUCTION, FLEXIBLE SUPPLIES WITH 3/8" COMPRESSION FITTINGS, SIGNLE LEVER HANDLE, AND 1.5-GPM FLOW RESTRICTOR. PROVIDE P-TRAP AND STOPS.	1-1/2"	1-1/2"	-	1-1/2"	1/2"	1/2"
LS-1	LAUNDRY SINK	ZURN MODEL #MS2620-DF1	-	TWO HANDLE DECK FAUCET PROVIDED WITH SINK	POLYPROPYLENE COMPOSITE	26" LENGTH X 22-3/8" WIDTH X14" DEEP LAUNDRY SINK WITH COATED STEEL SELF-LEVELING LEGS, AND CHROME PLATED 4" CENTERSET DECK FAUCET WITH SWING SPOUT AND ANGLED END.	1-1/2"	1-1/2"	-	1-1/2"	1/2"	1/2"
MS-1	MOP SINK	ZURN MODEL #Z1996-24-HH-MH 24"X24"10" DURASTONE	-	T & S BRASS MODEL #B-0665-BSTP HEAVY DUTY W/ TOP REINFORCING PAIL HOOK	HIGH DENSITY COMPOSITE	24" X 24" X 10" MOP BASIN, PVC DRAIN BODY, STAINLESS STEEL STRAINER AND 3" GASKETED OUTLET CONNECTION. MEETS ANSI Z124.6, CSA LISTED, AND IAPMO LISTED UNDER FILE #3561. PROVIDE WITH HOSE, HOSE HOLDER, AND MOP HANGER. 8" WALL MOUNTED MIXING FAUCET WITH POLISHED CHROME PLATED BRASS BODY, POLISHED CHROME PLATED BRASS SPOUT WITH VACUUM BREAKER, PAIL HOOK AND GARDEN HOSE MALE OUTLET, COMPRESSION CARTRIDGES WITH SPRINK CHECKS, LEVER HANDLES, 1/2" NPT FEMALE INLESTS, BUILT-IN SERVICE STOPS IN BODY AND UPPER SUPPORT ROD. CERTIFIED TO ASME A112.18.1/CSA B125.1, NSF 61-SECTION 9, NSF 372 , ASSE 1001, AND ADA ANSI/ICC A117.1 REQUIREMENTS.	3"	3"	-	2"	3/4"	3/4"
MV-1	MIXING VALVE	BRADLEY NAVIGATOR MODEL #S59-3080	THERMOSTATIC MIXING VALVE	-	LEAD FREE BRASS, STAINLESS INTERNALS	ASSE 1017 CERTIFIED, INTEGRAL STRAINER CHECKSTOPS ON INLETS, DIAL THERMONETER, ADJUSTABLE SET POINT WITHIN TEMPERATURE RANGE. PROVIDE WALL MOUNTING BRACKET. PIPE RECIRCULATION SYSTEM AS PER MANUFACTURER'S INSTRUCTIONS. FIELD SET HOT WATER TEMPERATURE NOT TO EXCEED 120°F.	-	-	-	-	3/4"	3/4"
RCP-1	RECIRCULATION PUMP	TACO MODEL #006-B	-	-	LEAD FREE BRONZE	PUMP SHALL BE CAPABLE OF 2.5 GPM AT 6 FEET OF HEAD MINIMUM. 115 VOLTS, 60 Hz, SINGLE PHASE, AND 1/40 HORSEPOWER. SET FLOW TO 2-GPM MINIMUM. PROVIDE WITH AQUASTAT AND CONNECT SYSTEM TO BUILDING TIME CLOCK, COORDINATE WITH ELECTRICAL CONTRACTOR.	-	-	-	-	-	1/2"
RD-1	PRIMARY ROOF DRAIN	ZURN MODEL #121C	-	-	CAST IRON BODY	12" DIAMETER ROOF DRAIN DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD AND LOW SILHOUETTE CAST IRON DOME. DRAIN SIZE INDICATED ON PLUMBING ROOF PLAN.	-	-	-	-	-	-
RD-2	PRIMARY AND SECONDARY ROOF DRAIN	ZURN MODEL #Z164	-	-	CAST IRON BODY	12" DIAMETER COMBINATION MAIN ROOF AND OVERFLOW DRAIN WITH LOW SILHOUETTE CAST IRON DOMES AND DOUBLE TOP-SET DECK PLATE. DURA-COATED CAST IRON BODY WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD. DRAIN SIZE INDICATED ON PLUMBING ROOF PLAN AND 2" HIGH WATER DAM. DRAIN SIZES INDICATED ON PLUMBING ROOF PLAN.	-	-	-	-	-	-
S-1	SINGLE COMPARTMENT DROP-IN SINK	ELKAY MODEL #LWSB252294	-	MOEN "GENTA" SINGLE-HANDLE HIGH ARC MODEL #7882SRS WITH PULLOUT SPRAY	STAINLESS STEEL	25"X22"X10", 20 GAUGE, 300 SERIES STAINLESS STEEL, CENTER DRAIN, AND SELF RIM SINK. ASME A112.19.3/CSA B45.4 COMPLIANCE. ELKAY MODEL LK99 DRAIN AND STRAINER. 1-1/2" CP P-TRAP WITH CLEANOUT, STOPS AND SUPPLIES.	2"	2"	-	2"	1/2"	1/2"
S-2	SINGLE COMPARTMENT UNDERMOUNT SINK	KRAUS STANDARD PRO MODEL #KHU100-30	-	MOEN "GENTA" SINGLE-HANDLE HIGH ARC MODEL #7882SRS WITH PULLOUT SPRAY	STAINLESS STEEL	18" X 30" X 10", 16 GAUGE T304 STAINLESS STEEL WITH SATIN FINISH, SOUND GAURD, AND BASKET STRAINER MODEL #BST-1. COMPLIANT WITH ASME A112.19.3/CSA B45.4. SINGLE HOLE DECK MOUNTED FAUCET WITH PULL-DOWN SPRAY WITH 68" BRAIDED HOSE, AND LEVER HANDLE. FLOW RATE OF 1.5-GPM. CERTIFIED TO ASME A112.18.1/CSA B125.1, NSF 61-SECTION 9, NSF 372, ADA, AND ICC A117.1 REQUIREMENTS. IN-SINK ERATOR BADGER 5 MODEL OR EQUAL, 1/2-HP FOOD WASTE DISPOSER WITH DISHWASHER DRAIN CONNECTION. PROVIDE MOEN MODEL #3942SRS SOAP DISPENSER.	2"	2"	-	2"	1/2"	1/2"
SH-1	SHOWER VALVE AND TRIM	AMERICAN STANDARD "SPECTRA VERSA" KIT MODEL #9038834	AMERICAN STANDARD PRESSURE BALANCING VALVE WITH STOPS MODEL #RU101SS	-	POLISHED CHROME	PROVIDE AMERICAN STANDARD "STUDIO S COLLECTION" MODEL #T105.500.002 VALVE ONLY TRIM KIT WITH METAL LEVER HANDLE FOR ROUGH VALVE BODY. HAND SHOWER TRIM KIT SHOWER TRIM ALL COMPLING WITH ASME A112.18.1/CSA B125.1, ADA, AND ASSE 1016 REQUIREMENTS. HAND SHOWER WITH WALL HOOK, 60" HOSE, CHROME PLATED BRASS SUPPLY ARM, VACUUM BREAKER AND 1.5-GPM FLOW CONTROL MEETING ADA AND ANSI A112.18.1M REQUIREMENTS. DRAIN: ZURN MODEL #Z415-S WITH 6"X6" SQUARE STRAINER, ARCHITECT TO SELECT STRAINER FINISH.	2"	2"	-	2"	1/2"	1/2"
TD-1	TRENCH DRAIN	ZURN MODEL #Z664-C	-	-	CAST IRON BODY	6" WIDE HEAVY DUDY DODULAR TRENCH DRAIN WITH BOTTOM DOME STRAINER AND CLAMPING COLLAR. DRAIN LENGTH SHALL BE ROUGHLY 2-FEET. PROVIDE TRAP SEAL DVICE EQUAL TO ZURN MODEL #Z1072.	SEE PLAN	SEE PLAN	-	2"	-	-
VB-1	VALVE BOX	WATER TITE MODEL #9701	QUARTER TURN BALL	-	LEAD FREE BRASS	PROVIDED WITH WALL BOX, FRAME, VALVE AND WATER HAMMER ARRESTER.	-	-	-	-	1/2"	-
WB-1	WASHER BOX	WATER TITE MODEL #4701	QUARTER TURN BALL	-	POLYSTYRENE	CLOTHES WASHER BOX, OFFSET DRAIN WITH 1/4 TURN MIP VALVE AND MOUNTED WATER HAMMER ARRESTOR, SNAP-ON FACEPLATE FRAM. 2" DRAIN. PROVIDE P-TRAP.	2"	2"	-	2"	1/2"	1/2"
WC-1	ADA COMPLIANT WATER CLOSET FLOOR MOUNTED (FLUSH TANK)	KOHLER "HIGHLINE CLASSIC COMFORT HEIGHT" MODEL #K-3658	-	-	VITREOUS CHINA	TWO-PIECE TOILET, ELEONGATED BOWL, 12-INCH ROUGH-IN, 16-1/2" RIM HEIGHT, AND 1.28-GPF FLUSHING SYSTEM. CONFORMS TO ASME A112.19.2/CSA B45.1. DOE - ENERGY POLICY ACT 1992, EPA WATERSENSE CEC, ADA. ICC/ANSI A117.1, CSA B651, AND OBC REQUIREMENTS. PROVIDE KOHLER TOILET SEAT MODEL #K-4664 WITH COVER. PROVIDE CHROME PLATED STOP AND SUPPLY.	INTEGRAL	3"	-	2"	1/2"	-

NOTES:

1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS AND DIAGRAMS.
2. ADA ACCESSIBLE WATER CLOSETS SHALL BE INSTALLED WITH FLUSING CONTROLS LOCATED ON THE WIDE SIDE OF ACCESSIBLE FLOOR SPACE WITHIN RESTROOM(S) OR STALL(S).
3. ALL FIXTURES SHALL MEET ADA AND LOCAL CODES.
4. INSTALL BACKING AND SUPPORTS AS REQUIRED TO PROPERLY ANCHOR ALL FIXTURES AND ACCESSORIES.
5. PLUMBING FIXTURE SUPPORTS AND CARRIERS SHALL BE EOUAL TO ZURN, WATTS, JOSAM, WADE AND J.R. SMITH
6. SUPPLY PIPING AND FITTING FOR ALL FIXTURES SHALL BE INSTALLED SO AS TO PREVENT BACKFLOW.
7. ALL FIXTURES SHALL BE PROVIDED WITH ACCESSIBLE SHUT OFF VALVES AT COLD AND HOT WATER PIPING CONNECTIONS.
8. PROVIDE INSULATION FOR ALL PIPING IN EXTERIOR WALLS.
9. ALL PLUMBING FIXTURES SHALL BE COORDINATED AND APPROVED BY ARCHITECT PRIOR TO PURCHASE.
10. PLUMBING FIXTURES / EQUIPMENT SUBSTITUTIONS ALLOWED ONLY THROUGH APPROVAL OF ENGINEER.
11. PROVIDE BRASS CRAFT OR EOUAL SUPPLY STOPS ON ALL NON-FLUSH VALVE FIXTURES.
12. PROVIDE FLOOR DRAIN AND ROOF DRAIN STRAINERS WITH FREE SPACE AREA PER CURRENT BUILDING CODE AND MANUFACTURER'S INSTRUCTIONS.
13. HOT WATER TO ALL LAVATORIES AND HAND SINKS SHALL NOT EXCEED 110 DEGREES.
14. COORDINATE ADA HEIGHT REQUIREMENTS WITH ARCHITECT DRAWINGS.
15. ALL LAVATORIES. HAND SINKS. BATH AND SHOWER VALVES SHALL BE PROVIDED WITH APPROVED AUTOMATIC SAFETY WATER MIXING DEVICE AND PRESSURE BALANCE.
16. PROVIDE CHROME PLATED SUPPLIES ON ALL LAVATORIES AND SINKS WHICH ARE EXPOSED TO VIEW. AT CONTRACTOR'S OPTION SUPPLIES CONCEALED FROM VIEW MAY BE TYPE "L" SOFT DRAWN COPPER. "PX" AND POLYBUTYLENE ARE NOT APPROVED.
17. PROVIDE PVC TRAPS ON ALL FIXTURES CONCEALED FROM VIEW REQUIRING P-TRAPS. THIN WALL "MASTER P-TRAPS" OR SIMILAR PVC TRAPS ARE NOT APPROVED.

PLUMBING GENERAL NOTES:

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. DRAWINGS ARE NOT TO BE SCALED. THE ARCHITECTURAL DRAWINGS AND DETAILS SHALL BE EXAMINED FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. SYSTEMS SHALL INCLUDE ALL APPURTENANCES AS REQUIRED TO ACHIEVE THE OPERATING CONDITIONS AS SHOWN AND SPECIFIED AND SHALL RESULT IN A SUPERIOR INSTALLATION. INFORMATION CONTAINED ON THE DRAWINGS BUT NOT IN THE SPECIFICATIONS OR IN THE SPECIFICATIONS BUT NOT ON THE DRAWINGS ARE INTENDED TO BE IN BOTH. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED BUT NECESSARY FOR PROPER OPERATION AND CONSISTENT WITH GOOD WORKMANSHIP WILL BE INCLUDED IN THE ESTIMATE, THE SAME AS IF SHOWN ON THE DRAWINGS. ANY CONFLICT SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. THE PLUMBING CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIAL, LABOR, ETC. NECESSARY TO PROVIDE A COMPLETE, WORKABLE AND CODE APPROVED PLUMBING SYSTEM. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, LOCAL, STATE AND NATIONAL CODES.
3. THE PLUMBING CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL GOVERNMENT FEES, SALES TAXES AND OTHER COSTS IN CONNECTION WITH HIS WORK; FILE ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK; AND DELIVER TO THE ARCHITECT THE SAME CERTIFICATES BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
4. ALL WORK SHALL BE GUARANTEED, BOTH MATERIAL AND INSTALLATION, FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE BY OWNER.
5. FURNISH SIX (6) COPIES OF SHOP DRAWINGS OF EQUIPMENT OR FIXTURES FOR APPROVAL PRIOR TO PURCHASING.
6. CONTRACTOR SHALL KEEP A RECORD OF THE LOCATIONS OF ALL CONCEALED WORK AND UPON COMPLETION OF THE JOB, SHALL SUPPLY ACAD QUALITY AS-BUILT DRAWINGS SHOWING ANY DEVIATION FROM THE ORIGINAL DRAWINGS. THESE DRAWINGS SHALL INDICATE DIMENSIONS OF BURIED UTILITY LINES FROM BUILDING WALLS.
7. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR PIPE ROUTING AND INSTALLATION OF EQUIPMENT AND SYSTEMS TO PROVIDE FOR REQUIRED CLEARANCES.
8. ALL OPENINGS THROUGH FIRE RATED WALLS OR FLOORS SHALL BE SEALED WITH A U.L. LISTED PENETRATION AND SHALL MAINTAIN THE FIRE RATED INTEGRITY OF THE WALL OR FLOOR. THE CONTRACTOR SHALL VERIFY FIRE RATINGS WITH ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION.
9. PIPE PASSING THROUGH PIT WALLS, BUILDING WALLS, AND BUILDING FLOORS BELOW GRADE SHALL BE PROVIDED WITH SLEEVES OF STANDARD WEIGHT GALVANIZED STEEL PIPE. THE ANNULAR SPACES BETWEEN PIPE AND SLEEVES SHALL BE SEALED WITH LINK SEAL HYDROSTATIC PIPE WALL SEAL. SLEEVES SHALL BE SIZED AS FOLLOWS:
   3" PIPE - 6" ID SLEEVE
   4" PIPE - 8" ID SLEEVE
   6" PIPE - 10" ID SLEEVE
   8" PIPE - 12" ID SLEEVE
   10" PIPE - 12" ID SLEEVE
10. BREAKAGE AND CORROSION: PIPES PASSING UNDER OR THROUGH WALLS SHALL BE PROTECTED FROM BREAKAGE. PIPES PASSING THROUGH CONCRETE OR CINDER WALLS AND FLOORS OR OTHER CORROSIVE MATERIAL SHALL BE PROTECTED AGAINST EXTERNAL CORROSION BY A PROTECTIVE SHEATHING OR WRAPPING OR OTHER MEANS THAT WILL WITHSTAND ANY REACTION FROM LIME AND ACID OF CONCRETE, CINDER OR OTHER CORROSIVE MATERIAL. SHEATHING OR WRAPPING SHALL ALLOW FOR EXPANSION AND CONTRACTION OF PIPING TO PREVENT ANY RUBBING ACTION. MINIMUM WALL THICKNESS OF MATERIAL IS TO BE 0.025 INCH.
11. PROVIDE WALL CARRIERS FOR ALL WALL HUNG PLUMBING FIXTURES. ALL WALL HUNG PLUMBING FIXTURES SHALL BE CAPABLE OF SUPPORTING A 250 POUND VERTICAL LOAD.
12. THE PLUMBING CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCING WITH THE WORK.
13. CONTRACTOR SHALL EXTEND AS NECESSARY AND CONNECT BUILDING DRAIN AND POTABLE WATER LINES TO EXISTING SERVICE LINES AT LOCATION ON SITE OR IN BUILDING AS REQUIRED. VERIFY EXACT LOCATION AND INVERT ELEVATION OF SERVICE CONNECTIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF THE DISTANCE TO SITE SERVICES EXCEED TEN (10) LINEAR FEET FROM THE BUILDING.

POTABLE WATER PIPING:

14. INTERIOR ABOVE AND BELOW GROUND WATER PIPING SHALL BE (CPVC) CHLORINATE POLYVINYL CHLORIDE PLASTIC PIPE AND TUBING (ASTM D-2846) FLOWGUARD OR EQUIVALENT WITH APPROVED CPVC SOLVENT WELDED FITTINGS. CPVC WATER PIPING SHALL NOT BE RUN IN RETURN AIR PLENUM OR FIRE RATED ASSEMBLIES UNLESS ALLOWED BY LOCAL JURISDICTION.
15. EXTERIOR BUILDING SERVICE SHALL BE SCHEDULE 40 PVC (ASTM D-1785) WITH APPROVED PVC SOLVENT WELDED FITTINGS.
16. THE SITE SUBCONTRACTOR SHALL PROVIDE THE BACKFLOW PREVENTOR AND THE WATER METER.
17. PROVIDE WATER HAMMER ARRESTORS ON HOT AND COLD WATER LINES ON ALL QUICK CLOSING DEVICES PER CHAPTER 6 OF FLORIDA BUILDING CODE PLUMBING.
18. PROVIDE VACUUM BREAKERS AS REQUIRED BY CODE.
19. TEST ALL WATER PIPING AT 100 PSIG FOR TWENTY-FOUR (24) HOURS OR AS REQUIRED BY CODE.
20. STERILIZE ALL WATER PIPING IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS AND AMERICAN WATER WORKS SPECIFICATIONS.
21. SUPPORT ALL WATER PIPING WITH PIPE HANGERS BY GRINNELL OR EQUAL.
22. PROVIDE ACCESS DOORS WHERE NECESSARY TO SERVICE SEALS, VALVES, TRAPS, CLEAN-OUTS, AIR CHAMBERS/WATER HAMMER ARRESTORS, ETC. ALL ACCESS DOORS IN TOILET ROOMS SHALL BE STAINLESS STEEL.
23. PROVIDE DIELECTRIC UNIONS OR FITTINGS WHENEVER FERROUS AND NON-FERROUS PIPES ARE JOINED.
24. INSULATE HOT WATER PIPING WITH 1 INCH ARMSTRONG AP ARMAFLEX UP TO AND INCLUDING 1 1/4 INCH DIAMTER. SECURE WITH ADHESIVE.
25. INSULATE HOT WATER PIPING OVER 1 1/4 INCH WITH 1 INCH THICK INSULATION FINISHED WITH WHITE MASTIC. FITTINGS SHALL BE INSULATED WITH MITERED PIPE COVERING FINISHED WITH WHITE MASTIC OR PVC FITTING COVERS.
26. HANDICAPPED LAVATORIES: INSULATE WATER SUPPLIES AND WASTE PIPING REQUIRING ADA CONFORMANCE, WITH LAV-GUARD KITS, BY TRUEBRO OR EQUAL.
27. THIS SYSTEM WAS DESIGNED TO 50 PSI STATIC PRESSURE WITH RESIDUAL PRESSURE OF 20 PSI AT 1000 GPM FROM THE NEAREST FIRE HYDRANT. THESE CONDITIONS SHALL BE VERIFIED BY THE PLUMBING CONTRACTOR PRIOR TO PROCEEDING WITH THE INSTALLATION. NOTIFY THE ENGINEER IMMEDIATELY IF FLOW AND PRESSURES OBTAINED ARE BELOW THOSE CONTAINED IN THIS PARAGRAPH.
28. WATER HEATERS: WATER HEATERS MUST BEAR ASHRAE LABEL INDICATING COMPLIANCE WITH ASHRAE STANDARD 90 OR COMPLY WITH EFFICIENCY AND STANDBY LOSS REQUIREMENTS. SWITCH OR CLEARLY MARKED CIRCUIT BREAKER (ELECTRIC) OR CUT-OFF (GAS) MUST BE PROVIDED. HEAT TRAPS REQUIRED. MUST MEET MINIMUM WATER HEATING EQUIPMENT EFFICIENCIES AS ESTABLISHED BY THE FLORIDA MODEL ENERGY CODE.

SANITARY WASTE, VENT AND STORM WATER PIPING

29. SANITARY WASTE, VENT AND STORM PIPING SHALL BE SCHEDULE 40 PVC (ASTM D-2665) WITH APPROVED PVC SOLVENT WELDED FITTINGS. COMPLY WITH FLORIDA BUILDING CODE 6TH EDITION 2017. PVC PIPING SHALL NOT BE RUN IN RETURN AIR PLENUM OR FIRE RATED ASSEMBLIES.
30. ALL SOIL AND WASTE PIPING, 2-1/2" AND SMALLER, SHALL BE SLOPED AT 1/4" PER FOOT. LARGER WASTE PIPING SHALL BE SLOPED AT 1/8" PER FOOT.
31. TEST SANITARY WASTE, VENT AND STORM PIPING BY A 10' WATER COLUMN FOR TWENTY-FOUR (24) HOURS OR AS REQUIRED BY THE BUILDING DEPARTMENT.
32. INSULATE INTERIOR ABOVEGROUND STORM WATER PIPING, ALL HORIZONTAL AND ALL IN CONDITIONED SPACE WITH 1-INCH THICK FIBERGLASS INSULATION FINISHED WITH WHITE MASTIC OR PVC COVER.
33. INSULATION FIT: INSULATION SHALL BE APPLIED TO PIPE AND EQUIPMENT WITH ALL JOINTS FITTED TO ELIMINATE VOIDS. VOIDS SHALL NOT BE FILLED WITH JOINT SEALANT, BUT SHALL BE ELIMINATED BY REFITTING OR REPLACING INSULATION.
34. ALL VENTS THROUGH ROOF SHALL BE A MINIMUM OF 10'-0" OR AS REQUIRED BY CODE AWAY FROM FRESH AIR INTAKES.
35. ALL VENTS THROUGH ROOF SHALL BE PROVIDED WITH FOUR (4) POUND SHEET LEAD FLASHING EXTENDING UPWARD AROUND THE PIPE AND TURNED DOWN INSIDE THE PIPE.
36. FLOOR DRAINS TO HAVE 4-INCH DEEP SEAL TRAPS. EXACT DRAIN LOCATION SHALL BE COORDINATED WITH ARCHITECT PRIOR TO ROUGH IN.
37. FLOOR SINKS TO HAVE 4-INCH DEEP SEAL TRAPS. EXACT DRAIN LOCATION SHALL BE COORDINATED WITH ARCHITECT PRIOR TO ROUGH IN.
38. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB DRAINS THAT ARE NOT CONTINUOUSLY WASHED BY AN APPLIANCE OR FIXTURE.

GAS PIPING

39. GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE OR NFPA-54 WHERE REQUIREMENTS ARE MORE STRINGENT.
40. PIPE SIZE 2-INCH AND SMALLER: BLACK STEEL PIPE; SCHEDULE 40; MALLEABLE-IRON THREAD FITTINGS.
41. PIPE SIZE 2-1/2 INCH AND LARGER: BLACK STEEL PIPE, SCHEDULE 40, WROUGHT- STEEL BUTT WELDED FITTINGS.
42. ALL GAS EQUIPMENT SHALL BE AGA APPROVED
43. THE INSTALLATION SHALL BE FOR NATURAL GAS.
44. THE INSTALLING SUBCONTRACTOR SHALL BE LICENSED FOR THE INSTALLATION OF NATURAL GAS.
45. THE INSTALLATION SHALL BE FOR PROPANE GAS
46. THE INSTALLING SUBCONTRACTOR SHALL BE LICENSED FOR THE INSTALLATION OF PROPANE GAS.
47. ANY GAS PIPING, WHICH IS EXPOSED, SHALL BE PAINTED WITH BLACK "RUSTOLEUM" PAINT. VERIFY COLOR WITH ARCHITECT.
48. GAS PIPING SHALL BE HUNG TIGHT TO THE ROOF STRUCTURE, SUPPORTED WITH HANGERS BY GRINNELL OR EQUAL.
49. BRANCH TAPS MUST BE MADE OFF OF THE TOP OF THE PIPING.
50. CONNECTION TO EACH PIECE OF EQUIPMENT SHALL INCLUDE AN INVERTED TRAP, A GAS COCK, A UNION AND A DIRT LEG. CONNECTIONS SHALL BE RIGID (NO FLEX).
51. ALL GAS FLUES SHALL BE A MINIMUM OF 10'-0", OR AS REQUIRED BY CODE, AWAY FROM FRESH AIR INTAKES.

MISCELLANEOUS

52. PROVIDE AND INSTALL SHUT OFF VALVES AND SECTIONAL VALVES AS REQUIRED BY APPLICABLE FLORIDA BUILDING CODES AND PLUMBING SPECIFICATION SECTIONS.
53. PIPE ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS, AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF PIPE TO AVOID OBSTRUCTIONS. COORDINATION WITH UTILITY SERVICES, INCLUDING THOSE OF OTHER TRADES IS REQUIRED. MAINTAIN HEADROOM AND SPACE LOCATIONS.
54. INSTALL WORK AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
55. THE LOCATIONS OF THE UTILITY SERVICES ARE BELIEVED TO BE AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS OF THESE SERVICES PRIOR TO COMMENCING ANY WORK.
56. ALL MATERIALS AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS. ALL MATERIALS AND EQUIPMENT ON SITE SHALL BE PROPERLY STORED SUCH THAT IT IS PROTECTED FROM DAMAGE AND EXPOSURE.
57. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, TESTED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, HAS FURNISHED ALL THE REQUIRED CERTIFICATIONS OF INSPECTION AND APPROVAL, AND SUBMITTED ALL THE NECESSARY CLOSE-OUT DOCUMENTS.
58. UPON COMPLETION AND ACCEPTANCE OF WORK, CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS AND EQUIPMENT MANUALS AND DEMONSTRATE TO THE OWNER THE PROPER OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT.

    THESE INSTRUCTIONS SHALL BE TYPED ON 8-1/2 IN. X 11 IN. PAPER AND BOUND IN THREE RING BINDERS WITH CLEAR ACETATE COVERS. CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE COPY TO THE ENGINEER.

    THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR, PLUMBING CONTRACTOR, ARCHITECT, AND ENGINEER.

    REPRODUCIBLE "AS-BUILT" DRAWIN

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PIPING NOTES

1. ALL ABOVE GROUND PIPING LESS THAN 1½" SHALL BE SCHEDULE 40 BLACK WITH CAST THREADED FITTINGS.
2. ALL ABOVE GROUND PIPING 2" AND LARGER SHALL BE SCHEDULE 10 BLACK STEEL WITH VICTAULIC FITTINGS.

HANGER SPACING TABLE

MAXIMUM DISTANCE BETWEEN HANGERS IN ACCORDANCE TO NFPA 13 TABLE 9.2.2.1

PIPE SIZE	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
THREADED LIGHTWALL	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"			
CPVC	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"				

WHERE THE MAXIMUM STATIC OR FLOWING PRESSURE, WHICHEVER IS GREATER AT THE SPRINKLER, APPLIED OTHER THAN THROUGH THE FIRE DEPARTMENT CONNECTION, EXCEEDS 100 PSI AND A BRANCH LINE ABOVE A CEILING SUPPLIES SPRINKLERS IN A PENDENT POSITION BELOW THE CEILING, THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARMOVER TO A SPRINKLER OR SPRINKLER DROP SHALL NOT EXCEED 12" FOR STEEL PIPE AND 6" FOR COPPER OR CPVC TUBE.

SPRINKLER HEAD LEGEND

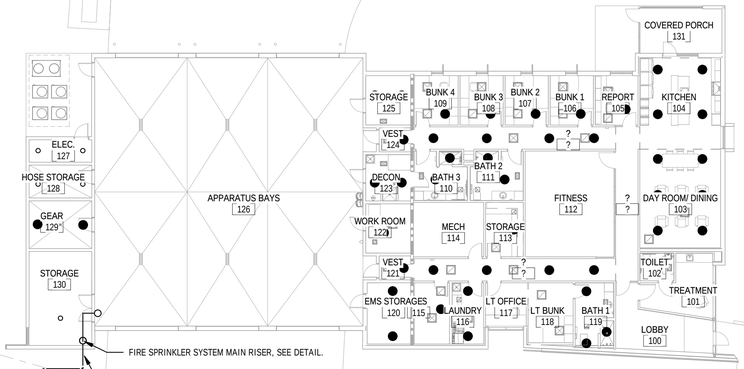
SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.
	CONCEALED PENDENT	WHITE	155	5.60	1/2"	---	TYCO	RFII	CONCEALED	Thread
	HIGH TEMPERATURE PENDENT	CHROME	286	5.60	1/2"	---	TYCO	TY-FRB	RECESSED	Thread
	UPRIGHT	BRASS	155	5.60	1/2"	---	TYCO	TY-FRB	RECESSED	Thread
	DRY PENDENT	CHROME	135	5.60	1"	---	TYCO	DS-1	RECESSED	Thread
	SIDEWALL	BRASS	200	5.60	1/2"	1/2"	TYCO	DS-1	NONE	Thread

*PROVIDE INTERMEDIATE TEMPERATURE RATING SPRINKLER HEADS IN UNCONDITIONED SPACES PER NFPA 13 REQUIREMENTS.

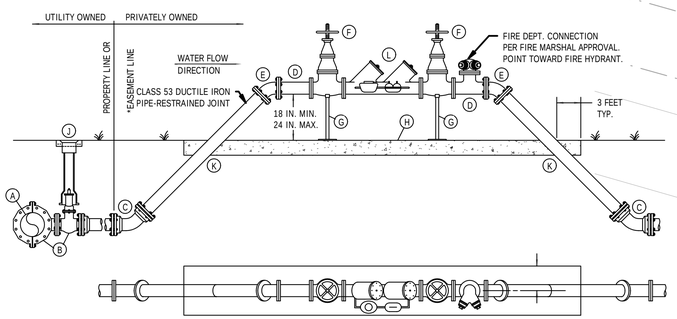
FIRE PROTECTION LEGEND

ABV.	DESCRIPTION	SYMBOL	ABV.	DESCRIPTION
AFF	ABOVE FINISH FLOOR			FIRE SPRINKLER BRANCH LINE
AP	ACCESS PANEL			EXISTING FIRE SPRINKLER BRANCH LINE
CPVC	CHLORINATED POLYVINYL CHLORIDE			FIRE SPRINKLER MAIN LINE
DN	DOWN			EXISTING FIRE SPRINKLER MAIN LINE
EXIST	EXISTING			EXISTING PUBLIC WATER MAIN
°F	DEGREE FAHRENHEIT			UNDER GROUND FIRE WATER MAIN LINE
GPH	GALLONS PER HOUR	#		HYDRAULIC CALCULATION NODE POINT
GPM	GALLONS PER MINUTE			MAIN SYSTEM RISER (PLAN VIEW)
KW	KILOWATT			O. S. & Y GATE VALVE WITH TAMPER SWITCH
LBS	POUNDS			SWING CHECK VALVE
NC	NORMALLY CLOSED			TEST AND DRAIN WITH GAUGE
NO	NORMALLY OPEN			PIPE RISE OR DROP
OD	OUTSIDE DIAMETER			PIPE RISE OR DROP (ELBOW)
PRV	PRESSURE REDUCING VALVE			BRANCH - BOTTOM CONNECTION
PSI	POUNDS PER SQUARE INCH			BRANCH - TOP CONNECTION
PVC	POLYVINYL CHLORIDE PIPE			
SF	SQUARE FEET			
U.G.	UNDER GROUND			
VEL	VELOCITY			
NIC	NOT IN CONTRACT			

NOTE: ALL SYMBOLS AND ABBREVIATIONS DO NOT NECESSARILY APPLY TO THIS PROJECT



1 FIRE PROTECTION SITE PLAN
1/16" = 1'-0"



(A) EXISTING OR PROPOSED WATER MAIN
(B) TAPPING SLEEVE AND VALVE. SEE GEN. DWG. NO. 3
(C) 45° BEND BELOW GROUND FITTINGS ALL MJ, RESTRAINED JOINT.
(D) SPOOL PIECE 12 INCH LONG MINIMUM
(E) 45° BEND ABOVE GROUND FITTINGS ALL FLANGED
(F) OS & Y GATE VALVES (FLANGED) MINIMUM 4 INCHES
(G) MINIMUM (2) ADJUSTABLE STAINLESS STEEL PIPE SUPPORTS SECURED TO CONCRETE PAD
(H) CONCRETE PAD TO BE A MINIMUM OF 6 FEET WIDE AND 4 INCHES THICK WITH W.W.M. REINFORCEMENT
(J) VALVE BOX AND COVER.
(K) 1/2 INCH THICK NEOPRENEN SLEEVE BETWEEN PIPE AND CONCRETE PAD
(L) DOUBLE DETECTOR CHECK ASSEMBLY AS APPOVED BY UNIVERSITY OF SOUTHERN CALIFORNIA

PAIN COLOR - NEW LIME YELLOW

NO 3 INCH PIPING OR VALVES ALLOWED

*NOTE: EASEMENT LINE MUST BE ADJACENT TO THE ROAD RIGHT-OF-WAY OR APPROVED BY THE UTILITY.

FIRE LINE DOUBLE DETECTOR CHECK ASSEMBLY

4" DIAMTER AND LARGER
N.T.S.
FIREDDCA.DWG 08/27/03

FIRE LINE D.D. CHECK ASSEMBLY

WATER DWG. NO. 6

DocuSigned by: Jon Shepard 4B6666A0610145F... 7/2/2020

This set has been digitally signed and sealed by Jon D. Shepard, PE on July 2, 2020 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

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CONTRACTOR TO VERIFY ALL DETAILS, DIMENSIONS, AND FIELD CONDITIONS BEFORE PROCEEDING WITH ANY CONSTRUCTION. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING. DO NOT SCALE DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING. SEE ONLY ABOUT RECENTLY DATED DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL WORK WITH THAT OF ALL OTHER TRADES. ENGINEER HAS NOT BEEN RETAINED TO PROVIDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR TO PROVIDE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION, AND ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION NOT CARRIED OUT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ENGINEER IS NOT RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR.

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DANIEL SHEPARD JON D. No. 71536 STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER NOT FOR CONSTRUCTION

PROJECT TITLE: LONGBOAT KEY FIRE RESCUE STATION 92
2162 GULF OF MEXICO DR
LONGBOAT KEY, FL 34228

ISSUED FOR: CONFORMED SET 05.22.20

REV	DESCRIPTION	DATE
1	ASI 02	06.09.20

GRAPHIC SCALE: 0" 1"

SCALE:	As indicated
PROJECT MANAGER:	CRB
DRAWN BY:	AJR
A/E OF RECORD:	JDS
PROJECT NO:	19-523

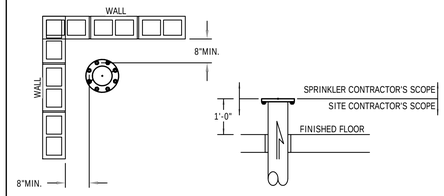
SHEET TITLE: FIRE PROTECTION SITE PLAN

SHEET No.: FP1.0

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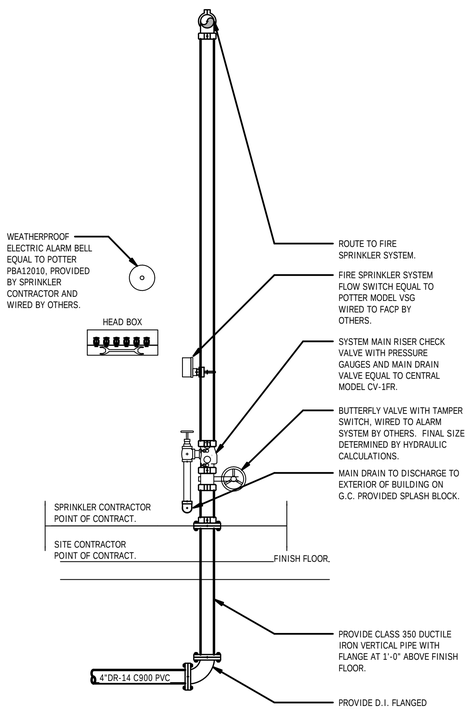
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NOTE:
ALL FIRE PROTECTION PIPING STUB-UPS, WHETHER INSIDE OR OUTSIDE A BUILDING AND INCLUDING PUMP ROOMS SHALL BE INSTALLED UTILIZING THE "2-HOLE METHOD" ON ALL FLANGES. THE FLANGE SHALL BE INSTALLED LEVEL TO FLOOR WITH THE BOLT HOLES ALIGNED SO THAT FITTINGS, VALVES AND EQUIPMENT ARE IN A SQUARE ALIGNMENT WITH ADJACENT WALLS AND FLOOR.



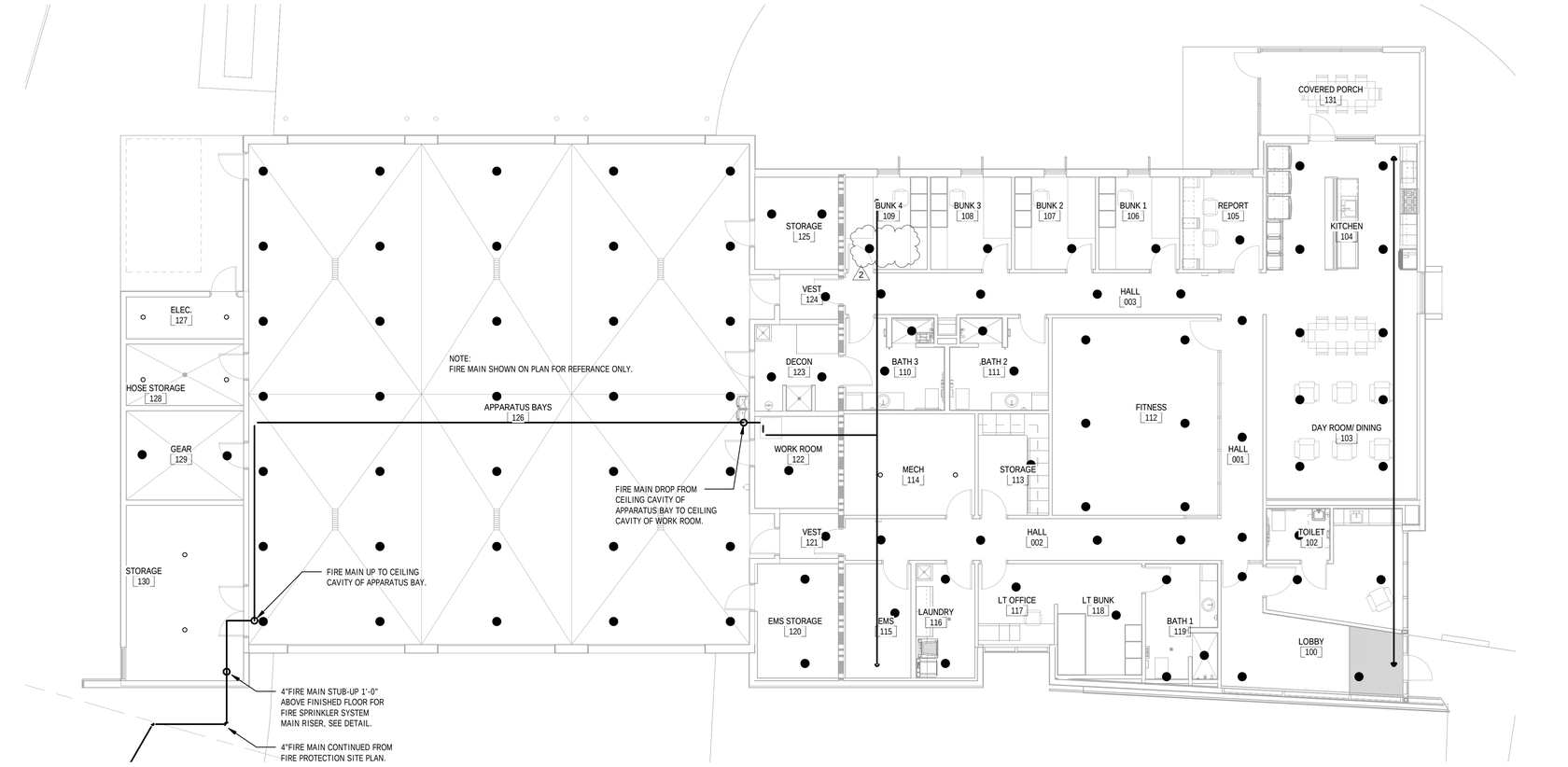
INCOMING FIRE PROTECTION SUPPLY DETAIL

SCALE: NONE



FIRE SPRINKLER SYSTEM MAIN RISER DETAIL

SCALE: NONE



1 FIRE PROTECTION PLAN
1/8" = 1'-0"

This set has been digitally signed and sealed by Jon D. Shepard, PE on August 25, 2020 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

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Cert. of Authorization# CA31201

Mechanical	Electrical	Plumbing	Fire Protection

CONTRACTOR TO VERIFY ALL DETAILS, DIMENSIONS, AND FIELD CONDITIONS BEFORE PROCEEDING WITH ANY CONSTRUCTION. CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND FIELD CONDITIONS TO THE ARCHITECT IMMEDIATELY. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH AFFECTED WORK. IN THE EVENT DISCREPANCIES ARE NOT BROUGHT TO THE ENGINEER'S ATTENTION AND CONDITIONS, KNOWABLE, IS NOT RESPONSIBLE FOR CONSTRUCTION NOT CARRIED OUT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY. ALL DRAWINGS ARE THE PROPERTY OF THE ENGINEER AND SHALL NOT BE REPRODUCED WITHOUT EXPRESSED WRITTEN PERMISSION FROM QUEST DESIGN GROUP. © COPYRIGHT 2020.

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DocuSigned by:
Jon Shepard
AB0695A0810145F...
8/25/2020

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DANIEL SHEPARD * LICENSED GENERAL CONTRACTOR * No.71556 * STATE OF FLORIDA * PROFESSIONAL ENGINEER

N

PROJECT TITLE:
LONGBOAT KEY
FIRE RESCUE STATION 92
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ISSUED FOR:
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SHEET No.:
FP1.1

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SPECIFICATIONS AND 61G15 REQUIREMENTS

SPECIFICATIONS AND 61G15 REQUIREMENTS

THE PURPOSE OF THIS PLAN IS TO IMPLEMENT THE REQUIREMENTS OF THE FLORIDA ADMINISTRATIVE CODE (FAC) 61G15-32.003 AND 61G15-32.004.

THIS PLAN CONSTITUTES THE "FIRE PROTECTION SYSTEM ENGINEERING DOCUMENT" MANDATED BY F.A.C. 61G15-32.002(5) TO BE SUBMITTED WITH THE GENERAL CONSTRUCTION DOCUMENTS. THIS DOCUMENT CONTAINS PERFORMANCE CRITERIA, WATER SUPPLY ANALYSIS AND OTHER MATERIAL OR REPRESENTATIONS THAT SET FORTH THE OVERALL DESIGN REQUIREMENTS AND DIRECTION FOR THE CONTRACTOR TO PROVIDE LAYOUT/WORKING DRAWINGS FOR SEPARATE PERMIT SUBMISSION FOR PUBLIC OR PRIVATE FIRE PROTECTION SYSTEMS. THE SELECTED FIRE PROTECTION CONTRACTOR (REFERRED TO HEREIN AS THE "CONTRACTOR") SHALL PROVIDE "FIRE PROTECTION SYSTEM LAYOUT DOCUMENTS" AS MANDATED BY F.A.C. 61G15-32.002(6) (I.E. WORKING DRAWINGS) IN ACCORDANCE WITH NFPA-13 REQUIREMENTS. THE LAYOUT/WORKING DRAWINGS SHALL INCLUDE HYDRAULIC CALCULATIONS, CATALOG INFORMATION ON STANDARD PRODUCTS, AND OTHER CONSTRUCTION DATA PREPARED BY THE LICENSED CONTRACTOR THAT PROVIDE DETAILS ON THE LOCATION OF RISERS, CROSS MAINS, BRANCH LINES, SPRINKLER HEADS, SIZING OF PIPE, HANGER LOCATIONS, AND ALSO SHALL SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION OF THE FIRE PROTECTION SYSTEM. THE LAYOUT/WORKING DOCUMENTS SHALL BE BASED UPON THE ENGINEERING DIRECTION PROVIDED HEREIN AND SHALL REQUIRE NO ADDITIONAL ENGINEERING INPUT.

IF THE CONTRACTOR DEVIATES FROM ANY OF THE REQUIREMENTS PROVIDED HEREIN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY FOR RESOLUTION. THE CONTRACTOR SHALL FULLY COORDINATE THE SYSTEM INSTALLATION WITH ALL OTHER TRADES. THE CONTRACTOR MUST TAKE ALL PROFESSIONAL AND LEGAL RESPONSIBILITY FOR THE DOCUMENTS, WHICH HE PREPARES AND IN NO WAY MAY EXEMPT HIMSELF FROM SUCH FULL RESPONSIBILITY. THE WORKING DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD FOR REVIEW. THE ENGINEER OF RECORD SHALL STOP STAMP THE WORKING DRAWINGS INDICATING THE FIRE SYSTEM DESIGN MEETS THE INTENT OF THE ORIGINAL DESIGN. THE CONTRACTOR SHALL SUBMIT THE REVIEWED SHOP DRAWINGS TO THE APPROPRIATE AUTHORITIES FOR SEPARATE PERMIT AND TO BE USED BY THE AUTHORITY FOR SUBSEQUENT INSPECTIONS. IF THE LOCAL AUTHORITY HAVING JURISDICTION REQUIRES THE WORKING DRAWINGS TO BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND INCLUDE THE ESTIMATED TIME AND COST FOR PRODUCTION OF SAID DOCUMENTS IN HIS CONSTRUCTION BID.

ALTERNATELY:
THE LICENCE CONTRACTOR MAY REQUEST A CHANGE TO THE "ENGINEER OF RECORD" BY WRITING A CERTIFIED LETTER TO THIS OFFICE REQUESTING A CHANGE TO THE ENGINEER OF HIS CHOICE, IN ACCORDANCE WITH F.A.C. 61G15-27.001

NATURE AND SCOPE OF WORK:
THE BUILDING DESIGNATED AS LONGBOAT KEY FIRE RESCUE STATION 92 IS LOCATED AT 2162 GULF OF MEXICO DRIVE, LONGBOAT KEY, FLORIDA, 34228. THE BUILDING IS A MIXED USE OCCUPANCY, NEW CONSTRUCTION TYPE IIB, SINGLE STORY BUILDING ENCOMPASSING APPROXIMATELY 9,815 SQUARE FEET OF GROSS AREA. THE OCCUPANCIES PER FBC CHAPTER 3 ARE BUSINESS (B), RESIDENTIAL (R-2), AND STORAGE (S-2). THE OCCUPANCY PER NFPA 101 IS BUSINESS, RESIDENTIAL, AND STORAGE.

THE OBJECTIVE IS TO PROVIDE A COMPLETE AND FUNCTIONAL FIRE PROTECTION SYSTEM IN ACCORDANCE WITH THE STATUTES OF FLORIDA AND THE FLORIDA BUILDING CODE. THE SYSTEM SHALL BE A WET PIPE HYDRAULICALLY CALCULATED SYSTEM. THE DESIGN APPROACH EMPLOYED SHALL BE THE AREA DENSITY METHOD. SPRINKLERS USED THROUGHOUT THIS PROJECT SHALL BE QUICK RESPONSE TYPE ORDINARY TEMPERATURE CHARACTERISTIC (155°F PREFERRED) (EXCEPT WHERE A SPECIFIC HAZARD REQUIRES SPECIAL PROTECTION).

FIRE PROTECTION SYSTEM COMPONENTS:
THE SPRINKLER SYSTEM SHALL CONSIST OF, BUT MAY NOT BE LIMITED TO THE FOLLOWING:
A) A SITE BACKFLOW PREVENTION DEVICE OF THE TYPE APPROVED BY THE LOCAL PUBLIC UTILITY (DOUBLE CHECK VALVE AND DETECTOR ASSEMBLY). THE BACKFLOW PREVENTION DEVICE SHALL NOT BE SMALLER THAN THE PIPING INTO WHICH IT IS INSTALLED AND THE PRESSURE DROP ACROSS THIS DEVICE SHALL NOT EXCEED 15 PSI AT THE DESIGN SPRINKLER FLOW. CONTACT CIVIL ENGINEER FOR FURTHER DETAILS.
B) A NEW CONNECTION TO SARASOTA COUNTY PUBLIC UTILITY WATER MAIN, ASSOCIATED UNDERGROUND PIPING TO CONNECT THE SITE BACKFLOW PREVENTION DEVICE AND BUILDING SYSTEM RISER(S), AS VERIFIED BY HYDRAULIC CALCULATION.
C) A FREE STANDING FIRE DEPARTMENT CONNECTION PROVIDED ON SITE IN ACCORDANCE WITH NFPA 13. FIRE DEPARTMENT CONNECTION(S) SHALL BE CONSTRUCTED OF A BRASS BODY WITH AN INTEGRAL CLAPPER ASSEMBLY TO SEPARATE FLOW BETWEEN INLETS. THE BUILDING FIRE DEPARTMENT CONNECTION SHALL CONNECT TO THE BUILDING SPRINKLER SYSTEM ON THE SPRINKLER SYSTEM SIDE OF THE SYSTEM RISER CHECK VALVE. THE BUILDING FIRE DEPARTMENT CONNECTION SHALL BE INSTALLED IN AN AREA ACCESSIBLE FOR THE FIRST RESPONSE UNIT AND WITH THE APPROVAL OF THE LOCAL FIRE MARSHAL.
D) SYSTEM RISER(S) AS DESCRIBED IN THE NFPA CHAPTER 13 INCLUDING PRESSURE GAUGES, TEST AND DRAIN VALVE, CHECK VALVE, WATER FLOW ALARM DEVICE AND CONTROL VALVE(S). ALL VALVES SHALL BE PROVIDED WITH TAMPER SWITCHES TO BE CONNECTED TO THE BUILDING FACP BY THE FIRE ALARM CONTRACTOR. FLOW SWITCH SHALL EXTEND TO FACP BY FIRE ALARM CONTRACTOR.
E) INSPECTORS' TEST STATION(S) AND SYSTEM DRAIN(S) AS REQUIRED TO COMPLETE THE SYSTEM.
F) ASSOCIATED MAIN, CROSS MAIN, BRANCH, AND OTHER PIPING AND FITTINGS.
G) NECESSARY FLOW ALARMS AND TAMPER SWITCH(ES) TO MONITOR AND ALARM A FIRE OR OTHER EMERGENCY CONDITION.
H) SYSTEM CONTROL VALVE, CHECK VALVES, WATER MOTOR ALARM, RELIEF VALVES, PRESSURE GAGES AND ALL REQUIRED DEVICES FOR FULLY FUNCTIONAL WET PIPE SYSTEM CONFORMING TO NFPA 13 CHAPTER 7.
I) HIGH PRESSURE FITTINGS THAT ARE IAW UL AND FM ON ALL FLOORS THAT ARE IN EXCESS OF 175 PSI.
J) PRESSURE REDUCING VALVES SET TO AN OUTLET PRESSURE NOT EXCEEDING 165 PSI WITH A LISTED RELIEF VALVE ON THE OUTLET SIDE OF THE PRESSURE REDUCING VALVE. RELIEF SHALL DISCHARGE INTO A DRAIN LINE NO LESS THEN 1/2" DIAMETER WITH A SCREEN AT THE INLET SIDE OF THE PRESSURE RELIEF VALVE.
K) PRESSURE REDUCING VALVES SHALL BE INSTALLED BEFORE LOWER LEVEL HOSE CONNECTIONS AND SECTIONAL CONTROL VALVES FOR EACH OF THE LOWER LEVEL SPRINKLER SYSTEM ZONES.

APPLICABLE CODES:
THE FLORIDA BUILDING CODE SIXTH EDITION (2017)
FLORIDA FIRE PREVENTION CODE SIXTH EDITION (2017)
NFPA 1 UNIFORM FIRE CODE (2015)
NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (2013)
NFPA 25 STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS (2013)
NFPA 101 LIFE SAFETY CODE (2015)
LOCAL FIRE PREVENTION REQUIREMENTS

SPRINKLER SYSTEM OPERATION:
THE FIRE SPRINKLER HEAD SHALL CONTAIN A GLASS BULB FILLED WITH FLUID THAT EXPANDS WHEN EXPOSED TO HEAT. WHEN THE RATED TEMPERATURE IS REACHED, THE FLUID EXPANDS SUFFICIENTLY TO SHATTER THE GLASS BULB, WHICH THEN ALLOWS THE SPRINKLER TO ACTIVATE AND FLOW WATER. THE FLOW SWITCH ON SYSTEM RISER SENSES THE FLOW OF WATER SENDING A SIGNAL TO THE FIRE ALARM CONTROL PANEL WHICH TRIGGERS THE GENERAL ALARM AND INITIATES THE NOTIFICATION PROCESS.

STRUCTURAL SUPPORT AND STRUCTURAL OPENING:
A. PIPING STRUCTURAL SUPPORT SHALL BE IN ACCORDANCE WITH NFPA 13 CH. 9 "HANGING, BRACING, AND RESTRAINT OF SYSTEM PIPING".
B. IT IS NOT ANTICIPATED THAT ANY ENGINEERED STRUCTURAL OPENINGS ARE TO BE REQUIRED TO FACILITATE THE SYSTEM DESCRIBED IN THESE DOCUMENTS. SHOULD THE FINAL SYSTEM LAYOUT DOCUMENTS REQUIRE ANY ENGINEERED OPENINGS THEY SHALL BE COORDINATED THROUGH THE ARCHITECT AND GENERAL CONTRACTOR AT THAT TIME.
C. PIPING STRUCTURAL SUPPORT AND OPENINGS HAVE BEEN COORDINATED WITH STRUCTURAL ENGINEER, REFER TO STRUCTURAL ENGINEER PLANS FOR FURTHER INFORMATION AND INSTRUCTIONS.

QUALITY AND PERFORMANCE SPECIFICATIONS:
INTERIOR AND YARD FIRE PROTECTION COMPONENTS QUALITY AND PERFORMANCE SPECIFICATIONS SHALL CONFORM WITH;
NFPA 13 CH. 6 SYSTEM COMPONENTS AND HARDWARE AND
NFPA 13 CH. 10 UNDERGROUND PIPING

MATERIALS:
PIPING 2" DIAMETER AND LARGER SHALL BE SCHEDULE 10 STEEL. PIPING 11/2" AND SMALLER SHALL BE SCHEDULE 40 STEEL. ALL SPRINKLER SYSTEM PIPING EXPOSED TO WEATHER SHALL BE SCHEDULE 40 GALVANIZED STEEL. THIS PIPING SHALL CONFORM TO ONE OF THE FOLLOWING SPECIFICATIONS ASTM A 795, ANSI/ASTM A 53, ANSI/ASME B36.10M.

POINT OF SERVICE:
THE POINT OF SERVICE IS THE POINT AT WHICH THE UNDERGROUND PIPING FOR THE SPRINKLER SYSTEM, USING WATER AS THE EXTINGUISHING AGENT, IS USED EXCLUSIVELY FOR THE SPRINKLER SYSTEM.

CHARACTERISTICS OF WATER SUPPLY:
A NEW PROPOSED 6" UNDERGROUND FIRE MAIN SHALL BE ROUTED ON SITE AS SHOWN ON THE FIRE PROTECTION SITE PLAN. THE 6" SITE FIRE MAIN SHALL TAP INTO THE EXISTING CIRCULATING COUNTY MAIN, LOCATED AT THE SOUTH END OF THE PROPERTY TO SUPPLY WATER SERVICE. THE BUILDING FIRE SERVICE SHALL CONNECT TO THE 6" SITE WATER MAIN AS SHOWN ON THE FIRE PROTECTION SITE PLAN THROUGH A 6" BUILDING BACKFLOW PREVENTION DEVICE.

FIRE HYDRANT FLOW TEST HAS BEEN REQUESTED; HOWEVER SYSTEM SHALL BE HYDRAULICALLY BASED ON A MAXIMUM PERFORMANCE STATIC PRESSURE OF 50 PSI AND RESIDUAL PRESSURE OF 20 PSI AT A FLOW OF 1,000 GPM. THESE CONDITIONS SHALL BE VERIFIED BY THE FIRE SPRINKLER CONTRACTOR PRIOR TO PROCEEDING WITH THE SHOP DRAWING DESIGN AND INSTALLATION. FLOW TEST SHALL BE PERFORMED PER THE REQUIREMENTS OF NFPA 291, NOTIFY THE ENGINEER IMMEDIATELY IF FLOW AND PRESSURES OBTAINED ARE BELOW THOSE CONTAINED IN THIS PARAGRAPH.

ALL UNDERGROUND FIRE PIPING SHALL BE INSTALLED AND TESTED PER NFPA 13 AND 24 BY A CONTRACTOR (REFERRED TO HEREIN AS "SITE CONTRACTOR") THAT IS LICENSED AND INSURED FOR THE INSTALLATION OF UNDERGROUND FIRE MAINS (CLASS 1, 2, OR 5 LICENSE). SHOP DRAWINGS CONFORMING TO THE REQUIREMENTS OF NFPA 24 CHAPTER 4, SECTION 4.1 SHALL BE SUBMITTED ALONG WITH AND INCLUDED IN THE BUILDING(S) FIRE SPRINKLER SHOP DRAWINGS. FOR THE UNDERGROUND FIRE PIPING SHALL BE SUBMITTED WITH THE UNDERGROUND FIRE MAIN IS INSTALLED BY A SITE CONTRACTOR THAT IS NOT THE FIRE SPRINKLER CONTRACTOR, THAN IT SHALL BE THE RESPONSIBILITY OF THE FIRE SPRINKLER CONTRACTOR TO COORDINATE WITH THE SITE CONTRACTOR FOR THE FINAL LOCATION OF THE FIRE SPRINKLER RISER STUB-UP WITHIN THE BUILDING. THE SITE CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF EXTENDING THE UNDERGROUND FIRE MAIN FROM THE POINT SHOWN ON THE CIVIL PLANS TO THE FINAL STUB-UP LOCATION AS COORDINATED WITH THE FIRE SPRINKLER CONTRACTOR. THE TESTING OF THE UNDERGROUND PIPING SYSTEM TO THE STUB-UP FLANGE (SEE DETAIL ON THIS SHEET) SHALL BE ACCOMPLISHED BY THE SITE CONTRACTOR.

THE LOCAL AUTHORITY AND REPRESENTATIVES OF THE LOCAL UTILITY DEPARTMENT HAVE NOT INDICATED THAT MICROBIAL INDUCED CORROSION (MIC) IS A PROBLEM ASSOCIATED WITH THE LOCAL WATER SUPPLIES. THE INSTALLING CONTRACTOR SHALL MAKE FURTHER INQUIRIES OF THE UTILITY DEPARTMENT PRIOR TO INSTALLING AND CONNECTING THE UNDERGROUND PIPING. SHOULD ANY EVIDENCE OF MIC BE DISCOVERED THE ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY.

ACCEPTANCE TEST CRITERIA:
THE SYSTEM TESTING AND ACCEPTANCE SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING CODES AS WELL AS THE REQUIREMENTS OF LOCAL ORDINANCES AND THE AUTHORITY HAVING JURISDICTION.
A.) NFPA-13 CH. 10 UNDERGROUND PIPING TESTING AND ACCEPTANCE
B.) NFPA-13 CH. 16 SYSTEMS ACCEPTANCE

BUILDING ANALYSIS (APPARATUS BAY):
BUILDING DESIGN CRITERIA: SHALL BE DESIGNED ACCORDING TO NFPA 13
1. CLASSIFICATION OF OCCUPANCIES AND COMMODITIES: ORDINARY HAZARD GROUP 1
2. SYSTEM COMPONENTS AND HARDWARE:
A. TEMPERATURE CLASSIFICATION: ORDINARY
B. SPRINKLER DISCHARGE CHARACTERISTICS: 8.0 K-FACTOR
3. INSTALLATION REQUIREMENTS: STANDARD COVERAGE UPRIGHT AND PENDENT SPRINKLERS
A. MINIMUM DISTANCE BETWEEN SPRINKLERS 6'
B. MAXIMUM DISTANCE BETWEEN SPRINKLERS 15'
C. MAXIMUM PROTECTION AREA 130 SQUARE FEET
4. DESIGN APPROACHES:
A. DESIGN METHOD: ROOM DESIGN, DENSITY/AREA
B. OCCUPANCY CLASSIFICATION: LIGHT HAZARD
C. MINIMUM DENSITY (GPM/FT^2): 0.15
D. AREA OF SPRINKLER OPERATION (FT^2): 1,500
E. HOSE STREAM ALLOWANCE (GPM): 250

WATER SUPPLY ANALYSIS:
ESTIMATED VOLUME REQUIRED FOR PROPER SYSTEM OPERATION

ESTIMATED MAXIMUM PROTECTION AREA PER SPRINKLER (SQ FT):	130
ASSUMING A K-FACTOR OF:	8.0
MINIMUM OPERATING PRESSURE OF HMD SPRINKLER (PSI):	7.0 MIN.
REQUIRED NUMBER OF CALCULATED SPRINKLERS:	12
MINIMUM SPRINKLER FLOW (GPM):	225
HOSE STREAM ALLOWANCE (GPM):	250
ESTIMATED TOTAL FIRE FLOW (GPM):	475
ESTIMATED REQUIRED PRESSURE:	
LOSS OF PSI FROM HEIGHT OF HMD (PSI):	11.7 (24' + 3')
BACKFLOW LOSS (PSI):	15
HMD REQ. RESIDUAL (PSI):	7 MIN.
SAFETY MARGIN:	10%
REQUIRED MIN. PRESSURE (PSI):	37.0
PRESSURE AVAILABLE AT TOTAL FIRE FLOW (PSI):	42.3
EXCESS UTILITY PRESSURE AVAILABLE (PSI):	5.3

BUILDING ANALYSIS (DAY ROOM / KITCHEN AREA):
BUILDING DESIGN CRITERIA: SHALL BE DESIGNED ACCORDING TO NFPA 13
1. CLASSIFICATION OF OCCUPANCIES AND COMMODITIES: LIGHT HAZARD
2. SYSTEM COMPONENTS AND HARDWARE:
A. TEMPERATURE CLASSIFICATION: ORDINARY
B. SPRINKLER DISCHARGE CHARACTERISTICS: 5.6 K-FACTOR
3. INSTALLATION REQUIREMENTS: STANDARD COVERAGE UPRIGHT AND PENDENT SPRINKLERS
A. MINIMUM DISTANCE BETWEEN SPRINKLERS 6'
B. MAXIMUM DISTANCE BETWEEN SPRINKLERS 15'
C. MAXIMUM PROTECTION AREA 225 SQUARE FEET
4. DESIGN APPROACHES:
A. DESIGN METHOD: ROOM DESIGN, DENSITY/AREA
B. OCCUPANCY CLASSIFICATION: LIGHT HAZARD
C. MINIMUM DENSITY (GPM/FT^2): 0.10
D. AREA OF SPRINKLER OPERATION (FT^2): 1,500
E. HOSE STREAM ALLOWANCE (GPM): 100

WATER SUPPLY ANALYSIS:
ESTIMATED VOLUME REQUIRED FOR PROPER SYSTEM OPERATION

ESTIMATED MAXIMUM PROTECTION AREA PER SPRINKLER (SQ FT):	225
ASSUMING A K-FACTOR OF:	5.6
MINIMUM OPERATING PRESSURE OF HMD SPRINKLER (PSI):	16.1
REQUIRED NUMBER OF CALCULATED SPRINKLERS:	7 MIN.
MINIMUM SPRINKLER FLOW (GPM):	150
HOSE STREAM ALLOWANCE (GPM):	100
ESTIMATED TOTAL FIRE FLOW (GPM):	250
ESTIMATED REQUIRED PRESSURE:	
LOSS OF PSI FROM HEIGHT OF HMD (PSI):	6.5 (12' + 3')
BACKFLOW LOSS (PSI):	15
HMD REQ. RESIDUAL (PSI):	16.1
SAFETY MARGIN:	10%
REQUIRED MIN. PRESSURE (PSI):	41.4
PRESSURE AVAILABLE AT TOTAL FIRE FLOW (PSI):	47.6
EXCESS UTILITY PRESSURE AVAILABLE (PSI):	6.2

TRADE COORDINATION:
SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF SPRINKLER LOCATIONS WITH OTHER TRADES EQUIPMENT AND MATERIALS PER NFPA 13 CHAPTER 8 "INSTALLATION REQUIREMENTS". ALL SPRINKLER INDICATED ON DRAWINGS ARE FOR FIRE SPRINKLER SYSTEM COORDINATION PURPOSES ONLY. CONTRACTOR SHALL VERIFY COVERAGE PER IN FIELD CONDITIONS AND ADD SPRINKLERS AS REQUIRED TO FULLY PROTECT EACH SPACE PER NFPA 13 REQUIREMENTS.

CONCEALED COMBUSTIBLE SPACES:
CONCEALED COMBUSTIBLE SPACES SHALL BE PROTECTED IN ACCORDANCE WITH NFPA 13 CHAPTER 8-14.1 "INSTALLATION REQUIREMENTS".

INCIDENTAL HAZARDOUS SPACES:
ELECTRICAL ROOMS:
SPRINKLERS SHALL NOT BE REQUIRED IN ELECTRICAL EQUIPMENT ROOMS WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:
(1) THE ROOM IS DEDICATED TO ELECTRICAL EQUIPMENT ONLY.
(2) ONLY DRY-TYPE ELECTRICAL EQUIPMENT IS USED.
(3) EQUIPMENT IS INSTALLED IN A 2-HOUR FIRE-RATED ENCLOSURE INCLUDING PROTECTION FOR PENETRATIONS.
(4) NO COMBUSTIBLE STORAGE IS PERMITTED TO BE STORED IN THE ROOM.

MECHANICAL ROOMS:
SHALL BE SPRINKLED IN ACCORDANCE WITH THE REQUIREMENTS OF ORDINARY HAZARD GROUP I OCCUPANCY. THESE ROOMS SHALL NOT BE USED FOR STORAGE PURPOSES.

PROVIDE WATER CURTAIN FOR WINDOW OPENINGS (AS INDICATED ON PLAN) BETWEEN ADMIN. AND ATRIUM, ON THE 2ND FLOOR, AS PER NFPA 13 SECTION 8.14.4.4. WATER CURTAIN SPRINKLERS SHALL BE HYDRAULICALLY CALCULATED AS PER NFPA 13 11.2.3.1.8 (5).

SAFEGUARDING DURING CONSTRUCTION:
SAFEGUARDING FIRE PROTECTION DURING CONSTRUCTION SHALL BE PROVIDED WITH IN ACCORDANCE WITH NFPA 1 UNIFORM FIRE CODE SECTION 16.4.3. AND NFPA CHAPTER NFPA 241 STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS.

OWNER OBLIGATIONS:
THE CONTRACTOR'S ENGINEER OF RECORD SHALL REQUIRE THE FOLLOWING NOTICE BE CONVEYED TO THE OWNER OR PURCHASER OF THE SPRINKLED PROPERTY.

THE RESPONSIBILITY FOR PROPERLY MAINTAINING A SPRINKLER SYSTEM IS THAT OF THE OWNER OR MANAGER, WHO SHOULD UNDERSTAND THE SPRINKLER SYSTEM OPERATION. A MINIMUM MONTHLY MAINTENANCE PROGRAM SHOULD INCLUDE THE FOLLOWING:

(1) VISUAL INSPECTION OF ALL SPRINKLERS TO INSURE AGAINST OBSTRUCTION OF SPRAY.
(2) INSPECTION OF ALL VALVES TO ENSURE THAT THEY ARE NORMAL OPERATIONAL POSITIONS.
(3) TESTING OF ALL WATER FLOW DEVICES.
(4) TESTING OF THE ALARM SYSTEM, WHERE INSTALLED. NOTE THAT WHERE IT IS LIKELY THAT THE TEST WILL RESULT IN A FIRE DEPARTMENT RESPONSE, NOTIFICATION TO THE FIRE DEPARTMENT SHOULD BE MADE PRIOR TO THE TEST.
(5) SPECIAL ATTENTION TO ENSURE THAT SPRINKLERS ARE NOT PAINTED EITHER AT THE TIME OF INSTALLATION OR DURING SUBSEQUENT RENOVATIONS. WHEN SPRINKLER PIPING OR AREAS NEXT TO SPRINKLERS ARE BEING PAINTED, THE SPRINKLERS SHOULD BE PROTECTED BY COVERING THEM WITH A BAG, WHICH SHOULD BE REMOVED IMMEDIATELY AFTER PAINTING IS FINISHED.

FOR FURTHER INFORMATION, SEE NFPA 25, STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS.

ERRORS AND OMISSIONS:
ANY AND ALL OBVIOUS ERRORS AND/OR OMISSIONS IN THE PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AT LEAST FOURTEEN DAYS PRIOR TO THE BID DATE. IF PROPER NOTIFICATION IS NOT RECEIVED, NO ADDITIONS TO THE CONTRACT AMOUNT WILL BE AUTHORIZED FOR THIS WORK. IN THE EVENT THERE IS A CONFLICT IN THE PLANS AND MORE THEN THE ONE SYSTEM DESCRIBED, SPECIFIED OR OTHERWISE INDICATED, THE ENGINEER RESERVES THE RIGHT TO SELECT WHICH SYSTEM SHALL BE INSTALLED, AS THE SYSTEM IS IDENTIFIED BY THE DESCRIPTION OR PERFORMANCE ONLY, THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITH PRODUCT SUBMITTALS INDICATING THE COMPETE WORKING ARRANGEMENT OF THE PROPOSED INSTALLATION FOR THE REVIEW BY THE ENGINEER. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY AND ALL COMPONENTS OR OPERATING SEQUENCES.

WORKING DRAWINGS:
THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ACTUAL CONSTRUCTION INCLUDING DEVICE LOCATIONS IF DIFFERENT FROM THE SUBMITTED SHOP DRAWINGS. WORKING DRAWINGS SHALL BE NO SMALLER THAN THE SCALE USED ON THE ORIGINAL PLANS.

SHOP DRAWINGS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHOP DRAWINGS MEETING THE REQUIREMENTS OF NFPA 13, CHAPTER 14, SECTION 4.1 AND NFPA 24, CHAPTER 4, SECTION 4.1 AND FLORIDA FIRE PREVENTION CODE, NFPA 1, CHAPTER 1, SECTION 1.12. ITEMS EXPECTED TO BE SHOWN ON SUBMITTED SHOP DRAWINGS SHALL INCLUDING, BUT NOT BE LIMITED TO: HANGERS, CUT LENGTHS, AND ALL FITTINGS.

PERMIT DOCUMENTS:
SEPARATE BUILDING PERMIT DOCUMENTS SHALL BE SUBMITTED FOR FIRE SPRINKLER SYSTEM AND UNDERGROUND PIPING.

WATER DAMAGE
THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE WORK OF OTHERS, TO BUILDING AND PROPERTY MATERIALS OF OTHERS CAUSED BY LEAKS IN AUTOMATIC SPRINKLER EQUIPMENT, UNPLUGGED OR DISCONNECTED PIPES OR FITTINGS, AND SHALL PAY FOR NECESSARY REPLACEMENT OR REPAIR OF WORK OR ITEMS SO DAMAGED DURING THE INSTALLATION AND TESTING PERIODS OF THE AUTOMATIC SPRINKLER WORK.

RECORD DOCUMENTS:
MAINTAIN FIRE PROTECTION LAYOUT RECORD DRAWINGS AND HYDRAULIC CALCULATIONS ON ORIGINALS PREPARED BY THE INSTALLING CONTRACTOR/SUBCONTRACTOR. INCLUDE COPIES OF THESE RECORD DRAWINGS AND CALCULATIONS WITH THE OPERATING AND MAINTENANCE MANUALS.

IDENTIFICATION:
STENCILS:
NOT LESS THAN 1/2" HIGH LETTERS FOR PIPE SIZES 1" THROUGH 2-1/2" AND 1 INCH HIGH LETTERS/NUMBERS FOR PIPE SIZES 3" AND ABOVE FOR MARKING PIPE AND EQUIPMENT. APPLY FLOW ARROWS TO PIPING.

ADHESIVE LABELS:
PRESSURE-SENSITIVE, ADHESIVE BACKED, VINYL PIPE MARKERS WITH APPLICABLE LABELING, 3/4" MIN. SIZE FOR LETTERING AND SURROUNDING TAPE ON BOTH ENDS. WITH FLOW ARROWS ON PIPING. CONFORMING TO ANSI, ANSI AND NFPA STANDARDS. SETON OPTI-CODE, MSI, BRADY OR APPROVED EQUAL. CLEAN PIPING BEFORE APPLICATION.

SNAP-AROUND MARKERS:
ONE-PIECE, PRE-FORMED, VINYL CONSTRUCTION, SNAP-AROUND OR STRAP-AROUND PIPE MARKERS WITH APPLICABLE LABELING, 3/4" MIN. SIZE FOR LETTERING. PROVIDE NYLON TIES ON EACH END OF PIPE MARKER. SETON SETMARK OR APPROVED EQUAL.

SIGNS:
METAL CONSTRUCTION, BAKED PORCELAIN ENAMEL FINISH SIGNS, SIZES CONFORMING TO NFPA NO. 13 AND 7-1.2, WITH HOLES AND S-HOOKS/CHAINS FOR HANGING OR SECURING. WITH APPLICABLE LABELING. MSI, SETON, W.H. BRADY OR EQUAL.

ENGRAVED NAME PLATES:
WHITE LETTERS ON A BLACK BACKGROUND, 1/16 INCH THICK PLASTIC LAMINATE, BEVELED EDGES, SCREW MOUNTING, SETONPLY STYLE 2060 BY SETON NAME PLATE COMPANY OR EMEDOLITE STYLE EIP BY EMED CO., OR EQUAL BY W. H. BRADY.

VALVE TAGS:
ROUND BRASS TAGS WITH 1/2 INCH NUMBERS, 1/4 INCH SYSTEM IDENTIFICATION ABBREVIATION, 1-1/4 INCH MINIMUM DIAMETER, WITH BRASS JACK CHAINS WITH BRASS "S" HOOKS OR ONE PIECE NYLON TIES AROUND THE VALVE STEM, AVAILABLE FROM EMED CO., SETON NAME PLATE COMPANY, MSI OR W. H. BRADY.

SEALING AND FIRESTOPPING:

FIRE AND/OR SMOKE RATED PENETRATIONS:
MANUFACTURERS: 3M, HILTI, STI/SPECSEAL, TREMCO, OR APPROVED EQUAL. ALL FIRESTOPPING SYSTEMS SHALL BE PROVIDED BY THE SAME MANUFACTURER. FIRE STOP SYSTEMS SHALL BE UL LISTED OR TESTED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE DEPARTMENT OF INDUSTRY, LABOR, AND HUMAN RELATIONS/DEPT. OF COMMERCE.

SUBMITTALS:
CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR EACH FIRESTOP SYSTEM. SUBMITTALS SHALL INCLUDE PRODUCT CHARACTERISTICS, PERFORMANCE AND LIMITATION CRITERIA, TEST DATA, MSDS SHEETS, INSTALLATION DETAILS AND PROCEDURES FOR EACH METHOD OF INSTALLATION APPLICABLE TO THIS PROJECT. FOR NON-STANDARD CONDITIONS WHERE NO UL TESTED SYSTEM EXISTS, SUBMIT MANUFACTURER'S DRAWINGS FOR UL SYSTEM WITH KNOWN PERFORMANCE FOR WHICH AN ENGINEERING JUDGEMENT CAN BE BASED UPON.

USE A PRODUCT THAT HAS A RATING NOT LESS THAN THE RATING OF THE WALL OR FLOOR BEING PENETRATED. REFERENCE ARCHITECTURAL DRAWINGS FOR IDENTIFICATION OF FIRE AND/OR SMOKE RATED WALLS AND FLOORS.

USE FIRESTOP PUTTY, CAULK SEALANT, INTUMESCENT WRAPSTRIPS, INTUMESCENT FIRESTOP COLLARS, FIRESTOP MORTAR OR A COMBINATION OF THESE PRODUCTS TO PROVIDE A UL LISTED SYSTEM FOR EACH APPLICATION REQUIRED FOR THIS PROJECT. PROVIDE MINERAL WOOL BACKING WHERE SPECIFIED IN MANUFACTURER'S APPLICATION DETAIL.

NON-RATED PENETRATIONS:

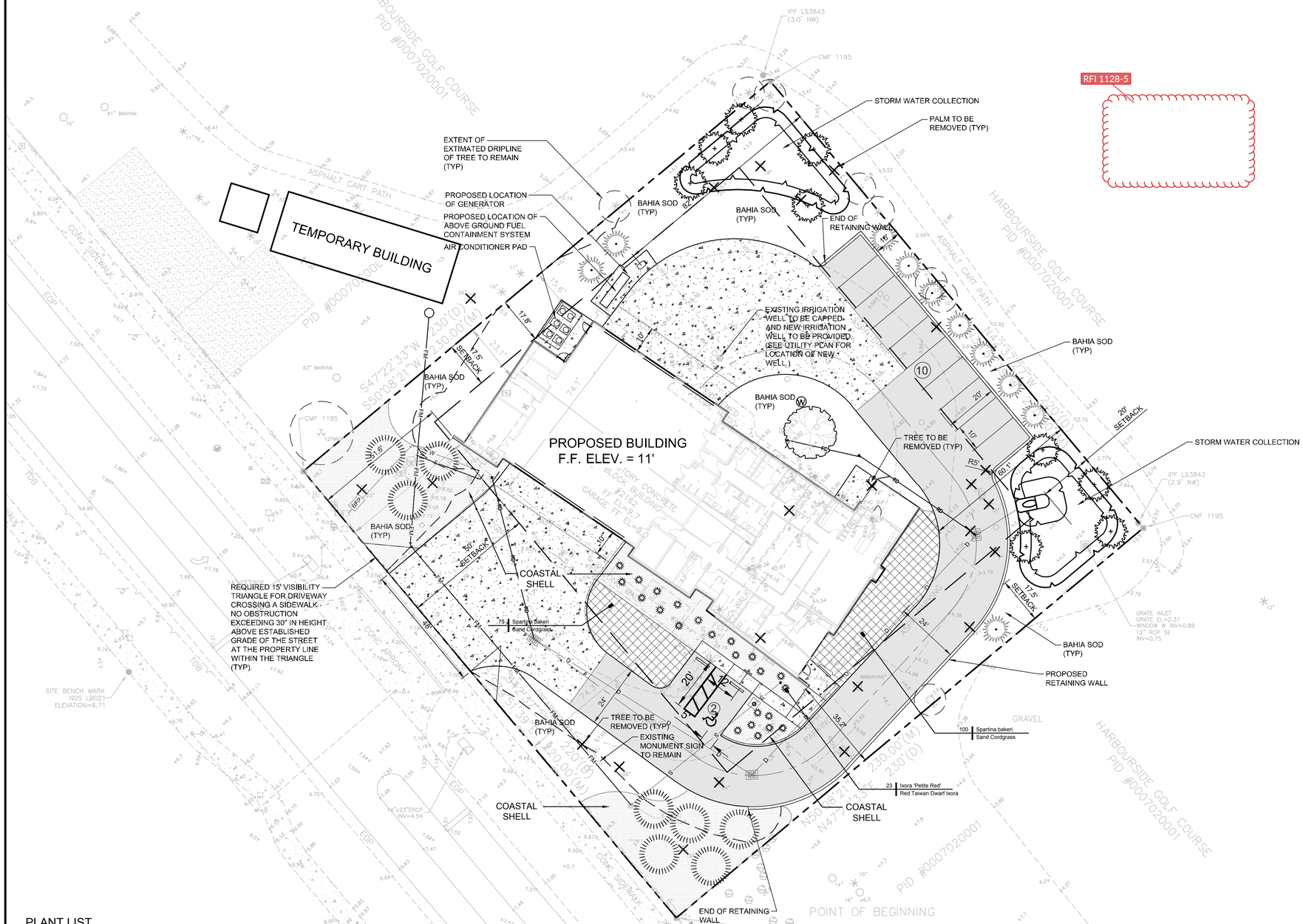
PIPE PENETRATIONS:
AT PIPE PENETRATIONS OF NON-RATED INTERIOR PARTITIONS, FLOORS AND EXTERIOR WALLS ABOVE GRADE, USE URETHANE CAULK IN ANNULAR SPACE BETWEEN PIPE INSULATION AND SLEEVE. FOR NON-RATED DRYWALL, PLASTER OR WOOD PARTITIONS WHERE SLEEVE IS NOT REQUIRED, USE URETHANE CAULK IN ANNULAR SPACE BETWEEN PIPE INSULATION AND WALL MATERIAL.

EXECUTION:

CUTTING AND PATCHING:
REFER TO ARCHITECTURAL, GENERAL REQUIREMENTS, CUTTING AND PATCHING.

BUILDING ACCESS:
ARRANGE FOR THE NECESSARY OPENINGS IN THE BUILDING TO ALLOW FOR ADMITTANCE OF ALL APPARATUS. WHEN THE BUILDING ACCESS WAS NOT PREVIOUSLY ARRANGED AND MUST BE PROVIDED BY THIS CONTRACTOR, RESTORE ANY OPENING TO ITS ORIGINAL CONDITION AFTER THE APPARATUS HAS BEEN BROUGHT INTO THE BUILDING.

EQUIPMENT ACCESS:
INSTALL ALL PIPING, CONDUIT AND ACCESSORIES TO PERMIT ACCESS TO EQUIPMENT FOR MAINTENANCE AND SERVICE. COORDINATE THE EXACT LOCATION OF WALL AND CEILING ACCESS PANELS AND DOORS WITH THE GENERAL CONTRACTOR, MAKING SURE THAT ACCESS IS AVAILABLE FOR ALL EQUIPMENT AND



EXISTING TREE LEGEND

- ORNAMENTAL PLANT
- SHRUBS BOUNDARY
- STUMP
- TREE BAY
- TREE BERRY
- TREE CEDAR
- TREE CITRUS
- TREE CAMPHOR
- TREE CHERRY
- TREE CYPRESS
- TREE DOGWOOD
- TREE INCLUDES TYPE
- TREE EUCALYPTUS
- TREE HOLLY
- TREE JACARANDA
- TREE MAPLE
- TREE MAGNOLIA
- TREE MIMOSA
- TREE OAK
- TREE PALM
- TREE PECAN
- TREE PINE
- TREE SWEET GUM
- TREE SYCAMORE

PROPOSED TREE LEGEND

- BALD CYPRESS
- LIVE OAK
- SOUTHERN REDCEDAR
- LONGLEAF PINE

N
W E
S

SCALE: 1" = 20'

REQUIRED REPLACEMENT TREES:

TREE:

ANY LIVING, SELF SUPPORTING WOODY PLANT HAVING A DIAMETER OF 4" OR MORE WHEN MEASURED 4-1/2' ABOVE GROUND LEVEL, AND WHICH WILL TYPICALLY REACH 10' OR MORE IN HEIGHT. ALL PALMS WITH 4-1/2' OF CLEAR TRUNK WHEN MEASURED FROM GROUND LEVEL ARE DECLARED TO BE TREES AND ARE PROTECTED.

MATURE REPLACEMENT TREE:

REPLACEMENT TREES SHALL HAVE A DIAMETER OF 2" MEASURED 4-1/2' ABOVE GROUND LEVEL, AT LEAST 10 FEET IN HEIGHT FROM GROUND LEVEL WHEN PLANTED, WITH A HEIGHT OF AT LEAST 25' AND CANOPY SPREAD OF AT LEAST 20' AT TIME OF MATURITY. THREE 10' TALL PALMS GROUPED TO CREATE A CANOPY OF NOT LESS THAN 15 FEET MAY BE SUBSTITUTED FOR ONE REPLACEMENT TREE.

REQUIRED REPLACEMENT TREES (23 REQUIRED TOTAL):

16 TREES AND 7 PALMS ARE PROPOSED FOR REMOVAL RESULTING IN THE REQUIREMENT FOR A TOTAL OF 23 REPLACEMENT TREES TO BE PROVIDED ON-SITE.

PLANT LIST

Quantity	Description	Specification	*Spacing*	Drought Tolerant	Native
	TREES				
10	*Juniperus silicicola ~ Southern Redcedar*	Min. 12'-14' Ht., 2" DBH, Florida No. 1	*As Shown*	Yes	Yes
8	*Pinus palustris ~ Longleaf Pine*	Min. 12'-14' Ht., 2" DBH, Florida No. 1	*As Shown*	Yes	Yes
1	*Quercus virginiana ~ Southern Live Oak*	Min. 12'-14' Ht., 2" DBH, Florida No. 1	*As Shown*	Yes	Yes
9	*Taxodium distichum ~ Bald Cypress*	Min. 12'-14' Ht., 2" DBH, Florida No. 1	*As Shown*	Yes	Yes
	SHRUBS AND GROUNDCOVERS				
23	*Ixora 'Petite Red' ~ Red Taiwan Dwarf Ixora*	*3 gal, full*	*As Shown*	Yes	No
175	*Spartina bakeri ~ Sand Cordgrass*	1 gal., full	*36" o.c.*	Yes	Yes
	Bahia Sod	To be field verified by Contractor			
	1/2" Coastal Shell (Only Where Specified)	Minimum 3", settled			
	Cypress Mulch ~ Brown	Minimum 3", settled			
	Soil Amendments	per specs.			

TOWN OF LONGBOAT KEY LANDSCAPE COMLIANCE:

IRRIGATION:

(IRRIGATION TO BE IN FULL COMPLIANCE WITH CHAPTER 53, WATER AND CHAPTER 55, WATER EFFICIENT LANDSCAPING)

CONTRACTOR TO INSTALL AN IRRIGATION SYSTEM FOR EFFICIENT AND EFFECTIVE WATER USE; SECTION 55.04(A)(6)

A FUNCTIONING RAIN SHUTOFF DEVICE IS INSTALLED AND EXPOSED TO UNOBSTRUCTED RAINFALL PER CHAPTER 53, SECTION 53.14; SECTION 55.04(A)(10)

CONTRACTOR TO PROVIDE AN IRRIGATION AS-BUILT DRAWING TO OWNER AND TOWN OF LONGBOAT KEY ; SECTION 55.05(A)

ALL WARRANTY INFORMATION ON THE IRRIGATION SYSTEM TO BE PROVIDED TO THE OWNER; SECTION 55.04(B)(2)

HIGH IRRIGATED WATER USE ZONES ARE NOT TO EXCEED 50% OF THE TOTAL IRRIGATED, LANDSCAPE AREA; SECTION 55.04(A)(2)

LANDSCAPING:

(LANDSCAPING TO BE IN FULL COMPLIANCE WITH CHAPTER 55, WATER EFFICIENT LANDSCAPING)

CONTRACTOR TO PROVIDE A LANDSCAPE MAINTENANCE CHECKLIST AND A LANDSCAPE AS-BUILT DRAWING TO THE OWNER AND TOWN OF LONGBOAT KEY; SECTION 55.04(B)(1) AND (3)

CONFORMED SET 05/22/2020

REVISED	NO.	BY	DATE	DESCRIPTION

REVISED	NO.	BY	DATE	DESCRIPTION

	INITIALS	DATE
DESIGN	TILLETT	09/18/19
DRAWN	TILLETT	09/18/19
CHECKED	RISSMAN	
QUALITY CHK		
SCALE		

PREPARED FOR:
TOWN OF LONGBOAT KEY
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228
(941)316-1988 EXT. 2226

Since 1919

George F. Young, Inc.
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ENGINEERING CERTIFICATE OF AUTHORIZATION NUMBER 21
CIVIL & TRANSPORTATION ENGINEERING | ECOLOGY | GIS | LANDSCAPE ARCHITECTURE
PLANNING | SURVEYING | SUBSURFACE UTILITY ENGINEERING
GAINESVILLE • LAKEWOOD RANCH • ORLANDO • ST. PETERSBURG • TAMPA

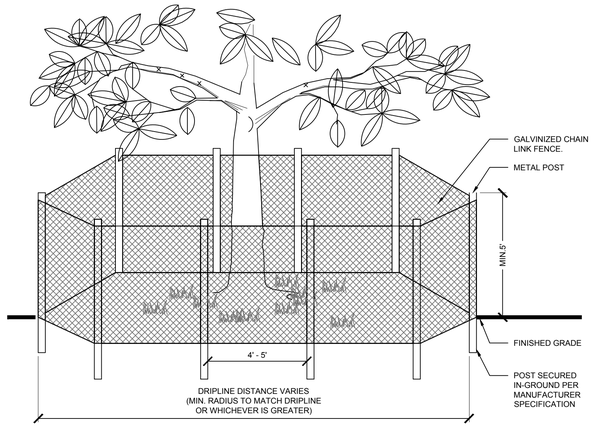
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DATE June 22, 2020

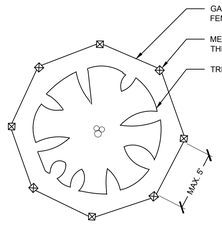
LONGBOAT KEY FIRE-RESCUE STATION #92
LANDSCAPE PLAN

SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC
SHEET NO. L1



ELEVATION



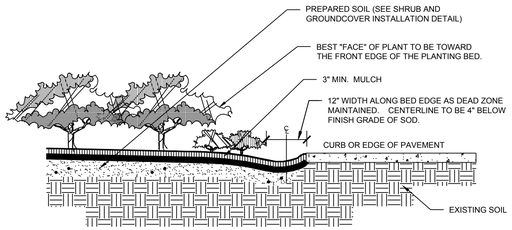
PLAN

NOTE:
1.) BARRIER SHALL BE CONSTRUCTED WHEN CALLED FOR ON PLANS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR LICENSED ARBORIST. BARRIERS SHALL BE MAINTAINED IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

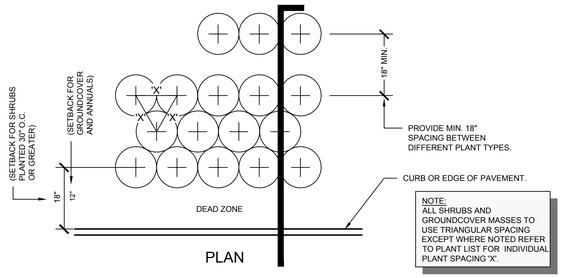
2.) BARRIERS ARE TO BE ERECTED AROUND ALL TREES 4" DBH AND GREATER TO REMAIN. THIS MUST BE DONE BEFORE CONSTRUCTION, GRADING, OR BEFORE ANY TREES ARE REMOVED.

3.) TREES 4" DBH AND GREATER THAT ARE LOCATED WITHIN 10' OF THE LOT UNDER CONSTRUCTION SHALL ALSO BE PROTECTED BY A BARRICADE.

D TREE BARRICADE DETAIL
SCALE: N.T.S.



SECTION

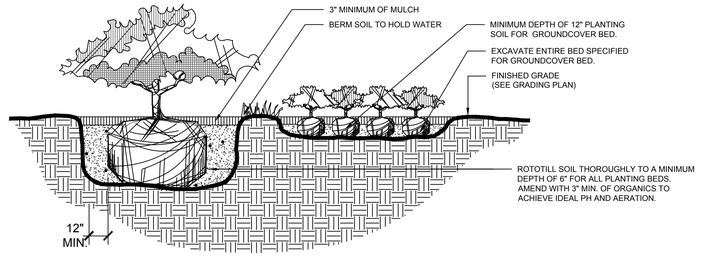


PLAN

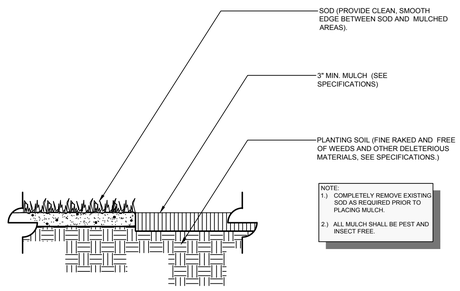
NOTE:
ALL SHRUBS AND GROUNDCOVER MASSES TO USE TRIANGULAR SPACING EXCEPT WHERE NOTED REFER TO PLANT LIST FOR INDIVIDUAL PLANT SPACING 'X'.

B TYPICAL PLANT SPACING DIAGRAM
SCALE: N.T.S.

NOTES:
1. CONTRACTOR SHALL ASSURE FREE DRAINAGE/PERCOLATION OF ALL PLANTING PITS/BEDS PRIOR TO INSTALLATION.
2. PLANT MATERIAL SHALL BE PLANTED 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOT BALL.
3. WHEN GROUNDCOVERS AND SHRUBS USED IN MASSES, ENTIRE BED TO BE EXCAVATED TO RECEIVE PLANTING SOIL AND PLANT MATERIAL - EXCEPT WHERE SPECIFIED.

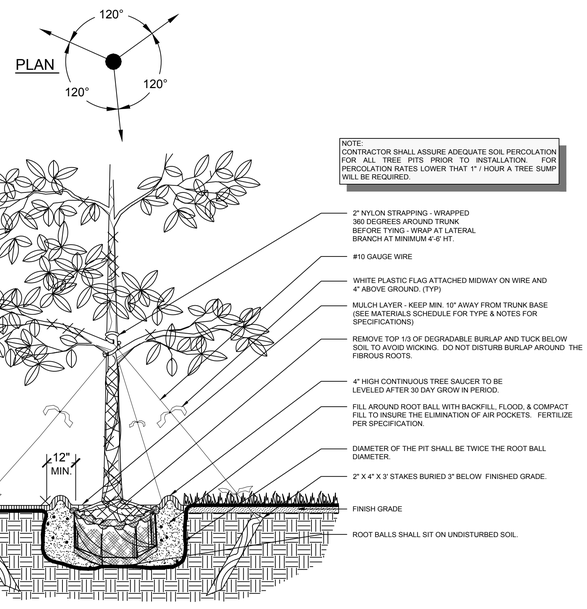


C SHRUB AND GROUNDCOVER INSTALLATION
SCALE: N.T.S.



NOTE:
1.) COMPLETELY REMOVE EXISTING SOD AS REQUIRED PRIOR TO PLACING MULCH.
2.) ALL MULCH SHALL BE PEST AND INSECT FREE.

A MULCH APPLICATION ~ TYPE 1
SCALE: N.T.S.



E LARGE TREE INSTALLATION & STAKING
SCALE: N.T.S.

CONFORMED SET 05/22/2020

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WILLIAM J. RICHMOND, RLA No. 1556
State of Florida Professional Engineer. License #

DATE June 22, 2020

LONGBOAT KEY FIRE-RESCUE STATION #92
LANDSCAPE DETAILS
SECTION 17, TOWNSHIP 36S., RANGE 17E.

JOB NO. 19001300LC

SHEET NO. L2

GENERAL LANDSCAPE:

1. TREES AND SHRUBS SHALL NOT BE PLACED WITHIN THE MIDDLE TWO-THIRDS (⅔) OF ANY DRAINAGE SWALE OR WITHIN THREE (3) FEET MEASURED HORIZONTALLY FROM THE CENTERLINE OF THE DRAINAGE SWALE +/- WHICHEVER IS GREATER. SWALES MUST ALLOW FOR THE POSITIVE FLOW OF WATER WITHOUT OBSTRUCTION.
2. ACTIVITIES HAVE BEEN SHIFTED AWAY FROM EXISTING TREES WHERE POSSIBLE. ADDITIONAL TREES ARE NOT BEING SHOWN FOR REMOVAL. ANY TREES SHOWN NEAR LAKE CONSTRUCTION OR UTILITIES WILL BE AVOIDED AS POSSIBLE THROUGH THE USE OF RETAINING WALLS AND JACK AND BORING PROCEDURES. IF DURING INSTALLATION OF THESE ELEMENTS TREES ARE LOST THEY WILL BE REPLACED PER ALL APPLICABLE ORDINANCES AND CODE REQUIREMENTS.
3. LANDSCAPE PRACTICES FOR THIS PROJECT SHALL CONFORM TO ALL LANDSCAPE AND LAND DEVELOPMENT CODES PER LOCAL MUNICIPALITY OR GOVERNMENT AGENCY.
4. THE CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HOURS MINIMUM PRIOR TO DIGGING FOR VERIFICATION OF ALL UNDERGROUND UTILITIES. IRRIGATION AND ALL OTHER OBSTRUCTIONS AND COORDINATE WITH OWNER'S REPRESENTATIVE PRIOR TO INITIATING OPERATIONS. SHOULD THE LANDSCAPE CONTRACTOR CAUSE DAMAGE TO ANY UTILITIES, NECESSARY REPAIRS SHALL BE MADE AS QUICKLY AS PRACTICABLE, AT CONTRACTORS EXPENSE.
   "INVESTIGATE BEFORE YOU EXCAVATE"
   CALL SUNSHINE STATE ONE
   1-800-432-4770 TOLL FREE
   FL STATUTE 553.851 (1979) REQUIRES MIN. 2 DAYS NOTICE AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE
5. THE LIMITS OF CONSTRUCTION ARE DEFINED BY THE "PROJECT BOUNDARY" (LIMITS, ETC...) NOTED ON THE DRAWINGS.
6. THE CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION PRIOR TO INITIATING PLANTING INSTALLATION. ALL EXISTING PLANTING SHALL REMAIN INTACT AND UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. ALL EXISTING SITE FURNISHINGS, PAVING, LANDSCAPE AND OTHER ELEMENTS TO REMAIN SHALL BE PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.
7. SEE ALL GRADING PLANS, PAVEMENT, WALLS, AND SITE FURNISHINGS PLANS FOR ADDITIONAL NOTES, SITE PREPARATION, AND OTHER PERTINENT INFORMATION.
8. LANDSCAPE CONTRACTOR SHALL FIELD STAKE THE LOCATION OF ALL PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE LANDSCAPE ARCHITECT.
9. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
10. THE LANDSCAPE CONTRACTOR SHALL CLEAN THE WORK AREAS AT THE END OF EACH WORKING DAY. RUBBISH AND DEBRIS SHALL BE COLLECTED AND DEPOSITED OFF SITE DAILY. ALL MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE STORED IN AN ORGANIZED FASHION IN THE AREA DIRECTED BY THE OWNER'S REPRESENTATIVE.
11. THE LOCATION OF THE LANDSCAPE HOLDING AREA WILL BE IDENTIFIED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ADHERE TO THE ACCESS ROUTES TO AND FROM THE HOLDING AREA WITHOUT DISRUPTING OR IMPEDING ACCESS TO THE SITE BY OTHERS.
12. IN ORDER TO EXPEDITE THE PROGRESS OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH RELATED CONTRACTORS AND WITH THE GENERAL CONSTRUCTION OF THE PROJECT .
13. THE ATTACHED PLANTING PLANS ARE A GRAPHIC REPRESENTATION FOR THE AESTHETIC TREATMENT OF THE DESIGNATED SITE. ACTUAL PLANT MATERIAL LOCATIONS WILL VARY TO COMPLIMENT EXISTING VEGETATION, SITE CONDITION FEATURES, AND TO PROVIDE SAFETY. PLANT MATERIAL SELECTIONS MAY CHANGE BASED UPON AVAILABILITY ON SITE SPECIFIC CONDITIONS, AND ARE NOT LIMITED TO THE PLANT MATERIAL LISTED IN THE PLANT SCHEDULE. MINIMUM QUANTITY AND QUALITY WILL BE MAINTAINED. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO MAKE NECESSARY OR REQUIRED CHANGES AS DICTATED BY THE ABOVE ITEMS. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.

PROJECT SUBMITTALS:
1. THE PROJECT SUBMITTALS LIST WILL BE GENERATED BY THE LANDSCAPE ARCHITECT AND MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PROJECT COMMENCEMENT.
2. ALL PROJECT SUBMITTALS MUST BE COMPLETED AND COMPLIED IN AN EASILY REPRODUCIBLE FORM. SUBMITTAL SHEETS THAT ARE NOT LEGIBLE AND REPRODUCIBLE WILL BE REJECTED. SUBMITTALS SHEETS THAT DO NOT CLEARLY IDENTIFY THE PRODUCTS OR MATERIALS SELECTED WILL BE REJECTED.
3. PRODUCTS INSTALLED ON THE PROJECT SITE THAT ARE NOT CONSISTENT WITH THE PROJECT SUBMITTALS WILL BE REMOVED AND REPLACED WITH THE PRODUCTS IDENTIFIED IN THE PROJECT SUBMITTAL PACKAGE AT THE CONTRACTORS EXPENSE.

REQUIRED SUBMITTAL FORM:

Submittals Category	Submitted	Rejected	Re-submitted	Approved
General Submittals				
Emergency Numbers				
MOT Index				
Visko				
Liquids / Solids				
Project Schedule				
Landscape Submittals				
Plant Nursery List				
All Nursery State Inspection Certification				
Mulch				
Fertilizer Licence				
Sleeving Materials				
Soil Sample Analysis				
Fertilizer				
Irrigation Submittals				
Pvc/de Class 200 P.V.C				
SCH 40 P.V.C. Pipe Fittings				
Vaul-Rain Class 200 P.V.C.				
Ductile Iron Fittings				
Valve Boxes				
Wyes				
Rainbird Drip Tubing & Blades, and Fittings				
Rainbird Drip Filter				
Rainbird PRV Valve				
Rainbird Flush Valve				
Magnetic Detector Tape				
Grounding Rod				
Wire				
Wire Connectors				
Primer and Glue				

SAMPLE

PROJECT SCHEDULE:
1. ALL WORK SHALL BE COMPLETED WITHIN THE TIME ALLOTTED IN THE PROJECT SCHEDULE.
2. WITHIN SEVEN (7) DAYS OF RECEIPT OF "NOTICE TO PROCEED" THE SUCCESSFUL BIDDER WILL FURNISH A CRITICAL PATH SCHEDULE REFLECTING THE ABOVE DATES. THIS SCHEDULE WILL INCLUDE VERIFIABLE MILESTONES TO ENABLE MONITORING OF THE PROJECT SCHEDULE DURING THE CONSTRUCTION PERIOD.

LIQUIDATED DAMAGES:
1. THE SUCCESSFUL BIDDER SHALL HAVE ITS WORK SUBSTANTIALLY COMPLETED BY THE RESPECTIVE TIMEFRAME. THE TERM "SUBSTANTIAL COMPLETION" SHALL REFER TO THE DATE OF COMPLETION FOR THE CONTRACTOR'S PORTION OF THE WORK, AS ESTABLISHED IN THE VARIOUS PHASES OF THE SCHEDULE.
2. BY SUBMITTING THE BID, THE BIDDER AGREES THAT THE PERIODS FOR PERFORMING THE WORK ARE REASONABLE, AND THAT THE BIDDERS WORK CAN BE SUBSTANTIALLY COMPLETE BY ITS APPLICABLE DATE(S) FOR SUBSTANTIAL COMPLETION.
3. IF THE SUCCESSFUL BIDDER DOES NOT HAVE THE WORK ON THE PROJECT SUBSTANTIALLY COMPLETE BY THE DATE(S) IDENTIFIED FOR SUBSTANTIAL COMPLETION AS ESTABLISHED IN THE PROJECT TIME SCHEDULE, THE SUCCESSFUL BIDDER WILL PAY THE OWNER (AND THE OWNER MAY SETOFF FROM SUMS COMING DUE THE SUCCESSFUL BIDDER) LIQUIDATED DAMAGES AT THE RATE OF $0.00 PER CALENDAR DAY BEYOND THE DATE OF SUBSTANTIAL COMPLETION.
4. THE BIDDER ACKNOWLEDGES BY SUBMITTING THE BID AND ENTERING INTO A CONTRACT WITH THE OWNER THAT SUCH AMOUNTS OF LIQUIDATED DAMAGES REPRESENT A REASONABLE ESTIMATE OF THE ACTUAL DAMAGES THAT THE OWNER WOULD INCUR IF THE WORK IS NOT SUBSTANTIALLY COMPLETE BY THE FOREGOING DATES. THESE LIQUIDATED DAMAGES ARE DAMAGES FOR LOSS OF USE OF THE PROJECT, AND THE SUCCESSFUL BIDDER IN ADDITION TO THE LIQUIDATED DAMAGES WILL BE OBLIGATED TO INDEMNIFY AND HOLD THE OWNER HARMLESS FROM ANY CLAIMS IF THE WORK ON THE PROJECT IS ACCELERATED BECAUSE OF DELAY.

SITE REQUIREMENTS:
1. ALL CONTRACTORS AND SUBCONTRACTORS SHALL HAVE A SET OF APPROVED CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATIONS AND PROTECTION OF ALL EXISTING UTILITIES SHOWN, ALL EXISTING UTILITIES NOT SHOWN, AND ALL PROPOSED UTILITIES ON THESE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ADJACENT IMPROVEMENTS FROM DAMAGE AND EROSION. ANY ADJACENT IMPROVEMENT DAMAGED DURING CONSTRUCTION SHALL, AT A MINIMUM, BE RESTORED TO A STATE EQUAL TO ITS PRE-CONSTRUCTION STATE.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE WORK, AND SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
5. CONTRACTOR SHALL AGREE TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN THE CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER.
6. DURING CONSTRUCTION, CREWS ARE REQUIRED TO HAVE AT LEASE ONE (1) ENGLISH SPEAKING PERSON ON SITE.

EXISTING TREE CARE:

1. FLAG ALL TREES AND PALMS TO BE SAVED IN PLACE. PROVIDE BARRICADING IN ACCORDANCE WITH LOCAL STANDARDS AROUND TREES TO BE SAVED IN PLACE PRIOR TO SITE DEMOLITION.
2. ALL WORK SHALL BE UNDERTAKEN IN THE PRESENCE OF A REGISTERED ARBORIST EMPLOYED BY THE LANDSCAPE CONTRACTOR. ALL TREES AND PALMS TO BE SAVED SHALL BE EXAMINED FOR DAMAGE, DISEASE AND INSECT INFESTATION. PARTS OF THE TREE SHOWING THESE CONDITIONS SHALL BE TREATED OR PRUNED IN ACCORDANCE WITH THE ARBORISTS RECOMMENDATIONS. REMOVE ALL DEAD LIMBS AND VINES.
3. ROOT PRUNE ALL TREES TO BE SAVED PRIOR TO GRADING AROUND TREES. CUT ALONG LINES OFFSET FROM LINES OF DEVELOPMENT SURROUNDING THE TREE, IE. AT BUILDING FOUNDATIONS, PARKING LOTS, ETC.
4. TREAT ALL CUTS WITH A FUNGICIDAL BARRIER. BACKFILL THE TRENCH, WITHIN 4 HOURS OF DIGGING, WITH A 1:1 MIXTURE OF SITE SOIL AND SAWDUST OR OTHER FINE ORGANIC MATERIAL. DO NOT COMPACT.
5. FERTILIZE THE PLANT AS DIRECTED BY THE CONSULTING ARBORIST.
6. THE ARBORIST SHALL VISIT THE SITE PERIODICALLY TO ASSESS THE HEALTH OF THE TREES AND ISSUE REPORTS ON THE RELATIVE HEALTH OF THE TREES AND MAKE RECOMMENDATIONS FOR FURTHER TREATMENTS IF NECESSARY.

SUBSTANTIAL COMPLETION

1. CONTRACTOR TO REQUEST INSPECTION OF PROJECT IN WRITING. IF ALL WORK IS SATISFACTORY AND COMPLETE IN ACCORDANCE WITH CONDITIONS OF CONTRACT DOCUMENTS, THEN THE OWNER AND LANDSCAPE ARCHITECT SHALL DECLARE SUBSTANTIALLY COMPLETE. SUBSTANTIAL COMPLETION CONSTITUTES THE BEGINNING OF THE GUARANTEE PERIOD AND THE 90 DAY ESTABLISHMENT PERIOD OF MAINTENANCE
2. LANDSCAPE CONTRACTOR TO GUARANTEE PLANT MATERIAL FOR A ONE (1) YEAR PERIOD FOLLOWING DATE OF SUBSTANTIAL COMPLETION. PRIOR TO ISSUING SUBSTANTIAL COMPLETION NOTICE THE CONTRACTOR SHALL SUBMIT TO THE OWNER THREE (3) COPIES OF AS BUILT PLANS/DOCUMENTS AND THREE (3) COPIES OF AN ANNUALIZED MAINTENANCE AND OPERATION MANUAL, DETAILING ALL SCHEDULES, NURSERY PRACTICES, WATERING REQUIREMENTS, FERTILIZATION, TRIMMING, ETC., FOR ALL PLANT MATERIALS AND PLANT AREAS OF THE PROJECT.
3. MAINTENANCE PERIOD - THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COMPLETE MAINTENANCE OF ALL PLANTING AREAS (INCLUDING WATERING, SPRAYING, MULCHING, MOWING, FERTILIZING, ETC.) THROUGH THE COURSE OF THE PROJECT AND THROUGHOUT A 90 DAY ESTABLISHMENT PERIOD AFTER SUBSTANTIAL COMPLETION NOTICE BY THE OWNER. THE PROJECT WILL NOT BE ACCEPTED OR DEEMED SUBSTANTIALLY COMPLETE BY ZONES OR PHASES UNLESS OTHERWISE NOTED ON THE PLANS.

INSTALLATION:

PLANTING LAYOUT:
1. THE LANDSCAPE CONTRACTOR SHALL FIELD STAKE THE LOCATION OF ALL PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
2. THE LANDSCAPE CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO ALL EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTORS EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
3. SHRUB AND GROUND COVER PLANTINGS ARE SHOWN AS MASS PLANTING BEDS. PLANTS SHALL BE PLACED ON A TRIANGULAR SPACING CONFIGURATION (STAGGERED SPACING). PLANT CENTER-TO-CENTER DIMENSIONS (O.C.) ARE LISTED ON THE PLANT LIST.
4. PROVIDE A MINIMUM VERTICAL CLEARANCE ON ALL TREES OF 8.5' ABOVE THE SIDEWALK/CART PATHS.
5. PROVIDE A MINIMUM HORIZONTAL OFFSET DISTANCE OF 2.5' FROM THE BACK OF CURB TO THE FUTURE MAXIMUM TRUNK DIAMETER OF PLANTED TREES.
6. ALL SHRUB BEDLINE AREA DEFINITIONS TO BE DETAILED IN THE FIELD WITH THE LANDSCAPE ARCHITECT. UNAPPROVED BEDLINES WILL BE REJECTED AND IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMEDY ALL DAMAGES AND MODIFICATIONS REQUIRED TO BRING THE AREAS TO SPECIFICATIONS.

TRANSPLANTING:
1. APPROPRIATE CARE MUST BE TAKEN DURING TRANSPLANTING TO PREVENT CHAIN MARKS, GIRDLING OR BARK SLIPPAGE. TREES THAT ARE DAMAGED DURING THE TRANSPLANTING PROCESS WILL NOT BE ACCEPTED.

PLANTING:
1. ALL PLANT MATERIAL SHALL BE INSTALLED IN A SOUND WORKMANLIKE MANNER AND ACCORDING TO ACCEPTED GOOD PLANTING PROCEDURES WITH THE QUALITY OF PLANT MATERIALS AS HEREIN DESCRIBED. ALL ELEMENTS OF LANDSCAPING SHALL BE INSTALLED SO AS TO MEET ALL APPLICABLE ORDINANCES AND CODE REQUIREMENTS.
2. CONTRACTOR SHALL ENSURE DRAINAGE AND PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION OF PLANT MATERIAL. CONTRACTOR SHALL FILL ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE THAT PROPER DRAINAGE AND PERCOLATION IS AVAILABLE. CORRECT IF REQUIRED TO ENSURE PERCOLATION. CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ALL PLANTS LOST DUE TO INADEQUATE DRAINAGE CONDITIONS.
3. TREES GROWN IN GROW BAGS OR GROW BAG TYPE MATERIAL MUST HAVE THE GROW BAG REMOVED ENTIRELY PRIOR TO PLANTING.
4. BALLED AND BURLAPPED OR ANY BASKETED MATERIAL SHALL HAVE THE TOP ONE HALF (1/2) OF THE BURLAP AROUND THE BASE OF THE TRUNK CUT AND PULLED BACK. DO NOT REMOVE BURLAP. WIRE CAGES, STRAPS, ETC. MUST BE CUT AND REMOVED PRIOR TO INSTALLATION.
5. CONTRACTOR TO REPLACE REJECTED PLANT MATERIAL WITHIN ONE WEEK (5 BUSINESS DAYS) OF NOTICE.
6. CONTRACTOR SHALL REFER TO THE LANDSCAPE PLANTING DETAILS, PLANT LIST, GENERAL NOTES AND THE PLANTING SPECIFICATIONS FOR COMPLETE LANDSCAPE PLANTING INSTRUCTIONS. NOTIFY LANDSCAPE ARCHITECT OF ANY AND ALL DISCREPANCIES PRIOR TO CONSTRUCTION OR INSTALLATION.
7. THE CONTRACTOR SHALL REFER TO THE LANDSCAPE PLANTING DETAILS, PLANT LIST, GENERAL NOTES AND THE PROJECT MANUAL AND/OR SPECIFICATIONS FOR FURTHER AND COMPLETE LANDSCAPE PLANTING INSTRUCTIONS.
8. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED BY OWNER'S REPRESENTATIVE TO SUPPLEMENT IRRIGATION WATERING AND/OR RAINFALL. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
9. THE LANDSCAPE CONTRACTOR SHALL RE-GRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK. THE LANDSCAPE CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
10. GUYING / STAKING PRACTICES SHALL NOT PERMIT NAILS, SCREWS, WIRES ETC. TO PENETRATE OUTER SURFACE OF TREES, PINES, OR PALMS. TREES, PINES, OR PALMS DAMAGED DUE TO THIS PRACTICE SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
11. ALL WOODEN STAKES, BOARDS, BRACES AND BATTENS SHALL BE PAINTED/SOLID STAINED DARK GREEN PRIOR TO THEIR USE. TOUCH UP ALL EXPOSED CUTS IN THE FIELD WITHOUT MARRING OR MARKING PLANT MATERIALS.
12. THE CONTRACTOR SHALL MULCH ALL NEW PLANT MATERIAL THROUGHOUT AND COMPLETELY TO A 3 INCH MINIMUM DEPTH WITH CLEAN, WEED FREE, CLASS A, MULCH, OR ROCK MULCH AS SPECIFIED IN THE PLANT LEGEND.
13. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETE MAINTENANCE OF ALL PLANTING AREAS (INCLUDING WATERING, SPRAYING, MULCHING, MOWING, FERTILIZING, ETC.) THROUGH THE COURSE OF THE PROJECT AND THROUGHOUT A 90 DAY ESTABLISHMENT PERIOD FOLLOWING NOTICE OF SUBSTANTIAL COMPLETION BY THE OWNER. THE PROJECT WILL NOT BE ACCEPTED OR DEEMED SUBSTANTIALLY COMPLETE BY ZONES OR PHASES (UNLESS OTHERWISE NOTED ON THE PLANS.)

SOIL PREPARATION AND SOIL MIX:
1. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC., ASSOCIATED WITH THE WORK AND INCLUDED IN THE SPECIFICATIONS. PRIOR TO COMMENCEMENT OF THE LANDSCAPE PLANTING WORK, THE CONTRACTOR SHALL PROVIDE COMPLETE SOIL TESTS FOR THE INSTALLATION AREA.
   A. APPLY ROUNDUP (MANUFACTURED BY MONSANTO CORP.) OR APPROVED HERBICIDE EQUAL ACCORDING TO MANUFACTURER'S RATE AND SPECIFICATION WITHIN LIMITS OF ALL AREAS TO BE PLANTED. PROTECT EXISTING PLANTS TO REMAIN FROM OVER SPRAY OR SPRAY WITHIN ROOT ZONE. CONTRACTOR TO ENSURE TOTAL WEED ERADICATION.
   B. BEFORE REPLACING TOPSOIL, RAKE SUBSOIL SURFACE CLEAR OF STONES (1 INCH DIAMETER AND LARGER), DEBRIS, RUBBISH, DELETERIOUS MATERIALS AND ALL REMAINING CONSTRUCTION DEBRIS TO A DEPTH OF 6". CONTAMINATED SOILS SHALL BE REMOVED AND REPLACED TO THEIR FULL DEPTHS AND EXTENTS.
   C. ESTABLISH OR REESTABLISH ROUGH GRADES INSURING POSITIVE FLOWS AND AESTHETIC LANDFORM SHAPES SHOWN IN THE GRADING PLANS. SCARIFY SUBSOIL TO A DEPTH OF 3 INCHES ONCE ROUGH GRADE HAS BEEN ESTABLISHED.
   D. CONTRACTOR TO APPLY "RONSTAR" OR APPROVED PRE-EMERGENT HERBICIDE IN ACCORDANCE WITH MANUFACTURER'S RATE AND SPECIFICATIONS.
   E. PLANTING SOIL MIX FOR TREES, SHRUBS, AND GROUND COVERS SHALL CONSIST OF A THOROUGHLY BLENDED MIXTURE OF:
      1) TREES: 70% CLEAN D.O.T. SAND, 30% APPROVED TOPSOIL MIX
      2) PALMS: 80% CLEAN D.O.T. SAND, 10% APPROVED TOPSOIL MIX
      3) SHRUBS AND GROUND COVERS: 80% CLEAN D.O.T. SAND, 20% APPROVED TOPSOIL MIX
      4) TOPSOIL: 30% APPROVED FLORIDA TOPSOIL, 10% APPROVED FLORIDA PEAT, 60% APPROVED SAND. PEAT: FEDERAL SPECIFICATIONS Q-P-166 TYPE 1, CLASS B, SPHAGNUM MOSS.

   NOTE: CONTRACTOR TO SUBMIT LABORATORY SOIL TESTS AND ANALYSIS RECOMMENDATIONS FOR ORNAMENTAL LANDSCAPE USE OF ALL SOIL MIXTURES AND NO LESS THAN 4 TESTS OF EXISTING SOILS IN ANY ONE AREA FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.

   F. TOPSOIL MIX SHALL BE FREE OF DELETERIOUS MATERIALS THAT WOULD BE HARMFUL TO PLANT GROWTH. SHALL BE FREE OF NEMATODES. SHALL BE OF UNIFORM QUALITY AND SHALL HAVE A PH VALUE BETWEEN 5.5 AND 6.5 (AS DETERMINED IN ACCORDANCE WITH ASTM E70). PEAT SHALL BE STERILIZED TO MAKE FREE OF ALL VIABLE NUT GRASS AND OTHER UNDESIRABLE WEEDS.
   G. TOPSOIL SHALL BE NATURAL, FERTILE, AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHALL BE OF UNIFORM COMPOSITION THROUGHOUT, WITH ADMIXTURE OF SUBSOIL. IT SHALL BE FREE OF STONES, LUMPS, LIVE PLANTS AND THEIR ROOTS, STICKS, CLAY, SILTS AND OTHER EXTRANEOUS MATTER. SPREAD TOPSOIL MIXTURE TO MINIMUM DEPTH OF 4 INCHES THROUGHOUT ALL AREAS AND 6 INCHES IN ALL SHRUB AND GROUND COVER BEDS. REMOVE ALL ROCKS AND OTHER OBJECTS OVER 1 INCH IN DIAMETER.
   H. SMOOTH ALL PREPARED SOIL MIXES TO WITHIN 4 INCHES BELOW TOP OF SURROUNDING PAVEMENT EDGES. CONTRACTOR TO PROVIDE SMOOTH AND UNIFORM DEPTH OF TOPSOIL MIXTURE TO A MINIMUM 12 INCHES BELOW FINISH GRADE IN AREAS TO BE SODDED.

   FINISH GRADE ALL PREPARED TOPSOIL AREAS TO A SMOOTH, EVEN SURFACE ENSURING A MINIMUM 3% POSITIVE DRAINAGE AWAY FROM STRUCTURES AND ELIMINATE ANY LOW AREAS WHICH MAY COLLECT WATER.

   TOPSOIL SHALL NOT BE EXTREMELY ACIDIC OR ALKALINE, NOR CONTAIN TOXIC SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. THE PH SHALL BE CORRECTED PRIOR TO DELIVERY IN THE RANGE OF 6.5 TO 7.5, OR AS APPROVED BY LANDSCAPE ARCHITECT. IF NECESSARY AFTER PLACEMENT THE CONTRACTOR SHALL APPLY APPROPRIATE APPROVED SOIL ADDITIVES ADJUSTING SOIL PH TO ENSURE A PH RANGE OF 6.5 TO 7.5.
2. INITIAL INSTALLATION FERTILIZATION
   ALL SHRUB AND GROUND COVER PLANTINGS SHALL RECEIVE AN APPROVED SLOW RELEASE FERTILIZER. ALL TREE PLANTINGS SHALL RECEIVE AN APPROVED MYCORRHIZA ADDITIVE. (CONTRACTOR SHALL CONFIRM FERTILIZER REQUIREMENTS PER LOCAL MUNICIPALITY OR GOVERNMENT AGENCY).

PALMS	TREES
15-3-13 PLUS MINOR ELEMENTS - SLOW RELEASE 1/2 LB. FERTILIZER PER 1/2 INCH CALIPER	8-8-8 PLUS MINOR ELEMENTS - SLOW RELEASE 1/2 LB. FERTILIZER PER 1/2 INCH CALIPER
SHRUBS AND GROUNDCOVERS	**TURF**
10-10-10 PLUS MINOR ELEMENTS - SLOW RELEASE 1/2 LB. FERTILIZER PER 1/2 INCH CALIPER	16-4-8 PLUS MINOR ELEMENTS - SLOW RELEASE 1 LB. FERTILIZER PER 1,000 S.F.

*THE COST FOR LANDSCAPE FERTILIZER AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE PER PLANT PRICE.

PLANT MATERIAL:

1. CONTRACTOR IS TO SUBMIT TO THE LANDSCAPE ARCHITECT THE GROWER'S AND/OR STATE INSPECTION CERTIFICATE FOR PLANT MATERIAL TWO (2) WEEKS BEFORE COMMENCEMENT OF WORK, IF APPLICABLE (SEE SUBMITTAL FORM).
2. ALL PLANT MATERIAL SHALL BE PROTECTED DURING TRANSPORT AND DELIVERY TO JOB SITE WITH SHADE CLOTH OR OTHER ACCEPTABLE MEANS OF WINDBURN PREVENTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTS MEETING SPECIFICATION AS NOTED PRIOR TO INSTALLATION. CONTRACTOR SHALL IMMEDIATELY REMOVE ALL PLANT MATERIAL FROM THE PROJECT THAT DOES NOT CONFORM TO SPECIFICATIONS.
4. LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES OF PLANT MATERIAL FROM THE PLANT LEGEND TO THE DRAWINGS. QUANTITIES FROM DRAWINGS SHALL GOVERN UNLESS OTHERWISE NOTED.
5. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASES. ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE TO FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS", PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. PLANT MATERIALS IN SOME INSTANCES SHALL EXCEED NO. 1 GRADE, IN ORDER TO MEET THE MINIMUM REQUIREMENTS OF THIS PROJECT. ALL PALMS TO BE SUN GROWN.
6. ALL SIZES SHOWN FOR PLANT MATERIAL ON THE PLAN ARE TO BE CONSIDERED MINIMUM. ALL PLANT MATERIAL MUST MEET OR EXCEED THESE MINIMUM REQUIREMENTS FOR BOTH HEIGHT AND SPREAD. ANY OTHER REQUIREMENTS FOR SPECIFIC SHAPE OR EFFECT AS NOTED ON THE PLAN SHALL ALSO BE REQUIRED FOR ACCEPTANCE. ALL TREES TO BE SINGLE TRUNKED, UNLESS OTHERWISE NOTED ON PLANS.
7. ANY SUBSTITUTIONS IN SIZE, QUANTITY, AND/OR PLANT MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT. ALL PLANTS WILL BE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT BEFORE PLANTING CAN BEGIN.
8. ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED, AND MEET ALL REQUIREMENTS SPECIFIED, UNLESS OTHERWISE NOTED.
9. ANY TREE WITH A TRUNK FORMED "V" SHAPE CROTCH WILL BE REJECTED.
10. CANOPY TREES OF ALL SIZES ARE TO BE SELECTIVELY PRUNED AFTER PLANTING TO REMOVE INNER TWIGGY GROWTH, OPEN-UP THE CENTER AND EXPOSE MAJOR BRANCHES.
11. ALL ROOTBALLS SHALL CONFORM TO THE SIZE STANDARDS SET FORTH IN "AMERICAN STANDARDS FOR NURSERY STOCK".
12. SUBSTITUTION OF FIELD GROWN TREES FOR TREES THAT ARE SPECIFIED AS CONTAINER GROWN WILL NOT BE PERMITTED UNLESS OTHERWISE APPROVED BY LANDSCAPE ARCHITECT.
    * ALL SPECIFICATIONS WILL STILL APPLY TO APPROVED B&B MATERIAL
13. ALL PLANT MATERIAL SHALL BE MAINTAINED AT OR ABOVE THE SPECIFIED CONDITIONS THROUGH SUBSTANTIAL COMPLETION AND THE END OF THE ESTABLISHMENT PERIOD. DECLINE IN CONDITION OF PLANT MATERIAL DURING INSTALLATION, AND THE MAINTENANCE PERIOD, SHALL BE GROUNDS FOR REJECTION AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
14. ALL SOD SHALL BE 100% SOLID SOD, 99% FREE OF NOXIOUS WEEDS, WITH A 2" THICKNESS OF ROOTS CAPABLE OF HOLDING SAND. SOD SHALL BE FRESHLY-CUT WITHIN TWENTY-FOUR (24) HOURS OF LAYING, LAID WITH TIGHTLY-BUTTED JOINTS, AND ROLLED. HAND RAKING SHALL BE DONE AS NECESSARY TO ENSURE PROPER EVEN GRADES AND CLEAR SURFACES FOR SOD.
15. MINIMUM THREE-INCH (3") THICK LAYER OF MULCH SHALL BE PLACED AROUND ALL NEW PLANT MATERIAL AND BARE GROUND THAT WILL NOT BE COVERED BY EXISTING VEGETATION, SOD, GRAVEL, PAVEMENT OR ANY OTHER GROUND COVER TREATMENT.
16. ALL PLANTING BED AREAS TO HAVE 6" OF DARK, FRIABLE TOP SOIL OR BED MIXED CHURNED INTO EXISTING SOIL.
17. NEW PLANT MATERIAL TO BE INSTALLED WILL BE FIELD ADJUSTED TO ACCOMMODATE EXISTING PLANT MATERIAL SUCH AS OVERHEAD CANOPY TREES, UNDERSTORY TREES AND SHRUBS OR GROUND COVER. THIS WILL INSURE EXISTING PLANT MATERIAL TO REMAIN IN ITS NATURAL STATE. THEREFORE, NO EXISTING PLANT MATERIAL WILL BE ALTERED BY REMOVING, CUTTING, TRIMMING OR DESTROYING IN ORDER TO INSTALL NEW PLANT MATERIAL.
18. ALL LANDSCAPED ARE