DISTRICT MEETING AGENDA
February 13, 2023

Pursuant to Monroe County Emergency Directive 20-06 and Center for Disease Control ("CDC") social distancing guidelines established to contain the spread of the COVID-19 virus, this meeting will be accessible virtually via Zoom Meetings. Members of the public who wish to comment on matters before the District Board may do so by either: Sending an email to the clerk@klfrems.org or Calling (301) 715-8592, and upon receiving voice prompt, dialing Meeting ID: 602 743 6243 and Password: 33037 Members of the public who participate in the meeting through this option must mute themselves until called upon to speak.
Website: https://us02web.zoom.us/j/6027436243?pwd=Ylp2b3JYckhIQVpwVkFlMmVKbE1uZz09

1. AGENDA

1a. Call to Order
1b. Pledge of Allegiance
1c. Roll Call

2. APPROVAL OF AGENDA & MINUTES

2a. Approval of February 13, 2023 Agenda
2b. Approval of January 23, 2023 District Meeting Minutes

3. PUBLIC COMMENT

4. CHAIRMAN REPORT

5. SECRETARY REPORT

6. OLD BUSINESS

6a. DISCUSSION: KLVFD Station 24 Renovation – Little Red Rooster Plans (Allen)

7. NEW BUSINESS

7a. DISCUSSION/APPROVAL: Job Description for District Clerk (Smith)

8. LEGAL REPORT

9. FINANCE REPORT

10. AMBULANCE CORPS REPORT

10a. January Statistics

11. FIRE DEPARTMENT REPORT

11a. January Statistics

12. COMMISSIONER ITEMS

13. NEXT MEETING

13a. KLFREMS District Board Meeting March 13 or March 27

14. ADJOURN

NEXT MEETINGS

March 13, 2023 District Meeting (if required)
March 27, 2023 District Meeting

DOCUMENTS

Al 2b.	*Final District Meeting Minutes January 23, 2023*
Al 7a.	*Job Description for Clerk Services*
Al 10a.	*KLVAC Monthly Report*
Al 10a.	*KLVAC Monthly Report*
Al 11a.	*KLVFD Monthly Report*
Al 11c.	*KLVFD Statistics*

Persons who wish to be heard shall send submit a
Speaker Request Form to the Chairman or request to speak via Zoom.

2b.

DISTRICT MEETING MINUTES
January 23, 2023

Pursuant to Monroe County Emergency Directive 20-06 and Center for Disease Control ("CDC") social distancing guidelines established to contain the spread of the COVID-19 virus, this meeting will be accessible virtually via Zoom Meetings. Members of the public who wish to comment on matters before the District Board may do so by either: Sending an email to the clerk@klfrems.org or Calling (301) 715-8592, and upon receiving voice prompt, dialing Meeting ID: 602 743 6243 and Password: 33037 Members of the public who participate in the meeting through this option must mute themselves until called upon to speak.
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1. AGENDA

1a. Call to Order

Chairman Allen called to order the District Meeting at 6:02 PM.

1b. Pledge of Allegiance

Commissioner GM led the Pledge of Allegiance

1c. Roll Call

Carol Greco called the roll. The following commissioners were present: Tony Allen, Frank Conklin, Kenny Edge, George Mirabella and Danny Powers. There was a quorum.

Also present in person or via Zoom Carol Greco, Roget Bryan, Janette Smith, Jennifer Johnson, Scott Robinson, David Garrido, and Don Bock.

2. APPROVAL OF AGENDA & MINUTES

2a. Approval of January 23, 2023, Agenda

Chairman Allen led a discussion to move two items from the agenda, 11a and 11b to 7c for discussion and action.

Motion: Commissioner Powers made a ***Motion to Amend the Agenda to Move Items 11a and 11b to 7b and 7c*** of the January 23, 2023 District Meeting Agenda. Commissioner Edge second, and the Board unanimously passed the motion.

2b. Approval of December 12, 2022, District Meeting Minutes

Motion: Commissioner Conklin made a ***motion to approve*** the December 12, 2022 District Meeting Minutes. Commissioner Mirabella second, and the Board unanimously passed the motion.

3. PUBLIC COMMENT

None

4. CHAIRMAN REPORT

None

5. SECRETARY REPORT

None

6. OLD BUSINESS

None

7. NEW BUSINESS

7a. Purchase of Firecom Wireless Headsets (Jones-Motion to Approve Purchase)

Ms. Johnson led a discussion on the purchase of nine (9) sole source provider and technology Firecom Wireless Headsets, which are over $10,000.00; however, have already been budgeted for.

Motion: Commissioner Powers made a ***motion to approve*** the purchase of Firecom Wireless Headsets. Commissioner Edge second, and the Board unanimously passed the motion.

7b. Resolution Ratifying Resolution 2022-10 (Dated 11/14/22) Budget Amendment (*Johnson-Motion to Approve Resolution*)

A discussion was had to ratify Resolution 2022-10 which inadvertently was not fully executed at the November 14, 2022 meeting.

Motion: Commissioner Powers made a ***motion to approve*** Resolution 2023-001 of the Key Largo Fire Rescue and Emergency Medical Services District, Ratifying the 2022-008 Resolution Amending the District's Budget for Fiscal Year 2021-2022; Providing for

Severability; and Providing for An Effective Date. Commissioner Conklin second, and the Board unanimously passed the motion.

A roll call vote to approve Resolution No. 2023-001 was conducted.

Commissioner Allen:	Yes
Commissioner Conklin:	Yes
Commissioner Edge:	Yes
Commissioner Mirabella:	Yes
Commissioner Powers:	Yes

7c. DISCUSSION AND/OR ACTION: *KLVFD and KLVAC Expenses* (*Bock*)

Ms. Johnson led a discussion regarding the advance of $20,000 to cover payroll/health insurance costs to the Fire Department while awaiting accounting reimbursement. This will enable a steady cash flow of $100,000 in the department's account.

Motion: Commissioner Powers made a ***motion to approve*** the increase of $20,000 to KLVFD's account. Commissioner Edge second, and the Board unanimously passed the motion.

7d. DISCUSSION AND/OR ACTION: *LifePak 15 Defibrillator ECG Monitors* (*Bock*)

The Ambulance Corps is requesting to purchase two LifePak units including the patient care costs for a total of $83,157. This expenditure is currently not budgeted; however, as the ordering process can take approximately 40 weeks, the purchase now will avoid future increases.

Motion: Commissioner Conklin made a ***motion to approve*** the purchase of two (2) LifePak 15 Defibrillator ECG Monitors. Commissioner Powers second, and the Board unanimously passed the motion.

8. LEGAL REPORT

A discussion was had regarding the hiring of either a full-time or part-time Clerk. Currently, the Department is not ready to hire a full-time Clerk so the position would be started as a part-time position. There were further discussions regarding office space to provide a Clerk.

Previously, discussions were had regarding the expansion of the second floor of the Fire Department, which could house a Clerk. Plans were drawn by Red Rooster; however, without costs estimates. Sue Hiem commented that there may be grants through the County's general fund for building/financing for fire department buildings. If there is information available regarding this issue, Sue will forward to Dirk Smits, Roget Bryan and Jennifer Johnson.

Bring item back for discussion at the next meeting.

9. FINANCE REPORT

Nothing major. Reminding the Department that now that they have the new millage, we will need to start the budget prior to July.

10. AMBULANCE CORPS REPORT

10a. December Minutes/Treasurer's Report

None

10b. December Statistics

Scott Robinson reports a total of 1855 call for 2022, which is just under the prior year's number. There were 558 call north of MM 103 for year.

Chief Garrido commented that Dr. Morrison put on an advanced airway class last Friday.

Four new volunteers started the mini academy.

11. FIRE DEPARTMENT REPORT

11c. December Statistics

None

12. COMMISSIONER ITEMS

A discussion was had regarding the potential of purchasing a third truck.

Starting pay for new employees is approximately $21,000, which lends to the high turnover rate. Consideration of higher starting pay needs to be addressed; keeping in mind Jen's recommendation to get the budget together sooner so an informed discussion can be had regarding compensation.

Capt. Garrido worked with DOT to place hydrant markers on the highway. There is a yellow non-functioning yellow hydrant behind Tower of Pizza; privately maintained and not used for draft training. Commissioner Allen is inquiring as he has a red hydrant adjacent to his driveway which makes exiting a challenge and it position does not make sense as he is approximately 20' from the water. It is easier to draft directly from the water. A new hydrant was supposed to be placed; however, the plan changed.

13. NEXT MEETING

13a. KLFREMS District Board Meeting Feb. 13 or Feb. 27

Discussion was had regarding moving forward with the February 13, 2023 District Board Meeting and Strategic Planning Workshop.

Motion: Commissioner Powers made a motion to ***cancel the February 27, 2023 District Board Meeting and Strategic Planning Workshop***, unless required**.** Commissioner Conklin second, and the Board unanimously passed the motion.

14. ADJOURN

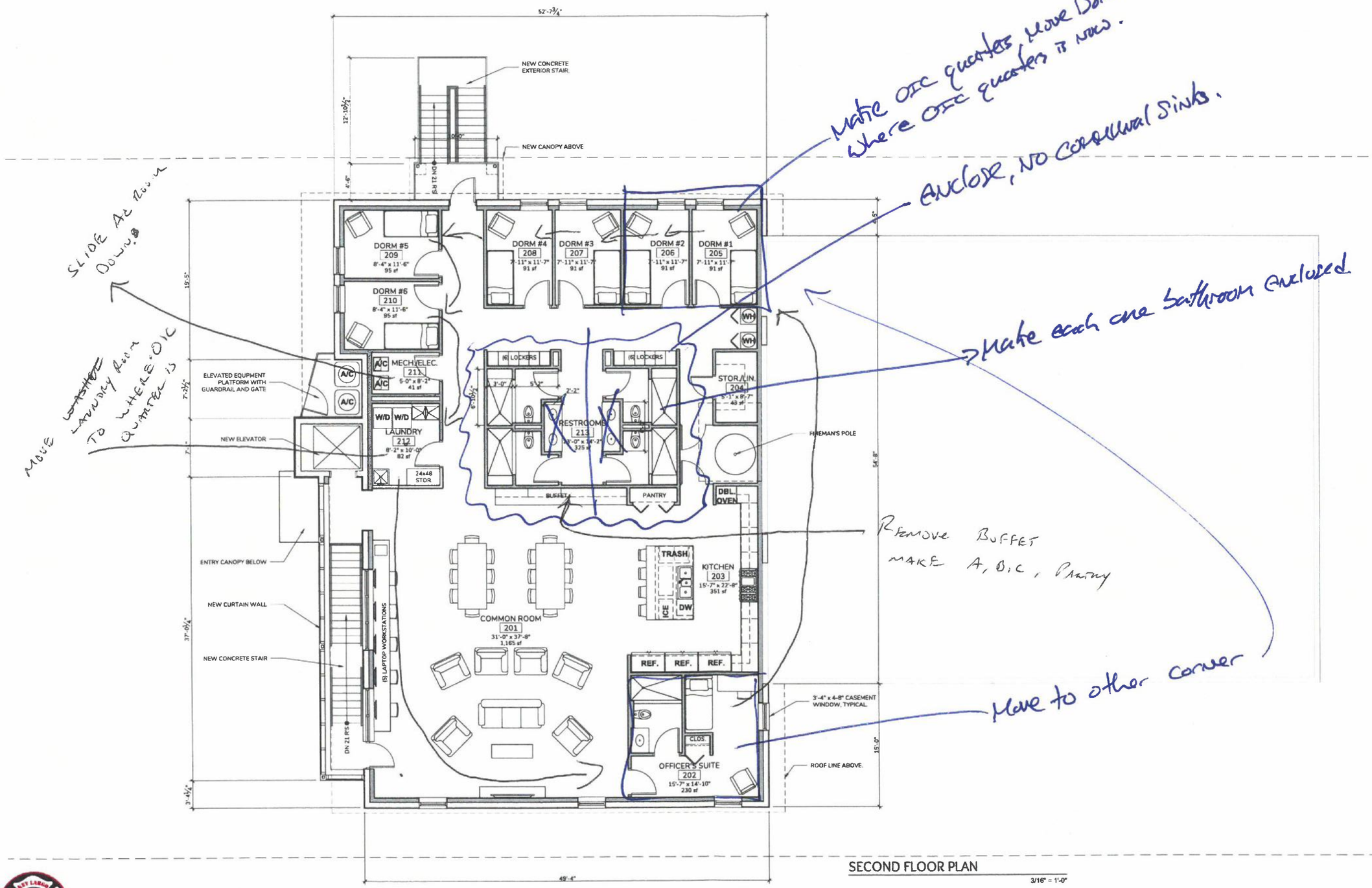
Commissioner Powers made a ***Motion to Adjourn*** at 6:35PM. Commissioner Edge second, and the motion was unanimously approved by the Board.

NEXT MEETINGS
February 13, 2023 District Meeting (if required)
February 13, 2023 Strategic Planning Workshop (if required)
February 27, 2023 District Meeting
February 27, 2023 Strategic Planning Workshop (if required)

DOCUMENTS
AI 02b. Final District Meeting Minutes December 12, 2022
Al 10a. KLVAC Monthly Report
Al 11a. KLVFD Monthly Report

Persons who wish to be heard shall send submit a Speaker Request Form to the Chairman or request to speak via Zoom.

6a.

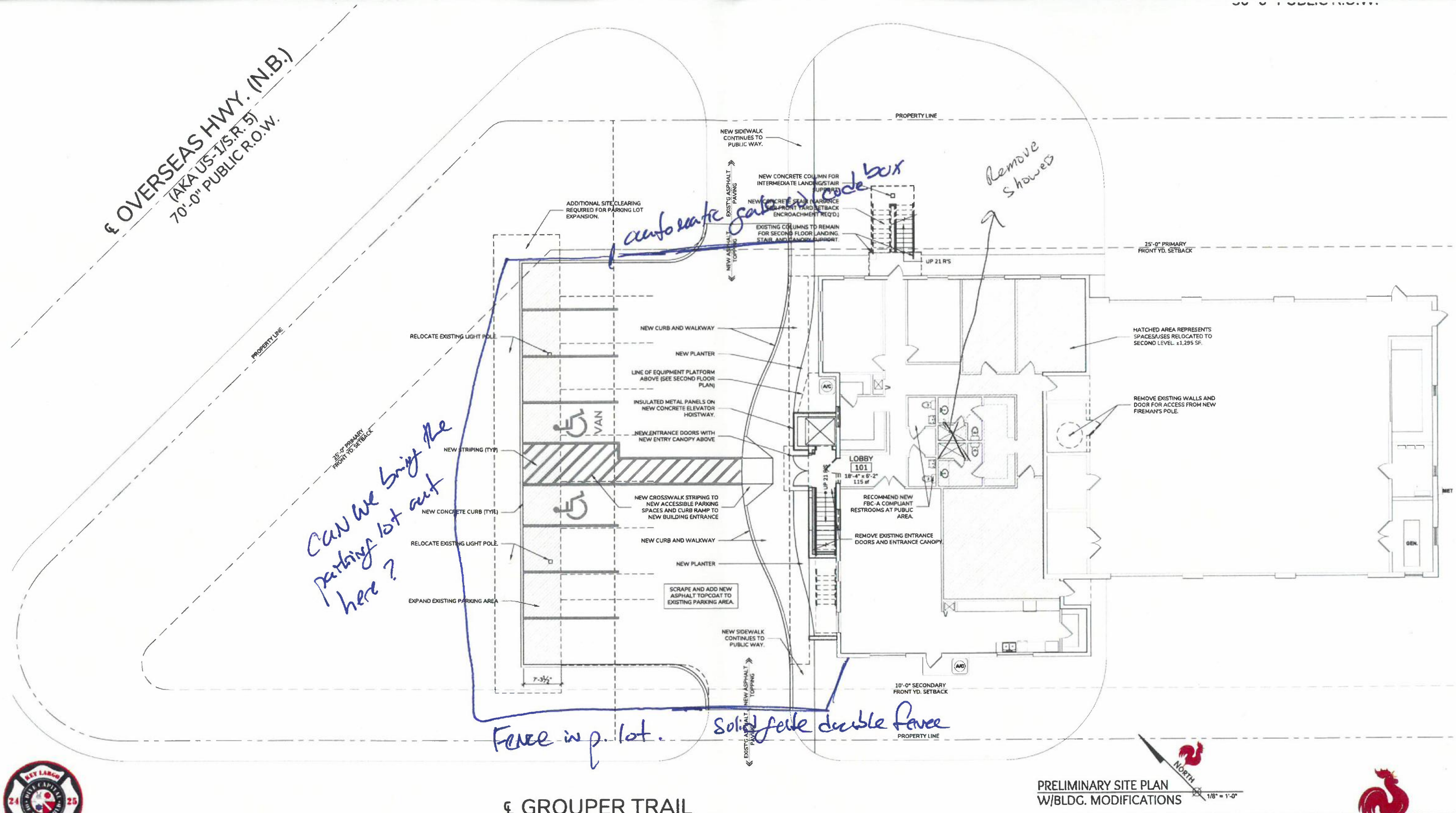


SECOND FLOOR PLAN

3/16" = 1'-0"

OPTION 1

LITTLE RED ROOSTER



℄ OVERSEAS HWY. (N.B.)
(AKA US-1/S.R. 5)
70'-0" PUBLIC R.O.W.
PROPERTY LINE
25'-0" PRIMARY FRONT YD. SETBACK
ADDITIONAL SITE CLEARING REQUIRED FOR PARKING LOT EXPANSION.
RELOCATE EXISTING LIGHT POLE
NEW STRIPING (TYP)
NEW CONCRETE CURB (TYP)
RELOCATE EXISTING LIGHT POLE
EXPAND EXISTING PARKING AREA
VAN
7'-3½"
NEW SIDEWALK CONTINUES TO PUBLIC WAY.
NEW CONCRETE COLUMN FOR INTERMEDIATE LANDING/STAIR SUPPORT
NEW CONCRETE STAIR (VARIANCE FOR FRONT YARD SETBACK ENCROACHMENT REQ'D.)
EXISTING COLUMNS TO REMAIN FOR SECOND FLOOR LANDING, STAIR AND CANOPY SUPPORT.
EXIST'G ASPHALT PAVING
NEW ASPHALT TOPPING
NEW CURB AND WALKWAY
NEW PLANTER
LINE OF EQUIPMENT PLATFORM ABOVE (SEE SECOND FLOOR PLAN)
INSULATED METAL PANELS ON NEW CONCRETE ELEVATOR HOISTWAY.
NEW ENTRANCE DOORS WITH NEW ENTRY CANOPY ABOVE
NEW CROSSWALK STRIPING TO NEW ACCESSIBLE PARKING SPACES AND CURB RAMP TO NEW BUILDING ENTRANCE
NEW CURB AND WALKWAY
NEW PLANTER
SCRAPE AND ADD NEW ASPHALT TOPCOAT TO EXISTING PARKING AREA.
NEW SIDEWALK CONTINUES TO PUBLIC WAY.
PROPERTY LINE
UP 21 R'S
25'-0" PRIMARY FRONT YD. SETBACK
HATCHED AREA REPRESENTS SPACES/USES RELOCATED TO SECOND LEVEL. ±1,295 SF.
REMOVE EXISTING WALLS AND DOOR FOR ACCESS FROM NEW FIREMAN'S POLE.
LOBBY
101
18'-4" x 6'-2"
115 sf
UP 21 R'S
RECOMMEND NEW FBC-A COMPLIANT RESTROOMS AT PUBLIC AREA.
REMOVE EXISTING ENTRANCE DOORS AND ENTRANCE CANOPY.
A/C
GEN.
MET
10'-0" SECONDARY FRONT YD. SETBACK
PROPERTY LINE
NORTH
PRELIMINARY SITE PLAN
W/BLDG. MODIFICATIONS
1/8" = 1'-0"
℄ GROUPER TRAIL
30'-0" PUBLIC R.O.W.
automatic gate w/ code box
Remove showers
Can we bring the parking lot out here?
Fence in p. lot.
Solid fence double fence

OPTION 1

LITTLE RED ROOSTER

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A-1.1

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

LRR PROJECT NO.: 21003
DATE: May 24, 2021
ORIGINAL SIZE: 24x36

PLOTTED:
Monday, May 24, 2021 10:25:01 AM

℄ EAST DRIVE
50'-0" PUBLIC R.O.W.

℄ OVERSEAS HWY. (N.B.)
(AKA US-1/S.R. 5)
70'-0" PUBLIC R.O.W.

PROPERTY LINE

NEW SIDEWALK CONTINUES TO PUBLIC WAY.

EXIST'G ASPHALT PAVING

NEW ASPHALT TOPPING

NEW CONCRETE COLUMN FOR INTERMEDIATE LANDING/STAIR SUPPORT.

NEW CONCRETE STAIR (VARIANCE FOR FRONT YARD SETBACK ENCROACHMENT REQ'D.)

EXISTING COLUMNS TO REMAIN FOR SECOND FLOOR LANDING, STAIR, AND CANOPY SUPPORT.

ADDITIONAL SITE CLEARING REQUIRED FOR PARKING LOT EXPANSION.

25'-0" PRIMARY FRONT YD. SETBACK

UP 21 R'S

OFFICE
106
8'-2" x 18'-0"
147 sf

OFFICER'S SUITE
107
15'-4" x 17'-6"
268 sf

RELOCATE EXISTING LIGHT POLE.

NEW CURB AND WALKWAY

NEW PLANTER

LINE OF EQUIPMENT PLATFORM ABOVE (SEE SECOND FLOOR PLAN)

A/C

INSULATED METAL PANELS ON NEW CONCRETE ELEVATOR HOISTWAY.

NEW ENTRANCE DOORS WITH NEW ENTRY CANOPY ABOVE

MEN
105
19'-0" x 8'-4"
137 SF

NEW STRIPING (TYP.)

LOBBY
101
18'-4" x 6'-2"
115 sf

WOMEN
104
19'-0" x 8'-4"
137 SF

UP 21 R'S

NEW CROSSWALK STRIPING TO NEW ACCESSIBLE PARKING SPACES AND CURB RAMP TO NEW BUILDING ENTRANCE

NEW CONCRETE CURB (TYP.)

RAMP UP 1'-0"

UP 2 R'S

REMOVE EXISTING ENTRANCE DOORS AND ENTRANCE CANOPY.

RELOCATE EXISTING LIGHT POLE.

SUPPORT
103
10'-2" x 19'-0"
172 SF

NEW CURB AND WALKWAY

NEW PLANTER

COMMUNITY ROOM
102
28'-9" x 32'-0"
1,088 SF

SCRAPE AND ADD NEW ASPHALT TOPCOAT TO EXISTING PARKING AREA.

EXPAND EXISTING PARKING AREA

UP 2 R'S

NEW SIDEWALK CONTINUES TO PUBLIC WAY.

NEW WINDOW IN PLACE OF EXIST'G DOOR TO BE REMOVED.

A/C

7'-3½"

10'-0" SECONDARY FRONT YD. SETBACK

NEW ASPHALT TOPPING

EXIST'G ASPHALT PAVING

PROPERTY LINE

MET

GEN.

25'-0" PRIMARY FRONT YD. SETBACK

NORTH

1/8" = 1'-0"

PRELIMINARY SITE PLAN
W/BLDG. MODIFICATIONS

℄ GROUPER TRAIL
30'-0" PUBLIC R.O.W.

OPTION 2

KEY LARGO DIVE CAPITAL OF THE WORLD 24 25 FIRE DEPT.

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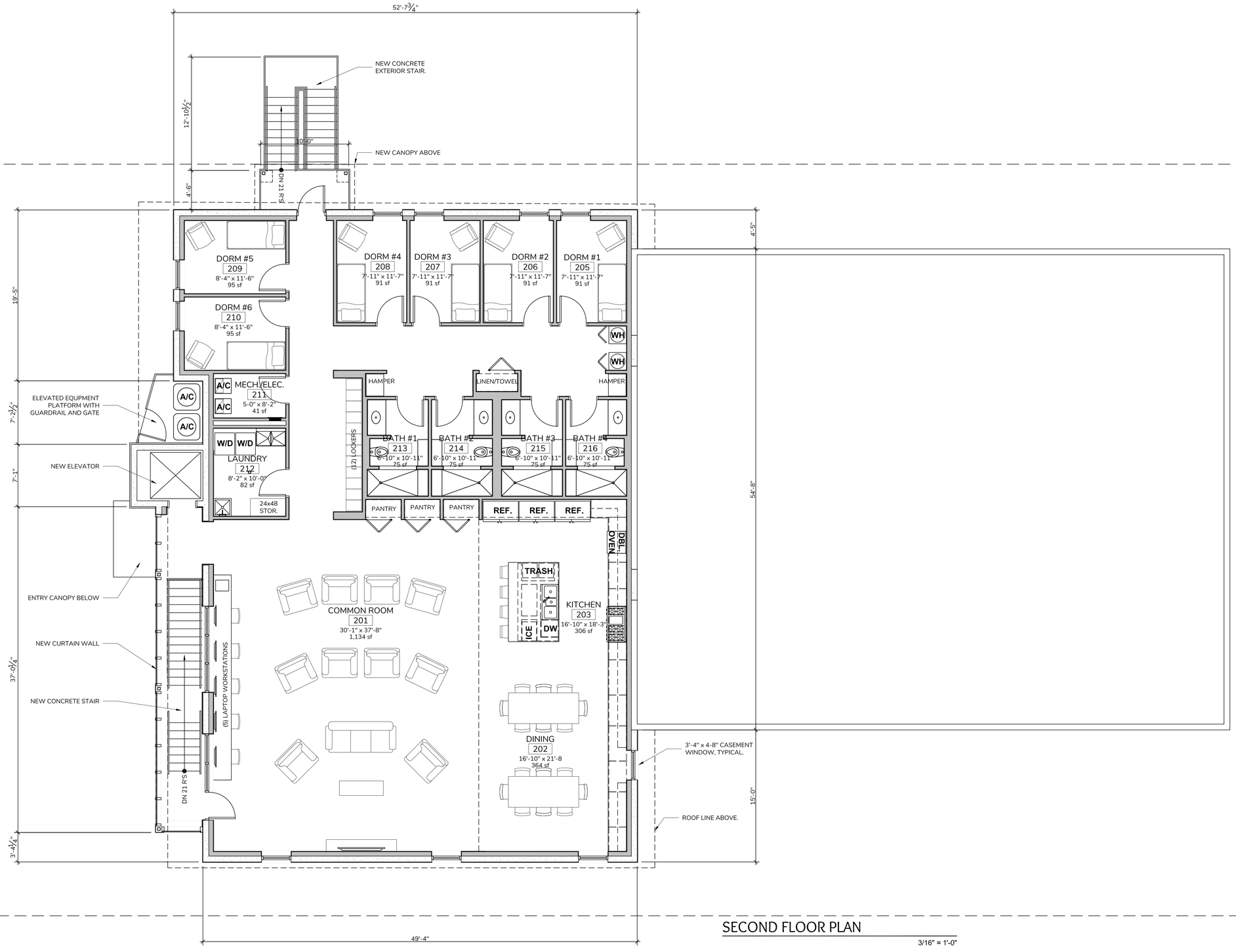
A-2.1

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

LRR PROJECT NO.: 21003
DATE: DECEMBER 6, 2021
ORIGINAL SIZE: 24x36

PLOTTED:
Sunday, December 5, 2021 6:52:12 PM



SECOND FLOOR PLAN

3/16" = 1'-0"

OPTION 2

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-2.2

LRR PROJECT NO.: 21003
DATE: December 6, 2021
ORIGINAL SIZE: 24x36

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PLOTTED:
Monday, December 6, 2021 11:34:25 AM

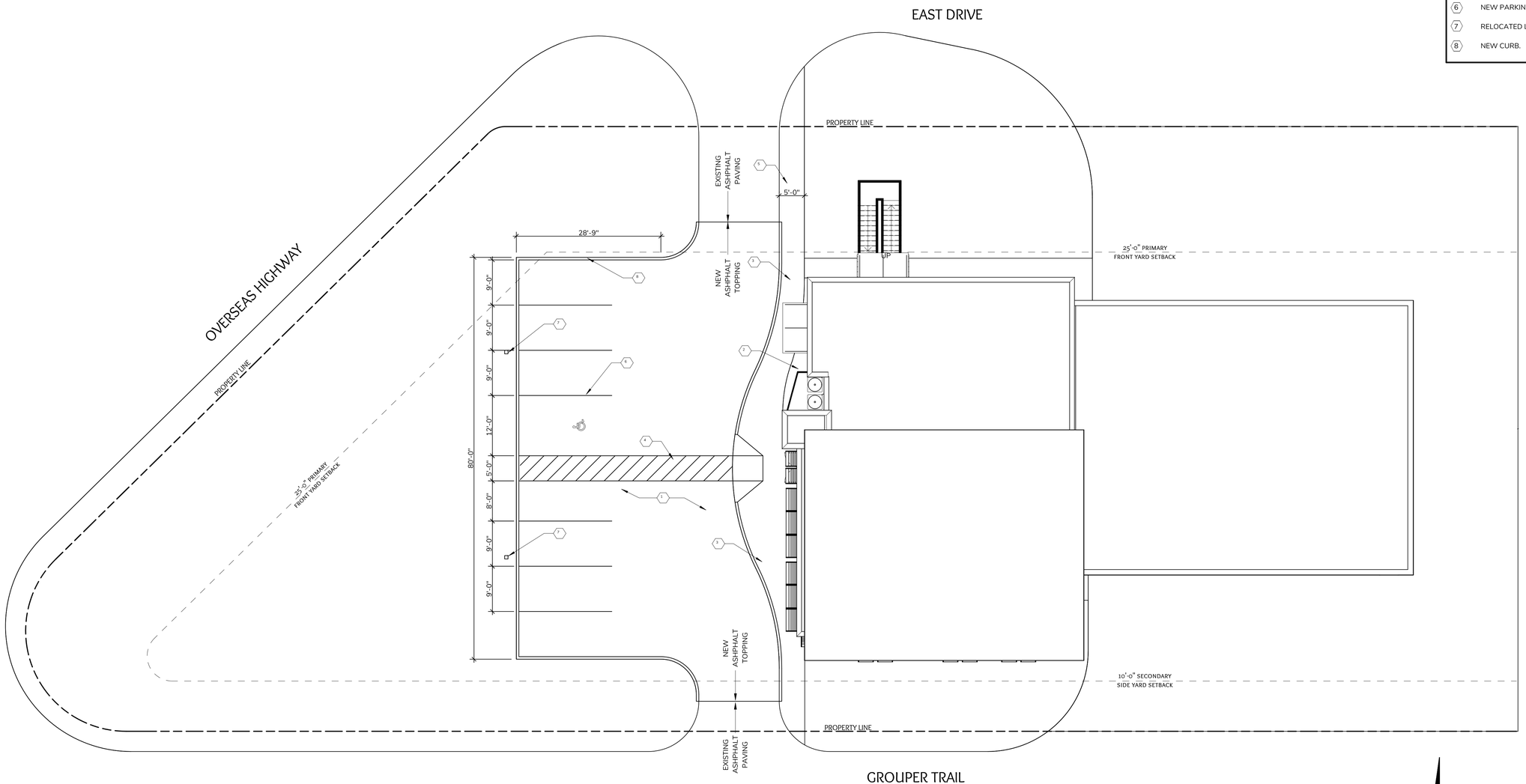
SHEET NOTES / CODED NOTES

GENERAL NOTES:

1. LANDSCPAING SHOWN IS FOR REFERERENCE. OWNER TO COORDINATE LANDSCPAING MATERIALS AND QUANTITIES WITH LANDSCAPING CONTRACTOR.

PLAN NOTES:

1. SCRAPE AND ADD NEW ASHPHALT TOPCOAT TO EXISTING PARKING AREA.
2. NEW CONCRETE PLANTER.
3. NEW CONCRETE CURB AND WALKWAY.
4. NEW CROSSWALK STRIPPING TO NEW ACCESSIBLE PARKING SPACE AND CURB RAMP.
5. NEW CONCRETE SIDEWALK TO PUBLIC ACCESS
6. NEW PARKING LOT STRIPPING
7. RELOCATED LIGHT POLE
8. NEW CURB.



PRELIMINARY SITE PLAN
W/BLDG. MODIFICATIONS

NORTH
3/32" = 1'-0"

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-2.0

LRR PROJECT NO.: 21003
DATE: FEBRUARY 28, 2022
ORIGINAL SIZE: 24x36

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PLOTTED:

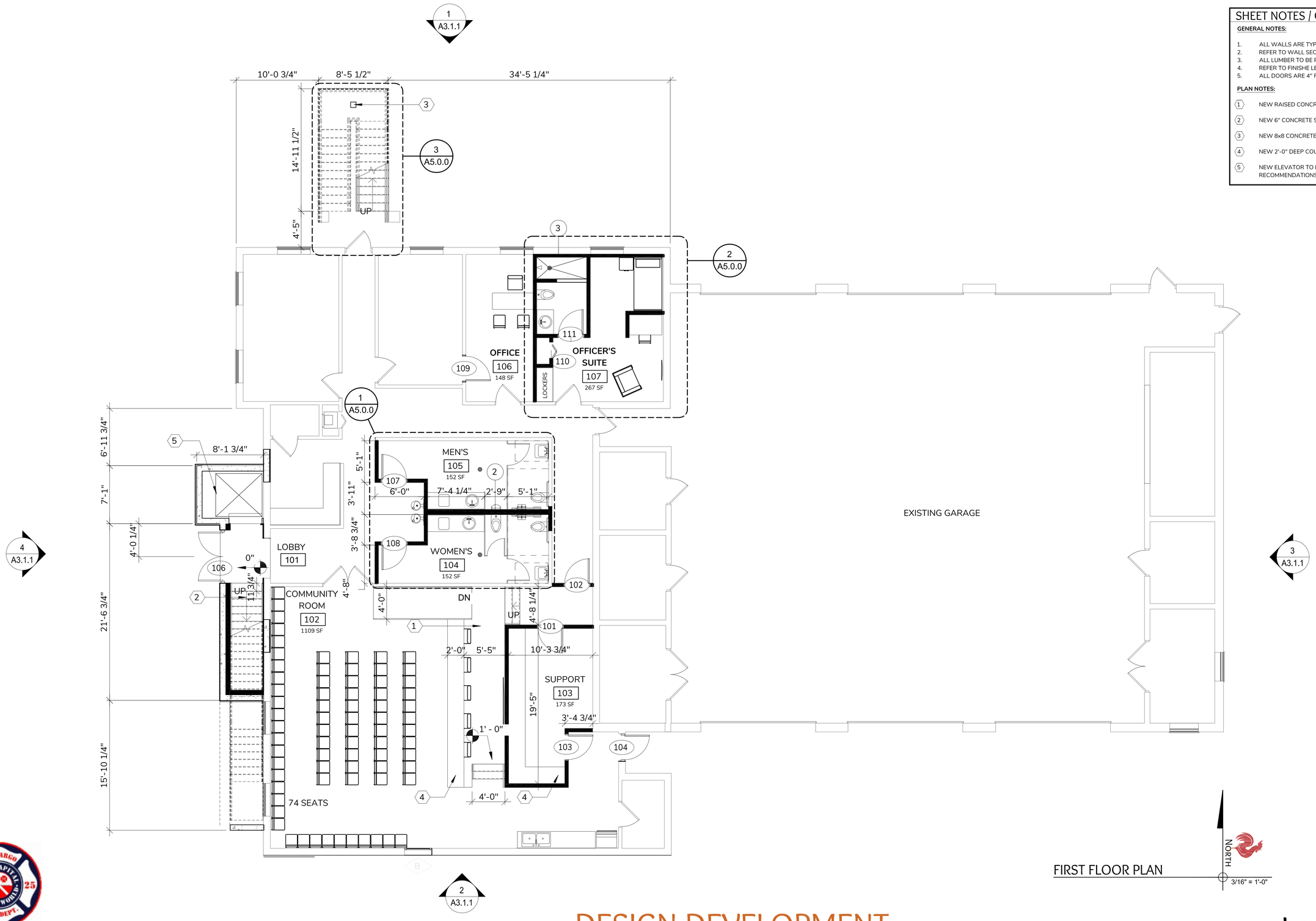
SHEET NOTES / CODED NOTES

GENERAL NOTES:

1. ALL WALLS ARE TYPE 1 U.N.O.
2. REFER TO WALL SECTIONS FOR EXTERIOR WALL ASSEMBLY.
3. ALL LUMBER TO BE PRESSURE TREATED U.N.O.
4. REFER TO FINISHE LEGEND.
5. ALL DOORS ARE 4" FROM ADJACENT WALL OR CENTERED U.N.O.

PLAN NOTES:

1. NEW RAISED CONCRETE PLATFORM.
2. NEW 6" CONCRETE SLAB.
3. NEW 8x8 CONCRETE COLUMN TO UNDERSIDE OF LANDING.
4. NEW 2'-0" DEEP COUNTER MOUNTED AT 2'-10" AFF.
5. NEW ELEVATOR TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.



FIRST FLOOR PLAN

NORTH

3/16" = 1'-0"

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-2.1

LRR PROJECT NO.: 21003
DATE: FEBRUARY 28, 2022
ORIGINAL SIZE: 24x36

PLOTTED:

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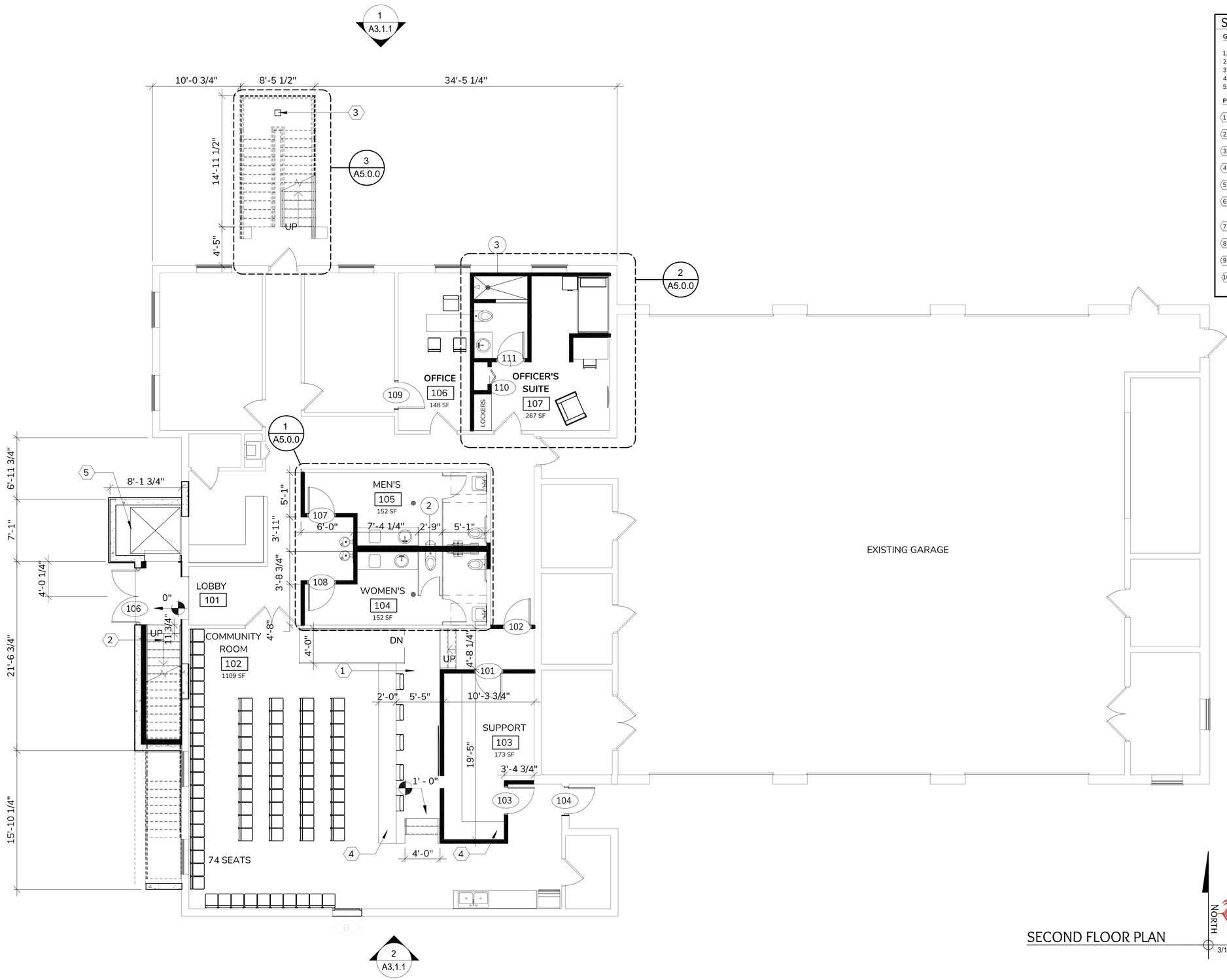

SHEET NOTES / CODED NOTES

GENERAL NOTES:

1. ALL WALLS ARE TYPE 1 U.N.O.
2. REFER TO WALL SECTIONS FOR EXTERIOR WALL ASSEMBLY.
3. ALL LUMBER TO BE PRESSURE TREATED U.N.O.
4. REFER TO FINISH LEGEND.
5. ALL DOORS ARE 4" FROM ADJACENT WALL OR CENTERED U.N.O.

PLAN NOTES:

1. NEW 6" CONCRETE PLATFORM.
2. NEW 2" CONCRETE SLAB TOPPER ON EXISTING ROOF STRUCTURE.
3. NEW 6X6 STEEL TUBE COLUMN, REFER TO STRUCTURAL.
4. NEW 2'-0" DEEP COUNTER MOUNTED AT 2'-10" AFF
5. LINE OF CANOPY/ROOF ABOVE.
6. NEW 2'-0" DEEP COUNTER MOUNTED AT 2'-10" AFF WITH UPPER CABINETS MOUNTED AT 5'-0" AFF.
7. 3'-0" GUARDRAIL AND 3'-0" WIDE GATE
8. LINE OF CANOPY BELOW.
9. NEW 4'-0" WIDE PRECAST CONCRETE STAIR.
10. WALL MOUNTED ROOF LADDER TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

SECOND FLOOR PLAN

NORTH

3/16" = 1'-0"

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-2.2

LRR PROJECT NO.: 21003
DATE: FEBRUARY 28, 2022
ORIGINAL SIZE: 24x36

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PLOTTED:

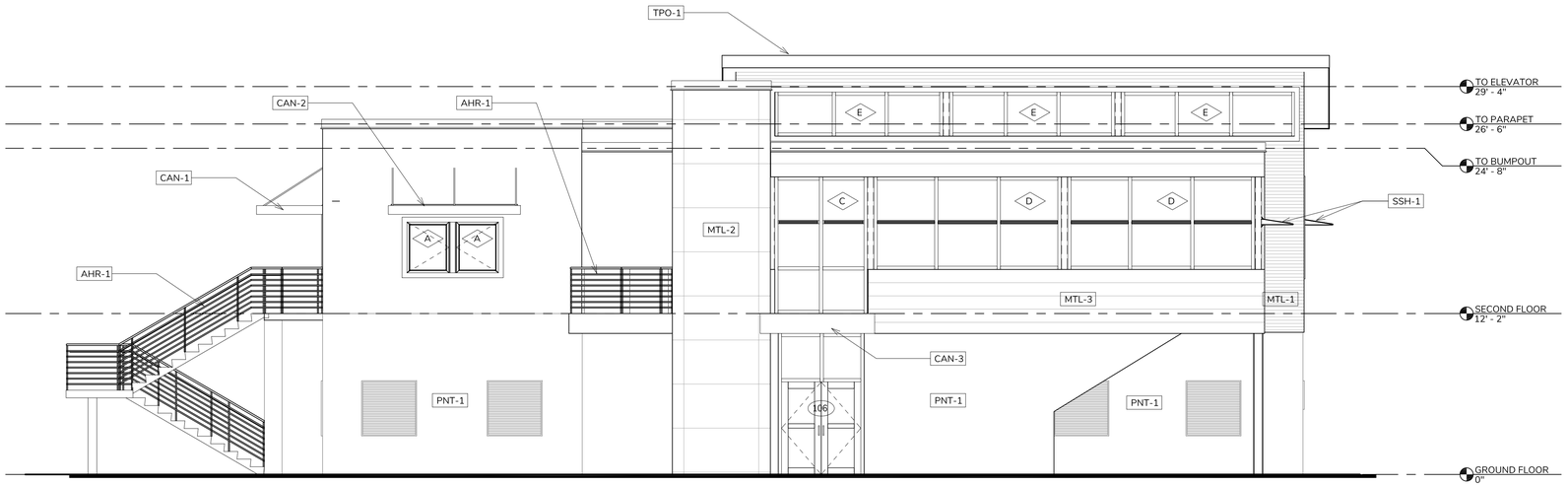
FINISH / MATERIAL SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN	MODEL	COLOR	DIMENSIONS	PRODUCT APPROVAL	NOTES
AHR-1	ALUMINUM HANDRAIL SYSTEM			ALUMINUM			
CAN-1	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
CAN-2	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
CAN-3	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
MTL-1	METAL WALL PANEL	3A COMPOSITES	HWP 12	BURNISHED SLATE			
MTL-2	METAL WALL PANEL	3A COMPOSITES	PAC 3000 RS	CARDINAL RED			
MTL-3	METAL WALL PANEL	3A COMPOSITES	FLUSH & REVEAL	SLATE GREY			
PNT-1	EXTERIOR LATEX PAIN	SHERWIN-WILLIAMS	SW-7004	SNOWBOUND			
SSH-1	SUNSHADE	KAWNEER	VERSOLEIL	ALUMINUM			
TPO-1	ROOFING	CARLISLE	TPO-FLEECEBACK	WHITE			

ELEVATION NOTES / CODED NOTES

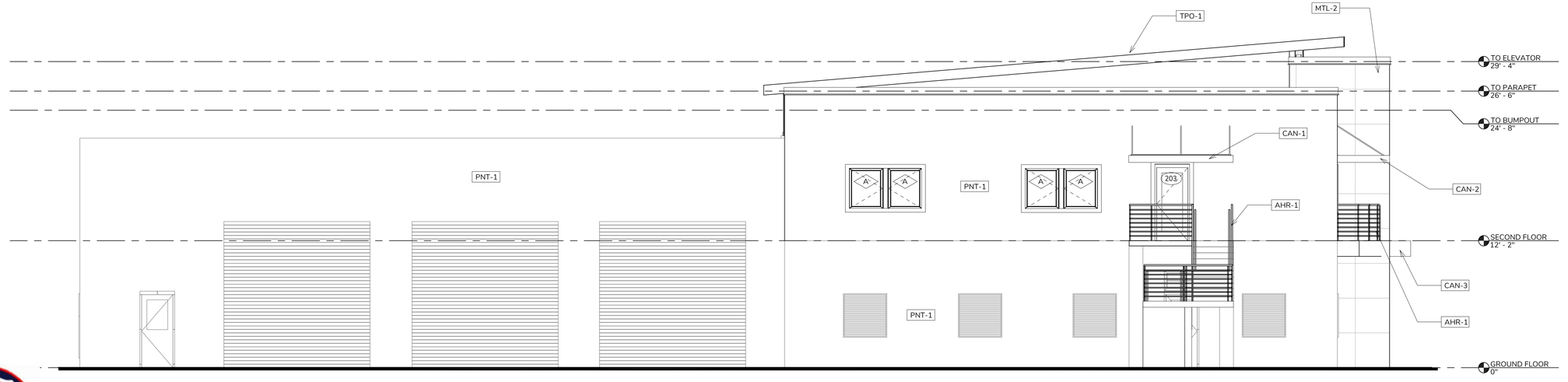
GENERAL NOTES:

1. ALL ELEVATIONS ARE 1929 NGVD
2. REFER TO SPECIFICATIONS FOR ADDITIONAL SELECTIVE DEMOLITION REQUIREMENTS
3. REFER TO WALL SECTIONS FOR INSTALLATION REQUIREMENTS
4. REFER TO STRUCTURAL DRAWINGS FOR COMPONENTS & CLADDING
5. SIGNAGE TO BE COORDINATED BY OWNER, INSTALLED BY G.C.



WEST ELEVATION

3/16" = 1'=0"



NORTH ELEVATION

3/16" = 1'=0"

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-3.0

LRR PROJECT NO.: 21003
DATE: FEBRUARY 28, 2022
ORIGINAL SIZE: 24x36

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PLOTTED:

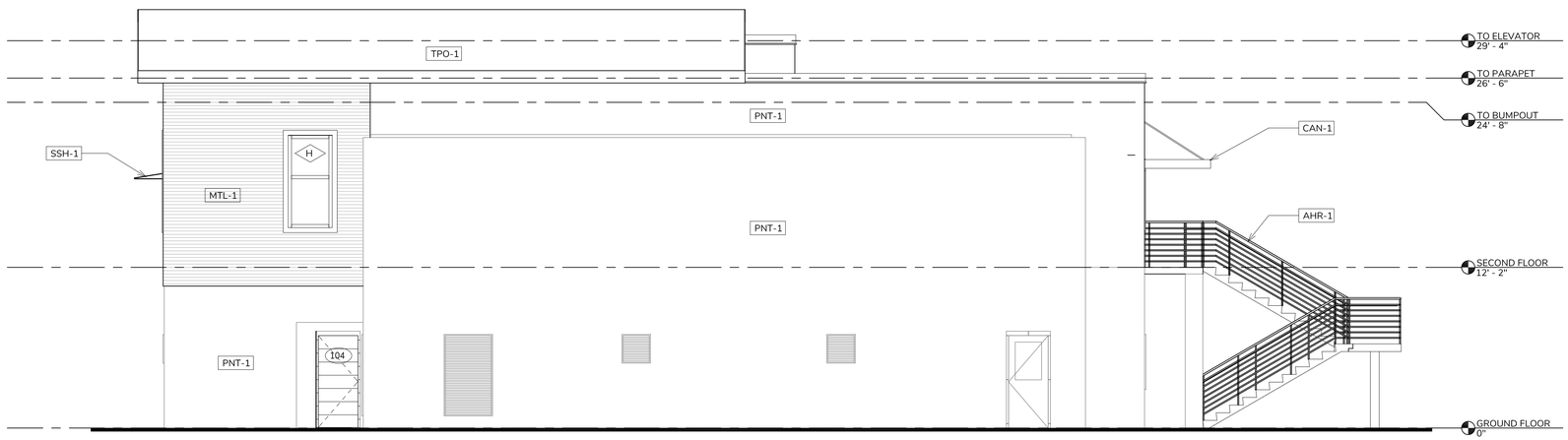
FINISH / MATERIAL SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN	MODEL	COLOR	DIMENSIONS	PRODUCT APPROVAL	NOTES
AHR-1	ALUMINUM HANDRAIL SYSTEM			ALUMINUM			
CAN-1	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
CAN-2	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
CAN-3	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
MTL-1	METAL WALL PANEL	3A COMPOSITES	HWP 12	BURNISHED SLATE			
MTL-2	METAL WALL PANEL	3A COMPOSITES	PAC 3000 RS	CARDINAL RED			
MTL-3	METAL WALL PANEL	3A COMPOSITES	FLUSH & REVEAL	SLATE GREY			
PNT-1	EXTERIOR LATEX PAIN	SHERWIN-WILLIAMS	SW-7004	SNOWBOUND			
SSH-1	SUNSHADE	KAWNEER	VERSOLEIL	ALUMINUM			
TPO-1	ROOFING	CARLISLE	TPO-FLEECEBACK	WHITE			

ELEVATION NOTES / CODED NOTES

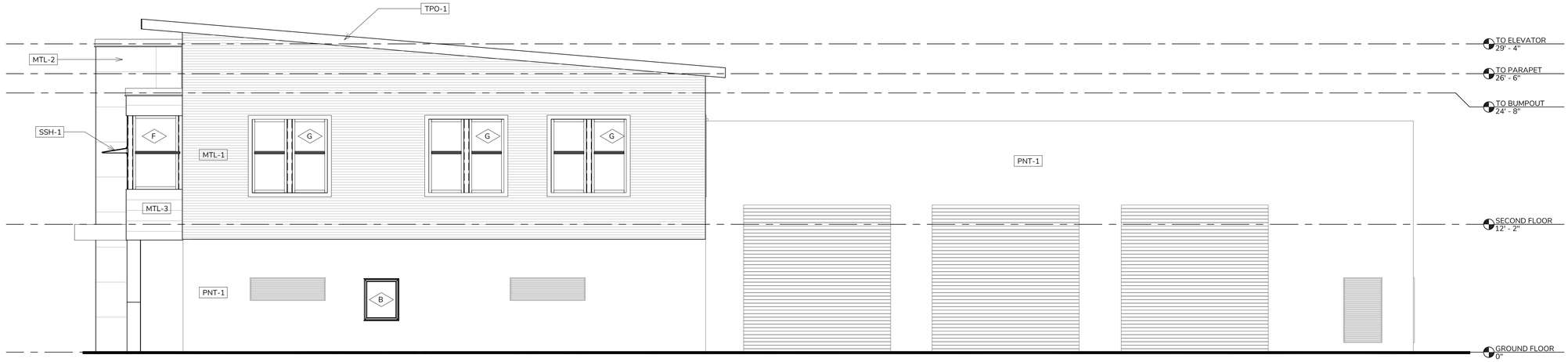
GENERAL NOTES:

1. ALL ELEVATIONS ARE 1929 NGVD
2. REFER TO SPECIFICATIONS FOR ADDITIONAL SELECTIVE DEMOLITION REQUIREMENTS
3. REFER TO WALL SECTIONS FOR INSTALLATION REQUIREMENTS
4. REFER TO STRUCTURAL DRAWINGS FOR COMPONENTS & CLADDING
5. SIGNAGE TO BE COORDINATED BY OWNER, INSTALLED BY G.C.



EAST ELEVATION

3/16" = 1'=0"



SOUTH ELEVATION

3/16" = 1'=0"

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-3.1

LRR PROJECT NO.: 21003
DATE: FEBRUARY 28, 2022
ORIGINAL SIZE: 24x36

PLOTTED:

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NORTHWEST CORNER VIEW

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-4.0

LRR PROJECT NO.: 21003
DATE: FEBRUARY 28, 2022
ORIGINAL SIZE: 24x36

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PLOTTED:

SOUTHWEST CORNER VIEW

DESIGN DEVELOPMENT

FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

A-4.1

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PLOTTED:

LOUNGE / KITCHEN VIEW

DESIGN DEVELOPMENT

A-4.2 FS 24 IMPROVEMENTS

OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

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FIRE STATION RENOVATION
OVERSEAS HWY & EAST DRIVE
KEY LARGO, FL 33037

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECTURE, ARCHITECTURAL, ARCHITECT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUTO	AUTOMATIC
BFF	BELOW FINISH FLOOR
BLDG	BUILDING
BO	BOTTOM OF
CAB	CABINET
CCTV	CLOSED CIRCUIT TELEVISION
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DTL	DETAIL
DWG(S)	DRAWING(S)
EA	EACH
EF	EXHAUST FAN
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION, ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EXH	EXHAUST
EXIST'G	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISH FLOOR ELEVATION
FIXT	FIXTURE(S)
FL	FLOOR
FS	FLOOR SINK, FIRE SPRINKLER
FT	FOOT
GA	GAUGE
GALV	GALVANIZED
GFCI	GROUND FAULT CURRENT INTERRUPTOR
GWB	GYPSUM WALLBOARD
HC	HOLLOW CORE
HDWE	HARDWARE
HM	HOLLOW METAL
HT	HEIGHT
HVAC	HEATING VENTILATION & AIR CONDITIONING
IN	INCH(ES)
INT	INTERIOR
JAN	JANITOR
LAV	LAVATORY
LBS	POUNDS
LF	LINEAR FEET
LH	LEFT HAND
LT	LIGHT
LTG	LIGHTING
MAT'L	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
N/A	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PERF	PERFORATED
PLAM	PLASTIC LAMINATE
PLWD	PLYWOOD
PNL	PANEL
PVC	POLYVINYL CHLORIDE
PWR	POWER
QT	QUARRY TILE
QTY	QUANTITY
RCB	RUBBER COVE BASE
RCP	REFLECTED CEILING PLAN
REF	REFERENCE, REFRIGERATOR
REQ'D	REQUIRED
REV	REVISION, REVISED
RH	RIGHT HAND
RM	ROOM
SCHED	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUC	STRUCTURAL, STRUCTURE
SUSP	SUSPENDED
SW	SWITCH
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TLT	TOILET
TO	TOP OF
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VIF	VERIFY IN FIELD
VWC	VINYL WALL COVERING
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER

SITE DATA

SITE DATA
ZONING CLASSIFICATION: SC (SUBURBAN COMMERCIAL)
F.L.U.M.: SC (SUBURBAN COMMERCIAL)
OVERLAY DISTRICT: TIER I - NATURAL AREA
FLOOD ZONE: AE X

MIN. OPEN SPACE RATIO: .20
EXIST'G OPEN SPACE RATIO: .38
PROPOSED OPEN SPACE RATIO: .34 (OK)

EXIST'G IMPERVIOUS AREA: 18,938 SF
IMPERVIOUS AREA ADDED: 1,083 SF
PROPOSED IMPERVIOUS AREA: 20,021 SF

EXIST'G BUILDING AREA: 7,411 GSF
BUILDING AREA ADDED: 177 GSF
PROPOSED BUILDING AREA: 7,588 GSF
EXIST'G. LOT SIZE: 30,175 S.F.

MINIMUM SETBACKS (REFER TO PLAN THIS SHEET):
FRONT YARD: 25'-0"
REAR YARD: 10'-0"
STREET SIDE YD.: 15'-0"
SECONDARY SIDE YD.: 5'-0"

MAXIMUM HEIGHT: 35'-0"
EXIST'G. HEIGHT: 22'-0"
PROPOSED HEIGHT: 30'-4" (OK)

CODE SUMMARY

SHELL / BUILDING DATA
USE GROUP: R-2 / S-2 / B / A-3 FBC CHAPTER 3
CONSTRUCTION TYPE: IIA FBC 602.2
NON-SPRINKLED EXISTING BUILDING
SPRINKLERED NEW SECOND STORY
ALLOWABLE AREA: 28,000 SF TABLE 506.2
GROSS BUILDING AREA: 11,613 GSF.

EXIST'G BLDG. COMPLIANCE (FBC-EX):
WORK AREA COMPLIANCE METHOD:
301.1.2
ALTERATION-LEVEL 3 (> 50% OF FLOOR AREA)
505.1

CHAPTER 7 ALTERATIONS - LEVEL 1:
701.3: DOES NOT APPLY. FLOOD ZONE 6.
702.1/702.2/702.3: ALL INTERIOR FINISHES TO BE CLASS C OR BETTER.
707.4: REFER TO COMPONENT AND CLADDING PRESSURES ON STRUCTURAL SHEETS FOR WINDOW AND DOOR REQUIREMENTS IN COMPLIANCE WITH FBC-B CHAPTER 16

CHAPTER 8 ALTERATIONS - LEVEL 2:
803.2.1: RATINGS OF VERTICAL OPENINGS NOT REQUIRED - EXCEPTION 12.
807.2: ALL NEW STRUCTURE WILL COMPLY WITH THE FLORIDA BUILDING CODE
807.4: NEW SECOND STORY WILL COMPLY WITH FLORIDA BUILDING CODE.
808.3: REFER TO ELECTRICAL DRAWINGS FOR COMPLIANCE.
809.1: REFER TO MECHANICAL DRAWINGS FOR COMPLIANCE.
811.1: COMCHECK PROVIDED WITH APPLICATION.

CHAPTER 9 ALTERATIONS - LEVEL 3:
904.1: AUTOMATIC SPRINKLER WILL BE ADDED TO NEW SECOND STORY.
905.1: NEW MEANS OF EGRESS WILL COMPLY WITH FBC.
907.4: NEW STRUCTURAL ELEMENTS WILL COMPLY WITH FLORIDA BUILDING CODE.

MEANS OF EGRESS: FBC CHAP. 10
(ALSO REFER TO CODE COMPLIANCE/LIFE SAFETY PLAN THIS SHEET)

OCCUPANT LOAD: FBC 1004.1.2
CLASSROOM (20 NET): 55
OFFICE/BUSINESS (1/150): 7
RESIDENTIAL (1/200): 13
TOTAL: 86

EGRESS WIDTH REQ'D(STAIRS): FBC 1005.2
13 OCC. x 0.3"/OCC.= 3.9 INCHES

EGRESS WIDTH REQ'D: FBC 1005.3.2
86 OCC. x 0.2"/OCC. = 17.2 INCHES
EGRESS WIDTH PROVIDED: 144 INCHES (OK)

SECOND FLOOR EGRESS FBC 1006.3
EXITS REQUIRED: 2
EXITS PROVIDED: 2

FIRST FLOOR EGRESS
EXITS REQUIRED: 2 FBC 1006.2.1
EXITS PROVIDED: 2

COMMON PATH LIMITS: FBC 1006.2.1
RESIDENTIAL: 75'-0"

REFER TO LIFE SAFETY/CODE COMPLIANCE PLAN FOR ADDITIONAL EXITING INFORMATION

SEPARATION OF EXITS: FBC 1007.1.1
SECOND FLOOR
MIN. SEPARATION = 87'-0"/2= 43'-6"
SEPARATION PROVIDED= 68'-0" (OK)

FIRST FLOOR
MIN.SEPARATION = 87'-0"/2 = 43'-6"
SEPARATION PROVIDED = 53'-2" (OK)

MAXIMUM TRAVEL TO AN EXIT: FBC 1017.2
R: 250'-0"
MAX TRAVEL: 61'-5" (OK)

PLUMBING SYSTEMS: FBC CHAP. 29

OCCUPANTS EA. SEX = 86/2 = 43 EA. SEX

FIXTURE REQUIREMENTS: FBC 2902.1
RESIDENTIAL
WATER CLOSETS (1/10) = 1 EA. SEX
LAVATORIES (1/10) = 1 EA. SEX
TUBS/SHOWERS (1/8)= 2 REQ'D

OFFICE / ASSEMBLY
WATER CLOSETS (1/125)= 1 EA. SEX
LAVATORIES (1/200)= 1 EA. SEX
DRINKING FOUNTAIN (1/500) = 1 REQ'D.
SERVICE SINK: 1 REQ'D.

FIXTURES PROVIDED :
WATER CLOSETS (3M, 4W) OK
LAVATORIES (3M, 3W) OK
TABS/SHOWERS (2M, 2W OK
DRINKING FOUNTAIN: 1 OK
SERVICE SINK: 1 OK

DRAWING INDEX

PROJECT LOCATION

APPLICABLE CODES

2020 FLORIDA BUILDING CODE, 7TH/ EDITION - BUILDING (FBC)
2020 FLORIDA BUILDING CODE, 7TH/ EDITION - EXISTING (FBC-EX)
2020 FLORIDA MECHANICAL CODE, 7TH/ EDITION (FBC-M)
2020 FLORIDA PLUMBING CODE, 7TH/ EDITION (FBC-P)
2020 FLORIDA FUEL GAS CODE, 7TH/ EDITION (FBC-FG)
2020 NATIONAL ELECTRICAL CODE (NEC 2014)
ASCE/SEI 7-16 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
FLORIDA FIRE PREVENTION CODE (FFPC)
FLORIDA ACCESSIBILITY CODE

CONTACT SCHEDULE

CLIENT:
KEY LARGO FIRE & EMS DISTRICT
1100 Simonton Street
Key West, FL 33040
Contact: Gaelan Jones
E: gjones@florida-law.com

CONTRACTOR:
BURKE CONSTRUCTION GROUP
1722 N. Roosevelt Blvd.
Key West, FL 33040
Contact: John O'Neill
E: joneill@bcgconstruction.net

ARCHITECT OF RECORD:
LITTLE RED ROOSETER
25 Ships Way
Big Pine Key, FL 33040
Contact: Phill Badalamenti
E: phill@lilredrooster.com
M: (305) 998-9271

STUCTURAL ENGINEER OF RECORD:
STRUCTURES INTERNATIONAL, INC.
7501 Wiles Road, Suite 106-B
Coral Springs, FL 33067
Contact: Monzer Faramawi
E: monzer@siiengineers.com

PROJECT DESCRIPTION

THIS PROJECT INCLUDES APPROX. 4,000 SF SECOND FLOOR ADDITION ON TOP OF THE EXISTING ROOF STRUCTURE. THERE WILL ALSO BE INTERIOR RENOVATIONS THAT OCCUR TO THE GROUND FLOOR TO UPDATE THE PROGRAM REQUIREMENTS WITH THE ADDITION OF THE SECOND FLOOR. THE SECOND FLOOR WILL HOUSE THE SLEEPING QUARETERS, KITCHEN/LIVING, AND LAUNDRY FACILTIY. THE GROUND FLOOR WILL REMAIN ADIMINSTRATION WITH THE ADDITION OF A PRESENTATION / TRAINING SPACE. EXTERIOR WILL WILL INCLUDE THE RESTRIPPING AND EXPANSION OF THE EXISTING PARKING LOT TO ACCOMODATE AN ACCESSIBLE PATH TO THE ENTRY. STRUCTURAL WORK WILL CONSIST OF THE DESIGN OF THE SECOND STORY ON THE EXISTING ROOF STRUCTURE. MEP WORK WILL INCLUDE THE RELOCATION AND REPLACEMENTS OF FIXTURES AND GRILLS ON THE GROUND FLOOR AS WELL AS NEW SYSTEMS THROUGHOUT THE SECOND FLOOR.

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Big Pine, FL 33043
(305) 509 - 7932

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CONSULTANTS

CIVIL ENGINEER:
STRUCTURAL ENGINEER:
MECH. / PLUMBING ENGINEER:
ELECTRICAL ENGINEER:

NOT FOR CONSTRUCTION

FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:
COVER SHEET

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: DRW
CHECKED BY: CHK

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:
G0.0.1

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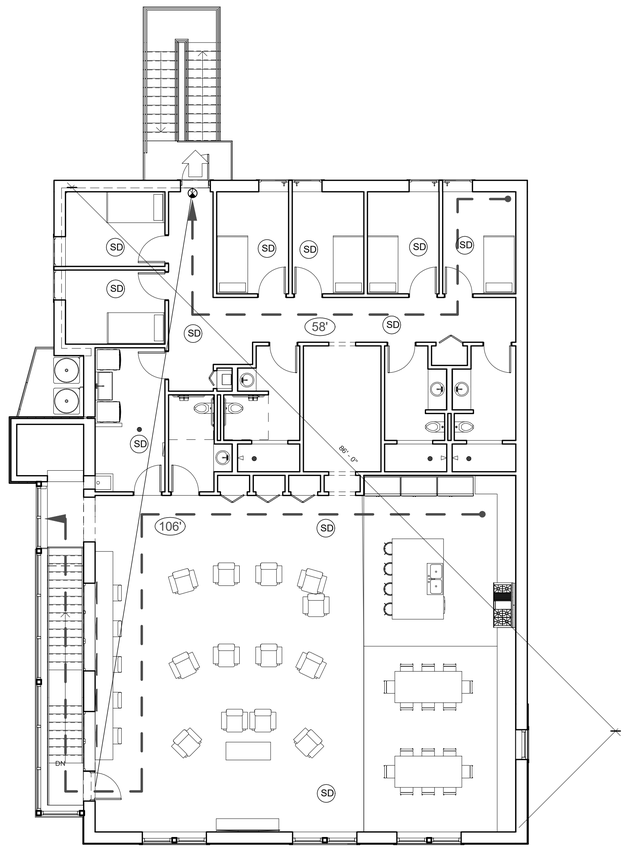
LIFE SAFETY PLAN LEGEND:

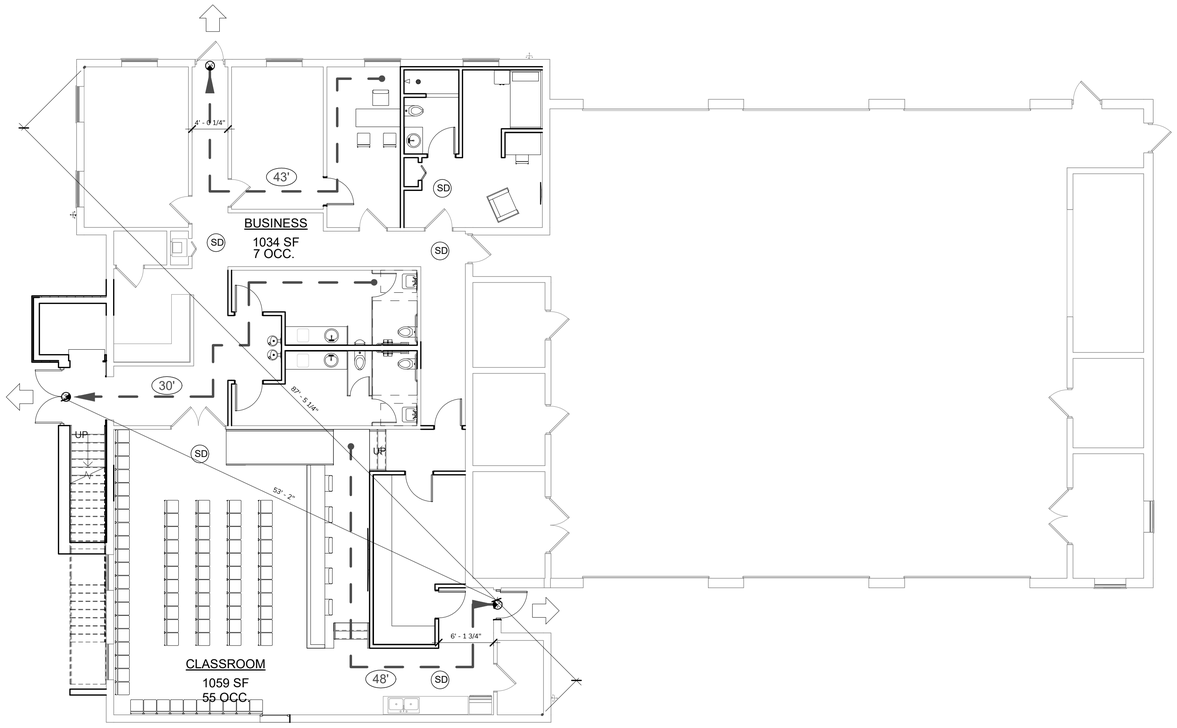
AED	AUTOMATED EXTERNAL DEFIBRILLATOR PROVIDED AND INSTALLED BY OWNER.
	EXIT SIGN
155'	TRAVEL DISTANCE
FE-1	MP SERIES DRY CHEMICAL EXTINGUISHER ON MOUNTING BRACKET
	BUILDING EXIT
	EMERGENCY LIGHT, REFER TO ELECTRICAL
SD	SMOKE DETECTOR, REFER TO ELECTRICAL

GENERAL NOTES

1. FINAL LOCATION, TYPE, AND QUANTITY OF FIRE EXTINGUISHERS TO BE COORDINATED WITH FIRE INSPECTOR.
2. REFER TO ELECTRICAL DRAWINGS FOR FIRE ALARM DESIGN.



2 SECOND FLOOR LIFE SAFETY PLAN
SCALE: 1/8" = 1'-0"



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

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CONSULTANTS

CIVIL ENGINEER:
STRUCTURAL ENGINEER:
MECH. / PLUMBING ENGINEER:
ELECTRICAL ENGINEER:

NOT FOR CONSTRUCTION

FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

LIFE SAFETY PLANS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
Designer	Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

G1.0.0

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SECTION 00 7200 – GENERAL CONDITIONS

FORM OF GENERAL CONDITIONS

AIA Document A201, General Conditions of the Contract for Construction, Current Edition.

SECTION 01 2000 – PRICE AND PAYMENT PROCEDURES

1.01 SCHEDULE OF VALUES

A. Submit a printed schedule on AIA Form G703 – Application and Certificate for Payment Continuation Sheet. Contractor's standard form or electronic media printout will be considered.

1.02 APPLICATIONS FOR PROGRESS PAYMENTS

A. Form: AIA G702 Application and Certificate for Payment and AIA G703 – Continuation Sheet including continuation sheets when required.

1.03 MODIFICATION PROCEDURES

A. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the Work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation and a statement describing the effect on Work by separate or other contractors. Document any requested substitutions as specified.

1.04 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:
   1. All closeout procedures specified.
   2. Final waivers of lien shall be submitted.

SECTION 01 3000 – ADMINISTRATIVE REQUIREMENTS

1.02 PROJECT COORDINATION

A. Provide for mobilization areas of site; for field offices and sheds, for access, traffic, and parking facilities. During construction, coordinate use of site and facilities.

B. Establish procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.

C. Coordinate the use of temporary utilities and construction facilities.

D. Coordinate field engineering and layout work.

F. Make the submittals to Architect, where required by the Contract Documents, through the General Contractor.
   1. Allow 10 business days for Architect's review.

2.01 PROJECT MEETINGS

A. Schedule and administer meetings throughout progress of the Work.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings. Distribute meeting minutes to Owner and Architect.

2.02 CONSTRUCTION PROGRESS SCHEDULE

A. Prepare detailed construction schedule.

2.03 PROGRESS PHOTOGRAPHS

A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment.

B. Photography Type: Digital; electronic files.

C. Digital Photographs: 24 bit color, minimum resolution of 1024 by 768, in JPG format; provide files unaltered by photo editing software.

D. Delivery Medium: via e-mail or digital storage device.

2.04 REQUESTS FOR INFORMATION (RFI)

A. Upon discovery of the need for interpretation of the Contract Documents, prepare and submit an RFI to the Architect. A standard RFI form shall be utilized, and an electronic version of the RFI form is available from the architect.

B. Response to an RFI is not authorization for a change in Contract Sum or a change in Contract Time. If either are affected, indicate on the RFI or attached documentation, and proceed in accordance with provisions of Section 1200 for Modification Procedures.
   1. The Architect and the architect's consultants will not accept RFI directly from subcontractors and suppliers.

2.05 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Samples will be reviewed only for aesthetic, color, or finish selection.

2.06 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   4. Bonds.

SECTION 01 4000 – QUALITY REQUIREMENTS

1.01 REFERENCES AND STANDARDS

A. For products and workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Should specified reference standards conflict with Contract Documents, request clarification from Architect before proceeding.

1.02 TESTING AND INSPECTION AGENCIES

A. Owner will employ services of an independent testing agency to perform certain code required special testing and inspection.

B. Contractor shall employ and pay for services of an independent testing agency to perform other specified testing and inspection.

3.01 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Have Work performed by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances except where industry standard tolerances are more restrictive. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.

3.03 TESTING AND INSPECTION

A. See individual specification sections for testing and inspection required.

B. Testing Agency Duties:
   1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
   2. Perform specified sampling and testing of products in accordance with specified standards.
   3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
   4. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
   5. Perform additional tests and inspections required by Architect.
   6. Submit reports of all tests/inspections specified.

C. Limits on Testing/Inspection Agency Authority:
   1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
   2. Agency may not approve or accept any portion of the Work.
   3. Agency has no authority to stop the Work.

D. Contractor Responsibilities:
   1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
   2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
   3. Provide testing and inspection agency sufficient notice prior to expected time for operations requiring testing/inspection services.

E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency.

F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

3.05 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.

3.06 CORRECTION

A. Replace Work or portions of the Work not conforming to specified requirements.

SECTION 01 5000 – TEMPORARY FACILITIES, CONTROLS & SIGNS

1.01 TEMPORARY UTILITIES

A. Provide and pay for electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.

B. Provide, maintain, and pay for telecommunications services including internet connection to field office, through duration of project.

1.02 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

B. Provide barricades and covered walkways for public rights-of-way and to maintain safe public access to and egress from existing building.

C. Provide protection for plants designated to remain. Replace damaged plants.

1.03 FENCING

A. Commercial grade chain link fence. Provide 6 foot high.

1.04 EXTERIOR ENCLOSURES

A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.
   1. When the project site or portions there-of is to be occupied during construction, provide temporary insulated weather tight closure.

1.05 INTERIOR ENCLOSURES

A. Provide temporary partitions and ceilings as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.

B. Construction: Framing and reinforced polyethylene sheet materials with closed joints and sealed edges at intersections with existing surfaces, unless otherwise indicated on the drawings. Maximum flame spread rating of 25 in accordance with ASTM E84.

1.06 SECURITY

A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.07 VEHICULAR ACCESS AND PARKING

A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.

B. Coordinate access and haul routes with governing authorities and Owner.

C. Provide and maintain access to fire hydrants.

D. Provide means of removing mud from vehicle wheels before entering streets.

E. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

1.08 WASTE REMOVAL

A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.

B. Provide containers with lids. Remove trash from site periodically.

C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.

D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.09 FIELD OFFICES

A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table.

B. Provide space for Project meetings, with table and chairs to accommodate 10 persons.

1.10 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

B. Clean and repair damage caused by installation or use of temporary work.

C. Restore existing facilities used during construction to original condition.

D. Restore new permanent facilities used during construction to specified condition.

1.11 PROJECT IDENTIFICATION SIGN

A. One painted sign, 48 sq ft area, bottom 6 feet above ground.

B. Content:
   1. Project title, logo and name of Owner as indicated on Contract Documents.
   2. Names and titles of Architect and Consultants.
   3. Name of Prime Contractor.

SECTION 01 6000 – PRODUCT REQUIREMENTS

2.01 PRODUCTS

A. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

B. Provide new products unless specifically required or permitted by the Contract Documents.

2.02 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

D. Specifications are, in general, written to be non-proprietary, however; where specific products are required, for example a certain size, color, texture, configuration or other characteristic, manufacturer and product information are provided on the drawings in the form of notes or schedules as appropriate.
   1. Substitutions for products so indicated will be considered in accordance with "Substitution Procedures" of this specification Section.

2.03 MAINTENANCE MATERIALS

A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections. Deliver and place in location as directed; obtain receipt prior to final payment.

3.01 SUBSTITUTION PROCEDURES

A. A request for substitution constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
   2. Will provide the same warranty for the substitution as for the specified product.
   3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
   4. Waives claims for additional costs or time extension that may subsequently become apparent.
   5. Will reimburse Owner and Architect for review or redesign services associated with substitution.

B. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without prior written request, or when acceptance will require revision to the Contract Documents.

C. Substitution Submittal Procedure:
   1. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
   2. The Architect will notify Contractor in writing of decision to accept or reject request.

3.02 OWNER-SUPPLIED PRODUCTS

A. Owner's Responsibilities:
   1. Arrange for and deliver Owner reviewed shop drawings, product data, and samples, to Contractor.
   2. Arrange and pay for product delivery to site.
   3. Submit claims for transportation damage and replace damaged, defective, or deficient items.
   4. Arrange for manufacturers' warranties, inspections, and service.

B. Contractor's Responsibilities:
   1. Review Owner reviewed shop drawings, product data, and samples.
   2. Receive and unload products at site; inspect for completeness or damage and report damaged, defective, or deficient items to Owner.
   3. Handle, store, install and finish products.
   4. Repair or replace items damaged after receipt.

3.03 TRANSPORTATION AND HANDLING

A. Transport and handle products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

3.04 STORAGE AND PROTECTION

A. Store and protect products in accordance with manufacturers' instructions.

B. Store with seals and labels intact and legible.

C. Prevent contact with material that may cause corrosion, discoloration, or staining.

SECTION 01 7000 – EXECUTION REQUIREMENTS

1.01 QUALIFICATIONS

A. For demolition work, employ a firm specializing in the type of work required. Minimum of 5 years of experience.

B. For survey work, employ a land surveyor registered in Enter State Name Only Here.

C. For field engineering, employ a professional engineer of the discipline required for specific service on Project, licensed in Enter State Name Only Here.

D. For design of temporary shoring and bracing, employ a Professional Engineer experienced in design of this type of work and licensed in Enter State Name Only Here.

1.02 PROJECT CONDITIONS

A. Comply with Safeguards During Construction requirements as outlined in the International Building Code, Chapter 33, edition as adopted at the project location.

B. For demolition work comply with ANSI A10.6.

C. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.

D. Protect site from puddling or running water.

E. Protect areas not undergoing alteration as specified for protection of installed work.

F. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

G. Dust Control: Execute work by methods to minimize raising dust from demolition or construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere. Provide dust-proof barriers between construction areas and areas continuing to be occupied by Owner.

H. Erosion and Sediment Control: Plan and execute work by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
   1. Minimize amount of bare soil exposed at one time.
   2. Provide temporary measures such as berms, dikes, and drains, to manage water flow.
   3. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
   4. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

I. Noise Control: Provide methods, means, and facilities to minimize noise produced by demolition or construction operations. Comply with local requirements for noise control.

J. Pest and Insect Control: Provide methods, means, and facilities to prevent pests and insects from damaging the work.

K. Rodent Control: Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

L. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by demolition or construction operations.

1.03 COORDINATION

A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

B. Notify affected utility companies and comply with their requirements.

C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

F. Coordinate completion and clean-up of work of separate sections.

G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.

B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Take field measurements before confirming product orders or beginning fabrication

E. Verify that utility services are available, of the correct characteristics, and in the correct locations.

F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Clean substrate surfaces prior to applying next material or substance.

B. Seal cracks or openings of substrate prior to applying next material or substance.

C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 PREINSTALLATION MEETINGS

A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.

B. Require attendance of parties directly affecting, or affected by, work of the specific section.

3.04 LAYING OUT THE WORK

A. Verify locations of survey control points prior to starting work.

B. Do not scale drawings. Request clarifications from the Architect.

C. Promptly notify Architect of any discrepancies discovered.

D. Contractor shall locate and protect survey control and reference points.

E. Protect survey control points prior to starting site work; preserve permanent reference points during construction.

F. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Architect.

G. Utilize recognized engineering survey practices.

H. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:
   1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
   2. Grid or axis for structures.
   3. Building foundation, column locations, ground floor elevations.

3.05 GENERAL INSTALLATION REQUIREMENTS

A. In addition to compliance with regulatory requirements, conduct construction operations in compliance with NFPA 241, including applicable recommendations in Appendix A.

B. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

C. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

D. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

E. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

F. Make neat transitions between different surfaces, maintaining texture and appearance.

G. Do not install products that are defective, including warped, bowed, dented, chipped, cracked or broken members, and members with damaged finishes.

3.06 ALTERATIONS AND SELECTIVE DEMOLITION

A. Perform an engineering survey of building to determine whether demolition operations might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures.

B. Drawings showing existing construction and utilities are based on existing record documents only.
   1. Verify that construction and utility arrangements are as shown.
   2. Report discrepancies to Architect before disturbing existing installation.
   3. Beginning of alterations work constitutes acceptance of existing conditions.

C. Keep areas in which alterations are being conducted separated from other areas that are still occupied. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000.

D. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
   1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
   2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.

E. Remove existing work as indicated and as required to accomplish new work.
   1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
   2. Remove items indicated on drawings.
   3. Relocate items indicated on drawings.
   4. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces to receive new finish; remove existing finish if necessary for successful application of new finish.
   5. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces.

F. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, Telecommunications, and Alarm systems): Remove, relocate, and extend existing systems to accommodate new construction.
   1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components; if necessary, modify installation to allow access or provide access panel.
   2. Where existing systems or equipment are not active and Contract Documents require reactivation, put back into operational condition; repair supply, distribution, and equipment as required.
   3. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
      a. Disable existing systems only to make switchovers and connections; minimize duration of outages.
      b. Coordinate timing of service interruptions and shut-downs with the owner and affected occupants.
      c. Provide temporary connections to maintain existing systems in service.
   4. Verify that abandoned services serve only abandoned facilities.
   5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification; patch holes left by removal using materials specified for new construction.

G. Protect existing work to remain.
   1. Prevent movement of structure; provide shoring and bracing if necessary.
   2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
   3. Repair adjacent construction and finishes damaged during removal work.

H. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
   1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
   2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
   3. Where a change of plane of 1/4 inch or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.

I. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.

J. Refinish existing surfaces as indicated:
   1. Where rooms or spaces are indicated to be refinished, refinish all visible existing surfaces to remain to the specified condition for each material, with a neat transition to adjacent finishes.
   2. If mechanical or electrical work is exposed accidentally during the work, re-cover and refinish to match.

K. Clean existing systems and equipment.

L. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.

M. Comply with all other applicable requirements of this section.

3.07 CUTTING AND PATCHING

A. Perform whatever cutting and patching is necessary to:
   1. Complete the work.
   2. Fit products together to integrate with other work.
   3. Provide openings for penetration of mechanical, electrical, and other services.
   4. Match work that has been cut to adjacent work.
   5. Repair areas adjacent to cuts to required condition.
   6. Repair new work damaged by subsequent work.
   7. Remove samples of installed work for testing when requested.
   8. Remove and replace defective and non-conforming work.

B. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

C. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements; employ skilled and experienced installer to perform cutting for other sight exposed surfaces.

D. Examine areas to be cut or core drilled for presence of concealed utilities and structural elements including piping, electrical distribution, reinforcing steel and post-tensionsing cables. Utilize x-ray equipment where necessary.

E. Cut rigid materials using masonry saw or core drill.

F. Restore work with new products in accordance with requirements of Contract Documents.

G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material to maintain fire rating.

I. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.
   4. When finish cannot be matched, refinish entire surface to nearest intersections.

3.08 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.09 PROTECTION OF INSTALLED WORK

A. Protect installed work from damage by construction operations.

B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.

F. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.10 SYSTEM STARTUP

A. Coordinate schedule for start-up of various equipment and systems.

B. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.

C. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

D. Verify that wiring and support components for equipment are complete and tested.

E. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' instructions.

3.11 DEMONSTRATION AND INSTRUCTION

A. Demonstrate operation and maintenance of products to Owner's personnel prior to date of Substantial Completion.

B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.

C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.

E. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.12 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.13 FINAL CLEANING

A. Execute final cleaning prior to Substantial Completion. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.

B. Use cleaning materials that are nonhazardous.

C. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.

D. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

E. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

F. Replace filters of operating equipment.

G. Clean debris from roofs, gutters, downspouts, and drainage systems.

H. Clean site; sweep paved areas, rake clean landscaped surfaces.

I. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.14 CLOSEOUT PROCEDURES

A. In addition to the requirements of AIA A201, General Conditions of the Contract for Construction, comply with the following:
   1. Make submittals that are required by governing or other authorities. Provide copies to Owner.
   2. Comply with requirements of Section 01780, Closeout Submittals.
   3. Notify Architect when work is considered ready for Substantial Completion.
   4. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for review.
   5. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
   6. Complete items of work determined by final inspection.

3.15 MAINTENANCE

A. Provide service and maintenance of components indicated in specification sections.

B. Maintenance Period: As indicated in specification sections or, if not indicated, not less than one year from the Date of Substantial Completion or the length of the specified warranty, whichever is longer.

C. Furnish service and maintenance of components indicated in specification sections.

D. Examine system components at a frequency consistent with reliable operation. Clean, adjust, and lubricate as required.

E. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.

F. Maintenance service shall not be assigned or transferred to any agent or subcontractor without prior written consent of the Owner.

LITTLE RED ROOSTER
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CONSULTANTS

CIVIL ENGINEER:
STRUCTURAL ENGINEER:
MECH / PLUMBING ENGINEER:
ELECTRICAL ENGINEER:

NOT FOR CONSTRUCTION

FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SPECIFICATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
PDB	PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

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SECTION 01 7800 – CLOSEOUT SUBMITTALS

1.01 SUBMITTALS

A. Project Record Documents: Submit documents to Owner when submitting final application for payment.

B. Operation and Maintenance Data: Submit two sets of final documents in final form.

C. Warranties and Bonds: Submit prior to final Application for Payment.

D. Certificate of Occupancy: Submit to owner when requesting Substantial Completion inspection

3.01 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work: including but not limited to, Drawings, Specifications, Addenda, Change Orders, and reviewed submittals.

B. Record information concurrent with construction progress.

C. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction.

3.02 OPERATION AND MAINTENANCE DATA

A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES

A. For Each Product, Applied Material, and Finish:
1. Product data, with catalog number, size, composition, and color and texture designations.
2. Information for re–ordering custom mixed or manufactured products.

B. Manufacturer's instructions for Care and Maintenance.

C. Moisture protection and weather–exposed products; Provide manufacturer recommendations for inspections, maintenance, and repair.

D. Additional information as specified in individual product specification sections.

3.04 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System, provide the manufacturer's installation, operation and maintenance manuals.

B. Include test and balancing reports.

3.05 WARRANTIES AND BONDS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.

SECTION 03 3000 – CAST–IN–PLACE CONCRETE

1.01 SUBMITTALS

A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions. For curing compounds, provide data on method of removal in the event of incompatibility with floor covering adhesives.

B. Mix Design: Submit proposed concrete mix design.

1.02 QUALITY ASSURANCE

A. Perform work of this section in accordance with ACI 301 and ACI 318.

B. Follow recommendations of ACI 305R when concreting during hot weather.

C. Follow recommendations of ACI 306R when concreting during cold weather.

2.01 FORMWORK

A. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain–free final appearance.
2. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.

2.02 REINFORCEMENT

A. Reinforcing Steel: ASTM A615/A615M Grade 60 (420).
1. Type: Deformed billet–steel bars.
2. Finish: Unfinished, unless otherwise indicated.

B. Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain type.
1. Form: Flat Sheets.
2. Mesh Size: 6 x 6.
3. Wire Gage: W 1.4 x W 1.4.

C. Reinforcement Accessories:
1. Tie Wire: Annealed, minimum 16 gage.
2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

2.03 CONCRETE MATERIALS

A. Cement: ASTM C150, Type I – Normal Portland type. Acquire all cement for entire project from same source.

B. Fine and Coarse Aggregates: ASTM C 33. Acquire all aggregates for entire project from same source.

C. Water: Clean and not detrimental to concrete.

D. Fiber Reinforcement: Alkali–resistant polypropylene complying with ASTM C1116/C1116M. Fiber Length: 1.5 inch, nominal.

2.04 ADMIXTURES

A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.

B. Air Entrainment Admixture: ASTM C260.

C. High Range Water Reducing Admixture: ASTM C494/C494M Type F.

D. Accelerating Admixture: ASTM C494/C494M Type C.

E. Retarding Admixture: ASTM C494/C494M Type B.

2.05 ACCESSORY MATERIALS

A. Underslab Vapor Retarder: Multi–layer, fabric–, cord–, grid–, or aluminum–reinforced polyethylene or equivalent, complying with ASTM E1745, Class C; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. The use of single ply polyethylene is prohibited.
1. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations in vapor retarder.

B. Non–Shrink Cementitious Grout: Premixed compound consisting of non–metallic aggregate, cement, water reducing and plasticizing agents.
1. Minimum Compressive Strength at 48 Hours: 2,400 psi.
2. Minimum Compressive Strength at 28 Days: 7,000 psi.

2.06 BONDING AND JOINTING PRODUCTS

A. Latex Bonding Agent: Non–redispersable acrylic latex, complying with ASTM C1059 Type II.

B. Slab Isolation Joint Filler: 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.

2.07 CURING MATERIALS

A. Curing Compound, Naturally Dissipating: Clear, water–based, liquid membrane–forming compound, that dissipates within 3 to 5 weeks; complying with ASTM C309.

2.08 CONCRETE MIX DESIGN

A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.

B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.

C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended or required by manufacturer.

D. Fiber Reinforcement: Add to mix at rate of 1.5 pounds per cubic yard, or as recommended by manufacturer for specific project conditions.

E. Normal Weight Concrete:
1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: As scheduled.
2. Cement Content: Minimum 540 lbs/cubic yd.
3. Total Air Content: 4 percent, determined in accordance with ASTM C173/C173M.
   a. 5% minimum to 7% maximum for exterior concrete.
4. Maximum Slump: 3 inches before water reducing admixture.

2.09 MIXING

A. On Project Site: Mix in drum type batch mixer, complying with ASTM C685. Mix each batch not less than 1–1/2 minutes and not more than 5 minutes.

B. Transit Mixers: Comply with ASTM C94/C94M.

3.01 EXAMINATION

A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION

A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.

B. Verify that forms are clean before applying release agent.

C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.

D. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
1. Use latex bonding agent only for non–load–bearing applications.

E. Dowel new concrete to existing concrete. Drill 6 inch deep holes into existing concrete, insert 12 inch long #4 steel dowels, and install with adhesive anchor system per manufacturers recommendations. Space dowels 24" o.c., 12" o.c. for slabs greater than 4 inches thick.

F. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.

3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.
1. Locate reinforcement in top third of slab with 3/4 inch minimum cover.
2. Lap reinforcement one wire space plus 2 inches minimum.

C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

3.04 PLACING CONCRETE

A. Place concrete in accordance with ACI 304R.

B. Place concrete for floor slabs in accordance with ACI 302.1R.

C. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.

D. Ensure reinforcement, inserts, waterstops, and embedded parts will not be disturbed during concrete placement.

E. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high–pressure water jetting.

F. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.05 SLAB JOINTING

A. Locate joints as indicated on the drawings.

B. Anchor joint fillers and devices to prevent movement during concrete placement.

C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.

D. Saw Cut Contraction Joints: Saw cut joints before concrete begins to cool, within 1 to 4 hours after placing with an early–enty dry–cut saw; use 3/16 inch thick blade and cut 1 inch deep but not less than one quarter (1/4) the depth of the slab.

3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES

A. Maximum Variation of Surface Flatness for interior floor slabs: 1/8 inch in 10 ft., unless indicated otherwise on drawings.

B. Correct the slab surface if tolerances are less than specified.

C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re–measure corrected areas by the same process.

3.07 CONCRETE FINISHING

A. Repair surface defects, including tie holes, immediately after removing formwork.

B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.

C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
1. Grout Cleaned Finish: Wet areas to be cleaned and apply grout mixture by brush or spray; scrub immediately to remove excess grout. After drying, rub vigorously with clean burlap, and keep moist for 36 hours.

D. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 301.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, thin set quarry tile, and thin set ceramic tile.
2. Other Surfaces to Be Left Exposed: "Steel trowel" as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

E. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1:100 nominal.

3.08 CURING AND PROTECTION

A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

C. Surfaces Not in Contact with Forms, use one or a combination of the following methods:
1. Slabs and Floors To Receive Adhesive–Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable by flooring and adhesive manufacturers. If such materials must be used, either obtain the approval of the flooring and adhesive manufacturers prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction.
2. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

3.09 FIELD QUALITY CONTROL

A. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.

B. Tests of concrete and concrete materials may be performed at any time to ensure conformance with specified requirements.

C. Compressive Strength Tests: ASTM C39/C39M. For each test, mold and cure three concrete test cylinders. Obtain test samples for every 100 cu yd or less of each class of concrete placed.

D. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.

E. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.

3.10 DEFECTIVE CONCRETE

A. Defective Concrete: Repair or replace concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.

3.11 SCHEDULE – CONCRETE TYPES AND FINISHES

A. Foundations: 3,000 pounds per square inch 28 day concrete.

B. Slab on Grade: 4,000 psi 28 day concrete, fiber reinforced, steel trowel finish.

C. Light Pole Supports: 4,000 psi 28 day concrete, grout cleaned finish.

SECTION 03 5416 – SELF–LEVELING UNDERLAYMENT

1.01 SUBMITTALS

A. Product Data: Provide manufacturer's data sheets documenting physical characteristics and product limitations of underlayment materials. Include information on surface preparation and environmental limitations.

1.02 QUALITY ASSURANCE

A. Applicator Qualifications: Company specializing in performing the work of this section and approved by manufacturer.

1.03 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Keep dry and protect from direct sun exposure, freezing, and ambient temperature greater than 105 degrees F.

1.04 FIELD CONDITIONS

A. Do not install underlayment until floor penetrations and peripheral work are complete.

B. During the curing process, ventilate spaces to remove excess moisture.

2.01 MATERIALS

A. Cementitious Underlayment: Blended cement mix, that when mixed with water in accordance with manufacturer's directions will produce self–leveling underlayment with the following properties:
1. Compressive Strength: Minimum 4000 psi after 28 days, tested per ASTM C109/C109M.
2. Flexural Strength: Minimum 1000 psi after 28 days, tested per ASTM C348.
3. Density: Maximum 125 lb/cu ft.
4. Final Set Time: 1–1/2 to 2 hours, maximum.
5. Thickness: Feather edge to maximum 1–1/2 inch.
6. Surface Burning Characteristics: Flame spread/Smoke developed index of 0/0 in accordance with ASTM E84.

B. Water: Potable and not detrimental to underlayment mix materials.

C. Primer: Manufacturer's recommended type.

D. Joint and Crack Filler: Latex based filler, as recommended by manufacturer.

2.02 MIXING

A. Site mix materials in accordance with manufacturer's instructions.

B. Mix to self–leveling consistency without over–watering.

3.01 EXAMINATION

A. Verify that substrate surfaces are clean, dry, unfrozen, do not contain petroleum bi–products, or other compounds detrimental to underlayment material bond to substrate.

3.02 PREPARATION

A. Concrete: Mechanically prepare steel troweled concrete to create a textured surface necessary to achieve the best bond; acceptable methods include bead blasting and scarifying. Do not use acid etching.

B. Remove substrate surface irregularities. Fill voids and deck joints with filler. Finish smooth.

C. Vacuum clean surfaces.

D. Prime substrate in accordance with manufacturer's instructions. Allow to dry.

E. Close floor openings.

3.03 APPLICATION

A. Install underlayment in accordance with manufacturer's instructions.

B. Place to indicated thickness, with top surface level to 1/8 inch in 10 ft.

C. Place before partition installation.

3.04 CURING

A. Once underlayment starts to set, prohibit foot traffic until final set has been reached.

B. Air cure in accordance with manufacturer's instructions.

3.05 PROTECTION

A. Protect against direct sunlight, heat, and wind; prevent rapid drying to avoid shrinkage and cracking.

B. Do not permit traffic over unprotected floor underlayment surfaces.

C. and a fall shutdown by installer, at no extra cost to Owner.

SECTION 04 2000 – UNIT MASONRY ASSEMBLIES

1.01 SUBMITTALS

A. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.

B. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

C. Manufacturer's Certificate: Certify that water repellent admixture manufacturer has certified masonry unit manufacturer as an approved user of water repellent admixture in the manufacture of concrete block.

1.02 QUALITY ASSURANCE

A. Comply with provisions of ACI 530/530.1/ERTA, except where exceeded by requirements of the contract documents.

1.03 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

2.01 CONCRETE MASONRY UNITS

A. Concrete Block: Comply with referenced standards and as follows:
1. Size: Standard units with nominal face dimensions of 16 x 8 inches and nominal depths as indicated on the drawings for specific locations.
2. Special Shapes: Provide non–standard blocks configured for corners, control joint edges, and other detailed conditions.
3. Load–Bearing Units: ASTM C90, normal weight.
4. Units with Integral Water Repellent: Concrete block units as specified in this section with polymeric liquid or powder admixture added to concrete masonry units at the time of manufacture.
   a. Performance of Units with Integral Water Repellent:
      1) Water Permeance: When tested per ASTM E514 and for a minimum of 72 hours.
         (a) No water visible on back of wall above flashing at the end of 24 hours.
         (b) No flow of water from flashing equal to or greater than 0.032 gallons per hour at the end of 24 hours.
         (c) No more than 25% of wall area above flashing visibly damp at end of test.
      2) Flexural Bond Strength: ASTM C1357; minimum 10% increase.
      3) Compressive Strength: ASTM C1314; maximum 5% decrease.
      4) Drying Shrinkage: ASTM C1148; maximum 5% increase in shrinkage.
   b. Use only in combination with mortar and grout that also has integral water repellent admixture.
   c. Use water repellent admixtures for masonry units, mortar and grout by a single manufacturer.

2.02 MORTAR AND GROUT MATERIALS

A. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979.
1. Color(s): As indicated on drawings.

B. Water: Clean and potable.

C. Integral Water Repellent Admixture for Mortar and Grout: Polymeric liquid admixture added to mortar and grout at the time of manufacture.
1. Use only in combination with masonry units manufactured with integral water repellent admixture.
2. Use only water repellent admixture for mortar and grout from the same manufacturer as water repellent admixture in masonry units.
3. Meet or exceed performance specified for water repellent admixture used in masonry units.

2.03 REINFORCEMENT AND ANCHORAGE

A. Single Wythe Joint Reinforcement: Ladder type; ASTM A 82/A 82M steel wire, mill galvanized to ASTM A 641/A 641M, Class 3; 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not more than 1 inch and not less than 1/2 inch of mortar coverage on each exposure.

B. Adjustable Multiple Wythe Joint Reinforcement: Ladder type with adjustable ties or tabs spaced at 16 in on center and fabricated with moisture drip; ASTM A 82/A 82M steel wire, hot dip galvanized after fabrication to ASTM A 153/153M, Class B; 0.1875 inch side rods with 0.1483 inch cross rods and adjustable components of 0.1875 inch wire; width of components as required to provide not more than 1 inch and not less than 1/2 inch of mortar coverage from each masonry face.
1. Vertical adjustment: Not less than 2 inches.

C. Flexible Anchors: 2–piece anchors that permit differential movement between masonry and building frame, sized to provide not more than 1 inch and not less than 1/2 inch of mortar coverage from masonry face.

2.04 FLASHINGS

A. Rubberized Asphalt Flashing: Self–adhering polymer–modified asphalt sheet; 0.030 inch total thickness; with cross–linked polyethylene top and bottom surfaces used in combination with stainless steel drip–edge.
1. Prefabricated Stainless Steel drip–edge: ASTM A 666, Type 304, soft temper; 26 gage (0.45 mm) thick; finish 2B to 2D, adhered to rubberized asphalt flashing.

B. Through–wall pan flashing: One piece molded polypropylene with integral weep and integral or separate bridge units to connect the individual units and divert moisture to the flashing pan.
1. Drainage matte or 2" to 3" of washed pea gravel fill to prevent mortar clogging the weep tubes.

C. Lap Sealant: Butyl type as specified in Section 07 9005.

2.05 ACCESSORIES

A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.

B. Joint Filler: Closed cell polyethylene; oversized 50 percent to joint width; self expanding; in maximum lengths available.

C. Weeps: Molded PVC grilles, insect resistant.

D. Cleaning Solution: Non–acidic, not harmful to masonry work or adjacent materials.

2.06 MORTAR AND GROUT MIXES

A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification: Type S

B. Colored Mortar: Proportion selected pigments and other ingredients without exceeding manufacturer's recommended pigment–to–cement ratio.

C. Grout: ASTM C476. Consistency required to fill completely volumes indicated for grouting; fine grout for spaces with smallest horizontal dimension of 2 inches or less; coarse grout for spaces with smallest horizontal dimension greater than 2 inches.

D. Admixtures: Add to mixture at manufacturer's recommended rate and in accordance with manufacturer's instructions; mix uniformly.

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive masonry.

B. Verify that related items provided under other sections are properly sized and located.

C. Verify that built–in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

A. Direct and coordinate placement of metal anchors supplied for installation under other sections.

B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 COLD AND HOT WEATHER REQUIREMENTS

A. Comply with requirements of ACI 530/530.1/ERTA or applicable building code, whichever is more stringent.

3.04 COURSING

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.

C. Concrete Masonry Units:
1. Bond: Running, unless noted otherwise in the drawings.
2. Mortar Joints: Concave, unless noted otherwise in the drawings.

3.05 PLACING AND BONDING

A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.

B. Lay hollow masonry units with face shell bedding on head and bed joints.

C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.

D. Remove excess mortar and mortar smears as work progresses.

E. Remove excess mortar with water repellent admixture promptly. Do not use acids, sandblasting or high pressure cleaning methods.

F. Interlock intersections and external corners, except for units laid in stack bond.

G. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.

H. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.

I. Cut mortar joints flush where wall tile is scheduled, cement parging is required, resilient base is scheduled, cavity insulation vapor barrier adhesive is applied, or bitumen dampproofing is applied.

J. Isolate masonry partitions from vertical structural framing members with a control joint.

K. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with compressible joint filler.

L. Support flashings with solid grouted core.

3.06 WEEPS

A. Install weeps in masonry walls at 32 inches on center horizontally above through–wall flashing, above shelf angles and lintels, and at bottom of walls.

3.07 REINFORCEMENT AND ANCHORAGE – GENERAL

A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.

B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.

C. Place continuous joint reinforcement in first and second joint below top of walls.

D. Lap joint reinforcement ends minimum 6 inches.

E. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on drawings or closer spacing is indicated under specific wall type, space anchors at maximum of 24 inches horizontally and 16 inches vertically.

3.08 MASONRY FLASHINGS

A. Install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
1. Extend flashings full width at such interruptions and at least 4 inches into adjacent masonry or turn up at least 4 inches to form watertight pan at non–masonry construction.
2. Remove or cover protrusions or sharp edges that could puncture flashings.
3. Seal lapped ends and penetrations of flashing before covering with mortar.

B. Extend metal drip edge through exterior face of masonry and turn down to form drip. Set in bed of mastic or elastic sealant to prevent moisture migration under flashing.

C. Extend specified flexible flashings to within 1/4 inch of exterior face of masonry, and bond to top of metal drip edge with minimum 2 inch overlap.

D. Lap end joints of flexible flashings at least 4 inches and seal watertight with mastic or elastic sealant.

E. Butt, do not lap, end joints of metal drip edges with minimal gaps between adjacent pieces.

F. Install through–wall pan flashing in accordance with manufacturer's instructions.

3.09 CONTROL AND EXPANSION JOINTS

A. Do not continue horizontal joint reinforcement through control and expansion joints.

B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.

C. Locate and form expansion joint as detailed.

3.10 BUILT–IN WORK

A. As work progresses, install built–in metal door frames, glazed frames, fabricated metal frames, wood nailing strips, anchor bolts, and plates and other items to be built into the work and furnished under other sections.

B. Install built–in items plumb, level, and true to line.

C. Bed anchors of metal door and glazed frames in adjacent mortar joints. Fill frame voids solid with grout.
1. Fill adjacent masonry cores with grout minimum 12 inches from framed openings.

D. Do not build into masonry construction organic materials that are subject to deterioration.

3.11 TOLERANCES

A. Maximum Variation from Alignment of Columns and Pilasters: 1/4 inch.

B. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.

C. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.

D. Maximum Variation from Plumb: 1/4 inch per story non–cumulative; 1/2 inch in two stories or more.

E. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.

F. Maximum Variation of Joint Thickness: 1/8 inch in 3 ft.

G. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

3.12 CUTTING AND FITTING

A. Cut and fit for pipes, conduit, and sleeves. Coordinate with other sections of work to provide correct size, shape, and location.

B. Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.13 PARGING

A. Dampen masonry walls prior to parging.

B. Scarify each parging coat to ensure full bond to subsequent coat.

C. Parge masonry walls in two uniform coats of mortar to a total thickness of 3/4 inch.

D. Steel trowel surface smooth and flat with a maximum surface variation of 1/8 inch per foot.

E. Strike top edge of parging at 45 degrees.

3.14 CLEANING

A. Remove excess mortar and mortar droppings.

B. Replace defective mortar. Match adjacent work.

C. Clean soiled surfaces with cleaning solution.

D. Use non–metallic tools in cleaning operations.

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FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SPECIFICATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
Designer	Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

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SECTION 06 1000 – ROUGH CARPENTRY

1.01 SUBMITTALS
A. See Section 01300 – Administrative Requirements, for submittal procedures.
B. Product Data: Provide technical data on insulated sheathing and wood preservative materials.

1.02 DELIVERY, STORAGE, AND HANDLING
A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, or installation.

2.01 GENERAL REQUIREMENTS
A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
1. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER
A. Moisture Content: S–dry or MC19.
B. Miscellaneous Blocking, Nailers, and Furring:
1. Lumber: S4S, No. 2 or Standard Grade.
2. Boards: Standard or No. 3.

2.03 CONSTRUCTION PANELS
A. Roof Sheathing: 1/2 inch, nominal, unless noted otherwise, APA PRP–108, Structural I Rated Sheathing, Exterior Exposure Class. Span Rating: 32/16.
B. Plywood Wall Sheathing: 1/2 inch, nominal, unless noted otherwise, APA Structural I Rated Sheathing, Exterior Exposure Class. Span Rating: 32/16.
C. Insulated Wall Sheathing: Extruded polystyrene foam plastic, ASTM C 578, Type IV; tongue and groove long edges; 3/4 inch thick, unless noted otherwise.
D. Communications and Electrical Room Mounting Boards: PS 1 A–D plywood, or medium density fiberboard; 3/4 inch thick; flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM E84.

2.04 ACCESSORIES
A. Fasteners and Anchors: Hot–dipped galvanized steel per ASTM A 153/A 153M for exterior applications and preservative–treated wood locations, unfinished steel elsewhere.

2.05 FACTORY WOOD TREATMENT
A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 – Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
B. Fire Retardant Treatment:
1. Exterior Type: AWPA U1, Category UCFB, Commodity Specification H, chemically treated and pressure impregnated; capable of providing a maximum flame spread rating of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes both before and after accelerated weathering test performed in accordance with ASTM D2898.
2. Interior Type A: AWPA U1, Use Category UCFA, Commodity Specification H, low temperature (low hygroscopic) type, chemically treated and pressure impregnated; capable of providing a maximum flame spread rating of 25 when tested in accordance with ASTM E84, with no evidence of significant combustion when test is extended for an additional 20 minutes.
C. Preservative Treatment:
1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative to 0.25 lb/cu ft retention.
a. Treat lumber in contact with roofing, flashing, or waterproofing.
b. Treat lumber in contact with masonry or concrete.
c. Treat lumber less than 18 inches above grade.
2. Preservative Pressure Treatment of Plywood Above Grade: AWPA U1, Use Category UC2 and UC3B, Commodity Specification F using waterborne preservative to 0.25 lb/cu ft retention.
a. Treat plywood in contact with roofing, flashing, or waterproofing.
b. Treat plywood in contact with masonry or concrete.
c. Treat plywood less than 18 inches above grade.

3.01 BLOCKING, NAILERS, AND SUPPORTS
A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.
C. In walls, provide blocking attached to studs as backing and support for wall–mounted items, unless item can be securely fastened to two or more studs or other method of support is indicated.
D. Where ceiling–mounting is indicated, provide blocking and supplementary supports above ceiling, unless other method of support is indicated.
E. Specifically, provide the following non–structural framing and blocking:
1. Handrails.
2. Grab bars.
3. Toilet room accessories.

3.02 ROOF–RELATED CARPENTRY
A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.

3.03 INSTALLATION OF CONSTRUCTION PANELS
A. Roof Sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing.
1. At long edges use sheathing clips where joints occur between roof framing members.
2. Screw panels to framing.
B. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using screws.
C. Communications and Electrical Room Mounting Boards: Secure with screws to studs with edges over firm bearing; space fasteners at maximum 24 inches on center on all edges and into studs in field of board.

SECTION 06 4000 – ARCHITECTURAL WOODWORK

1.01 SECTION INCLUDES
A. Finish carpentry items.
B. Wood standing and running trim.
C. Wood & Plastic laminate panels.
D. Cabinetry
E. Countertops.
F. Cabinet hardware.

1.02 SUBMITTALS
A. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories. Provide the information required by AWI/AWMAC/WI Architectural Woodwork Standards.
B. Samples: Submit two samples of wood trim 6 inch long.

1.03 QUALITY ASSURANCE
A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of experience.

1.04 FIELD CONDITIONS
A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

2.01 FINISH CARPENTRY ITEMS
A. Quality Grade: Unless otherwise indicated provide products of quality specified by AWI/AWMAC/WI Architectural Woodwork Standards for Custom Grade.
B. Surface Burning Characteristics: Provide materials having fire and smoke properties as required by applicable code.

2.02 SHEET MATERIALS
A. Particleboard: ANSI A208.1; composed of wood chips, sawdust, or flakes of medium density, made with waterproof resin binders; of grade to suit application; sanded faces.
B. Medium–Density Fiberboard (MDF): ANSI A208.2, Grade 130.

2.03 LAMINATE MATERIALS
A. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications. Product as indicated on drawings.

2.04CABINETS
A. Finish – Exposed Exterior Surfaces: Decorative laminate.
B. Door and Drawer Front Edge Profiles: 3 mm PVC edgebanding.
C. Casework Construction Type: Type A – Frameless.
D. Interface Style for Cabinet and Door: Style 1 – Overlay; flush overlay.
E. Adjustable Shelf Loading: 50 lbs. per sq. ft..

2.05 CABINET HARDWARE
A. Hardware: BHMA A156.9, types as recommended by fabricator for quality grade specified.
B. Drawer and Door Pulls: If not specified in drawings then provide "U" shaped wire pull, aluminum with satin finish, 4 inch centers.
C. Drawer Slides: Full extension.
D. Hinges: European style concealed self–closing type, steel with satin finish.

2.06 COUNTERTOPS
A. Plastic Laminate Countertops: High pressure decorative laminate sheet bonded to substrate.
1. Laminate Sheet, Unless Otherwise Indicated: NEMA LD 3 Grade HGS, 0.048 inch nominal thickness.
a. Surface Color, Finish and Pattern: As indicated on drawings.
2. Exposed Edge Treatment: Square, substrate built up to minimum 1–1/4 inch thick; covered with matching laminate.
B. Solid Surfacing Countertops: Solid surfacing sheet or plastic resin casting over continuous substrate.
1. Flat Sheet Thickness: 1/2 inch, minimum.
2. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISSFA–2 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non–porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
a. Color, Finish and Pattern: As indicated on drawings.
3. Other Components Thickness: 1/2 inch, minimum.
C. Natural Stone Countertops: Stone slabs bonded to substrate; use as large pieces as possible with inconspicuous adhesive joints.
1. Stone: As indicated on drawings. without cracks, voids, or pin holes.
2. Color: As indicated on drawings.
3. Stone Thickness: 3/4 inch.
4. Surface Finish: As indicated on drawings.
5. Exposed Edge Treatment: Stone bullnose, 1/2 inch radius.
D. Natural Quartz and Resin Composite Countertops: Sheet or slab of natural quartz and plastic resin over continuous substrate.
1. Flat Sheet Thickness: 1/2 inch, minimum.
2. Natural Quartz and Resin Composite Sheets, Slabs and Castings: Complying with ISSFA–2 and NEMA LD 3; orthophtalic polyester resin, mineral filler, and pigments; homogenous, non–porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
a. Factory fabricate components to the greatest extent practical in sizes and shapes indicated; comply the MIA Dimension Stone Design Manual.
b. Color, Finish and Pattern: As indicated on drawings.
3. Other Components Thickness: 1/2 inch, minimum.
4. Exposed Edge Treatment: Built up to minimum 1–1/4 inch thick; bullnosed edge.
B. Back and End Splashes: Same sheet material, square top; minimum 4 inches high or as indicated on drawings.
F. Wall–Mounted Counters: Provide skirts, aprons, brackets, and braces as indicated on drawings, finished to match.
G. Flat Paneling:
1. Species: As indicated on drawings.
2. Cut: As indicated on drawings.
3. Panels: Veneer of full width and balanced sequence matched.
4. Panels more than one leaf high: Architectural end matching.
5. Visible Edges and Reveals: Match faces, unless noted otherwise on drawings.
6. Outside Corners: Mitered and splined.
7. Lumber: Maximum moisture content of 6 percent; with vertical grain, of quality suitable for transparent finish.

2.07 ACCESSORIES
B. Adhesive: Type recommended by AWI/AWMAC to suit application.
C. Plastic Edge Banding: Extruded PVC, flat shaped; smooth finish; self locking serrated tongue; of width to match component thickness.
1. Color: As selected by Architect from manufacturer's standard range.
C. Fasteners: Size and type to suit application.
D. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome–plated finish in concealed locations and stainless steel, or chrome–plated finish in exposed locations.
E. Concealed Joint Fasteners: Threaded steel.
F. Grommets: Standard plastic, painted metal, or rubber grommets for cut–outs, in color to match adjacent surface.
G. Lumber for Shimming and Blocking: Softwood lumber of any appropriate species.
H. Primer: Alkyd primer sealer.
I. Wood Filler: Solvent base, tinted to match surface finish color.

2.08 FABRICATION
A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.
B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.
C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.
D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut–outs.
1. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
E. Provide cutouts for plumbing fixtures. Verify locations of cutouts from on–site dimensions. Seal cut edges.
F. Counter Tops
1. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
a. Join lengths of tops using best method recommended by manufacturer.
b. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
c. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.
2. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.
3. Solid Surfacing: Fabricate tops up to 144 inches long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions.
G. Wood Panel
1. Shop prepare and identify panels for grain matching during site erection.
2. Prepare panels for delivery to site, permitting passage through building openings.
3. Finish exposed edges of panels as specified by grade requirements.
4. When necessary to cut and fit on site, provide materials with ample allowance for cutting and scribing.

2.09 WOOD TREATMENT
A. Fire Retardant Treatment (FR–S Type): Chemically treated and pressure impregnated; capable of providing flame spread index of 25, maximum, and smoke developed index of 450, maximum, when tested in accordance with ASTM E84.
B. Provide identification on fire retardant treated material.
C. Redry wood after pressure treatment to maximum 15 percent moisture content.

2.10 SHOP FINISHING
A. Sand work smooth and set exposed nails and screws.
B. Apply wood filler in exposed nail and screw indentations.
C. On items to receive transparent finishes, use wood filler that matches surrounding surfaces and is of type recommended for the applicable finish.
D. Finish work in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 5 – Finishing for Grade specified and as follows:
1. Transparent:
a. System – 12, Polyurethane, Water–based.
b. Stain & Sheen: As indicated on drawings.
2. Opaque:
a. System – 4, Latex Acrylic, Water–based.
b. Color & Sheen: As indicated on drawings.
E. Back prime woodwork items to be field finished, prior to installation.

3.01 EXAMINATION
A. Verify that field measurements are as indicated on shop drawings.
B. Verify adequacy of backing and support framing.
C. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

3.02 INSTALLATION
A. Install work in accordance with AWI/AWMAC/WI Architectural Woodwork Standards requirements for grade indicated.
B. Set and secure materials and components in place, plumb and level.
C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.
D. Install trim with appropriate mechanical fasteners.
E. Install panels with concealed fasteners.
F. Install and connect cabinets with concealed fasteners.
G. Secure cabinets to floor using appropriate angles and anchorages.
H. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.
I. Seal joint between back/end splashes and vertical surfaces.

3.03 ADJUSTING
A. Adjust installed work.
B. Adjust moving or operating parts to function smoothly and correctly.

3.03 PREPARATION FOR SITE FINISHING
A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
B. Site Finishing: See Section 09900.
C. Before installation, prime paint surfaces of items or assemblies to be in contact with cementitious materials.

SECTION 07 1113 – BITUMINOUS DAMPPROOFING

1.01 QUALITY ASSURANCE
A. Perform work in accordance with NRCA Roofing and Waterproofing Manual.

1.02 FIELD CONDITIONS
A. Maintain ambient temperatures above 40 degrees F for 24 hours before and during application until dampproofing has cured.

2.01 COLD ASPHALTIC MATERIALS
A. Bitumen: Emulsified asphalt, ASTM D1227; with fiber reinforcement other than asbestos (Type II).
B. Asphalt Primer: ASTM D41, compatible with substrate.
C. Sealing Mastic: Asphalt roof cement, ASTM D2822, Type I.

2.02 ACCESSORIES
A. Protection Board: 1 inch thick extruded polystyrene foam sheet.

3.01 EXAMINATION
A. Verify existing conditions before starting work.
B. Verify substrate surfaces are durable, free of matter detrimental to adhesion or application of dampproofing system.
C. Verify that items that penetrate surfaces to receive dampproofing are securely installed.

3.02 PREPARATION
A. Protect adjacent surfaces not designated to receive dampproofing.
B. Clean and prepare surfaces to receive dampproofing in accordance with manufacturer's instructions.

3.03 APPLICATION
A. Prime surfaces in accordance with manufacturer's instructions.
B. Apply bitumen in accordance with manufacturer's recommendations for substrate to be coated. Ensure continuous and uniform coverage at the manufacturer recommended application rate.
C. Seal items projecting through dampproofing surface with mastic. Seal watertight.
D. Place protection board directly over dampproofing, butt joints, and adhere to tacky dampproofing.
E. Scribe and cut boards around projections, penetrations, and interruptions.

SECTION 07 1900 – WATER REPELLENTS

1.01 SUBMITTALS
A. Product Data: Provide product description.

1.02 FIELD CONDITIONS
A. Protect liquid materials from freezing.
B. Do not apply water repellent when ambient temperature is lower than 50 degrees F or higher than 100 degrees F.

2.01 MATERIALS
A. Water Repellent: Non–glossy, colorless, penetrating, water–vapor–permeable, non–yellowing sealer, that dries invisibly leaving appearance of substrate unchanged.
1. Applications: Vertical surfaces and non–traffic horizontal surfaces.
2. Products: Water–based siloxane, silane, or blend that reacts chemically with concrete and masonry; minimum 7 percent nonvolatile content.

3.01 EXAMINATION
A. Verify existing conditions before starting work.
B. Verify joint sealants are installed and cured.
C. Verify surfaces to be coated are dry, clean, and free of efflorescence, oil, or other matter detrimental to application of water repellent.

3.02 PREPARATION
A. Protection of Adjacent Work:
1. Protect adjacent landscaping, property, and vehicles from drips and overspray.
2. Protect adjacent surfaces not intended to receive water repellent.
B. Prepare surfaces to be coated as recommended by water repellent manufacturer for best results.
C. Allow surfaces to dry completely to degree recommended by water repellent manufacturer before starting coating work.

3.03 APPLICATION
A. Apply water repellent in accordance with manufacturer's instructions, using procedures and application methods recommended as producing the best results.
B. Apply at rate recommended by manufacturer, continuously over entire surface.
C. Apply two coats. Apply single coat over masonry containing integral water repellent.
D. Remove water repellent from unintended surfaces immediately by a method instructed by water repellent manufacturer.

SECTION 07 2100 – BOARD AND BATT INSULATION

1.01 SUBMITTALS
A. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

2.01 FOAM BOARD INSULATION MATERIALS
A. Extruded Polystyrene Board Insulation: ASTM C578, Type X; Extruded polystyrene board with either natural skin or cut cell surfaces; with the following characteristics:
1. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.

2.02 BATT INSULATION MATERIALS
A. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
3. Combustibility: Non–combustible, when tested in accordance with ASTM E136.
4. Formaldehyde Content: Zero.
5. Facing: Unfaced.
a. In Climate Zones 4c and above; where a separate vapor retarder is being used.
b. In Climate Zones 1, 2, 3, 4a & 4b; where no vapor retarder is required.
6. Facing: Asphalt treated Kraft paper, one side.
a. In Climate Zones 4c and above; where a vapor retarder is required.
b. Facing can not be exposed.

2.03 ACCESSORIES
A. Sheet Vapor Retarder: Polyamide film with variable vapor permeability based on ambient humidity. Permeance of 1 perm or less by the dry cup method, increasing to 10 perms by the wet cup method. Flame spread rating of 25 or less, when tested in accordance with ASTM E84.
B. Tape: As recommended by manufacturer.
C. Insulation Fasteners: Impaling clip of galvanized steel with washer retainer and clips, to be adhered to surface to receive insulation, length to suit insulation thickness and substrate, capable of securely and rigidly fastening insulation in place.
D. Adhesive: Type recommended by insulation manufacturer for application.

3.01 EXAMINATION
A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION AT FOUNDATION PERIMETER
A. Install boards vertically on foundation perimeter.
B. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

3.03 BOARD INSTALLATION AT EXTERIOR WALLS
A. Install boards vertically on walls between z furring.
1. Butt edges and ends tightly to adjacent boards and to protrusions.
B. Extend boards over expansion joints, unbonded to wall on one side of joint.
C. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

3.04 BATT INSTALLATION
A. Install insulation in accordance with manufacturer's instructions.
B. Install in exterior wall, roof, and ceiling spaces without gaps or voids. Do not compress insulation.
C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
E. Install with factory applied vapor retarder membrane facing warm side of wall assembly. Lap ends and side flanges of membrane over framing members.
F. Place Sheet Vapor Retarder on warm side of insulation; lap and seal sheet retarder joints over member face.
G. Tape seal butt ends, lapped flanges, and tears or cuts in membrane.
H. Extend vapor retarder membrane tightly to full perimeter of adjacent window and door frames and other items interrupting the plane of the membrane. Tape seal in place.

SECTION 07 2400 – EXTERIOR INSULATION AND FINISH SYSTEMS

1.01 SECTION INCLUDES
A. Composite wall and soffit cladding of rigid insulation and reinforced finish coating ("Class PB").
B. Drainage and water–resistive barriers behind insulation board.

1.02 SUBMITTALS
A. See Section 01300 – Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on system materials, product characteristics, performance criteria, and system limitations.
C. Verification Samples: Submit actual samples of selected coating on specified substrate, minimum 12 inches square, illustrating project colors and textures.

1.03 QUALITY ASSURANCE
A. Maintain copy of specified installation standard and manufacturer's installation instructions at project site at all times during installation.
B. EIFS Manufacturer Qualifications: Provide all EIFS products including weather resistive barrier, other than insulation, from the same manufacturer.
1. Member in good standing of EIMA (EIFS Industry Members Association).
2. Manufacturer of EIFS products for not less than 5 years.
C. Insulation Manufacturer Qualifications: Approved by manufacturer of EIFS and approved and labeled under third party quality program as required by applicable building code.
D. Installer Qualifications: Company approved by the EIFS manufacturer.

1.04 DELIVERY, STORAGE, AND HANDLING
A. Delivery: Deliver materials to project site in manufacturer's original, unopened containers with labels intact. Inspect materials and notify manufacturer of any discrepancies.
B. Storage: Protect adhesives and finish materials from freezing and temperatures in excess of 90 degrees F.
1. Protect Portland cement based materials from moisture and humidity. Store under cover off the ground in a dry location.
2. Protect insulation materials from exposure to sunlight.

1.05 FIELD CONDITIONS
A. Do not prepare materials or apply EIFS during inclement weather unless areas of installation are protected. Protect installed EIFS areas from inclement weather until dry.
B. Do not install coatings or sealants when ambient temperature is below 40 degrees F.
C. Do not leave installed insulation board exposed to sunlight for extended periods of time.

1.06 WARRANTY
A. Provide manufacturer's standard warranty, covering a period of not less than 10 years.

2.01 EXTERIOR INSULATION AND FINISH SYSTEM
A. Exterior Insulation and Finish System: DRAINAGE type; reinforced finish coating on flat–backed insulation board adhesive–applied directly to water–resistive coating over substrate; provide a complete system that has been tested to show compliance with the following characteristics; include all components of specified system and substrate(s) in tested samples.
B. Fire Characteristics:
1. Flammability: Pass, when tested in accordance with NFPA 285.
2. Ignitibility: No sustained flaming when tested in accordance with NFPA 268.
3. Potential Heat of Foam Plastic Insulation Tested Independently of Assembly: No portion of the assembly having potential heat that exceeds that of the insulation sample tested for flammability (above), when tested in accordance with NFPA 259 with results expressed in Btu per square foot.
C. Adhesion of Water–Resistive Coating to Substrate: For each combination of coating and substrate, minimum flatwise tensile bond strength of 15 psi, when tested in accordance with ASTM C297/C297M.
D. Adhesion to Water–Resistive Coating: For each combination of insulation board and substrate, when tested in accordance with ASTM C297/C297M, maximum adhesive failure of 25 percent unless flatwise tensile bond strength exceeds 15 psi in all samples.
E. Water Penetration Resistance: No water penetration beyond the plane of the base coat/insulation board interface after 15 minutes, when tested in accordance with ASTM E331 at 2.86 psf differential pressure with tracer dye in the water spray; include in tested sample at least two vertical joints and one horizontal joint of same type to be used in construction; disassemble sample if necessary to determine extent of water penetration.
F. Salt Spray Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating after 300 hours exposure in accordance with ASTM B117, using at least three samples matching intended assembly, at least 4 by 6 inches in size.
G. Freeze–Thaw Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating when viewed under 5x magnification after 10 cycles, when tested in accordance with ASTM E 2485.
H. Weathering Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating when viewed under 5x magnification after 2000 hours of accelerated weathering conducted in accordance with ASTM G153 Cycle 1 or ASTM G155 Cycle 1, 5, or 9.
I. Water Degradation Resistance: No cracking, checking, crazing, erosion, blistering, peeling, delamination, or corrosion of finish coating after 14 days exposure, when tested in accordance with ASTM D2247.
J. Mildew Resistance: No growth supported on finish coating during 28 day exposure period, when tested in accordance with ASTM D3273.
K. Abrasion Resistance Of Finish: No cracking, checking or loss of film integrity when tested in accordance with ASTM D968 with 500 liters of sand.
L. Impact Resistance: Construct system to provide the following impact resistance without exposure of broken reinforcing mesh, when tested in accordance with ASTM E2486:
1. Standard: 25 to 49 in–lb, for areas not indicated as requiring higher impact resistance.
2. High: 90 to 150 in–lb, for any EIFS surfaces within 8'–0" of grade.

2.02 MATERIALS
A. Finish Coating Top Coat: Water–based, air curing, acrylic or polymer–based finish with integral color and texture.
1. Texture: As indicated on drawings.
2. Color: As indicated on drawings.
B. Base Coat: Fiber–reinforced, acrylic or polymer–based product compatible with insulation board and reinforcing mesh.
C. Reinforcing Mesh: Balanced, open weave glass fiber fabric, treated for compatibility and improved bond with coating, weight, strength, and number of layers as required to meet required system impact rating.
D. Insulation Board: Molded, expanded polystyrene board; ASTM C578, Type I; with the following characteristics:
1. Board Size: 24 by 48 inches.
2. Board Size Tolerance: plus/minus 1/16 inch from square and dimension.
3. Board Thickness: As indicated on drawings.
4. Thickness Tolerance: plus/minus 1/16 inch maximum.
5. Board Edges: Square.
6. Thermal Resistance (R factor per 1 in (25.4 mm)) at 75 degrees F: 3.60.
7. Board Density: 0.9 lb/cu ft.
8. Compressive Resistance: 10 psi.
9. Compressive Resistance: 10 psi.
10. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/450, when tested in accordance with ASTM E84.
E. Water–Resistive Barrier: Fluid–applied coating forming air and water barrier membrane; applied to substrate; furnished or approved by EIFS manufacturer.
F. Flashing Tape: Self–adhering rubberized asphalt tape with polyethylene backing or other material furnished or approved by EIFS manufacturer.

2.03 ACCESSORY MATERIALS
A. Insulation Adhesive: Type required by EIFS manufacturer for project substrate.
B. Trim: EIFS manufacturer's standard PVC trim accessories, as required for a complete project and including starter track, and drainage accessories.
C. Sealant Materials: As recommended by EIFS manufacturer.
D. Exterior Soffit Vents: One piece, perforated, ASTM B221 6063 T5 alloy aluminum, with edge suitable for direct application to gypsum board and manufactured especially for soffit application. Provide continuous vent.

3.01 GENERAL
A. Install in accordance with EIFS manufacturer's instructions and ASTM C1397.
B. Where different requirements appear in either document, comply with the most stringent.
C. Neither of these documents supersedes the provisions of the Contract Documents that define the contractual relationships between the parties or the scope of work.

3.02 EXAMINATION
A. Verify that substrate is sound and free of oil, loose materials, or protrusions that could interfere with EIFS installation and is of a type and construction that is acceptable to EIFS manufacturer. Do not begin work until substrate and adjacent materials are complete and thoroughly dry.
B. Verify that substrate surface is flat, with no deviation greater than 1/4 in when tested with a 10 ft straightedge.

3.03 PREPARATION
A. Review areas where parapet wall abuts a vertical surface. This condition requires coordination between trades for the proper installation of a saddle flashing detail. See EIFS manufacturer's literature and details for complete information.
B. Apply primer to substrate as recommended by EIFS manufacturer for project conditions.

3.04 INSTALLATION – WATER–RESISTIVE BARRIER
A. Apply barrier coating as recommended by coating manufacturer; prime substrate as required before application.
B. Seal all substrate transitions and intersections with other materials to form continuous water–resistive barrier on exterior of sheathing, using method recommended by manufacturer.
C. At door and window openings, seal water–resistive barrier to rough opening structure before installation of metal flashings, sills, or frames, using method recommended by manufacturer.
D. Lap flashing tape at least 2 inches on each side of joint or transition.
E. Exterior Soffit Vents: Install according to manufacturer's written instructions and in locations shown on the drawings. Provide vent area specified.

3.05 INSTALLATION – INSULATION
A. Install in accordance with manufacturer's instructions.
B. Prior to installation of boards, install starter track and other trim level and plumb and securely fastened. Install only in full lengths, to minimize moisture intrusion; cut horizontal trim tight to vertical trim.
C. Install back wrap reinforcing mesh at all openings and terminations that are not to be protected with trim.
D. On wall surfaces, install boards horizontally.
E. Place boards in a method to maximize tight joints. Stagger vertical joints and interlock at corners. Butt edges and ends tight to adjacent board and to protrusions. Achieve a continuous flush insulation surface, with no gaps in excess of 1/16 inch.
F. Rasp irregularities off surface of installed insulation board.
G. Adhesive Attachment: Use full bed of adhesive applied to backside of insulation board in a vertical notched trowel configuration that will aid in channeling moisture downward.

3.06 INSTALLATION – FINISH
A. Base Coat: Apply in thickness as necessary to fully embed reinforcing mesh, wrinkle free, including back–wrap at all terminations of the EIFS. Install reinforcing fabric as recommended by EIFS manufacturer.
1. Lap reinforcing mesh edges and ends a minimum of 2–1/2 inches.
2. Allow base coat to dry a minimum of 24 hours before next coating application.
B. Apply finish coat after base coat has dried not less than 24 hours and finish to a uniform texture and color.
C. Finish Coat Thickness: As recommended by manufacturer.
D. Apply sealant at finish perimeter and expansion joints in accordance with applicable section.

3.07 CLEANING
A. Clean EIFS surfaces and work areas of foreign materials resulting from EIFS operations.

3.08 PROTECTION
A. Protect completed work from damage and soiling by subsequent work.

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FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037
KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:
SPECIFICATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
Designer	Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:
G2.0.2

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SECTION 07 2500 – WEATHER BARRIERS

1.01 DEFINITIONS
A. Weather Barrier: Assemblies that form water–resistive barriers and air barriers. The Weather Barrier shall not be a vapor retarder.

1.02 FIELD CONDITIONS
A. Maintain temperature and humidity recommended by the materials manufacturers before, during and after installation.

2.01 WEATHER BARRIER ASSEMBLIES
A. Weather Barrier: Provide on exterior walls under exterior cladding and where indicated in other sections.
1. Under simulated stone veneer, thin brick, ceramic tile, and Portland cement stucco, use weather barrier coating.
2. Under siding, use mechanically fastened, weather barrier sheet.
3. On outside surface of inside wythe of exterior masonry cavity walls use air barrier coating.

2.02 WEATHER BARRIER MATERIALS
A. Weather Barrier Sheet, Mechanically Fastened:
1. Air Permeance: 0.004 cubic feet per square foot, maximum, when tested in accordance with ASTM E2178.
2. Water Vapor Permeance: 10 perms, minimum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant method).
3. Ultraviolet and Weathering Resistance: Approved in writing by manufacturer for minimum of 6 months weather exposure.
4. Surface Burning Characteristics: Flame spread index of 25 or less, smoke developed index of 50 or less, when tested in accordance with ASTM E84.
5. Water Resistance: Comply with applicable water–resistive requirements of ICC–ES Acceptance Criteria AC38.
B. Weather Barrier Coating: Cold–fluid–applied, vapor permeable, elastomeric waterproofing membrane.
1. Dry Film Thickness: 10 mils (0.010 inch), minimum.
2. Air Permeance: 0.004 cubic feet per minute per square foot, maximum, when tested in accordance with ASTM E2178.
3. Water Vapor Permeance: 10 perms, minimum, when tested in accordance with ASTM E96/E96M.
4. Ultraviolet and Weathering Resistance: Approved in writing by manufacturer for minimum of 4 months weather exposure.

2.03 SEALANTS
A. Sealant certified as compatible with membrane materials by the membrane manufacturer
B. Primers, Cleaners, and Other Sealant Materials: As recommended by sealant manufacturer, appropriate to application, and compatible with adjacent materials.

2.04 ADHESIVES
A. Mastic Adhesive: Compatible with sheet seal and substrate, thick mastic of uniform knife grade consistency.

2.05 ACCESSORIES
A. Flexible Flashing: Self–adhesive sheet flashing complying with ASTM D1970, except slip resistance requirement is waived if not installed on a roof.
B. Fasteners: Type as recommended by the manufacturer for substrate and construction.
C. Tape: Product manufactured by the membrane manufacturer.
D. Thinners and Cleaners: As recommended by material manufacturer.

3.01 EXAMINATION & PREPARATION
A. Verify that surfaces and conditions are ready to accept the work of this section.
B. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.
C. Clean and prime substrate surfaces to receive adhesives in accordance with manufacturer's instructions.

3.03 INSTALLATION
A. Install materials in accordance with manufacturer's instructions.
B. Weather Barriers: Install continuous water–resistive barrier and air barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
C. Apply sealants and adhesives within recommended application temperature ranges. Consult manufacturer if temperature is out of this range.
D. Mechanically Fastened Sheets – On Exterior:
1. Install sheets shingle–fashion to shed water, with seams generally horizontal.
2. Overlap seams as recommended by manufacturer but at least 6 inches.
3. Overlap at outside and inside corners as recommended by manufacturer but at least 12 inches.
4. Attach to framed construction with fasteners extending through sheathing into framing. Space fasteners at 12 to 18 inches on center along each framing member supporting sheathing, unless otherwise indicated in manufacturer's installation instructions.
5. Seal seams, laps, penetrations, tears, and cuts with self–adhesive tape.
6. Where stud framing rests on concrete or masonry, extend lower edge of sheet at least 4 inches below bottom of framing and seal to wall with sealant.
7. Install wall flashings under weather barrier.
E. Coatings:
1. Prepare substrate in manner recommended by coating manufacturer; treat joints in substrate and between dissimilar materials as recommended by manufacturer.
2. Where exterior masonry veneer is to be installed, install masonry anchors before installing weather barrier over masonry; seal around anchors air tight.
3. Use flashing to seal to adjacent construction and to bridge joints.
F. Openings and Penetrations in Exterior Weather Barriers:
1. Install flashing over sills, covering entire sill frame member, extending at least 5 inches onto weather barrier and at least 6 inches up jambs; mechanically fasten stretched edges.
2. At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with at least 4 inches wide; do not seal sill flange.
3. At openings to be filled with non–flanged frames, seal weather barrier to all sides of opening framing, using flashing at least 9 inches wide, covering entire depth of framing.
4. At head of openings, install flashing under weather barrier extending at least 2 inches beyond face of jambs; seal weather barrier to flashing.
5. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
6. Service and Other Penetrations: Form flashing around penetrating item and seal to weather barrier surface.

SECTION 07 4213.23 – METAL COMPOSITE MATERIAL WALL PANELS

1.01 SUBMITTALS
A. Product Data – MCM Sheets: Manufacturer's data sheets on each product to be used, including thickness, physical characteristics, and finish, and:
1. Finish manufacturer's data sheet showing physical and performance characteristics.
B. Shop Drawings: Show layout and elevations, dimensions and thickness of panels, connections, details and location of joints, sealants and gaskets, method of anchorage, number of anchors, supports, reinforcement, trim, flashings, and accessories.
1. Indicate substrates and adjacent work with which the wall system must be coordinated.
2. Include large–scale details of anchorages and connecting elements.
3. Include large–scale details or schematic, exploded or isometric diagrams to fully explain flashing at a scale of not less than 1–1/2 inches per 12 inches.
C. Verification Samples: For each finish product specified, minimum size 12 inches square, representing actual product in color and texture.

1.02 QUALITY ASSURANCE
A. Field Measurements: Verify actual dimensions by field measurement before fabrication; show recorded measurements on shop drawings.
B. Perform work in accordance with the applicable building code.
C. Wall System Manufacturer Qualifications: Company specializing in manufacturing products specified in this section. With not less than five years of experience. Approved by MCM sheet manufacturer.
D. Installer Qualifications: Company specializing in performing work of the type specified in this section. With minimum 3 years of experience. Approved by wall system manufacturer.

1.03 DELIVERY, STORAGE, AND HANDLING
A. Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact.
B. Store products protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

1.04 WARRANTY
A. Wall System Warranty: Provide joint written warranty by manufacturer and installer, agreeing to correct defects in manufacturing or installation within a two year period after Date of Substantial Completion.
B. MCM Sheet Manufacturer's Finish Warranty: Provide manufacturer's written warranty stating that the finish will perform as follows for minimum of 20 years:
1. Chalking: No more than that represented by a No.8 rating based on ASTM D4214.
2. Color Retention: No fading or color change in excess of 5 Hunter color difference units, calculated in accordance with ASTM D2244.
3. Gloss Retention: Minimum of 30 percent gloss retention, when tested in accordance with ASTM D523.

2.01 WALL PANEL SYSTEM
A. Wall Panel System: Metal panels, fasteners, and anchors designed to be supported by framing or other substrate provided by others; provide installed panel system capable of maintaining specified performance without defects, damage or failure.
1. Provide structural design by or under direct supervision of a Structural Engineer licensed in Enter State Name Only Here.
2. Provide panel jointing and weatherseal using a "wet," sealant sealed system.
3. Anchor panels to supporting framing without exposed fasteners.
B. Performance Requirements:
1. Thermal Movement: Provide for free and noiseless vertical and horizontal thermal movement due to expansion and contraction under material temperature range of minus 20 degrees F to 180 degrees F without buckling, opening of joints, undue stress on fasteners, or other detrimental effects; allow for ambient temperature at time of fabrication, assembly, and erection procedures.
2. Wind Performance: Provide system that will perform without permanent deformation or failures of structural members under the following conditions:
a. Refer to structural drawings for wind load requirements.
b. Maximum deflection of perimeter framing member of L/175 normal to plane of the wall; maximum deflection of individual panels of L/60.
c. Maximum anchor deflection in any direction of 1/16 inch at connection points of framing members to anchors.
3. Air Infiltration: 0.06 cfm/sq ft of wall area, maximum, when tested at 1.57 psf in accordance with ASTM E283.
4. Water Penetration: No water penetration under static pressure when tested in accordance with ASTM E331 at a differential of 10 percent of inward acting design load, 6.24 psf minimum, after 15 minutes.
a. Water penetration is defined as the appearance of uncontrolled water on the interior face of the wall.
b. Design to drain leakage and condensation to the exterior face of the wall.
C. Panels: One inch deep pans formed of metal composite material sheet by routing back edges of sheet, removing corners, and folding edges.
1. Reinforce corners with riveted aluminum angles.
2. Provide concealed attachment to supporting structure by adhering attachment members to back of panel; attachment members may also function as stiffeners.
3. Maintain maximum panel bow of 0.8 percent of panel dimension in width and length; provide stiffeners of sufficient size and strength to maintain panel flatness without showing local stresses or read–through on panel face.
4. Secure members to back face of panels using structural silicone sealant approved by MCM sheet manufacturer.
5. Metallic Finished Panels: Maintain consistent grain of MCM sheet; specifically, do not rotate sheet purely to avoid waste.
6. Fabricate panels under controlled shop conditions.
7. Where final dimensions cannot be established by field measurement before commencement of manufacturing, make allowance for field adjustments without requiring field fabrication of panels.
8. Fabricate as indicated on drawings and as recommended by MCM sheet manufacturer.
a. Make panel lines, breaks, curves and angles sharp and true.
b. Keep plane surfaces free from warp or buckle.
c. Keep panel surfaces free of scratches or marks caused during fabrication.
9. Provide joint details providing a watertight and structurally sound wall panel system that allows no uncontrolled water penetration on inside face of panel system.

2.02 MATERIALS
A. Metal Composite Material (MCM) Sheet: Two sheets of aluminum sandwiching a solid core of extruded thermoplastic material formed in a continuous process with no glues or adhesives between dissimilar materials; core material free of voids and spaces; no foamed insulation material content.
1. Overall Sheet Thickness: 4 mm.
2. Face Sheet Thickness: 0.019 inches, minimum.
3. Alloy: Manufacturer's standard, selected for best appearance and finish durability.
4. Bond and Peel Strength: No adhesive failure of the bond between the core and the skin nor cohesive failure of the core itself below 22.4 inch–pound/inch with no degradation in bond performance, when tested in accordance with ASTM D1781, simulating resistance to panel delamination, after 8 hours of submersion in boiling water and after 21 days of immersion in water at 70 degrees F.
5. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
6. Flammability: Self–ignition temperature of 650 degrees F or greater, when tested in accordance with ASTM D1929.
7. Factory Finish: Two or three coat fluoropolymer resin coating, approved by the coating manufacturer for the length of warranty specified for the project, and applied by coil manufacturing facility that specializes in coil applied finishes.
a. Coating Flexibility: Pass ASTM D4145 minimum 1T–bend, at time of manufacturing.
b. Long–Term Performance: Not less than that specified under WARRANTY in PART 1.
8. Color/Texture: As indicated on drawings.
B. Metal Framing Members: Include all sub–girts, zee–clips, base and sill angles and channels, hat–shaped and rigid channels, and furring channels required for complete installation.
8. Provide material strength, dimensions, configuration as required to meet the applied loads applied and in compliance with applicable building code.
9. Sheet Steel Components: ASTM A653/A653M galvanized to G90/Z275 or zinc–iron alloy–coated to A60/ZF180; or ASTM A792/A792M aluminum–zinc coated to AZ60/AZM180.
10. Stainless Steel Sheet Components: ASTM A480/A480M.
11. Aluminum Components: ASTM B209 or B 221.
C. Flashing: Sheet aluminum; 0.040 inch thick, minimum; finish and color to match MCM sheet.
D. Anchors, Clips and Accessories: Use one of the following:
1. Stainless steel complying with ASTM A480/A480M, ASTM A276 or ASTM A666.
2. Steel complying with ASTM A36/A36M and hot–dipped galvanized to ASTM A153/A153M.
3. Steel complying with ASTM A36/A36M and hot–dipped galvanized to ASTM A123/A123M Coating Grade 75.
E. Fasteners:
1. Screws: Self–drilling or self–tapping Type 410 stainless steel or zinc–alloy steel hex washer head, with EPDM or PVC washer under heads of fasteners bearing on weather side of metal wall panels.
2. Bolts: Stainless steel.
3. Fasteners for Flashing and Trim: Blind fasteners of high–strength aluminum or stainless steel.
F. Bituminous Coating: Cold–applied asphalt mastic, noncorrosive compound free of asbestos, sulfur, and other deleterious impurities; 15 mil dry film thickness per coat.
G. Joint Sealer: As specified in Section 07900, subject to MCM sheet manufacturer's approval.
H. Provide panel system manufacturer's and installer's standard corrosion resistant accessories, including fasteners, clips, anchorage devices and attachments.

3.01 EXAMINATION
A. Verify dimensions, tolerances, and interfaces with other work.
B. Verify substrate on–site to determine that conditions are acceptable for product installation in accordance with manufacturers written instructions.

3.02 PREPARATION
A. Protect adjacent work areas and finish surfaces from damage during installation.

3.03 INSTALLATION
A. Comply with instructions and recommendations of MCM sheet manufacturer and wall system manufacturer, as well as with approved shop drawings.
B. Install wall system securely allowing for necessary thermal and structural movement; comply with wall system manufacturer's instructions for installation of concealed fasteners.
C. Do not handle or tool products during erection in manner that damages finish, decreases strength, or results in visual imperfection or failure in performance. Return component parts that require alteration to shop for refabrication, if possible, or for replacement with new parts.
D. Do not form panels in field unless required by wall system manufacturer; comply with MCM sheet manufacturer's instructions and recommendations for field forming.
E. Separate dissimilar metals; use gasket fasteners, isolation shims, or isolation tape where needed to eliminate possibility of electrolytic action between metals.
F. Where joints are designed for field applied sealant, seal joints completely with specified sealant.
G. Install flashings as indicated on shop drawings At flashing butt joints, provide a lap strap under flashing and seal lapped surfaces with a full bed of non–hardening sealant.
H. Install square, plumb, straight, and true, accurately fitted, with tight joints and intersections maintaining the following installation tolerances:
1. Variation From Plane or Location: 1/2 inch in 30 feet of length and up to 3/4 inch in 300 feet, maximum.
2. Deviation of Vertical Member From True Line: 0.1 inch in 25 feet run, maximum.
3. Deviation of Horizontal Member From True Line: 0.1 inch in 25 feet run, maximum.
4. Offset From True Alignment Between Two Adjacent Members Abutting End To End, In Line: 0.03 inch, maximum.
I. Replace damaged products.

3.04 CLEANING
A. Ensure weep holes and drainage channels are unobstructed and free of dirt and sealants.
B. Remove protective film after installation of joint sealers, after cleaning of adjacent materials, and immediately prior to completion of work.
C. Remove temporary coverings and protection of adjacent work areas.
D. Clean installed products in accordance with manufacturer's instructions.

SECTION 07 4213.13 – METAL WALL PANELS

1.01 DESIGN REQUIREMENTS
A. Design, fabricate, handle, and install panels to minimize oil canning. Excessive oil canning as determined by the Architect may be grounds for rejection.

1.02 SUBMITTALS
A. Shop Drawings: Indicate dimensions, layout, joints, construction details, methods of anchorage.
B. Samples: Submit two samples of wall panel and soffit panel, 12 inch by 12 inch in size illustrating finish color, sheen, and texture.

1.03 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum 5 years of experience.
B. Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years of experience.

1.04 DELIVERY, STORAGE, AND HANDLING
A. Store prefinished material off ground and protected from weather. Prevent twisting, bending, or abrasion, and provide ventilation to stored materials. Slope metal sheets to ensure drainage.
B. Prevent contact with materials that may cause discoloration or staining of products.

2.01 MANUFACTURED METAL PANELS
A. Wall Panel System: Factory fabricated prefinished metal panel system, site assembled.
1. Design and size components to withstand dead and live loads caused by positive and negative wind pressure acting normal to plane of wall.
2. Maximum Allowable Deflection of Panel: 1/90 of span.
3. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement within system; movement between system and perimeter components when subject to seasonal temperature cycling; dynamic loading and release of loads; and deflection of structural support framing.
4. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.
5. Fabrication: Formed true to shape, accurate in size, square, and free from distortion or defects; pieces of longest practical lengths.
6. Corners: Factory–fabricated in one continuous piece with minimum 18 inch returns.
7. Provide continuity of weather barrier seal at building enclosure elements
8. Exterior Finish: Panel manufacturer's standard polyvinylidene fluoride (PVDF) coating, top coat over epoxy primer.
9. Exterior Panel Back Coating: Panel manufacturer's standard polyester wash coat.
B. Exterior Panels:
1. Profile and Color: As indicated on drawings.
2. Material: Precoated steel sheet, minimum 22 gage thick.
C. Soffit Panels:
1. Profile and Color: As indicated on drawings.
2. Material: Precoated aluminum sheet, minimum 0.032 inch thick.
D. Internal and External Corners: Same material, thickness, and finish as exterior sheets; profile to suit system; brake formed to required angles.
E. Expansion Joints: Same material, thickness and finish as exterior sheets; manufacturer's standard brake formed type, of profile to suit system.
F. Trim, Closure Pieces, Caps, Flashings, and Fascias: Same material, thickness and finish as exterior sheets; brake formed to required profiles.
G. Anchors: Stainless steel.

2.02 MATERIALS
A. Precoated Steel Sheet: Aluminum–zinc alloy–coated steel sheet, ASTM A792/A792M, Commercial Steel (CS)) or Forming Steel (FS), with AZ50/AZM150 coating; continuous–coil–coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.
B. Precoated Aluminum Sheet: ASTM B209 (ASTM B209M), 3105 alloy, 0 temper, smooth surface texture; continuous–coil–coated on exposed surfaces with specified finish coating and on panel back with specified panel back coating.

2.03 ACCESSORIES
A. Gaskets: Manufacturer's standard type suitable for use with system, permanently resilient; ultraviolet and ozone resistant.
B. Sealants: Manufacturer's standard type suitable for use with installation of system; non–staining. Color: To be selected by Architect
C. Fasteners: Manufacturer's standard type to suit application; with soft neoprene washers, stainless steel.
D. Field Touch–up Paint: As recommended by panel manufacturer.
E. Bituminous Paint: Asphalt base.

3.01 EXAMINATION
A. Verify that building framing members are ready to receive panels.
B. Verify that weather barrier has been installed over substrate completely and correctly.

3.02 INSTALLATION
A. Install panels on walls and soffits in accordance with manufacturer's instructions.
B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
C. Fasten panels to structural supports; aligned, level, and plumb.
D. Locate joints over supports. Lap panel ends minimum 2 inches.
E. Provide expansion joints where indicated.
F. Use concealed fasteners unless otherwise approved by Architect.
G. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.

3.03 TOLERANCES
A. Maximum Offset From True Alignment Between Adjacent Members Butting or In Line: 1/16 inch.
B. Maximum Variation from Plane or Location Indicated on Drawings: 1/4 inch.

3.04 CLEANING
A. Remove site cuttings from finish surfaces.
B. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

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FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037
KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:
SPECIFICATIONS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: Designer
CHECKED BY: Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SECTION 07 5423 – THERMOPLASTIC MEMBRANE ROOFING

1.01 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.
1. Review preparation and installation procedures and coordinating and scheduling required with related work.

1.02 SUBMITTALS

A. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
B. Shop Drawings: Indicate joint or termination detail conditions, conditions of interface with other materials, and paver layout.

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years of experience.
B. Installer Qualifications: Company specializing in performing the work of this section: With minimum 5 years experience and approved by membrane manufacturer.

1.04 WARRANTY

A. System Warranty: Manufacturer's standard form, no dollar limit (NDL), in which manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
1. Warranty Term: 15 years.
2. For repair and replacement include costs of both material and labor in warranty.
3. Warranty includes roofing membrane, base flashings, roofing membrane accessories, roof insulation, fasteners, cover boards, walkway products, and other components of the roofing system.

2.01 ROOFING

A. Thermoplastic Membrane Roofing: One ply membrane, mechanically fastened, over insulation.
B. Roofing Assembly Requirements:
1. Roof Covering External Fire–Resistance Classification: UL Class A.
2. A roofing assembly in compliance with an assembly that has been successfully tested by a qualified testing agency to resist the design uplift pressures calculated according to IBC Section 1504, IBC Section 1609 & ASCE 7.
C. Acceptable Insulation Types – Constant Thickness Application: Two layers of approximately equal thickness of polyisocyanurate board plus a cover board.
D. Acceptable Insulation Types – Tapered Application: Any type that meets requirements and is approved by membrane manufacturer for application.

2.02 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

A. Membrane:
1. Material: Thermoplastic polyolefin (TPO) complying with ASTM D6878.
2. Reinforcing: Internal fabric.
3. Thickness: 0.060 inch, minimum.
4. Sheet Width: Factory fabricated into largest sheets possible.
5. Color: White.
B. Seaming Materials: As recommended by membrane manufacturer.
C. Membrane Fasteners: As recommended and approved by membrane manufacturer.
D. Flexible Flashing Material: Material recommended by membrane manufacturer.

2.03 INSULATION

A. Polyisocyanurate Board Insulation: Rigid cellular foam, complying with ASTM C1289, Type II, Class 2, Grade 2 and with the following characteristics:
1. Compressive Strength: 16 psi
2. Thermal Resistance: R–value as indicated on the drawings.

2.04 ACCESSORIES

A. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
B. Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer, compatible with roofing materials; 6 inches wide; self adhering.
C. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
D. Membrane Adhesive: As recommended by membrane manufacturer.
E. Cover tape: Tape adhesive laminated to cover strip, as recommended by membrane manufacturer, used to strip in metal flashings.
F. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
G. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.
H. Strip Reglet Devices: Stainless steel, maximum possible lengths per location, with attachment flanges.
I. Edge & seam sealants: Used to seal edge of roofing membrane, type as recommended by membrane manufacturer.
J. Coated Metal: Laminate of TPO membrane and galvanized steel.
K. Walkway Pads: Textured thermoplastic sheet, 30 x 30 inch.
L. Cover Board: ASTM C 1177/C 1177M, glass–mat, water–resistant gypsum substrate, 1/2 inch thick.
M. Flexible foam rod: Closed cell polyethylene, 1 1/2 inch diameter unless noted.

3.01 INSTALLATION – GENERAL

A. Fasten roofing assembly to resist the design uplift pressures calculated according to IBC Section 1504, IBC Section 1609 & ASCE 7.
B. Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.
C. Do not apply roofing membrane during unsuitable weather.
D. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
E. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
F. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
G. Coordinate the work with installation of associated counterflashings installed by other sections as the work of this section proceeds.

3.02 EXAMINATION

A. Verify that surfaces and site conditions are ready to receive work.
B. Verify deck is supported and secure.
C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
D. Verify deck surfaces are dry and free of snow or ice.
E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and nailing strips and reglets are in place.

3.03 INSULATION

A. Attachment of Insulation: Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions.
B. Lay subsequent layers of insulation with joints staggered minimum 6 inch from joints of preceding layer.
C. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
D. On metal deck, place boards parallel to flutes with insulation board edges bearing on deck flutes.
E. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
F. At roof drains, use factory–tapered boards to slope down to roof drains over a distance of 18 inches.
G. Do not apply more insulation than can be covered with membrane in same day.

3.04 COVER BOARD INSTALLATION

A. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Stagger joints from joints in insulation below a minimum of 6 inches in each direction. Loosely butt cover boards together and fasten to roof deck.
1. Fasten to resist uplift pressure at corners, perimeter, and field of roof.

3.05 MEMBRANE APPLICATION

A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
B. Shingle joints on sloped substrate in direction of drainage.
C. Fully Adhered Application: Fully embed membrane in adhesive except in areas directly over or within 3 inches of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
D. Overlap edges and ends and seal seams by heat welding. Seal permanently waterproof.
E. Apply seam sealant at membrane edges and patches where recommended by roof membrane manufacturer.
F. Mechanical Attachment: Apply membrane and mechanical attachment devices in accordance with manufacturer's instructions.
G. At intersections with vertical surfaces:
1. Extend membrane up a minimum of 8 inches onto vertical surfaces.
a. Place flexible foam rod at roof to wall intersection where roof is not supported by walls and as detailed.
2. Fully adhere flexible flashing over membrane and up to top of wall.
a. Continue across nailer to front edge and turn down face of wall.
3. Insert flashing into reglets and secure where detailed.
H. At gravel stops and perimeter metal flashings, extend membrane under metal and turn down the outside face of the wall. Fully adhere flexible flashing over flange of metal and extend onto roof membrane.
I. Around roof penetrations, seal flanges and flashings with flexible flashing.
J. Coordinate installation of roof drains and sumps and related flashings.
K. Install walkway pads. Space pad joints to permit drainage.

3.06 FIELD QUALITY CONTROL

A. Require site attendance of roofing material manufacturers daily during installation of the Work.
B. Test membrane seam welds in accordance with roofing manufacturer's requirements.
1. Test welds with probe to verify seam weld continuity. Test 100% of seams.
2. Verify field strength of seams; not less than 3 tests per work day.
3. Repair tears, voids and lapped seams in roofing membrane that do not meet requirements.

3.07 CLEANING

A. Remove excess materials, and debris from roof surfaces.
B. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.
C. Repair or replace defaced or damaged finishes caused by work of this section.

3.08 PROTECTION

A. Protect installed roofing and flashings from construction operations.
B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

SECTION 07 5900 – PREPARATION FOR RE–ROOFING

1.01 QUALITY ASSURANCE

A. Materials Removal Firm Qualifications: Company specializing in performing the work of this section with minimum 5 years of experience.

1.02 FIELD CONDITIONS

A. Do not remove existing roofing membrane when weather conditions threaten the integrity of the building contents or intended continued occupancy.
B. Maintain continuous temporary protection prior to and during installation of new roofing system.

2.01 MATERIALS

A. Temporary Protection: Sheet polyethylene; provide weights to retain sheeting in position.

3.01 EXAMINATION & PREPARATION

A. Verify that existing roof surface is clear and ready for work of this section.
B. Sweep roof surface clean of loose matter.
C. Remove loose refuse and dispose off site.

3.02 MATERIAL REMOVAL

A. Remove only existing roofing materials that can be replaced with new materials the same day.
B. Remove metal counter flashings.
C. Scrape roofing gravel from membrane surface without causing serious damage to membrane felts.
D. Remove roofing membrane, perimeter base flashings, flashings around roof protrusions, pitch pans and pockets.
E. Remove damaged insulation and fasteners, cant strips, blocking.

3.03 FIELD QUALITY CONTROL

A. Independent agency inspection and testing will be provided under provisions of Section 01400.
B. Testing will identify the condition of existing materials and make recommendations for their reuse, repair or removal.
C. Test Reports: Indicate existing insulation moisture content.

3.04 PROTECTION

A. Provide temporary protective sheeting over uncovered deck surfaces.
B. Turn sheeting up and over parapets and curbing. Retain sheeting in position with weights.
C. Provide for surface drainage from sheeting to existing drainage facilities.
D. Do not permit traffic over unprotected or repaired deck surface.

SECTION 07 6200 – SHEET METAL FLASHING AND TRIM

1.01 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.

1.02 SUBMITTALS

A. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.03 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA Architectural Sheet Metal Manual or The NRCA Roofing and Waterproofing Manual recommendations and standard details, except as otherwise indicated.
B. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of experience.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
B. Prevent contact with materials that could cause discoloration or staining.

1.05 Warranty

A. Provide manufacturer's standard material finish warranty, agreeing to repair or replace panels that show evidence of finish degradation, including fading, chalking, cracking, or peeling. Warranty period 10 years, non–prorated.

2.01 EDGE SYSTEMS USED WITH LOW SLOPE ROOFING SYSTEMS

A. Edge System Requirements: Metal edge to resist the design uplift pressures calculated according to:
1. IBC Chapter 15 section on Performance Requirements.
2. SPRI ES–1.

2.02 SHEET MATERIALS

A. Pre–Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 0.026 inch thick base metal, shop pre–coated with PVDF coating.
1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.
2. Color: As shown on drawings.
B. Aluminum: ASTM B209 (ASTM B209M); 0.050 inch thick; anodized finish of color as selected. Clear Anodized Finish: AAMA 611 AA–M12C22A41 Class I clear anodic coating not less than 0.7 mils thick.
C. Pre–Finished Aluminum: ASTM B209 (ASTM B209M); 0.040 inch thick; plain finish shop pre–coated with fluoropolymer coating.
1. Fluoropolymer Coating: High Performance Organic Finish, AAMA 2604; multiple coat, thermally cured fluoropolymer finish system.
2. Color: As shown on drawings.
D. Stainless Steel: ASTM A666 Type 304, soft temper, 0.015 inch thick; smooth No. 4 finish.
E. ACCESSORIES
1. Fasteners: Stainless steel, with soft neoprene washers.
2. Underlayment: ASTM D226, organic roofing felt, Type I ("No. 15").
3. Slip Sheet: Rosin sized building paper.
4. Primer: Zinc chromate type.
5. Protective Backing Paint: Asphaltic mastic, ASTM D 4479 Type I.
6. Sealant: Type specified in Section 07900.
7. Plastic Cement: ASTM D4586, Type I.
8. Reglets: Surface or recessed type, stainless steel.
F. FABRICATION
1. Form sections true to shape, accurate in size, square, and free from distortion or defects.
2. Fabricate cleats of same material as sheet, continuous, interlocking with sheet.
3. Form pieces in longest possible lengths.
4. Hem exposed edges on underside 1/2 inch; miter and seam corners.
5. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet–type or interlocking hooked seams.
6. Fabricate corners from one piece with minimum 24 inch long legs; seam for rigidity, seal with sealant.
G. GUTTER AND DOWNSPOUT FABRICATION
1. Gutters: SMACNA Architectural Sheet Metal Manual, Rectangular profile.
2. Downspouts: Rectangular profile.
3. Gutters and Downspouts: Size for rainfall intensity determined by a storm occurrence of 1 in 100 years in accordance with Plumbing Code.
4. Accessories: Profiled to suit gutters and downspouts.
a. Anchorage Devices: In accordance with SMACNA requirements.
b. Downspout Supports: Brackets & Straps.
5. Splash Pads: Precast concrete type, of size and profile appropriate to the application; minimum 3000 psi at 28 days, with minimum 5 percent air entrainment.
6. Downspout Adapter: Plastic.
7. Seal metal joints.

3.01 EXAMINATION

A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.
B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.
C. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

3.03 INSTALLATION

A. Fasten metal edge systems to resist the design uplift pressures calculated according to: IBC Chapter 15 section on Performance Requirements & SPRI ES–1.
B. Insert flashings into reglets to form tight fit. Secure in place with plastic wedges. Seal flashings into reglets with sealant.
C. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
D. Apply plastic cement compound between metal flashings and felt flashings.
E. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
F. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection.
G. Seal metal joints watertight.
H. Secure gutters and downspouts in place using fasteners.
I. Slope gutters 1/4 inch per 10 feet, minimum.
J. Connect downspouts to storm sewer system. Seal connection watertight.
K. Set splash pads under downspouts.

3.04 FIELD QUALITY CONTROL

A. Inspect the work during installation to ascertain compliance with specified requirements.

3.05 SCHEDULE

A. Gravel stop, Fascia and Coping Cap: Prefinished galvanized steel.
B. Gutters and Downspouts: Prefinished galvanized steel.
C. Scuppers: Prefinished galvanized steel.
D. Sill and head flashings, including transition flashing between materials: Prefinished aluminum.
E. Exposed trim & accessories related to aluminum framed storefronts: Anodized aluminum, color to match storefront.
F. Counterflashings at Roofing Terminations (over roofing base flashings): Stainless steel
G. Counterflashings at Curb–Mounted Roof Items, including skylights and roof hatches: Match material of item being flashed.

SECTION 07 720 – ROOF ACCESSORIES

1.01 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used.

2.01 ROOF HATCHES

A. Roof Hatches: Factory–assembled steel frame and cover, complete with operating and release hardware.
1. Style: Provide flat metal covers unless otherwise indicated.
2. Mounting: Provide frames and curbs suitable for mounting on corrugated metal roof deck.
3. Size(s): As indicated on drawings; single–leaf style unless indicated as double–leaf.
4. Ladder Safety Post: Furnish and install with roof hatch. Safety Yellow powder coat finish.

2.02 SNOW GUARDS

A. Snow Guards: Individual projecting metal shapes, between metal roofing seams/battens, and adhered to roof deck.
1. Projecting Metal Shapes: Aluminum castings, triangular spike design.
2. Finish: Polyurethane coating, color to match roof.
3. Placement: As recommended by manufacturer.

3.01 EXAMINATION & PREPARATION

A. Do not begin installation until substrates have been properly prepared.
B. Clean surfaces thoroughly prior to installation.
C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions, in manner that maintains roofing weather integrity.

3.03 CLEANING & PAINTING

A. Clean installed work to like–new condition.
B. Prepare roof hatch for field painting after installation.
C. Apply finish paint in accordance with Section 09900.

SECTION 07 8400 – FIRESTOPPING

1.01 SECTION INCLUDES

A. Firestopping systems.
B. Firestopping of all joints and penetrations in fire–resistance rated and smoke–resistant assemblies, and other openings indicated.

1.02 SUBMITTALS

A. Schedule of Firestopping: List each type of penetration, fire rating of the penetrated assembly, and firestopping test or design number.
B. Product Data: Provide data on product characteristics, performance ratings, and limitations.

1.03 QUALITY ASSURANCE

A. Fire Testing: Provide firestopping assemblies of designs that provide the specified fire ratings when tested in accordance with ASTM E 814 and ASTM E 119.
1. Listing in the current–year classification or certification books of UL, FM, or ITS (Warnock Hersey) will be considered as constituting an acceptable test report.
2. Valid evaluation report published by ICC Evaluation Service, Inc. (ICC–ES) at www.icc–es.org will be considered as constituting an acceptable test report.
B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years experience.
C. Installer Qualifications: Company specializing in performing the work of this section and:
1. With minimum 3 years experience installing work of this type.

1.04 FIELD CONDITIONS

A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation. Maintain minimum temperature before, during, and for 3 days after installation of materials.
B. Provide ventilation in areas where solvent–cured materials are being installed.

2.01 FIRESTOPPING – GENERAL REQUIREMENTS

A. Firestopping: Any material meeting requirements.
B. Materials: Use any material meeting requirements.
C. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Type required for tested assembly design.
D. Fire Ratings: See Drawings for required ratings.

2.02 FIRESTOPPING ASSEMBLY REQUIREMENTS

A. Perimeter Fire Containment Firestopping: Use any system that has been tested according to ASTM E2307 to have fire resistance F Rating equal to required fire rating of the floor assembly.
B. Head–of–Wall Firestopping at Joints Between Non–Rated Floor and Fire–Rated Wall: Use any system that has been tested according to ASTM E2837 to have fire resistance F Rating equal to required fire rating of floor or wall, whichever is greater.
C. Floor–to–Floor, Wall–to–Wall, and Wall–to–Floor Joints, Except Perimeter, Where Both Are Fire–Rated: Use any system that has been tested according to ASTM E1966 or UL 2079 to have fire resistance F Rating equal to required fire rating of the assembly in which the joint occurs.
D. Through Penetration Firestopping: Use any system that has been tested according to ASTM E814 to have fire resistance F Rating equal to required fire rating of penetrated assembly.

3.01 EXAMINATION & PREPARATION

A. Verify openings are ready to receive the work of this section.
B. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter that could adversely affect bond of firestopping material.
C. Remove incompatible materials that could adversely affect bond.
D. Install backing materials to arrest liquid material leakage.

3.02 INSTALLATION

A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
B. Do not cover installed firestopping until inspected by authority having jurisdiction.
C. Install labeling required by code.

3.03 CLEANING & PROTECTION

A. Clean adjacent surfaces of firestopping materials.
B. Protect adjacent surfaces from damage by material installation.

SECTION 07 9200 – JOINT SEALANTS

1.01 SUBMITTALS

A. Product Data: Provide data indicating sealant performance criteria, substrate preparation, limitations, and color availability.

1.02 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum five years experience.
B. Applicator Qualifications: Company specializing in performing the work of this section with minimum five years experience.

1.03 FIELD CONDITIONS

A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.04 WARRANTY

A. See Section 01780 – Closeout Submittals, for additional warranty requirements.
B. Correct defective work within a five year period after Date of Substantial Completion.
C. Warranty: Include coverage for installed sealants and accessories which fail to achieve weathertight seal, exhibit loss of adhesion or cohesion, or do not cure.

2.01 SEALANTS

A. Sealants and Primers – General: Provide only products having lower volatile organic compound (VOC) content than required by South Coast Air Quality Management District Rule No.1168.
B. General Purpose Exterior Sealant: Polyurethane; ASTM C 920, Grade NS, Class 50, Uses M, O, and A; single, or multi– component.
1. Color: Match adjacent finished surfaces.
2. Applications: Use for:
a. Control, expansion, and soft joints in masonry.
b. Joints between concrete and other materials.
c. Joints between metal frames and other materials.
d. Other exterior joints for which no other sealant is indicated.
C. Exterior Expansion Joint Sealer: Precompressed foam sealer; urethane with water–repellent;
1. Face color: Standard colors matching finished surfaces.
2. Size as required to provide weathertight seal when installed.
3. Applications: Use for:
a. Exterior wall expansion joints.
D. Exterior Metal Lap Joint Sealant: Butyl or polyisobutylene, nondrying, nonskinning, noncuring.
1. Applications: Use for:
a. Concealed sealant bead in sheet metal work.
b. Concealed sealant bead in siding overlaps.
c. Conditions as indicated on drawings and specifications.
E. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C834, Type OP, Grade NF single component, paintable.
1. Applications: Use for:
a. Interior wall and ceiling control joints.
b. Joints between door and window frames and wall surfaces.
c. Other interior joints for which no other type of sealant is indicated.
F. Bathtub/Tile Sealant: Clear Silicone; ASTM C 920, Uses I, M and A; single component, mildew resistant.
1. Applications: Use for:
a. Joints between plumbing fixtures and floor and wall surfaces.
b. Joints between kitchen and bath countertops and wall surfaces.
G. Acoustical Sealant for Concealed Locations:
1. Applications: Use for concealed locations only:
a. Sealant bead between top stud runner and structure and between bottom stud track and floor, where an STC rating is indicated.
H. Interior Floor Joint Sealant: Polyurethane, self–leveling; ASTM C920, Grade P, Class 25, Uses T, M and A; single component.
1. Approved by manufacturer for wide joints up to 1–1/2 inches.
2. Color: Match adjacent finished surfaces.
3. Applications: Use for:
a. Expansion joints in floors.
I. Concrete Paving Joint Sealant: Polyurethane, self–leveling; ASTM C 920, Class 50, Uses T, I, M and A; single component.
1. Color: Color as selected.
2. Applications: Use for:
a. Joints in sidewalks and vehicular paving.

2.02 ACCESSORIES

A. Primer: Non–staining type, recommended by sealant manufacturer to suit application.
B. Joint Cleaner: Non–corrosive and non–staining type, recommended by sealant manufacturer; compatible with joint forming materials.
C. Joint Backing: Round foam rod compatible with sealant; closed cell polyethylene; oversized 30 to 50 percent larger than joint width.
D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

3.01 EXAMINATION

A. Verify that substrate surfaces and joint openings are ready to receive work.
B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION

A. Remove loose materials and foreign matter that could impair adhesion of sealant.
B. Clean and prime joints in accordance with manufacturer's instructions.
C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
D. Protect elements surrounding the work of this section from damage or disfigurement.

3.03 INSTALLATION

A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
B. Perform installation in accordance with ASTM C1193.
C. Perform acoustical sealant application work in accordance with ASTM C919.
D. Measure joint dimensions and size joint backers to achieve width–to–depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
E. Install bond breaker where joint backing is not used.
F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
G. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
H. Tool joints concave.
I. Precompressed Foam Sealant: Do not stretch; avoid joints except at corners, ends, and intersections; install with face 1/8 to 1/4 inch below adjoining surface.

3.04 CLEANING & PROTECTION

A. Clean adjacent soiled surfaces.
B. Protect sealants until cured.

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FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SPECIFICATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
Designer	Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

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SECTION 08 1113 – HOLLOW METAL DOORS AND FRAMES

1.01 SUBMITTALS
A. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes.
B. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and identifying location of different finishes, if any.

1.02 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years experience.

2.01 DOORS AND FRAMES
A. Requirements for All Doors and Frames:
1. Accessibility: Comply with ANSI/ICC A117.1.
2. Door Edge Profile: Beveled on both edges.
3. Door Texture: Smooth faces.
4. Glazed Lights: Non–removable stops on non–secure side; sizes and configurations as indicated on drawings.
5. Hardware Preparation: In accordance with BHMA A156.115, with reinforcement welded in place, in addition to other requirements specified in door grade standard.
6. Galvanizing for exterior and wet locations: All components hot–dipped zinc–iron alloy–coated (galvannealed), A60/ZF180.
7. Finish: Factory primed, for field finishing.
B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with all the specified requirements for each type; for instance, an exterior door that is also indicated as being sound–rated must comply with the requirements specified for exterior doors and for sound–rated doors; where two requirements conflict, comply with the most stringent.

2.02 STEEL DOORS
A. Exterior Doors:
1. Grade: ANSI A250.8 Level 3, physical performance Level A, Model 1, full flush.
2. Core: Polystyrene foam.
3. Top Closures for Outswinging Doors: Flush with top of faces and edges.
4. Galvanizing: All components hot–dipped zinc–iron alloy–coated (galvannealed) in accordance with ASTM A653/A653M, with A60/ZF180 coating.
5. Weatherstripping: Separate, see Section 08710.
B. Interior Doors
1. Grade: ANSI A250.8 Level 2, physical performance Level B, Model 1, full flush, Thickness: 1–3/4 inches.
2. Fire Rating: As indicated on Door and Frame Schedule, tested in accordance with UL 10C ("positive pressure").
a. Provide units listed and labeled by UL or WH.
b. Attach fire rating label to each fire rated unit.

2.03 STEEL FRAMES
A. General:
1. Comply with the requirements of grade specified for corresponding door, except:
a. ANSI A250.8 Level 3 Doors: 14 gage frames.
b. Frames for Wood Doors: Comply with frame requirements specified in ANSI A250.8 for Level 2, 16 gage.
2. Finish: Factory primed, for field finishing.
3. Provide mortar guard boxes for hardware cut–outs in frames to be installed in masonry or to be grouted.
4. Frames in Masonry Walls: Size to suit masonry coursing with head member 4 inches high to fill opening without cutting masonry units, unless noted otherwise on drawings.
5. Frames Wider than 48 Inches: Reinforce with steel channel fitted tightly into frame head, flush with top.
B. Exterior Door Frames: Face welded, seamless with joints filled.
1. Galvanizing: All components hot–dipped zinc–iron alloy–coated (galvannealed) in accordance with ASTM A653/A653M, with A60/ZF180 coating.
2. Weatherstripping: Separate, see Section 08710.
C. Interior Door Frames, Knock–down type.
1. Fire Rating: Same as door, labeled.

2.04 ACCESSORY MATERIALS
A. Louvers: Roll formed steel with overlapping frame; finish same as door components; factory–installed.
1. In Fire–Rated Doors: UL–listed fusible link louver, same rating as door.
2. Style: Standard straight slat blade.
3. Louver Free Area: 50 percent.
4. Fasteners: Concealed fasteners.
B. Glazing: As specified in Section 08800.
C. Removable Stops: Formed sheet steel, mitered corners; prepared for countersink style tamper proof screws.
D. Astragals for Double Doors:
1. Exterior Doors: 14GA Galvanized Steel, Flat.
2. Fire–Rated Doors: Steel, shape as required to accomplish fire rating.
E. Grout for Frames: Portland cement grout of maximum 4–inch slump for hand troweling; thinner pumpable grout is prohibited.
F. Silencers: Resilient rubber or vinyl, fitted into drilled hole; 3 on strike side of single door, 3 on center mullion of pairs, and 2 on head of pairs without center mullions.

2.05 FINISH MATERIALS
A. Primer: Rust–inhibiting, complying with ANSI A250.10, door manufacturer's standard.
B. Bituminous Coating: Asphalt emulsion or other high–build, water–resistant, resilient coating.

3.01 EXAMINATION & PREPARATION
A. Verify existing conditions before starting work.
B. Verify that opening sizes and tolerances are acceptable.
C. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

3.03 INSTALLATION
A. Install in accordance with the requirements of the specified door grade standard and NAAMM HMMA 840.
B. In addition, install fire rated units in accordance with NFPA 80.
C. Coordinate frame anchor placement with wall construction.
D. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
E. Coordinate installation of hardware.
F. Coordinate installation of electrical connections to electrical hardware items.
G. Touch up damaged factory finishes.
H. Adjust for smooth and balanced door movement.

3.04 TOLERANCES
A. Clearances Between Door and Frame: As specified in ANSI A250.8.
B. Maximum Diagonal Distortion: 1/16 in measured with straight edge, corner to corner.

SECTION 08 1416 – FLUSH WOOD DOORS

1.01 SUBMITTALS
A. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
B. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
C. Samples: Submit two samples of door veneer, 4x4 inch in size illustrating wood grain, stain color, and sheen.

1.02 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of experience.
B. Installed Fire Rated Door and Transom Panel Assembly: Conform to NFPA 80 for fire rated class as scheduled.

1.03 WARRANTY
A. Interior Doors: Provide manufacturer's warranty for the following period:
1. Interior Hollow Core Doors: One (1) year.
2. Interior Solid Core Doors: Life of installation.
B. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

2.01 DOORS AND PANELS
A. All Doors: See drawings for locations and additional requirements.
1. Quality Level: Custom Grade, in accordance with AWI/AWMAC/WI Architectural Woodwork Standards.
2. Wood Veneer Faced Doors: 5–ply or 7–ply unless otherwise indicated.
B. Interior Doors: 1–3/4 inches thick unless otherwise indicated; flush construction.
1. Fire Rated Doors: Tested to ratings indicated on drawings in accordance with NFPA 252, UL 10B, or UBC Standard 7–2–94 ("neutral pressure"); UL or WH (ITS) labeled without any visible seals when door is closed.

2.02 DOOR AND PANEL CORES
A. Non–Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated above.
B. Fire Rated Doors: Mineral core, Type FD, plies and faces as indicated above; with core blocking as required to provide adequate anchorage of hardware without through–bolting.
C. Hollow Core Doors: Type Institutional (IHC/FIHC); plies and faces as indicated above.

2.03 DOOR FACINGS
A. Wood Veneer Facing for Transparent Finish: Species as scheduled on the drawings, veneer grade as specified by quality standard, plain sliced, book veneer match, running assembly match; unless otherwise indicated.
1. Vertical Edges: Any option allowed by quality standard for grade.
2. Pairs: Pair match each pair; set match pairs within 10 feet of each other when doors are closed.
B. Veneer Facing for Opaque Finish: Any material allowed by quality standard.

2.04 ACCESSORIES
A. Wood Louvers:
1. Material and Finish: Species to match the door facing.
2. Louver Blade: Flush louver.
3. Louver Free Area: As indicated on mechanical drawings.
B. Metal Louvers: As specified in Mechanical Documents.
C. Glazing Stops: Wood, of same species as door facing, mitered corners; prepared for countersink style screws.
D. Astragals for Fire Rated Double Doors: Steel, shape as required to accomplish fire rating.

2.05 DOOR CONSTRUCTION
A. Fabricate doors in accordance with door quality standard specified.
B. Cores Constructed with stiles and rails:
1. Provide solid blocks at lock edge and top of door for closer for hardware reinforcement.
a. Provide solid blocking for other throughbolted hardware.
C. Where supplementary protective edge trim is required, install trim after veneer facing has been applied full–width.
D. Factory machine doors for hardware other than surface–mounted hardware, in accordance with hardware requirements and dimensions.
E. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
1. Exception: Doors to be field finished.
F. Provide edge clearances in accordance with the quality standard specified.

2.06 FACTORY FINISHING – WOOD VENEER DOORS
A. Finish work in accordance with AWI/AWMAC/WI Architectural Woodwork Standards, Section 5 – Finishing for Grade specified and as follows:
1. Transparent:
a. System – 12, Polyurethane, Water–based.
b. Stain: As indicated on drawings.
c. Sheen: As indicated in drawings.

3.01 EXAMINATION
A. Verify existing conditions before starting work.
B. Verify that opening sizes and tolerances are acceptable.
C. Do not install doors in frame openings that are not plumb or are out–of–tolerance for size or alignment.

3.02 INSTALLATION & ADJUSTING
A. Install doors in accordance with manufacturer's instructions and specified quality standard.
1. Install fire–rated doors in accordance with NFPA 80 requirements.
B. Factory–Finished and Fire Rated Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
C. Field–Finished Doors: Trimming to fit is acceptable.
1. Adjust width of non–rated doors by cutting equally on both jamb edges.
2. Trim maximum of 3/4 inch off bottom edges.
3. Trim fire–rated doors in strict compliance with fire rating limitations.
D. Use machine tools to cut or drill for hardware.
E. Coordinate installation of doors with installation of frames and hardware.
F. Coordinate installation of glazing.
G. Install door louvers plumb and level.
H. Adjust doors for smooth and balanced door movement.
I. Adjust closers for full closure.

3.03 TOLERANCES
A. Conform to specified quality standard for fit and clearance tolerances.
B. Conform to specified quality standard for telegraphing, warp, and squareness.

SECTION 08 3100 – ACCESS DOORS & PANELS

1.01 SUBMITTALS
A. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.

2.01 ACCESS DOOR AND PANEL APPLICATIONS
A. Walls, Unless Otherwise Indicated:
1. Material: Steel.
2. Size: As indicated on the drawings or as necessary to allow access to concealed items.
3. Standard duty, hinged door.
4. Tool–operated spring or cam lock; no handle.
5. In Gypsum Board: Drywall bead frame with door surface flush with wall surface.
B. Walls in Wet Areas and Exterior:
1. Material: Steel, hot–dipped zinc or zinc–aluminum–alloy coated.
2. Size: As indicated on the drawings or as necessary to allow access to concealed items.
3. Standard duty, hinged door.
4. Tool–operated spring or cam lock; no handle.
5. In Gypsum Board: Drywall bead frame with door surface flush with wall surface.
6. In Masonry, Tile, Concrete, EIFS or other surfaces: Surface mounted frame with door surface flush with frame surface.
C. Ceilings, Unless Otherwise Indicated: Same type as for walls.
1. Material: Steel.
2. Material: Steel, hot–dipped zinc or zinc–aluminum–alloy coated, for use in wet locations and exterior.
3. Size: As indicated on the drawings or as necessary to allow access to concealed items.
4. Standard duty, hinged door.
5. Tool–operated spring or cam lock; no handle.

2.02 WALL AND CEILING UNITS
A. Access Doors: Factory fabricated door and frame units, fully assembled units with corner joints welded, filled, and ground flush; square and without rack or warp; coordinate requirements with assemblies units are to be installed in.
1. Door Style: Single thickness with rolled or turned in edges.
2. Steel Finish: Primed.
3. Primed Finish: Polyester powder coat; manufacturer's standard color.
4. Hardware:
a. Hinges for Non–Fire–Rated Units: Continuous piano hinge.
b. Lock: Screw driver slot for quarter turn cam lock unless otherwise indicated.

3.01 EXAMINATION
A. Verify that rough openings are correctly sized and located.

3.02 INSTALLATION
A. Install units in accordance with manufacturer's instructions.
B. Install frames plumb and level in openings. Secure rigidly in place.
C. Position units to provide convenient access to the concealed work requiring access.

SECTION 08 3323 – OVERHEAD COILING DOORS

1.01 SUBMITTALS
A. Product Data: Provide general construction, component connections and details.
B. Shop Drawings: Indicate pertinent dimensioning, anchorage methods, hardware locations, and installation details.

2.01 COILING DOORS
A. Exterior Coiling Doors: Steel slat curtain.
1. Performance: Withstand positive and negative wind loads equal to 1.5 times design wind loads specified by local code without damage or permanent set, using 10 second duration of maximum load.
2. Sandwich slat construction with insulated core of manufacturer's standard type; insulation value: R of 6 minimum.
3. Nominal Slat Size: 3 inches wide x required length.
4. Finish: Factory Primed.
a. Field Paint as indicated in the drawings.
5. Guides: Angles; galvanized steel.
6. Hood Enclosure: Manufacturer's standard; primed steel.
7. Manual hand chain lift operation.
8. Mounting: Surface mounted.
9. Complete weatherstripping package including bottom bar weatherstrip, surface guide weatherstrip and internal hood baffle weatherstrip.

2.02 MATERIALS
A. Curtain Construction: Interlocking slats.
1. Slat Ends: Alternate slats fitted with end locks to act as wearing surface in guides and to prevent lateral movement.
2. Curtain Bottom: Fitted with angles to provide reinforcement and positive contact in closed position.
3. Weatherstripping: Moisture and rot proof, resilient type, located at jamb edges, bottom of curtain, and where curtain enters hood enclosure of exterior doors.
B. Steel Slats: Minimum 24 gage ASTM A 653/A 653M galvanized steel sheet, or gauge as required to meet wind load requirements.
1. Galvanizing: Minimum G90/Z275 coating.
C. Guide Construction: Continuous, of profile to retain door in place, mounting brackets of same metal.
D. Steel Guides: ASTM A36/A36M steel angles, size as required for wind loading, hot–dip galvanized per ASTM A 123/A 123M.
E. Hood Enclosure: Internally reinforced to maintain rigidity and shape.
1. Prime paint.
F. Hardware:
1. Latching: Inside mounted, adjustable keeper, spring activated latch bar with feature to keep in locked or retracted position.
G. Roller Shaft Counterbalance: Steel pipe and helical steel spring system, capable of producing torque sufficient to ensure smooth operation of curtain from any position and capable of holding position at mid–travel; with adjustable spring tension; requiring 25 lb nominal force to operate.

3.01 EXAMINATION & INSTALLATION
A. Verify that opening sizes, tolerances and conditions are acceptable.
B. Install units in accordance with manufacturer's instructions.
C. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
D. Securely and rigidly brace components suspended from structure.
E. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.
G. Install perimeter trim and closures.

3.02 TOLERANCES
A. Maintain dimensional tolerances and alignment with adjacent work.
B. Maximum Variation From Plumb: 1/8 inch.
C. Maximum Variation From Level: 1/8 inch.
D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch per 10 ft straight edge.

3.04 ADJUSTING & CLEANING
A. Adjust operating assemblies for smooth and noiseless operation.
B. Clean installed components.
C. Remove labels and visible markings.

SECTION 08 4113 – ALUMINUM–FRAMED STOREFRONTS

1.01 SUBMITTALS
A. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, internal drainage details.
B. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related Work, expansion and contraction joint location and details, and field welding required.
C. Design Data: Provide framing member structural and physical characteristics, dimensional limitations.
D. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross–referenced to door identification numbers in Contract Documents.

1.02 QUALITY ASSURANCE
A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed at Enter State Name Only Here.
B. Manufacturer and Installer Qualifications: Company specializing in manufacturing aluminum glazing systems with minimum three years of experience.

1.03 WARRANTY
A. Provide two year manufacturer warranty against defects in material and workmanship
B. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

2.01 STOREFRONT
A. Aluminum–Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
1. Glazing Position: Centered (front to back).
2. Vertical Mullion Dimensions: 2 inches wide by 4–1/2 inches deep.
3. Design Wind Load: As indicated on structural drawings, positive and negative.
4. Water Leakage Test Pressure Differential: 8.00 lbf/sq ft.
5. Air Infiltration Test Pressure Differential: 6.24 psf.
6. Finish: Class I natural anodized.
B. Performance Requirements:
1. Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
a. Design Wind Loads: Comply with requirements of ASCE 7.
b. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
2. Movement: Accommodate movement between storefront and perimeter framing and deflection of lintel, without damage to components or deterioration of seals.
3. Air Infiltration: Limit air infiltration through assembly to 0.06 cu ft/min/sq ft of wall area, measured at specified differential pressure across assembly in accordance with ASTM E283.
4. Water Leakage: None, when measured in accordance with ASTM E331 at specified pressure differential.
5. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
6. Air and Vapor Seal: Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line with pane of glass and heel bead of glazing compound.
7. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.

2.02 COMPONENTS
A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
1. Provide a compensating head receptor to allow vertical deflection at the head without deforming other framing components.
2. Glazing stops: Flush.
B. Doors: Glazed aluminum.
1. Thickness: 1–3/4 inches.
2. Top Rail: 4 inches wide.
3. Vertical Stiles: 4–1/2 inches wide.
4. Bottom Rail: 10 inches wide.
5. Glazing Stops: Square.
6. Finish: Same as storefront.

2.03 MATERIALS
A. Extruded Aluminum: ASTM B221 (ASTM B221M).
B. Sheet Aluminum: ASTM B209 (ASTM B209M).
C. Fasteners: Stainless steel.
D. Exposed Flashings: 0.050 inch thick aluminum sheet; finish to match framing members.
E. Perimeter Sealant: As specified in Section 07900.
F. Glass: As specified in Section 08800.
G. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.

2.04 FINISHES
A. Class I Natural Anodized Finish: AAMA 611 AA–M12C22A41 Clear anodic coating or AAMA 612 clear anodic coating with electrolytically deposited organic seal; not less than 0.7 mils thick.
B. Superior Performance Organic Coating System: AAMA 2605 multiple coat, thermally cured polyvinylidene fluoride system.

2.05 HARDWARE
A. Door Hardware: As indicated on drawings.

2.06 FABRICATION
A. Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.
B. Accurately fit and secure joints and corners. Make joints flush, hairline, and weatherproof.
C. Prepare components to receive anchor devices. Fabricate anchors.
D. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
E. Arrange fasteners and attachments to conceal from view.
F. Reinforce components internally for door hardware.
G. Reinforce framing members for imposed loads.
H. Finishing: Apply factory finish to all surfaces that will be exposed in completed assemblies.
1. Touch–up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.

3.01 EXAMINATION
A. Verify dimensions, tolerances, and method of attachment with other work.
B. Verify that wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.02 INSTALLATION
A. Install wall system in accordance with manufacturer's instructions.
B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
C. Provide alignment attachments and shims to permanently fasten system to building structure.
D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
E. Provide thermal isolation where components penetrate or disrupt building insulation.
F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
H. Coordinate attachment and seal of perimeter air and vapor barrier materials.
I. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
J. Set thresholds in bed of mastic and secure.
K. Install hardware using templates provided.
L. Install glass in accordance with Section 08800, using exterior dry glazing method.
M. Install perimeter sealant in accordance with Section 07900.
N. Touch–up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

3.03 TOLERANCES
A. Maximum Variation from Plumb: 0.06 inches every 3 ft non–cumulative or 1/16 inches per 10 ft, whichever is less.
B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

3.04 FIELD QUALITY CONTROL
A. Test installed storefront for water leakage in accordance with AAMA 501.2.

3.05 ADJUSTING & CLEANING
A. Adjust operating hardware for smooth operation.
B. Remove protective material from pre–finished aluminum surfaces.
C. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners. Wipe surfaces clean.
D. Remove excess sealant by method acceptable to sealant manufacturer.
E. Protect installed products from damage during subsequent construction.

SECTION 08 7100 – DOOR HARDWARE

1.01 ADMINISTRATIVE REQUIREMENTS
A. Coordinate the manufacture, fabrication, and installation of products onto which door hardware will be installed.
B. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.
C. Convey Owner's keying requirements to manufacturers.

1.02 SUBMITTALS
A. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project.
B. Hardware Schedule: Detailed listing of each item of hardware to be installed on each door. Use door numbering scheme as included in the Contract Documents. Identify electrically operated items and include power requirements.
C. Keying Schedule: Submit for approval of Owner.
D. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.

1.03 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of experience.
B. Hardware Supplier Personnel: Employ an Architectural Hardware Consultant (AHC) to assist in the work of this section.

2.01 DOOR HARDWARE – GENERAL
A. Provide all hardware specified or required to make doors fully functional, compliant with applicable codes, and secure to the extent indicated.
B. Provide all items of a single type of the same model by the same manufacturer.
C. Provide products that comply with the following:
1. Applicable provisions of federal, state, and local codes.
2. ADA Standards for Accessible Design.
3. ANSI/ICC A117.1, American National Standard for Accessible and Usable Buildings and Facilities.
4. Applicable provisions of NFPA 101, Life Safety Code.
5. Fire–Rated Doors: NFPA 80.
6. All Hardware on Fire–Rated Doors: Listed and classified by UL as suitable for the purpose specified and indicated.
7. Hardware for Smoke and Draft Control Doors: Provide hardware that enables door assembly to comply with air leakage requirements of the applicable code.
8. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.
D. Function: Lock and latch function numbers and descriptions of manufactures series as as shown on the drawings.
E. Electrically Operated and/or Controlled Hardware: Provide all power supplies, power transfer hinges, relays, and interfaces required for proper operation; provide wiring between hardware and control components and to building power connection.
F. Finishes: Identified in schedule.

2.02 HINGES
A. Butt Hinges: Comply with BHMA A156.1 and A156.7; heavy weight, unless otherwise indicated.

2.03 PUSH/PULLS
A. Push/Pulls: Comply with BHMA A156.6.
1. On solid doors, provide matching push plate and pull plate on opposite faces.

2.04 LOCKS AND LATCHES
A. Hardware Schedule indicates locking functions required for each door as defined in BHMA A156.2.
1. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
2. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.
B. Lock Cylinders: Manufacturer's standard tumbler type, seven–pin interchangeable core.
1. Provide cams and/or tailpieces as required for locking devices required.
C. Keying: System as directed by Owner.
1. Include construction keying.
2. Coordinate to existing keying system where one already exists.
3. When providing keying information, comply with DHI Handbook "Keying systems and nomenclature".

2.05 EXIT DEVICES
A. Locking Functions: Functions as defined in BHMA A156.3.

2.06 CLOSERS
A. Closers: Complying with BHMA A156.4.
1. On pairs of swinging doors, if an overlapping astragal is present, provide coordinator to ensure the leaves close in proper order.
2. At corridors, locate door–mounted closer on room side of door.
3. At outswinging exterior doors, mount closer in inside of door.

2.08 STOPS AND HOLDERS
A. Stops: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated. Provide wall stops, unless otherwise indicated.

2.09 GASKETING AND THRESHOLDS
A. Gaskets: Complying with BHMA A156.22.
1. On each door in smoke partition, provide smoke gaskets; top, sides, and meeting stile of pairs. If fire/smoke partitions are not indicated on drawings, provide smoke gaskets on each door identified as a "smoke door" and 20–minute rated fire doors.
2. On each exterior door, provide weatherstripping gaskets, unless otherwise indicated; top, sides, and meeting stiles of pairs.
3. On each exterior door, provide door bottom sweep, unless otherwise indicated.
B. Thresholds:
1. At each exterior door, provide a threshold unless otherwise indicated.
2. Field cut threshold to frame for tight fit.
C. Fasteners At Exterior Locations: Non–corroding.

2.10 PROTECTION PLATES AND ARCHITECTURAL TRIM
A. Drip Guard: Provide projecting drip guard over all exterior doors unless they are under a projecting roof or canopy.

2.11 KEY CONTROLS
A. Fire Department Lock Box: Heavy–duty, surface mounted, solid stainless–steel box with hinged door and interior gasket seal; single drill resistant lock with dust covers and tamper alarm.
1. Capacity: Holds 2 keys.
2. Finish: Manufacturer's standard black.

3.01 EXAMINATION
A. Verify that doors and frames are ready to receive work; labeled, fire–rated doors and frames are present and properly installed, and dimensions are as instructed by the manufacturer.
B. Verify that electric power is available to power operated devices and of the correct characteristics.

3.02 INSTALLATION
A. Install hardware in accordance with manufacturer's instructions and applicable codes.
B. Use templates provided by hardware item manufacturer.
C. Do not install surface mounted items until finishes applied to substrate are complete.
D. Install hardware on fire–rated doors and frames in accordance with code and NFPA 80.
E. Mounting heights for hardware from finished floor to center line of hardware item:
1. For steel doors and frames: Comply with DHI "Recommended Locations for Architectural Hardware for Steel Doors and Frames."
2. For wood doors: Comply with DHI "Recommended Locations for Architectural Hardware for Wood Flush Doors."

3.03 ADJUSTING
A. Adjust hardware for smooth operation.
B. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

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FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:
SPECIFICATIONS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: Designer
CHECKED BY: Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SECTION 08 8100 – GLAZING

1.01 SUBMITTALS
- A. Product Data on Glass Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.

1.02 QUALITY ASSURANCE
- A. Perform Work in accordance with GANA Glazing Manual, FGMA Sealant Manual, SIGMA TM-3000 Glazing Guidelines, and GANA Laminated Glass Design Guide for glazing installation methods.
- B. Manufacturer Qualifications for sealed insulating glass units: Company specializing in performing the work of this section with minimum five years experience.
- C. Installer Qualifications: Company specializing in performing the work of this section with minimum three years experience.

1.03 WARRANTY
- A. Sealed Insulating Glass Units: Provide a ten (10) year warranty to include coverage for seal failure, interpane dusting or misting, including replacement of failed units.
- B. Laminated Glass: Provide a five (5) year warranty to include coverage for delamination, including replacement of failed units.

2.01 GLAZING TYPES
- A. Sealed Insulating Glass Units: Vision glazing.
  1. Application(s): All exterior glazing unless otherwise indicated.
  2. Outboard Lite: Annealed float glass, 1/4 inch thick, minimum.
     a. Tint: Clear / Coating: Low-E type, on #2 surface.
  3. Inboard Lite: Annealed float glass, 1/4 inch thick, minimum.
     a. Tint: Clear.
  4. Total Thickness: 1 inch.
  5. Total Visible Light Transmittance: 70 percent, nominal.
  6. Total Solar Heat Gain Coefficient: 40 percent, nominal.
- B. Sealed Insulating Glass Units: Safety glazing:
  1. Applications: Provide this type of glazing in the following locations:
     a. Glazed sidelights and panels next to doors.
     b. Other locations required by applicable federal, state, and local codes and regulations.
     c. Other locations indicated on the drawings.
  2. Type: Same as other vision glazing, including Low-E coating, except use fully tempered float or laminated safety glass for both outboard and inboard lites.
- C. Single Vision Glazing:
  1. Applications: All interior glazing unless otherwise indicated.
  2. Type: Annealed float glass.
  3. Tint: Clear.
  4. Thickness: 1/4 inch.
- D. Single Safety Glazing:
  1. Applications: Provide this type of glazing in the following locations:
     a. Glazed lites in doors, except fire doors.
     b. Glazed sidelights to doors, except in fire-rated walls and partitions.
     c. Other locations required by applicable federal, state, and local codes and regulations.
     d. Other locations indicated on the drawings.
  2. Type: fully tempered float or laminated safety glass as specified.
  3. Tint: Clear.
  4. Thickness: 1/4 inch.

2.02 EXTERIOR GLAZING ASSEMBLIES
- A. Structural Design Criteria: Select type and thickness to withstand dead loads and wind loads acting normal to plane of glass at design pressures calculated in accordance with ASCE 7.
  1. Use the procedure specified in ASTM E1300 to determine glass type and thickness.
  2. Limit glass deflection to 1/200 or flexure limit of glass, whichever is less, with full recovery of glazing materials.
  3. Thicknesses listed are minimum.
- B. Air and Vapor Seals: Provide completed assemblies that maintain continuity of building enclosure vapor retarder and air barrier:
  1. In conjunction with vapor retarder and joint sealer materials described in other sections.
  2. To maintain a continuous air barrier and vapor retarder throughout the glazed assembly from glass pane to heel bead of glazing sealant.

2.03 GLASS MATERIALS
- A. Float Glass: All glazing is to be float glass unless otherwise indicated.
  1. Annealed Type: ASTM C1036, Type I, transparent flat, Class 1 clear, Quality Q3 (glazing select).
  2. Heat-Strengthened and Fully Tempered Types: ASTM C1048.
     a. Tempered glass: Comply with CPSC 16 CFR 1201 for Category II
  3. Thicknesses: As indicated; for exterior glazing comply with specified requirements for wind load design regardless of specified thickness.
- B. Laminated Glass: Float glass laminated in accordance with ASTM C1172.
  1. Laminated Safety Glass: Comply with 16 CFR 1201 test requirements for Category II.
  2. Plastic Interlayer: 0.060 inch thick, minimum.
  3. Where fully tempered is specified or required, provide glass that has been tempered by the tong-less horizontal method.

2.04 SEALED INSULATING GLASS UNITS
- A. Sealed Insulating Glass Units: Types as indicated.
  1. Locations: Exterior, except as otherwise indicated.
  2. Durability: Certified by an independent testing agency to comply with ASTM E2190.
  3. Edge Spacers: Aluminum, bent and soldered corners.
  4. Edge Seal: Glass to elastomer with supplementary silicone sealant.

2.05 GLAZING ACCESSORIES
- A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness, ASTM C864 Option I. Length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness, ASTM C 864 Option I. Minimum 3 inch long x one half the height of the glazing stop x thickness to suit application, self adhesive on one face.
- C. Glazing Gaskets: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option I; black color.

3.01 EXAMINATION & PREPARATION
- A. Verify that openings for glazing are correctly sized and within tolerance.
- B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and ready to receive glazing.
- C. Clean contact surfaces with solvent and wipe dry.

3.02 GLAZING METHODS
- A. INSTALLATION – EXTERIOR/INTERIOR DRY METHOD (GASKET GLAZING)
  1. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners, unless otherwise indicated by manufacturer.
  2. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
  3. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

3.03 CLEANING & PROTECTION
- A. Remove glazing materials from finish surfaces.
- B. Remove labels after Work is complete.
- C. Clean glass and adjacent surfaces.
- D. After installation, mark pane with an 'X' by using removable plastic tape or paste.

SECTION 09 2116 – GYPSUM BOARD ASSEMBLIES

1.01 SUBMITTALS
- A. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
- B. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.

1.02 QUALITY ASSURANCE
- A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum three years of experience.

2.01 GYPSUM BOARD ASSEMBLIES
- A. Provide completed assemblies complying with ASTM C840 and GA-216.
- B. Fire Rated Assemblies: Provide completed assemblies with the following characteristics:
  1. UL Assembly Numbers: Provide construction equivalent to that listed for the particular assembly in the current UL Fire Resistance Directory.

2.02 METAL FRAMING MATERIALS
- A. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf.
- B. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
- C. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
  1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
  2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot dipped galvanized coating.
- D. Sheet Metal Backing: 0.043 inch thick, galvanized, 6" wide.

2.03 BOARD MATERIALS
- A. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  1. Application: Use for vertical surfaces, unless otherwise indicated.
  2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
     a. Mold-resistant board is required whenever board is being installed before the building is enclosed and conditioned.
  3. At Assemblies Indicated with Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
  4. Thickness:
     a. Vertical Surfaces: 5/8 inch unless otherwise indicated or required by tested assembly.
- B. Backing Board For Wet Areas:
  1. Application: Surfaces behind tile in wet areas including tub and shower surrounds, shower ceilings, and janitor closet.
  2. Glass-Mat-Faced Board: Coated glass mat water-resistant gypsum backing panel as defined in ASTM C1178.
     a. Fire-Resistant Type: Type X core, thickness 5/8 inch.
- C. Backing Board For Non-Wet Areas: Water-resistant gypsum backing board as defined in ASTM C1396/C1396M; sizes to minimum joints in place; ends square cut.
  1. Application: Vertical surfaces behind thinset tile, except in wet areas.
  2. Type X Thickness: 5/8 inch.
  3. Edges: Tapered.
- D. Ceiling Board: Special sag-resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  1. Application: Ceilings, unless otherwise indicated.
  2. Thickness: 1/2 inch, unless otherwise indicated.
  3. Edges: Tapered.
- E. Exterior Sheathing Board: Sizes to minimize joints in place; ends square cut.
  1. Application: Exterior sheathing, unless otherwise indicated.
  2. Glass-Mat-Faced Sheathing: Glass mat faced gypsum substrate as defined in ASTM C1177/C1177M.
  3. Regular Board Thickness: 5/8 inch unless otherwise indicated.
  4. Edges: Square, for vertical application.
- F. Exterior Soffit Board: Exterior gypsum soffit board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  1. Application: Ceilings and soffits in protected exterior areas, unless otherwise indicated.
  2. At Assemblies Indicated with Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X.
  3. Regular Type Thickness: 1/2 inch, unless otherwise indicated.
  4. Edges: Tapered.

2.04 ACCESSORIES
- A. Water-Resistive Barrier: As specified in Section 07 2500.
- B. Finishing Accessories: ASTM C1047, galvanized steel, rolled zinc, or rigid plastic, unless otherwise indicated.
  1. Types: As detailed or required for finished appearance.
  2. Special Shapes: In addition to conventional cornerbead and control joints, provide U-bead and L-bead at exposed panel edges.
- C. Joint Materials: ASTM C475 and as recommended by gypsum board manufacturer for project conditions.
  1. Tape: 2 inch wide, coated glass fiber tape for joints and corners, at wet locations and with mold-resisistant board.
  2. Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.
  3. Ready-mixed vinyl-based joint compound.
  4. Powder-type vinyl-based joint compound.
  5. Chemical hardening type compound.
- D. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.
- E. Screws for Attachment to Steel Members Less Than 0.03 inch In Thickness, to Wood Members, and to Gypsum Board: ASTM C1002; self-piercing tapping type; cadmium-plated for exterior locations.
- F. Screws for Attachment to Steel Members From 0.033 to 0.112 Inch in Thickness: ASTM C954; steel drill screws for application of gypsum board to loadbearing steel studs.
- G. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- H. Exterior Soffit Vents: One piece, perforated, ASTM B 221 6063 T5 alloy aluminum, with edge suitable for direct application to gypsum board and manufactured especially for soffit application. Provide continuous vent.

3.01 EXAMINATION
- A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION
- A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.
- B. Suspended Ceilings and Soffits: Space framing and furring members as indicated.
  1. Laterally brace entire suspension system.
  2. Install bracing as required at exterior locations to resist wind uplift.
- C. Studs: Space studs as indicated.
  1. Extend partition framing to height indicated on drawings.
  2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
  3. Partitions Penetrating Ceiling, not Terminating at Structure: Brace top track securely to structure at 48 inches on center, unless otherwise indicated.
  4. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- D. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
- E. Standard Wall Furring: Install at concrete and masonry walls scheduled to receive gypsum board, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 24 inches on center.
  1. Orientation: Vertical.
  2. Spacing: As indicated.
- F. Blocking: Use sheet metal backing secured to studs. Provide blocking for support of wall cabinets, toilet accessories, hardware, opening frames, and other wall mounted items requiring secure attachment.
  1. Use wood blocking secured to studs for plumbing fixtures, toilet partitions, grab bars, handrails and other items indicated on the drawings to be supported with wood blocking.

3.03 BOARD INSTALLATION
- A. Comply with ASTM C 840 and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Single-Layer Non-Rated: Install gypsum board perpendicular to framing, with ends and edges occurring over firm bearing.
  1. Exception: Tapered edges to receive joint treatment at right angles to framing.
- C. Fire-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.
- D. Exterior Sheathing: Comply with ASTM C1280. Install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
- E. Exterior Soffit Board: Install perpendicular to framing, with staggered end joints over framing members or other solid backing.
- F. Cementitious Backing Board: Install over steel framing members where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.
- G. Installation on Metal Framing: Use screws for attachment of all gypsum board.
- H. Curved Surfaces: Apply gypsum board to curved substrates in accordance with GA-226.
- I. Moisture Protection: Treat cut edges and holes in moisture resistant gypsum board and exterior gypsum soffit board with sealant.

3.04 INSTALLATION OF TRIM AND ACCESSORIES
- A. Control Joints: Place control joints consistent with lines of building spaces and as follows:
  1. Space in accordance with ASTM C840 and as indicated.
  2. Not more than 30 feet apart on walls and ceilings over 50 feet long.
  3. At exterior soffits, not more than 30 feet apart in both directions.
  4. Where partition, wall or ceiling traverses a construction joint (expansion, seismic, or building control element) in the base building structure.
  5. Where floor supported partition adjoins ceiling supported structures.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.
- D. Exterior Soffit Vents: Install according to manufacturer's written instructions and in locations shown on the drawings. Provide vent area indicated.

3.05 JOINT TREATMENT
- A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, bedded and finished with chemical hardening type joint compound.
- B. Paper Faced Gypsum Board: Use paper joint tape, bedded with ready-mixed vinyl or powder-type vinyl for interior applications, and chemical hardening type for exterior or wet locations, and finished with matching joint compound.
- C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
  1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
  2. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
  3. Level 3: Walls to receive textured wall finish.
  4. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
  5. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.
- D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  1. Feather coats of joint compound so that camber is maximum 1/32 inch.
- E. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.
- F. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.06 TOLERANCES
- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

SECTION 09 5123 – SUSPENDED ACOUSTICAL CEILINGS

1.01 ADMINISTRATIVE REQUIREMENTS
- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units until after interior wet work is dry.

1.02 SUBMITTALS
- A. Product Data: Provide data on suspension system components and acoustical units.
- B. Maintenance Materials: Furnish the following for Owner's use in maintenance of project. Extra Acoustical Units: Quantity equal to 5 percent of total installed.

1.03 QUALITY ASSURANCE
- A. Fire-Resistive Assemblies: Complete assembly listed and classified by UL for the fire resistance indicated.
- B. Installer Qualifications: Company specializing in the installation of the products specified in this section with minimum three years experience.

1.04 FIELD CONDITIONS
- A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

2.01 ACOUSTICAL UNITS
- A. Acoustical Units – General: ASTM E 1264, Class A. Refer to drawings for products. Units for Installation in Fire-Rated Suspension System: Listed and classified for the fire-resistive assembly the suspension system is a part of.

2.02 SUSPENSION SYSTEM(S)
- A. Manufacturers: Same as for acoustical units or acceptable by the acoustical unit manufacurer.
- B. Suspension Systems – General: ASTM C635; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.

2.03 ACCESSORIES
- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Perimeter Moldings: Same material and finish as grid.
- C. Touch-up Paint: Type and color to match acoustical and grid units.

3.01 EXAMINATION
- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.02 INSTALLATION – SUSPENSION SYSTEM
- A. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions and as supplemented in this section.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Lay out system to a balanced grid design with edge units no less than 50 percent of acoustical unit size, unless otherwise indicated on drawings.
- D. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.
- E. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- H. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- I. Do not eccentrically load system or induce rotation of runners.
- J. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
  1. Use longest practical lengths.
  2. Overlap and rivet corners.

3.03 INSTALLATION – ACOUSTICAL UNITS
- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install units after above-ceiling work is complete.
- E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- F. Cutting Acoustical Units:
  1. Make field cut edges of same profile as factory edges.
  2. Double cut and field paint exposed reveal edges.
- G. Where round obstructions occur, provide preformed closures to match perimeter molding.
- H. For rated ceiling assemblies, install hold-down clips on each panel to retain panels tight to grid system; comply with fire rating requirements.
- I. Install hold-down clips on panels in entrance vestibules, within 20 ft of an exterior door, and where indicated.

3.04 TOLERANCES
- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

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FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SPECIFICATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
Designer	Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

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SECTION 09 6500 – RESILIENT TILE FLOORING AND BASE

1.01 SUBMITTALS
A. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
B. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of sub-floor is acceptable.
C. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
1. Extra Flooring Material: 12 square feet of each type and color.
2. Extra Wall Base: Eight linear feet of each type and color.
1.02 FIELD CONDITIONS
A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

2.01 TILE FLOORING
A. Vinyl Composition Tile: Homogeneous, with color extending throughout thickness, and:
1. Minimum Requirements: Comply with ASTM F1066, of Class corresponding to type specified.
2. Size: 12 x 12 inch.
3. Thickness: 0.125 inch.
4. Pattern & Color: as indicated on the drawings.
2.02 RESILIENT BASE
A. Resilient Base: ASTM F1861, Type TV, vinyl, thermoplastic; top set style and color as scheduled on the drawings, and as follows:
1. Height, Color, and Finish: As scheduled on the drawings.
2. Thickness: 0.125 inch thick.
3. Length: Roll.
4. Accessories: Premolded external corners.
2.03 ACCESSORIES
A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
B. Primers, Adhesives, and Seaming Materials: Waterproof; types recommended by flooring manufacturer.
1. Provide only products having lower VOC content than allowed by local regulation.
C. Moldings, Transition and Edge Strips: As scheduled on the drawings.
D. Sealer and Polish: Types recommended by flooring manufacturer.

3.01 EXAMINATION
A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.
B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.
C. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for resilient flooring installation by testing for moisture and pH.
1. Test in accordance with ASTM F710, including but not limited to Moisture Vapor Emission and pH.
2. Test Internal Relative Humidity in accordance with ASTM F2170 Procedure A.
3. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
D. Verify that required floor-mounted utilities are in correct location.
3.02 PREPARATION
A. Prepare floor substrates as recommended by flooring and adhesive manufacturers and in accordance with ASTM F710.
B. Remove sub-floor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
C. Prohibit traffic until filler is cured.
D. Clean substrate.
E. Apply primer as required to prevent "bleed-through" or interference with adhesion by substances that cannot be removed.
3.03 INSTALLATION
A. Starting installation constitutes acceptance of sub-floor conditions.
B. Install in accordance with manufacturer's instructions.
C. Spread only enough adhesive to permit installation of materials before initial set.
D. Fit joints tightly.
E. Set flooring in place, press with heavy roller to attain full adhesion.
F. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
G. Install edge strips or vinyl transition trims at unprotected or exposed edges, where flooring terminates or abuts other floor finishes, and where indicated.
H. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
I. Install flooring in recessed floor access covers, maintaining floor pattern.
3.04 TILE FLOORING
A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless manufacturer's instructions say otherwise.
3.05 RESILIENT BASE
A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
C. Install base on solid backing. Bond tightly to wall and floor surfaces.
D. Scribe and fit to door frames and other interruptions.
3.06 CLEANING & PROTECTION
A. Remove excess adhesive from floor, base, and wall surfaces without damage.
B. Clean, seal and polish in accordance with manufacturer's instructions.
C. Prohibit traffic on resilient flooring for 48 hours after installation.

SECTION 09 6816 – SHEET CARPETING

1.01 SUBMITTALS
A. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
B. Samples: Submit three samples 12 x 12 inch in size illustrating color and pattern for each carpet material specified.
1.02 QUALITY ASSURANCE
A. Installer Qualifications: Company specializing in installing carpet with minimum three years experience.
1.03 FIELD CONDITIONS
A. Store materials in area of installation for minimum period of 24 hours prior to installation.
B. Maintain minimum 70 degrees F ambient temperature 24 hours prior to, during and 24 hours after installation.

2.01 CARPET
A. Carpet: As scheduled on drawings. Surface Flammability Ignition: Pass ASTM D2859 (the "pill test").
2.02 ACCESSORIES
A. Sub-Floor Filler: Type recommended by carpet manufacturer.
B. Moldings and Edge Strips: Material and color as selected.
C. Seam Adhesive: Recommended by manufacturer.
D. Contact Adhesive: Recommended by carpet manufacturer.

3.01 EXAMINATION
A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive carpet.
B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive carpet.
C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of adhesives to sub floor surfaces.
D. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for flooring installation by testing for moisture and pH.
1. Test in accordance with ASTM F710.
2. Test Internal Relative Humidity in accordance with ASTM F2170 Procedure A.
3. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.
E. Verify that required floor-mounted utilities are in correct location.
3.02 PREPARATION
A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
B. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with sub-floor filler.
C. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.
D. Clean substrate.
3.03 INSTALLATION – GENERAL
A. Starting installation constitutes acceptance of sub-floor conditions.
B. Install carpet and cushion in accordance with manufacturer's instructions and CRI Carpet Installation Standard.
C. Verify carpet match before cutting to ensure minimal variation between dye lots.
D. Lay out carpet:
1. Locate seams in area of least traffic, out of areas of pivoting traffic, and parallel to main traffic.
2. Do not locate seams perpendicular through door openings.
3. Align run of pile in same direction as anticipated traffic and in same direction on adjacent pieces.
4. Locate change of color or pattern between rooms under door centerline.
5. Provide monolithic color, pattern, and texture match within any one area.
E. Install carpet tight and flat on subfloor, well fastened at edges, with a uniform appearance.
3.04 DIRECT-GLUED CARPET
A. Double cut carpet seams, with accurate pattern match. Make cuts straight, true, and unfrayed. Apply seam adhesive to cut edges of woven carpet immediately.
B. Apply contact adhesive to floor uniformly at rate recommended by manufacturer. After sufficient open time, press carpet into adhesive.
C. Apply seam adhesive to the base of the edge glued down. Lay adjoining piece with seam straight, not overlapped or peaked, and free of gaps.
D. Roll with appropriate roller for complete contact of adhesive to carpet backing.
E. Trim carpet neatly at walls and around interruptions.
F. Complete installation of edge strips, concealing exposed edges.
3.05 CLEANING
A. Remove excess adhesive from floor and wall surfaces without damage.
B. Clean and vacuum carpet surfaces

SECTION 09 9100 – PAINTS AND COATINGS

1.01 SECTION INCLUDES
A. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
1. Exposed surfaces of steel lintels and ledge angles.
2. Prime surfaces to receive wall coverings.
3. Mechanical and Electrical:
a. In finished areas, paint all insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
b. In finished areas, paint shop-primed items.
c. On the roof and outdoors, paint all equipment that is exposed to weather or to view, except that which is factory-finished.
B. Do Not Paint or Finish the Following Items:
1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
2. Items indicated to receive other finishes.
3. Items indicated to remain unfinished.
4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
5. Floors, unless specifically so indicated.
6. Glass.
7. Concealed pipes, ducts, and conduits.
1.02 SUBMITTALS
A. Product Data: Provide complete list of all products to be used, with the following information for each:
1. Manufacturer's name, product name and/or catalog number, and general product category
2. MPI product number
3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
B. Samples: Submit three paper "drop" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
1. Where sheen is specified, submit samples in only that sheen.
2. Where sheen is not specified, discuss sheen options with Architect before preparing samples, to eliminate sheens definitely not required.
C. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
1. Extra Paint and Coatings: 1 gallon of each color and type; store where directed.
2. Label each container with color, type, texture, and room locations in addition to the manufacturer's label.
1.03 QUALITY ASSURANCE
A. Applicator Qualifications: Company specializing in performing the type of work specified with minimum three years experience.
1.04 FIELD CONDITIONS
A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

2.01 MANUFACTURERS
A. Provide all paint and coating products from the same manufacturer to the greatest extent possible.
2.02 PAINTS AND COATINGS – GENERAL
A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
1. Where MPI paint numbers are specified, provide products listed in Master Painters Institute Approved Product List, current edition available at www.paintinfo.com, for specified MPI categories, except as otherwise indicated.
2. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
3. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
4. Supply each coating material in quantity required to complete entire project's work from a single production run.
5. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
C. Volatile Organic Compound (VOC) Content:
1. Provide coatings that comply with the most stringent requirements specified in the following:
a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
D. Flammability: Comply with applicable code for surface burning characteristics.
E. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
F. Colors: As indicated on drawings
2.03 PAINT SYSTEMS – EXTERIOR
A. All Exterior Concrete and Masonry Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including concrete, concrete masonry, and cement board.
1. Preparation as specified by manufacturer.
2. Two top coats and one coat primer recommended by manufacturer.
3. Top Coat(s): MPI Exterior Latex (MPI # 10, 11, 15, 119, 214).
4. Primer On Concrete and Concrete Masonry: One heavy coat latex block filler (100 percent acrylic) squeegeed into pores.
B. Wood, Opaque, Latex, 3 Coat:
1. One coat of latex primer sealer.
2. Semi-gloss: Two coats of latex enamel; MPI # 11.
C. Gypsum Board and Plaster, Opaque, Latex, 3 Coat:
1. One coat of latex primer sealer.
2. Flat: Two coats of latex; MPI # 10.
D. Ferrous Metals, Unprimed, Latex, 3 Coat:
1. One coat of latex primer.
2. Semi-gloss: Two coats of latex enamel; MPI # 163.
E. Ferrous Metals, Primed, Latex, 2 Coat:
1. Touch-up with rust-inhibitive primer recommended by top coat manufacturer.
2. Semi-gloss: Two coats of latex enamel; MPI # 163.
F. Galvanized Metals, Latex, 3 Coat:
1. One coat galvanize primer.
2. Semi-gloss: Two coats of latex enamel; MPI # 163.
2.04 PAINT SYSTEMS – INTERIOR
A. All Interior Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including gypsum board, concrete, concrete masonry, brick, wood, plaster, uncoated steel, shop primed steel, and galvanized steel.
1. Two top coats and one coat primer.
2. Primer(s): As recommended by manufacturer of top coats.
B. Medium Duty Door/Trim:
1. Medium duty applications include doors, door frames, railings, handrails, guardrails, and balustrades
2. Two top coats and one coat primer.
3. Top Coat(s): MPI High Performance Architectural Interior Latex; MPI #139,140, 141.
4. Semi-Gloss: MPI gloss level 5; use this sheen, unless noted otherwise.
5. Primer(s): As recommended by manufacturer of top coats.
C. Dry Fall: Metals; exposed structure and overhead-mounted services, including shop primed steel deck, structural steel, metal fabrications, galvanized ducts, galvanized conduit, and galvanized piping.
1. Shop primer by others.
2. One top coat.
3. Top Coat: MPI Latex Dry Fall; MPI #118, 155, 226.
4. Flat: MPI gloss level 1; use this sheen, unless noted otherwise.
D. Transparent Finish on Wood, Unless Otherwise Indicated:
1. Stain: MPI Semi-Transparent Stain for Wood; MPI #90.
2. Top Coat(s): MPI Clear Water Based Varnish; MPI #128, 129, 130.
3. Satin: MPI gloss level 4; use this sheen, unless noted otherwise.
E. Wood, Opaque, Latex, 3 Coat:
1. One coat of latex primer sealer.
2. Semi-gloss: Two coats of latex enamel; MPI # 54.
F. Concrete/Masonry, Opaque, Latex, 3 Coat:
1. One coat of block filler.
2. Flat: Two coats of latex enamel; MPI # 53.
G. Ferrous Metals, Unprimed, Latex, 3 Coat:
1. One coat of latex primer.
2. Semi-gloss: Two coats of latex enamel; MPI # 153.
H. Ferrous Metals, Primed, Latex, 2 Coat:
1. Touch-up with latex primer.
2. Semi-gloss: Two coats of latex enamel; MPI # 153.
I. Galvanized Metals, Latex, 3 Coat:
1. One coat galvanize primer.
2. Semi-gloss: Two coats of latex enamel; MPI # 153.
J. Gypsum Board/Plaster, Latex, 3 Coat:
1. One coat of latex primer sealer.
2. Eggshell: Two coats of latex enamel; MPI # 52.
K. Fabrics/Insulation Jackets, Alkyd, 3 Coat:
1. One coat of latex primer sealer.
2. Flat: Two coats of alkyd enamel; MPI # 49.
2.05 ACCESSORY MATERIALS
A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.
B. Patching Material: Latex filler.
C. Fastener Head Cover Material: Latex filler.

3.01 EXAMINATION
A. Do not begin application of coatings until substrates have been properly prepared.
B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
D. Test shop-applied primer for compatibility with subsequent cover materials.
E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
1. Gypsum Wallboard: 12 percent.
2. Plaster and Stucco: 12 percent.
3. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
4. Interior Wood: 15 percent, measured in accordance with ASTM D4442.
5. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.
3.02 PREPARATION
A. Clean surfaces thoroughly and correct defects prior to coating application.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
C. Remove or repair existing coatings that exhibit surface defects.
D. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
E. Seal surfaces that might cause bleed through or staining of topcoat.
F. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
G. Concrete and Unit Masonry Surfaces to be Painted: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.
H. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.
I. Plaster Surfaces to be Painted: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
J. Insulated Coverings to be Painted: Remove dirt, grease, and oil from canvas and cotton.
K. Aluminum Surfaces to be Painted: Remove surface contamination by steam or high pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.
L. Galvanized Surfaces to be Painted: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.
M. Corroded Steel and Iron Surfaces to be Painted: Prepare using at least SSPC-PC 2 (hand tool cleaning) or SSPC-SP 3 (power tool cleaning) followed by SSPC-SP 1 (solvent cleaning).
N. Uncorroded Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.
O. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
P. Interior Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.
Q. Interior Wood Surfaces to Receive Transparent Finish: Wipe off dust and grit prior to sealing, seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after sealer has dried; sand lightly between coats. Prime concealed surfaces with gloss varnish reduced 25 percent with thinner.
R. Exterior Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior caulking compound after prime coat has been applied. Back prime concealed surfaces before installation.
S. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with clear sealer.
T. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.
3.03 APPLICATION
A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
B. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.
C. Apply products in accordance with manufacturer's instructions.
D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
E. Apply each coat to uniform appearance.
F. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many coats as necessary for complete hide.
G. Sand wood and metal surfaces lightly between coats to achieve required finish.
H. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
I. Wood to Receive Transparent Finishes: Tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
J. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.
3.04 PROTECTION
A. Protect finished coatings until completion of project.
B. Touch-up damaged coatings after Substantial Completion.

SECTION 10 2113.13 – METAL TOILET COMPARTMENTS

1.01 ADMINISTRATIVE REQUIREMENTS
A. Coordination: Coordinate the work with placement of support framing and anchors in walls and ceilings.
1.02 PERFORMANCE REQUIREMENTS
A. Assure configuration of components and accessories, and operation of doors and hardware including opening, closing and latching are in compliance with the requirements of the ADA Standards, ANSI A117.1, the Building Code, and local accessibility regulations.
1.03 SUBMITTALS
A. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall and floor supports, door swings.
B. Product Data: Provide data on panel construction, hardware, and accessories.

2.01 MATERIALS
A. Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating.
2.02 COMPONENTS
A. Toilet Compartments: Baked enamelled or powder coated steel, floor-mounted headrail-braced.
B. Doors, Panels, and Pilasters: Sheet steel faces, pressure bonded to sound deadening core, formed and closed edges; corners made with corner clips or mitered, welded, and ground smooth.
1. Panel Faces: 20 gage.
2. Door Faces: 22 gage.
3. Pilaster Faces: 20 gage.
4. Reinforcement: 12 gage.
5. Internal Reinforcement: Provide in areas of attached hardware and fittings. Mark locations of reinforcement for partition mounted washroom accessories.
C. Door and Panel Dimensions:
1. Thickness: 1 inch.
2. Door Width: 24 inch.
3. Door Width for Handicapped Use: 36 inch.
4. Height: 58 inch.
D. Pilasters: 1-1/4 inch thick, of sizes required to suit compartment width and spacing.
E. Urinal Screens: 18 inch wide x 42 inch high wall mounted with continuous channel-shaped panel bracket.
2.03 ACCESSORIES
A. Pilaster Shoes: Formed ASTM A 666, Type 304 stainless steel with No. 6 finish, 3 inch high, concealing floor fastenings.
1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.
B. Head Rails: Hollow anodized aluminum tube, 1 x 1-5/8 inch size, with anti-grip strips and cast socket wall brackets.
C. Brackets: Polished chrome-plated non-ferrous cast metal.
D. Attachments, Screws, and Bolts: Stainless steel, tamper proof type.
1. For attaching panels and pilasters to brackets: Through-bolts and nuts; tamper proof.
E. Hardware: Polished chrome plated non-ferrous cast metal:
1. Pivot hinges, gravity type, adjustable for door close positioning; two per door.
2. Thumb turn or sliding door latch with exterior emergency access feature.
3. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
4. Coat hook with rubber bumper; one per compartment, mounted on door.
5. Provide door pulls each side of accessible stall doors.
F. Privacy accessories:
1. Hinge Side Filler: Mounted on pilaster at each door, finish to match pilaster, full length of door.
2. Continuous Stop: Mounted on pilaster at each door, with continuous rubber bumper, finish to match pilaster, full-length of door.
2.04 FINISHING
A. Steel Compartments: Clean, degrease, and neutralize. Follow immediately with a phosphatizing treatment, prime coat and two finish coats powder coat enamel.
B. Color: As indicated on drawings.

3.01 EXAMINATION
A. Verify existing conditions before starting work.
B. Verify that field measurements are as indicated.
C. Verify correct spacing of and between plumbing fixtures.
D. Verify correct location of built-in framing, anchorage, and bracing.
E. Notify contractor of non-conforming conditions. Do not proceed with installation until corrected.
3.02 INSTALLATION
A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.
B. Assure partitions and urinal screens are positioned in compliance with the clearance requirements of the ADA Standards, ANSI A117.1, the Building Code, and local accessibility regulations.
C. Maintain 3/8 to 1/2 inch space between wall and panels and between wall and end pilasters.
D. Attach panel brackets securely to walls using anchor devices.
E. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.
F. Field touch-up of scratches or damaged enamel finish will not be permitted. Replace damaged or scratched materials with new materials.
3.03 TOLERANCES
A. Maximum Variation From True Position: 1/4 inch. EXCEPTION: Do not reduce minimum clearance requirements of the ADA Standards, ANSI A117.1, the Building Code, and local accessibility regulations.
B. Maximum Variation From Plumb: 1/8 inch.
3.04 ADJUSTING
A. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch.
B. Adjust hinges on accessible stalls to position doors in full closed position when unlatched. Return other doors to partial open position.
C. Adjust adjacent components for consistency of line or plane.

SECTION 10 4416 – FIRE EXTINGUISHES

1.01 REFERENCE STANDARDS
A. NFPA 10 – Standard for Portable Fire Extinguishers; 2013.
B. UL (FPED) – Fire Protection Equipment Directory; Underwriters Laboratories Inc.; current edition.
1.02 SUBMITTALS
A. Shop Drawings: Indicate cabinet physical dimensions, wall bracket mounted measurements, and location.
B. Product Data: Provide color and finish and extinguisher type and capacity.
1.03 FIELD CONDITIONS
A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.

2.01 FIRE EXTINGUISHERS
A. Fire Extinguishers – General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
1. Provide extinguishers labeled by UL for the purpose specified and indicated.
B. Dry Chemical Type Fire Extinguishers: Carbon steel tank, with pressure gage.
1. Class: 4A-80B:C.
2. Size: 10 pound.
3. Finish: Baked polyester powder coat, red color.
2.02 ACCESSORIES
A. Extinguisher Brackets: Formed steel, chrome-plated.
B. Cabinets: Manufacturer's Standard baked enamel, ADA compliant, semi-recessed cabinet with vertical tempered glass panel and vinyl lettering. Recess depth suitable for installation in a standard 3-5/8" stud wall while maintaining accessibility code compliance.
C. Graphic Identification: "Fire Extinguisher" oriented vertically.

3.01 EXAMINATION
A. Verify existing conditions before starting work.
B. Verify rough openings for cabinet are correctly sized and located.
3.02 INSTALLATION
A. Supply and install (QUANTITY BASED ON 1 EXTINGUISHER PER 3,000 S.F. FLOOR AREA AND NOT MORE THAN 75' TRAVEL DISTANCE FROM ANY POINT TO AN EXTINGUISHER) fire extinguishers.
B. Final location shall be directed by the authority having jurisdiction.
C. Install in accordance with manufacturer's instructions and secure rigidly in place.
D. Place extinguishers on wall brackets, unless cabinets are indicated in the documents.

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ELECTRICAL ENGINEER:

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FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037
KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:
SPECIFICATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
Designer	Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:
G2.0.7

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SECTION 31 2323 - FILL AND BACKFILL

1.01 PROJECT CONDITIONS
- A. Provide sufficient quantities of fill to meet project schedule and requirements.
- B. Verify that survey bench marks and intended elevations for the Work are as indicated.

2.01 FILL MATERIALS
- A. General Fill: materials as identified in the Geotechnical Report.
  1. Graded.
  2. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris.
  3. Conforming to ASTM D2487 Group Symbol as identified in the Geotechnical Report.
- B. Drainage Fill- Gravel: natural washed stone; free of shale, clay, friable material and debris.
  1. Graded in accordance with ASTM D 2487 Group Symbol GW.
- C. Granular Fill - Gravel: Angular crushed washed stone; free of shale, clay, friable material and debris.
  1. Graded in accordance with ASTM D2487 Group Symbol GW.
- D. Sand: Natural river or bank sand; washed; free of silt, clay, loam, friable or soluble materials, and organic matter.
  1. Grade in accordance with ASTM D2487 Group Symbol SW.

2.02 ACCESSORIES
- A. Geotextile Fabric: Non-biodegradable, water pervious type, non-woven, needle-punched, polyolefin or polyester.
- B. Filter Fabric: Water pervious type, black polyolefin.

3.01 EXAMINATION
- A. Verify that survey bench marks and intended elevations for the Work are as indicated.
- B. Identify required lines, levels, contours, and datum locations.
- C. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.
- D. Verify structural ability of unsupported walls to support imposed loads by the fill.

3.02 PREPARATION
- A. Review geotechnical report for findings of subsurface conditions and recommendations for excavation work. Follow recommendations unless otherwise indicated.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

3.03 FILLING
- A. Fill to contours and elevations indicated using unfrozen materials.
- B. Employ a placement method that does not disturb or damage other work.
- C. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- D. Maintain optimum moisture content of fill materials to attain required compaction density.
- E. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches compacted depth.
- F. Soil Fill: Place and compact material in equal continuous layers not exceeding 8 inches compacted depth.
- G. Slope grade away from building minimum 4 inches in 10 ft, unless noted otherwise. Make gradual grade changes. Blend slope into level areas.
- H. Correct areas that are over-excavated.
  1. Load-bearing foundation surfaces: Fill with lean concrete.
  2. Other areas: Use general fill, flush to required elevation, compacted to minimum 95 percent of maximum dry density.
- I. Compaction Density Unless Otherwise Specified or Indicated:
  1. 95 percent of maximum dry density.
- J. Reshape and re-compact fills subjected to vehicular traffic.

3.04 FILL AT SPECIFIC LOCATIONS
- A. Use general fill unless otherwise specified or indicated.
- B. Under Interior Slabs-On-Grade:
  1. Use granular fill.
  2. Depth: 4 inches deep.
  3. Compact to 95 percent of maximum dry density.
- C. At Foundation Walls and Footings:
  1. Use general fill.
  2. Fill up to subgrade elevation.
  3. Compact in maximum 8 inch lifts to 90 percent of maximum dry density in accordance with ASTM D1557.
  4. Do not backfill against unsupported foundation walls.
  5. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
- D. Over Subdrainage Piping at Foundation Perimeter:
  1. Use drainage fill and geotextile fabric.
  2. Fill up to subgrade elevation.
  3. Compact in maximum 8 inch lifts to 95 percent of maximum dry density.
- E. Over Buried Utility Piping and Conduits in Trenches, unless otherwise indicated:
  1. Bedding: Use sand.
  2. Cover with general fill or granular fill.
  3. Fill up to subgrade elevation.
  4. Compact in maximum 8 inch lifts to 85 percent of maximum dry density in lawn and landscape areas.
     a. Compact in maximum 8" lifts to 95 percent of maximum dry density under pavements and slab on grade.
- F. At Lawn Areas:
  1. Use general fill.
  2. Fill up to subgrade elevations.
  3. Compact to 85 percent of maximum dry density.
  4. See Section 02310 for topsoil placement.
- G. At Planting Areas Other Than Lawns:
  1. Use general fill.
  2. Fill up to 12 inches below finish grade elevations.
  3. Compact to 85 percent of maximum dry density.
  4. See Section 02310 for topsoil placement.
- H. Under Monolithic Paving:
  1. Compact subsoil to 95 percent of its maximum dry density before placing fill.
  2. Use general fill.
  3. Compact in maximum 8 inch lifts to 95 percent of maximum dry density.

3.05 FIELD QUALITY CONTROL
- A. Evaluate results in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D 698 ("standard Proctor"), ASTM D 1557 ("modified Proctor"), or AASHTO T 180.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- C. Proof roll compacted fill at surfaces that will be under slabs-on-grade and paving.

3.06 CLEANING
- A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- B. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

SECTION 32 1216 - ASPHALT PAVING

1.01 REFERENCES
- A. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types; The Asphalt Institute; 1994, Sixth Edition.
- B. AI MS-19 - A Basic Asphalt Emulsion Manual; The Asphalt Institute; Third Edition.

1.02 QUALITY ASSURANCE
- A. Perform Work in accordance with Federal, State, and Local highway department standards. Where requirements overlap, conform to the most stringent.
- B. Mixing Plant: Conform to Federal, State and Local highway department standards.

1.03 ENVIRONMENTAL REQUIREMENTS
- A. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.
- B. Place bitumen mixture when temperature is not more than 15 F degrees below bitumen supplier's bill of lading and not more than maximum specified temperature.

2.01 MATERIALS
- A. Asphalt Binder: AASHTO MP 1, PG 64-22
- B. Aggregate for Binder Course: In accordance with Federal, State, and Local Highways standards having jurisdiction, where requirements overlap, conform to the most stringent of the requirements.
- C. Aggregate for Wearing Course: In accordance with Federal, State, and Local Highways standards having jurisdiction, where requirements overlap, conform to the most stringent of the requirements.
- D. Primer: Homogeneous, medium curing, liquid asphalt.
- E. Tack Coat: Homogeneous, medium curing, liquid asphalt.
- F. Seal Coat: AI MS-19, fog type.

2.02 ASPHALT PAVING MIXES AND MIX DESIGN
- A. Use dry material to avoid foaming. Mix uniformly.
- B. Binder Course: 4.5 to 6 percent of asphalt cement by weight in mixture in accordance with AI MS-2.
- C. Wearing Course: 5 to 7 percent of asphalt cement by weight in mixture in accordance with AI MS-2.

2.03 BASE COURSE
- A. Coarse Aggregate: Angular crushed stone; free of shale, clay, friable material and debris. Graded in accordance with ASTM D2487 Group Symbol GW.

3.01 EXAMINATION
- A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.
- B. Verify gradients and elevations are correct.

3.02 BASE COURSE INSTALLATION
- A. Under Bituminous Concrete Paving:
  1. Place coarse aggregate to a total compacted thickness matching existing, or a minimum compacted thickness of 6 inches, whichever is greater.
  2. Compact to 97 percent of maximum dry density.

3.03 PREPARATION - PRIMER
- A. Apply primer in accordance with manufacturer's instructions.
- B. Apply primer on aggregate base or subbase at uniform rate of 1/3 gal/sq yd.

3.04 PREPARATION - TACK COAT
- A. Apply tack coat in accordance with manufacturer's instructions.
- B. Apply tack coat on asphalt or concrete surfaces over subgrade surface at uniform rate of 1/3 gal/sq yd.

3.05 PLACING ASPHALT PAVEMENT - DOUBLE COURSE
- A. Place asphalt binder course within 24 hours of applying primer or tack coat.
- B. Place binder course to thickness identified in schedule at end of section.
- C. Place wearing course within two hours of placing and compacting binder course.
- D. Place wearing course to thickness identified in schedule at end of section.
- E. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.

3.06 SEAL COAT
- A. Apply seal coat to surface course in accordance with AI MS-19.

3.07 TOLERANCES
- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Compacted Thickness: Within 1/4 inch of specified or indicated thickness.
- C. Variation from True Elevation: Within 1/2 inch.

3.08 PROTECTION
- A. Immediately after placement, protect pavement from mechanical injury for 2 days or until surface temperature is less than 140 degrees F.

3.09 SCHEDULE
- A. Pavement at Parking Areas: Match existing adjacent, or two courses; binder course of 2-1/2 inch compacted thickness and wearing course of 1-1/2 inch compacted thickness, fog seal coat.

SECTION 32 8000 - IRRIGATION

1.01 SECTION INCLUDES
- A. Design and install a complete system including control system, pipe and fittings, valves, sprinkler heads and accessories.

1.04 SUBMITTALS
- A. Shop Drawings: Indicate piping layout to water source, location of sleeves under pavement, location and coverage of sprinkler heads, components, plant and landscaping features, site structures, schedule of fittings to be used.
- B. Product Data: Provide component and control system and wiring diagrams.
- C. Record Documents: Record actual locations of all concealed components piping system.

1.05 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years of experience.

2.01 IRRIGATION SYSTEM
- A. Electric solenoid controlled underground irrigation system, with pressure blow-out drain.

2.02 PIPE MATERIALS
- A. PVC Pipe: ASTM D2241; 200 psi pressure rated upstream from controls, 160 psi downstream; solvent welded sockets.
- B. Fittings: Type and style of connection to match pipe.
- C. Solvent Cement: ASTM D2564 for PVC pipe and fittings.
- D. Sleeve Material: PVC.

2.03 OUTLETS
- A. Rotary Type Sprinkler Head: Pop-up type with screens; fully adjustable for flow and pressure; size as indicated; with letter or symbol designating degree of arc and arrow indicating center of spray pattern.
- B. Spray Type Sprinkler Head: Pop-Up head with full circle pattern, square or partial circle pattern to achieve full coverage.
- C. Emitter: Adjustable outlet, non-clogging, with trickle tubes to suit plant materials.

2.04 VALVES
- A. Gate Valves: Bronze construction non-rising stem.
- B. Backflow Preventers: Iron body construction, double check valve type.

2.05 CONTROLS
- A. Controller: Automatic controller, microprocessor solid state control with visible readout display, temporary override feature to bypass cycle for inclement weather, timer for a multi station system, programmable for 7 days in quarter hour increments, with automatic start and shutdown.
- B. Controller Housing: NEMA 250 Type 3; weatherproof, watertight, with lockable access door.

3.01 EXAMINATION
- A. Verify location of existing utilities.
- B. Verify that required utilities are available, in proper location, and ready for use.

3.02 PREPARATION
- A. Layout and stake locations of system components.
- B. Review layout requirements with other affected work. Coordinate locations of sleeves under paving to accommodate system.

3.03 TRENCHING
- A. Maintain trenches free of debris, material, or obstructions that may damage pipe.

3.04 INSTALLATION
- A. Install pipe, valves, controls, and outlets in accordance with manufacturer's instructions.
- B. Connect to utilities.
- C. Set outlets and box covers at finish grade elevations.
- D. Provide for thermal movement of components in system.
- E. Use threaded nipples for risers to each outlet.
- F. After piping is installed, but before outlets are installed and backfilling commences, open valves and flush system with full head of water.

3.05 FIELD QUALITY CONTROL
- A. Prior to backfilling, test system for leakage for whole system to maintain 100 psi pressure for one hour.
- B. System is acceptable if no leakage or loss of pressure occurs during test period.

3.06 BACKFILLING
- A. Provide 3 inch sand cover over piping.
- B. Backfill trench and compact to specified subgrade elevation. Protect piping from displacement.

3.07 SYSTEM STARTUP
- A. Prepare and start system in accordance with manufacturer's instructions.
- B. Adjust control system to achieve time cycles required.
- C. Adjust head types for full water coverage as directed.

3.08 CLOSEOUT ACTIVITIES
- A. Remove dirt, debris and other materials from adjacent pavements. Leave broom clean. Restore disturbed areas including lawns, beds and mulch.
- B. Instruct Owner's personnel in operation and maintenance of system, including adjusting of sprinkler heads. Use operation and maintenance data as basis for demonstration.

3.09 MAINTENANCE
- A. Provide one complete spring start-up and a fall shutdown by installer, at no extra cost to Owner.

SECTION 32 9000 - LANDSCAPING

1.01 SECTION INCLUDES
- A. Preparation of subsoil.
- B. Topsoil bedding.
- C. New trees, plants, and ground cover.

1.02 QUALITY ASSURANCE
- A. Nursery Qualifications: Company specializing in growing and cultivating the plants with three years experience.
- B. Installer Qualifications: Company specializing in installing and planting the plants with three years experience.

1.03 DELIVERY, STORAGE, AND HANDLING
- A. Deliver plant life materials immediately prior to placement. Keep plants moist.

1.04 FIELD CONDITIONS
- A. Do not install plant life when ambient temperatures may drop below 35 degrees F or rise above 90 degrees F. Do not install plant life when wind velocity exceeds 30 mph.

2.01 PLANTS
- A. Plants: Species and size identified in plant schedule, grown in climatic conditions similar to those in locality of the work.

2.02 SOIL MATERIALS
- A. Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds and roots; minimum pH value of 5.4 and maximum 7.0.

2.03 SOIL AMENDMENT MATERIALS
- A. Fertilizer: Containing fifty percent of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil, as indicated in analysis..
- B. Peat Moss: Shredded, loose, sphagnum moss; free of lumps, roots, inorganic material or acidic materials; minimum of 85 percent organic material measured by oven dry weight, pH range of 4 to 5; moisture content of 30 percent.
- C. Water: Clean, fresh, and free of substances or matter that could inhibit vigorous growth of plants.

2.04 MULCH MATERIALS
- A. Mulching Material: Cypress species wood shavings, free of growth or germination inhibiting ingredients.

3.01 EXAMINATION
- A. Verify that prepared subsoil are ready to receive work.
- B. Saturate soil with water to test drainage.

3.02 PREPARATION OF SUBSOIL
- A. Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.
- C. Scarify subsoil to a depth of 3 inches where plants are to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.
- D. Dig pits and beds 6 inches larger than plant root system.

3.03 PLACING TOPSOIL
- A. Spread topsoil to a minimum depth of 4 inches over area to be planted. Rake smooth.
- B. Place topsoil during dry weather and on dry unfrozen subgrade.
- C. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- D. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage.
- E. Install topsoil into pits and beds intended for plant root balls, to a minimum thickness of 6 inches.

3.04 FERTILIZING
- A. Apply fertilizer in accordance with manufacturer's instructions.
- B. Apply after initial raking of topsoil.
- C. Mix thoroughly into upper 2 inches of topsoil.
- D. Lightly water to aid the dissipation of fertilizer.

3.05 PLANTING
- A. Set plants vertical.
- B. Remove non-biodegradable root containers.
- C. Set plants in pits or beds, partly filled with prepared plant mix, at a minimum depth of 6 inches under each plant. Remove burlap, ropes, and wires, from the root ball.
- D. Saturate soil with water when the pit or bed is half full of topsoil and again when full.

3.06 MAINTENANCE
- A. Maintain plant life for three months after Date of Substantial Completion.
- B. Irrigate sufficiently to saturate root system and prevent soil from drying out.
- C. Cultivate and weed plant beds and tree pits.
- D. Remove dead or broken branches and treat pruned areas or other wounds.
- E. Neatly trim plants where necessary. Control insect damage and disease. Apply pesticides in accordance with manufacturers instructions.

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FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SPECIFICATIONS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: Designer
CHECKED BY: Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

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DEMOLITION NOTES / CODED NOTES

GENERAL NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL SELECTIVE DEMOLITION REQUIREMENTS
2. WHERE ELECTRICAL DEVICES OCCUR IN WALLS TO BE REMOVED, REMOVE ALL WIRING AND CONDUIT IN ITS ENTIRETY BACK TO PANEL.
3. REMOVE EXISTING CEILING IN ALL ROOMS AFFECTED BY DEMOLITION. REFER TO PROPOSED REFLECTED CEILING PLAN FOR NEW FINISHES.

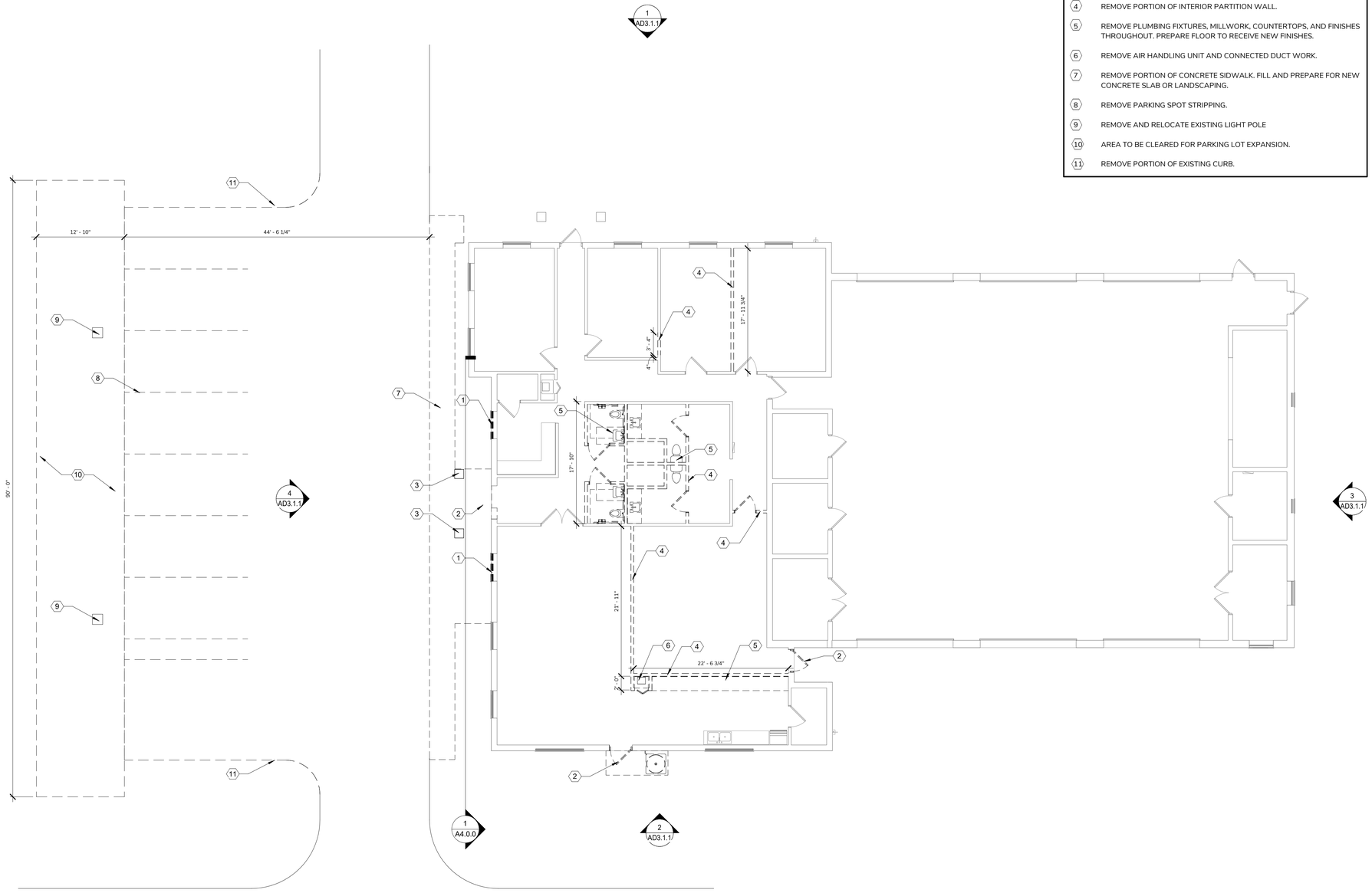
PLAN LEGEND:

DEMOLITION

EXISTING TO REMAIN

PLAN NOTES:

1. REMOVE WINDOW. INFILL EXISTING WALL TO MATCH ADJACENT ASSEMBLY.
2. REMOVE DOOR. PREPARE OPENING TO RECEIVE NEW DOOR OR WINDOW.
3. REMOVE CONCRETE COLUMNS AND FOOTINGS.
4. REMOVE PORTION OF INTERIOR PARTITION WALL.
5. REMOVE PLUMBING FIXTURES, MILLWORK, COUNTERTOPS, AND FINISHES THROUGHOUT. PREPARE FLOOR TO RECEIVE NEW FINISHES.
6. REMOVE AIR HANDLING UNIT AND CONNECTED DUCT WORK.
7. REMOVE PORTION OF CONCRETE SIDWALK. FILL AND PREPARE FOR NEW CONCRETE SLAB OR LANDSCAPING.
8. REMOVE PARKING SPOT STRIPPING.
9. REMOVE AND RELOCATE EXISTING LIGHT POLE
10. AREA TO BE CLEARED FOR PARKING LOT EXPANSION.
11. REMOVE PORTION OF EXISTING CURB.



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

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ELECTRICAL ENGINEER:

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

GROUND FLOOR DEMOLITION PLAN

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
PDB	PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

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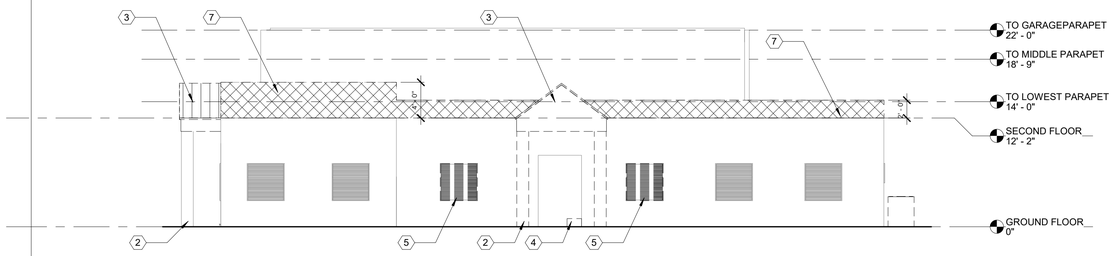
DEMOLITION NOTES / CODED NOTES

GENERAL NOTES:

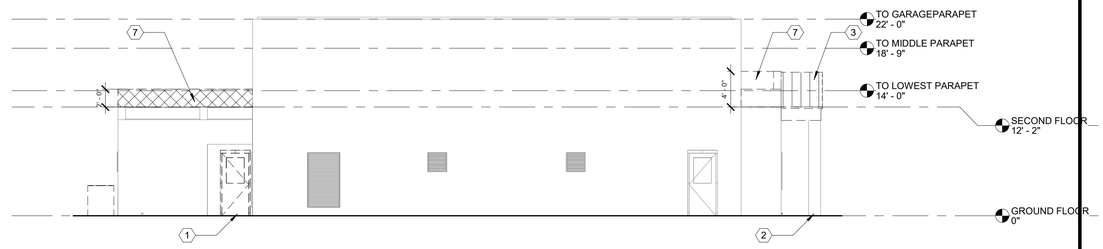
1. ALL ELEVATIONS ARE 1929 NGVD
2. REFER TO SPECIFICATIONS FOR ADDITIONAL SELECTIVE DEMOLITION REQUIREMENTS
3. WHERE ELECTRICAL DEVICES OCCUR IN WALLS TO BE REMOVED, REMOVE ALL WIRING AND CONDUIT IN ITS ENTIRETY BACK TO PANEL.

PLAN NOTES:

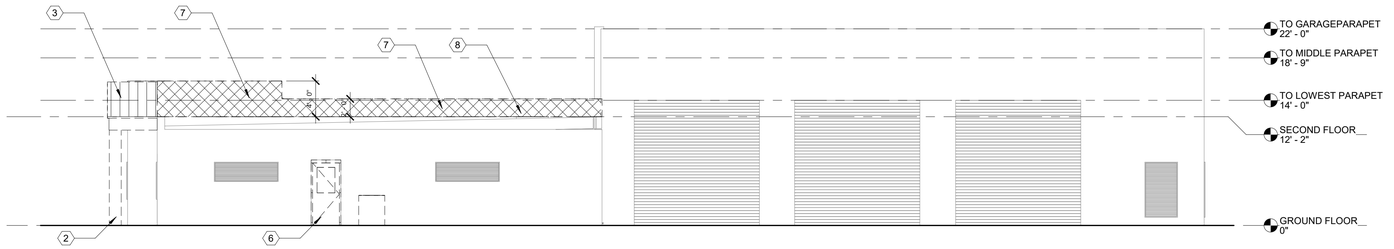
1. REMOVE AND REPLACE EXTERIOR DOOR.
2. REMOVE CONCRETE COLUMNS AND FOOTINGS.
3. REMOVE BEAMS AND ROOF STRUCTURE BACK TO EXTERIOR WALL. REPAIR EXTERIOR WALL AS NEEDED TO RECEIVE NEW FINISH.
4. REMOVE STOREFRONT DOOR SYSTEM. REPAIR WALL AND FINISH EXISTING OPENING.
5. REMOVE WINDOW. INFILL EXTERIOR WALL TO MATCH ADJACENT ASSEMBLY.
6. REMOVE DOOR. INFILL PORTION OF EXTERIOR WALL TO RECEIVE NEW WINDOW.
7. REMOVE PORTION OF EXTERIOR WALL IN PREPARATION FOR NEW SECOND LEVEL.
8. REMOVE ROOFING MEMBRANE. MAINTAIN STRUCTURAL INTEGRIETY.



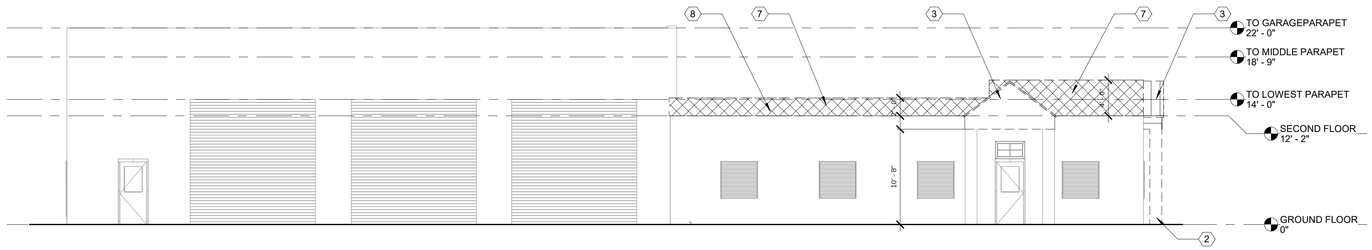
4 WEST DEMOLITION ELEVATION
SCALE: 1/8" = 1'-0"



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



2 SOUTH DEMOLITION ELEVATION
SCALE: 1/8" = 1'-0"



1 NORTH DEMOLITION ELEVATION
SCALE: 1/8" = 1'-0"

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CONSULTANTS

CIVIL ENGINEER:
STRUCTURAL ENGINEER:
MECH. / PLUMBING ENGINEER:
ELECTRICAL ENGINEER:

NOT FOR CONSTRUCTION

FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

DEMOLITION EXTERIOR ELEVATIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
PDB	PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

AD3.1.1

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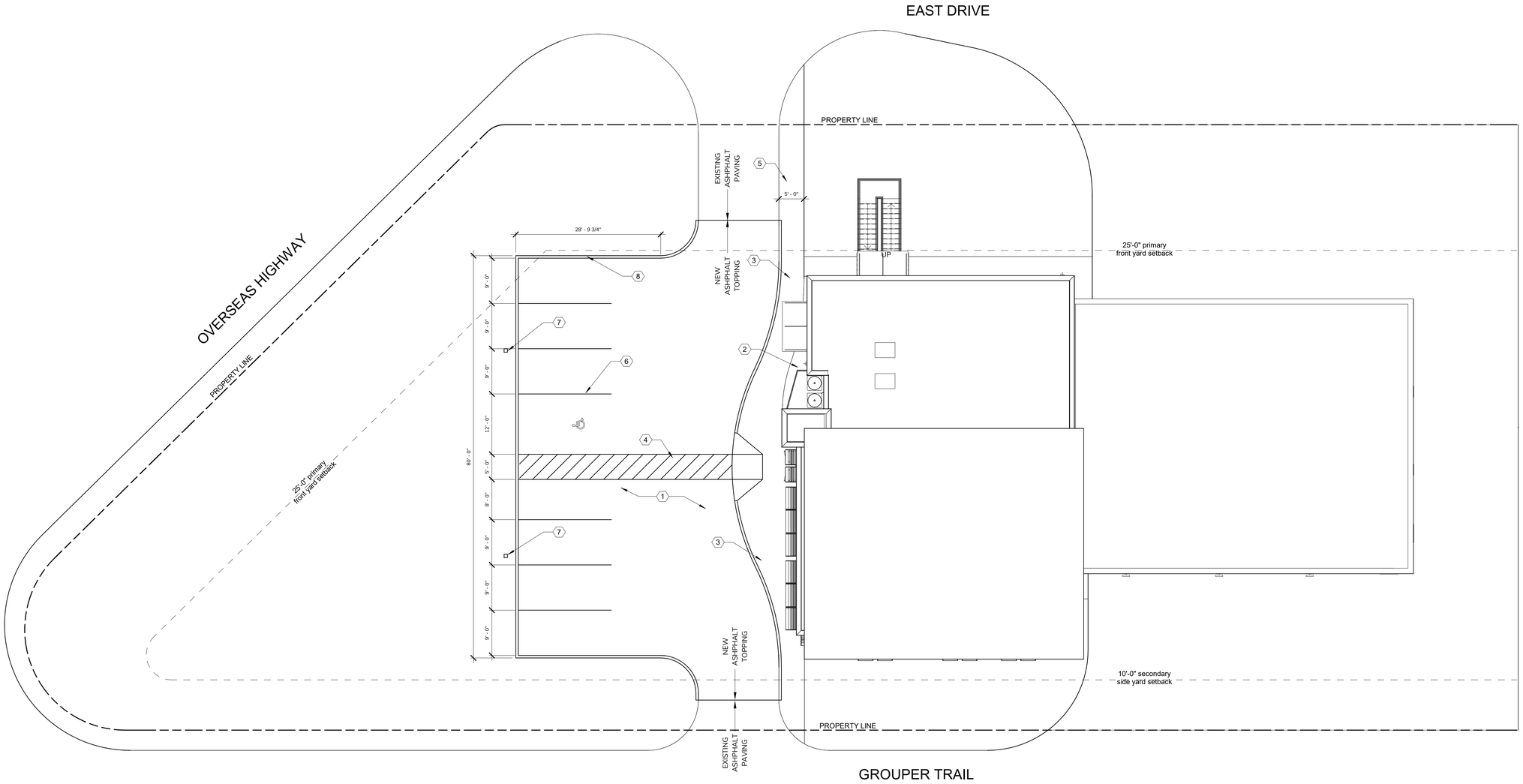
SHEET NOTES / CODED NOTES

GENERAL NOTES:

1. LANDSCPAING SHOWN IS FOR REFERERENCE. OWNER TO COORDINATE LANDSCPAING MATERIALS AND QUANTITIES WITH LANDSCAPING CONTRACTOR.

PLAN NOTES:

1. SCRAPE AND ADD NEW ASHPHALT TOPCOAT TO EXISTING PARKING AREA.
2. NEW CONCRETE PLANTER.
3. NEW CONCRETE CURB AND WALKWAY.
4. NEW CROSSWALK STRIPPING TO NEW ACCESSIBLE PARKING SPACE AND CURB RAMP.
5. NEW CONCRETE SIDEWALK TO PUBLIC ACCESS
6. NEW PARKING LOT STRIPPING
7. RELOCATED LIGHT POLE
8. NEW CURB.



1 ARCHITECTURAL SITE PLAN
SCALE: 3/32" = 1'-0"

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

ARCHITECTURAL SITE PLAN

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A1.0.0

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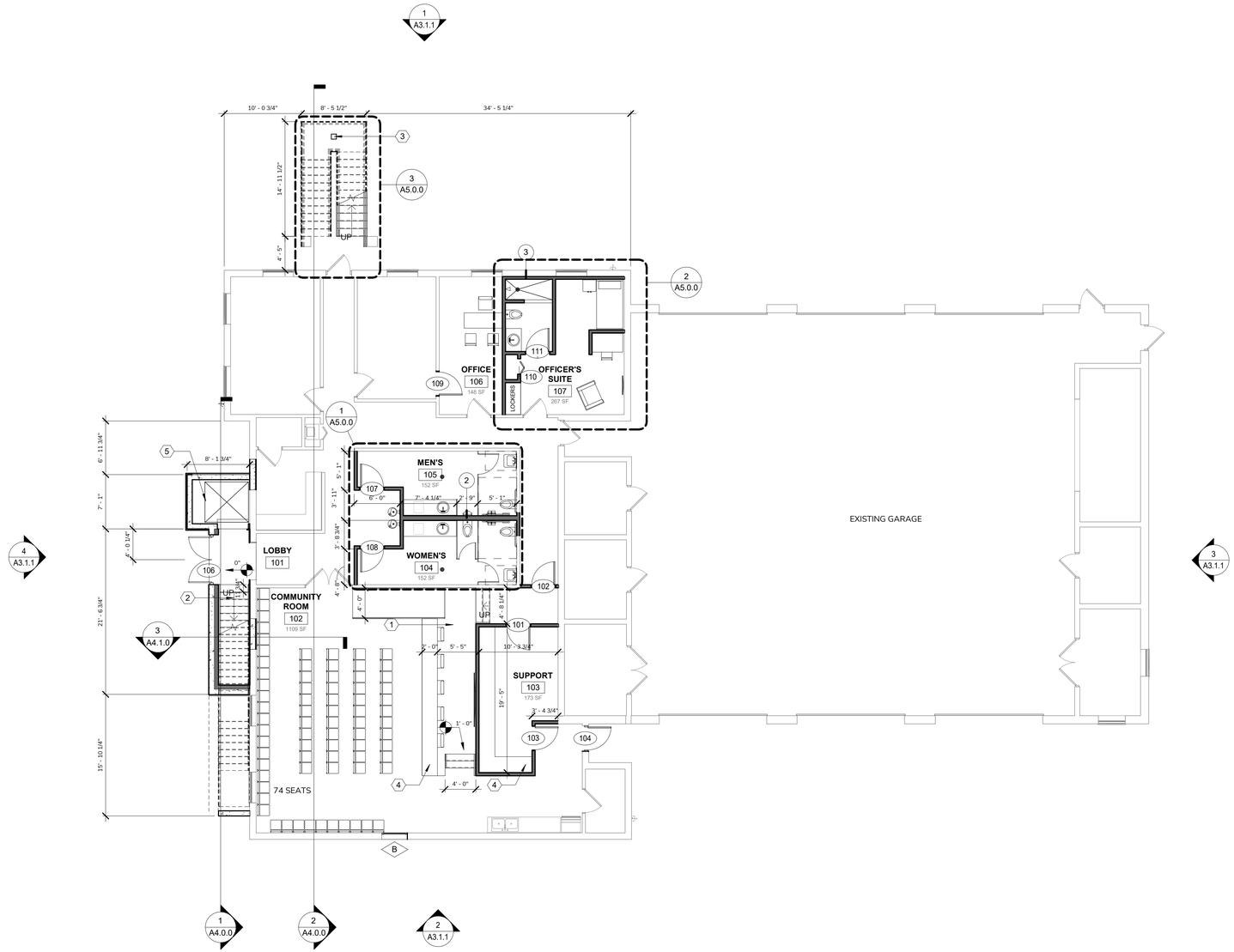
SHEET NOTES / CODED NOTES

GENERAL NOTES:

1. ALL WALLS ARE TYPE 1 U.N.O.
2. REFER TO WALL SECTIONS FOR EXTERIOR WALL ASSEMBLY.
3. ALL LUMBER TO BE PRESSURE TREATED U.N.O.
4. REFER TO FINISHE LEGEND.
5. ALL DOORS ARE 4" FROM ADJACENT WALL OR CENTERED U.N.O.

PLAN NOTES:

1. NEW RAISED CONCRETE PLATFORM.
2. NEW 6" CONCRETE SLAB.
3. NEW 8x8 CONCRETE COLUMN TO UNDERSIDE OF LANDING.
4. NEW 2'-0" DEEP COUNTER MOUNTED AT 2'-10" AFF.
5. NEW ELEVATOR TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.



1 GROUND FLOOR

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

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STRUCTURAL ENGINEER:
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ELECTRICAL ENGINEER:

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

GROUND FLOOR PLAN

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
PDB	PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A2.1.1

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3/14/2022 1:44:59 PM

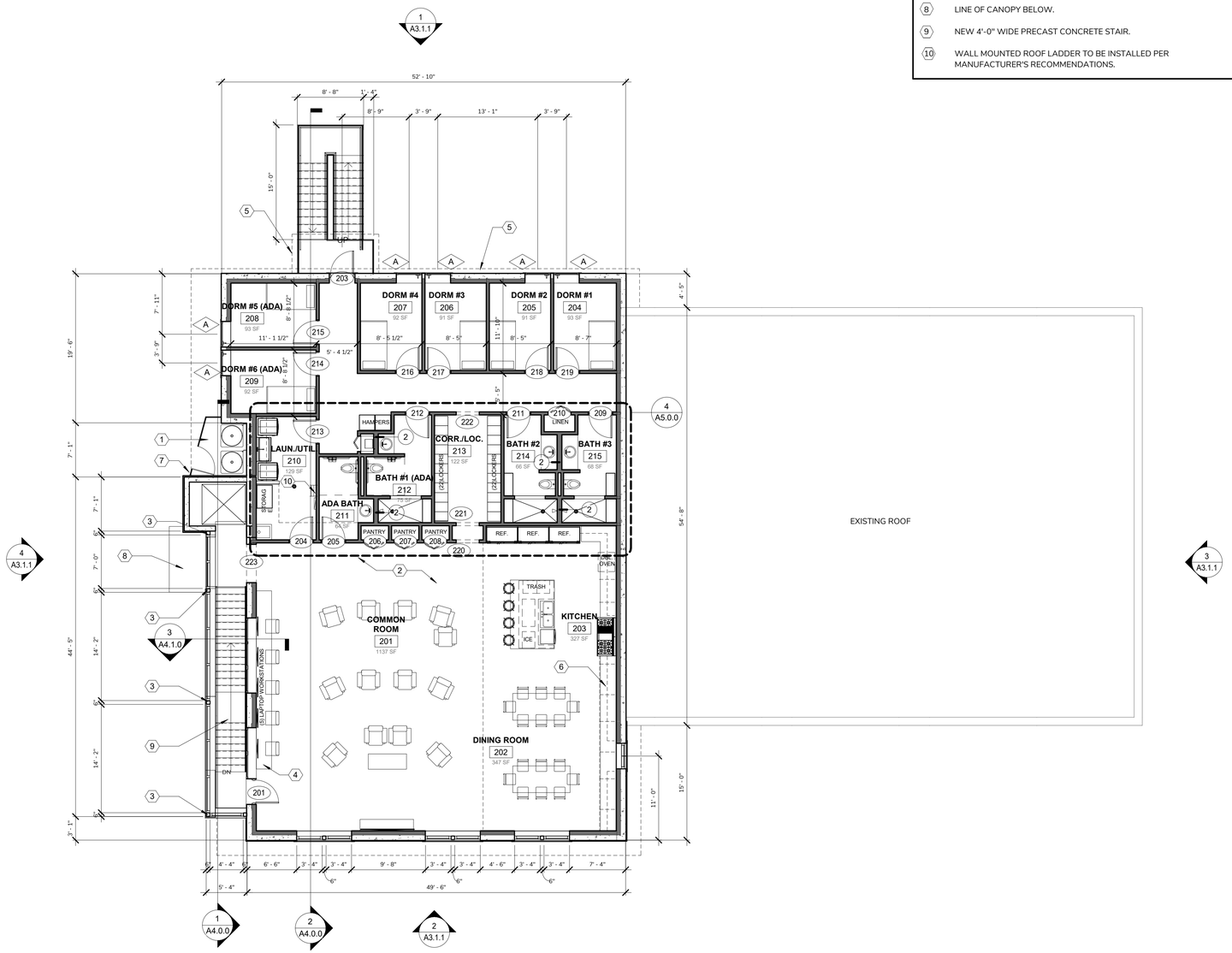
SHEET NOTES / CODED NOTES

GENERAL NOTES:

1. ALL WALLS ARE TYPE 1 U.N.O.
2. REFER TO WALL SECTIONS FOR EXTERIOR WALL ASSEMBLY.
3. ALL LUMBER TO BE PRESSURE TREATED U.N.O.
4. REFER TO FINISH LEGEND.
5. ALL DOORS ARE 4" FROM ADJACENT WALL OR CENTERED U.N.O.

PLAN NOTES:

1. NEW 6" CONCRETE PLATFORM.
2. NEW 2" CONCRETE SLAB TOPPER ON EXISTING ROOF STRUCTURE.
3. NEW 6X6 STEEL TUBE COLUMN, REFER TO STRUCTURAL.
4. NEW 2'-0" DEEP COUNTER MOUNTED AT 2'-10" AFF
5. LINE OF CANOPY/ROOF ABOVE.
6. NEW 2'-0" DEEP COUNTER MOUNTED AT 2'-10" AFF WITH UPPER CABINETS MOUNTED AT 5'-0" AFF.
7. 3'-0" GUARDRAIL AND 3'-0" WIDE GATE
8. LINE OF CANOPY BELOW.
9. NEW 4'-0" WIDE PRECAST CONCRETE STAIR.
10. WALL MOUNTED ROOF LADDER TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.



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

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FIRE STATION 24 EXPANSION
OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SECOND FLOOR PLAN

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A2.1.2

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SHEET NOTES / CODED NOTES / LEGEND

GENERAL NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL COMPONENT SPECIFICATIONS AND SCOPE.
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS AND SCOPE.
3. CENTER GRID / TILE IN ROOM SHOWN U.N.O.
4. LIGHTS ARE CENTERED IN ROOM SHOWN U.N.O.

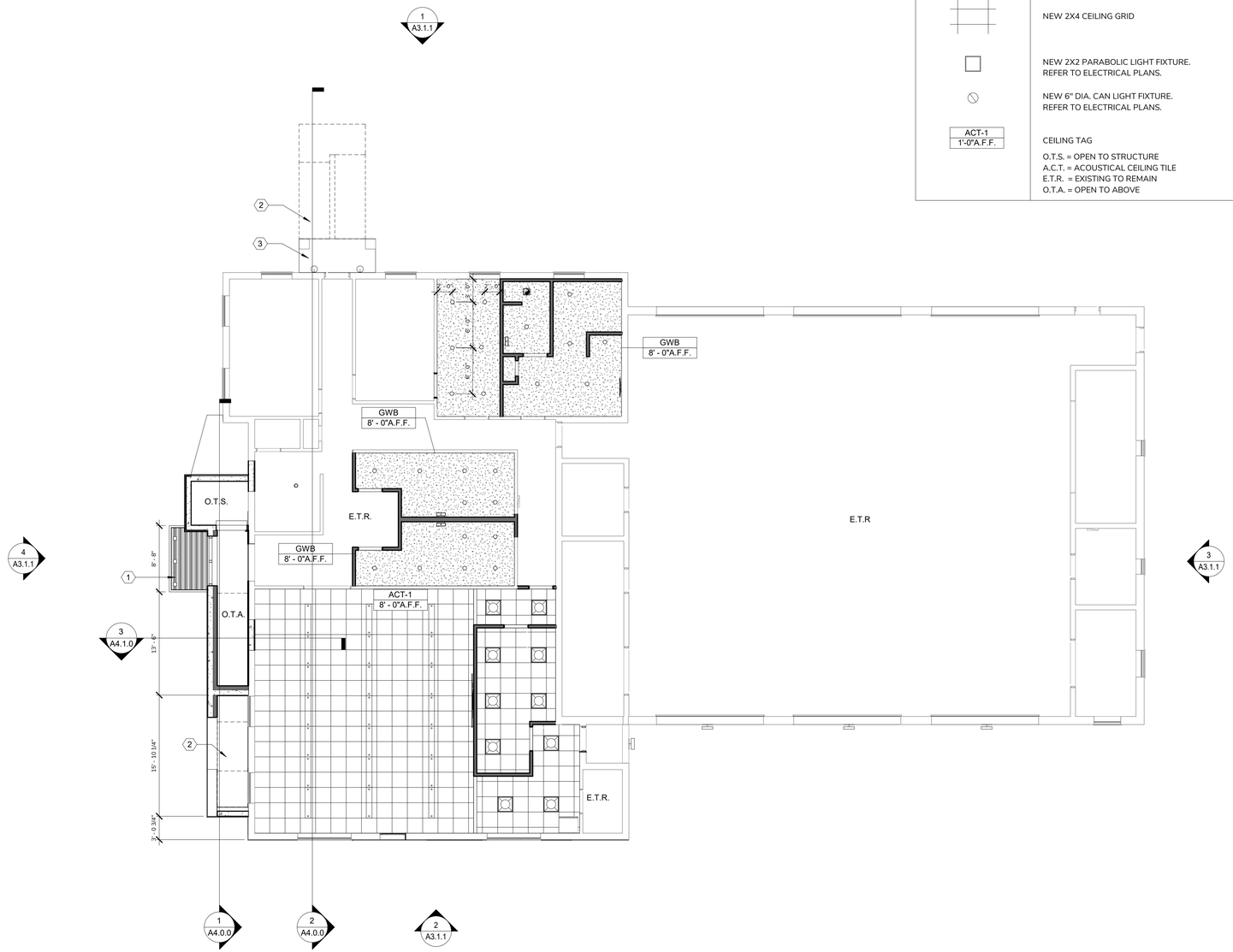
PLAN NOTES:

1. CANOPY ABOVE, REFER TO ELEVATIONS.

CEILING LEGEND

	NEW RETURN AIR. REFER TO MECH.
	NEW SUPPLY AIR. REFER TO MECH.
	NEW 2X4 CEILING GRID
	NEW 2X2 PARABOLIC LIGHT FIXTURE. REFER TO ELECTRICAL PLANS.
	NEW 6" DIA. CAN LIGHT FIXTURE. REFER TO ELECTRICAL PLANS.
ACT-1 1'-0"A.F.F.	CEILING TAG

O.T.S. = OPEN TO STRUCTURE
A.C.T. = ACOUSTICAL CEILING TILE
E.T.R. = EXISTING TO REMAIN
O.T.A. = OPEN TO ABOVE



1 REFLECTED CEILING PLAN

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

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

GROUND FLOOR REFLECTED CEILING PLAN

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A2.2.1

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SHEET NOTES / CODED NOTES / LEGEND

GENERAL NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR MECHANICAL COMPONENT SPECIFICATIONS AND SCOPE.
2. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SPECIFICATIONS AND SCOPE.
3. CENTER GRID / TILE IN ROOM SHOWN U.N.O.
4. LIGHTS ARE CENTERED IN ROOM SHOWN U.N.O.

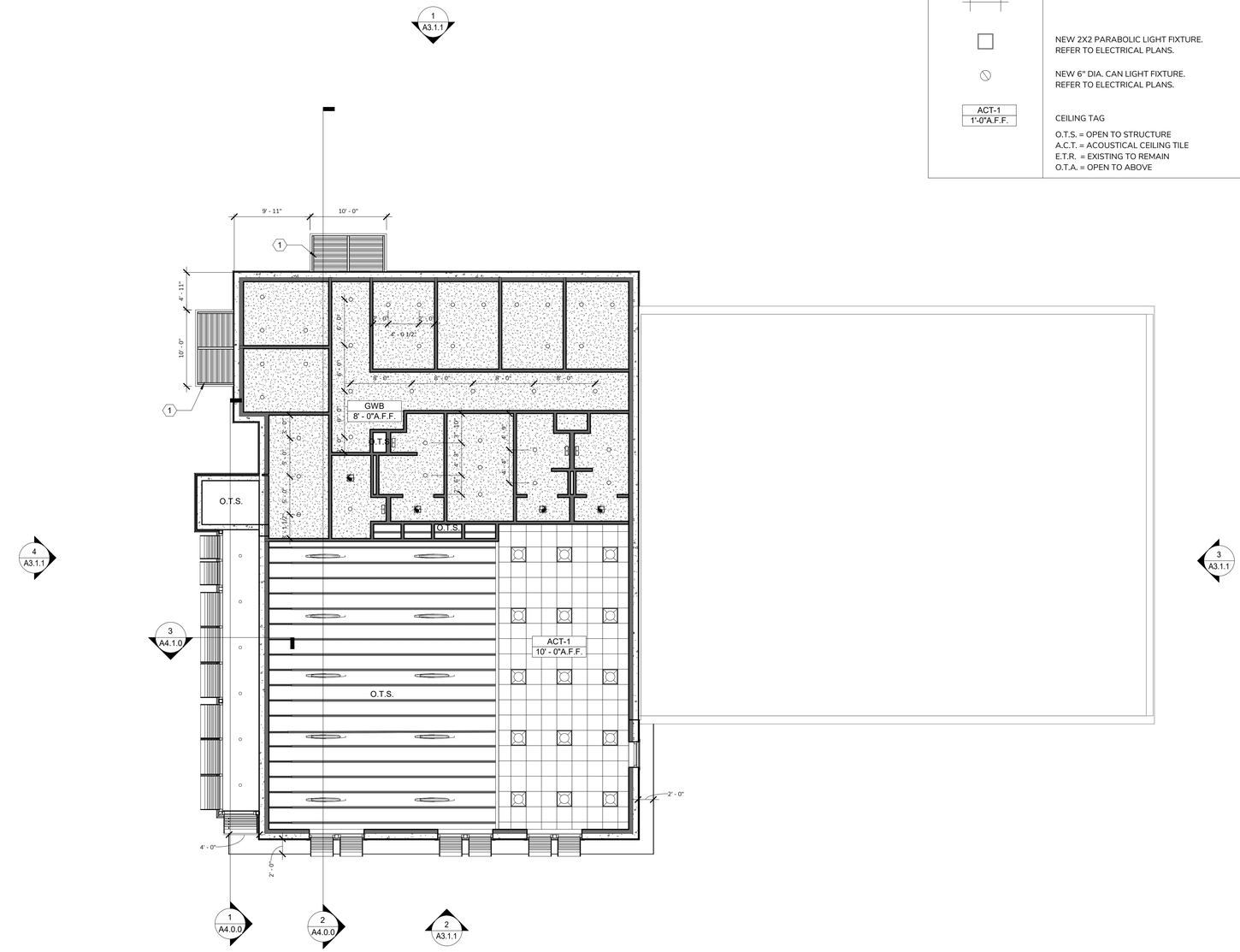
PLAN NOTES:

1. CANOPY ABOVE, REFER TO ELEVATIONS.

CEILING LEGEND

	NEW RETURN AIR. REFER TO MECH.
	NEW SUPPLY AIR. REFER TO MECH.
	NEW 2X4 CEILING GRID
	NEW 2X2 PARABOLIC LIGHT FIXTURE. REFER TO ELECTRICAL PLANS.
	NEW 6" DIA. CAN LIGHT FIXTURE. REFER TO ELECTRICAL PLANS.
ACT-1 1'-0"A.F.F.	CEILING TAG

O.T.S. = OPEN TO STRUCTURE
A.C.T. = ACOUSTICAL CEILING TILE
E.T.R. = EXISTING TO REMAIN
O.T.A. = OPEN TO ABOVE



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

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SECOND FLOOR REFLECTED CEILING PLAN

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A2.2.2

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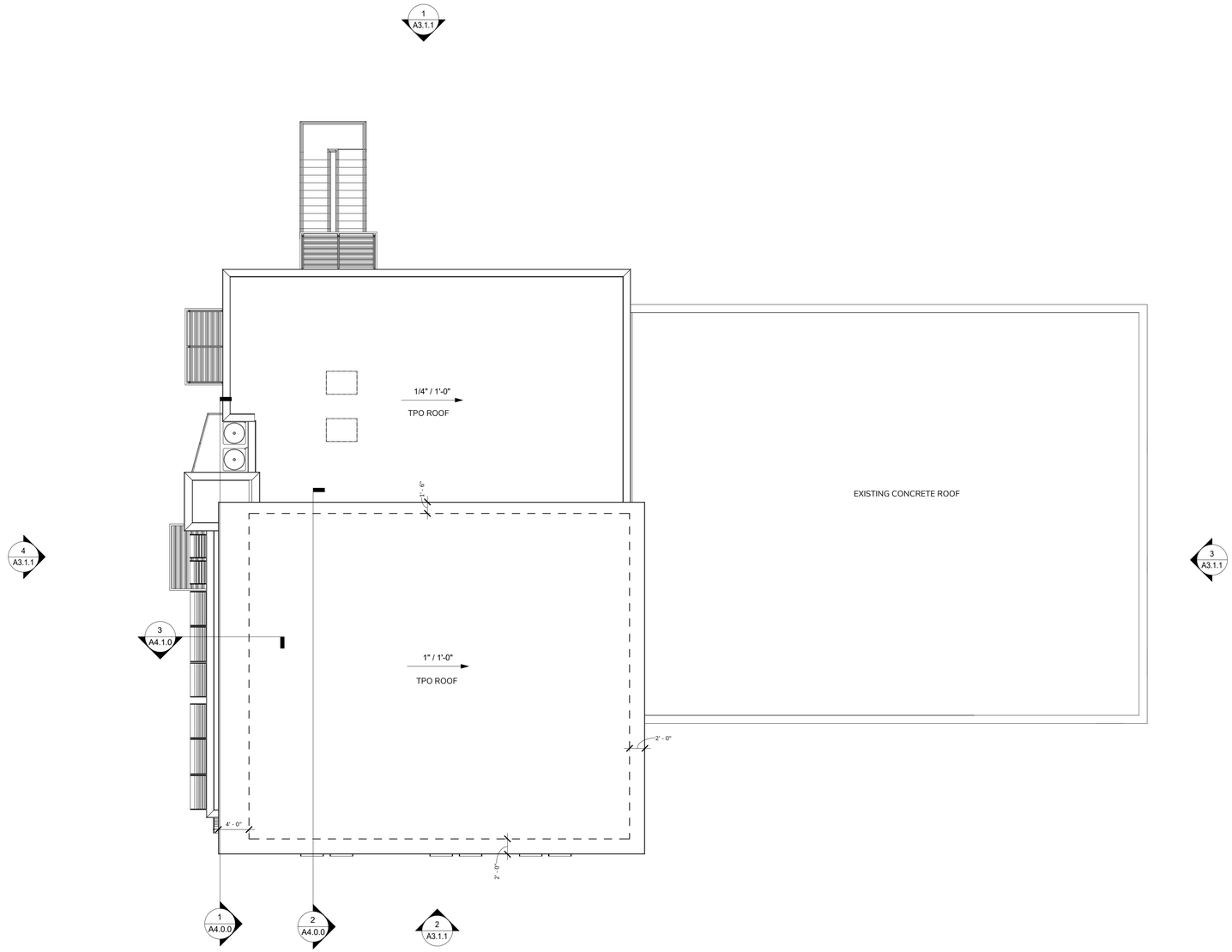
GENERAL ROOFING NOTES:

GENERAL NOTES:

1. REFER TO STRUCTURAL FOR SHEATING AND COMPONENTS & CLADDING.
2. REFER TO WALL SECTIONS FOR ADDITIONAL INFORMATION.
3. REFER TO ELEVATIONS FOR PRODUCT / MATERIAL INFORMATION

PLAN NOTES:

1. NEW TPO ON (2) 2" RIGID INSULATION ON NEW ROOF DECK. REFER TO SECTIONS FOR ADDITIONAL INFORMATION.



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

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ELECTRICAL ENGINEER:

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

ROOF PLAN

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
PDB	PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A2.3.1

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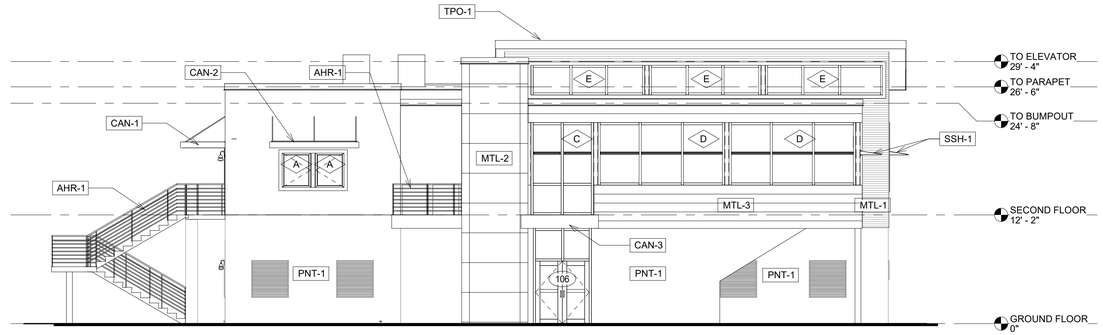
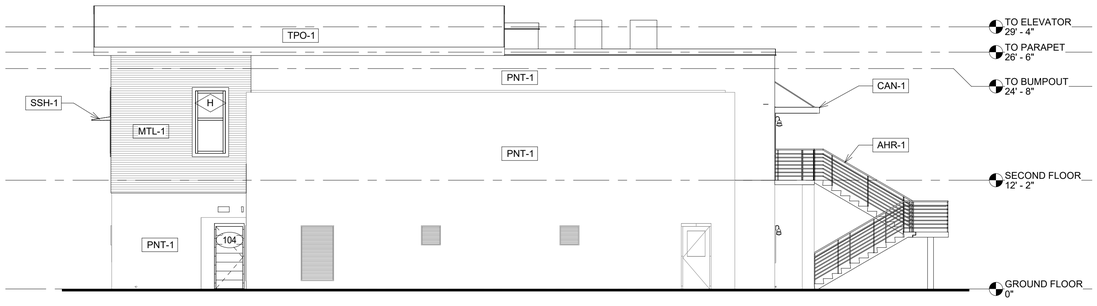


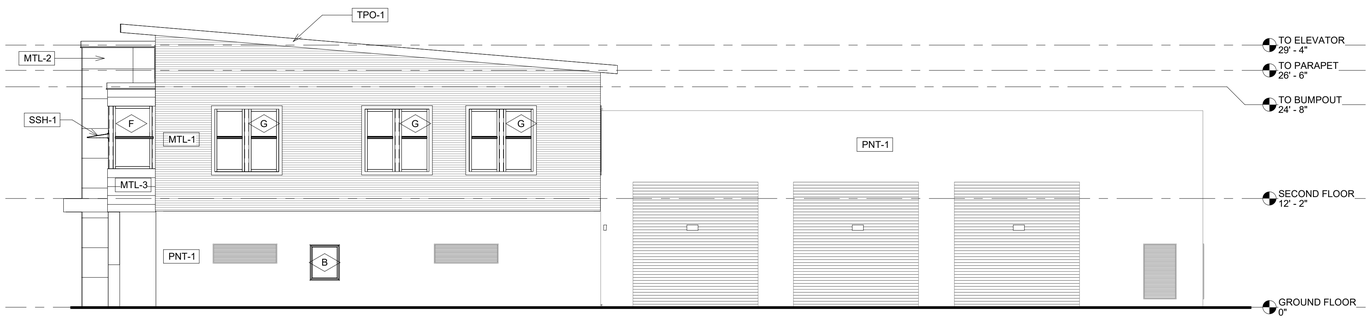
4 WEST ELEVATION

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



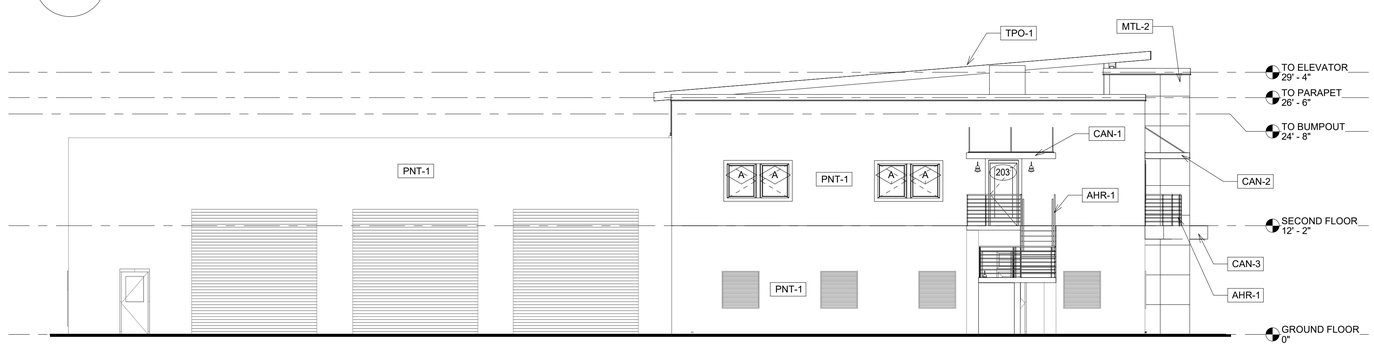
3 EAST ELEVATION

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



2 SOUTH ELEVATION

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



1 NORTH ELEVATION

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

ELEVATION NOTES / CODED NOTES

GENERAL NOTES:

1. ALL ELEVATIONS ARE 1929 NGVD
2. REFER TO SPECIFICATIONS FOR ADDITIONAL SELECTIVE DEMOLITION REQUIREMENTS
3. REFER TO WALL SECTIONS FOR INSTALLATION REQUIREMENTS
4. REFER TO STRUCTURAL DRAWINGS FOR COMPONENTS & CLADDING
5. SIGNAGE TO BE COORDINATED BY OWNER, INSTALLED BY G.C.

FINISH / MATERIAL SCHEDULE

TAG	DESCRIPTION	BASIS OF DESIGN	MODEL	COLOR	DIMENSIONS	PRODUCT APPROVAL	NOTES
AHR-1	ALUMINUM HANDRAIL SYSTEM			ALUMINUM			
CAN-1	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
CAN-2	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
CAN-3	ALUMINUM CANOPY	MAPES	LUMISHADE	CHARCOAL			
MTL-1	METAL WALL PANEL	3A COMPOSITES	HWP 12	BURNISHED SLATE			
MTL-2	METAL WALL PANEL	3A COMPOSITES	PAC 3000 RS	CARDINAL RED			
MTL-3	METAL WALL PANEL	3A COMPOSITES	FLUSH & REVEAL	SLATE GREY			
PNT-1	EXTERIOR LATEX PAIN	SHERWIN-WILLIAMS	SW-7004	SNOWBOUND			
SSH-1	SUNSHADE	KAWNEER	VERSOLEIL	ALUMINUM			
TPO-1	ROOFING	CARLISLE	TPO-FLEECEBACK	WHITE			

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ELECTRICAL ENGINEER:

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

EXTERIOR ELEVATIONS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A3.1.1

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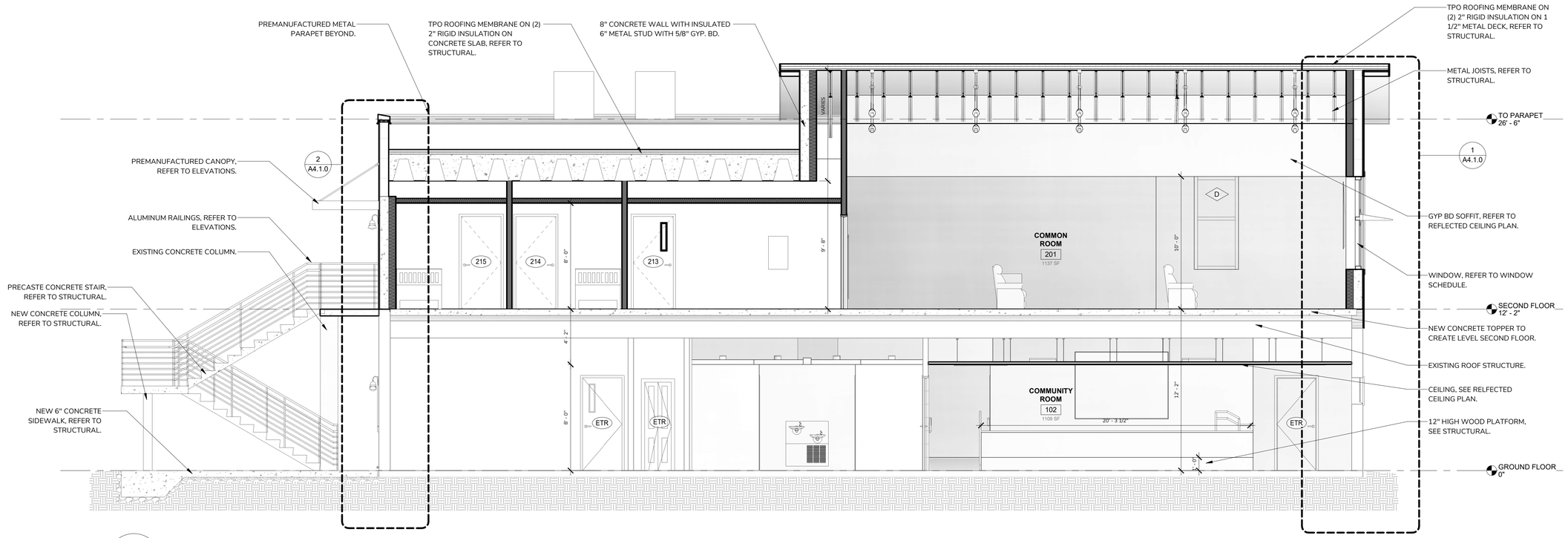
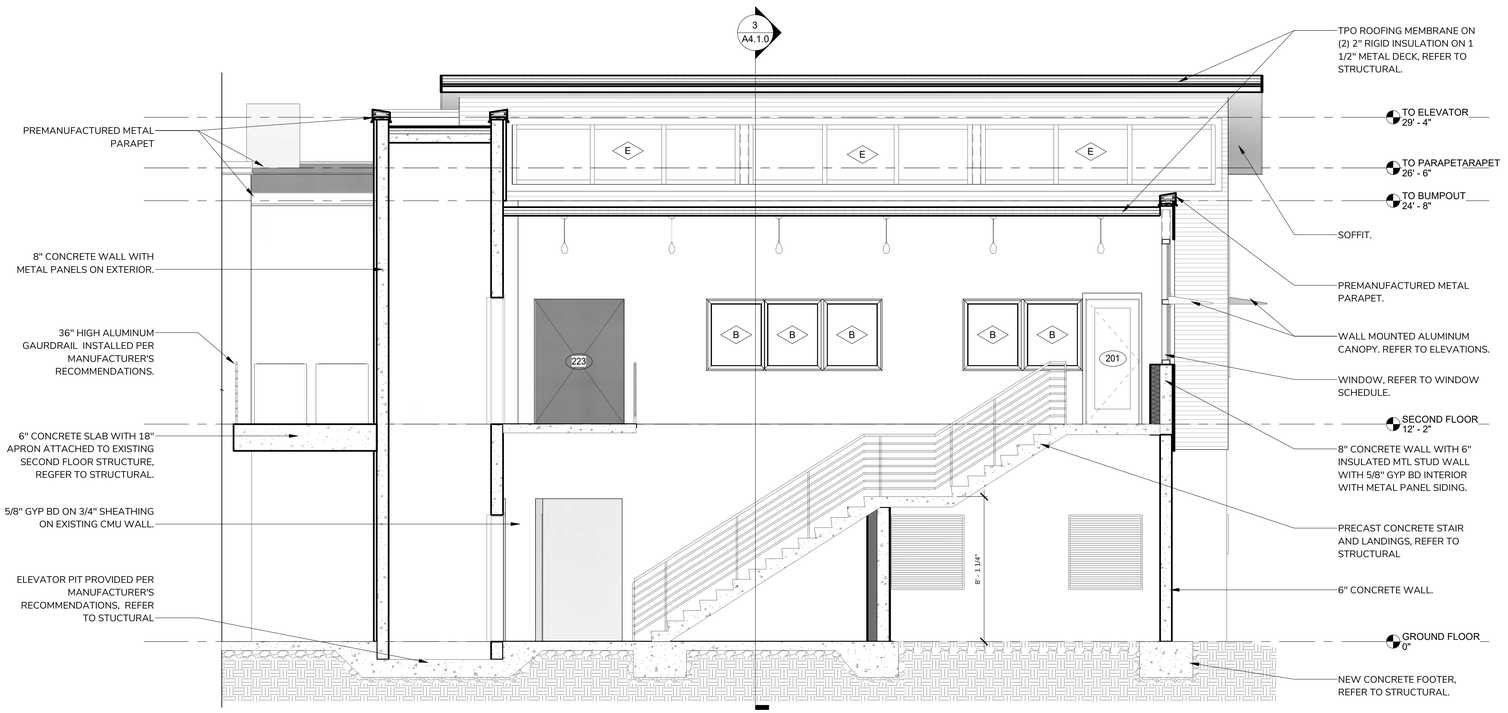


2 BUILDING SECTION

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



1 BUILDING SECTION

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

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FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
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KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

BUILDING SECTIONS

ORIGINAL SIZE:	PROJECT NUMBER:
24 x 36	21003
DRAWN BY:	CHECKED BY:
PDB	PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A4.0.0

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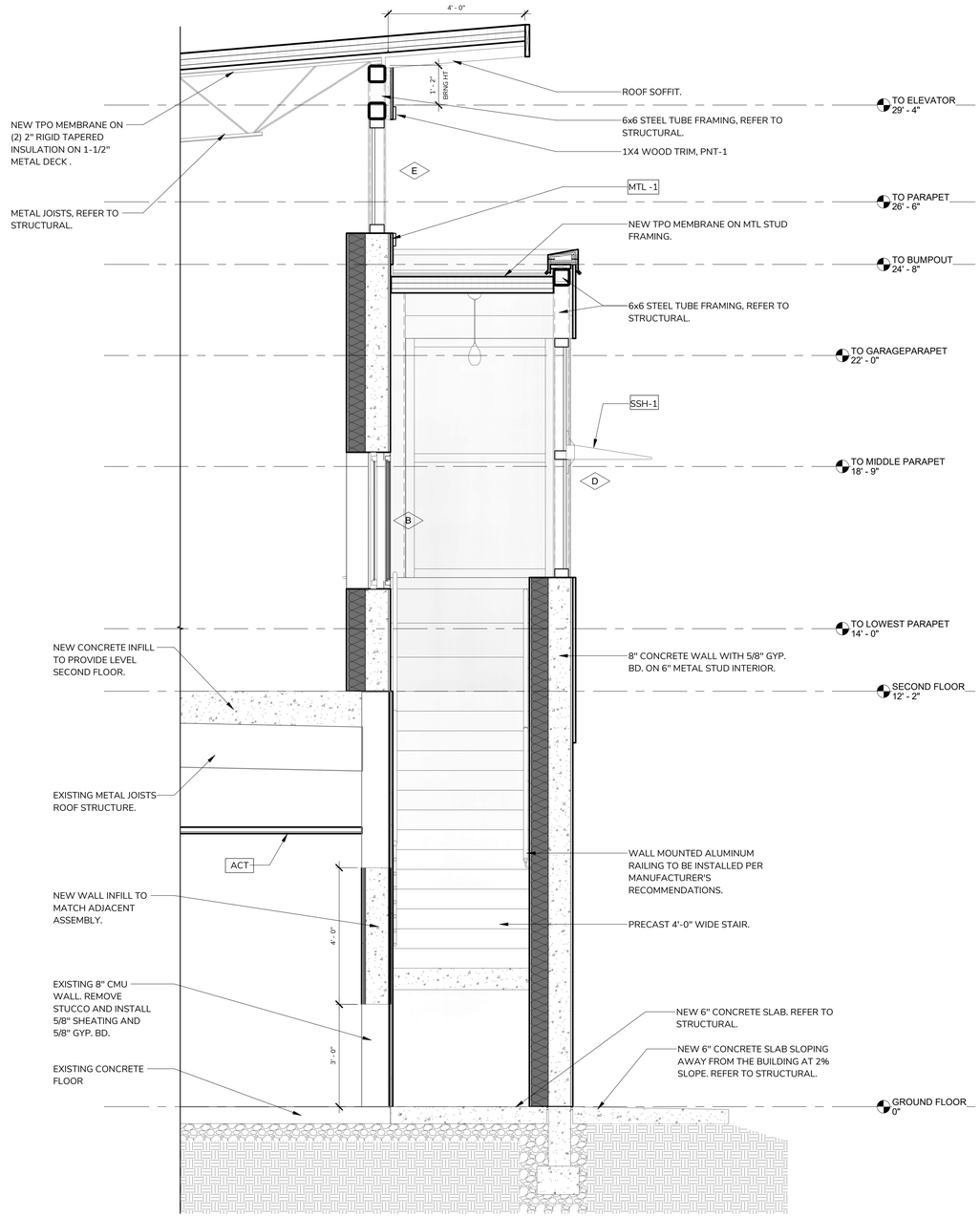
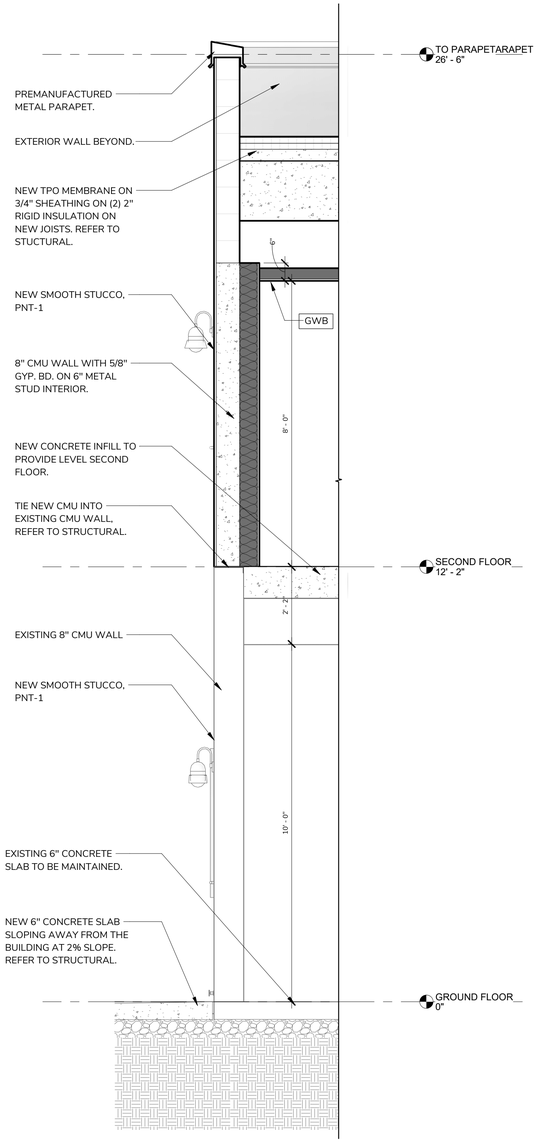
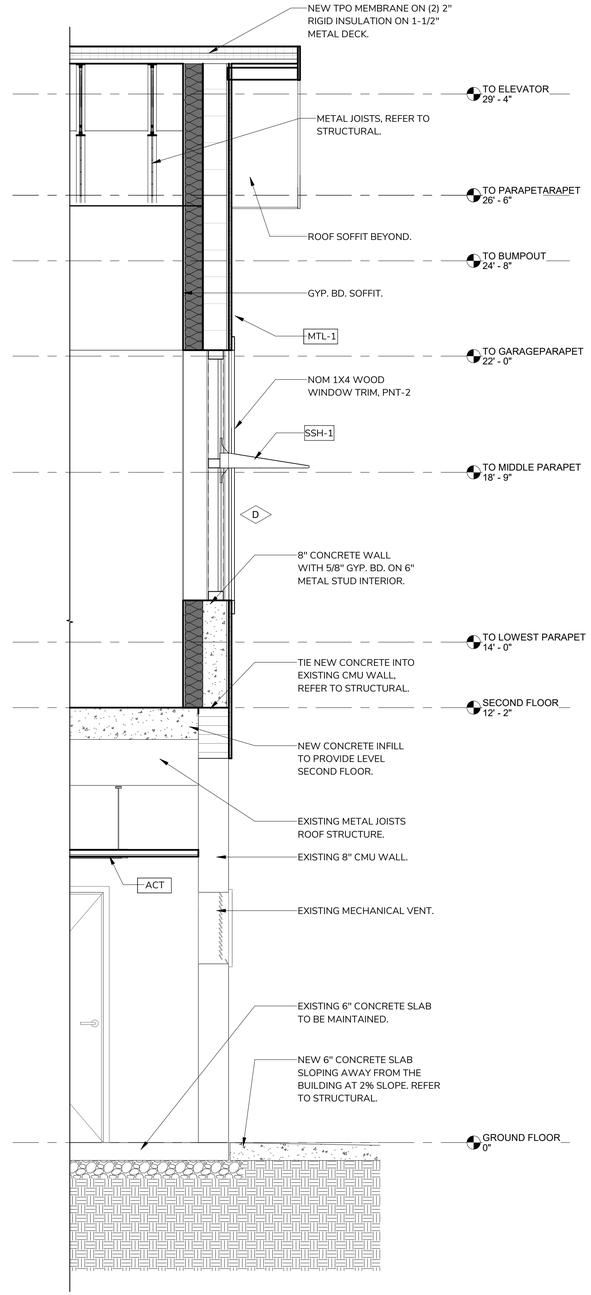


3 WALL SECTION THU STAIR
SCALE: 1/2" = 1'-0"



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



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

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OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS
OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:
WALL SECTIONS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:
A4.1.0

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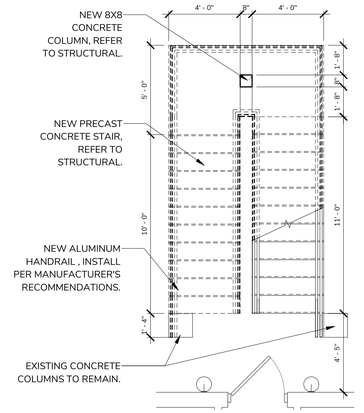
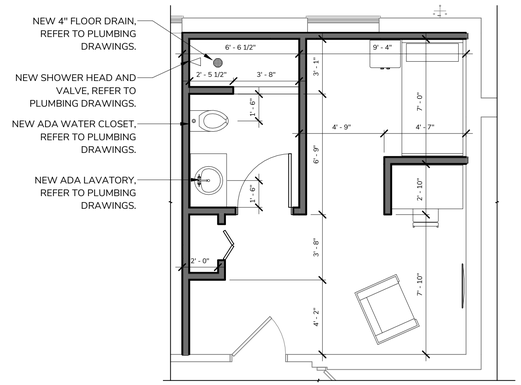
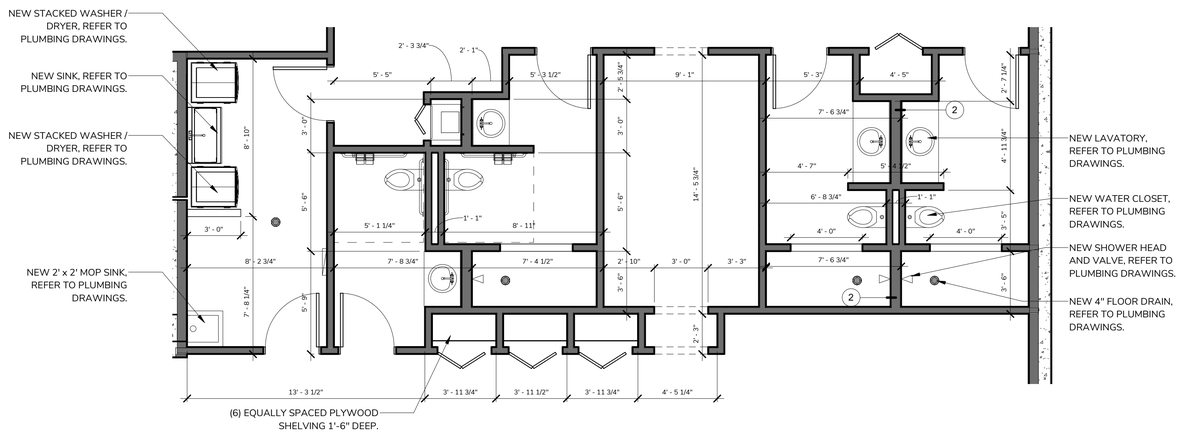


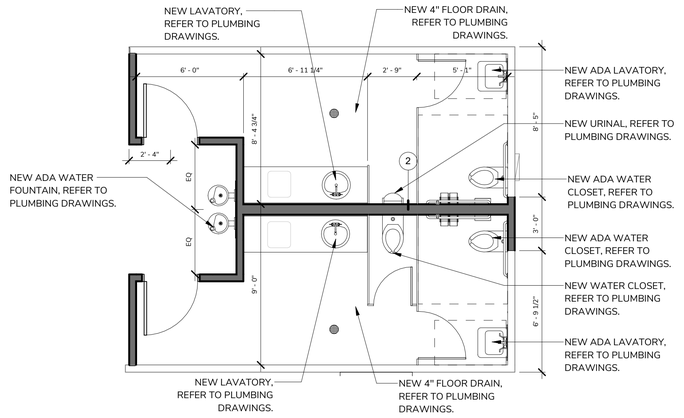
3 STAIR PLAN
SCALE: 1/4" = 1'-0"



2 OFFICER'S ROOM
SCALE: 1/4" = 1'-0"



4 DORMITORY RESTROOM PLAN
SCALE: 1/4" = 1'-0"



1 PUBLIC RESTROOM PLAN
SCALE: 1/4" = 1'-0"

LITTLE RED ROOSTER
Your Vision ● Our Passion
25 Ships Way
Big Pine, FL 33043
(305) 509 - 7932

www.LilRedRooster.com

CONSULTANTS

CIVIL ENGINEER:
STRUCTURAL ENGINEER:
MECH. / PLUMBING ENGINEER:
ELECTRICAL ENGINEER:

NOT FOR CONSTRUCTION

FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

ENLARGED PLANS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: Designer
CHECKED BY: Checker

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A5.0.0

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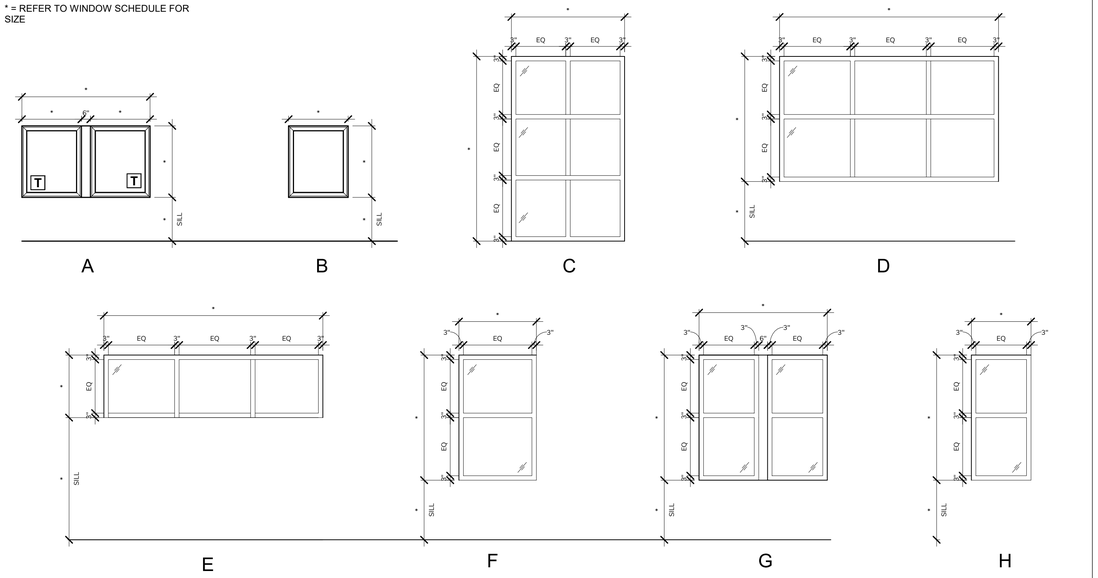
WINDOW SCHEDULE

TAG	DESCRIPTION	WINDOW MATERIAL INTERIOR	WINDOW MATERIAL EXTERIOR	WINDOW FINISH INTERIOR	WINDOW FINISH EXTERIOR	DIMENSIONS FRAME (W x H)	DIMENSIONS ROUGH OP'G (W x H)	SILL HEIGHT (AFF)	GLAZING TYPE	MANUFACTURER	MODEL	DESIGN PRESSURES	NOA #	NOTES
A	CASEMENT	ALUMINUM	ALUMINUM	MANF.	MANF.	3' - 4" x 4' - 0"	3' - 4 1/2" x 4' - 0 1/2"	3' - 0"		CGI WINDOWS & DOORS	238			
B	FIXED	ALUMINUM	ALUMINUM	MANF.	MANF.	3' - 4" x 4' - 0"	3' - 4 1/2" x 4' - 0 1/2"	3' - 0"		CGI WINDOWS & DOORS	238			
C	CURTAIN WALL	ALUMINUM	ALUMINUM	MANF.	MANF.	6' -4" x 10'- 4"	6' -4 1/2" x 10'- 4 1/2"	0' - 0"		KAWNEER				
D	CURTAIN WALL	ALUMINUM	ALUMINUM	MANF.	MANF.	12' -3" x 7'- 0"	12' -3 1/2" x 7'- 0 1/2"	3' - 4"		KAWNEER				
E	CURTAIN WALL	ALUMINUM	ALUMINUM	MANF.	MANF.	13' -2" x 3'- 4"	13' -2 1/2" x 3'- 4 1/2"	13' - 5"		KAWNEER				
F	CURTAIN WALL	ALUMINUM	ALUMINUM	MANF.	MANF.	4' -4" x 7'- 0"	4' -4 1/2" x 7'- 0 1/2"	3' - 4"		KAWNEER				
G	CURTAIN WALL	ALUMINUM	ALUMINUM	MANF.	MANF.	7' -2" x 7'- 0"	7' -2 1/2" x 7'- 0 1/2"	3' - 0"		KAWNEER				
H	CURTAIN WALL	ALUMINUM	ALUMINUM	MANF.	MANF.	3' -0" x 7'- 0"	3' -0 1/2" x 7'- 0 1/2"	3' - 0"		KAWNEER				

WINDOW TYPES

* = REFER TO WINDOW SCHEDULE FOR SIZE



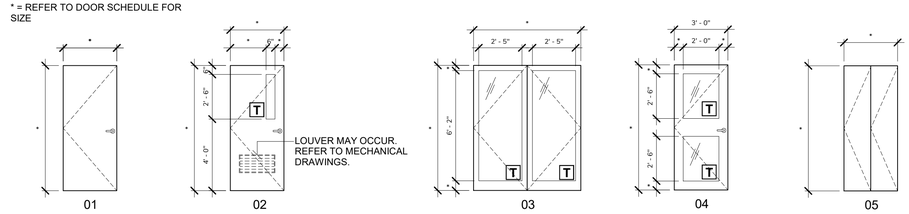
SYMBOL		GLAZING TYPES	GENERAL NOTES
T	TEMPERED GLASS	TYPE 1 -- 1/4" TEMPERED	1. CONTRACTOR SHALL VERIFY SPECIFIC ROUGH OPENING SIZES PRIOR TO ORDERING ALL WINDOWS,
HM	HOLLOW METAL.	TYPE 2 -- 1/4" FIRE RATED GLASS	REFER TO EXTERIOR ELEVATIONS, A311 SERIES, FOR EXTERIOR FINISH SCHEDULE.
WD	SOLID CORE WOOD DOOR.	TYPE 3 --9/16" LAMINATED POLYCARBONATE (60 MIN.)	3. ALL GLAZING DIRECTLY ADJACENT TO DOORS TO BE TEMPERED SAFETY GLASS WHETHER NOTED OR
ALUM	ALUMINUM.	TYPE 4 --7/16" LAMINATED POLYCARBONATE	NOT.
PTD	PAINTED. REFER TO FINISH SCHEDULE F	TYPE 5 -- 1" INSULATED	
MANUF	FACTORY APPLIED FINISH. REFER TO FINISH SCHEDULE.	TYPE 6 -- 1.25" SECURITY GLASS (EXTERIOR ONLY)	
ST	STAINED. REFER TO FINISH SCHEDULE.	TYPE 7 -- ONE WAY MIRROR GLASS	
ST	STEEL		
S	SMOKE LABELED / SEALED		

DOOR SCHEDULE

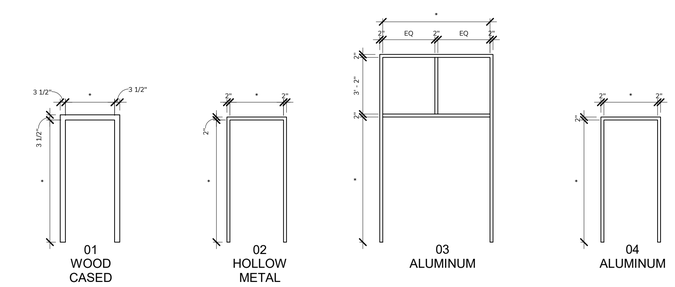
DOOR NO.	DOOR TYPE	DOOR MATL	DOOR NOMINAL SIZE	DOOR FINISH	FRAME TYPE	FRAME MATL	FRAME FINISH	GLAZING	HARDWARE	NOA #	NOTES
101	1	HW	7' - 0" X 3' - 0"	PNT	1	WD	PNT	-			
102	1	HW	7' - 0" X 3' - 0"		1	WD		-			
103	1	HW	7' - 0" X 3' - 0"		1	WD		-			
104	1	HM	7' - 0" X 3' - 0"	PNT	2	HM	PNT	-			
106	3	ALUM	7' - 0" X 6' - 0"	-	3	ALUM	-	1			THRESHOLD
107	1	HW	7' - 0" X 3' - 0"		1	WD		-			
108	1	HW	7' - 0" X 3' - 0"		1	WD		-			
109	1	HW	7' - 0" X 3' - 0"		1	WD		-			
110	4	HW	6' - 8" X 2' - 0"	PNT	1	WD	PNT				
111	1	HW	7' - 0" X 3' - 0"		1	WD		-			
201	5	ALUM	7' - 0" X 3' - 0"	-	4	ALUM	-	2			
203	5	ALUM	7' - 0" X 3' - 0"	-	4	ALUM	-	2			THRESHOLD
204	2	HW	7' - 0" X 3' - 0"	PNT	1	WD	PNT	3			
205	1	HW	7' - 0" X 3' - 0"		1	WD		-			
206	4	HW	7' - 0" X 3' - 0"	PNT	1	WD	PNT	-			
207	4	HW	7' - 0" X 3' - 0"		1	WD		-			
208	4	HW	7' - 0" X 3' - 0"		1	WD		-			
209	1	HW	7' - 0" X 3' - 0"		1	WD		-			
210	4	HW	7' - 0" X 3' - 0"		1	WD		-			
211	1	HW	7' - 0" X 3' - 0"		1	WD		-			
212	1	HW	7' - 0" X 3' - 0"		1	WD		-			
213	2	HW	7' - 0" X 3' - 0"		1	WD		3			
214	1	HW	7' - 0" X 3' - 0"		1	WD		-			
215	1	HW	7' - 0" X 3' - 0"		1	WD		-			
216	1	HW	7' - 0" X 3' - 0"		1	WD		-			
217	1	HW	7' - 0" X 3' - 0"		1	WD		-			
218	1	HW	7' - 0" X 3' - 0"		1	WD		-			
219	1	HW	7' - 0" X 3' - 0"		1	WD		-			
220	-	-	7' - 0" X 3' - 0"	-	1	WD	PNT	-			FRAMED OPENING
221	-	-	7' - 0" X 3' - 0"	-	1	WD		-			FRAMED OPENING
222	-	-	7' - 0" X 3' - 0"	-	1	WD		-			FRAMED OPENING
223	-	-	7' - 0" X 5' - 0"	-	2	HM	PNT	-			FRAMED OPENING
226	4	HW	6' - 8" X 2' - 0"		1	WD					

DOOR TYPES

* = REFER TO DOOR SCHEDULE FOR SIZE



FRAME TYPES



SYMBOLS		GLAZING TYPES	GENERAL NOTES
T	TEMPERED SAFETY GLASS	TYPE 1 -- 1/4" TEMPERED	1. CONTRACTOR SHALL VERIFY SPECIFIC ROUGH OPENING SIZES PRIOR TO ORDERING ALL WINDOWS AND DOORS.
ALUM.	ALUMINUM. FINISHED BY MANUFACTURER.	TYPE 2 -- 1/4" FIRE RATED GLASS	2. REFER TO EXTERIOR ELEVATIONS, A311 SERIES, FOR EXTERIOR FINISH SCHEDULE.
HM	HOLLOW METAL.	TYPE 3 --9/16" LAMINATED POLYCARBONATE (60 MIN.)	3. ALL DOOR GLAZING, SIDELIGHTS, AND TRANSITIONS TO BE TEMPERED SAFETY GLASS WHETHER NOTED OR NOT.
HW	HOLLOW WOOD DOOR.	TYPE 4 --7/16" LAMINATED POLYCARBONATE	4. ANY HOLLOW METAL FRAME IN CONTACT WITH ANY WET AREAS SHALL BE GALVANIZED MIN. G-60 WHETHER NOTED OR NOT.
		TYPE 5 -- 1" INSULATED	5. EGRESS DOORS TO THE EXTERIOR, TO A STAIRWELL, OR TO EXIT PASSAGEWAY SHALL RECEIVE A TACTILE SIGN STATING 'EXIT' ADJACENT TO THE DOOR.
		TYPE 6 -- 1.25" SECURITY GLASS (EXTERIOR ONLY)	6. ANY ENTRY DOORS WITH DEADBOLT TO RECEIVE A SIGN ON OR ADJACENT TO THE DOOR STATING 'THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.' THE SIGN SHALL BE IN LETTERS 1" HIGH ON A CONTRASTING BACKGROUND.
		TYPE 7 -- ONE WAY MIRROR GLASS	

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CONSULTANTS

CIVIL ENGINEER:
STRUCTURAL ENGINEER:
MECH. / PLUMBING ENGINEER:
ELECTRICAL ENGINEER:

NOT FOR CONSTRUCTION

FL LIC. AR99860 exp. 2/28/2023

FIRE STATION 24 EXPANSION

OVERSEAS HIGHWAY & EAST DRIVE
KEY LARGO, FL 33037

KEY LARGO FIRE RESCUE & EMS

OVERSEAS HWY & EAST DR., KEY LARGO, FL 33037

SHEET TITLE:

SCHEDULES AND DETAILS

ORIGINAL SIZE: 24 x 36
PROJECT NUMBER: 21003
DRAWN BY: PDB
CHECKED BY: PDB

CREATION DATE:	DATE
ISSUED FOR:	DATE:

REVISION	DATE

SHEET NUMBER:

A6.1.1

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7a.

KEY LARGO FIRE RESCUE & EMERGENCY MEDICAL SERVICES DISTRICT Job Description		EXECUTIVE ASSISTANT/CLERK DATE OF REVISION 2/7/23	
POSITION	Non-Exempt	Hourly Rate $	BASED ON QUALIFICATIONS
LOCATION	Key Largo	Pay Range $	

Basic Scope/Purpose:

The Executive Assistant/Clerk provides a high level of professional administrative support to the Board of Commissioners and District administrative staff. This position is highly visible and is responsible for a wide range administrative duties.

Reporting Responsibilities:

The Executive Assistant/Clerk reports to the Chair or designee.

Working Conditions:

The Executive Assistant/Clerk will be mostly exposed to inside environmental conditions, with some exposure to outside conditions during training, assistance with field projects/studies, etc. The physical nature of this position is such that the person filling it will be expected to perform sedentary work with moderate to heavy work (exerting up to 20 lbs. of force to lift, carry, push, pull, or otherwise move objects).

Essential Functions (Without Accommodations):

1. Assist the Chair and staff in day-to-day organizational and office management tasks, such as project management, meeting scheduling, and filing of documents (paper and/or digital).
2. Provides specialized or technical services to administrative staff/Commissioners in official meetings, public functions, and public relations matters.
3. Attend all District Board Meetings and responsible for preparing board meeting material, monitor the flow of the meeting, record the meeting, and create and distribute official minutes.
4. Responsible for recording and maintenance of recordings of all publicly noticed meetings.
5. Performs special assignments, research, and report preparation.
6. Coordinates and arranges all District Travel, including but not limited to, airlines reservation, hotel reservation, car rental reservation, and event registration.
7. Assists in the development and articulation of policy positions and administrative procedures.
8. Takes telephone calls, emails, and other communications from the public.
9. Processes a variety of correspondence, investigates subject matter and prepares replies.

10. Assist with competitive bid process.
11. Receive, route, and organize incoming internal and external communications.
12. Perform general HR functions and assists in maintaining personnel records.
13. Respond to inquiries from the public about specific KLFEMS information as the Public Records & Retention Officer.
14. Assist with the timely disposition of all District records in compliance with state schedules.

Since our organization is going to change to meet the needs of public, environmental conservation, and the District, you can expect, anticipate, and assume that your job description will change to meet these challenges.

Required Qualifications:

1. Proficiency with Microsoft Office Suite applications, Adobe Acrobat, and operate general office equipment.
2. Two years of general office or secretarial experience.
3. Excellent verbal and written communication skills.
4. Ability to exhibit professional behavior at all times, in person, over the phone and through electronic communication toward the general public and staff.
5. Excellent organizational skills, detail-oriented with a proven record of accuracy, self-motived, team-oriented, flexible, anticipatory, and problem-solving skills.
6. Ability to work independently and prioritize workload, taking initiative and ownership of responsibilities.
7. Experience and ability to maintain strict confidentiality with sensitive information using good judgement and discretion.
8. Ability to establish and maintain effective working relationships with others, at all levels within the District.
9. High School Diploma or equivalent.

Preferred Qualifications:

1. Associates or Bachelor's degree.
2. Three years of executive assistance experience.
3. Experience with public records requests and records management.

10a.

KEY LARGO EMS MONTHLY CALL STATISTICS 2022

Total Year Up to Date	178
Total Year Up to Date >103MM	53

Last Updated: 09/03/2022

TYPE OF CALLS	ALS	BLS	BACK-UP	PEDIATRIC	TRAUMA ALERTS	CARDIAC ARRESTS	PUBLIC ASSISTS	STAND-BY	FIRES	CANCEL	REFUSALS	TRANSPORTS	MUTUAL AID	MM >103	TOTAL CALLS
JANUARY	91	19	14	0	2	2	18	3	0	14	33	110	2	53	178
FEBRUARY															
MARCH															
APRIL															
MAY															
JUNE															
JULY															
AUGUST															
SEPTEMBER															
OCTOBER															
NOVEMBER															
DECEMBER															

11a.

Incident Run Log

Key Largo Fire Department

Date Range: From 01/01/2023 to 01/31/2023
Company: All Companies
Sorted by: Not selected

Date	FDID	Incident#	Alarm	###	Address	Suite	Zip	Type	Lgth
01/31/2023	38032	2023-000087	10:39	59	MUTINY PL		33037	Trash or rubbish fire, contained	0.2
01/11/2023	38032	2023-000035	13:50	9970	OVERSEAS HWY		33037	Brush or brush-and-grass mixture fire	0.2
01/01/2023	38032	2023-000002	02:25	1005	ADAMS DR			Outside rubbish, trash or waste fire	0.6
01/01/2023	38032	2023-000001	00:38	519	SOUND DR		33037	Dumpster or other outside trash receptacle fire	0.9
01/17/2023	38032	2023-000043	17:00	4	Pelican road		33037-	Rescue, EMS incident, other	0.3
01/03/2023	38032	2023-000017	14:25		GARDEN COVE DR / 106 MM O		33037	Medical assist, assist EMS crew	0.6
01/04/2023	38032	2023-000020	10:10	515	HAZEL ST		33037	Medical assist, assist EMS crew	0.5
01/05/2023	38032	2023-000021	10:16	9600	OVERSEAS HWY	EE33	33037	Medical assist, assist EMS crew	0.1
01/07/2023	38032	2023-000026	10:22	66	SHORELAND DR		33037	Medical assist, assist EMS crew	0.0
01/08/2023	38032	2023-000029	22:37	5	GULFSTREAM DR		33037	Medical assist, assist EMS crew	0.2
01/18/2023	38032	2023-000044	13:30	196	BUTTONWOOD AVE.-101.0-B/S		33037-	Medical assist, assist EMS crew	0.3
01/01/2023	38032	2023-000005	07:31	1076	OVERSEAS HWY		33037	EMS call, excluding vehicle accident with injury	0.2
01/02/2023	38032	2023-000011	13:58	1079	OVERSEAS HWY		33037	EMS call, excluding vehicle accident with injury	0.7
01/03/2023	38032	2023-000015	01:35	263	LOEB AVE		33037	EMS call, excluding vehicle accident with injury	0.4
01/08/2023	38032	2023-000028	14:13	1076	OVERSEAS HWY		33037	EMS call, excluding vehicle accident with injury	0.3
01/11/2023	38032	2023-000034	08:52		US1		33037	EMS call, excluding vehicle accident with injury	0.3
01/16/2023	38032	2023-000040	17:26	1026	OVERSEAS HWY		33037-	EMS call, excluding vehicle accident with injury	0.6
01/21/2023	38032	2023-000048	17:22	1079	OVERSEAS HWY		33037-	EMS call, excluding vehicle accident with injury	0.4
01/23/2023	38032	2023-000066	16:51	905	PLANTATION RD		33037	EMS call, excluding vehicle accident with injury	0.5
01/26/2023	38032	2023-000072	11:00	716	BARCELONA RD		33037	EMS call, excluding vehicle accident with injury	0.7
01/27/2023	38032	2023-000074	10:45	1	EAST DRIVE 99MM OC		33037	EMS call, excluding vehicle accident with injury	0.4
01/27/2023	38032	2023-000076	19:13	8	EXUMA RD		33037	EMS call, excluding vehicle accident with injury	0.0
01/30/2023	38032	2023-000085	16:37		US1		33037	EMS call, excluding vehicle accident with injury	0.1
01/31/2023	38032	2023-000086	07:31	905	PLANTATION RD		33037	EMS call, excluding vehicle accident with injury	0.3
01/31/2023	38032	2023-000088	14:10	105	105662 OVERSEAS HWY		33037-	EMS call, excluding vehicle accident with injury	0.5
01/31/2023	38032	2023-000089	18:35	23	OCEAN DR.-905 C2.0-O/S-		33037-	EMS call, excluding vehicle accident with injury	0.0
01/02/2023	38032	2023-000009	09:35	1053	OVERSEAS HWY		33037	Motor vehicle accident with injuries	0.9
01/02/2023	38032	2023-000010	12:45	1014	OVERSEAS HWY		33037	Motor vehicle accident with injuries	1.0
01/02/2023	38032	2023-000013	16:40	109	US1		33037	Motor vehicle accident with injuries	0.8
01/10/2023	38032	2023-000032	08:23	1062	OVERSEAS HWY		33037	Motor vehicle accident with injuries	0.9
01/17/2023	38032	2023-000042	11:02	9762	OVERSEAS HWY		33037-	Motor vehicle accident with injuries	0.3
01/18/2023	38032	2023-000045	23:33	96	OVERSEAS HWY		33037-	Motor vehicle accident with injuries	0.5
01/26/2023	38032	2023-000073	15:45	9760	OVERSEAS HWY		33037	Motor vehicle accident with injuries	0.6
01/27/2023	38032	2023-000075	15:06	96	US1		33037	Motor vehicle accident with injuries	0.7
01/20/2023	38032	2023-000046	14:27	1013	OVERSEAS HWY			Motor vehicle/pedestrian accident (MV Ped)	0.7
01/02/2023	38032	2023-000006	07:13	9960	OVERSEAS HWY		33037	Motor vehicle accident with no injuries.	0.1
01/02/2023	38032	2023-000007	07:48	1026	OVERSEAS HWY		33037	Motor vehicle accident with no injuries.	0.6
01/02/2023	38032	2023-000012	16:45	1044	OVERSEAS HWY		33037	Watercraft rescue	0.8
01/23/2023	38032	2023-000067	19:14	539	SOUND DR		33037	Arcing, shorted electrical equipment	0.2
01/04/2023	38032	2023-000019	09:36	1	EAST DRIVE 99MM OC		33037	Service Call, other	0.0
01/30/2023	38032	2023-000082	11:45	801	MADRID RD		33037	Service Call, other	0.5
01/13/2023	38032	2023-000038	18:05	1	EAST DR		33037-	Public service assistance, other	0.4
01/30/2023	38032	2023-000083	13:58	30	SILVER SPRINGS DR		33037	Public service assistance, other	0.2
01/31/2023	38032	2023-000090	19:05	107	107900 OVERSEAS HWY		33037-	Public service assistance, other	0.5
01/13/2023	38032	2023-000037	06:25	113	OVERSEAS HWY		33034-	Assist police or other governmental agency	0.5
01/06/2023	38032	2023-000025	10:31	809	LA PALOMA RD 102 MM OC		33037	Public service	0.2
01/10/2023	38032	2023-000031	06:54	286	COASTAL DR		33037	Dispatched & canceled en route	0.0
01/24/2023	38032	2023-000068	09:04	1015	OVERSEAS HWY	37	33037	Dispatched & canceled en route	0.0
01/25/2023	38032	2023-000069	00:28	1014	OVERSEAS HWY		33037	Dispatched & canceled en route	0.1
01/28/2023	38032	2023-000078	13:22		SAMSON RD / 101.5 MM OC		33037	Dispatched & canceled en route	0.2
01/15/2023	38032	2023-000039	11:40		KAY DR			Smoke scare, odor of smoke	0.3
01/17/2023	38032	2023-000041	07:24	1021	OVERSEAS HWY			False alarm or false call, other	0.1
01/06/2023	38032	2023-000024	04:18	809	LA PALOMA RD 102 MM OC		33037	CO detector activation due to malfunction	0.8
01/13/2023	38032	2023-000036	10:13	1011	ADAMS DR		33037	Smoke detector activation, no fire - unintentional	0.3
01/05/2023	38032	2023-000022	10:45	9901	OVERSEAS HWY		33037	Alarm system activation, no fire - unintentional	0.3
01/30/2023	38032	2023-000084	14:51	157	CORRINE PL		33037	Alarm system activation, no fire - unintentional	0.2
01/08/2023	38032	2023-000027	02:01	9	PELICAN RD		33037	Carbon monoxide detector activation, no CO	0.3
01/20/2023	38032	2023-000047	15:10	9871	OVERSEAS HWY			Special type of incident, other	0.0

Date	FDID	Incident#	Alarm	###	Address	Suite	Zip	Type	Lgth
01/25/2023	38032	2023-000070	12:07	1	EAST DRIVE 99MM OC		33037	Special type of incident, other	0.0
01/26/2023	38032	2023-000071	08:57	220	REEF DR		33037	Special type of incident, other	0.0
01/02/2023	38032	2023-000008	07:54	1	EAST DRIVE 99MM OC		33037		0.0
01/02/2023	38032	2023-000014	21:39	1500	OCEAN BAY DR		33037		0.0
01/03/2023	38032	2023-000018	10:27		OCEAN CAY DR / 99.8 MM OC		33037		0.0
01/03/2023	38032	2023-000016	11:41	1	EAST DRIVE 99MM OC		33037		0.0
01/05/2023	38032	2023-000023	16:48		US1	SB	33037		0.4
01/09/2023	38032	2023-000030	12:54	1020	OVERSEAS HWY		33037		0.0
01/10/2023	38032	2023-000033	11:04	178	INDIAN MOUND TR		33070		0.0
01/15/2023	38032	2023-000049	11:02	1078	OVERSEAS HWY		33037		0.0
01/15/2023	38032	2023-000050	11:44		KAY DR / 101.4 MM GU		33037		0.0
01/15/2023	38032	2023-000051	15:43	808	LARGO RD		33037		0.0
01/15/2023	38032	2023-000052	17:12	1053	OVERSEAS HWY		33037		0.0
01/16/2023	38032	2023-000053	02:54		US1		33037		0.0
01/16/2023	38032	2023-000054	09:28	423	BIG PINE RD		33037		0.0
01/16/2023	38032	2023-000055	14:06	21	GARDEN COVE DR		33037		0.0
01/16/2023	38032	2023-000056	14:57	262	RYAN AVE		33037		0.0
01/16/2023	38032	2023-000057	17:10	21	GARDEN COVE DR		33037		0.0
01/16/2023	38032	2023-000058	17:22	1026	OVERSEAS HWY		33037		0.0
01/17/2023	38032	2023-000059	10:59	9761	OVERSEAS HWY	NB	33037		0.0
01/17/2023	38032	2023-000060	16:41	4	PELICAN RD		33037		0.0
01/18/2023	38032	2023-000061	13:46	196	BUTTONWOOD AV 101.5		33037		0.0
01/18/2023	38032	2023-000062	14:36	1009	OVERSEAS HWY		33037		0.0
01/18/2023	38032	2023-000063	23:33		US1	SB	33037		0.0
01/21/2023	38032	2023-000064	17:17	1014	OVERSEAS HWY		33037		0.0
01/28/2023	38032	2023-000077	06:58	1019	OVERSEAS HWY		33037		0.0
01/28/2023	38032	2023-000079	20:53	1079	OVERSEAS HWY		33037		0.0
01/29/2023	38032	2023-000080	11:46	1053	OVERSEAS HWY		33037		0.0
01/29/2023	38032	2023-000081	13:00	25	MANGROVE LN		33070		0.0

Total Number of Incidents: 87

Total Length of Incidents: 22.8 Hours

Manpower Analysis by Incident

Key Largo Fire Department

Date Range: From 01/01/2023 to 01/31/2023
Company: All Companies

Incident Type	Incident Count	Number Attended	Average Attended	Total Length (hrs)	Average Length (hrs)	Average Man Hours	Total Man Hours
118-Trash or rubbish fire, contained	1	7	7.00	0.23	0.23	1.61	1.61
142-Brush or brush-and-grass mixture fire	1	8	8.00	0.22	0.22	1.76	1.76
151-Outside rubbish, trash or waste fire	1	7	7.00	0.58	0.58	4.06	4.06
154-Dumpster or other outside trash receptacle fire	1	6	6.00	0.87	0.87	5.22	5.22
300-Rescue, EMS incident, other	1	3	3.00	0.33	0.33	0.99	0.99
311-Medical assist, assist EMS crew	6	19	3.17	1.82	0.30	1.00	6.01
321-EMS call, excluding vehicle accident with injury	15	54	3.60	5.45	0.36	1.30	19.50
322-Motor vehicle accident with injuries	8	35	4.38	5.71	0.71	2.87	22.95
323-Motor vehicle/pedestrian accident (MV Ped)	1	5	5.00	0.72	0.72	3.60	3.60
324-Motor vehicle accident with no injuries.	2	6	3.00	0.70	0.35	1.05	2.10
365-Watercraft rescue	1	3	3.00	0.83	0.83	2.49	2.49
445-Arcing, shorted electrical equipment	1	5	5.00	0.17	0.17	0.85	0.85
500-Service Call, other	2	3	1.50	0.48	0.24	0.72	1.44
550-Public service assistance, other	3	12	4.00	1.11	0.37	1.41	4.24
551-Assist police or other governmental agency	1	3	3.00	0.52	0.52	1.56	1.56
553-Public service	1	3	3.00	0.23	0.23	0.69	0.69
611-Dispatched & canceled en route	4	9	2.25	0.28	0.07	0.21	0.84
651-Smoke scare, odor of smoke	1	5	5.00	0.25	0.25	1.25	1.25
700-False alarm or false call, other	1	6	6.00	0.07	0.07	0.42	0.42
736-CO detector activation due to malfunction	1	7	7.00	0.78	0.78	5.46	5.46
743-Smoke detector activation, no fire - unintentional	1	6	6.00	0.27	0.27	1.62	1.62
745-Alarm system activation, no fire - unintentional	2	8	4.00	0.48	0.24	0.95	1.90
746-Carbon monoxide detector activation, no CO	1	4	4.00	0.30	0.30	1.20	1.20
900-Special type of incident, other	3	3	1.00	0.58	0.19	0.39	1.16
Blank. Incident Type not Entered	27	0	0.00	2.16	0.08		0.00
Total and Averages for all Incident Types	87	227	2.61	25.14	0.29		92.92

Alarms by Day of Week

Key Largo Fire Department

Date Range: From 01/01/2023 to 01/31/2023

Day of Week		Totals
Sunday		13
Monday		23
Tuesday		18
Wednesday		11
Thursday		6
Friday		10
Saturday		6

No Date	**0**
Total Alarms	**87**

NFPA Analysis Report

Key Largo Fire Department

Date Range: From 01/01/2023 to 01/31/2023

FIRE IN STRUCTURES BY FIXED PROPERTY USE (OCCUPANCY) (All in Section A Incident Type 110-129)	Number of	Number of Civilian Fire Casualties. If none, write 0.		Estimated Property Damage from Fire. If no loss, write 0.
		Deaths	Injuries	
1. Private Dwellings (1 or 2 family), Including mobile homes (FPU 400-419)	0	0	0	$0
2. Apartments (3 or more families) FPU 429 or FPU 439)	0	0	0	$0
3. Hotels and Motels (FPU 449)	0	0	0	$0
4. All other residential (dormitories, boarding houses, tents, etc.) (FPU 459-499)	0	0	0	$0
5. TOTAL OTHER RESIDENTIAL FIRES (SHOULD BE SUM OF LINES 1 THROUGH 4)	0	0	0	$0
6. Public Assembly (church, restaurant, clubs, etc.) (FPU 100-199)	0	0	0	$0
7. Schools and Colleges (FPU 200-299)	0	0	0	$0
8. Health Care and Penal Institutions (hospitals, nursing homes, prisons, etc.) (FPU 300-399)	0	0	0	$0
9. Stores and Offices (FPU 500-599)	0	0	0	$0
10. Industry, Utility, Defense, Laboratories, Manufacturing (FPU 600-799)	0	0	0	$0
11. Storage in Structures (barns, vehicle storage garages, general storage, etc.) (FPU 800-899)	0	0	0	$0
12. Other Structures** (outbuildings, bridges, etc.) (FPU 900-999)	1	0	0	$0
13. TOTALS FOR STRUCTURE FIRES (SHOULD BE SUM OF LINES 5 THROUGH 12)	1	0	0	$0
B. **OTHER FIRE AND INCIDENTS**				
14a. Fires in Highway Vehicles (autos, trucks, buses, etc.) (IT 131-132, 136-137)	0	0	0	$0
14b. Fires in Other Vehicles (planes, trains, ships, construction or farm vehicles, etc.) (IT 130, 133-135, 138)	0	0	0	$0
15. Fires outside of Structures with Value Involved, but Not Vehicles (outside storage, crops, timber, etc. (IT 140, 141, 161, 162, 164, 170-173)	0	0	0	$0
16. Fires in Brush, Grass, Wildland (excluding crops and timber) with no value involved. (IT 142-143)	1	0	0	
17. Fires in Rubbish, Including Dumpsters (outside of structures), with no value involved. (IT 150-155)	2	0	0	
18. All Other Fires. (IT 100, 160, 163)	0	0	0	$0
19. TOTAL FOR FIRES (SHOULD BE SUM OF LINES 13 THROUGH 18	4	0	0	$0
20. Rescue, Emergency Medical Responses (ambulance, EMS, rescue) (IT 300-381)	34			
21. False Alarm Responses (malicious or unintentional false calls, system malfunctions, bomb scares) (IT 700-746)	6			
22. Mutual Aid or Assistance Responses Given	0			
23 Hazardous Materials Responses (spills, leaks, etc.) (IT 410-431)	0			
23 Other Hazardous Conditions (arcing wires, bomb removal, power line down, etc.) (IT 440-482, 400)	1			
24. All Other Responses (smoke scares, lock-outs, animal rescues, etc.) (IT 200-251, 500-699, 800-911)	42			
25 TOTAL FOR ALL INCIDENTS (SHOULD BE SUM OF LINES 19 THROUGH 24)	87			

Based on what is reported in lines 5 and 13 for number of fire above, please report separately:

Confined fires (e.g., cooking fires confined to cooking vessel, or chimney fire that did not spread beyond chimney, or confined trash fires) IIT 113 - 118), and Nonconfined fires (IT 110 - 112,120 - 123).

	Number of Confined Fires	Number of Nonconfined Fires
5. Residential Fires (line 5 above)	0	0
13. Structure Fires (line 13 above)	1	0

BREAKDOWN OF FALSE ALARM RESPONSES

1. Malicious, Mischievous False Call (IT 710-715)	0
2. System Malfunction (IT 700-739)	1
3. Unintentional (tripping on Interior device accidentally etc.) (IT 740-749)	4
4. Other False Alarms (bomb scares, etc.) (IT 721, 700)	1

INTENTIONALLY SET FIRES IN STRUCTURES AND VEHICLES	Numbers of Fires	Number of Civilian Fire		Estimated Property Damage and Contents from Fire
		Deaths	Injuries	
1. Structure Fires Intentionally set	0	0	0	0
2. Vehicle Fires Intentionally set	0	0	0	0

FIRE SERVICE EXPOSURES AND INJURIES	
1. Total number of firefighters that were exposed to infectious diseases	0
2. Total Number of firefighters that were exposed to hazardous	0
3. Total number of nonfatal firefighter injuries during all types of duty	0

Nature of Most Serious Injury	Responding to or Returning from Incidents	At the Fire Ground	At Non-Fire Emergencies	Training	Other On-Duty
1. Burns (PAS 12,13,14,15)	0	0	0	0	0
2a. Smoke or Gas Inhalation(PAS 01,02)	0	0	0	0	0
2b. Other Respitory Distress (PAS 03,44,64,65)	0	0	0	0	0
3. Burn and Smoke Inhalation PAS(11)	0	0	0	0	0
4. Wound, Cut, Bleeding, Bruise (PAS 21-25,35,36,72,73)	0	0	0	0	0
5. Dislocation, Fracture (PAS 31, 32, 63)	0	0	0	0	0
6. Heart Attack or Stroke (PAS 41, 42, 43)	0	0	0	0	0
7. Strain, Sprain, Muscular Pain (PAS 33, 34, and 98)	0	0	0	0	0
8. Thermal Stress (frostbite, heat, exhaustion) (PAS 57, 83-85)	0	0	0	0	0
9. Other (PAS All other codes)	0	0	0	0	0
10. Total	**0**	**0**	**0**	**0**	**0**

FIREGROUND INJURIES BY CAUSE	
1. Exposure to Fire Products (Cause 4, object 47-49, 53, 64):	0
2. Exposure to Chemicals or Radiation(Cause 4, object 52,56):	0
3. Fall, jump, slip, trip (cause 1 to 3):	0
4. Overexertion, strain (cause 7):	0
5. Contact with object (cause 6):	0
6. Struck by (cause 5):	0
7. Exteme weather (cause 4, object 62):	0
8. Other:	0

THREE HIGHEST LOSS OF LIFE FIRES	THREE HIGHEST PROPERTY DAMAGE FIRES
NO LOSS OF LIFE EVENTS	**NO PROPERTY DAMAGE EVENTS**