HILLSBOROUGH COUNTY
SUN CITY NORTH FS 47
CIP NO. C91218000

90% CONTRACT DOCUMENTS

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wilderarchitecture.com

AR91271 Qualifier License

WILDERARCHITECTURE, INC.

PROJECT TEAM

CIVIL ENGINEERING
AURORA CIVIL ENGINEERING, INC.

LANDSCAPE ARCHITECTURE
ANDERSON LESNIAK LIMITED, INC.

STRUCTURAL ENGINEERING
PENNONI ASSOCIATE, INC

FIRE PROTECTION / PLUMBING
MECHANICAL / ELECTRICAL
ENGINEERING
ENGINEERING MATRIX, INC.

HILLSBOROUGH COUNTY BOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

90% CD

11.14.2024

@	AT
AB	ANCHOR BOLT
AC	AIR CONDITION, ER, ING
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
APC	ACOUSTIC PANEL CEILING
APPROX	APPROXIMATELY
ARCH	ARCHITECT
BLDG(S)	BUILDING(S)
BLK	BLOCK
BLKG	BLOCKING
BOS	BOTTTOM OF STEEL
BOTT	BOTTOM
BRG	BEARING
BUR	BUILT-UP ROOFING
CI	CONTRACTOR INSTALLED
CJ	CONTROL JOINT
CL	CENTER LINE
CLF	CHAIN LINK FENCE
CLG	CEILING
CLR	CLEAR
CEM	CEMENT
CP	CONTRACTOR PROVIDED
CR	CLASSROOM
CT	CERAMIC TILE
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CPT	CARPET
D	DEEP, DEPTH
DEMO	DEMOLITION
DF	DRINKING FOUNTAIN
DIAM	DIAMETER
DIM	DIMENSION
DOCS	DOCUMENTS
DN	DOWN
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
EA	EACH
EHPA	ENHANCED HURRICANE PROTECTION AREA
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FBC	FLORIDA BUILDING CODE
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FFPC	FLORIDA FIRE PREVENTION CODE
FIN	FINISH
FIXT	FIXTURE
FL	FLOOR
FLUOR	FLUORESCENT
FT	FEET
FTG	FOOTING
FURN	FURNITURE
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GWB	GYPSUM WALLBOARD
HB	HOSE BIBB
HC	HANDICAPPED
HT	HEIGHT, HIGH
HDW	HARDWARE
HM	HOLLOW METAL
HMF	HOLLOW METAL FRAME
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
INCAND	INCANDESCENT
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JT	JOINT
MAINT	MAINTENANCE
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MVCJ	MASONRY VERTICAL CONTROL JOINT
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO,#	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OI	OWNER INSTALLED
OP	OWNER PROVIDED
OPNG	OPENING
OPP	OPPOSITE
OPH	OPPOSITE HAND
PERIM	PERIMETER
PLAS	PLASTER
PL	PROPERTY LINE
PNT	PAINT (PAINTED FINISH)
PROJ	PROJECT
PT	PRESSURE TREATED
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
PLWD	PLYWOOD
PP	PUSH PLATE
QT	QUARRY TILE
R/W	RIGHT OF WAY
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
REINF	REINFORCE/MENT/ING
REQ	REQUIRED
RM	ROOM
RO	ROUGH OPENING
RWB	RESILIENT WALL BASE
RWL	RAIN WATER LEADER
SC	SMOKE COMPARTMENT
SHT	SHEET
SF	SQUARE FOOT
SIM	SIMILAR
SOG	SLAB ON GRADE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS (RATING)
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRL	STRUCTURAL
SUSP	SUSPEND / ED / SION
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
TEMP	TEMPORARY
TERR	TERRAZZO
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOT	TOTAL
T/S	TOP OF SLAB
TYP	TYPICAL (UNO)
UNO	UNLESS NOTED OTHERWISE
V	VINYL
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VP	VENEER PLASTER
VSF	VINYL SHEET FLOORING
VT	VINYL TILE
VTR	VENT TO ROOF
W	WIDE, WIDTH
W/	WITH
WP	WEATHERPROOF
WWF	WELDED WIRE FABRIC
WVP	WOOD VENEER PANELING

ARCHITECTURAL ABBREVIATIONS AND ACRONYMS | D12

DRAWING TAGS

FURNITURE & EQUIP

PARTITION TYPE

SPECIFIC NOTE

WINDOW TYPE

W03

HOLLOW METAL FRAME TYPE

F11

DOOR TAG

101a

LOUVER TAG

L01

SPOT ELEV

SIGNAGE TAGS

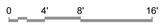
SIGNAGE LOCATION

DRAWING IDENTIFICATION

DWG NAME SCALE	DWG NO

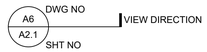
NORTH ARROW

GRAPHIC SCALE



DETAIL INDICATION

SECTION CUT INDICATION



ELEVATION INDICATION

ARCHITECTURAL DRAWING SYMBOLS | D7

COVER
A0.0 GENERAL INFORMATION SHEET
A0.1 LIFE SAFETY PLAN

SURVEY
1 OF 1 TOPOGRAPHIC & BOUNDARY SURVEY

CIVIL
COVER SHEET
C-1 CONSTRUCTION NOTES AND TESTING SCHEDULE
C-2 EXISTING CONDITIONS PLAN
C-3 OVERALL SITE PLAN
C-4 MASTER DRAINAGE PLAN
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C-6B FLOODPLAIN MITIGATION PLAN
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C-18 FDOT INDEXES
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L-2 IRRIGATION PLAN
L-3 INVASIVE PLANT REMOVAL PLAN

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A1.2 SITE PLAN DETAILS
A1.3 FLOOR PLAN
A1.4 DIMENSIONED FLOOR PLAN
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A1.6 ROOF PLAN
A2.1 ENLARGED FLOOR PLANS
A3.1 EXTERIOR ELEVATIONS
A3.2 BUILDING SECTIONS AND DETAILS
A4.0 PARTITION TYPES
A4.1 PARTITION DETAILS AND WALL SECTIONS
A4.2 WALL SECTIONS
A4.3 WALL SECTIONS
A5.1 ROOF DETAILS
A5.2 DETAILS
A5.3 DETAILS
A6.1 INTERIOR ELEVATIONS
A6.2 INTERIOR ELEVATIONS AND SECTIONS
A6.3 CASEWORK DETAILS
A7.1 SCHEDULES AND DOOR AND WINDOW TYPES

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S0.2 STRUCTURAL SPECIFICATIONS, SCHEDULES & WIND TABLES
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S1.2 ROOF FRAMING PLAN
S2.1 FOUNDATION DETAILS
S2.2 MASONRY & FOUNDATION DETAILS
S2.3 FRAMING DETAILS
S3.1 WALL SECTIONS

FIRE PROTECTION
FP1.0 FIRE PROTECTION SITE PLAN

PLUMBING
P0.0 PLUMBING LEGEND & NOTES
P2.0 PLUMBING UNDERGROUND PLAN
P2.1 PLUMBING FLOOR PLAN
P5.1 PLUMBING DETAILS
P5.2 PLUMBING DETAILS
P5.3 PLUMBING DETAILS
P6.1 PLUMBING FIXTURE SCHEDULE

MECHANICAL
M0.0 MECHANICAL SYMBOLS LEGEND
M2.1 MECHANICAL FLOOR PLAN
M3.1 MECHANICAL DETAILS
M3.2 MECHANICAL DETAILS
M3.3 MECHANICAL DETAILS
M3.4 MECHANICAL DETAILS
M4.1 MECHANICAL SCHEDULES
M4.2 MECHANICAL SCHEDULES
M5.1 MECHANICAL CONTROLS
M5.2 MECHANICAL CONTROLS
M5.3 MECHANICAL CONTROLS
M6.1 MECHANICAL FLOW DIAGRAM

ELECTRICAL
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E0.1 LUMINAIRE SCHEDULE
E1.1 LIGHTING SITE PLAN
E1.2 PHOTOMETRIC SITE PLAN
E1.3 POWER SITE PLAN
E1.4 ELECTRICAL SYSTEMS SITE PLAN
E2.1 LIGHTING FLOOR PLAN
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E4.1 ELECTRICAL SYSTEMS FLOOR PLAN
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E5.3 ELECTRICAL DETAILS
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E5.5 ELECTRICAL DETAILS
E5.6 ELECTRICAL DETAILS
E5.7 ELECTRICAL DETAILS
E5.8 ELECTRICAL DETAILS
E6.1 ELECTRICAL RISER DIAGRAM
E7.1 ELECTRICAL PANEL SCHEDULE

DRAWING INDEX | F1

FLORIDA PRODUCT APPROVAL APPROVED PRODUCT LIST

FLORIDA BUILDING CODE VERSION- 2023

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL NUMBER	APPROVAL OR VALIDATION DATE
EXTERIOR DOORS	SWINGING EXTERIOR DOOR (SINGLE/DOUBLE)	SCHLAGE LOCK COMPANY, LLC/ALLEGION	FL 16740.3	12/12/2023
	SECTIONAL EXTERIOR DOOR	OVERHEAD DOOR	FL 11734.18	12/12/2023
	STOREFRONT DOOR ASSEMBLY	YKK AP AMERICA	FL 16554.2	07/25/2023
WINDOWS	CASEMENT	WINCO WINDOWS	FL 21420	-
ROOFING	ASPHALT SHINGLES	GAF	FL 10124.1	12/12/2023
	METAL ROOFING (ADD ALTERNATE)	PETERSEN ALUMINUM CORP.	FL 24423	09/17/2023
	SINGLE PLY ROOF SYSTEM	GAF	FL5293	04/16/2024
PANEL WALLS	STOREFRONT	YKK AP AMERICA	FL 14218.1	07/25/2023
	WALL LOUVER	RUSKIN	FL 21829.7	04/22/2024
	WALL LOUVER (FOR SOFFIT)	RUSKIN	FL 6876.2	02/14/2024
	SOFFITS	PLY GEM SIDING GROUP	FL 32502.1	10/18/2023
	SIDING	JAMES HARDIE BUILDING PRODUCTS	FL 13192.2	03/13/2024

FLORIDA PRODUCT APPROVAL APPROVED PRODUCTS LIST | D1

REFLECTED CEILING PLAN

- GWB CLG
- CEM PLAS CLG
- APC
- PENDANT FLOUR LIGHT FIXTURE PENDANT STEM, TYP
- 2X4 LAY IN FIXT
- 1X4 LED FIXT
- 1X4 CLG MTD OR PENDANT MTD LED FIXT, SEE ELECT DWGS
- LIGHT FIXT
- AIR GRILLES
- EXIT SIGN, CLG MTD
- SPEAKER, CLG MTD
- SMOKE DETECTOR, CLG MTD
- OCCUPANCY SENSOR, CLG MTD
- FIRE ALARM STROBE, CLG MTD

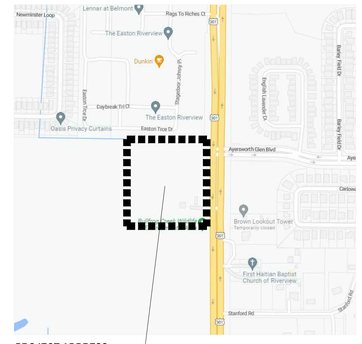
FLOOR PLAN

- CMU WALL
- TILT-UP CONC PANEL
- PTN OR WALL
- PARTIAL HT MTL STUD WALL ASSEMBLY
- DOOR
- ALUM WINDOW - SIDE EGRESS HINGED
- ALUM WINDOW - PROJECTED OR FIXED
- 1 HOUR RATED WALL
- 2 HOUR RATED WALL
- 4 HOUR RATED WALL
- WATER CLOSET *
- URINAL *
- LAVATORY *
- WATER COOLER *
- * HATCHING OVER FIXTURE SYMBOL INDICATES AN ACCESSIBLE FIXTURE
- BRACKET MTD FIRE EXTINGUISHER
- CABINET MTD FIRE EXTINGUISHER

SITE PLAN

- BUILDING ADDITION
- EXISTING RETENTION
- PROPERTY LINE
- EXIST CHAIN LINK FENCE
- DEMO EXIST FENCE
- CHAIN LINK FENCE
- TEMPORARY CONSTRUCTION FENCE
- PHASE 1 TEMPORARY CONSTRUCTION FENCE
- PHASE 2 TEMPORARY CONSTRUCTION FENCE

LEGENDS | A4



PROJECT ADDRESS:
14495 S 301 HWY
RUSKIN FL 33573

VICINITY MAP
NTS | A1

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WILDERARCHITECTURE, INC

JOHN THOMPSON
AR91271
11.14.2024

HILLSBOROUGH COUNTY BOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

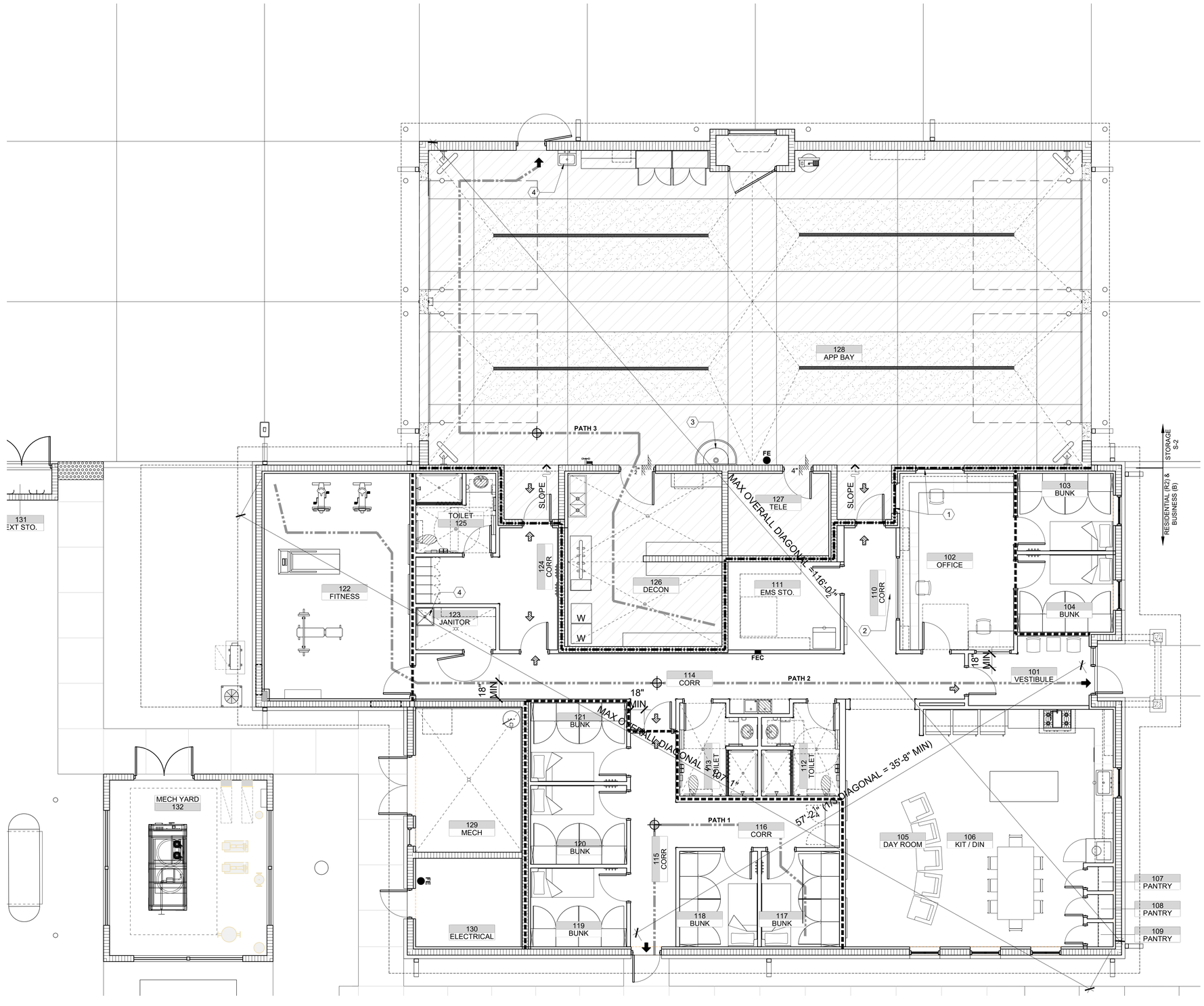
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: **2216-02**

Distribution	Date
SCHEMATIC DESIGN	03.15.2024
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

GENERAL INFORMATION

A0.0



0 2'-8" 5'-4" 10'-8"

LIFE SAFETY PLAN 3/16" = 1'-0" A3

NOTES A1

PROJECT SUMMARY

NEW SUN CITY NORTH FIRE STATION 47 IS A 7,327 SF STATION FOR HILLSBOROUGH COUNTY.

- HOUSING = RESIDENTIAL (R-2)
- APPARATUS BAY = STORAGE (S-2)
- BUSINESS (B)

1,950 SF HOUSING
3,238 SF APPARATUS BAY AND ACCESORIES
2,139 SF BUSINESS AND ACCESORIES
7,327 SF TOTAL

LIFE SAFETY AND CODE DATA

CODE REFERENCES
FLORIDA BUILDING CODE 8TH EDITION (FBC 2023) - BUILDING, MECHANICAL, PLUMBING, FUEL GAS, ELECTRICAL, ENERGY CONSERVATION

NFPA 70, NATIONAL ELECTRICAL CODE 2020
FLORIDA FIRE PREVENTION CODE - 7TH EDITION

BUILDING DATA
- CONSTRUCTION TYPE: **TYPE V-B (SPRINKLERED)**
- OCCUPANCY TYPE: **MIXED (R-2, B & S-2)**
  RESIDENTIAL (R-2) - HOUSING / BUNK ROOM
  BUSINESS (B) - OFFICE
  STORAGE (S-2) - APPARATUS BAY / STORAGE
- OCCUPANCY SEPARATION: **1-HR**
- HEIGHT: **24'- 0"** (35'-0" MAX)
- STORIES: **1** (2 MAX)
- IMPACT RESISTANCE: **YES (MISSILE "E")**

OCCUPANT LOAD (TABLE 1004.5)
R-2 (RESIDENTIAL) AREA: 1,950 / 200 GSF = 9.75 OCC

S-2 (PARKING GARAGE) AREA: 2,579 / 200 GSF = 12.89 OCC

ACCESSORY STORAGE AREA: 1,005 / 300 GSF = 3.35 OCC

B (BUSINESS) AREA: 1,356 / 150 GSF = 9.04 OCC

ASSEMBLY UNCONCENTRATED (VESTIBULE) = 91 / 15 NSF = 6.06 OCC

TOTAL NUMBER OF OCCUPANTS = 41.09 (42 OCC)
(21 MENS / 21 WOMENS)

PLUMBING FIXTURES (TABLE P403.1)
RESIDENTIAL (9.75 OCCUPANTS)
- WC: 1 PER 10 = 0.975 REQ'D
- LAVS: 1 PER 10 = 0.975 REQ'D
- BATHTUB/SHOWER: 1 PER 8 = 1.2 REQ'D
- DRINKING FOUNTAIN: 1 PER 100 = 0.09 REQ'D
- SERVICE SINK: 1 REQ'D

STORAGE (16.24 OCCUPANTS)
- WC: 1 PER 100 = 0.16 REQ'D
- LAVS: 1 PER 100 = 0.16 REQ'D
- BATHTUB/SHOWER: EYEWASH - REQ'D
- DRINKING FOUNTAIN: 1 PER 1,000 = 0.01 REQ'D
- SERVICE SINK: 1 REQ'D

BUSINESS (15.01 OCCUPANTS)
- WC: 1 PER 25 = 0.604 REQ'D
- LAVS: 1 PER 40 = 0.375 REQ'D
- BATHTUB/SHOWER: EYEWASH - N/A
- DRINKING FOUNTAIN: 1 PER 100 = 0.15 REQ'D
- SERVICE SINK; 1 REQ'D

TOTALS
- WC: 1.7 REQ'D - 3 PROVIDED
- LAV: 1.5 REQ'D - 4 PROVIDED
- BATHTUB/SHOWER: 1.2 REQ'D - 3 PROVIDED
- EYEWASH: 1 REQ'D - 1 PROVIDED
- DRINKING FOUNTAIN: 0.25 REQ'D - 1 Hi-Lo PROVIDED
- SERVICE SINK: 3 PROVIDED

MEANS OF EGRESS REQUIREMENTS
- MAX. TRAVEL DISTANCE TO EXIT: 250'-0" (R-2), 400'-0" (S-2), 300'-0" (B) (SPRINKLERED - TABLE 1017.2)
- DEAD END CORRIDOR: 50'-0" (R-2) (1020.5 EXCEPTION 2)
- COMMON PATH OF TRAVEL (1006.2.1): 125'-0" (R-2) & 100'-0" (S-2 & B)
- MIN. NUMBER OF EXITS: **2** (3 PROVIDED - OK)
- EGRESS WIDTH
  LEVEL - 0.2"/OCCUPANT: **32" MIN** (108" - OK)
  STAIR - 0.3"/OCCUPANT: **N/A**
  MIN CORRIDOR WIDTH (1020.2): **36" MIN** (60" - OK)

PATH 1
14'-4" COMMON PATH OF TRAVEL R2 (<125' OK)
41'-9" DISTANCE TO EXIT (<250' OK)

PATH 2
59'-11" COMMON PATH OF TRAVEL B (<100' OK)
108'-2" DISTANCE TO EXIT (<300' OK)

PATH 3
40'-7" COMMON PATH OF TRAVEL S2 (<100' OK)
87'-6" DISTANCE TO EXIT (<400' OK)

SPECIFIC NOTES

1. RATED FRAME (1 HR) & GLAZING (W-60)
2. EMERGENCY LIGHT FIXTURE, TYP
3. HAND WASH SINK (FOOT OPERATED)
4. SERVICE SINK / MOP SINK

LIFE SAFETY LEGEND

- PRIMARY EXIT
- EXIT ACCESS
- SECONDARY EGRESS
- END OF COMMON PATH OF TRAVEL
- 1 HOUR RATED PARTITION
- SMOKE RATED PARTITION
- TRAVEL DISTANCES
- EXIT SIGN
- BRACKET MTD FIRE EXTINGUISHER
- CABINET MTD FIRE EXTINGUISHER
- EMERGENCY SHOWER AND EYEWASH

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AR91271 QUALIFIER LICENSE

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601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

Distribution	Date
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

LIFE SAFETY PLAN

A0.1

SITE CONSTRUCTION PLANS

for

SUN CITY NORTH FIRE STATION 47

(PID U-30-31-20-ZZZ-000003-19730.0)

HILLSBOROUGH COUNTY, FLORIDA

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

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PAVING, GRADING & DRAINAGE PLAN	C-6	10-16-2024
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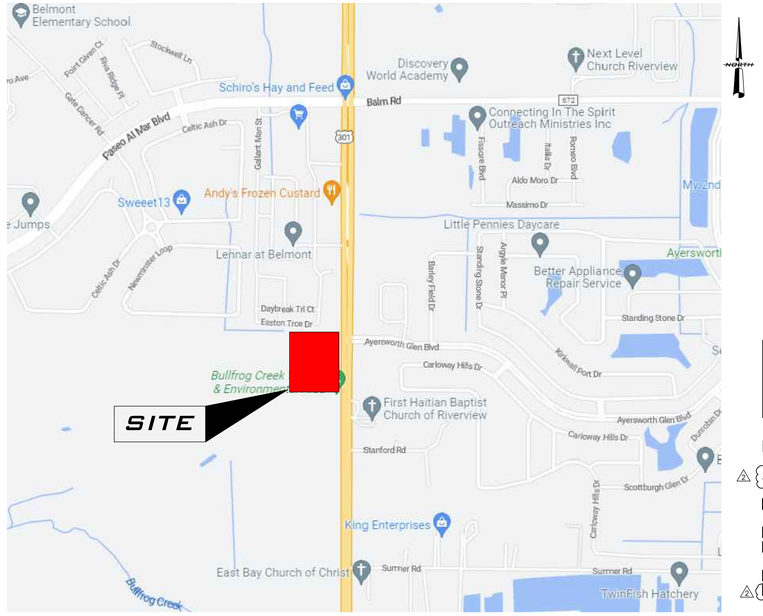
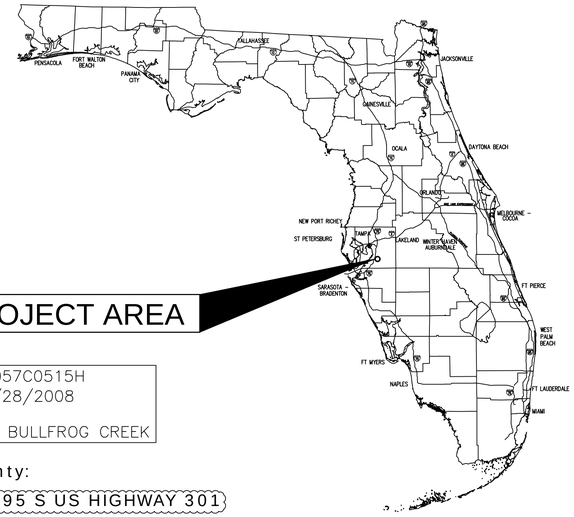
INVASIVE SPECIES REMOVAL PLAN	L-3	09-30-2024

VICINITY MAP



SECTION 30 TOWNSHIP 31S RANGE 20E

LOCATION MAP



FIRM PANEL No. 12057C0515H
EFFECTIVE DATE: 08/28/2008
FLOOD ZONE: X
STORMWATER BASIN: BULLFROG CREEK

Hillsborough County:

Site Address: 14495 S US HIGHWAY 301

Folio: 077953-0000

Property Acreage: 9.5-ac.
Project Acreage: 6.0-ac.

PID: U-30-31-20-ZZZ-000003-19730.0

PI: 6700

Water: TBD
Wastewater: TBD

SWFWMD:
App: TBD
ERP: TBD

Dept. of Health - Water:
TBD

EPC - Sewer
TBD

FDOT:
Access: 2023-A-796-00031
Drainage: 23-D-796-00027
Water: TBD
Sewer: TBD

FDOT HIGHWAY SEGMENT # 10 010 000
SR 43 / US 301, MILEPOST 9.125, POSTED SPEED: 60 MPH, HILLSBOROUGH COUNTY
ACCESS CLASS: 3

LANE CLOSURE RESTRICTIONS:

1 LANE CLOSURE N/E RESTRICTIONS: NO RESTRICTIONS
S/W RESTRICTIONS: NO RESTRICTIONS
SIGNAL RESTRICTIONS: NO RESTRICTIONS

LEGAL DESCRIPTION (PROVIDED BY SURVEYOR)

THE NORTH 275 FEET OF THE FOLLOWING DESCRIBED TRACT:

THE NE 1/4 OF THE NE 1/4 OF THE NE 1/4 SECTION 30, TOWNSHIP 31 SOUTH, RANGE 20 EAST, HILLSBOROUGH COUNTY, FLORIDA: LESS ROAD RIGHT-OF-WAY FOR U.S. HIGHWAY 301.

CONTAINING 169560.89 SQUARE FEET OR 3.89 ACRES, MORE OR LESS.

(ADDRESSED COUNTY & FDOT COMMENTS)	10-16-2024
(ADDRESSED FDOT COMMENTS)	~~07-24-2024~~
(BUILDING SF AND UTILITY REVISION)	~~06-06-2024~~
(ADDRESSED EPC COMMENTS)	~~05-09-2024~~
(ADDRESSED FDOT & EPC COMMENTS)	~~04-26-2024~~
(ADDRESSED FDOT & EPC COMMENTS)	~~01-24-2024~~
(ADDRESSED FDOT COMMENTS)	~~11-07-2023~~
(ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS)	~~10-17-2023~~
(FDOT SUBMITTAL)	~~05-31-2023~~ ~~05-10-2023~~

PREPARED BY

AURORA CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

PREPARED FOR

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00008909

Sun City North
Fire Station 47

AURORA CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

PROJECT 22-157

File: R:\Projects\County Sun City North Fire Station\Plans\Sun City N FS SITE Rev2. Plotted: 10/16/2024 8:55 AM by FLORDELIZA DIMAKILING, Saved: 10/15/2024 4:10 PM by FLOR

GENERAL NOTES

I. MISCELLANEOUS

1. These drawings are to be considered preliminary and not for construction until all permit approvals are confirmed received by the engineer of record (EOR).

2. These drawings shall not be utilized for construction prior to obtaining required permits from all governmental agencies having jurisdiction over the work. The contractor shall obtain all permits for work within public easements and rights-of-way and ensure that all other required permits are approved prior to commencing the work.

3. The contractor shall become familiar with the permit and inspection requirements specified by the various governmental agencies, the engineer, and the architect. The contractor shall obtain all necessary permits prior to construction and schedule any necessary inspections according to agency instructions.

4. All specifications and documents referred to in these plans shall be of the latest revision.

5. All work performed shall include but not be limited to water, sanitary sewer, and storm drainage facilities and shall comply with and are subject to the review and approval of the regulations and ordinances of the various governmental agencies having jurisdiction over the work.

6. Unless otherwise noted all materials and workmanship shall conform to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction latest edition.

7. Whenever a conflict occurs between any specification and/or regulatory requirement the more stringent requirement shall apply.

8. It shall be the responsibility of the contractor to assure the construction stakeout surveyor has the most current set of plans including all recent revisions made by addendum or request for information (RFI).

9. Some of the details shown included in this drawing set are provided by the reviewing regulatory agencies and are required by those agencies to be shown on the drawings for permit approval. By signing and sealing these drawings, the EOR is not assuming responsibility for any errors or omissions in these details. The contractor shall verify that the details are the latest issued by the regulatory agency and that the details comply with the latest technical manual specifications. Additionally, the contractor shall verify that the regulatory agency inspector does not have any alternate requirements not shown in the details.

10. Survey information and legal descriptions shown hereon were obtained by others. Locations, elevations, and dimensions of existing utilities, structures, and other features are shown according to information available at the time of the preparation of these plans but do not purport to be correct. The contractor shall verify this information and be familiar with all site conditions (including subsurface conditions and utilities) prior to commencing the work. Damage to any existing facilities (above-ground and underground) shall be the sole responsibility of the contractor whether or not shown hereon. The contractor shall notify the underground utility notification center (call Sunshine 811 at 1-800-432-4770) a minimum of 48 hours prior to commencing the work.

11. All existing on-site wells are to be properly abandoned by a Florida licensed water well contractor in accordance with rule 40d-3.531 (2) fac., unless otherwise shown.

12. Construction shown on these plans is permitted only for the work located within the private property. All work within the right-of-way and easements will require a separate permit and may require an alteration to the construction or materials shown on these plans.

13. All work within the right of way shall conform to all applicable provisions of the governing municipality and/or FDOT standard specifications latest edition as supplemented.

14. Contractor shall locate property lines as required to avoid encroachment onto adjacent property. The Contractor shall investigate the presence of existing utilities prior to construction and notify the EOR in the event of a conflict.

15. Contractor shall provide and maintain all temporary construction traffic-related access points to the project site and/or specific areas of work on the project site as necessary.

16. Any sidewalk which becomes undermined or damaged during construction must be removed and replaced. The sidewalk shall be removed to the nearest joint. Permits will be obtained by the contractor for the closing of sidewalks in the right-of-way. Sidewalks are to be reconstructed within three (3) days after removal when the existing sidewalk is removed.

17. All pedestrian routes, sidewalks, and ramps as well as all handicapped signs, symbols, parking spaces, etc. shall be constructed in strict accordance with Local, State, and Federal ADA requirements, whether or not shown hereon. The Contractor shall verify requirements with local inspectors prior to pouring sidewalks and ramps.

18. The contractor shall submit shop drawings/submittals for all precast and manufactured items and materials to the owner's engineer for review. Failure to obtain a review before installation may result in removal and replacement at the contractor's expense.

19. Work performed under this contract shall interface smoothly with other work being performed on-site by other contractors and utility companies. It will be necessary for the contractor to coordinate and schedule his activities where necessary with other contractors and utility companies.

20. It will be necessary to examine, coordinate and adjust according to the proposed locations of the various components of the site utilities. It will be the responsibility of the contractor to submit coordination drawings showing pipe sizes, structures, and elevations if a conflict exists. The contractor shall be responsible for the scheduling and coordination of all the underground work associated with this project.

21. All mechanical equipment shall be screened from view when required.

I. SAFETY

The following is not to be perceived as the entire safety program but just as basic requirements.

1. During this project's construction, all safety regulations are to be enforced by the contractor. The contractor shall be responsible for the control and safety of the traveling public and the safety of his personnel.
2. Labor safety regulations shall conform to the provisions set forth by OSHA.

3. The contractor shall provide and maintain its own safety equipment in accordance with its health and safety program requirements. The contractor is also responsible for providing its employees and subcontractors with adequate information and training to ensure that all employees, subcontractors, and subcontractors employees comply with all applicable safety requirements. The contractor shall remain in compliance with all OSHA or occupational regulations as well as applicable environmental protection laws.
4. All excavations by the contractor shall conform to the requirements of the Department of Labor's Occupational Safety and Health Administration rules and regulations. Particular attention must be paid to the construction standards for excavations, 29 CFR Part 1926, subpart P.
5. It shall be the sole responsibility of the contractor to comply with and enforce all applicable safety regulations. The above information has been provided for the contractor's information only and does not imply that the owner or engineer will inspect and/or enforce safety regulations.

III. MAINTENANCE OF TRAFFIC

1. It shall be the contractor's responsibility to provide maintenance of traffic (MOT) and pedestrian control per appropriate FDOT specifications. The contractor's maintenance of traffic plan must be submitted to and approved by the governing authority prior to beginning any construction activities.

2. The minimum standards as set forth in the current edition of "The State of Florida, Manual on Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations" shall be followed in the design, application, installation, maintenance, and removal of all traffic control devices, warning devices and barriers necessary to protect the public and workmen from hazards within the project limits.

3. All traffic control markings and devices shall conform to the provisions set forth in the Manual on Uniform Traffic Control Devices prepared by the U.S. Department of Transportation Federal Highway Administration.

IV. UTILITIES GENERAL

1. Contractor shall not commence construction of potable water and/or sanitary sewer collection systems prior to assuring the Florida Department of Environmental Protection (FDEP) permits have been acquired. The contractor shall review specific conditions depicted on FDEP permits that may not be shown hereon.
2. Contractor shall coordinate all work with utility companies to prevent damage to utility lines and the making of adjustments to the same if required. The contractor shall provide at least 48 hours notice to the various utility owners prior to construction to obtain field locations of existing underground utilities. Call sunshine one at (800) 432-4770.

3. The contractor is responsible for repairing any damage to existing facilities, above or below ground, that may occur as a result of the work performed by the contractor called for in this contract.

4. Prior to construction, the contractor shall verify the feasibility of constructing gravity sewer systems (i.e., verify existing inverts at points of connection, exit inverts of building plumbing grease trap configuration, minimum slopes, etc.).

5. Water and sanitary sewer systems shall not be placed into service until inspected and approved by the FDEP and other pertinent regulatory agencies. The Contractor shall be responsible for scheduling and obtaining the following items:
   - Inspector approvals
   - Current bacteriological test results
   - Pressure, exfiltration, and other appropriate test results
   - As-built surveys
6. All applicable items shall be provided to Aurora Civil Engineering a minimum of 45 days prior to final acceptance and placement into operation.

7. All installations within the right-of-way will be in accordance with practices referenced in the State of Florida Utilities Accommodations Manual.

V. SITE PLAN AND SURVEY COORDINATION.

1. Prepared by:

A. Architectural building plans: Wilder Architecture, Inc.
B. Civil plans: Aurora Civil Engineering, Inc.
C. Geotechnical report: Tierra, Inc.
D. Structural plans: TBD
E. Mechanical & Plumbing plans: Engineering Matrix, Inc.
F. Electrical plans: TBD
G. Fire protection plans: TBD
H. Landscape plans: Anderson Lesniak Limited, Inc.
I. Boundary, Topo & Tree survey: Suncoast Land Surveying, Inc.

2. All points and monuments shall be surveyed upon mobilization to verify their accuracy. Any discrepancies discovered must be brought to the attention of the engineer in writing.

3. Monuments and other survey control points shall be protected from damage and disturbance. If any control points are damaged or disturbed, it shall be the responsibility of the contractor to notify the engineer and replace the control points to their original condition at his own expense.

4. All elevations refer to the North American Vertical Datum 1988 unless otherwise noted.

5. Locations, elevations, and dimensions of existing utilities, structures, and other features are shown according to the information available at the time of preparation of these plans. The contractor shall verify the locations, elevations, and dimensions of all existing utilities, structures, and other features affecting this work prior to ordering structures and beginning construction.

6. Prior to completion of construction, the contractor shall furnish the owner's engineer with complete "as-built" information certified by a registered land surveyor. The as-built survey shall be in state-plane coordinates. The "as-built" information shall be furnished to the engineer in AutoCAD and PDF format. The "as-built" information shall clearly and accurately represent all constructed items including, but not limited to the following:

A. Elevations of all storm sewer and sanitary sewer structure bottoms, tops, and inverts.
B. Field-measured lengths of pipes for all installed utilities, conduits, sleeves, etc.
C. Locations of all structures, pipes, conduits, sleeves, etc.
D. Calculated slope of all sanitary sewer and storm sewer lines.
E. Horizontal and vertical control of all water main fittings and appurtenances, horizontal and vertical control of the tops of water mains at all crossings, and a minimum of every 200 lineal feet of pipe.
F. Horizontal and vertical control of all top of banks, the toe of slopes, all grade breaks, buildings, ponds, ditches, littoral zones, etc.
G. Horizontal and vertical control elevations of all elements of sanitary sewer lift stations including top and bottom slabs, inverts, and elevations at which the float switches engage, all valves, and associated appurtenances.

7. Additional as-built requirement information can be found on the As-Built Requirements sheet of the construction set.

8. All dimensions shown on the plans are to the face of the building, the face of the curbing, or the centerlines of structures unless otherwise noted on the plans.

No engineer's certificate can be submitted to obtain a certificate of occupancy until the "as-built" information is received, reviewed, and approved by the engineer and the appropriate agencies. The contractor shall allow the engineer a minimum of four weeks upon receipt to complete the review of the "as-built" information and compile the necessary drawings for submittal to the appropriate agencies.

VI. CLEARING AND DEMOLITION

1. Prior to any site clearing, all trees shown to remain as indicated on the construction and landscape plans shall be protected in accordance with local tree ordinances as well as details and notes provided in this plan set. Tree protection barricades shall meet the minimum standards required by the local municipality. It shall be the contractor's responsibility to maintain these trees in good condition. No tree shown to remain shall be removed without written approval from the municipality issuing the site development permit. Protective barricades shall remain in place until land alteration and construction activities are completed.

2. The contractor is to prepare the site prior to beginning actual construction in accordance with the geotechnical report. Copies of the geotechnical report are available through the owner. Questions regarding site preparation requirements described in the report are to be directed to the geotechnical engineer(s) that prepared the report.

3. The contractor shall clear and grub only those portions of the site necessary for construction. Disturbed areas will be seeded, mulched, sodded, or planted with other approved landscape materials immediately following construction.

4. All construction debris and other waste materials shall be disposed of off-site in accordance with applicable regulatory agency requirements, or as directed by the owner.

VII. PAVING AND GRADING

1. All deleterious subsurface material, (i.e. muck, peat, buried debris), is to be excavated in accordance with these plans or as directed by the owner, the owner's engineer, or the owner's soil testing company. Deleterious material is to be stockpiled or removed from the site as directed by the owner. Excavated areas are to be backfilled with appropriate materials and compacted as shown on these plans. The contractor is responsible for acquiring any permits that are necessary for removing deleterious material from the site.

2. The contractor shall be responsible for protecting excavations against collapse and will provide bracing, sheeting, or shoring as necessary. Dewatering methods shall be used as required to keep trenches dry while pipe and appurtenances are being placed.

3. All necessary fill and embankment that is placed during construction shall consist of the material specified by the owner's soil testing company or engineer and be placed and compacted according to these plans or the referenced soil report.

4. Proposed spot elevations represent finished pavement or ground surface grades unless otherwise noted on plans. Finished grades or contours in sodded areas represent finished grades after the placement of sod.

5. The contractor shall trim, tack and match existing pavement at locations where the new pavement meets the existing pavement.

6. Curbing will be placed at the edge of all pavement, where shown on the plans.

7. Refer to the latest edition of F.D.O.T. "Roadway and Traffic Design Standards" for details and specifications of all F.D.O.T. curbing and gutters called for in these plans. Refer to details in these plans for modified curb details.

8. Contractor to provide 1/2" to 1" bituminous expansion joint material with a sealer at the abutment of concrete and other materials, (buildings, other placed concrete, etc...).

9. All pavement markings within the right-of-way shall be made with permanent thermoplastic and shall conform to FDOT Standard Index no. (711-001) sheets 1-7. Parking stall striping to be 4" wide painted stripes. On-site striping colors as shown on these plans.
10. The contractor is to provide erosion control and sediment barriers, (hay bales and/or siltation curtain), to prevent siltation of adjacent properties, streets, storm sewers, and waterways. In addition, the contractor shall construct a suitable Soil Tracking Prevention Device in accordance with the State of Florida's erosion and Sediment Control manual in areas where construction-related traffic is to enter and exit the site. If, in the opinion of the engineer and/or local authorities, excessive quantities of earth are transported off-site either by natural drainage or by vehicular traffic, the contractor is to remove said earth to the satisfaction of the engineer and/or local authorities.

11. If wind erosion becomes significant during construction, the contractor shall stabilize the affected areas using sprinkling, irrigation, or other acceptable methods.

12. The contractor will stabilize by seed and mulch, sod or other approved materials any disturbed areas within one week following the construction of the utility systems and pavement areas. The contractor shall maintain such areas until final acceptance by the owner.

13. The contractor is responsible for coordinating applicable soil testing. Tests will be required pursuant to the testing schedule located in Table SC-1 on this sheet. Upon completion of the work, the Geotechnical Engineer will submit certifications to the owner's engineer stating that all requirements have been met.

14. A qualified testing laboratory selected by the owner shall perform all testing necessary to assure compliance of the in-place materials as required by these plans and the various agencies. Should any retesting be required due to the failure of any tests to meet the requirements, the contractor will bear all costs of said retesting. The contractor shall be responsible for scheduling all testing.

15. Mixing in place of soil cement will not be allowed.

16. Area adjacent to the proposed structure shall be graded as required to ensure all roof runoff is routed to the stormwater pond.

17. Prior to paving the contractor shall ensure all new underground utilities, i.e., electric, irrigation, etc. have been installed. If paving is to occur before the installation of any underground utilities the contractor shall ensure the necessary conduits are provided and shall coordinate the locations with the construction plans.

VIII. STORM SEWER

1. Standard indexes refer to the latest edition of FDOT Roadway and Traffic Design Standards.

2. All storm sewer pipe shall be reinforced concrete Class III, (ASTM C-76) unless otherwise noted on plans. All drainage structures shall be in accordance with FDOT Roadway and Traffic Design Standards unless otherwise noted on plans.

3. Pipe lengths shown are approximate and to the center of drainage structures except for mitered and flared end sections which are not included in lengths. The contractor shall verify all quantities submitted for bid.

4. All drainage structure grates and covers shall be traffic rated for H-20 loadings.

5. All storm drainage piping shall be subject to a visual inspection by the owner's engineer prior to the placement of backfill. The contractor shall notify the engineer and the permitting municipality a minimum of 48 hours in advance to schedule inspections.

6. The contractor shall maintain and protect the storm drainage system from mud, dirt, debris, etc., until the final acceptance of the project. The contractor may be required to reclean pipes and inlets for these purposes.

7. The contractor must provide CCTV video (in DVD or other digital format) of the newly constructed stormwater pipeline for review and acceptance. Prior to submitting videos to the engineer for review, the contractor shall review the videos first for discrepancies and for completeness to make sure that all pipeline sections are included.

IX. SANITARY SEWER

1. Sanitary sewers, force mains, and storm sewers should always cross under water mains. Sanitary sewers, force mains, and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the invert of the upper pipe and the crown of the lower pipe whenever possible.

2. Where sanitary sewers, force mains, and storm sewers must cross a water main with less than 18 inches of vertical distance, both the sewer and water main shall be constructed of ductile iron pipe (DIP) at the crossing. (DIP is not required for storm sewers if it is not available in the size proposed). Sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be leak free and mechanically restrained.

3. All crossings shall be arranged so that the sewer pipe joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).

4. Where a new pipe conflicts with an existing pipe, the new pipe shall be constructed of DIP and the crossing shall be arranged to meet the requirements above.

5. A minimum 10-foot horizontal separation shall be maintained between any type of sewer and water main in parallel installations whenever possible.

6. In cases where it is not possible to maintain a 10-foot horizontal separation, the water main must be laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer or force main at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.

7. Where it is not possible to maintain a vertical distance of 18 inches in parallel installations, the water main shall be constructed of DIP, and the sewer or force main shall be constructed of DIP (if available in the size proposed) with a minimum vertical distance of 6 inches. The water main should always be above the sewer. Joints on the water main shall be located as far apart as possible from the joints on the sewer or force main (staggered joints).

8. All sanitary sewer mains, laterals, and force mains shall have a minimum of 36 inches of cover.

9. All on-site PVC gravity sanitary sewer pipe shall be made of a material having a cell classification of 12454 b, 12454 c, or 13354 b as defined in ASTM-1784 and conform to the requirements of SDR 26. Elastomeric gasket joints shall be utilized.

10. All on-site ductile iron pipe shall be Class 52 and shall receive interior and exterior bituminous coating in accordance with ANSI A 21.6, A 21.8, or A 21.51.

11. Points of connection for the sanitary sewer lines are to be coordinated with the building plumbing plans. The sanitary sewer connection locations shown on these plans are approximate.

12. All sanitary sewer work shall conform to applicable standards and specifications of the local permitting municipality.

13. Prior to commencing work which requires connecting new sanitary sewer lines to existing lines or appurtenances, the contractor shall verify the location and elevation of all existing utilities near the point of connection and notify the owner's engineer of any conflicts or discrepancies with design information shown in these plans. The contractor shall notify the engineer and the local permitting municipality at least 48 hours in advance of scheduled work.

14. All gravity sewer piping shall be subject to a video and visual inspection by the owner's engineer and the local permitting municipality prior to placement of base and paving and again prior to obtaining a certificate of occupancy. The contractor shall notify the engineer 48 hours in advance to schedule inspections.

15. The contractor shall perform at his own expense an infiltration or exfiltration test, a television inspection (CCTV), and a mandrel (go, no go) test on all gravity sewers in accordance with the engineer's requirements and the regulatory agency having jurisdiction. Said tests are to be witnessed and certified by the engineer of record and submitted to the regulatory agency for approval. Coordination of testing and notification of all parties is the contractor's responsibility.

X. WATER DISTRIBUTION

1. Sanitary sewers, force mains, and storm sewers should always cross under water mains. Sanitary sewers, force mains, and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the invert of the upper pipe and the crown of the lower pipe whenever possible.

2. Where sanitary sewers, force mains, and storm sewers must cross a water main with less than 18 inches of vertical distance, both the sewer and water main shall be constructed of ductile iron pipe (DIP) at the crossing. (DIP is not required for storm sewers if it is not available in the size proposed). Sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be leak free and mechanically restrained.

3. All crossings shall be arranged so that the sewer pipe joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).

4. Where a new pipe conflicts with an existing pipe, the new pipe shall be constructed of DIP and the crossing shall be arranged to meet the requirements above.

5. A minimum 10-foot horizontal separation shall be maintained between any type of sewer and water main in parallel installations whenever possible.

6. In cases where it is not possible to maintain a 10-foot horizontal separation, the water main must be laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer or force main at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.

7. Where it is not possible to maintain a vertical distance of 18 inches in parallel installations, the water main shall be constructed of DIP, and the sewer or force main shall be constructed of DIP (if available in the size proposed) with a minimum vertical distance of 6 inches. The water main should always be above the sewer. Joints on the water main shall be located as far apart as possible from the joints on the sewer or force main (staggered joints).

8. All water mains shall have a minimum of 36 inches of cover.

9. All water system work shall conform with the standards and specifications of the local permitting municipality.

10. Conflicts between water and storm or sanitary sewer are to be resolved by adjusting the water lines as necessary.

11. All on-site PVC water mains 4 inches through 12 inches shall be in accordance with AWWA C-900 and shall be Class 150 DR 18. All on-site PVC water mains 2 inches to 3 inches shall be Class 1120 and meet the requirements of SDR 21 in accordance with ASTM D-2241.

12. All ductile iron pipe shall conform to the requirements of ANSI Standard A21.51, minimum Class 50. Joints for ductile iron pipe shall be mechanical or push-on joints. The pipe shall have an exterior bituminous coating in accordance with ANSI A21.51. The pipe interior shall have a cement mortar lining with an asphaltic seal coat conforming to AWWA /ANSI C104/A21.4. The weight and class designation shall be painted white on the exterior surface of all pipes and fittings. The manufacturer's code or serial number shall be provided on the bell of each pipe joint.

13. All ductile fittings shall be restrained by mechanical joint with a minimum pressure rating of 250 psi and shall conform to the requirements of AWWA / ANSI C110 / A21.10. All fittings shall be coated and lined as specified above for ductile iron pipe.

14. The contractor is to install temporary blowoffs at the end of water service laterals to buildings to assure adequate flushing and disinfection.

15. Thrust blocking shall be provided at all fittings and hydrants if specifically required by the local permitting municipality. Otherwise, all joints shall be mechanically restrained.

16. The points of connection of the external water lines are to coincide with the building plumbing as shown on the building plumbing plans. The connection locations shown are approximate.

17. Fire lines to buildings with fire sprinkler systems shall be installed by a contractor duly licensed by the state fire marshal's office. The contractor shall verify all design and testing requirements prior to construction.

18. All components of the water system, including fittings, hydrants, connections, and valves shall remain uncovered until properly inspected and accepted by the owner's engineer and the utility department of the local permitting municipality. The contractor shall notify the owner's engineer and the local permitting municipality inspectors 72 hours in advance of performing tests

19. All non-metallic water mains shall have suitable magnetic locator tape buried over the water main.

20. The contractor shall contract with a qualified laboratory to perform chlorination and bacteriological sampling. Copies of all bacteriological tests to be submitted to the owner's engineer. The contractor shall contract with a qualified laboratory to perform chlorination and bacteriological sampling pursuant to agency requirements to obtain clearance of the domestic water system, (i.e., 2-days of passing tests at each sampling locations). Copies of all bacteriological tests to be submitted to the owner's engineer within 3-days of testing.

21. Pressure tests are to be in accordance with applicable agencies specifications. The contractor to notify the owner's engineer and setup applicable agencies inspectors 72 hours in advance of performing tests. Contractor to setup and pre-test system 24 hours in advance of scheduled inspection.

22. The contractor is hereby advised that the water certification and clearance process must be completed prior to any temporary or permanent certificate of occupancy. This process typically requires a minimum of 30-days from acceptance by the engineer of record of all required information. In some cases, this proves can take significantly longer if as-built or testing information is inaccurate or missing or if items are not constructed per the approved plans. This delay may result in a need to re-test the system at the contractor's expense.

XI. EROSION/TURBIDITY CONTROL

1. The installation of temporary erosion control barriers shall be coordinated with the construction of permanent erosion control features to the extent necessary to assure economical, effective, and continuous control of erosion and water pollution throughout the life of the construction phase.

2. The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material usually require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains shall be used in all open-water situations. Diversion ditches or swales may be required to prevent turbid stormwater runoff from being discharged into wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches and other erosion/turbidity control measures if conditions warrant.

3. Construction operations in or adjacent to wetlands shall be restricted to those areas identified in the plans, specifications and project permits.

4. Except as necessary for construction, excavated material shall not be deposited in the wetlands or in a position close enough thereto to be washed away by high water or runoff.

5. Where pumps are to be used to remove turbid water from construction areas, the water shall be treated prior to discharge to the wetlands. Treatment methods include and are not limited to, turbid water being pumped into grassy swales or appropriate vegetated areas, sediment basins, or confined by an appropriate enclosure such as turbidity barriers and kept confined until its turbidity level meets state water quality standards.

6. The contractor shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposed, uncompleted construction to the elements shall be as short as practical. Clearing and grubbing shall be so scheduled and performed that grading operations can follow immediately thereafter, and grading operations shall be scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.

7. The contractor and/or the owner's representative shall provide routine maintenance of permanent and temporary erosion control features until the project is complete and all bared soils are stabilized.

8. Grass, sod, and seed shall be Bahia unless otherwise shown on the landscape plans. Seed and mulch all areas left barren from construction. Sod all slopes greater than 5:1 whether or not shown hereon. All retention pond banks shall be sodded, regardless of slope, to the pond bottom for designed dry ponds or the water line at the time of installation for designed wet ponds. Steep slopes are to be sodded as soon as possible after fine grading to prevent erosion.

XII. DEWATERING

1. Dewatering of the site for any construction requiring dewatering shall be by well point. The well point system will require a designed settling basin prior to any discharge.

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SC-1 TESTING SCHEDULE

ITEM	TEST	TEST FREQUENCY
BUILDING PADS	IN ACCORDANCE WITH GEOTECHNICAL REPORT	
EMBANKMENT	OPTIMUM MOISTURE/MAXIMUM DENSITY 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T180-57 (ASTM D1557-70)	PER SOIL TYPE ONE PER 500 FEET HORIZONTALLY, IN 12 INCH LIFTS
UTILITY TRENCH BACKFILL OVER PIPELINES AND AROUND STRUCTURES WITHIN THE RIGHT-OF-WAY AND IN STRUCTURAL AREAS	OPTIMUM MOISTURE/MAXIMUM DENSITY 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T180-57 (ASTM D1557-70)	PER SOIL TYPE *, **
UTILITY TRENCH BACKFILL OVER PIPELINES OUTSIDE THE RIGHT-OF-WAY AND IN NON-STRUCTURAL AREAS	OPTIMUM MOISTURE/MAXIMUM DENSITY 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T180-57 (ASTM D1557-70)	PER SOIL TYPE *, **
STABILIZED SUBGRADE	OPTIMUM MOISTURE/MAXIMUM DENSITY MINIMUM LBR 40 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T180-57 (ASTM D1557-70)	PER MATERIAL TYPE *** PER MATERIAL TYPE ***
BASE (OTHER THAN SOIL CEMENT)	OPTIMUM MOISTURE/MAXIMUM DENSITY MINIMUM LBR 100, (150 CRUSHED CONCRETE) 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T180-57 (ASTM D1557-70) - NO TOLERANCE GRADATION, ATTERBURG LIMITS	PER SOURCE PER SOURCE *** EACH LIFT PER SOURCE
CONCRETE	SLUMP TEST COMPRESSIVE STRENGTH CYLINDERS AIR CONTENT	ONE PER SET OF CYLINDERS ONE SET OF (3) CYLINDERS FOR 100 CUBIC YARDS OR FRACTION THEREOF ONE PER SET OF CYLINDERS
SOIL CEMENT BASE (NO IN-PLACE MIXING ALLOWED) (TO BE USED IF SEPARATION BETWEEN SHWT & BOTTOM OF BASE IS < 1.5')	MIX DESIGN/PER SPECIFICATION AS DETERMINED BY PORTLAND CEMENT ASSOCIATION SPECIFICATIONS MAXIMUM DENSITY AS DETERMINED BY AASHTO T13 OPTIMUM MOISTURE (STANDARD) COMPRESSIVE STRENGTH SPECIMENS AS DETERMINED BY PORTLAND CEMENT ASSOCIATION SPECIFICATIONS - 300 PSI @ 7 DAYS, TYPE DAILY **** TEST CORES AS DETERMINED BY PORTLAND CEMENT ASSOCIATION SPECIFICATIONS - 400 PSI @ 21 DAYS, SET OF COMPRESSIVE **** FIELD DENSITY AND THICKNESS 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T192, T238, ASTM D1556, D2922	ONE PER SOIL TYPE ONE PER SOIL TYPE DAILY ONE SET OF (3) PER SOIL TYPE DAILY ONE SET OF (3) CORES PER TEST STRENGTH SPECIMENS ONE PER 2500 SF HORZONTAL
ASPHALTIC CONCRETE	AGGREGATE ANALYSIS DESIGN MIX BITUMEN CONTENT GRADATION STABILITY FLOW PROPERTIES OF IN-PLACE MATERIALS (MARSHALL) THICKNESS 95% OF LAB DENSITY	ONE PER DESIGN ONE PER TYPE ONE PER DAY ONE PER DAY ONE PER DAY *** ***

*TESTS SHALL BE LOCATED NO MORE THAN 500 FEET APART. TESTS SHALL BE PERFORMED ON EACH LIFT, EXCEPT THAT TESTS SHALL NOT BE FURTHER APART THAN ONE (1) FOOT VERTICALLY. FIELD DENSITIES SHALL BE TAKEN OVER ALL ROAD CROSSINGS. FIELD DENSITIES FOR SANITARY LINES SHALL BE STAGGERED TO INCLUDE RESULTS OVER SERVICE LATERALS. THERE SHALL BE A MINIMUM OF ONE (1) TEST SERIES FOR EACH 12 INCHES OF LIFT OVER PIPELINE BETWEEN MANHOLES. TESTS AROUND STRUCTURES SHALL BE SPIRALED IN 12 INCH LIFTS.

**FOR FLEXIBLE PIPE, (CORRUGATED STEEL OR ALUMINUM), 95% OF MAXIMUM DENSITY (AASHTO-T99) PER F.D.O.T. SUPPLEMENTAL SPECIFICATIONS SUBARTICLE 125-8.3.2 MODIFIED.

***TESTS SHALL BE LOCATED NO MORE THAN 500 FEET APART. THERE SHALL BE NO LESS THAN ONE (1) TEST PER STREET.

****MAXIMUM STRENGTH LIMITS, AS ESTABLISHED BY THE SOILS TESTING COMPANY, SHALL NOT BE EXCEEDED.

NO.	BY	DATE	DESCRIPTION
5	FCD	04-26-2024	ADDRESSED FDOT COMMENTS

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
CHECKED BY: MICHAEL KNIGHT APPROVED BY: MICHAEL KNIGHT JOB NO.: 22-157

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

CONSTRUCTION NOTES AND TESTING SCHEDULE

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No.: 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 0000869

C-1

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TBM 80001
EL.=62.40'
N=1246662.95
E=546816.03
TP IR

TBM 80004
EL.=65.09'
N=1246742.13
E=547772.14
TP IR

TBM 70007
EL.=63.78'
N=1246264.81
E=547536.00
TPN

TBM 70006
EL.=64.06'
N=1246239.99
E=547621.77
TPN

TBM 80002
EL.=62.58'
N=1245977.80
E=547121.71
TP IR

S88°34'54"E
616.82'

N0°21'45"E
274.85'

N88°33'40"W
616.76'

NORTH LINE OF THE NE 1/4 OF SECTION 30-31-20

EAST LINE OF THE NE 1/4 OF SECTION 30-31-20

FCIR 5/8

FCIR 5/8 HILLS CO

FCIR 1/2 CB 7768

FCM 4X4 HILLS CO

4' WIRE FENCE

WIRE FENCE (FALLING DOWN)

TOB

SILT

SILT FENCE

TREE BARRICADE

ROOT PRUNING, SEE TD-16

DIRT DRIVE

DIRT DRIVE

"PS-1 TIERRA" LATHE

PBS-1 (SHOW=61.95')

PBS-2

PBS-3

PBS-4

PSA-2 (SHOW=62.25')

HA-1 (SHOW=61.57')

HA-2 (SHOW=62.7')

HA-3 (SHOW=60.3')

HA-4 (SHOW=61.7')

B-1

B-2

B-3

B-4

NORTH 275' OF NE 1/4 OF NE 1/4 OF SECTION 30-31-20

CLUSTER DEAD & DOWN

EXISTING SIGNS TO BE REMOVED, TYP.

±911 SF OF EXISTING SIDEWALK TO BE REMOVED

EXISTING CONCRETE FIBER OPTIC VAULT AND PVC MARKER POST TO BE RELOCATED

SAWCUT EXISTING PAVEMENT

±935 SF OF EXISTING 6' WIDE PAVED SHOULDER TO BE REMOVED

PROTECT EXISTING UTILITY POLE

±564 SF OF EXISTING DRIVEWAY TO BE REMOVED

HAND RAIL

INV=56.88' 36HDPE
INV=56.39' 36HDPE

INV=58.49' 36HDPE
INV=58.48' 36HDPE

ELECTRIC METER ON POST
ELECTRIC CABINET

CONCRETE
PAVER
SPIGOT
ICV
BREAKER BOX ON CONC POST
COLUMN
PUMP BOX
ELECTRIC BOX ON WOOD POST
SIGN/COUNTER
ASPHALT
AYERSWORTH GLEN BLVD
120' R/W

UNDERGROUND COMMUNICATIONS
UNDERGROUND VERIZON
UNDERGROUND FOOT FIBER
UNDERGROUND MCI

US HIGHWAY 301
182'R/W
ASPHALT

N RIM EL.=67.08'
S 18"HDPE INV=62.82'

N RIM EL.=67.29'
N 18"HDPE INV=60.71'
S 18"HDPE INV=62.90'
W 18"HDPE INV=60.73'

N RIM EL.=67.38'
N 18"HDPE INV=63.18'

CORRUGATED METAL ELEVATION=59.6'

OHW

OHP

FM

CO

CV

WOOD STAIRS
AC UNIT
1-STORY BUILDING
COVERED CONCRETE
SPIGOT
WOOD SIGN
4'WDF
GATE
4'WDF WOOD SIGN

50.0'

EXISTING PAVEMENT, CURB, AND BUILDING TO BE REMOVED

EXISTING TREE TO BE REMOVED

SILT FENCE

TREE BARRICADE

STATE OF FLORIDA E&SC DESIGNER & REVIEWER MANUAL; LATEST EDITION JULY 2013

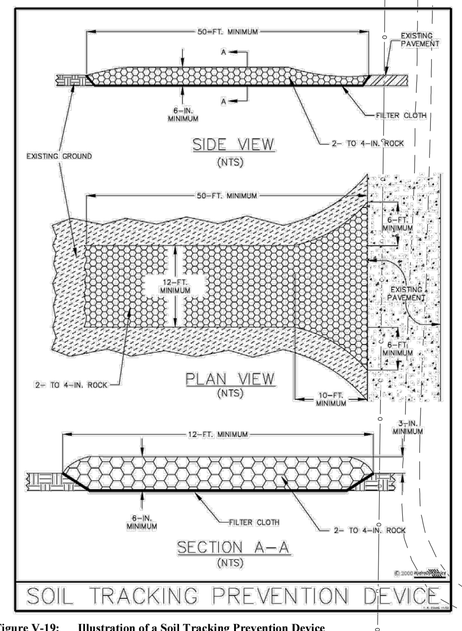

Figure V-19: Illustration of a Soil Tracking Prevention Device

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SCALE: 1" = 40'

NO.	BY	DATE	DESCRIPTION
1	FCD	05-31-2023	FDOT SUBMITTAL
2	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
3	FCD	10-19-2023	ADDRESSED COUNTY COMMENTS

DRAWN BY: FLORDELIZA DIMAKILING 05-10-2023
APPROVED BY: MICHAEL KNIGHT
JOB NO.: 22-157

DESIGNED BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT

EXISTING CONDITIONS PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AUTORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AUTORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00008909

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ZONING: PD 04-0558
FUTURE LAND USE: SUBURBAN MIXED USE-6
CURRENT LAND USE: RESIDENTIAL

TBM 80001
EL.=62.40'
N=1246662.95
E=546816.03
TP IR

TBM 80004
EL.=65.09'
N=1246742.13
E=547772.14
TP IR

S88°34'54"E
616.82'

N0°21'45"E
274.85'

N88°33'40"W
616.76'

NORTH LINE OF THE NE 1/4 OF SECTION 30-31-20

NORTH PROPERTY LINE

WEST PROPERTY LINE

SOUTH PROPERTY LINE

EAST LINE OF THE NE 1/4 OF SECTION 30-31-20

OTHER SURFACE WATER (OSW) LINE

WETLAND LINE

FLOODPLAIN MITIGATION

OTHER SURFACE WATER (OSW) 1 (0.09 AC)
OSW 1 – DREDGE (0.09 AC)

POND
TOB=64.50
DHW(100)=63.56
DHW(25)=63.33
DHW(10)=63.16
DLW=62.40
NW=62.10
BOTTOM=53.50

PBS-1
PBS-2
PBS-3
PBS-4
PBA-1 (SHGW=61.95')
PBA-2 (SHGW=62.25')

EXISTING SWALE TOB
EXISTING SWALE TOS

SEE ARCHITECTURAL PLANS FOR DUMPSTER DETAILS

DUMPSTER

PRE-FAB STORAGE SHED

FIRE STATION #47
BUILDING

MECHANICAL YARD

GENERATOR

PROPANE TANK

DR. INDICATOR

UNDERGROUND FOOT FIBER

UNDERGROUND MCI

UNDERGROUND COMMUNICATIONS

UNDERGROUND VERIZON

TRANSFORMER

EXISTING CONCRETE FIBER OPTIC VAULT AND PVC MARKER POST (OWNED BY LEVEL 3 COMMUNICATIONS) TO BE RELOCATED (BY OTHERS)

PROTECT EXISTING UTILITY POLE

WETLAND AREA (0.17 AC)
WETLAND AREA – FILL (0.17 AC)

HA-1 (SHGW=63.5')
HA-2 (SHGW=62.7')
HA-3 (SHGW=60.3')
HA-4 (SHGW=61.2')

B-1
B-2
B-3
B-4

20' TYPE B BUFFER WITH 6' OPAQUE PVC FENCE FINISH SIDE OUT

20' LANDSCAPE BUFFER

25' BUILDING SETBACK
20' LANDSCAPE BUFFER

50' BUILDING SETBACK

NORTH DITCH TOB

NORTH DITCH TOS
NORTH DITCH TOB

DOUBLE SILT FENCE (NORTHERN SIDE), TYP.
BERM BETWEEN EXISTING NORTH DITCH AND WETLAND

DOUBLE SILT FENCE (NORTHERN SIDE), TYP.

EXISTING WETLAND

BARBED WIRE FENCE (FALLING DOWN)

4' WIRE FENCE

FCR 5/8

FCM 4X4 HILLS CO

FOR 5/8 HILLS CO

FN

HAND RAIL

INV=58.49' 36HDPE

INV=58.48' 36HDPE

ELECTRIC METER ON POST

ELECTRIC CABINET

CONCRETE

COLUMN

AYERSWORTH GLEN BLVD
120' R/W

SPIGOT

PAVER

ICV

BREAKER BOX ON CONC POST

SIGN/MOUNTAIN

PUMP BOX

ELECTRIC BOX ON WOOD POST

ASPHALT

US HIGHWAY 301
182'R/W
ASPHALT

FDOT RIGHT-OF-WAY LINE

N RIM EL.=67.08'
S 18"HDPE INV=62.82'

N RIM EL.=67.29'
N 18"HDPE INV=60.71'
S 18"HDPE INV=62.90'
W 18"HDPE INV=60.73'

EXISTING DRIVEWAY TO BE REMOVED, DITCH TO BE RESTORED, AND A NEW SECTION OF SIDEWALK TO BE CONSTRUCTED.

EXISTING MEDIAN OPENING TO BE CLOSED AND ±105 LF OF 4' WIDE TRAFFIC SEPARATOR TYPE I SHALL BE CONSTRUCTED ONCE THE INTERSECTION AT AYERSWORTH GLEN BLVD. IS COMPLETE.

EXISTING FORESTRY DRIVEWAY TO REMAIN RIGHT IN/RIGHT OUT USE ONLY.

N RIM EL.=67.38'
N 18"HDPE INV=63.18'

1485
1484
1483
1482
1481
1480
1479
1478
1477

TBM 70007
EL.=63.78'
N=1246264.81
E=547536.00
TPN

TBM 70006
EL.=64.06'
N=1246239.99
E=547621.77
TPN

SPIGOT
CO
AC UNIT
1-STORY BUILDING
WOOD STAIRS
WOOD SIGN
COVERED CONCRETE
DIRT DRIVE
4'WDF
GATE
4'WDF WOOD SIGN

TBM 80002
EL.=62.58'
N=1245977.80
E=547121.71
TP IR

ZONING: AGRICULTURAL RURAL
FUTURE LAND USE: NATURAL PRESERVATION
CURRENT LAND USE: GOVERNMENT

ZONING: PD 80-0067
FUTURE LAND USE: RESIDENTIAL-4
CURRENT LAND USE: RESIDENTIAL

SITE DATA
PROJECT ACREAGE: 4.5 ±AC
PROPERTY ACREAGE: 9.5 ±AC
PARCEL ID: U-30-31-20-ZZZ-000003-19730.0
FOLIO NO.: 077953-0000
PROPERTY ADDRESS: 14503 S 301 HWY, RUSKIN
OWNER: TIITF/FORESTRY
SECTION 30 / TOWNSHIP 31S / RANGE 20E
CURRENT ZONING: AR (AGRICULTURAL RURAL)
LAND USE CODE: GOVERNMENT
PROPOSED USE: FIRE STATION
FUTURE LAND USE: PUBLIC/QUASI-PUBLIC
FLOOD ZONE: X
FEMA FLOOD MAP: 12057C0515H, 8/28/2008
STORMWATER BASIN: BULLFROG CREEK
LATITUDE: 27° 45' 43.3332"
LONGITUDE: –82° 20' 13.866"

MAX FAR: 0.25 (0.02 PROPOSED)
MAX ISR: (0.15 PROPOSED)
MAX BLDG HEIGHT: 50' (24'–0" PROPOSED)

MINIMUM SETBACKS:
NORTH: 25'
SOUTH: 25'
EAST: 50'
WEST: 50'

MINIMUM BUFFERS:
NORTH: 20'/B
SOUTH: 20'/B
EAST: 20'/B
WEST: 20'/B

EXISTING BUILDING AREA: 840 SF (FORESTRY OFFICE)
PROPOSED BUILDING AREA: (7,327 SF)
BUILDING CONSTRUCTION TYPE: V-B (SPRINKLERED)
NUMBER OF STORIES: 1-STORY

PARKING REQUIREMENTS:
= 2 SPACES PER EMPLOYEE (FIRE STATIONS)
= 2 SPACES/EMPLOYEE X 7 EMPLOYEES
= 14 SPACES (INCLUDES 1 ACCESSIBLE)

PARKING PROVIDED: 15 SPACES (INCLUDES 1 ADA SPACE)
STANDARD SPACES: 9'x18'
ACCESSIBLE SPACES: 12'x18' W/5' ADJACENT AISLE

PROP. BLDG. FOOTPRINT:	0.168 AC.	(1.77%)
EXIST. BLDG. FOOTPRINT:	0.019 AC.	(0.20%)
PROP. ONSITE PAVEMENT:	0.850 AC.	(8.95%)
EXIST. ONSITE PAVEMENT:	0.382 AC.	(4.02%)
TOTAL IMPERVIOUS:	1.419 AC.	(14.94%)
TOTAL OPEN SPACE:	8.081 AC.	(85.06%)

LEGEND

- STORM PIPE
- SANITARY LINE
- WATER MAIN
- FIRE LINE
- POWER LINE
- SETBACK LINE
- EROSION CONTROL
- TREE BARRICADE
- STORM INLET
- MITERED END SECTION
- CLEANOUT
- SANITARY MANHOLE
- LIGHT POLE
- PROPOSED ELEVATION (TOP OF CURB / EOP)
- PROPOSED SLOPE

- ASPHALT SHOULDER SECTION
- FDOT RIGHT-OF-WAY PAVEMENT SECTION WITH NO FRICTION COURSE
- FDOT RIGHT-OF-WAY PAVEMENT SECTION WITH FRICTION COURSE (1" FC-9.5)
- PROPOSED MILLING & RESURFACING
- HEAVY DUTY CONCRETE
- LIGHT-DUTY ASPHALT SECTION
- HEAVY-DUTY ASPHALT SECTION
- CONCRETE

- WETLAND AREA 7,435 SF (0.17 AC)
- WETLAND IMPACT 7,435 SF (0.17 AC)
- OTHER SURFACE WATER (OSW) IMPACT 4,120 SF (0.09 AC)
- OTHER SURFACE WATER (OSW) IMPACT 4,120 SF (0.09 AC)

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NORTH
0 20 40
SCALE: 1" = 40'

NO.	BY	DATE	DESCRIPTION
1	FCD	05-31-2023	FDOT SUBMITTAL
2	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, WMND, & SWFWMD COMMENTS
3	FCD	01-24-2024	ADDRESSED COUNTY COMMENTS
4	FCD	04-26-2024	ADDRESSED FDOT & EPC COMMENTS
5	FCD	05-06-2024	ADDRESSED EPC COMMENTS
6	FCD	08-06-2024	BUILDING FOOTPRINT REVISION
7	FCD	10-15-2024	ADDRESSED COUNTY COMMENTS
9	FCD	10-15-2024	ADDRESSED COUNTY COMMENTS

DRAWN BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
DATE: 05-10-2023
JOB NO.: 22-157

OVERALL SITE PLAN

SUN CITY NORTH
FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AUTORA ENGINEERING, INC.
CIVIL ENGINEERING
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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FLORIDA P.E. No. 45276
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CERTIFICATE OF AUTHORIZATION No. 00008969

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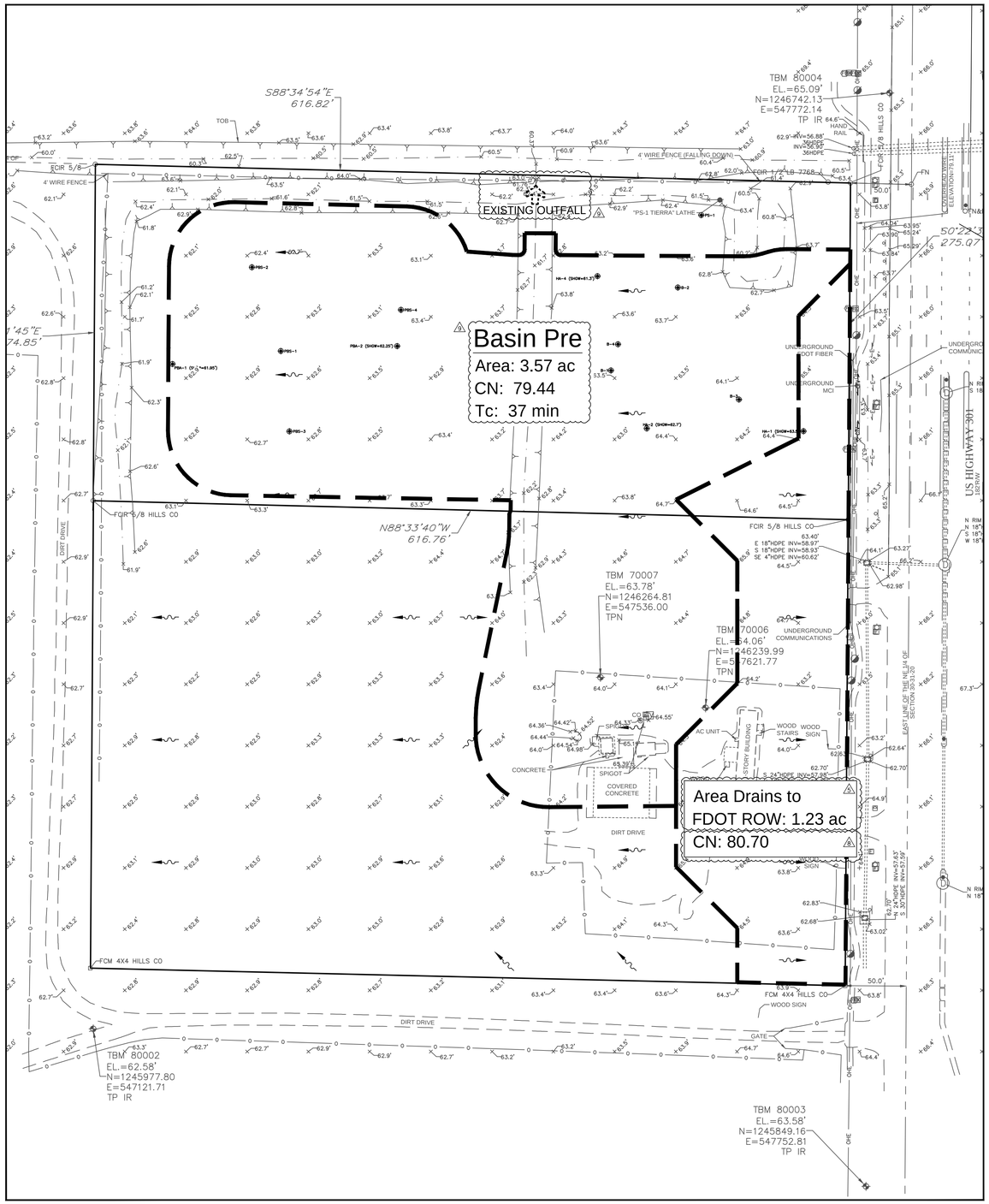
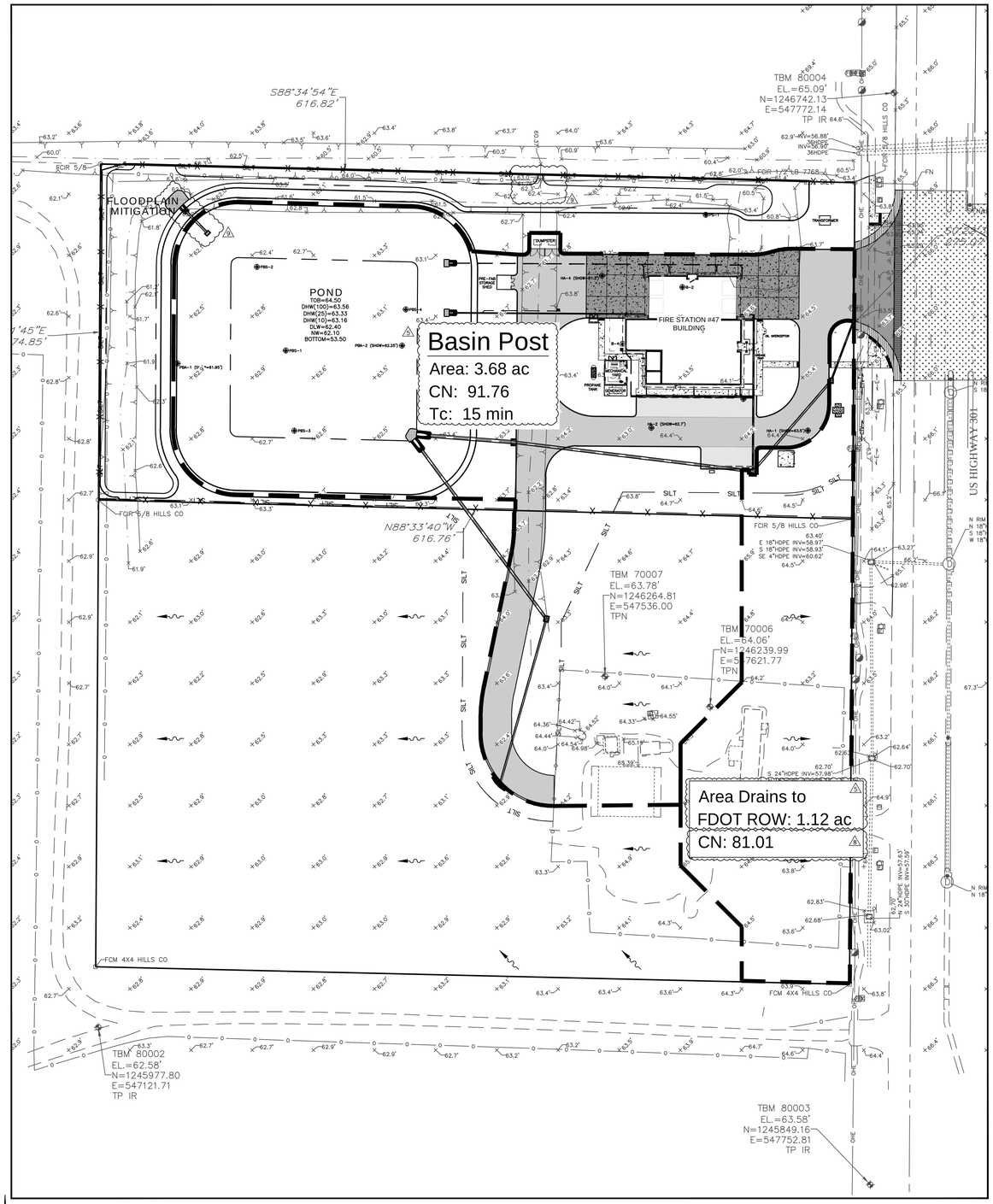


PRE-DEVELOPMENT BASINS



POST-DEVELOPMENT BASINS

CALL 48 HOURS BEFORE YOU DIG
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1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

LEGEND
- DRAINAGE BASIN LINE
- STORM PIPE
- SILT — EROSION CONTROL

NORTH
SCALE: 1" = 50'

-	-	ADDRESSED COUNTY & FDOT COMMENTS
9	FCD	10-18-2024
8	FCD	ADDRESSED FDOT COMMENTS
7	FCD	07-24-2024
6	FCD	ADDRESSED COUNTY COMMENTS
5	FCD	05-10-2023
4	FCD	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
3	FCD	10-17-2023
2	FCD	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
1	FCD	10-10-2023
NO.	BY	DESCRIPTION
REVISIONS		

DRAWN BY: FLORDELIZA DIMAKILING 05-10-2023
CHECKED BY: FLORDELIZA DIMAKILING JOB NO.: 22-157
APPROVED BY: MICHAEL KNIGHT

MASTER DRAINAGE PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING INC
610 E. Morgan Street Brandon, FL 33510 (813)643-6907

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AURORA CIVIL ENGINEERING INC.
CERTIFICATE OF AUTHORIZATION No. 00008909

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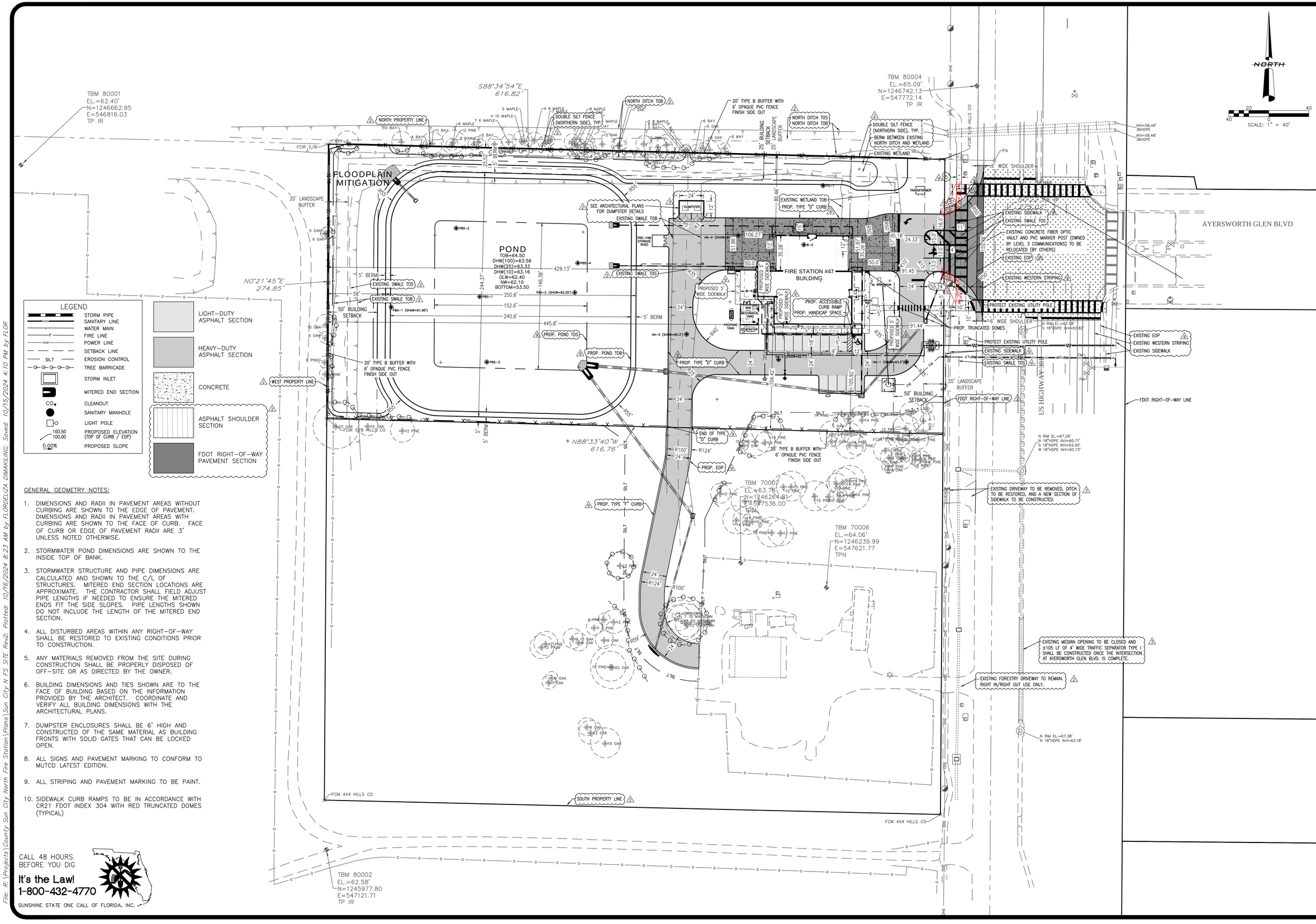

LEGEND

- STORM PIPE
- SANITARY LINE
- WATER MAIN
- FIRE LINE
- POWER LINE
- SETBACK LINE
- EROSION CONTROL
- TREE BARRICADE
- STORM INLET
- MITERED END SECTION
- CLEANOUT
- SANITARY MANHOLE
- LIGHT POLE
- PROPOSED ELEVATION (TOP OF CURB / EOP)
- PROPOSED SLOPE
- LIGHT-DUTY ASPHALT SECTION
- HEAVY-DUTY ASPHALT SECTION
- CONCRETE
- ASPHALT SHOULDER SECTION
- FDOT RIGHT-OF-WAY PAVEMENT SECTION

GENERAL GEOMETRY NOTES:

1. DIMENSIONS AND RADII IN PAVEMENT AREAS WITHOUT CURBING ARE SHOWN TO THE EDGE OF PAVEMENT. DIMENSIONS AND RADII IN PAVEMENT AREAS WITH CURBING ARE SHOWN TO THE FACE OF CURB. FACE OF CURB OR EDGE OF PAVEMENT RADII ARE 3' UNLESS NOTED OTHERWISE.
2. STORMWATER POND DIMENSIONS ARE SHOWN TO THE INSIDE TOP OF BANK.
3. STORMWATER STRUCTURE AND PIPE DIMENSIONS ARE CALCULATED AND SHOWN TO THE C/L OF STRUCTURES. MITERED END SECTION LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD ADJUST PIPE LENGTHS IF NEEDED TO ENSURE THE MITERED ENDS FIT THE SIDE SLOPES. PIPE LENGTHS SHOWN DO NOT INCLUDE THE LENGTH OF THE MITERED END SECTION.
4. ALL DISTURBED AREAS WITHIN ANY RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
5. ANY MATERIALS REMOVED FROM THE SITE DURING CONSTRUCTION SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE OWNER.
6. BUILDING DIMENSIONS AND TIES SHOWN ARE TO THE FACE OF BUILDING BASED ON THE INFORMATION PROVIDED BY THE ARCHITECT. COORDINATE AND VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL PLANS.
7. DUMPSTER ENCLOSURES SHALL BE 6' HIGH AND CONSTRUCTED OF THE SAME MATERIAL AS BUILDING FRONTS WITH SOLID GATES THAT CAN BE LOCKED OPEN.
8. ALL SIGNS AND PAVEMENT MARKING TO CONFORM TO MUTCD LATEST EDITION.
9. ALL STRIPING AND PAVEMENT MARKING TO BE PAINT.
10. SIDEWALK CURB RAMPS TO BE IN ACCORDANCE WITH CR21 FDOT INDEX 304 WITH RED TRUNCATED DOMES (TYPICAL)

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	BY	DATE	DESCRIPTION
–	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
1	FCD	01-24-2024	ADDRESSED PDC COMMENTS
2	FCD	10-16-2024	ADDRESSED COUNTY COMMENTS
–	–	–	–
–	–	–	–

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
DRAWN BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT
APPROVED BY: MICHAEL KNIGHT
JOB NO.: 22-157

HORIZONTAL CONTROL PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

C-5

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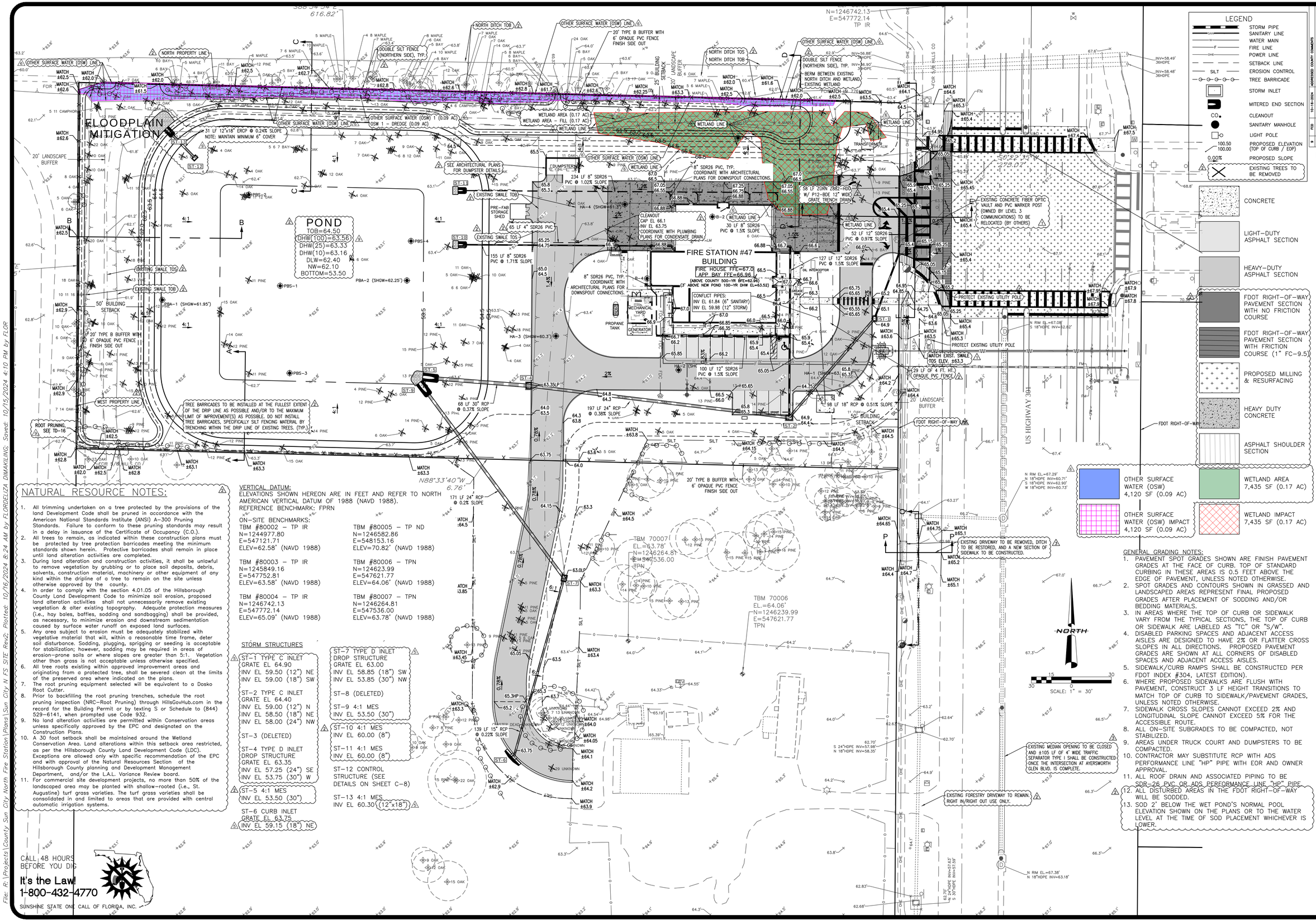

NATURAL RESOURCE NOTES:

1. All trimming undertaken on a tree protected by the provisions of the land Development Code shall be pruned in accordance with the American National Standards Institute (ANSI) A-300 Pruning Standards. Failure to conform to these pruning standards may result in a delay in issuance of the Certificate of Occupancy (C.O.).
2. All trees to remain, as indicated within these construction plans must be protected by tree protection barricades meeting the minimum standards shown herein. Protective barricades shall remain in place until land alteration activities are completed.
3. During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing or to place soil deposits, debris, solvents, construction material, machinery or other equipment of any kind within the dripline of a tree to remain on the site unless otherwise approved by the county.
4. In order to comply with the section 4.01.05 of the Hillsborough County Land Development Code to minimize soil erosion, proposed land alteration activities shall not unnecessarily remove existing vegetation & alter existing topography. Adequate protection measures (i.e., hay bales, baffles, sodding and sandbagging) shall be provided, as necessary, to minimize erosion and downstream sedimentation caused by surface water runoff on exposed land surfaces.
5. Any area subject to erosion must be adequately stabilized with vegetative material that will, within a reasonable time frame, deter soil disturbance. Sodding, plugging, springing or seeding is acceptable for stabilization; however, sodding may be required in areas of erosion-prone soils or where slopes are greater than 5:1. Vegetation other than grass is not acceptable unless otherwise specified.
6. All tree roots existing within approved improvement areas and originating from a protected tree, shall be severed clean at the limits of the preserved area where indicated on the plans.
7. The root pruning equipment selected will be equivalent to a Dosko Root Cutter.
8. Prior to backfilling the root pruning trenches, schedule the root pruning inspection (NRC-Root Pruning) through HillsGovHub.com in the record for the Building Permit or by texting S or Schedule to (844) 529-6141, when prompted use Code 932.
9. No land alteration activities are permitted within Conservation areas unless specifically approved by the EPC and designated on the Construction Plans.
10. A 30 foot setback shall be maintained around the Wetland Conservation Area. Land alterations within this setback area restricted, as per the Hillsborough County Land Development Code (LDC). Exceptions are allowed only with specific recommendation of the EPC and with approval of the Natural Resources Section of the Hillsborough County planning and Development Management Department, and/or the L.A.L. Variance Review board.
11. For commercial site development projects, no more than 50% of the landscaped area may be planted with shallow-rooted (i.e., St. Augustine) turf grass varieties. The turf grass varieties shall be consolidated in and limited to areas that are provided with central automatic irrigation systems.

VERTICAL DATUM:
ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
REFERENCE BENCHMARK: FPRN

ON-SITE BENCHMARKS:

TBM #80002 – TP IR
N=1244977.80
E=547121.71
ELEV=62.58' (NAVD 1988)

TBM #80003 – TP IR
N=1245849.16
E=547752.81
ELEV=63.58' (NAVD 1988)

TBM #80004 – TP IR
N=1246742.13
E=547772.14
ELEV=65.09' (NAVD 1988)

TBM #80005 – TP ND
N=1246582.86
E=548153.16
ELEV=70.82' (NAVD 1988)

TBM #80006 – TPN
N=124623.99
E=547621.77
ELEV=64.06' (NAVD 1988)

TBM #80007 – TPN
N=1246264.81
E=547536.00
ELEV=63.78' (NAVD 1988)

STORM STRUCTURES

ST-1 TYPE C INLET
GRATE EL 64.90
INV EL 59.50 (12") NE
INV EL 59.00 (18") SW

ST-2 TYPE C INLET
GRATE EL 64.40
INV EL 59.00 (12") N
INV EL 58.50 (18") NE
INV EL 58.00 (24") NW

ST-3 (DELETED)

ST-4 TYPE D INLET
DROP STRUCTURE
GRATE EL 63.35
INV EL 57.25 (24") SE
INV EL 53.75 (30") W

ST-5 4:1 MES
INV EL 53.50 (30")

ST-6 CURB INLET
GRATE EL 63.75
INV EL 59.15 (18") NE

ST-7 TYPE D INLET
DROP STRUCTURE
GRATE EL 63.00
INV EL 58.85 (18") SW
INV EL 53.85 (30") NW

ST-8 (DELETED)

ST-9 4:1 MES
INV EL 53.50 (30")

ST-10 4:1 MES
INV EL 60.00 (8")

ST-11 4:1 MES
INV EL 60.00 (8")

ST-12 CONTROL STRUCTURE (SEE DETAILS ON SHEET C-8)

ST-13 4:1 MES
INV EL 60.30 (12"x18")

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

GENERAL GRADING NOTES:

1. PAVEMENT SPOT GRADES SHOWN ARE FINISH PAVEMENT GRADES AT THE FACE OF CURB. TOP OF STANDARD CURBING IN THESE AREAS IS 0.5 FEET ABOVE THE EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
2. SPOT GRADES AND CONTOURS SHOWN IN GRASSED AND LANDSCAPED AREAS REPRESENT FINAL PROPOSED GRADES AFTER PLACEMENT OF SODDING AND/OR BEDDING MATERIALS.
3. IN AREAS WHERE THE TOP OF CURB OR SIDEWALK VARY FROM THE TYPICAL SECTIONS, THE TOP OF CURB OR SIDEWALK ARE LABELED AS "TC" OR "S/W".
4. DISABLED PARKING SPACES AND ADJACENT ACCESS AISLES ARE DESIGNED TO HAVE 2% OR FLATTER CROSS SLOPES IN ALL DIRECTIONS. PROPOSED PAVEMENT GRADES ARE SHOWN AT ALL CORNERS OF DISABLED SPACES AND ADJACENT ACCESS AISLES.
5. SIDEWALK/CURB RAMPS SHALL BE CONSTRUCTED PER FDOT INDEX #304, LATEST EDITION).
6. WHERE PROPOSED SIDEWALKS ARE FLUSH WITH PAVEMENT, CONSTRUCT 3 LF HEIGHT TRANSITIONS TO MATCH TOP OF CURB TO SIDEWALK/PAVEMENT GRADES, UNLESS NOTED OTHERWISE.
7. SIDEWALK CROSS SLOPES CANNOT EXCEED 2% AND LONGITUDINAL SLOPE CANNOT EXCEED 5% FOR THE ACCESSIBLE ROUTE.
8. ALL ON-SITE SUBGRADES TO BE COMPACTED, NOT STABILIZED.
9. AREAS UNDER TRUCK COURT AND DUMPSTERS TO BE COMPACTED.
10. CONTRACTOR MAY SUBSTITUTE RCP WITH ADS PERFORMANCE LINE "HP" PIPE WITH EOR AND OWNER APPROVAL.
11. ALL ROOF DRAIN AND ASSOCIATED PIPING TO BE SDR-26 PVC OR ADS PERFORMANCE LINE "HP" PIPE.
12. ALL DISTURBED AREAS IN THE FDOT RIGHT-OF-WAY WILL BE SODDED.
13. SOD 2' BELOW THE WET POND'S NORMAL POOL ELEVATION SHOWN ON THE PLANS OR TO THE WATER LEVEL AT THE TIME OF SOD PLACEMENT WHICHEVER IS LOWER.

NO.	BY	DATE	DESCRIPTION
1	FCD	05-31-2023	FDOT SUBMITTAL
2	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
3	FCD	01-24-2024	ADDRESSED EPC COMMENTS
4	FCD	04-26-2024	ADDRESSED & EPC FDOT COMMENTS
5	FCD	05-14-2024	ADDRESSED COUNTY COMMENTS
6	FCD	06-18-2024	ADDRESSED COUNTY COMMENTS

REVISIONS

DRAWN BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT
APPROVED BY: MICHAEL KNIGHT
DATE: 05-10-2023
JOB NO.: 22-157

PAVING, GRADING & DRAINAGE PLAN

SUN CITY NORTH
FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AUTORA ENGINEERING, INC.
CIVIL ENGINEERING
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AUTORA ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 30006909

C-6

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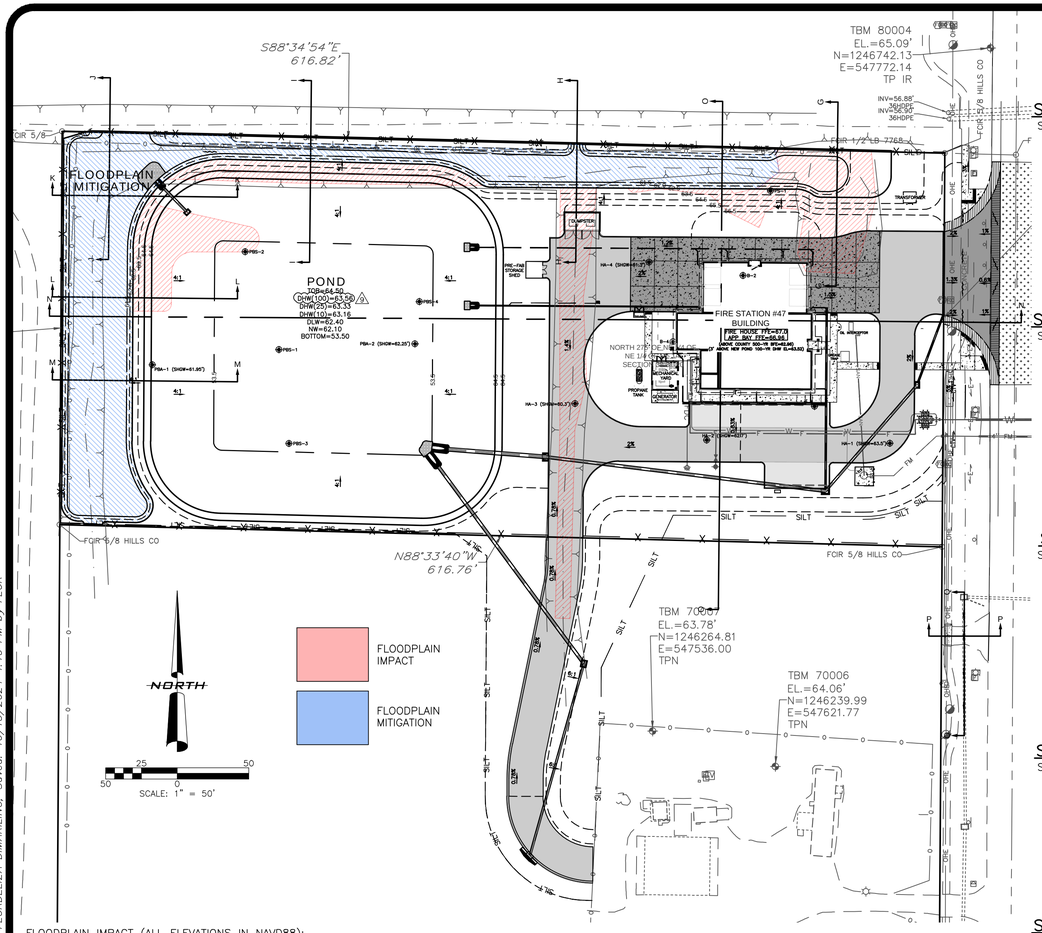

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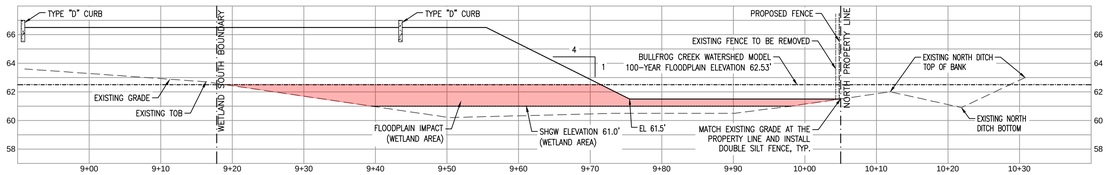
1"= 5' VERT



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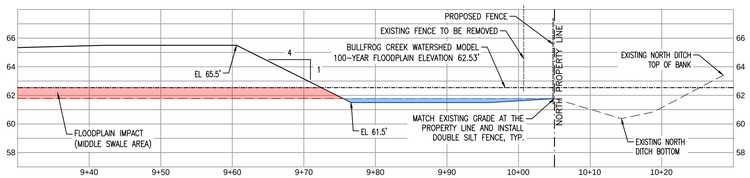

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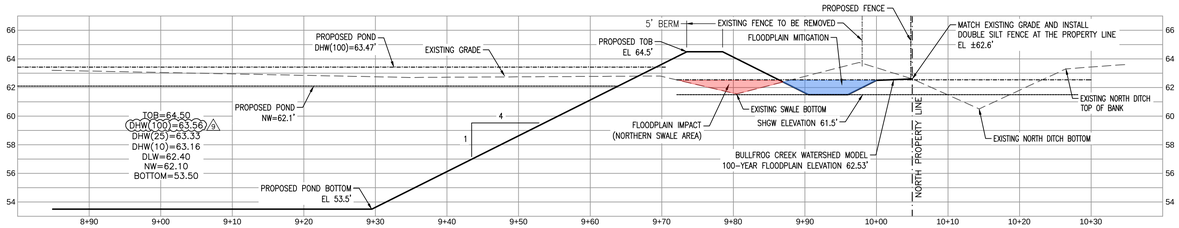

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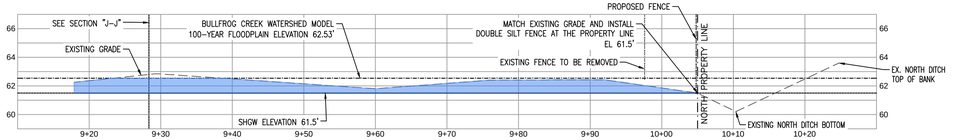

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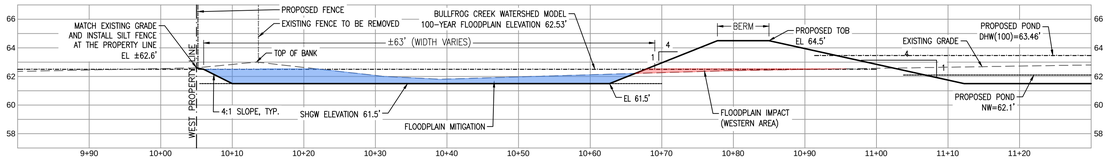

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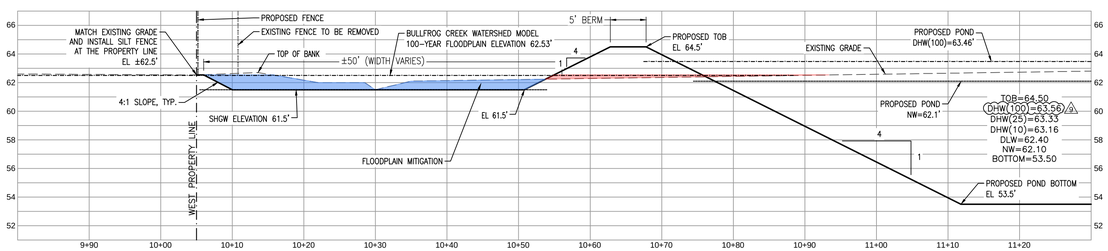

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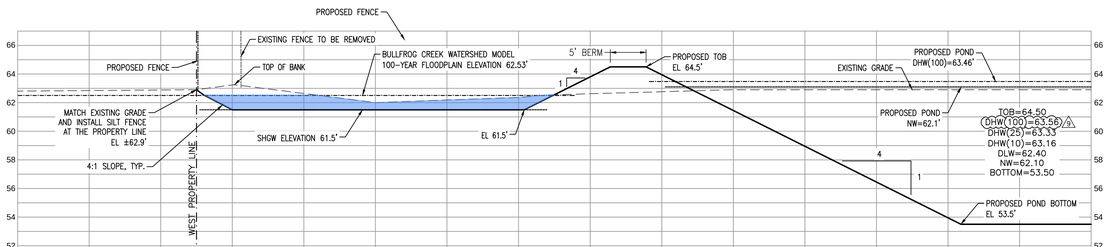
1"= 5' VERT



FLOODPLAIN IMPACT (ALL ELEVATIONS IN NAVD88):

1. THE GEOTECHNICAL REPORT SHOWS THE SHGW ELEVATION IS 9" BELOW THE EXISTING GRADE AT THE PROPOSED POND AREA. THE SHGW ELEVATION VARIES IN PROJECT SITE.
2. THE BULLFROG CREEK WATERSHED MODEL INDICATES THIS AREA STAGES UP TO 62.53' DURING THE 100–YEAR EVENT.
3. THE LOWEST TOS ELEVATION OF THE EXISTING WETLAND IS 60.1' AND THE TOB ELEVATION VARIES FROM 62.7'–63.7'.
   FOR THE FLOODPLAIN IMPACT CALCULATION:
   WE USED THE EXISTING NORTH DITCH'S BOTTOM ELEVATION 61.0' AS THE SHGW ELEVATION FOR THE EXISTING WETLAND. THIS WOULD BE AT LEAST 2' BELOW THE AVERAGE TOB ELEVATION.
   62.53' FLOODPLAIN ELEVATION
   61.00' SHGW ELEVATION
   1.53' –> THE HEIGHT FROM ELEV 62.53' FOR FLOODPLAIN AREA WE USED IN OUR CALCULATIONS BELOW.

   61.50' PROPOSED ELEVATION
   61.00' SHGW ELEVATION
   0.50' –> THE HEIGHT FROM ELEV 61.5' FOR FLOODPLAIN AREA WE USED IN OUR CALCULATIONS BELOW.
4. THE TOS ELEVATION OF THE EXISTING SWALE TO BE FILLED (MIDDLE PORTION OF THE PROPERTY) VARIES FROM 61.4'–62.3' AND THE TOB ELEVATION VARIES FROM 62.7'–63.7'.
   FOR THE FLOODPLAIN IMPACT CALCULATION:
   WE USED THE AVERAGE TOS ELEVATION 61.85'.
   62.53' FLOODPLAIN ELEVATION
   61.85' TOS ELEVATION
   0.68' –> THE HEIGHT FOR FLOODPLAIN AREA WE USED IN OUR CALCULATIONS BELOW.
5. THE LOWEST TOS ELEVATION OF THE EXISTING SWALE TO BE FILLED (NORTHERN PORTION OF THE PROPERTY) IS 61.5' AND THE TOB ELEVATION VARIES FROM 62.6'–63.7'.
   FOR THE FLOODPLAIN IMPACT CALCULATION:
   62.53' FLOODPLAIN ELEVATION
   61.50' TOS ELEVATION
   1.03' –> THE HEIGHT FOR FLOODPLAIN AREA WE USED IN OUR CALCULATIONS BELOW.
6. THE EXISTING ELEVATION OF THE WESTERN PORTION OF THE PROPERTY TO BE FILLED VARIES FROM 62.1'–62.5'.
   FOR THE FLOODPLAIN IMPACT CALCULATION:
   WE USED THE LOWEST GRADE ELEVATION (61.5') OF THE NORTH DITCH ALONG THE PROPERTY LINE THAT WE ARE MATCHING AS THE SHGW ELEVATION.
   FOR THE FLOODPLAIN IMPACT CALCULATION:
   62.53' FLOODPLAIN ELEVATION
   61.50' SHGW ELEVATION
   1.03' –> THE HEIGHT FOR FLOODPLAIN AREA WE USED IN OUR CALCULATIONS BELOW.

WETLAND FLOODPLAIN AREA:	4,658 SF X 1.53'	= 7,127 CF
WETLAND FLOODPLAIN AREA:	1,067 SF X 0.50'	= 534 CF
MIDDLE SWALE FLOODPLAIN AREA:	4,555 SF X 0.68'	= 3,097 CF
NORTHERN SWALE FLOODPLAIN AREA:	2,912 SF X 1.03'	= 2,999 CF
WESTERN FLOODPLAIN AREA:	3,370 SF X 1.03'	= 3,471 CF
TOTAL IMPACT VOLUME:		17,228 CF (REQUIRED COMPENSATION VOLUME)

NOTE: NO STORMWATER RUNOFF IS TO BE DIRECTED TOWARDS THE PROPOSED FLOODPLAIN MITIGATION.

FLOODPLAIN MITIGATION CALCULATIONS:

THE MITIGATION AREA TO THE NORTH IS APPROXIMATELY 498' LONG AND THE WIDTH VARIES BETWEEN 12' TO 44'. THIS AREA HAS BEEN DIVIDED INTO 3 SECTIONS (HH, II, & JJ).

THE MITIGATION AREA TO THE WEST IS APPROXIMATELY MINIMUM 49' WIDE AND 228' LONG. THIS AREA HAS BEEN DIVIDED INTO 3 SECTIONS (KK, LL, & MM).

SECTION HH (EXIST SWALE)	– 7 SF @ 65'	= 455 CF	2
SECTION HH	– 19 SF @ 179'	= 3,401 CF	
SECTION II	– 9 SF @ 189'	= 1,701 CF	
SECTION JJ	– 58 SF @ 65'	= 3,770 CF	
SECTION KK	– 37 SF @ 71'	= 2,627 CF	
SECTION LL	– 29 SF @ 58'	= 1,682 CF	
SECTION MM	– 37 SF @ 99'	= 3,663 CF	
TOTAL MITIGATION VOLUME		=17,299 CF	

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	BY	DATE	DESCRIPTION
1	FCD	01-24-2024	ADDRESSED DPC COMMENTS
2	FCD	10-15-2024	ADDRESSED COUNTY & FDOT COMMENTS
3			
4			
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DRAWN BY: FLORDELIZA DIMAKILING
CHECKED BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
DATE: 10-17-2023
JOB NO.: 22-157

FLOODPLAIN MITIGATION PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No.: 45278
AURORA CIVIL ENGINEERING INC.
CERTIFICATE OF AUTHORIZATION No. 00026909

C-6A

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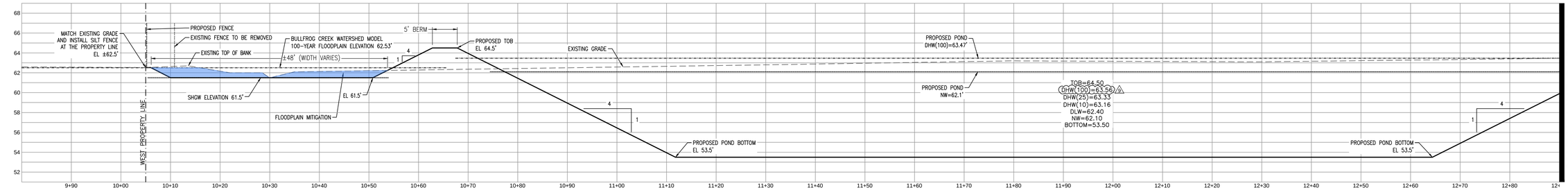

SECTION "N–N"
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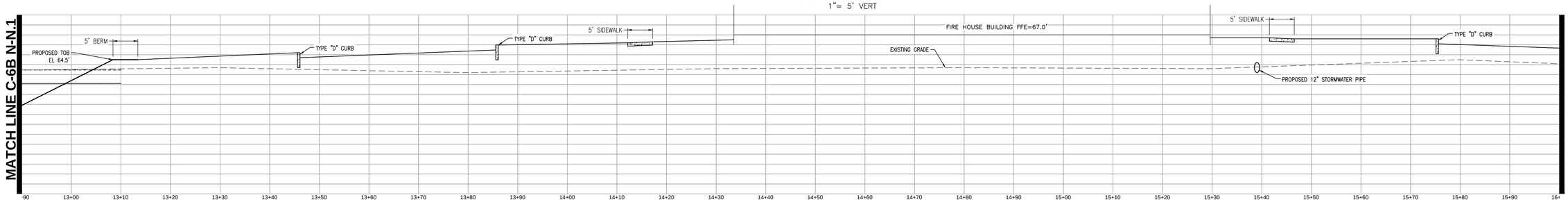
1"= 5' VERT



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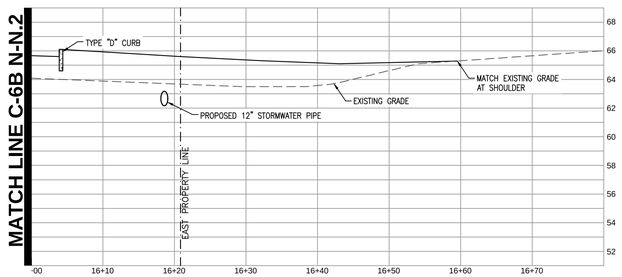

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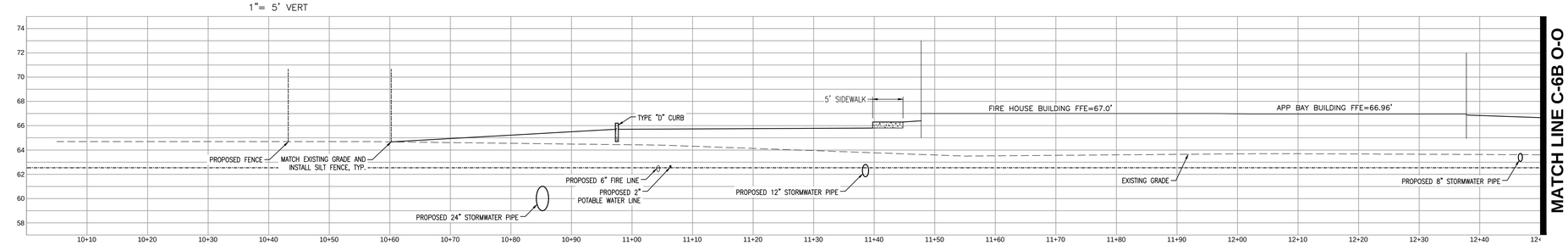

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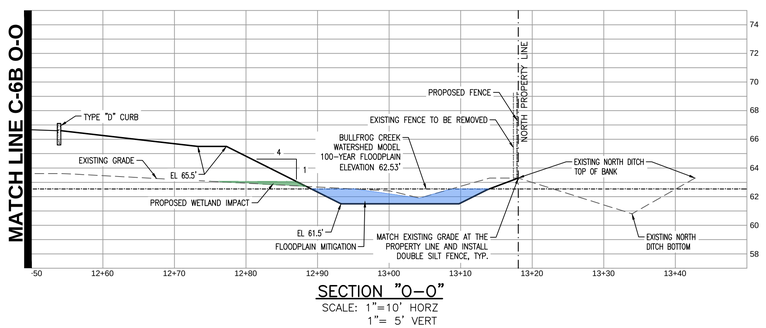
1"= 5' VERT



SECTION "O–O"
SCALE: 1"=10' HORZ
1"= 5' VERT

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	BY	DATE	DESCRIPTION
9	FCD	10-16-2024	ADDRESSED COUNTY COMMENTS

DESIGNED BY: FLORDELIZA DIMAKILING DRAWN BY: FLORDELIZA DIMAKILING DATE: 04-26-2024
CHECKED BY: MICHAEL KNIGHT APPROVED BY: MICHAEL KNIGHT JOB NO.: 22-157

FLOODPLAIN MITIGATION PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

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FLORIDA P.E. No. 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006899

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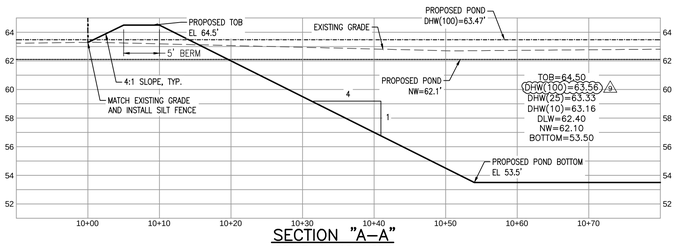
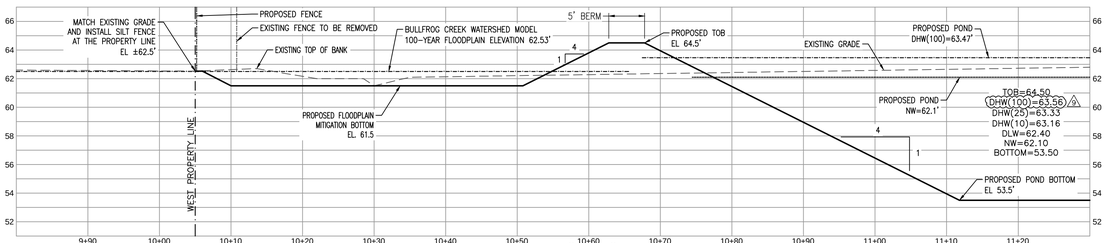


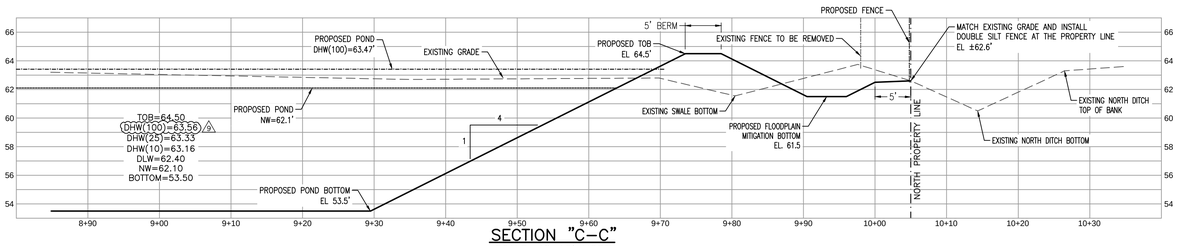
SECTION "A–A"

SCALE: 1"=10' HORZ
1"= 5' VERT



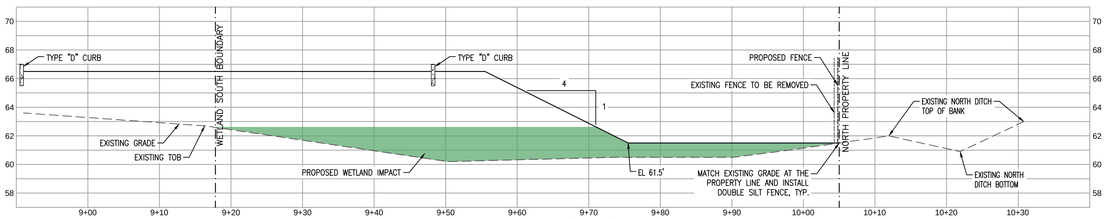
SECTION "B–B"

SCALE: 1"=10' HORZ
1"= 5' VERT



SECTION "C–C"

SCALE: 1"=10' HORZ
1"= 5' VERT



SECTION "D–D"

SCALE: 1"=10' HORZ
1"= 5' VERT

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	BY	DATE	DESCRIPTION
1	FCD	10-17-2023	ADDRESSED COUNTY COMMENTS
2	FCD	10-15-2024	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS

DESIGNED BY: FLORDELIZA DIMAKILING DATE: 05-10-2023
DRAWN BY: FLORDELIZA DIMAKILING JOB NO.: 22-157
CHECKED BY: MICHAEL KNIGHT APPROVED BY: MICHAEL KNIGHT

CROSS SECTIONS PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

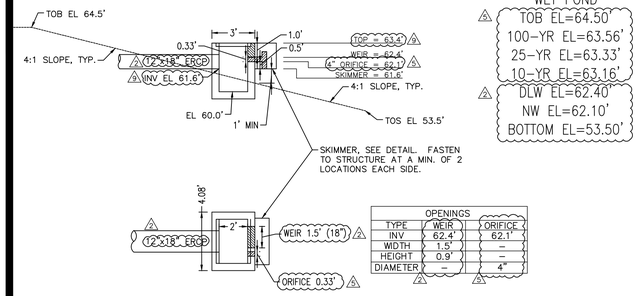
AUTREY ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AUTREY ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 0000899

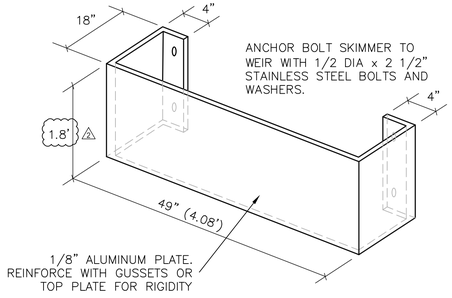
C-7

File: G:\Projects\County Sun City North Fire Station\Plans\Sun City N FS SITE Rev2; Plotted: 10/16/2024 8:25 AM by FLORDELIZA DIMAKILING, Saved: 10/15/2024 4:10 PM by FLOR

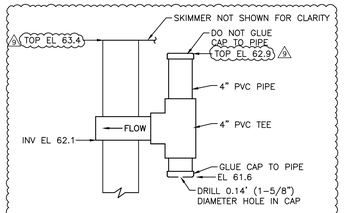


WET POND
TOB EL=64.50'
100-YR EL=63.56'
25-YR EL=63.33'
10-YR EL=63.16'
DLW EL=62.40
NW EL=62.10'
BOTTOM EL=53.50'

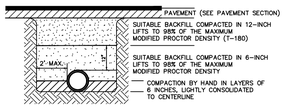
CONTROL STRUCTURE
TYPE "C" DBI
NTS



SKIMMER DETAIL
NTS

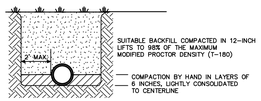


ORIFICE PIPING DETAIL
NTS



NOTES:
1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. BACKFILL LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE ENGINEER IS UNSUITABLE.

TYPICAL TRENCHING, BEDDING AND BACKFILL DETAIL FOR PAVED AREAS
N.T.S.



NOTES:
1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. BACKFILL LIGHTLY CONSOLIDATED TO CENTERLINE OF PIPE.
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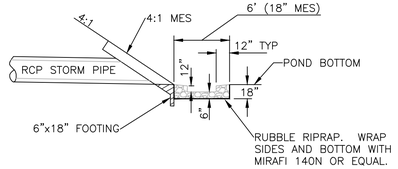
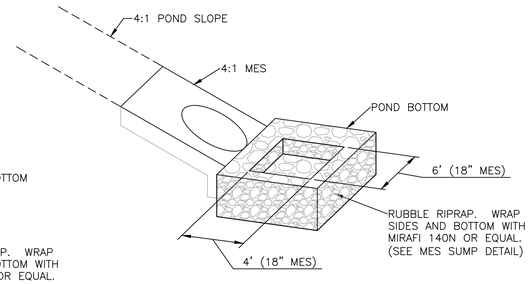
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE ENGINEER IS UNSUITABLE.

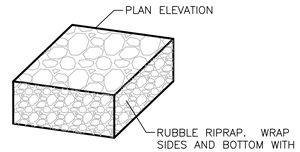
TYPICAL TRENCHING, BEDDING AND BACKFILL DETAIL FOR NON-PAVED AREAS
N.T.S.



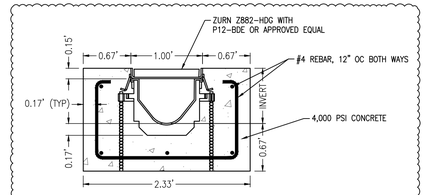
TYPICAL MES SUMP SECTION
NTS



TYPICAL MITERED END DETAIL
NTS



TYPICAL RIPRAP DETAIL



ZURN Z882-HDG W/ P12-BDE GRATE TRENCH DRAIN DETAIL
SCALE: 1:1

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NO.	BY	DATE	DESCRIPTION
1	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
2	FCD	04-25-2024	ADDRESSED FDOT COMMENTS
3	FCD	10-15-2024	ADDRESSED COUNTY COMMENTS

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
DRAWN BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT
APPROVED BY: MICHAEL KNIGHT
JOB NO.: 22-157

DRAINAGE DETAILS

SUN CITY NORTH FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006939

C-8

File: R:\Projects\County Sun City North Fire Station\Plans\Sun City N FS SITE Rev2. Plotted: 10/16/2024 8:25 AM by FLORDELIZA DIMAKILING, Saved: 10/15/2024 4:10 PM by FLOR

NOTE: THE DUMPSTER ENCLOSURE DETAILS HAS BEEN REMOVED. SEE ARCHITECTURAL PLANS FOR DUMPSTER DETAILS.

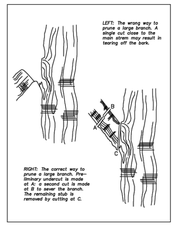
PRUNING

Most trees require some pruning to control growth and adapt them to particular landscape uses. Proper pruning will control branch height, symmetry of the crown, crowding of main branches, and will eliminate weak crotches. Trees are also pruned to prevent property damage. During construction work the primary purpose of pruning is to preserve the health and vigor of the tree. During pruning, appearance should also be considered.

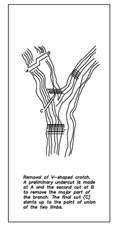
EXCEPTION:
Pines should not be pruned other than to remove dead, diseased, or hazardous branches.

The following guidelines are suggested to encourage the healthy survival of trees retained.

1. Remove dead, dying, or unsightly tree parts.
2. Remove sprouts growing at or near the base of the tree.
3. Remove branches that grow toward the center of the tree.
4. Remove crossed branches.
5. Remove V-crotches. If possible to do so without ruining the appearance, remove weakest member forming the V.
6. Remove "nuisance" growth, cut out branches that are likely to interfere with electric or utility lines, traffic control signs, lights, or street lights or block the view in streets.
7. Properly prune lower branches that may interfere with machinery to avoid broken and damaged limbs.
8. All roots measuring 3" or greater in diameter should be pruned clean with no jagged/shredded ends.
9. Utilize compact machinery around treed areas to minimize disturbance to tree trunks and roots.
10. See ANSI A300 Standards for more information.



PRUNING OF LARGE BRANCH



REMOVAL OF V-SHAPED CROTCH

DRAWING NO. TD-16
SHEET NO. 5 OF 7

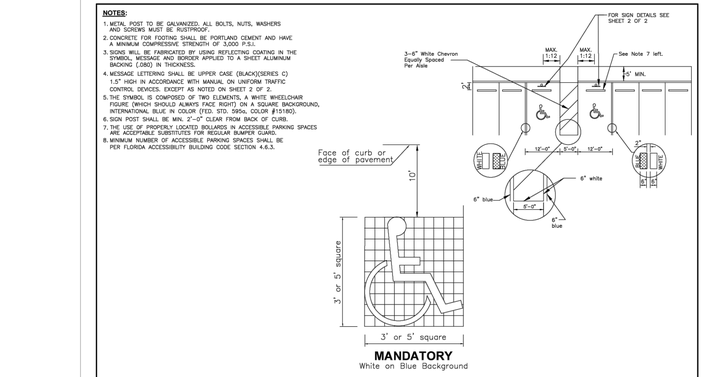
TREE PROTECTION TYPICAL DETAILS

Hillsborough County Florida

TRANSPORTATION TECHNICAL MANUAL

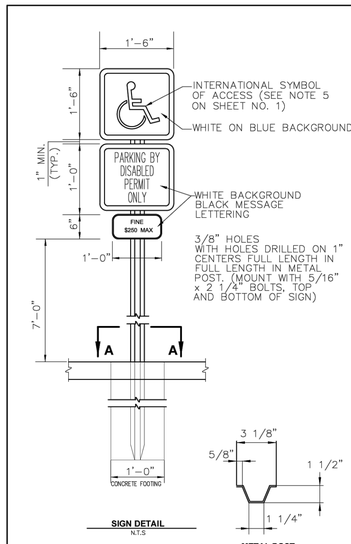
REVISION DATE: 10/17

NOTES:
1. METAL POST TO BE GALVANIZED, ALL BOLTS, NUTS, WASHERS AND SCREWS MUST BE RUSTPROOF.
2. CONCRETE FOR FOOTING SHALL BE PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I.
3. SIGNS WILL BE FABRICATED BY USING REFLECTING COATING IN THE SYMBOL, MESSAGE AND BORDER APPLIED TO A SHEET ALUMINUM BACKING (.080) IN THICKNESS.
4. MESSAGE LETTERING SHALL BE UPPER CASE (BLACK)(SERIES C) 1.5" HIGH IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. EXCEPT AS NOTED ON SHEET 2 OF 2.
5. THE SYMBOL IS COMPOSED OF TWO ELEMENTS, A WHITE WHEELCHAIR FIGURE (WHICH SHOULD ALWAYS FACE RIGHT) ON A SQUARE BACKGROUND, INTERNATIONAL BLUE IN COLOR (FED. STD. 595a, COLOR #15180).
6. SIGN POST SHALL BE MIN. 2'-0" CLEAR FROM BACK OF CURB.
7. THE USE OF PROPERLY LOCATED BOLLARDS IN ACCESSIBLE PARKING SPACES ARE ACCEPTABLE SUBSTITUTES FOR REGULAR BUMPER GUARD.
8. MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES SHALL BE PER FLORIDA ACCESSIBILITY BUILDING CODE SECTION 4.6.3.



MANDATORY
White on Blue Background

REVISION DATE: 12/08	TRANSPORTATION TECHNICAL MANUAL	Hillsborough County Florida	DISABLED PARKING / PAVEMENT MARKING TYPICAL DETAILS	DRAWING NO. TD-1
				SHEET NO. 1 OF 2



SIGN DETAIL
N.T.S

METAL POST
WT. OF BLANK POST SHALL BE 2-2 1/2"#/FT.
SECTION A - A

FDOT APPROVED ROUND ALUMINUM COLUMN (POST) MAY ALSO BE UTILIZED

DRAWING NO. TD-1
SHEET NO. 2 OF 2

DISABLED PARKING / SIGNING TYPICAL DETAILS

Hillsborough County Florida

TRANSPORTATION TECHNICAL MANUAL

REVISION DATE: 10/17

EXCAVATIONS

When deep soil cuts are made over the entire area occupied by the roots, it is difficult to maintain the health of trees. Lowering the grade 6–8 inches will remove a major portion of the top soil and most of the feeder roots. A loss of 1/2 to 1/3 of these surface roots will kill the tree.

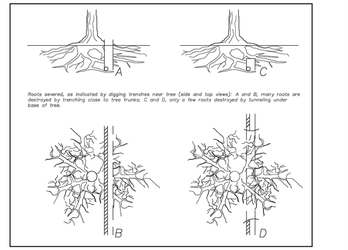
To preserve the tree and avoid root damage when cutting a grade, curve or zig-zag around the roots as much as possible. The area of the dripline should be sufficient. Top soil is an extremely important factor in the survival of a tree.

Roots should be cut cleanly.

Deep grade changes will require a retaining wall. The wall should be porous to allow for aeration. Construction is similar to dry wall.

Water frequently until the tree becomes recovered. Severe root damage will require 6 months to a year for the tree to fully recover.

Oaks, maples, bays, and conifers are among the species most susceptible to grade changes.



Roots severed, as indicated by digging trenches near tree (side and top views). A and B, many roots are destroyed by trenching close to tree trunks; C and D, only a few roots destroyed by tunneling under base of tree.

Trees can be protected when excavation for water and sewer lines is performed. Start by considering the location of the trenches. If the trenches cannot be routed around the trees and outside the dripline, the next best thing is to tunnel under them.

Power-driven soil augers are often used for this purpose. Tunneling under the trees has been shown to minimize root kill. Tunneling should be offset to one side of the trunk to prevent damage to the main top roots.

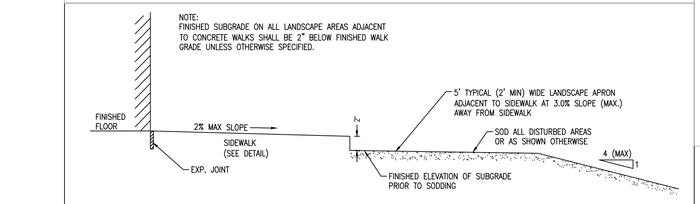
DRAWING NO. TD-16
SHEET NO. 6 OF 7

TREE PROTECTION TYPICAL DETAILS

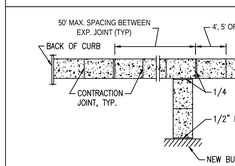
Hillsborough County Florida

TRANSPORTATION TECHNICAL MANUAL

REVISION DATE: 10/17

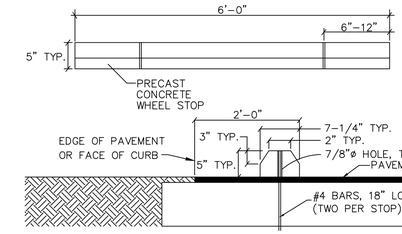


TYPICAL SIDEWALK GRADING DETAIL
N.T.S.



NOTE:
1. ALL SIDEWALKS SHALL BE 4" THICK, 3,000 PSI, FIBER REINFORCED CONCRETE.
2. CONTRACTION JOINTS SHALL BE SPACED @ 4' INTERVALS FOR 4' SIDEWALKS, 5' FOR 5' SIDEWALKS AND 6' FOR 6' SIDEWALKS.
3. FOR 10' SIDEWALKS, SPACE CONTRACTION JOINTS AT 5' INTERVALS AND A LONGITUDINAL CONTRACTION JOINT IN THE CENTERLINE OF SIDEWALK.
4. CONTRACTION JOINTS SHALL BE 1" DEEP AND EDGED WITH 1/8" RADIUS.
5. 1/2" EXPANSION MATERIAL REQUIRED WHERE CONCRETE SIDEWALK ABUTS CONCRETE STRUCTURE, CURB AND PAVEMENT.
6. A LAYER OF #15 FELT IS REQUIRED BETWEEN WALK AND ADJACENT PARALLELING CONCRETE CURB.
7. ALL ACCESSIBLE ROUTES ARE TO BE IN STRICT ACCORDANCE WITH STATE OR FEDERAL ADA REQUIREMENTS, WHICHEVER IS STRICTER.

TYPICAL SIDEWALK LAYOUT
N.T.S.



NOTE: WHEEL STOPS TO BE PROVIDED WHERE SHOWN ON THE PLANS.

STANDARD DOUBLE SIDED WHEEL STOP DETAIL
N.T.S

PROTECTIVE BARRIER REQUIREMENTS
AND
SPECIFICATIONS FOR EXISTING TREES TO REMAIN

PROTECTIVE BARRIERS are used during land alteration and construction activities to protect trees and natural areas to be retained on a site.

PROTECTIVE BARRIERS must be erected around TREES to be retained within an area where land alteration and construction activities will occur as well as along NATURAL AREAS where such areas are adjacent to permitted land alteration or construction activites. A PROTECTIVE BARRIER must remain in place until the land alteration and construction activities are completed or until commencement of grade finishing and sodding. No ground disturbance must occur within the barricaded area. The following represents the County's minimum protective barrier specifications.

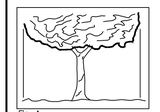


Fig. A.

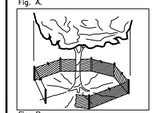


Fig. B.

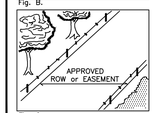


Fig. C.

1. TREES – To restrict access into the area within the CANOPY DRIPLINE of a tree, a physical structure not less than 3 feet in height, comprised of wood or other suitable material, is placed around the tree at the CANOPY DRIPLINE except where land alteration or construction activities are approved within the CANOPY DRIPLINE.

   The CANOPY DRIPLINE of a tree is the imaginary, vertical line that extends downward from the outermost tips of the tree's branches to the ground.
   Fig. A.

   BARRIER SPECIFICATIONS FOR TREES:

   Four corner upright stakes of no less than 2"x2" lumber connected by horizontal members of no less than 1"x4" lumber; or upright stakes spaced at 5' intervals of no less than 2"x2" lumber connected by silt screen fabric or material of comparable durability. Fig. B.

2. NATURAL AREAS – To restrict access into an area where land alteration and construction activities are not authorized, a physical structure not less than 3 feet in height is placed along the perimeter of such areas.

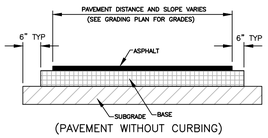
   BARRIER SPECIFICATIONS FOR NATURAL AREAS:

   Upright stakes of no less than 2"x2" lumber spaced no more than 25' apart and connected by twine flagged with plastic surveying tape at regular intervals of 5–10'. Fig. C. Other methods of demarcation will be considered depending upon the characteristics of the site.

   WHY A BARRIER

   1. To protect all above ground portions of trees and other significant vegetation from mechanical damage.
   2. To protect root systems from compaction.
   3. To provide awareness of protected areas to equipment operators.

NOTE: AURORA CIVIL ENGINEERING, INC. SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE OR DEATH OF EXISTING TREES.

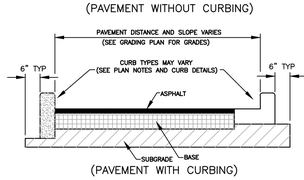


(PAVEMENT WITHOUT CURBING)

PARKING AND LIGHT USE AREAS
ASPHALT: 1-1/2" FDOT TYPE SP-12.5 ASPHALTIC CONCRETE. MINIMUM MARSHALL STABILITY OF 1500 LBS. COMPACTED TO AT LEAST 95% OF ITS LABORATORY DENSITY.

BASE: 6" CRUSHED CONCRETE BASE, MIN LBR 150, COMPACTED TO AT LEAST 98% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).

SUBGRADE: 12" STABILIZED SUBGRADE, LBR 40 MINIMUM, COMPACTED TO AT LEAST 98% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).



(PAVEMENT WITH CURBING)

TRUCK AND HEAVY USE AREAS
ASPHALT: 2" FDOT TYPE SP-12.5 ASPHALTIC CONCRETE. MINIMUM MARSHALL STABILITY OF 1500 LBS. COMPACTED TO AT LEAST 95% OF ITS LABORATORY DENSITY.

BASE: 8" CRUSHED CONCRETE BASE, MIN LBR 150, COMPACTED TO AT LEAST 98% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).

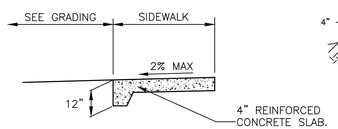
SUBGRADE: 12" STABILIZED SUBGRADE, LBR 40 MINIMUM, COMPACTED TO AT LEAST 98% OF ITS MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).

NOTE:
FINAL PAVEMENT SECTIONS AND CURBING SELECTED BY OWNER/CONTRACTOR. SECTIONS TO BE VERIFIED BY OWNERS GEOTECHNICAL ENGINEER.

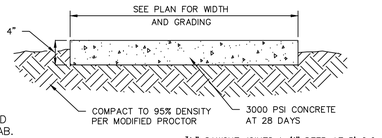
ON-SITE TYPICAL PAVEMENT SECTIONS
N.T.S.

(REFER ALSO TO GEOTECHNICAL REPORT)

NOTE: REFER TO SHEET C-17 FOR FDOT ROW PAVEMENT AND SHOULDER SECTIONS

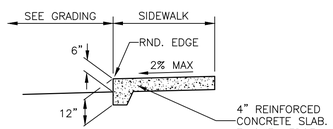


SIDEWALK SECTION – FLUSH
NTS

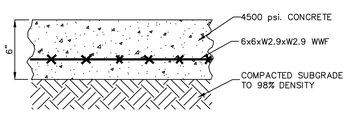


3/8" SAWCUT JOINTS 1–1/2" DEEP AT 5' O.C.
1/2" EXPANSION JOINTS AT 20' O.C.

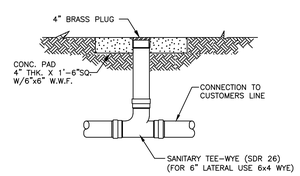
TYPICAL SIDEWALK DETAIL



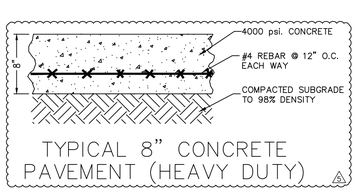
SIDEWALK SECTION – 6" CURB
NTS



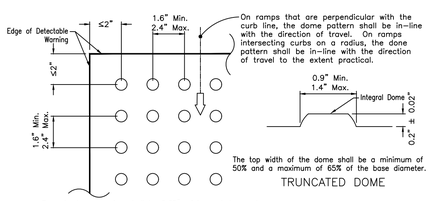
TYPICAL 6" CONCRETE PAVEMENT



TYPICAL ON-SITE CLEAN-OUT DETAIL

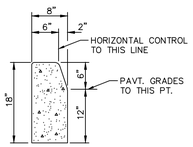


TYPICAL 8" CONCRETE PAVEMENT (HEAVY DUTY)

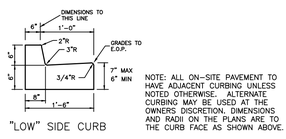


All sidewalk curb ramps shall have detectable warning surfaces that extend the full width of the ramp and in the direction of travel 24 inches (610 mm) from the back of curb.

CURB RAMP DETECTABLE WARNING DETAIL



TYPE "D" CURB
F.D.O.T. INDEX #300



"LOW" SIDE CURB

NOTE: ALL ON-SITE PAVEMENT TO HAVE ADJACENT CURBING UNLESS NOTED OTHERWISE. ALTERNATE CURBING MAY BE USED AT THE OWNERS DISCRETION. DIMENSIONS AND RADII ON THE PLANS ARE TO THE CURB FACE AS SHOWN ABOVE.

MODIFIED TYPE 'F' CURB
N.T.S.

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9	FDD	04-30-2024	ADDRESSED FDOT COMMENTS
5	FDD	10-17-2023	ADDRESSED COUNTY COMMENTS
2	FDD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
NO.	BY	DATE	DESCRIPTION

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
DRAWN BY: FLORDELIZA DIMAKILING JOB NO.: 22-157
CHECKED BY: MICHAEL KNIGHT
APPROVED BY: MICHAEL KNIGHT

MISCELLANEOUS DETAILS

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA
CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

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MICHAEL N. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00005909

C-9

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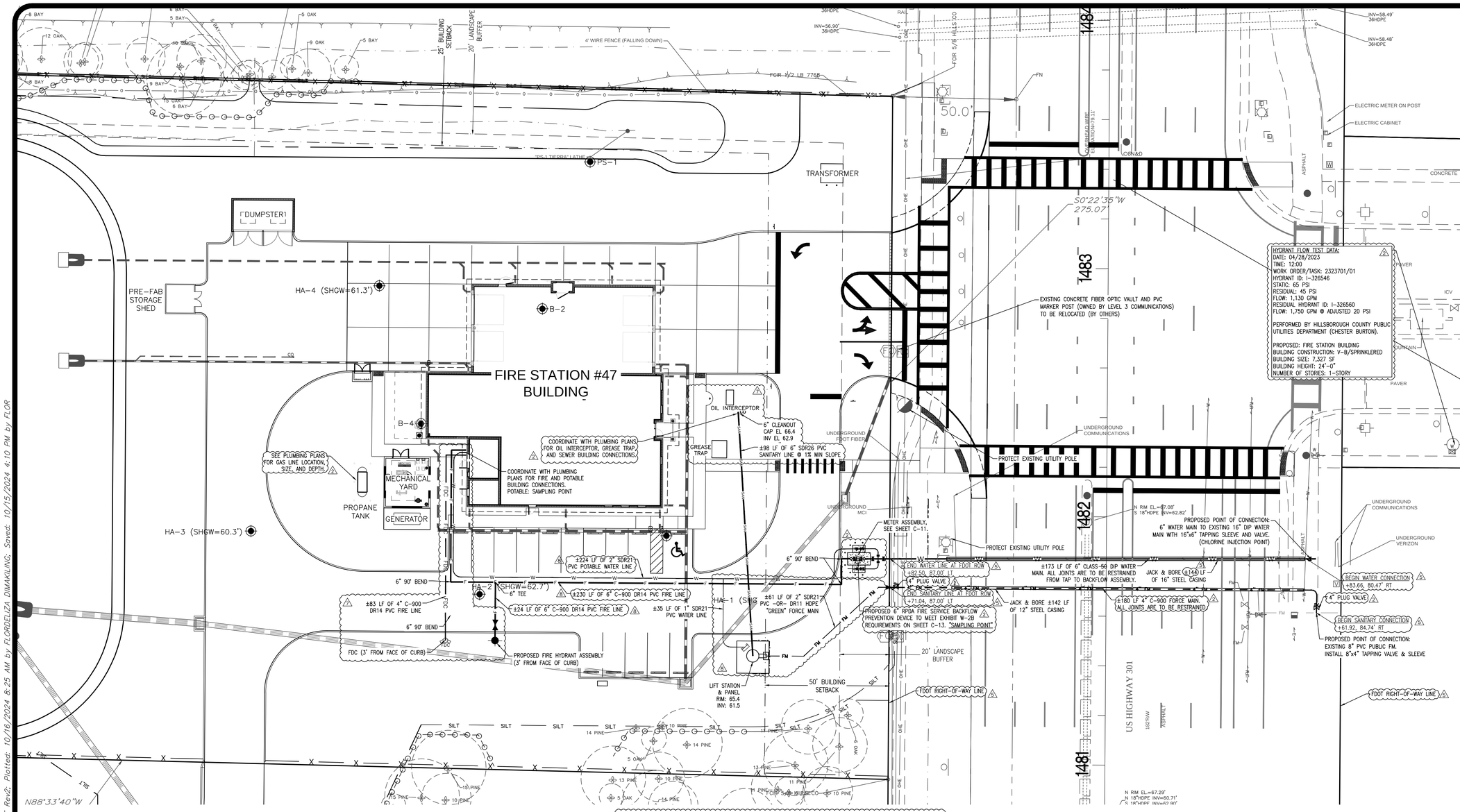

FIRE LINE NOTES

1. All Fire Lines to meet requirements of current Codes: 2017 FFPC, 6th Edition; NFPA 24 (2016 edition); NFPA 13 (2016 edition).
2. All joints to be restrained.
3. All Fire lines to be C900 DR14.
4. All underground fire lines shall be completed thru the foundation to no more than 1 ft. above finish floor and comply with F.S.S. 633.334(3). (Fire line shall go into the building).

GENERAL NOTES:

1. EXISTING UTILITY INFORMATION PROVIDED BY SURVEY.
2. ALL DISTURBED AREAS WITHIN ANY RIGHT-OF-WAY SHALL BE RESTORED TO EXISTING CONDITIONS PRIOR TO CONSTRUCTION. DISTURBED AREAS TO BE SODDED.
3. ANY MATERIALS REMOVED FROM THE SITE DURING CONSTRUCTION SHALL BE PROPERLY DISPOSED OF OFF-SITE OR AS DIRECTED BY THE OWNER.
4. RESTORE ANY DISTURBED AREAS ON-SITE TO EXISTING CONDITIONS. THIS INCLUDES WALKS, LANDSCAPING & IRRIGATION, UTILITIES, ETC.
5. CONFIRM, LOCATE AND PROTECT ALL EXISTING ABOVE AND BELOW GRADE UTILITIES IN THE PROJECT AREA. ADVISE ENGINEER & OWNER OF ANY CONFLICTS OR DISCREPANCIES.
6. CONTRACTOR SHALL INSTALL & MAINTAIN ALL SILT FENCE FOR THE INSTALLATION OF WATER AND SEWER LINES.
7. ALL PROPOSED LINES TO HAVE A MINIMUM OF 36" COVER.
8. THE BACKFLOW PREVENTION DEVICE IS TO COMPLY WITH THE HILLSBOROUGH COUNTY TECHNICAL SERVICE MANUAL.
9. MAXIMUM PRESSURE DROP OF 5 PSI FOR THE BACKFLOW PREVENTER.
10. ROOT PRUNE ALL EXISTING TREES ALONG WATERLINE ROUTE(S), OUTSIDE OF DRIPLINE.

GAS MAINS:

SHOULD A GAS MAIN BE DETERMINED TO EXIST (FIELD LOCATED) THEN THE MINIMUM SEPARATION BETWEEN THE GAS MAIN AND PROPOSED WATER MAIN SHALL BE 18". CONTRACTOR SHALL NOTIFY ENGINEER ACCORDINGLY.

FIRE DEPARTMENT NOTES:

TO SITE CONTRACTOR
THIS SITE REVIEW IS FOR PROPOSED LOCATIONS OF WATER SUPPLIES, BASIC PIPING LAYOUTS, AND HYDRANT LOCATIONS, AND IS NOT INTENDED TO BE CONSIDERED FOR DESIGN PURPOSES. ADDITIONAL PLAN REVIEWS ARE REQUIRED OF UNDERGROUND FIRE PROTECTION WATER SUPPLIES, SYSTEMS, PIPING, APPLIANCES & APPURTENANCES AT THE TIME OF SUBMITTAL OF PROPOSED CONSTRUCTION DOCUMENTS BY A STATE LICENSED PROFESSIONAL ENGINEER & STATE LICENSED CONTRACTOR CERTIFIED TO PERFORM THE WORK AND INSTALLATION.

TO SITE CONTRACTOR & G.C.
THE UNDERGROUND PRIVATE FIRE SERVICE MAINS WILL REQUIRE MANDATORY PLAN REVIEW, PERMITS, AND INSPECTIONS BY THE FIRE MARSHAL'S OFFICE & SHALL COMPLY WITH NFPA-24, 2016 EDITION.

MINIMUM CONSTRUCTION REQUIREMENTS
- FIRE DEPT ACCESS ROADS SHALL BE INSTALLED TO AN ALL-WEATHER DRIVING SURFACE ABLE TO WITHSTAND THE LIVE LOADS OF FIRE DEPT APPARATUS (42 TONS) PRIOR TO COMBUSTIBLES COMING ON TO THE JOBSITE AND THEY SHALL BE MAINTAINED DURING CONSTRUCTION. THE SITE SHALL COMPLY NFPA-1, CHAPTER 16.1.4. & 18.3.
- WATER SUPPLY FOR FIRE PROTECTION AND FIRE HYDRANTS SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO COMBUSTIBLES COMING ON TO THE JOBSITE AND THEY SHALL BE MAINTAINED DURING CONSTRUCTION. THE SITE SHALL COMPLY NFPA-1, CHAPTER 16.4.3.1.

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NO.	BY	DATE	DESCRIPTION
-			
8	FCD	07-24-2024	MOVED LIFT STATION
7	FCD	06-26-2024	PICKUP METER & PIPE, HMES REVISION
6	FCD	04-18-2024	CITY COMMENTS
5	FCD	03-27-2024	ADDRESSED COUNTY, FDOT, & DRWND COMMENTS
4	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & DRWND COMMENTS
3			
2			
1			

DRAWN BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
JOB NO.: 22-157
DESIGNED BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT

UTILITY PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No.: 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00026929

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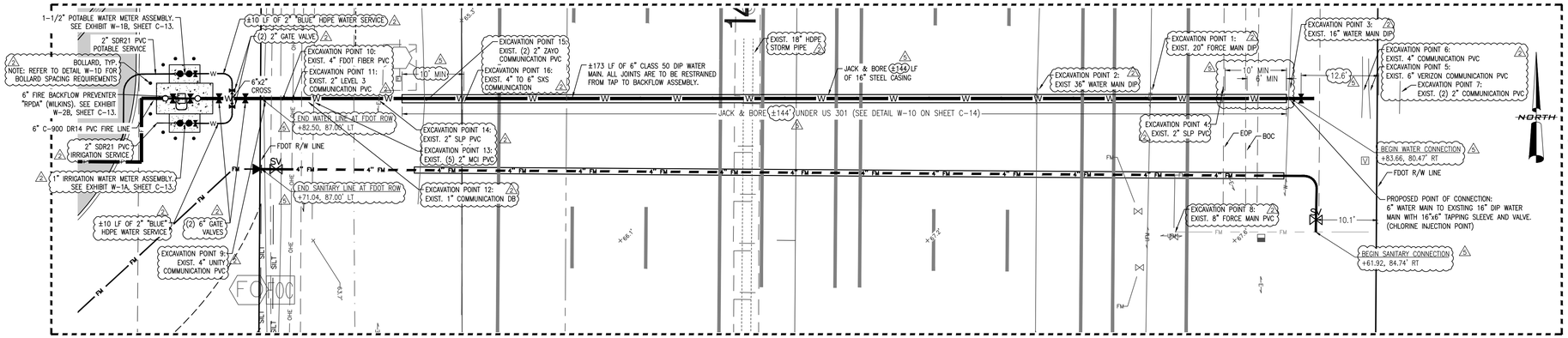
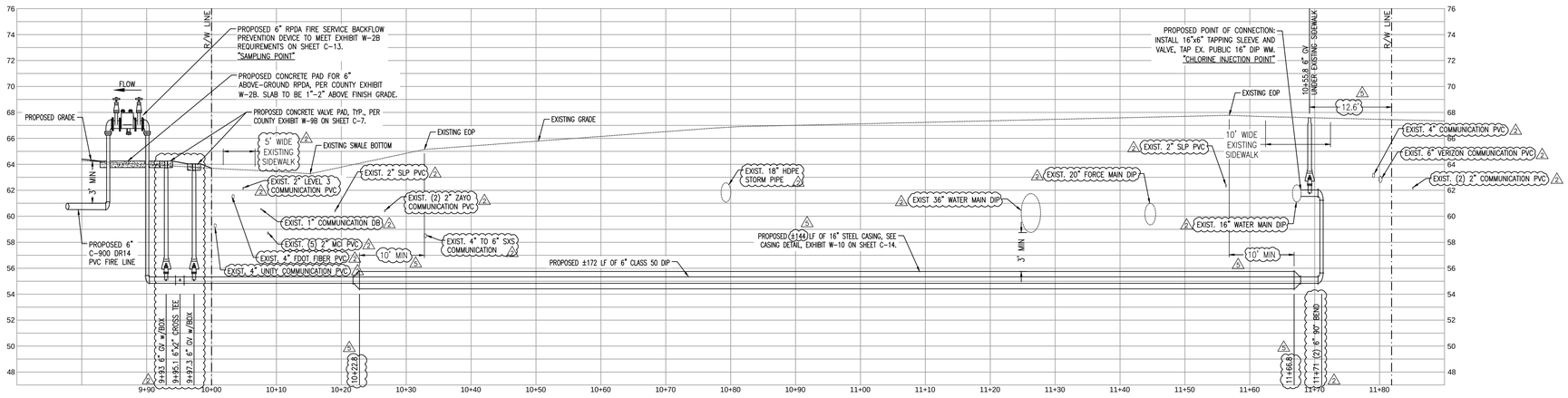


PLAN

SCALE: 1"=10" HORIZONTAL; 1"=5" VERTICAL



PROFILE

SCALE: 1"=10" HORIZONTAL; 1"=5" VERTICAL

WATER MAIN CONNECTION DETAIL

NOTE: THE REQUIRED LEVEL "A" SUE WAS PERFORMED AND EXISTING INFRASTRUCTURE AS SHOWN ON THE TABLE BELOW IS PER THE LEVEL "A" SUE WORK DATA PROVIDED BY THE SURVEYOR.

LEVEL A UTILITY DATA TABLE

EXCAVATION POINT	NORTHING	EASTING	UTILITY TOP ELEVATION	UTILITY DESCRIPTION
1	1246483.14	547883.91	61.01'	20" FORCE MAIN DIP
2	1246483.22	547865.51	61.72'	36" WATER MAIN DIP
3	1246483.40	547906.52	62.43'	16" WATER MAIN DIP
4	1246483.32	547895.39	62.42'	2" SLP PVC
5	1246483.03	547919.42	63.09'	6" VERIZON COMMUNICATION PVC
6	1246483.07	547918.35	63.31'	4" COMMUNICATION PVC
7	1246482.80	547924.56	62.26'	(2) 2" COMMUNICATION PVC
8	1246459.82	547888.47	58.39'	8" FORCE MAIN PVC
9	1245481.20	547739.32	59.43'	4" UNITY COMMUNICATION PVC
10	1246481.35	547742.20	61.68'	4" FDOT FIBER PVC
11	1246481.34	547743.78	62.23'	2" LEVEL 3 COMMUNICATION PVC
12	1246481.02	547746.51	60.59'	1" COMMUNICATION DB
13	1246480.94	547747.62	58.79'	(5) 2" MCI PVC
14	1246481.21	547758.00	60.57'	2" SLP PVC
15	1246481.30	547765.66	57.38'	(2) 2" ZAYO COMMUNICATION PVC
16	1246481.12	547771.88	58.67'	4" TO 6" SXS COMMUNICATION

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPERATION	CROSSINGS (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	WATER MAIN / 3 FT. MINIMUM	WATER MAIN	ALTERNATE 3 FT. MINIMUM / WATER MAIN
VACUUM SANITARY SEWER	WATER MAIN / 10 FT. PREFERRED 3 FT. MINIMUM	WATER MAIN	ALTERNATE 3 FT. MINIMUM / WATER MAIN
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	WATER MAIN / 10 FT. PREFERRED 3 FT. MINIMUM (3)	WATER MAIN	ALTERNATE 6 FT. MINIMUM / WATER MAIN
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM		

(1) WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
(2) RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
(3) 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
(4) RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

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1	FDD	04-26-2024	ADDRESSED FDOT COMMENTS
2	FDD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS

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DRAWN BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT
APPROVED BY: MICHAEL KNIGHT
JOB NO.: 22-157

WATER MAIN CONNECTION PROFILE

SUN CITY NORTH FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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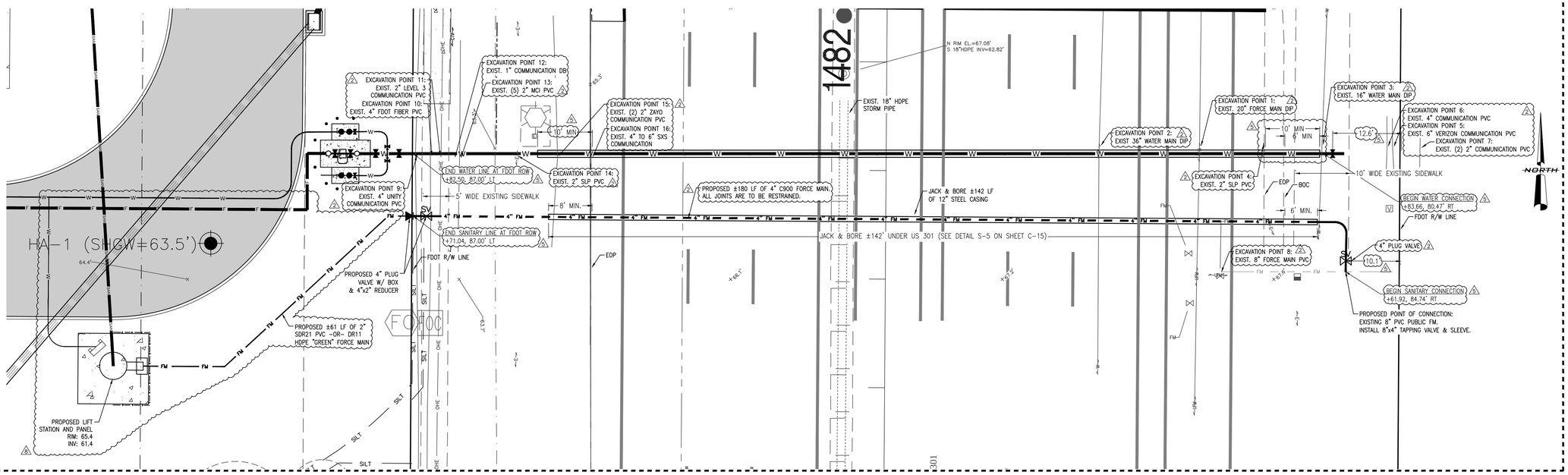
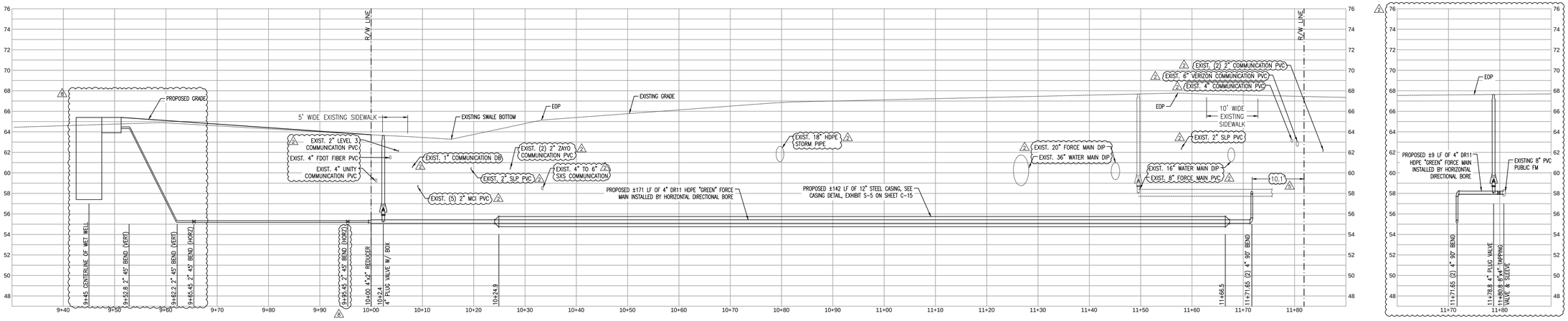


NOTE: REFER TO THE LEVEL "A" SUE WORK DATA PROVIDED BY THE SURVEYOR ON SHEET C-11.

PLAN

SCALE: 1"=10" HORIZONTAL; 1"=5" VERTICAL



PROFILE

SCALE: 1"=10" HORIZONTAL; 1"=5" VERTICAL

SANITARY SEWER CONNECTION DETAIL

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NO.	BY	DATE	DESCRIPTION
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-	-	-	-
-	-	-	-
6	FCD	01-25-2024	ADDED LIFT STATION
5	FCD	01-24-2024	ADDRESSED FDOT COMMENTS
4	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
3	FCD	10-16-2023	ADDRESSED COUNTY COMMENTS
2	FCD	10-13-2023	ADDRESSED COUNTY COMMENTS
1	FCD	10-12-2023	ADDRESSED COUNTY COMMENTS

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SANITARY SEWER CONNECTION PROFILE

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WATER EXHIBITS — Exhibit No.

W-1A WATER METER ASSEMBLY - COMMERCIAL METERS LESS THAN 1-1/2 INCH
W-1B WATER METER ASSEMBLY - COMMERCIAL 1-1/2 INCH & 2 INCH METERS
W-1C MASTER WATER METER ASSEMBLY SITE DEVELOPMENT - 3 INCH METER & LARGER (PROFILE VIEW)
W-1D MASTER WATER METER ASSEMBLY SITE DEVELOPMENT - 3 INCH METER & LARGER (PLAN VIEW)
W-1E MASTER WATER METER ASSEMBLY SITE DEVELOPMENT W/ FIRE FLOW
W-1F TEMPORARY CONSTRUCTION BACKFLOW ASSEMBLY FOR RESIDENTIAL OR COMMERCIAL DEVELOPMENT
W-1G NOTES WATER METER ASSEMBLIES

W-2A DEDICATED FIRE CONNECTION BACKFLOW ASSEMBLY - 2-INCH AND LESS
W-2B BACKFLOW PREVENTION DEVICE RPDA (FIRE SERVICE ONLY)

W-3A RESIDENTIAL SERVICE LAYOUT
W-3B RESIDENTIAL SINGLE METER SERVICE
W-3C RESIDENTIAL DUAL METER SINGLE LOT SERVICE
W-3D RESIDENTIAL METER SERVICE INSTALLATION (METER OVER MAIN)
W-3E RESIDENTIAL METER SERVICE INSTALLATION (NEAR SIDE)
W-3F RESIDENTIAL METER SERVICE INSTALLATION (FAR SIDE)
W-3G RESIDENTIAL DUAL LOT METERED SERVICE (FAR SIDE)

W-4 POTABLE WATER METER BOX

W-5A FIRE HYDRANT (RESTRAINED)
W-5B FIRE HYDRANT FOR LIMITED SPACE (RESTRAINED)
W-5C WATER MAIN EXTENSION WITH HYDRANT DETAIL
W-5D FAR SIDE HYDRANT DETAIL

W-6A BLOW-OFF ASSEMBLY
W-6B BLOW-OFF ASSEMBLY AND FIRE HYDRANT AT CUL-DE-SAC ROAD UP TO 150 FEET
W-6C BLOW-OFF ASSEMBLY AND FIRE HYDRANT AT CUL-DE-SAC ROAD GREATER THAN 150 FEET

W-7A RESTRAINED JOINT-STANDARD
W-7B RESTRAINED JOINT FOR PVC C-900 PIPE (4 INCH TO 12 INCH)

W-8A AIR RELIEF VALVE-MANUAL
W-8B AUTOMATIC AIR RELIEF VALVE ASSEMBLY-STANDARD
W-8C AUTOMATIC AIR RELIEF VALVE ASSEMBLY-OFFSET
W-8D AUTOMATIC AIR RELIEF VALVE ASSEMBLY - OFFSET NEW CONSTRUCTION (LINE OUT OF SERVICE)
W-8E AIR RELEASE RING AND COVER

W-9A VALVE BOX AND MARKER INSTALLATION FOR PAVED AREAS
W-9B CONCRETE VALVE PAD (FOR UNPAVED AREAS)

W-10 CASING DETAILS - JACK AND BORE

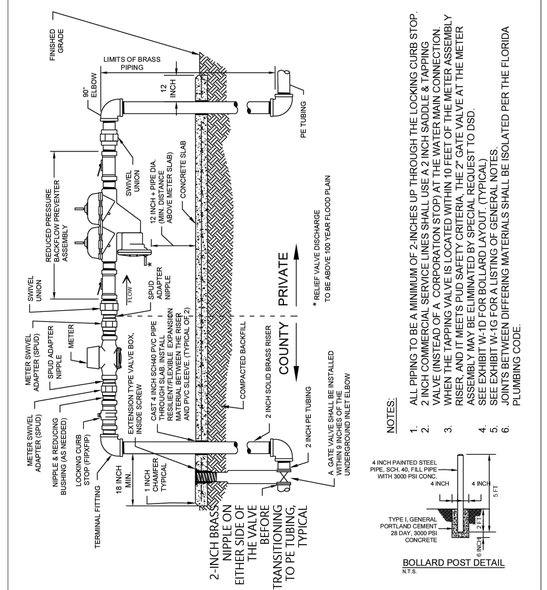
W-11 DITCH BOTTOM CLEARANCE AND CONCRETE PROTECTIVE SLAB

W-12A VALVE AND TRACER WIRE (FOR PAVED AND NON-PAVED AREAS)
W-12B VALVE EXTENSION FOR GATE VALVES

W-13 BORING FOR UTILITIES
W-14 TRENCH DETAILS - BACKFILL & COMPACTION

LISTING OF WATER EXHIBITS — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

Exhibit No. W-1B



NOTES:
1. ALL PIPING TO BE A MINIMUM OF 2-INCHES UP THROUGH THE LOCKING CURB STOP.
2. 2 INCH COMMERCIAL SERVICE LINES SHALL USE A 2 INCH SADDLE & TAPPING VALVE (INSTEAD OF A CORPORATION STOP) AT THE WATER MAIN CONNECTION.
3. WHEN THE TAPPING VALVE IS LOCATED WITHIN 10 FEET OF THE METER ASSEMBLY RISER, AND IT MEETS PUD SAFETY CRITERIA, THE 2" GATE VALVE AT THE METER ASSEMBLY MAY BE ELIMINATED BY SPECIAL REQUEST TO DSD.
4. SEE EXHIBIT W-1D FOR BOLLARD LAYOUT. (TYPICAL)
5. SEE EXHIBIT W-1G FOR A LISTING OF GENERAL NOTES.
6. JOINTS BETWEEN DIFFERING MATERIALS SHALL BE ISOLATED PER THE FLORIDA PLUMBING CODE.

WATER METER ASSEMBLY
COMMERCIAL - 1-1/2 INCH & 2 INCH METERS — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

Exhibit No. W-1G

GENERAL NOTES:

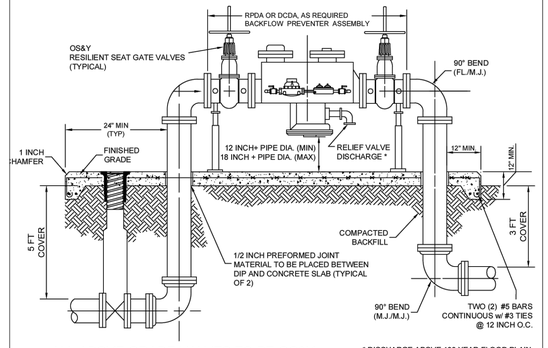
1. A MASTER METER ASSEMBLY SHALL BE DIRECTLY ACCESSIBLE BY A MAINTENANCE VEHICLE OFF A COUNTY ROW, OR BY AN INTERIOR ROAD THAT IS NOT BLOCKED BY A WALL OR GATE. THE TRUCK ACCESS ROAD SHALL BE 12 FT WIDE (MIN.) AND PAVED (CONCRETE OR ASPHALT)
2. ALL ABOVE GROUND PIPES AND FITTINGS SHALL BE CLASS 53 D.I.P. FOR 4 INCH AND LARGER PIPE.
3. CERTIFICATION OF PROPER OPERATION WILL BE REQUIRED FROM A CERTIFIED BACKFLOW TESTER PRIOR TO THE WATER MAIN ACCEPTANCE BY THE HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT.
4. ALL BACKFLOW ASSEMBLIES OR DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH AND SHALL MEET THE REQUIREMENTS FOUND IN CHAPTER 121 OF THE HILLSBOROUGH COUNTY CODE OF ORDINANCES, PART B, PUBLIC UTILITIES.
5. THE PROPER OPERATION, MAINTENANCE, AND TESTING OF THE BACKFLOW PREVENTION ASSEMBLY, SHALL BE IN ACCORDANCE WITH CHAPTER 121 OF THE HILLSBOROUGH COUNTY CODE OF ORDINANCES PART B, PUBLIC UTILITIES.
6. THE 6 INCH CONCRETE SLAB SHALL BE REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC AND SHALL BE TYPE I, PORTLAND CEMENT WITH A MINIMUM 28-DAY STRENGTH OF 3000psi.
7. SLAB WIDTH AND LENGTH SHALL VARY WITH ASSEMBLY. THE TOP OF SLAB SHALL BE 2 INCHES ABOVE FINISHED GRADE.
8. THE METER ASSEMBLY & BOLLARDS SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATION 331001, PART 2.6.
9. IF THE METER ASSEMBLY IS LOCATED WITHIN OR ADJACENT TO A TRAFFIC/VEHICLE AREA (PARKING LOT, DRIVEWAY, OR WITHIN 15 FT OF EDGE OF PAVEMENT/BACK OF CURB), METERS UP TO 2 INCHES SHALL HAVE A MINIMUM OF 4 TRAFFIC BOLLARD PROTECTION POSTS, AND FOR METERS 3 INCHES & LARGER A MINIMUM OF 6 TRAFFIC BOLLARDS ARE REQUIRED.

TEMPORARY CONSTRUCTION BACKFLOW ASSEMBLY (TCA) NOTES:

1. THE IN-LINE VALVE IS TO REMAIN CLOSED UNTIL AFTER THE CONSTRUCTION AND FINAL ACCEPTANCE OF THE DEVELOPMENT WATER DISTRIBUTION SYSTEM. NO DOWNSTREAM TIE-INS TO THE WRD WATER DISTRIBUTION SYSTEM ARE ALLOWED UNTIL AFTER A PASSING PRESSURE TEST AND 2 BAC-T TESTS ARE CERTIFIED BY THE EOR AND SUBMITTED TO PUD INSPECTION. ONCE FINAL TIE-INS ARE MADE 2 ADDITIONAL BAC-T TESTS ARE REQUIRED FOR EACH TIE-IN BEFORE SUBMITTING TO THE DOH FOR FINAL CLEARANCE.
2. THE BACKFLOW ASSEMBLY IS TO BE REMOVED BY THE CONTRACTOR AFTER FINAL ACCEPTANCE OF THE WATER DISTRIBUTION SYSTEM BY BOTH THE HILLSBOROUGH COUNTY DOH AND HILLSBOROUGH COUNTY DSD.
3. ALL CONSTRUCTION MUST MEET APPLICABLE STATE AND/OR LOCAL ROADWAY/ROADSIDE DESIGN STANDARDS INCLUDING, BUT NOT LIMITED TO, CLEAR ZONE REQUIREMENTS.

NOTES WATER METER ASSEMBLIES — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

Exhibit No. W-2B



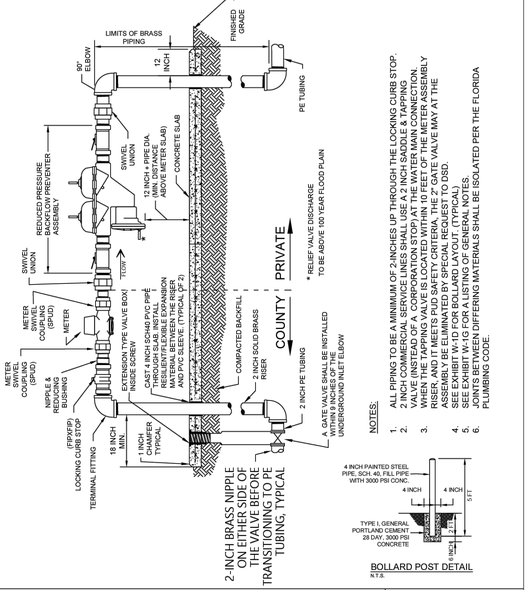
ALL ABOVE GRADE VALVES TO BE OS&Y

* DISCHARGE ABOVE 100 YEAR FLOOD PLAIN

NOTES:
1. ALL PIPE AND FITTINGS SHALL BE DUCTILE IRON, CLASS 53, CEMENT LINED INTERIOR WITH FLANGE FITTINGS FOR ABOVE GROUND USE. MANUFACTURERS RESTRAINED JOINTS SHALL BE USED FOR UNDERGROUND PIPING.
2. CERTIFICATION OF PROPER INSTALLATION AND OPERATION WILL BE REQUIRED FROM THE ENGINEER OF RECORD PRIOR TO WATER MAIN ACCEPTANCE BY THE HILLSBOROUGH COUNTY PUBLIC UTILITIES DEPARTMENT. THE ASSEMBLY SHALL ALSO BE TESTED BY A CERTIFIED TESTER, AS REQUIRED BY THE POINT OF SERVICE BACKFLOW ASSEMBLY PERMIT.
3. ALL BACKFLOW ASSEMBLIES OR DEVICES SHALL BE IN ACCORDANCE WITH AND SHALL MEET THE REQUIREMENTS FOUND IN CHAPTER 121 OF THE HILLSBOROUGH COUNTY CODE OF ORDINANCES, PART B, PUBLIC UTILITIES.
4. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE PROPER OPERATION, MAINTENANCE AND TESTING OF THE BACKFLOW PREVENTION ASSEMBLY.
5. THE 6 INCH CONCRETE SLAB SHALL BE REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC AND SHALL BE TYPE I, PORTLAND CEMENT WITH A MINIMUM 28-DAY STRENGTH OF 3000psi.
6. SLAB WIDTH SHALL BE 5 FT TYPICAL AND LENGTH SHALL VARY WITH ASSEMBLY.
7. WHEN ASSEMBLY IS LOCATED WITHIN A TRAFFIC/VEHICLE AREA SEE W-1D FOR BOLLARD LAYOUT. A MINIMUM OF (4) FOUR 6 INCH BOLLARDS ARE REQUIRED.

BACKFLOW PREVENTION DEVICE RPDA (FOR FIRE SERVICE ONLY) — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

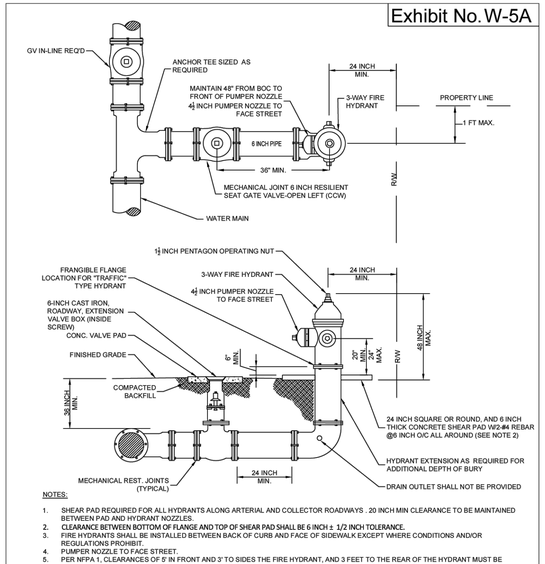
Exhibit No. W-1A



NOTES:
1. ALL PIPING TO BE A MINIMUM OF 2-INCHES UP THROUGH THE LOCKING CURB STOP.
2. 2 INCH COMMERCIAL SERVICE LINES SHALL USE A 2 INCH SADDLE & TAPPING VALVE (INSTEAD OF A CORPORATION STOP) AT THE WATER MAIN CONNECTION.
3. WHEN THE TAPPING VALVE IS LOCATED WITHIN 10 FEET OF THE METER ASSEMBLY RISER, AND IT MEETS PUD SAFETY CRITERIA, THE 2" GATE VALVE AT THE METER ASSEMBLY MAY BE ELIMINATED BY SPECIAL REQUEST TO DSD.
4. SEE EXHIBIT W-1D FOR BOLLARD LAYOUT. (TYPICAL)
5. SEE EXHIBIT W-1G FOR A LISTING OF GENERAL NOTES.
6. JOINTS BETWEEN DIFFERING MATERIALS SHALL BE ISOLATED PER THE FLORIDA PLUMBING CODE.

WATER METER ASSEMBLY
COMMERCIAL - METERS LESS THAN 1-1/2 INCH — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

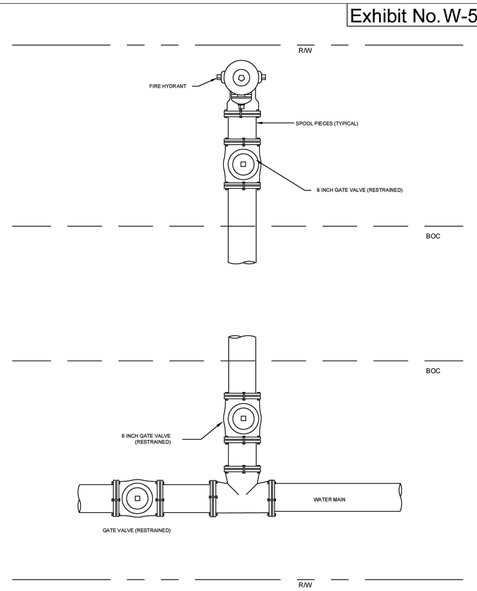
Exhibit No. W-5A



NOTES:
1. SHEAR PAD REQUIRED FOR ALL HYDRANTS ALONG ARTERIAL AND COLLECTOR ROADWAYS . 20 INCH MIN CLEARANCE TO BE MAINTAINED BETWEEN PAD AND HYDRANT NOZZLES.
2. CLEARANCE BETWEEN BOTTOM OF FLANGE AND TOP OF SHEAR PAD SHALL BE 6 INCH ± 1/2 INCH TOLERANCE.
3. FIRE HYDRANTS SHALL BE INSTALLED BETWEEN BACK OF CURB AND FACE OF SIDEWALK EXCEPT WHERE CONDITIONS AND/OR REGULATIONS PROHIBIT.
4. PUMPER NOZZLE TO FACE STREET.
5. PER NFPA 1, CLEARANCES OF 5' IN FRONT AND 3' TO SIDES THE FIRE HYDRANT, AND 3 FEET TO THE REAR OF THE HYDRANT MUST BE MAINTAINED.
6. WHEN AN INLINE ISOLATION VALVE FALLS WITHIN 50 FT OF AN EXISTING ISOLATION VALVE, THE EOR MAY CONTACT THE UTILITY DESIGN TEAM TO DETERMINE IF THE NUMBER OF VALVES CAN BE REDUCED.
7. MAINTAIN 3 FT CLEARANCE BETWEEN ALL VALVES AND HYDRANTS

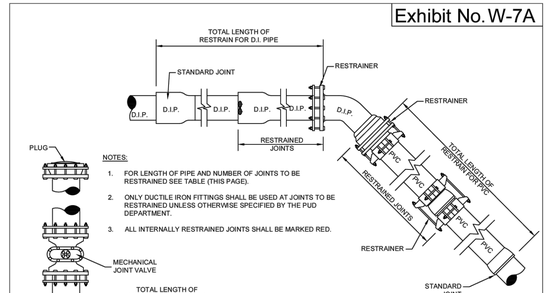
FIRE HYDRANT (RESTRAINED) — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

Exhibit No. W-5D



FAR SIDE HYDRANT DETAIL — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

Exhibit No. W-7A



DESIGN ENGINEER SHALL CALCULATE PROPER VALUES AND FILL IN TABLE PRIOR TO SUBMITTAL.

MINIMUM FOOTAGE OF PIPE RESTRAINT

PIPE SIZE (INCHES)		4"	6"	8"	10"	12"	16"
11-1/4°	H-B	2	2	3	4	4	5
	VU-B	2	3	4	5	6	7
	VD-B	4	5	7	8	10	12
22-1/2°	H-B	3	5	6	7	9	11
	VU-B	5	7	9	10	12	15
	VD-B	7	11	14	17	20	25
45°	H-B	7	10	13	18	18	23
	VU-B	10	14	18	22	25	31
	VD-B	16	22	29	34	41	52
90°	H-B	17	24	31	37	43	55
	VU-B						
	VD-B						
TEE		19	34	51	64	79	106
*DEAD END PLUG		38	53	69	83	98	126
REDUCER							

MINIMUM DESIGN CRITERIA BEDDING
TYPE: 3
DESIGN PRESSURE: 150 PSI.
SAFETY FACTOR: 1.5
DEPTH OF COVER: 3.0 FT.

H-B: HORIZONTAL BEND
VU-B: VERTICAL-UP BEND
VD-B: VERTICAL-DOWN BEND
*CONSIDER VALVES AS A DEAD END PLUG

RESTRAINED JOINT-STANDARD — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

⚠ REMOVED DETAIL FOR POTABLE WATER METER BOX

NO.	BY	DATE	DESCRIPTION
1	-	-	-
2	FCD	10-17-2023	ADDRESSED COUNTY, PUCT, & DRPMD COMMENTS

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
DRAWN BY: FLORDELIZA DIMAKILING JOB NO.: 22-157
CHECKED BY: MICHAEL KNIGHT APPROVED BY: MICHAEL KNIGHT

SUNGUARD

UTILITY DETAILS

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

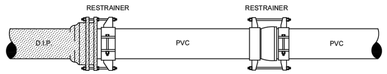
This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 54278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00000939

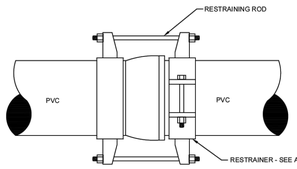
C-13

File: R:\Projects\County Sun City North Fire Station\Plans\Sun City N FS SITE Rev2. Plotted: 10/16/2024 8:26 AM by FLORDELIZA DIMAKILING, Saved: 10/15/2024 4:10 PM by FLOR

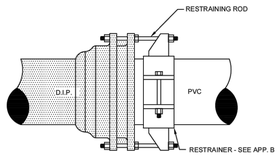
Exhibit No. W-7B



METHOD OF RESTRAINING PUSH-ON JOINT PIPE



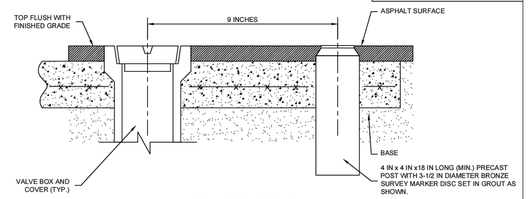
DETAIL PUSH-ON JOINT



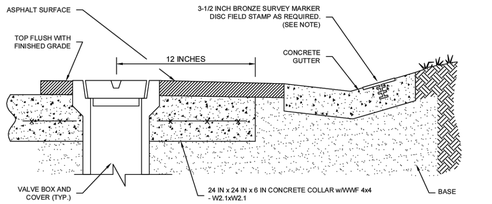
DETAIL M.J. JOINT

RESTRAINED JOINT FOR PVC C-900 PIPE (4 IN TO 12 IN)	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

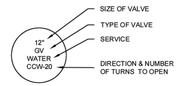
Exhibit No. W-9A



EXAMPLE "A"



EXAMPLE "B"

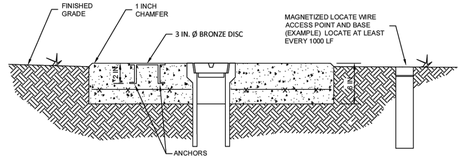


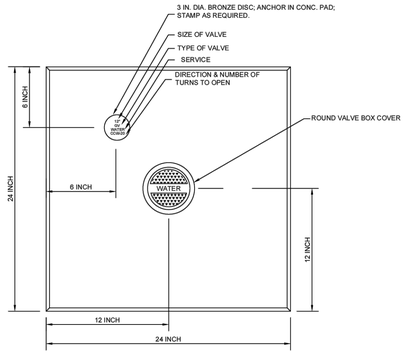
NOTE:
BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES.

MARKER DISC DETAIL

VALVE BOX & MARKER INSTALLATION FOR PAVED AREAS	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

Exhibit No. W-9B



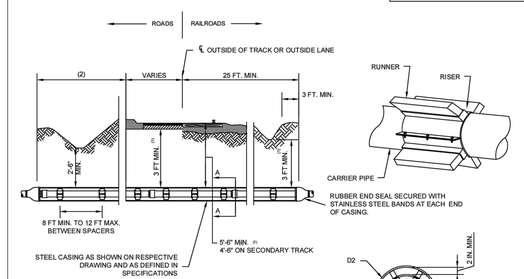


NOTES:

1. CONCRETE TO BE TYPE I GENERAL PORTLAND CEMENT WITH 3/4 IN. TOP SIZE AGGREGATE AND SHALL DEVELOP A 28-DAY STRENGTH OF 3000 psi
2. REINFORCING STEEL SHALL BE WELDED WIRE FABRIC 6x6 - W1.4 x W1.4
3. CONCRETE VALVE PAD SHALL BE POURED IN PLACE AND SHALL BE SET 1 IN. ABOVE FINISHED GRADE

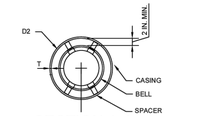
CONCRETE VALVE PAD (FOR UNPAVED AREAS)	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

Exhibit No. W-10



NOTES:

1. VERTICAL DIMENSIONS TYPICAL FOR CASINGS
2. WITH CURB: 6 FT STATE & 2 FT COUNTY ROADS MINIMUM
   WITHOUT CURB: 8 FT STATE & 4 FT COUNTY ROADS MINIMUM
3. STEEL CASING PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-200 AND ASTM A-139, GRADE B.
4. WHEN CASING IS INSTALLED WITHOUT BENEFIT OF A PROTECTIVE COATING, AND SAID CASING IS NOT CATHODICALLY PROTECTED, THE WALL THICKNESS SHOWN SHALL BE INCREASED TO THE NEAREST STANDARD SIZE WHICH IS A MINIMUM OF 0.063" GREATER THAN THE THICKNESS SHOWN EXCEPT FOR DIAMETERS LESS THAN 12.75 IN.
5. FOR REFERENCE ONLY.



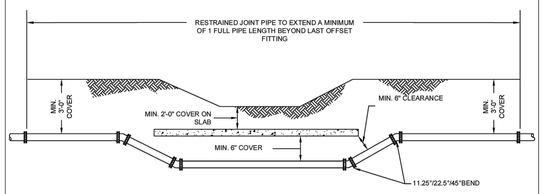
SECTION A-A

PRESSURE MAIN TO BE RESTRAINED WITH MANUFACTURERS RESTRAINED JOINTS THROUGH CASING. USE (3) SS CASING SPACER CENTERED ON EACH PIPE LENGTH.

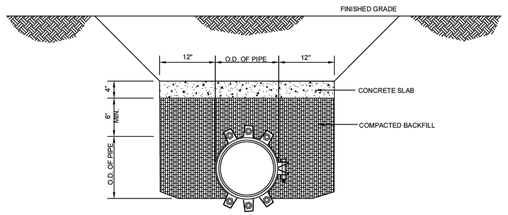
MINIMUM CASING SIZE AND THICKNESS (INCHES)																	
D.I.P.-M.J.	—	—	4	6	—	8	10	12	14	16	18	20	—	24	30	36	42	48
D.I.P.-P.O.	—	4	—	6	8	10	12	—	14	16	18	20	24	—	30	36	42	48
PVC	—	4	6	—	8	10	12	—	—	—	—	—	—	—	—	—	—	—
PVC FUSIBLE	4	6	8	10	12	—	—	—	—	—	—	—	—	—	—	—	—	—
(3) STEEL CASING PIPE (D2)	10	12	14	16	18	20	24	24	30	30	30	36	36	42	48	54	60	66
WALL THICKNESS (T) ROADS	.188	.188	.188	.25	.25	.25	.25	.25	.312	.312	.312	.375	.375	.5	.5	.5	.5	.5
(4) WALL THICKNESS (T) R.R.	.188	.188	.188	.219	.25	.281	.312	.312	.406	.406	.406	.469	.469	.562	.625	.719	.781	.875

CASING DETAILS JACK & BORE	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

Exhibit No. W-11



DITCH BOTTOM CLEARANCE DETAIL

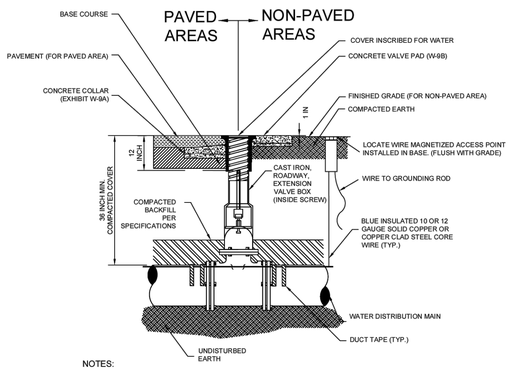


CONCRETE SLAB

NOTE: SLAB CONCRETE SHALL HAVE A MINIMUM OF 28 DAY COMPRESSIVE STRENGTH OF 3000 psi (min).

DITCH BOTTOM CLEARANCE AND CONCRETE PROTECTIVE SLAB	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

Exhibit No. W-12A

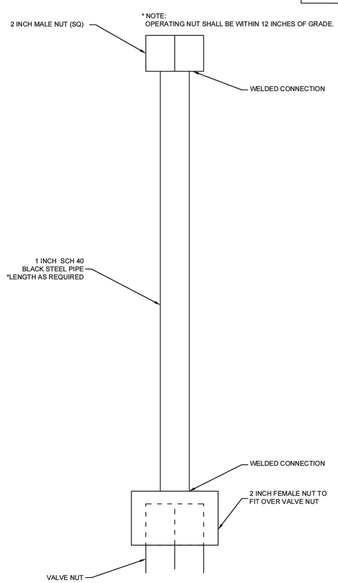


NOTES:

1. VALVE BOX EXTENSIONS MUST BE SET SO AS TO RESERVE 1/2 OF THE ADJUSTMENT LENGTH FOR FUTURE USE. VALVE BOX EXTENSIONS MUST BE CAST IRON.
2. THE VALVE OPERATING NUT MUST BE WITHIN 12 INCHES OF FINAL GRADE. A VALVE EXTENSION MUST BE INSTALLED AS NEEDED. REFER TO EXHIBIT W-12B.
3. ALL PIPE MUST BE INSULATED WITH 10 OR 12 GAUGE SOLID COPPER OR COPPER CLAD STEEL CORE LOCATING WIRE TAPED WITH 2 INCH WIDE DUCT TAPE AT THE 10:00 OR 2:00 POSITION ON THE PIPE AT EVERY JOINT AND 4 TO 5 FEET SPACING. REFER TO 331001 PART 4.3.13.
4. LOCATING WIRES TO TERMINATE AT MAGNETIZED ACCESS POINTS IN A BASE LOCATED NO MORE THAN OF 1000 LF APART. ACCESS POINTS TO BE TWO TERMINALS (MIN.) AND HAVE A GROUNDING ROD AT EACH ACCESS POINT AND BASE.
5. LOCATING WIRES MUST BE CAPABLE OF DETECTION BY A CABLE LOCATOR AND PASS A FIELD LOCATE TEST FROM THE POINT OF CONNECTION TO END OF WIRES THAT IS CERTIFIED BY THE EOR. THE TEST MUST BE BY THE CONTRACTOR OR BY A SUE FIRM.
6. SPLICES MUST BE CAPABLE OF COMPLETE SUBMERSION.
7. NO MORE THAN 6 SPLICES BETWEEN ACCESS POINTS.

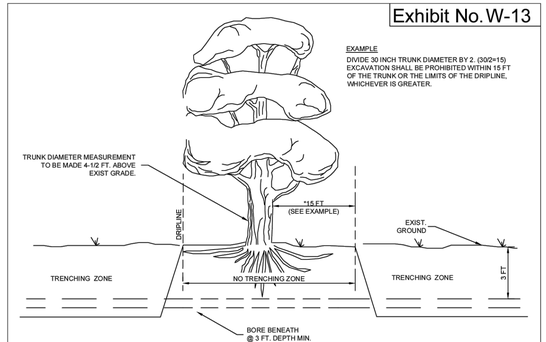
VALVE AND TRACER WIRE PAVED OR NON-PAVED AREAS	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

Exhibit No. W-12B

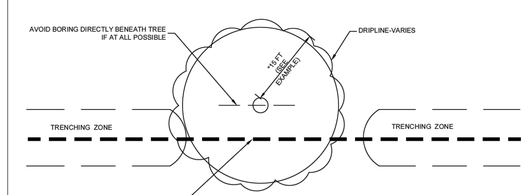


VALVE EXTENSION FOR GATE VALVES	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

Exhibit No. W-13



PROFILE VIEW



PLAN VIEW

BORING FOR UTILITIES	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

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REVISIONS						
NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			
5			

DESIGNED BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT
DRAWN BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
DATE: 05-10-2023
JOB NO.: 22-157

UTILITY DETAILS

SUN CITY NORTH FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 42278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

C-14

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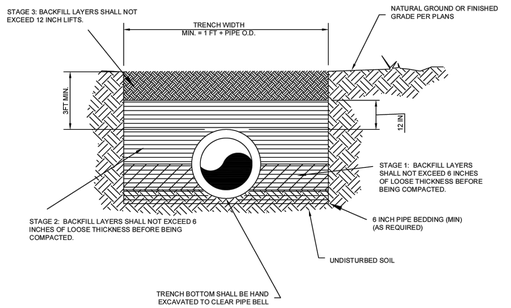
Exhibit No. W-14



NOTES:

1. TESTING: SEE SPECIFICATION 331001, PART 4.12 FOR TESTING REQUIREMENTS.
2. BEDDING: 6 INCHES BEDDING (MIN) AS REQUIRED. IN THE EVENT UNSUITABLE OR UNSTABLE SOIL IS ENCOUNTERED, REMOVE IT AND REPLACE WITH MATERIAL MEETING AASHTO SOIL CLASSIFICATION A-1, A-2, OR A-3. SEE SPECIFICATION 331001 PART 4.4.
3. STAGE 1: ADEQUATE COMPACTED FILL SHALL BE PLACED ABOVE THE BEDDING MATERIAL AND BENEATH THE HAUNCHES OF THE PIPE. BACKFILL LAYERS SHALL NOT EXCEED 6 INCHES OF LOOSE THICKNESS BEFORE BEING COMPACTED.
4. STAGE 2: BACKFILL LAYERS SHALL NOT EXCEED 6 INCHES OF LOOSE THICKNESS BEFORE BEING COMPACTED. COMPACTION SHALL BE 98% OF THE MAXIMUM DENSITY (AASHTO T-180/ASTM D1557) TO A POINT 1 FT ABOVE THE PIPE (OR AS STATED IN THE SPECIFICATION).
5. STAGE 3: BACKFILL LAYERS SHALL NOT EXCEED 12-INCH LIFTS. COMPACTION SHALL BE 98% OF THE MAXIMUM DENSITY (AASHTO T-180/ASTM D1557) OR AS STATED IN THE SPECIFICATION

TRENCH DETAIL
BACKFILL & COMPACTION — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No.

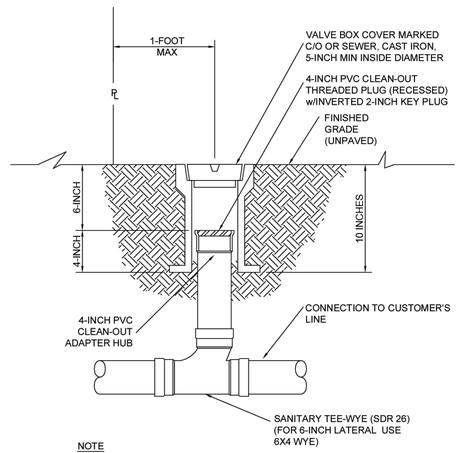
SEWER EXHIBITS

S-1A	CONFLICT MANHOLE-TYPE "A" WASTEWATER AND STORMWATER PIPES
S-1B	CONFLICT MANHOLE-TYPE "B" WASTEWATER AND STORMWATER PIPES
S-2A	TYPICAL PVC SANITARY SEWER NEW CONNECTION w/CLEAN-OUT
S-2B	CLEAN-OUT DETAIL w/VALVE BOX COVER
S-3A	STANDARD 48" PRECAST MANHOLE FOR SEWERS 16" OR LESS IN DIA. (SECTION VIEW)
S-3B	STANDARD 48" PRECAST MANHOLE FOR SEWERS 16" OR LESS IN DIA. (PLAN VIEW)
S-3C	STANDARD 60" PRECAST MANHOLE FOR SEWERS >16" DIA OR >15 FT DEEP
S-3D	STANDARD NOTES PRECAST MANHOLES
S-3E	SANITARY RING AND COVER
S-4	TYPICAL DROP MANHOLE-OUTSIDE (GRAVITY TO GRAVITY)
S-5	CASING DETAILS - JACK AND BORE
S-6	DITCH BOTTOM CLEARANCE AND CONCRETE PROTECTIVE SLAB
S-7	BORING FOR UTILITIES
S-8A	RESTRAINED JOINT-STANDARD
S-8B	RESTRAINED JOINT FOR PVC C-900 PIPE (4" TO 12")
S-9A	VALVE AND TRACER WIRE (PAVED OR NON-PAVED AREAS)
S-9B	VALVE EXTENSION FOR PLUG VALVES W/ SHEAR PIN
S-9C	LOCATE/TRACER WIRE MAGNETIZED TEST STATION/ACCESS POINTS
S-10	CONCRETE VALVE PAD FOR UNPAVED AREAS
S-11	VALVE BOX AND MARKER INSTALLATION FOR PAVED AREAS
S-12A	AUTOMATIC AIR RELEASE VALVE ASSEMBLY - STANDARD
S-12B	AUTOMATIC AIR RELEASE VALVE ASSEMBLY - OFFSET
S-12C	AUTOMATIC AIR RELEASE VALVE ASSEMBLY - OFFSET (NOT IN SERVICE)
S-12D	AIR RELEASE RING AND COVER
S-13A	STANDARD DUPLEX PUMP STATION MINIMUM SITE DIMENSIONS
S-13B	IN-FILL GRINDER PUMP STATION MINIMUM SITE DIMENSIONS
S-14A	TURNAROUND DETAIL LAYOUT "A" (WHEN REQUIRED)
S-14B	TURNAROUND DETAIL LAYOUT "B" (WHEN REQUIRED)
S-15	TRENCH DETAIL - BACKFILL AND COMPACTION

LISTING OF SEWER EXHIBITS — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No. S-2B



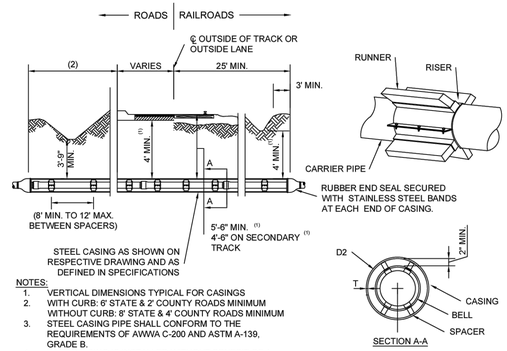
NOTE

1. ALL LATERALS PIPING AND FITTINGS SHALL BE GASKETED SDR 26 PVC
2. CLEANOUT SHALL NOT BE INSTALLED IN CONCRETE

CLEAN-OUT DETAIL
WITH VALVE BOX COVER — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No. S-5



NOTES:

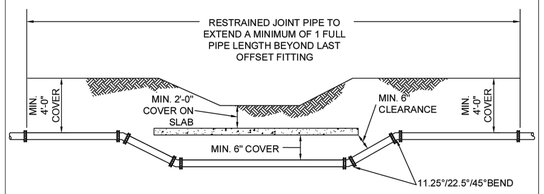
1. VERTICAL DIMENSIONS TYPICAL FOR CASINGS
2. WITH CURB: 6' STATE & 2' COUNTY ROADS MINIMUM WITHOUT CURB: 8' STATE & 4' COUNTY ROADS MINIMUM
3. STEEL CASING PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-200 AND ASTM A-139, GRADE B.
4. WHEN CASING IS INSTALLED WITHOUT BENEFIT OF A PROTECTIVE COATING, AND SAID CASING IS NOT CATHODICALLY PROTECTED, THE WALL THICKNESS SHOWN SHALL BE INCREASED TO THE NEAREST STANDARD SIZE WHICH IS A MINIMUM OF 0.063" GREATER THAN THE THICKNESS SHOWN EXCEPT FOR DIAMETERS LESS THAN 12.75".
5. FOR REFERENCE ONLY.

PRESSURE MAIN TO BE RESTRAINED WITH MANUFACTURER'S RESTRAINED JOINTS THROUGH CASING. USE (3) SS CASING SPACER CENTERED ON EACH PIPE LENGTH.

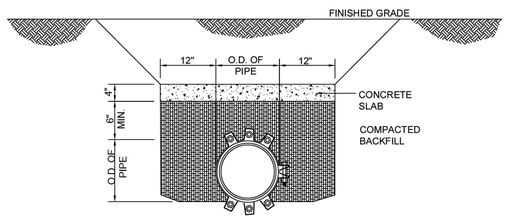
MINIMUM CASING SIZE AND THICKNESS																	
D.I.P.-M.J.	—	—	4"	6"	—	8"	10"	12"	—	—	14"	16"	18"	20"	—	24"	30"	36"	42"	48"
D.I.P.-P.O.	—	4"	—	6"	8"	10"	12"	—	—	—	14"	16"	18"	20"	24"	—	30"	36"	42"	48"
PVC	—	4"	6"	—	8"	10"	12"	—	—	—	—	—	—	—	—	—	—	—	—	—
PVC FUSIBLE	4"	6"	8"	10"	12"	14"	16"	—	—	—	—	—	—	—	—	—	—	—	—	—
(2) STEEL CASING PIPE (D2)	10"	12"	14"	16"	18"	20"	24"	24"	26"	28"	30"	30"	30"	36"	36"	42"	48"	54"	60"	66"
WALL THICKNESS (T) ROADS	.188"	.188"	.250"	.250"	.250"	.250"	.250"	.250"	.312"	.312"	.312"	.312"	.312"	.375"	.375"	.500"	.500"	.500"	.500"	.500"
(4) WALL THICKNESS (T) R.R.	.188"	.188"	.188"	.219"	.250"	.281"	.312"	.312"	.406"	.406"	.406"	.406"	.406"	.469"	.469"	.562"	.625"	.719"	.781"	.875"

CASING DETAILS
JACK & BORE — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

Exhibit No. S-6



DITCH BOTTOM CLEARANCE DETAIL



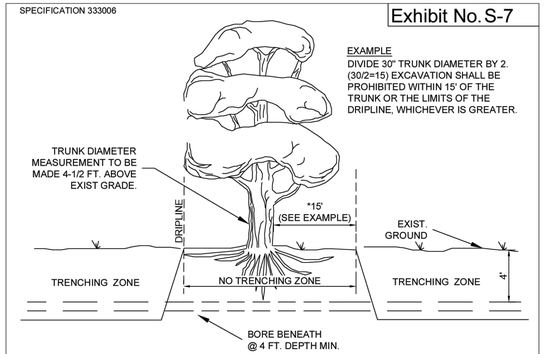
CONCRETE SLAB

NOTE: SLAB CONCRETE SHALL HAVE A MINIMUM OF 28 DAY COMPRESSIVE STRENGTH OF 3000 psi (min).

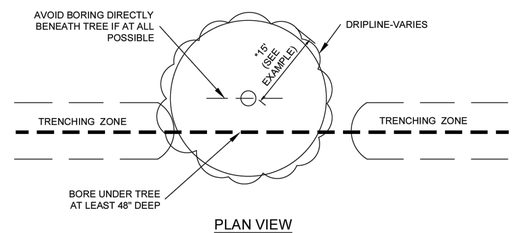
DITCH BOTTOM CLEARANCE
AND CONCRETE PROTECTIVE SLAB — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No. S-7



PROFILE VIEW

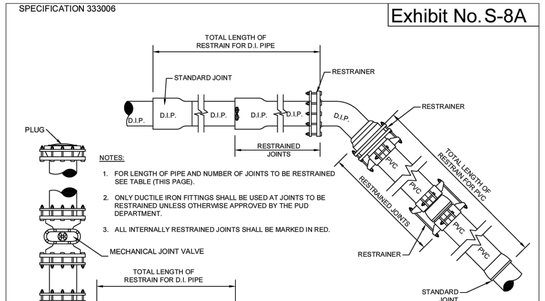


PLAN VIEW

BORING FOR UTILITIES — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No. S-8A



MINIMUM DESIGN CRITERIA BEDDING

TYPE: 3
DESIGN PRESSURE: 150 PSI.
SAFETY FACTOR: 1.5
DEPTH OF COVER: 4.0 FT.

DESIGN ENGINEER SHALL CALCULATE PROPER VALUES AND FILL IN TABLE PRIOR TO SUBMITTAL.

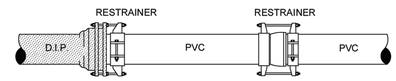
MINIMUM FOOTAGE OF PIPE RESTRAINT:		PIPE SIZE (INCHES)						
11-1/4"	H-B							
	VU-B							
	VD-B							
22-1/2"	H-B							
	VU-B							
	VD-B							
45°	H-B							
	VU-B							
	VD-B							
90°	H-B							
	VU-B							
	VD-B							
TEE								
* DEAD END PLUG								
REDUCER								

H-B: HORIZONTAL BEND
VU-B: VERTICAL-UP BEND
VD-B: VERTICAL-DOWN BEND
* CONSIDER VALVES AS BEAD END PLUGS

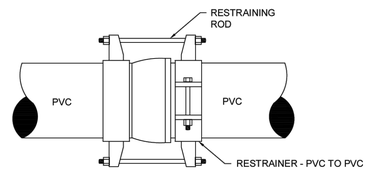
RESTRAINED JOINT-STANDARD — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

SPECIFICATION 333006

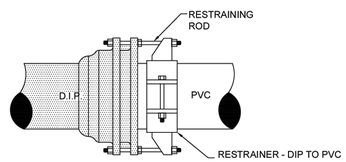
Exhibit No. S-8B



METHOD OF RESTRAINING PUSH-ON JOINT PIPE



DETAIL PUSH-ON JOINT



DETAIL M.J. JOINT

RESTRAINED JOINT
FOR PVC C-900 PIPE (4" TO 12") — 10/2021
HILLSBOROUGH COUNTY, FLORIDA — SCALE: N.T.S.

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NO.	BY	DATE	DESCRIPTION
5			
4			
3			
2			
1			

SNOISIVƎЯ

DRAWN BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
DATE: 05-10-2023
JOB NO.: 22-157

UTILITY DETAILS

SUN CITY NORTH FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA
CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 54278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

C-15

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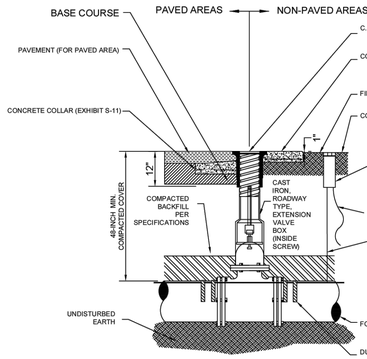
SPECIFICATION 333006

Exhibit No. S-9A

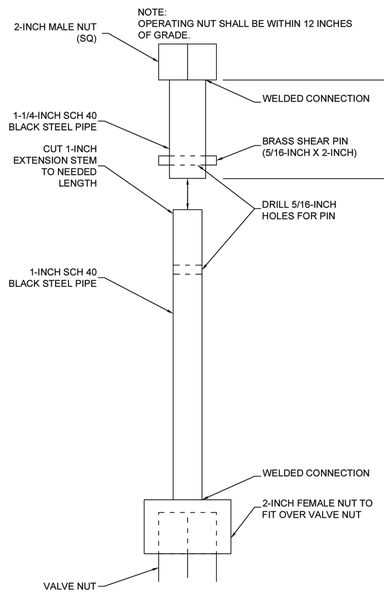


NOTES:
1. EXTENSION ON VALVE BOX MUST BE SET SO AS TO RESERVE 1/2 OF THE ADJUSTMENT LENGTH FOR FUTURE USE. VALVE BOX EXTENSIONS MUST BE CAST IRON.
2. THE VALVE OPERATING NUT MUST BE WITHIN 12 INCHES OF FINAL GRADE. EXTENSION TO BE PROVIDED AS NEEDED. REFER TO EXHIBIT S-9B.
3. ALL PIPE MUST BE INSULATED WITH 10 OR 12 GAUGE SOLID COPPER OR COPPER CLAD STEEL CORE LOCATING WIRE TAPED WITH 2 INCH WIDE DUCT TAPE AT THE 10:00 OR 2:00 POSITION ON THE PIPE AT EVERY JOINT AND 4 TO 5 FEET SPACING. WIRE FOR DIRECTIONAL DRILL APPLICATIONS MUST BE COPPER CLAD "HARD DRAWN" STEEL CORE WITH A MINIMUM BREAKING STRENGTH OF 1000 PSI. REFER TO 333002, PART 4.3.14
4. LOCATING WIRES TO TERMINATE AT GROUND LEVEL MAGNETIZED ACCESS POINTS IN A BASE LOCATED NO MORE THAN OF 1000 LF APART. ACCESS POINTS TO BE TWO TERMINALS (MIN.) AND HAVE A GROUNDING ROD AT EACH ACCESS POINT.
5. LOCATING WIRES SHALL BE CAPABLE OF DETECTION BY A CABLE LOCATOR AND PASS A FIELD LOCATE TEST THAT IS CERTIFIED BY THE ENGINEER OF RECORD OR THEIR REPRESENTATIVE. THE TEST MUST BE BY THE CONTRACTOR OR BY A SUE FIRM.
6. SPLICES SHALL BE CAPABLE OF COMPLETE SUBMERSION.
7. NO MORE THAN 6 SPLICES BETWEEN ACCESS POINTS.

VALVE AND TRACER WIRE PAVED OR NON-PAVED AREAS	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

SPECIFICATION 333006

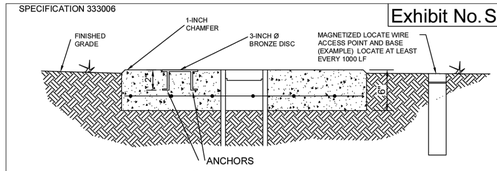
Exhibit No. S-9B



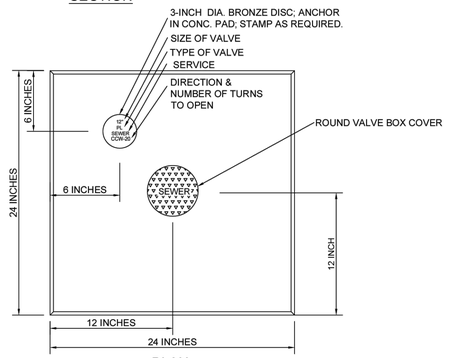
VALVE EXTENSION FOR PLUG VALVES W/SHEAR PIN	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No. S-10



SECTION



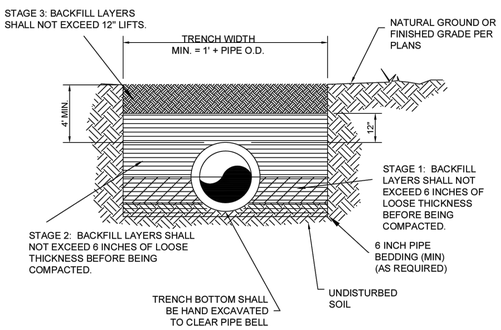
PLAN

NOTES:
1. CONCRETE TO BE TYPE I GENERAL PORTLAND CEMENT WITH 3/4" TOP SIZE AGGREGATE AND SHALL DEVELOP A 28-DAY STRENGTH OF 3000 P.S.I.
2. REINFORCING STEEL SHALL BE 6x6 - W 1.4xW 1.4 W.W.F.
3. CONCRETE VALVE PAD SHALL BE POURED IN PLACE AND SHALL BE SET 1/2" ABOVE FINISHED GRADE

CONCRETE VALVE PAD (FOR UNPAVED AREAS)	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

SPECIFICATION 333006

Exhibit No. S-15



NOTES:
1. TESTING: SEE 333001 or 333002, PART 4.11 FOR TESTING REQUIREMENTS.
2. BEDDING: 6 INCH BEDDING (MIN) AS REQUIRED. IN THE EVENT UNSUITABLE OR UNSTABLE SOIL IS ENCOUNTERED, REMOVE IT AND REPLACE WITH MATERIAL MEETING AASHTO SOIL CLASSIFICATION A-1, A-2, OR A-3. SEE 333001 or 333002 SECTION 4.4.
3. STAGE 1: ADEQUATE COMPACTED FILL SHALL BE PLACED ABOVE THE BEDDING MATERIAL AND BENEATH THE HAUNCHES OF THE PIPE. BACKFILL LAYERS SHALL NOT EXCEED 6 INCHES OF LOOSE THICKNESS BEFORE BEING COMPACTED.
4. STAGE 2: BACKFILL LAYERS SHALL NOT EXCEED 6 INCH OF LOOSE THICKNESS BEFORE BEING COMPACTED. COMPACTION SHALL BE 98% OF THE MAXIMUM DENSITY (AASHTO T-180/ASTM D1557) TO A POINT 1 FT ABOVE THE PIPE (OR AS STATED IN THE SPECIFICATION).
5. STAGE 3: BACKFILL LAYERS SHALL NOT EXCEED 12 INCH LIFTS. COMPACTION SHALL BE 98% OF THE MAXIMUM DENSITY (AASHTO T-180/ASTM D1557) OR AS STATED IN THE SPECIFICATION

TRENCH DETAIL BACKFILL & COMPACTION	10/2021
HILLSBOROUGH COUNTY, FLORIDA	SCALE: N.T.S.

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NO.	BY	DATE	DESCRIPTION
1	FLORDELIZA	05-10-2023	DRAWN BY: DIMAKILING
			CHECKED BY: KNIGHT
			APPROVED BY: KNIGHT
			JOB NO.: 22-157

SNOISIA

UTILITY DETAILS

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 42278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

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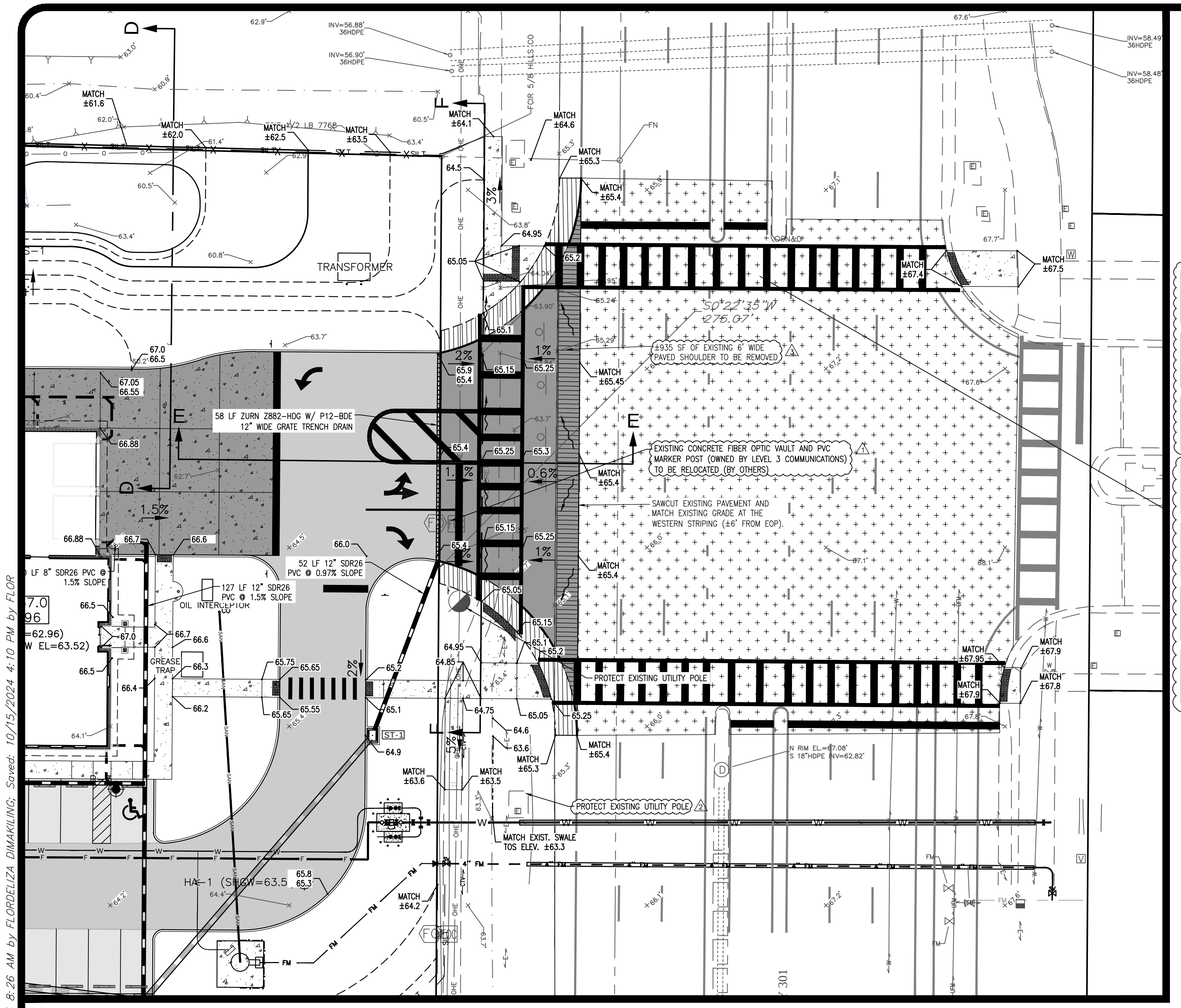
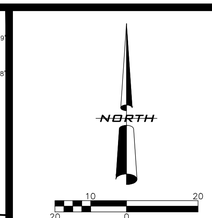
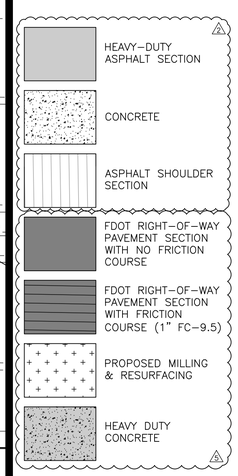






FDOT CONSTRUCTION NOTES – ACCESS:

1. ANY NEW PROPOSED PLAN SHALL INCLUDE CROSS SECTIONS OF THE STATE ROAD ADEQUATELY REFLECTING ALL RIGHT OF WAY FEATURES INCLUDING EXISTING UTILITIES, STORM DRAIN STRUCTURES AND ANY ABOVE OR BELOW GROUND APPURTENANCES WHERE APPLICABLE.
2. NO PEDESTRIAN PATHWAY IS TO BE REMOVED, BLOCKED, OR DISTURBED WITHOUT HAVING A SUFFICIENT DESIGNATED TEMPORARY PEDESTRIAN PATHWAY WITH ALL APPROPRIATE PEDESTRIAN MAINTENANCE OF TRAFFIC SIGNS (STANDARD PLAN 102-660) IN PLACE PRIOR TO PATHWAY BEING AFFECTED.
3. ALL TEMPORARY PEDESTRIAN PATHWAYS MUST BE FIRM AND UNYIELDING.
4. ANY SIDEWALK FRONTING THE PROPERTY THAT IS CRACKED, DAMAGED OR UNSTABLE AND IS CREATING AN ADA TRIP HAZARD MUST BE REPLACED BY SECTION, USING STANDARD #520-001, #522-002, AND #522-001 FOR THE CONSTRUCTION OF SIDEWALK AND MEET THE CURRENT ADA STANDARDS. ALL CONCRETE PLACED IN THE RIGHT OF WAY SHALL BE A MINIMUM OF 6" THICK, FDOT CERTIFIED CLASS 1 NON-STRUCTURAL, 57 STONE, 2500 PSI CONCRETE, WITH FIBER MESH MATERIAL FROM A FDOT APPROVED PLANT.
5. VERIFY AND ENSURE THAT THE EXISTING SIDEWALK IN THE ROW BEING RETAINED MEETS ADA REQUIREMENTS. ANY SIDEWALK FOUND DURING SUBSEQUENT SITE INSPECTIONS NOT MEETING CURRENT ADA AND FDOT DESIGN STANDARDS WILL BE REQUIRED TO BE REMOVED AND REPLACED.
6. THE DETECTIBLE WARNING SURFACE MATERIALS MUST BE ON THE STATE'S APPROVED PRODUCTS LIST. (NON-PROPRIETARY).
7. PERFORMED THERMOPLASTIC SHALL BE APPLIED AT 0.125 INCHES OR 125 MILS FOR THE INSTALLATION WITH TRAILING (BRACKETING) BLACK CONTRAST, MATERIALS UTILIZED MUST BE FROM THE FDOT APPROVED PRODUCT LIST (APL) AND INSTALLED PER THE MANUFACTURES INSTRUCTIONS AS DEFINED WITHIN FDOT SPECIFICATIONS 711-4.2.3. ANY SIDEWALKS DAMAGED AS A RESULT OF WORK BEING PERFORMED IN ASSOCIATION WITH THE PERMITTEE AND CONTRACTOR SHALL BE REMOVED AND REPLACED PER FDOT SPECIFICATIONS.
8. ANY SIDEWALK DISTURBED WILL BE REPLACED BY SECTION WITHIN 72 HOURS, TO FDOT SPECIFICATIONS.
9. PIPE CULVERTS SHOWN ON THE PERMIT MUST MEET FDOT SPECIFICATIONS, TYPE, SIZE, AND LENGTH AS DESCRIBED ON THE PERMIT. EACH JOINT OR LENGTH OF PIPE SHALL HAVE FDOT STAMPS AFFIXED VERIFYING THIS APPROVAL. ALL CONCRETE PIPE JOINTS OTHER THAN 1" RING JOINTS MUST BE DIAPERED. ALL CULVERTS TO BE INSPECTED BY FDOT PRIOR TO PLACEMENT OF FILL.
10. THE FDOT RETAINS THE RIGHT TO MAKE ALTERATIONS TO THE PERMIT, ATTACHED SKETCH OR CHARACTER OF WORK AS MAY BE CONSIDERED NECESSARY OR DESIRABLE DURING THE PROGRESS OF THE WORK FOR SATISFACTORY COMPLETION OF THE PROPOSED CONSTRUCTION.
11. THE PERMITTEE SHALL NOTIFY THE FDOT OF DATE OF COMPLETION, REQUEST A FINAL INSPECTION AND A NOTICE OF FINAL ACCEPTANCE.
12. ALL CONSTRUCTION AND/OR MAINTENANCE ON THE FDOT RIGHT OF WAY SHALL CONFORM TO THE FEDERAL MANUAL ON UNIFORM TRAFFIC DEVICES (MUTCD). THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, PLANS PREPARATION MANUAL AND DRAINAGE MANUAL.
13. NO LANE CLOSURES OF ANY STATE ROADWAY ARE ALLOWED WITHOUT 48-HOUR ADVANCE NOTICE AND APPROVAL FROM FDOT.
14. LANE CLOSURES MUST BE LIMITED TO SUNDAY THROUGH THURSDAY 8:00 PM TO 5:30 AM UNLESS OTHERWISE APPROVED BY THE FDOT.
15. LANE CLOSURE NEEDS TO ACCOMMODATE FOR A BIKE LANE IF THE ROADWAY CONSISTS OF ONE.
16. NO WORK SHALL BE PERFORMED DURING THE WEEKS OF ANY STATE OR FEDERAL HOLIDAYS UNLESS OTHERWISE APPROVED IN WRITING BY THE FDOT.
17. OPEN CUTTING OF ANY ROADWAY, DRIVEWAY, OR SIDEWALK OUTSIDE THOSE LIMITS IDENTIFIED WITHIN THE PERMIT ARE NOT ALLOWED WITHOUT PRIOR APPROVAL BY THE FDOT.
18. PRIOR TO THE REMOVAL OF ANY MATERIALS THE AREA MUST BE SAW-CUT TO PREVENT ANY DAMAGE TO THE ROADWAY.
19. THE CONTRACTOR SHALL HAVE AN AUTHORIZED PERSON AVAILABLE AT/OR NEAR THE WORK SITE ON 24-HOUR BASIS, 7 DAYS A WEEK IN ORDER TO ADDRESS EMERGENCY ISSUES ASSOCIATED WITH THE PROJECT.
20. NO STOCK PILING, STORING, OR SEMI-PERMANENT USE OF THE RIGHT OF WAY IS AUTHORIZED UNLESS SPECIFICALLY IDENTIFIED WITHIN THE PERMIT.
21. THE PERMITTED WORK SCHEDULE IS DEFINED AS MONDAY THROUGH FRIDAY 7:00 AM TO 5:30 PM UNLESS OTHERWISE NOTED WITHIN THE PERMIT. ANY VARIATION DESIRED OF THIS PERIOD MUST BE REQUESTED IN ADVANCE AND APPROVED BEFORE WORKING THE ALTERNATE SCHEDULE.
22. THE DEPARTMENT OF TRANSPORTATION RESERVES THE RIGHT TO MAKE ADJUSTMENTS TO ANY PERMITTED METHOD OF INSTALLATION, SCOPE, RESTORATION THAT MAY BE REQUIRED TO POSITIVELY SUPPORT LIFE, SAFETY, AND ENVIRONMENTAL WELL-BEING OF ALL USERS OF THE TRANSPORTATION SYSTEM.
23. ROADWAY RESTORATION SHALL UTILIZE 100 PSI EXCAVATABLE FLOWABLE FILL MATERIAL AND ASPHALT PLACED WITHIN THE STATE RIGHT-OF-WAY SHALL BE PLACED FULL-DEPTH, TWO 2.5-INCH LIFTS OF SP 12.5, TWO 1.5-INCH LIFTS OF SP 9.5. TYPICAL SECTIONS WILL NEED TO BE PROVIDED WITHIN THE PLANS FOR THE PAVEMENT PLACEMENT. A STAIR STEP METHOD SHOULD BE INCORPORATED, PRIOR TO PLACING ASPHALT, TO AVOID VERTICAL JOINTS. MILLING OF THE PATCH MAY BE REQUIRED BASED ON THE PATCHED SURFACE PERFORMANCE. THE MILLING SHALL BE UTILIZED FOR SURFACE LEVELING TO A THICKNESS EQUAL TO OR GREATER THAN THE EXISTING FRICTION COARSE MATERIAL. THE MILLING LIMITS ARE 50-FOOT OF THE MATCH ALONG THE LONGITUDINAL PATH OF THE LANE, FULL LANE WIDTH AND TO INCLUDE ANY ADJACENT BIKE LANES, SHARED PATH OR URBAN SHOULDER SECTIONS.
24. ANY DISRUPTIONS TO ANY PERMEABLE PEDESTRIAN WAY AND BIKE LANE ARE TO BE RESTORED AS WORK CONTINUES. ALL PATCHES SHALL BE FULL WIDTH FROM OUTSIDE EDGE OF PEDESTRIAN PATH TO WHITE LINE EDGE OF TRAVEL LANE WITH STAIR STEP (STAGGERED) JOINTS. RESTORATION TO INCLUDE BACKFILL WITH EXISTING SUB-GRADE MATERIAL AND #57 STONE AS BASE MATERIAL (COMPACT IN 6-INCH LIFTS) TO BOTTOM OF EXISTING PERVIOUS ASPHALT BASE, FOLLOWED BY PERMEABLE DESIGN MIX (IF AVAILABLE) OR FC-5 (FRICTION COURSE) MIX WITH A MINIMUM OF TWO 2-INCH AND A MAXIMUM OF TWO 3-INCH LIFTS. MAINTAIN INGRESS/EGRESS ON ALL DRIVES AND SIDE STREETS DURING CONSTRUCTION.
25. THE DEPARTMENT WILL REVIEW THE REVISIONS TO THE PLANS AND IF NEEDED CHANGES ARE NECESSARY THE DEPARTMENT WILL ADDRESS IT AT THAT TIME.
26. THE PERMITTEE/EOR/CONTRACTOR IS REQUIRED TO WORK START INITIATE THIS PERMIT OR AGREEMENT AND HOLD A PRE-CONSTRUCTION MEETING WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S INSPECTION STAFF A MINIMUM OF 2 WEEKS PRIOR TO BEGINNING ANY WORK WITHIN THE STATE RIGHT-OF-WAY, TO REVIEW CONSTRUCTION INSPECTION REQUIREMENTS.

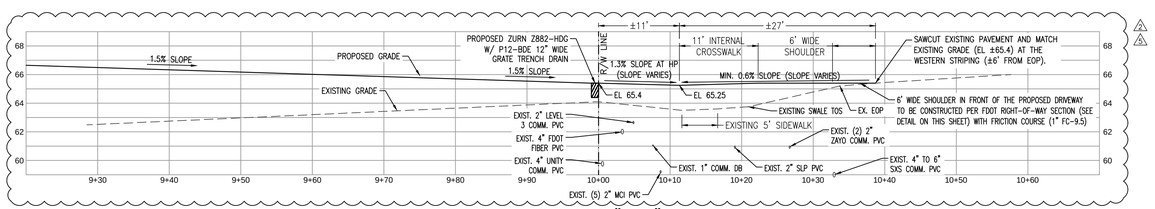
FDOT TEMPORARY TRAFFIC CONTROL PLAN NOTES:

1. FOR WORK WITHIN FDOT RIGHT-OF-WAY, THE CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN PREPARED UNDER THE DIRECTION OF, AND SIGNED AND SEALED BY, A LICENSED FLORIDA PROFESSIONAL ENGINEER WHO IS EXPERIENCED IN PREPARING TRAFFIC CONTROL PLANS AND WHO IS CERTIFIED PER FDOT PROCEDURE, TOPIC NO. 625-010-010.
2. FOR WORK WITHIN FDOT RIGHT-OF-WAY, THE FDOT REQUIRES DOCUMENTATION FOR SUCCESSFUL COMPLETION OF AN APPROVED WORK ZONE TRAFFIC CONTROL TRAINING COURSE FOR THE AGENCY, UTILITY, OR CONTRACTOR EMPLOYEE(S) DESIGNING, INSTALLING, AND/OR MAINTAINING THE APPROVED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH DEPARTMENT PROCEDURE, TOPIC NO. 625-010-010.
3. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT A MINIMUM 14 DAYS IN ADVANCE OF ANY LANE CLOSURES WITH LANE CLOSURE ANALYSIS IN ACCORDANCE WITH THE FLORIDA DESIGN MANUAL (FDM) SECTION 241.
4. ALL TEMPORARY TRAFFIC CONTROL DEVICES FOR THE FOLLOWING FACILITIES SHALL BE DESIGNED AND INSTALLED TO MEET THE EXISTING POSTED SPEEDS AS STATED FOR ALL TRAFFIC CONTROL PHASES: (SR 45/US 301, 55 MPH posted speed).

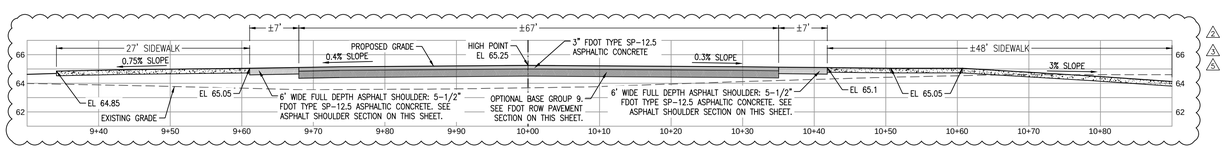
GOVERNING STANDARD PLANS:
- FLORIDA DEPARTMENT OF TRANSPORTATION, FY2023-24 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IRs).
- STANDARD PLANS FOR ROAD CONSTRUCTION AND ASSOCIATED IRs ARE AVAILABLE AT THE FOLLOWING WEBSITE: HTTP://WWW.FDOT.GOV/DESIGN/STANDARDPLANS
- APPLICABLE IRs: IR536-001-01, IR521-001-01
- STANDARD PLANS FOR BRIDGE CONSTRUCTION ARE INCLUDED IN THE STRUCTURES PLANS COMPONENT.

GOVERNING STANDARD SPECIFICATIONS:
- FLORIDA DEPARTMENT OF TRANSPORTATION, FY2023-24 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE: HTTP://WWW.FDOT.GOV//PROGRAMMANAGEMENT/IMPLEMENTED/SPECSBOOKS

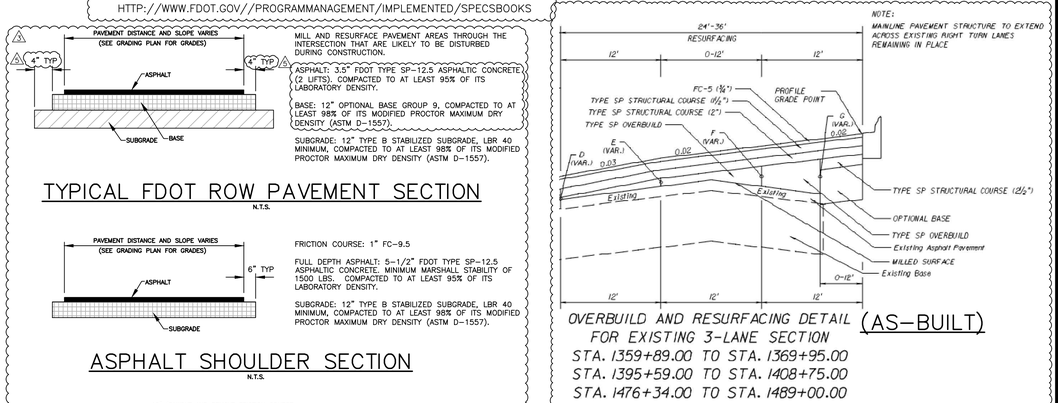
NOTES:
1. SIGNAL WILL BE DONE UNDER A SEPARATE CONSTRUCTION AGREEMENT FROM THE ACCESS PERMIT. SIGNAL WILL BE SUBMITTED/PERMITTED BY OTHERS.
2. ALL STRIPING WITHIN AND APPROACHING FDOT ROW SHALL BE THERMOSPLASTIC.
3. CONTRACTOR TO RESTORE AND MAINTAIN THE RIGHT-OF-WAY FOR THE DURATION OF THE PROJECT.
4. ALL DISTURBED AREAS IN THE FDOT RIGHT-OF-WAY WILL BE SODDED.



SECTION "E-E"
SCALE: 1"=10' HORZ
1"= 5' VERT

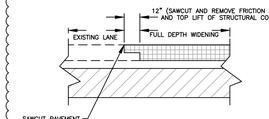


SECTION "F-F"
SCALE: 1"=10' HORZ
1"= 5' VERT



TYPICAL FDOT ROW PAVEMENT SECTION
N.T.S.

ASPHALT SHOULDER SECTION
N.T.S.



SAWCUT DETAIL
N.T.S.

OVERBUILD AND RESURFACING DETAIL FOR EXISTING 3-LANE SECTION (AS-BUILT)

STA. 1359+89.00 TO STA. 1369+95.00
STA. 1395+59.00 TO STA. 1408+75.00
STA. 1476+34.00 TO STA. 1489+00.00

MILLING AND RESURFACING NOTE:

REMOVE 3/4" FC-5 AND 1.5" FDOT TYPE SP-12.5 ASPHALTIC CONCRETE (1 LIFT) AND REPLACE WITH 1.5" FDOT TYPE SP-12.5 ASPHALTIC CONCRETE AND 3/4" FC-5.

CALL 48 HOURS BEFORE YOU DIG
It's the Law!
1-800-432-4770
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	BY	DATE	DESCRIPTION
5	FDD	04-26-2024	ADDRESSED FDOT COMMENTS
4	FDD	10-17-2023	ADDRESSED COUNTY, WATER & DRAINAGE COMMENTS
3	FDD	09-31-2023	FDOT SUBMITTAL
2			
1			

DRAWN BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
CHECKED BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
DATE: 05-10-2023
JOB NO.: 22-157

FDOT ACCESS PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

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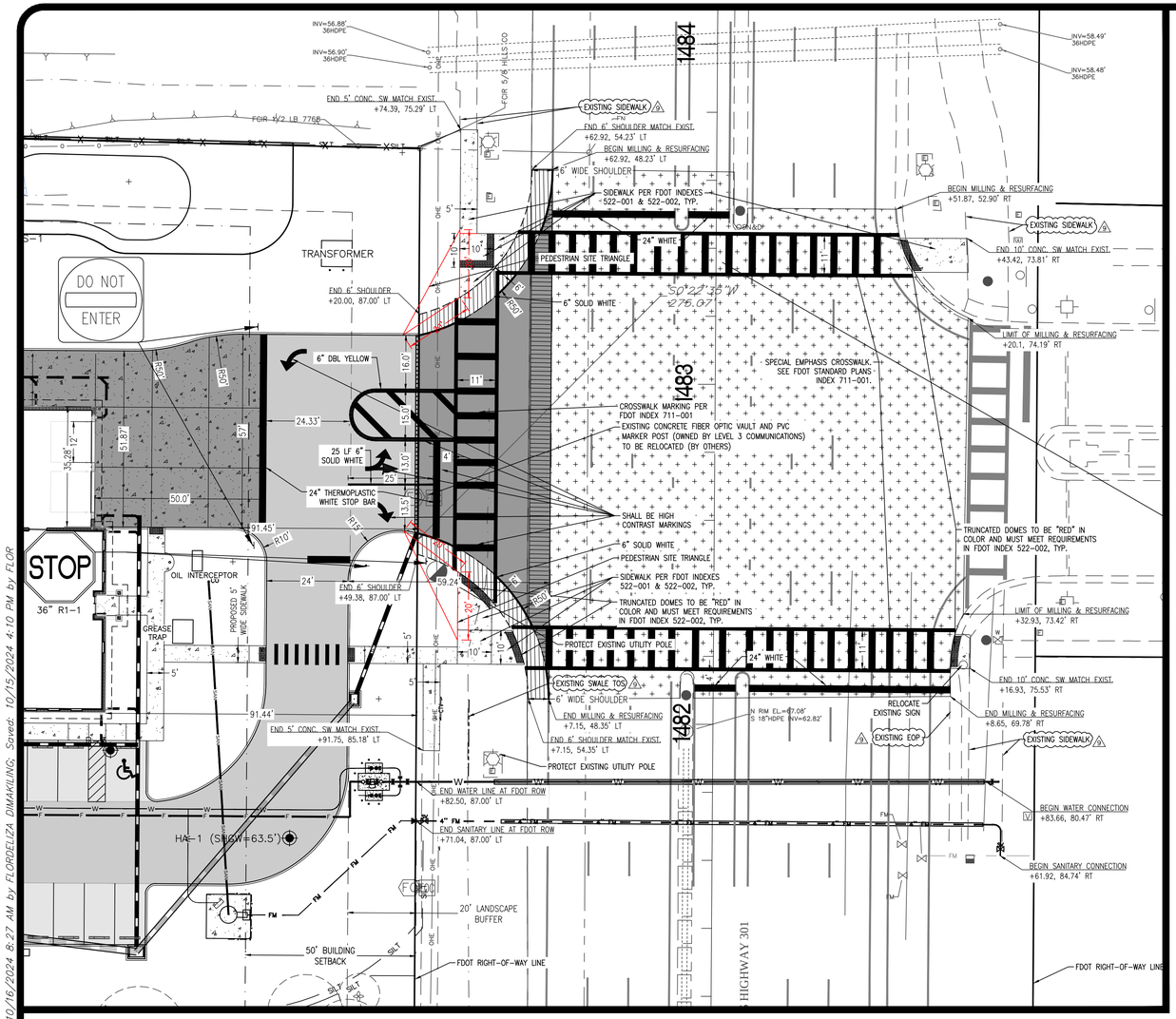
MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No.: 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No.: 00008909

C-17

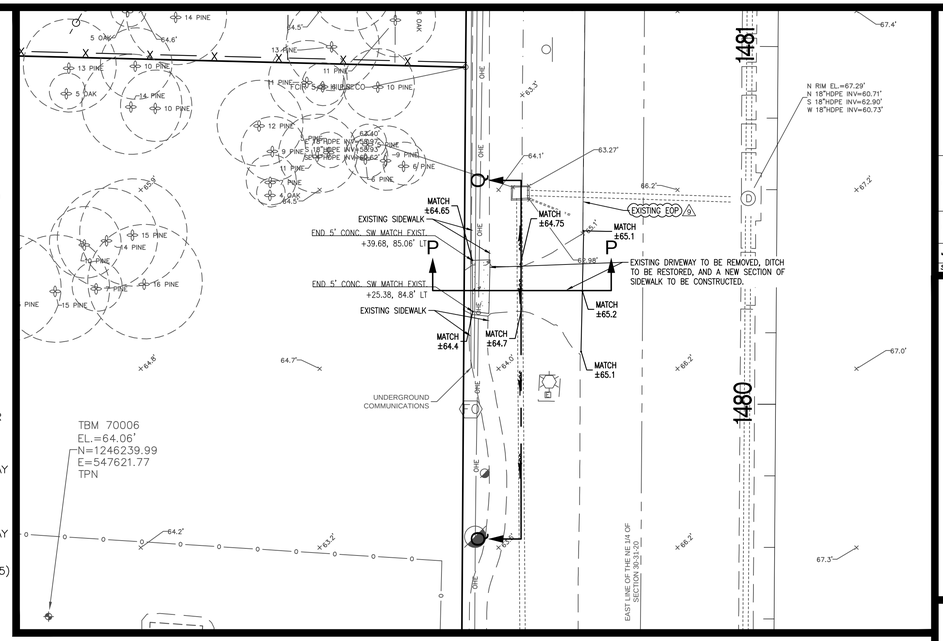
File: R:\Projects\County Sun City North Fire Station\Plans\Sun City N FS SITE Rev2; Plotted: 10/16/2024 8:26 AM by FLORDELIZA DIMAKILING; Saved: 10/15/2024 4:10 PM by FLOR

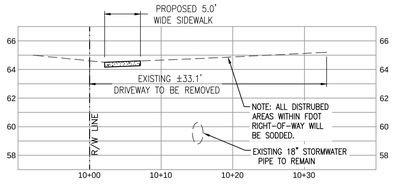


NORTH

SCALE: 1" = 20'

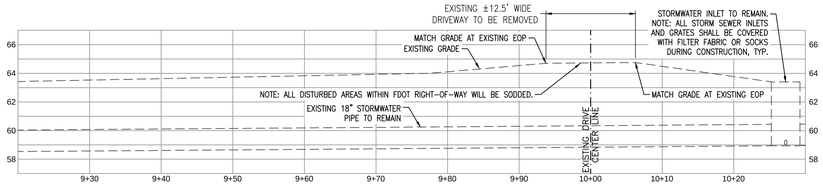
- HEAVY-DUTY ASPHALT SECTION
- CONCRETE
- ASPHALT SHOULDER SECTION
- FDOT RIGHT-OF-WAY PAVEMENT SECTION WITH NO FRICTION COURSE
- FDOT RIGHT-OF-WAY PAVEMENT SECTION WITH FRICTION COURSE (1" FC-9.5)
- PROPOSED MILLING & RESURFACING
- HEAVY DUTY CONCRETE





SECTION "E-E"

SCALE: 1"=10' HORZ
1"= 5' VERT



SECTION "F-F"

SCALE: 1"=10' HORZ
1"= 5' VERT

NO.	BY	DATE	DESCRIPTION
5	FLORDELIZA	10-16-2024	SNOISIVER
4	DIMAKILING	10-15-2024	
3			
2			
1			

DRAWN BY: FLORDELIZA DIMAKILING 04-26-2024
APPROVED BY: MICHAEL KNIGHT
JOB NO.: 22-157

FDOT GEOMETRIC AND STRIPING PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC.
610 E. Morgan Street Brandon, FL 33510 (813)643-0907

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MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00008909

C-17A

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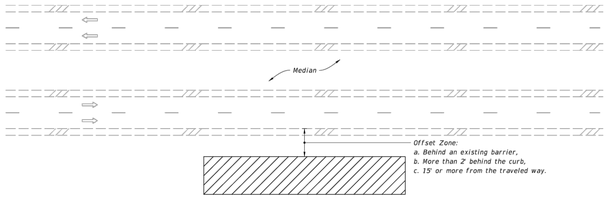


MULTILANE ROADWAY SHOWN, TWO-LANE ROADWAY SIMILAR

NOTES:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work beyond the shoulder.
2. Use Index 102-602 when the work operation (excluding establishing and terminating the work area) requires that two or more work vehicles cross the Offset Zone in any one hour period.
3. Use Index 102-660 when Work Area encroaches a Sidewalk.

SYMBOLS:

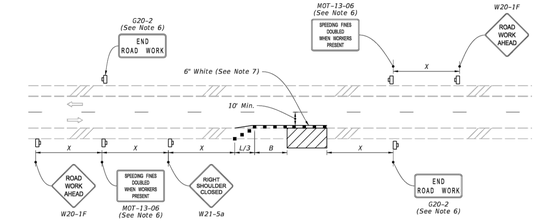
- Work Area
- Lane Identification and Direction of Traffic

10/17/2023 8:27:21 AM

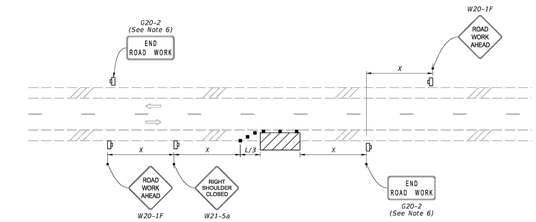
LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	TWO-LANE AND MULTILANE ROADWAY, WORK BEYOND THE SHOULDER	INDEX	SHEET
11/01/20	REVISION			102-601	1 of 1

NOTE:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work on the shoulder.
2. L = Taper Length
   X = Work Zone Sign Spacing
   B = Buffer Length
   See Index 102-600 for "L", "X", "B", and channelizing device spacing values.
3. Where work activities are between 2' and 15' from the edge of traveled way, the Engineer may omit signs and channelizing devices for work operations 60 minutes or less.
4. When four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), use a flagger or lane closure to accommodate work vehicle ingress and egress.
5. For work less than 2' from the traveled way and work zone speed is greater than 45 MPH, use a lane closure.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" Signs (G20-2) along with the associated work zone sign spacing distances may be omitted when the work operation is in place for 24 hours or less.
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
8. Omit "Shoulder Closed" signs (W21-5a) along with associated work zone sign spacing distances for work on the median.
9. When there is no paved shoulder, the "Worker" sign (W21-1) may be used instead of the "Shoulder Closed" sign (W21-5a).



TWO-LANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY WITH WORK ZONE SPEED OF 45 MPH OR LESS



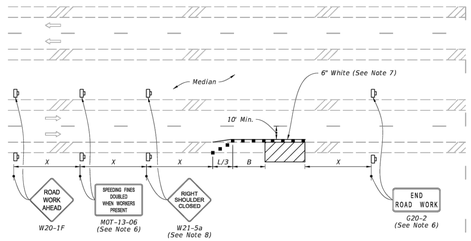
TWO-LANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

SYMBOLS:

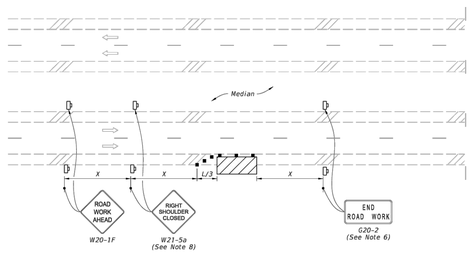
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic

10/17/2023 8:27:28 AM

LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/21	REVISION			102-602	1 of 2



MULTILANE ROADWAY
SHOULDER WORK LESS THAN 2' FROM THE TRAVELED WAY WITH WORK ZONE SPEED OF 45 MPH OR LESS



MULTILANE ROADWAY
SHOULDER WORK BETWEEN 2' AND 15' FROM THE TRAVELED WAY

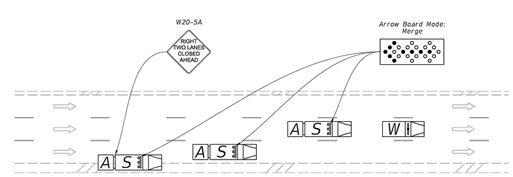
SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic

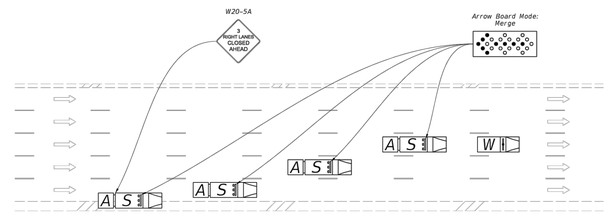
10/17/2023 8:27:35 AM

LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	TWO-LANE AND MULTILANE, WORK ON SHOULDER	INDEX	SHEET
11/01/20	REVISION			102-602	2 of 2

WORK IN TRAVELED WAY - MULTILANE ROADWAY, SINGLE LANE CLOSURE



WORK IN TRAVELED WAY - MULTILANE ROADWAY, DOUBLE LANE CLOSURE



WORK IN TRAVELED WAY - MULTILANE ROADWAY, TRIPLE LANE CLOSURE

SYMBOLS:

- Work Vehicle With Warning Lights
- Shadow (S) Vehicle With Warning Lights And Arrow Board
- Truck/Trailer Mounted Attenuator (TMA)
- Lane Identification and Direction of Traffic

10/17/2023 8:27:42 AM

LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	MOBILE OPERATIONS	INDEX	SHEET
11/01/22	REVISION			102-607	2 of 2

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NO.	BY	DATE	DESCRIPTION
1	FDD	04-26-2024	ADDRESSED FDOT COMMENTS
2	FDD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS

SNOISIA3

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
CHECKED BY: FLORDELIZA DIMAKILING JOB NO.: 22-157
APPROVED BY: MICHAEL KNIGHT

FDOT INDEXES

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

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FLORIDA P.E. No. 42678
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006899

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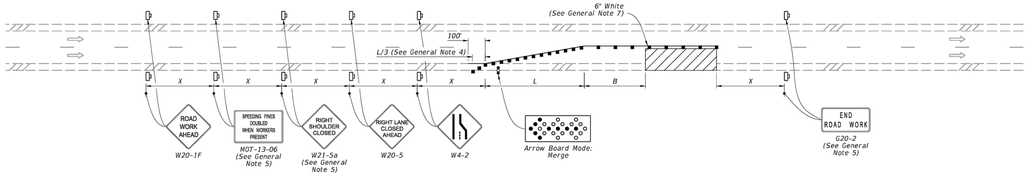


SINGLE LANE CLOSURE

SYMBOLS:

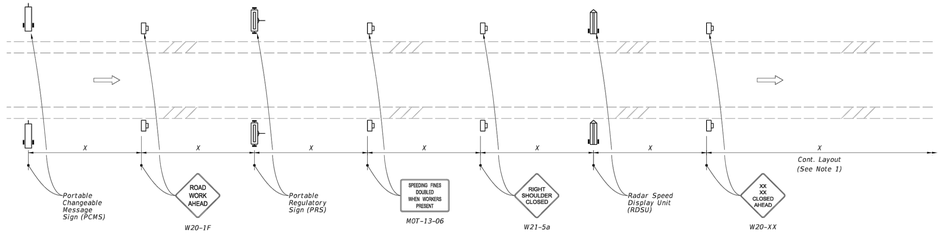
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic

GENERAL NOTE:

1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", and channelizing device spacing values.
2. On undivided highways the median signs as shown are to be omitted.
3. On limited access facilities, omit "Right Shoulder Closed" signs (W21-5a) and associated work zone sign spacing distances.
4. If the paved shoulder is less than 4' in width, omit the taper and channelizing devices from the paved shoulder.
5. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2) and "Right Shoulder Closed" (W21-5a), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less. For Single Lane Closures, arrow boards and buffer (B) may also be omitted when the work operation will be in place for 60 minutes or less and the speed limit is 45 mph or less.
6. Use inverted plan of the illustrations for work on left side of roadways.
7. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.

10/17/2023 8:24:06 AM

LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX	SHEET
11/01/21				102-613	1 of 5



MOTORIST AWARENESS SYSTEM

SYMBOLS:

- Work Zone Sign
- (1) PCMS= Portable Changeable (Variable) Message Sign
- (2) PRS= Portable Regulatory Sign-Speed Limit When Flashing
- (2) RSDU= Radar Speed Display Unit
- Lane Identification and Direction of Traffic

NOTES:

1. Use the Motorist Awareness System (MAS) for lane closures of at least 5 days (consecutive or not) on multilane divided facilities with a posted speed of 55 mph or greater when workers are present and not protected by a barrier.
2. Locate the Motorist MAS devices (i.e., PCMS, PRS, and RDSU) within the advance warning signs as shown. Continue with the remainder of the work zone signs and devices in accordance with the Plans or Standard Plans after the appropriate "Lane Closed Ahead" (W20-XX) sign.
3. For a posted speed of 65 mph or greater, display speed with a ten mph reduction. For a posted speed of 60 mph, display a reduced speed of 55 mph. For areas outside of the lane closure, use the posted speed as the work zone speed.
4. Omit the PCMS in the median for roadways with three lanes or less in the same direction of traffic.

TYPICAL PCMS DISPLAY:

With speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: SPEED REDUCED NEXT XXMI

Without speed reduction:
Message 1: WORKERS PRESENT AHEAD
Message 2: NEXT XX MILES

10/17/2023 8:24:32 AM

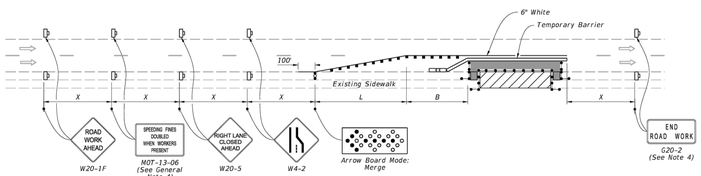
LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	MULTILANE ROADWAY, LANE CLOSURES	INDEX	SHEET
11/01/21				102-613	5 of 5

NOTES:

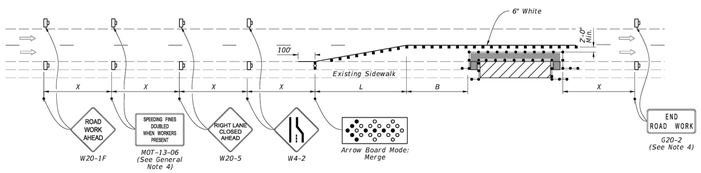
1. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", channelizing device spacing values.
2. Provide a 5' wide temporary pedestrian way with a maximum cross-slope of 0.02, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary pedestrian ways less than 5' in width at intervals not to exceed 200'.
3. When temporary pedestrian ways require curb ramps, meet the requirements of Index 522-002. Detectable warnings are not required for curb ramps diverting pedestrian traffic into a closed lane.
4. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less.
5. Pedestrian Diversion Option 2 may only be used when called for in the Plans or as approved by an Engineer.

SYMBOLS:

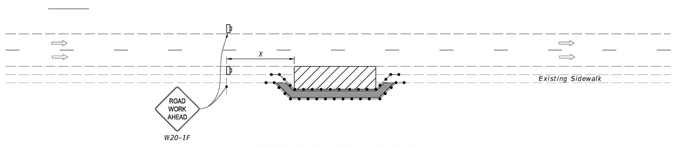
- Work Area
- Temporary Pedestrian Way
- Channelizing Device (See Index 102-600)
- Pedestrian Longitudinal Channelizing Device (LCD)
- Work Zone Sign
- Arrow Board
- Crash Cushion
- Lane Identification and Direction of Traffic



PEDESTRIAN DIVERSION - OPTION 1
(Temporary Barrier Shown, Low Profile Barrier Similar)



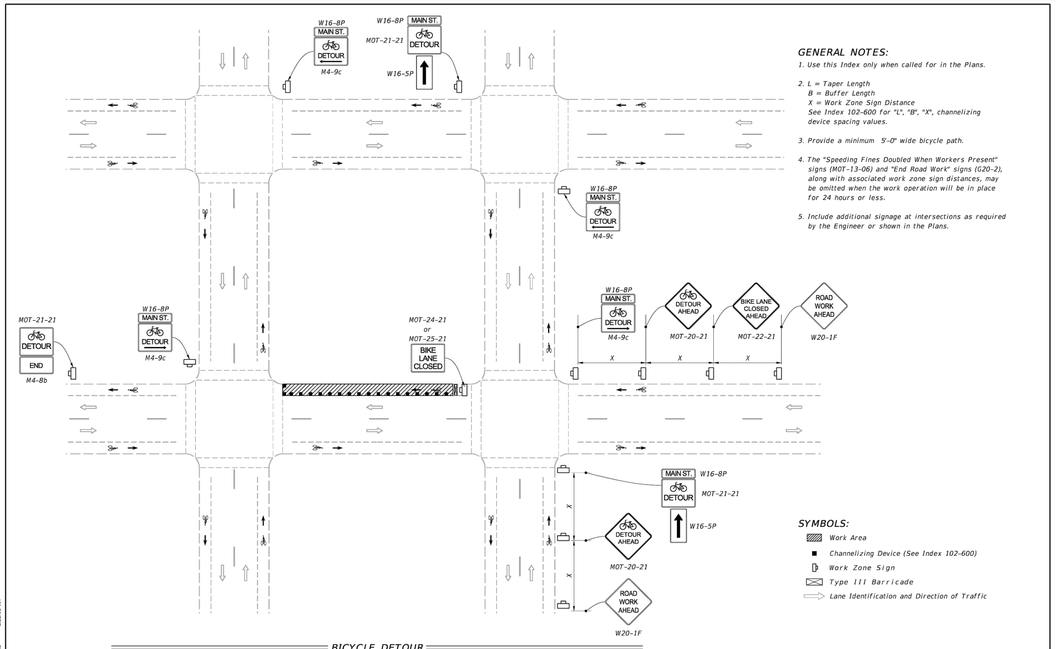
PEDESTRIAN DIVERSION - OPTION 2
(Work Zone Speed 45 mph or Less)



PEDESTRIAN SPECIAL DETOUR

10/17/2023 8:26:07 AM

LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	SIDEWALK CLOSURE	INDEX	SHEET
11/01/23				102-660	2 of 2



BICYCLE DETOUR

GENERAL NOTES:

1. Use this Index only when called for in the Plans.
2. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Distance
   See Index 102-600 for "L", "B", "X", channelizing device spacing values.
3. Provide a minimum 5'-0" wide bicycle path.
4. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less.
5. Include additional signage at intersections as required by the Engineer or shown in the Plans.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Lane Identification and Direction of Traffic

10/17/2023 8:26:13 AM

LAST REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	BICYCLE FACILITY CLOSURES	INDEX	SHEET
11/01/21				102-661	1 of 2

NO.	BY	DATE	DESCRIPTION
1	FDO	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
2	FDO	04-26-2024	ADDRESSED FDOT COMMENTS
-	-	-	-
-	-	-	-
-	-	-	-

SNOISIAЯ

DESIGNED BY: FLORDELIZA DIMAKILING 05-10-2023
CHECKED BY: FLORDELIZA DIMAKILING JOB NO.: 22-157
APPROVED BY: MICHAEL KNIGHT

FDOT INDEXES

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AUTRORA
CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 45278
AURORA ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

C-19

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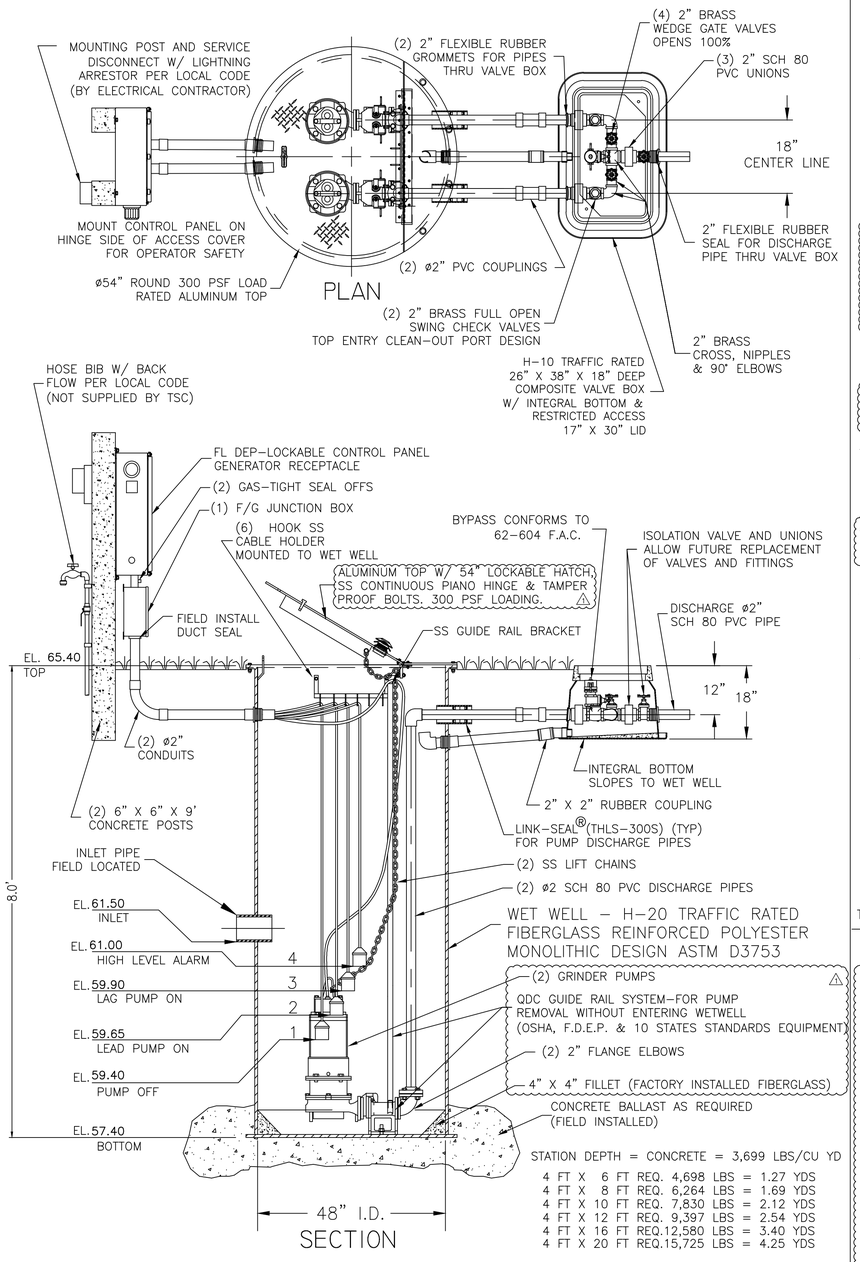
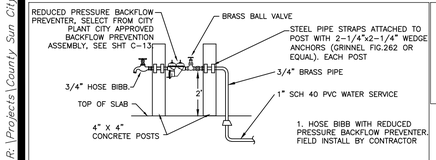


STATION DEPTH = CONCRETE = 3,699 LBS/CU YD

4 FT X 6 FT REQ. 4,698 LBS = 1.27 YDS
4 FT X 8 FT REQ. 6,264 LBS = 1.69 YDS
4 FT X 10 FT REQ. 7,830 LBS = 2.12 YDS
4 FT X 12 FT REQ. 9,397 LBS = 2.54 YDS
4 FT X 16 FT REQ.12,580 LBS = 3.40 YDS
4 FT X 20 FT REQ.15,725 LBS = 4.25 YDS

48" DUPLEX STATION - 2" PIPING WITH SLIDE RAIL SYSTEM, V.B. AND F.D.E.P. PANEL TSC PRE-FAB PUMP SOLUTIONS©

MODEL
TSC2-48.3 R21.dwg©



WATER SERVICE DETAIL
NOT TO SCALE

NOTE:
AN UNOBSTRUCTED SIGN MADE OF DURABLE WEATHER RESISTANT MATERIAL SHALL BE POSTED AT A LOCATION VISIBLE TO THE PUBLIC. THE SIGN SHALL HAVE MINIMUM 2 HIGH LETTERS AND WILL INCLUDE A TELEPHONE NUMBER FOR A POINT OF CONTACT IN CASE OF EMERGENCY.

COORDINATE EMERGENCY CONTACT INFORMATION WITH OWNER

1. HOSE BIBB WITH REDUCED PRESSURE BACK FLOW PREVENTER FIELD INSTALL BY CONTRACTOR
2. GROUT FILLET (1 TO 1 SLOPE TO "HOPPER" BOTTOM)

GENERAL NOTES

FURNISH AND INSTALL LIBERTY SUBMERSIBLE GRINDER PUMPS:
DESIGN CONDITION:

MODEL	LIBERTY LGV	10	HP
GPM	82	146	FT/TDH
VOLTAGE	208/230 OR 460	THREE	PHASE
DISCHARGE	2"	7"	IMPELLER

CONTRACTOR TO VERIFY WITH PROJECT ELECTRICAL DESIGNER FOR AVAILABILITY OF SINGLE & 3 PHASE POWER BEFORE PURCHASING PUMPS.

SEWAGE GRINDER PUMP:

1. RATED FOR FIFTEEN (15) STARTS PER HOUR.
2. OIL FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS H INSULATION.
3. DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE / SILICON CARBIDE)
4. HIGH TEMPERATURE BALL BEARINGS B-10 RATING OF 100,000 HOURS, UPPER - SINGLE ROW, LOWER - DOUBLE ROW
5. PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.
6. MOTORS SHALL BE DUAL WOUND AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260) OR OPERATE ON 460 VOLT BY CHANGING THE MOTOR LEADS INSIDE THE PUMP.

FIBERGLASS WET WELL: SHALL BE A ONE PIECE UNIT WITH INTEGRAL BOTTOM, WALL AND UPPER FLANGE. THE ENTIRE FIBERGLASS WET WELL SHALL HAVE A DYNAMIC LOAD RATING OF 16,000 FT/LBS. EACH UNIT MUST BE SERIAL NUMBERED TO IDENTIFY THE TEST PROCEDURE. ASTM D 3753 & H-20 SPECIFICATIONS SHALL BE REQUIRED AS MINIMUM.

ALUMINUM HATCH: TSC MODEL-54FM (54") ROUND WITH LOCKABLE HATCH, REINFORCED FOR LOAD RATING OF 300 LBS/FT WITH HOLD OPEN SAFETY ARM, LOCKING DEVICE FOR HASP TYPE PADLOCK AND STAINLESS STEEL HARDWARE.

VALVE BOX: FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED) WITH INTEGRAL BOTTOM. (FOR 1 1/4" AND 2" DISCHARGE PIPING SXS HEADER SYSTEM) SHALL BE 26" X 38" X 18" WITH 17" X 30" LIMITED ACCESS LID

ACCESSORIES: #304 S/S - GUIDE RAILS, UPPER GUIDE RAIL BRACKETS, CABLE HOLDER, ANCHOR BOLTS AND PUMP LIFTING CHAINS.

VALVES : SHALL BE SEWAGE SERVICE DESIGN BRASS SWING CHECK VALVES WITH TOP ENTRY CLEAN-OUT PORT AND BRASS WEDGE GATE VALVES OPEN 100%.

PIPING: 2" SCHEDULE 80 PVC.

FLOAT SWITCHES: UL LISTED SJ ELECTRO MODEL (SJ 30 SWENO).

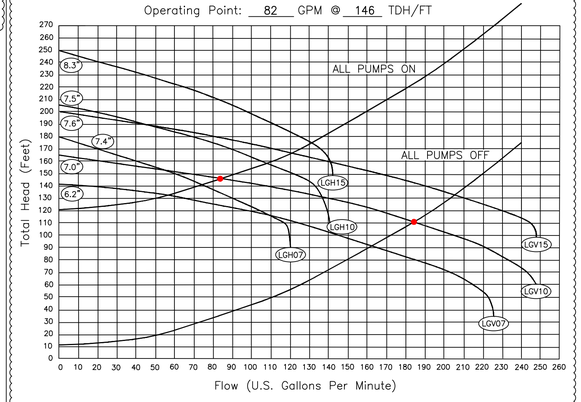
PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, JUNCTION BOX, FLOAT SWITCHES, ALUMINUM HATCH AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.

THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, SLIDE RAIL ASSEMBLIES AND DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION.

THE MANUFACTURER OF PRE-FAB PUMP SOLUTIONS©:
TECHNICAL SALES CORPORATION, 4621 N. HALE AVE TAMPA, FL 33614 (813)876-9256

LIBERTY ENGINEERED PRODUCTS

LGV, LGH 7.5, 10, 15HP Synchronous Speed: 3450 RPM
Three Phase 2 Inch Discharge
Operating Point: 82 GPM @ 146 TDH/FT



PUMP PERFORMANCE CURVE

CONTROL PANEL -SHALL CONFORM TO FL DEP 62-604 F.A.C.

CONTROL PANEL SHALL BE TSC MODEL # 38-D IN NEMA 4X FIBERGLASS ENCLOSURE. THE PANEL SHALL MEET STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), ENVIRONMENTAL PROTECTION COMMISSION (EPC) AND LOCAL CODE REQUIREMENTS GOVERNING PRIVATE LIFT STATIONS.

FLOAT SWITCHES AND CONTROL SYSTEM SHALL BE UL LISTED AND INTRINSICALLY SAFE. ALL COMPONENTS SHALL BE UL LISTED.

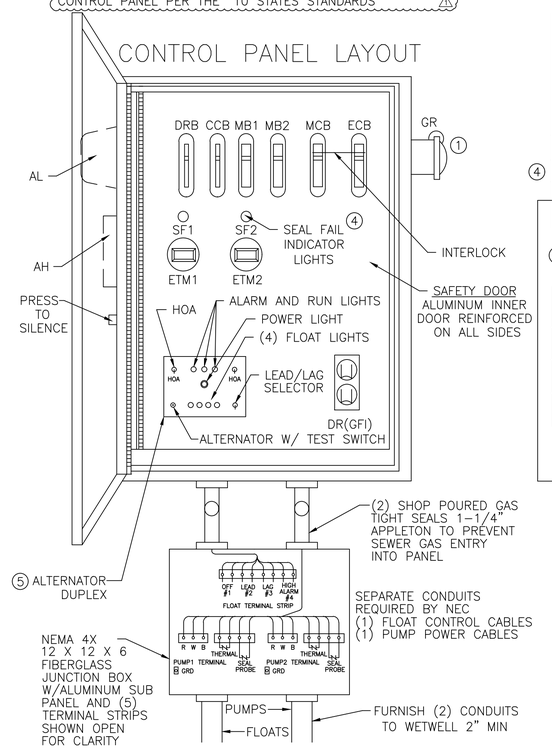
A JUNCTION BOX IS REQUIRED, WITH SHOP POURED SEALS BETWEEN BOX AND CONTROL PANEL TO PREVENT SEWER GAS ENTRY INTO CONTROL PANEL.

ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT WITH LIGHTNING ARRESTOR MOUNTED PER LOCAL CODES.

THE CONTROL PANEL SHALL BE SUITABLY INSTALLED TO PREVENT SETTLING OR TIPPING.

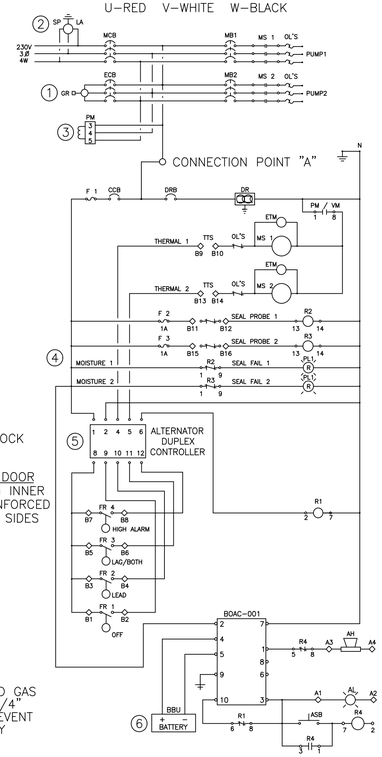
BATTERY BACK-UP ALARM SYSTEM TO BE INCORPORATED INTO CONTROL PANEL PER THE "10 STATES STANDARDS"

CONTROL PANEL LAYOUT



THREE PHASE WIRING DIAGRAM

U-RED V-WHITE W-BLACK



LEGEND

	AH	ALARM HORN
	AL	ALARM LIGHT
	ASB	ALARM SILENCE BUTTON
(5)	ATS	ALTERNATOR W/TEST SWITCH
(6)	BBU	BATTERY (BACK-UP UNIT)
	CCB	CONTROL CIRCUIT BREAKER
	DR	DUPLEX RECEPTACLE
	DRB	DUPLEX RECEPTACLE BREAKER
	ECB	EMERGENCY CIRCUIT BREAKER
	ETM	ELAPSED TIME METER
	F	FUSE
	FL	FLASHER
	FS	FLOAT SWITCH (REGULATOR)
(1)	GR	GENERATOR RECEPTACLE
	GRD	GROUND
	HOA	HAND-OFF-AUTOMATIC SELECTOR
	LA	LIGHTNING ARRESTOR
	MB	MOTOR BREAKER
	MCB	MAIN CIRCUIT BREAKER
	MS	MOTOR STARTER
	N	NEUTRAL
	OL'S	OVERLOAD HEATERS
(3)	PM	PHASE MONITOR
	PTS	PUMP TERMINAL STRIP
	R	RELAY
	RC	RUN CAPACITOR
	RD	DISCHARGE RESISTOR
	RL	PUMP RUN INDICATORS
	RTS	REGULATOR TERMINAL STRIP
	SC	START CAPACITOR
(4)	SF	SEAL FAIL (SHAFT)
	SR	START RELAY
(2)	SP	SURGE PROTECTOR
	TTS	THERMAL TERMINAL STRIP

PANEL WIRING DIAGRAM

PANELS SHALL CONFORM TO FLORIDA DEP 62-604 F.A.C.

(1) GENERATOR RECEPTACLE FOR EMERGENCY POWER CONNECTION WITH INTERLOCK
(2) SURGE PROTECTION AND LIGHTNING PROTECTION ON ALL INCOMING LEGS
(3) PHASE PROTECTION SHALL BE PROVIDED
(4) SHAFT SEAL FAIL DETECTION
(5) ALTERNATOR W/TEST SWITCH
(6) BATTERY BACK-UP UNIT

PANEL MANUFACTURER SHALL BE A "UL" LISTED SHOP.

TSC DUPLEX PUMP STATION
FIBERGLASS WET WELL

TECHNICAL SALES
CORPORATION
TSC PRE-FAB PUMP SOLUTIONS©
WATERWORKS & WASTEWATER SPECIALTIES
Representing Innovative Manufacturers
MODEL TSCE2-48.3©
4621 N. HALE AVENUE PH (813)876-9256
TAMPA, FL 33614 FAX (813)874-1194
EMAIL: Sales@TSCTampa.com

REV-21 SCALE: N.T.S.

48" DUPLEX STATION - 2" PIPING, SLIDE RAIL SYSTEM, V.B. W/ DOUBLE DOOR & F.D.E.P. PANEL TSCE2-48.3 R21©

NO.	BY	DATE	DESCRIPTION
1	FCD	05-31-2023	FOOT SUBMITTAL

DRAWN BY: FLORDELIZA DIMAKULING DATE: 05-10-2023
CHECKED BY: FLORDELIZA DIMAKULING JOB NO: 22-157
APPROVED BY: MICHAEL KNIGHT

SUN CITY NORTH FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

LIFT STATION PLAN

AURORA CIVIL ENGINEERING INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9907

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 43278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

C-20

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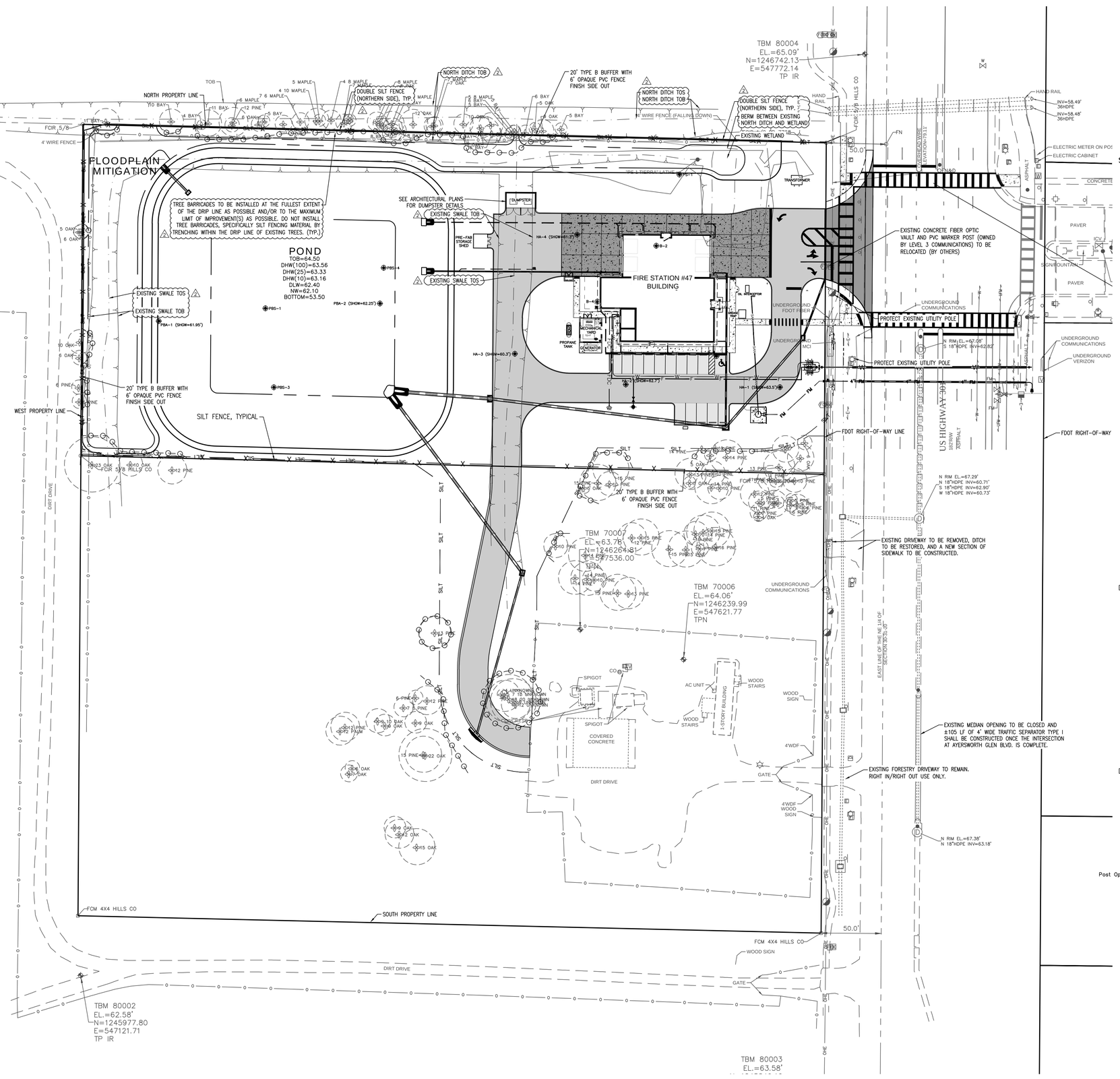


LEGEND

- STORM PIPE
- SANITARY LINE
- WATER MAIN
- FIRE LINE
- POWER LINE
- SETBACK LINE
- EROSION CONTROL
- TREE BARRICADE
- STORM INLET
- MITERED END SECTION

NORTH

20 0 40

SCALE: 1" = 40'

STORMWATER POLLUTION PREVENTION NOTES:

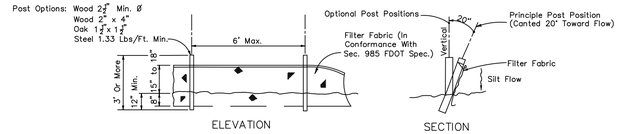
1. This plan shall be available on-site at all times during the sitework construction.
2. The Limits of Disturbance line shown on this plan indicates the point beyond which the existing vegetation should be impacted.
3. Stormwater Pollution Prevention measures shown herein are the minimum required. Contractor shall be fully responsible for erecting and maintaining an erosion and sediment control system to meet Hillsborough County, South West Florida water Management District, and FDEP NPDES requirements.
4. Each area of the site shall not be disturbed until it is necessary for construction to proceed. Disturbed areas shall be covered or stabilized as soon as possible.
5. Erosion and sediment control measures shall be maintained until the area they protect has been sodded, pavement has been placed, or the area is otherwise completely stabilized.
6. All disturbed areas of the site shall be inspected by qualified personnel of the responsible contractor every seven calendar days and within 24 hours after every rainfall event of 0.25 inches or more to assess the integrity of the erosion and sediment controls. The inspector shall note any damage or deficiencies in the control measures in an inspection report. Problem areas shall be corrected by the responsible contractor within seven calendar days following the inspection.
7. The contractor shall keep a record of construction activities including dates when major grading activities occur in a particular area, date when construction activities cease in an area, whether temporary or permanently, and dates when as area is stabilized.
8. If a change in construction schedule occurs or this plan proves, through regular inspections, to be lacking, Aurora Civil Engineering, Inc. Shall be notified so that plan modifications can be made.
9. No excavated material shall be stockpiled in such a manner as to allow rainfall runoff directly from the project site.
10. Inlets and catch basins shall be protected from sediment-laden stormwater runoff until the completion of all construction operations that may contribute sediment to the inlet.
11. If, after fourteen days, grassed areas have not attained a minimum of 75% good grass cover, those areas shall be reworked, and additional seed or sod applied to establish the desired vegetative cover.
12. For wet stormwater ponds, the pond slopes shall be solid sodded to the normal control elevation.
13. All exposed areas within public rights-of-way shall be solid sodded. Other non-pond areas with slopes steeper than 4:1 shall be sodded and staked as necessary.
14. Turf reinforcement mats shall be installed where stormwater pipes outfall at grade or in spreader swales.
15. If construction occurs along a water body, turbidity barrier shall be installed in accordance with FDOT Index 103.
16. A Notice of Termination for the NPDES Construction General Permit shall be submitted to the FDEP NPDES Stormwater Notices Center within 14 days of the date when all areas of the site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 70% or greater.

DESIGN CRITERIA:

1. A stabilized construction entrance (SCE) is appropriate in the following locations:
   A. Whenever vehicles are leaving a construction site and enter onto a public road.
   B. At any unpaved entrance/exit location where there is a risk of transporting mud or sediment onto paved road.
2. The width should be at least 10 feet to 12 feet or as wide as the entire width of access. At sites where traffic volume is high, the entrance should be wide enough for two vehicles to pass safely.
3. Runoff from a stabilized construction entrance should drain to a sediment trap or sediment basin.
4. Prior to placing geotextile (filter fabric) make sure that the entrance is properly grades and compacted.
5. Inspect the stabilized construction entrance on a regular basis and after there has been a high volume of traffic or storm event. Apply additional stone periodically and when repair is required.
6. Immediately remove sediments or any other materials tracked onto the public roadway.

DUST CONTROL:

1. Contractor shall take measures to ensure dust control during construction. All measures shall meet FDEP regulations.
2. Truck watering of unstabilized areas may be necessary during dry periods. Contractor shall plan for equipment to be at the site as required.
3. Upon completion of final grading, sod shall be provided as soon as possible to minimize wind erosion and dust pollution.



TYPE III SILT FENCE
FDOT INDEX No. 102

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NO.	BY	DATE	DESCRIPTION
1	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS
2	FCD	10-17-2023	ADDRESSED COUNTY, FDOT, & SWFWMD COMMENTS

DRAWN BY: FLORDELIZA DIMAKILING DATE: 05-10-2023
CHECKED BY: MICHAEL KNIGHT JOB NO.: 22-157
APPROVED BY: MICHAEL KNIGHT

STORMWATER POLLUTION PREVENTION PLAN

SUN CITY NORTH FIRE STATION 47

HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

AURORA CIVIL ENGINEERING INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 42278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 0000028909

C-21

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AS-BUILT REQUIREMENTS

THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DRAINAGE AND UTILITY AS-BUILT INFORMATION TO THE ENGINEER AS FOLLOWS:

ALL AS BUILT INFORMATION SHALL BE FROM A LICENSED LAND SURVEYOR DR A REGISTERED PROFESSIONAL ENGINEER AND SHALL BE: CERTIFIED TD BOTH AURORA CIVIL ENGINEERING, INC. AND THE OWNER/DEVELOPER. THIS AS-BUILT INFORMATION SHALL BE LEGIBLE AND PROVIDED IN BOTH SIGNED/SEALED PRINTS AND IN DIGITAL FORMAT. ALL AS-BUILT DATA SHALL BE ON THE SAME: COORDINATE SYSTEM AND BENCHMARK DATUM AS THE CONSTRUCTION PLANS. THE INFORMATION PROVIDED SHALL BE ACCEPTABLE TO THE UTILITY COMPANY, THE WATER MANAGEMENT DISTRICT AND THE REVIEWING GOVERNMENT AGENCY.

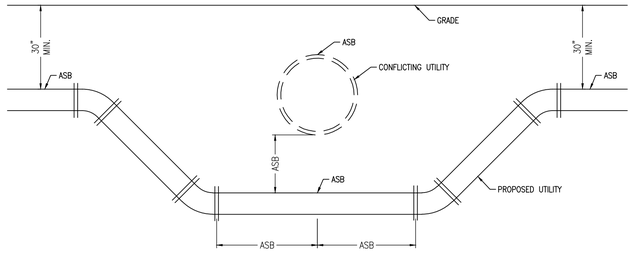
AURORA CIVIL ENGINEERING. INC. PROVIDE A DIGITAL COPY OF THE CONSTRUCTION PLANS TO THE CONTRACTOR UPON COMPLETION OF THE CONSTRUCTION PHASE FOR USE IN PREPARING THE AS-BUILT PLANS. DIGITAL FILES WILL NOT BE PROVIDED FOR CONSTRUCTION LAYOUT UNLESS PREPARED BY AURORA. THE CONTRACTOR OR SURVEYOR IS ENCOURAGED TO MEET WITH AURORA STAFF TO DISCUSS THE AS-BUILT REQUIREMENTS. AT A MINIMUM, THE AS-BUILT INFORMATION SHALL INCLUDE ALL UTILITY AND DRAINAGE INFORMATION NOTED.

MINIMUM UTILITY AS-BUILT REQUIREMENTS:

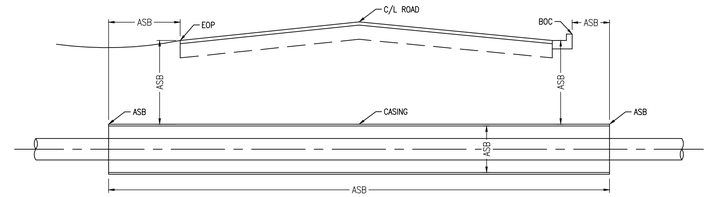
1. ALL FITTINGS AND VALVES LOCATED FROM TWO FIXED AND EASILY FOUND REFERENCE POINTS (I.E. BACK OF CURB, PROPERTY CORNERS). CHECK WITH MUNICIPALITY, FOR PROPER REFERENCE POINTS.
2. ALL WATER AND SEWER SERVICES SHALL BE TIED TO A MANHOLE WHERE AVAILABLE. CHECK WITH MUNICIPALITY TO APPROVE REFERENCE POINTS. DISTANCE SHALL BE ALONG THE BASELINE WITH OFFSETS PERPENDICULAR TO THE BASELINE.
3. DETAILS OF JACK & BORE WITH CONSTRUCTED PIPE LENGTH, CASING LENGTH, DEPTH.
4. LIFT STATION DIMENSIONS AND ELEVATIONS.
5. LENGTH OF ALL RESTRAINTS.
6. SAMPLE POINT LOCATIONS.
7. HORIZONTAL AND VERTICAL CLEARANCES AT PIPE CLOSINGS.
8. MANHOLE RIM ELEVATION, INVERTS AND DIRECTION OF FLOW.
9. CALCULATE AS-BUILT GRADE OF SEWER LINE.

MINIMUM DRAINAGE AS-BUILT REQUIREMENTS (FOR ALL OUTFALL STRUCTURES):

1. OUTFALL ELEVATIONS INCLUDING GRATE ELEVATION, WEIR ELEVATION AND WIDTH, ORIFICE SIZE AND INVERT, PIPE INVERT, SKIMMER TOP AND BOTTOM ELEVATIONS.
2. DRAINAGE PONDS WITH DIMENSIONS OR COORDINATES OF POND, TOP OF POND/WALL ELEVATIONS AND BOTTOM OF POND ELEVATIONS. ELEVATIONS SHALL ALSO BE PROVIDED AT CHANGE OF GRADES AND VISIBLE LOW POINTS ALONG THE TOP OF BERM. POND LOCATIONS SHALL BE PROVIDED WHERE COORDINATES ARE PROVIDED ON THE CONSTRUCTION PLANS. SUFFICIENT INFORMATION SHALL BE PROVIDED FOR THE ENGINEER TO MAKE A DETERMINATION IF THE CONSTRUCTED SYSTEM IS IN COMPLIANCE WITH THE PERMITTED PROJECT.
3. SWALE LOCATION WITH ELEVATION AT LOCATIONS WHERE ELEVATIONS ARE NOTED ON CONSTRUCTION PLANS.
4. PIPE MATERIALS IF DIFFERENT THAN CONSTRUCTION PLANS.
5. RESIDENTIAL: LOT GRADING WITH ELEVATIONS AT LOCATIONS NOTED ON THE: PLANS TO SHOW THAT LOT DRAINAGE FLOWS IN THE DIRECTION SHOWN ON PLAN.
6. COMMERCIAL: LOCATION OF HIGH POINTS AND GRADE BREAKS NOTED ON THE PLANS.



FITTING EXAMPLE



JACK & BORE SECTION
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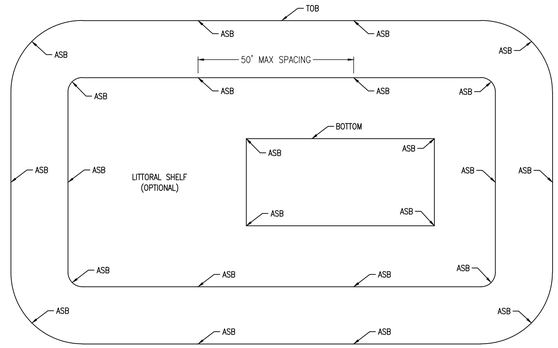

TYPICAL STORMWATER POND
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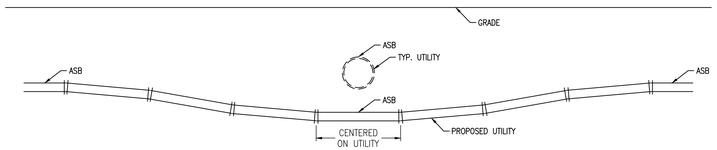
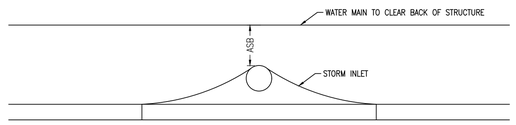
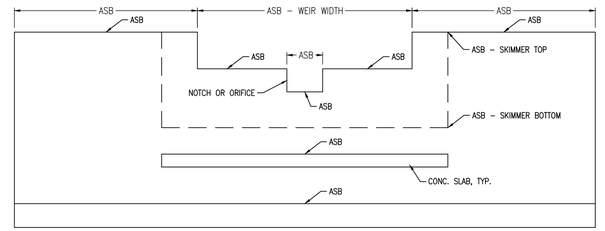


DEFLECTION EXAMPLE

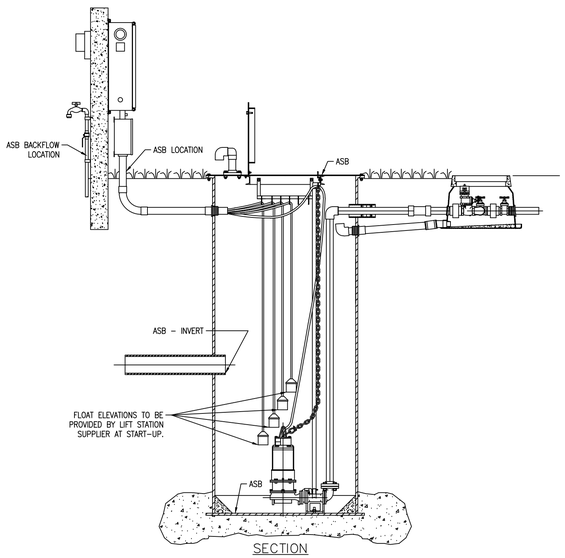
VERTICAL SEPARATION
N.T.S.



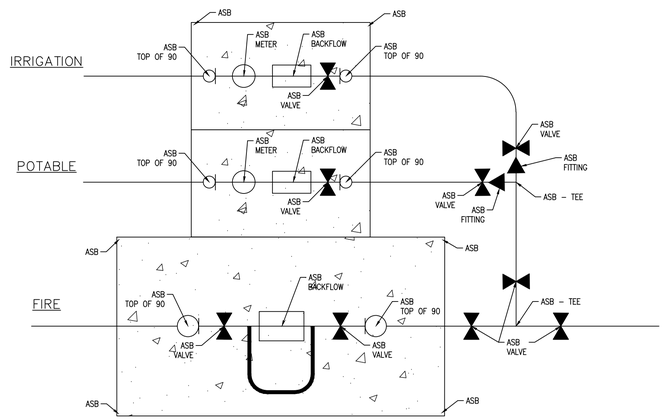
WATER MAIN CLEARANCE
N.T.S.



FRONT VIEW (INTERIOR SIDE)
TYPICAL "WALLED" WEIR
N.T.S.



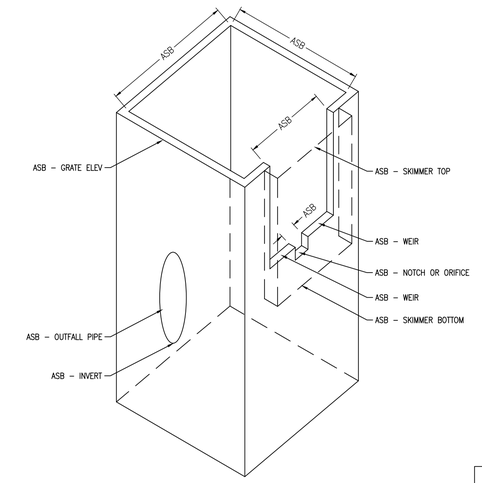
SECTION
LIFT STATION
N.T.S.



NOTE:

1. NOT ALL APPURTENANCES MAY EXIST DEPENDING ON CONFIGURATION AND MUNICIPALITY. SEE UTILITY PLAN.
2. VALVE & FITTING AS-BUILT DATA SHALL INCLUDE SIZE AND ELEVATION.

POTABLE WATER, FIRE & IRRIGATION
N.T.S.



OUTFALL CONTROL STRUCTURE
N.T.S.

LEGEND

ASB = AS-BUILT ELEVATION, DISTANCE OR SIZE

NO.	BY	DATE	DESCRIPTION
5			
4			
3			
2			
1			

DESIGNED BY: FLORDELIZA DIMAKILING
CHECKED BY: MICHAEL KNIGHT
DRAWN BY: FLORDELIZA DIMAKILING
APPROVED BY: MICHAEL KNIGHT
DATE: 05-10-2023
JOB NO.: 22-157

AS-BUILT REQUIREMENTS

SUN CITY NORTH FIRE STATION 47
HILLSBOROUGH COUNTY
PO BOX 1110
TAMPA, FLORIDA 33601-1110

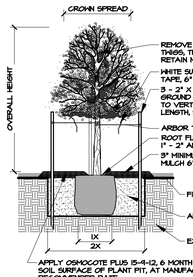
AURORA
CIVIL ENGINEERING, INC
610 E. Morgan Street Brandon, FL 33510 (813)643-9807

This item has been digitally signed and sealed by Michael H. Knight, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

MICHAEL H. KNIGHT, P.E.
FLORIDA P.E. No. 42278
AURORA CIVIL ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 00006909

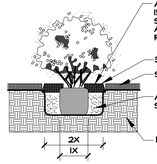
C-22

File: R:\Projects\County Sun City North Fire Station\Plans\Sun City N FS SITE Rev2. Plotted: 10/16/2024 8:28 AM by FLORDELIZA DIMAKILING, Saved: 10/15/2024 4:10 PM by FLOR



SHADE TREE STAKING AND PLANTING DETAIL

CONTRACTOR SHALL REMOVE STAKING AND GUYING MATERIALS AFTER ONE GROWING SEASON.



SHRUB PLANTING DETAIL

SCREENING ABOVE GROUND UTILITIES

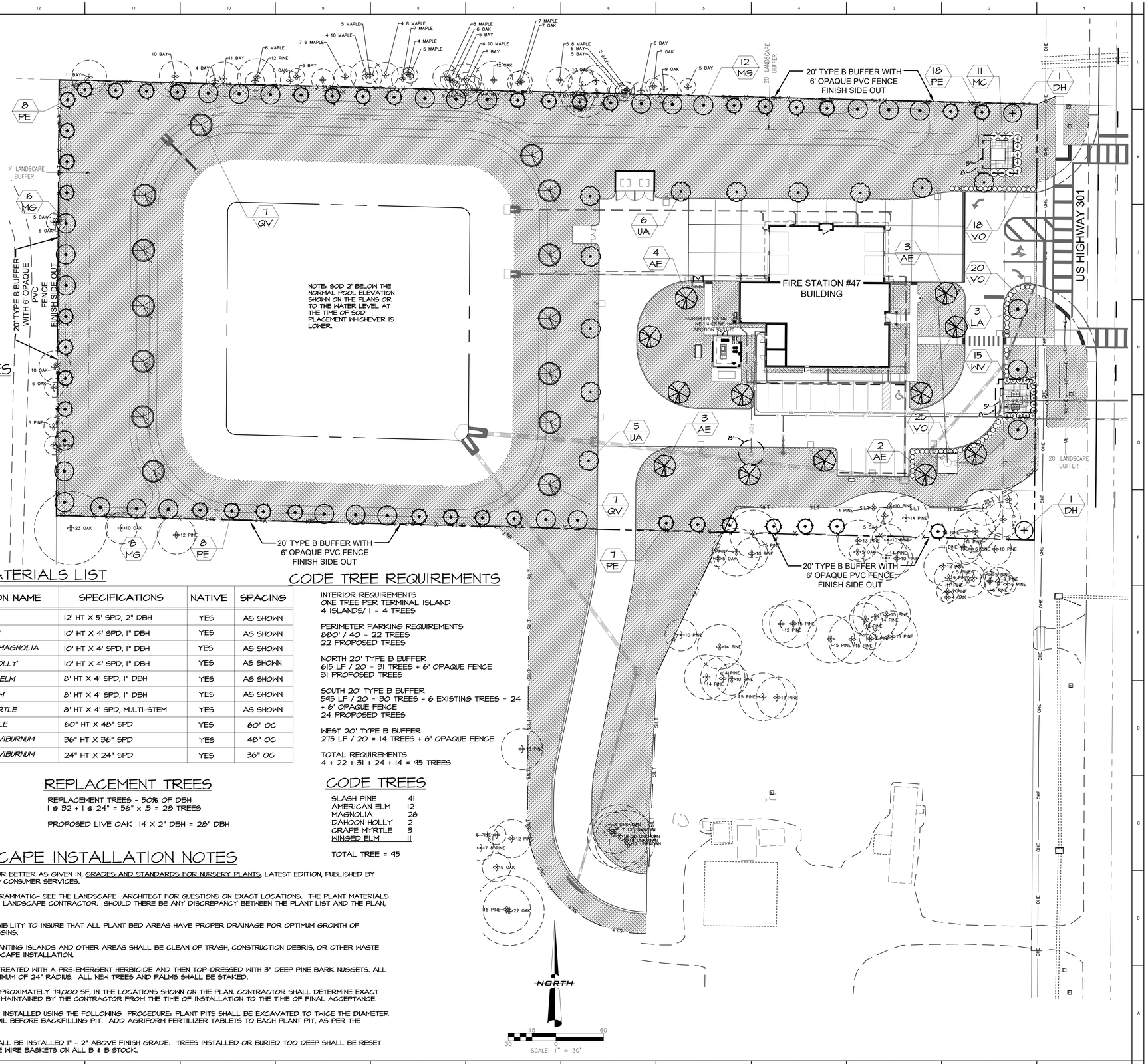
1) THE CONSTRUCTION OF ALL ABOVE GROUND UTILITY APPURTENANCES VISIBLE FROM THE PUBLIC RIGHT-OF-WAY SUCH AS PEDESTALS, UTILITY METERS, TRANSFORMERS, BACK-FLOW PREVENTION DEVICES, ETC. FOR NEW DEVELOPMENT OR REDEVELOPMENT ACTIVITIES SHALL CONFORM TO SCREENING REQUIREMENTS AS OUTLINED IN SECTION 6.06.06.C.10 OF THE LANDSCAPE DEVELOPMENT CODE. PLANT LOCATION MUST BE CONSIDERATE OF REQUIRED SPATIAL SEPARATIONS FROM A FIRE FLOW PROTECTION APPLIANCE IN ACCORDANCE TO THE UNIFORM FIRE CODE, AND PER WATER, WASTEWATER AND RECLAIMED WATER TECHNICAL SPECIFICATIONS SPEC 331001, PART 2.6.4.2., MUST BE LOCATED A MINIMUM OF 5' FROM UTILITY SLABS AND 3' FROM UNDERGROUND VALVES. TREES MUST BE LOCATED A MINIMUM OF 8' FROM UTILITY SLABS. DO NOT INSTALL ANY SCREENING THAT WILL HINDER ACCESS IN THE FUTURE TO THE METER ASSEMBLY FROM THE INTERIOR OF THE SITE.

2) FOR ABOVE GROUND UTILITY APPURTENANCES ILLUSTRATED ON THE PLANS, THE TYPE OF SCREENING MUST BE CLEARLY NOTED TO MATCH THE OVERALL HEIGHT FOR THE TYPE OF ABOVE GROUND UTILITY SPECIFIED ON THE PLANS. UTILIZATION OF EVERGREEN PLANT MATERIAL MUST BE DESCRIBED BY SPECIES, SPACING AND OVERALL HEIGHT FOR THE TYPE OF UTILITY TO BE SCREENED. UTILIZATION OF OPAQUE FENCING OR OTHER SCREENING MATERIAL IS PERMITTED, THE METER ASSEMBLY MUST BE ACCESSIBLE BY BOOM TRUCK OFF A COUNTY RIGHT-OF-WAY OR AN INTERIOR PAVED ACCESS ROAD AT LEAST 12' IN WIDTH PER SPEC 331001, PART 2.6.4. DO NOT INSTALL ANY SCREENING THAT WILL HINDER ACCESS IN THE FUTURE TO THE METER ASSEMBLY FROM THE INTERIOR OF THE SITE.

3) BACK FLOW IS 32" HIGH, PROPOSED SCREENING SHRUBS ARE 36" HIGH.

4) TRANSFORMER IS 56" HIGH, PROPOSED SCREENING SHRUBS ARE 60" HIGH.

5) LIFT STATION IS UNDERGROUND. NO SCREENING NEEDED.



PLANT MATERIALS LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS	NATIVE	SPACING
*QV	14	QUERCUS VIRGINIANA	LIVE OAK	12' HT X 5' SPD, 2" DBH	YES	AS SHOWN
PE	41	PINUS ELLIOTTII	SLASH PINE	10' HT X 4' SPD, 1" DBH	YES	AS SHOWN
MG	26	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	10' HT X 4' SPD, 1" DBH	YES	AS SHOWN
DH	2	ILEX CASSINE	DAHOON HOLLY	10' HT X 4' SPD, 1" DBH	YES	AS SHOWN
AE	12	ULMUS AMERICANA	AMERICAN ELM	8' HT X 4' SPD, 1" DBH	YES	AS SHOWN
UA	11	ULMUS ALATA	WINGED ELM	8' HT X 4' SPD, 1" DBH	YES	AS SHOWN
LA	3	LAGERSTROEMIA INDICA	CRAPE MYRTLE	8' HT X 4' SPD, MULTI-STEM	YES	AS SHOWN
MC	11	MYRICA CERIFERA	WAX MYRTLE	60" HT X 48" SPD	YES	60" OC
WV	15	VIBURNUM OBOVATUM	WALTER'S VIBURNUM	36" HT X 36" SPD	YES	48" OC
VO	63	VIBURNUM OBOVATUM	WALTER'S VIBURNUM	24" HT X 24" SPD	YES	36" OC

*REPLACEMENT TREES

CODE TREE REQUIREMENTS

INTERIOR REQUIREMENTS
ONE TREE PER TERMINAL ISLAND
4 ISLANDS/ 1 = 4 TREES

PERIMETER PARKING REQUIREMENTS
880' / 40 = 22 TREES
22 PROPOSED TREES

NORTH 20' TYPE B BUFFER
615 LF / 20 = 31 TREES + 6' OPAQUE FENCE
31 PROPOSED TREES

SOUTH 20' TYPE B BUFFER
595 LF / 20 = 30 TREES - 6 EXISTING TREES = 24 + 6' OPAQUE FENCE
24 PROPOSED TREES

WEST 20' TYPE B BUFFER
275 LF / 20 = 14 TREES + 6' OPAQUE FENCE

TOTAL REQUIREMENTS
4 + 22 + 31 + 24 + 14 = 95 TREES

SYMBOL LEGEND

ARGENTINE BAHIA SOD

LANDSCAPE
10 QUANTITY
QV SPECIES

REPLACEMENT TREES

REPLACEMENT TREES - 50% OF DBH
1 @ 32 + 1 @ 24" = 56" X .5 = 28 TREES

PROPOSED LIVE OAK 14 X 2" DBH = 28" DBH

CODE TREES

SLASH PINE	41
AMERICAN ELM	12
MAGNOLIA	26
DAHOON HOLLY	2
CRAPE MYRTLE	3
WINGED ELM	11
TOTAL TREE = 95	

LANDSCAPE INSTALLATION NOTES

1) ALL PLANT MATERIALS SHALL BE FLORIDA #1 OR BETTER AS GIVEN IN, GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.

2) LOCATION OF PLANTS ON THE PLAN ARE DIAGRAMMATIC- SEE THE LANDSCAPE ARCHITECT FOR QUESTIONS ON EXACT LOCATIONS. THE PLANT MATERIALS LIST IS PROVIDED FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR. SHOULD THERE BE ANY DISCREPANCY BETWEEN THE PLANT LIST AND THE PLAN, THE PLAN SHALL PREVAIL.

3) IT IS THE LANDSCAPE CONTRACTORS RESPONSIBILITY TO INSURE THAT ALL PLANT BED AREAS HAVE PROPER DRAINAGE FOR OPTIMUM GROWTH OF LANDSCAPE MATERIAL BEFORE INSTALLATION BEGINS.

4) THE CONTRACTOR SHALL INSURE THAT ALL PLANTING ISLANDS AND OTHER AREAS SHALL BE CLEAN OF TRASH, CONSTRUCTION DEBRIS, OR OTHER WASTE MATERIALS TO A DEPTH OF 24" PRIOR TO LANDSCAPE INSTALLATION.

5) ALL PLANT BEDS AND TREE RINGS SHALL BE TREATED WITH A PRE-EMERGENT HERBICIDE AND THEN TOP-DRESSED WITH 3" DEEP PINE BARK NUGGETS. ALL NEW TREES SHALL HAVE A TREE RING WITH A MINIMUM OF 24" RADIUS, ALL NEW TREES AND PALMS SHALL BE STAKED.

6) NEW SOD SHALL BE ARGENTINE BAHIA SOD APPROXIMATELY 79,000 SF, IN THE LOCATIONS SHOWN ON THE PLAN. CONTRACTOR SHALL DETERMINE EXACT QUANTITIES IN THE FIELD. SOD AREAS SHALL BE MAINTAINED BY THE CONTRACTOR FROM THE TIME OF INSTALLATION TO THE TIME OF FINAL ACCEPTANCE.

7) TREES SHRUBS, AND GROUND COVER SHALL BE INSTALLED USING THE FOLLOWING PROCEDURE: PLANT PITS SHALL BE EXCAVATED TO TWICE THE DIAMETER OF THE PLANT ROOT BALL. AERATE EXISTING SOIL BEFORE BACKFILLING PIT. ADD AGRIFORM FERTILIZER TABLETS TO EACH PLANT PIT, AS PER THE SPECIFICATIONS.

8) TREE INSTALLATION: ALL REQUIRED TREES SHALL BE INSTALLED 1" - 2" ABOVE FINISH GRADE. TREES INSTALLED OR BURIED TOO DEEP SHALL BE RESET TO THIS STANDARD. REMOVE THE TOP 1/3 OF THE WIRE BASKETS ON ALL B & B STOCK.

1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

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www.andersonlesniak.net

HILLSBOROUGH COUNTY BOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

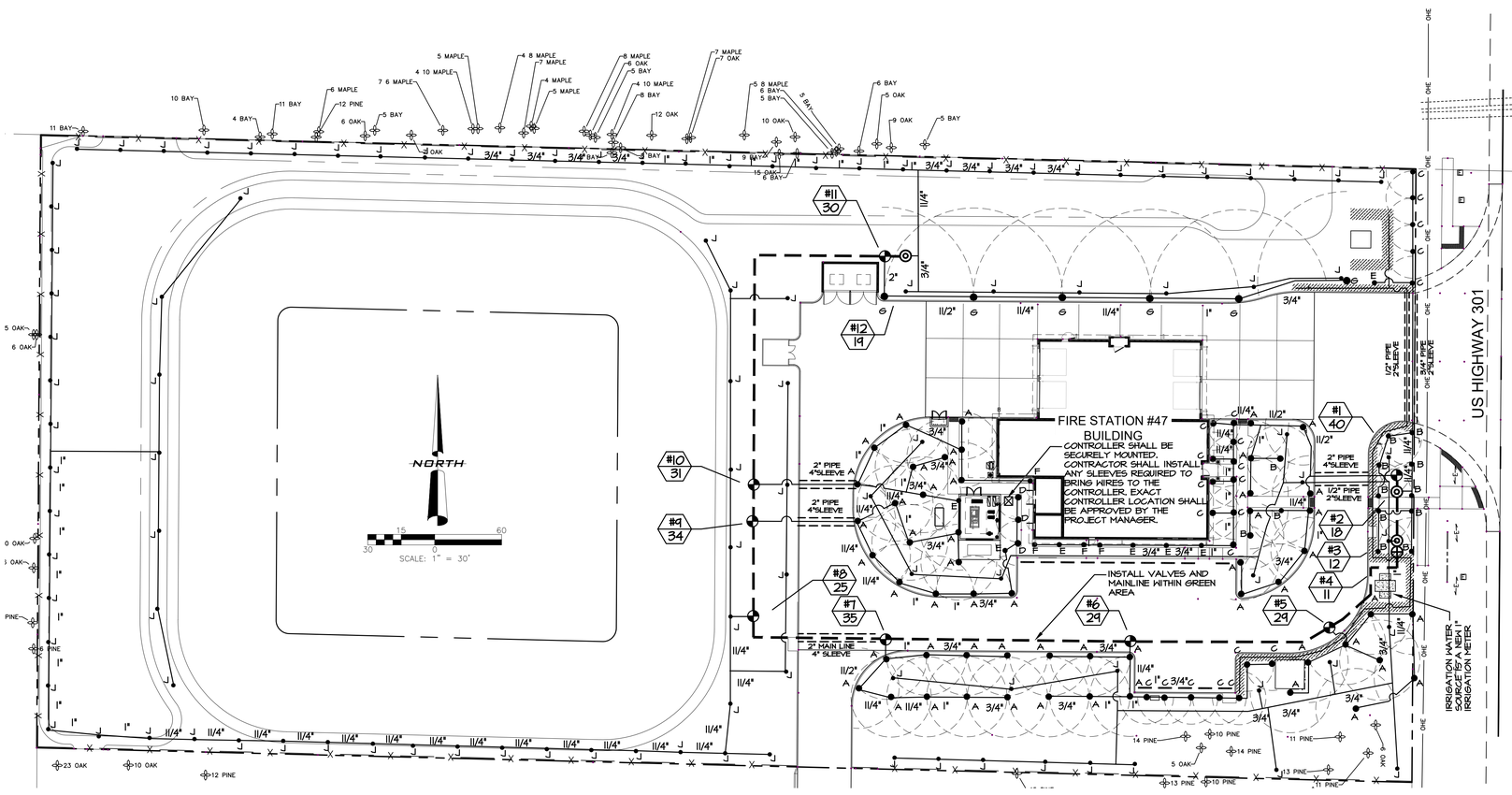
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

LANDSCAPE PLAN

L1.1



IRRIGATION INSTALLATION NOTES

1) ALL QUANTITIES SHOWN ON THE DRAWINGS ARE NOT GUARANTEED AS TO ACCURACY AND ARE SHOWN FOR THE PURPOSES OF INDICATING VOLUME OF WORK. IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO SATISFY HIMSELF AS TO THE ACCURACY OF THE QUANTITIES.

2) PIPING OR VALVES MAY SOMETIMES BE INDICATED AS BEING LOCATED IN UNLIKELY AREAS; I.E., IN BUILDINGS, UNDER PAVEMENT, OR OUTSIDE OF THE PROPERTY LINES. THIS IS DONE FOR GRAPHIC CLARITY ONLY. WHENEVER POSSIBLE, PIPING IS TO BE INSTALLED IN SOIL AREAS.

3) INSTALL IRRIGATION SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES.

4) PIPE SIZES ARE LABELED AT LOCATIONS WHERE AN INCREASE IN SIZE OCCURS. CONTINUE PIPE SIZE UNTIL SIZE INCREASE IS INDICATED. PIPES SHALL BE INSTALLED ALONG WALKS, CURBS OR WALLS, THEY SHALL NOT BE INSTALLED IN THE MIDDLE OF PLANTERS. CONTRACTOR SHALL REVIEW LANDSCAPE PLANS TO DETERMINE TREE AND PALM LOCATIONS. MAIN LINE AND LATERALS SHALL BE SCH 40 PVC.

5) ALL POP-UP SPRAY AND ROTOR HEADS SHALL BE INSTALLED ON 18" LONG FLEX PIPE CONNECTIONS. RISERS SHALL BE 28" IN HEIGHT OR 4" ABOVE ADJACENT SHRUBS. ALL IRRIGATION EQUIPMENT SHALL BE BY HUNTER, UNLESS OTHERWISE STATED ON THE PLAN.

6) WATER SOURCE IS A NEW 1" IRRIGATION METER. IRRIGATION SYSTEM REQUIRES 40 GPM AT 40 PSI. WIRING USED FOR CONNECTING THE VALVES TO THE CONTROLLER SHALL BE TYPE UF, 18 AWG WIRE, WITH PVC INSULATION. ZONE WIRES SHALL BE COLOR CODED, AND COMMON WIRE SHALL BE WHITE. VALVE BOXES SHALL BE CARSON MODEL 1322O-12, 12" X 21"X 14" RECTANGLE, WITH GREEN LID. PLACE 3" DEEP LAYER OF GRAVEL INSIDE EACH VALVE BOX.

7) IRRIGATION CONTROLLER SHALL BE WALL MOUNTED IN THE UTILITY YARD, AND AS APPROVED BY THE PROJECT MANAGER. AFTER 30 DAY PLANT MATERIAL ESTABLISHMENT PERIOD, CONTROLLER SHALL BE SET AS PER LOCAL WATER RESTRICTIONS. AFTER IRRIGATION SYSTEM INSTALLATION IS COMPLETE, CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT DRAWING SHOWING LOCATION OF IRRIGATION HEADS, VALVES AND PIPE.

8) PIPING ON THE PLAN IS DIAGRAMMATICALLY ROUTED FOR CLARITY. DESIGN MODIFICATIONS SHALL BE MADE TO MEET FIELD CONDITIONS. THE PIPING SCHEMATIC IS DESIGNED TO MINIMIZE TRENCHING. WHENEVER POSSIBLE RUN MULTIPLE LINES AND WIRE IN THE SAME TRENCH.

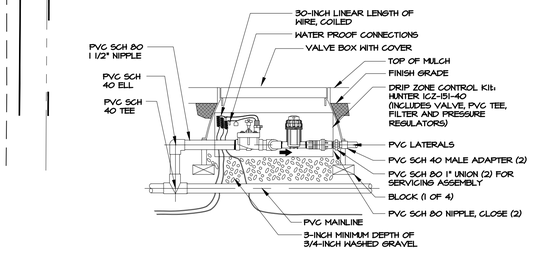
9) WHERE EXISTING OR PROPOSED PAVED SURFACES CROSS IRRIGATION LINES, ALL PIPING UNDER SAID SURFACES SHALL BE IN SLEEVES. SLEEVES SHALL BE SCH 40 PVC, MINIMUM 2" DIAMETER OR AS SPECIFIED ON PLAN. WHERE EXISTING PAVEMENTS MUST BE CUT TO INSTALL IRRIGATION PIPE, SAW CUT SIX INCHES WIDER THAN THE NEEDED TRENCH. REPAIR CUTS WITH AN EQUIVALENT MATERIAL TO MATCH EXISTING.

DRIP INSTALLATION NOTES

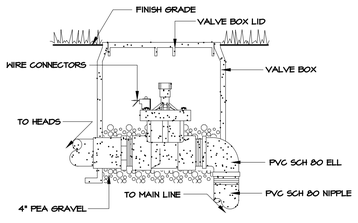
1) DRIPLINE SHALL BE LAID DIRECTLY UNDER THE 3" MULCH BED. MULCHING OF PLANT BEDS SHALL OCCUR AFTER DRIPLINE INSTALLATION.

2) DRIPLINE SHALL COVER THE FULL EXTENT OF ALL PLANTING BEDS WHERE IT IS INDICATED ON THE DRAWINGS, AT A SPACING OF 18" ON CENTER. ON THE DRIPLINE ZONES, THE ELECTRIC VALVE, DISC FILTER, AND PRESSURE REGULATOR SHALL BE PLACED UNDERGROUND IN A PLASTIC VALVE BOX WITH COVER. ADJUST PRESSURE REGULATOR TO ACCOMMODATE EACH ZONE.

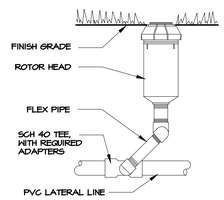
3) INDIVIDUAL SECTIONS OF DRIPLINE SHALL BE CONNECTED USING PVC PIPE, SIZED AS PER GPM REQUIREMENTS. DRIPLINE SHALL BE STAPLED OR OTHERWISE FASTENED TO THE FINISH GRADE EVERY 4' ON CENTER.



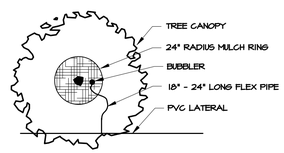
DRIP CONTROL ZONE KIT



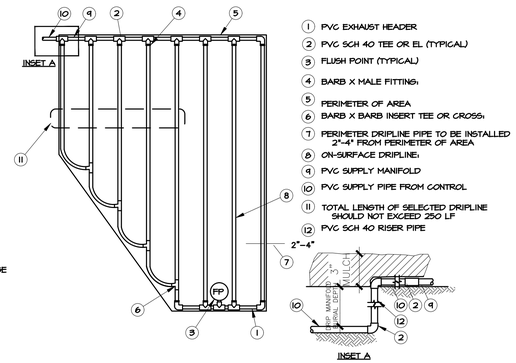
ELECTRIC VALVE DETAIL



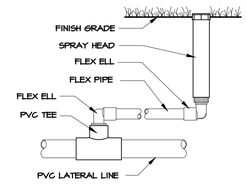
4" POP-UP ROTOR DETAIL



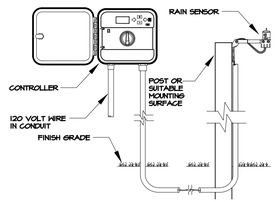
BUBBLER DETAIL



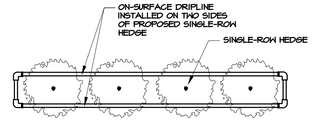
ON-SURFACE DRIPLINE INSTALLATION



6" POP-UP SPRAY DETAIL



CONTROLLER WITH RAIN SENSOR



SINGLE-ROW HEDGE DRIPLINE DETAIL

NOTE: TOTAL LENGTH OF DRIPLINE SHALL NOT EXCEED 250 LF

IRRIGATION MATERIAL LIST

SYMBOL	QUANTITY	MODEL NUMBER
A ●	53	1806-18-VAN, 6" POP-UP SPRAY
B ●	13	1806-15-MPR, 6" POP-UP SPRAY
C ●	22	1806-12-MPR, 6" POP-UP SPRAY
D ●	3	1806-10-MPR, 6" POP-UP SPRAY
E ●	7	1806-15SST-4X30, SIDE STRIP, 6" POP-UP SPRAY
F ●	4	1806-15EST-4X15, END STRIP, 6" POP-UP SPRAY
G ●	6	PSP-ULTRA-04-R-5.0, 4" POP-UP ROTOR
J ●	109	1402-30, PRESSURE COMPENSATING BUBBLER
	± 750 LF	XFD-09-12-250, LANDSCAPE DRIPLINE
	8	150-PEB-PRS-D, 1-1/2" ELECTRICAL VALVE
	3	100-PEB-PRS-D, 1" ELECTRICAL VALVE
	1	XCZ-PRB-100-COM, 1" CONTROL ZONE KIT
	± 700 LF	2" PVC, SCHEDULE 40 MAIN LINE
	1	ESPLXME2-LXME2, 12 STATION CONTROLLER
	1	OPERIND, DRIP OPERATION INDICATOR KIT
	1	RSD-BEX, WIRED AUTOMATIC RAIN SHUTOFF

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TAMPA, FLORIDA 33605.3607

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AR91271 QUALIFIER LICENSE

WILDERARCHITECTURE, INC.

L. Alyson Utter #LA0001163

ANDERSON LESNIAK LIMITED, INC.
landscape architects land planners

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HILLSBOROUGH COUNTY BOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

IRRIGATION PLAN

L-1.2

PLAN FOR INVASIVE PLANT REMOVAL, DISPOSAL AND MAINTENANCE

SECTION 4.01.06.E OF THE HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE REQUIRES THE SUBMISSION OF AN INVASIVE PLANT SPECIES REMOVAL, DISPOSAL AND MAINTENANCE PLAN. THE PLAN FOR THE ABOVE SITE SHALL BE AS PER THE FOLLOWING PARAGRAPHS.

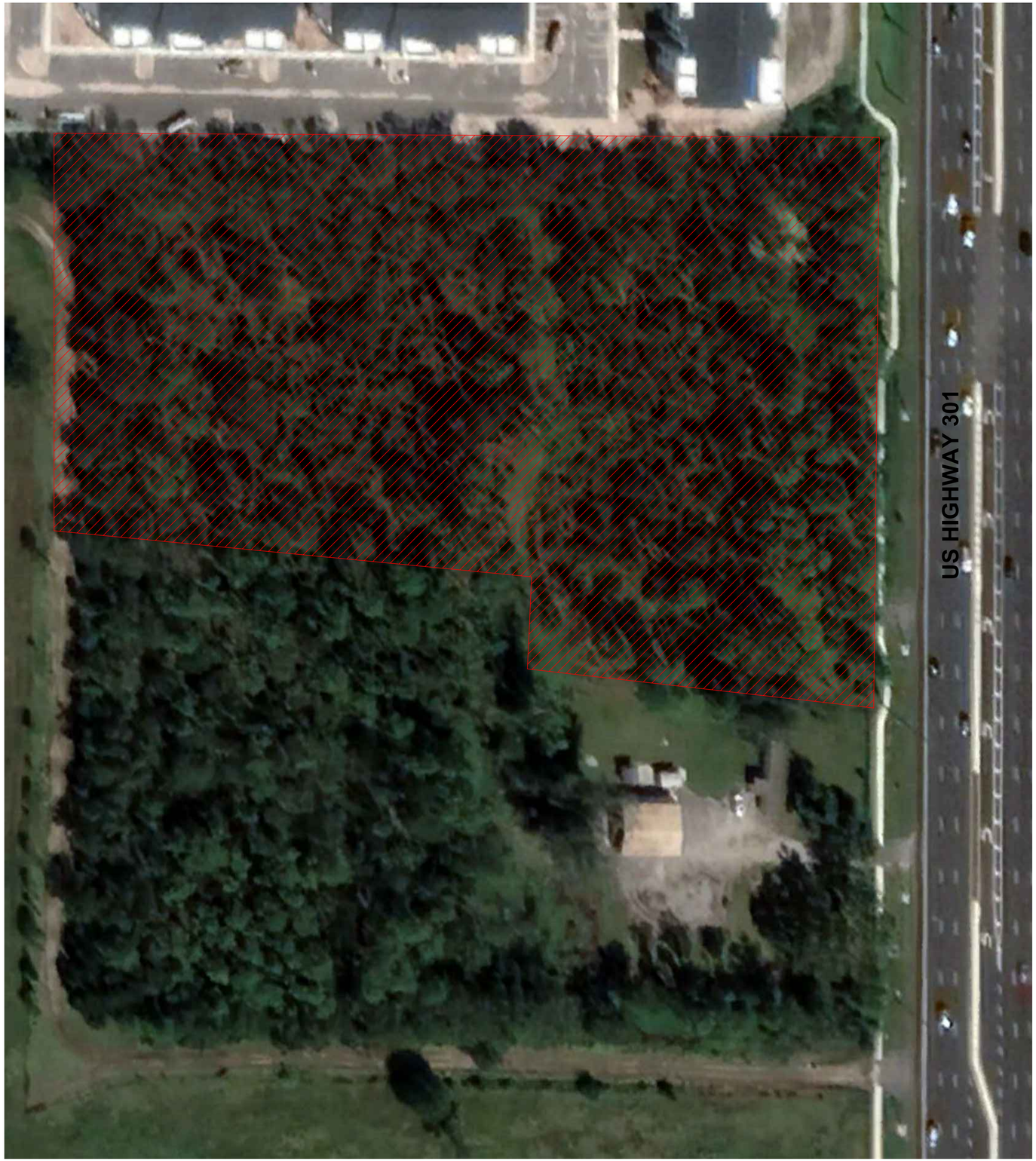
ALL INVASIVE EXOTIC SPECIES SUCH AS BRAZILIAN PEPPER -SCHINUS TEREBINTHIFLOLIUS, AIR POTATO - DIOSCOREA BULBIFERA, CHINABERRY - MELIA AZEDARACH, AUSTRALIAN PINE - CASUARINA AND PUNK TREE- MELALEUCA QUINQUENERVIA MUST BE REMOVED FROM THE SITE. REMOVAL SHALL BE PERFORMED BY MECHANICAL AND CHEMICAL MEANS. EXOTIC TREES AND SHRUBS SHALL BE CUT FLUSH WITH FINISH GRADE. CONTRACTOR SHALL TREAT CUT STUMPS WITH GARLON 3A, TROOPER, OR RODEO HERBICIDE TO THE CAMBIUM LAYER AS PER MANUFACTURER'S INSTRUCTIONS, AT THE RECOMMENDED STRENGTH TO PREVENT RE-GROWTH. HERBICIDE SHALL BE APPLIED IMMEDIATELY AFTER TRUNKS ARE CUT TO PREVENT SAP FROM SEALING WOUNDS. REMOVAL SHALL BE ONLY WITHIN THE PROPERTY BOUNDARIES. WORK SHALL BE PERFORMED IN CONFORMANCE WITH RULE 62C-20 OF THE FLORIDA ADMINISTRATIVE CODE REGARDING AQUATIC PLANT MANAGEMENT PERMITS. THE EXPOSED SOILS WILL BE STABILIZED WITH BAHIA SOD OR MULCH TO REPEL RE-GROWTH. ALL WASTE MATERIALS PRODUCED FROM THIS ACTIVITY SHALL BE DISPOSED OF, OFF OF THE SITE, AT AN APPROVED DISPOSAL SITE (350 FALKENBURG ROAD TAMPA, FLORIDA 33619).

A POST REMOVAL MAINTENANCE PROGRAM SHALL BE PERFORMED EVERY SIX MONTHS FOR A PERIOD OF FIVE YEARS TO ENSURE THAT ANY INVASIVE SPECIES DOES NOT RE-APPEAR. ANY NUISANCE SPECIES THAT SPROUTS ON THE PROPERTY SHALL BE MECHANICALLY REMOVED, RE- TREATED WITH HERBICIDE AND DISPOSED OF, OFF OF THE SITE, AT AN APPROVED DISPOSAL SITE.

A REPORT SHALL BE SUBMITTED TO HILLSBOROUGH COUNTY EVERY 6 MONTHS FOR THE FIRST TWO YEARS AFTER REMOVAL OPERATIONS AND EVERY 12 MONTHS FOR THE LAST THREE YEARS. THE FOLLOWING INFORMATION WILL BE INCLUDED IN THE REPORT: COLOR PHOTOS SHOWING APPROXIMATE NUMBER OF INDIVIDUAL INVASIVE PLANTS EXISTING ON THE SITE AND DATED PHOTOS SHOWING NON-RE-EMERGENCE OF INVASIVE PLANTS AT EACH MAINTENANCE PERIOD, AND A LIST OF CORRECTIVE MEASURES THAT HAVE BEEN IMPLEMENTED.

SYMBOL LEGEND

INVASIVE PLANT LOCATIONS



NORTH

30 15 0 60

SCALE: 1" = 30'

1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

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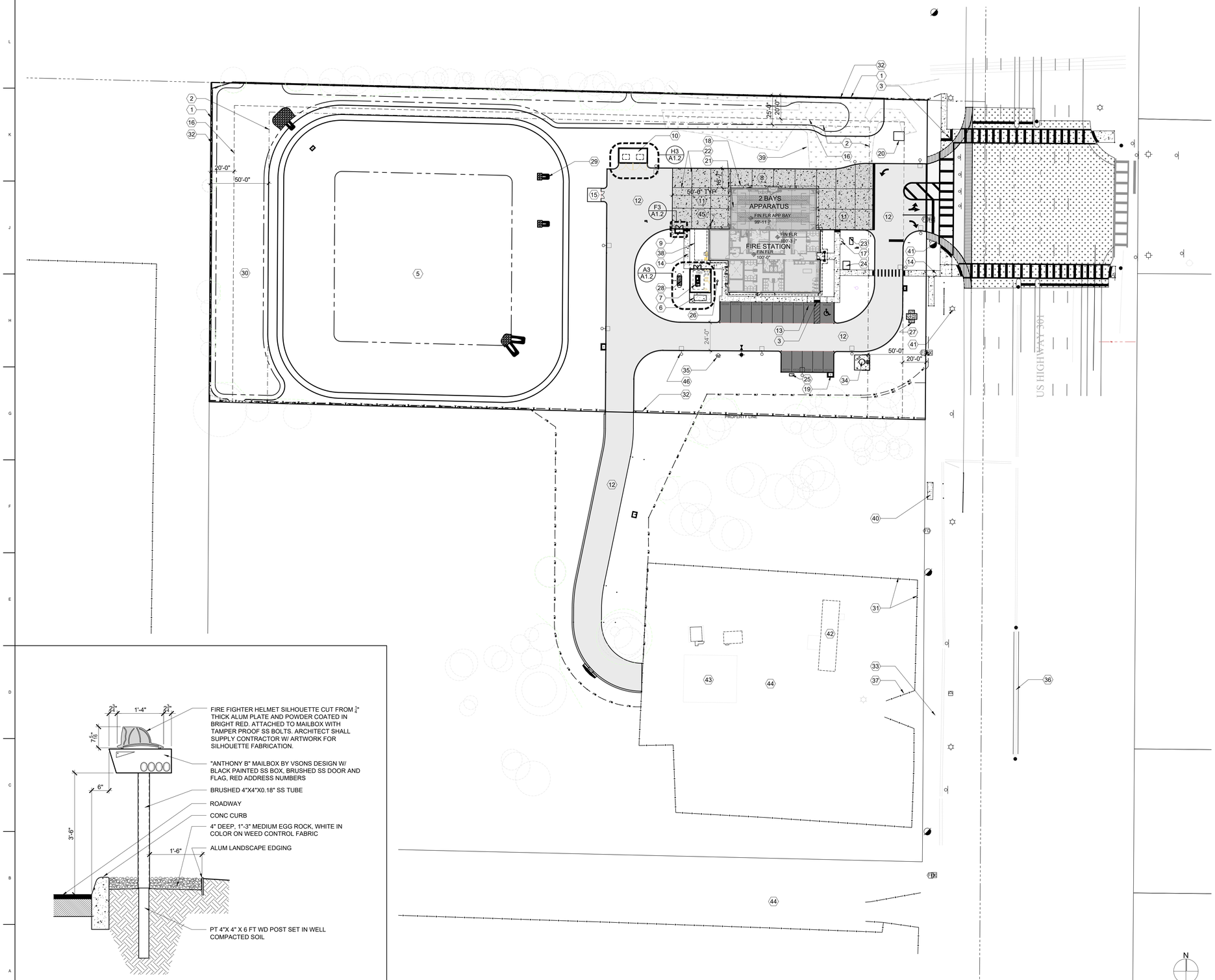
INVASIVE PLANT
REMOVAL PLAN

L-1.3



FIRE FIGHTER HELMET SILHOUETTE CUT FROM ¼" THICK ALUM PLATE AND POWDER COATED IN BRIGHT RED. ATTACHED TO MAILBOX WITH TAMPER PROOF SS BOLTS. ARCHITECT SHALL SUPPLY CONTRACTOR W/ ARTWORK FOR SILHOUETTE FABRICATION.

"ANTHONY B" MAILBOX BY VSONS DESIGN W/ BLACK PAINTED SS BOX, BRUSHED SS DOOR AND FLAG, RED ADDRESS NUMBERS

BRUSHED 4"X4"X0.18" SS TUBE

ROADWAY

CONC CURB

4" DEEP, 1"-3" MEDIUM EGG ROCK, WHITE IN COLOR ON WEED CONTROL FABRIC

ALUM LANDSCAPE EDGING

PT 4"X 4" X 6 FT WD POST SET IN WELL COMPACTED SOIL

MAILBOX DETAIL
3/4" = 1'-0"
A12

SITE PLAN
1" = 40'-0"
A3

GENERAL NOTES

1. SITE IS LOCATED IN WIND BORNE DEBRIS ZONE. PROVIDE IMPACT RATED OPENINGS (MISSILE "E").
2. RISK CATEGORY- IV (ESSENTIAL FACILITY).
3. REFER TO CIVIL DRAWINGS FOR PAVEMENT SCOPE / TYPES.
4. CIVIL FFE OF 67.0' = ARCH FFE OF 100'-0"
5. CONNECT DOWNSPOUTS TO UG DRAINAGE, TYP
6. COORDINATE MAIL BOX LOCATION
7. COORDINATE APP BAY FLOOR TRENCH INVERTS WITH SLOPED SLAB.
8. OPAQUE FENCE BASIS OF DESIGN: SUPERIOR FENCE AND RAIL. VINYL FENCE STYLE: WHITE HAMILTON (SUPERIORFENCEANDRAIL.COM)

SPECIFIC NOTES

1. PROPERTY LINE, TYP
2. BUILDING SETBACK, TYP.
3. DETECTABLE WARNING SURFACE, TYP
4. CONC CURB, TYP
5. RETENTION POND
6. DIESEL GENERATOR ON CONC PAD - (ADD ALTERNATE)
7. EQUIPMENT YARD
8. BYPASS LANE
9. OXYGEN TANK STORAGE SHED
10. DUMPSTER / RECYCLING ENCLOSURE
11. CONC PAVEMENT
12. ASPHALT PAVEMENT
13. WHEEL STOP, TYP.
14. CONC SIDEWALK, TYP.
15. 10' X 12' PRE FAB MTL STORAGE SHED ON 12' X 12' CONC SLAB (ADD ALTERNATE)
16. 20 FT LANDSCAPE BUFFER
17. FLAG POLE W/ LUMINAIRE
18. ROOF OVERHANG, TYP.
19. CATCH BASIN, TYP
20. UTILITY TRANSFORMER
21. BOLLARDS, TYP.
22. CONC EXPANSION JOINTS, TYP.
23. SAND AND OIL INTERCEPTOR
24. GREASE TRAP
25. ELECTRIC CAR CHARGING STATION
26. 30 FT POLE FOR WEATHERBUG / RACES ANTENNAS.
27. FIRE & WATER BACKFLOW PREVENTORS
28. ABOVE GROUND 250 GAL PROPANE TANK AND CONCRETE PAD
29. MES-CONC, TYP
30. FLOOD PLAIN MITIGATION
31. EXIST 4FT H. CHAIN LINK FENCE
32. 6FT H. OPAQUE PVC FENCE
33. EXIST FORESTRY DRIVEWAY TO REMAIN
34. LIFT STATION AND PANEL
35. FIRE HYDRANT
36. EXIST MEDIAN OPENING TO BE CLOSED AND 4FT WIDE TRAFFIC SEPARATOR SHALL BE CONSTRUCTED.
37. EXIST GATE TO REMAIN
38. FUTURE BUILDING EXPANSION AREA
39. EXIST WETLAND
40. EXIST DRIVEWAY TO BE REMOVED, DITCH TO BE RESTORED AND NEW SECTION OF SIDEWALK TO BE CONSTRUCTED.
41. EXIST UTILITY POLE TO REMAIN
42. EXIST 1 STORY BUILDING
43. EXIST COVERED CONCRETE
44. EXIST DIRT DRIVE
45. VALVE BOX - COORD LOCATIN IN SLAB WITH CONTROL JOINTS.
46. LIGHT POLE, TYP

NOTES
A1

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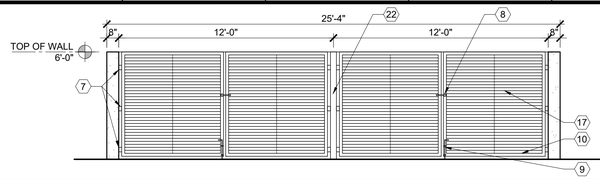
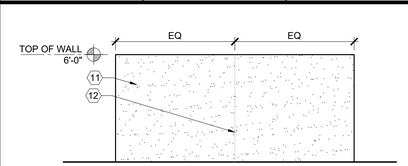
SITE PLAN

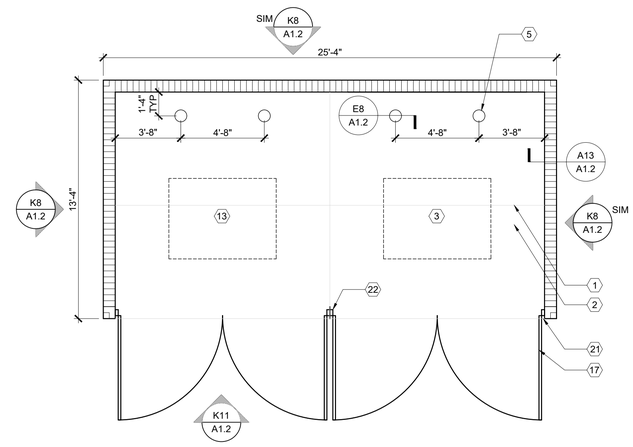
A1.1



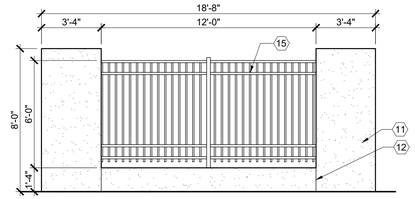
DUMPSTER ENCLOSURE FRONT ELEVATION
1/4" = 1'-0" K11



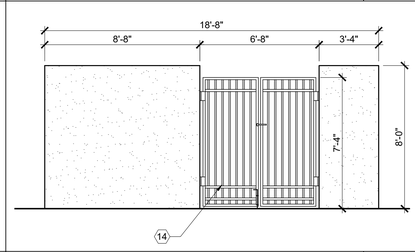
DUMPSTER ENCLOSURE TYPICAL ELEVATION
1/4" = 1'-0" K8



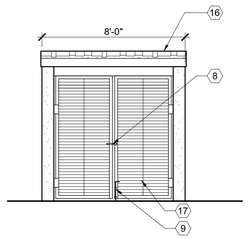
DUMPSTER ENCLOSURE PLAN
1/4" = 1'-0" H3



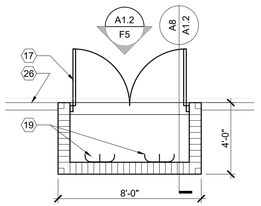
HVAC ENCLOSURE ELEVATION
1/4" = 1'-0" H11



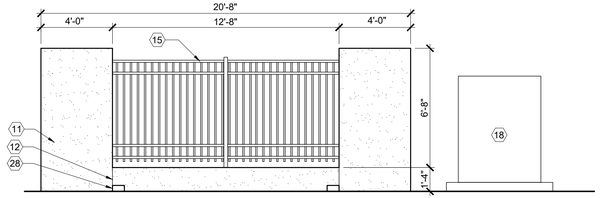
HVAC ENCLOSURE ELEVATION
1/4" = 1'-0" H8



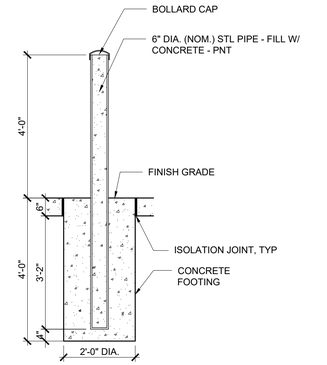
OXYGEN TANK SHED FRONT ELEVATION
1/4" = 1'-0" F5



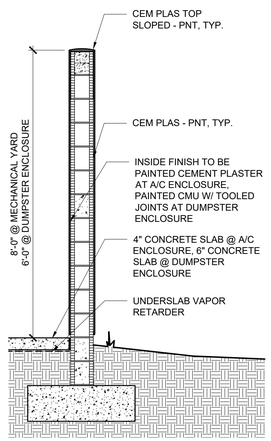
OXYGEN TANK SHED
1/4" = 1'-0" F3



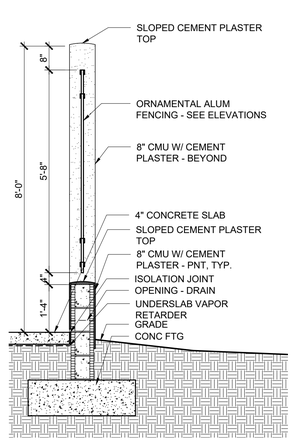
HVAC ENCLOSURE ELEVATION
1/4" = 1'-0" F11



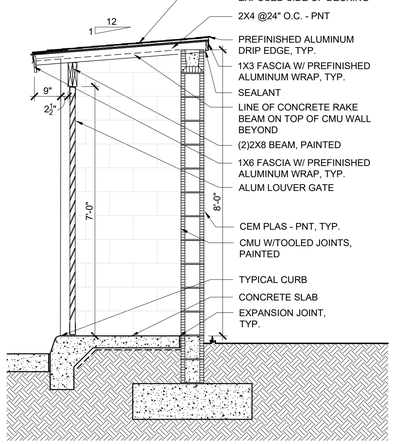
BOLLARD DETAIL
1/2" = 1'-0" E8



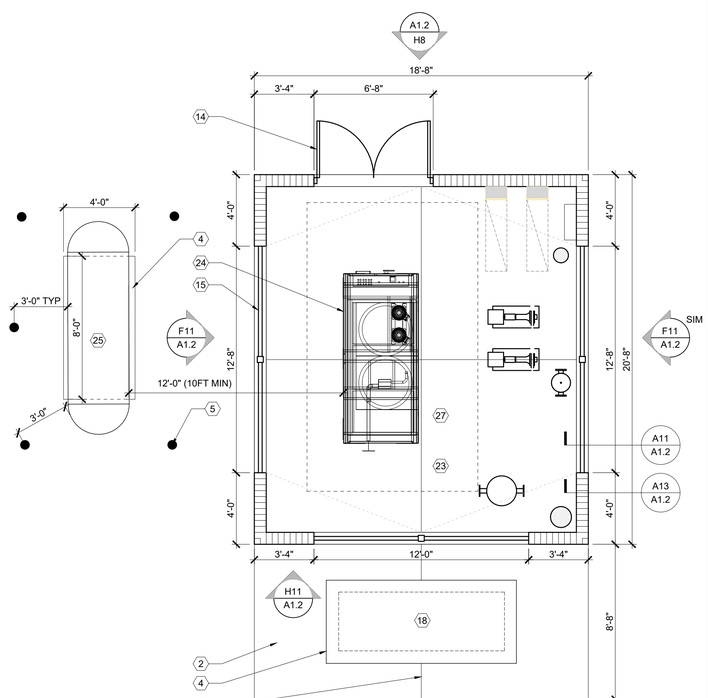
WALL SECTION
1/2" = 1'-0" A13



MECH YARD WALL SECTION
1/2" = 1'-0" A11



EXT STORAGE WALL SECTION
1/2" = 1'-0" A8



MECHANICAL YARD ENLARGED PLAN
1/4" = 1'-0" A3

GENERAL NOTES

1. COORDINATE ELEVATED HOUSEKEEPING PAD DIMENSIONS WITH THE EQUIPMENT SELECTED AND APPROVED. ALERT ARCHITECT IF SELECTIONS / APPROVALS CREATE CONFLICTS, INCLUDE CLEARANCES REQ BY PRODUCTS.
2. PROVIDE EXPANSION JOINTS AT PERIMETER OF HOUSEKEEPING PADS, TYP
3. TYPICAL ORNAMENTAL METAL FENCE: 4 RAIL STYLE WITH 3/4" SQUARE EXTRUDED 0.050" ALUMINUM TUBE PICKETS AND 2-1/2" REINFORCED POSTS. ALL ALUMINUM JOINTS TO BE WELDED. ALL FASTENERS TO BE STAINLESS STEEL. ALL COMPONENTS TO HAVE BLACK POWDER COAT FINISH. GATE HARDWARE TO INCLUDE 3" PIN HINGES, "STRONG ARM" LOCKABLE LATCH, AND CANE BOLT. BASIS OF DESIGN - AMERISTAR ECHELON PLUS "MAJESTIC".
4. METAL GATES TO MATCH ORNAMENTAL FENCING WITH LOCKING LATCH, HEAVY DUTY HINGES, AND CANE BOLT.
5. LOUVER GATES: ECLIPSE DESIGN AS MANUFACTURED BY AMETCO MANUFACTURING CORP. OR EQUAL. RESISTANCE WELDED EXTRUDED ALUMINUM ECLIPSE DESIGN HAS FORMED EXTRUDED INCLINED MAIN BARS ON 2 1/16" CENTERS. CROSS BARS WITH POWDER COAT FINISH ARE ON CENTERS UP TO 18". ALUMINUM TO BE 6063 EXTRUSIONS.

SPECIFIC NOTES

1. CJ, TYP
2. CONCRETE SLAB
3. RECYCLING DUMPSTER / CONTAINER, N.I.C.
4. RAISED CONC HOUSEKEEPING PAD, TYP
5. BOLLARD - PNT, TYP
6. EXPANSION JOINT, TYP
7. HEAVY DUTY HINGES
8. SLIDE BOLT
9. CANE BOLT
10. 2" SQUARE TUBING FRAME, TYP
11. PAINTED CEMENT PLASTER ON 8" CMU, TYP
12. CONTROL JOINT, TYP
13. DUMPSTER, N.I.C.
14. ALUM GATE
15. ALUM FENCE, TYP
16. ASPHALT SHINGLES ROOF
17. ALUM LOUVER GATE
18. BACK-UP DIESEL GENERATOR ON CONC PAD (ADD ALTERNATE)
19. HEAVY DUTY OXYGEN CYLINDER BRACKETS (4 CYLINDER TOTAL) - PROVIDED BY OWNER INSTALL BY GC.
20. CLOSET BEYOND
21. POSITION HINGES TO ALLOW GATE TO OPEN 120 DEG W/O CONFLICT W/ MASONRY WALLS, TYP.
22. 4"X4" ALUM POST
23. COORD RAISED CONC HOUSEKEEPING PAD WITH MECH & STRUCTURAL DWGS, TYP
24. CHILLER
25. 250 GAL PROPANE TANK - ABOVE GROUND. GC TO ENSURE 10FT CLEAR FROM ANY SOURCE OF IGNITION.
26. CONCRETE CURB, TYP
27. SLOPE FLOOR SLAB TOWARDS DRAIN OPENINGS ON WALLS (¼" SLOPE FROM CENTER)
28. 4" X 8" OPENING ON WALL - DRAIN, TYP

NOTES
A1

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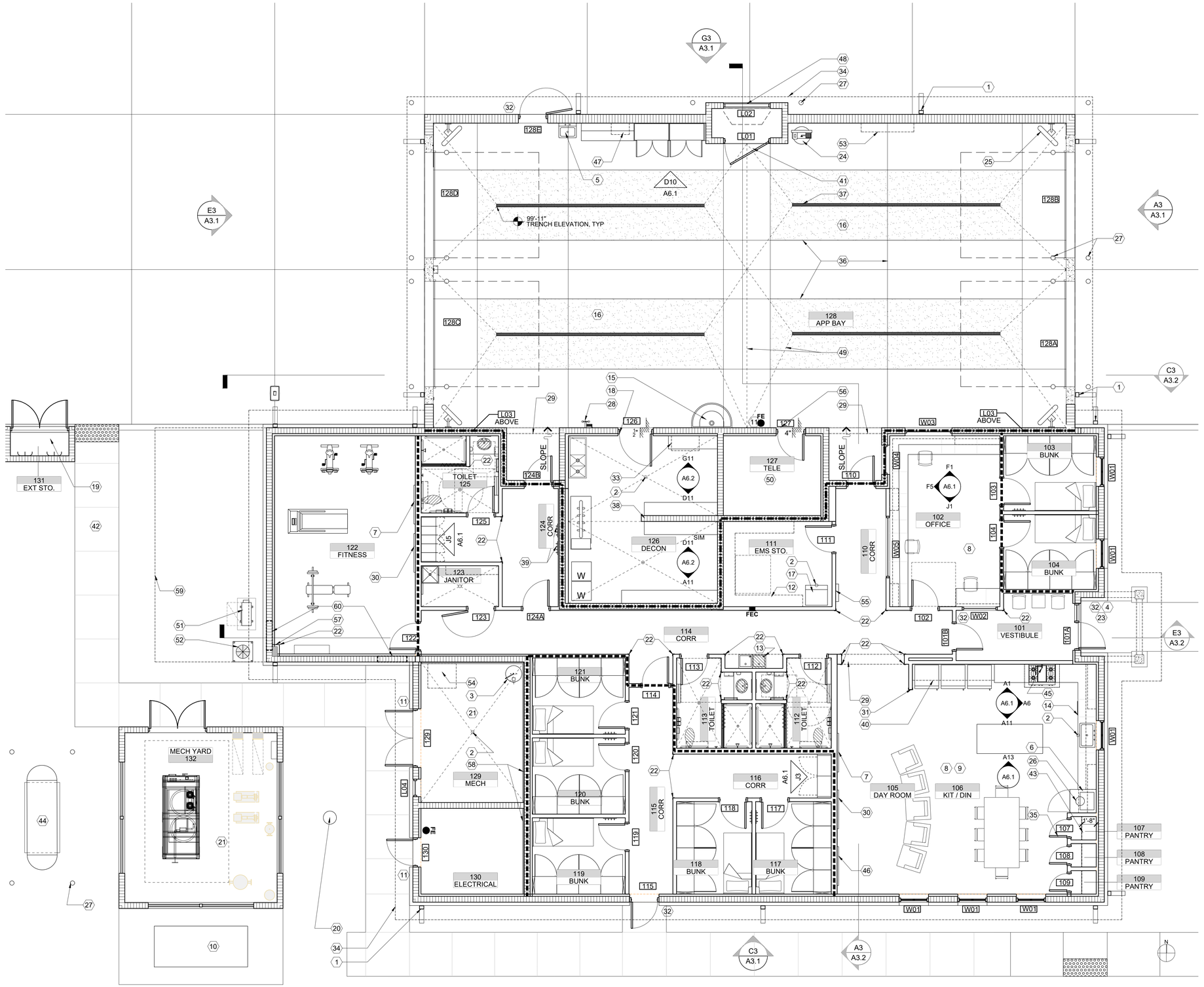
SITE PLAN
DETAILS

A1.2



GENERAL NOTES

1. RANGE/STOVE WILL BE GAS (PROPANE)
2. PROVIDE HOUSEKEEPING PADS (6" A.F.F) AT MECHANICAL EQUIPMENT.
3. CONCEAL VTR PIPING IN ADJACENT CONSTRUCTION. WHERE IMPRACTICAL ALERT ARCHITECT / ENGINEER.
4. PROVIDE DOUBLE ROLLER SHADE FOR ALL WINDOWS.
5. PROVIDE WAINSCOT AND CHAIR RAIL AT DAYROOM AND KITCHEN - COORD. W/ OWNER.

SPECIFIC NOTES

1. ALUM DOWNSPOUT, TYP
2. FLOOR DRAIN, TYP.
3. WATER HEATER
4. MEDECO BOX - FLUSH MOUNT
5. SERVICE SINK
6. BUILT-IN MICROWAVE
7. CCTV (WALL MOUNTED)
8. PROVIDE CCTV IN HOUSE / MAIN OFFICE
9. CELL PHONE BOOSTER
10. BACK-UP DIESEL GENERATOR ON CONC PAD (ADD ALTERNATE)
11. CARD READER
12. 16" DEEP CLOSETMAID CLOSE MESH SHELVING (SEE A1 /A6.3)
13. Hi-Lo WATER FOUNTAIN WITH WATER BOTTLE FILLER.
14. DISHWASHER
15. HAND WASH SINK (FOOT OPERATED)
16. EPOXY FLOORING (NON-WALKING SURFACES).
17. ICE MACHINE (ICE-O-MATIC CIM0530FR)
18. 48" WIDE DOOR
19. OXYGEN TANKS / BOTTLE STORAGE
20. 30 FT POLE FOR WEATHERBUG / RACES ANTENNAS
21. COORD RAISED CONC HOUSEKEEPING PAD(S) WITH MECH & STRUCTURAL DWGS, TYP
22. CORNER GUARDS, TYP.
23. DOOR BELL
24. AIR COMPRESOR (CPCI)
25. FAN, WALL-MOUNTED OSCILLATING
26. 44 GAL TRASH ON WHEELS INSIDE CABINET W/ 12" SQUARE GROMMET
27. BOLLARDS PNT, TYP
28. EMERGENCY EYEWASH / SHOWER
29. BULK HEAD ABOVE, TYP
30. TV (WALL MOUNTED)
31. WALL PROTECTOR
32. KEY PAD / CARD READER COMBO
33. DEHUMIDIFIER - SUSPENDED FROM CEILING AND STRUCTURE ABOVE, REFER TO MECH DETAILS.
34. ROOF OVERHANG ABOVE, TYP
35. 24" DOOR @ PANTRIES, TYP.
36. FLOOR CONTROL JOINTS, TYP.
37. FLOOR TRENCH, TYP.
38. LOW WALL - 7'-4" TALL
39. FOUR PRONG HOOK, TYP
40. SOFFIT ABOVE, TYP.
41. ACCESS PANEL (GALV STL) - PNT
42. SIDEWALK, TYP.
43. PANTRY SHELVES SYSTEM, TYP.
44. 250 GAL PROPANE TANK - ABOVE GROUND
45. POT FILLER
46. ADDITIONAL NOTIFICATION SYSTEM
47. PRESSURE WASHER
48. ALUMINUM WIND-DRIVEN RAIN RESISTANT LOUVER - (IMPACT RATED) AND ACOUSTICAL LOUVER
49. FLOOR SLOPE TO DRAIN - SHOWN FOR REFERENCE ONLY, TYP
50. PLYWOOD BACKBOARD ON ALL WALLS
51. STACKED CONDENSING UNIT, TYP
52. ICE MACHINE CONDENSING UNIT - (ICE-O-MATIC RCA 1001)
53. SS SHELF - 12" X 72" MOUNT AT 40" AFF
54. FIRE RISER
55. WEATHERBUG DISPLAY MOUNT AT 60" AFF
56. PAINT STEP SAFETY YELLOW
57. WALL CHASE - 6" X 12" CLEAR
58. TECTUM PANEL FLOOR TO CEILING - PNT, TYP
59. FUTURE BUILDING EXPANSION AREA
60. FUTURE DOOR OPENING, TYP

0 2'-8" 5'-4" 10'-8"

FLOOR PLAN 3/16" = 1'-0" | A3 | NOTES | A1

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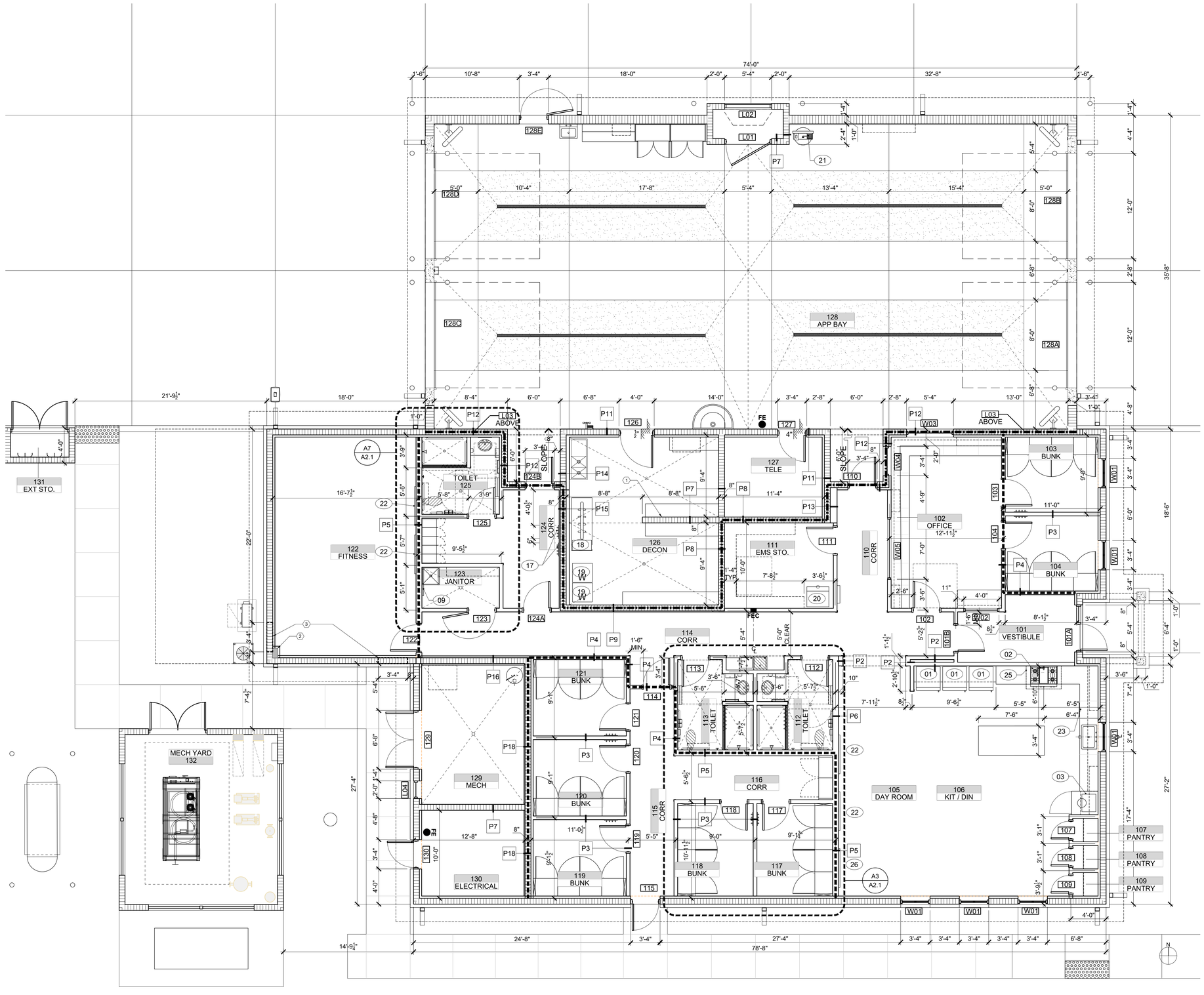
FLOOR PLAN

A1.3



GENERAL NOTES

1. ALL INTERIOR PARTITIONS ARE TYPE P1 UNO, TYP
2. PROVIDE CORNER GUARDS AT EXPOSED GWB CORNERS, TYP
3. WHERE ELEC, SERIES CALL FOR TV LOCATIONS COORD BLOCKING CONCEALED IN WALLS FOR OWNER PROVIDED MOUNTING BRACKETS.
4. EXTEND RATED WALL CONTINUOUSLY, VERTICALLY TO ROOF DECK; PROVIDE COMPOUND WALLS WHERE INDICATED IN PARTITION TYPE SCHEDULE
5. PROVIDE WD BLOCKING FOR ITEMS TO BE MOUNTED AT GWB LOCATIONS. COORD W/ PARTITION TYPE, MAINTAINING RATINGS, STC VALUES, INSULATION, ETC. IN THE WALL ASSEMBLY, TYP.
6. DOORS OPENING TO BE 4" FROM ADJACENT WALL UNO, TYP.
7. BUNK ROOM DOORS OPENING TO BE 6" FROM ADJACENT WALL, TYP.
8. REFER TO A2.1 FOR EQUIPMENT AND ACCESSORIES SCHEDULE.

SPECIFIC NOTES

1. PARTIAL HEIGHT WALL - 7'-4" TALL
2. WALL CHASE - 6" X 12" CLEAR
3. FUTURE DOOR OPENING - PROVIDE BOND BEAM REFER TO STRUCTURAL DWGS.

0 2'-8" 5'-4" 10'-8"

DIMENSIONED FLOOR PLAN
3/16" = 1'-0"

A3

NOTES A1

1315 E. SEVENTH AVENUE
SUITE 106
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601 E KENNEDY BLVD
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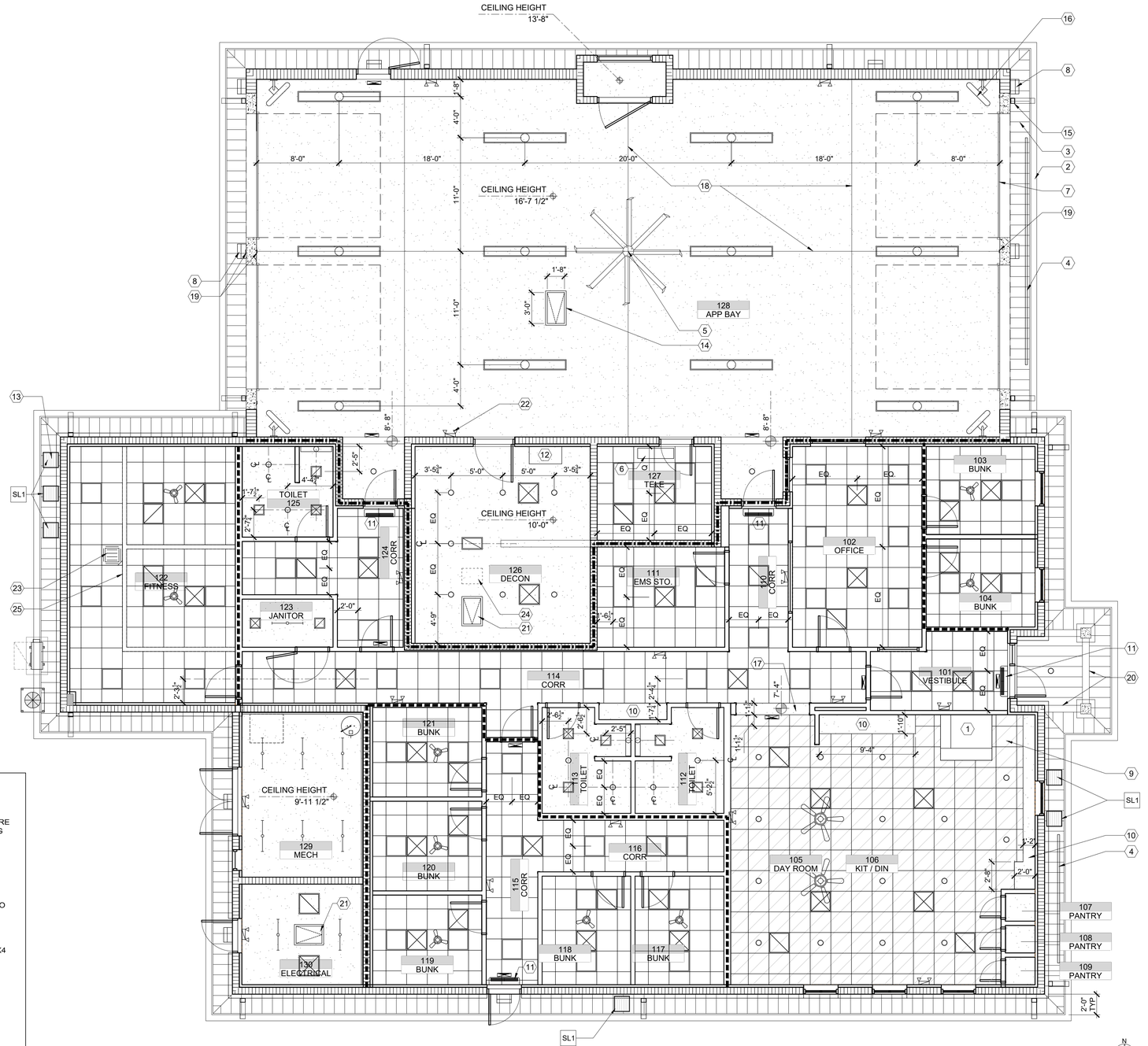
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

DIMENSIONED
FLOOR PLAN

A1.4

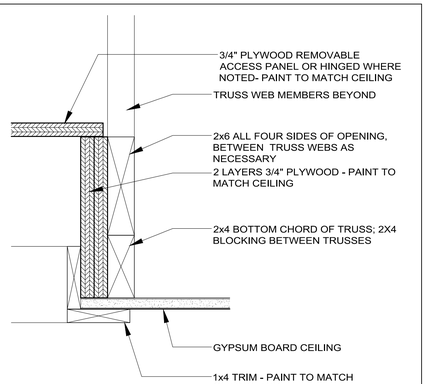


GENERAL NOTES

1. ALL CLGS (APC) ARE 9'-0" AFF (UNO).
2. ALIGN LIGHTS, OUTLETS, ETC. ON APPARENT CENTERLINES, TYP.
3. SPRINKLER HEADS INSTALLED IN APC AND GWB ARE TO BE RECESSED - CENTERED IN TILE.
4. CENTER SOFFIT LOUVERS IN THE OVERALL DEPTH OF THE SOFFIT.
5. COORDINATE ALL WORK ABOVE CEILING TO ENSURE LOCATIONS SHOWN FOR ELEC, MECH, FP, AND OTHER SYSTEMS ARE INSTALLED AS SHOWN IN ARCHITECTURAL RCP. WHERE LOCATIONS CREATE A COORDINATION ISSUE ALERT ARCHITECT PRIOR TO BIDDING FOR CLARIFICATION, COORDINATE ACCESS TO ABOVE CLG EQUIPMENT.
6. INSTALL MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL UNCONDITIONED WALLS, PARTITIONS AND CEILINGS.
7. REFER TO ELECTRICAL DWG FOR CAMERA LOCATIONS.
8. REFER TO ELECTRICAL DWG FOR SHORE LINE CONNECTION - COORD LOCATION W/ OWNER PRIOR TO INSTALL.

SPECIFIC NOTES

1. KITCHEN HOOD W/ UTILITY CABINET
2. GUTTER, TYP.
3. MTL SOFFIT PANEL, TYP.
4. LED LIGHT FIXTURE, TYP.
5. CEILING FAN
6. MINI SPLIT UNIT AIR HANDLER
7. OVERHEAD DOOR, TYP.
8. WALL MOUNTED LIGHT FIXTURE, TYP.
9. APC - 2 KITCHEN
10. SOFFIT - ELEV @ 7'-6"
11. AIR CURTAIN, TYP.
12. DEHUMIDIFIER - SUSPENDED FROM CEILING & STRUCTURE ABOVE
13. SOFFIT LOUVER, TYP
14. ATTIC ACCESS DOOR- COORD LOCATION W/ WD TRUSSES
15. ALUM DOWNSPOUT (BACK TO WALL), TYP.
16. OSCILLATING FAN - WALL MTD, TYP.
17. BULKHEAD - 7'-6" AFF
18. CEILING CONTROL JOINT @ BAY
19. GREEN LED SIGNAL LIGHT, TYP. (REFER TO ELECTRICAL DWGS.)
20. CEM PLASTERED BEAM
21. ACCESS PANEL HINGED ON ONE SIDE (20"X30") - COORD LOCATION FOR MAX ACCESS (PROVIDE ATTIC CLEAR HEADROOM OF NOT LESS THAN 30" ABOVE THE ACCESS OPENING).
22. EMERGENCY LIGHT FIXTURE, TYP
23. FOUR WAY CEILING CASSETTE UNIT
24. GRAVITY VENT ON ROOF - (SHOWN FOR REFERENCE ONLY).
25. BULKHEAD, TYP - 8'-10" AFF



TYPICAL ATTIC ACCESS DOOR DETAIL — A13
SCALE: 3" = 1'-0"

0 2'-8" 5'-4" 10'-8"

REFLECTED CEILING PLAN — A3
3/16" = 1'-0"

NOTES — A1

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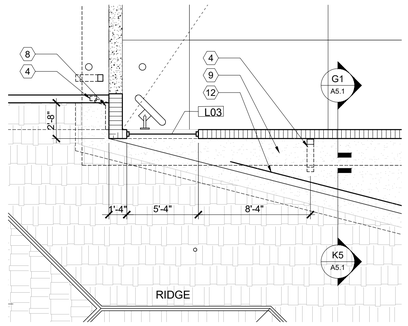
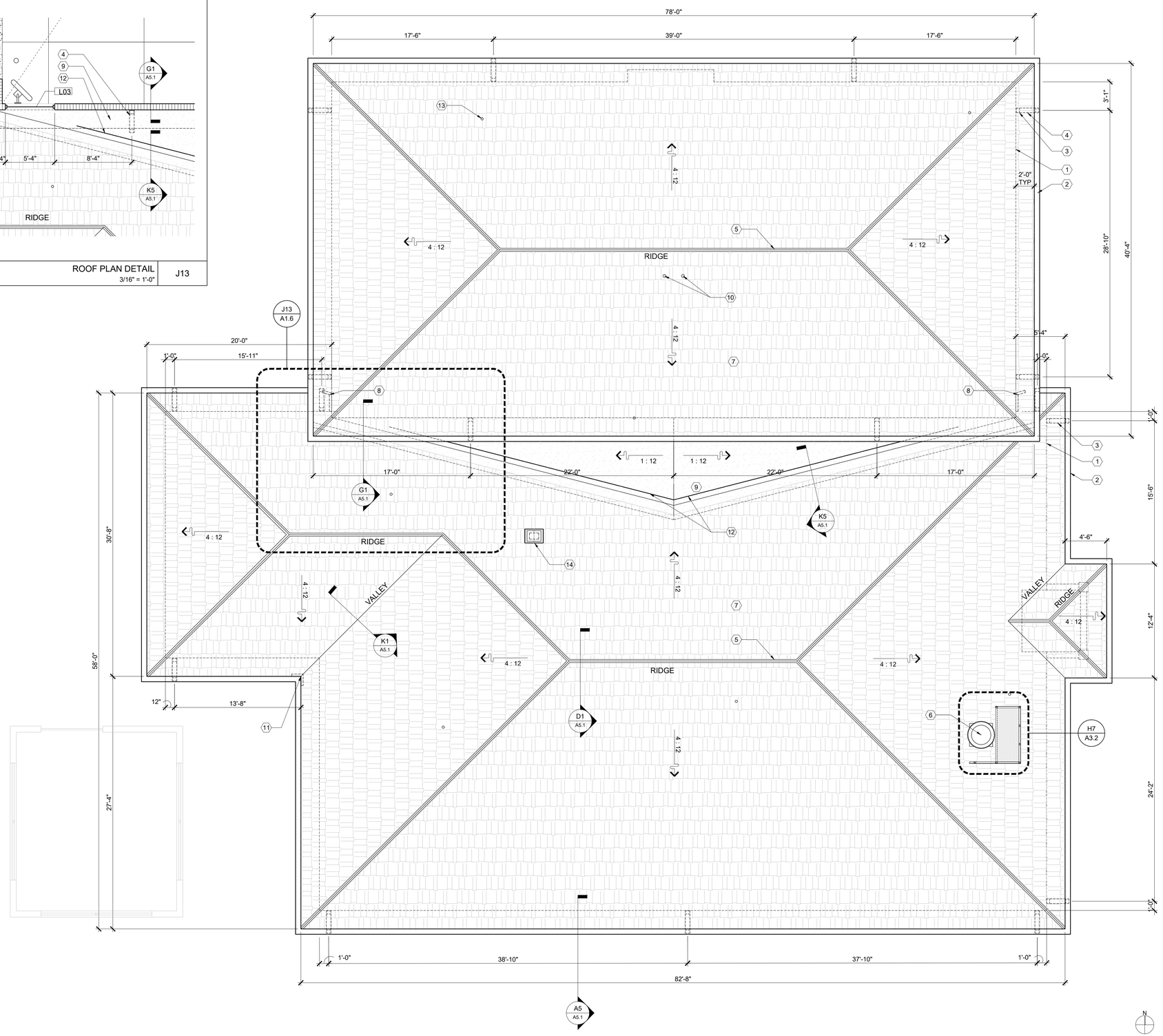
REFLECTED
CEILING PLAN

A1.5



ROOF PLAN DETAIL
3/16" = 1'-0"

J13



ROOF DRAINAGE SIZING

PER FBC PLUMBING 1105 & 1106:
THE PROJECT LARGEST HORIZONTAL CONTRIBUTING ROOF AREA SERVED BY ONE PRIMARY ROOF DRAIN IS 1,427 SF.

FLOW RATE BASED ON 1,427 SF AND 4.5 IN PER HOUR (100 YEAR PER FIG 1106.1, PLUMBING) X 0.0104 = 67 GPM.

REQUIRED (VERTICAL LEADER SIZING PER FBC TABLE P1106.3):
MINIMUM DOWNSPOUT SIZING REQUIRED = 2 X4 BASED ON MAX CAPACITY OF 92 GPM.
PROVIDE = 3 1/2 X 4 MIN.

REQUIRED (HORIZONTAL GUTTER SIZING PER FBC TABLE P1106.6):
MINIMUM GUTTER SIZING REQUIRED = 2 $\frac{1}{2}$" X 3" SLOPED 1/2 BASED ON MAX CAPACITY OF 87 GPM.
PROVIDE = 4 1/2 X 6 (PER DETAIL ON SHEET A5.1)

GENERAL NOTES

1. ROOF SLOPE TO BE 4:12, UNO.
2. ROOF OVERHANG - 2'-0", UNO, TYP.
3. ASPHALT SHINGLES ROOF TYP. UNO.
4. DAS ROOF PENETRATIONS TO BE COORD W/ OWNER

SPECIFIC NOTES

1. FACE OF WALL BELOW, TYP.
2. ALUM GUTTER, TYP
3. ALUM DOWNSPOUT, TYP
4. DS CONNECTION TO GUTTER, TYP
5. RIDGE CAP, TYP
6. KITCHEN EXHAUST FAN (ALIGN W/ WINDOW BELOW)
7. ASPHALT SHINGLES ROOF, TYP.
8. KICK-OUT DIVERTER
9. THERMOPLASTIC MEMBRANE ROOF CRICKET - SLOPE 1" : 12", TYP
10. 3FT STUB-UP CAPPED W/ WEATHERHEAD.
11. ROOF VALLEY GUTTER DIVERTER
12. WATER DIVERTER
13. VTR, TYP - REFER TO PLUMBING DWGS.
14. GRAVITY VENT

0 2'-8" 5'-4" 10'-8"

ROOF PLAN
3/16" = 1'-0"

A3

NOTES

A1

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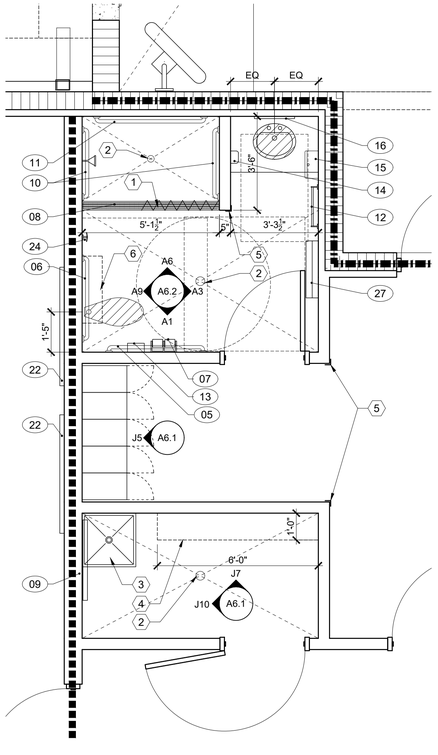
ROOF PLAN

A1.6

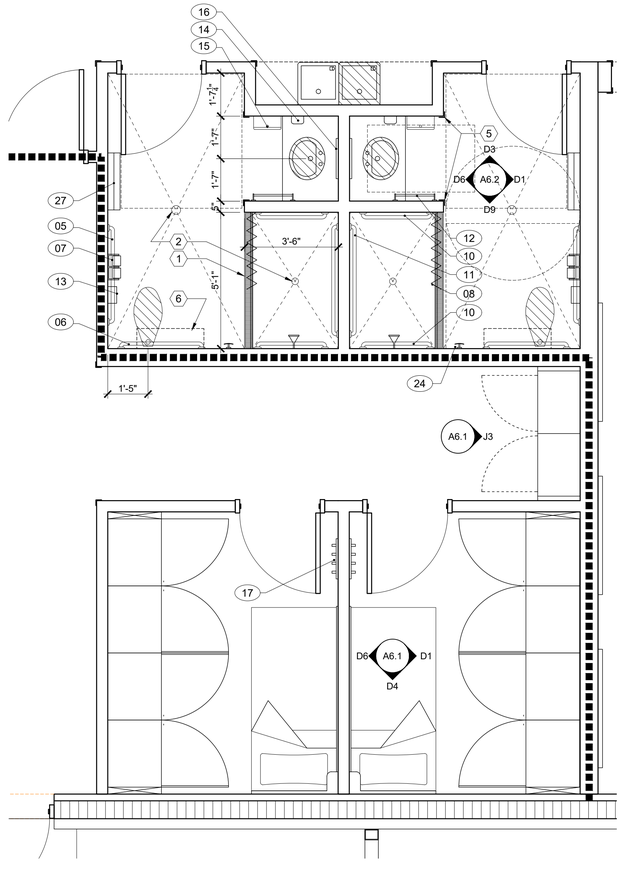
EQUIPMENT / ACCESSORY SCHEDULE (01)

NUMBER	DESCRIPTION	CONTRACT STATUS				REMARKS
		CP	OP	CI	OI	
01	REFRIGERATOR	•		•		-
02	GAS RANGE	•		•		-
03	BUILT-IN MICROWAVE	•		•		-
05	42 IN GRAB BAR	•		•		-
06	36 IN GRAB BAR	•		•		-
07	TOILET PAPER HOLDER	•		•		-
08	SHOWER ROD & CURTAIN	•		•		-
09	MOP AND BROOM HOLDER	•		•		-
10	30 IN GRAB BAR	•		•		-
11	48 IN GRAB BAR	•		•		-
12	18 IN TOWEL BAR	•		•		-
13	SANITARY NAPKIN DISPOSAL	•		•		-
14	SOAP DISPENSER	•		•		-
15	PAPER TOWEL DISPENSER	•		•		-
16	MIRROR	•		•		-
17	FOUR PRONG HOOK	•		•		-
18	GEAR DRYER	•		•		-
19	WASHER	•		•		-
20	ICE MAKER	•		•		-
21	AIR COMPRESOR (CPCI)	•		•		-
22	TV 60 INCH & MOUNTING BRACKET		•	•		-
23	DISHWASHER	•		•		-
24	ROBE HOOK	•		•		-
25	KITCHEN HOOD W/ UTILITY CABINET	•		•		-
26	TV 40 INCH & MOUNTING BRACKET		•	•		-
27	FOLDING SEAT	•		•		-

EQUIPMENT AND ACCESSORIES SCHEDULE
NTS
G3



TOILET 125 AND JANITOR ENLARGED PLAN
3/8" =1'-0"
A7



TOILETS AND BUNKROOMS ENLARGED PLAN
3/8" =1'-0"
A3

GENERAL NOTES

1. PROVIDE UNDER LAVATORY GUARDS AT RESTROOMS, TYP.

SPECIFIC NOTES

1. TRENCH DRAIN @ SHOWER EDGE, TYP.
2. FLOOR DRAIN
3. MOP SINK
4. 12" DEEP CLOSET MAID CLOSE MESH SHELVING.
5. CORNER GUARD
6. CABINET ABOVE

NOTES
A1

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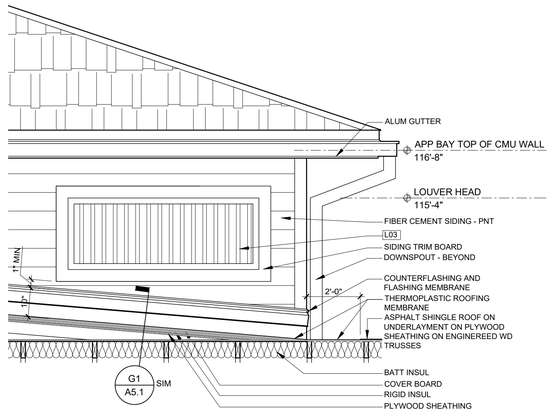
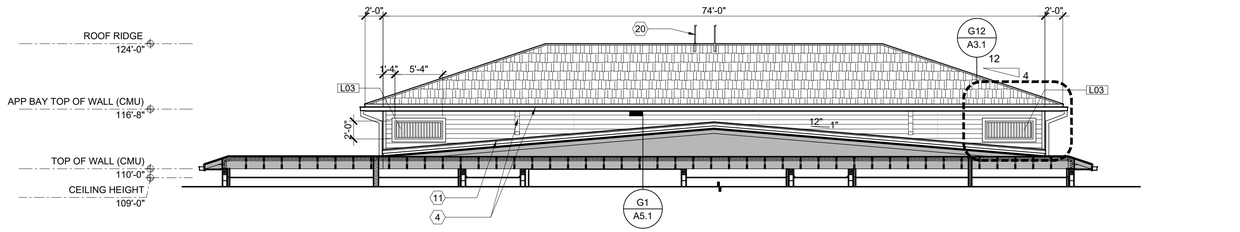
ENLARGED FLOOR PLANS

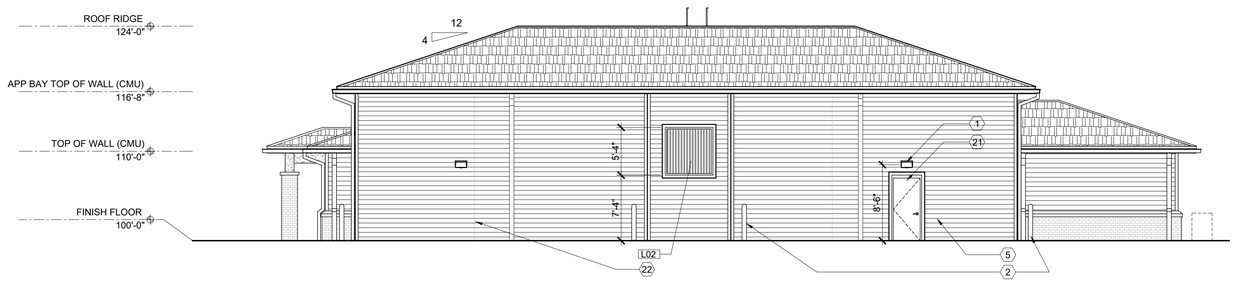
A2.1



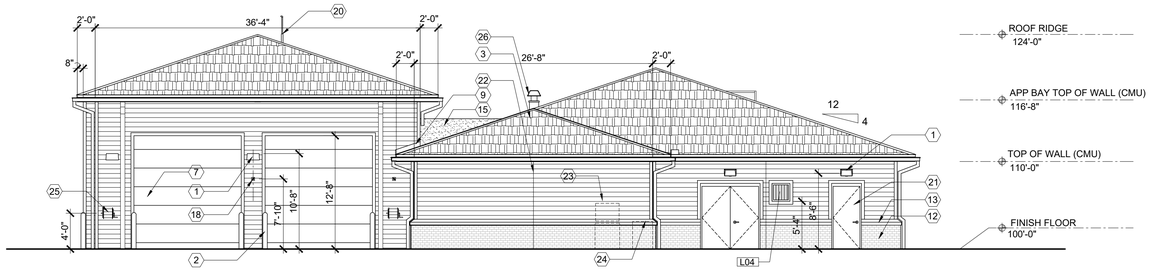
ENLARGED SECTION
1/2" = 1'-0"
G12



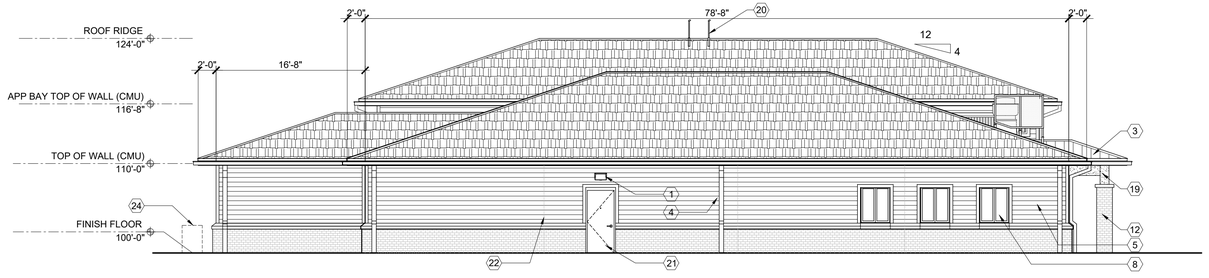
0 4' 8' 16'
APP BAY SOUTH ELEVATION
1/8" = 1'-0"
K3



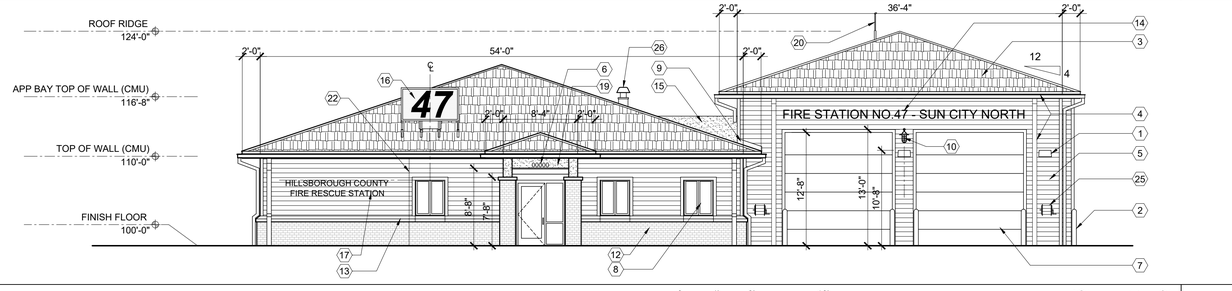
0 4' 8' 16'
APP BAY SIDE ELEVATION
1/8" = 1'-0"
G3



0 4' 8' 16'
REAR ELEVATION
1/8" = 1'-0"
E3



0 4' 8' 16'
LIVING QUARTERS SIDE ELEVATION
1/8" = 1'-0"
C3



0 4' 8' 16'
FRONT ELEVATION
1/8" = 1'-0"
A3

GENERAL NOTES

1. EXT OPENINGS (WINDOWS, DOORS, LOUVERS, ETC.) SHALL BE IMPACT RESISTANT- MISSILE "E", TYP.

SPECIFIC NOTES

1. WALL PACK LIGHT FIXTURE, TYP
2. BOLLARD, TYP.
3. ASPHALT SHINGLES ROOF, TYP.
4. PRE-FINISHED ALUM GUTTER & DOWNSPOUT, TYP.
5. FIBER-CEMENT SIDING,TYP.
6. 6" H - CAST ALUM PLATE ADDRESS NUMBERS. FONT TO BE HELVETICA MEDIUM.
7. SECTIONAL OVERHEAD DOOR, IMPACT RESISTANT, TYP.
8. ALUM TWIN CASEMENT WINDOW, TYP.
9. KICK-OUT DIVERTER
10. DECORATIVE RED LENS LIGHT FIXTURE, TYP.
11. CRICKET SS FLASHING
12. BRICK VENNER - WAINSCOTTING, TYP.
13. CAST STONE SILL, TYP.
14. CAST ALUM PLATE LETTERS - 12" H, FONT TO BE HELVETICA MEDIUM
15. CRICKET
16. HALO LIT ALUM NUMBER MOUNTED TO A PERFORATED, PAINTED ALUM PANEL ATTACHED TO ROOFTOP PLATFORM GUARDRAIL.
17. CAST ALUM PLATE LETTERS - 8" H. FONT TO BE HELVETICA MEDIUM - ALIGN WITH TOP OF WINDOW.
18. GREEN LED SIGNAL, TYP.
19. CEM PLASTER
20. 3FT STUB-UP CAPPED W/ WEATHERHEAD - PNT TO MATCH ROOF
21. HMF AND DOOR - MISSILE "E", TYP
22. MASONRY CONTROL JOINT, TYP
23. CONDENSING UNITS STACKED (NOT SHOWN FOR CLARITY)
24. ICE MAKER CONDENSING UNIT (NOT SHOWN FOR CLARITY)
25. WALL MOUNTED HOSE REEL, TYP
26. GRAVITY VENT

NOTES
A1

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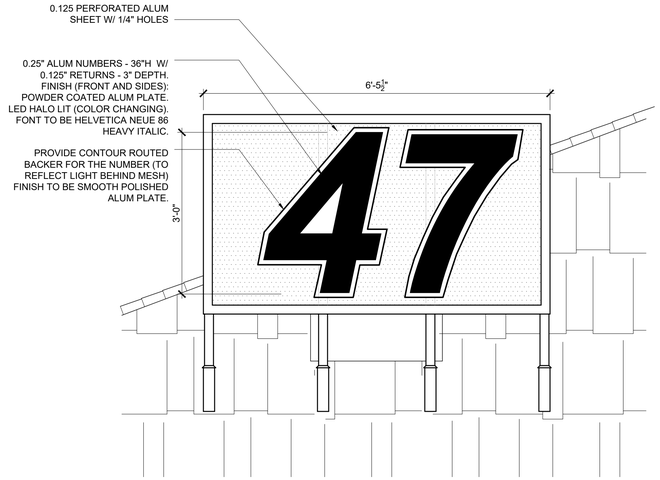
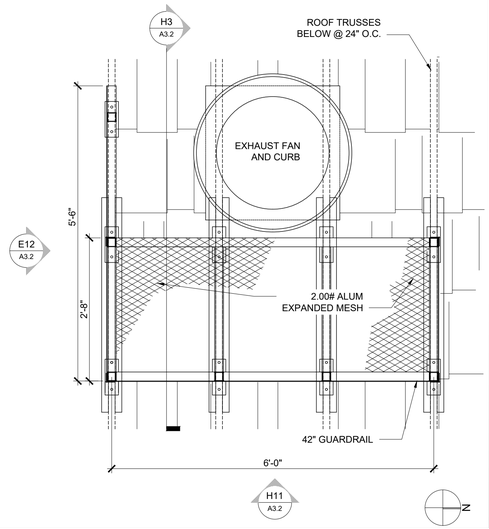
EXTERIOR
ELEVATIONS

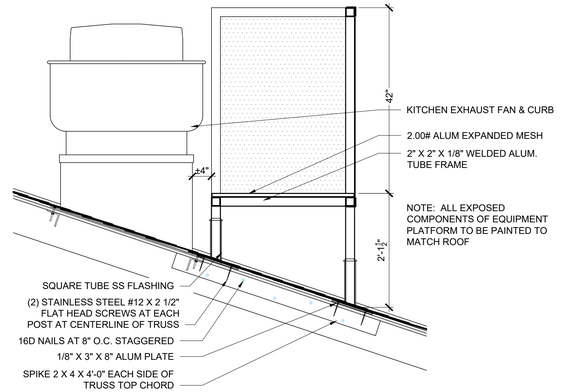
A3.1



EXHAUST FAN ENCLOSURE FRONT ELEVATION
3/4" =1'-0" | H11

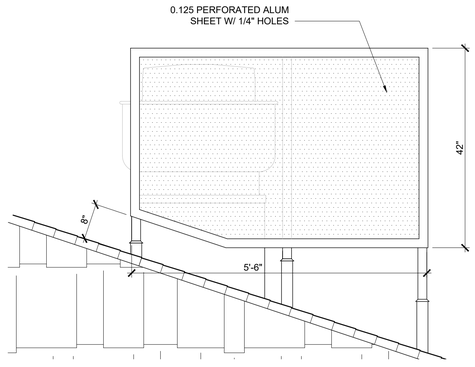


EXHAUST FAN ENLARGED PLAN
3/4" =1'-0" | H7

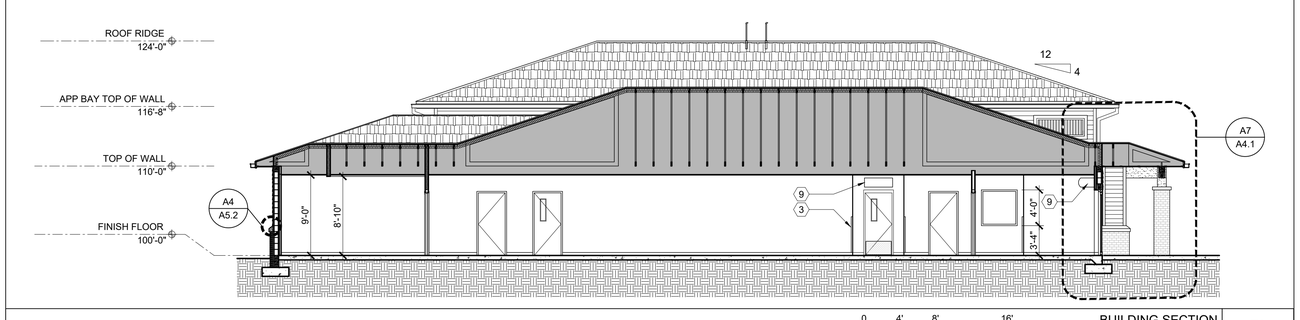


NOTE: ENCLOSURE PROVIDES ALL PROTECTION REQUIREMENT FOR EXHAUST FAN SERVICE

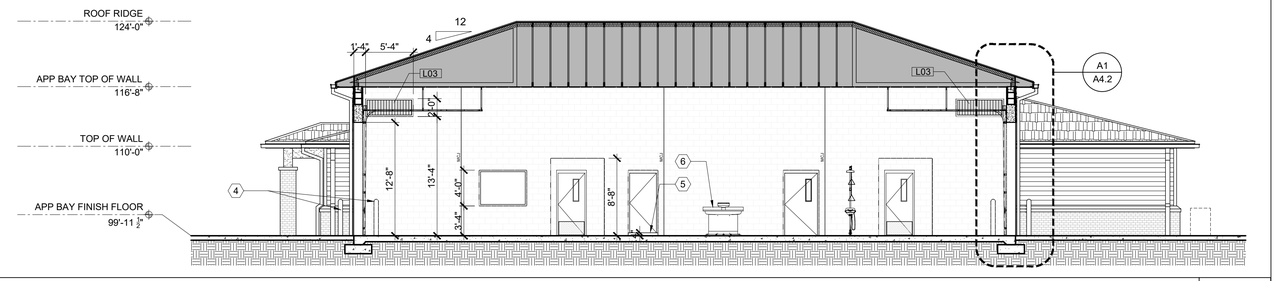
EXHAUST FAN ENCLOSURE SECTION
3/4" =1'-0" | H3



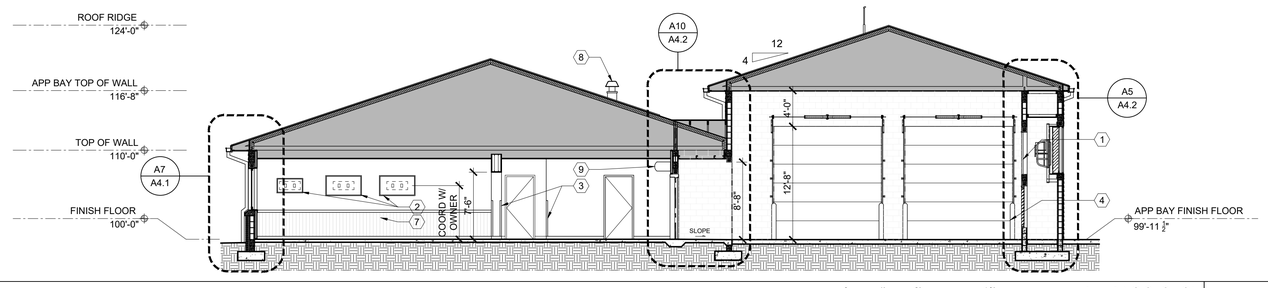
EXHAUST FAN ENCLOSURE SIDE ELEVATION
3/4" =1'-0" | E12



0 4' 8' 16'
BUILDING SECTION
1/8" = 1'-0" | E3



0 4' 8' 16'
BUILDING SECTION
1/8" = 1'-0" | C3



0 4' 8' 16'
BUILDING SECTION
1/8" = 1'-0" | A3

GENERAL NOTES

1. EXT OPENINGS (WINDOWS, DOORS, LOUVERS, ETC.) SHALL BE IMPACT RESISTANT - MISSILE "E", TYP.
2. CLG HT IS 9'-0" UNO, TYP.
3. RIGID INSUL @ EXT WALLS TO BE INSTALLED CONTINUOUS. OUTLETS, JUNCTION BOXES, ETC. TO BE INSTALLED IN MTL STUDS SPACE ADJACENT TO CMU WALL/ INSUL.
4. PROVIDE CONTINUOUS THERMAL/ VAPOR/ AIR ENVELOPE.

SPECIFIC NOTES

1. ACCESS PANEL
2. TV WALL MOUNTED - COORD POWER AND DATA OUTLETS LOCATIONS TO BE CONCEALED BEHIND TV AND COORD W/ SELECTED SUPPORT BRACKET.
3. CORNER GUARD, TYP
4. BOLLARD, TYP
5. TELECOM ROOM FLOOR IS 4" ABOVE APP BAY FINISH FLOOR. PNT STEP SAFETY YELLOW
6. HAND WASH SINK (FOOT OPERATED)
7. WAINSCOT AND CHAIR RAIL
8. GRAVITY VENT (BEYOND)
9. AIR CURTAIN

NOTES
A1

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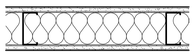
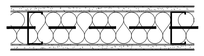
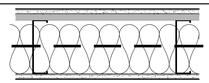
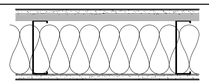
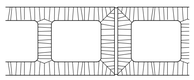
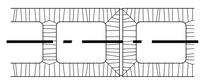
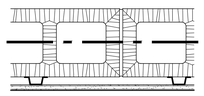
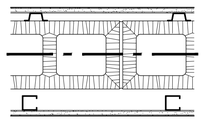
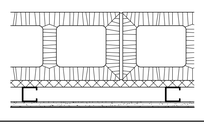
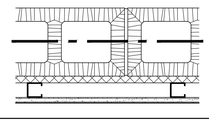
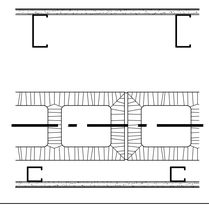
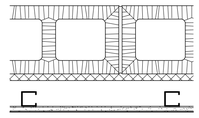
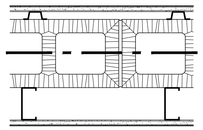
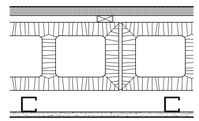
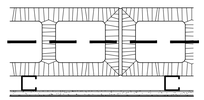
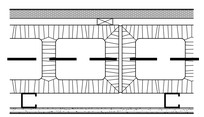
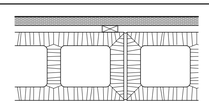
BUILDING SECTIONS AND DETAILS

A3.2

PARTITION TYPE	PLAN SECTION	DESCRIPTION	FIRE RATED PARTITIONS	
			RATING	DETAIL
P1		3-5/8" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EACH SIDE STC: 40 | USG-860808		
P2		3-5/8" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON ONE SIDE		
P2A		1-5/8" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON ONE SIDE		
P3		3-5/8" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EACH SIDE AND 3-1/2" BLANKET INSULATION EXTEND TO DECK ON BUNK ROOMS. STC: 49 | SA-870717		
P4		3-5/8" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EACH SIDE AND 3-1/2" BLANKET INSULATION EXTEND TO DECK ON BUNK ROOMS. STC: 49 | SA-870717	SMOKE	F1 / A4.1
P5		6" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EACH SIDE AND 5" BLANKET INSULATION. RC-1 CHANNEL OR EQUIVALENT ON ONE SIDE SPACE 16" OC. STC: 56 | RAL-TL-84-141	SMOKE	
P6		6" METAL STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ON EACH SIDE AND 5" BLANKET INSULATION. RC-1 CHANNEL OR EQUIVALENT ON ONE SIDE SPACE 16" OC. STC: 56 | RAL-TL-84-141		
P7		8" CMU		
P8		8" CMU	1 HOUR (UL 905)	A1 / A4.1 E4 / A4.1
P9		8" CMU WITH 5/8" GYPSUM BOARD ON 7/8" METAL FURRING (16" OC) ON ONE SIDE	1 HOUR (UL 905)	A1 / A4.1 E4 / A4.1
P10		8" CMU WITH 5/8" GYPSUM BOARD ON 7/8" METAL FURRING (16" OC) ON ONE SIDE AND 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS AND 3/4" GAP ON ONE SIDE.	1 HOUR (UL 905)	A1 / A4.1 E4 / A4.1
P11		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC) AND 3/4" RIGID INSULATION ON ONE SIDE.		
P12		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC) AND 3/4" RIGID INSULATION ON ONE SIDE.	1 HOUR (UL 905)	A1 / A4.1 E4 / A4.1
P13		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC) AND 3/4" GAP ON ONE SIDE. ON THE OTHER SIDE 5/8" GYPSUM BOARD ON 3-5/8" METAL STUDS AND GAP OF APPOX. 5" (ALIGN TO ADJACENT PARTITION)	1 HOUR (UL 905)	A1 / A4.1 E4 / A4.1

WALL TYPE	PLAN SECTION	DESCRIPTION	FIRE RATED PARTITIONS	
			RATING	DETAIL
P14		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC), 1-1/4" APPROX. GAP AND 3/4" RIGID INSULATION ON ONE SIDE.		
P15		8" CMU WITH 5/8" GYPSUM BOARD ON 7/8" METAL FURRING (16" OC) ON ONE SIDE AND 5/8" GYPSUM BOARD ON 3-5/8" METAL STUDS ON OTHER SIDE.	1 HOUR (UL 905)	A1 / A4.1 E4 / A4.1
P16		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC), 3/4" GAP ON ONE SIDE AND TECTUM PANELS ON 1X FURRING STRIPS (24" OC) ON THE OTHER SIDE (MECHANICAL ROOM).		
P17		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC) ON ONE SIDE.	SMOKE	
P18		8" CMU WITH 5/8" GYPSUM BOARD ON 1-5/8" METAL STUDS (16" OC) ON ONE SIDE AND TECTUM PANELS ON 1X FURRING STRIPS (24" OC) ON THE OTHER SIDE (MECHANICAL ROOM) PROVIDE STC: 55 - MINIMUM	SMOKE	
P19		8" CMU AND TECTUM PANELS ON 1X FURRING STRIPS (24" OC) ON ONE SIDE (MECHANICAL ROOM)		

PARTITION SCHEDULE NOTES

A. INT WALLS WITHOUT WALL TAGS ARE TYPE P1, TYP.
B. THE FOLLOWING INTERIOR WALL FINISH SUBSTRATES ARE TO BE PROVIDED IN LIEU OF GYPSUM BOARD (IN LIKE THICKNESS)
   - MOISTURE RESISTANT GYPSUM BOARD ON FIXTURE SIDE OF ALL PLUMBING WALLS
   - SILICONE IMPREGNATED TILE BACKER BOARD ON SIDE OF WALLS SCHEDULED TO RECEIVE CERAMIC TILE
   - ABUSE RESISTANT GYPSUM BOARD WHERE INDICATED ON FLOOR PLAN

C. REFERENCES HEREIN TO FIRE RATINGS APPLY ONLY TO WALLS GRAPHICALLY DESIGNATED IN PLAN TO BE FIRE RATED IN ACCORDANCE WITH THE "WALL LEGEND."
D. WALL TYPE INDICATED SHALL CONTINUE OVER DOOR OPENINGS AND OVER/BELOW GLAZED OPENINGS OR WINDOWS AS REQ'D. COORDINATE WITH FRAME DETAILS.
E. WALL TYPES LISTED HEREIN WITH AN STC RATING ARE CONSIDERED TO BE "ACOUSTIC WALLS."
F. STC RATINGS INDICATED HEREIN ARE DERIVED FROM THE LABORATORY TEST INDICATED IN THE "DESIGN REFERENCE" COLUMN. TEST SOURCES ARE AS FOLLOWS:

USG, SA, BBN:	UNITED STATES GYPSUM
NGC:	NATIONAL GYPSUM COMPANY
KAL:	KODARS ACOUSTICAL LABS
TL:	ETL-SEMKO

G. CONSTRUCT ACOUSTIC WALLS TO COMPLY WITH THE FOLLOWING REQUIREMENTS:
   1. FILL ALL WALL PENETRATIONS W/ BATT INSULATION AND SEAL W/ ACOUSTICAL SEALANT.
   2. STAGGER ELECTRICAL AND COMMUNICATIONS BOXES A MINIMUM OF 16" HORIZONTALLY.
   3. APPLY ACOUSTIC SEALANT AT PERIMETER OF STUD WALLS, TYP.
   4. GYPSUM BOARD FASTENERS MUST NOT CONTACT MASONRY ON CMU WALLS HAVING GYP BD ON FURRING STRIPS.

H. METAL STUD & GYPSUM BOARD WALLS WITH EQUIVALENT OR BETTER FIRE & STC RATINGS MAY BE SUBSTITUTED FOR CMU WALLS ABOVE THE CEILING LEVEL. THE INTEGRITY OF SOUND & FIRE RATINGS MUST BE MAINTAINED.
I. EXTEND RATED PARTITIONS TO THE UNDERSIDE OF THE ROOF SHEATHING AT HOUSING PORTION OF STATION.

GENERAL NOTES - DIMENSIONING

1. DIMENSIONS LOCATING NEW EXTERIOR MASONRY WALLS ARE TO EXTERIOR FACE OF MASONRY SUBSTRATE.
2. DIMENSIONS LOCATING NEW INTERIOR MASONRY WALLS ARE TO FACE OF MASONRY.
3. DIMENSIONS LOCATING NEW INTERIOR STUD WALLS ARE TO CENTERLINE OF WALLS.
4. IF THE LOCATION OF ANY BUILDING ELEMENT IS NOT OBVIOUS OR CANNOT BE DETERMINED BY DIMENSION, MATHEMATICS, OR AS NOTED ABOVE, CONTACT THE ARCHITECT PRIOR TO LOCATING THE ELEMENT.

PARTITION SCHEDULE 1 1/2" =1'-0" A3

NOTES A1

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HILLSBOROUGH COUNTY BOARD
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COUNTY CENTER
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TAMPA, FL 33601

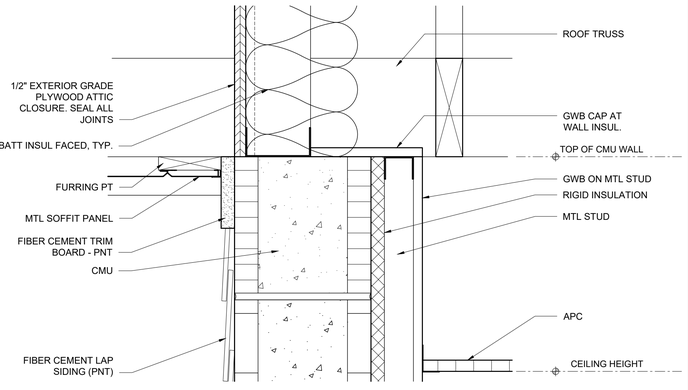
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

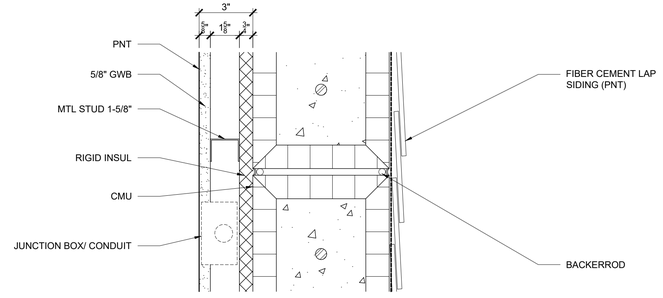
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

PARTITION TYPES

A4.0

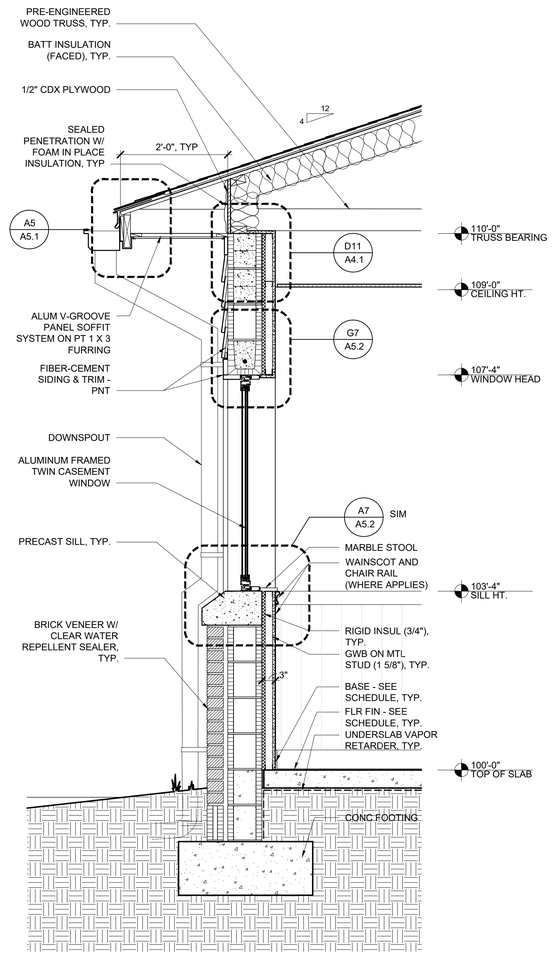


EXT WALL - TYP
3" = 1'-0" | D11



NOTE: CONDITION SHOWS VERTICAL MAS CONTROL JOINT

EXT WALL - TYP
3" = 1'-0" | A11



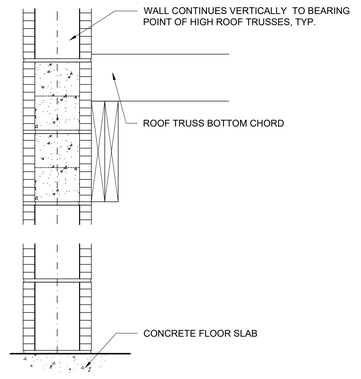
NOTE: PROVIDE TERMICIDE AT NEW CONSTRUCTION, TYP.

WALL SECTION
3/4" = 1'-0" | A7

FIRE RATED WALL NOTES

1. HORIZONTAL JOINTS BETWEEN VERTICALLY ORIENTED GYPSUM BOARD SHEETS SHALL BE BACKED WITH HORIZONTAL STUDS SPANNING BETWEEN VERTICAL STUDS. MATCH VERTICAL WALL STUDS IN GAGE, SIZE, AND FASTENING.
2. NONMETALLIC ELECTRICAL OUTLET BOXES SHALL NOT BE INSTALLED ON OPPOSITE SIDES OF RATED WALLS UNLESS CLASSIFIED FOR FIRE RESISTANCE AS DEFINED BY UL SECTION "OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE."
3. METALLIC ELECTRICAL OUTLET BOXES SHALL NOT EXCEED 16 SQUARE INCHES WITHIN THE WALL FACE, NOR EXCEED 100 SQUARE INCHES AGGREGATE SURFACE AREA PER 100 SQUARE FEET OF WALL SURFACE. MAINTAIN MAXIMUM OF 1/8" CLEARANCE BETWEEN BOX AND GYPSUM BOARD. METALLIC BOXES ON OPPOSITE SIDES OF A WALL SHALL BE SEPARATED BY A MINIMUM OF 24" HORIZONTALLY, UNLESS WALL OPENING PROTECTIVE MATERIALS ARE INSTALLED PER REQUIREMENTS OF THEIR CLASSIFICATION, AS DEFINED BY UL SECTION "WALL OPENING PROTECTIVE MATERIALS." ELECTRICAL BOXES EXCEEDING 16 SQUARE INCHES IN FIRE RATED STUD WALLS SHALL BE FRAMED BY STUDS AND INSTALLED WITH A PUTTY PAD APPROVED FOR NECESSARY SIZE, INSTALLED PER MANUFACTURER INSTRUCTIONS.
4. ALL PENETRATIONS SHALL BE SEALED PER APPROPRIATE UL TESTED METHODS, AS DEFINED BY UL SECTION "THROUGH-PENETRATION FIRESTOP SYSTEMS." PENETRATIONS THROUGH CMU RATED WALLS SHALL BE COMPLETELY SURROUNDED BY NON-SHRINK GROUT, WITH NON-COMBUSTIBLE CMU CELL CLOSURE.
5. ALL NAILS SHALL MEET REQUIREMENTS OF ASTM F547 OR ASTM C514.
6. ALL SCREWS SHALL MEET REQUIREMENTS OF ASTM C1002 OR ASTM C954.
7. ALL EXPOSED FINISHES SHALL MEET A FLAME SPREAD INDEX OF LESS THAN 200 AND SMOKE DEVELOPMENT INDEX OF LESS THAN 450, BASED ON TEST METHOD ANSI/UL 723.
8. GAGES, SIZES, FASTENERS, AND OTHER QUANTITATIVE NOTES ARE MINIMUMS FOR FIRE RATING REQUIREMENT. IF CONFLICTING WITH OTHER SPECS AND/OR DRAWINGS, THE MORE STRINGENT NOTE/SPEC TAKES PRECEDENCE.
9. FIRE RATED WALLS MUST BE CONSTRUCTED TO ENSURE CONTINUITY OF REQUIRED FIRE RATING. MORE STRINGENT FIRE RATINGS REQUIRE CONTINUITY OVER LESS STRINGENT FIRE RATINGS. FOR EXAMPLE, ENVELOPE OF A FIRE RATED WALL MUST BE COMPLETE PRIOR TO ATTACHMENT OF INTERSECTING NON-RATED WALLS.

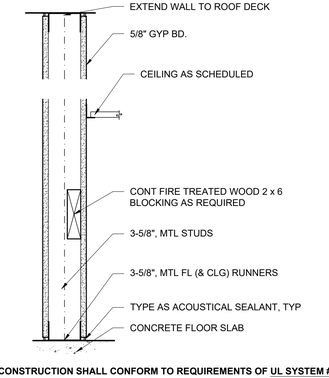
FIRE RATED PARTITION DETAIL
1 1/2" =1'-0" | J1



CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF UL SYSTEM #U905, 1 HOUR FIRE RATED

NOTES:
1. WALL FINISH SUBSTRATES ARE NOT SHOWN FOR SAKE OF CLARITY AND MAY OR MAY NOT APPLY TO THIS DETAIL - REFER TO "PARTITION TYPE SCHEDULE" FOR FINISH SUBSTRATE MATERIALS, IF ANY, THAT MAY BE REQUIRED.

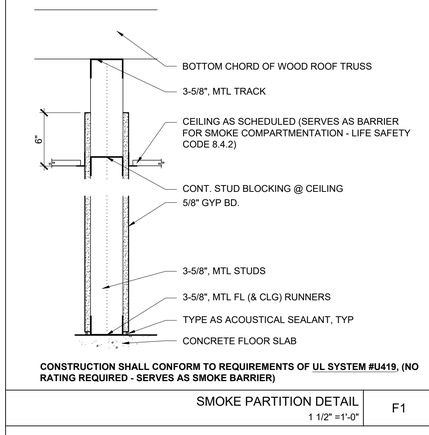
FIRE RATED PARTITION DETAIL
1 1/2" =1'-0" | E4



CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF UL SYSTEM #U419, 1 HOUR FIRE RATED

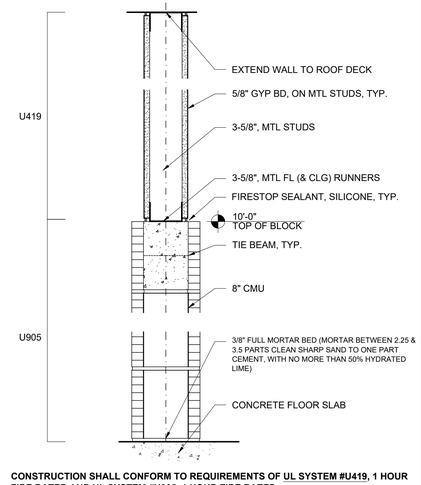
NOTES:
1. HORIZONTAL GYP BD JOINTS OPPOSITE SIDES OF WALL ABOVE CEILING MUST BE STAGGERED BY MIN 1'-0".
2. WHERE WALL INTERSECTS WITH JOIST, BEAM, TRUSS, OR OTHER STRUCTURE AT TOP OF WALL, PROVIDE ADDITIONAL FRAMING AS REQ'D TO ENSURE GYP BD EXTENDS UNSUPPORTED NO GREATER THAN 6". INFILL AROUND STRUCTURE WITH FIRE SAFING.

FIRE RATED PARTITION DETAIL
1 1/2" =1'-0" | A4



CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF UL SYSTEM #U419, (NO RATING REQUIRED - SERVES AS SMOKE BARRIER)

SMOKE PARTITION DETAIL
1 1/2" =1'-0" | F1



CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF UL SYSTEM #U419, 1 HOUR FIRE RATED AND UL SYSTEM #U905, 1 HOUR FIRE RATED.

NOTES:
1. HORIZONTAL GYP BD JOINTS OPPOSITE SIDES OF WALL ABOVE CEILING MUST BE STAGGERED BY MIN 1'-0".
2. WHERE WALL INTERSECTS WITH JOIST, BEAM, TRUSS, OR OTHER STRUCTURE AT TOP OF WALL, PROVIDE ADDITIONAL FRAMING AS REQ'D TO ENSURE GYP BD EXTENDS UNSUPPORTED NO GREATER THAN 6". INFILL AROUND STRUCTURE WITH FIRE SAFING, TYP.
3. WALL FINISH SUBSTRATES ARE NOT SHOWN FOR SAKE OF CLARITY AND MAY OR MAY NOT APPLY TO THIS DETAIL - REFER TO "INTERIOR WALL TYPE SCHEDULE" FOR FINISH SUBSTRATE MATERIALS, IF ANY, THAT MAY BE REQUIRED.

FIRE RATED PARTITION DETAIL
1 1/2" =1'-0" | A1

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TAMPA, FL 33601

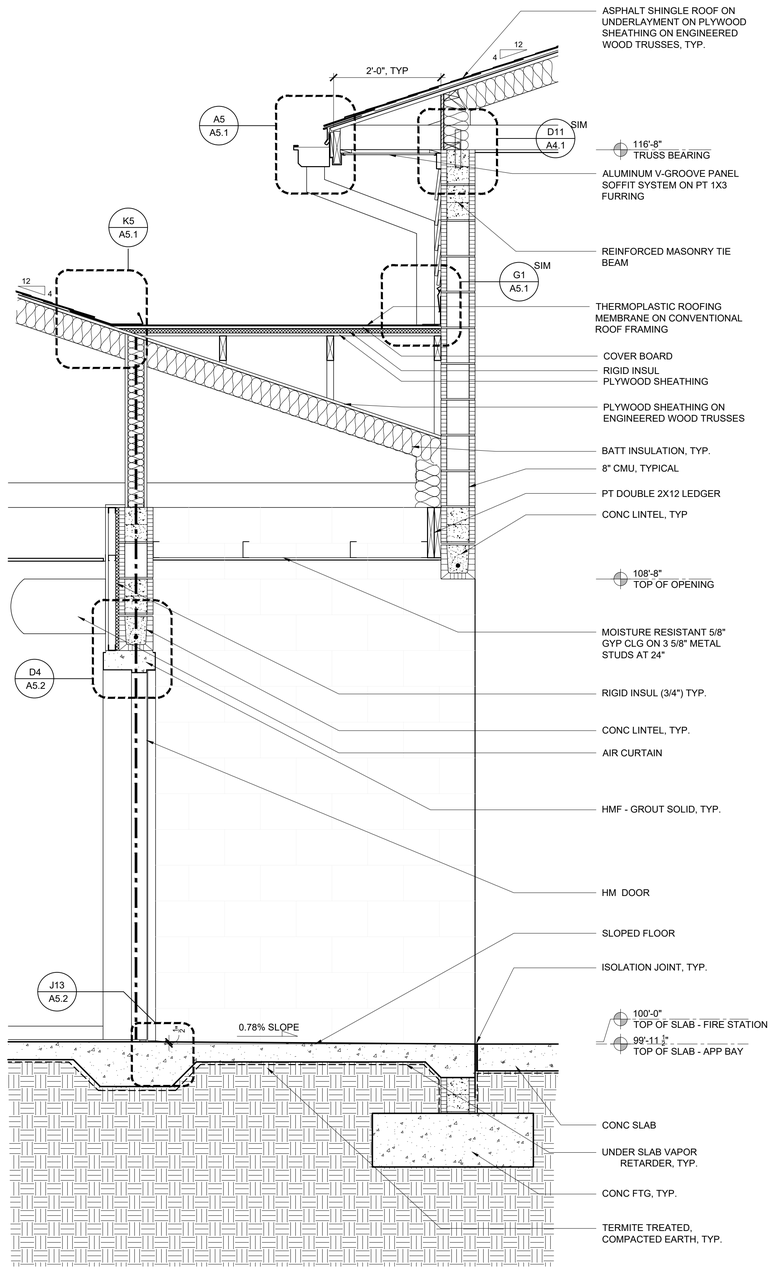
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

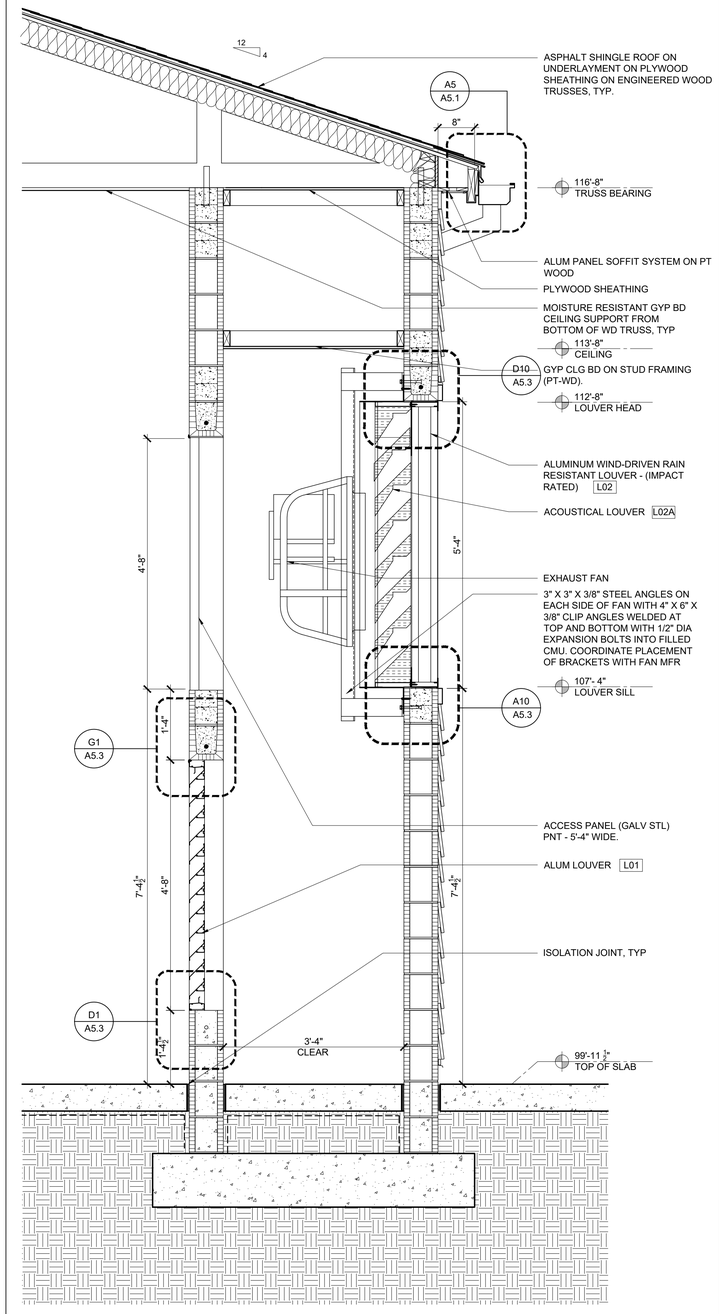
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

PARTITION DETAILS AND WALL SECTIONS

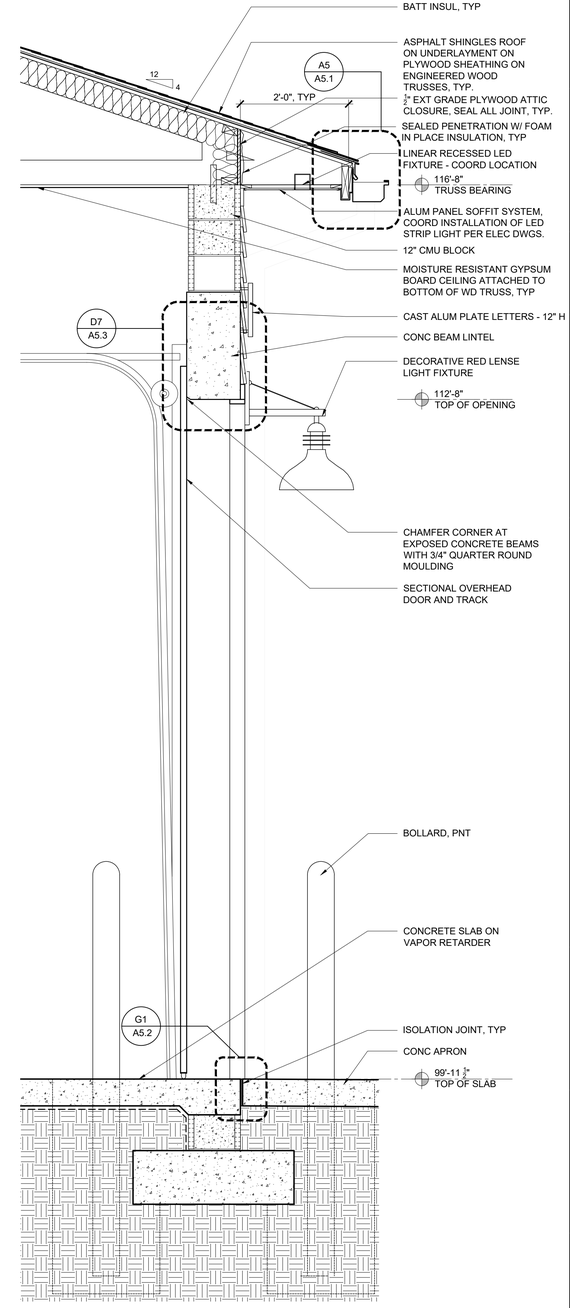
A4.1



WALL SECTION 3/4" = 1'-0" A10



WALL SECTION 3/4" = 1'-0" A5



WALL SECTION 3/4" = 1'-0" A1

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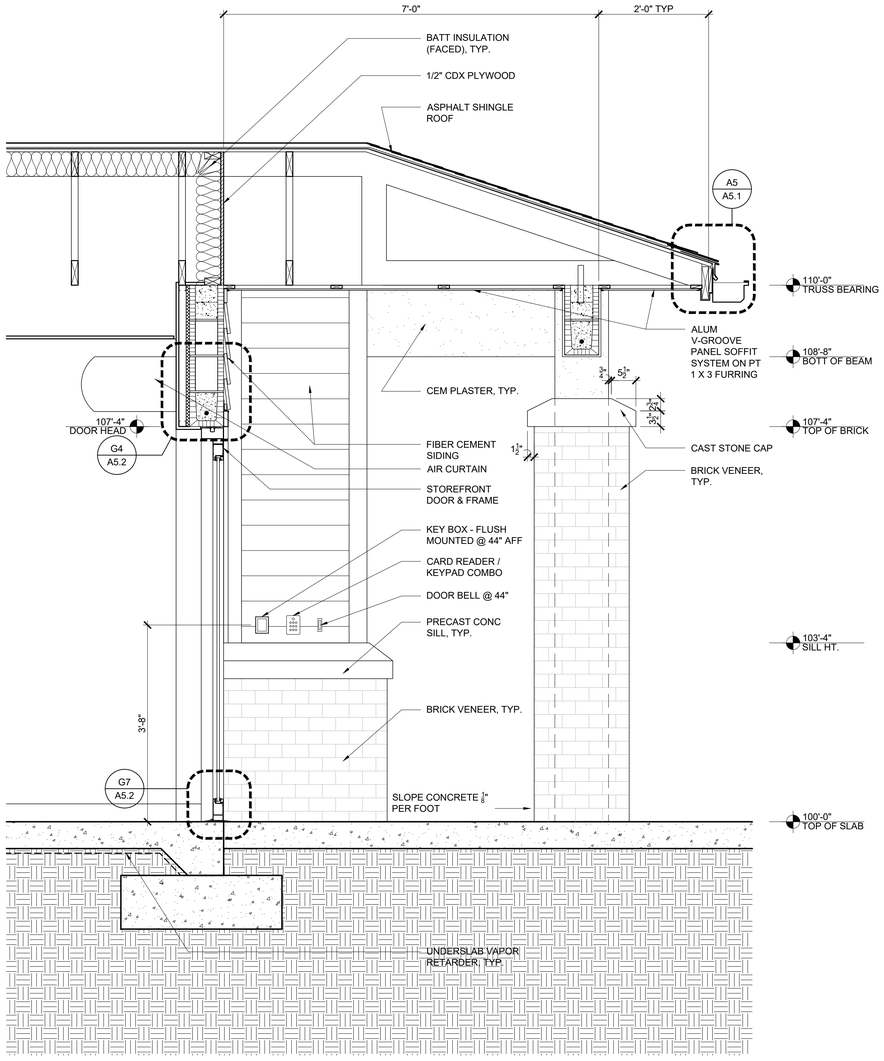
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
SCHEMATIC DESIGN	03.15.2024
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

WALL SECTIONS

A4.2



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

A1

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WILDERARCHITECTURE, INC.

HILLSBOROUGH COUNTY BOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

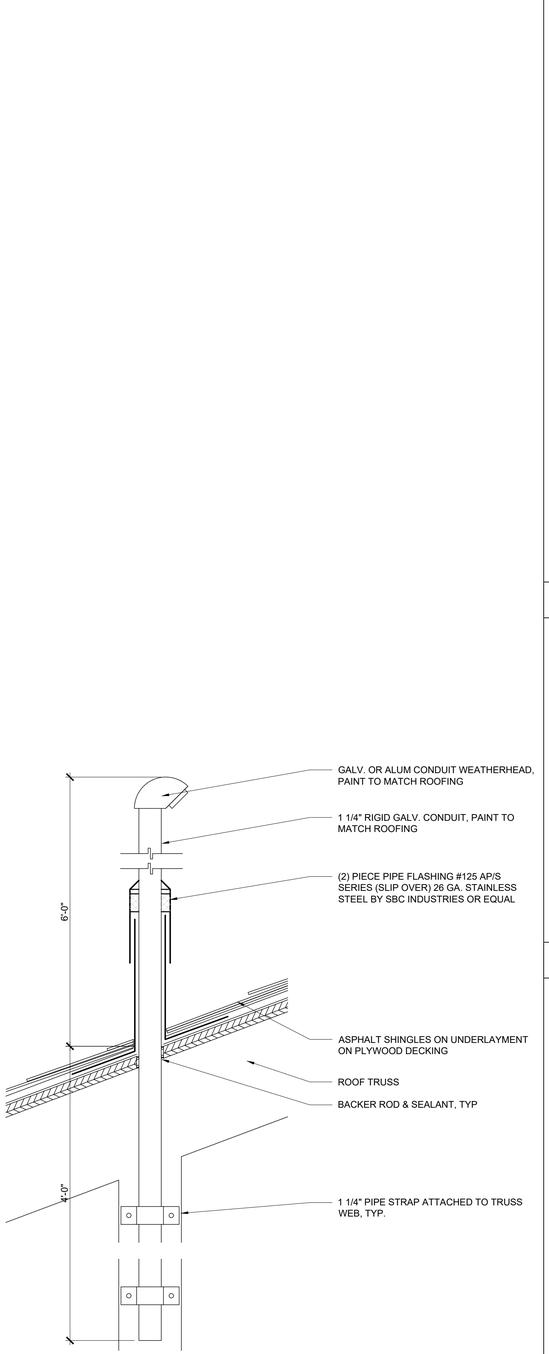
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

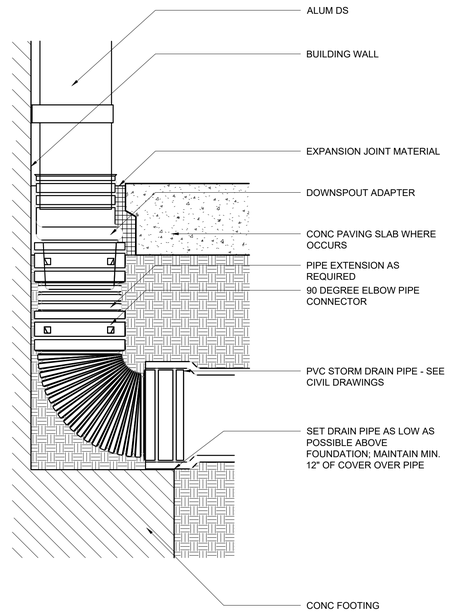
WALL SECTIONS

A4.3

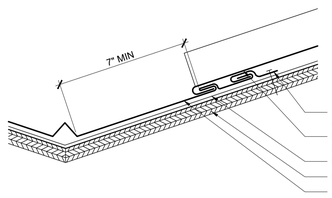


NOTES:
1. CONNECT MAST TO GROUND OF LIGHTNING PROTECTION SYSTEM.
2. COORDINATE EXACT LOCATION OF MAST WITH OWNER.

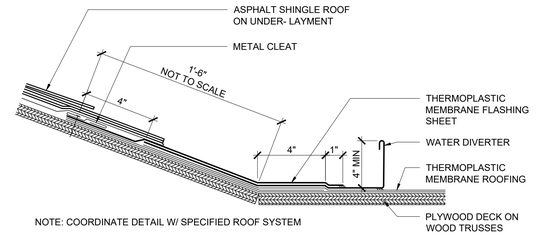
WEATHERHEAD / POWER POLE DETAIL 3" = 1'-0" A12



DOWNSPOUT CONNECTION 3" = 1'-0" G8

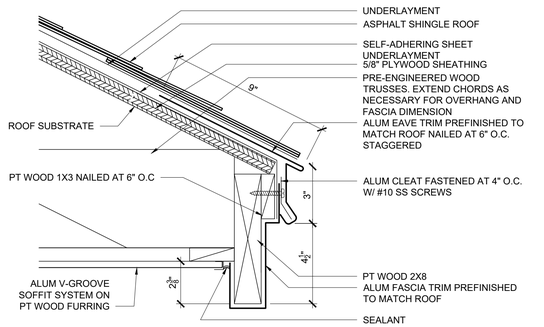


STANDING SEAM ROOF TYPICAL VALLEY FLASHING DETAIL 3" = 1'-0" D8



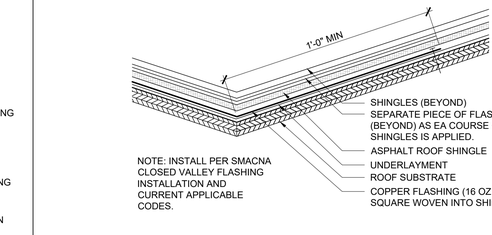
NOTE: COORDINATE DETAIL W/ SPECIFIED ROOF SYSTEM

ASPHALT SHINGLE ROOFING TO SINGLE PLY TRANSITION DETAIL 3" = 1'-0" K5



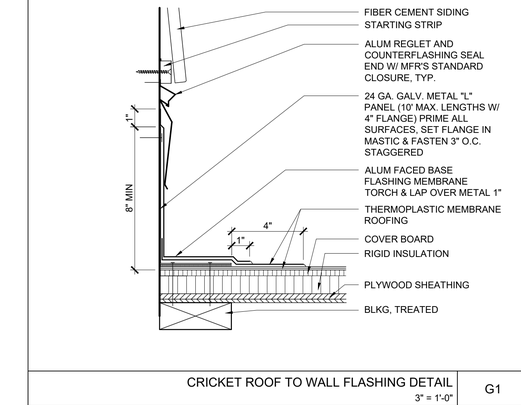
ROOF EDGE DETAIL 3" = 1'-0" D5

ROOF GUTTER DETAIL 3" = 1'-0" A5

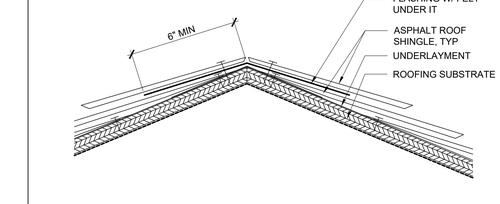


NOTE: INSTALL PER SMACNA CLOSED VALLEY FLASHING INSTALLATION AND CURRENT APPLICABLE CODES.

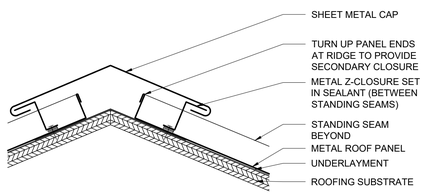
TYPICAL VALLEY FLASHING DETAIL 3" = 1'-0" K1



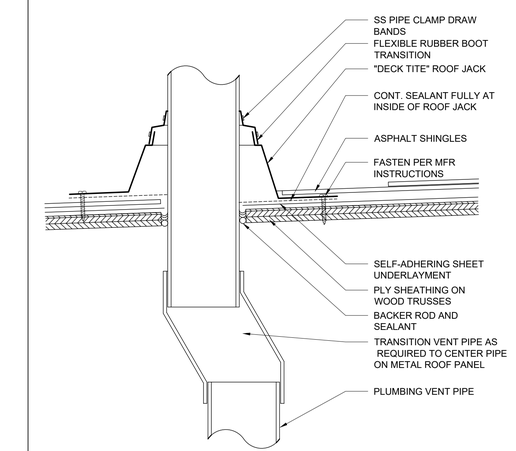
CRICKET ROOF TO WALL FLASHING DETAIL 3" = 1'-0" G1



TYPICAL RIDGE FLASHING DETAIL 3" = 1'-0" D1



STANDING SEAM TYPICAL RIDGE FLASHING DETAIL 3" = 1'-0" A8



TYPICAL VENT PIPE PENETRATION DETAIL 3" = 1'-0" A1

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PROJECT #: 2216-02	
DISTRIBUTION	DATE
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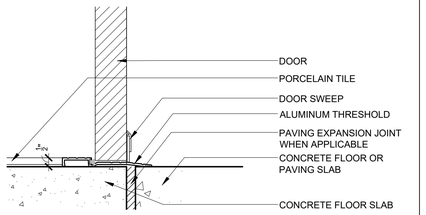
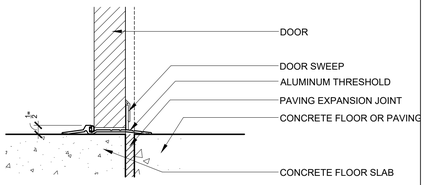
ROOF DETAILS

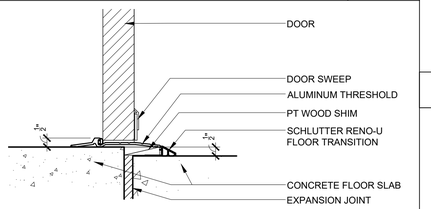
A5.1



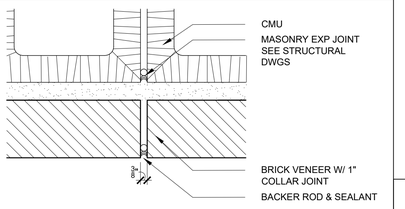
DOOR THRESHOLD 3" = 1'-0" J13



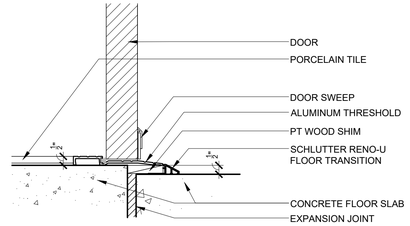
DOOR THRESHOLD 3" = 1'-0" G13



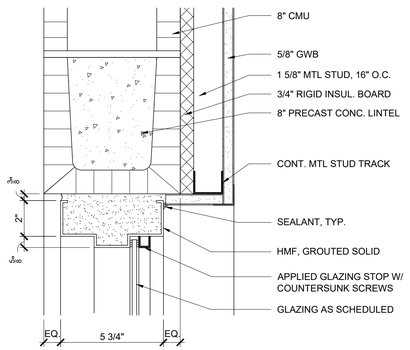
DOOR THRESHOLD 3" = 1'-0" F13



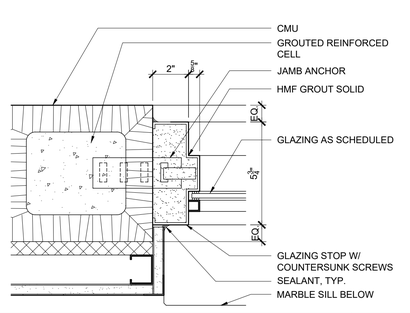
TYPICAL BRICK CJ @ MASONRY CJ 3" = 1'-0" D13



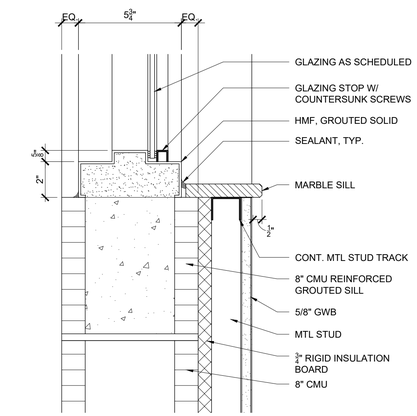
DOOR THRESHOLD 3" = 1'-0" J10



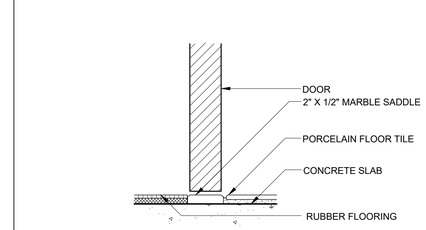
BAY WINDOW HEAD 3" = 1'-0" G10



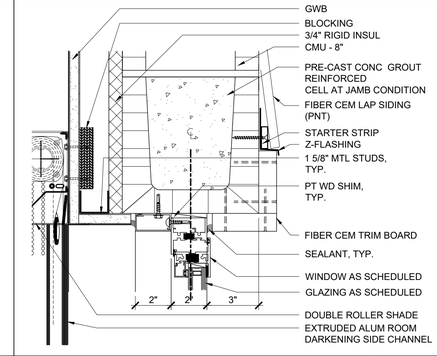
BAY WINDOW JAMB 3" = 1'-0" D10



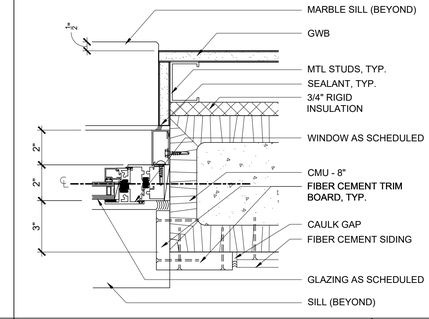
BAY WINDOW SILL 3" = 1'-0" A10



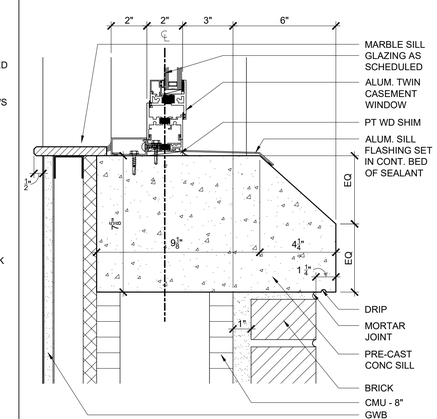
DOOR THRESHOLD 3" = 1'-0" J7



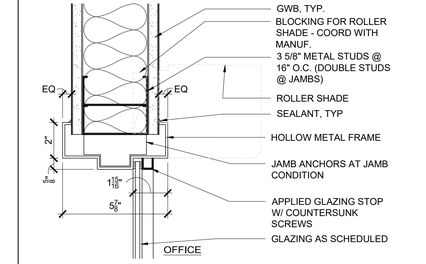
WINDOW HEAD W/ GWB & FIBERCEMENT SIDING 3" = 1'-0" G7



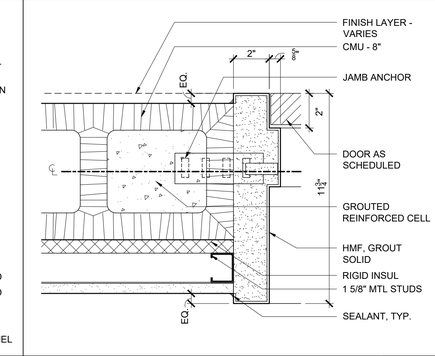
CASEMENT WINDOW JAMB 3" = 1'-0" D7



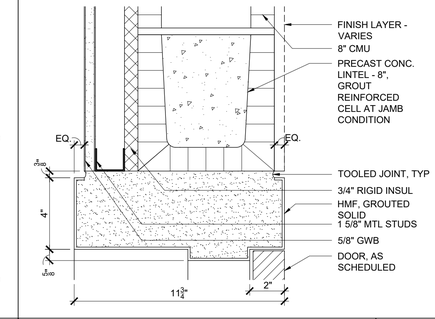
CASEMENT WINDOW SILL 3" = 1'-0" A7



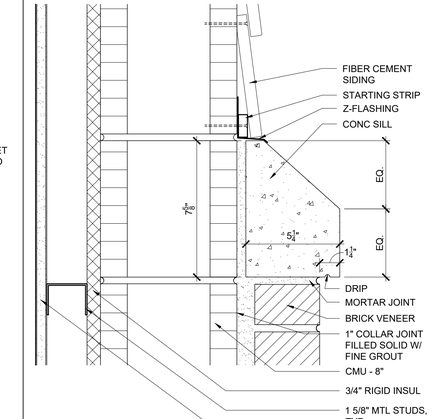
INTERIOR WINDOW HEAD/JAMB/SILL 3" = 1'-0" J4



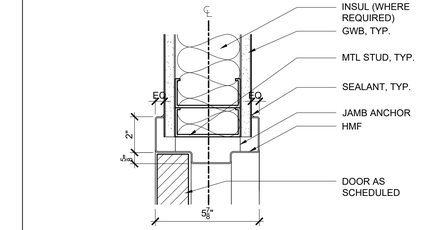
HM FRAME - JAMB W/ GWB 3" = 1'-0" G4



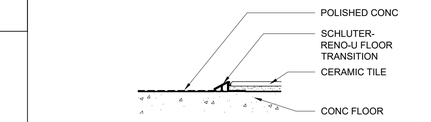
HM FRAME - HEAD W/ GWB 3" = 1'-0" D4



BRICK VENEER CAP DETAIL 3" = 1'-0" A4

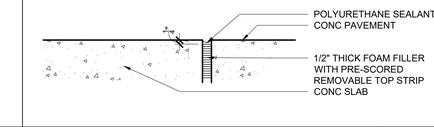


HM FRAME - GWB HEAD/JAMB 3" = 1'-0" K1

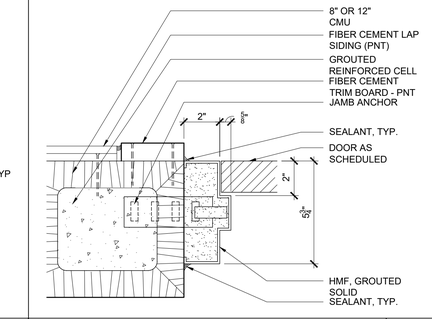


NOTE: CONFIRM & NOTE TRANSITION TO COMPLY W/ FBC-ACCESSIBILITY 303

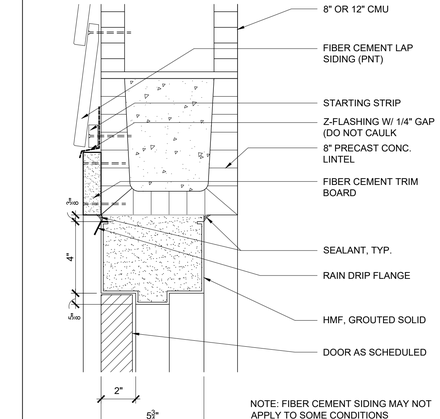
FLOOR TRANSITION 3" = 1'-0" H1



SLAB CONNECTION 3" = 1'-0" G1



HM FRAME - JAMB DETAIL 3" = 1'-0" D1



NOTE: FIBER CEMENT SIDING MAY NOT APPLY TO SOME CONDITIONS

HM FRAME - HEAD DETAIL 3" = 1'-0" A1

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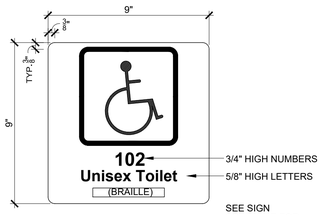
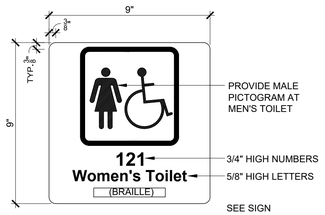
DETAILS

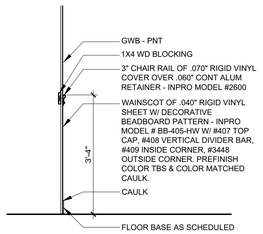
A5.2



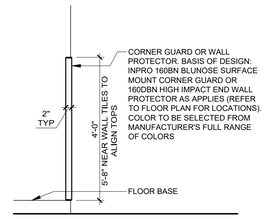
ADA SIGNAGE 3" = 1'-0" | K13



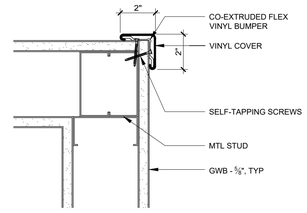
ADA SIGNAGE 3" = 1'-0" | K10



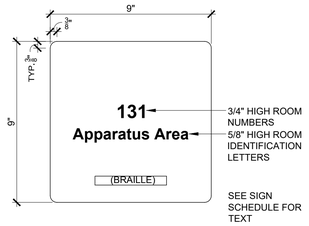
WAINSCOT & CHAIR RAIL DETAIL 1/2" = 1'-0" | K7



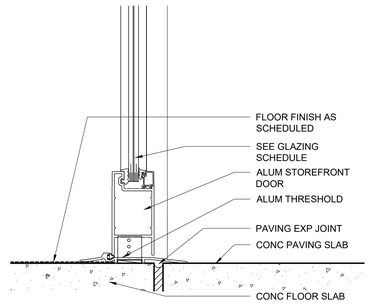
CORNER GUARD ELEVATION 1/2" = 1'-0" | K4



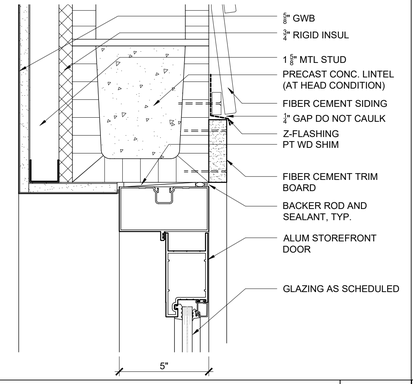
CORNER GUARD DETAIL 3" = 1'-0" | K1



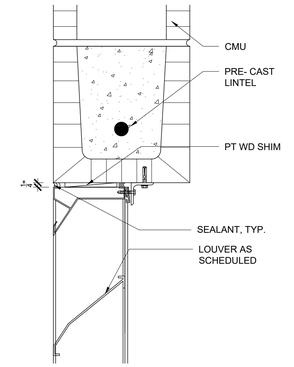
ADA SIGNAGE 3" = 1'-0" | H10



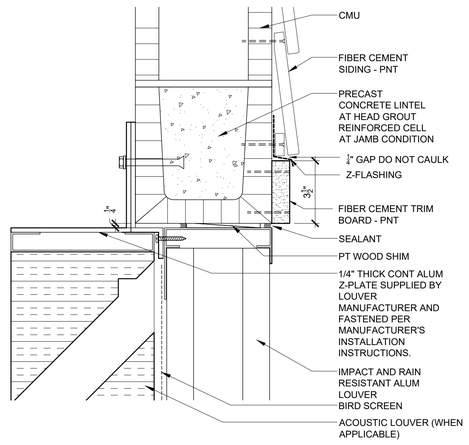
STR FRNT DOOR THRESHOLD DETAIL 3" = 1'-0" | G7



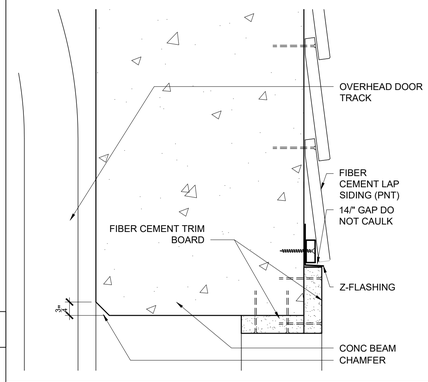
STR FRNT EXT HEAD 3" = 1'-0" | G4



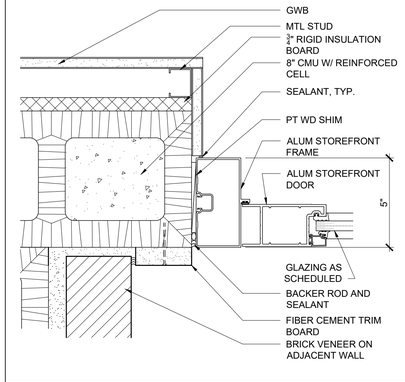
LOUVER HEAD DETAIL 3" = 1'-0" | G1



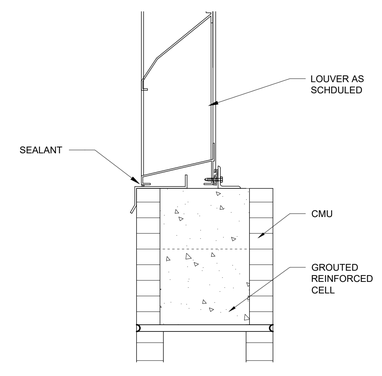
LOUVER HEAD DETAIL 3" = 1'-0" | D10



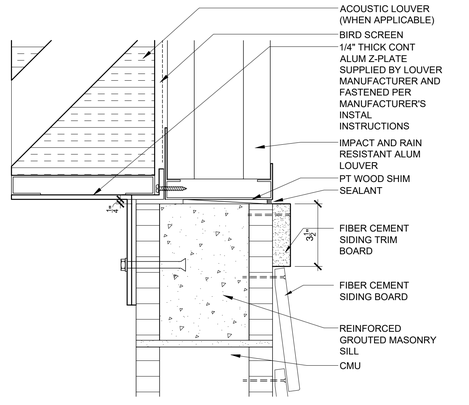
SECTIONAL OVERHEAD DOOR HEAD 3" = 1'-0" | D7



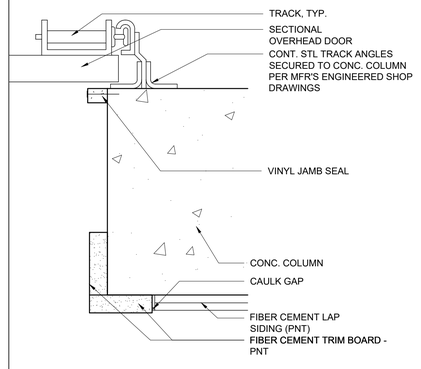
STR FRNT EXT JAMB 3" = 1'-0" | D4



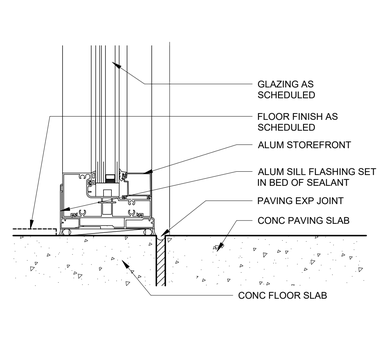
LOUVER SILL DETAIL 3" = 1'-0" | D1



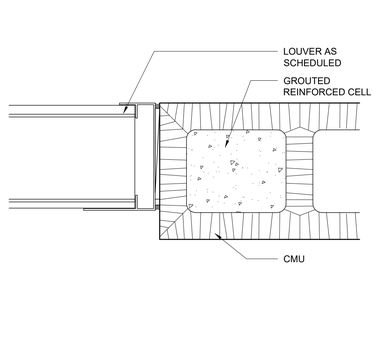
LOUVER SILL DETAIL 3" = 1'-0" | A10



SECTIONAL OVERHEAD DOOR JAMB 3" = 1'-0" | A7



STR FRNT EXT SILL 3" = 1'-0" | A4



LOUVER JAMB DETAIL 3" = 1'-0" | A1

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WILDERARCHITECTURE, INC.

HILLSBOROUGH COUNTY BOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

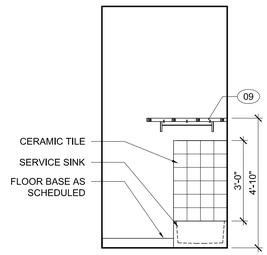
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

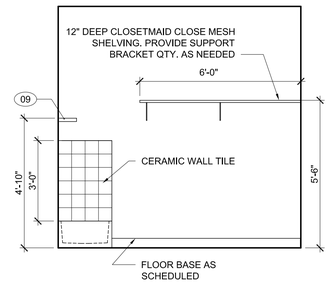
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

DETAILS

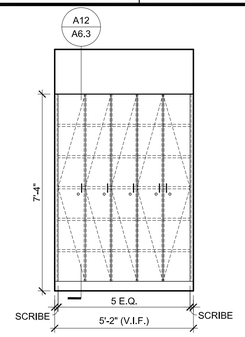
A5.3



JANITOR 3/8" = 1'-0" J10

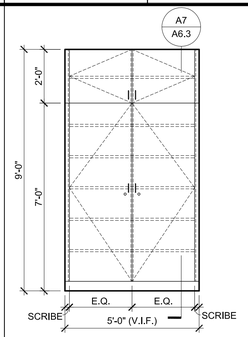


JANITOR 3/8" = 1'-0" J7



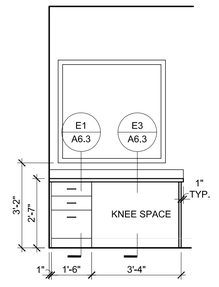
NOTE: 5 INDIVIDUAL STORAGE UNITS WITH LOCKS

CORRIDOR 124 3/8" = 1'-0" J5

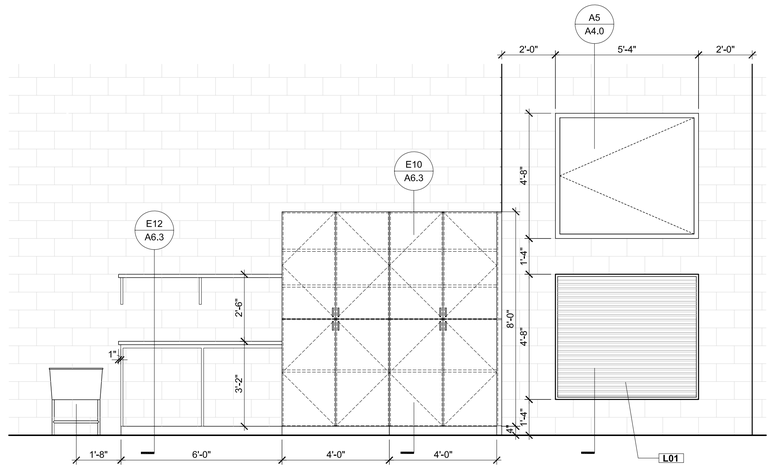


NOTE: 2 INDIVIDUAL STORAGE UNITS WITH LOCKS

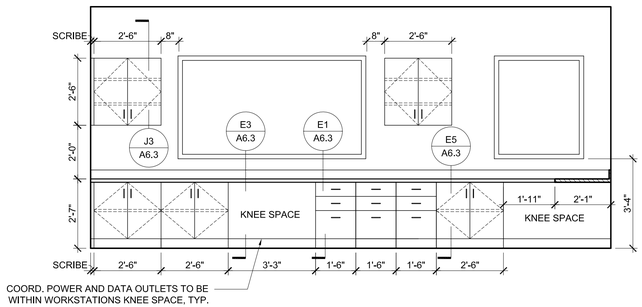
CORRIDOR 116 3/8" = 1'-0" J3



OFFICE 3/8" = 1'-0" J1

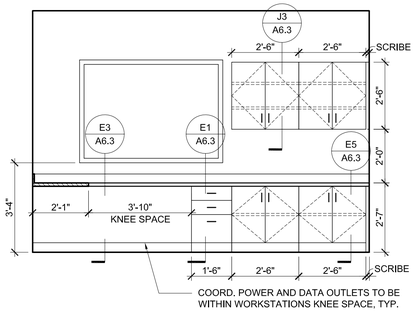


APPARATUS BAY WORK AREA 3/8" = 1'-0" D10



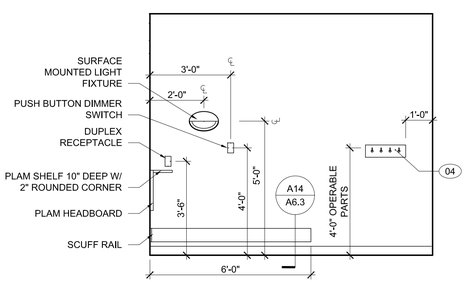
COORD. POWER AND DATA OUTLETS TO BE WITHIN WORKSTATIONS KNEE SPACE, TYP.

OFFICE 3/8" = 1'-0" F5

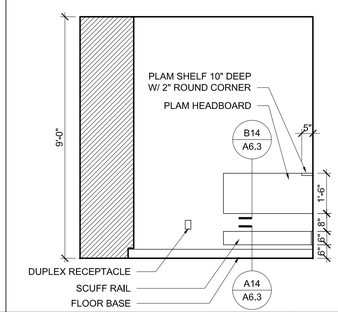


COORD. POWER AND DATA OUTLETS TO BE WITHIN WORKSTATIONS KNEE SPACE, TYP.

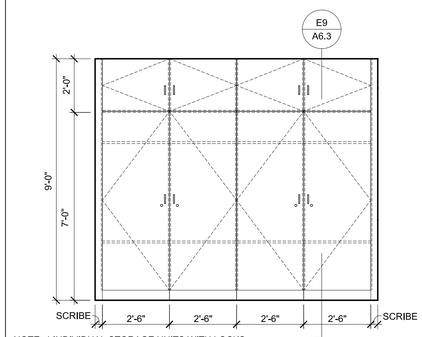
OFFICE 3/8" = 1'-0" F1



BUNK ELEVATION, TYP. 3/8" = 1'-0" D6

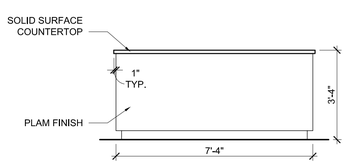


BUNK ELEVATION, TYP. 3/8" = 1'-0" D4



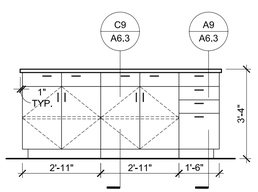
NOTE: 4 INDIVIDUAL STORAGE UNITS WITH LOCKS

BUNK ELEVATION, TYP. 3/8" = 1'-0" D1

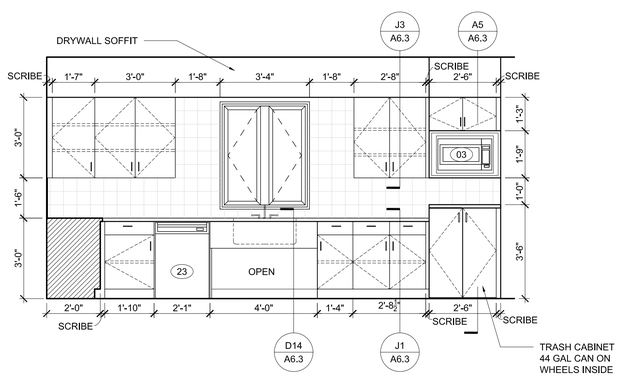


KITCHEN - ISLAND 3/8" = 1'-0" A13

NOTE:
COORDINATE POWER RECEPTACLES ON BOTH SIDES OF KITCHEN ISLAND WITH DRAWERS.

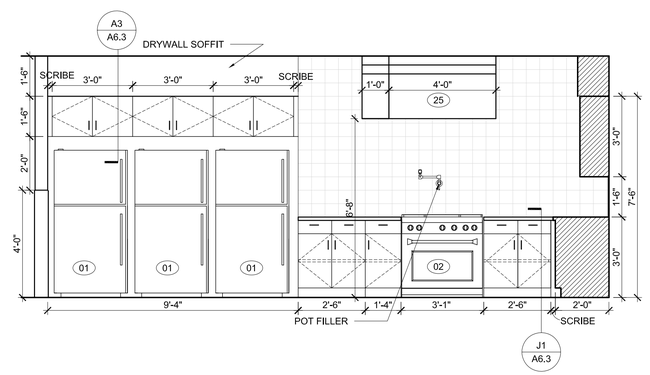


KITCHEN - ISLAND 3/8" = 1'-0" A11



TRASH CABINET 44 GAL CAN ON WHEELS INSIDE

KITCHEN 3/8" = 1'-0" A6



KITCHEN 3/8" = 1'-0" A1

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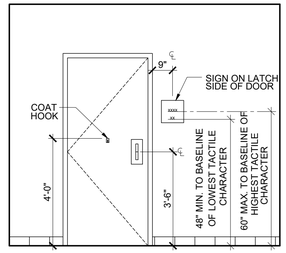
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
SCHEMATIC DESIGN	03.15.2024
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

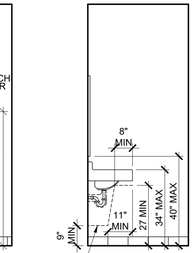
INTERIOR ELEVATIONS

A6.1

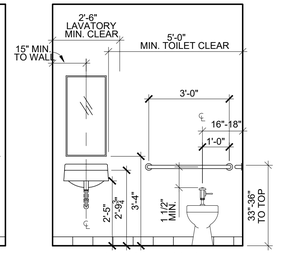
NOTE: FOR EQUIPMENT SCHEDULE SEE A2.1



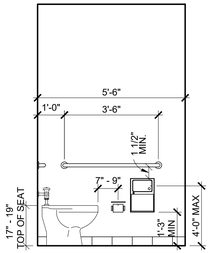
ADA SIGNAGE



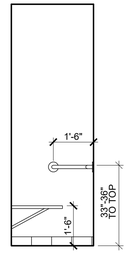
KNEE CLEARANCE ADA LAVATORY



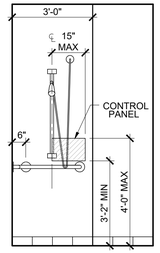
TOILET STALL/ROOMS



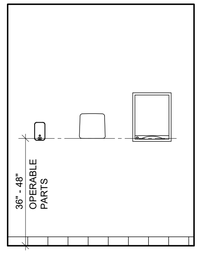
GRAB BAR/T.P. HOLDER



ADA SHOWER BENCH

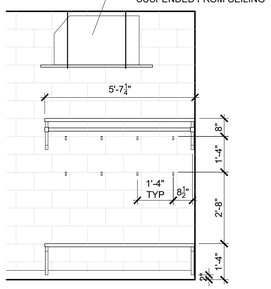


SHOWER

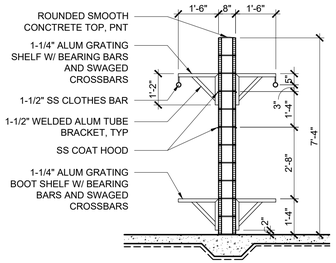


SOAP DISPENSER HAND DRYER PAPER TOWEL DISPENSER

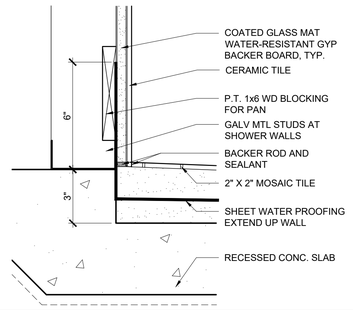
ADA MOUNT HEIGHT ELEVATIONS
3/8" = 1'-0" J1



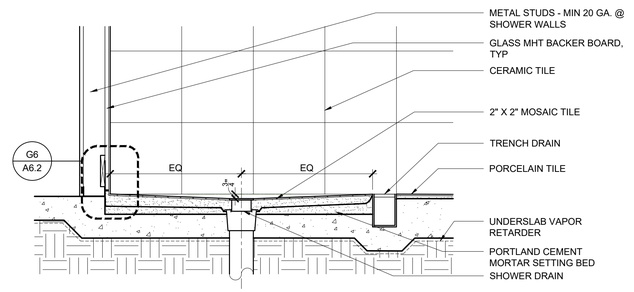
BUNKER GEAR
3/8" = 1'-0" G11



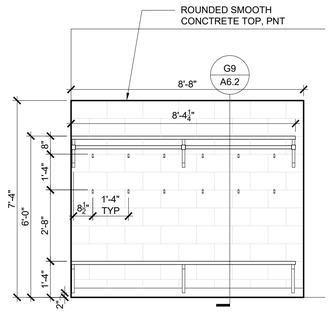
BUNKER GEAR SECTION
3/8" = 1'-0" G9



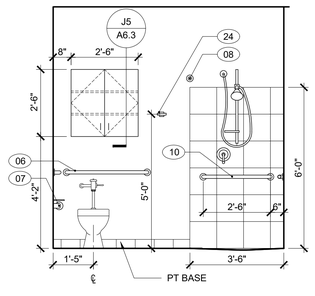
TYPICAL SHOWER DETAIL
3" = 1'-0" G6



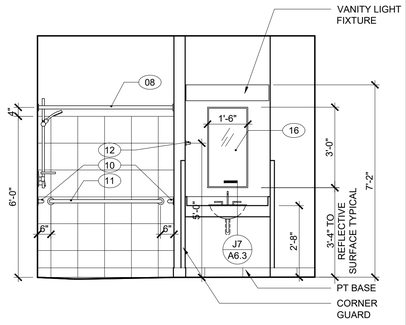
TYPICAL SHOWER SECTION
1" = 1'-0" G1



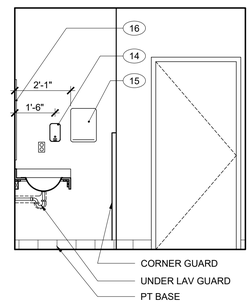
BUNKER GEAR
3/8" = 1'-0" D11



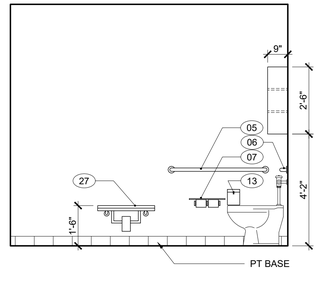
TOILET RM 112 (113 SIM)
3/8" = 1'-0" D9



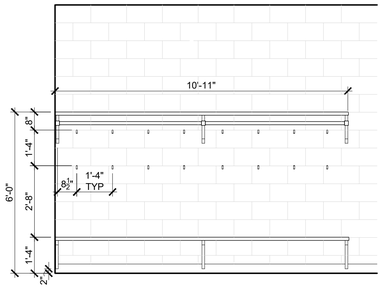
TOILET RM 112 (113 SIM)
3/8" = 1'-0" D6



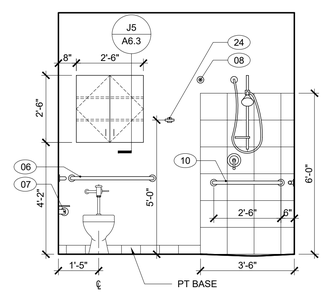
TOILET RM 112 (113 SIM)
3/8" = 1'-0" D3



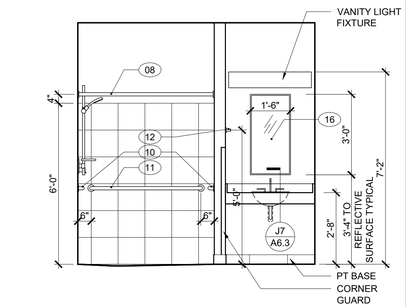
TOILET RM 112 (113 SIM)
3/8" = 1'-0" D1



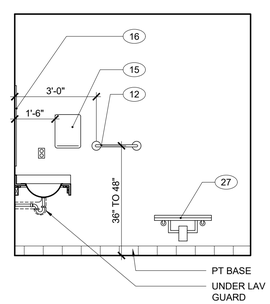
BUNKER GEAR
3/8" = 1'-0" A11



TOILET RM 125
3/8" = 1'-0" A9



TOILET RM 125
3/8" = 1'-0" A6



TOILET RM 125
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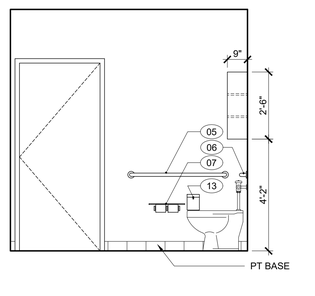

TOILET RM 125
3/8" = 1'-0" A1

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TAMPA, FL 33601

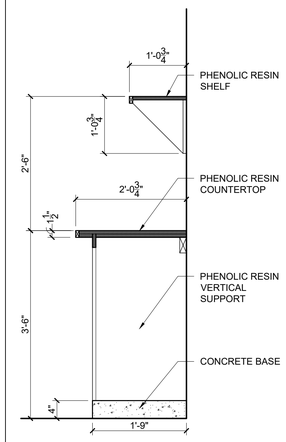
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

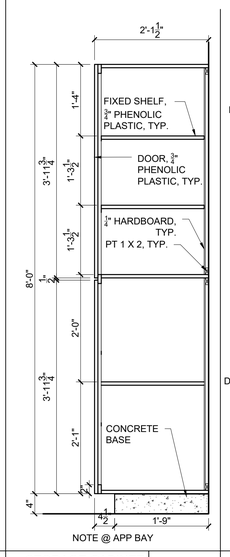
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

INTERIOR ELEVATIONS & SECTIONS

A6.2

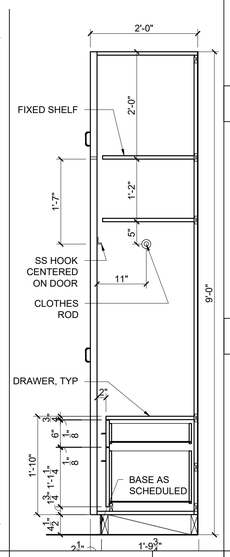


CASEWORK SECTION
3/4" = 1'-0" | E12

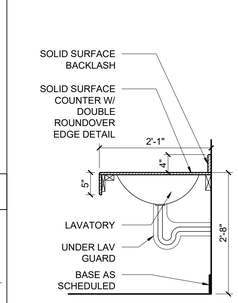


NOTE @ APP BAY

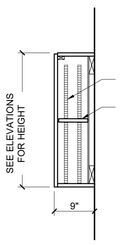
STORAGE CABINET
3/4" = 1'-0" | E10



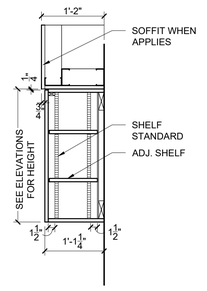
LOCKERS AT BUNK
3/4" = 1'-0" | E9



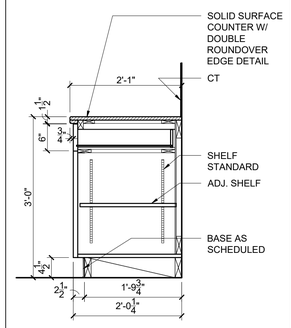
VANITY COUNTER
3/4" = 1'-0" | J7



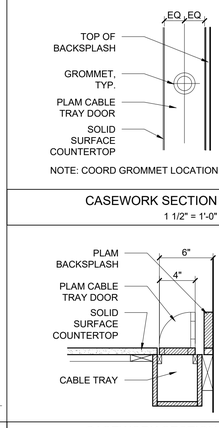
WALL CABINET
3/4" = 1'-0" | J5



WALL CABINET
3/4" = 1'-0" | J3



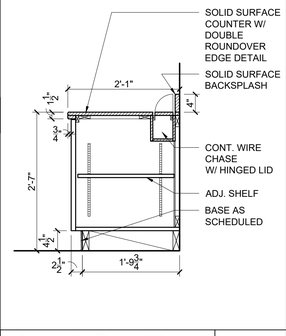
BASE CABINET W/ DRAWER
3/4" = 1'-0" | J1



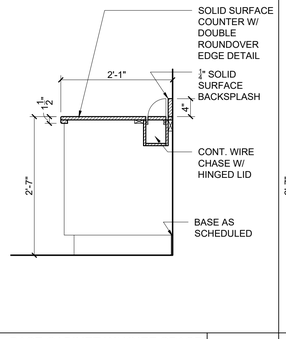
NOTE: COORD GROMMET LOCATION WITH OWNER

CASEWORK SECTION
1 1/2" = 1'-0" | G7

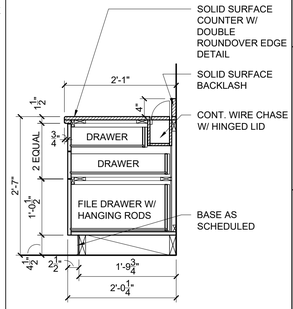
CASEWORK SECTION
1 1/2" = 1'-0" | E7



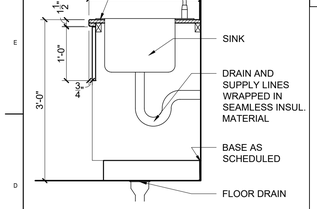
BASE CABINET W/ WIRE CHASE
3/4" = 1'-0" | E5



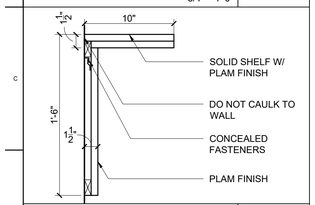
BASE CABINET W/ KNEE SPACE
3/4" = 1'-0" | E3



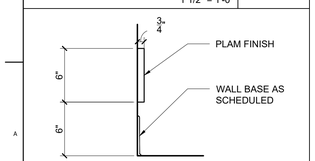
BASE CABINET W/ DRAWERS
3/4" = 1'-0" | E1



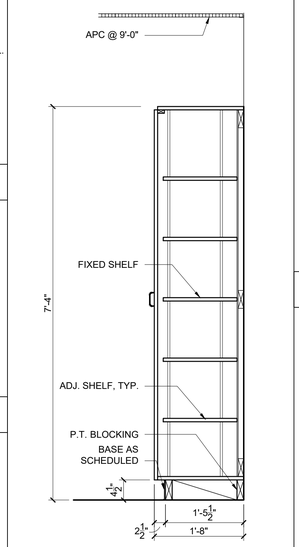
KITCHEN SINK W/ KNEE SPACE
3/4" = 1'-0" | D14



HEADBOARD & SHELF
1 1/2" = 1'-0" | B14

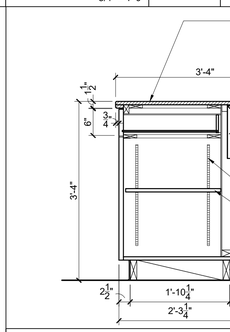


SCUFF RAIL & BUNK ROOM
1 1/2" = 1'-0" | A14

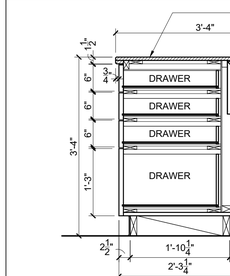


PROVIDE LOCK FOR EACH CABINET

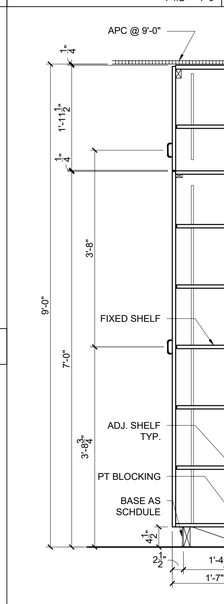
TOILET VEST CABINET
3/4" = 1'-0" | A12



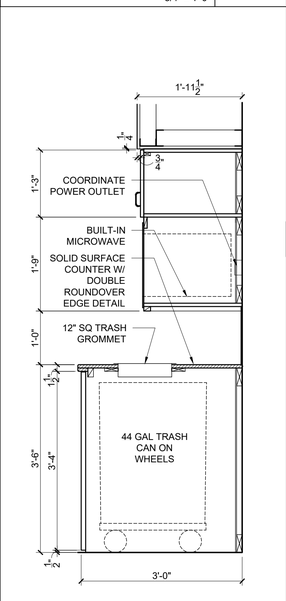
KITCHEN ISLAND
3/4" = 1'-0" | C9



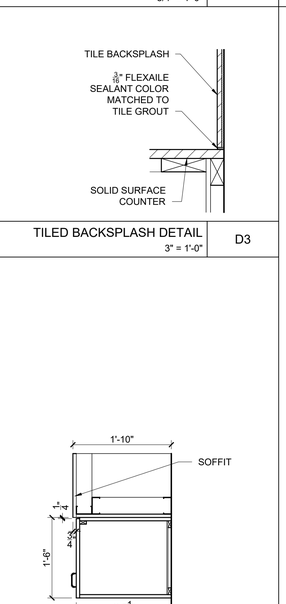
BASE CABINET - 4 DRAWER
3/4" = 1'-0" | A9



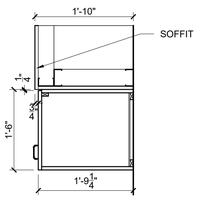
STORAGE CABINET
3/4" = 1'-0" | A7



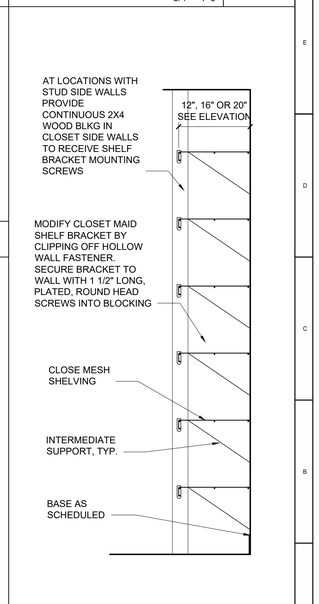
CASEWORK SECTION
3/4" = 1'-0" | A5



TILED BACKSPLASH DETAIL
3" = 1'-0" | D3



CASEWORK SECTION
3/4" = 1'-0" | A3



TYP. SHELVING INSTALLATION
3/4" = 1'-0" | A1

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SUITE 106
TAMPA, FLORIDA 33605.3607

TELEPHONE 813.242.6677
FACSIMILE 813.242.6683

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AR91271 QUALIFIER LICENSE

WILDERARCHITECTURE, INC.

HILLSBOROUGH COUNTY BOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

CASEWORK DETAILS

A6.3

FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR	BASE	FINISH						REMARKS
				WALLS				CEILING		
				SOUTH	EAST	WEST	NORTH	HEIGHT	FINISH	
101	VESTIBULE	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
102	OFFICE	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
103	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
104	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
105	DAYROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-2	1, 17
106	KITCHEN / DINING	PC	VWB	PNT	CT / PNT	PNT	CT / PNT	9'-0"	APC-2	1, 2, 11, 17
107	PANTRY	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	PNT	
108	PANTRY	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	PNT	
109	PANTRY	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	PNT	
110	CORRIDOR	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	-
111	EMS STORAGE	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	-
112	TOILET	PT	PT	CT / EP	CT / EP	CT / EP	CT / EP	9'-0"	PNT	2, 5
113	TOILET	PT	PT	CT / EP	CT / EP	CT / EP	CT / EP	9'-0"	PNT	2, 5
114	CORRIDOR	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	
115	CORRIDOR	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
116	CORRIDOR	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
117	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
118	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
119	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
120	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
121	BUNK ROOM	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	5
122	FITNESS	RF	VWB	EP	EP	EP	EP	9'-0"	APC-1	6
123	JANITOR	PC	VWB	EP	EP	CT / EP	CT /EP	9'-0"	PNT	12
124	CORRIDOR	PC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	-
125	TOILET	PT	PT	CT / EP	CT / EP	CT / EP	CT / EP	9'-0"	PNT	2, 5
126	DECON	SC	VWB	FRP / EP	FRP / EP	FRP / EP	FRP / EP	10'-0"	PNT	-
127	TELE	SC	VWB	PNT	PNT	PNT	PNT	9'-0"	APC-1	4
128	APP BAY	SC / EF	NR	EP	EP	EP	EP	16'-7 1/2"	PNT	7, 9, 10, 13, 16
129	MECHANICAL	SC	VWB	PNT	PNT	PNT	PNT	9'-11 1/2"	PNT	15, 16
130	ELECTRICAL	SC	VWB	EP	EP	EP	EP	9'-0"	PNT	15
131	EXTERIOR STORAGE	CONC	NR	PNT	PNT	PNT	PNT	--	EXP	-
132	MECH YARD	CONC	NR	PNT	PNT	PNT	PNT	--	--	-

FINISH SCHEDULE ABBREVIATIONS

APC-1	ACOUSTICAL PANEL CEILING - 1	PDC	POLYURETHANE DECK COATING
APC-2	ACOUSTICAL PANEL CEILING - 2	PNT	PAINTED
CONC	CONCRETE	PT	PORCELAN TILE
CT	CERAMIC TILE	RB	RESILIENT WALL BASE
EF	EPOXY FLOORING	RF	RUBBER FLOORING
EP	EPOXY PAINT	SC	SEALED CONCRETE
EXP	EXPOSED ROOF STRUCTURE	VCT	VINYL COMPOSITION TILE
FRP	FIBERGLASS REINFORCED PLASTIC	VWB	VINYL WALL BASE
NR	NONE REQUIRED	WD	WOOD
PC	POLISHED CONCRETE		

NOTES

1. PROVIDE CRACK SUPPRESSION MEMBRANE AT TILE FLOOR LOCATIONS.
2. PROVIDE FLOOR TRANSITIONS AS NEEDED.
3. PROVIDE EPOXY GROUT AT ALL WET LOCATIONS.

REMARKS

1. PROVIDE APC-2 AT DESIGNATED PANELS. SEE REFLECTED CEILING PLAN.
2. PROVIDE TILE AT DESIGNATED LOCATIONS. SEE INTERIOR ELEVATIONS.
3. SEE EXTERIOR ELEVATIONS AND SITE DETAILS FOR CEILING HEIGHT.(EXPOSED STRUCTURE)
4. PLYWOOD BACKBOARD - PNT ALL SIDES / EDGES WITH FIRE RETARDANT PNT (ALL WALLS).
5. PROVIDE SOUND ATTENUATION BLANKETS IN WALL BETWEEN ADJACENT ROOMS DESIGNATED.
6. ABUSE RESISTANT GWB
7. PAINT CEILING LIGHT BLUE (COLOR TBD)
8. REFER TO RCP
9. FIRST 9'-0" OF WALL TO BE ONE COLOR (TBD) AND ABOVE THAT A SECOND COLOR (TBD).
10. COORDINATE WITH OWNER TO WRITE / PNT ON ONE DESIGNATED WALL "DUTY HONOR & COURAGE".
11. REFER TO RCP FOR SOFFITS
12. PROVIDE TILE AT MOP SINK - REFER TO INTERIOR ELEVATIONS
13. PRIME AND PAINT INTERIOR OF CHASE
14. NOT USED
15. PAINTED TECTUM WALL PANELS (OR EQUAL) WHERE POSSIBLE IN MECHANICAL AND ELECTRICAL ROOM. PANELS ARE IN ADDITION TO OTHER INSULATION AND SHALL BE MOUNTED FLOOR TO CEILING. (COORD W/ BLOCK REQUIREMENTS.)
16. CEILING MOUNT TO BOTTOM OF TRUSSES
17. PROVIDE WAINSCOT AND CHAIR RAIL

FINISH SCHEDULE | F8

DOOR SCHEDULE

OPENING NUMBER	ROOM NAME	DOOR				FRAME					IMPACT RATED	FIRE RATING	HDW SET	REMARKS
		TYPE	MATL	INT	EXT	TYPE	MATL	DETAILS						
								HEAD	JAMB	SILL				
101A	VESTIBULE	D08	ALUM		•	SF01	ALUM	G4 / A5.3	D4 / A5.3	G7 / A5.3	•	--	01	4, 5, 7
101B	VESTIBULE	D05	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	09	--
102	OFFICE	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	06	--
103	BUNK	D11	WD	•		F10	MTL	K1 / A5.2	K1 / A5.2	--		SMOKE	08	--
104	BUNK	D11	WD	•		F10	MTL	K1 / A5.2	K1 / A5.2	--		SMOKE	08	--
107	PANTRY	D04	WD	•		F03	MTL	K1 / A5.2	K1 / A5.2	--		--	11	--
108	PANTRY	D04	WD	•		F03	MTL	K1 / A5.2	K1 / A5.2	--		--	11	--
109	PANTRY	D04	WD	•		F03	MTL	K1 / A5.2	K1 / A5.2	--		--	11	--
110	CORR	D06	MTL		•	F05	MTL	D4 / A5.2	G4 / A5.2	J13 / A5.2		45 MIN	04A	7
111	EMS STO.	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	05A	--
112	TOILET	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
113	TOILET	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
114	CORR	D10	WD	•		F10	MTL	K1 / A5.2	K1 / A5.2	--		SMOKE	09	--
115	CORR	D12	MTL		•	F04	MTL	D4 / A5.2	G4 / A5.2	--	•	--	03A	4, 6, 7
117	BUNK	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
118	BUNK	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
119	BUNK	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
120	BUNK	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
121	BUNK	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
122	FITNESS	D11	WD	•		F10	MTL	K1 / A5.2	K1 / A5.2	J7 / A5.2		SMOKE	09	--
123	JANITOR	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	05A	--
124A	CORR	D05	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	10	--
124B	CORR	D07	MTL		•	F05	MTL	D4 / A5.2	G4 / A5.2	J13 / A5.2		45 MIN	04B	7
125	TOILET	D01	WD	•		F01	MTL	K1 / A5.2	K1 / A5.2	--		--	08	--
126	DECON	D03	MTL		•	F06	MTL	D4 / A5.2	G4 / A5.2	F13 / A5.2		--	07	7
127	APP BAY	D13	MTL		•	F08	MTL	D4 / A5.2	G4 / A5.2	--		--	05B	3, 7
128A	APP BAY	D09	STL		•	--	--	D7 / A5.3	A7 / A 5.3	--	•	--	12	2, 7
128B	APP BAY	D09	STL		•	--	--	D7 / A5.3	A7 / A 5.3	--	•	--	12	2, 7
128C	APP BAY	D09	STL		•	--	--	D7 / A5.3	A7 / A 5.3	--	•	--	12	2, 7
128D	APP BAY	D09	STL		•	--	--	D7 / A5.3	A7 / A 5.3	--	•	--	12	2, 7
128E	APP BAY	D12	MTL		•	F04	MTL	A1 / A5.2	D1 / A5.2	G13 / A5.2	•	--	03B	4, 7
129	MECH	D12	MTL		•	F07	MTL	D4 / A5.2	G4 / A5.2	G13 / A5.2	•	--	02	1, 7
130	ELECTRICAL	D12	MTL		•	F04	MTL	D4 / A5.2	G4 / A5.2	G13 / A5.2	•	--	03B	7

REMARKS

1. PAIR OF DOORS.
2. OVERHEAD DOOR.
3. CARD READER ACCESS.
4. CARD READER / KEY PAD COMBO
5. ELECTRIC STRIKE
6. WIDE ANGLE DOOR PREVIEW.
7. INSULATED DOOR

GENERAL REMARKS

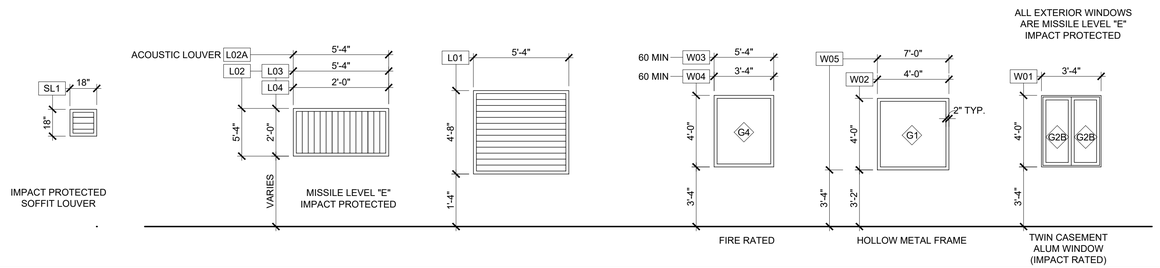
1. ALL EXTERIOR DOORS AND WINDOWS TO BE MISSILE LEVEL "E" IMPACT PROTECTED
2. REFER TO MECH DRAWINGS FOR UNDERCUT DOORS (1" TYP).
3. PROVIDE PANIC HARDWARE @ ELECTRICAL ROOM

DOOR SCHEDULE | F1

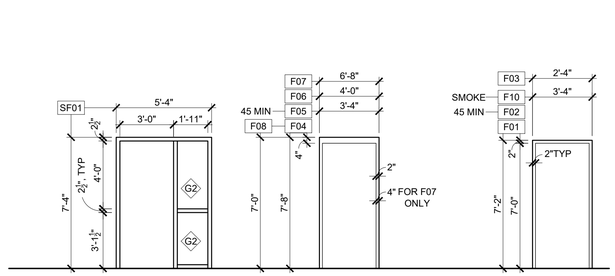
GLAZING SCHEDULE

TAG	TYPE	REMARKS
G1	TEMPERED CLEAR	1/4" THICK, TYP. TEMPERED
G2	LAMINATED UV - TINTED	1-5/16" THICK, TYP. LARGE MISSILE IMPACT GLAZING
G2A	LAMINATED UV - TINTED	1" THICK, TYP. LARGE MISSILE IMPACT GLAZING
G2B	LAMINATED UV - TINTED	1-7/16" THICK, TYP. LARGE MISSILE IMPACT GLAZING
G3	CLEAR FIRELIGHT	OH 45 OR W-60 PLUS LAMINATED GLASS
G4	CLEAR FIRELIGHT	W-60 PLUS LAMINATED GLASS

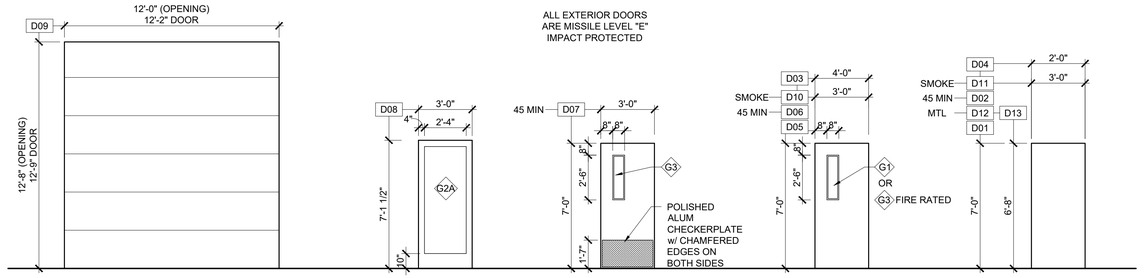
GLAZING SCHEDULE | C9



WINDOW & LOUVER TYPES | C1



DOOR FRAME TYPES | A9



DOOR TYPES | A1

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TAMPA, FLORIDA 33605.3607

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AR91271 QUALIFIER LICENSE

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601 E KENNEDY BLVD
TAMPA, FL 33601

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
SCHEMATIC DESIGN	03.15.2024
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

SCHEDULES AND DOOR AND WINDOWS TYPES

A7.1

STRUCTURAL SPECIFICATIONS

MISCELLANEOUS

1. THE STRUCTURAL SYSTEM IS UNSTABLE UNTIL ALL CONNECTIONS HAVE BEEN MADE AND ALL CONCRETE HAS REACHED ITS MINIMUM DESIGN STRENGTH, AS SHOWN IN THE STRUCTURAL DOCUMENTS.

2. CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION TO ENSURE THE SAFETY OF THE BUILDING UNTIL STRUCTURAL SYSTEM IS COMPLETED. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, SHORING, GUYS OR TIE_DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.

3. CONTRACTOR TO SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE BUILDING DURING CONSTRUCTION.

4. APPLICABLE BUILDING CODE: 8TH EDITION 2023 FLORIDA BUILDING CODE

5. GRAVITY DESIGN LOADS:

	SUPERIMPOSED LIVE LOAD	TOTAL DEAD LOAD
AREA		
ROOF	20 PSF	25 PSF
SLAB-ON-GRADE	100 PSF	N/A
APPARATUS ROOM	400 PSF	N/A

6. WIND DESIGN CRITERIA:
ULTIMATE BASIC WIND SPEED: VULT = 154 MPH (3 SECOND GUST)
EQUIVALENT NOMINAL BASIC WIND SPEED VASD = 120 MPH (3 SECOND GUST)
TORNADO SPEED, VT= 55 MPH (DOES NOT CONTROL DESIGN PER ASCE 7-22 32.5.2)
RISK CATEGORY = IV
TORNADO EFFECTIVE PLAN AREA, Ae=15000 SF
EXPOSURE CATEGORY = C
ENCLOSED BUILDING INTERNAL PRESSURE COEFFICIENT, GCPI= +/-0.18
ENCLOSED BUILDING TORNADO INTERNAL PRESSURE COEFFICIENT, GCPIT= + 55/-0.18
WIND BORNE DEBRIS REGION

7. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REFERENCED BUILDING CODE.

8. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. DO NOT SCALE DRAWINGS.

9. CONTACT ENGINEER WITH ANY QUESTIONS OR DISCREPANCIES FOUND ON DRAWINGS.

10. BUILDING EXPANSION JOINTS (EJ), WHERE SHOWN, WILL EXPAND AND CONTRACT OVER THE LIFE OF THE BUILDING. JOINT SEALANTS AND COVERS MUST ACCOMMODATE THIS MOVEMENT.

11. CONTRACTOR TO VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.

12. SUBMIT SHOP DRAWINGS AS REQUIRED HEREIN. ALLOW FOR TWO WEEKS REVIEW TIME AFTER RECEIPT OF SUBMITTALS BY THIS FIRM. ALL SUBMITTALS SHALL BE CHECKED AND SIGNED BY THE GENERAL CONTRACTOR AND SIGNED/SEALED BY THE DELEGATED ENGINEER, WHERE SPECIFIED HEREIN.

13. CONTRACTOR SHALL NOT BE RELIEVED FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS OR MIX DESIGNS BY THE ENGINEER'S REVIEW THEREOF.

14. ANY CHANGES TO THE STRUCTURE SHALL HAVE BEEN REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO COMMENCING WORK ON ITEMS AFFECTED.

15. CONTRACTOR SHALL NOTIFY THIS OFFICE WHEN THE STRUCTURAL SYSTEM IS SUBSTANTIALLY COMPLETED, AND BEFORE SHEATHING, CEILINGS, OR ROOFING IS INSTALLED.

DELEGATED ENGINEER

1. WHERE NOTED HEREIN, A LICENSED PROFESSIONAL (DELEGATED) ENGINEER SHALL BE RETAINED TO DESIGN THE PRODUCT OR ASSEMBLY.

2. THE DELEGATED ENGINEER SHALL BE EXPERIENCED IN THE DESIGN OF THE REFERENCED PRODUCT OR ASSEMBLY.

3. THE DELEGATED ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.

4. IT IS THE DELEGATED ENGINEER'S RESPONSIBILITY TO REVIEW THE ENGINEER OF RECORD'S WRITTEN ENGINEERING REQUIREMENTS AND AUTHORIZATION FOR THE DELEGATED ENGINEERING DOCUMENT TO DETERMINE THE APPROPRIATE SCOPE OF ENGINEERING.

5. THE DELEGATED ENGINEERING DOCUMENT SHALL COMPLY WITH THE WRITTEN ENGINEERING REQUIREMENTS RECEIVED FROM THE ENGINEER OF RECORD. THEY SHALL INCLUDE THE PROJECT IDENTIFICATION AND THE CRITERIA USED AS A BASIS FOR ITS PREPARATION. IF A DELEGATED ENGINEER DETERMINES THERE ARE DETAILS, FEATURES OR UNANTICIPATED PROJECT LIMITS WHICH CONFLICT WITH THE WRITTEN ENGINEERING REQUIREMENTS PROVIDED BY THE ENGINEER OF RECORD, THE DELEGATED ENGINEER SHALL TIMELY CONTACT THE ENGINEER OF RECORD FOR RESOLUTION OF CONFLICTS.

6. THE DELEGATED ENGINEER SHALL FORWARD THE DELEGATED ENGINEERING DOCUMENT TO THE ENGINEER OF RECORD FOR REVIEW. ALL FINAL DELEGATED ENGINEERING DOCUMENTS REQUIRE THE IMPRESSED SEAL AND SIGNATURE OF THE DELEGATED ENGINEER AND INCLUDE:
A) DRAWINGS INTRODUCING ENGINEERING INPUT SUCH AS DEFINING THE CONFIGURATION OR STRUCTURAL CAPACITY OF STRUCTURAL COMPONENTS AND/OR THEIR ASSEMBLY INTO STRUCTURAL SYSTEMS.

SITE WORK

1. A SUBSURFACE INVESTIGATION HAS BEEN COMPLETED AT THE PROJECT SITE BY AREHNA ENGINEERING INC.. SOIL BORING LOGS AND SITE PREPARATION PROCEDURES BY TRERRA, INC. ARE INCLUDED IN THE PROJECT SOILS REPORT B-18-114.20, DATED MAY 1ST., 2023, WHICH IS AN INTEGRAL PART OF THESE CONTRACT DOCUMENTS.

2. SITE WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PROJECT SOILS REPORT.

3. CONTRACTOR SHALL REVIEW THE SOILS REPORT AND VERIFY THAT TEST BORINGS HAVE BEEN DONE UNDER ALL BUILDING(S) PRIOR TO BEGINNING EARTHWORK.

4. INFORMATION FROM GEAOTECHNICAL REPORT:
A) DESIGN SOIL BEARING PRESSURE = 2500 PSF.
B) ESTIMATED MAXIMUM SETTLEMENT= 1 INCH.
C) ESTIMATED DIFFERENTIAL SETTLEMENT= 1/2 INCH

5. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING MINIMUM TESTS. REFER TO SOILS REPORT FOR ANY ADDITIONAL TESTING.
A) ONE DENSITY TEST FOR EACH 2,000 SQUARE FEET OF COMPACTED SUBGRADE AND COMPACTED FILL.
B) ONE DENSITY TEST AT EACH COLUMN FOOTING.
C) ONE DENSITY TEST PER 50 FEET OF WALL FOOTING.

6. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.

7. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.

8. THE SIDES OF FOOTINGS MAY BE EARTH_FORMED IF THE EXCAVATION CAN BE KEPT VERTICAL, CLEAN, AND STABLE, OTHERWISE, PLYWOOD FORMS MUST BE USED.

9. EXERCISE CARE WHEN COMPACTING NEAR ADJACENT STRUCTURES. FOLLOW THE RECOMMENDATIONS IN THE SOILS REPORT AND DOCUMENT EXISTING CONDITIONS WITH PHOTOGRAPHS PRIOR TO STARTING WORK.

10. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITY LINES, TANKS, ETC. WITHIN THE CONSTRUCTION AREA AND RELOCATE THEM AS DIRECTED BY THE CIVIL ENGINEER.

CAST IN PLACE CONCRETE

1. ALL CAST-IN-PLACE CONCRETE WORK INCLUDES REINFORCING STEEL AND RELATED WORK SHOWN INCLUDING FORMWORK, SETTING ANCHOR BOLTS, PLATES, FRAMES, DOWELS FOR MASONRY OR OTHER ITEMS EMBEDDED IN CONCRETE.

2. APPLICABLE STANDARDS

ACI NUMBER	TITLE
117	STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION
226	GROUND GRANULATED BLAST-FURNACE SLAG
301	STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
302	GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
304	GUIDE FOR MEASURING MIXING, TRANSPORTING AND PLACING CONCRETE
304.2R	PLACING CONCRETE BY PUMPING METHODS.
305R	HOT WEATHER CONCRETING
306R	COLD WEATHER CONCRETING
308	STANDARD PRACTICE FOR CURING CONCRETE
309R	GUIDE FOR CONSOLIDATION OF CONCRETE
315	MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES
318	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
347	RECOMMENDED PRACTICE FOR CONCRETE FORMWORK

CRSI NUMBER	TITLE
63	RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS

3. CONCRETE MATERIALS
A) PORTLAND CEMENT - ASTM C 150, TYPE I
B) AGGREGATES - NORMAL WEIGHT CONCRETE, COARSE AND FINE, ASTM C33. STRUCTURAL LIGHT WEIGHT ASTM C330.
C) AIR-ENTRAINING - ASTM C260
D) WATER REDUCING - ASTM C494, TYPE A
E) WATER - FRESH, CLEAN AND POTABLE
F) NO ACCELERATORS, RETARDERS OR ADMIXTURES CONTAINING CHLORIDES WILL BE PERMITTED
G) FLY-ASH - ASTM C618, CLASS F, 20% MAXIMUM OF CEMENTITIOUS MATERIAL BY WEIGHT. DO NOT USE FOR EXPOSED SLABS OR ARCHITECTURAL CONCRETE.
H) SUPER PLASTICIZER - ASTM C494, TYPE F OR G, WHERE AUTHORIZED BY THE ENGINEER.
I) GROUND GRANULATED BLAST-FURNACE SLAG CEMENT - ASTM C989, 50% MAXIMUM BY WEIGHT.
J) MAXIMUM AGGREGATE SIZE - FOOTINGS = #57, OTHERS #67

4. REINFORCING MATERIALS
A) DEFORMED BARS - ASTM A615, GRADE 60
B) SMOOTH DOWELS - ASTM A615, PLAIN BARS, MINIMUM YIELD STRENGTH OF 60,000 PSI.
C) CORROSION RESISTANT UNCOATED STEEL (MMFX-2) - ASTM A615, GRADE 75 AND ASTM A1035 LOW-CARBON (8% MINIMUM) CHROMIUM BY MMFX OR EQUAL.
D) WELDED WIRE FABRIC - ASTM A185, PLAIN WIRE FABRIC IN FLAT SHEETS ONLY.
E) ACCESSORIES TO CONFORM TO ACI 315.
F) WHERE CONCRETE SURFACES ARE EXPOSED, MAKE THOSE PORTIONS OF ALL ACCESSORIES IN CONTACT WITH THE CONCRETE SURFACE OR WITHIN 1/2 INCH THEREOF, OF PLASTIC OR STAINLESS STEEL.

5. PROVIDE THE FOLLOWING MINIMUM CONCRETE STRENGTHS AT 28 DAYS:
A) FOOTINGS, SLAB-ON-GRADE----------3000 PSI
B) MASONRY WALL BEAMS, TIE COLUMNS----------3000 PSI
C) FORMED COLUMNS, WALLS, BEAMS & SLABS--------4000 PSI

6. CONCRETE MUST BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR READY-MIXED CONCRETE ASTM C94.

7. REQUIRED SLUMP = 4 PLUS OR MINUS ONE INCH.

8. CONCRETE MUST BE PLACED WITHIN 90 MINUTES OF BATCH TIME. WHEN AIR TEMPERATURE IS BETWEEN 85 AND 90 DEGREES F, REDUCE MIXING AND DELIVERY TIME TO 75 MINUTES. WHEN AIR TEMPERATURE IS HIGHER THAN 90 DEGREES F, REDUCE MIXING AND DELIVERY TIME TO 60 MINUTES.

9. DO NOT ADD WATER AT THE JOB SITE WITHOUT APPROVAL OF THE PROJECT SUPERINTENDENT. DO NOT EXCEED THE SLUMP LIMITATION. USE ONLY COLD WATER FROM THE TRUCK TANK. ANY ADDED WATER MUST BE INDICATED ON THE DELIVERY TICKET PLUS THE NAME OF THE PERSON AUTHORIZING. TEST CYLINDERS SHALL BE TAKEN AFTER THE ADDITION OF WATER.

10. LAP SPLICE REINFORCING PER CONCRETE LAP SCHEDULE MINIMUM UNLESS OTHERWISE SHOWN OR NOTED.

11. PROVIDE CORNER BARS AT ALL WALL FOOTING, WALL AND BEAM CORNERS. SIZE AND NUMBER TO MATCH HORIZONTAL BARS.

12. PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND NUMBER OF VERTICAL BARS. EMBED DOWELS TO:
A) 3" ABOVE BOTTOM OF FOOTINGS

13. REINFORCEMENT SHALL BE FASTENED AND SECURED TOGETHER TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR THE PLACING OF CONCRETE.

14. REINFORCING BAR COVER
A) FOOTINGS 2" (TOP), 3" (SIDES AND BOTTOM)
B) COLUMNS AND BEAMS 1-1/2"
C) SLABS 3/4" (INTERIOR), 1-1/2" (EXTERIOR)

15. WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, LENGTH OF HOOK, IF REQUIRED, IS NOT INCLUDED.

16. SELECT PROPORTIONS IN ACCORDANCE WITH ACI 301 TO PROVIDE CONCRETE CAPABLE OF BEING PLACED WITHOUT EXCESSIVE SEGREGATION AND WITH ACCEPTABLE FINISHING PROPERTIES, DURABILITY, SURFACE HARDENERS, APPEARANCE, AND STRENGTH REQUIREMENTS REQUIRED BY THESE SPECIFICATIONS.

17. CHAIR WELDED WIRE FABRIC REINFORCING AT 3'-0" ON CENTER MAXIMUM IN EACH DIRECTION.

18. MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK-UP DATA IS AVAILABLE:
A) 4000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.44 MAXIMUM (NON-AIR-ENTRAINED), 0.36 MAXIMUM (AIR-ENTRAINED).
B) 3000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.58 MAXIMUM (NON-AIR-ENTRAINED), 0.47 MAXIMUM (AIR-ENTRAINED).

19. DATA TO BE SUBMITTED:
A) INTENDED USAGE AND LOCATION FOR EACH TYPE
B) MIX DESIGN FOR EACH TYPE
C) CEMENT CONTENT IN POUNDS-PER-CUBIC YARD
D) COARSE AND FINE AGGREGATE IN POUNDS/CUBIC YARD
E) WATER CEMENT RATIO BY WEIGHT
F) CEMENT TYPE AND MANUFACTURER
G) SLUMP RANGE
H) AIR CONTENT
I) ADMIXTURE TYPE AND MANUFACTURER
J) PERCENT ADMIXTURE BY WEIGHT
K) STRENGTH TEST DATA REQUIRED TO ESTABLISH MIX DESIGN.
L) COMPLETE DETAIL AND PLACING SHOP DRAWINGS FOR ALL REINFORCING STEEL INCLUDING ACCESSORIES THAT HAVE BEEN REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR. INCLUDE ALL REQUIRED DIMENSIONS AND ELEVATIONS (IE. TOP OF CONCRETE)

20. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CONSTRUCTION OF FORMWORK, SHORING AND RE-SHORING IN ACCORDANCE WITH ACI 347.
A) FORM AND SHORING DESIGN BY A P.E. REGISTERED IN THE STATE OF FLORIDA.

21. SUBMIT FORM WORK AND SHORING DRAWINGS TO LOCAL BUILDING DEPARTMENT WHEN REQUIRED BY FLORIDA THRESHOLD LAW.

22. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS MUST BE MADE AND LOCATED TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE.
A) NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, GIRDERS AND SLABS.
B) LOCATION OF ANY CONSTRUCTION JOINT NOT SHOWN IS SUBJECT TO REVIEW AND ACCEPTANCE BY ENGINEER.

23. INTERNAL VIBRATION, PROPERLY APPLIED IS THE REQUIRED METHOD OF CONSOLIDATING PLASTIC CONCRETE.

24. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.

25. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, AND SLAB RECESSES AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED. NO SLEEVE, OPENINGS, OR INSERT MAY BE PLACED IN BEAMS, JOISTS, OR COLUMN UNLESS APPROVED BY THE ENGINEER.

26. CONTRACTOR SHALL VERIFY EMBEDDED ITEMS INCLUDING, BUT NOT LIMITED TO, ANCHOR BOLTS, BOLT CLUSTERS, WELD PLATES, ETC., BEFORE PLACING CONCRETE. NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.

27. SEE ARCHITECTURAL DRAWINGS FOR REQUIRED CONCRETE FINISHES.

28. SLOPE WALKWAYS TO DRAIN AWAY FROM THE BUILDING.

29. BUILDING FLOOR AND SITE SLABS-ON-GRADE SHALL BE 4" MINIMUM THICKNESS, UNLESS NOTED OTHERWISE.
A) REINFORCED WITH 6X6 - W1.4 X W1.4 W.W.F.
B) PLACED ON 15 MIL POLYETHYLENE VAPOR RETARDER. LAP 6" AND TAPE ALL JOINTS.
C) SAW-CUT CONTROL JOINTS @ LESS THAN OR EQUAL TO 15'-0" EACH WAY.
D) PROVIDE HOUSEKEEPING PADS AS REQUIRED.
E) SEE DRAWINGS FOR ANY ADDITIONAL CONDITIONS.

30. TESTING
A) A QUALIFIED TESTING LAB SHALL BE RETAINED TO PERFORM QUALITY CONTROL WORK AND ON-SITE TESTING.
B) SLUMP TEST - ASTM 143
C) MOLD AND CURE TEST CYLINDERS (ASTM C-31) AND TEST CYLINDERS FOR STRENGTH (ASTM C39). TAKE ONE TEST - FOUR CYLINDERS FOR EACH DAYS POUR OF 50 CUBIC YARDS, OR FRACTION THEREOF. TEST ONE CYLINDER AT 7 DAYS, TWO AT 28 DAYS AND ONE HOLD. TEST CYLINDER SAMPLES SHALL BE TAKEN AT THE POINT OF DISCHARGE WHEN USING A PUMP.
D) ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO THE OWNER, ENGINEER, ARCHITECT AND GENERAL CONTRACTOR.

31. CONTRACTOR SHALL PROVIDE FLATNESS AND LEVELNESS IN CONCRETE SLABS PER ACI 302.1R, FIG. 8.7 MINIMUM REQUIRED "F" NUMBERS FOR TYPE OF SLAB USE. REFER TO ACI 117 FOR FLOOR TOLERANCES.

32. REPAIR ANY CRACKS OR DEFECTIVE AREAS THAT WILL RESTORE THE AFFECTED SURFACE OR AREAS TO THEIR FULL DESIGN STRENGTH AND APPEARANCE. CONTACT THE STRUCTURAL ENGINEER FOR ADVICE AND EVALUATION.

33. ACCEPTANCE OF THE STRUCTURE WILL BE MADE IN CONFORMANCE WITH ACI 301.

34. ALL CAST-IN-PLACE CONCRETE MUST BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A MINIMUM OF 7 DAYS FOLLOWING THE PLACING OF THE CONCRETE BY THE USE OF A WATER SPRAY, WATER SATURATED FABRIC, MOISTURE RETAINING MEMBRANE OR LIQUID CURING COMPOUND.

35. CURE SLABS-ON-GRADE FOR THE FIRST 72 HOURS BY THE USE OF:
A) FOG SPRAYING
B) PONDING
C) SPRINKLING
D) CONTINUOUSLY WET ABSORPTIVE MATS OR FABRIC
E) CONTINUE CURING BY USE OF MOISTURE RETAINING COVER UNTIL CONCRETE HAS OBTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH.
F) OR LIQUID CURING COMPOUND AFTER FINISHING PROCESS IS COMPLETED.
G) CONCRETE WET CURE TIME TO BE 7 DAYS MINIMUM AT 50 DEGREES MINIMUM TEMPERATURE.

36. SUBMIT MATERIALS AND METHOD OF CURING FOR REVIEW.

37. DO NOT USE MOISTURE RETAINING CURING COMPOUNDS FOR CURING SURFACES TO RECEIVE CARPET, FLEXIBLE FLOORING, CERAMIC TILED FLOORS OR OTHER SPECIFIED FLOOR SYSTEMS, UNLESS IT HAS BEEN DEMONSTRATED THAT SUCH COMPOUNDS WILL NOT PREVENT BOND.

38. DO NOT PERMIT CONCRETE NOT FULLY CURED TO BE EXPOSED TO EXCESSIVE TEMPERATURE CHANGES OR HIGH WINDS.

39. POUR ALL GROUND SLABS ON 15 MIL MINIMUM VAPOR RETARDER IN COMPLIANCE WITH ASTM E1745, LAPPED 6" MINIMUM AND FULLY TAPED.

40. EQUIPMENT MADE OF ALUMINUM OR ALUMINUM ALLOYS, SHALL NOT BE USED FOR PUMP LINES, TREMIES, OR CHUTES OTHER THAN SHORT CHUTES SUCH AS THOSE USED TO CONVEY CONCRETE FROM A TRUCK MIXER.

41. THE CODE PROHIBITS THE USE OF ALUMINUM (CONDUIT, PIPES, ETC.) IN STRUCTURAL CONCRETE UNLESS IT IS EFFECTIVELY COATED OR COVERED.

PRECAST CONCRETE U-LINTELS AND SILLS

1. UNITS SHALL BE FABRICATED BY A FIRM ENGAGED IN THE MANUFACTURING OF PRECAST AND PRE-STRESSED CONCRETE U-LINTELS AND SILLS FOR A MINIMUM OF 5 YEARS. FABRICATOR SHALL HAVE A QUALITY ASSURANCE PROGRAM THAT COMPLIES WITH THE PROCEDURES OF MANUAL 116 BY THE PRECAST/PRE-STRESSED CONCRETE INSTITUTE PCI).

2. PLANT RECORDS OF PRODUCTION AND QUALITY CONTROL SHALL BE KEPT IN ACCORDANCE WITH PCI RECOMMENDATIONS AND MADE AVAILABLE UPON REQUEST FOR THE ARCHITECT/ENGINEER.

3. CODES AND STANDARDS:
A) AMERICAN SOCIETY FOR TESTING AND MATERIALS(ASTM)
1) C33 - SPECIFICATION FOR CONCRETE AGGREGATES
2) C150 - SPECIFICATION FOR PORTLAND CEMENT
B) PRECAST/PRE-STRESSED CONCRETE INSTITUTE (PCI) STANDARDS: MANUAL FOR QUALITY CONTROL FOR PRECAST AND PRE-STRESSED CONCRETE MNL-116.
C) AMERICAN CONCRETE INSTITUTE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318)
D) AMERICAN CONCRETE INSTITUTE: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530)

5. REINFORCING
A) DEFORMED REINFORCEMENT: ASTM A615 GRADE 40 OR 60.
B) PRE-STRESSING STRAND: ASTM A416 270 KSI LL.

6. U-LINTEL UNITS 14 FEET IN OVERALL LENGTH AND SHORTER SHALL BE MADE OF CONCRETE WITH A MINIMUM STRENGTH OF 3500 PSI AT 28 DAYS.

7. U-LINTEL UNITS EXCEEDING 14 FEET IN OVERALL LENGTH SHALL BE MADE OF CONCRETE WITH A MINIMUM STRENGTH OF 6000 PSI AT 28 DAYS AND SHALL BE PRE-STRESSED CONCRETE.

8. SILL UNITS SHALL BE MADE OF CONCRETE WITH A MINIMUM STRENGTH OF 3000 PSI AT 28 DAYS.

9 UNITS SHALL BE SAND BLOCK FINISH EXCEPT PRE-STRESSED, 6" WIDE, AND 12" WIDE U-LINTELS SHALL BE SMOOTH FORM FINISHED.

10. PRECAST CONCRETE U-LINTELS SHALL BE DESIGNED BY A LICENSED DELEGATED ENGINEER.

11. SUBMITTALS
A) PROVIDE MANUFACTURER'S CATALOG ENGINEERING DATA.

B) MANUFACTURER SHALL RATE U-LINTEL UNITS FOR GRAVITY, UPLIFT, AND LATERAL LOADS IN UNITS OF POUNDS PER LINEAR FOOT.

FIBROUS REINFORCING (ALTERNATE TO W.W.F. IN SLAB-ON-GRADE)

1. REINFORCING FIBERS TO BE VIRGIN 100% MICRO SYNTHETIC POLYPROPYLENE FIBERS, SPECIFICALLY MANUFACTURED FOR USE IN CONCRETE, CONTAINING NO REPROCESSED OLEFIN MATERIALS, WITH THE FOLLOWING MINIMUM PHYSICAL CHARACTERISTICS:
A) SPECIFIED GRAVITY: 0.91
B) YOUNG'S MODULUS 0.5 (3.5KN/MM2)
C) TENSILE STRENGTH: 45-60 KSI
D) LENGTH: 3/4" MAXIMUM, MULTI GRADATION DESIGN

2. REINFORCING FIBERS TO BE SUPPLIED BY THE FOLLOWING APPROVED MANUFACTURERS:
A) "FIBERSTRAND 100", EUCLID CHEMICAL COMPANY
B) "FIBERMESH 150 OR 300, PROPEX CONCRETE SOLUTIONS
C) "FORTA ECONO-NET", FORTA CORPORATION
D) "NYCON SUPER FIBERS", NYCON, INC.

3. FIBERS TO BE ADDED IN MANUFACTURER'S APPROVED AMOUNT WITH A MINIMUM OF 1.5 LBS PER CUBIC YARD FOR POLY AND NYLON.

4. CONCRETE TO BE MIXED IN ACCORDANCE WITH FIBER MANUFACTURER'S RECOMMENDATIONS FOR UNIFORM AND COMPLETE DISPERSION OF FIBER BUNDLES INTO SINGLE MONOFILAMENTS WITHIN CONCRETE.

5. REINFORCING FIBERS ONLY TO BE USED IN CONCRETE SLAB-ON-GRADES, AND NOT IN PRECAST PLANK OR METAL DECK TOPPING SLABS.

6. FOR A "NON-HAIRY" FINISH, USE A MONOFILAMENT FIBER. MORE DEMANDING APPLICATIONS, USE A COLLATED FIBRILLATED FIBER, WHICH WILL WEAR AWAY OVER TIME.

MASONRY

1. HOLLOW LOAD BEARING UNITS SHALL CONFORM TO ASTM C90, NORMAL WEIGHT, TYPE II. MINIMUM NET COMPRESSIVE UNIT STRENGTH = 2000 PSI. (NET AREA COMPRESSIVE MASONRY STRENGTH F'M = 1500 PSI).

2. MORTAR SHALL BE TYPE S AND CONFORM TO ASTM C270 (PROPORTION OR PROPERTY SPECIFICATION) WITH A MINIMUM AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1800 PSI (TYPE S).

3. COARSE GROUT SHALL CONFORM TO ASTM C476:
A) 2500 PSI AT 28 DAYS.
B) 1/4" MAXIMUM AGGREGATE.
C) 8" - 11" SLUMP.

4. CODES AND STANDARDS:
A) SPECIFICATIONS FOR MASONRY STRUCTURES - ACI 530.1/ASCE 6/ TMS 602 IS INCLUDED BY REFERENCE IN ITS ENTIRETY.
B) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES - ACI 530/ ASCE 5/TMS 402.

5. A REINFORCED TIE BEAM SHALL BE PROVIDED IN ALL WALLS SHOWN ON THE STRUCTURAL DRAWINGS AT EACH FLOOR, THE ROOF, AND AT TOP OF ANY PARAPET WALL. USE GALVANIZED MESH-TYPE CELL CAPS. PROVIDE CORNER BARS AT ALL BEAM CORNERS TO MATCH HORIZONTAL BARS.

6. UNLESS NOTED OTHERWISE, TIE BEAMS SHALL BE AS FOLLOWS:
A) ROOF LEVEL: DOUBLE COURSE OF KNOCK-OUT BLOCKS WITH (1) #5 IN EACH 8" COURSE OR (2) #5 IN EACH 12" COURSE.

7. VERTICAL BARS SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM OF BAR AND AT 8'_0" O.C. MAXIMUM WITH A MINIMUM CLEARANCE OF 1/2" FROM MASONRY. THE CLEAR DISTANCE BETWEEN BARS SHALL NOT EXCEED ONE BAR DIAMETER, OR MORE THAN 1". CENTER BARS IN WALLS U.N.O.

8. VERTICAL REINFORCING SHALL BE AS SHOWN ON THE DRAWINGS. FILL CELLS WITH COARSE GROUT AS SPECIFIED. PROVIDE ACI 90 DEGREE STANDARD HOOKS INTO FOOTING AND ROOF TIE BEAM. LAP SPLICE VERTICAL REINFORCEMENT ABOVE FOOTING AND ABOVE EACH FLOOR LEVEL UNLESS NOTED OTHERWISE. MAINTAIN VERTICAL REINFORCING SHOWN ON PLANS ABOVE AND BELOW MASONRY OPENINGS. CONTINUE FOUNDATION DOWELS BELOW ALL MASONRY OPENINGS.

9. REINFORCED FILL CELLS ARE TO BE CLEAN AND FREE OF ANY FOREIGN MATERIAL OR DEBRIS. REMOVE ANY INSULATING MATERIAL FROM CELLS, INCLUDING POLYSTYRENE INSULATING INSERTS, PRIOR TO GROUT POUR.

10. REINFORCING BARS SHALL BE STRAIGHT EXCEPT FOR BENDS AROUND CORNERS AND WHERE BENDS OR HOOKS ARE DETAILED ON THE PLANS.

11. REINFORCING BARS SHALL BE LAPPED PER MASONRY LAP SCHEDULE MINIMUM (UNLESS OTHERWISE NOTED) WHERE SPLICED AND SHALL BE WIRED TOGETHER.

12. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICALS. DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCEMENT.

13. PROVIDE HORIZONTAL WALL REINFORCING (9 GA.) HOT DIPPED GALVANIZED LADDER TYPE DUR-O-WALL (OR EQUIVALENT) AT 16" O.C. JOINT REINFORCING SHALL CONFORM TO ASTM A-951.

14. PROVIDE HORIZONTAL JOINT REINFORCEMENT AT DOORS AND WINDOWS FOR FIRST AND SECOND BLOCK COURSE ABOVE AND BELOW APERTURES. RUN REINFORCING CONTINUOUS OR EXTEND TWO FEET FROM APERTURE EDGE.

15. WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AT SPLICES AND SHALL CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT IN THE LAPPED DISTANCE.

16. CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE OF MASONRY IN EACH GROUT POUR WHEN THE POUR HEIGHT EXCEEDS 5'. CLEANOUTS TO BE SAW-CUT 4" X 4".

17. GROUT POUR HEIGHT SHALL NOT EXCEED 24'. PLACE GROUT IN 5' MAX. LIFTS HEIGHTS.

18. CONSOLIDATE GROUT POURS AT THE TIME OF PLACEMENT BY MECHANICAL MEANS AND RECONSOLIDATE AFTER INITIAL WATER LOSS AND SETTLEMENT.

19. ALL MASONRY FOUNDATION STEMWALLS AND RETAINING WALLS SHALL BE FULLY GROUTED.

20. STORE BLOCKS ON PALLETS AND COVER WITH PLASTIC SHEETING.

21. PLACE MASONRY IN RUNNING BOND WITH 3/8" MORTAR JOINTS. PROVIDE COMPLETE COVERAGE FACE SHELL MORTAR BEDDING, HORIZONTAL AND VERTICAL. FULLY MORTAR WEBS IN ALL COURSES OF PIERS, COLUMNS, AND PILASTERS AND ADJACENT TO GROUTED CELLS.

22. SEE DRAWINGS FOR MASONRY CONTROL JOINT LOCATIONS. SPACE AT 26'-0" O.C. AT EXTERIOR WALLS, 32'-0" O.C. AT INTERIOR WALLS UNLESS NOTED OTHERWISE.

23. SUBMITTALS:
A) SUBMIT PROPOSED GROUT MIX DESIGN PRIOR TO CONSTRUCTION.
B) SUBMIT PROPOSED MORTAR MIX DESIGN PRIOR TO CONSTRUCTION.
C) SUBMIT DETAILED SHOP DRAWINGS OF REINFORCING BARS SHOWING NUMBER, SIZE, AND LOCATION. INCLUDE BAR LISTS AND BEND DIAGRAMS. INCLUDE ALL REQUIRED DIMENSIONS AND ELEVATIONS.
D) SUBMIT COMPRESSIVE STRENGTH TESTS OF PROPOSED MASONRY UNITS PRIOR TO CONSTRUCTION. MASONRY UNITS ARE TO BE TESTED IN ACCORDANCE WITH ASTM C140.

24. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING TESTS:
A) SAMPLE AND TEST GROUT IN ACCORDANCE WITH ASTM C1019 FOR EACH 5000 SQ. FT. OF MASONRY.
B) SLUMP TESTS - ASTM C

STRUCTURAL SPECIFICATIONS CONT.

PRE-ENGINEERED WOOD TRUSSES

1. THIS SECTION DEFINES PRE-ENGINEERED, PREFABRICATED, METAL PLATE CONNECTED WOOD ROOF TRUSSES AS "WOOD TRUSSES".

2. WOOD TRUSSES SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", PUBLISHED BY THE AMERICAN FOREST AND PAPER ASSOCIATION, "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION", PUBLISHED BY THE TRUSS PLATE INSTITUTE, TPI 1.

3. THE WOOD TRUSS MANUFACTURER MUST PARTICIPATE IN A CODE APPROVED THIRD PARTY QUALITY ASSURANCE PROGRAM SUCH AS THE TRUSS PLATE INSTITUTE'S "QUALITY CONTROL INSPECTION PROGRAM" OR EQUIVALENT.

4. WOOD TRUSSES SHALL BE DESIGNED FOR THE LOAD CRITERIA PROVIDED ON THE STRUCTURAL DRAWINGS. MINIMUM BOTTOM CHORD DEAD LOAD = 10 PSF.

5. DURATION OF LOAD FACTORS:
   ROOF 0.6DL+WL 1.33
   ROOF DL+LL 1.25
   FLOOR DL+LL 1.00

6. THE WOOD TRUSS SYSTEM SHALL BE DESIGNED BY THE DELEGATED SYSTEM ENGINEER WHO SHALL PREPARE DESIGN CALCULATIONS AND SUPERVISE THE PREPARATION OF SHOP DRAWINGS INCLUDING, BUT NOT LIMITED TO:
   A) TRUSS PLACEMENT PLAN SHOWING ALL TRUSSES, GIRDERS, AND OVER-BUILD TRUSS FRAMING.
   B) TRUSS TO TRUSS METAL CONNECTORS WITH MODEL NUMBER AND MANUFACTURER.
   C) DIMENSIONED LOCATION OF ALL TRUSSES.
   D) TRUSS BRACING.
   E) DESIGNATION OF EACH TRUSS REFERENCED TO THE TRUSS DESIGN CALCULATIONS.

7. INDIVIDUAL TRUSSES SHALL BE DESIGNED BY THE DELEGATED SYSTEM ENGINEER INCLUDING:
   A) DIMENSIONED TRUSS ELEVATION OF EACH INDIVIDUAL TRUSS WITH CHORDS AND WEBS, REFERENCED TO THE TRUSS SYSTEM DRAWINGS.
   B) TRUSS SPACING.
   C) DESIGN LOADS CRITERIA AND LOAD COMBINATIONS.
   D) LOAD DURATION FACTORS, CONDITION OF USE FACTORS AND ANY LIVE LOAD REDUCTIONS TAKEN.
   E) APPLICABLE CODES USED.
   F) WOOD SPECIES, GRADE, AND MOISTURE CONTENT.
   G) METAL CONNECTOR PLATES TYPE, SIZE, GAUGE, ETC.
   H) SUPPORT REACTIONS AND MINIMUM BEARING LENGTH.
   I) DEFLECTIONS.
   J) PERMANENT CONTINUOUS TRUSS TO TRUSS BRACING.
   K) INDIVIDUAL MEMBER STIFFENERS.
   L) TRUSS SPLICE DETAILS, INCLUDING PIGGY BACK TRUSSES.
   M) IDENTIFICATION OF ANY COMPUTER PROGRAM USED.

8. DEFLECTION LIMITATIONS: (UNLESS NOTED OTHERWISE)
   A) ROOF LIVE LOAD = L/360
   B) ROOF TOTAL LOAD = L/240
   C) FLOOR LIVE LOAD = L/480
   D) FLOOR TOTAL LOAD = L/360

9. FIRE RETARDANT WOOD IS NOT ALLOWABLE.

10. SUPPORTS: WOOD TRUSSES SHALL BE DESIGNED WITH AT LEAST ONE HORIZONTAL ROLLER CONNECTION PER SPAN SO THAT NO HORIZONTAL REACTIONS ARE INDUCED ON SUPPORTS UNDER DEAD OR LIVE LOADS.

11. REFER TO THE ARCHITECTURAL DRAWINGS. IF A CEILING OR ADEQUATE FURRING STRIPS ARE NOT PROVIDED, TRUSS BOTTOM CHORDS MUST BE DESIGNED AS LATERALLY UNBRACED.

12. TRUSS ERECTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING OF TRUSS SYSTEM DURING CONSTRUCTION.

13. HANDLING, INSTALLATION, AND BRACING OF WOOD TRUSSES SHALL BE IN ACCORDANCE WITH TPI/WTCA BCSI.

14. ALL TRUSS TO TRUSS AND TRUSS TO SUPPORT CONNECTIONS SHALL BE DESIGNED BY THE DELEGATED ENGINEER.

15. CONNECTION HARDWARE SHALL BE SUPPLIED BY SIMPSON STRONG-TIE CO., INC, OR BY APPROVED EQUIVALENT MANUFACTURER. CONNECTION HARDWARE IS TO BE FULLY FASTENED PER MANUFACTURER'S REQUIREMENTS.

16. MINIMUM COATING REQUIREMENTS FOR METAL CONNECTORS, TRUSS PLATES, AND FASTENERS:
   A) INTERIOR -ZINC GALVANIZED (G90)
   B) EXTERIOR -GALVANIZED (G185) OR HOT DIP GALVANIZED (HDG)
   C) EXTERIOR COASTAL AREAS -STAINLESS STEEL (TYPE 316L)

17. PILING OF PLYWOOD ON WOOD TRUSSES IS NOT ALLOWED.

18. INSTALLATION OF BROKEN, DAMAGED, WARPED, OR IMPROPERLY REPAIRED WOOD TRUSSES IS NOT ALLOWED.

19. IMPROPER OR UNAUTHORIZED FIELD ALTERATIONS OF WOOD TRUSSES IS NOT ALLOWED.

20. CONNECTIONS AND BRACING MUST BE INSTALLED BEFORE LOADING SHEATHING ON THE TRUSSES.

21. GABLE END WALL TRUSSES MUST TRANSFER LATERAL LOADS TO THE SHEAR WALLS AND/OR THE ROOF DIAPHRAGM.

22. WOOD TRUSSES THAT DO NOT MEET INTERIOR LOAD BEARING WALLS MUST BE SHIMMED. DO NOT PULL WOOD TRUSSES DOWN TO INTERIOR BEARINGS.

23. WOOD TRUSS DELEGATED ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.

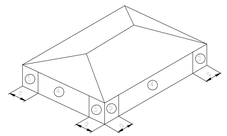
24. SUBMITTALS SHALL HAVE A COVER SHEET CONTAINING THE NAME, ADDRESS, AND LICENSE NUMBER OF DELEGATED ENGINEER, PROJECT IDENTIFICATION INFORMATION, AND AN INDEX OF ATTACHED DRAWINGS. ALL SUBMITTED CALCULATIONS AND SHOP DRAWINGS SHALL BEAR THE SEAL OF THE DELEGATED ENGINEER.

GROSS ULTIMATE WIND LOADS MAIN ROOF
ROOFING MATERIALS

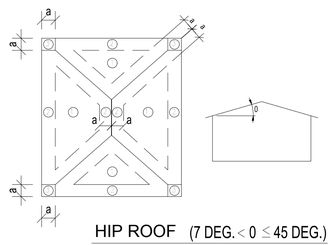
COMPONENTS AND CLADDING	ROOF ZONE		
	1	2	3
PRESSURE (psf)	59.9	59.9	59.9
SUCTION (psf)	-135.0	-175.0	-189.0

GROSS ULTIMATE WIND LOADS MAIN ROOF
JOISTS OR TRUSSES

COMPONENTS AND CLADDING	ROOF ZONE		
	1	2	3
PRESSURE (psf)	32.6	32.6	32.6
SUCTION (psf)	-66.7	-101.0	-107.0



DOORS, WINDOWS AND WALLS



HIP ROOF (7 DEG. < θ ≤ 45 DEG.)

GROSS ULTIMATE WIND LOADS OVERHANGS AND CANOPIES
JOISTS OR TRUSSES

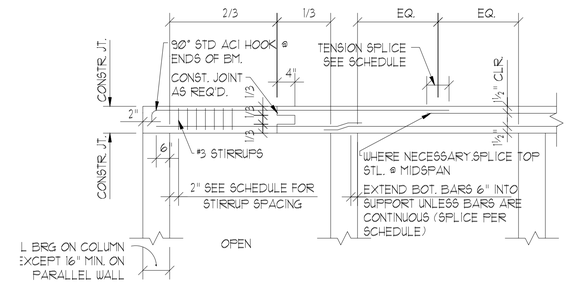
COMPONENTS AND CLADDING	ROOF ZONE		
		2	3
PRESSURE (psf)		89.8	105.2
SUCTION (psf)		-157.0	-163.0

ULTIMATE WIND PRESSURES (PSF)
EXTERIOR DOORS, WINDOWS, WALLS

EFFECTIVE AREA (ft)	ZONE 4		ZONE 5	
	PRESSURE	SUCTION	PRESSURE	SUCTION
1 TO 20	80.3	-80.7	80.3	-107.0
21 TO 50	76.4	-83.2	76.4	-99.7
51 TO 100	71.8	-78.6	71.8	-90.5
101 TO 150	68.2	-75.0	68.2	-83.3
151 TO 250	66.1	-72.9	66.1	-79.1
251 TO 500	63.4	-70.2	63.4	-73.8
501 + ABOVE	59.9	-66.7	59.9	-66.7

COMPONENT AND CLADDING LOADING DIAGRAMS

1. a= 6'-0"
2. THIS BUILDING IS DESIGNED AS AN ENCLOSED STRUCTURE. ALL EXTERIOR COMPONENTS (DOORS, WINDOWS, ETC.) MUST BE DESIGNED TO WITHSTAND THE WIND LOADINGS SPECIFIED FOR THE DESIGN OF COMPONENTS AND CLADDING IN THE TABLES. IN ADDITION, ALL AREAS OF EXTERIOR GLAZING MUST BE CERTIFIED FOR MISSILE IMPACT OR PROTECTED BY WIND-BORNE DEBRIS BY A SCREEN BARRIER.
3. TO CONVERT THE (ASCE 7-22) ULTIMATE WIND PRESSURES IN THE TABLES ABOVE TO (ASD) WIND PRESSURES, MULTIPLY EACH VALUE BY 0.6.



1 BEAM REINFORCING

MASONRY REINF. LAP SCHEDULE

BAR SIZE	LAP LENGTH
#3 BAR	20"
#4 BAR	26"
#5 BAR	32"
#6 BAR	43"
#7 BAR	60"

NOTE:
1. TABLE BASED ON BAR STRESSES LESS THAN 80%

VERTICAL REINFORCEMENT BAR LAP SCHEDULE

BAR SIZE	COMPRESSION LAP	CLASS "B" TENSION LAP		
		3,000 PSI	4,000 PSI	5,000 PSI
# 5	25"	36"	31"	28"
# 6	30"	43"	37"	33"
# 7	35"	63"	54"	49"
# 8	40"	72"	62"	55"
# 9	44"	81"	70"	63"
# 10	50"	91"	79"	70"

NOTES:
1. BASED ON NORMAL WEIGHT CONCRETE & GRADE 60 REINFORCING BARS.

CONCRETE BEAM TENSION LAP SPLICE SCHEDULE

BAR SIZE	LOCATION	CONCRETE STRENGTH		
		3,000 PSI	4,000 PSI	5,000 PSI
# 4	TOP BARS	37"	32"	29"
	OTHER BARS	29"	25"	22"
# 5	TOP BARS	47"	40"	36"
	OTHER BARS	36"	31"	28"
# 6	TOP BARS	56"	48"	43"
	OTHER BARS	43"	37"	33"
# 7	TOP BARS	81"	70"	63"
	OTHER BARS	63"	54"	49"
# 8	TOP BARS	93"	80"	72"
	OTHER BARS	72"	62"	55"
# 9	TOP BARS	105"	91"	81"
	OTHER BARS	81"	70"	63"
# 10	TOP BARS	118"	102"	91"
	OTHER BARS	91"	79"	70"

NOTES:
1. BASED ON NORMAL WEIGHT CONCRETE & GRADE 60 REINFORCING BARS.
2. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
3. FOR LIGHTWEIGHT AGGREGATE, MULTIPLY ABOVE VALUES BY 1.3.

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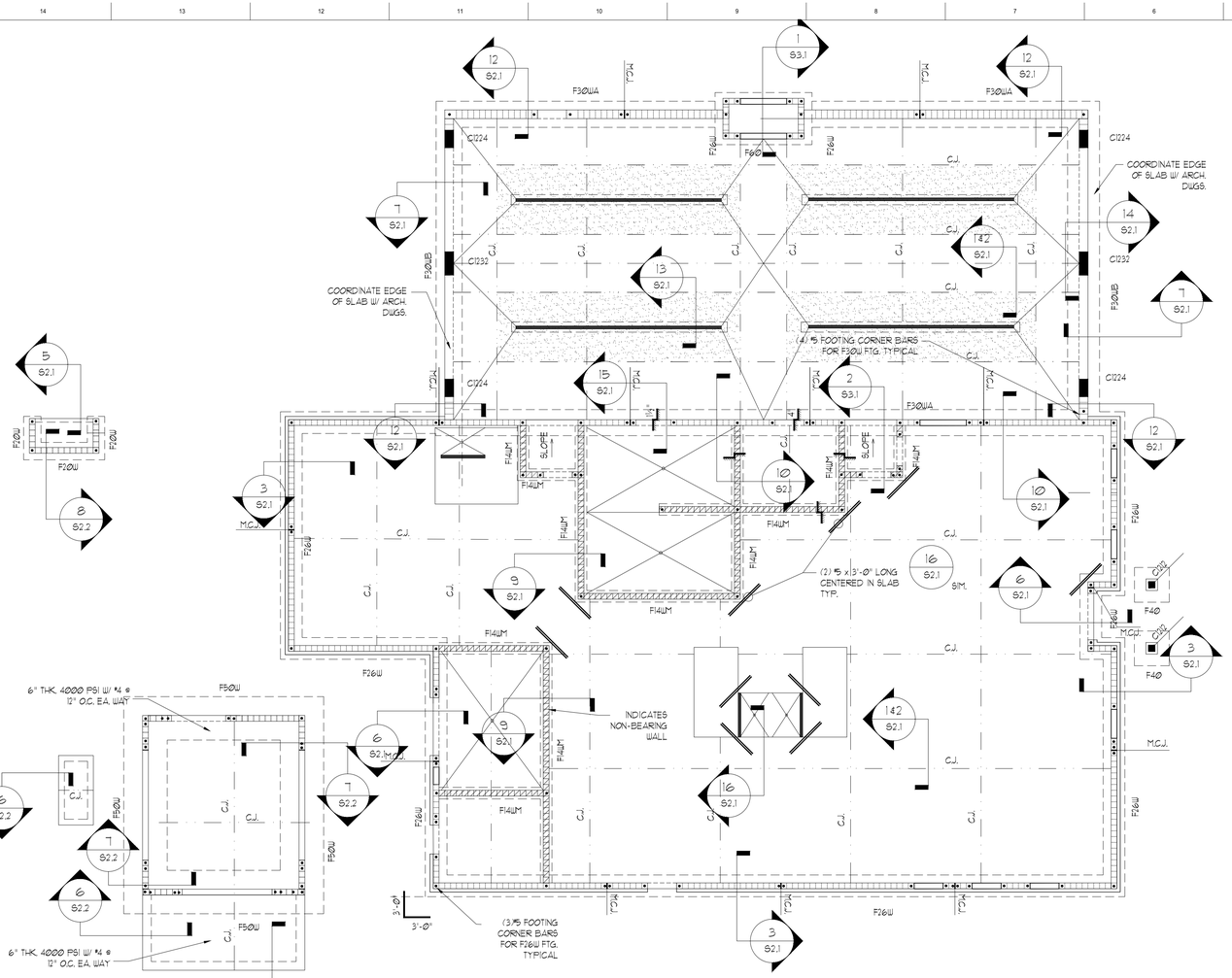
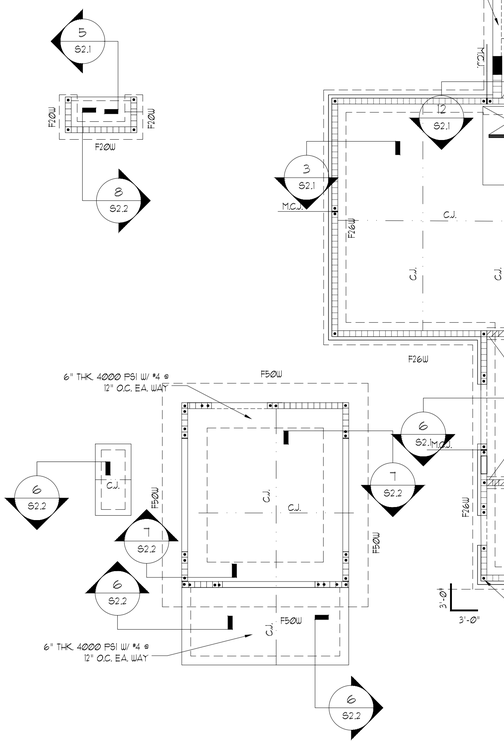
STRUCTURAL SPECIFICATIONS, SCHEDULES & WIND TABLES

S0.2



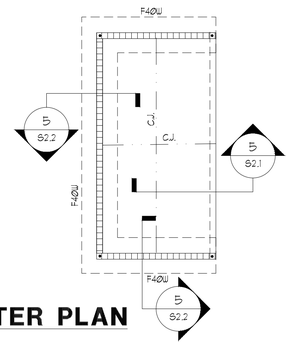
FOUNDATION PLAN

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



EQUIPMENT PLAN

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



DUMPSTER PLAN

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

FOUNDATION PLAN NOTES

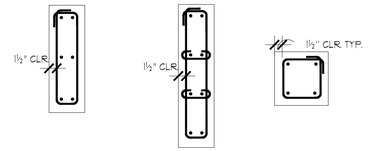
1. SLAB-ON-GRADE TO BE 4" THICK f'c = 3000 PSI NORMAL WEIGHT CONCRETE W/ 6x6-W1.4xW1.4 WWF. ON 15 MIL VAPOR RETARDER & TREATED SUBGRADE. SEE PLAN FOR APPARATUS ROOM SLAB.
2. TOP OF SLAB = (+) 100'-0"
   TOP OF (APP. BAY)= (+) 99'-11½"
   TOP OF FOOTING= (+) 98'-8" U.N.O. ADJUST TOP OF FTG TO PROVIDE 12" MIN SOIL COVER OF FTG. COORDINATE W/ ARCH & CIVIL DWGS (SEE 4/S2.1)
3. CENTER ALL FOOTINGS BELOW WALL OR COLUMN
4. MASONRY WALLS:
   a) 8" LOAD BEARING: #5 @ 24" O.C. UNO
   b) 8" NON-LOAD BEARING: #5 @ 8'-0" O.C.
   c) 12" LOAD-BEARING: #5 @ 24" O.C.
5. ALL FOOTING REINF. TO BE BOTTOM BARS U.N.O. TIE VERTICAL DOWELS TO BOTTOM BARS.
6. REFER TO SHEETS S0.1 & S0.2 FOR SPECIFICATIONS.
7. REFER TO ARCHITECT FOR EXTENT OF SLAB DEPRESSIONS.
8. REFER TO ARCHITECT FOR ANY DIMS. NOT SHOWN. COORDINATE LOCATION OF WINDOWS AND DOOR W/ ARCHITECT DRAWINGS.
9. ALL FOOTINGS TO BE F26W EXCEPT WHERE NOTED OTHERWISE.
10. PROVIDE BRICK TIES @ 16" O.C. MAX. EACH WAY TO MASONRY, TYP. DO NOT USE CORRUGATED TIES.
11. M.C.J.= MASONRY CONTROL JOINT. SEE 3/S2.2
12. PROVIDE (2) #4 x 3'-0" MID-DEPTH CENTERED ON SLAB CORNER.
13. SEE 6/S2.2 FOR FABRICATED STORAGE SHED FOUNDATION SLAB. SEE ARCH. FOR SIZE & LOCATION.

FOOTING SCHEDULE

MARK	SIZE	DEPTH	REINF. EA. WAY	REMARKS	DWL/A.B. EMBEDMENT
F14WM	1'-4"	10"	(2) #5 CONT. #4@24" TRANSV.	WALL FTG.	7"
F20W	2'-0"	1'-0"	(3) #5 CONT. #4@24" TRANSV.	WALL FTG.	9"
F26W	2'-6"	1'-0"	(3) #5 CONT. #5@24"TRANSV.	WALL FTG.	9"
F30WA	3'-0"	1'-0"	(3) #5 CONT. #5@24"TRANSV.	WALL FTG.	9"
F30WB	3'-0"	1'-0"	(4) #5 CONT. T+B #5@12"TRANSV.	WALL FTG.	9"
F40W	4'-0"	1'-2"	(4) #5 CONT. #5@12"TRANSV.	WALL FTG.	11"
F50W	5'-0"	1'-2"	(5) #5 CONT. #5@12"TRANSV.	WALL FTG.	11"
F60W	6'-0"	1'-2"	(7) #5 CONT. #5@12"TRANSV.	WALL FTG.	11"
F4O	4'-0"x4'-0"	1'-0"	(4) #5		9"

CONCRETE COLUMN SCHEDULE

MARK	SIZE	REINFORCING VERT.	REINFORCING TIES	REMARKS
C1224	12"x24"	(6) #6	#3 @ 12" O.C.	TYPE A
C1232	12"x32"	(8) #7	#3 @ 12" O.C.	TYPE B
C1212	12"x12"	(4) #4	#3 @ 8"	TYPE C



TYPE A TYPE B TYPE C

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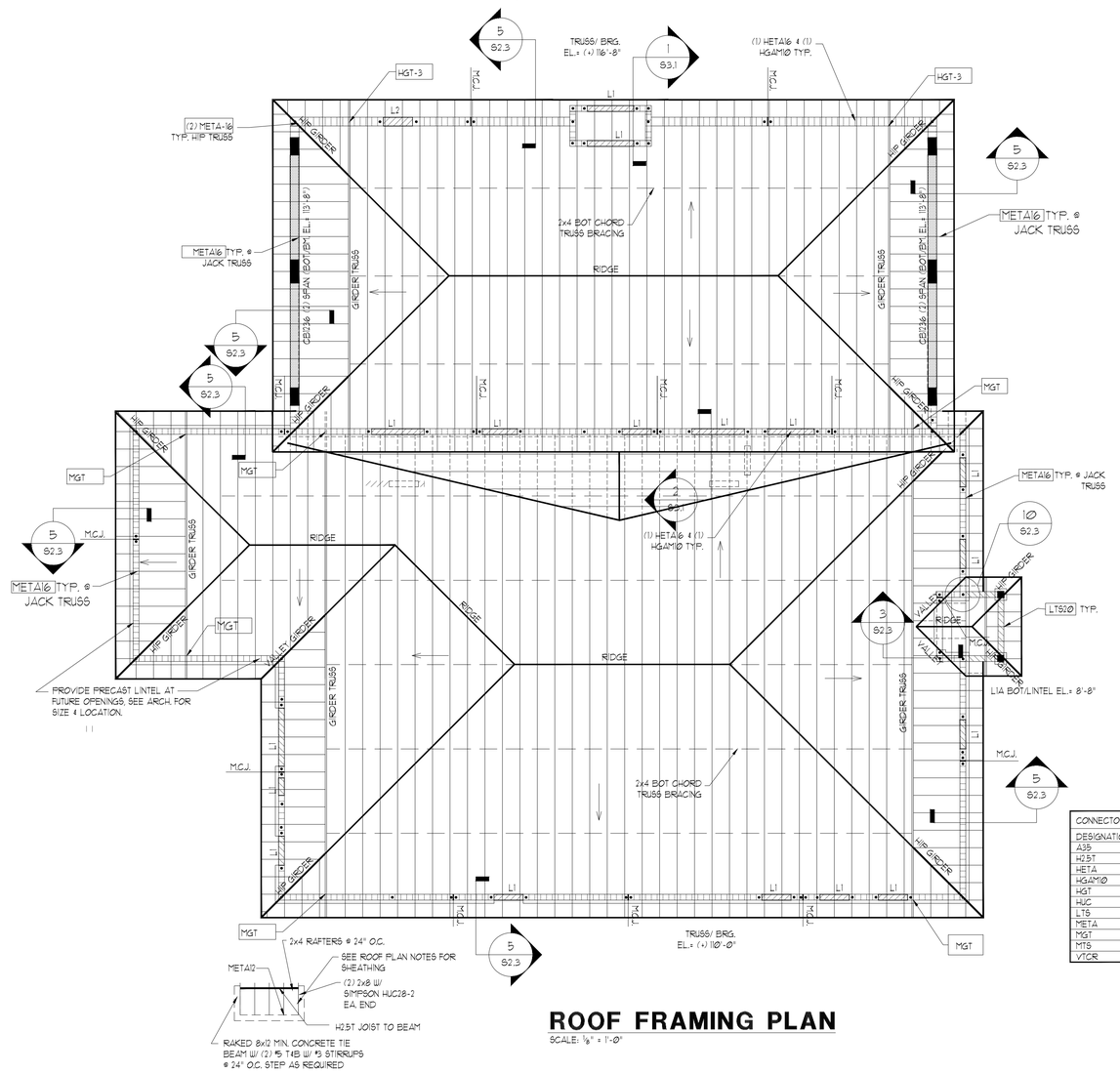
FOUNDATION PLAN

S1.1



STORAGE ROOF FRAMING PLAN

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

ROOF FRAMING PLAN

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

ROOF FRAMING PLAN NOTES

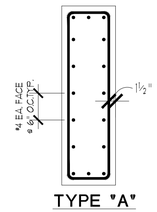
1. FOR WOOD TRUSS DESIGN REQUIREMENTS SEE SHEET S0.2, SEE ARCH DWGS FOR TRUSS PROFILES AND OVERHANG DETAILS, ROOF SLOPE= PER PLAN
2. THE CONTRACTOR SHALL PROVIDE WEDGE-TYPE WOOD MEMBERS OVER TOP TRUSSES TO PROVIDE FULL BEARING FOR PLYWOOD DECKING CHORD OF (TYP)
3. ALL TRUSS TO TRUSS CONNECTIONS TO BE DESIGNED BY MANUF. ENGINEER, DELEGATED
4. [ ] INDICATES MODEL NO. OF METAL CONNECTOR BY SIMPSON STRONG-TIE.
5. TRUSS ANCHORS SUBJECT TO CHANGE PENDING REVIEW OF TRUSS SHOP DRAWINGS.
6. NET WIND UPLIFT = SEE SHEET S0.2
7. ROOF DECK SHEATHING TO BE 5/8" EXT. GRADE PLYWOOD W/ 10d COMMON 4" O.C. AT PANEL EDGES & 6" O.C. AT INTERMEDIATE SUPPORTS TYPICAL. PROVIDE (2) 10d NAILS @ 2x4 BLOCKING & INSTALL W/ SOLID H-CLIPS.
8. CONTRACTOR / ERECTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING.
9. TRUSS BEARING EL.= SEE PLAN
10. INSTALL [TB] OVER ALL TRUSS BRG. WALLS, SEE DETAIL 2/S2.4
11. SLOPE ALL TOP CHORDS PER ARCHITECTURAL DRAWINGS.

CONCRETE BEAM SCHEDULE

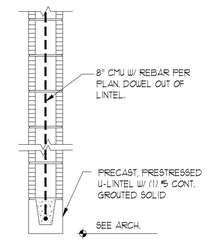
MARK	SIZE	REINFORCING CONT.	REINFORCING STIRRUPS	REMARKS
CB1236	12"x36"	(3) #6 T4B	#3 @ 14" O.C.	TYPE "A"

CONNECTOR SCHEDULE

DESIGNATION	FPAN
A35	FL10446
H2.5T	FL10446
META	FL11473
HGAMIØ	FL11473
HGT	FL10456
HUC	FL10531
LTS	FL10456
META	FL11473
MGT	FL10456
MTS	FL10456
VTCR	FL10441

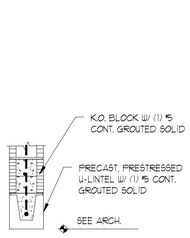


TYPE "A"



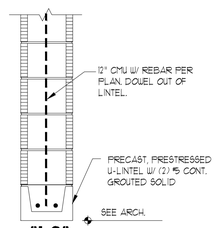
"L1"

NOTE: PROVIDE 8" BEARING EA. END OF LINTEL NOTCH ENDS TO ALLOW VERT. REINF. TO BE CONTINUOUS



"L1A"

NOTE: PROVIDE 8" BEARING EA. END OF LINTEL NOTCH ENDS TO ALLOW VERT. REINF. TO BE CONTINUOUS



"L2"

NOTE: PROVIDE 8" BEARING EA. END OF LINTEL NOTCH ENDS TO ALLOW VERT. REINF. TO BE CONTINUOUS

LINTEL DETAILS

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

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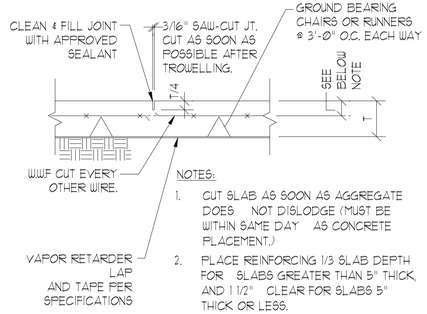
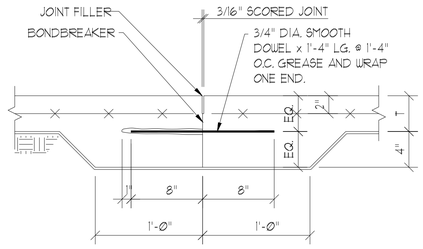
ROOF FRAMING PLAN

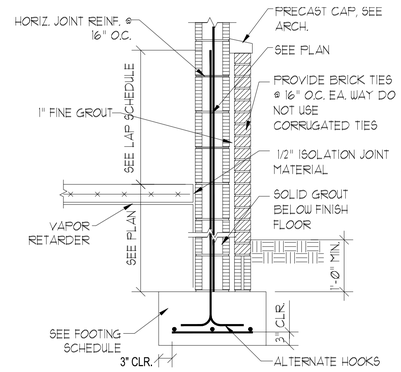
S1.2



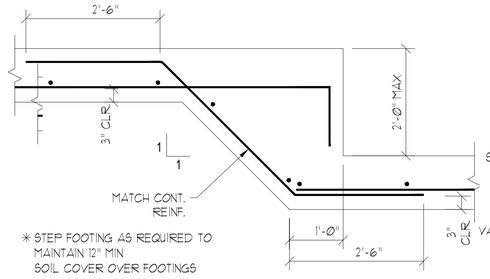
1 CONTRACTION JOINT
3/4" = 1'-0"



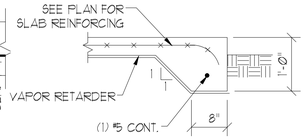
2 CONSTRUCTION JOINT IN APPARATUS BAY
3/4" = 1'-0"



3 WALL FOOTING
3/4" = 1'-0"



4 STEPPED FOOTING
3/4" = 1'-0"



5 THICKENED SLAB EDGE
3/4" = 1'-0"

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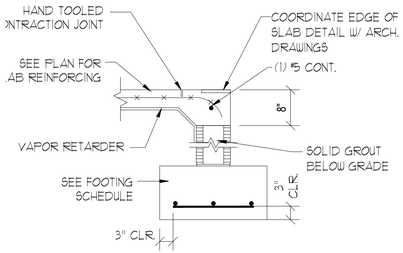
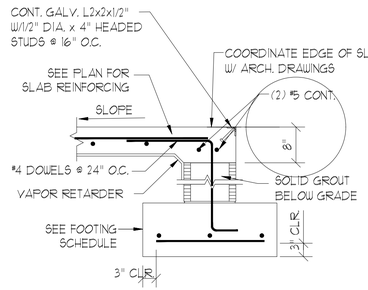
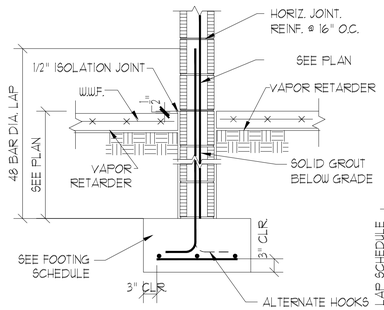


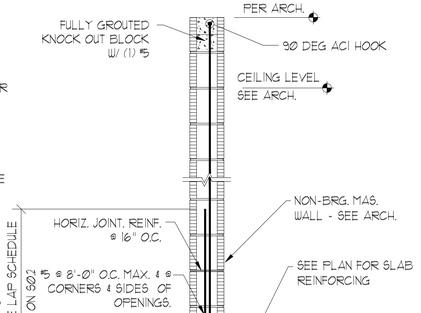
6 SLAB EDGE @ MASONRY OPENING
3/4" = 1'-0"



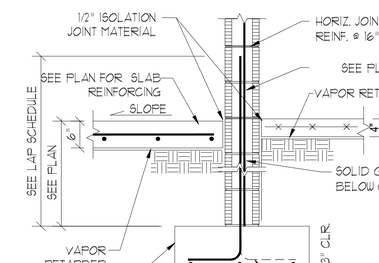
7 SLAB EDGE @ APPARATUS BAY
3/4" = 1'-0"



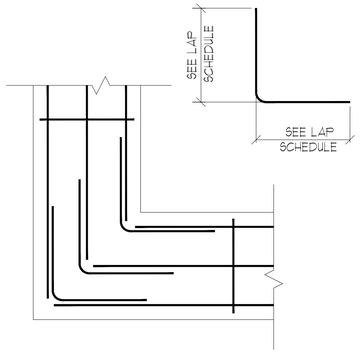
8 INTERIOR WALL FOOTING
3/4" = 1'-0"



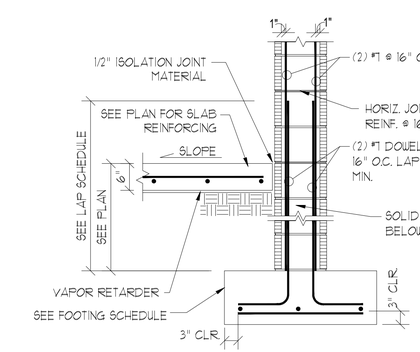
9 INTERIOR NON-BRG. MASONRY
3/4" = 1'-0"



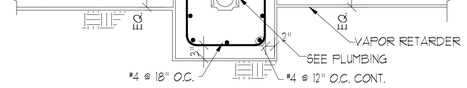
10 WALL FOOTING (INTERIOR)
3/4" = 1'-0"



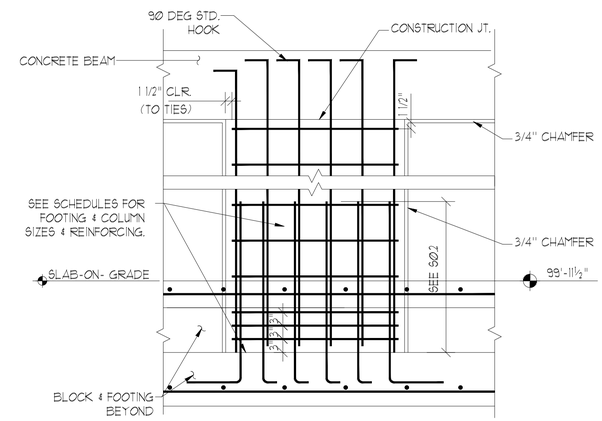
11 CORNER BAR DETAIL AT FOUNDATION
3/4" = 1'-0"



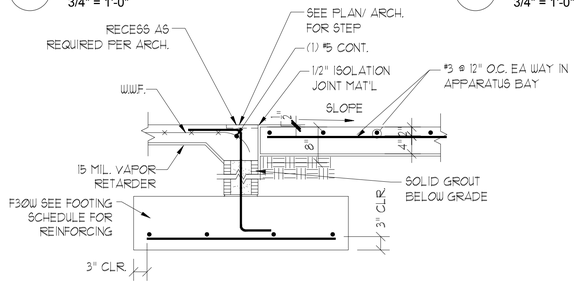
12 WALL FOOTING @12" CMU
3/4" = 1'-0"



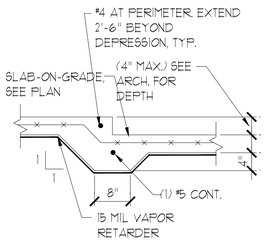
13 TRENCH DRAIN
3/4" = 1'-0"



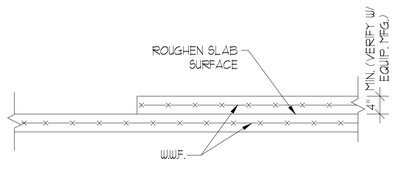
14 APPARATUS BAY CONCRETE COLUMN DETAIL
3/4" = 1'-0"



15 SLAB EDGE DETAIL
3/4" = 1'-0"



16 SLAB STEP
3/4" = 1'-0"



17 17S2.1 HOUSEKEEPING SLAB
3/4" = 1'-0"

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HILLSBOROUGH COUNTY
BOARD OF COUNTY COMMISSIONERS COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

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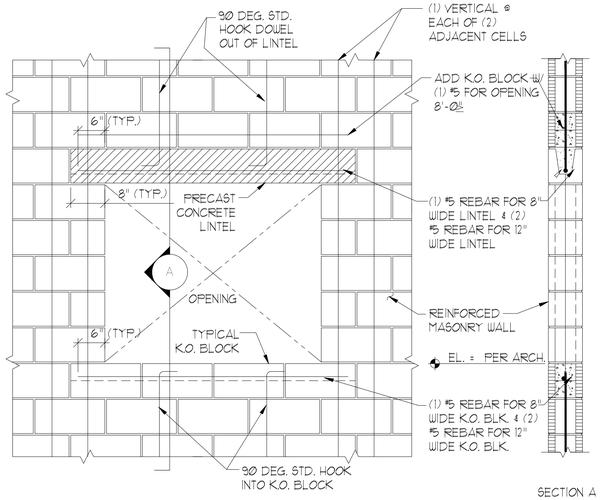
SUN CITY NORTH FIRE STATION NO. 47

PHASE: PERMIT SET	
DATE: 11/14/2024	
WAI PROJECT #2216-00	

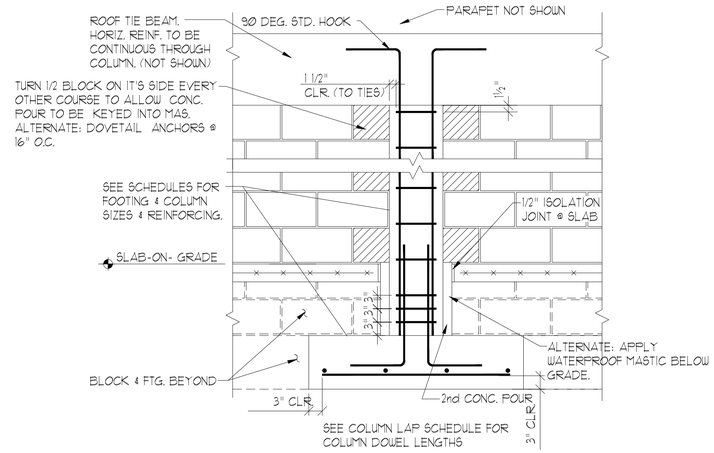
NUM	REVISION	DATE

FOUNDATION DETAILS

S2.1

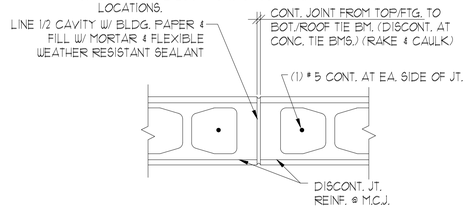


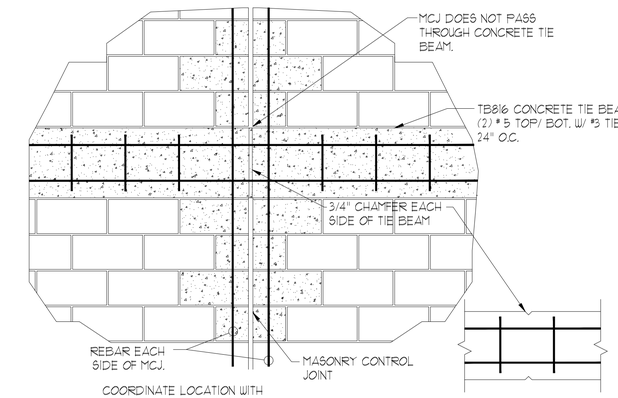
SECTION A



NOTES

1. EXTEND JOINT VERTICALLY FROM TOP OF FOOTING TO ROOF.
2. DISCONTINUE AT INTERMEDIATE TIE BEAMS AND ROOF TIE BEAMS.
3. SCORE ALL TIE BEAMS ON BOTH SIDES OF WALL TO MATCH JOINT.
4. SPACE JOINTS AT 26'-0" O.C. MAXIMUM.
5. COORDINATE LOCATIONS OF JOINTS WITH ARCH. JOINT LOCATIONS.





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Pennoni Project No. WILDC23001

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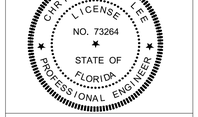
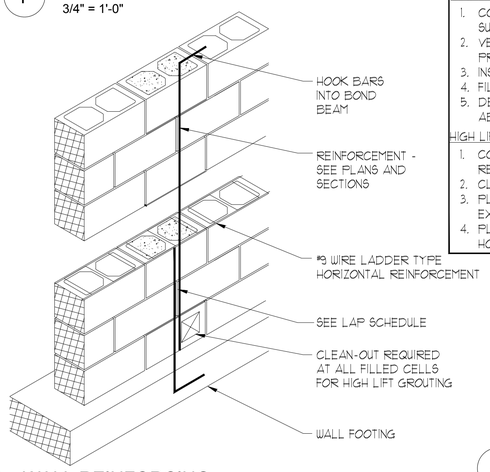


1 TYP. MASONRY OPENING DETAIL

3/4" = 1'-0"



LOW LIFT GROUTING PROCEDURE:

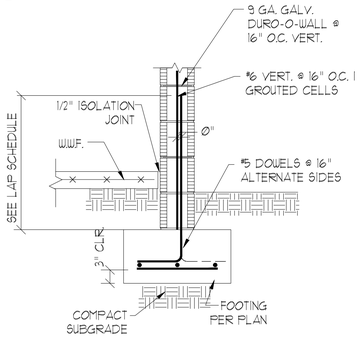
1. CONSTRUCT WALL TO HEIGHT OF 4'-0" TO 5'-4" MAX. ALLOW MORTAR TO SET SUFFICIENTLY TO WITHSTAND GROUT PRESSURE.
2. VERTICAL WALL REINF. BARS TO EXTEND BEYOND HEIGHT OF WALL FOR PROPER LAP.
3. INSPECT UNITS FOR ALIGNMENT, CLEAN OUT CELLS TO BE FILLED.
4. FILL CELLS TO 5 FOOT MAX. GROUT POUR.
5. DELAY 3 TO 5 MINUTES PRIOR TO CONSOLIDATING TO ALLOW WATER TO BE ABSORBED BY MASONRY.

HIGH LIFT GROUTING PROCEDURE:

1. CONSTRUCT WALL TO FULL HEIGHT (24 FEET MAX.) WITH PROPER REINFORCING AND ALLOW MASONRY TO CURE AT LEAST 3 DAYS.
2. CLEAN CELLS, WHICH ARE TO BE GROUTED THROUGH CLEAN-OUT PORTS.
3. PLACE GROUT IN 4 FOOT, 5 FOOT MAX. LIFTS AND CONSOLIDATE AFTER EXCESS MOISTURE HAS BEEN ABSORBED BY MASONRY.
4. PLACE THE NEXT LIFT AS SOON AS POSSIBLE BUT NO LONGER THAN ONE HOUR LATER.

2 CONCRETE COLUMN DETAIL

3/4" = 1'-0"

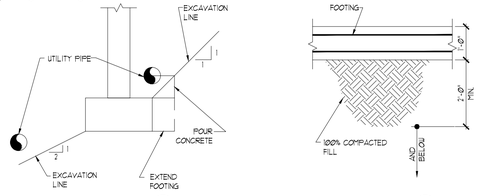


8 STORAGE BUILDING FND.

3/4" = 1'-0"

3 MASONRY CONTROL JOINT ELEVATION

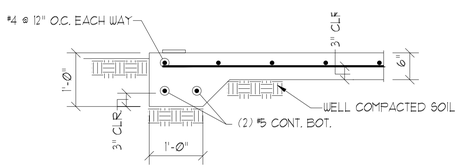
3/4" = 1'-0"



NOTE: SEE ARCH/CIVIL FOR LOCATION

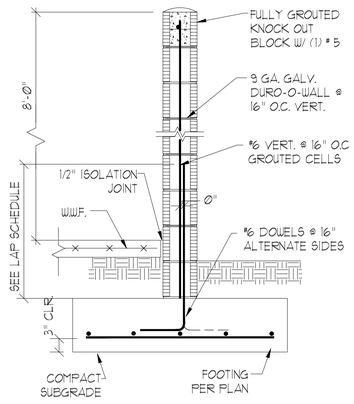
4 WALL REINFORCING

3/4" = 1'-0"



6 EQUIPMENT FOUNDATION

3/4" = 1'-0"

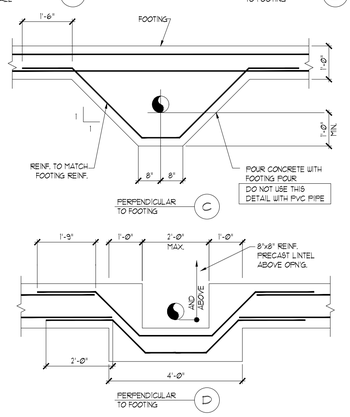


5 DUMPSTER ENCLOSURE

3/4" = 1'-0"

7 EQUIPMENT YARD WALL

3/4" = 1'-0"



9 FOOTING FOR PIPES PASSING UNDER OR ADJACENT TO WALLS

N.T.S.

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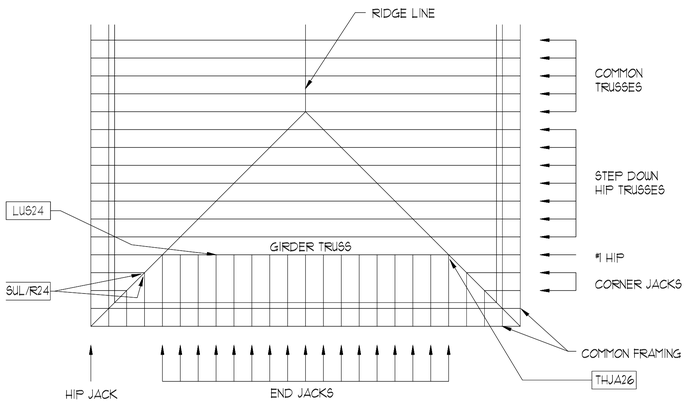
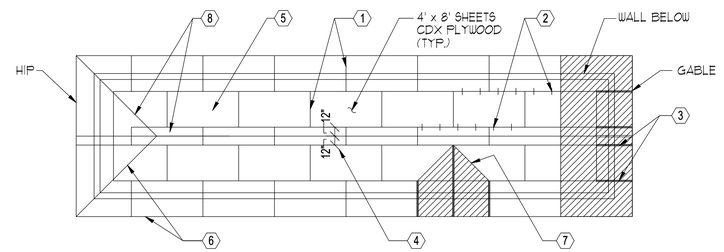
MASONRY & FOUNDATION DETAILS

S2.2



1 TYPICAL HIP ROOF TRUSS FRAMING

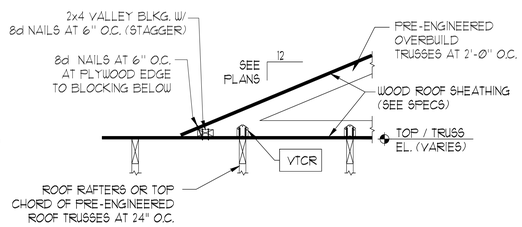
3/4" = 1'-0"



1. STAGGER END JOINTS AT FRAMING MEMBER
2. PROVIDE A HURRICANE CLIP AT EACH JOINT, BETWEEN EACH FRAMING MEMBER
3. 2x4 BLOCKING AT EACH JOINT, IN END ZONE MINIMUM PLYWOOD WIDTH 12"- SEE ARCHITECT FOR RIDGE VENTS
4. 5/8" OR GREATER PLYWOOD- 10d COMMONS AT 4" O.C. EDGES AND 6" O.C. INTERMEDIATE
5. NAILING 6" O.C. AT HIPS AND SUBFASCIA W/ 8d COMMON.
6. NAILING 3" O.C. AT VALLEYS W/ 8d COMMON. PROVIDE BEVELED WOOD SHIMS FOR PLYWOOD BEARING.
7. USE RING SHANK NAILS.
8.

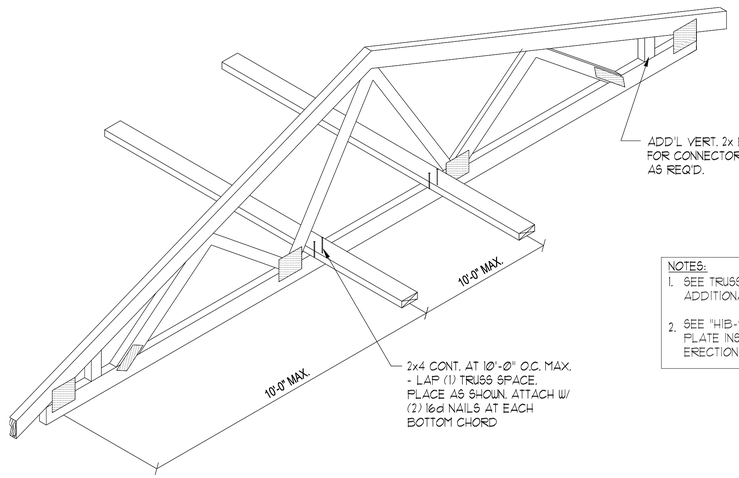
2 ROOF DIAGRAM NAILING SCHEDULE

3/4" = 1'-0"



3 OVER BUILT AT VALLEY CONNECTION

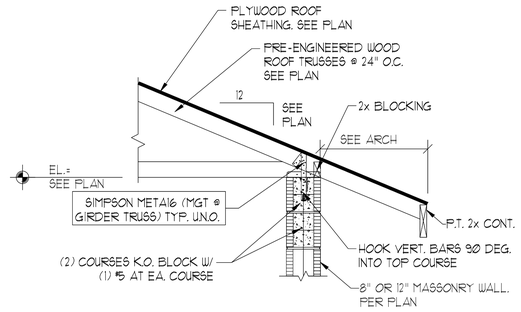
3/4" = 1'-0"



NOTES:
1. SEE TRUSS CALCULATION SHEETS FOR ADDITIONAL PERMANENT BRACING.
2. SEE "HIB-91" PUBLISHED BY THE TRUSS PLATE INSTITUTE FOR TEMPORARY ERECTION BRACING.

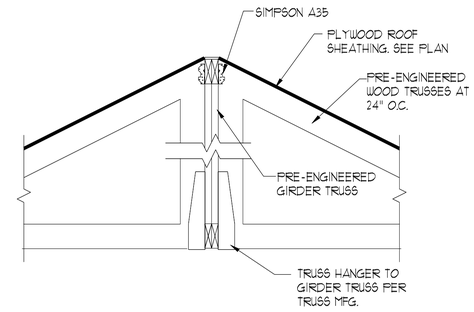
4 MINIMUM BOTTOM CHORD TRUSS BRACING

3/4" = 1'-0"



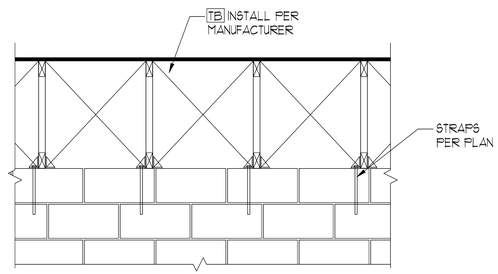
5 TRUSS BEARING

3/4" = 1'-0"



6 TRUSS GIRDER SECTION

3/4" = 1'-0"



7 TYPICAL TENSON BRIDGING BETWEEN TRUSSES

3/4" = 1'-0"

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HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PHASE: PERMIT SET

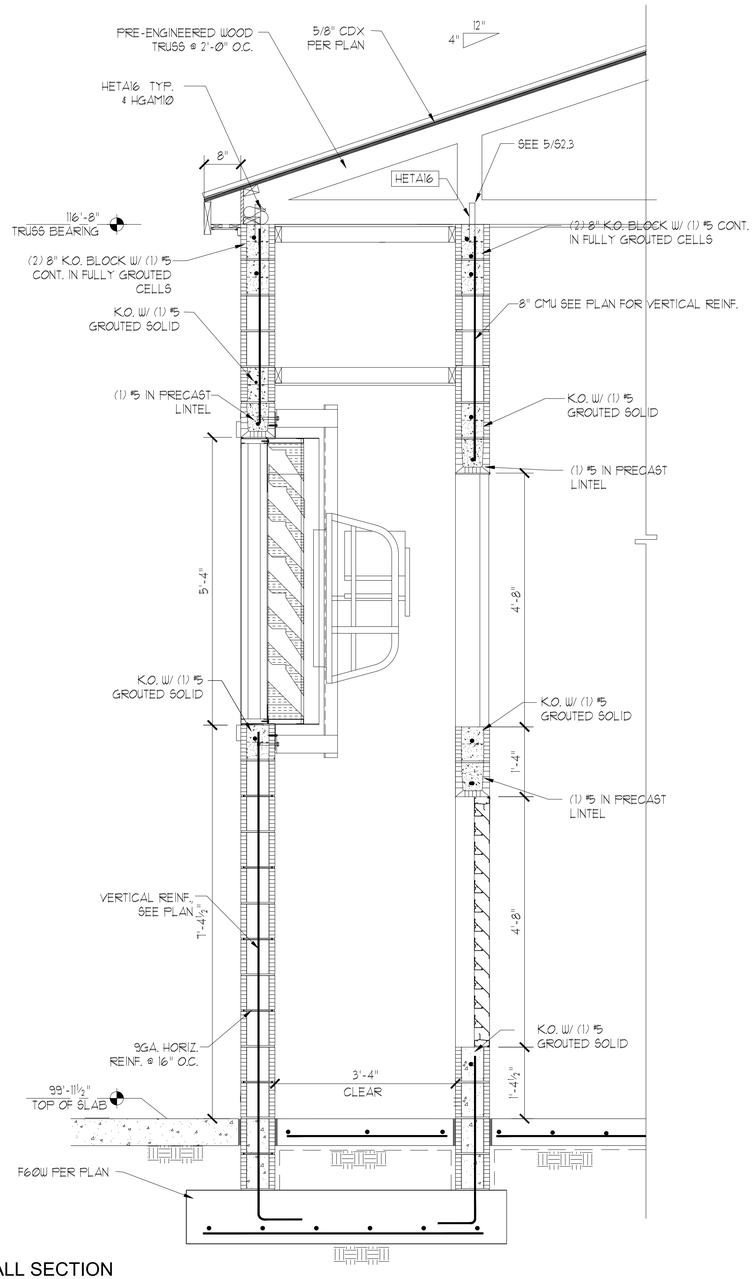
DATE: 11/14/2024

WAI PROJECT #2216-00

NUM	REVISION	DATE

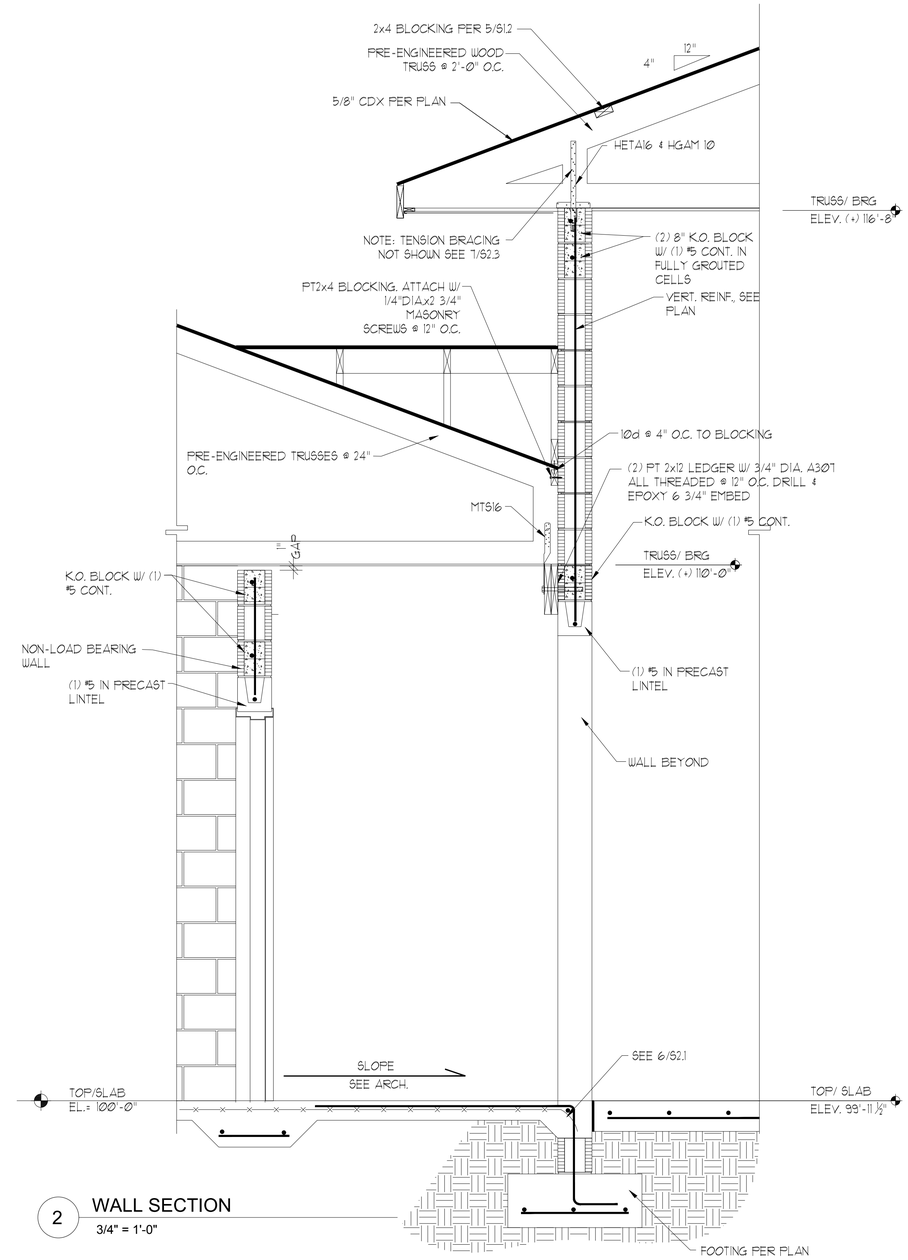
FRAMING DETAILS

S2.3



1 WALL SECTION

3/4" = 1'-0"



2 WALL SECTION

3/4" = 1'-0"

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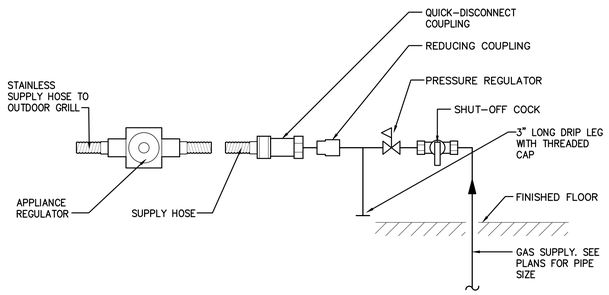
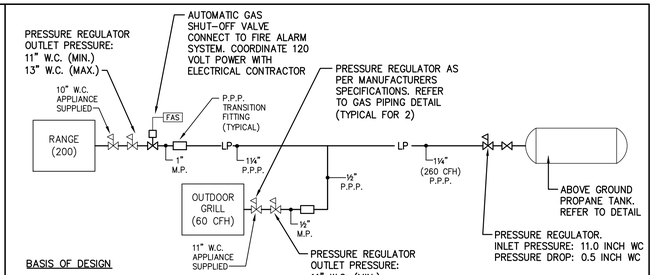
WALL SECTIONS

S3.1



OUTDOOR GRILL GAS PIPING DETAIL

SCALE: NONE



BASIS OF DESIGN

ACTUAL LENGTH = 187 FEET
DESIGN LENGTH: 187 FT X 1.25 = 233.75 FEET
CHARTED LENGTH = 250 FT.
TOTAL DEMAND = 260 CFH

ABOVE GROUND PIPING: NOTED ON RISER AS "M.P."
SCHEDULE 40 BLACK STEEL PIPE.

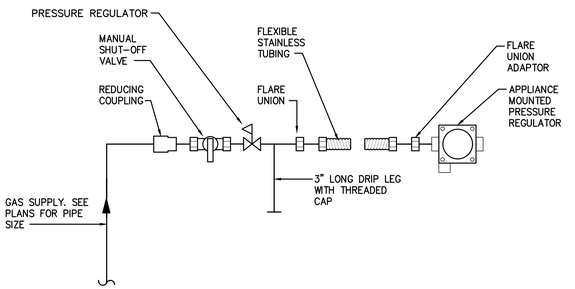
THE ABOVE INFORMATION IS BASED ON THE FLORIDA BLDG. CODE "FUEL GAS 8TH EDITION 2023 TABLE 402.4(28)
SCHEDULE 40 METALLIC PIPE
GAS: UNDILUTED PROPANE
INLET PRESSURE: 11.0 INCH W.C.
PRESSURE DROP: 0.5 INCH W.C.
SPECIFIC GRAVITY: 1.50

UNDER GROUND PIPING: NOTED ON RISER AS "P.P.P."

THE ABOVE INFORMATION IS BASED ON THE FLORIDA BLDG. CODE "FUEL GAS 8TH EDITION 2023 TABLE 402.4(35)
POLYETHYLENE PLASTIC PIPE
GAS: UNDILUTED PROPANE
INLET PRESSURE: 11.0 INCH W.C.
PRESSURE DROP: 0.5 INCH W.C.
SPECIFIC GRAVITY: 1.50

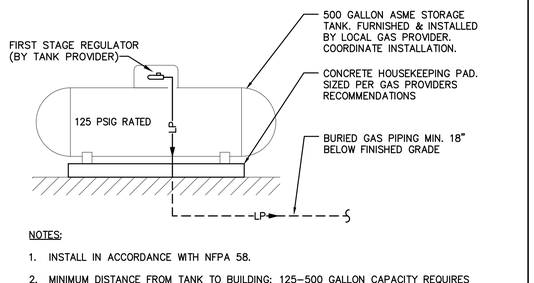
GAS RISER DIAGRAM

SCALE: NONE



GAS RANGE PIPING DETAIL

SCALE: NONE

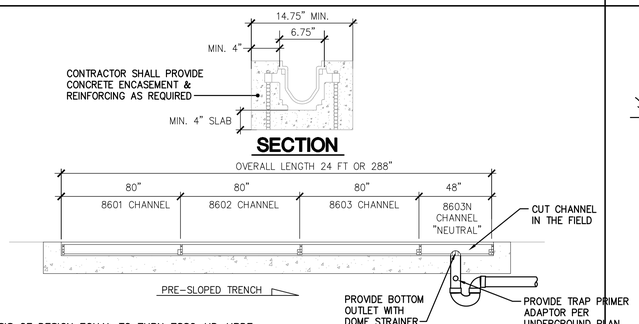


NOTES:

1. INSTALL IN ACCORDANCE WITH NFPA 58.
2. MINIMUM DISTANCE FROM TANK TO BUILDING: 125-500 GALLON CAPACITY REQUIRES 10 FEET & 501-2000 GALLON CAPACITY REQUIRES 25 FEET. MAINTAIN 10 FEET CLEARANCE FROM ANY SOURCE OF IGNITION, I.E. CENTRAL AIR CONDITIONER, COMPRESSOR, GENERATOR, ETC.
3. TANK MUST BE API/ASME CERTIFIED CONSTRUCTION AND BE PROVIDED WITH PROPER MARKING, VALVES, REGULATOR, PRESSURE RELIEF VENT, MAX LIQUID LEVEL GAUGE.
4. TANK MUST BE SELF SUPPORTING WITH LIFTING LUGS. SUPPORTS MUST BE 2 HOUR MIN. FIRE RESISTANCE RATING. PROVIDE WITH TIE DOWN ANCHORS.
5. PROVIDE BOLLARDS ADJACENT TO HOUSEKEEPING PAD & STORAGE TANK FOR PROTECTION AGAINST PHYSICAL DAMAGE DUE TO VEHICULAR TRAFFIC.

ABOVE GROUND LP GAS TANK DETAIL

SCALE: NONE



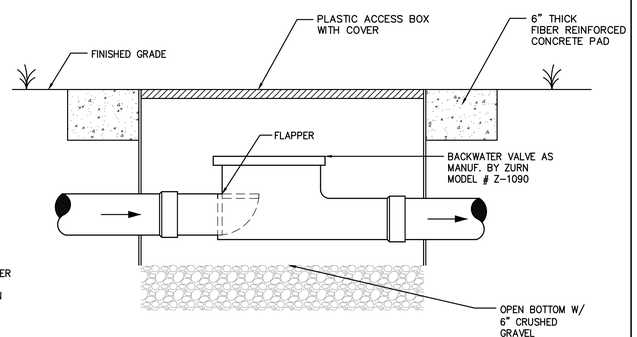
BASIS OF DESIGN EQUAL TO ZURN Z886-HD-HPDE
6" WIDE, HEAVY DUTY, PRE-SLOPED TRENCH DRAINAGE SYSTEM, HIGH DENSITY POLYETHYLENE STRUCTURAL COMPOSITE DRAIN CHANNEL WITH 75% BOTTOM SLOPE. 80 INCH CHANNEL LENGTH, INTEGRAL TOP FRAME, INTERLOCKING ENDS & RADIUSED BOTTOM. COMBINATION TIE-DOWN/LEVEL DEVICES AT 20 INCH INTERVALS. VERIFY OVERALL LENGTH DIMENSIONS WITH ARCHITECTURAL PLANS & FLOORING REQUIREMENTS.

OPTIONS TO INCLUDED:
E1: CLOSED END CAP (2)
HPDE: HEEL-PROOF DUCTILE GRATE (DIN EN1433 CLASS E).
DB: BOTTOM DOME STRAINER.

PROVIDE & INSTALL CONCRETE ENCASEMENT & REINFORCING FOR COMPLETE TRENCH SYSTEM.

TRENCH DRAIN SYSTEM

SCALE: NONE



BACKWATER VALVE DETAIL

SCALE: NONE

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	ABBREV.
CD	CONDENSATE DRAIN	CD
ST	STORM DRAINAGE	ST
SD	SECONDARY EMERGENCY ROOF DRAINAGE	SD
S	SANITARY DRAINAGE	S
AW	ACID WASTE	AW
GW	GREASE WASTE	GW
V	VENT PIPING	V
	COLD WATER PIPING	C.W.
	HOT WATER PIPING	H.W.
	HOT WATER RETURN	H.W.R.
G	GAS PIPING	G
A	COMPRESSED AIR PIPING	
	DIRECTION OF FLOW	
	SWING CHECK VALVE	
	SHUTOFF VALVE	
	SHUT-OFF VALVE IN RISE	
	SOLENOID VALVE	
	BALANCING VALVE	
	PRESSURE REGULATING VALVE	
	ELBOW TURNED DOWN	
	ELBOW TURNED UP	
	TEE TURNED UP	
	TEE TURNED DOWN	
	P-TRAP	F.D.
	FLOOR DRAIN	F.D.
	HUB DRAIN	H.D.
	HOSE BIB	H.B.
	WALL HYDRANT	H
	FLOOR SINK	F.S.
	ROOF DRAIN ABOVE	R.D.
WCO	WALL CLEANOUT	
FCO	FLOOR CLEANOUT	
CO	EXTERIOR CLEANOUT	
	T&P RELIEF VALVE (AGA RATED)	
	CONNECT TO EXISTING UTILITIES	
	WATER HAMMER ARRESTOR	
	KEYED NOTE	
	INSERT INDICATES DETAIL NUMBER INSERT INDICATES SHEET NUMBER	
	INSERT INDICATES ENLARGED PLAN NUMBER INSERT INDICATES SHEET NUMBER	
XX XXX	INSERT INDICATES RISER DIAGRAM NUMBER INSERT INDICATES SHEET NUMBER	
	BY PLUMBING CONTRACTOR REFER TO CIVIL PLANS FOR CONTINUATION	
	SHUT-OFF VALVE IN VALVE BOX	
	INSERT INDICATES INVERT ELEVATION	I.E.
	TRAP PRIMER	TP
	ABOVE FINISHED FLOOR	AFF
	CONTINUATION	CONT.
	DISHWASHER	DW
	WASHER	W
	FROM BELOW	FB
	FROM ABOVE	FA
	BELOW FLOOR	BF
	BELOW GRADE	BG
	WATER FIXTURE UNIT	WFU
	DRAINAGE FIXTURE UNIT	DFU
	EXISTING CONDITION	(E)
	WALL CLEANOUT	WCO
	FLOOR CLEANOUT	FCO
	EXTERIOR CLEANOUT	CO
	VENT THROUGH ROOF	VTR

PLUMBING GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
2. CONTRACTOR SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE.
3. SANITARY PIPING 2" SHALL HAVE A 1/4" PER FT. SLOPE. PIPING 3" & LARGER SHALL HAVE A 1/8" PER FT. SLOPE MINIMUM.
4. COORDINATE SANITARY VENTS WITH HVAC O.A. INTAKES. PROVIDE AT LEAST 10'-0" DISTANCE FROM VENT STACKS AND INTAKE VENTS.
5. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
6. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
7. CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL SANITARY AND WASTE PIPING AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
8. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER HAMMER ARRESTORS. WATER HAMMER ARRESTORS (WHA) SHALL BE INSTALLED ON ALL GROUP TOILETS AND ON THE BRANCH LINES TO INDIVIDUAL FIXTURES. ALL APPLICATIONS SHALL BE INSTALLED AS PER STANDARD PDI-WH201. REFER TO PLUMBING FIXTURES SCHEDULE FOR SPECIFICATIONS. PROVIDE ACCESS PANELS IN THE CEILING AS REQUIRED FOR ACCESSIBILITY AND MAINTENANCE. PROVIDE & INSTALL TYPE "A" ON ALL INDIVIDUAL FIXTURES THAT ARE NOT LOCATED IN GROUP TOILETS OR NOT NOTED ON RISER DIAGRAMS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS. REFER TO DETAILS.
10. ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
12. ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
13. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES EXCEPT AS SPECIFICALLY NOTED, OR IN MECHANICAL ROOMS.
14. PROVIDE ACCESS PANELS TO ALL VALVES WITHIN CHASES OR ABOVE NON-ACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
15. SEE ARCHITECTURAL DRAWINGS FOR EXACT ROUGH-IN LOCATION OF PLUMBING FIXTURES.
16. PROVIDE A PRE MANUFACTURED DRAIN INSULATING COVER ON ALL SINKS AND LAVATORIES DESIGNATED AS A HANDICAP FIXTURE. REFER TO PLUMBING DRAWINGS AND THE ARCHITECTS DRAWINGS FOR DESIGNATIONS.
17. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWER LINE.
18. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
19. CONTRACTOR SHALL ROUGH-IN ALL WASTES AND SUPPLIES TO SPECIAL EQUIPMENT ACCORDING TO MANUFACTURER'S SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED. INSTALL VACUUM BREAKERS WHERE REQUIRED BY CODE.
20. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS FOR DOMESTIC WATER SUPPLIES AS REQUIRED BY LOCAL WATER PURVEYORS.
21. DO NOT PENETRATE WALL FOOTINGS WITH PIPING, COORDINATE WITH GENERAL CONTRACTOR TO DROP FOOTINGS AS REQUIRED TO CLEAR PLUMBING SERVICES WHERE ABSOLUTELY NECESSARY. ANY PIPING PENETRATING A BEARING WALL OR FOOTING MUST BE SLEEVED AND LOCATION APPROVED BY STRUCTURAL ENGINEER.
22. THE CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO FIXTURES.
23. ASSEMBLE ALL FIXTURES AND EQUIPMENT SHIPPED LOOSE WHICH YOU ARE REQUIRED TO MAKE FINAL CONNECTIONS TO, WHETHER FURNISHED BY YOU OR BY OTHERS, (I.E. WATER FAUCETS, TRIM OR TAILPIECE ETC.)
24. ALL INSTALLATIONS OF FLOOR DRAINS AND HUB DRAINS (LOCATED IN MECHANICAL ROOMS) SHALL COORDINATED WITH THE MECHANICAL EQUIPMENT AND HOUSEKEEPING PADS PRIOR TO ROUGH-IN OF DRAINS.
25. PLUMBER SHALL BE LICENSED BY STATE AND LOCAL AUTHORITIES TO INSTALL GAS PIPING.

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EMI Job No. 23-0140 Drawn By:SGD/RJF Checked By: JSW

HILLSBOROUGH COUNTYBOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

PLUMBIING LEGEND & NOTES

P0.0

GENERAL NOTES

1. REFER TO RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON THIS PLAN.
2. REFER TO FIXTURE SCHEDULE FOR ALL WATER BRANCH SIZE CONNECTIONS, UNLESS OTHERWISE NOTED ON THIS PLAN.
3. INVERT ELEVATIONS NOTED ON ARE REFERENCED WITH FINISHED FLOOR ELEVATION OF 0.00'. REFER TO CIVIL PLANS FOR ACTUAL FINISHED FLOOR ELEVATIONS.

KEYED NOTES

1. 2" DOMESTIC WATER UP TO ABOVE GRADE. REFER TO PLUMBING FLOOR PLAN FOR CONTINUATION.
2. RUNNING P-TRAP. SEE DETAIL.
3. PROVIDE TRAP PRIMER ADAPTOR FITTING ON OUTLET OF TRENCH DRAIN. FITTING EQUAL TO PRECISION PLUMBING PRODUCTS #PPA-3P500: 3" X ½" O.D., ½" BRASS FITTING.
4. TRAP PRIMER VALVE & DISTRIBUTION UNIT. PROVIDE ½" TRAP PRIMER CONNECTION FOR EACH TRENCH DRAIN OUTLET.
5. PROVIDE DEEP SEAL TRAP ON FLOOR DRAIN.

NOTES | H1

TRENCH DRAIN. REFER TO DETAIL ON P0.0 FOR SPECIFICATION (TYPICAL)

BACKWATER VALVE IN VALVE BOX. REFER TO DETAIL ON P0.0

2"DOMESTIC WATER SUPPLY

LP GAS TANK ABOVE GRADE. REFER TO P2.1 FOR PIPING

REFER TO P2.1 FOR LP GAS PIPING BELOW GRADE

OIL WASTE INTERCEPTOR. REFER TO DETAIL

GREASE INTERCEPTOR. REFER TO DETAIL

0' 2'-8" 5'-4" 10'-8" PLUMBING UNDERGROUND PLAN
3/16" = 1'-0" | A1

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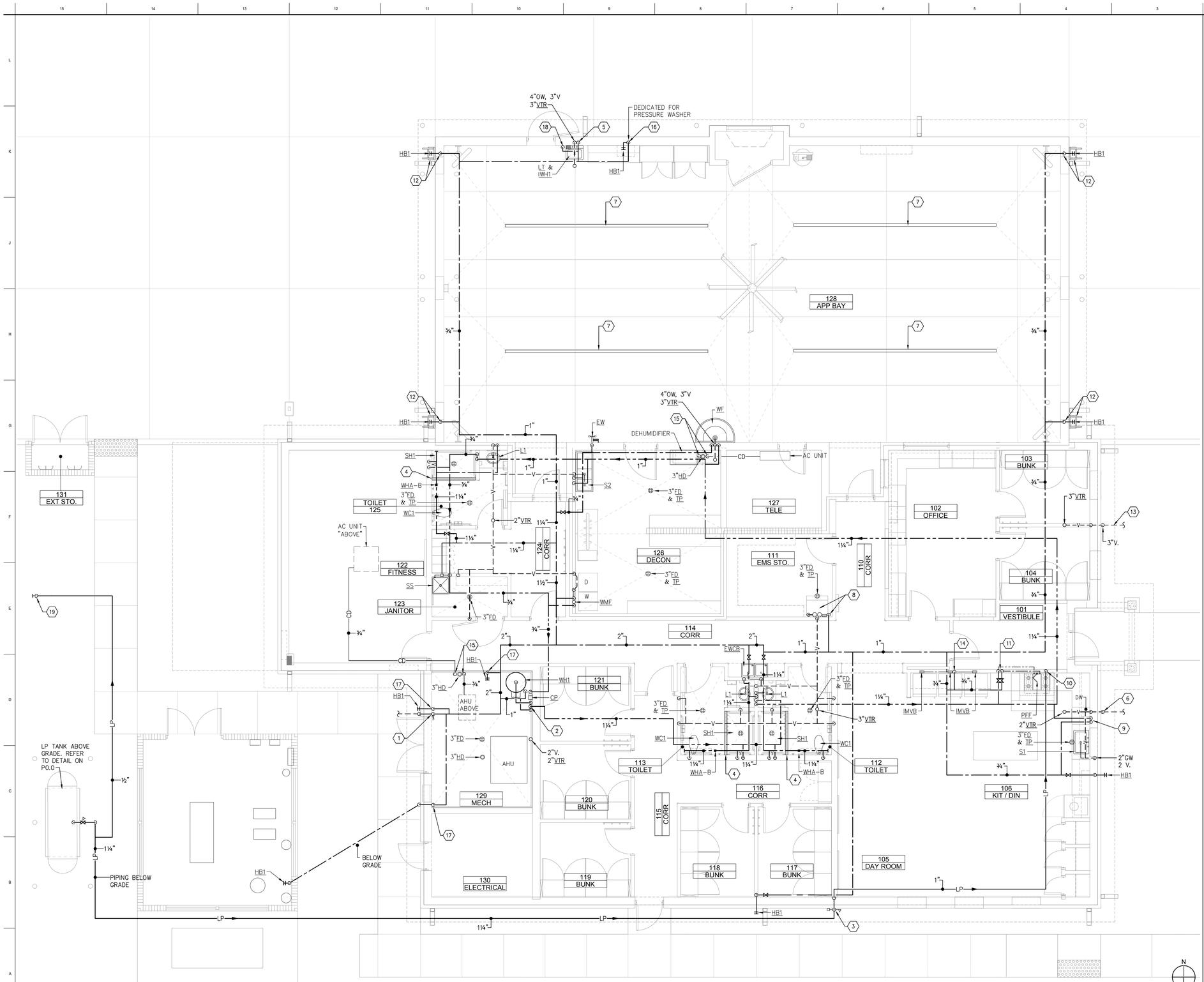
PLUMBING UNDERGROUND PLAN

P2.0



GENERAL NOTES

1. REFER TO RISER DIAGRAMS FOR PIPE SIZES NOT SHOWN ON THIS PLAN.
2. REFER TO FIXTURE SCHEDULE FOR ALL WATER BRANCH SIZE CONNECTIONS, UNLESS OTHERWISE NOTED ON THIS PLAN.

BUILDING CALCULATIONS

TOTAL WATER FIXTURE UNITS: 100 @ 68 GPM (BASED ON FLUSH VALVES)

TOTAL DRAINAGE FIXTURE UNITS: 50

KEYED NOTES

1. 2" DOMESTIC WATER UP FROM BELOW GRADE. OFFSET ABOVE SLAB & PENETRATE EXTERIOR WALL. PIPE SHALL NOT BE INSTALLED BELOW SLAB. INSTALL SHUT-OFF VALVE AT 48" A.F.F.. EXTEND PIPE UP INTO CEILING SPACE.
2. THERMOSTATIC MIXING VALVE SECURED TO WALL AT 48" A.F.F.. VALVE SHALL BE EQUAL TO SYMMONS MODEL 7-500A-W. BRANCH 1" C.W. & H.W. TO INLETS. BRANCH 1¼" TEMPERED H.W. FROM OUTLET.
3. GAS UP FROM BELOW GRADE. INSTALL PRESSURE REGULATOR & AUTOMATIC GAS SHUT-OFF VALVE IN RISE. PENETRATE EXTERIOR WALL ABOVE FINISHED FLOOR. DO NOT INSTALL ANY GAS PIPING BELOW SLAB OF BUILDING. REFER TO GAS RISER FOR ADDITIONAL INFORMATION.
4. LINEAR TRENCH DRAIN FOR SHOWER. REFER TO FIXTURE SCHEDULE FOR SPECIFICATION.
5. ¾" C.W. DOWN. BRANCH ½" TO SINK FAUCET & ½" TO TANK-LESS WATER HEATER. REFER TO DETAIL ON P5.2.
6. 2" VENT FROM GREASE INTERCEPTOR. REFER TO UNDERGROUND PLUMBING PLAN FOR CONTINUATION.
7. TRENCH DRAIN SYSTEM. REFER TO DETAIL ON P0.0 FOR SPECIFICATION.
8. ½" C.W. DOWN TO IMVB & WATER FILTER. REFER TO ICE MACHINE DETAIL ON P5.1.
9. PROVIDE SERVICE STOP & H.W. SUPPLY TO DISHWASHER. REFER TO DISHWASHER DRAIN DETAIL ON P5.2.
10. ½" GAS DOWN TO GAS RANGE. PROVIDE SHUT-OFF VALVE. REFER TO GAS PIPING DETAIL FOR ADDITIONAL INFORMATION. REFER TO MANUFACTURERS SPECIFICATIONS FOR ROUGH-IN INFORMATION.
11. ½" C.W. & H.W. DOWN TO FILL FAUCET.
12. WALL MOUNTED GARDEN HOSE REEL & HOSE BIB. HOSE REEL EQUAL TO LIBERTY GARDEN MODEL #709-8 DUAL MOUNT HOSE REEL. SECURE TO WALL @ 48" ABOVE GRADE. PROVIDE 125 FT OF ⅝" GARDEN HOSE, (4) ½" MOUNTING HOLES, 12 GA. STEEL, POWDER COATED FINISH, ROTATING BRASS SWIVEL, (4) RUBBER BUMPERS, CRANK HANDLE. INSTALL HOSE BIB DIRECTLY BELOW HOSE REEL @ 24" ABOVE GRADE. PROVIDE SHUT-OFF VALVE IN RISE FOR HOSE BIB. MOUNT VALVE IN VALVE BOX WITH LOCKING COVER AT 48" A.F.F..
13. 3"VENT FROM OIL WASTE INTERCEPTOR.
14. ¾" C.W. DOWN IN WALL. BRANCH ½" TO EACH VALVE BOX.
15. ROUTE ¾"CONDENSATE FROM MECHANICAL EQUIPMENT ABOVE FLOOR TO HUB DRAIN.
16. PROVIDE SHUT-OFF VALVE IN RISE FOR HOSE BIB. MOUNT VALVE IN VALVE BOX WITH LOCKING COVER AT 48" A.F.F..
17. DROP EXPOSED PIPE FROM ABOVE CEILING. PROVIDE SHUT-OFF VALVE IN RISE AT 48" A.F.F..
18. ½" DOWN TO TRAP PRIMER DISTRIBUTION UNIT. REFER TO DETAIL. REFER TO UNDERGROUND PLAN FOR CONTINUATION.
19. ½" LP GAS UP TO OUTDOOR GAS GRILL. COORDINATE LOCATION DURING CONSTRUCTION WITH COUNTY PROJECT MANAGER.

0' 2'-8" 5'-4" 10'-8"

PLUMBING FLOOR PLAN
3/16" = 1'-0"

A3

NOTES A1

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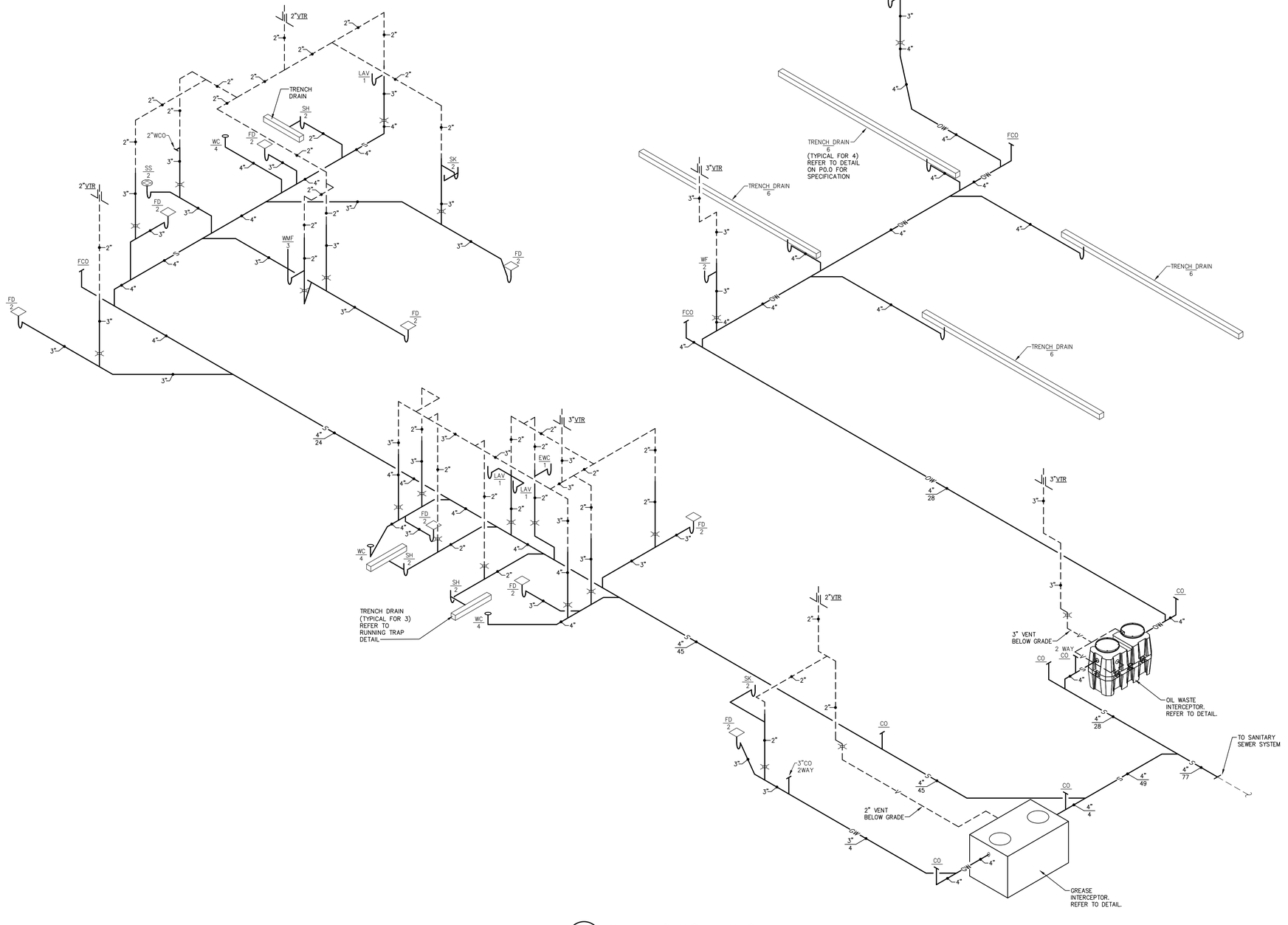
PLUMBING
FLOOR PLAN

P2.1

ABBREVIATIONS:
DW: DISHWASHER
EWC: ELECTRIC WATER COOLER
FD: FLOOR DRAIN
FS: FLOOR SINK
LAV: LAVATORY
SH: SHOWER
SK: SINK
SS: SERVICE SINK
UR: URINAL
WMF: WASHING MACHINE FITTING
WC: WATER CLOSET
VTR: VENT THROUGH ROOF

4" — PIPE SIZE OR FIXTURE
17 — DENOTES DRAINAGE FIXTURE UNIT
◇ — DENOTES MATCH POINT
DENOTES RISER DIAGRAM

LEGEND



S1 PLUMBING RISER DIAGRAM
NOT TO SCALE

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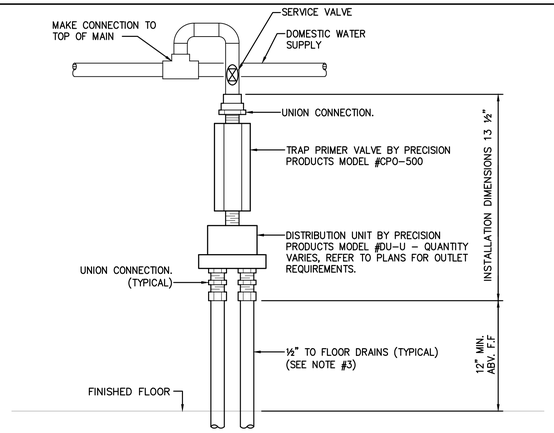
PLUMBIING RISER DIAGRAM

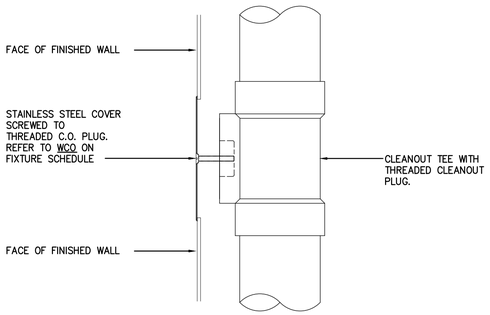
P4.1



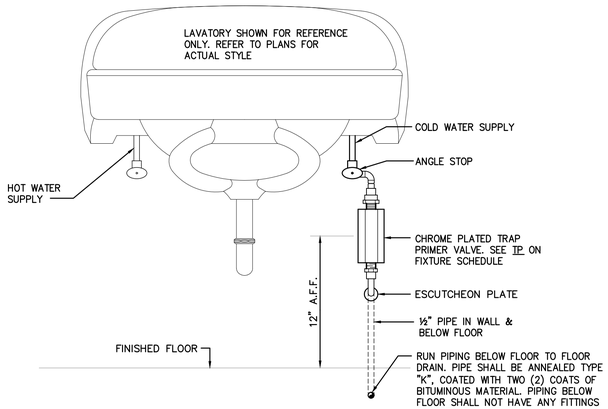
NOTES:

1. TRAP PRIMER & DISTRIBUTION UNIT BY PRECISION PLUMBING PRODUCTS OR APPROVED EQUAL.
2. REFER TO UNDERGROUND PLAN FOR LOCATION AND CONTINUATION OF PIPING.
3. RUN PIPING BELOW FLOOR TO FLOOR DRAIN. PIPE SHALL BE ANNEALED TYPE "K", COATED WITH TWO (2) COATS OF BITUMINOUS MATERIAL. PIPING BELOW FLOOR SHALL NOT HAVE ANY FITTINGS EXCEPT AT FLOOR DRAIN.
4. PROVIDE SHUTOFF VALVE MAINTENANCE.
5. DISTRIBUTION UNIT IS NOT REQUIRED ON SINGLE FLOOR DRAIN APPLICATIONS.

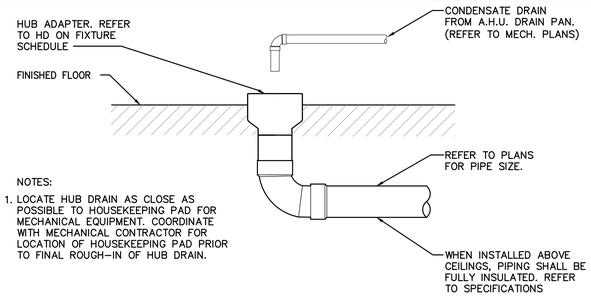
6 / – **TRAP PRIMER DISTRIBUTION UNIT DETAIL**
SCALE: NONE



7 / – **WALL CLEANOUT DETAIL**
SCALE: NONE



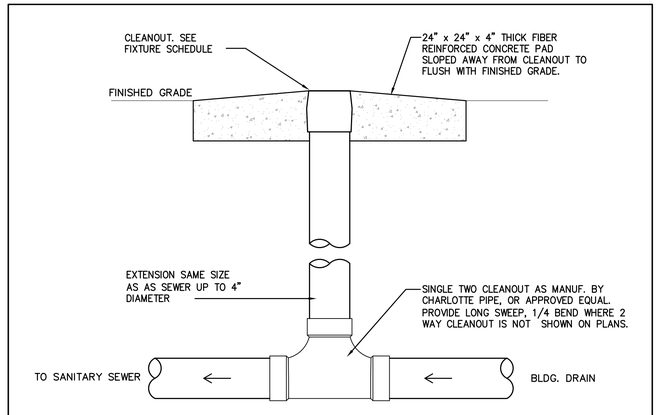
4 / – **TRAP PRIMER AT SINK/LAVATORY DETAIL**
SCALE: NONE



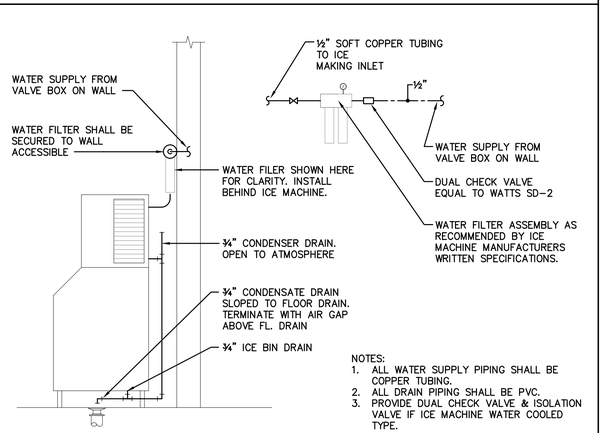
NOTES:

1. LOCATE HUB DRAIN AS CLOSE AS POSSIBLE TO HOUSEKEEPING PAD FOR MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATION OF HOUSEKEEPING PAD PRIOR TO FINAL ROUGH-IN OF HUB DRAIN.

5 / – **TYPICAL HUB DRAIN DETAIL**
SCALE: NONE



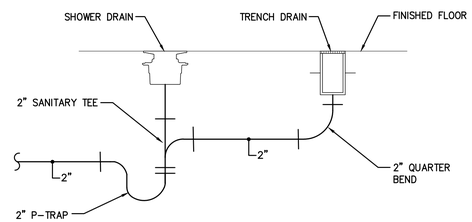
1 / – **EXTERIOR CLEANOUT DETAIL**
SCALE: NONE



NOTES:

1. ALL WATER SUPPLY PIPING SHALL BE COPPER TUBING.
2. ALL DRAIN PIPING SHALL BE PVC.
3. PROVIDE DUAL CHECK VALVE & ISOLATION VALVE IF ICE MACHINE WATER COOLED TYPE.

2 / – **ICE MACHINE DETAIL**
SCALE: NONE



3 / – **RUNNING P-TRAP FOR SHOWER DETAIL**
SCALE: NONE

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EMI Job No. 23-0140 Drawn By:SGD/RJF Checked By: JSW

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PROJECT ADDRESS:
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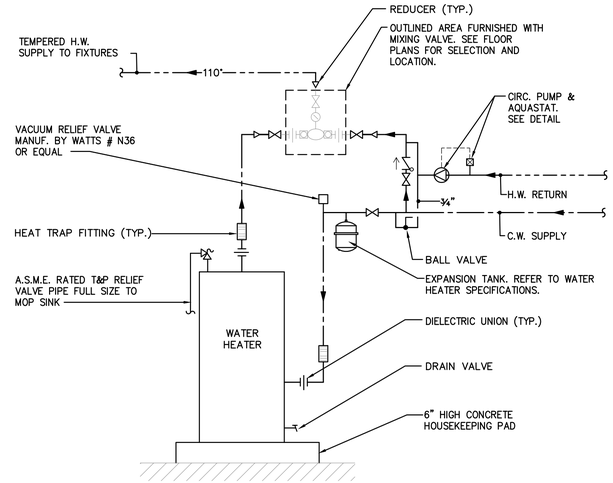
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

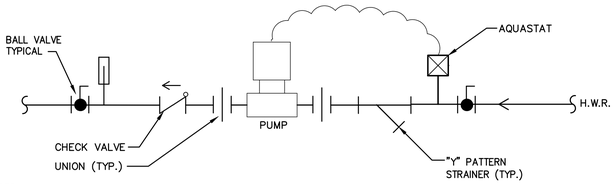
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

PLUMBING DETAILS

P5.1

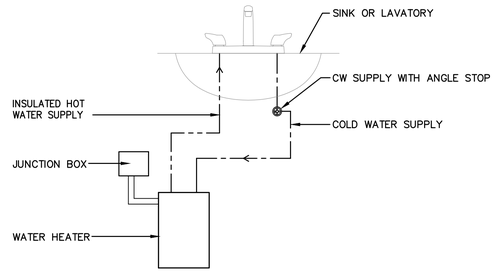


6 — **WATER HEATER DETAIL - JAN. CLOSET**
SCALE: NONE



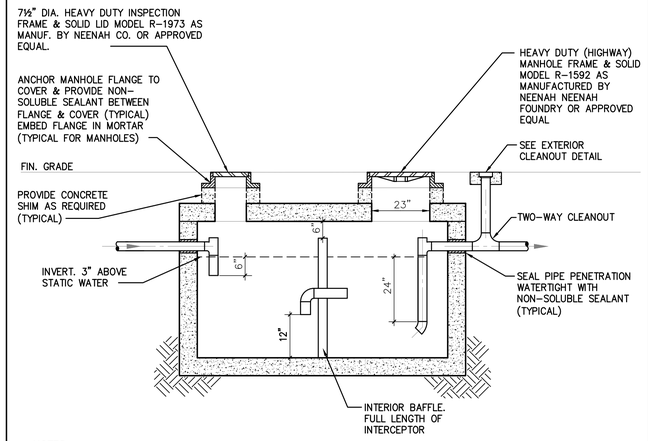
NOTE.
1. BASIS OF DESIGN IS GROUNFOS "UP" SERIES AQUASTAT. USE LOW TEMPERATURE MODEL FOR 110°F HOT WATER SYSYTEMS. USE HIGH TEMPERATURE MODEL FOR 120°F HOT WATER SYSTEMS.
2. PROVIDE COMBINATION AUTOMATIC TIME KIT–AQUASTAT. TIMER SHALL BE A 24 HOUR TIME CLOCK. THE AQUASTAT SHALL HAVE A TEMPERATURE SET POINTS CAPABLE OF THE FOLLOWING: PUMP SHALL STOP WHENEVER THE AQUASTAT TEMPERATURE IS ANYWHERE IN THE RANGE OF (0°F–5°F) DEGREES BELOW THE LOOP HOT WATER SUPPLY TEMPERATURE SET POINT. PUMP SHALL START WHENEVER THE AQUASTAT TEMPERATURE IS ANYWHERE IN THE RANGE OF (10°F–15°F) DEGREES BELOW THE LOOP HOT WATER SUPPLY TEMPERATURE SET POINT.
3. SUPPORT PUMP INDEPENDENT OF PIPING.

7 — **CIRCULATING PUMP DETAIL**
SCALE: NONE



NOTE:
PROVIDE FLOW RESTRICTOR (AERATOR) AS RECOMMENDED BY MANUFACTURERS WRITTEN SPECIFICATIONS.

4 — **TANK-LESS WATER HEATER DETAIL**
SCALE: NONE



NOTES:
CONTRACTOR SHALL FIELD VERIFY INVERT ELEVATION OF DRAIN LINES PRIOR TO ORDERING OR CONSTRUCTING THE GREASE INTERCEPTOR.

BASIS OF DESIGN: PRECAST CONCRETE INTERCEPTOR, 5'–4" WIDE X 9'–4" LENGTH X 5'–8" DEEP, WALLS & FLOOR REINFORCED THROUGHOUT WITH #4 REBAR AT 9" O.C.. #6 REBAR AT 8" O.C. WIDTH WAYS & #6 REBAR DIAGONALLY AROUND ACCESS HOLES, 8" THICK TOP SLAB, 6" THICK WALLS & 6" THICK BOTTOM, SECONDARY COMPARTMENT SHALL EQUAL APPROX. 1/3 OF TOTAL CAPACITY.

THE FOLLOWING IS THE BASIS OF DESIGN FOR THE GREASE INTERCEPTOR SIZE PER THE 2023 FBC–PLUMBING, SECTION 1003.3.7.

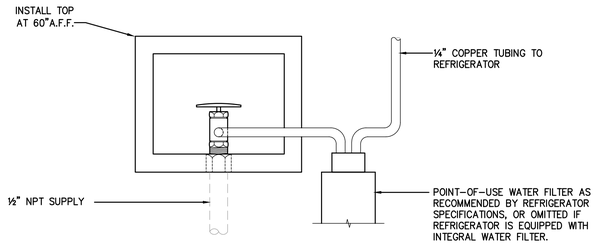
(PEAK FLOWRATE) x (30–MIN RETENTION TIME) = EFFECTIVE CAPACITY OF GREASE INTERCEPTOR IN GALLONS

PEAK FLOWRATE = 21 GPM BASED ON 3" PIPE SLOPED AT 1/8"–PER–FOOT AND 2–MINUTE DRAIN TIME.

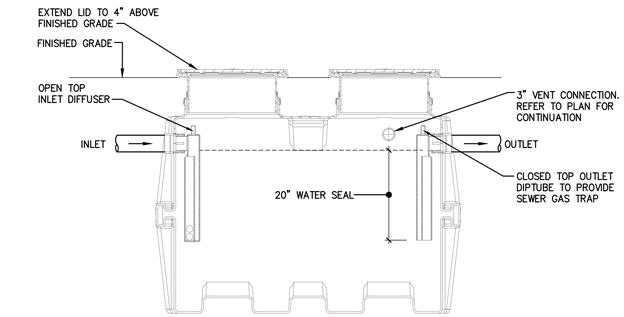
21 GPM X 30 MINS = 630 GALLONS

NOTE: THE MINIMUM VOLUME OF ANY GRAVITY GREASE INTERCEPTOR SHALL BE 750 GALLONS PER FLORIDA ADMINISTRATIVE CODE (FAC) RULE 62–6.013 AS REFERENCED IN FBC–PLUMBING SECTION 1003.3.9.

5 — **750 GALLON GREASE INTERCEPTOR**
SCALE: NONE



1 — **ICE MAKER VALVE BOX COMBO DETAIL**
SCALE: NONE



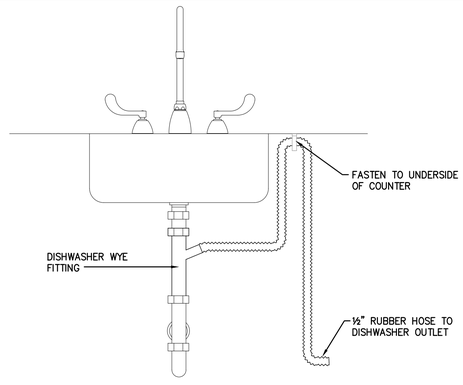
OIL & SAND INTERCEPTOR SHALL BE EQUAL TO STRIEM OIL SEPARATOR MODEL OS–100:
LIFETIME GUARANTEED AND MADE IN USA OF HIGH DENSITY POLYETHYLENE WITH MINIMUM 1" UNIFORM WALL THICKNESS. SEPARATOR SHALL BE FURNISHED FOR BELOW GRADE INSTALLATION WITH FIELD ADJUSTABLE RISER SYSTEM. COVER SHALL PROVIDE WATER/GAS–TIGHT SEAL AND HAVE A MAXIMUM 16,000 LBS LOAD CAPACITY.

SPECIFICATIONS
1. MAX FLOW RATE: 75 GPM
2. LIQUID CAPACITY: 250 GALLONS (33.4 CU. FT.)
3. OIL CAPACITY: 62.5 GALLONS
4. SOLIDS/SEDIMENT CAPACITY: 95 GALLONS
5. UNIT WEIGHT W/STD. COVERS: 225 LBS.
6. HIGHWAY TRAFFIC LOAD RATED, BOLTED, GAS/WATER TIGHT COMPOSITE COVERS. (16,000 LBS)
7. 4" INLET & OUTLET, (TWO) 3" VENTS.

NOTES
1. 1" THICK HIGH DENSITY POLYETHYLENE WALLS.
2. UNIT SUPPLIED WITH BUILT–IN ADAPTER(S) FOR UP TO 6" OF ADJUSTABILITY. ADDITIONAL RISER(S) AVAILABLE FOR DEEPER BURIAL DEPTH.
3. FOR BURIED APPLICATIONS.
4. LIFTING LUG SET INCLUDED FOR EASY INSTALL.

CONTRACTOR SHALL PROVIDE SOIL TESTS TO DETERMINE IF HIGH WATER ANCHOR KIT IS REQUIRED FOR INSTALLATION.

2 — **OIL WASTE INTERCEPTOR DETAIL**
SCALE: NONE



3 — **DISHWASHER DRAIN DETAIL**
SCALE: NONE

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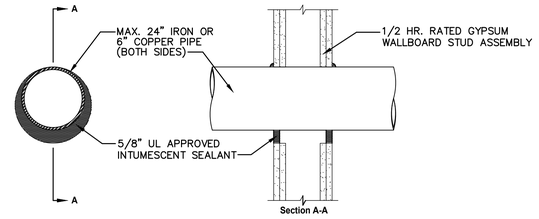
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

PLUMBING DETAILS

P5.2

BASIS OF DESIGN:
SYSTEM: WL-1049
MANUFACTURER: SPECIFIED TECHNOLOGIES INC.
FIRESTOP SEALANT: 5/8" SSS SEALANT
F-RATING: 1/2 HR
PRIMARY PRODUCT USED: SSS SEALANT
SEALING METHOD: CAULK & WALK

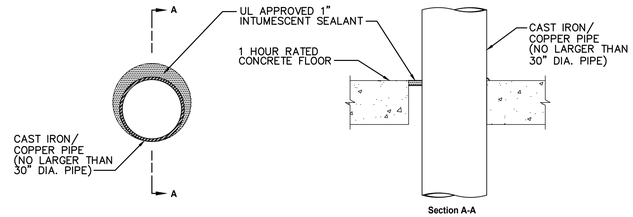


1
—

TYPICAL GYPSUM BOARD WALL FIRESTOP SYSTEM (METAL)

NO SCALE

BASIS OF DESIGN:
SYSTEM: CAJ-1080
MANUFACTURER: SPECIFIED TECHNOLOGIES INC.
FIRESTOP SEALANT: 1" SSS SEALANT
F-RATING: 3 HR
PRIMARY PRODUCT USED: SSS SEALANT
SEALING METHOD: CAULK & WALK

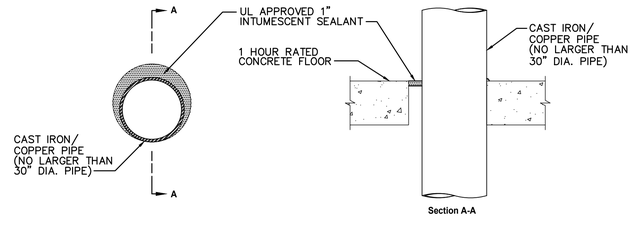


2
—

TYPICAL CONCRETE FLOOR/WALL FIRESTOP SYSTEM (METAL)

NO SCALE

BASIS OF DESIGN:
SYSTEM: CAJ-1080
MANUFACTURER: SPECIFIED TECHNOLOGIES INC.
FIRESTOP SEALANT: 1" SSS SEALANT
F-RATING: 3 HR
PRIMARY PRODUCT USED: SSS SEALANT
SEALING METHOD: CAULK & WALK



3
—

TYPICAL CONCRETE FLOOR/WALL FIRESTOP SYSTEM (METAL)

NO SCALE

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PLUMBING DETAILS

P5.3

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	BRANCH CONNECTIONS (1) WASTE	C.W.	H.W.
WMF	WASHING MACHINE FITTING – FIRE RATED OUTLET BOX, TOP SUPPLIES, ½" COPPER SWEAT, 2" THREADED DRAIN, QUARTER TURN BRASS BALL VALVES FOR H.W. & C.W. SUPPLY. FURNISHED WITH WATER HAMMER ARRESTORS. PROVIDE & INSTALL NYLON LINT TRAP POLYPROPYLENE MESH SCREEN & SECURE TO DRAIN OUTLET.	GUY GREY APPROVED EQUAL	FR12CHA	2"	¾"	¾"
WHA	WATER HAMMER ARRESTOR – WROUGHT COPPER SHELL, HYDRO-PNEUMATIC AIR CUSHION, TRIPLE O-RING SEALED PISTON, WROUGHT COPPER ADAPTER AND MALE THREADED CONNECTION. SIZED PER STANDARD P.D.I. – WH201. TYPE A = "P.D.I." SIZE A = 1-11 FIX. UNITS, 1/2" CONN. TYPE B = "P.D.I." SIZE B = 12-32 FIX. UNITS, 3/4" CONN. TYPE C = "P.D.I." SIZE C = 33-60 FIX. UNITS, 1" CONN. TYPE D = "P.D.I." SIZE D = 61-113 FIX. UNITS, 1" CONN.	JOSAM SIOUX CHIEF ZURN-WILKINS	75000-S SERIES "HYDRA-RESTER" 1250 SERIES	–	–	–
LT	LAUNDRY TUB – 20" X 24" X 14" D. COMPOSITE FIBERGLASS/STONE MATERIAL, LAUNDRY TUB, DRAIN WITH STOPPER, COLOR WHITE, WHITE BAKED ENAMEL ANGLE LEGS, LEVELING DEVICES. PROVIDE WITH DECK TYPE FAUCET: CHROME PLATED WITH SWING SPOUT. SUPPLIES – ANGLE STOP FITTING WITH SUPPLY TUBE, 1/2" NPT FLANGED FEMALE INLET, LOOSE KEY, ESCUTCHEONS, 3/8" X 12" FLEX SUPPLY RISER. TRAP – CHROME PLATED, CAST BRASS, ONE-PIECE CLEANOUT PLUG, OUTLET TRAPPED FOR I.P. NIPPLE AND CAST BRASS FLANGE, POLISHED CHROME PLATED THREADED BOTH ENDS.	MUSTEE FIAT OR EQUAL CHICAGO MCGUIRE BRASSCRAFT MCGUIRE ZURN	18F 1017 H2165LKC OCR1920A C 8912 Z8701	1¼"	½"	½"

(1) BRANCH CONNECTION SIZES ARE INTENDED FOR BRANCH SIZES FROM WATER SUPPLY. REFER TO DESCRIPTION IN SCHEDULE FOR ACTUAL ROUGH IN PIPE SIZE CONNECTION TO FIXTURE.

ELECTRIC WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	GALLON	V/P/HZ	KW	AMPS	RECOVERY 70°F RISE	DIAMETER	DEPTH	HEIGHT	INLET / OUTLET	LOCATION
WH1	A.O. SMITH	DSE-80-12	80	208/3/60	12	33.3	70 GPH	28"	35"	54.25"	1¼"	JANITOR 136

NOTES
1. A.O. SMITH IS BASIS OF DESIGN, STATE & RHEEM RUUD EQUAL. MEETS THERMAL EFFICIENCY AND/OR STANDBY REQUIREMENTS OF THE U.S. DEPARTMENT OF ENERGY ASHRAE/ISENA 90.1.
2. PROVIDE ASME RATED T&P RELIEF VALVE. ROUTE DISCHARGE AS INDICATED ON WATER HEATER DETAIL.
3. PROVIDE EXPANSION TANK EQUAL TO AMTROL MODEL ST-5.
4. PROVIDE & INSTALL AUTOMATIC TIMER KIT AQUASTAT. REFER TO CIRCULATION PUMP DETAIL.
5. REFER TO WATER HEATER DETAIL FOR ADDITIONAL INFORMATION.

TANK-LESS WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	KW	VOLTAGE	CIRCUIT AMPS	TURN-ON GPM	TEMP. RISE @ 2.0 GPM	INLET / OUTLET	LOCATION
IWH1	EEMAX	PA014240TC	11.2	208	52(2X27)A	0.7	38°	¾"	LAUNDRY TUB

NOTES
1. REFER TO WATER HEATER DETAILS FOR ADDITIONAL INFORMATION.
2. DIGITAL MICRO PROCESSING TEMPERATURE CONTROL CAPABLE OF MAINTAINING OUTLET TEMPERATURE, DIGITAL TOUCH PAD LED DISPLAY (100°F-140°F), SET TEMPERATURE TO 105°F, ALLOY COVER, ELEMENT SHALL BE REPLACEABLE CARTRIDGE INSERT, REPLACEABLE FILTER IN INLET CONNECTOR, ELEMENT SHALL BE NICKEL CHROME MATERIAL, MAXIMUM OPERATION PRESSURE OF 150 PSI.

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	BRANCH CONNECTIONS (1) WASTE	C.W.	H.W.
SS	SERVICE SINK – FLOOR MOUNTED, ONE-PIECE PRE-CAST TERRAZZO, 24" X 24" X 12" SIZE, 12" HIGH ON THREE SIDES & 6" DROP ON FRONT SIDE, SQUARE MODEL, STAINLESS STEEL RIM GUARD, GRID DRAIN. TRIM – SERVICE SINK FAUCET, THREADED SPOUT, POLISHED CHROME, VACUUM BREAKER, PAIL HOOK, WALL BRACE, RENEWABLE VALVES, INTEGRAL STOPS. 24" LONG X 3" WIDE, STAINLESS STEEL ATTACHED WITH THREE (3) RUBBER TOOL GRIPS. 30" LONG FLEXIBLE, HEAVY DUTY 5/8" RUBBER HOSE, CLOTH REINFORCED, WITH 3/4" BRASS COUPLING AT ONE END. 5" LONG X 3" WIDE BRACKET, 18 GA. #302 STAINLESS STEEL WITH RUBBER GRIP	FIAT STERN WILLIAMS FLORESTONE CHICAGO T&S BRASS ZURN FIAT T&S BRASS OR EQUAL FIAT T&S BRASS OR EQUAL	TSB-3000 897-CP B-0667-POL Z841M1 889-CC B-0635 832-AA B-0654	3"	¾"	¾"
EW	EMERGENCY EYEWASH – WALL MOUNTED, HAND HELD DUAL SPRAY HEADS, ANGLED SPRAY HEAD, POP-OFF PROTECTIVE SPRAY HEAD COVERS, CHROME-PLATED VALVE, EXTENDED REINFORCED HANDLE, 12 FOOT THERMOPLASTIC HOSE, 3/8" I.P.S. MALE THREAD WITH REMOVABLE 1/2" I.P.S. FEMALE REDUCING COUPLING, HOSE HOLDER MOUNTED TO WALL. INSTALL ON WALL, ABOVE SINK. SEE FL. PLAN FOR LOCATION.	HAWS BRADLEY GUARDIAN	8905 S19-435EFW G5026	–	½"	–
IMVB	ICE MAKER VALVE BOX – FIRE RATED OUTLET BOX, ½" O.D. SWEAT COMBO CONNECTION, ¼" O.D. COMPRESSION OUTLET, 1/4 TURN BRASS VALVE, BULK MOLDED COMPOUND THERMOSET FIRE-RATED PLASTIC, UL CLASSIFIED "FYREWRAP" INSULATION MATERIAL, 8.07" X 8.13" OVERALL DIMENSION, PROVIDE FLEXIBLE TUBING FROM VALVE TO ICE MAKER. INSTALL 60" A.F.F. FOR REFRIGERATOR. INSTALL 20" A.F.F. FOR UNDER-COUNTER ICE MAKER. REFER TO MANUFACTURERS WRITTEN SPECIFICATIONS FOR ROUGH-IN REQUIREMENTS.	OATEY OR EQUAL		–	½"	–
CP	CIRCULATING PUMP – BRONZE CONSTRUCTION, REPLACEABLE STAINLESS STEEL CARTRIDGE IMPELLER ASSEMBLY, VENT PLUG FOR PURGING, ETHYLENE PROPYLENE GASKETS, IMPEDANCE PROTECTED MOTOR. PROVIDE ON/OFF SWITCH FOR OVERLOAD PROTECTION. PROVIDE & INSTALL WITH AQUASTAT. CAPACITY OF 5 GPM AGAINST A TOTAL HEAD OF 16 FT. 3000 RPM, 80 INPUT WATTS, .70 FULL LOAD AMPS. ELECTRICAL REQ.: 115V/1/60	ARMSTRONG BELL & GOSSETT OR EQUAL	ASTRO 50B NSF-22	–	–	–
FD	FLOOR DRAIN – COATED CAST IRON BODY WITH NEOPRENE GASKET, COMBINATION INVERTIBLE MEMBRANE CLAMP, INTEGRAL 1/2" PRIMER CONNECTION AND ADJUSTABLE NICKEL BRONZE STRAINER (TYPE "B"), SEDIMENT BUCKET. (REFER TO PLANS FOR PIPE SIZES)	ZURN JOSAM J.R.SMITH	ZN-415-B-P-Y 30000-A 2005 NB	PROVIDE DEEP SEAL TRAPS WHERE TRAP PRIMERS ARE NOT INDICATED.		
HD	HUB DRAIN – COATED CAST IRON HUB ADAPTER WITH CAST IRON SOIL PIPE HUB AND MALE THREADED OUTLET.	ZURN JOSAM J.R. SMITH	Z-1030 88550 2645	REFER TO FLOOR DRAINS FOR PIPE SIZE		
CO	CLEANOUT – DURA-COATED CAST IRON FERRULE WITH THREADED BRONZE COUNTER SUNK CLEANOUT PLUG, INSTALL CLEANOUT IN 12" X 12" X 4" CONCRETE FLUSH WITH GRADE. REFER TO PLANS FOR SIZES.	ZURN JOSAM J.R. SMITH	Z-1440-BP 58500-22 4031-PB	–	–	–
FCO	FLOOR CLEANOUT – ADJUSTABLE FLOOR CLEANOUT, COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED THREAD PLUG, ROUND SCORIATED SECURED HEAVY DUTY TOP, ADJUSTABLE TO FINISHED FLOOR. REFER TO PLANS FOR SIZES.	ZURN JOSAM J.R. SMITH	ZN-1400-VP 56000 4231-U	–	–	–
WCO	WALL CLEANOUT – DURA-COATED CAST IRON FERRULE & CADMIUM PLATED CAST IRON COUNTERSUNK PLUG WITH ROUND, SMOOTH, STAINLESS STEEL ACCESS COVER WITH SECURING SCREWS. REFER TO DRAWINGS FOR SIZES.	ZURN JOSAM WATTS DRAINAGE	Z-1441 58710 CO-380-RD	–	–	–
HB1	HOSE BIBB – VACUUM BREAKER, BACKFLOW PROTECTED, WALL FAUCET, 3/4" INLET, ROUGH CHROME PLATED BRONZE CASTING, CHROME PLATED VACUUM BREAKER, LOOSE KEY HANDLE, WALL FLANGE.	CHICAGO T&S BRASS ZURN	387-RCF & E27 B-0737-RGH Z80707-VB-RB	–	¾"	–
TP	TRAP PRIMER – "UNDER LAVATORY OR SINK" INSTALLATION, CHROME PLATED, ANGLE STOP W/ 5/8" COMP. FITTING, AUTOMATIC TRAP PRIMER W/ 5/8" COMP. FITTING, 1/2" ID COPPER TUBING, 5 P.S.I. OR GREATER PRESSURE ACTIVATION.	PRECISION PLUMBING PRODUCTS, INC. OR EQUAL	PR-500NP	–	½"	–
SH1	SHOWER VALVE – PRESSURE BALANCING MIXING VALVE, ADJUSTABLE STOP SCREW, IN-LINE VACUUM BREAKER, PROVIDE REVERSE CORING FOR BACK-TO-BACK INSTALLATION WHERE NECESSARY (SEE PLAN), INSTALL VALVE AT 44" ABOVE FLOOR TO CENTERLINE. VACUUM BREAKER, POLISHED CHROME FINISH. HAND-HELD SHOWER – HANDSHOWER HOLDER, ADJUSTABLE ANGLE, 36" SLIDE BAR & HOLDER, CHROME PLATED HAND HELD SHOWER, 1.6 GPM, CHROME PLATED 63" FLEX SHOWER HOSE, SWIVEL CONNECTOR, SELF-DRAINING SOAP DISH ON SLIDE BAR, 1/2" FEMALE NPT INLET, CHROME PLATED WALL UNION. SHOWER DRAIN – NEO-LOC PIPE CONNECTION DRAIN, COATED CAST IRON BODY WITH NEOPRENE GASKET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE 'B' NICKEL BRONZE STRAINER. TRENCH DRAIN – 3" WIDE X 96" LONG CHANNEL, ALUMINUM ALLOY T-6063I5, POSITIVE MECHANICAL CONNECTION, 0% BUILT-IN SLOPE, FLANGE CHANNEL FOR ANCHORING, DECORATIVE CLASS A GRATE. OPTIONS TO INCLUDE: 2" NO-HUB BOTTOM OUTLET, BRONZE DECORATIVE GRATE. CONTRACTOR SHALL CUT TRENCH DRAIN IN FIELD FOR INSTALLATION. PROVIDE CONCRETE ENCASEMENT.	HANSGROHE HANSGROHE ZURN JOSAM J.R. SMITH ZURN JOSAM J.R. SMITH	04212000 & 04121181 H06497000 SHOWER H28631000 BAR H28276003 HOSE H28679000 DISH H27458003 OUTLET ZN-415 30000-5A 2005 A6 NB ZA-880-300B-U2-BZ . .	2"	¾"	¾"
WF	WASH FOUNTAIN – 54" DIAMETER SEMI-CIRCULAR, 9" DEEP BOWL, ONE-PIECE 14 GAUGE STAINLESS STEEL, PEDESTAL CONSTRUCTED OF DIE-FORMED LEGS, UPPER BRACE SCUFF BASES & PANELS, ZINC CHROME PLATED 14 GA. STEEL, (3) USER STATIONS, 1.25 GPM. FOOT CONTROL: FOOT RAIL MECHANICALLY ACTUATES A HOLD-OPEN VALVE, SLOW CLOSING UPON FOOT PRESSURE. OPTIONS TO INCLUDE: A: OFF-LINE VENT WITH SUPPLIES FROM BELOW. STD: STANDARD HEIGHT. F: FOOT CONTROL VALVE LSD: LIQUID SOAP DISPENSER TMA: THERMOSTATIC MIXING VALVE. PROVIDE IN-LINE SHUT-OFF VALVES FOR SUPPLIES. PROVIDE 2" P-TRAP THROUGH WALL. REFER TO MANUFACTURERS SPECIFICATIONS FOR ROUGH-IN & INSTALLATION REQUIREMENTS. PROVIDE & INSTALL WATER HAMMERS ARRESTORS TYPE "A" FOR BOTH COLD & HOT WATER SUPPLY. INSTALL ABOVE CEILING.	BRADLEY ACORN GUARDIAN	WF2704	2"	1"	1"

(1) BRANCH CONNECTION SIZES ARE INTENDED FOR BRANCH SIZES FROM WATER SUPPLY. REFER TO DESCRIPTION IN SCHEDULE FOR ACTUAL ROUGH IN PIPE SIZE CONNECTION TO FIXTURE.

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	BRANCH CONNECTIONS (1) WASTE	C.W.	H.W.
EWCB	ELECTRIC WATER COOLER – DUAL UNIT, SELF-CONTAINED WALL HUNG, REFRIGERANT COOLER & BOTTLE FILLING STATION, HOODED STREAM PROJECTOR, "LIGHT TOUCH" PUSH BAR, BUILT-IN FLOW REGULATOR, FULLY PROTECTED BUBBLER. BOTTLE FILLING STATION – MOUNTED ON HIGH WATER COOLER, SENSOR ACTIVATED, 30 SECOND SHUT-OFF TIMER, GREEN TICKER: COUNTS QUANTITY 16 OZ. BOTTLES FILLED. SUPPLIES – STRAIGHT STOP FITTING WITH LOOSE KEY, POLISHED CHROME PLATED SOLID BRASS CONSTRUCTION, METAL TEE HANDLE, ½" NPT INLET & OUTLET, MOUNTING HARDWARE. TRAP – 1¼" X 1¼" CHROME PLATED, CAST BRASS, ONE PIECE P-TRAP, CLEANOUT PLUG, NIPPLE AND CAST BRASS FLANGE, POLISHED CHROME THREADED BOTH ENDS. CARRIER – TOP & BOTTOM PLATES, DURA-COATED RECTANGULAR STEEL UPRIGHTS WITH WELDED FEET, ADJUSTABLE SUPPORT PLATES, MOUNTING FASTENERS. MOUNTING HEIGHT – COOLER SHALL BE INSTALLED WITH THE SPOUT A MAXIMUM OF 34" A.F.F. AND PROVIDE A MIN. OF 27" BETWEEN BOTTOM OF APRON AND FLOOR.	ELKAY HAWS OASIS CHICAGO MCGUIRE BRASSCRAFT MCGUIRE ZURN ZURN JOSAM J.R. SMITH	EZSTL8WSLK 45-LKCP ST155LKSB SCR39 C 8088 Z8710 Z-1225-BL 17905 834	1¼"	½"	–
S1	SINK – COUNTER MOUNTED, SINGLE COMPARTMENT, STAINLESS STEEL, 18 GAUGE TYPE 304 (18-8) NICKEL BEARING, 33" X 22" OVERALL SIZE, 11 5/8" BOWL DEPTH, SINGLE FAUCET HOLE, STAINLESS STEEL STRAINER BASKET, 1 1/2" O.D., STAINLESS STEEL TAILPIECE, 4" LONG. TRIM – SINK FAUCET WITH SINGLE LEVER HANDLE, 15.625" SPOUT HEIGHT, 8.75" SPOUT REACH, 1.75 GPM, (2) FUNCTION SPRAY HEAD, CERAMIC DISC CARTRIDGE, SINGLE HOLE INSTALLATION, 3/8" COMPRESSION NUTS, RETRACTABLE HOSE & WEIGHT, FINISH TO BE DETERMINED. SUPPLIES – ANGLE STOP, 1/2" I.P.S., LOOSE KEY, CHROME PLATED NIPPLES, ESCUTCHEON, 12" X 3/8" O.D. FLEX RISER. TRAP – CHROME PLATED, CAST BRASS, ONE-PIECE CLEANOUT PLUG, OUTLET TRAPPED FOR I.P. NIPPLE AND CAST BRASS FLANGE, POLISHED CHROME PLATED THREADED BOTH ENDS.	ELKAY GERBER CHICAGO MCGUIRE ZURN MCGUIRE ZURN SANITARY DASH	DLRS332212-1 G0040164 1017 H2165LKC HLSD090LK 8912 Z-8701 R870-9	1½"	½"	½"
S2	SINK – FLOOR MOUNTED, DOUBLE COMPARTMENT WITH RIGHT DRAIN BOARD, BACK SPLASH, 14 GA. TYPE 304 STAINLESS STEEL, 78"X 27.5" X 14" OVERALL SIZE, CENTERED FAUCET HOLES ON 8" CENTERS, STAINLESS STEEL FLAT STRAINER, 1½" O.D., STAINLESS STEEL TAILPIECE, 4" LONG, S.S. TUBULAR LEGS FULLY ENCLOSED GUSSETS WITH BUFFER PLATE, ADJUSTABLE FEET. TRIM – SINK FAUCET, BACK SPLASH MOUNTED, LEVER HANDLES, 6" LONG SWING SPOUT, 2.2 GPM AERATOR, ADJUSTABLE CENTERS, ½" NPT FEMALE THREAD INLETS, LEAD FREE, LESS DRAIN. SUPPLIES – SAME AS S1. TRAP – SAME AS S1.	ELKAY JUST OR EQUAL CHICAGO T&S BRASS ZURN	SS8230R2 445-ABCP B-0235-LN Z841F1	1½"	½"	½"
WC1	WATER CLOSET – FLOOR MOUNTED, FLUSH VALVE, 1.6 GAL., ELONGATED VITREOUS CHINA, SIPHON JET ACTION, TOP SPUD, BOLT CAPS, ELONGATED BOWL, 17 1/4" HEIGHT. FLUSH VALVE – 1.6 GPF, SENSOR OPERATED, EXPOSED TOP SPUD, ADA COMPLIANT, PLASTIC COVER WITH LENS, FOUR (4) "AA" SIZE BATTERIES, SENSOR RANGE ADJUSTMENT SCREW, 1" I.P.S. SCREWDRIVER BACK-CHECK ANGLE STOP, 1¼" SPUD COUPLING, SWEAT SOLDER ADAPTOR W/ COVER TUBE & CAST SET SCREW WALL FLANGE, 16" HIGH ROUGH-IN. SEAT – FINISH WHITE, EXTRA HEAVY DUTY PLASTIC, ELONGATED BOWL, OPEN FRONT LESS COVER, SELF SUSTAINING CHECK HINGE.	AMERICAN STANDARD CRANE KOHLER SLOAN BEMIS OLSONITE CHURCH	3043.001 3H701E K-4368 G2 8113-1.6 1655-SS/C 95 9500C	3"	1¼"	–
L1	LAVATORY – UNDER COUNTER MOUNTED, VITREOUS CHINA, 19¼" X 15¾" BOWL SIZE & 5½" DEPTH (ADA COMPLIANT), REAR OVERFLOW, MOUNTING KIT & TEMPLATE TRIM – FAUCET, 4" COVER PLATE, SINGLE CONTROL HANDLE, LESS POP-UP, 4 3/4" SPOUT, 3/8" O.D. COPPER INLET TUBES, 1/2 GPM AERATOR, SOFT-CLOSING VALVES, ADJUSTABLE LIMIT STOP, INTEGRAL FLOW CONTROL, POLISHED CHROME FINISH, INTEGRAL PERFORATED GRID DRAIN, 1 1/4" TAILPIECE. SUPPLIES – ANGLE STOPS (1/2" I.P.S.) LOOSE KEY, C.P NIPPLES, ESCUTCHEONS, 12" X 3/8" FLEX RISER. TRAP – CHROME PLATED CAST BRASS WITH CLEANOUT, 17 GAUGE SEAMLESS TUBULAR WALL BEAND, CAST BRASS SLIP NUTS, RUBBER WASHER, STEEL WALL FLANGE WITH SET SCREW, 1 1/4" O.D. P-TRAP AND ANGLE VALVE ASSEMBLIES SHALL BE INSULATED WITH MOLDED SEAMLESS ANTI MICROBIAL MATERIAL. MINIMUM 3/16" THICKNESS, COLOR WHITE.	AMERICAN STANDARD KOHLER SLOAN CHICAGO T&S BRASS ZURN CHICAGO MCGUIRE ZURN MCGUIRE ZURN SANITARY DASH MCGUIRE TRUEBRO OR EQUAL	9482.000 K-2211 SS-3001 2200-4 B-2711 Z82200-CPU 1017 H2165LKC ZH-8822-LR-LK-HCI 8872 Z8700 R867-8 PW 2000 WC	1¼"	½"	½"
PFF	POT/KETTLE FILL FAUCET – WALL MOUNTED, CHROME PLATED BRASS BODY, 8" CENTERS, 18" DOUBLE JOINT SWING NOZZLE W/ HEAT RESISTANT HANDLE, CERAMIC CARTRIDGE W/ CHECK VALVE, 2.2 GPM, LEVER HANDLES, ½" NPT FEMALE INLET. INSTALL VALVE AT 50" A.F.F. UNLESS OTHERWISE NOTED ON ARCHITECTURAL PLANS.	T&S BRASS CHICAGO	B-0597-LF20	–	½"	½"

(1) BRANCH CONNECTION SIZES ARE INTENDED FOR BRANCH SIZES FROM WATER SUPPLY. REFER TO DESCRIPTION IN SCHEDULE FOR ACTUAL ROUGH IN PIPE SIZE CONNECTION TO FIXTURE.

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WILDERARCHITECTURE, INC.

STANLEY P. NEWTON LICENSE No. 35071 STATE OF FLORIDA REGISTERED PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by Stanley P. Newton, P.E. using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Stanley P. Newton, P.E.
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EMI Job No. 23-0140 Drawn By:SGD/RJF Checked By: JSW

HILLSBOROUGH COUNTYBOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

PLUMBING FIXTURE SCHEDULE

P6.1

FLORIDA ADMINISTRATIVE CODE CHAPTER 61G15-32 REQUIREMENTS

DESIGN CRITERIA COMPLIANCE WITH FLORIDA STATUTE 61G15

THE FOLLOWING DESIGN CRITERIA DOCUMENTATION IS PROVIDED IN COMPLIANCE WITH 61G15–30 AND 61G15–32. THE BELOW CRITERIA ESTABLISHES THE MINIMUM DESIGN REQUIREMENTS TO BE COMPLIED WITH IN PREPARATION OF THE FIRE PROTECTION SYSTEM LAYOUT DOCUMENTS.

61G15–32–003 COMMON REQUIREMENTS TO ALL FIRE PROTECTION ENGINEERING DOCUMENTS

32.003(1) INDICATE THE NATURE AND SCOPE OF WORK:

THE PROJECT SHALL INCLUDE A NEW WET PIPE SPRINKLER SYSTEM COMPLIANT WITH NFPA13–2019 EDITION FOR A NEW SINGLE STORY BUILDING.

32.003(2) INDICATE THE REQUIREMENTS FOR ACCEPTANCE TESTING:

ACCEPTANCE TESTING OF WET PIPE FIRE SPRINKLER SYSTEM SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR IN COMPLIANCE WITH CHAPTERS 25 (SYSTEM ACCEPTANCE) OF NFPA 13–2019 EDITION.

32.003(3) INDICATE THE OCCUPANCY OF THE AREA OR DESCRIPTION OF SPECIFIC HAZARD:

SPACES CLASSIFIED AS LIGHT HAZARD OCCUPANCY: OFFICES, CONFERENCE, BUNKS, KITCHEN, DAYROOM, BATHROOMS, CORRIDORS, VESTIBULES, FITNESS, ATTIC.

SPACES CLASSIFIED AS ORDINARY HAZARD GROUP 1 OCCUPANCY: MECHANICAL ROOMS, ELECTRICAL ROOMS, TELECOMMUNICATION ROOMS, SMALL STORAGE ROOMS, CUSTODIAL CLOSETS, DECON ROOM.

SPACES CLASSIFIED AS ORDINARY HAZARD GROUP 2 OCCUPANCY: APPARATUS BAY.

32.003(4) INDICATE THE CODES TO BE COMPLIED WITH:

NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS – 2019 EDITION
FLORIDA FIRE PREVENTION CODE – 2023 EDITION
FLORIDA BUILDING CODE – 2023 EDITION

32.003(5) INDICATE STRUCTURAL SUPPORT IMPACT REQUIRED DUE TO SPRINKLER SYSTEM MATERIALS:

THE STRUCTURAL ENGINEER FOR THE BUILDING HAS INCLUDED THE ANTICIPATED WEIGHT OF THE SPRINKLER SYSTEM COMPONENTS AND DETERMINED THAT THE BUILDING STRUCTURE CAN ACCOMMODATE THE LOAD IMPOSED BY THE SPRINKLER PIPING.

32.003(6) LAYOUT DOCUMENT REQUIREMENTS:

THE LAYOUT DOCUMENTS (SHOP DRAWINGS) BASED UPON THIS DESIGN CRITERIA SHALL BE REQUIRED TO INCLUDE PIPE SIZES, HYDRAULIC CALCULATIONS, ALL SPRINKLER HEAD LOCATIONS AND SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER.

32.003(7) INDICATE REQUIREMENTS FOR ACTIVATION OF CONTROL SYSTEMS:

THE ELECTRICAL DRAWINGS INDICATE THE FIRE ALARM DEVICES SUCH AS FLOW AND TAMPER SWITCHES THAT ARE REQUIRED TO BE INTEGRATED INTO THE BUILDING FIRE ALARM SYSTEM FOR MONITORING AND ALARM PURPOSES.

61G15–32–004 DESIGN OF WATER BASED FIRE PROTECTION SYSTEMS

32.004(4a) INDICATE THE POINT OF SERVICE FOR THE FIRE PROTECTION WATER SUPPLY:

THE POINT OF SERVICE FOR THE FIRE SPRINKLER SYSTEM IS SHOWN ON THE CIVIL ENGINEERING SITE UTILITIES PLAN AND IDENTIFIES WHERE THE MUNICIPAL WATER SERVICE BECOMES DEDICATED TO THE BUILDING'S SPRINKLER SYSTEM.

32.004(4b) INDICATE THE CODES TO BE COMPLIED WITH:

NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS – 2019 EDITION
FLORIDA FIRE PREVENTION CODE – 2023 EDITION
FLORIDA BUILDING CODE – 2023 EDITION

32.004(4c) INDICATE CLASSIFICATION OF HAZARD OCCUPANCY PER AREA:

REFER TO 32.003(3) ABOVE.

32.004(4d) INDICATE DESIGN APPROACH:

ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE.

LIGHT HAZARD OCCUPANCY SPACES SHALL COMPLY WITH THE FOLLOWING:
THE SYSTEM DESIGN DENSITY SHALL BE .10 GPM/SF AND A REMOTE AREA OF 1,500 SF ACCORDING TO TABLE 11.2.3.1.1 IN THE 2019 EDITION OF NFPA 13–2019 EDITION. A REDUCTION OF THE SYSTEM AREA OF OPERATION SHALL BE PERMITTED ACCORDING TO FIGURE 11.2.3.2.3.1 WHEN USING QUICK RESPONSE TYPE HEADS.
THE MAXIMUM AREA OF COVERAGE FOR A SPRINKLER HEAD SHALL BE 225 SF FOR STANDARD COVERAGE HEADS.
EXTENDED COVERAGE HEADS MAY BE USED IF THEIR USE CAN BE PROVEN USING THE HYDRAULIC CALCULATION METHOD.
STANDARD SPRINKLER HEAD RATING SHALL BE 155 DEGREES FAHRENHEIT.

ORDINARY HAZARD GROUP 1 OCCUPANCY SPACES SHALL COMPLY WITH THE FOLLOWING:
THE SYSTEM DESIGN DENSITY SHALL BE .15 GPM/SF AND A REMOTE AREA OF 1,500 SF ACCORDING TO TABLE 11.2.3.1.1 IN THE 2019 EDITON OF NFPA 13–2019 EDITION. A REDUCTION OF THE SYSTEM AREA OF OPERATION SHALL BE PERMITTED ACCORDING TO FIGURE 11.2.3.2.3.1 WHEN USING QUICK RESPONSE TYPE HEADS.
THE MAXIMUM AREA OF COVERAGE FOR A SPRINKLER HEAD SHALL BE 130 SF FOR STANDARD COVERAGE HEADS.
EXTENDED COVERAGE HEADS MAY BE USED IF THEIR USE CAN BE PROVEN USING THE HYDRAULIC CALCULATION METHOD.
STANDARD SPRINKLER HEAD RATING SHALL BE 155 DEGREES FAHRENHEIT.

ORDINARY HAZARD GROUP 2 OCCUPANCY SPACES SHALL COMPLY WITH THE FOLLOWING:
THE SYSTEM DESIGN DENSITY SHALL BE .20 GPM/SF AND A REMOTE AREA OF 1,500 SF ACCORDING TO TABLE 11.2.3.1.1 IN THE 2019 EDITON OF NFPA 13–2019 EDITION. A REDUCTION OF THE SYSTEM AREA OF OPERATION SHALL BE PERMITTED ACCORDING TO FIGURE 11.2.3.2.3.1 WHEN USING QUICK RESPONSE TYPE HEADS.
THE MAXIMUM AREA OF COVERAGE FOR A SPRINKLER HEAD SHALL BE 130 SF FOR STANDARD COVERAGE HEADS.
EXTENDED COVERAGE HEADS MAY BE USED IF THEIR USE CAN BE PROVEN USING THE HYDRAULIC CALCULATION METHOD.
STANDARD SPRINKLER HEAD RATING SHALL BE 155 DEGREES FAHRENHEIT.

32.004(4e) INDICATE CHARACTERISTIC OF WATER SUPPLY USED:

THE FIRE PROTECTION SITE PLAN INCLUDES THE SIZE AND ROUTING OF THE WATER SUPPLY PIPING USED TO SERVICE THE BUILDINGS FIRE SPRINKLER SYSTEMS.

32.004(4f) INDICATE FLOW TEST DATA USED AS BASIS:

THE FIRE PROTECTION DRAWINGS REQUIRE THE WATER HYDRANT FLOW TEST TO BE PERFORMED WITHIN 12–MONTHS OF THE WORKING SUBMITTAL TO BE USED AS THE BASIS FOR THE HYDRAULIC CALCULATIONS.

32.004(4g) INDICATE VALVING AND ALARM REQUIREMENTS:

THE FIRE SPRINKLER SYSTEM SHALL INCLUDE FLOW AND TAMPER SWITCHES AT EACH RISER. THE BACKFLOW PREVENTION DEVICE SHALL INCLUDE A TAMPER SWITCH WITH CONNECTION TO LOCAL AUDIBLE ALARMS AND OFF SITE MONITORING. ALL VALVES AND ALARMING DEVICES SHALL BE UL LISTED FOR THEIR APPLICATIONS.

32.004(4h) INDICATE MICROBIAL INDUCED CORROSION (MIC) REQUIREMENTS:

BASED UPON SIMILAR INSTALLATIONS IN THE LOCAL AREA, MICROBIAL INDUCED CORROSION IS NOT KNOWN TO BE AN ISSUE IN THE LOCAL WATER SUPPLY.

32.004(4i) INDICATE BACKFLOW PREVENTION AND METERING SPECIFICATIONS:

THE CIVIL ENGINEERING DRAWINGS INCLUDE PROVISIONS FOR BACKFLOW PREVENTION DEVICES ON THE WATER SUPPLY SERVICE DESIGNATED FOR FIRE SPRINKLER SERVICE.

32.004(4j) INDICATE QUALITY AND PERFORMANCE SPECIFICATIONS FOR YARD AND INTERIOR COMPONENTS:

TECHNICAL SPECIFICATIONS ARE INCLUDED IN THE CONSTRUCTION DOCUMENTS AND ALL YARD AND INTERIOR COMPONENTS SHALL BE UL LISTED FOR THEIR APPLICATIONS.

32.004(4k) INDICATE FIRE PUMP REQUIREMENTS:

BASED UPON LOCAL WATER SUPPLY CAPABILITY, A FIRE PUMP WILL NOT BE REQUIRED ON THIS PROJECT.

32.004(4l) INDICATE FIRE WATER STORAGE TANK REQUIREMENTS:

BASED UPON LOCAL WATER SUPPLY CAPABILITY, A FIRE WATER STORAGE TANK IS NOT REQUIRED FOR THIS PROJECT.

32.004(4m) INDICATE OWNER CERTIFICATE REQUIREMENT FOR STORAGE OCCUPANCIES:

THE PROJECT BUILDINGS ARE NOT LISTED AS STORAGE OCCUPANCIES.

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FLORIDA
PROFESSIONAL
ENGINEER

This item has been electronically signed and sealed by Stanley P. Newton, P.E. using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Stanley P. Newton, P.E.
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EMI Job No. 23-0140 Drawn By: XXX Checked By: JSW

HILLSBOROUGH COUNTYBOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

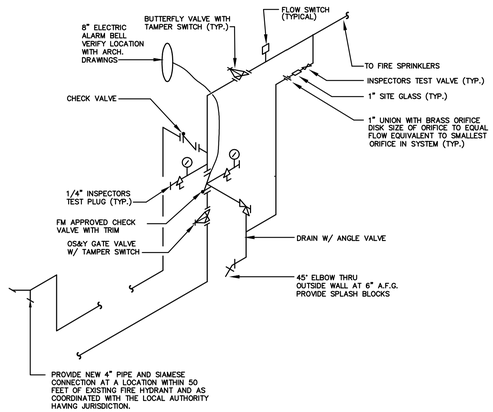
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

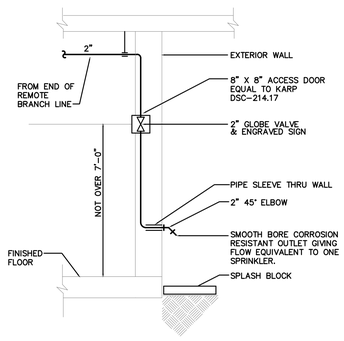
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

FIRE PROTECTION
GENERAL NOTES

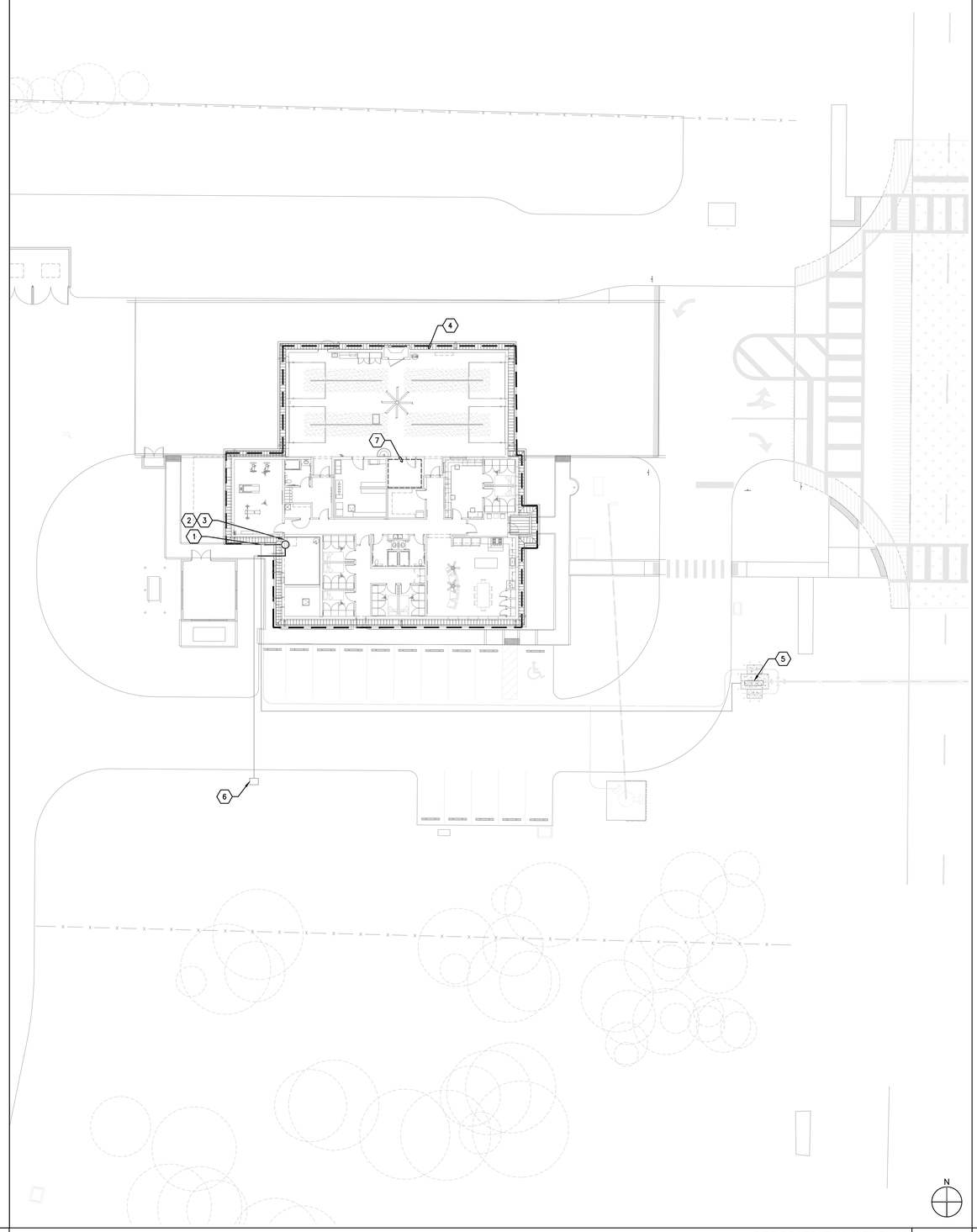
FP0.0



FIRE SPRINKLER RISER



INSPECTORS TEST STATION



0' 20' 40'

HYDRAULIC DESIGN INFORMATION

NAME: SUN CITY CENTER FIRE STATION NO. 47

OWNER: HILLSBOROUGH COUNTY

LOCATION: 14503 S 301 HWY
RUSKIN, FL 33573

CONSTRUCTION: ROOF FRAMING.....COMBUSTIBLE
WALLS .....NON-COMBUSTIBLE

SYSTEM DESIGN

1. ENTIRE BUILDING SHALL BE PROTECTED WITH AUTOMATIC SPRINKLER SYSTEM PER NFPA 13. ALL GENERAL BUILDING AREAS SHALL HAVE COVERAGE PER NFPA-13 – LIGHT HAZARD. STORAGE AREAS, MECHANICAL ROOMS AND ELECTRICAL ROOMS SHALL HAVE COVERAGE PER NFPA-13 – ORDINARY HAZARD. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. FIRE SPRINKLER CONTRACTOR SHALL REVIEW THE INFORMATION CONTAINED HEREIN AND SHALL PREPARE COMPLETE FIRE SYSTEM INSTALLATION SHOP DRAWINGS COINCIDING WITH HYDRAULIC CALCULATIONS SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER EXPERIENCED IN THE FIELD AND SHALL CARRY A MINIMUM OF $500,000 WORTH OF PROFESSIONAL LIABILITY ERRORS AND OMISSIONS INSURANCE APPLICABLE FOR THIS PROJECT. IF REQUIRED, A WAIVER SHALL BE PROVIDED TO SPRINKLER CONTRACTOR. THE DESIGN AND DETAILS SHALL CONFORM TO NFPA 13 AND NFPA 14, AND ALL LOCAL CODES AND REGULATIONS, PURSUANT TO FS 471.003 (2) AND RULES 61615-30 AND 32. THE FIRE PROTECTION CONTRACTOR SHALL BE REQUIRED TO PROVIDE DETAILED FIRE PROTECTION CONSTRUCTION DRAWINGS TO BE SIGNED AND SEALED BY A REGISTERED FIRE PROTECTION SYSTEM DESIGN ENGINEER ACTING AS THE DELEGATED ENGINEER TO THE PRIME ENGINEER AS PART OF THIS SCOPE. THE CONTRACTOR SHALL SUBMIT THE NECESSARY NUMBER OF COPIES OF SIGNED AND SEALED DRAWINGS TO AUTHORITIES HAVING JURISDICTION FOR REVIEW, APPROVAL, AND ISSUANCE OF PERMIT. COPIES OF THE SIGNED AND SEALED DRAWINGS SHALL BE SUBMITTED TO THIS OFFICE FOR REVIEW AND COMMENT AFTER APPROVAL FROM AUTHORITY HAVING JURISDICTION.

3. THIS CONTRACTOR'S SHOP DRAWINGS SHALL BE COORDINATED WITH CEILINGS, AIR DEVICES, LIGHTING, STRUCTURAL MEMBERS, ETC. THE CONTRACTOR SHALL STRIVE TO ALIGN THE SPRINKLER HEADS WITHIN THE CENTER OF EACH CEILING WHERE POSSIBLE WHILE MAINTAINING SPACING REQUIREMENTS.

HYDRANT FLOW DATA

1. CONTRACTOR SHALL INCLUDE IN THEIR SCOPE OF WORK A HYDRANT FLOW TEST, AS PERFORMED BY THE RESPONSIBLE AGENCY. THE FLOW TEST SHALL BE CONDUCTED NO MORE THAN 12 MONTHS PRIOR TO THE WORKING PLAN SUBMITTAL.

GENERAL NOTES

1. PROVIDE NEW BUILDING WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM PER NFPA 13.
2. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. REFER TO CIVIL DRAWINGS FOR MAIN FIRE LINE LOCATION AND CONNECTION TO CITY MAIN.
4. REFER TO CIVIL DRAWINGS FOR FDC AND HYDRANT LOCATION SERVING NEW FIRE SPRINKLER SYSTEM.
5. ALL EXPOSED FIRE SPRINKLER PIPING SHALL BE PAINTED RED.

KEYED NOTES

1. APPROXIMATE LOCATION OF FIRE LINE. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION.
2. MAIN FIRE LINE CONNECTION TO BUILDING FIRE RISER (MINIMUM 6"). LOCATE FIRE RISER IN NW CORNER OF MECHANICAL ROOM 129. COORDINATE LOCATION WITH OTHER TRADES PRIOR TO ROUGH-IN. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
3. EXTEND TO THE SITE'S WATER SERVICE. VERIFY EXACT REQUIREMENTS WITH THE LOCAL AUTHORITY HAVING JURISDICTION. COORDINATE EXACT LOCATION OF HYDRANT, FIRE MAIN AND SIAMESE CONNECTION WITH CIVIL DRAWINGS PRIOR TO BIDDING.
4. DASHED OUTLINE DEFINES APPROXIMATE COVERAGE AREA.
5. 6" BACKFLOW PREVENTER LOCATION. REFER TO CIVIL DRAWINGS.
6. PROPOSED FIRE DEPARTMENT CONNECTION LOCATION. REFER TO CIVIL DRAWINGS.
7. TELECOMM ROOM 127. COORDINATE HEAD AND PIPING LAYOUT WITH TELECOMM EQUIPMENT. DO NOT LOCATE ANY PIPING OR HEADS OVER EQUIPMENT CABINETS.

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This item has been electronically signed and sealed by Stanley P. Newton, P.E. using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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EMI Job No. 23-0140 Drawn By: XXX Checked By: JBW

HILLSBOROUGH COUNTYBOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

FIRE PROTECTION SITE PLAN

FP1.0

FIRE PROTECTION DETAILS NO SCALE A12

FIRE PROTECTION SITE PLAN 1" = 20'-0" A4

NOTES A1

SECURITY LEGEND

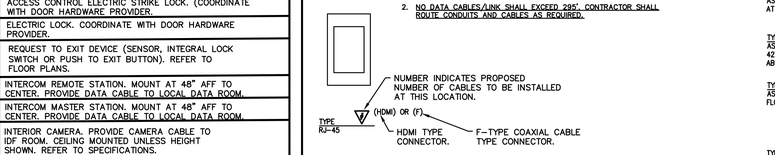
KP	ACCESS CONTROL KEY PAD, @ 44" A.F.F.
CR	CARD/ PROXIMITY READER @44" A.F.F. BOTTOM. UNLESS NOTED OTHERWISE
DC	RECESSED WIRED DOOR CONTACT TO WIRELESS TRANSMITTER. REFER TO DETAILS AND SPECIFICATION.
ES	ACCESS CONTROL ELECTRIC STRIKE LOCK. (COORDINATE WITH DOOR HARDWARE PROVIDER.
EL	ELECTRIC LOCK. COORDINATE WITH DOOR HARDWARE PROVIDER.
RE	REQUEST TO EXIT DEVICE (SENSOR, INTEGRAL LOCK SWITCH OR PUSH TO EXIT BUTTON). REFER TO FLOOR PLANS.
RS	INTERCOM REMOTE STATION. MOUNT AT 48" AFF TO CENTER. PROVIDE DATA CABLE TO LOCAL DATA ROOM.
MS	INTERCOM MASTER STATION. MOUNT AT 48" AFF TO CENTER. PROVIDE DATA CABLE TO LOCAL DATA ROOM.
CAM +XX'–XX'	INTERIOR CAMERA. PROVIDE CAMERA CABLE TO IDF ROOM. CEILING MOUNTED UNLESS HEIGHT SHOWN. REFER TO SPECIFICATIONS.
WP CAM +XX'–XX'	WEATHERPROOF CAMERA. PROVIDE CAMERA CABLE TO IDF ROOM. PROVIDE J–BOX AT EXTERIOR WITH 3/4" CONDUIT TO NEAREST ACCESSIBLE CEILING. CEILING MOUNTED UNLESS HEIGHT SHOWN.

NOTE:

1. J–BOXES AND CONDUIT BY THIS CONTRACTOR. REFER TO RESPONSIBILITY SCOPE OF WORK NOTES ON SHEET E4.1
2. ALL WALL MOUNTED INTERIOR AND EXTERIOR CAMERA HEIGHTS SHOWN FOR REFERENCE ONLY. COORDINATE FINAL MOUNTING HEIGHTS WITH SECURITY INTEGRATOR PRIOR TO INSTALLATION.
3. PROVIDE 20' SERVICE LOOP OF REQUIRED CABLE AT IDF ROOM AND 20' AT DEVICE PLUS THE LENGTH OF THE CONDUIT AT LOCATIONS SHOWN. UNLESS NOTED OTHERWISE.
4. ANY EXTERIOR WALL PENETRATIONS REQUIRED FOR SURVEILLANCE CAMERAS/ ACCESS CONTROL SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER AND OWNERS SECURITY INTEGRATOR PRIOR TO ANY DRILLING.
5. WHERE CAMERAS INSTALLED IN HARD/ INACCESSIBLE CEILINGS OR WALLS PROVIDE 3/4" CONDUIT TO NEAREST ACCESSIBLE CEILING. PROVIDE CABLE COILED AT ACCESSIBLE CEILING WITH LENGTH REQUIRED TO REACH CAMERA PLUS SERVICE LOOP.

DATA/ AV LEGEND

STATION, WAP, PHONE AND ETC. DROPS.



SPECIALTY DROPS.

① TV — TV MONITOR SYSTEMS BOX. PROVIDE (1) DATA CABLE, (1) F–TYPE CONNECTOR WITH RG–6 CABLE TO LOCAL DATA CLOSET. REFER TO DETAILS FOR ROUGH–IN AND SPECIFICATIONS FOR MORE INFORMATION IN EACH SPACE.

②③ TV A/V — TV MONITOR SYSTEMS BOX. PROVIDE (2) DATA CABLES, (1) F–TYPE CONNECTOR WITH RG–6 CABLE TO LOCAL DATA CLOSET AND A/V CABLES WHERE SHOWN IN DETAILS. REFER TO DETAILS FOR ROUGH–IN, SYSTEMS INTERFACE CABLING AND SPECIFICATIONS FOR MORE INFORMATION IN EACH SPACE.

(R) — CEILING MOUNTED PROJECTOR. PROVIDE (2) DATA CABLES, (1) F–TYPE CONNECTOR WITH RG–6 CABLE TO LOCAL DATA CLOSET. PROVIDE A/V CABLES WHERE SHOWN IN DETAILS. REFER TO DETAILS FOR ROUGH–IN, SYSTEMS INTERFACE CABLING AND SPECIFICATIONS FOR MORE INFORMATION IN EACH SPACE.

MODULAR VOICE/DATA/VIDEO OUTLET LEGEND (DEVICES MOUNTED AT 16" BOTTOM A.F.F. UNLESS NOTED OTHERWISE)

FOR EACH FACE PLATE SHOWN PROVIDE (1) DOUBLE GANG BOX WITH SINGLE GANG MUD RING AND (2) 1" CONDUITS TO 6" ABOVE ACCESSIBLE CEILING. U.O.N..

TYPICAL COMMUNICATIONS, LOW VOLTAGE SUFFIX/ ABBREVIATIONS LEGEND:

OSP = OUTSIDE PLANT CABLE.
MM = MULTI MODE FIBER OPTIC CABLE.
SM = SINGLE MODE FIBER OPTIC CABLE.
AFF = ABOVE FINISHED FLOOR.
AFG = ABOVE FINISHED GRADE.
U.O.N. = UNLESS OTHERWISE NOTED.
WAP = WIRELESS ACCESS POINT.
TYP = TYPICAL.
O.F.E. = OWNER FURNISHED EQUIPMENT.
E = EXISTING TO REMAIN..
ER = EXISTING TO BE REPLACED.
D = EXISTING TO BE DEMOLISHED.

ALERTING SYSTEM SYMBOL LEGEND

SYMBOL.	DESCRIPTION.	MOUNTING OPTIONS.	MOUNTING HEIGHT.	CONDUIT NEEDS.	J–BOX NEEDS.
MR2	G2 MESSAGE REMOTE 2	RACK MOUNTED.	N/A	PROVIDE CONDUIT SLEEVE FROM CABINET TO ABOVE ACCESSIBLE CEILING. REFER TO SHEET E4.1	N/A
RR2	G2 ROOM REMOTE 2	WALL	52" AFF; ROUGH–IN BOX 4–6" AWAY FROM ANY LIGHT SWITCH	3/4" EMT STUB TO ACCESSIBLE CEILING	4–GANG BOX (RACO #943 – 2.5"D) W/ MUD RING
CIR	G2 COLOR INDICATOR REMOTE	WALL	16'–0' AFF	3/4" EMT CONDUIT TO ACCESSIBLE CEILING	4–GANG BOX (RACO #943 – 2.5"D) W/ MUD RING
PB RED	PUSH BUTTON – BLACK	WALL	SWITCH HEIGHT	3/4" EMT STUB TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
PB BLACK	PUSH BUTTON – BLACK	WALL	SWITCH HEIGHT	3/4" EMT STUB TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
STR	G2 STROBE LIGHT	INTERIOR WALL	12" FROM FINISHED CEILING	3/4" EMT STUB TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
S LED	G2 LED SPEAKER, FLUSH MOUNT	DROP CEILING	N/A	N/A	FOR INSTALLATION IN HARD CEILING ONLY, REQUIRES BACKBOX (BOGEN #RE84)
HS	SPEAKER, WEATHER–PROOF	APPARATUS BAY	12'–0' AFF OR U.O.N..	3/4" EMT CONDUIT TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
S	SPEAKER, FLUSH MOUNT	DROP CEILING	N/A	N/A	FOR INSTALLATION IN HARD CEILING ONLY, REQUIRES BACKBOX (BOGEN #RE84)
S MB	SPEAKER, METAL BOX	INTERIOR WALL OR HARD CEILING	N/A	3/4" EMT CONDUIT TO ACCESSIBLE CEILING	N/A
MSS	G2 MESSAGE SIGN (STANDARD 24")	INTERIOR WALL	6" FROM TOP OF DOOR FRAME OR 12" FROM FINISHED CEILING WHEN NOT ABOVE DOOR	3/4" EMT CONDUIT TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
	ARTICULATING ARM MOUNT – LONG	WALL	9'–0" AFF	3/4" EMT CONDUIT TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
ATX	G2 ATX STATION CONTROLLER	RACK MOUNTED.	N/A	PROVIDE CONDUIT SLEEVE FROM CABINET TO ABOVE ACCESSIBLE CEILING. REFER TO SHEET E4.1	N/A
UPS	G2–UNINTERRUPTIBLE POWER SUPPLY	RACK MOUNTED.	N/A	N/A	N/A
AMP	OEM AMPLIFIER	RACK MOUNTED.		PROVIDE CONDUIT SLEEVE FROM CABINET TO ABOVE ACCESSIBLE CEILING. REFER TO SHEET E4.1	N/A
LED	LED, FLUSH MOUNT	DROP CEILING	N/A	3/4" EMT CONDUIT TO ACCESSIBLE CEILING	REFER TO EQUIPMENT VENDOR'S SHOP DRAWINGS FOR BACK BOX REQUIREMENTS AT HARD CEILINGS.
VC	VOLUME CONTROL	WALL	SWITCH HEIGHT	3/4" EMT STUB TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
MIC	DESKTOP MICROPHONE	COUNTER	COUNTER	3/4" EMT STUB TO ACCESSIBLE CEILING	SINGLE GANG BOX, VERTICAL
I/O	G2 I/O REMOTE	RACK MOUNTED.	N/A	PROVIDE CONDUIT SLEEVE FROM CABINET TO ABOVE ACCESSIBLE CEILING. REFER TO SHEET E4.1	N/A
ADP	ADAPTER PLACE DOUBLE	N/A	N/A	N/A	N/A

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING AND NOTES
	TYPICAL LIGHTING SYMBOL NOTES: 1. UPPER CASE LETTER DENOTES FIXTURE TYPE, SEE FIXTURE SCHEDULE 2. LOWER CASE LETTER DENOTES SWITCHED LEG 3. SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT. 4. 'NL' DENOTES NIGHT LIGHT CIRCUIT 5. FIXTURES MARKED WITH ⊗ INDICATE STUMBLE LIGHT.	
	CEILING OUTLET FOR INCANDESCENT, "PL" FLUORESCENT OR HIGH INTENSITY DISCHARGE DISCHARGE DOWNLIGHT FIXTURE. SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT. FIXTURES MARKED WITH X INDICATE STUMBLE LIGHT.	SEE FIXTURE SCHEDULE
	WALL OUTLET FOR INCANDESCENT,"PL" FLUORESCENT OR HIGH INTENSITY FIXTURE (WALL SCONCE, WALL PACK) SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR 2'x4' FLUORESCENT FIXTURE. SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR 2'x2' FLUORESCENT FIXTURE. SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR 1'x4' FLUORESCENT FIXTURE. (SURFACE, RECESSED, WRAPAROUND, VANDAL–PROOF) SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR FLUORESCENT FIXTURE. (PENDANT MOUNT, CHANNEL, INDUSTRIAL) SHADED FIXTURE SYMBOL INDICATES EMERGENCY LIGHT.	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR SINGLE FACE EXIT LIGHT FIXTURE. ARROW INDICATES DIRECTION	SEE FIXTURE SCHEDULE
	CEILING OUTLET FOR DOUBLE FACE EXIT LIGHT FIXTURE. ARROW INDICATES DIRECTION	SEE FIXTURE SCHEDULE
	EMERGENCY BUG EYE FIXTURE. WALL OR CEILING MOUNT	SEE FIXTURE SCHEDULE
	TYPICAL SWITCH SUFFIX LEGEND: 3 = 3–WAY 4 = 4–WAY OS = INTEGRAL OCCUPANCY SENSOR VS = VACANCY SENSOR K = KEYED LOWER CASE (a,b) = SWITCH LEG	
$	SINGLE POLE SWITCH	44"AFF TO BOTTOM U.O.N.
	DIGITAL DIMMING SWITCH	44"AFF TO BOTTOM U.O.N.
	DIGITAL ON/OFF SWITCH	44"AFF TO BOTTOM U.O.N.
OS	CEILING OCCUPANCY SENSOR	SEE SPECIFICATIONS
VS	CEILING VACANCY SENSOR	SEE SPECIFICATIONS
	TYPICAL RECEPTACLE, OUTLET AND JUNCTION BOX SUFFIX LEGEND: EWC = ELECTRIC WATER COOLER GFI = GROUND FAULT INTERRUPTER UP = UP (CONDUIT) DN = DOWN (CONDUIT) R = RANGE WP = WEATHERPROOF REF = REFRIGERATOR	
	DUPLEX RECEPTACLE (20A,120V). FLOOR	FLUSH FLOOR OUTLET
	DUPLEX RECEPTACLE (20A, 120V).	M.H. 18" AFF TO CENTER U.O.N.
	DUPLEX RECEPTACLE (20A, 120V). ABOVE COUNTER. MOUNT HORIZONTALLY WHEN ABOVE COUNTERTOPS	42"AFF, ABOVE COUNTER BACKSLASH U.O.N.
	DUPLEX RECEPTACLE (20A, 120V). FLUSH WITH CEILING.	FLUSH WITH CEILING
	DOUBLE DUPLEX RECEPTACLE (20A, 120V).	M.H. 18" AFF TO CENTER U.O.N.
PH	DUPLEX RECEPTACLE (20A, 120V) FOR WALL MOUNTED, TELEPHONE HANDSETS.	54"AFF, U.O.N.
R	RANGE RECEPTACLE, 50A, 250V, ONE PHASE, FOUR WIRE.	4" AFF. U.O.N.
D	DRYER RECEPTACLE, 30A, 250V, ONE PHASE, FOUR WIRE.	36" AFF. U.O.N.
	SPECIAL PURPOSE RECEPTACLE, AMPS, VOLTS AND WIRE AS NOTED.	M.H. 18" AFF TO CENTER U.O.N.
J	JUNCTION OR OUTLET BOX, 4" SQUARE BOX U.O.N.	AS NOTED
30/3	NON–FUSIBLE DISCONNECT SWITCH, 30A, 3 POLE, U.O.N.	SEE SPECIFICATIONS
60/40/3	FUSIBLE DISCONNECT SWITCH, AMPS/FUSE SIZE/NO. POLES AS NOTED.	SEE SPECIFICATIONS
	COMBINATION MAGNETIC MOTOR STARTER	SEE SPECIFICATIONS
3	MOTOR, NUMERAL INDICATES HORSEPOWER	BY OTHER DIVISION
	ELECTRIC DUCT HEATER	BY OTHER DIVISION
	PANELBOARD, 120/208V., 3 PH., 4W	6'–6"AFF MIN. TO TOP
TTB	TELEPHONE TERMINAL BOARD, AS NOTED	6'–6"AFF MIN. TO TOP
UP	RACEWAY RISER, UP OR DOWN AS NOTED.	SEE SPECIFICATIONS
	RACEWAY CONCEALED UNDER FLOOR, IN SLAB OR BELOW GRADE	SEE SPECIFICATIONS
	RACEWAY CONCEALED IN WALL OR CEILING	SEE SPECIFICATIONS
L1B–1,3	HOMERUN TO PANEL, LETTERS INDICATE PANEL, NUMBERS INDICATE CIRCUITS.	SEE SPECIFICATIONS
EPO	EMERGENCY POWER OFF SWITCH WITH LEGEND PLATE IDENTIFYING IT AS "EMERGENCY POWER OFF."	M.H. 48" TO TOP, U.O.N.
C	MECHANICALLY HELD 6 POLE CONTACTOR WITH 120V COIL CLEARING CONTACTS MOUNTED IN NEMA–1 ENCLOSURE ABOVE SUSPENDED CEILING.	MOUNTED ABOVE CEILING
22	REFER TO LIKE NUMBERED KEY NOTES.	
# B	"NUTONE" #LA52WH WITH C905 TRANSFORMER. MOUNT ON SINGLE GANG BOX WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING. PUSH BUTTONS DESIGNATED TONE 1 & 3 SHALL ACTIVATE DISTINCT MUSICAL TONES. PUSH BUTTON DESIGNATED TONE 2 SHALL ACTIVATE TWO–NOTE CHIME.	8" BELOW CEILING, U.O.N.

NOTE:
NOT ALL SYMBOLS SHOWN IN THIS LEGEND MAY NECESSARILY APPEAR IN THESE DOCUMENTS. ADDITIONAL SYMBOLS MAY BE DEFINED ELSEWHERE IN SPECIFIC DRAWINGS.

GENERAL NOTES ELECTRICAL

1. DO NOT SCALE FROM THESE DRAWINGS.
2. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE EDITION EFFECTIVE AT THE TIME OF PERMIT.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
4. ALL EMERGENCY SYSTEMS SHALL BE RUN IN SEPARATE RACEWAY/CONDUIT SYSTEM(S).
5. PROVIDE CEILING MOUNTED RED L.E.D. ALARM INDICATOR FOR EACH SMOKE DETECTOR MOUNTED IN PLENUM SPACE(S) OR CONCEALED AREAS.
6. FROM EACH FLUSH MOUNTED PANELBOARD, STUB–OUT INTO CEILING CAVITY ABOVE, A 3/4" C. FOR EACH SET OF 3 – SPARES AND/OR SPACES OR FRACTIONS OF EITHER SET THEREOF.
7. MOTOR CONTROL: REFER TO MECHANICAL DRAWINGS; FOR MOTORS INDICATED TO BE INTERLOCK, AS WELL AS, STARTERS, ETC. PROVIDED BY THE MECHANICAL CONTRACTOR.
8. ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS. IF A GREATER QUANTITY IS SHOWN ON THE ELECTRICAL PLANS, PROVIDE THE GREATER QUANTITY.
9. PROVIDE ADEQUATE POWER IN THE FIRE ALARM SYSTEM TO OPERATE ALL LIFE SAFETY SYSTEM AND E.M.C.S. CONTROL DEVICES.
10. REFER TO DIVISION 15 DRAWINGS FOR LOCATIONS OF FIRE PROTECTION WATER FLOW AND TAMPER SWITCHES. PROVIDE/ COORDINATE WIRING REQUIREMENTS.
11. WHERE NON–FUSED DISCONNECT IS NOT PROVIDED "WITHIN SIGHT" OF MOTOR (OR HEATER UNIT). FEEDER (AND/OR BRANCH CIRCUIT) OVER–CURRENT DEVICE SERVING SUCH MOTOR (OR HEATER) SHALL HAVE APPROVED "LOCKED–OFF" PROVISION.
12. PROVIDE WALL SWITCHES IN EACH OFFICE/AREA TO CONTROL THE LIGHT FIXTURE(S) IN EACH OFFICE/AREA.
13. REFERENCE MECHANICAL DRAWINGS FOR ALL MECHANICAL EQUIPMENT NEEDING ELECTRICAL CONNECTIONS. MAKE ALL CONNECTIONS AND PROVIDE APPROPRIATE WIRE CONDUIT AND OVERCURRENT PROTECTION FOR ALL EQUIPMENT. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR.
14. PROVIDE EXIT SIGNAGE AT ALL EXITS AND AS REQUIRED.
15. RECEPTACLES IN MECHANICAL ROOM, ELECTRICAL ROOMS, STORAGE ROOMS AND JANITOR CLOSETS TO BE MOUNTED 48" A.F.F. AND G.F.I.
16. ALL EXTERIOR WIRING DEVICES TO BE WEATHERPROOF AND GROUND INTERRUPTING TYPE.
17. REFER TO ARCHITECTURAL FLOOR PLANS FOR DIMENSIONAL LOCATIONS OF ALL FLOOR MOUNTED ELECTRICAL DEVICES.
18. CONDUIT RUNS SHOWN ARE DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER NEC AND FOR COORDINATION WITH OTHER DISCIPLINES.
19. ALL H.I.D. AND FLUORESCENT LIGHT FIXTURES SALL BE FURNISHED WITH INTEGRAL FUSING.
20. COORDINATE EXACT LOCATIONS OF ALL ITEMS INSTALLED ON SITE WITH CIVIL ENGINEER.
21. COORDINATE ALL LOCATIONS OF RECEPTACLES AND SYSTEMS OUTLETS WITH IN ALL CASEWORK.
22. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET.
23. ALL SITE LIGHTING POLES AND POLE BASES SHALL BE CAPABLE OF SUPPORTING THE ENTIRE WEIGHT OF THE LIGHTING SYSTEM AT THE PROJECT'S WND LOAD CRITERIA. SHOP DRAWINGS MUST INCLUDE DRAWINGS OF THE ENTIRE ASSEMBLY FOR EACH OF THE MOUNTING CONFIGURATIONS USED. DRAWINGS MUST BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEER.
24. ALL CONDUCTORS SHALL BE STRANDED WIRE TYPE.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING AND NOTES
	TYPICAL FIRE ALARM DEVICE SUFFIX LEGEND. F = FLASHING STROBE LIGHT S = SUPPLY R = RETURN	
	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR	CEILING, U.O.N.
	FIRE ALARM PHOTOELECTRIC DETECTOR. INSIDE DUCT. PROVIDE RELAY, TEST SWITCH AND LIGHT AS REQUIRED. (COORDINATE WITH MECHANICAL CONTRACTOR.)	DUCT
F	FIRE ALARM MANUAL PULL STATION	48"AFF TO TOP, U.O.N.
R	FIRE ALARM SYSTEM FAN OR AHU SHUTDOWN OR RUN RELAY	
TL	FIRE ALARM DUCT SMOKE DETECTOR TEST SWITCHES & LIGHTS. ONE PER SMOKE DUCT DETECTOR	48"AFF TO TOP, U.O.N.
F	FIRE ALARM HORN/ FLASHING STROBE LIGHT. 75 CANDELA MIN U.O.N.	80" AFF TO BOTTOM OF BOX, U.O.N.
F LF	FIRE ALARM HORN/ FLASHING STROBE LIGHT. 75 CANDELA MIN U.O.N. – LOW FREQUENCY.	80" AFF TO BOTTOM OF BOX, U.O.N.
F LF	FIRE ALARM HORN ONLY. – LOW FREQUENCY.	WALL 90" A.F.F. TO TOP OR 6" BELOW CEILING MTD.
	FIRE ALARM WITH FLASHING STROBE LIGHT. 75 CANDELA MIN U.O.N.	80" AFF TO BOTTOM OF BOX, U.O.N.
FACP	FIRE ALARM CONTROL PANEL.	M.H. 60" MIN. TO TOP
FS	FIRE ALARM WATER TAMPER SWITCH.	48"AFF TO TOP, U.O.N.
FS	FIRE ALARM WATER FLOW SWITCH.	48"AFF TO TOP, U.O.N.
S	SOUND SYSTEM SPEAKER FOR RADIO ALARM SYSTEM..	CEILING,U.O.N.
PRS	POWER RESET SWITCH WITH LEGEND PLATE IDENTIFING IT AS 'POWER RESET SWITCH'.	M.H. 48" TO TOP, U.O.N.
C	MECHANICALLY HELD 6 POLE CONTACTOR WITH 120V COIL CLEARING CONTACTS MOUNTED IN NEMA–1 ENCLOSURE ABOVE SUSPENDED CEILING.	MOUNTED ABOVE CEILING
22	REFER TO LIKE NUMBERED KEY NOTES.	
TG RE	2X4X3 'J' BOX AND 1/2" CONDUIT TO ABOVE CL'G FOR TONE BOX WIRING AND DEVICES BY BORRELL ELECTRIC INC.	72" AFF TO TOP U.O.N.
DC	24V. DOOR BELL CHIME	80" AFF TO TOP U.O.N.
PB	24V. PUSH BUTTON (WEATHER PROOF) FOR DOOR BELL CHIMES. 24V. PUSH BUTTON FOR DOOR BELL STRIKE.	48" AFF TO TOP U.O.N.
	TEAR AND GO RESET BUTTON.	PER ARCHITECTS DETAIL.
CO	CARBON MONOXIDE SENSOR AS MANUFACTURED BY EST. SENSOR SHALL BE TIED INTO THE BUILDING FIRE ALARM SYSTEM FOR MONITORING AND ALARM. COORDINATE SENSOR MOUNTING HEIGHT WITH MANUFACTURER REQUIREMENTS. SENSOR SHALL BE ADDRESSABLE DEVICE OR MONITORED BY ADDRESSABLE FIRE ALARM MODULE.	AS REQUIRED.
AR AM	FIRE ALARM ADDRESSABLE RELAY/ MONITOR MODULE	
	FIRE ALARM WITH FLASHING STROBE LIGHT. 75 CANDELA MIN U.O.N.	CEILING, U.O.N.
	FIRE ALARM HORN/ FLASHING STROBE LIGHT. 75 CANDELA MIN U.O.N.	CEILING, U.O.N.
SB	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR WITH LOW FREQUENCY SOUNDER BASE AS PER NFPA 72 REQUIREMENTS. SOUNDER BASE SHALL ACTIVATE ON LOCAL ALARM ONLY AND TRANSMIT SUPERVISORY SIGNAL TO FACP. PROVIDE ALL RELAYS AND PROGRAMING AS REQUIRED FOR FULLY FUNCTIONAL SYSTEM.	CEILING, U.O.N.
SH	MOTOR RATED SWITCH WITHOUT THERMAL OVERLOADS FOR FRACTIONAL HORSEPOWER MOTORS.	SEE SPECIFICATIONS
SSC	SPEED CONTROL	SEE SPECIFICATIONS

NOTE:
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FUNCTIONAL TESTING NOTE

CONTRACTOR SHALL PROVIDE FUNCTIONAL TESTING OF THE LIGHTING CONTROL SYSTEM TO ENSURE COMPLIANCE WITH FEEC C408.3

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EMI Job No. 23-0140 Drawn By: EM Checked By: JBW

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COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

ELECTRICAL LEGEND

E0.0

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LIGHT SOURCE: TYPE	DELIVERED LUMENS	KELVIN COLOR TEMP	INPUT WATTS	DIMMING	VOLTS	MOUNTING	NOTES
A	LITHONIA METALUX COLUMBIA	2-GTL-2-20L-A12125-GZ10-LP840 22GR LJT22	LED	2338	4000	19	YES	120	RECESSED IN CEILING GRID	2X2 LENSED LED TROFFER. WHITE METAL HOUSING WITH .125" PRISMATIC LENS.
A1	LITHONIA METALUX COLUMBIA	2-GTL-2-30L-A12125-GZ10-LP840 22GR LJT22	LED	3495	4000	29	YES	120	RECESSED IN CEILING GRID	2X2 LENSED LED TROFFER. WHITE METAL HOUSING WITH .125" PRISMATIC LENS.
B	LITHONIA METALUX COLUMBIA	2-GTL-4-30L-A12125-GZ10-LP840 24GR LJT24	LED	3102	4000	23	YES	120	RECESSED IN GRID / HARD CEILING	2X4 LENSED LED TROFFER. WHITE METAL HOUSING WITH .125" PRISMATIC LENS. PROVIDE DRYWALL GRID ADAPTER FOR FIXTURES IN HARD CEILINGS.
B1	LITHONIA METALUX COLUMBIA	2-GTL-4-40L-A12125-GZ10-LP840 24GR LJT24	LED	4079	4000	30	YES	120	RECESSED IN GRID / HARD CEILING	2X4 LENSED LED TROFFER. WHITE METAL HOUSING WITH .125" PRISMATIC LENS. PROVIDE DRYWALL GRID ADAPTER FOR FIXTURES IN HARD CEILINGS.
C	JUNO HALO-REC ELITE	IC22R-27CWH E7RICAT-30CAT B6IC	E26 CREE LED BULB 75W EQUIV.	1100	4000	12	YES	120	RECESSED IN CEILING GRID	6" RECESSED DOWN LIGHT FIXTURE. CLEAR SPECULAR REFLECTOR.
C1	JUNO HALO-REC ELITE	IC22R-241PW E7RICAT-171PS B6IC	E26 CREE LED BULB 100W EQUIV.	1600	4000	17	NO	120	RECESSED IN CEILING GRID	6" RECESSED SHOWER DOWN LIGHT FIXTURE. PLASTIC OPAL DROP LENS WITH WHITE TRIM RING.
D	LITHONIA METALUX COLUMBIA	CLX-L48-5000LM-SEF-RDL-GZ10-40K-80CRI 4SNX MPS4	LED	5332	4000	35	YES	120	WALL / SURFACE MOUNTED OR SUSPENDED WITH CHAIN	LED UTILITY STRIP LIGHT. SURFACE MOUNTED TO HARD CEILING OR SUSPENDED FROM STRUCTURE WITH CHAIN IN OPEN CEILING SPACES. COORDINATE WITH MECHANICAL DUCT EXACT MOUNTING REQUIREMENTS AND LOCATION.
EM	LITHONIA SURE-LITES COMPASS	EU2C-M6 SEL CU2	LED	N/A	N/A	N/A	N/A	120	WALL OR CEILING VERIFY	BUG-EYE EMERGENCY LIGHT. PROVIDE WITH NICKLE CADMIUM BATTERY BACKUP WITH MIN. 90 MINUTE CAPACITY.
F	BROWNLEE ELITE	5038-37-NT-H25-40K DP36-L30.0 3-OVL	LED	2980	4000	37	NO	120	WALL MOUNTED ABOVE MIRROR	3' LED WALL MOUNTED VANITY FIXTURE. METAL HOUSING WITH SATIN FINISH. WHITE ACRYLIC DIFFUSER. COORDINATE MOUNTING HEIGHT WITH MIRROR INSTALLER.
G	LITHONIA METALUX COLUMBIA	FEM-L96-18000LM-LPACL-WD-120-GZ10-40K-80CRI 8VT2 LXEM8	LED	18240	4000	104	NO	120	SURFACE MOUNTED	1X8 LENSED VAPOR TIGHT TROFFER. CLEAR ACRYLIC DIFFUSER. WIDE DISTRIBUTION. WET LOCATION LISTED.
H	KENALL FAIL-SAFE LUMENCIA	MO13HL-PP-MW-16L40-DV B95-HE-WHT-LD4 LLFE113	LED	1574	4000	20	YES	120	WALL MOUNTED ABOVE BUNK	SURFACE MOUNTED HEAVY DUTY DIE CAST WHITE ALUMINUM FIXTURE WITH U.V. STABILIZED TRANSLUCENT WHITE POLYCARBONATE LENS AND HALF-SHROUD HOOD TRIM. MATTE WHITE FINISH.
J	ALIGHT AXIS LIGHTING LUXILL	D5-34'-0"-LH-40-U-WW-X-X-D-Q EX4R-1000 EOS3.0	LED	945/FT	4000	9.7/FT	YES	120	RECESSED IN SOFFIT	LINEAR RECESSED LED FIXTURE. ASYMMETRIC DISTRIBUTION. WET LOCATION LISTED. CONTINUOUS RUN AS SHOWN ON PLANS.
J1	ALIGHT AXIS LIGHTING LUXILL	D5-12'-0"-LH-40-U-WW-X-X-D-Q EX4R-1000 EOS3.0	LED	945/FT	4000	9.7/FT	YES	120	RECESSED IN SOFFIT	LINEAR RECESSED LED FIXTURE. ASYMMETRIC DISTRIBUTION. WET LOCATION LISTED. CONTINUOUS RUN AS SHOWN ON PLANS.
M	CANLITE ENVOY	02-I-C-F-01-0G-11-MOUNTING OPTION #4 EAVPD	E26 INCAND. BUILB 200W	3000	4000	50	NO	120	SURFACE MOUNTED	VAPORTITE FIXTURE. GLASS GLOBE WITH DIE CASE BASE AND WIRE GUARD. WET LOCATION LISTED.
N	ANP LIGHTING BARN	ORB16-CL-M010LDD-W-40K-RTCW-E27-43-UNV BLE	LED	1200	4000	12	NO	120	WALL MOUNTED	VAPORTITE FIXTURE. ALUMINUM CONSTRUCTION. RED DOME SHADE, WIRE GUARD. RED GLASS GLOBE. WET LOCATION LISTED.
O	OGM OR APPROVED EQUAL	RUNNING LIGHT LX2-SB #16144	LED	N/A	N/A	N/A	N/A	120	WALL MOUNTED AT 7' AFF	GREEN LED SOURCE WALL MOUNTED SIGNAL LIGHT. PROVIDE IN-LINE TRANSFORMER AND LOCATE AS REQUIRED. U.L. LISTED FOR WET LOCATION.
POLE	UTILITIES STRUCTURES								25'-0" A.F.G.	DIRECT BURIAL SQUARE TAPERED CONCRETE POLE. POLE MFG. SHALL PROVIDE S&S SHOP DRAWING BY FLORIDA P.E. CONFIRMING OVERALL LENGTH AND BURIAL DEPTH REQUIRED TO MEET PROJECT WIND LOAD REQUIREMENTS.

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LIGHT SOURCE: TYPE	DELIVERED LUMENS	KELVIN COLOR TEMP	INPUT WATTS	DIMMING	VOLTS	MOUNTING	NOTES
S	LITHONIA MCGRAW-EDISON BEACON	DSX1-LED-P2-40K-T3M-120-SPA-DDBXD GALN VPS	LED	6764	4000	70	NO	120	POLE MOUNTED 18'-0" A.F.G. UNLESS OTHERWISE NOTED	LED SITE FIXTURE, SINGLE POLE MOUNT, PROVIDE MOUNTING BRACKET AND POLE. TYPE 3 DISTRIBUTION. PROVIDE INDIVIDUAL FUSING.
S-HS	LITHONIA MCGRAW-EDISON BEACON	DSX1-LED-P1-40K-T3M-120-SPA-HS-DDBXD GALN VPS	LED	6764	4000	54	NO	120	POLE MOUNTED 18'-0" A.F.G. UNLESS OTHERWISE NOTED	SAME AS FIXTURE 'S.' PROVIDE HOUSE SIDE SHEILD OPTION.
W	LITHIONIA SPITZER BEACON	WDGE2-LED-P2-40K-80CRI-VW-MVOLT-SRM-DDBXD WPFP RWL1	LED	2067	4000	15	NO	120	WALL MOUNTED 8'-0" A.F.F.	LED ARCHITECTURAL WALL SCONCE. DIE CAST ALUMINUM HOUSING WITH DARK BRONZE FINISH. WIDE DISTRIBUTION. WET LOCATION LISTED. SHADED FIXTURE INDICATED EMERGENCY FIXTURE. PROVIDE EMERGENCY BATTERY BACK-UP OPTION.
W1	LITHONIA COOPER HUBBELL	TWH-LED-20C-1000-40K-T3M-MVOLT-DDBXD WPSQLED PQM3	LED	6983	4000	72	NO	UNV	WALL MOUNTED	LED WALL PACK. ALUMINUM HOUSING WITH GLASS LENS. DARK BRONZE FINISH. CONNECT SHADED FIXTURES TO RELAYED EMERGENCY CIRCUIT
X	LITHIONIA SURE-LITES DUALITE	LQC-W-X-R-EL-N CX SESRWE	LED	N/A	N/A	N/A	N/A	120	CEILING OR WALL VARIFY	EXIT LIGHT SOLID DIE-CAST ALUMINUM HOUSING WITH RED LED LAMP, STENCIL LETTERS, AND WHITE FINISH. SINGLE OR DOUBLE SIDED. NICKEL-CADMIUM BATTERY BACK-UP OPTION.

NOTES:
1. PROVIDE FIXTURES WITH UNIVERSAL VOLTAGE DRIVERS U.O.N.
2. PROVIDE ALL COMPONENTS (SUPPORT, HANGERS, ETC.) FOR COMPLETE INSTALLATION.
3. THE ARCHITECT SHALL DETERMINE THE FINAL FINISHES AND COLORS FOR ALL FIXTURES.

SUBSTITUTION REQUESTS AND APPROVAL FOR EQUALS:
1. ONLY FIXTURES THAT ARE LISTED BY MANUFACTURER AND CATALOG NUMBER ARE APPROVED FOR BID. THE SPECIFIED FIXTURES HAVE BEEN SELECTED BASED ON PHOTOMETRIC PERFORMANCE, ELECTRICAL CHARACTERISTICS, VISUAL COMFORT, AESTHETIC APPEARANCE, HOUSING CONSTRUCTION, AND LONGEVITY.
2. CONTRACTORS WISHING TO PROPOSE ALTERNATE FIXTURES NOT LISTED ABOVE SHALL SUBMIT A FORMAL SUBSTITUTION REQUEST, IN WRITING, AT LEAST 15 DAYS PRIOR TO BID.
3. ALL ALTERNATE FIXTURE PACKAGES SUBMITTED FOR SUBSTITUTION REQUEST SHALL INCLUDE THE FOLLOWING:
   - 3.1. A LETTER FROM THE LIGHTING REPRESENTATIVE STATING THAT FIXTURES ARE EQUAL IN EVERY ASPECT TO THE SPECIFIED FIXTURES
   - 3.2. ALL CATALOG CUTSHEETS FOR THE ALTERNATE FIXTURES
   - 3.3. PHOTOMETRIC REPORTS DOCUMENTING: TOTAL DOWNWARD EFFICIENCY, PERCENTAGE OF UPLIGHT (FOR SITE FIXTURES), ETC. (REPORT SHALL BE EQUAL TO A BASIC PHOTOMETRIC TOOLBOX REPORT), POINT BY POINT PHOTOMETRIC CALCULATION FOR EACH DIFFERENT TYPE OF SPACE AND/OR DIFFERENT FIXTURES USED IN SIMILAR SPACES.
4. APPROVALS, IF ANY, SHALL ONLY BE ISSUED BY THE ENGINEER OF RECORD IN THE FORM OF AN ADDENDUM TO THE BID DOCUMENTS.

LIGHTING CONTROL SCHEDULE

AREA	SENSOR SETTING	LENGTH OF OPERATION	ADDITIONAL NOTES
BATHROOMS	OCCUPANCY	30 MINUTES	PROVIDE P.I.R. LINE VOLTAGE OCCUPANCY SWITCH. SWITCH SHALL HAVE (2) BUTTONS. (LIGHTS/EXHAUST FAN) SET SWITCH TO ALLOW FOR EXHAUST FAN TO RUN AFTER SPACE BECOMES UNOCCUPIED FOR COMPLIANCE WITH ASHRAE 62.2
CORRIDORS	N/A	N/A	AUTOMATIC LIGHTING CONTROLS SHALL BE ARRANGED FOR COMPLIANCE WITH NFPA 101-7.8.1.2.2. THE LIGHTING CONTROL DEVICE SHALL AUTOMATICALLY ENERGIZE THE CONTROLLED LIGHTS UPON LOSS OF NORMAL POWER, OR BY ACTIVATION OF THE BUILDING FIRE ALARM SYSTEM. LIGHTING CONTROL DEVICES SHALL BE UL 924 LISTED.
STORAGE AREAS/JANITORIAL	OCCUPANCY	10 MINUTES	
FRONT OFFICE	VACANCY	30 MINUTES	
KITCHEN/DINING/DAYROOM*	N/A	N/A	
APPARATUS BAY*	N/A	N/A	
EXTERIOR / SITE LIGHTING	N/A	N/A	ALL EXTERIOR LIGHTING SHALL BE CONTROLLED BY PHOTOCELL TO OPERATE FROM DUSK TO DAWN. PROVIDE CONTACTOR(S) WITH LOCAL BYPASS SWITCH NEXT TO SOURCE PANEL.

* NOTE: ALL OTHER AREAS TO BE CONTROLLED VIA MANUAL ON/OFF. REFER TO PLANS FOR SWITCH TYPE.

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STANLEY P. NEWTON LICENSE No. 35071 STATE OF FLORIDA PROFESSIONAL ENGINEER

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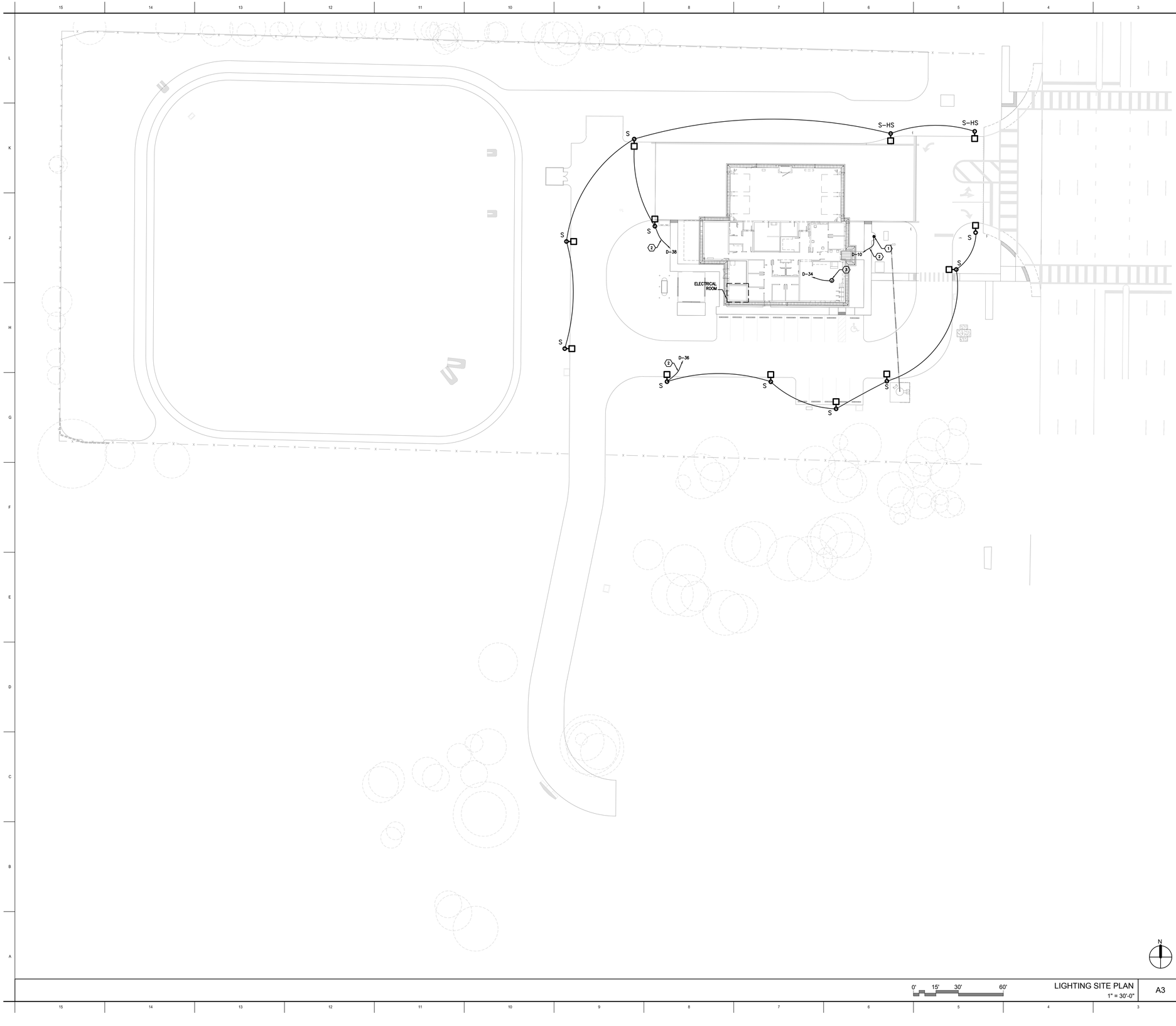
LUMINAIRE SCHEDULE

E0.1



GENERAL NOTES

1. ALL SITE LIGHTING CIRCUITS SHALL BE RUN IN 1" CONDUIT (MINIMUM).
2. ALL SITE LIGHTING POLES SHALL BE INSTALLED A MINIMUM OF 5' FROM CURB.
3. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL ON/OFF. PROVIDE MANUAL BYPASS SWITCH IN ELECTRICAL ROOM. PROVIDE RELAYS AND/OR CONTACTORS AS REQUIRED TO CONTROL ALL EXTERIOR CIRCUITS. PROVIDE NUMBER OF POLES/CONTACTS, WIRING, JUNCTION BOXES, ETC. AS REQUIRED. LOCATE CONTACTORS IN ELECTRICAL ROOM.
4. THE LIGHTING SYSTEM HAS BEEN DESIGNED, AND SHALL BE INSTALLED, TO COMPLY WITH THE HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE (LDC), SECTION 6.10.00-EXTERIOR LIGHTING AND IESNA OUTDOOR LIGHTING STANDARD. PRIOR TO THE ISSUANCE OF A CERTIFICATION OF OCCUPANCY FOR THE PROJECT, THE OUTDOOR LIGHTING PROFESSIONAL ENGINEER OF RECORD SHALL PROVIDE CERTIFICATION TO THE BUILDING SERVICES THAT THE LIGHTING SYSTEM AS INSTALLED COMPLIES WITH THE PROVISIONS OF THE HC LDC 6.10.01.G.

KEYED NOTES

1. ILLUMINATED FLAG POLE. PROVIDE 2-#10 C.U. & 1-#10 C.U. E.G. IN 3/4" CONDUIT FROM FLAG POLE TO POWER SUPPLY LOCATED ABOVE CEILING. PROVIDE NEMA 1 ENCLOSURE FOR POWER SUPPLY AND ROUTE CIRCUIT THROUGH THE LIGHTING CONTACTOR FOR TIME OF DAY CONTROL OF EXTERIOR FIXTURES. COORDINATE EXACT LOCATION AND FINAL POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION.
2. ROUTE HOMERUN THROUGH CONTRACTOR PROVIDED CONTACTOR. SITE LIGHTING SHALL OPERATE DUSK TO DAWN VIA PHOTOCELL.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE SURFACE MOUNTED JUNCTION BOX FOR STATION NUMBERS WITH INTEGRAL LIGHTING. COORDINATE FINAL LOCATION, POWER SUPPLY CONNECTION, ETC. WITH SIGN MANUFACTURE. NEATLY SURFACE MOUNT 3/4" RMC ALONG EXHAUST PLATFORM STRUCTURE THRU ROOF PENETRATION.

0' 15' 30' 60'

LIGHTING SITE PLAN
1" = 30'-0"

A3

NOTES

A1

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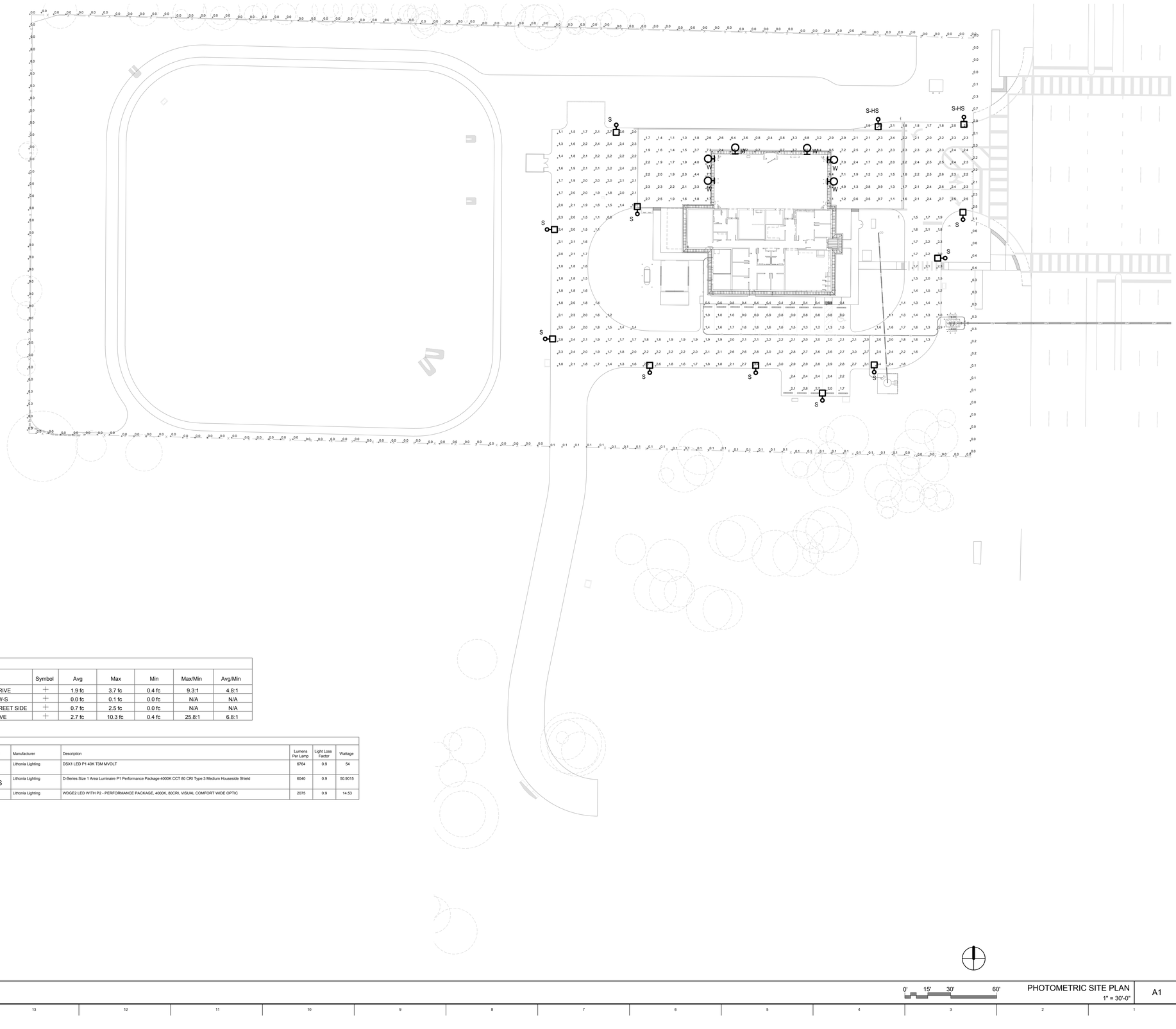
LIGHTING
SITE PLAN

E1.1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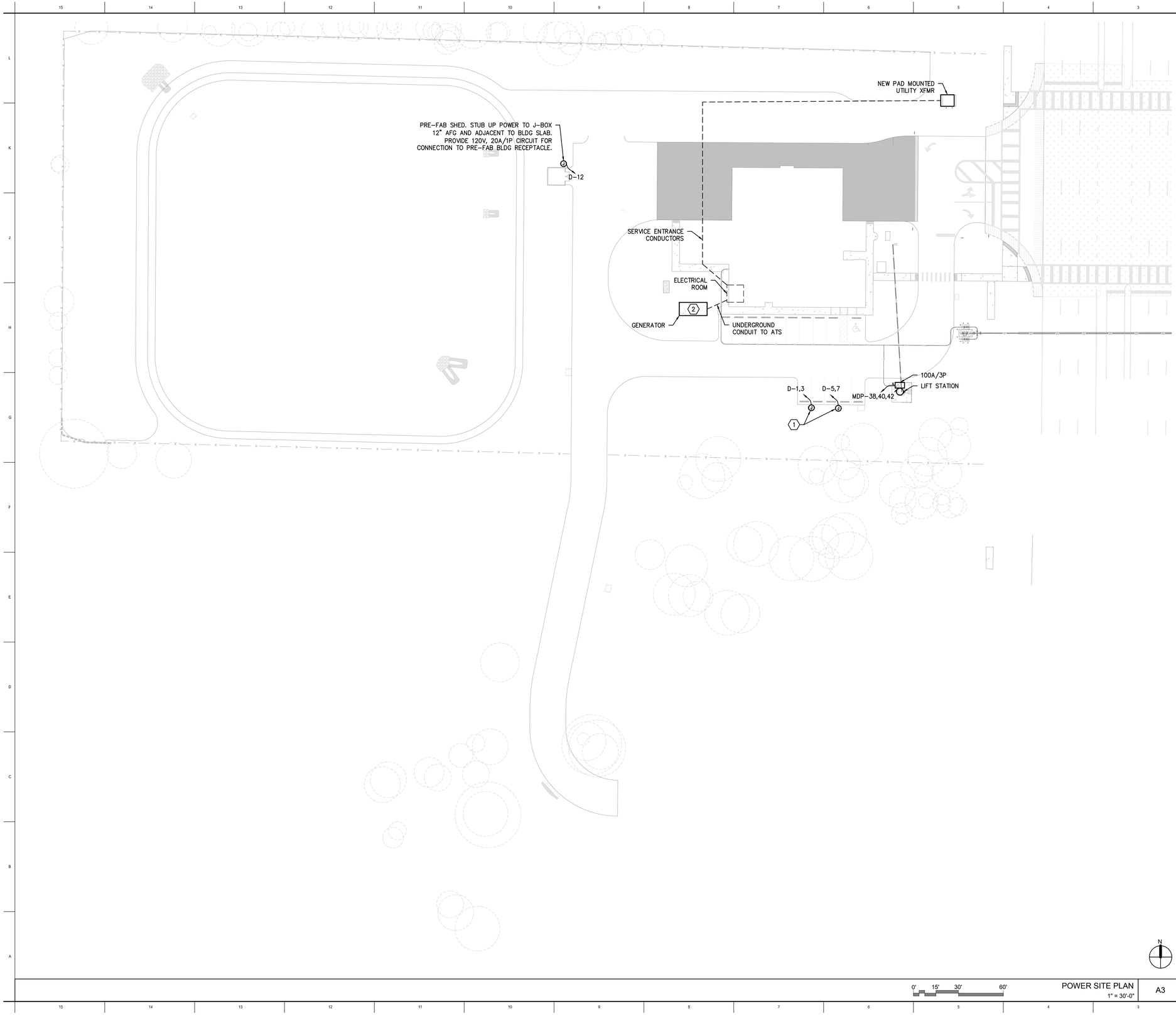

POWER SITE PLAN
1" = 30'-0"

A3

GENERAL NOTES

1. CONDUIT ROUTING SHOWN IS SCHEMATIC ONLY. CONTRACTOR SHALL ESTABLISH ACTUAL ROUTING AND COORDINATE INSTALLATION WITH OTHER TRADES.
2. PRIME AND PAINT ANY EXPOSED CONDUIT AND FITTINGS TO MATCH ADJACENT COLOR.
3. FOR ANY CONDUIT PENETRATIONS, CONTRACTOR TO SEAL AS APPROPRIATE.
4. CONTRACTOR TO REVIEW ROUTING AND MINIMIZE CONFLICTS WITH EXISTING UNDERGROUND UTILITIES WHEN ENCOUNTERED.
5. PROVIDE LONG CONDUIT SWEEPS (PER BICSI) AT ALL RIGHT ANGLES.
6. NEW ELECTRICAL SERVICE REQUIREMENTS:
   - 6.1. UNDERGROUND PRIMARY CONDUITS SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE EXACT ROUTING AND INSTALLATION REQUIREMENTS WITH UTILITY COMPANY PRIOR TO COMMENCING WORK.
   - 6.2. CONTRACTOR SHALL INSTALL THREE RUNS OF 2"UNDERGROUND PRIMARY CONDUITS FROM UTILITY POLE TO NEW PAD-MOUNT UTILITY TRANSFORMER. PRIMARY CONDUITS FURNISHED BY UTILITY COMPANY. PROVIDE 36" MINIMUM COVER AND 12" SEPARATION FROM OTHER UTILITIES.
   - 6.3. CONTRACTOR SHALL PROVIDE UTILITY TRANSFORMER CONCRETE PAD IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS.

KEYED NOTES

1. OWNER FURNISHED/OWNER INSTALLED EV CHARGING STATION. BASIS OF DESIGN: JUICEBOX PRO 40 BY ENELX, DUAL PEDESTAL MOUNT WITH SHARED POWER CHARGING. CONTRACTOR SHALL FURNISH/INSTALL CONDUIT, CONDUCTORS, AND OVERCURRENT PROTECTION DEVICE.
2. PROVIDE GENERATOR AND ATS SYSTEM WITH FIBER OPTIC COMMUNICATIONS, INCLUDING BUT NOT LIMITED TO CABLING, CONDUIT, AND FIBER MEDIA CONVERTER/ENCLOSURE WITH QUAD RECEPTACLE. REFER TO FLOOR PLAN FOR ADDITIONAL INFORMATION.

NOTES A1

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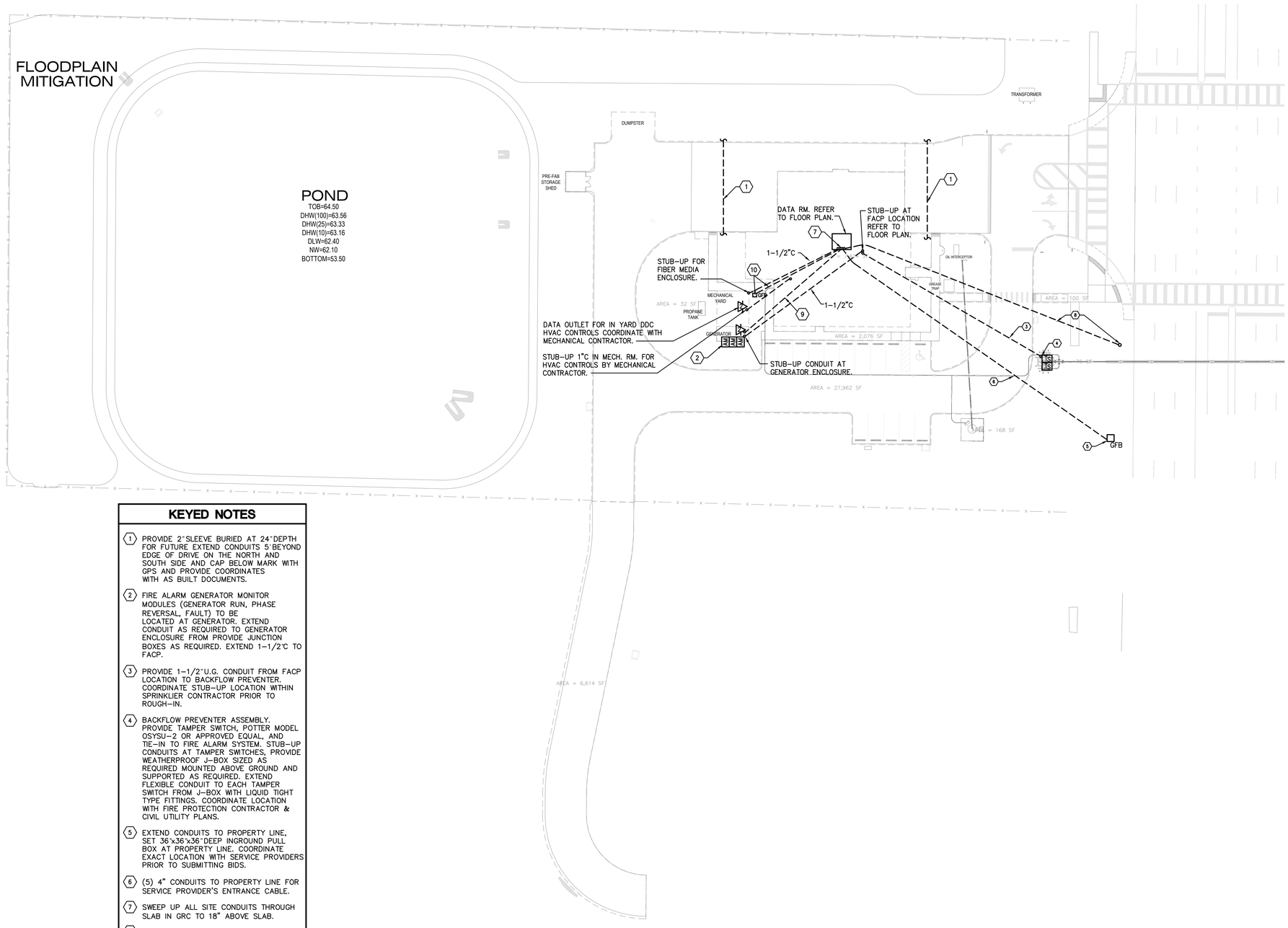
POWER
SITE PLAN

E1.3



KEYED NOTES

1. PROVIDE 2"SLEEVE BURIED AT 24"DEPTH FOR FUTURE EXTEND CONDUITS 5'BEYOND EDGE OF DRIVE ON THE NORTH AND SOUTH SIDE AND CAP BELOW MARK WITH GPS AND PROVIDE COORDINATES WITH AS BUILT DOCUMENTS.
2. FIRE ALARM GENERATOR MONITOR MODULES (GENERATOR RUN, PHASE REVERSAL, FAULT) TO BE LOCATED AT GENERATOR. EXTEND CONDUIT AS REQUIRED TO GENERATOR ENCLOSURE FROM PROVIDE JUNCTION BOXES AS REQUIRED. EXTEND 1-1/2"C TO FACP.
3. PROVIDE 1-1/2"U.G. CONDUIT FROM FACP LOCATION TO BACKFLOW PREVENTER. COORDINATE STUB-UP LOCATION WITHIN SPRINKLIER CONTRACTOR PRIOR TO ROUGH-IN.
4. BACKFLOW PREVENTER ASSEMBLY. PROVIDE TAMPER SWITCH, POTTER MODEL OSYSU-2 OR APPROVED EQUAL, AND TIE-IN TO FIRE ALARM SYSTEM. STUB-UP CONDUITS AT TAMPER SWITCHES, PROVIDE WEATHERPROOF J-BOX SIZED AS REQUIRED MOUNTED ABOVE GROUND AND SUPPORTED AS REQUIRED. EXTEND FLEXIBLE CONDUIT TO EACH TAMPER SWITCH FROM J-BOX WITH LIQUID TIGHT TYPE FITTINGS. COORDINATE LOCATION WITH FIRE PROTECTION CONTRACTOR & CIVIL UTILITY PLANS.
5. EXTEND CONDUITS TO PROPERTY LINE, SET 36"x36"x36"DEEP INGROUND PULL BOX AT PROPERTY LINE. COORDINATE EXACT LOCATION WITH SERVICE PROVIDERS PRIOR TO SUBMITTING BIDS.
6. (5) 4" CONDUITS TO PROPERTY LINE FOR SERVICE PROVIDER'S ENTRANCE CABLE.
7. SWEEP UP ALL SITE CONDUITS THROUGH SLAB IN GRC TO 18" ABOVE SLAB.
8. PROVIDE TRAFFIC LIGHT CONTROL BOX WITH (2) 2" CONDUITS TO STATION ALERTING SYSTEM IN TELECOM ROOM FOR TRAFFIC LIGHT CONTROL. COORDINATE LOCATION WITH ARCHITECT AND CIVIL PLANS.
9. PROVIDE 1"CONDUIT TO GENERATOR ENCLOSURE FOR MEDIA CONVERTER.
10. PROVIDE INGROUND PULL BOX AT POLE-MOUNTED WEATHER STATION. COORDINATE LOCATION WITH ARCHITECTURAL AND CIVIL PLANS. EXTEND 1"CONDUIT TO THE STATION'S TELECOM ROOM.

GENERAL NOTES

1. CONDUIT ROUTING IS SCHEMATIC ONLY AND BASED UPON REVIEW OF RECORD DRAWINGS AND LIMITED SITE SURVEY EFFORTS. CONTRACTOR SHALL ESTABLISH ACTUAL ROUTING AND COORDINATE INSTALLATION WITH OTHER TRADES.
2. ALL SITE CABLING SHALL BE RUN IN CONDUIT, SIZE AS INDICATED, UNDERGROUND BETWEEN BUILDINGS WITH MINIMUM 24" COVER. PRIME AND PAINT ANY EXPOSED CONDUIT TO MATCH ADJACENT.
3. FOR CONDUIT PENETRATIONS, CONTRACTOR TO SEAL AND/OR FIRE STOP AS APPROPRIATE.
4. PROVIDE LONG CONDUIT SWEEPS (PER BICSI) AT ALL RIGHT ANGLES. NO MORE THAN 2-90° ANGLE ELBOWS, IF SO NEED TO ADD PULL BOX.
5. INSTALL #4 GROUND KIT IN ALL WIRING CLOSETS.
6. CONTRACTOR TO REVIEW ROUTING AND FIBER CABINET LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. THIS CONTRACTOR TO MINIMIZE CONFLICTS WITH EXISTING UNDERGROUND UTILITIES, SIDEWALKS AND LANDSCAPING WHEN ENCOUNTERED. UTILIZE HAND DIGGING WHERE REQUIRED.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PROVIDE ANY AND ALL PULL BOXES REQUIRED EITHER BY THE N.E.C. OR BOXES THAT MAY BE REQUIRED FOR LONG PULLS. CONDUIT SIZES MAY BE INCREASED BY THE CONTRACTOR IN LIEU OF PROVIDING ADDITIONAL PULL BOXES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE THE COST OF ANY INCREASE IN CONDUIT SIZE IN THE BASE BID.
8. ALL COMMUNICATIONS' GROUND PULL BOXES (GPB) TO BE PROVIDED PER SPECIFICATIONS. ALL BOXES SHALL BE SIZED AS REQUIRED. ALL GPB'S TO HAVE APPROPRIATE LOCKING COVER/LOGO (COMMUNICATIONS) AND NO BOTTOM. FILL BOTTOM WITH 6" OF CRUSHED ROCK. (24"x36"x36" DEEP MINIMUM TRAFFIC RATED).
9. PROVIDE PULL STRINGS IN ALL SPARE/EMPTY SITE RACEWAYS FOR FUTURE USE.
10. ALL UNDERGROUND CONDUIT FOR FIBER OPTIC CABLE SHALL HAVE A MINIMUM BEND RADIUS OF 36" ON ANY 90-DEGREE TRANSITION.
11. ALL CONDUIT INTO AND OUT OF GROUND PULL BOXES AND VAULTS SHALL ENTER FROM BELOW. NO THROUGH BOX PENETRATIONS PERMITTED.
12. ALL UNDERGROUND LOW VOLTAGE SYSTEM BOXES SHALL BE POLYMER CONCRETE OR HDPE. FIBERGLASS AND PLASTIC BOXES ARE NOT PERMITTED. ALL TRAFFIC BEARING BOXES SHALL HAVE A TIER RATING OF H-20.

N

0' 15' 30' 60'

ELECTRICAL SYSTEMS SITE PLAN
1" = 30'-0" | A3

NOTES | A1

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PROJECT #: 2216-02

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ELECTRICAL SYSTEMS SITE PLAN

E1.4

KEYED NOTES CONT.

7. LINE VOLTAGE OCCUPANCY SENSOR WALL SWITCH WIT DUAL TECHNOLOGY, DUAL RELAY OCCUPANCY SENSOR FOR CONTROL OF LIGHTS AND EXHAUST FAN. LEVITON MODEL OSSMD-FT-W OR APPROVED EQUAL. EXHAUST FAN SHALL CONTINUE TO RUN FOR 10 MINUTES AFTER SPACE HAS BECOME UNOCCUPIED.

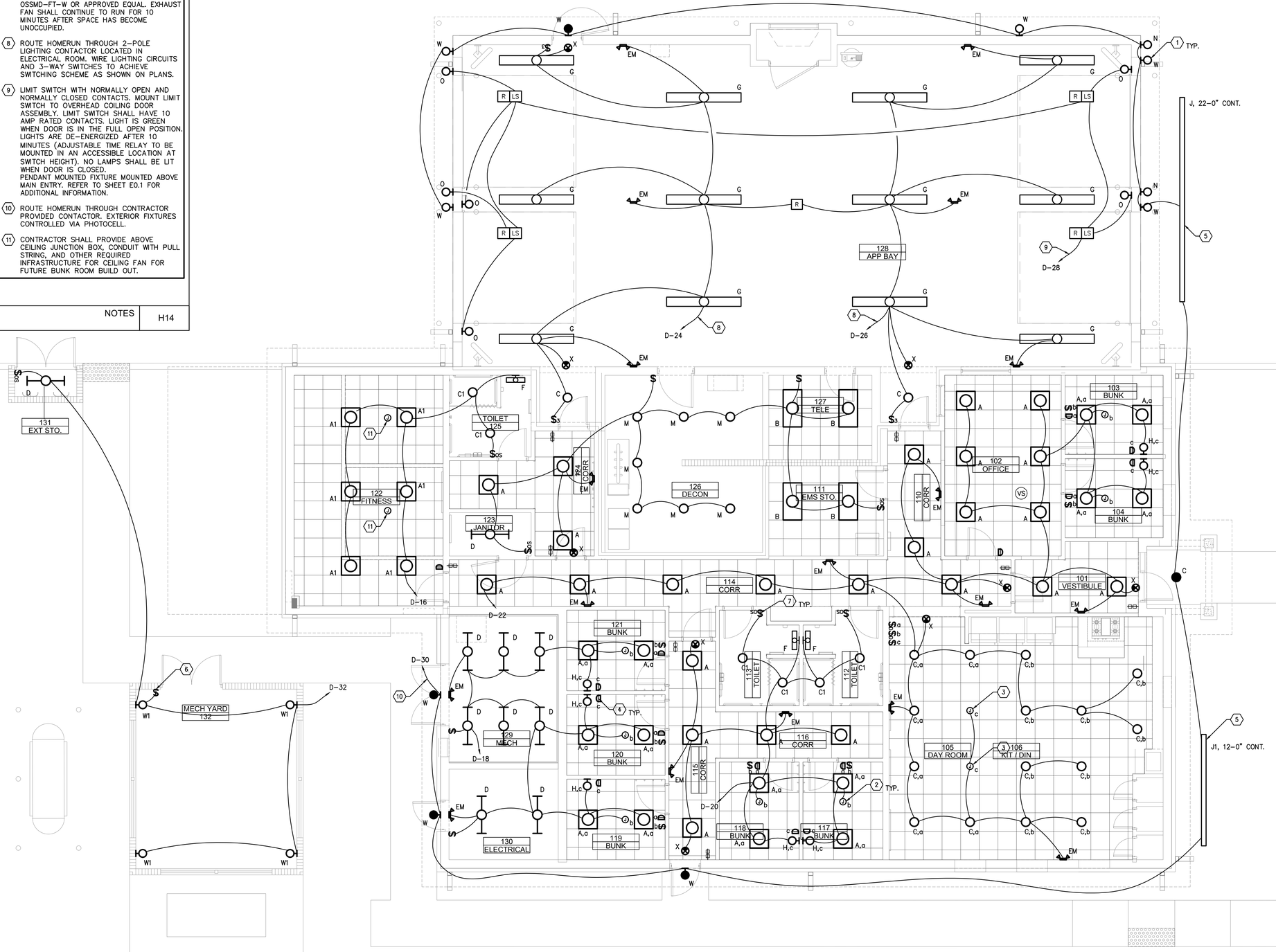
8. ROUTE HOMERUN THROUGH 2-POLE LIGHTING CONTACTOR LOCATED IN ELECTRICAL ROOM. WIRE LIGHTING CIRCUITS AND 3-WAY SWITCHES TO ACHIEVE SWITCHING SCHEME AS SHOWN ON PLANS.

9. LIMIT SWITCH WITH NORMALLY OPEN AND NORMALLY CLOSED CONTACTS. MOUNT LIMIT SWITCH TO OVERHEAD COILING DOOR ASSEMBLY. LIMIT SWITCH SHALL HAVE 10 AMP RATED CONTACTS. LIGHT IS GREEN WHEN DOOR IS IN THE FULL OPEN POSITION. LIGHTS ARE DE-ENERGIZED AFTER 10 MINUTES (ADJUSTABLE TIME RELAY TO BE MOUNTED IN AN ACCESSIBLE LOCATION AT SWITCH HEIGHT). NO LAMPS SHALL BE LIT WHEN DOOR IS CLOSED.
PENDANT MOUNTED FIXTURE MOUNTED ABOVE MAIN ENTRY. REFER TO SHEET E0.1 FOR ADDITIONAL INFORMATION.

10. ROUTE HOMERUN THROUGH CONTRACTOR PROVIDED CONTACTOR. EXTERIOR FIXTURES CONTROLLED VIA PHOTOCELL.

11. CONTRACTOR SHALL PROVIDE ABOVE CEILING JUNCTION BOX, CONDUIT WITH PULL STRING, AND OTHER REQUIRED INFRASTRUCTURE FOR CEILING FAN FOR FUTURE BUNK ROOM BUILD OUT.

NOTES | H14



GENERAL NOTES

1. ALL EXIT SIGNS AND EMERGENCY WALL PACKS SHALL BE CONNECTED TO AN UNSWITCHED HOT WIRE FROM RESPECTIVE LIGHTING CIRCUIT. ALL EXTERIOR EMERGENCY EGRESS SCONCES SHALL BE FED BY AN UNSWITCHED HOT LEG IN ADDITION TO THE SWITCH LEG FOR CONTROL OF EMERGENCY BALLAST.

2. ALL EXTERIOR/SITE LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL ON/OFF. PROVIDE MANUAL BYPASS SWITCH. PROVIDE RELAYS AND/OR CONTACTORS AS REQUIRED TO CONTROL ALL EXTERIOR CIRCUITS. PROVIDE NUMBER OF POLES/CONTACTS, WIRING JUNCTION BOXES, ETC. AS REQUIRED.

LIGHTING CONTROL NOTES

1. PROVIDE VACANCY/OCCUPANCY SENSORS FOR LIGHTING CONTROL IN ALL SPACES AS SHOWN ON PLANS. ALL VACANCY SENSORS SHALL BE PROGRAMMED FOR MANUAL ON / AUTO OFF OPERATION. SUBMIT LOCATIONS AND EQUIPMENT CATALOG CUT SHEETS TO OWNER/ENGINEER FOR REVIEW. SEE LIGHTING CONTROL TABLE FOR PROGRAMMING INFORMATION.

2. THE CONTRACTOR SHALL PROVIDE DUAL TECHNOLOGY VACANCY/OCCUPANCY SENSORS AND SWITCH PACKS WITH LOW VOLTAGE SWITCHES, WIRING, CONDUIT, SUPPORTS, ETC. FOR A COMPLETE SYSTEM. ALL SENSORS IN ALL AREAS SHALL INCLUDE MANUAL OVERRIDE (OFF) SWITCHES IN THE SWITCH LOCATIONS SHOWN ON THE PLANS. INCLUDE ANY AND ALL 2 WAY, 3 WAY, AND 4 WAY SWITCHING AS NECESSARY TO MEET THE SWITCHING INTENT SHOWN ON THE DRAWINGS.

3. THE CONTRACTOR SHALL VERIFY TYPE AND QUANTITY OF VACANCY SENSORS AND SWITCH PACKS WITH THE MANUFACTURER'S REPRESENTATIVE FOR CORRECT COVERAGE OF EACH SPACE PRIOR TO BID.

4. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS, VERIFICATION OF MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.

5. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS. ONE POWER PACK IS REQUIRED FOR EACH CIRCUIT THAT IS TO BE CONTROLLED. MAXIMUM NUMBER OF SENSORS THAT CAN BE WIRED IN PARALLEL TO A SINGLE POWER PACK IS DEPENDENT ON SENSOR MODEL (SEE INDIVIDUAL DATA SHEETS FOR MA CONSUMPTION).

6. THE APPROVED SENSOR MANUFACTURERS ARE LEVITON, COOPER, WATTSTOPPER AND SENSOR SWITCH.

7. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION FOR PROPER SENSOR LOCATION.

8. ULTRASONIC AND MULTI-TECH CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.

9. COORDINATE CEILING HEIGHTS WITH THE ARCHITECTURAL PLANS FOR PROPER COVERAGE AND CONFLICTS WITH SOFFITS, ETC.

10. SEE SHEET E0.1 FOR LIGHTING CONTROL SCHEDULE.

KEYED NOTES

1. LIGHT FIXTURES SHOWN OFFSET FOR CLARITY. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS.

2. JUNCTION BOX FOR FAN SUPPORTED FROM STRUCTURE. PROVIDE 26" FAN (MANUFACTURED BY MINKA AIRE, MODEL #F510L-WH) PROVIDE FAN SUBMITTALS TO ARCHITECT FOR APPROVAL. PROVIDE MULTI-SPEED FAN SWITCH. TYPICAL FOR ALL BUNKS.

3. JUNCTION BOX FOR FAN SUPPORTED FROM STRUCTURE. PROVIDE 52" PADDLE FAN WITH LIGHT KIT (MANUFACTURED BY CRAFTMADE, MODEL #PHZ52BNK4-BNGW BRUSHED NICKEL, FIVE BLADES). PROVIDE FAN SUBMITTALS TO ARCHITECT FOR APPROVAL. PROVIDE MULTI-SPEED FAN SWITCH.

4. DIGITAL LOW VOLTAGE PUSH-BUTTON DIMMER SWITCH SHALL BE COMPATIBLE WITH LED LAMP. TYPICAL FOR ALL BUNKS.

5. WET LISTED LINEAR FIXTURE RECESSED IN SOFFIT. ASYMMETRIC DISTRIBUTION TO ILLUMINATE WALL MOUNTED DIMENSIONAL LETTERING. FIXTURE OFFSET FOR CLARITY.

6. CONTRACTOR SHALL PROVIDE WEATHER PROOF SWITCH FOR OPERATION OF EXTERIOR WALL PACK FIXTURES IN MECHANICAL YARD.

0' 2'-8" 5'-4" 10'-8"
3/16" = 1'-0"

LIGHTING FLOOR PLAN | A3

NOTES | A1

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LIGHTING
FLOOR PLAN

E2.1

KEYED NOTES CONT.

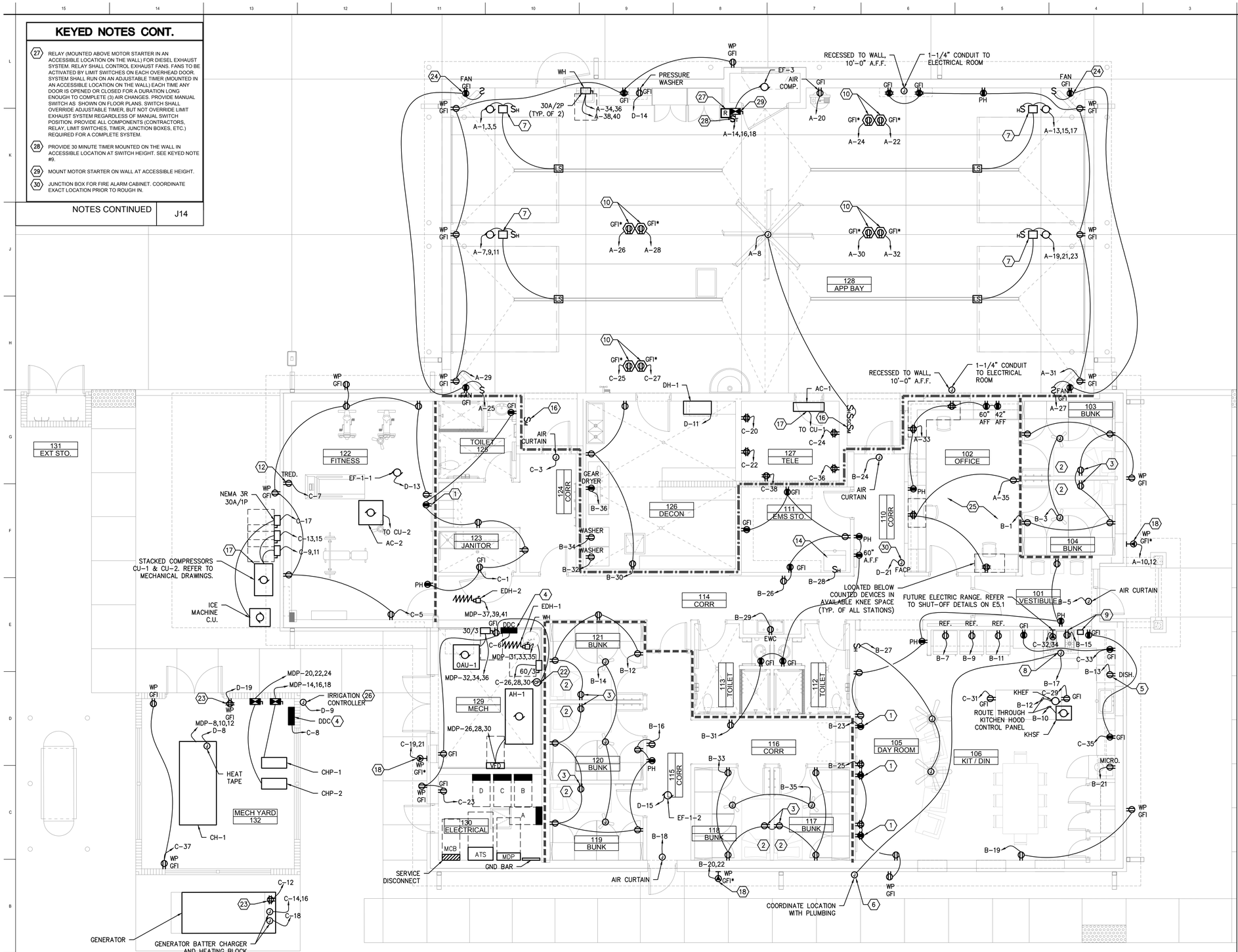
27. RELAY (MOUNTED ABOVE MOTOR STARTER IN AN ACCESSIBLE LOCATION ON THE WALL) FOR DIESEL EXHAUST SYSTEM. RELAY SHALL CONTROL EXHAUST FANS. FANS TO BE ACTIVATED BY LIMIT SWITCHES ON EACH OVERHEAD DOOR. SYSTEM SHALL RUN ON AN ADJUSTABLE TIMER (MOUNTED IN AN ACCESSIBLE LOCATION ON THE WALL) EACH TIME ANY DOOR IS OPENED OR CLOSED FOR A DURATION LONG ENOUGH TO COMPLETE (3) AIR CHANGES. PROVIDE MANUAL SWITCH AS SHOWN ON FLOOR PLANS. SWITCH SHALL OVERRIDE ADJUSTABLE TIMER, BUT NOT OVERRIDE LIMIT EXHAUST SYSTEM REGARDLESS OF MANUAL SWITCH POSITION. PROVIDE ALL COMPONENTS (CONTRACTORS, RELAY, LIMIT SWITCHES, TIMER, JUNCTION BOXES, ETC.) REQUIRED FOR A COMPLETE SYSTEM.

28. PROVIDE 30 MINUTE TIMER MOUNTED ON THE WALL IN ACCESSIBLE LOCATION AT SWITCH HEIGHT. SEE KEYED NOTE #9.

29. MOUNT MOTOR STARTER ON WALL AT ACCESSIBLE HEIGHT.

30. JUNCTION BOX FOR FIRE ALARM CABINET. COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.

NOTES CONTINUED | J14



GENERAL NOTES

1. ALL EXTERIOR RECEPTACLES SHALL BE WEATHER PROOF GFI RECEPTACLES. PROVIDE LOCKABLE COVERS.
2. USE NO. 10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 100 FEET, OR AS NOTED ON THE PANEL SCHEDULES.
3. ALL WIRING FROM LOAD SIDE OF VARIABLE FREQUENCY DRIVES TO UNIT SHALL BE XLPE (XHHW-2) INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
4. COVER PLATES FOR ALL WIRING DEVICES SHALL BE PERMANENTLY ENGRAVED/ETCHED WITH PANEL NAME AND CIRCUIT NUMBER(S) IN BLACK STENCIL.
5. NONMETALLIC FLEXIBLE SEAL TIGHT CONDUIT SHALL BE USED TO CONNECT AIR HANDLER UNITS FROM MOTOR CONNECTION POINT TO THE FIRST JUNCTION. NOT TO EXCEED 6 FEET.
6. INSTALL DISCONNECT SWITCHES AND SPEED CONTROLLERS FURNISHED BY HVAC CONTRACTOR FOR EXHAUST FANS. COORDINATE WITH HVAC CONTRACTOR FOR REQUIREMENTS.

KEYED NOTES

1. RECEPTACLE FOR TV. SEE SYSTEMS PLANS FOR ROUGH-IN REQUIREMENTS.
2. ALL RECEPTACLES IN SLEEPING AREA ARE TO BE FED FROM ARC FAULT CIRCUIT BREAKER
3. COMBINATION DUPLEX RECEPTACLE WITH DUPLEX USB PORT. HUBBELL #USB20AC5W OR APPROVED EQUAL. INSTALL RECEPTACLE ABOVE BEDSIDE SHELF/COUNTER. FIELD COORDINATE RECEPTACLE/SHELF HEIGHT WITH OWNER/ARCHITECT.
4. JUNCTION BOX FOR HVAC DDC CONTROLS CABINET. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENT WITH MECHANICAL CONTROLS CONTRACTOR.
5. RECEPTACLE FOR DISHWASHER. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
6. JUNCTION BOX FOR 120V AUTOMATIC SHUTOFF, GAS VALVE. WIRE TO HOOD ANSUL SYSTEM AND TEAR-N-GO SYSTEM.
7. AUTOMATIC OVERHEAD DOOR CONTROLLER. MAKE ALL CONNECTIONS. MOUNT CONTROLS AT ACCESSIBLE HEIGHT WITH WIRING LABELED, AND WIRING PLAN AND DIAGRAM INCLUDED.
8. FLUSH MOUNTED JUNCTION BOX FOR CONNECTION TO RANGE HOOD AND FIRE SUPPRESSION SYSTEM. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION PRIOR TO ROUGH-IN. MAKE ALL CONNECTIONS. WIRE FIRE SUPPRESSION SHUNT TRIP SIGNAL TO RANGE CONTROL CONTACTOR. REFER TO DETAIL. WIRE TO HOOD SUPPLY AND EXHAUST FANS.
9. GAS RANGE RECEPTACLE AT 4" AFF. PROVIDE MANUAL RESET BUTTON FOR RANGE CUT-OFF SWITCH. PROVIDE CONTROL WIRE TO TEAR-N-GO AND ANSUL SYSTEMS FOR RANGE RESET. ROUTE RANGE CIRCUIT THROUGH CONTRACTOR. SEE DETAIL.
10. CEILING MOUNTED JUNCTION BOX FOR POWER CORD DROP. REFER TO DETAIL FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
11. PROVIDE CEILING MOUNTED JUNCTION BOX AND 3/4" CONDUIT WITH PULL STRING BACK TO MAIN ELECTRICAL ROOM FOR FUTURE USE.
12. PROVIDE 2-#12 CU CONDUCTORS AND 1-#12 CU E.G. IN 3/4" CONDUIT. PROVIDE DEDICATED NEUTRAL AND E.G.
13. FUTURE ELECTRIC RANGE RECEPTACLE.
14. ICE MAKER EVAPORATOR. PROVIDE 30 AMP, MOTOR-RATED, TOGGLE-STYLE, LOCKABLE DISCONNECT SWITCH. REFER TO MANUFACTURER'S SPECIFICATIONS. PROVIDE S.O. CORD CONNECTION. PROVIDE CONTROL WIRE TO REMOTE CONDENSER.
15. PROVIDE 20 AMP, 120 VOLT RECEPTACLE FOR AIR COMPRESSOR. COORDINATE EXACT CONNECTION AND POWER REQUIREMENTS PER MANUFACTURER. COORDINATE HEIGHT WITH OWNER PRIOR TO ROUGH-IN.
16. PROVIDE RECESSED SWITCH BANK (6 GANG) FOR AUTOMATIC DOOR OPENERS. DOORS TO BE OPERATED AT THIS CONTROL LOCATION AND AT OTHER SWITCH BANK. PROVIDE ALL COMPONENTS REQUIRED.
17. MINI-SPLIT AC SYSTEM. PROVIDE 30/2 NEMA 3R DISCONNECT SWITCH FOR CONDENSER. PROVIDE POWER AND CONTROL WIRE TO EVAPORATOR PER MANUFACTURER'S REQUIREMENT. PROVIDE MOTOR RATED 20 AMP TOGGLE STYLE DISCONNECT SWITCH FOR EVAPORATOR
18. PROVIDE 40A/2P RECEPTACLE FOR PORTABLE AIR CONDITIONER. VERIFY TYPE WITH OWNER PRIOR TO ROUGH-IN.
19. RECEPTACLE FOR TEAR & GO SYSTEM EQUIPMENT. COORDINATE ROUGH-IN LOCATION WITH TEAR & GO CONTRACTOR. REFER TO SHEET E2.2 FOR TEAR & GO SYSTEM INFORMATION.
20. PROVIDE RECEPTACLE FOR HONEYWELL UV100E ULTRAVIOLET SYSTEM (MODEL UV100W3007 SURFACE TREATMENT SYSTEM). COORDINATE EXACT LOCATION/MOUNTING HEIGHT PRIOR TO ROUGH IN. MAKE ALL FINAL CONNECTIONS.
21. PROVIDE POWER TO ROOF-MOUNTED EXHAUST FAN. INTEGRAL DISCONNECT SWITCH BY EQUIPMENT MANUFACTURER. INSTALL SPEED CONTROLLER FURNISHED BY MECHANICAL.
22. WATER HEATER CIRCULATION PUMP. PROVIDE TOGGLE STYLE DISCONNECT SWITCH LOCATED NEXT TO PUMP.
23. MOUNT RECEPTACLE IN FIBER/MEDIA ENCLOSURE (BY OTHERS). PROVIDE 1-1/2" CONDUIT WITH PULL STRING FROM ENCLOSURE TO TELECOMM ROOM. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN. ROVIDE SUPPLEMENTARY DRIVEN GROUND ROD.
24. SWITCHED RECEPTACLE AND SWITCH FOR WALL MOUNTED OSCILLATION FAN. PROVIDE A SWITCH AT 48"A.F.F. WIRED TO A SIMPLEX RECEPTACLE MOUNTED ADJACENT TO THE WALL MOUNTED FAN (FAN TO BE MOUNTED AT 7'4" TO THE BOTTOM OF THE LOWEST POINT OF THE FAN.) THIS CONTRACTOR SHALL PROVIDE AND INSTALL A 30" WALL MOUNTED OSCULATING FAN AT HEIGHT SPECIFIED. THE FAN SHALL BE GLOBAL INDUSTRIAL EQUIPMENT FAN MODEL NUMBER 607051, 1/3HP 120V 8100 CFM (HIGH SPEED) OR APPROVED EQUAL.
25. CONTRACTOR SHALL FIELD COORDINATE OUTLET ROUGH-IN LOCATIONS WITH CASEWORK AND ARCHITECTURAL CHASE FOR WIRES TO MAINTAIN ACCESSIBILITY.
26. IN-USE WEATHERPROOF GFI QUAD RECEPTACLE MOUNTED TO EQUIPMENT RACK FOR IRRIGATION CONTROLLER.

N

0' 2'-8" 5'-4" 10'-8"

POWER FLOOR PLAN 3/16" = 1'-0" | A3

NOTES | A1

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POWER
FLOOR PLAN

E3.1

KEYED NOTES

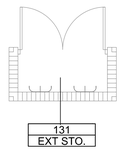
1. SITE CONDUIT ENTRANCE THROUGH FLOOR.
2. ADDRESSABLE MODULE SHALL INTERFACE HOOD SUPPRESSION SYSTEM WITH FIRE ALARM SYSTEM.
3. 3/4" x 8'H x LENGTH OF WALLS SHOWN PLYWOOD NON PRESSURE TREATED BACKBOARD. PROVIDE A/C GRADE PAINTED ALL SIDES AND EDGES WITH FIRE RETARDANT PAINT.
4. SEMI FLUSH FIRE ALARM CONTROL PANEL WITH CELLULAR DIALER. COORDINATE MOUNTING HEIGHTS WITH OWNER PRIOR TO INSTALLATION.
5. SPACE ALLOCATED FOR WEATHERBUG PANEL.
6. PROVIDE J-BOX WITH BLANK COVER PLATE AND 1 1/2" CONDUIT ABOVE CEILING FOR STATION RADIO ANTENNA. PROVIDE PULL STRING.
7. PROVIDE (2) 4" SLEEVES THROUGH CEILING & ELBOW TO ABOVE EMS STORAGE CEILING.
8. PROVIDE ACCESS CONTROL SYSTEM PANEL AT THIS LOCATION.
9. REFER TO ELEVATION FOR WALL MOUNTED COMMUNICATION CABINETS AT THIS LOCATION.
10. LOCATION OF SURVEILLANCE VIDEO MONITOR. PROVIDE SINGLE GANG J-BOX AT 72" AFF WITH GROMMETED FACE PLATE, CABLES, POWER, DATA, AND EQUIPMENT FOR A COMPLETE AND OPERATIONAL SYSTEM. NVR SHALL BE LOCATED IN DATA ROOM RACK. COORDINATE WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
11. CONTRACTOR SHALL FIELD COORDINATE OUTLET ROUGH-IN LOCATIONS WITH CASEWORK AND WIRE MANAGEMENT TROUGH DETAIL TO MAINTAIN ACCESSIBILITY.
12. LOCATION OF SURVEILLANCE VIDEO MONITOR IN THIS ROOM. PROVIDE SINGLE GANG J-BOX AT 60" AFF WITH GROMMETED FACE PLATE, CABLES, POWER, AND EQUIPMENT FOR A COMPLETE AND OPERATIONAL SYSTEM. NVR SHALL BE LOCATED IN DATA ROOM RACK.
13. WIRELESS ACCESS POINT.
14. EMPTY 2x4 J-BOX W/ BLANK COVER FOR GPS ANTENNA. COORDINATE LOCATION WITH COUNTY VENDOR PRIOR TO ROUGH-IN. EXTEND 1-3/4" CONDUIT TO ROOF MOUNTED WEATHERHEAD.
15. MOUNT ADJACENT TO ACCESS CONTROL PANEL. COORDINATE LOCATION WITH ACCESS CONTROL CONTRACTOR PRIOR TO ROUGH-IN.
16. FOR DDC CONTROLS. FINAL LOCATION SHALL BE COORDINATED WITH MECHANICAL CONTRACTOR.
17. PROVIDE 3/4"C TO ABOVE ACCESSIBLE CEILING. REFER TO DETAILS.
18. PROVIDE ROOF PENETRATION AT HIGHEST POINT OF APPARATUS BAY ROOF. COORDINATE ROOF PENETRATION LOCATION WITH COUNTY VENDOR AND ARCHITECT. CONDUIT SHALL PENETRATE ROOF WITH 3" STUB-UP CAPPED WITH WEATHERHEAD. PROVIDE GROUNDING TO ROOF GROUNDING PROTECTION SYSTEM.
19. ADDRESSABLE RELAY SHALL INTERFACE AUTOMATIC SHUTOFF, GAS VALVE WITH FIRE ALARM SYSTEM.
20. PROVIDE (2) 4" SLEEVES FROM EACH CABINET TO 6" ABOVE ACCESSIBLE CEILING.
21. REFER TO DETAILS AND LEGEND FOR ROUGH-IN AND SPECIFICATIONS.
22. PROVIDE DATA OUTLET MOUNTED AT CELLULAR REPEATER AMPLIFIER. COORDINATE LOCATION WITH CELLULAR REPEATER EQUIPMENT VENDOR PRIOR TO ROUGH-IN. EXTEND 2" CONDUIT TO ROOF MOUNTED WEATHERHEAD.
23. WEATHERBUG DISPLAY MOUNTED 60" AFF.
24. WEATHERBUG CONTROLLER. REFER TO SITE PLAN FOR CONDUIT REQUIREMENTS.

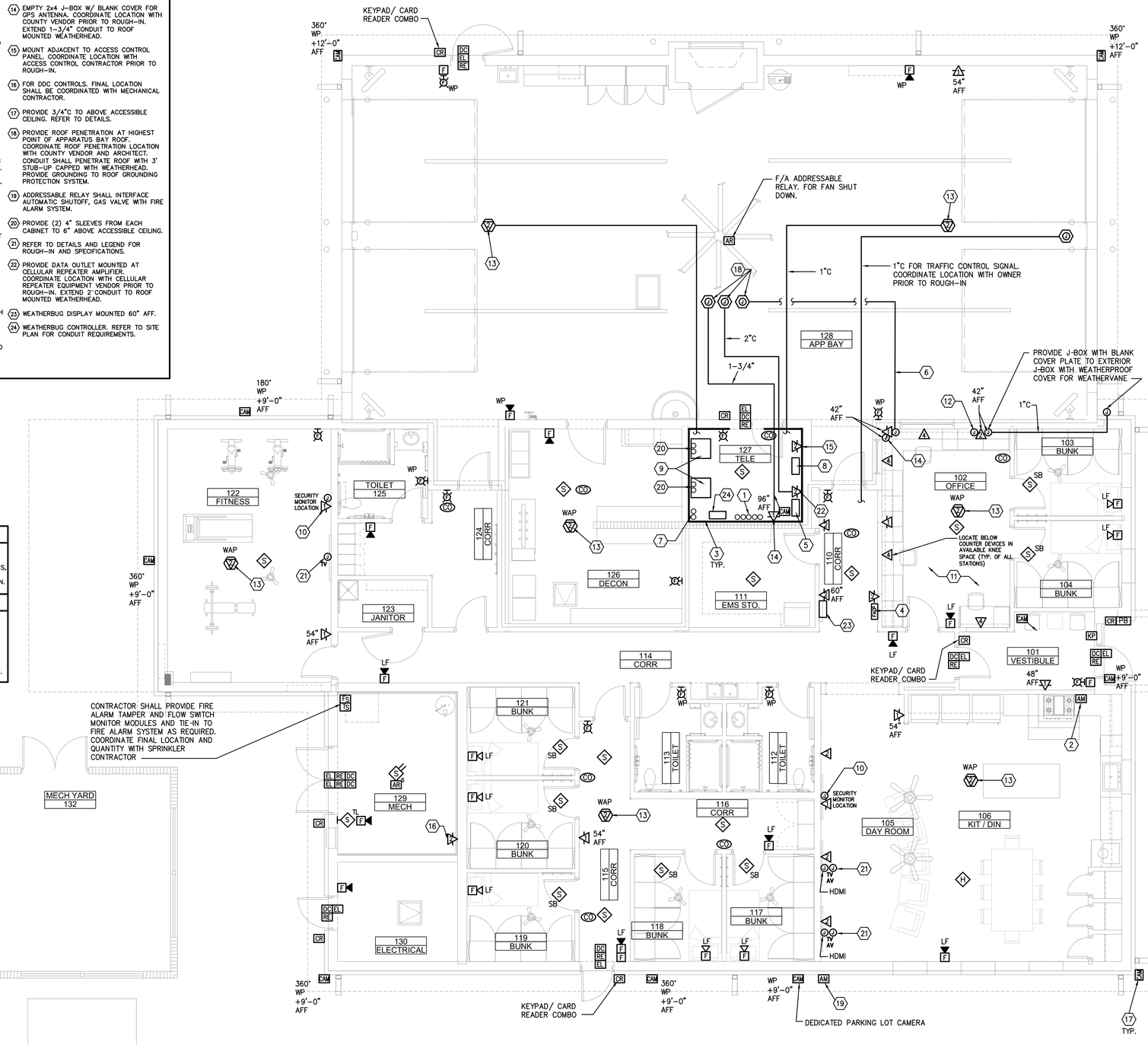
SECURITY CAMERA NOTE

ALL WALL MOUNTED INTERIOR AND EXTERIOR CAMERA LOCATIONS AND HEIGHTS SHOWN FOR REFERENCE ONLY. COORDINATE FINAL LOCATIONS, MOUNTING HEIGHTS WITH OWNERS' SECURITY INTEGRATOR/ CONTRACTOR PRIOR TO ROUGH-IN.

FIRE ALARM NOTES

FIRE ALARM CONTRACTOR SHALL PROVIDE FIRE ALARM ADDRESSABLE RELAY FOR EGRESS/ EMERGENCY LIGHTING CONTROLS. UPON FIRE ALARM ACTIVATION EGRESS/ EMERGENCY LIGHTING SHALL BE ACTIVATED AS PER NFPA 101 7.8.1.2.2. (5). COORDINATE LOCATION AND ALL REQUIREMENTS FOR FULLY FUNCTIONAL SYSTEM WITH LIGHTING CONTROLS CONTRACTOR.





GENERAL NOTES

1. ALL CONDUIT TO BE CONCEALED/ RECESSED, ALL 'J' BOXES TO BE FLUSH MOUNTED AND DEEP STYLE FOR FLUSH INSTALLATION OF DEVICES. UNLESS NOTED OTHERWISE.
2. ALL LOW VOLTAGE (DATA, PAGING, SECURITY, FIRE ALARM ETC.) CABLES AT EXPOSED CEILING AND ABOVE HARD CEILINGS SHALL BE IN CONDUIT FROM DEVICE LOCATION TO 6" ABOVE ACCESSIBLE CEILING OR TERMINATION LOCATION. CONDUITS SHALL BE SIZED AS REQUIRED. U.O.N..
3. THIS CONTRACTOR SHALL COORDINATE EXACT TELEPHONE REQUIREMENTS W/OWNER. PROVIDE ALL CONDUITS AND BOXES AS REQUIRED FOR OPERATION AS SPECIFIED BY OWNER. COORDINATE ANY REQUIREMENTS WITH OWNER-SELECTED VENDOR.
4. COORDINATE TELEVISION REQUIREMENTS WITH OWNER. PROVIDE ALL RACEWAYS AS REQUIRED FOR TV SYSTEM OPERATION PER OWNER'S SPECIFICATIONS.
5. ENTIRE BUILDING SHALL BE FIRE SPRINKLED. SEE FIRE PROTECTION DRAWINGS FOR FURTHER DETAILS.
6. FLOW AND TAMPER SWITCH SHALL NOTIFY FACP UPON ACTIVATION. PROVIDE ALL COMPONENTS FOR PROPER FIRE ALARM SYSTEM INSTALLATION AND OPERATION. PROVIDE SYSTEM PER NFPA 72. ALL FIRE ALARM SYSTEMS WIRING SHALL BE IN ENHANCED CONDUITS. PAINT JUNCTION BOX COVERS RED.
7. WORK DESCRIBED IN THESE DOCUMENTS AS BEING PERFORMED BY OWNER'S VENDOR SHALL BE COORDINATED BY THIS CONTRACTOR.
8. ROUTE ALL ELECTRICAL SYSTEMS CABLING ABOVE CEILING ON CAT-6 COMPATIBLE 'J' HOOKS AT 60" O.C. MAXIMUM.
9. NO JUNCTION BOX MOUNTED ABOVE CEILING SHALL BE HIGHER THAN 60" ABOVE CEILING.
10. TELEPHONE, DATA, TV CABLING AND TERMINATIONS BY OTHERS. REFER TO LOW VOLTAGE SCOPE OF WORK NOTES THIS SHEET.
11. ACCESS CONTROL DOOR FRAMES SHALL BE MODIFIED AS NECESSARY TO RECEIVE INDICATED DEVICES.
12. ALL ELECTRICALLY HELD (ACCESS CONTROLLED) DOORS SHALL RELEASE UPON FIRE ALARM ACTIVATION AS PER NFPA 101 7.2.1.5.6, 7.2.1.6.2 & FBC 1010.1.9.9. PROVIDE FIRE ALARM INTERFACE RELAY. (RELAYS, CABLING, PROGRAMMING ETC. FOR EACH DOOR).

LOW VOLTAGE SCOPE OF WORK

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ACCESS CONTROL, SURVEILLANCE RACEWAYS ONLY. COUNTY INSTALLER WILL BE RESPONSIBLE FOR THE INSTALLATION OF ACCESS CONTROL/ SURVEILLANCE, EQUIPMENT, DEVICES AND CABLING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ENTIRE FIRE ALARM SYSTEM AS SPECIFIED ON DRAWINGS AND SPECIFICATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL LOW VOLTAGE SYSTEM RACEWAYS FOR TELEPHONE/DATA, CELLULAR REPEATER, WEATHERBUG AND TV DISTRIBUTION.
4. LOW VOLTAGE SYSTEM RACEWAYS INCLUDE CONDUITS, JUNCTION BOXES, SUPPORTS, ETC. ALL RACEWAYS SHALL BE PROVIDED WITH A PULL STRING.
5. COUNTY INSTALLER SHALL FURNISH AND INSTALL DATA, SECURITY, AND FIRE STATION ALERTING SYSTEM CABINETS. CONTRACTOR SHALL FURNISH & INSTALL FACTORY FINISHED BACKBOARDS IN THE TELECOM ROOM AND PROVIDE SUPPORT TO COUNTY VENDOR DURING CABINET INSTALLATION AS REQUIRED.
6. COUNTY INSTALLER SHALL BE RESPONSIBLE FOR COORDINATING THE TELECOM ROOM LAYOUT, INCLUDING BUT NOT LIMITED TO DATA, SECURITY, AND FIRE STATION ALERTING SYSTEMS. CONTRACTOR SHALL PROVIDE SUPPORT TO COUNTY VENDOR AS REQUIRED
7. COUNTY INSTALLER WILL BE RESPONSIBLE FOR CELLULAR REPEATER SYSTEM AND WEATHERBUG SYSTEM EQUIPMENT WITH CABLING. ALSO CABLING INSTALLATION OF TELEPHONE/DATA CABLING, FIBER OPTIC CABLING, FIBER/COPPER MEDIA CONVERTERS, TELECOMMUNICATION'S GROUNDING, TELECOMMUNICATIONS FIELD INSTALLATION AND CROSS CONNECTS, AND HANDSETS.

0' 2'-8" 5'-4" 10'-8"
ELECTRICAL SYSTEMS FLOOR PLAN
3/16" = 1'-0"

A3 | NOTES | A1

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HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
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90% CD	08.30.2024
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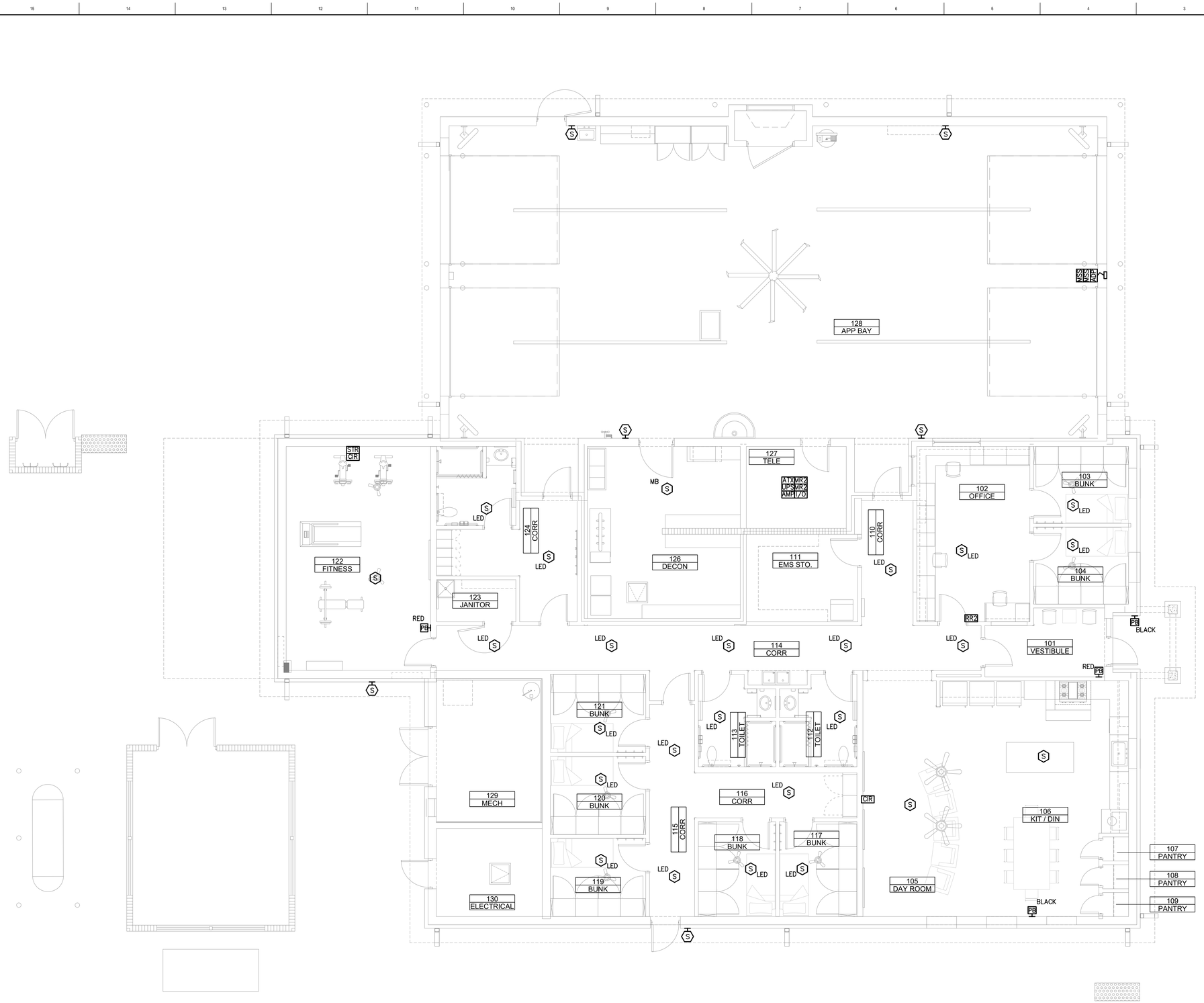
ELECTRICAL SYSTEMS FLOOR PLAN

E4.1



GENERAL NOTES

1. THIS PAGE IS REPRESENTATIONAL OF THE WORK THAT IS INCLUDED IN THE ALLOWANCE FOR THE 911(FIRE STATION ALERTING) SYSTEM. THE CONSTRUCTION MANAGER WILL BE REQUIRED TO EMPLOY THE FIRE STATION ALERTING SYSTEM MANUFACTURER'S AUTHORIZED SUB-CONTRACTOR, WHO WILL PROVIDE THIS EQUIPMENT, AND THE INSTALLATION, USING THE FUNDS IN THE ALLOWANCE.
2. FIRE STATION ALERTING SYSTEM CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING, DEVICES, FIXTURES, EQUIPMENT AND MOUNTING HARDWARE FOR A COMPLETE AND OPERATIONAL SYSTEM, UNLESS OTHERWISE NOTED.
3. TO FACILITATE CONSTRUCTION, ELECTRICAL CONTRACTOR SHALL PROVIDE ALL RACEWAYS FOR THE FIRE STATION ALERTING SYSTEM. COORDINATE ALL REQUIREMENTS WITH FIRE STATION ALERTING SYSTEM INSTALLER.

FIRE STATION ALERTING SYSTEM MINIMUM CONDUIT REQUIREMENTS

1. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL RACEWAYS FOR FIRE STATION ALERTING SYSTEM. COORDINATE ALL REQUIREMENTS WITH FIRE STATION ALERTING SYSTEM INSTALLER.
2. ALL WALL MOUNTED DEVICE STUB-UP'S SHALL BE 1" CONDUIT MINIMUM TO 6" ABOVE ACCESSIBLE CEILING. WITH PULL STRING.
3. ALL POWER CIRCUITING SHALL BE RAN IN A MINIMUM OF 3/4" CONDUIT, #12 CU CONDUCTORS HOMERUN TO PANEL/CIRCUIT SHOWN. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS WITH EQUIPMENT INSTALLER.

N

0' 2'-8" 5'-4" 10'-8"

ALERTING SYSTEM FLOOR PLAN
3/16" = 1'-0"

A3

NOTES A1

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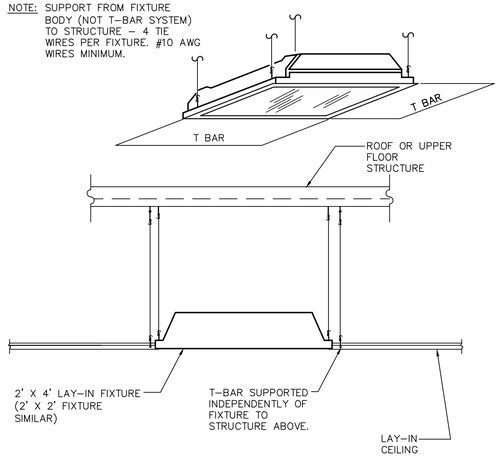
ALERTING SYSTEM
FLOOR PLAN

E4.2



2' X 2' RECESSED LAY-IN FIXTURE DETAIL

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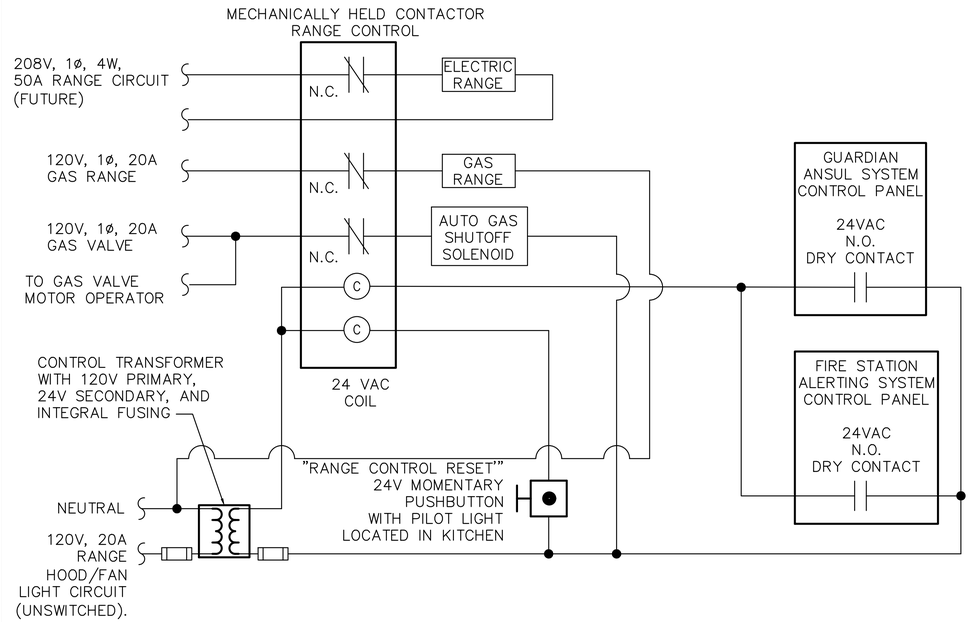
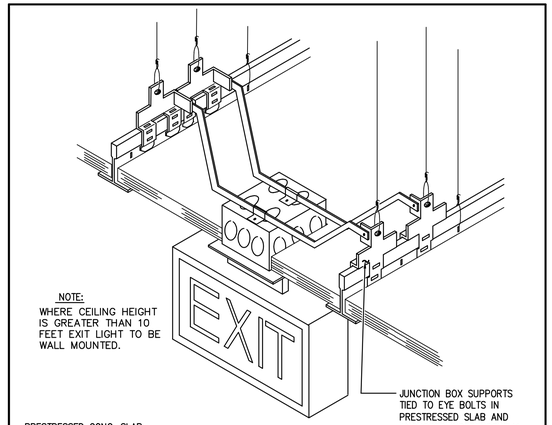


NOTES:

1. PROVIDE CONTROLS TO AUTOMATICALLY SHUT-OFF POWER AND GAS SERVICE TO THE RANGE UPON ACTIVATION OF EITHER THE KITCHEN HOOD ANSUL SYSTEM OR THE TEAR-N-GO SYSTEM. POWER AND GAS SERVICE SHALL BE AUTOMATICALLY RESTORED UPON DEPRESSING THE MOMENTARY PUSHBUUTON LOCATED IN THE KITCHEN. RESETTING THE HOOD ANSUL SYSTEM AFTER A SYSTEM DISCHARGE SHALL BE PERFORMED BY A CERTIFIED, SYSTEM INSTALLER (AS REQUIRED).
2. PROVIDE PHENOLIC SIGNAGE AT PUSHBUTTON READING "RANGE CONTROL RESET. PUSH TO RESTORE ELECTRIC AND GAS SERVICE TO RANGE."
3. PROVIDE ALL OF THE COMPONENTS SHOWN AND ANY ADDITIONAL COMPONENTS REQUIRED FOR A COMPLETE FUNCTIONAL SYSTEM. COORDINATE CONTROL VOLTAGE FOR RELAYS, VALVES, ETC.
4. ALL CONTROL DEVICES SHALL BE MOUNTED IN NEMA-1 ENCLOSURES IN TELECOM ROOM UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE #12 CU. RUN IN DEDICATED CONDUIT. PROVIDE AN EQUIPMENT GROUND FOR EACH CIRCUIT AND GROUND ALL ENCLOSURES.

RANGE CONTROLS

NO SCALE



SURFACE MOUNTED FIXTURE ON LAY-IN CEILING

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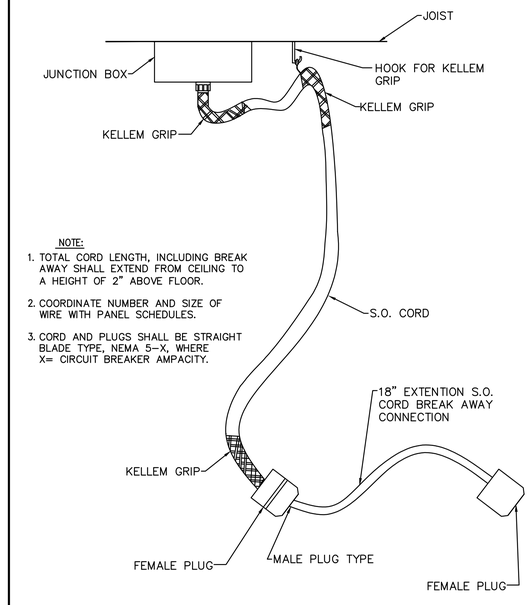
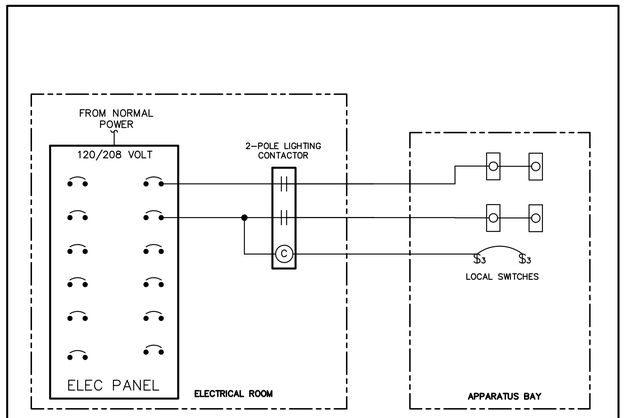


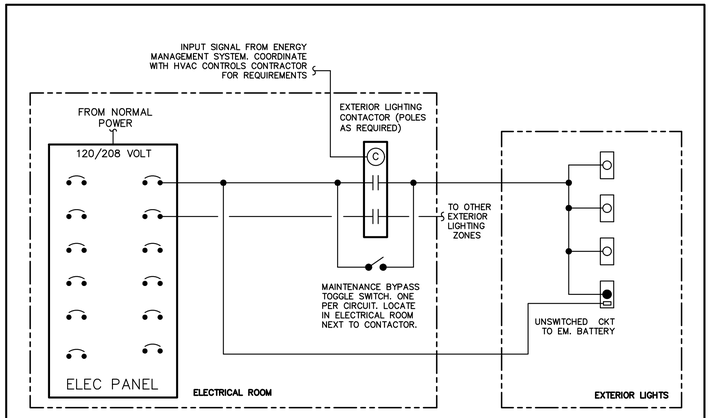
POWER DROP DETAIL

NO SCALE



APPARATUS BAY LIGHTING CONTROL DETAIL

NO SCALE



EXTERIOR LIGHTING CONTROL DETAIL

NO SCALE

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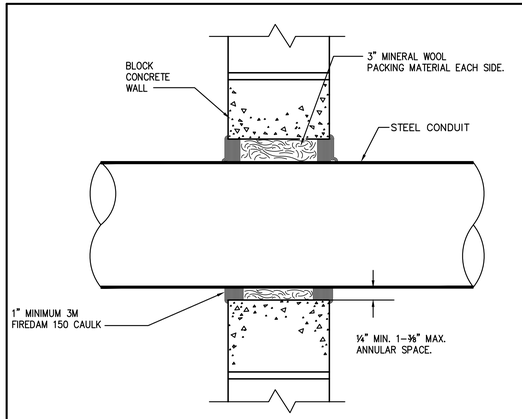
ELECTRICAL DETAILS

E5.1



NOTES:

1. MINIMUM ANNULAR SPACE REQUIREMENT IS 1/4". MAXIMUM ANNULAR SPACE ALLOWABLE IS 1 IN.
2. INSTALL THE FIRESTOP SYMMETRICALLY ON BOTH SIDES OF THE WALL ASSEMBLY.
3. RECESS A NOMINAL 3 IN. THICKNESS OF 4 PCF MINERAL WOOL SAFING 1/2" FOR THE SURFACE OF THE FLOOR.
4. FILL THE ANNULAR SPACE AROUND THE PIPE WITH MINIMUM 1/2" DEPTH OF 3M FIREDAM 150.

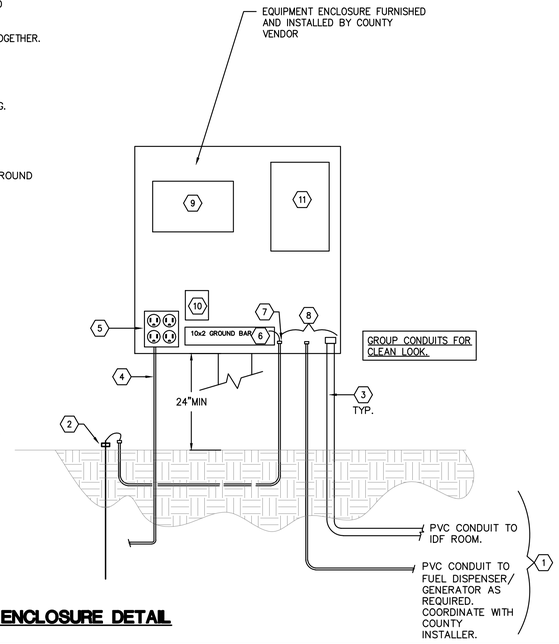
U.L. SYSTEM #161

PENETRATION DETAIL FOR 6" MAX. DIA. CONDUIT

NO SCALE

KEYED NOTES THIS DETAIL:

1. REFER TO SYSTEMS SITE PLAN FOR CONDUIT SIZES, QUANTITIES AND ROUTING.
2. INSTALL (2) 5/8"x10'–0" COPPER CLAD GROUND RODS, COUPLED TOGETHER. PROVIDE #6 GROUNDING CONDUCTOR.
3. ALL EXPOSED CONDUIT SHALL BE RIGID.
4. PROVIDE POWER CONDUIT FOR ELECTRICAL COMPONENTS. REFER TO ELECTRICAL DRAWINGS FOR CONDUIT, CONDUCTOR SIZE AND ROUTING.
5. PROVIDE (1) QUAD SURFACE MOUNTED RECEPTACLE.
6. 2x10 PROVIDE COPPER GROUND BAR KIT.
7. PROVIDE 3/4" CONDUIT STUB AND #6 STR. CU. GRD. WIRE TO GROUND BAR AND FIXTURE.
8. INSTALL BUSHING ON ALL CONDUITS.
9. SPACE ALLOTTED FOR MEDIA CONVERTER SWITCH
10. SPACE ALLOTTED FOR SURGE SUPPRESSOR.
11. SPACE ALLOTTED FOR FIBER TERMINATION PANEL.

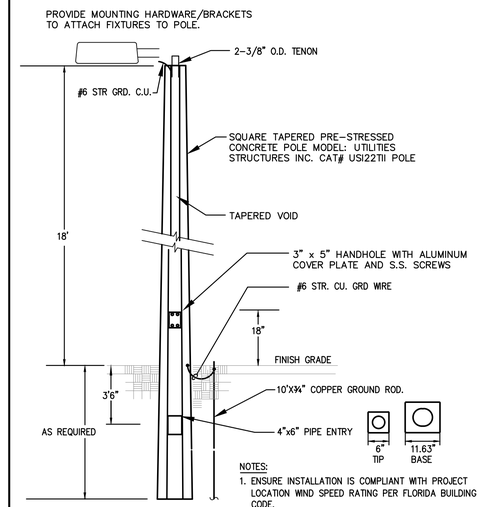


NOTES:

1. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
2. CONTRACTOR SHALL COORDINATE RECEPTACLE, GROUNDING, AND CONDUIT INSTALLATION WITH COUNTY VENDOR PRIOR TO COMMENCING WORK.

GENERATOR FIBER OPTIC CONVERTER ENCLOSURE DETAIL

NO SCALE

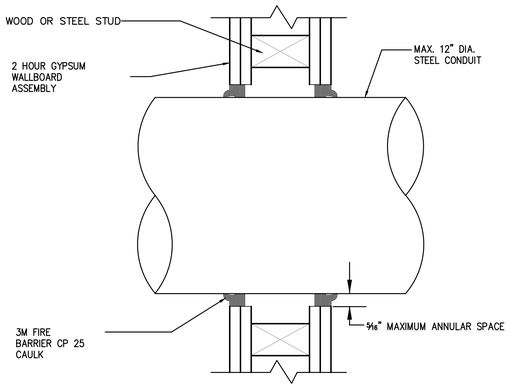


NOTES:

1. ENSURE INSTALLATION IS COMPLIANT WITH PROJECT LOCATION WIND SPEED RATING PER FLORIDA BUILDING CODE.
2. CONCRETE = 6500 PSI
3. PROVIDE INDIVIDUAL FUSING FOR EACH FIXTURE ACCESSIBLE THROUGH HANDHOLE.
4. MAKE SPLICE IN HAND HOLE. UNDERGROUND SPLICE CONNECTIONS NOT ALLOWED.
5. NO GROUND PULL BOXES ALLOWED.

POLE SECTION AT FLUSH WITH GRADE

NO SCALE



NOTES:

1. INSTALL THE FIRESTOP SYMMETRICALLY ON BOTH SIDES OF THE WALL ASSEMBLY.
2. ANNULAR SPACE REQUIREMENTS:

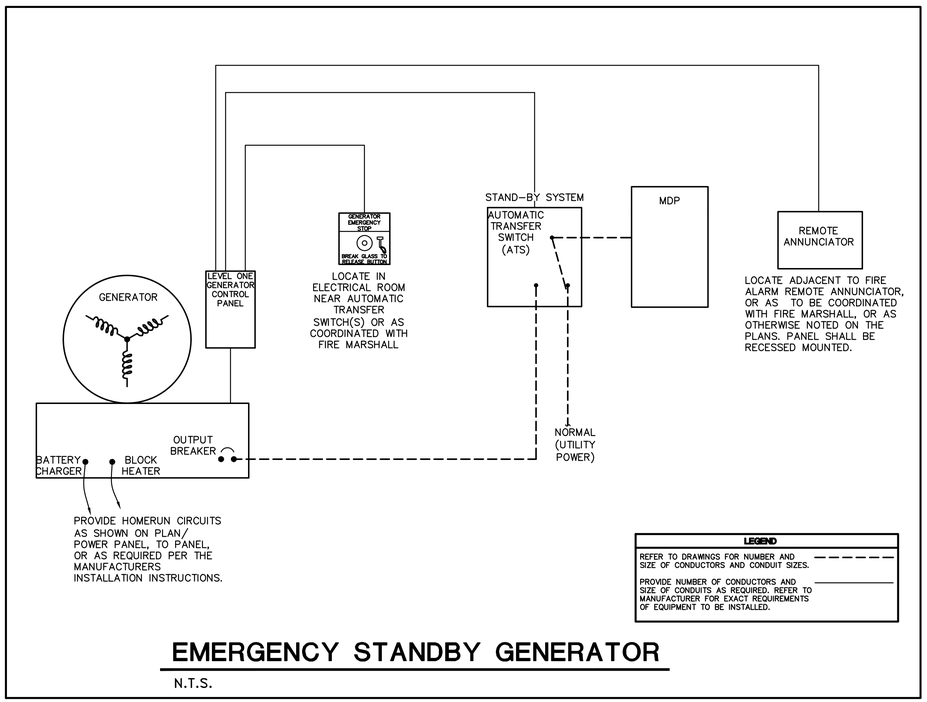
MAXIMUM CONDUIT DIAMETER	ANNULAR SPACE
1 INCH	0 – 3/16 IN.
4 INCH	0 – 1/4 IN.
12 INCH	3/16 – 5/16 IN.

3. 3M FIRE BARRIER CP 25N/S CAULK IS TO BE FORCED INTO THE ANNULAR SPACE TO THE MAXIMUM EXTENT POSSIBLE WITH A MINIMUM 1/4" DIAMETER BEAD OF CP 25N/S CAULK APPLIED TO THE PERIMETER OF THE CONDUIT AT ITS EGRESS FROM THE WALL.

U.L. SYSTEM #1479

PENETRATION FIRESTOP FOR 12" MAX. DIA. METAL CONDUIT THROUGH A GYPSUM WALLBOARD ASSEMBLY

NO SCALE



EMERGENCY STANDBY GENERATOR

N.T.S.

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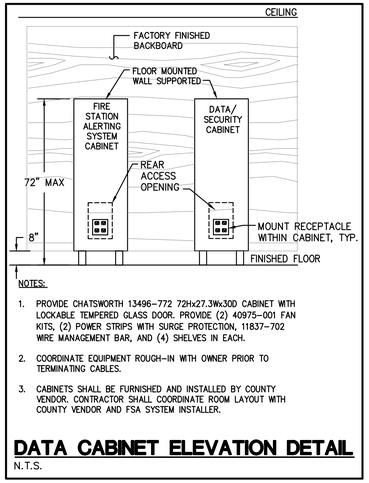
ELECTRICAL DETAILS

E5.2



NOTES:

1. PROVIDE CHATSWORTH 13496-772 72Hx27.3Wx30D CABINET WITH LOCKABLE TEMPERED GLASS DOOR. PROVIDE (2) 40975-001 FAN KITS, (2) POWER STRIPS WITH SURGE PROTECTION, 11837-702 WIRE MANAGEMENT BAR, AND (4) SHELVES IN EACH.
2. COORDINATE EQUIPMENT ROUGH-IN WITH OWNER PRIOR TO TERMINATING CABLES.
3. CABINETS SHALL BE FURNISHED AND INSTALLED BY COUNTY VENDOR. CONTRACTOR SHALL COORDINATE ROOM LAYOUT WITH COUNTY VENDOR AND FSA SYSTEM INSTALLER.

DATA CABINET ELEVATION DETAIL

N.T.S.

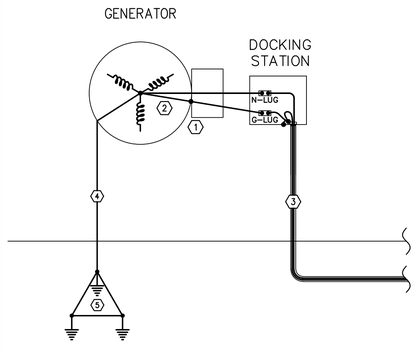
GENERAL NOTES

1. ALL GROUNDING ELECTRODE CONDUCTORS/GROUNDING CONDUCTORS INSTALLED UNDERGROUND/IN-SLAB SHALL BE IN PVC CONDUIT.
2. REFERENCE NEC 250.52 (B) AND 250.104(B) FOR BONDING METAL GAS PIPING. GAS PIPING TO BE GROUNDED WITH A GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122 OR A MINIMUM OF #6 AWG COPPER.
3. REFERENCE NEC 250.104(B) FOR BONDING ALL INTERIOR METAL PIPING AND AIR DUCTS. GROUND ALL SAME INTERIOR PIPING/DUCTS.
4. REFERENCE NEC 250.52(A)(4) FOR A GROUND RING ENCIRCLING THE BUILDING OR STRUCTURE, IF INSTALLED. GROUNDING CONDUCTOR SHALL NOT BE LESS THAN 2.5' BELOW THE EARTH'S SURFACE, CONSISTING OF AT LEAST 20' OF BARE COPPER, NOT SMALLER THAN #2 AWG.
5. REFERENCE NEC 250.106 AND NFPA 780 FOR LIGHTNING PROTECTION SYSTEMS, IF INSTALLED. LIGHTNING PROTECTION SYSTEM GROUND TERMINAL SHALL BE BONDED TO THE BUILDING OR STRUCTURE GROUND BUS.
6. ALL FLOOR-MOUNTED SWITCHBOARDS, PANELBOARDS AND TRANSFORMERS ARE TO BE INSTALLED ON 4" CONCRETE HOUSEKEEPING PADS.
7. ALL TVSS DEVICES SHALL BE PROVIDED AND INSTALLED PER DIVISION 16600 AND PER MANUFACTURERS STANDARDS. FOR CLARITY ONLY BONDING, GROUNDING AND NEUTRAL CONDUCTORS/CONNECTIONS ARE SHOWN.
8. EQUIPMENT LOCATIONS SHOWN FOR REFERENCE ONLY. FIELD COORDINATE EXACT LOCATIONS.
9. ALL COPPER GROUNDING ELECTRODES CONDUCTORS SHALL BE IDENTIFIED EVERY 4' WITH GREEN TAPE IF INSULATED AND EXPOSED.
10. REFERENCE NEC 250.58 COMMON GROUNDING ELECTRODE - WHERE SEPARATE SERVICES SUPPLY A BUILDING, THEY SHALL BE PROVIDED WITH A COMMON GROUNDING ELECTRODE.
11. ALL NATIONAL ELECTRICAL CODE ARTICLE NUMBERS ARE BASED ON THE 2020 N.E.C.
12. EACH CONDUCTOR SHALL BE PERMANENTLY IDENTIFIED AT GROUND BUS AS TO EQUIPMENT SERVED.

EMERGENCY GENERATOR

KEYED NOTES

1. TERMINAL BUS FOR GROUNDING ELECTRODE TO GENERATOR SET. GENERATOR SET/SYSTEM GROUNDED CONDUCTOR (NEUTRAL) TO BE BONDED TO GROUNDING ELECTRODE CONDUCTOR/SYSTEM ONLY AT GENERATOR SET.
2. BONDING JUMPER SIZED PER TABLE 250.30(A)(1).
3. EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED PER 250.122 AND TERMINATED AT GROUND BUSS.
4. GROUNDING ELECTRODE CONDUCTOR SIZED PER TABLE 250.66 BASED ON SECONDARY FEEDER CONDUCTORS.
5. THREE COPPER GROUND RODS, 5/8" BY 20' LONG, SPACED A MINIMUM OF 10' APART. GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDS. PROVIDE 6" PVC SLEEVE WITH THREADED CAP INSTALLED FLUSHED GRADE FOR ACCESS FOR SERVICE AND/OR INSPECTION.



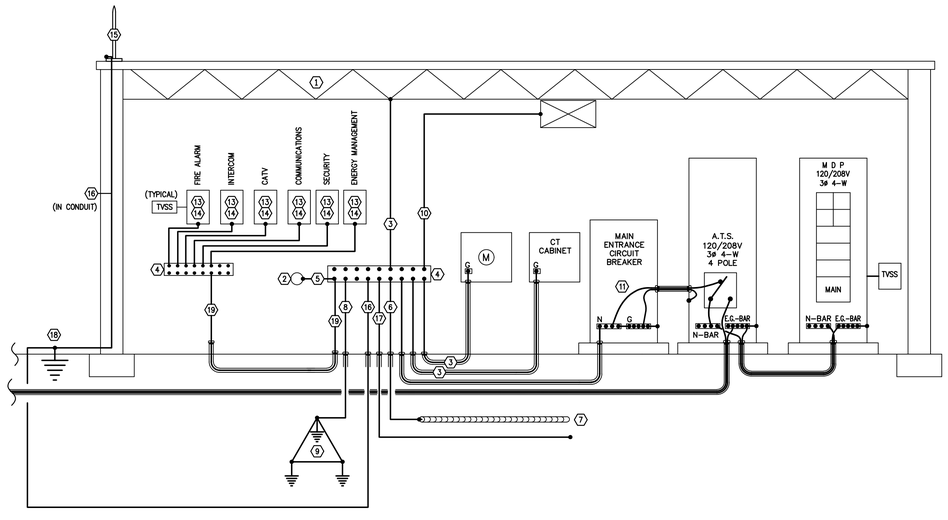
MAIN ELECTRICAL SERVICE

KEYED NOTES

1. STRUCTURAL BUILDING STEEL, WHERE APPLICABLE. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. BOND MAIN METAL PLUMBING PIPING WITHIN 5' OF ENTERING BUILDING. IF UNDERGROUND PLUMBING PIPING IS PVC, GROUND METAL PLUMBING WITHIN BUILDING AT CLOSEST ACCESSIBLE POINT.
3. GROUNDING ELECTRODE CONDUCTOR SIZED PER TABLE 250.66.
4. GROUND BUS - 4" WIDE X 18" LONG MINIMUM X 1/4" THICK SOLID COPPER TERMINAL BUS MOUNTED ON INSULATORS OFF WALL.
5. MINIMUM #4 COPPER GROUNDING ELECTRODE CONDUCTOR.
6. MAIN GROUNDING ELECTRODE CONDUCTOR 20' BARE COPPER IN EARTH, BURIED 24" DEEP, SIZED PER TABLE 250.66. INSURE CONDUCTOR IS BURIED OUTSIDE OF BUILDING PAD AND NOT INSTALLED UNDER SLAB OR FOOTER.
7. FOOTER STEEL IN GROUND. GROUND CONNECTIONS TO BE EXOTHERMIC WELDS TO A MIN. 1/2" THICK BY 20' LONG REBAR.
8. GROUNDING ELECTRODE CONDUCTOR SIZED PER TABLE 250.66 BASED ON SECONDARY FEEDER CONDUCTORS.
9. THREE COPPER GROUND RODS, 5/8" BY 20' LONG, SPACED A MINIMUM OF 10' APART. GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDS. PROVIDE 6" PVC SLEEVE WITH THREADED CAP INSTALLED FLUSH WITH FINISHED GRADE FOR ACCESS FOR SERVICE AND/OR INSPECTION.
10. METAL HVAC DUCTWORK SHALL BE BONDED AS PER 250.104 (B) WITHIN THE MECHANICAL ROOM IN WHICH THEY ORIGINATE WITH A MINIMUM #6 AWG COPPER.
11. NEUTRAL (GROUNDED CONDUCTOR) TO BE BONDED ONLY AT SERVICE MAIN. ALL OTHER BUILDING MAIN NEUTRALS ARE NOT TO BE BONDED (FLOATING).

KEYED NOTES (CONT.)

12. NEUTRAL (GROUNDED CONDUCTOR) SHALL NOT BE BONDED AT SECONDARY PANELBOARDS (FLOAT IF APPLICABLE).
13. ALL ENCLOSURES/CONTROL CABINETS FOR SYSTEMS PER DETAIL SHALL BE GROUNDED WITH A MINUMUM #4 COPPER GROUNDING CONDUCTOR TO MAIN GROUNDING ELECTRODE BUSSBAR.
14. INSTALL A GROUND BAR KIT CAPABLE OF TERMINATING ALL EQUIPMENT GROUNDING CONDUCTORS ENTERING THE ENCLOSURE.
15. LIGHTNING PROTECTION SYSTEM AIR TERMINAL(S). (SEE GENERAL NOTE #5)
16. IF PROVIDED, LIGHTNING PROTECTION SYSTEM GROUND TERMINALS SHALL BE BONDED TO MAIN BUILDING GROUNDING ELECTRICAL SYSTEM/BUSS.
17. GROUND RING. (SEE GENERAL NOTE #4)
18. MADE ELECTRODES INSTALLED AS NECESSARY PER MANUFACTURERS REQUIREMENTS. GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDS. PROVIDE 6" PVC SLEEVE WITH THREADED CAP INSTALLED FLUSH WITH FINISHED GRADE FOR ACCESS FOR SERVICE AND/OR INSPECTION.
19. PROVIDE #1/0 COPPER GROUNDING ELECTRODE CONDUCTOR FROM MAIN GROUND BUS TO TELECOM GROUND BUS.



GROUNDING DETAIL

NO SCALE

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WILDERARCHITECTURE, INC.

STANLEY P. NEWTON LICENSE No. 35071 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Stanley P. Newton, P.E.
Lic. No. PE35071

Engineering Matrix
2860 Scherer Drive, Suite 640
St. Petersburg, FL 33716
Email@EngineeringMatrix.com (727) 314-4656
Cert of Authorization No. 4288

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EMI Job No. 23-0140 Drawn By: EM Checked By: JBW

HILLSBOROUGH COUNTYBOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

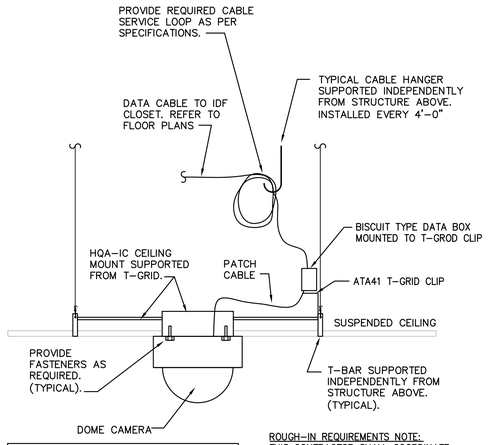
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

ELECTRICAL DETAILS

E5.3

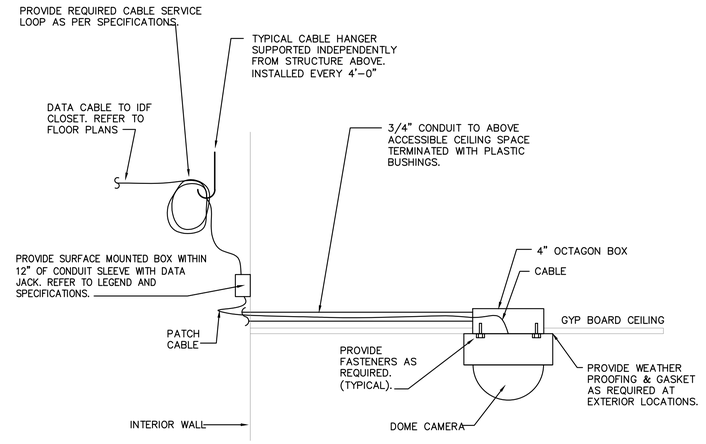


NOTE:
1. ADJUST CAMERA FIELD OF VIEW AS PER OWNER'S REQUIREMENT.
2. PATCH CORDS ARE OWNER PROVIDED CONTRACTOR INSTALLED.

ROUGH-IN REQUIREMENTS NOTE:
THIS CONTRACTOR SHALL COORDINATE LOCATION AND J-BOX REQUIREMENTS WITH CCTV SECURITY INTEGRATOR/ CONTRACTOR PRIOR TO ROUGH-IN. DETAILS SHOWN HEREIN DEPICT TYPICAL INSTALLATION.

TYPICAL DOME CAMERA SUSPENDED CEILING INSTALLATION DETAIL.

NO SCALE

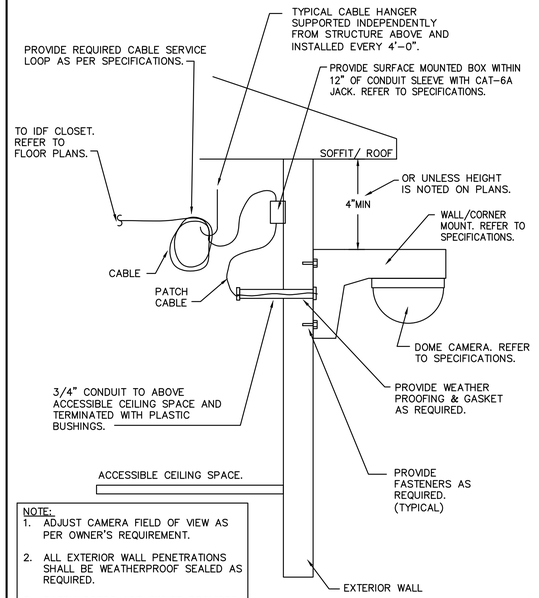


NOTE:
1. ADJUST CAMERA FIELD OF VIEW AS PER OWNER'S REQUIREMENT.
2. ALL EXTERIOR WALL PENETRATIONS SHALL BE WEATHERPROOF SEALED AS REQUIRED.
3. PATCH CORDS ARE OWNER PROVIDED CONTRACTOR INSTALLED.

ROUGH-IN REQUIREMENTS NOTE:
THIS CONTRACTOR SHALL COORDINATE LOCATION AND J-BOX REQUIREMENTS WITH CCTV SECURITY INTEGRATOR/ CONTRACTOR PRIOR TO ROUGH-IN. DETAILS SHOWN HEREIN DEPICT TYPICAL INSTALLATION.

TYPICAL DOME CAMERA GYP BOARD CEILING INSTALLATION DETAIL.

NO SCALE



NOTE:
1. ADJUST CAMERA FIELD OF VIEW AS PER OWNER'S REQUIREMENT.
2. ALL EXTERIOR WALL PENETRATIONS SHALL BE WEATHERPROOF SEALED AS REQUIRED.
3. PATCH CORDS ARE OWNER PROVIDED, CONTRACTOR INSTALLED.

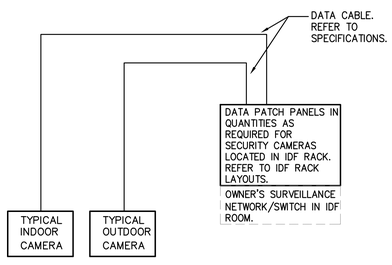
ROUGH-IN REQUIREMENTS NOTE:
THIS CONTRACTOR SHALL COORDINATE LOCATION AND J-BOX REQUIREMENTS WITH CCTV SECURITY INTEGRATOR/ CONTRACTOR PRIOR TO ROUGH-IN. DETAILS SHOWN HEREIN DEPICT TYPICAL INSTALLATION.

TYPICAL EXTERIOR WALL MOUNTED CAMERA. EXTERIOR CONCRETE OR BLOCK WALL INSTALLATION DETAIL.

NO SCALE

TYPICAL CABLE HANGER DETAIL

NO SCALE

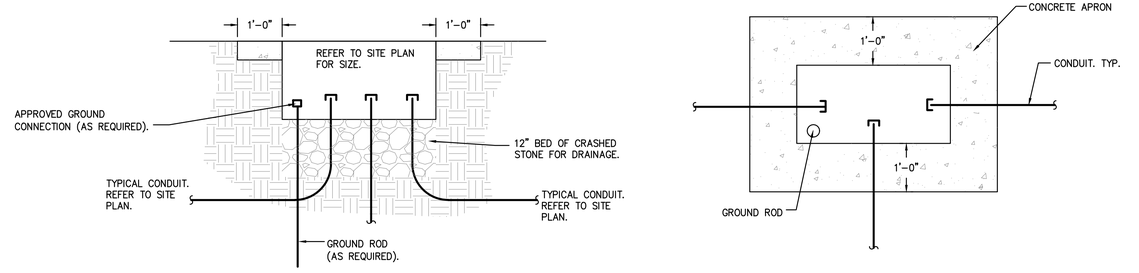


GENERAL NOTE:

1. PROVIDE TERMINAL CABINET WITH SURGE SUPPRESSOR FOR ALL SECURITY CAMERA CABLES SERVING EXTERIOR DEVICES BY DITEK DTK-WM4NETS COORDINATE WITH SECURITY CAMERA MANUFACTURER FOR EACH DEVICE.

SURVEILLANCE INTERCONNECT DIAGRAM

N.T.S.



PLAN VEW

TOP VIEW

TYPICAL COMMUNICATION GROUND PULL BOX. (REFER TO SITE PLAN).

NOT TO SCALE

1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

TELEPHONE 813.242.6677
FACSIMILE 813.242.6683

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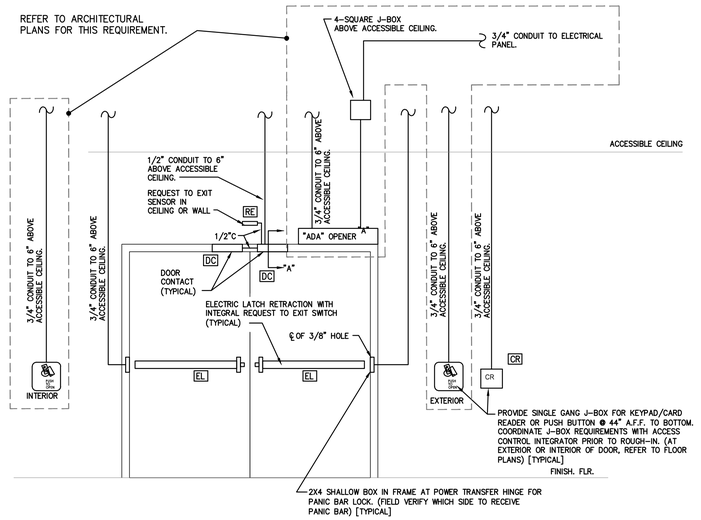
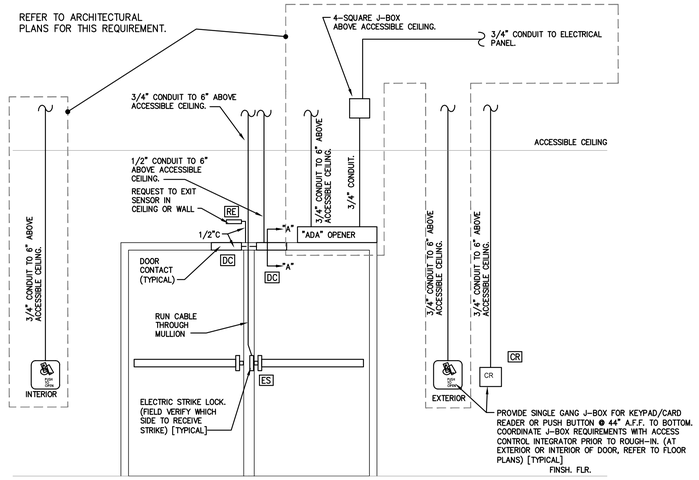
ELECTRICAL DETAILS

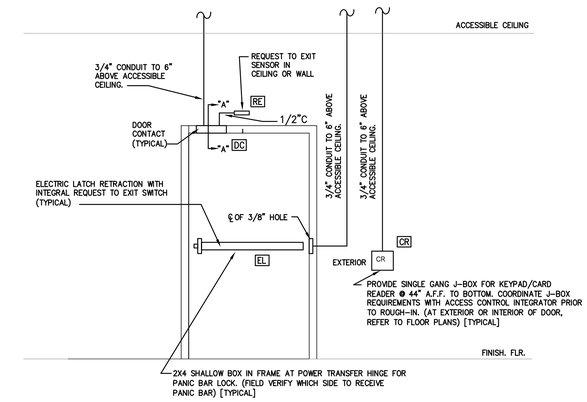
E5.4



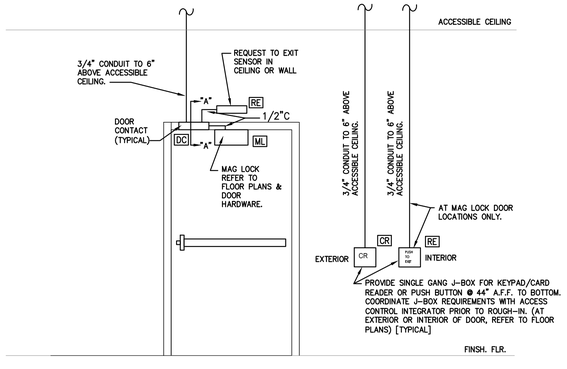
DOUBLE DOOR - ELECTRIC LATCH RETRACTION



DOUBLE DOOR - ELECTRIC STRIKE LOCK

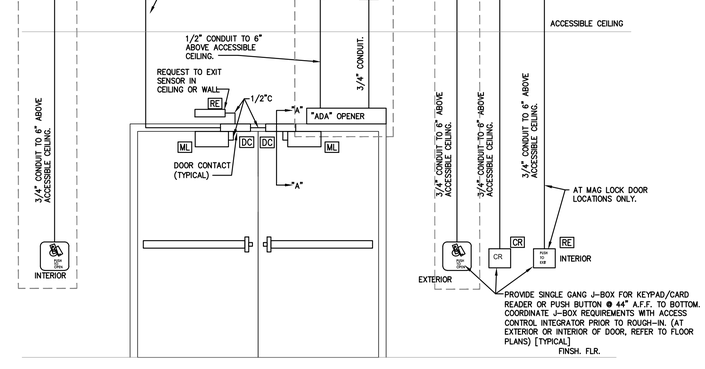


SINGLE DOOR - ELECTRIC LATCH RETRACTION

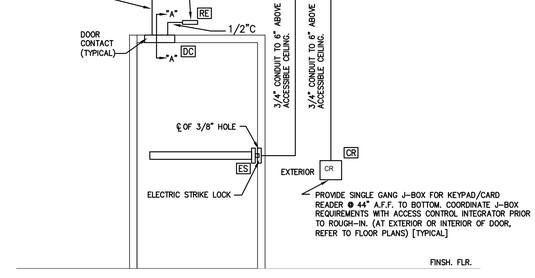


SINGLE DOOR - ELECTRIC MAGNETIC LOCK

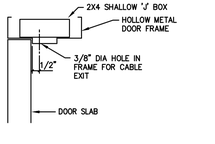
N.T.S.



DOUBLE DOOR - ELECTRIC MAGNETIC LOCK



SINGLE DOOR - ELECTRIC STRIKE LOCK

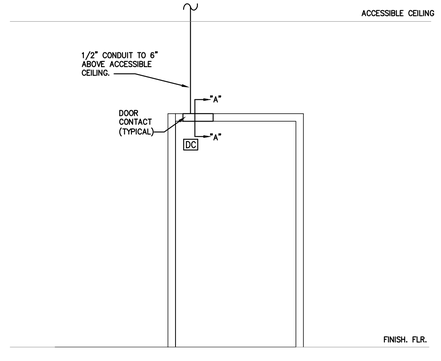


(JAMB SIMILAR)

FRAME HEAD DETAIL

N.T.S.

A



SINGLE DOOR (DOOR CONTACT ONLY)

SECURITY NOTES:

1. THIS CONTRACTOR SHALL COORDINATE WITH DOOR HARDWARE CONTRACTOR TO DETERMINE PROPER DOOR LOCK ROUGH-IN REQUIREMENT AT EACH DOOR. DETAILS SHOWN HEREIN DEPICT TYPICAL INSTALLATION.
2. PROVIDE A 20' COILED AND EXPOSED SERVICE LOOP OF CABLE AT THE DESTINATION POINTS FOR EACH REQUIRED DEVICE.
3. PROVIDE ONE HOME RUN PER DEVICE INDICATED ON PLANS BACK TO PANEL LOCATION IN COMM. ROOMS. SEE DIAGRAMS THIS SHEET FOR CABLE TYPES PER DEVICE.
4. LABEL EACH HOME RUN WITH DESTINATION ROOM NUMBER AND DEVICE TYPE. DURABLE LABEL TO BE APPLIED AT PANEL END OF CABLE.
5. ALL SECURITY SYSTEMS' CABLING SHALL BE STRANDED CONDUCTOR.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT PLACEMENT OF DOOR CONTACT AND DRILL A 3/8" HOLE IN THE DOOR FRAME. PULL THE SECURITY CABLE THROUGH CONDUIT EMBEDDED IN DOOR/WALL AND FISH THROUGH DOOR FRAME. LEAVE ENOUGH WIRE PROJECTING FROM THE FRAME FOR TERMINATION BY OTHERS.
7. ALL SECURITY CABLING INSTALLED IN UNDERGROUND CONDUIT SHALL BE LISTED FOR OUTDOOR WET LOCATION USE.
8. ALL SECURITY DEVICES INSTALLED OUTDOORS SHALL BE LISTED FOR WET LOCATION OUTDOOR USE.

TYPICAL ACCESS CONTROL DOOR CONDUIT ROUGH-IN DETAILS

NOT TO SCALE

1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

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FACSIMILE 813.242.6683

wilderarchitecture.com

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STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE No. 35071 Stanley P. Newton STATE OF FLORIDA PROFESSIONAL ENGINEER

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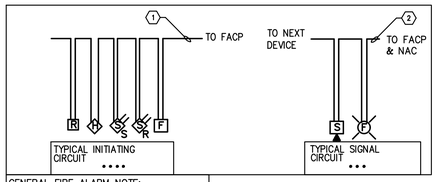
ELECTRICAL DETAILS

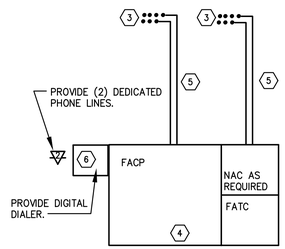
E5.5



GENERAL FIRE ALARM NOTE:
PROVIDE ADDRESSABLE MONITOR MODULES, CONTROL RELAYS, AND EXPANSION CARDS AS REQUIRED FOR FULLY FUNCTIONAL FIRE ALARM SYSTEM. REFER TO SPECIFICATIONS.

FIRE ALARM TYPICAL DEVICE INTERCONNECT DIAGRAM

NOT TO SCALE



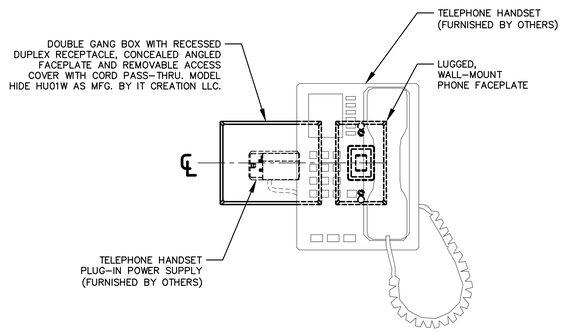
GENERAL NOTE:

1. PROVIDE FATC WITH SURGE SUPPRESSOR FOR ALL FIRE ALARM CIRCUITS SERVING EXTERIOR DEVICES.
2. REFER TO FLOOR PLANS FOR ALL DEVICE LOCATIONS AND QUANTITIES. REFER TO SPECIFICATIONS FOR ALL EQUIPMENT AND CABLING REQUIREMENTS.
3. FIRE ALARM SYSTEM SHALL BE POINT REPORTING TYPE SYSTEM TO REPORT DEVICE TYPE, LOCATION, ROOM NAME AND NUMBER TO THE MONITORING STATION.

KEYED NOTES:

1. PROVIDE CONDUIT, CABLING AND ALL OTHER REQUIRED COMPONENTS AND ACCESSORIES FOR A COMPLETE INSTALLATION.
2. PROVIDE CONDUIT, CABLING AND ALL OTHER REQUIRED COMPONENTS AND ACCESSORIES FOR A COMPLETE INSTALLATION. HORNS AND STROBES SHALL BE ON SEPARATE SIGNAL CIRCUITS.
3. PROVIDE FIELD DEVICES AND CABLING. REFER TO FLOOR PLANS AND SPECIFICATIONS.
4. PROVIDE FIRE ALARM CONTROL PANEL WITH INITIATING CIRCUIT BOARD (SIZED AS REQUIRED).
5. CABLING AS REQUIRED PER MANUFACTURER'S SPECIFICATIONS. (SLC, SPEAKER, NOTIFICATION OR ANNUNCIATOR CABLING AS REQUIRED FOR FULLY FUNCTIONAL SYSTEM).
6. PROVIDE DIGITAL CELLULAR DIALER. BY NAPCO SECURITY MODEL STARLINK FIRE SLE–LTEVI–CFB–PS (VERISON) OR SLE–LTEAI–CFB–PS (AT&T) VERIFY CELLULAR CARRIER WITH OWNER PRIOR TO ORDER. ALSO PROVIDE CELLULAR ANTENNA SLE–ANTEXT## (## DEPICTS CABLE LENGTH 75, 50, 30) AS REQUIRED TO MAINTAIN PROPER CELLULAR SIGNAL STRENGTH. EXTEND CABLE TO ROOF, PROVIDE WEATHERHEAD AND ROOF PENETRATION AS REQUIRED.

FIRE ALARM SYSTEM RISER DIAGRAM



NOTES:

CONTRACTOR SHALL PROVIDE MOCK–UP OF THE TELEPHONE HANDSET INSTALLATION PRIOR TO COMMENCING ANY ROUGH–IN WORK. MOCK–UP IS INTENDED TO VERIFY PROOF–OF–CONCEPT AND TO ALLEVIATE FIELD COORDINATION ISSUES. OWNER/ARCHITECT/ENGINEER SHALL REVIEW AND APPROVE MOCK–UP INSTALLATION PRIOR TO COMMENCING WORK. MOCK–UP SHALL BE PROVIDED FOR REVIEW TO ALLOW SUFFICIENT TIME FOR CONCEPT ADJUSTMENTS, INCLUDING ROUGH–IN LOCATIONS AND PRODUCT CHANGEOUTS, SO AS TO NOT IMPACT THE OVERALL PROJECT SCHEDULE.

TELEPHONE HANDSET DETAIL

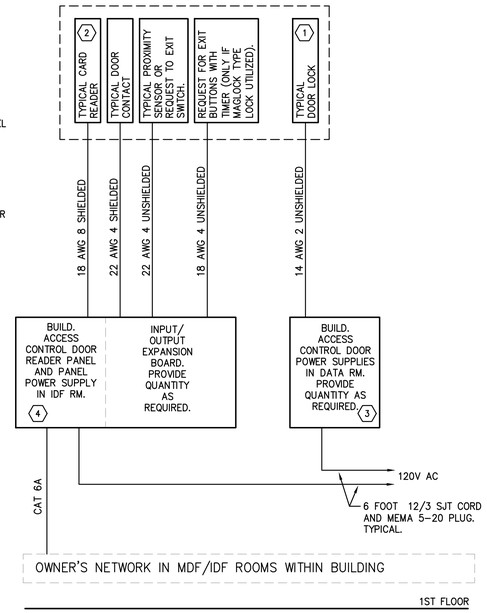
NO SCALE

NOTES:

1. ALL EXPOSED CEILING ACCESS CONTROL CABLING SHALL BE IN EMT CONDUIT. HORIZONTAL RUNS ABOVE ACCESSIBLE CEILING ARE NOT REQUIRED TO BE IN CONDUIT.
1. PROVIDE TERMINAL CABINET WITH SURGE SUPPRESSORS FOR ALL ACCESS CONTROL CABLING SERVING EXTERIOR DEVICES.
2. ALL EXTERIOR AND UNDERGROUND CABLING SHALL BE WET LOCATION RATED.
3. REFER TO PLANS FOR ALL DEVICE AND CONTROL EQUIPMENT LOCATIONS.
4. REFER TO SPECIFICATIONS FOR ALL EQUIPMENT REQUIREMENTS.
4. LABEL EACH HOME RUN WITH DESTINATION ROOM NUMBER AND DEVICE TYPE. DURABLE LABEL TO BE APPLIED AT PANEL END OF CABLE.
5. ALL ACCESS CONTROL SYSTEMS' CABLING SHALL BE STRANDED CONDUCTOR.
6. PROVIDE SURGE SUPPRESSOR FOR EACH COMMUNICATOR CONNECTION. REFER TO SPECIFICATIONS.
7. PROVIDE BACKUP BATTERIES FOR EACH CONTROLLER AND DOOR LOCK POWER SUPPLY. REFER TO SPECIFICATIONS.
3. ALL SECURITY DEVICES INSTALLED OUTDOORS SHALL BE LISTED FOR WET LOCATION OUTDOOR USE.

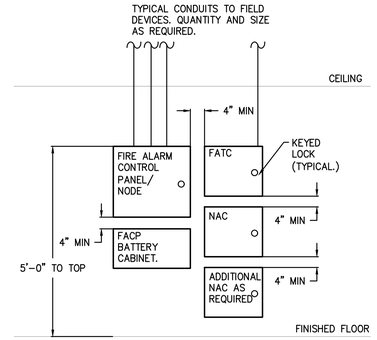
KEYED NOTES THIS DETAIL:

1. REFER TO FLOOR PLAN FOR TYPICAL LOCK LOCATION AND QUANTITIES. PROVIDE EPT–10 POWER TRANSFER AT EACH DOOR LOCK.
2. REFER TO FLOOR PLAN FOR TYPICAL CARD READER LOCATION AND QUANTITIES.
3. PROVIDE FIRE ALARM RELAY AND TIE–IN TO FIRE ALARM SYSTEM FOR REMOTE DOOR RELEASE UPON FIRE ALARM ACTIVATION.
4. PROVIDE QUANTITIES AS REQUIRED FOR EACH BUILDING TO SUPPORT NUMBER OF ACCESS CONTROLLED DOORS SHOWN ON PLANS.



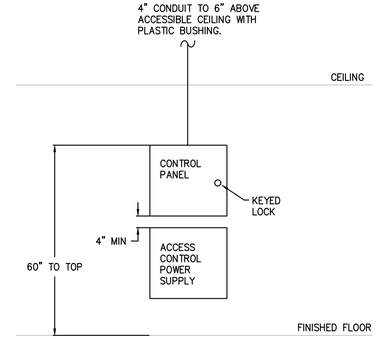
ACCESS CONTROL SYSTEM RISER DIAGRAM.

NO SCALE



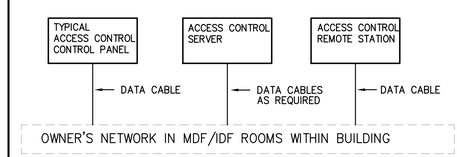
TYPICAL FIRE ALARM PANEL, FATC & NAC MOUNTING

NOT TO SCALE



TYPICAL SECURITY CARD ACCESS PANEL MOUNTING

NOT TO SCALE



ACCESS CONTROL PANEL INTERCONNECT DIAGRAM

NOT TO SCALE

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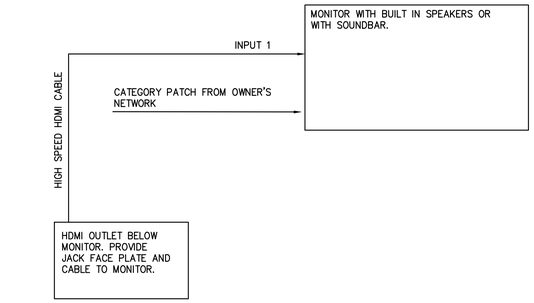
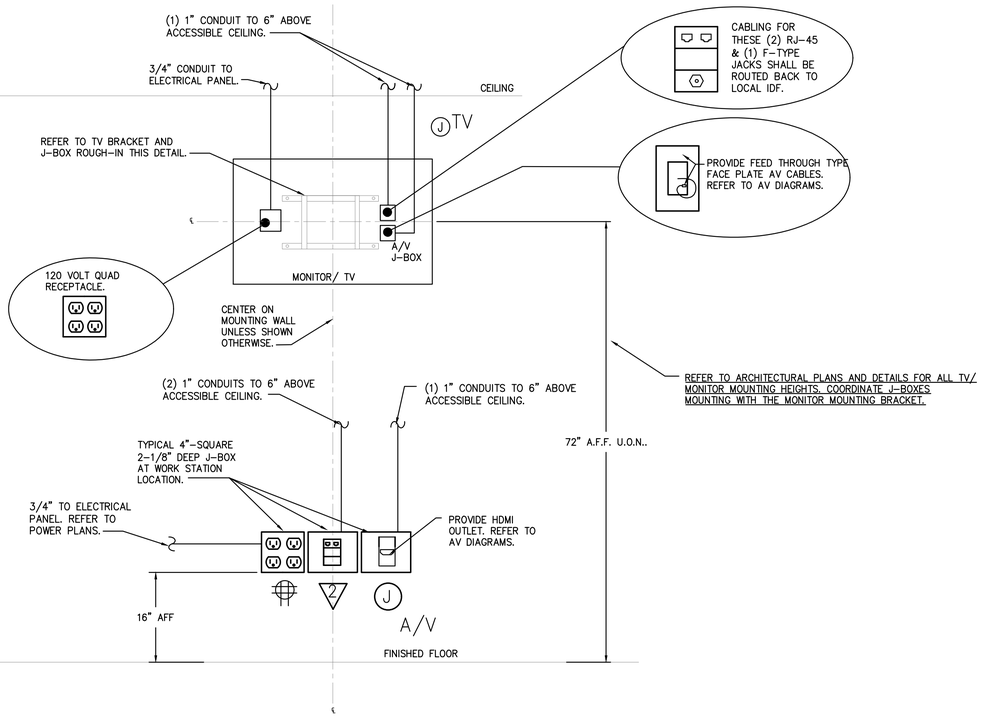
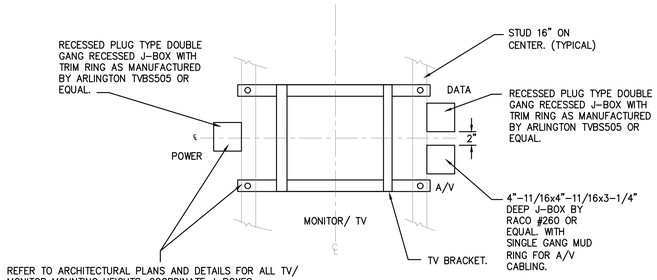
ELECTRICAL DETAILS

E5.6



A/V INTERCONNECT DIAGRAM.





TV BRACKET AND J-BOX BOX ROUGH-IN DETAIL

NOTES THIS DETAIL:

1. COORDINATE WITH ARCHITECTURAL DRAWINGS. MONITOR SIZE AND LOCATION. A/V BOX SHALL BE MOUNTED AT CENTER OF MONITOR.
2. COORDINATE DISPLAY MOUNT LOCATION WITH A/V J-BOX.
3. ALL J-BOXES ARE 4"-SQUARE 2-1/8" DEEP UNLESS OTHERWISE NOTED.
4. PROVIDE RECESSED PASS THROUGH TYPE FACE PLATE AT A/V J-BOXES FOR A/V CABLES MANAGEMENT BY EATON 35M1W-SP-L OR EQUAL.
3. THIS IS A CONCEPTUAL BASED DRAWING AND IS NOT INTENDED FOR WIRING DIAGRAM USE. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT SHOWN, POWER ADAPTERS, CABLES, BRACKETS, WALL PLATES, AND MOUNTING HARDWARE FOR COMPLETE FUNCTIONAL SYSTEM. U.O.N..

TV ROUGH-IN AND A/V CABLES ROUGH-IN. (DAY ROOM 105)

NOT TO SCALE

FLOOR PLAN SYMBOL

J TV
J A/V

1315 E. SEVENTH AVENUE
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TAMPA, FLORIDA 33605.3607

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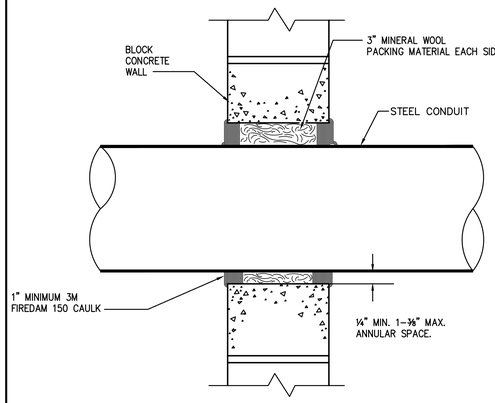
ELECTRICAL DETAILS

E5.7



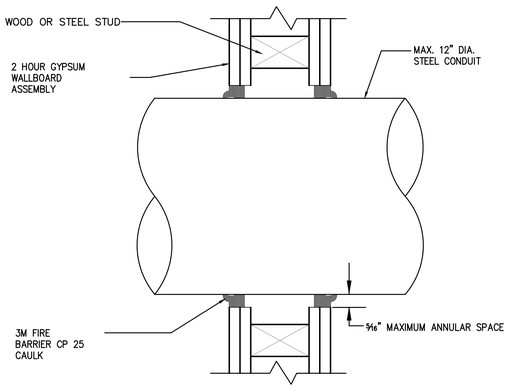
NOTES:

1. MINIMUM ANNULAR SPACE REQUIREMENT IS 1/4". MAXIMUM ANNULAR SPACE ALLOWABLE IS 1 IN.
2. INSTALL THE FIRESTOP SYMMETRICALLY ON BOTH SIDES OF THE WALL ASSEMBLY.
3. RECESS A NOMINAL 3 IN. THICKNESS OF 4 PCF MINERAL WOOL SAFING 1/2" FOR THE SURFACE OF THE FLOOR.
4. FILL THE ANNULAR SPACE AROUND THE PIPE WITH MINIMUM 1/2" DEPTH OF 3M FIREDAM 150.

U.L. SYSTEM #161

PENETRATION DETAIL FOR 6" MAX. DIA. CONDUIT

NO SCALE



NOTES:

1. INSTALL THE FIRESTOP SYMMETRICALLY ON BOTH SIDES OF THE WALL ASSEMBLY.
2. ANNULAR SPACE REQUIREMENTS:

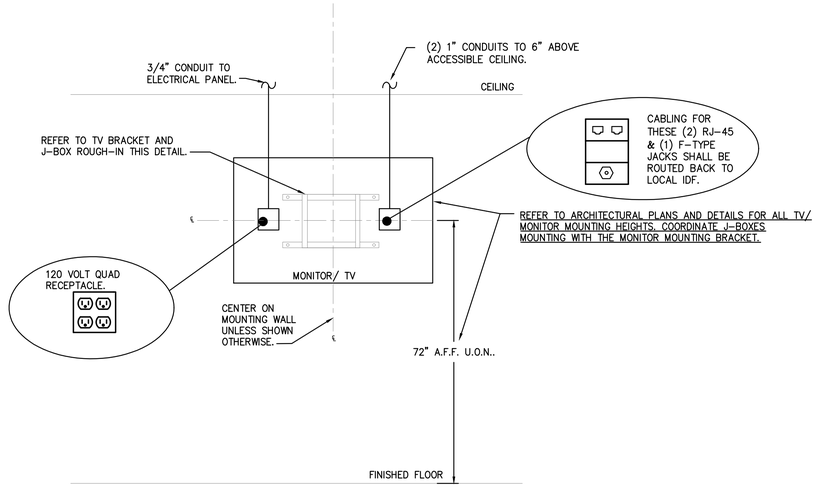
MAXIMUM CONDUIT DIAMETER	ANNULAR SPACE
1 INCH	0 – 3/16 IN.
4 INCH	0 – 1/4 IN.
12 INCH	3/16 – 5/16 IN.

3. 3M FIRE BARRIER CP 25N/S CAULK IS TO BE FORCED INTO THE ANNULAR SPACE TO THE MAXIMUM EXTENT POSSIBLE WITH A MINIMUM 1/4" DIAMETER BEAD OF CP 25N/S CAULK APPLIED TO THE PERIMETER OF THE CONDUIT AT ITS EGRESS FROM THE WALL.

U.L. SYSTEM #1479

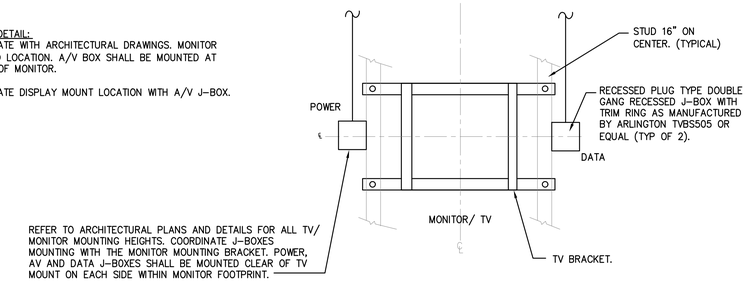
PENETRATION FIRESTOP FOR 12" MAX. DIA. METAL CONDUIT THROUGH A GYPSUM WALLBOARD ASSEMBLY

NO SCALE



TV ELEVATION

NOTES THIS DETAIL:
1. COORDINATE WITH ARCHITECTURAL DRAWINGS. MONITOR SIZE AND LOCATION. A/V BOX SHALL BE MOUNTED AT CENTER OF MONITOR.
2. COORDINATE DISPLAY MOUNT LOCATION WITH A/V J-BOX.



TV BRACKET AND J-BOX BOX ROUGH-IN DETAIL

TYPICAL TV/ MONITOR ROUGH-IN DETAIL.

NOT TO SCALE

FLOOR PLAN SYMBOL
TV.

1315 E. SEVENTH AVENUE
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WILDERARCHITECTURE, INC.

STANLEY P. NEWTON LICENSE No. 35071 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by Stanley P. Newton, P.E. using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Stanley P. Newton, P.E.
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EMI Job No. 23-0140 Drawn By: EM Checked By: JBW

HILLSBOROUGH COUNTYBOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

ELECTRICAL DETAILS

E5.8

WIRE SIZE REQUIRED FOR BRANCH CIRCUITS AT LESS THAN 3% VOLTAGE DROP

	DESIGN LOAD	1 FT TO 50 FT	51 FT TO 75 FT	76 FT TO 100 FT	101 FT TO 125 FT	126 FT TO 150 FT	151 FT TO 200 FT
120V	15A	#12	#10	#10	#8	#8	#6
	20A	#12	#10	#8	#8	#6	#6
	30A	#10	#8	#6	#6	#6	#4
	40A	#8	#6	#6	#4	#4	#3
	50A	#8	#6	#4	#4	#3	#2
208V 1 PHASE	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#4	#4
	70A	#4	#4	#4	#4	#4	#3
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#2
	100A	#3	#3	#3	#3	#3	#2
208V 3 PHASE	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#6	#4
	70A	#4	#4	#4	#4	#4	#4
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#3
	100A	#3	#3	#3	#3	#3	#2

CALCULATED USING COPPER WIRE AT 75 °C

1. CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH THE VOLTAGE DROP LIMITATIONS OF FBC–ENERGY CONSERVATION, SECTION C405.7.3, NEC 210.19 (A) AND NEC 215.2 (A).
2. REFER TO ELECTRICAL PANEL SCHEDULES FOR DESIGN LOAD OF INDIVIDUAL BRANCH CIRCUITS.
3. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR FEEDER VOLTAGE DROP INFORMATION.

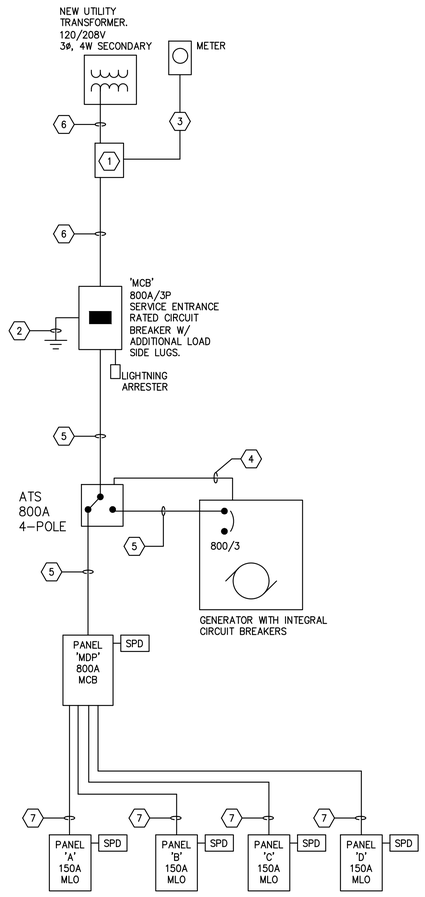
GENERAL NOTES

1. REFER TO PANEL SCHEDULES FOR WIRE SIZES FEEDING SPD DEVICES.

KEYED NOTES

1. PROVIDE CT ENCLOSURE PER UTILITY COMPANY REQUIREMENTS. REFER TO GROUNDING DETAIL FOR ADDITIONAL GROUNDING REQUIREMENTS.
2. GROUNDING. PROVIDE #3/0 COPPER GROUNDING ELECTRODE CONDUCTOR TO BUILDING STEEL, METALLIC COLD WATER PIPE AND 3–20'–0"X3/4" COPPERCLAD GROUND RODS SPACED ONE ROD LENGTH APART. GROUNDING SHALL BE IN ACCORDANCE WITH N.E.C. PROVIDE ALL COMPONENTS FOR COMPLETE GROUNDING SYSTEM. REFER TO GROUNDING DETAIL FOR ADDITIONAL GROUNDING REQUIREMENTS.
3. 1 1/4" CONDUIT FOR METER WIRING. REFER TO GROUNDING DETAIL FOR ADDITIONAL GROUNDING REQUIREMENTS.
4. 1" CONDUIT WITH CONTROL WIRES (NUMBER CONDUCTOR PER MANUFACTURER).
5. 800 AMP FEEDER. PROVIDE 3 RUNS OF 3–1/2" CONDUIT WITH 4–300 KCMIL CU AND 1–1/0 CU E.G. IN EACH.
6. 800 AMP SERVICE. PROVIDE 3 RUNS OF 3–1/2" CONDUIT WITH 4–300 KCMIL CU IN EACH.
7. 150 AMP FEEDER. PROVIDE 4–1/0 CU & 1–#6 CU E.G. IN 2" CONDUIT.

PANEL NAME	VOLTAGE DROP %	AVAILABLE FAULT KAIC
MDP	2.50%	18.88
A	0.05%	17.42
B	0.05%	17.42
C	0.06%	17.42
D	0.06%	17.42



AUTOMATIC TRANSFER SWITCH SCHEDULE

MARK	–	ATS
MANUFACTURER	–	ASCO POWER
MODEL NUMBER	–	7000 SERIES
CAPACITY	AMPS	800
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
NEUTRAL CHARACTERISTICS	–	SWITCHED
MIN. FAULT CURRENT RATING	KAIC	22KA
ENCLOSURE TYPE	–	NEMA 1
TRANSITION TYPE	–	OPEN
BYPASS ISOLATION	–	NO
SERVICE TYPE	–	STANDBY

NOTES:
1. AUTOMATIC TRANSFER SWITCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH UL 1008, 7TH EDITION.
2. COORDINATE ATS CONNECTION CONFIGURATION WITH FIELD CONDITIONS PRIOR TO ORDERING.
3. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

GENERATOR SCHEDULE

MARK	–	–
MANUFACTURER	–	CATERPILLAR
MODEL NUMBER	–	D200–10
CAPACITY	KW	200
PEAK STARTING KVA @ 15% V. DIP	KVA	333
ENGINE MODEL	–	C7.1XX EPA CERTIFIED
FUEL	–	DIESEL
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
ENGINE SPEED	RPM	1800
FUEL CONSUMPTION @100%	GPH	14.9
SERVICE TYPE	–	STANDBY
CLASS	–	72
TYPE	–	10
LEVEL	–	1
SUB–BASE TANK (72–HR RUNTIME @ 100% LOAD)	GALLONS (MINIMUM)	1072

NOTES:
1. PROVIDE WEATHERPROOF SOUND ATTENUATED ALUMINUM ENCLOSURE WITH MIN. 150 MPH WIND RATING.
2. PROVIDE BLOCK HEATER AND BATTERY CHARGER.
3. PROVIDE 800 AMP SHUNT TRIP CIRCUIT BREAKERS.
4. PROVIDE STATE–CERTIFIED SUB–BASE FUEL TANK AND VIBRATION ISOLATORS.
5. PROVIDE REMOTE ANNUNCIATOR AND EPO SWTCH.
6. PROVIDE UNIT MOUNTED CONTROLLER.
7. PROVIDE MATCHING AUTOMATIC TRANSFER SWITCH.

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Cert of Authorization No. 4288

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EMI Job No. 23-0140 Drawn By: CNV Checked By: JBW

HILLSBOROUGH COUNTYBOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
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RUSKIN FL 33573

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SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
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ELECTRICAL
RISER DIAGRAM

E6.1

	REMARKS		LOAD SERVING VOLT AMPS POLES AND AMPS	A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	WIRE SIZE	CKT. NO.	CKT. NO.	WIRE SIZE	LOAD SERVING VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	POLES AND AMPS	CKT.	REMARKS		3 PHASE INFO.
3 PHASE INFO.		CKT.																					3 PHASE INFO.	
X	SOHD	PANEL A	1	150/3		12952					1	2	6							60/3	2	SPD	X	SOHD
	H.P	–	3	–			12952				3	4	6							–	4	–		H.P
	HT/KW		5						12952		5	6	6							–	6	–		HT/KW
X	SOHD	PANEL B	7	150/3		11677					7	8	3		9192					110	8	CH-1	x	SOHD
	H.P	–	9	–			11677				9	10	3				9192			–	10	–		H.P
	HT/KW		11						11677		11	12	3						9192	–	12	–		HT/KW
X	SOHD	PANEL C	13	150/3		14458					13	14	12		936					20/3	14	CHP-1	x	SOHD
	H.P	–	15	–			14458				15	16	12				936			–	16	–	2	H.P
	HT/KW		17	–					14458		17	18	12						936	–	18	–		HT/KW
X	SOHD	PANEL D	19	150/3		13452					19	20	12		936					20/3	20	CHP-2	x	SOHD
	H.P	–	21	–			13452				21	22	12				936			–	22	–	2	H.P
	HT/KW		23	–					13452		23	24	12						936	–	24	–		HT/KW
	SOHD	SPACE	25								25	26	8		2100					35/3	26	AHU-1	x	SOHD
	H.P	SPACE	27								27	28	8				2100			–	28	–	5	H.P
	HT/KW	SPACE	29								29	30	8						2100	–	30	–		HT/KW
x	SOHD	EDH-1	31	80/3		7667				4	31	32	12		300					15/3	32	OAU-1	x	SOHD
	H.P	–	33	–			7667			4	33	34	12				300			–	34	–	0.5	H.P
23	HT/KW	–	35	–					7667	4	35	36	12						300	–	36	–		HT/KW
x	SOHD	EDH-2	37	30/3		1667				10	37	38	(2)3/0		7452					100/3	38	LIFT STATION	x	SOHD
	H.P	–	39	–			1667			10	39	40	(2)3/0				7452			–	40	–	20	H.P
5	HT/KW	–	41	–					1667	10	41	42	(2)3/0						7452	–	42	–		HT/KW
				0	61871	0	61871	0	61871					0	20916	0	20916	0	20916					

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	0.0	0.0	1	0.0	0.0
MISC	248.4	689.9	1	248.4	689.9
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	1	0.0	0.0
TOTAL	248.4	689.9		248.4	689.9

PHASE LOADS	
A	82787
B	82787
C	82787

REMARKS:
* PROVIDE GFCI CIRCUIT BREAKER
** PROVIDE RED PAINTED HANDLE WITH BREAKER LOCK

PANEL : MDP
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 800 AMPS
MAIN TYPE: MCB M.D.
BRACING: 22 KAIC 0
EMI JOB 23-0140 0

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH CIRCUIT.
THE CIRCUIT BREAKER FEEDING THE SPD DEVICE SHALL BE INSTALLED AS CLOSE TO THE SPD DEVICES AS POSSIBLE TO MINIMIZE THE LEAD LENGTH. RELOCATE CIRCUIT BREAKERS AS REQUIRED

	REMARKS		LOAD SERVING VOLT AMPS POLES AND AMPS	A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	WIRE SIZE	CKT. NO.	CKT. NO.	WIRE SIZE	LOAD SERVING VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	POLES AND AMPS	CKT.	REMARKS		3 PHASE INFO.
3 PHASE INFO.		CKT.																					3 PHASE INFO.	
	SOHD	RECEPT 7	1	20/1		1260				12	1	2	10							30/3	2	SPD 1	X	SOHD
	H.P	AIR CURTAIN	3	20/1			1000			12	3	4	10							–	4	–		H.P
	HT/KW	AIR CURTAIN	5	20/1					1275	12	5	6	10							–	6	–		HT/KW
	SOHD	REFRIG	7	20/1		840				12	7	8	12		864					20/1	8	KHEF-1		SOHD
	H.P	REFRIG	9	20/1			840			12	9	10	12				1153			20/1	10	KHSF-1		H.P
	HT/KW	REFRIG	11	20/1					840	12	11	12	12						720	20/1	12	RECEPT 4		HT/KW
	SOHD	DISH WASHER	13	20/1		1032				12	13	14	12		1000					20/1	14	BEDROOM FANS		SOHD
	H.P	GASS RANGE	15	20/1			500			12	15	16	12				1440			20/1	16	RECEPT 8		H.P
	HT/KW	RANGE HOOD	17	20/1					444	12	17	18	12						1275	20/1	18	AIR CURTAIN		HT/KW
	SOHD	RECEPT 2	19	20/1		360				12	19	20	8		2500					40/2*	20	PORTABLE A/C		SOHD
	H.P	MICROWAVE	21	20/1			1560			12	21	22	8				2500			–	22	–		H.P
	HT/KW	RECEPT 6	23	20/1					1080	12	23	24	12						1275	20/1	24	AIR CURTAIN		HT/KW
	SOHD	RECEPT 6	25	20/1		1080				12	25	26	12		900					20/1	26	RECEPT 5		SOHD
	H.P	FAN	27	20/1			500			12	27	28	10				2000			30/1	28	ICE MACHINE		H.P
	HT/KW	EWC	29	20/1*					552	12	29	30	12						720	20/1	30	RECEPT 4		HT/KW
	SOHD	RECEPT 3	31	20/1		540				12	31	32	12		1200					20/1*	32	WASHER		SOHD
	H.P	RECEPT 6	33	20/1			1080			12	33	34	12				1200			20/1*	34	WASHER		H.P
	HT/KW	BEDROOM FANS	35	20/1					1000	12	35	36	12						500	20/1	36	GEAR DRYER		HT/KW
	SOHD	SPARE	37	20/1							37	38								20/1	38	SPARE		SOHD
	H.P	SPARE	39	20/1							39	40								20/1	40	SPARE		H.P
	HT/KW	SPARE	41	20/1							41	42								20/1	42	SPARE		HT/KW
				0	5112	0	5480	0	5191					0	6464	0	8293	0	490					

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	0.0	0.0	1	0.0	0.0
MISC	35.0	97.3	1	35.0	97.3
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	1	0.0	0.0
TOTAL	35.0	97.3		35.0	97.3

PHASE LOADS	
A	11576
B	13773
C	9681

REMARKS:
* PROVIDE GFCI CIRCUIT BREAKER
** PROVIDE RED PAINTED HANDLE WITH BREAKER LOCK

PANEL : B
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 150 AMPS
MAIN TYPE: MLO M.D.
BRACING: 22 KAIC 0
EMI JOB 23-0140 0

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH CIRCUIT.
THE CIRCUIT BREAKER FEEDING THE SPD DEVICE SHALL BE INSTALLED AS CLOSE TO THE SPD DEVICES AS POSSIBLE TO MINIMIZE THE LEAD LENGTH. RELOCATE CIRCUIT BREAKERS AS REQUIRED

	REMARKS		LOAD SERVING VOLT AMPS POLES AND AMPS	A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	WIRE SIZE	CKT. NO.	CKT. NO.	WIRE SIZE	LOAD SERVING VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	POLES AND AMPS	CKT.	REMARKS		3 PHASE INFO.
3 PHASE INFO.		CKT.																					3 PHASE INFO.	
	SOHD	EV CHARGER	1	50/2		6225				8	1	2	10							30/3	2	SPD 1	X	SOHD
	H.P	–	3	–			6225			8	3	4	10							–	4	–		H.P
	HT/KW	EV CHARGER	5	50/2					6225	8	5	6	10							–	6	–		HT/KW
	SOHD	–	7	–		6225				8	7	8	12							20/1	8	HEAT TAPE		SOHD
	H.P	IRRIGATION CTRL	9	20/1			500			12	9	10	12							20/1	10	FLAG POLE		H.P
	HT/KW	DH-1	11	15/1					1200	12	11	12	12							20/1	12	PRE-FAB SHED		HT/KW
	SOHD	EF-1-1	13	15/1		256				12	13	14	12							20/1	14	PRESSURE WASHER		SOHD
	H.P	SPARE	15	20/1						12	15	16	10				779			20/1	16	LIGHTING		H.P
	HT/KW	EF-2-1	17	15/1					301	12	17	18	10						454	375	20/1	18	LIGHTING		HT/KW
	SOHD	RECEPT 2	19	20/1		360				12	19	20	10	453	250							20/1	20	LIGHTING		SOHD
	H.P	FACP	21	20/1**			180			12	21	22	10			624	375					20/1	22	LIGHTING		H.P
	HT/KW	SPARE	23	20/1							23	24	10						636			20/1	24	LIGHTING		HT/KW
	SOHD	SPARE	25	20/1							25	26	10	636								20/1	26	LIGHTING		SOHD
	H.P	SPARE	27	20/1							27	28	10			200						20/1	28	LIGHTING		H.P
	HT/KW	SPARE	29	20/1							29	30	10						517			20/1	30	EXTERIOR LIGHTING		HT/KW
	SOHD	SPARE	31	20/1							31	32	10	325								20/1	32	EXTERIOR LIGHTING		SOHD
	H.P	SPARE	33	20/1							33	34	10				500					20/1	34	BUILDING SIGN		H.P
	HT/KW	SPARE	35	20/1							35	36	10						378			20/1	36	SITE LIGHTING		HT/KW
	SOHD	SPARE	37	20/1							37	38	10	324								20/1	38	SITE LIGHTING		SOHD
	H.P	SPARE	39	20/1							39	40										20/1	40	SPARE		H.P
	HT/KW	SPARE	41	20/1							41	42										20/1	42	SPARE		HT/KW
				0	13066	0	6905	0	7726					1738	3250	1603	1375	1985	375					

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	5.3	14.8	1.25	6.7	18.5
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	0.0	0.0	1	0.0	0.0
MISC	33.7	93.6	1	33.7	93.6
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	1	0.0	0.0
TOTAL	39.0	108.4		40.4	112.1

PHASE LOADS	
A	18054
B	9883
C	11086

REMARKS:
* PROVIDE GFCI CIRCUIT BREAKER
** PROVIDE RED PAINTED HANDLE WITH BREAKER LOCK

PANEL : D
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 150 AMPS
MAIN TYPE: MLO M.D.
BRACING: 22 KAIC 0
EMI JOB 23-0140 0

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH CIRCUIT.
THE CIRCUIT BREAKER FEEDING THE SPD DEVICE SHALL BE INSTALLED AS CLOSE TO THE SPD DEVICES AS POSSIBLE TO MINIMIZE THE LEAD LENGTH. RELOCATE CIRCUIT BREAKERS AS REQUIRED

	REMARKS		LOAD SERVING VOLT AMPS POLES AND AMPS	A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	WIRE SIZE	CKT. NO.	CKT. NO.	WIRE SIZE	LOAD SERVING VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	POLES AND AMPS	CKT.	REMARKS		3 PHASE INFO.
3 PHASE INFO.		CKT.																					3 PHASE INFO.	
	SOHD	RECEPT 7	1	20/1		1260				12	1	2	10							30/3	2	SPD 1	X	SOHD
	H.P	BEDROOM FANS	3	20/1			1000			12	3	4	10							–	4	–		H.P
	HT/KW	AIR CURTAIN	5	20/1					1275	12	5	6	10							–	6	–		HT/KW
	SOHD	REFRIG	7	20/1		840				12	7	8	12		864					20/1	8	KHEF-1		SOHD
	H.P	REFRIG	9	20/1			840			12	9	10	12				1153			20/1	10	KHSF-1		H.P
	HT/KW	REFRIG	11	20/1					840	12	11	12	12						720	20/1	12	RECEPT 4		HT/KW
	SOHD	DISH WASHER	13	20/1		1032				12	13	14	12		1000					20/1	14	BEDROOM FANS		SOHD
	H.P	GASS RANGE	15	20/1			500			12	15	16	12				1440			20/1	16	RECEPT 8		H.P
	HT/KW	RANGE HOOD	17	20/1					444	12	17	18	12						1275	20/1	18	AIR CURTAIN		HT/KW
	SOHD	RECEPT 2	19	20/1		360				12	19	20	8		2500					40/2*	20	PORTABLE A/C		SOHD
	H.P	MICROWAVE	21	20/1			1560			12	21	22	8				2500			–	22	–		H.P
	HT/KW	RECEPT 6	23	20/1					1080	12	23	24	12						1275	20/1	24	AIR CURTAIN		HT/KW
	SOHD	RECEPT 6	25	20/1		1080				12	25	26	12		900					20/1	26	RECEPT 5		SOHD
	H.P	FAN	27	20/1			500			12	27	28	10				2000			30/1	28	ICE MACHINE		H.P
	HT/KW	EWC	29	20/1*					552	12	29	30	12						720	20/1	30	RECEPT 4		HT/KW
	SOHD	RECEPT 3	31	20/1		540				12	31	32	12		1200					20/1*	32	WASHER		SOHD
	H.P	RECEPT 6	33	20/1			1080			12	33	34	12				1200			20/1*	34	WASHER		H.P
	HT/KW	BEDROOM FANS	35	20/1					1000	12	35	36	12						500	20/1	36	GEAR DRYER		HT/KW
	SOHD	SPARE	37	20/1							37	38								20/1	38	SPARE		SOHD
	H.P	SPARE	39	20/1							39	40								20/1	40	SPARE		H.P
	HT/KW	SPARE	41	20/1							41	42								20/1	42	SPARE		HT/KW
				0	5112	0	5480	0	5191					0	6464	0	8293	0	490					

CALCULATIONS	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	0.0	0.0	1	0.0	0.0
MISC	35.0	97.3	1	35.0	97.3
EWH	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	1	0.0	0.0
TOTAL	35.0	97.3		35.0	97.3

PHASE LOADS	
A	11576
B	13773
C	9681

REMARKS:
* PROVIDE GFCI CIRCUIT BREAKER
** PROVIDE RED PAINTED HANDLE WITH BREAKER LOCK

PANEL : B
MOUNTING: SURFACE
VOLTS: 120/208, 3PH, 4W
MAIN SIZE: 150 AMPS
MAIN TYPE: MLO M.D.
BRACING: 22 KAIC 0
EMI JOB 23-0140 0

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH CIRCUIT.
THE CIRCUIT BREAKER FEEDING THE SPD DEVICE SHALL BE INSTALLED AS CLOSE TO THE SPD DEVICES AS POSSIBLE TO MINIMIZE THE LEAD LENGTH. RELOCATE CIRCUIT BREAKERS AS REQUIRED

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EMI Job No. 23-0140 Drawn By: CNV Checked By: JBW

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COUNTY CENTER
601 E KENEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

ELECTRICAL
PANEL SCHEDULE

E7.1

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION
	SUCTION DIFFUSER
	MANUAL AIR VENT
A	AUTOMATIC AIR VENT
	VIBRATION ISOLATOR
F	FLOAT TRAP
F/T	FLOAT AND THERMOSTATIC TRAP
T	THERMOSTATIC TRAP
D	THERMO-DYNAMIC DISC TRAP
	DRYER
	FILTER
	EXPANSION VALVE (THERMOSTATIC)
	SIGHT GLASS
	BALL SHUT-OFF VALVE
	LIQUID CHARGING VALVE
	HOT GAS BYPASS VALVE
	HOT GAS TEE
	LIQUID SHUT-OFF VALVE
	THERMOMETER WITH NEEDLE VALVE
	PRESSURE OR VACUUM GAGE WITH NEEDLE VALVE
C	COMPOUND PRESSURE OR VACUUM GAGE WITH NEEDLE VALVE
	LUGGED BUTTERFLY VALVE
	ANGLE GATE VALVE W/ HOSE BIB
	PRESSURE REDUCING VALVE
	3-WAY CONTROL VALVE
FM	FLOW MONITOR
	2-WAY CONTROL VALVE
	GATE VALVE IN RISE
	FLANGED CONNECTION
	LUGGED BUTTERFLY VALVE IN RISE
	NEEDLE VALVE
	CIRCULATING PUMP
	SHOCK ARRESTOR
	SHUT-OFF VALVE
	GLOBE VALVE
	PIPE UNION
	COMBINATION CALIBRATED BALANCING VALVE WITH MEMORY STOP AND SHUT-OFF VALVE
	TRIPLE DUTY VALVE (CALIBRATED BALANCING, SHUT-OFF AND CHECK)
P/T	PRESSURE /TEMPERATURE PLUG
	SWING CHECK VALVE
	GAS PLUG VALVE
	Y-TYPE STRAINER WITH BLOW DOWN AND VALVE
	SHUT-OFF VALVE IN VALVE BOX
	ASME TEMPERATURE AND PRESSURE RELIEF VALVE
	SPRING CHECK VALVE
	COMBINATION MAGNETIC MOTOR STARTER
	FUSIBLE DISCONNECT SWITCH
FS	FLOW SWITCH

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
TV	90 DEGREE SQUARE ELBOW WITH TURNING VANES (DOUBLE LINE/SINGLE LINE)
TV	RADIUSED ELBOW WITH TURNING VANES (DOUBLE LINE/SINGLE LINE)
TV	DUCT TEE WITH TURNING VANES AND SPLITTER DAMPER (DOUBLE LINE/SINGLE LINE)
	NESTED RECTANGULAR BRANCH TAKE-OFF (DOUBLE LINE/SINGLE LINE)
	NESTED RADIUS BRANCH TAKE-OFF (DOUBLE LINE/SINGLE LINE)
	NESTED RADIUS TEE (DOUBLE LINE/SINGLE LINE)
	BRANCH TAKE OFF WITH SHOE FITTING (DOUBLE LINE/SINGLE LINE)
	SPIN-IN FITTING WITH VOLUME DAMPER (DOUBLE LINE/SINGLE LINE)
	CAP ON END OF DUCT (DOUBLE LINE/SINGLE LINE)
	DUCT TRANSITION (DOUBLE LINE/SINGLE LINE)
	RECTANGULAR TO ROUND TRANSITION (DOUBLE LINE/SINGLE LINE)
	RIGID TO FLEXIBLE DUCT (DOUBLE LINE/SINGLE LINE)
VD VD	VOLUME DAMPER (DOUBLE LINE/SINGLE LINE)
FD/AD	FIRE DAMPER WITH ACCESS DOOR
SD/AD	SMOKE DAMPER WITH ACCESS DOOR
FSD/AD	COMBINATION FIRE-SMOKE DAMPER WITH ACCESS DOOR
M	MOTORIZED DAMPER
BDD	BACKDRAFT DAMPER
AD	ACCESS DOOR IN DUCT
AD	ACCESS DOOR IN SIDE OF DUCT (DOUBLE LINE)
AD	ACCESS DOOR IN BOTTOM OF DUCT
	PIPE DOWN
	PIPE UP
	BRANCH CONNECTION OFF TOP
	BRANCH CONNECTION OFF BOTTOM
	45 DEGREE OFFSET
	PIPE ANCHOR
	PIPE EXPANSION GUIDES
	BRANCH CONNECTION OFF SIDE
	CAP ON END OF PIPE
	DIRECTION OF FLOW
	PIPE TRANSITION

FIRE DAMPER EXCEPTION NOTE

(1) A FIRE DAMPER SHALL NOT BE REQUIRED IN A DUCT PENETRATING A FIRE PARTITION PROVIDED THAT THE DUCT PENETRATING THE WALL COMPLIES WITH ALL OF THE FOLLOWING REQUIREMENTS:

1.1. THE DUCT SHALL NOT EXCEED 100 SQUARE INCHES.

1.2. THE DUCT SHALL BE CONSTRUCTED OF STEEL A MINIMUM OF 0.0217 INCH IN THICKNESS.

1.3. THE DUCT SHALL NOT HAVE OPENINGS THAT COMMUNICATE THE CORRIDOR WITH ADJACENT SPACES OR ROOMS.

1.4. THE DUCT SHALL BE INSTALLED ABOVE A CEILING.

1.5. THE DUCT SHALL NOT TERMINATE AT A WALL REGISTER IN THE FIRE-RESISTANCE-RATED WALL.

1.6. A MINIMUM 12-INCH-LONG BY 0.060-INCH-THICK STEEL SLEEVE SHALL BE CENTERED IN EACH DUCT OPENING. THE SLEEVE SHALL BE SECURED TO BOTH SIDES OF THE WALL AND ALL FOUR SIDES OF THE SLEEVE WITH MINIMUM 1 1/2-INCH BY 1 1/2-INCH BY .060-INCH STEEL RETAINING ANGLES. THE RETAINING ANGLES SHALL BE SECURED TO THE SLEEVE AND THE WALL WITH NO. 10 SCREWS. THE ANNULAR SPACE BETWEEN THE STEEL SLEEVE AND THE WALL OPENING SHALL BE FILLED WITH ROCK (MINERAL) WOOL BATTING ON ALL SIDES.

DEFERRED SUBMITTAL NOTE

1. CONTRACTOR SHALL SUBMIT KITCHEN HOOD SHOP DRAWINGS FOR ENGINEER REVIEW AND APPROVAL. SHOP DRAWINGS SHALL INCLUDE, AT A MINIMUM, PRODUCT DATA INFO FOR THE KITCHEN HOOD, KITCHEN HOOD FANS, KITCHEN HOOD ANSUL SYSTEM AND CONTROLS. ROOFTOP MOUNTED EQUIPMENT INFORMATION SHALL INCLUDE STRUCTURAL TIE-DOWN REQUIREMENTS, INCLUDING ANCHOR TYPE AND SPACING IN COMPLIANCE WITH FLORIDA BUILDNG CODE AND THE PROJECT'S WIND SPEED CRITERIA. CONTRACTOR SHALL SUBMIT APPROVED SHOP DRAWINGS TO THE BUILDING DEPARTMENT AS A DEFERRED SUBMITTAL FOR FINAL REVIEW AND APPROVAL PRIOR TO INSTALLATION.

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
AH 1	EQUIPMENT TAG (I.E. AIR HANDLER NUMBER 1) REFER TO MECHANICAL ABBREVIATIONS FOR REFERENCE
A 105	AIR DEVICE TAG (I.E. DEVICE MARK "A" WITH 105 CFM) REFER TO MECHANICAL AIR DEVICE SCHEDULE FOR INFORMATION
1 M3.1	SECTION NUMBER DRAWING NUMBER
1 M3.1	DETAIL NUMBER DRAWING NUMBER
	CONNECTION POINT OF NEW TO EXISTING
5	KEYED NOTE
1	REVISION MARKER (I.E. REVISION 1)
S	SMOKE DETECTOR IN DUCT W/ 6" X 6" ACCESS DOOR
T	THERMOSTAT
T	TEMPERATURE SENSOR
H	HUMIDISTAT
H	HUMIDITY SENSOR
CO_2	CO2 SENSOR
	EXISTING DEVICES OR EQUIPMENT TO REMAIN
	EXISTING DEVICES OR EQUIPMENT TO BE REMOVED
	NEW OR MODIFIED DEVICES OR EQUIPMENT
	SUPPLY AIR DEVICE
	SUPPLY AIR DEVICE W/ 90° SECTORIZED BAFFLES PROVIDED IN SHADED QUADRANTS
	RETURN AIR DEVICE
	EXHAUST AIR DEVICE
	SUPPLY AIR DUCT SECTION DOWN/UP
	RETURN AIR DUCT SECTION DOWN/UP
	EXHAUST AIR DUCT SECTION DOWN/UP
	AIR FLOW
L	LOUVERED DOOR; LOUVERED DOOR SHALL BE MINIMUM 12" X 12" UNLESS OTHERWISE NOTED ON THE DRAWINGS. CONTRACTOR SHALL COORDINATE ALL DOOR LOUVERS WITH DOOR INSTALLATION CONTRACTOR PRIOR TO BID.
U	UNDERCUT DOOR, DOORS SHALL HAVE A 1 INCH UNDERCUT. CONTRACTOR SHALL COORDINATE ALL DOOR UNDERCUTS WITH DOOR INSTALLATION CONTRACTOR PRIOR TO BID.
R	RISE IN DUCT ELEVATION IN DIRECTION OF AIRFLOW
D	DROP IN DUCT ELEVATION IN DIRECTION OF AIRFLOW

SYMBOL LEGEND - CONTROLS

SYMBOL	DESCRIPTION
	SIGNAL TYPE (AI,AO,DI,DO) FUNCTIONAL DESCRIPTION
	"AND" LOGIC GATE
	THREE INPUT "AND" LOGIC GATE
	"OR" LOGIC GATE
	TWO INPUT "OR " LOGIC GATE
DO	SIGNAL OUT OF DIGITAL (EMCS) SOFTWARE INTO HARDWARE
DI	SIGNAL OUT OF HARDWARE INTO DIGITAL (EMCS) SOFTWARE
CI	CONTROL RELAY HOLDING COIL
	NORMALLY OPEN CONTROL RELAY CONTACT
	NORMALLY CLOSED CONTROL RELAY CONTACT
P	THERMOSTAT - CLOSE ON TEMPERATURE RISE
	SINGLE POLE SWITCH
	'NOT' INPUT LOGIC

MECHANICAL ABBREVIATIONS

GENERAL

ABBREVIATION	DESCRIPTION
ø	DIAMETER/ELECTRICAL PHASE
(E)	EXISTING
(N)	NEW
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AL.	ALUMINUM
C.	COMMON (ALWAYS OPEN)
C.D.	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
DWG	DRAWING
E/A	EXHAUST AIR
HS	HUMIDISTAT
N.T.S	NOT TO SCALE
O/A	OUTSIDE AIR
O.B.D.	OPPOSED BLADE DAMPER
R/A	RETURN AIR
S	WALL SWITCH 48" A.F.F. U.O.N.
S/A	SUPPLY AIR
S/S	STAINLESS STEEL
SQFT.	SQUARE FEET
U.O.N.	UNLESS OTHERWISE NOTED
VFD	VARIABLE FREQUENCY DRIVE

EQUIPMENT TAGS

AC	MINI-SPLIT AIR HANDLER
AH	SPLIT SYSTEM AIR HANDLER
CF	AIR CURTAIN
CU	SPLIT SYSTEM CONDENSING UNIT
DH	DEHUMIDIFIER
EF	EXHAUST FAN
F	HIGH VOLUME LOW SPEED FAN
IV	INTAKE VENT
KH	KITCHEN HOOD
KHEF	KITCHEN HOOD EXHAUST FAN
KHSF	KITCHEN HOOD SUPPLY FAN
OAU	100% OUTDOOR AIR HANDLING UNIT

MECHANICAL ABBREVIATIONS

CONTROLS

ABBREVIATION	DESCRIPTION
AI	ANALOG INPUT
AO	ANALOG OUTPUT
APPROX	APPROXIMATE
AUTO	AUTOMATIC
C.	COMMON (ALWAYS OPEN)
CO2	CARBON DIOXIDE SENSOR/TRANSMITTER
CT	CURRENT TRANSDUCER WITH GO/NO GO MONITOR CAPACITY
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	PRESSURE DIFFERENTIAL SWITCH
DTR	DUAL TEMPERATURE RETURN
DTS	DUAL TEMPERATURE SUPPLY
E.G.	ELECTRICAL GROUND
FC	FAIL CLOSED
FF	FLOW FEEDBACK/STATUS SIGNAL
FO	FAIL OPEN
H	HUMIDITY SENSOR/TRANSMITTER
HS	HUMIDISTAT
LS	LIMIT SWITCH
M	MOROTIZED DAMPER ACUTATOR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
P	PRESSURE SENSOR/TRANSMITTER
PF	PROPORTIONAL, LINEARIZED FEEDBACK 4-20 mA SIGNAL
PID	PROPORTIONAL INTEGRAL DERIVATIVE
SP	SET POINT
SS	START/STOP SIGNAL
T	TEMPERATURE SENSOR OR TRANSMITTER 48" A.F.F. U.O.N.
TD	TIME DELAY (RELAY OR SOFTWARE LATCH)
TS	THERMOSTAT
VM	PID VALVE MODULATION
W/	WITH
W/O	WITHOUT
WR	CHW RESET SIGNAL 4-20 mA

NOTE:
NOT ALL SYMBOLS SHOWN IN THIS LEGEND MAY NOT NECESSARILY APPEAR IN THESE DOCUMENTS. ADDITIONAL SYMBOLS MAY BE DEFINED ELSEWHERE IN SPECIFIC DRAWINGS.

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ENGINEER

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EMI Job No. 23-0140 Drawn By: NSW Checked By: JSW

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COUNTY CENTER
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TAMPA, FL 33601

PROJECT ADDRESS:
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RUSKIN FL 33573

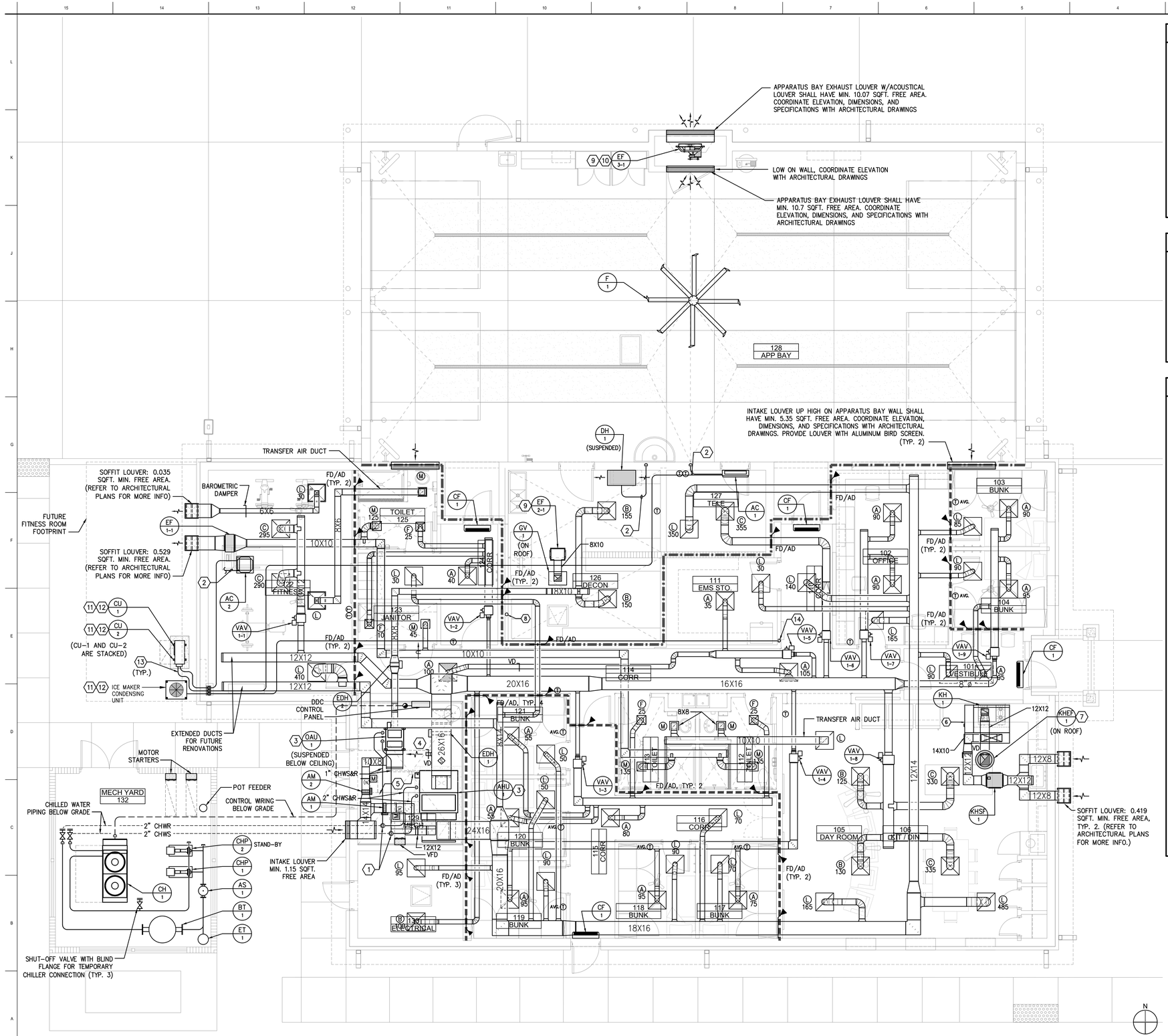
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

MECHANICAL
SYMBOLS LEGEND

M0.0



GENERAL NOTES

1. CONTRACTOR SHALL INSTALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSITIONS, FITTINGS, ELBOWS, DUCTWORK, PIPING, SUPPORTS, ETC. NECESSARY FOR A PROPER INSTALLATION AND OPERATION FOR A NEW HVAC SYSTEM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF INSTALLATION WORK WITH OTHER TRADES TO AVOID CONFLICTS.
4. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF MECHANICAL EQUIPMENT WITH NEW LIGHT LOCATIONS AND NEW CEILING TILE LOCATIONS. REFER TO ARCHITECT'S REFLECTED CEILING PLAN LAYOUT.
5. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
6. DUCT SMOKE DETECTORS SHOWN ON PLANS ARE DIAGRAMMATIC. REFER TO MANUFACTURER'S INSTRUCTIONS FOR EXACT/OPTIMUM LOCATION IN DUCT.

BRANCH DUCT NOTES

1. ALL BRANCH DUCTWORK SHALL BE EQUIPPED WITH A CONICAL, BELLMOUTH OR 45 DEGREE TAKEOFF WITH VOLUME DAMPER. DAMPER SHALL BE STANDOFF TYPE WITH INDICATING AND LOCKING QUADRANT HANDLE. REFER TO MECHANICAL DETAILS FOR APPROVED BRANCH DUCT TYPES.
2. PROVIDE OPPOSED BLADE DAMPER, ADJUSTABLE FROM FACE OF AIR DEVICE, FOR ALL DEVICES LOCATED IN HARD CEILINGS.
3. BRANCH DUCTS ARE SHOWN DIAGRAMMATICALLY. WHERE SIDE DIMENSION OF DUCT DOES NOT ACCOMMODATE HEIGHT OF TAKE-OFF, CONTRACTOR MAY CONNECT TO BOTTOM OR TOP OF MAIN DUCT.

KEYED NOTES

1. CHILLED WATER PIPING RISE FROM BELOW GRADE, PIPING SHALL CONTINUE TO EQUIPMENT WITHIN ROOM.
2. REFER TO PLUMBING FLOOR PLANS FOR CONTINUATION OF 3/4"ø CONDENSATE DRAIN PIPING.
3. PROVIDE 3/4"ø CONDENSATE DRAIN AND ROUTE TO HUB DRAIN IN MECHANICAL ROOM.
4. PROVIDE 4"ø SPIN-IN FITTING WITH VOLUME DAMPER. BALANCE TO 50 CFM (MIN.) FOR MECHANICAL ROOM PRESSURIZATION.
5. LOCATE ALL EQUIPMENT AND DAMPERS BELOW CEILING
6. PROVIDE S.S. CABINET FOR FIRE SUPPRESSION EQUIPMENT. REFER TO KITCHEN HOOD SCHEDULE FOR MORE INFORMATION.
7. TRANSITION FROM HOOD OUTLET DIMENSIONS TO INLET DIMENSIONS OF ROOF MOUNTED EQUIPMENT PRIOR TO PENETRATING ROOF DECK. LOCATE FAN AS SHOWN ARCHITECTURALLY. COORDINATE WITH JOIST LOCATION AS WELL AS ANY ASSOCIATED JOIST BRIDGING.
8. ROUTE 4"ø RIGID DUCT FROM DRYER BOX, IN-O-VATE TECHNOLOGIES MODEL DB-425, OR APPROVED EQUAL, LOCATED IN STUD WALL BEHIND DRYER, TO GOOSENECK ON ROOF. REFER TO GOOSENECK DETAIL. DUCT SHALL BE GALVANIZED STEEL (0.013 MIN. THICKNESS). DRYER BOX ELEVATION SHALL BE COORDINATED WITH DRYER VENT OUTLET. PROVIDE WITH BACKDRAFT DAMPER (NO BIRDSCREEN). BASED ON GE SUPER 6.0 CAPACITY ELECTRIC DRYER, 170 CFM, 10FT. OF DUCT, AND TWO ELBOWS. COORDINATE EXACT SIZE AND ROUTING BASED ON DRYER MANUFACTURER'S SPECIFICATIONS. PROVIDE A MEANS FOR CLEAN OUT AT LOW POINT OF VERTICAL RISE. MAINTAIN 6 INCHES OF CLEARANCE FROM ANY COMBUSTIBLE MATERIALS. SEAL THE ANNULAR SPACE BETWEEN DUCT PENETRATIONS AND WALL/CEILING ASSEMBLIES WITH NONCOMBUSTIBLE MATERIAL.
9. PROVIDE ACCESS DOOR FOR EXHAUST FAN. ACCESS DOOR SHALL BE MARKED WITH A WARNING SIGN TO SHUT OFF FAN PRIOR TO OPENING DOOR.
10. PROVIDE WALL SWITCH TO CONTROL APPARATUS BAY EXHAUST FAN. COORDINATE FINAL LOCATION OF SWITCH WITH OWNER AND ELECTRICIAN. PROVIDE ENGRAVED SIGN NEXT TO SWITCH TO SAY: "APPARATUS AREA EXHAUST FAN"
11. PROVIDE THE NUMBER AND SIZE OF REFRIGERANT LINES PER THE MANUFACTURER'S RECOMMENDATIONS, BASED ON THE ACTUAL ROUTING, PRESSURE DROP, AND LENGTH OF PIPING FOR THE REQUIREMENTS OF THE UNIT.
12. CONDENSING UNIT DISCHARGE SHALL BE UNRESTRICTED TO A MINIMUM OF 100 INCHES. CONDENSING UNIT SHALL BE LOCATED SO THAT ROOF RUN-OFF DURING HARD RAIN DOES NOT FALL DIRECTLY ONTO UNIT.
13. CONDUIT FOR REFRIGERANT PIPING ROUTED ABOVE GRADE WITH LONG RADIUS 90° ELBOWS. EACH REFRIGERANT PIPE LINE SET SHALL BE RUN IN INDIVIDUAL CONDUIT.
14. REFRIGERANT PIPING AND CONTROL WIRING DROPS IN WALL TO FEED ICE MAKER.

0' 2'-8" 5'-4" 10'-8"

MECHANICAL FLOOR PLAN
3/16" = 1'-0"

A4

NOTES A1

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EMI Job No. 23-0140 Drawn By: NSW Checked By: JSW

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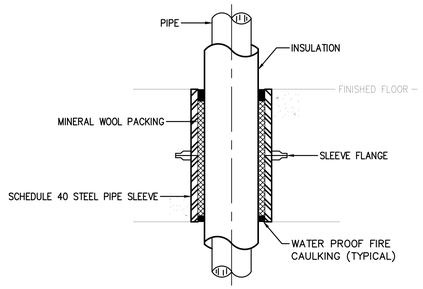
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

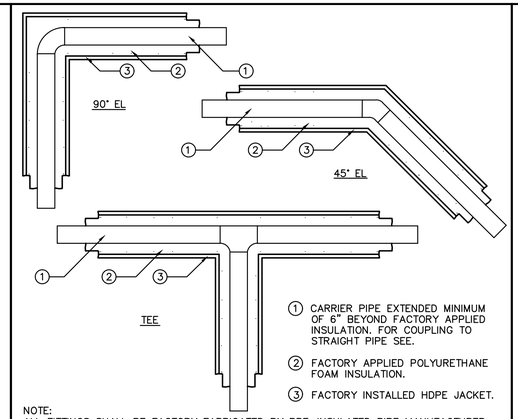
MECHANICAL FLOOR PLAN

M2.1



NOTE:
1. ALTERNATE: SCHEDULE 40 STEEL SLEEVE W/ANCHOR FLANGE & LINK SEAL AS MANUFACTURED BY THUNDERLINE CORP. OR EQUAL
2. CONTRACTOR SHALL SUBMIT U.L. APPROVED PENETRATION DETAIL FOR PENETRATIONS IN RATED WALLS AND FLOORS.

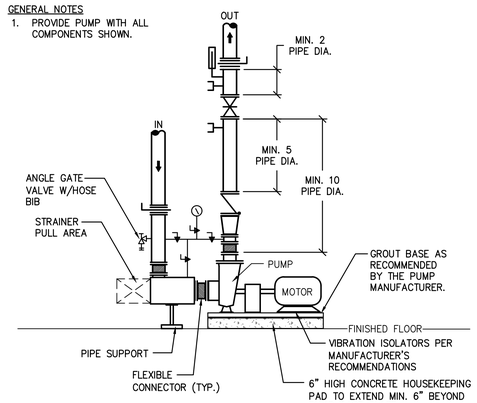
WATERTIGHT SLEEVE DETAIL
NO SCALE



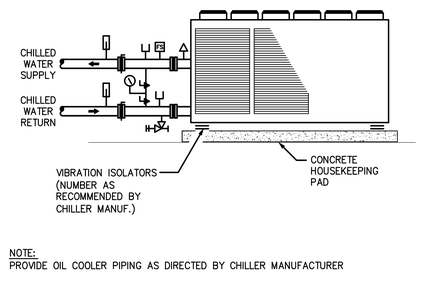
NOTE:
ALL FITTINGS SHALL BE FACTORY FABRICATED BY PRE-INSULATED PIPE MANUFACTURER

TYPICAL FACTORY PRE-INSULATED PIPE FITTING DETAIL
NO SCALE

GENERAL NOTES
1. PROVIDE PUMP WITH ALL COMPONENTS SHOWN.

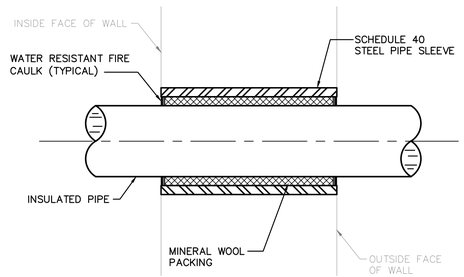


TYPICAL END SUCTION PUMP PIPING SCHEMATIC DIAGRAM
NO SCALE

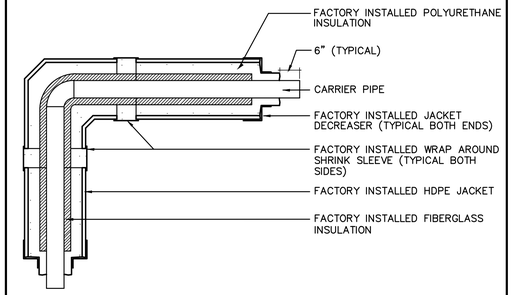


NOTE:
PROVIDE OIL COOLER PIPING AS DIRECTED BY CHILLER MANUFACTURER

TYPICAL AIR COOLED CHILLER PIPING DIAGRAM
NO SCALE

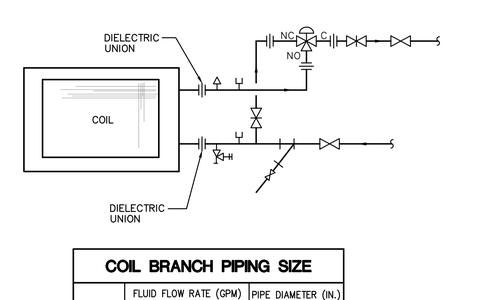


TYPICAL WALL SLEEVE DETAIL
NO SCALE



NOTE:
90° EXPANSION ELBOW SHALL BE FACTORY FABRICATED BY PRE-INSULATED PIPE MANUFACTURER.

TYPICAL FACTORY PRE-INSULATED ELBOW DETAIL
NO SCALE



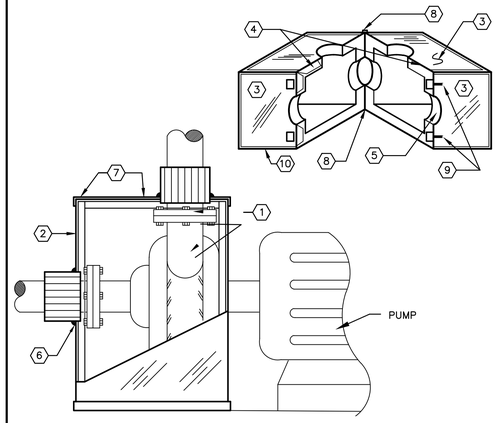
COIL BRANCH PIPING SIZE

	FLUID FLOW RATE (GPM)	PIPE DIAMETER (IN.)
COPPER	3.6	¾
	7.3	1
	12.7	1¼
	20	1½
	38	2
STEEL (SCH. 40)	74	2½
	130	3
NOTE	①	–

GENERAL NOTES:
1. INSTALL CALIBRATED BALANCE VALVES PER MANUFACTURER'S INSTRUCTIONS, INCLUDING ALL CLEARANCES AND STRAIGHT LENGTH OF PIPE DISTANCES.
2. INSTALL PIPING TO BREAK DOWN AND PROVIDE ALL NECESSARY CLEARANCES FOR NORMAL MAINTENANCE AND REMOVAL OF COIL WITHOUT CUTTING PIPES.
3. INSTALL MANUAL VENT AT HIGH POINT OF PIPE. REFER TO AIR HANDLER SCHEDULES FOR COIL GPM.
4. PROVIDE PIPE FITTINGS AS NEEDED TO CONNECT TO CONTROL VALVE.

KEYED NOTES:
① CONTROL VALVE SELECTED AND SIZED BY CONTROLS CONTRACTOR PER MANUFACTURER'S RECOMMENDATION.

TYPICAL 3-WAY COIL PIPING DIAGRAM DETAIL
NO SCALE



GENERAL NOTE:
1. REFER TO MANUFACTURES PUMP INSULATION INSTRUCTIONS PRIOR TO INSULATING PUMPS. DO NOT COVER PUMP BEARING BRACKETS OR GREASE FITTINGS.

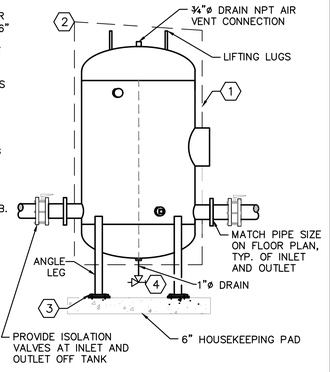
KEYED NOTES:
EQUIPMENT COVERS SHALL BE FABRICATED IN SECTIONS OF METAL, LINED WITH FOAMGLASS INSULATION 2" THK. APPLY PITTCOTE 404 REINFORCED WITH WHITE OPEN WEAVE MEMBRANE WITH MAXIMUM MESH OPENING 10 X 10 PER INCH TO LINE INSIDE OF COMPARTMENT OR ANY EXPOSED INSULATION. THE COVER SHOULD ENCLOSE FLANGES OR OTHER CONNECTIONS AS WELL AS THE BODY OF THE EQUIPMENT AND SHOULD BE CONSTRUCTED STRONG ENOUGH TO WITHSTAND VIBRATION AND HANDLING.

MATERIALS: METAL WITH INSULATION ADHERED TO THE INNER SURFACE, RIVETS OR SHEET METAL SCREWS AND CAULKING.

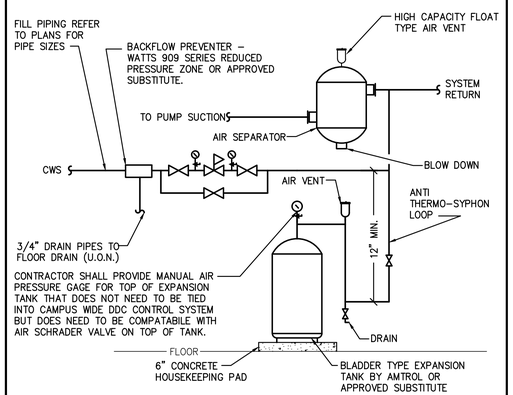
① PUMP OR EQUIPMENT SURFACES AND FLANGES.
② METAL CASING LINED WITH INSULATION.
③ SECTIONS OF THE FABRICATED COVER.
④ SLIP JOINT OR LAP SEAM SECURED WITH MECHANICAL FASTENERS.
⑤ CUT-OUTS FOR PIPES AND SHAFT. PROVIDE SEVERAL LAYERS OF RUBATEX FOAM INSULATION TO CREATE AIRTIGHT SEAL AT ALL MATING HALVES AND PENETRATIONS. SEAL AIRTIGHT.
⑥ CAULKING WHERE REQUIRED.
⑦ RIVETS OR SHEET METAL SCREWS.
⑧ STAINLESS STEEL PIANO HINGE OR STAINLESS STEEL LATCHES.
⑨ STAINLESS STEEL LATCHES. (TYPICAL OF BOTH ENDS).
⑩ ALUMINUM ANGLE FRAMING ENTIRE BOX AT ALL EDGES AND JOINING EDGES. THESE SHALL ALSO SERVE AS REINFORCEMENT FOR LATCH AND HINGE SUPPORT.

TYPICAL END SUCTION PUMP - REMOVABLE AND REUSABLE INSULATION COVER
NO SCALE

KEYED NOTES:
① INSULATE BUFFER TANK WITH 2" THICK FOAM GLASS INSULATION, COVER ALL INSULATION WITH .016" ALUMINUM JACKETING, CAULK ALUMINUM JACKET WATER TIGHT.
② PITCH TOP OF FOAMGLASS COVER TO PROVIDE RAIN SHED.
③ REFER TO PIPE SUPPORT DETAIL FOR TANK SUPPORT LEG ANCHORING INFORMATION.
④ EXTEND DRAIN PIPE, AND PROVIDE WITH ANGLED GATE VALVE W/ HOSE BIB.



CHILLED WATER BUFFER TANK DETAIL
NO SCALE



EXPANSION TANK AND FILL PIPING DIAGRAM
NO SCALE

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MECHANICAL DETAILS

M3.1

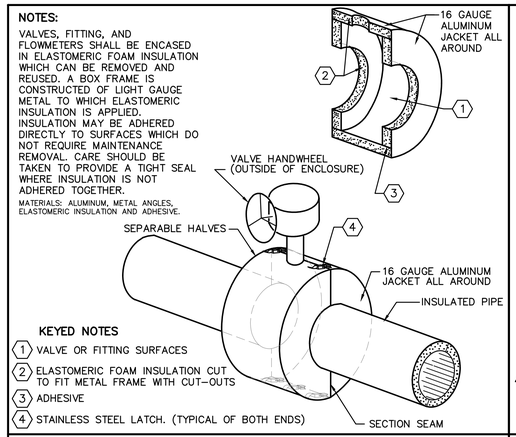
REMOVABLE / REPLACEABLE COVER FOR VALVES AND FITTINGS

NO SCALE

NOTES:

VALVES, FITTING, AND FLOWMETERS SHALL BE ENCASED IN ELASTOMERIC FOAM INSULATION WHICH CAN BE REMOVED AND REUSED. A BOX FRAME IS CONSTRUCTED OF LIGHT GAUGE METAL TO WHICH ELASTOMERIC INSULATION IS APPLIED. INSULATION MAY BE ADHERED DIRECTLY TO SURFACES WHICH DO NOT REQUIRE MAINTENANCE REMOVAL. CARE SHOULD BE TAKEN TO PROVIDE A TIGHT SEAL WHERE INSULATION IS NOT ADHERED TOGETHER.

MATERIALS: ALUMINUM, METAL ANGLES, ELASTOMERIC INSULATION AND ADHESIVE.

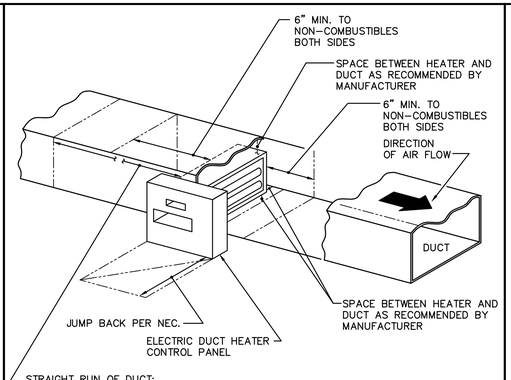


KEYED NOTES

1. VALVE OR FITTING SURFACES
2. ELASTOMERIC FOAM INSULATION CUT TO FIT METAL FRAME WITH CUT–OUTS
3. ADHESIVE
4. STAINLESS STEEL LATCH. (TYPICAL OF BOTH ENDS)

DUCT HEATER INSTALLATION DETAIL

NO SCALE

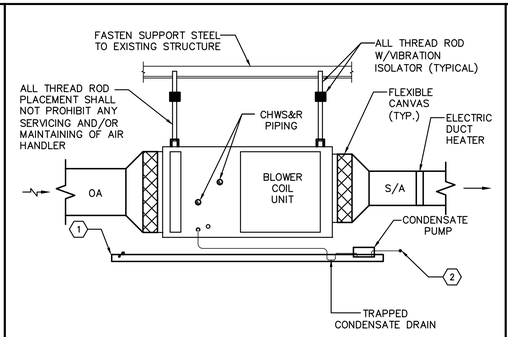


STRAIGHT RUN OF DUCT:
2' MIN. TO TURNING VANES, 4' MIN. TO OTHER CHANGES IN DUCT WORK DIRECTION OR FAN OUTLET. TYPICAL OF BOTH SIDES OF HEATING ELEMENT. PROVIDE GREATER STRAIGHT RUN OF DUCT AS RECOMMENDED BY MANUFACTURER.

BLOWER COIL UNIT DETAIL

NO SCALE

TYP. OF OAU–1



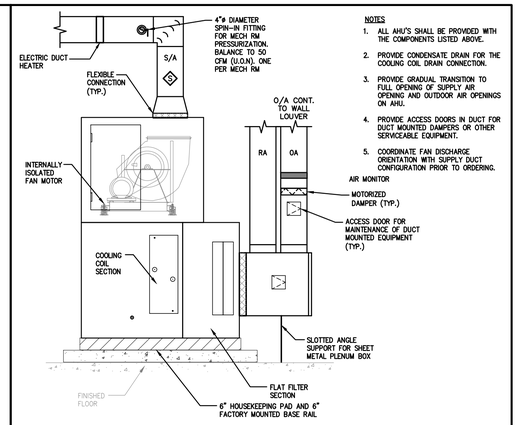
KEYED NOTES

1. AUXILIARY DRAIN PAN, WITH FLOAT SWITCH. PAN TO EXTEND BEYOND BLOWER COIL, VALVE PACKAGE, AND CONDENSATE PUMP.
2. REFER TO FLOOR PLANS FOR CONTINUATION OF CONDENSATE PIPE ROUTING.

SINGLE PATH AHU COMPONENT DETAIL

NO SCALE

TYP. OF AHU–1

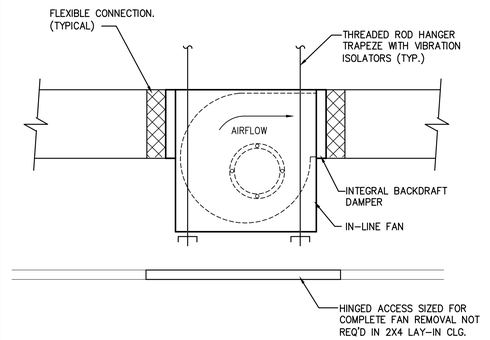


NOTES

1. ALL AHU'S SHALL BE PROVIDED WITH THE COMPONENTS LISTED ABOVE.
2. PROVIDE CONDENSATE DRAIN FOR THE COOLING COIL DRAIN CONNECTION.
3. PROVIDE GRADUAL TRANSITION TO FULL OPENING OF SUPPLY AIR OPENING AND OUTDOOR AIR OPENINGS ON AHU.
4. PROVIDE ACCESS DOORS IN DUCT FOR DUCT MOUNTED DAMPERS OR OTHER SERVICEABLE EQUIPMENT.
5. COORDINATE FAN DISCHARGE ORIENTATION WITH SUPPLY DUCT CONFIGURATION PRIOR TO ORDERING.

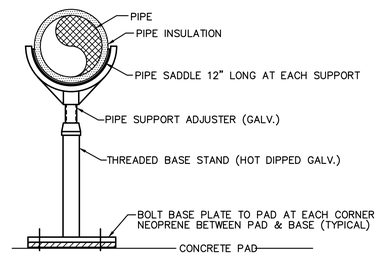
TYPICAL IN-LINE FAN INSTALLATION DETAIL

NO SCALE



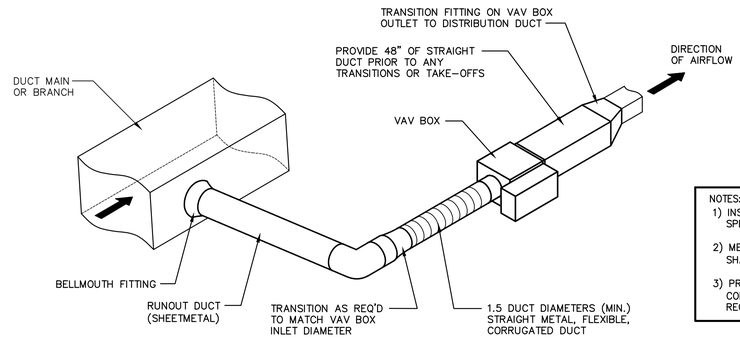
TYPICAL PIPE STAND DETAIL

NO SCALE



TYPICAL COOLING ONLY VAV BOX INSTALLATION DETAIL

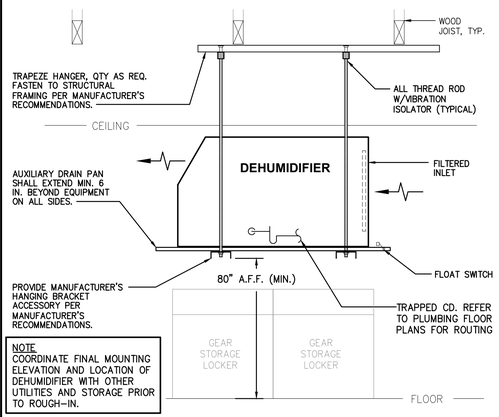
NO SCALE



NOTES:
1) INSULATE DUCTWORK AS DESCRIBED IN SPECIFICATIONS.
2) METAL, FLEXIBLE, CORRUGATED DUCTWORK SHALL BE A MAX. OF 4'–0" LONG.
3) PROVIDE WORKING CLEARANCES FOR CONTROL PANEL PER MANUFACTURER'S RECOMMENDATIONS

DEHUMIDIFICATION UNIT DETAIL

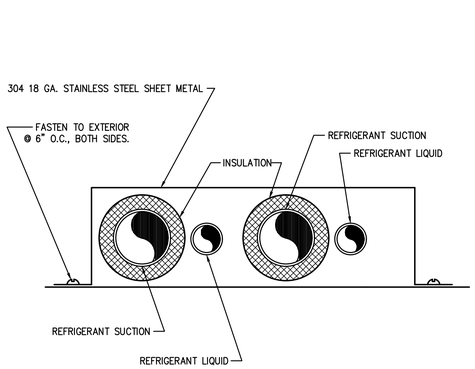
NO SCALE



NOTE
COORDINATE FINAL MOUNTING ELEVATION AND LOCATION OF DEHUMIDIFIER WITH OTHER UTILITIES AND STORAGE PRIOR TO ROUGH–IN.

TYPICAL REFRIGERANT PIPING COVER

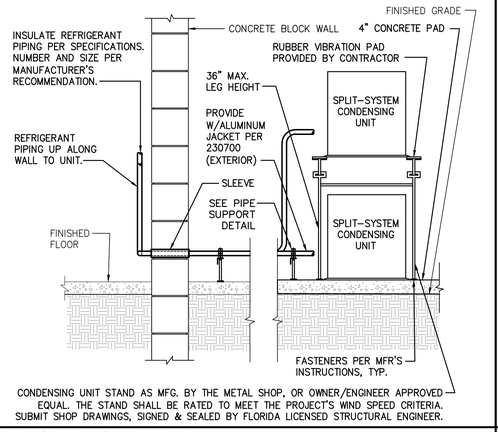
NO SCALE



STACKED CU DETAIL

NO SCALE

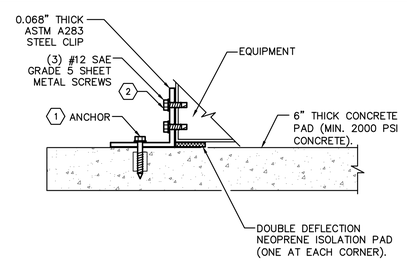
TYP. OF CU–1, & CU–2



CONDENSING UNIT STAND AS MFG. BY THE METAL SHOP, OR OWNER/ENGINEER APPROVED EQUAL. THE STAND SHALL BE RATED TO MEET THE PROJECT'S WIND SPEED CRITERIA. SUBMIT SHOP DRAWINGS, SIGNED & SEALED BY FLORIDA LICENSED STRUCTURAL ENGINEER.

CU ANCHOR STRAP

NO SCALE



GENERAL NOTE:
1. PROVIDE STEEL TIE–DOWN CLIP BY BMP INTERNATIONAL OR APPROVED EQUAL.

KEYED NOTES:
1. 5/16"ø CARBON STEEL ITW BUILDEX TAPCON (OR EQUAL); FULLY EMBED TO 2¼"; 3⅛" MIN. DISTANCE TO EDGE, 3¾" MIN. SPACING TO ANY ADJACENT ANCHOR.
2. FOR CLIPS LONGER THAN 5", PROVIDE MIN. (5) PITCHES PAST THREAD PLANE FOR EACH SHEET METAL SCREW

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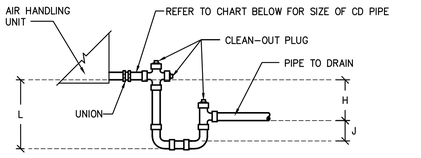
MECHANICAL DETAILS

M3.2



GENERAL NOTE:
1. THIS DETAIL IS FOR DIAGRAMMATIC PURPOSES ONLY. REFER TO MANUFACTURER'S SPECIFICATIONS FOR PROPER TRAPPING AND INSULATION.

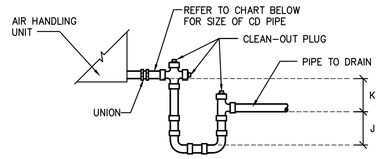
H = (1" FOR EACH 1" OF MAXIMUM NEGATIVE STATIC PRESSURE) + 1"

J = HALF OF H

L = H + J + PIPE DIAMETER + INSULATION

DRAW-THRU COIL CONFIGURATION

TYP. OF AH-2, OAU-1, & DH-1



GENERAL NOTE:
1. THIS DETAIL IS FOR DIAGRAMMATIC PURPOSES ONLY. REFER TO MANUFACTURER'S SPECIFICATIONS FOR PROPER TRAPPING AND INSULATION.

K = MINIMUM 1/2"

J = 1/2" PLUS MAX TOTAL STATIC PRESSURE DROP

BLOW-THRU COIL CONFIGURATION

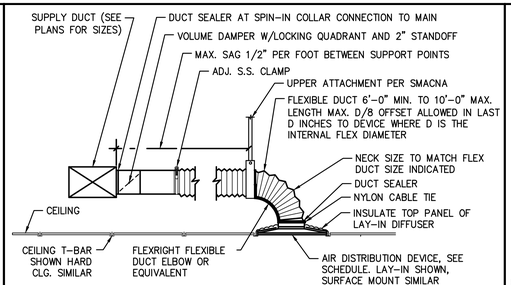
TYP. OF AH-1

CONDENSATE PIPE SIZE	
COOLING COIL MBH (TON)	DIAMETER (INCH)
UP TO 240 (20)	¾
UP TO 480 (40)	1
UP TO 1080 (90)	1¼
UP TO 1500 (125)	1½
UP TO 3000 (250)	2
NOTES	①

KEYED NOTE:
① REFER TO AIR HANDLER SCHEDULE FOR COOLING COIL MBH/TON.

TYPICAL CONDENSATE DRAIN/ TRAP DETAIL

NO SCALE

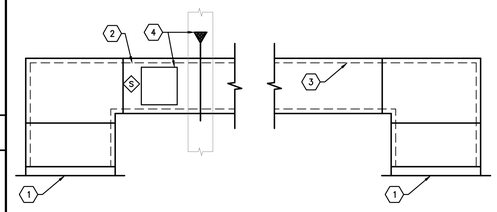


FLEXIBLE DUCT NOTES

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MIN. 1" WIDE 22 GALV. STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D = 1.0
5. HANGERS, SADDLES AND OTHER SUPPORTS SHALL MEET THE DUCT MANUFACTURER'S RECOMMENDATIONS AND SHALL BE OF SUFFICIENT WIDTH TO PREVENT RESTRICTION OF THE INTERNAL DUCT DIAMETER. IN NO CASE SHALL THE MATERIAL SUPPORTING FLEXIBLE DUCT AND IN DIRECT CONTACT WITH IT BE LESS THAN 1½ INCHES (38mm) WIDE.

TYPICAL SUPPLY FLEXIBLE DUCT DETAIL

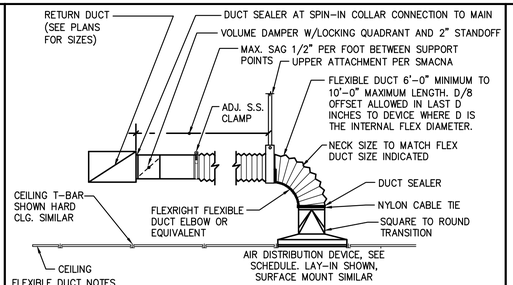
NO SCALE



1. REFER TO MECHANICAL FLOOR PLANS AND SCHEDULES FOR AIR DEVICE INFORMATION.
2. REFER TO PLANS FOR DUCT SIZES AND CONFIGURATION
3. 1" ACOUSTIC DUCT LINER – 3LBS / CU. FT. DENSITY WITH BLACK PIGMENTED COATING FIRE RESISTANT COATING ON THE AIR SIDE.
4. FIRE DAMPER, SMOKE DAMPER, OR FIRE SMOKE DAMPER W/ ACCESS DOOR AT PENETRATION OF RATED WALLS. DAMPER TYPE PER WALL RATING.

TYPICAL TRANSFER DUCT DETAIL

NO SCALE

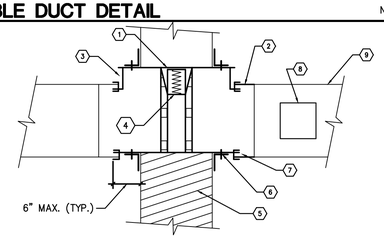


FLEXIBLE DUCT NOTES

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MIN. 1" WIDE 22 GALV. STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D = 1.0
5. HANGERS, SADDLES AND OTHER SUPPORTS SHALL MEET THE DUCT MANUFACTURER'S RECOMMENDATIONS AND SHALL BE OF SUFFICIENT WIDTH TO PREVENT RESTRICTION OF THE INTERNAL DUCT DIAMETER. IN NO CASE SHALL THE MATERIAL SUPPORTING FLEXIBLE DUCT AND IN DIRECT CONTACT WITH IT BE LESS THAN 1½ INCHES (38mm) WIDE.
6. WHERE RECTANGULAR HARD DUCT IS SHOWN, CONTRACTOR SHALL INSTALL DUCT AS SIZED ON THE MECHANICAL FLOOR PLANS IN ACCORDANCE WITH MECHANICAL SPECIFICATIONS.

TYPICAL RETURN, EXHAUST, RELIEF AIR FLEXIBLE DUCT DETAIL

NO SCALE

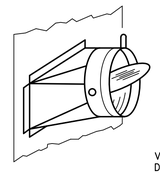


1. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCE BETWEEN WALL/FLOOR OPENING TO ALLOW FOR EXPANSION DURING PERIOD'S OF INTENSE HEAT.
2. EXPAND DUCT SO THAT FIRE DAMPER DOES NOT REDUCE AIR FLOW
3. APPLY SEALANT TO JOINT ALL AROUND BOTH SIDES OF WALL WITH AN APPROVED CAULKING MATERIAL
4. VERTICAL GUILLOTINE TYPE FIRE DAMPER WITH U.L. RATING AND STAMP.
5. FIRE RATED WALL.
6. MOUNTING ANGLE, OVERLAP WALL OPENING BY 1" MINIMUM.
7. FASTEN DUCT TO SLEEVE WITH BREAKAWAY CONNECTION.
8. FIRE DAMPER ACCESS DOOR WITH CAM LATCH.
9. DUCTWORK – REFER TO PLANS FOR SIZE AND CONTINUATION

NOTE:
INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, UL555, & UL555S. DAMPER AND RESPECTIVE ACTUATORS SHALL BE U.L. TESTED AND LABELED AS AN ASSEMBLY.

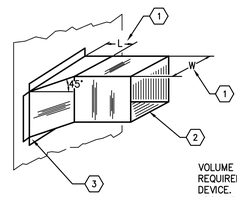
FIRE DAMPER DETAIL

NO SCALE



BUCKLEY MODEL 3300D
45° BRANCH CONNECTION
NO SCALE (TYPICAL)

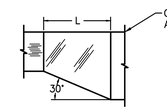
VOLUME DAMPER WITH EXTENDED STEM IS REQUIRED WHEN DUCT IS EXTERNALLY WRAPPED. PROVIDE WITH STAMPED, INDICATING LOCKING QUADRANT HANDLE.



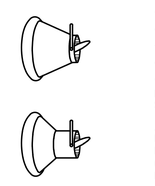
45° BRANCH CONNECTION
NO SCALE (TYPICAL)

KEYED NOTES:
① L = 1/4" W OR 4"MINIMUM
② TO BRANCH DUCT
③ CAULK AIR-JOINT AIR-TIGHT

VOLUME DAMPER WITH EXTENDED STEM IS REQUIRED WHEN DUCT SERVING SIDEWALL AIR DEVICE. PROVIDE WITH STAMPED, INDICATING LOCKING QUADRANT HANDLE.



ECCENTRIC TRANSITION
NO SCALE (TYPICAL)



TYPICAL CONICAL TAP FOR BRANCH DUCTS, REQUIRES ACCURATE HOLE CUT

TYPICAL BELLMOUTH TAP FOR BRANCH DUCTS, REQUIRES ACCURATE HOLE CUT

VOLUME DAMPER WITH EXTENDED STEM IS REQUIRED WHEN DUCT IS EXTERNALLY WRAPPED. PROVIDE WITH STAMPED, INDICATING LOCKING QUADRANT.

ALTERNATE FITTINGS TO BE USED WHEN DUCT HEIGHT DOES NOT PERMIT THE USE OF THE FULL SIZE BELLMOUTH/CONICAL TAP INCLUDE: MINI-BELLMOUTH (M-BMD), OVAL-BELLMOUTH (FOBMD) AND STD 45° RECTANGULAR TO ROUND (3300D)

TYPICAL BRANCH TAKE-OFF DETAILS

NO SCALE

1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

TELEPHONE 813.242.6677
FACSIMILE 813.242.6683

wilderarchitecture.com

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WILDERARCHITECTURE, INC.

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EMI Job No. 23-0140 Drawn By: NSW Checked By: JSW

HILLSBOROUGH COUNTYBOARD OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

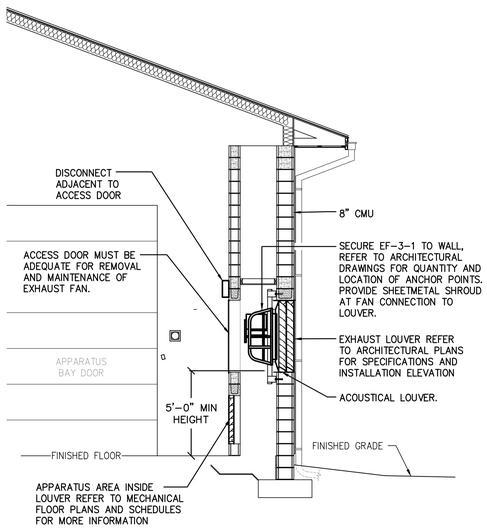
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

MECHANICAL DETAILS

M3.3



NOTE: PROVIDE ENGRAVED SIGN ON ACCESS DOOR TO READ: "TURN OFF EXHAUST FAN DISCONNECT, BEFORE OPENING ACCESS DOOR."

APPARATUS BAY EXHAUST FAN DETAIL

SCALE: NONE

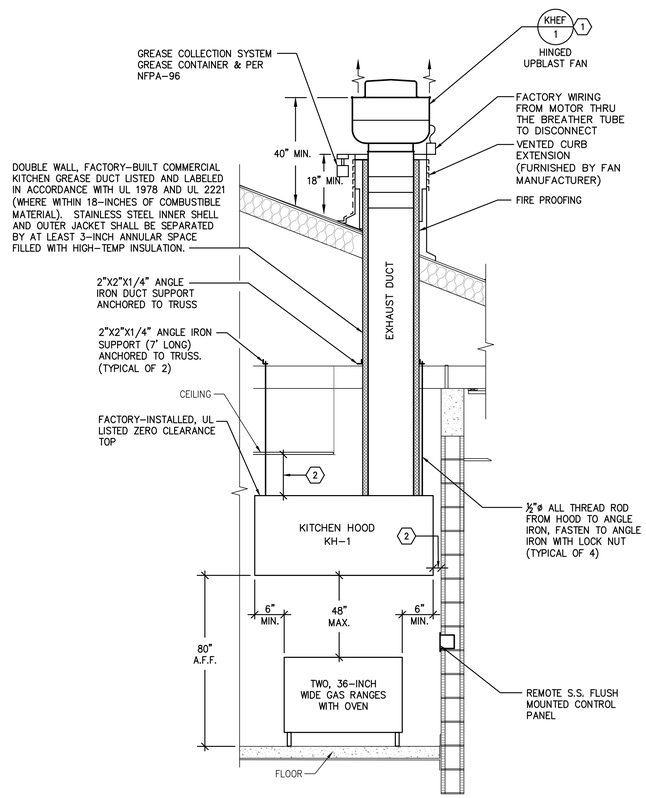
GENERAL NOTES:

1. COORDINATE EXACT LOCATION OF ANSUL PULL STATION WITH ARCHITECTURAL DRAWINGS.
2. ALL WALL AND CEILING SYSTEMS ADJACENT TO HOOD AND EXHAUST FAN DUCT IS COMPOSED OF NON-COMBUSTIBLE MATERIAL.
3. EXHAUST FAN COMPONENTS SHALL BE SCREWED TOGETHER (NOT RIVETED) FOR EASE OF MOTOR MAINTENANCE.
4. EXPOSED SURFACES CONSTRUCTED OF 18 GUAGE STAINLESS STEEL WITH A #4 FINISH. UNEXPOSED SURFACES ARE 18 GUAGE, CORROSION RESISTANT STEEL, UNLESS OTHERWISE NOTED..

KEYED NOTES

(1) PROVIDE GUARD RAILS AND SERVICE PLATFORM IN ACCORDANCE WITH *SECTIONS 304.11 AND 306.5.1* OF THE *FLORIDA BUILDING CODE 8TH EDITION (2023) MECHANICAL*. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.

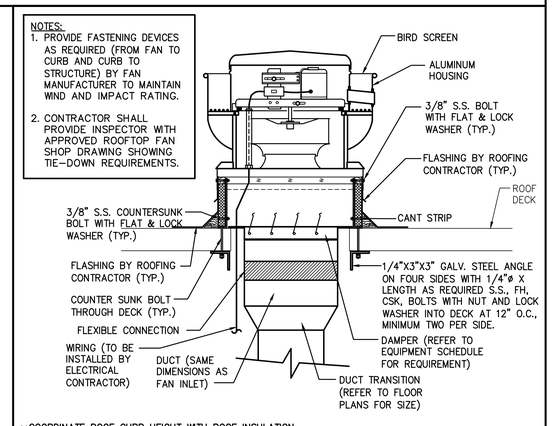
(2) PROVIDE THE FOLLOWING CLEARANCES ON ALL SIDES IN ACCORDANCE WITH SECTION 507.2.6 OF THE *FLORIDA BUILDING CODE 8TH EDITION (2023) MECHANICAL:* 0" TO NON-COMBUSTIBLES, AND 18" TO COMBUSTIBLES.



KITCHEN HOOD AND EXHAUST FAN DETAIL

SCALE: NONE

NOTES:
1. PROVIDE FASTENING DEVICES AS REQUIRED (FROM FAN TO CURB AND CURB TO STRUCTURE) BY FAN MANUFACTURER TO MAINTAIN WIND AND IMPACT RATING.
2. CONTRACTOR SHALL PROVIDE INSPECTOR WITH APPROVED ROOFTOP FAN SHOP DRAWING SHOWING TIE-DOWN REQUIREMENTS.



**COORDINATE ROOF CURB HEIGHT WITH ROOF INSULATION.

TYPICAL ROOF MOUNTED UPBLAST FAN DETAIL

NO SCALE

1315 E. SEVENTH AVENUE
SUITE 106
TAMPA, FLORIDA 33605.3607

TELEPHONE 813.242.6677
FACSIMILE 813.242.6683

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STANLEY P. NEWTON LICENSE No. 35071 STATE OF FLORIDA PROFESSIONAL ENGINEER

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SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

MECHANICAL DETAILS

M3.4

VAV AIR HANDLING UNIT SCHEDULE

MARK	–	AHU–1
MANUFACTURER	–	TRANE
MODEL NUMBER	–	UCCAF08
SUPPLY AIR QUANTITY	CFM	3,130
OUTSIDE AIR QUANTITY	CFM	660
PRE–FILTER TYPE/EFFICIENCY	–/MERV	2" PLEATED/8
AFTER–FILTER TYPE/EFFICIENCY	–/MERV	4" CARTRIGE/13
DIMENSIONS (LxWxH)	IN.	65.9X51.0X71.1
WEIGHT	LBS.	933.5
FAN		
AIRFLOW	CFM	3,130
FAN TYPE	–	VERTICAL HOUSED FAN
MAXIMUM FAN SPEED PER FAN	RPM	1,641
FAN DISCHARGE ACOUSTICS @ 250 Hz	DB	84
STATIC PRESS. DROP EXT./TOTAL	IN. H20	3.000/4.023
MOTOR SIZE	HP	5
VFD DESIGN FREQUENCY	HZ	–
FULL LOAD AMPS	AMPS	17.50
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
COOLING COIL		
AIRFLOW	CFM	3,130
TOTAL COOLING CAPACITY	MBH	145.31
SENSIBLE COOLING CAPACITY	MBH	93.20
COOLING COIL MAX. FACE VELOCITY	FPM	410
ENTERING AIR TEMP. (DB./WB.)	°F	77.64/66.25
LEAVING AIR TEMP. (DB./WB.)	°F	50.63/50.53
COOLING COIL MAX. AIR PRESS. DROP	IN. H20	0.633
COOLING COIL (EWT/LWT)	°F	42.0/56.0
COOLING COIL WATER FLOWRATE	GPM	20.68
COOLING COIL MAX. H20 PRESS. DROP	FT. H20	4.17
NOTES	–	①②③④⑤

VAV AIR HANDLING UNIT SCHEDULE NOTES

① PROVIDE WITH VFD COMPATIBLE MOTOR, INVERTER DUTY RATED AND LABELED.

② PROVIDE THREE (3) SETS OF REPLACEMENT FILTERS (ONE TO BE USED DURING CONSTRUCTION, THE SECOND SET TO BE USED AT THE START OF THE TEST AND BALANCE PROCESS AND THE FINAL SET TO BE INSTALLED AT FINAL COMPLETION).

③ PROVIDE INTEGRAL MOTORIZED DAMPER FROM THE FACTORY FOR OUTSIDE AIR AND RETURN AIR CONNECTIONS. OUTSIDE AIR MONITOR SHALL BE PROVIDED SEPARATELY AND INSTALLED IN DUCTWORK. REFER TO AIR MONITOR SCHEDULE AND FLOOR PLANS FOR MORE INFORMATION.

④ IF MULTIPLE FANS ARE USED FOR AN AHU, THE MANUFACTURER SHALL PROVIDE A SINGLE UNIT MOUNTED NEMA 4 UL508A LISTED CONTROL PANEL WITH ALL FANS IN AN ARRAY PRE–WIRED TO IT, SUCH THAT ONE PROPERLY SIZED VFD MAY BE FIELD CONNECTED WITH NO ADDITIONAL PROVISIONS REQUIRED FOR PROTECTION OF THE INDIVIDUAL MOTORS. A SINGLE POWER DISTRIBUTION BLOCK SHALL BE PROVIDED FOR CONNECTION OF THE FIELD MOUNTED VFD WITH ONE CONDUCTOR PER PHASE. CLASS J OR CLASS CC FUSING AND AN ELECTRONIC MOTOR OVERLOAD PROTECTOR WITH MANUAL ISOLATION SWITCH SHALL BE PROVIDED FOR EACH MOTOR IN THE ARRAY. EACH MOTOR IN THE ARRAY SHALL BE INDEPENDENTLY GROUNDED WITH A DEDICATED GREEN CONDUCTOR. A MINIMUM OF ONE OPEN GROUND LUG SHALL BE PROVIDED FOR FIELD USE.

⑤ PROVIDE HONEYWELL "UV100E3007", ULTRA VIOLET SURFACE TREATMENT SYSTEM.

100% OUTSIDE AIR UNIT SCHEDULE

MARK	–	OAU–1
MANUFACTURER	–	TRANE
MODEL NUMBER	–	BCHE012
SUPPLY AIR QUANTITY	CFM	305
OUTSIDE AIR QUANTITY	CFM	305
PRE–FILTER TYPE/EFFICIENCY	–/MERV	2"/8
AFTER–FILTER TYPE/EFFICIENCY	–/MERV	–
DIMENSIONS (LxWxH)	IN.	30.1X24X17
WEIGHT	LBS.	134.9
FAN		
AIRFLOW	CFM	305
FAN WHEEL DIAMETER/TYPE	IN./–	–
MAXIMUM FAN SPEED PER FAN	RPM	1,553
FAN DISCHARGE ACOUSTICS @ 250 Hz	DB	80
STATIC PRESS. DROP EXT./TOTAL	IN. H20	1.000/1.562
MOTOR SIZE	HP	1/2
VFD DESIGN FREQUENCY	HZ	–
FULL LOAD AMPS	AMPS	2.40
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
COOLING COIL		
AIRFLOW	CFM	305
TOTAL COOLING CAPACITY	MBH	29.22
SENSIBLE COOLING CAPACITY	MBH	12.77
COOLING COIL MAX. FACE VELOCITY	FPM	343
ENTERING AIR TEMP. (DB./WB.)	°F	91/80
LEAVING AIR TEMP. (DB./WB.)	°F	53.58/53.37
COOLING COIL MAX. AIR PRESS. DROP	IN. H20	0.502
COOLING COIL (EWT/LWT)	°F	42.0/56.0
COOLING COIL WATER FLOWRATE	GPM	4.16
COOLING COIL MAX. H20 PRESS. DROP	FT. H20	6.12
NOTES	–	①②

VAV AIR HANDLING UNIT SCHEDULE NOTES

① PROVIDE THREE (3) SETS OF REPLACEMENT FILTERS (ONE TO BE USED DURING CONSTRUCTION, THE SECOND SET TO BE USED AT THE START OF THE TEST AND BALANCE PROCESS AND THE FINAL SET TO BE INSTALLED AT FINAL COMPLETION).

② PROVIDE HONEYWELL "UV100E3007", ULTRA VIOLET SURFACE TREATMENT SYSTEM.

DX MINI-SPLIT SYSTEM A/C SCHEDULE

AIR HANDLER DATA			
MARK	–	AC–1	AC–2
AREA SERVED	–	127 TELE	122 FITNESS
MANUFACTURER	–	MITSUBISHI	MITSUBISHI
MODEL NUMBER	–	PKA–A12	SLZ–KF–18
RATED TOTAL COOLING CAPACITY	BTUH	12,000	17,700
MAX. SENSIBLE COOLING CAPACITY	BTUH	9,720	12,567
MOTOR SIZE	W	30	56
S.E.E.R.	BTUH/W	20.8	20.7
FILTER TYPE	–	WASHABLE	WASHABLE
WEIGHT	LBS.	29	30.6
CONDENSING UNIT DATA			
MARK	–	CU–1	CU–2
MANUFACTURER	–	MITSUBISHI	MITSUBISHI
MODEL NUMBER	–	PUY–A12	SUZ–KA18
REFRIGERANT	–	R410A	R410A
OUTDOOR TEMPERATURE	°F	95	95
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/1/60	208/1/60
MINIMUM CIRCUIT AMPACITY	AMPS	11	14
MAX. OVERCURRENT PROTECTION	AMPS	15	24
NOTES	–	①	①

KEYED NOTES:

① PROVIDE WITH HARDWIRED REMOTE CONTROLLER MODEL PAR–41MAA.

AIR MONITOR SCHEDULE

MARK	–	AM–1	AM–2
MANUFACTURER	–	EBTRON	EBTRON
MODEL NUMBER	–	HTA104–PA	HTA104–PA
NOMINAL AIR FLOW	CFM	660	305
NOMINAL AREA	–	①	①
SERVICE	–	OUTSIDE AIR	OUTSIDE AIR
NOTES	–	②	②

AIR MOINTOR SCHEDULE KEYED NOTES:

① CONTRACTOR SHALL COORDINATE QUANTITY OF PROBES AND REQUIRED NUMBER OF SENSORS WITH DUCT SIZES SHOWN ON MECHANICAL FLOOR PLANS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

② REFER TO MECHANICAL FLOOR PLANS FOR AIR MONITOR LOCATION AND DUCT SIZE.

AIR DEVICE SCHEDULE

MARK	FACE SIZE	NECK SIZE	MATERIAL	ACCESSORIES	FINISH	MANUFACTURER AND MODEL	NOTES
A	24X24	6"ø	ALUMINUM	–	–	METALAIRE–5700	①②
B	24X24	8"ø	ALUMINUM	–	–	METALAIRE–5700	①②
C	24X24	10"ø	ALUMINUM	–	–	METALAIRE–5700	①②
F	12X12	6"ø	ALUMINUM	–	–	METALAIRE–5000	①②⑥
G	16X6	14X4	ALUMINUM	O.B.D.	–	METALAIRE–V4002	②
L	24X24	22X22	ALUMINUM	–	–	METALAIRE–CC5	③④⑥
M	12X12	10X10	ALUMINUM	–	–	METALAIRE–CC5	③④⑥
S1	10X10	8X8	ALUMINUM	–	–	METALAIRE–H4002	②
R1	10X10	8X8	ALUMINUM	–	–	METALAIRE–H4002R	②
R2	12X12	10X10	ALUMINUM	–	–	METALAIRE–H4002R	②

AIR DEVICE GENERAL NOTES:

1. ALL UNITS FOR LAY–IN T–BAR GRILLE SHALL BE PROVIDED WITH TYPE 6 BORDER CEILING MODULE (24X24).
2. ALL AIR DEVICES SHALL HAVE PAINTED WHITE FINISH UNLESS COLOR COORDINATED WITH ARCHITECT.
3. ALL 24X24 FACE AIR DEVICES INSTALLED IN HARD CEILINGS SHALL BE PROVIDED WITH T–BAR FRAME FOR PLASTER OR GYPSUM CEILINGS.
4. PROVIDE SQUARE TO ROUND TRANSITIONS AS REQUIRED FOR COORDINATION OF DUCT AND AIR DEVICE NECK.
5. COORDINATE FRAME TYPE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLAN.
6. INSULATE THE TOPS OF ALL SUPPLY AIR DEVICES, REFER TO SPECIFICATIONS.
7. AIR DEVICES LOCATED IN HARD CEILINGS, SOFFITS, OR SIDE WALLS WITH INACCESSIBLE BRANCH DUCTS, SHALL BE EQUIPPED WITH AN OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE.

KEYED NOTES:

① FLEX DUCT SIZE TO MATCH NECK SIZE. MINIMUM LENGTH OF FLEX SHALL BE 6'–0"; MAXIMUM LENGTH OF FLEX DUCT SHALL BE 10'–0". BALANCE OF DUCT SHOWN ON PLAN SHALL BE EXTERNALLY INSULATED, RIGID STEEL DUCT, SAME SIZE AS NECK SIZE.

② PROVIDE RUNOUT BRANCH DUCT TO AIR DEVICE SAME SIZE AS AIR DEVICE NECK UNLESS OTHERWISE NOTED ON PLANS. PROVIDE MANUFACTURER'S SPECIFIED OPPOSED BLADE DAMPER FOR AIR DEVICES IN HARD CEILING.

③ ALUMINUM ½"x½"x½" GRID.

④ AIR DEVICES USED FOR THE TRANSFER OF AIR DO NOT REQUIRE OPPOSED BLADE DAMPER OR FILTER.

⑤ HORIZONTAL RUNOUT BRANCH DUCTS SERVING A SINGLE AIR DEVICE WITH:
- 95 C.F.M. OR LESS SHALL BE 6"ø RIGID STEEL DUCT AND TRANSITION TO 6"ø FLEX DUCT PRIOR TO AIR DEVICE,
- 100 TO 200 C.F.M. SHALL BE 8"ø RIGID STEEL DUCT AND TRANSITION TO 8"ø FLEX DUCT PRIOR TO AIR DEVICE,
- 205 TO 370 C.F.M. SHALL BE 10"ø RIGID STEEL DUCT AND TRANSITION TO 10"ø FLEX DUCT PRIOR TO AIR DEVICE,
- 375 TO 600 C.F.M. SHALL BE 12"ø RIGID STEEL DUCT AND TRANSITION TO 12"ø FLEX DUCT PRIOR TO AIR DEVICE,
- 605 TO 900 C.F.M. SHALL BE 14"ø RIGID STEEL DUCT AND TRANSITION TO 14"ø FLEX DUCT PRIOR TO AIR DEVICE,
- ALL ELSE SHALL BE 22X10 AND TRANSITION TO 22X22, UNLESS OTHERWISE NOTED,
- MINIMUM LENGTH OF FLEX SHALL BE 6'–0" TO MAXIMUM LENGTH OF 10'–0".

⑥ PROVIDE MANUFACTURER'S SPECIFIED SQUARE TO ROUND DUCT TRANSITION.

⑦ PROVIDE WITH SHEET METAL PLENUM 12" DEEP X FACE DIMENSION FOR TRANSITION OF LOUVER TO DUCT. REFER TO MECHANICAL DETAILS FOR MORE INFORMATION.

AHU-1 VAV UNIT SCHEDULE

(PROVIDE WITH DOOR INTERLOCKING FUSED DISCONNECT)

MARK	MANUFACTURER AND MODEL	AIRFLOW COOLING MODE MAX.	AIRFLOW COOLING MODE MIN.	AIRFLOW HEAT/ REHEAT MODE MAX.	AIRFLOW HEAT/ REHEAT MODE MIN.	ELECTRIC HEATING COIL (KW)	VOLTAGE (V/ø/HZ)	NUMBER OF HEATING STAGES	MAXIMUM PRESSURE DROP (INCHES H20)	MAXIMUM N.C. LEVEL
VAV–1–1	TRANE– VCCF– 8	585	180	180	180	N/A	COOLING ONLY	N/A	0.08	31
VAV–1–2	TRANE– VCCF– 4	75	25	25	25	N/A	COOLING ONLY	N/A	0.01	35
VAV–1–3	TRANE– VCCF– 5	240	75	75	75	N/A	COOLING ONLY	N/A	0.02	31
VAV–1–4	TRANE– VCCF– 5	265	80	80	80	N/A	COOLING ONLY	N/A	0.02	31
VAV–1–5	TRANE– VCCF– 5	240	80	80	80	N/A	COOLING ONLY	N/A	0.02	31
VAV–1–6	TRANE– VCCF– 6	355	110	110	110	N/A	COOLING ONLY	N/A	0.22	31
VAV–1–7	TRANE– VCCF– 4	180	55	55	55	N/A	COOLING ONLY	N/A	0.01	35
VAV–1–8	TRANE– VCCF– 10	920	325	325	325	N/A	COOLING ONLY	N/A	0.01	29
VAV–1–9	TRANE– VCCF– 5	280	85	85	85	N/A	COOLING ONLY	N/A	0.02	31
AHU-1 VAV UNIT SUBTOTALS		3,140	1,015	1,015	1,015	0.0				

VAV SCHEDULE NOTES:

1. PROVIDE ALL VAV UNITS WITH ELECTRIC HEAT AND DIGITAL SCR CONTROLS (UNLESS VAV IS SELECTED AS A "COOLING ONLY" UNIT). ALL HEATERS SHALL BE CONTROLLED THROUGH INTEGRAL DRY TYPE CONTACTORS AND STAGE CONTROL.
2. VAV UNITS SCHEDULED AS "COOLING ONLY" SHALL NOT INCLUDE INTEGRAL CONTROL TRANSFORMER. CONTRACTOR SHALL PROVIDE CENTRAL TRANSFORMERS FOR EACH ZONE, LOCATED IN A NEARBY MECHANICAL ROOM AND PROVIDE LOW VOLTAGE CABLING DISTRIBUTED TO EACH "COOLING ONLY" VAV BOX IN THAT ZONE. CONCEAL CABLING ABOVE THE CEILING ROUTED ON J–HOOKS, ETC.
3. PROVIDE ALL VAV UNITS REQUIRING POWER WITH DOOR INTERLOCKING FUSED DISCONNECT SWITCHES.
4. PROVIDE A SHOP DRAWING SUBMITTAL OF ALL ROOM TEMPERATURE SENSOR LOCATIONS AS COORDINATED WITH FURNITURE PLANS, ALL OTHER WALL MOUNTED DEVICES OF OTHER TRADES PRIOR TO INSTALLATION. LOCATE ALL ADJUSTABLE TEMPERATURE TYPE WALL SENSORS IN ACCORDANCE WITH THE FRONT REACH HEIGHT ACCESSIBLE REQUIREMENT (42"AFF). ALL CORRIDOR AND COMMON AREA SENSORS SHALL BE PLATE TYPE NON–ADJUSTABLE VANDAL RESISTANT TYPE.

VAV BRANCH DUCT SIZES

BOX SIZE	INLET SIZE ①	IF EXCEEDING 10'②	OUTLET SIZE①
4	4"ø	6"ø	10X8
5	5"ø	8"ø	10X8
6	6"ø	8"ø	10X8
8	8"ø	10"ø	11X10
10	10"ø	12"ø	14X12
12	12"ø	16X12	17X14
14	14"ø	20X14	19X18
16	16"ø	22X16	23X18

KEYED NOTES:

① BRANCH DUCT SIZES FOR VAV UNITS SHALL FOLLOW THE SCHEDULE ABOVE.

② BRANCH DUCT RUNS EXCEEDING 10' TO THE INLET OF THE VAV SHALL BE THE SIZE LISTED. REDUCE DUCT TO INLET SIZE OF VAV ONE AND A HALF (1.5) DUCT DIAMETERS PRIOR TO INLET.

ELECTRIC DUCT HEATER SCHEDULE

MARK	–	EDH–1	EDH–2
MANUFACTURER	–	WARREN	WARREN
MODEL NUMBER	–	CBK	CBK
DUCT SIZE	INCHES	SEE PLANS	SEE PLANS
AIRFLOW	CFM	3,130	305
HEATER SIZE/STAGES	K.W./STAGES	24/ 2	5/ 1
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60	208/3/60
CONTROLS	–	INTERLOCK W/AHU	INTERLOCK W/OAU
NOTES	–	① ② ③	① ② ③

KEYED NOTES:

① ELECTRIC DUCT HEATER SHALL BE SUPPLIED WITH FACTORY FUSED DISCONNECT SWITCH (DOOR INTERLOCK TYPE), FLOW SWITCH, CONTROL BOX WITH INDICATOR LIGHTS, FUSED CONTROL VOLTAGE TRANSFORMER, AND SCR CONTROLS. PROVIDE WITH FACTORY INSULATED CONTROL PANEL.

② REFER TO FLOOR PLANS FOR LOCATIONS. COORDINATE WITH ACTUAL DUCT SIZE FOR DIMENSION OF ELECTRIC DUCT HEATER.

③ REFER TO CONTROLS FOR DUCT HEATER CONTROL SCHEMATICS AND LOGIC DIAGRAMS.

GRAVITY VENT SCHEDULE

MARK	–	GV–1
QUANTITY	–	1
MANUFACTURER	–	GREENHECK
MODEL NUMBER	–	FGR
THROAT DIMENSIONS (LxW)	IN.xIN.	10X8
SIZE (LxWxH)	IN.xIN.xIN.	24X18X14
AIRFLOW	CFM	305
STATIC PRESSURE DROP	IN. H20	0.042
SERVICE	–	EXHAUST

GENERAL NOTES:

1. PROVIDE WITH FACTORY SUPPLIED ROOF CURB TO MATCH SLOPE OF ROOF AND RATING OF VENT.
2. PROVIDE WITH BIRD SCREEN AND BACK DRAFT DAMPER.
3. SHALL BE RATED TO MEET PROJECT WIND LOAD REQUIREMENTS.

VENTILATION SCHEDULE

MARK	PEOPLE AND AREA: NUMBER OF PEOPLE	PEOPLE AND AREA: TOTAL AREA (SQFT)	PEOPLE AND AREA: PEOPLE + AREA OUTDOOR (CFM)①	EXHAUST AND PRESSURIZATION: EXHAUST AIR (CFM)	EXHAUST AND PRESSURIZATION: PRESSURE AIR (CFM)	EXHAUST AND PRESSURIZATION: EXHAUST + PRESS AIR (CFM)	DESIGN: OUTDOOR AIR INTAKE (CFM)	DESIGN: RELIEF AIR (CFM)
AHU–1	29	3,515	660	450	180	630	660	30
OAU–1	0	335	305	305	0	305	305	0

KEYED NOTES:

① OUTDOOR AIR CALCULATION BASED ON 2023 FLORIDA BUILDING CODE – MECHANICAL, 8TH EDITION TABLE 403.3. VALUE LISTED IN TABLE IS THE CORRECTED O/A VALUE.

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EMI Job No. 23-0140 Drawn By: NSW Checked By: JSW

HILLSBOROUGH COUNTYBOARD
OF COUNTY COMMISSIONERS
COUNTY CENTER
601 E KENNEDY BLVD
TAMPA, FL 33601

PROJECT ADDRESS:
14503 S 301 HWY
RUSKIN FL 33573

HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02	
DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

MECHANICAL SCHEDULES

M4.1

AIR COOLED CHILLER SCHEDULE

MARK	–	CH-1
MANUFACTURER	–	TRANE
MODEL NUMBER	–	TPACWV0150D4-MM
CAPACITY	TONS	15
CHILLED WATER FLOW RATE	GPM	22.77
CHILLED WATER MINIMUM/MAXUMUM FLOW RATE	GPM/GPM	–
CHILLED WATER TERMPERATURE (ENT./LVG.)	°F/°F	56/42
EVAPORATOR MAXIMUM PRESSURE DROP	FT. H2O	3.75
AMBIENT AIR TEMPERATURE (DRY BULB)	°F	95
REFRIGERANT TYPE	–	R454B
NO. OF COMPRESSORS	–	2
NO. OF CONDENSER FANS	–	2
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
MIN. CIRCUIT AMAPCITY	AMPS	85.87
IPLV	BTUH/W	–
UNIT EFFICIENCY (FULL LOAD CONDITIONS)	E.E.R.	10.246
DIMENSIONS (LxWxH)	IN.	76X33X76
OPERATING WEIGHT	LBS.	2,000
LOCATION	–	CHILLER YARD
NOTES	–	① THRU ⑦

NOTES:

① CHILLER SHALL INCLUDE SOUND REDUCTION PACKAGE, INCLUDING ULTRA QUIET FANS, COMPRESSOR BLANKETS, VARIABLE SPEED CONTROL, AND VARIABLE SPEED DRIVE ON LEAD COMPRESSOR. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

② CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY CHANGES REQUIRED DUE TO DEVIATION FROM THE ABOVE SCHEDULED DATA SUCH AS ELECTRICAL REQUIREMENTS, OPERATING CLEARANCES, WEIGHT, FLOW RATES, PRESSURE DROPS, ETC.

③ SUBSTITUTE MANUFACTURER SHALL CONFIRM THAT CLEARANCES AND YARD DIMENSIONS SHOWN ON THE FLOOR PLANS ARE APPROPRIATE FOR THE PROPOSED CHILLER. SHOULD MODIFICATION TO THE CHILLER YARD DIMENSIONS BE REQUIRED FOR PROPER OPERATING AND WORKING CLEARANCES, ALL COSTS ASSOCIATED WITH SUCH CHANGES SHALL BE BORNE BY THE MANUFACTURER.

④ PROVIDE WITH SINGLE POINT POWER SUPPLY AND INTEGRAL DISCONNECTING MEANS WITH LOCKABLE, EXTERNAL DOOR HANDLE OPERATOR.

⑤ PROVIDE WITH HEAT TAPE.

⑥ PROVIDE THE FOLLOWING MINIMUM DDC HARDWARE INTERFACES AS A PART OF THE MACHINE CONTROL PANEL:

START/STOP	DC BINARY OUTPUT
OFF-LINE / RUNNING	DDC BINARY INPUT
NORMAL / FAILURE	DDC BINARY INPUT
LEAVING CHILLED WATER SETPOINT	DDC ANALOG OUTPUT

⑦ PROVIDE CORROSION RESISTANT COATING FOR CONDENSER COILS (TUBES AND FINS) AND EXPOSED CABINETRY. CORROSION RESISTANT COATING SHALL:
- A. BE FACTORY OR FIELD APPLIED;
- B. RESULT IN LESS THAN A 1% LOSS OF RATED HEAT TRANSFER CAPACITY;
- C. BE RESISTANT TO MATERIALS WITH A PH RANGE FROM 3 TO 11;
- D. HAVE A SALT SPRAY TEST RATING OF AT LEAST 5,000 HOURS;
- E. BE NON-FLAMMABLE.
- F. ACCEPTABLE COATINGS:
  1. ADSIL
  2. ELECTROFIN
  3. BRONZ-GLOW

PUMP SCHEDULE

MARK	–	CHP-1 CHP-2 (STAND-BY)
MANUFACTURER	–	BELL & GOSSETT
TYPE	–	CLOSE COUPLED END SUCTION
MODEL		E-1531 1.25AD
SERIES	–	E-1531
TOTAL PUMP DIMENSIONS (LxWxH)	IN.xIN.xIN.	18.88X12.75X9.74
WATER FLOW RATE	GPM	22.8
TOTAL DYNAMIC HEAD	FT. H2O	54.37
MOTOR SIZE	HP	2
MOTOR SPEED	RPM	1,750
MOTOR TYPE	–	–
BASE TYPE	–	SOLID STEEL
MINIMUM PUMP EFFICIENCY	%	46.1
MINIMUM MOTOR EFFICIECY	%	REFER TO SPEC. SECT. 23-05-13
SUCTION DIAMETER	IN.	1.5
DISCHARGE DIAMETER	IN.	1.25
IMPELLER DIAMETER	IN.	7
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
WEIGHT	LBS.	168
LOCATION	–	CHILLER YARD

PUMP SCHEDULE NOTES:

1. CONTRACTOR SHALL PROVIDE PROVISIONS FOR REMOVAL OF PUMP IMPELLER AND RETURNING IMPELLER TO PUMP MANUFACTURER FOR SHAVING PURPOSES. CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION OF PUMP IMPELLER AND BRINGING PUMP BACK ON LINE.
2. PROVIDE WITH VFD COMPATIBLE MOTOR, INVERTER DUTY RATED AND LABELED.

AIR CURTAIN SCHEDULE

MARK	–	CF-1
MANUFACTURER	–	BERNER
MODEL NUMBER	–	AI08-E-1036A
AIRFLOW	CFM	989
MAX. VELOCITY @ NOZZLE	FPM	1,758
OUTLET VELOCITY UNIFORMITY	%	85
MOTOR	–	1 @ 1/15 HP
ELECTRICAL	–	120/1/60
F.L.A.	AMPS	1.75
DIMENSIONS (WxDxH)	IN.xIN.xIN.	38.13X16X8.25
WEIGHT	LBS.	48

FAN SCHEDULE

MARK	–	EF-1-1	EF-2-1	EF-3-1
MANUFACTURER	–	GREENHECK	GREENHECK	GREENHECK
MODEL NUMBER	–	CSP-A780	SP-A900	SBE-3H36
AIRFLOW	CFM	450	305	8,560
EXT. STATIC PRESSURE	IN. H20	0.84	0.59	0.75
FAN TYPE	–	FORWARD CURVED	FORWARD CURVED	PROPELLER
DRIVE TYPE	–	DIRECT	DIRECT	BELT
MAXIMUM GENERATED NOISE	SONES	2.5	3.5	35.0
FAN SPEED	RPM	1,425	845	925
MOTOR SIZE	–	269 W	301 W	3 HP
CONTROLS	–	INTERLOCK W/ TWIST TIMER (ADJ.)	INTERLOCK W/ OAU-1	WALL SWITCH
LOCATION	–	ABOVE CEILING	ABOVE CEILING	IN APPARATUS BAY WALL
ELECTRICAL CHARACTERISTICS	V/ø/HZ	115/1/60	115/1/60	208/3/60
NOTES	–	①②③④	①②③④	⑤⑥

KEYED NOTES

① PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS TO FAN.

② PROVIDE FAN WITH GRAVITY BACKDRAFT DAMPER. REFER TO STANDARD MECHANICAL DETAILS FOR FURTHER INFORMATION.

③ PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.

④ PROVIDE FAN WITH SPEED CONTROLLER. MOUNT SPEED CONTROLLER IN 2X4 METALLIC BOX ADJACENT TO FAN IN CEILING. TEST AND BALANCE CONTRACTORS SHALL ADJUST FAN PERFORMANCE THROUGH USE OF SPEED CONTROLLER.

⑤ PROVIDE DISCONNECT SWITCH ADJACENT TO ACCESS DOOR. REFER TO MECHANICAL DETAILS FOR FAN INSTALLATION.

⑥ TEST AND BALANCE CONTRACTOR SHALL DETERMINE THE TIME DURATION NECESSARY TO COMPLETE THREE AIR CHANGES AND SET THE FAN TIMER ACCORDINGLY.

PRECHARGED EXPANSION TANK SCHEDULE

MARK	MANUFACTURER	MODEL	TOTAL VOLUME	ACCEPTANCE VOLUME	LOCATION	DIAMETER	HEIGHT	APPROX. SHIPPING WEIGHT
ET-1	AMTROL	AX-15V-DD	8.6 GAL	3.2 GAL	CHILLER YARD	12 IN.	22 IN.	24 LBS

NOTES:

1. ASME RATED TO 125 PSIG.

CHILLED WATER BUFFER TANK

MARK	MANUFACTURER	MODEL NO.	TOTAL VOLUME	LOCATION	DIAMETER	HEIGHT	INSULATION
BT-1	AMTROL	CWBT300-4-150	300 GAL.	CHILLER YARD	36 IN.	81 IN.	FIELD INSTALLED

NOTES:

1. ASME RATED TO 150 PSIG.
2. REFER TO MECHANICAL DETAILS FOR INSTALLATION DETAILS.
3. BUFFER TANK SHALL NOT INCLUDE STANDARD FACTORY APPLIED INSULATION, TANK SHALL BE FIELD INSULATED PER MECHANICAL SPECIFICATIONS. REFER TO MECHANICAL DETAILS FOR MORE INFORMATION.

AIR SEPARATOR SCHEDULE

MARK	MANUFACTURER	MODEL	APPROXIMATE WET WEIGHT	LOCATION
AS-1	AMTROL	2-AS(L)	100 LBS	CHILLER YARD

NOTES:

1. ASME RATED TO 125 PSIG.

HIGH VOLUME LOW SPEED FAN SCHEDULE

MARK	–	F-1
MANUFACTURER	–	BIG ASS FAN
MODEL NUMBER	–	ESSENCE
FAN DIAMETER	FT.	10
FAN TYPE	–	AIRFOIL
DRIVE TYPE	–	GEARLESS DIRECT DRIVE
MAXIMUM GENERATED NOISE AT 20 FT DISTANCE	DBA	< 35
MAXIMUM FAN SPEED	RPM	107
MOTOR SIZE	AMPS	5.3
WEIGHT	LBS	81
CONTROLS	–	FLUSH MOUTNED WALL SWITCH
LOCATION (OUTDOOR)	–	APPARATUS BAY
ELECTRICAL CHARACTERISTICS	V/ø/HZ	120/1/60
NOTES	–	①②③④⑤

KEYED NOTES:

① PROVIDE EXTENSION TUBE AND MOUNTING BRACKET. COORDINATE STRUCTURAL REQUIREMENTS FOR FASTENING OF BRACKET TO BUILDING STRUCTURE WITH STRUCTURAL ENGINEER.

② PROVIDE WALL MOUNTED, VARIABLE SPEED, CONTROL SWITCH AS MFG. BY BIG ASS FANS. FANS SHALL BE SUITABLE FOR OUTDOOR LOCATIONS.

③ PROVIDE FIRE ALARM RELAY FOR FAN SHUTDOWN UPON WATERFLOW SIGNAL FROM FIRE ALARM SYSTEM.

④ MAINTAIN ALL MANUFACTURER REQUIRED CLEARANCES, INCLUDING BUT NOT LIMITED TO: BOTTOM OF FAN SHALL BE AT LEAST 10' AFF; NO OBSTRUCTIONS SHALL BE WITHIN 2' OF FAN IN ALL DIRECTIONS; DO NOT MOUNT FAN WITHIN TWO FAN DIAMETERS OF ANY LARGE AIR MOVING EQUIPMENT; MAINTAIN MINIMUM 3' VERTICAL CLEARANCE FROM FAN TO SPRINKLER DEFLECTOR, CENTER FAN BETWEEN FOUR ADJACENT SPRINKLERS.

⑤ COORDINATE COLOR WITH OWNER/ARCHITECT.

KITCHEN HOOD SUPPLY AND EXHAUST AIR UNIT SHEDULE

GENERAL		
MARK	–	KH-1
MANUFACTURER	–	GREENHECK
MODEL	–	GHEW-48.00-S
DIMENSIONS (LXWXH)	IN.xIN.xIN.	48X39X24
ELECTRICAL CHARACTERISTICS	V/ø/HZ	120/1/60
KITCHEN HOOD EXHAUST REQUIREMENTS		
MARK	–	KHEF-1
TOTAL EXHAUST AIR QUALITY	CFM	790
STATIC PRESSURE DROP (EXTERNAL)	IN. H20	1.02
FAN TYPE	–	BI
FAN SPEED	RPM	1,468
MODEL	–	CUBE-140HP-3
MOTOR SIZE	HP	1/3
KITCHEN HOOD SUPPLY REQUIREMENTS		
MARK	–	KHSF-1
TOTAL SUPPLY AIR QUALITY	CFM	665
STATIC PRESSURE DROP (EXTERNAL)	INCHES W.C.	0.96
FAN TYPE	–	FC
FAN SPEED	RPM	1,086
MODEL	–	CSP-A1750
MOTOR SIZE	W	1,153
NOTES		① THRU ⑧

KEYED NOTE:

① PROVIDE WITH FIRE SUPPRESSION SYSTEM, AUTOMATIC MECHANICALLY LINKED GAS SHUT-OFF VALVE, ALUMINUM GREASE FILTERS, INCANDESCENT LIGHTS, AND REMOTE S.S. FLUSH MOUNTED SWITCH BANK FOR CONTROL OF HOOD AND LIGHTS. HOOD CONSTRUCTED OF MINIMUM 18 GAUGE STAINLESS STEEL, BOTH SUPPLY AND EXHAUST. PROVIDE FACTORY PRE-FABRICATED S.S. CABINET TO HOUSE FIRE SUPPRESSION TANK.

② INTERLOCK SUPPLY AND EXHAUST FANS TO RUN WITH HOOD SWITCH. INTERLOCK CONTROLS SO THAT WHEN FIRE SUPPRESSION SYSTEM ALARMS, EXHAUST FAN SHALL CONTINUE TO RUN, BUT SUPPLY FAN SHALL TURN OFF. REFER TO FIRE SUPPRESSION SYSTEM FOR EXACT SEQUENCE OF OPERATION REQUIREMENTS. PROVIDE TESTING AND CERTIFICATION IN ACCORDANCE WITH NFPA 96, AND UL LISTING.

③ PROVIDE EXHAUST FAN, CURB, STRAPPING, & ANCHORING ASSEMBLY PER MANUFACTURER'S REQUIREMENTS, TO MEET THE PROJECT WIND LOAD RATING. ADHERE TO ALL MANUFACTURER'S SPECIFICATIONS FOR ROOF TYPE WHEN MOUNTING ROOF CURB. PROVIDE WITH FACTORY SUPPLIED ROOF CURB TO MATCH SLOPE OF ROOF AND RATING. EXHAUST FAN SHALL BE UL LISTED FOR GREASE AND HIGH TEMPERATURE APPLICATIONS.

④ EXHAUST FAN COMPONENTS SHALL BE BOLTED TOGETHER (NOT RIVETED) FOR EASE OF MOTOR MAINTENANCE. FAN SHALL BE HINGED TO ROOF CURB.

⑤ PROVIDE SUPPLY AND EXHAUST FANS WITH FACTORY MOUNTED DISCONNECT SWITCH.

⑥ PROVIDE FRONT AND END PANEL ENCLOSURES EXTENDING FROM HOOD TO CEILING.

⑦ PROVIDE HOOD TEMPERATURE SENSOR AND INTERLOCK WITH HOOD SUPPLY/EXHAUST FANS. FANS SHALL AUTOMATICALLY START WITHIN 15 MINUTES AFTER THE APPLIANCE SERVED BY THE HOOD HAS BEEN TURNED ON, IN ACCORDANCE WITH 2023 FBC-MECHANICAL, SECTION 507.1.1

⑧ PROVIDE FACTORY-INSTALLED ZERO CLEARANCE TOP, CONSISTING OF 1" HIGH-TEMPERATURE INSULATION INSIDE THE STANDING SEAM HOOD, THAT IS UL LISTED TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLE SURFACES ADJACENT TO THE TOP OF THE HOOD.

DEHUMIDIFICATION UNIT SCHEDULE

MARK	–	DH-1
MANUFACTURER	–	QUEST
MODEL	–	155 DUAL
POUNDS PER DAY WATER REMOVAL	LBS.	161.2
INLET AIR TEMPERATURE	°F	80.0
INLET RELATIVE HUMIDITY	%	60
SUPPLY AIR QUANTITY	CFM	360
EXT. STATIC PRESSURE	IN. W.C.	0.20
ELECTRICAL	V/ø/HZ	120/1/60
FLA	AMPS	8.0
FILTER	–	2" MERV 11
WEIGHT	LBS.	140
DIMENSIONS (HxWxL)	IN.xIN.x.IN.	22x20x38
NOTES:	–	①②③④

KEYED NOTE:

① PROVIDE WITH WALL SENSOR AND CONTROLS. PROVIDE WITH FACTORY SUPPLIED TEMPERATURE SENSOR AND HUMIDITY SENSOR. PROVIDE WITH AUXILIARY DRAIN PAN WHICH EXTENDS 6" BEYOND PERIMETER OF UNIT ALL AROUND, INCLUDE FLOAT SWITCH TO SHUT DOWN UPON PRESENCE OF WATER.

② PROVIDE WITH SINGLE POINT POWER CONNECTION. REFER TO FLOOR PLANS FOR NUMBER OF UNITS.

③ A SPARE SET OF FILTERS SHALL BE DELIVERED TO THE DIRECTOR OF CONSTRUCTION SERVICES UPON COMPLETION OF THE PROJECT.

④ UNIT SHALL BE SUSPENDED FROM STRUCTURE BELOW CEILING. REFER TO "DEHUMIDIFICATION UNIT DETAIL" ON SHEET M3.2.

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EMI Job No. 23-0140 Drawn By: NSW Checked By: JSW

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PROJECT ADDRESS:
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RUSKIN FL 33573

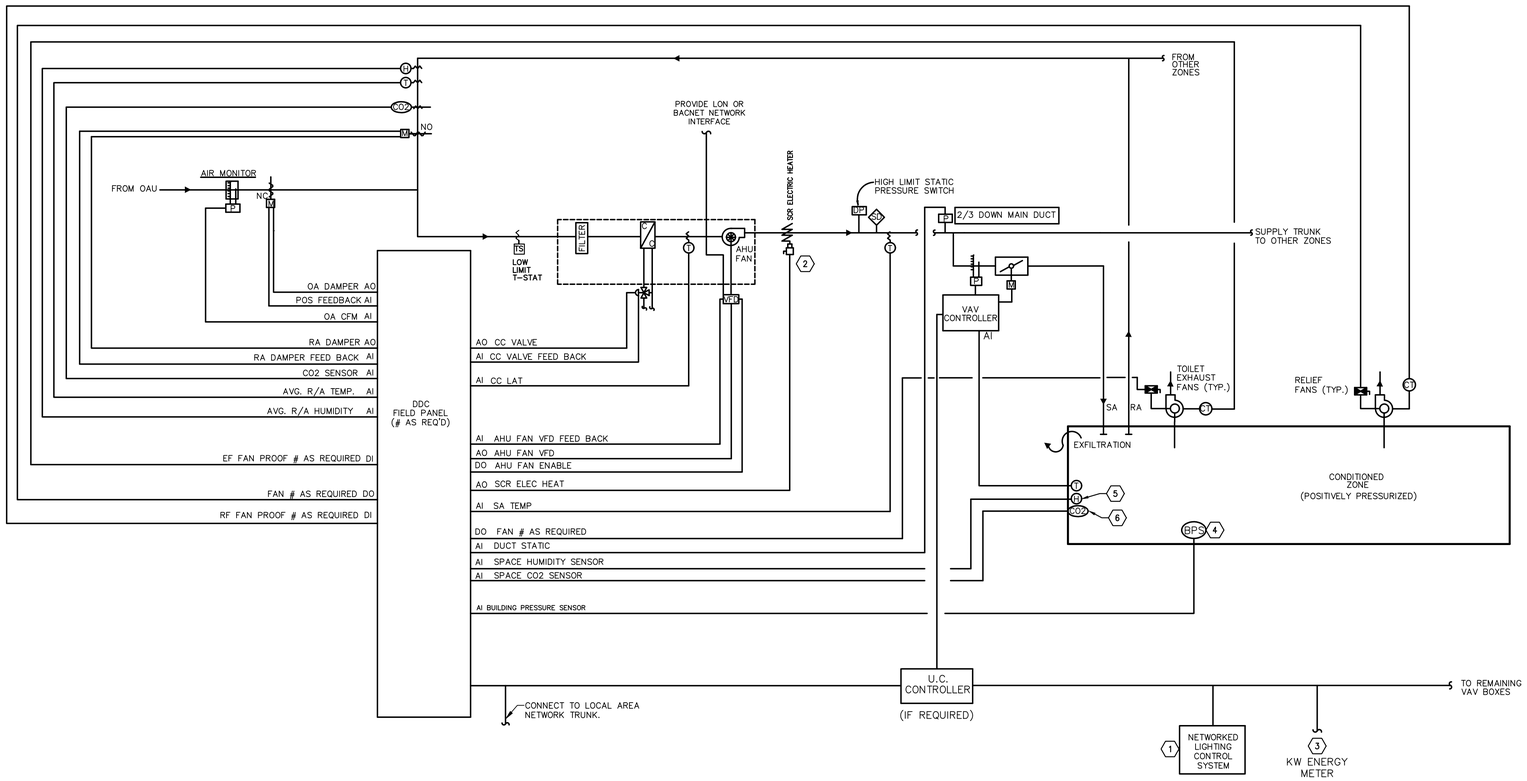
HILLSBOROUGH COUNTY
SUN CITY NORTH FIRE STATION NO. 47

PROJECT #: 2216-02

DISTRIBUTION	DATE
DD SET	06.06.2024
90% CD	08.30.2024
PERMIT SET	11.14.2024

MECHANICAL SCHEDULES

M4.2



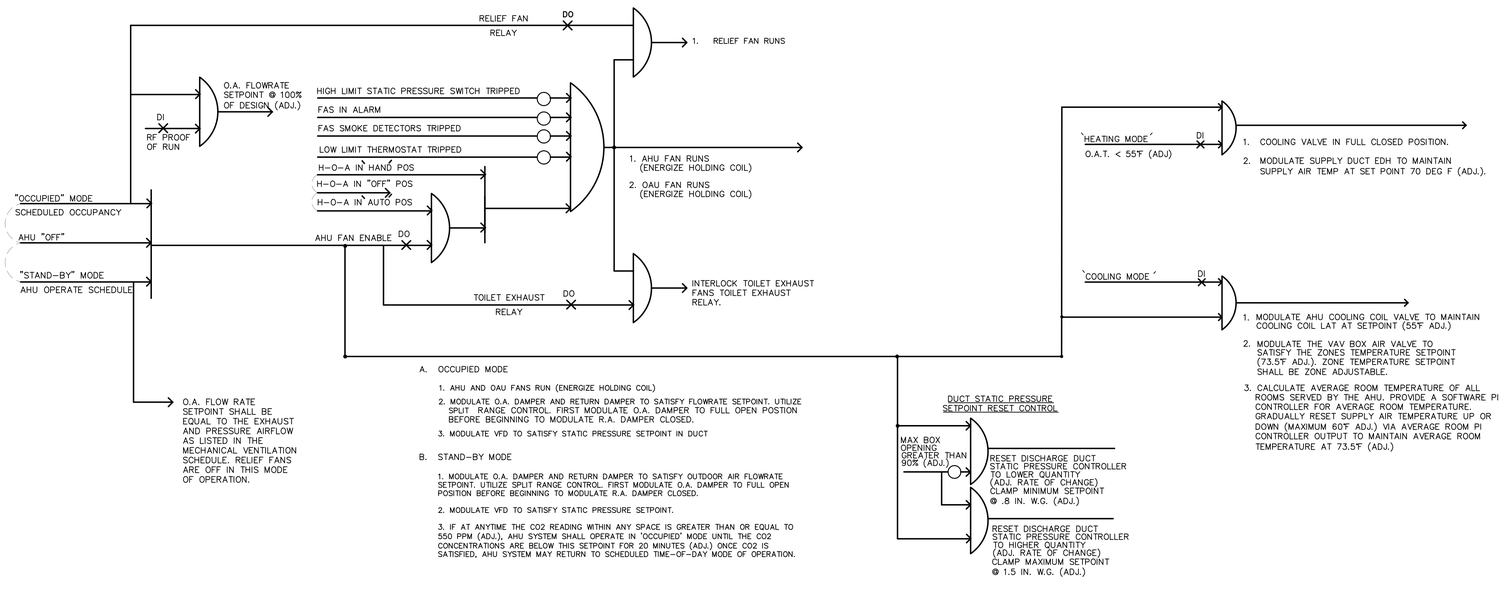
GENERAL NOTES

1. CONTROLS CONTRACTOR SHALL PROVIDE PROGRAMMING AND CONTROL EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM FOR ALL OF THIS PHASE EQUIPMENT. THIS SHALL INCLUDE BUT NOT BE LIMITED TO VFDS, CONTROL VALVES, SENSORS, ACTUATORS, ETC.
2. ALL WATER WETTED TEMPERATURE SENSORS SHALL BE 100 OHM PLATINUM RTD TYPES.
3. ALL SCR ELECTRIC HEAT SHALL USE PWM FOR MODULATION.
4. AHU AND VAV BOX APPLICATION SPECIFIC UNITARY CONTROLLERS SHALL BE DROP SHIPPED TO AHU/VAV MANUFACTURER FOR FACTORY MOUNTING AND TESTING. SEE SPECIFICATIONS.
5. COORDINATE ROOM SENSOR LOCATIONS WITH FURNITURE AND EQUIPMENT PLANS PRIOR TO ROUGH-IN.

KEYED NOTES

1. PROVIDE BACNET MS/TP INTERFACE TO COMMUNICATE WITH DLM INDOOR LIGHTING CONTROLLER. VAV BOX SEQUENCE OF OPERATIONS SHALL BE CAPABLE OF HAVING SET POINT ADJUSTED DURING PERIODS IN WHICH ALL ROOMS SERVICED BY AN INDIVIDUAL VAV BOX ARE EXPERIENCING UNOCCUPIED CONDITION SIMULTANEOUSLY (AS DETERMINED BY OCCUPANCY SENSORS).
2. PROVIDE SCR COMPATIBLE CONTROL SIGNAL.
3. CONTROLS CONTRACTOR SHALL PROVIDE KW ENERGY METER WITH INPUT INTO EMS. KWH METER SHALL BE PROVIDED AT SERVICE ENTRANCE CONDUCTORS TO BUILDING. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION OF METER. REFER TO SPECIFICATIONS FOR METER REQUIREMENTS.

   THE INTENT IS THAT ALL ELECTRIC UTILITY POWER SERVING THE COMPLEX SHALL BE METERED. PROVIDE BACNET MS/TP TRUNK INTERFACED METERS.
4. PROVIDE BUILDING PRESSURIZATION SENSOR FOR THE BUILDING. REFER TO SPECIFICATIONS FOR SENSOR TYPE. POSITIVE BUILDING PRESSURE SETPOINT SHALL BE SET BASED ON THE TEST & BALANCE CONTRACTORS REPORT.
5. PROVIDE ONE COMBINATION TEMPERATURE-RELATIVE HUMIDITY SENSORS FOR EVERY AHU. SENSOR SHALL BE LOCATED IN THE LARGEST OPEN PLAN AREA MOST REPRESENTATIVE OF THE SPACE TYPE SERVED BY ITS ASSOCIATED AHU.
6. PROVIDE CO2 SENSOR IN LARGE CONFERENCE/MEETING ROOMS.



A. OCCUPIED MODE

1. AHU AND OAU FANS RUN (ENERGIZE HOLDING COIL)
2. MODULATE O.A. DAMPER AND RETURN DAMPER TO SATISFY FLOWRATE SETPOINT. UTILIZE SPLIT RANGE CONTROL. FIRST MODULATE O.A. DAMPER TO FULL OPEN POSITION BEFORE BEGINNING TO MODULATE R.A. DAMPER CLOSED.
3. MODULATE VFD TO SATISFY STATIC PRESSURE SETPOINT IN DUCT

B. STAND-BY MODE

1. MODULATE O.A. DAMPER AND RETURN DAMPER TO SATISFY OUTDOOR AIR FLOWRATE SETPOINT. UTILIZE SPLIT RANGE CONTROL. FIRST MODULATE O.A. DAMPER TO FULL OPEN POSITION BEFORE BEGINNING TO MODULATE R.A. DAMPER CLOSED.
2. MODULATE VFD TO SATISFY STATIC PRESSURE SETPOINT.
3. IF AT ANYTIME THE CO2 READING WITHIN ANY SPACE IS GREATER THAN OR EQUAL TO 550 PPM (ADJ.), AHU SYSTEM SHALL OPERATE IN 'OCCUPIED' MODE UNTIL THE CO2 CONCENTRATIONS ARE BELOW THIS SETPOINT FOR 20 MINUTES (ADJ.) ONCE CO2 IS SATISFIED, AHU SYSTEM MAY RETURN TO SCHEDULED TIME-OF-DAY MODE OF OPERATION.

SINGLE PATH VARIABLE VOLUME AHU - CONTROL SCHEMATIC AND LOGIC DIAGRAM

SCALE: NONE TYP.

*FIELD PANELS SHALL BE INSTALLED ON AIR HANDLING UNITS AS COORDINATED WITH MECHANICAL ROOM CONFIGURATION FOR CLEARANCES.

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DD SET	06.06.2024
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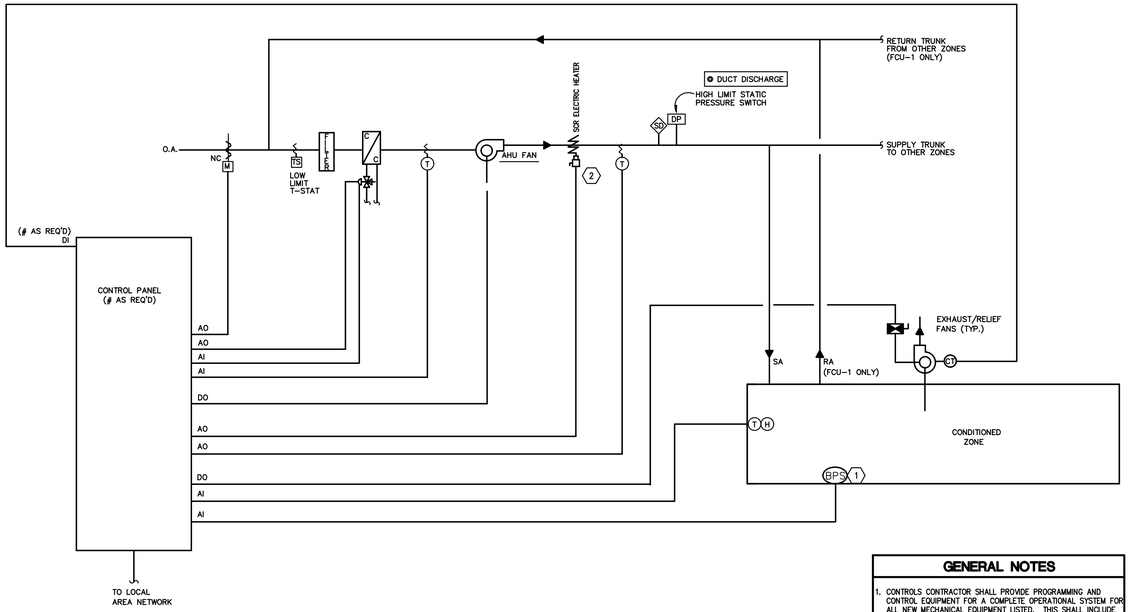
MECHANICAL CONTROLS

M5.1



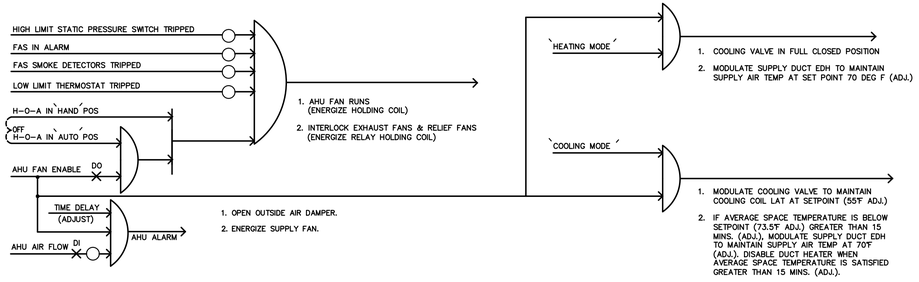
GENERAL NOTES

1. CONTROLS CONTRACTOR SHALL PROVIDE PROGRAMMING AND CONTROL EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM FOR ALL NEW MECHANICAL EQUIPMENT LISTED. THIS SHALL INCLUDE BUT NOT BE LIMITED TO VFDS, CONTROL VALVES, SENSORS, ACTUATORS, ETC.

KEYED NOTES

(1) PROVIDE BUILDING PRESSURIZATION SENSOR FOR THE BUILDING. BUILDING PRESSURE SENSOR SHALL CONSIST OF INDOOR PRESSURE SENSOR SHALL CONSIST OF INDOOR PRESSURE SENSOR WITH LCD DISPLAY. INDOOR SENSOR SHALL BE BAPI-BOX WITH ATTACHED STATIC TUBE AND BOTTOM PORT CONNECTIONS. BUILDING PRESSURE SENSOR SHALL ALSO CONSIST OF OUTDOOR STATIC PRESSURE PICKUP PORT WITH EXTERIOR POLYTUBING INSTALLED IN EMT CONDUIT. PRESSURE PICKUP PORT SHALL BE BAPI MODEL ZPS-ACC10. POSITIVE BUILDING PRESSURE SETPOINT SHALL BE SET BASED ON THE TEST AND BALANCE CONTRACTORS REPORT.

(2) PROVIDE SCR COMPATIBLE CONTROL SIGNAL.



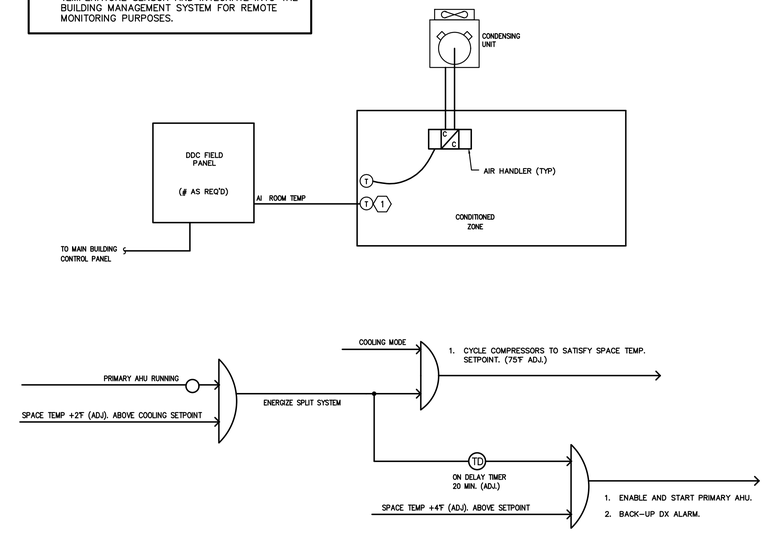
CONSTANT VOLUME AIR HANDLING UNIT - CONTROL SCHEMATIC AND LOGIC DIAGRAM

SCALE: NONE — TYP. OF OAU-1, FCU-1

UNIT CONTROLLER SHALL BE INSTALLED ON AIR HANDLING UNITS AS COORDINATED

KEYED NOTES

(1) CONTROLS CONTRACTOR SHALL PROVIDE SPACE TEMPERATURE SENSOR AND INTEGRATE INTO THE BUILDING MANAGEMENT SYSTEM FOR REMOTE MONITORING PURPOSES.



BACK-UP DX SPLIT SYSTEM UNIT - CONTROL SCHEMATIC AND LOGIC DIAGRAM

SCALE: NONE — TYPICAL

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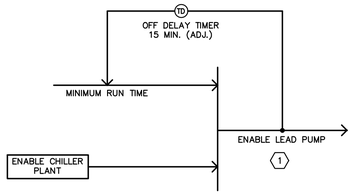
MECHANICAL CONTROLS

M5.2

A

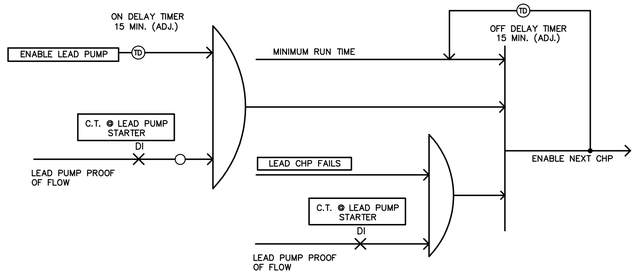


CHILLED WATER PUMP LEAD ENABLE LOGIC
SCALE: NONE

NOTE:

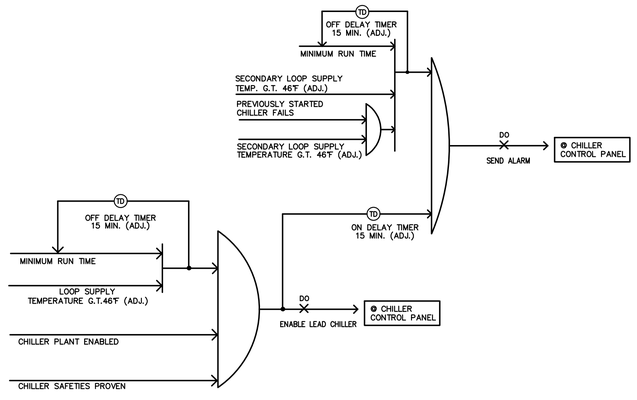
1. THE LEAD CHP SHALL BE AS DETERMINED BY THE OPERATOR THROUGH A SOFTWARE SWITCH ON THE OVERALL GRAPHIC SCREEN.

B



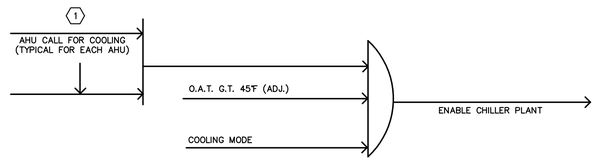
CHILLED WATER PUMP LAG CHP ENABLE LOGIC
SCALE: NONE

C



AIR COOLED CHILLER START LOGIC
SCALE: NONE

D



CHILLER PLANT ENABLE LOGIC
SCALE: NONE

NOTE:

1. AHUS SHALL BE ENABLED BASED UPON TIME OF DAY SCHEDULING WITHIN THE DDC CONTROL SYSTEM (USER ADJUSTABLE). THIS SHALL BE THROUGH THE DDC CONTROL SYSTEM VIA THE SCHEDULED START/STOP PARAMETER.

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MECHANICAL
CONTROLS

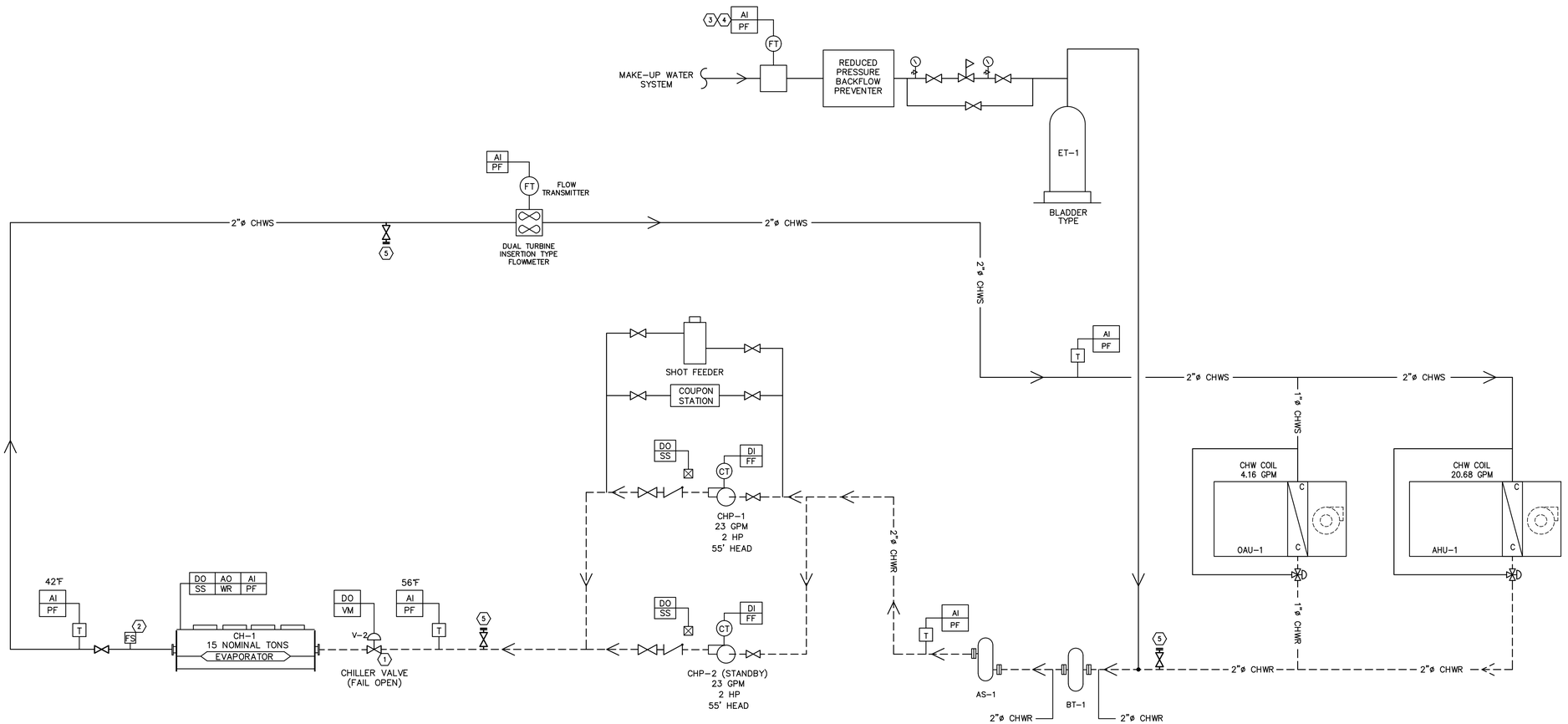
M5.3

GENERAL NOTES

1. CHILLER ISOLATION CONTROL VALVE ACTUATORS AND BYPASS VALVE ACTUATOR SHALL BE CAPABLE OF SHUT OFF AGAINST CHILLER PUMP DEAD HEAD PRESSURE. CHILLER ISOLATION VALVES SHALL BE SLOW ACTING AND SHALL NOT OPEN OR CLOSE AT A RATE WHICH WILL EXCEED A RATE CHANGE OF 20 PERCENT OF CHILLER DESIGN FLOW RATE PER MINUTE.

KEYED NOTES

1. CHILLER EVAPORATOR FLOW VALVE SHALL BE A BUTTERFLY STYLE VALVE WITH FAIL TO OPEN SPRING RETURN.
2. PADDLE TYPE FLOW SWITCH IS NOT ACCEPTABLE DUE TO FLUTTERING DURING LOW FLOW CONDITIONS.
3. REFER TO SPECIFICATIONS FOR METER TYPE AND TRENDING REQUIREMENTS.
4. PROVIDE SEAMETRICS MULTI-JET (HALL EFFECT SENSOR) COLD WATER METER IN MAKE UP WATER LINE TO CHILLED WATER SYSTEM, WITH 6-24 VDC, 20 mA MAXIMUM CURRENT OUTPUT AND BRONZE BODY FOR 150 PSI RATING PRESSURE. ACCURACY SHALL BE (+,-) 1.5 PERCENT. INSTALL WITH MINIMUM STRAIGHT RUN OF PIPE FOR 5 PIPE DIAMETERS UP AND DOWN STREAM OF METER. ORIENT FACE OF METER FOR EASE OF READING. CONNECT TO ENERGY MANAGEMENT SYSTEM.
5. SHUT-OFF VALVE WITH BLIND FLANGE FOR TEMPORARY CHILLER CONNECTION.



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MECHANICAL
FLOW DIAGRAM

M6.1